

Lat. 1, Main 5, Northwest Interceptor Sewer  
**SANITARY SEWER IMPROVEMENTS**

to serve  
**Liberty Park Addition - Phase 1  
 and Heritage Baptist Church Addition**

**CITY OF WICHITA, KANSAS**

Neil D. Cable, P.E. City Engineer

Project Number

**468-83528**

OCA Number

**743969**

**BENCHMARKS:**

BM #1: C.O.W. benchmark disk.  
 56' E and 55' N of CL 135th  
 St. W. & 13th St. N.  
 Elev. = 167.83 (City Datum)

BM #2: 60D nail in HLP, 800'  
 W & 31' N of the NE cor.,  
 NW1/4, Sec. 13, T-27-S,  
 R-2-W.  
 Elev. = 162.68 (City Datum)

**GENERAL NOTES:**

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

Kansas One-Call 687-2470

The Contractor must notify the following in case of an emergency:

- Cox Communications 262-4270
- Kansas Gas Service 1-888-482-4950
- Westar Energy 383-8650
- Aquila Energy 1-888-482-4950
- Southwestern Bell 268-2245
- City of Wichita Water Dept. 268-4563
- City of Wichita Sewer Maint. 268-4024
- City of Wichita Storm Sewer Maint. 268-4090
- City of Wichita Traffic Maint. 268-4034
- Conoco Pipeline Co. 1-800-231-2551
- Williams Pipeline Co. 529-6600
- Phillips Pipeline Co. 1-800-766-8230

2. Utility service lines, poles, valve boxes, meters, and etcetera 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.

3. 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 on site location. Locations, 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.

4. 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.

5. The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of ten (10) days advance notice prior to start of construction.

6. 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.

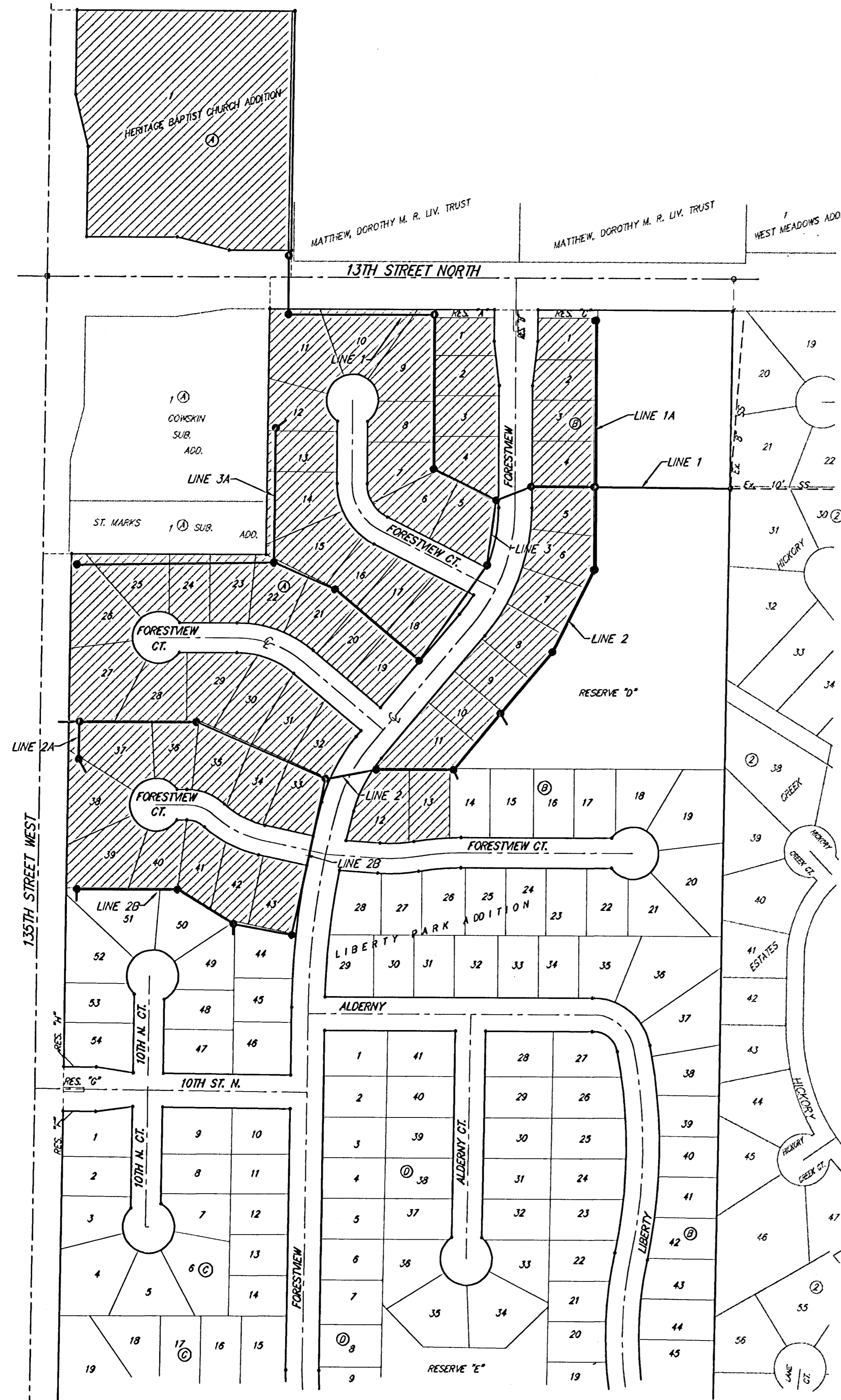
7. When connecting to existing manhole or stub, the contractor shall reshape manhole bottom or adjust the existing stub's alignment or elevation as necessary. Cost shall be subsidiary to project.

8. 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.

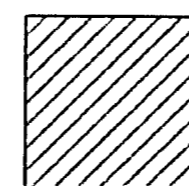
9. Area will not be seeded with this project. Area will be seeded with the mass grading plan as part of the storm drain improvements.

10. No work shall begin on this project until Mass-Grading is Complete.

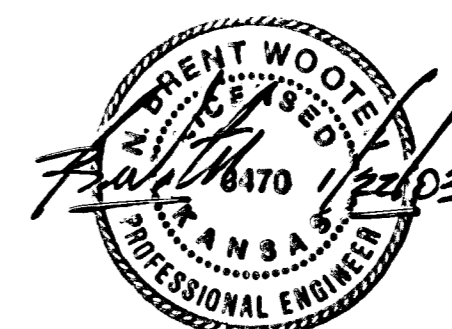
Scale: 1" = 150'



**Benefit District**

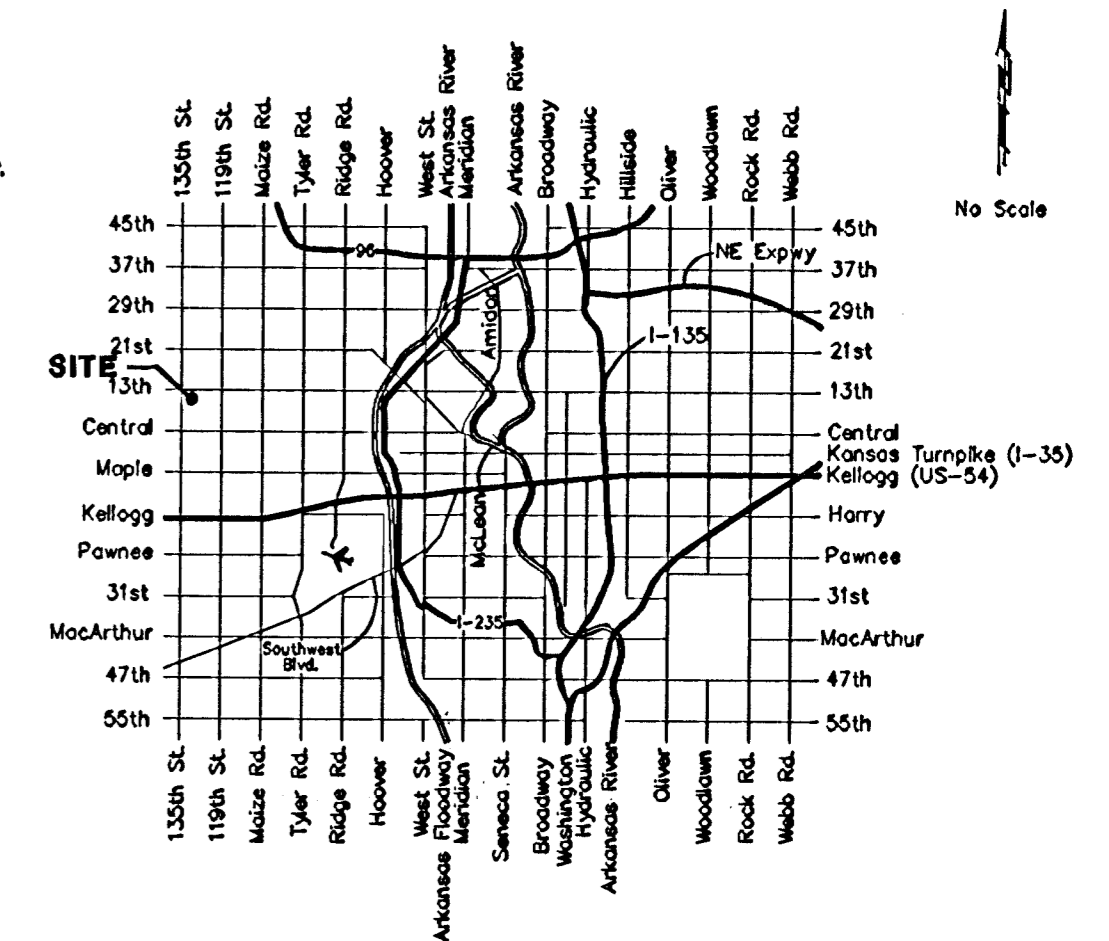


AS BUILT  
 11/06/03  
 9/22/03  
 RDL  
 .PDF



**Sheet Index**

Title Sheet	1
Line 1	2-3
Line 1A	4
Line 2	5
Line 2 & Line 2A	6
Line 2B	7
Line 3 & Line 3A	8
Line 3	9
Standard Manhole Detail	10
Ring & Cover Detail	11
Vertical Riser Detail	12
Copy of Plat	13



**Vicinity Map**

As Built 9/03/03

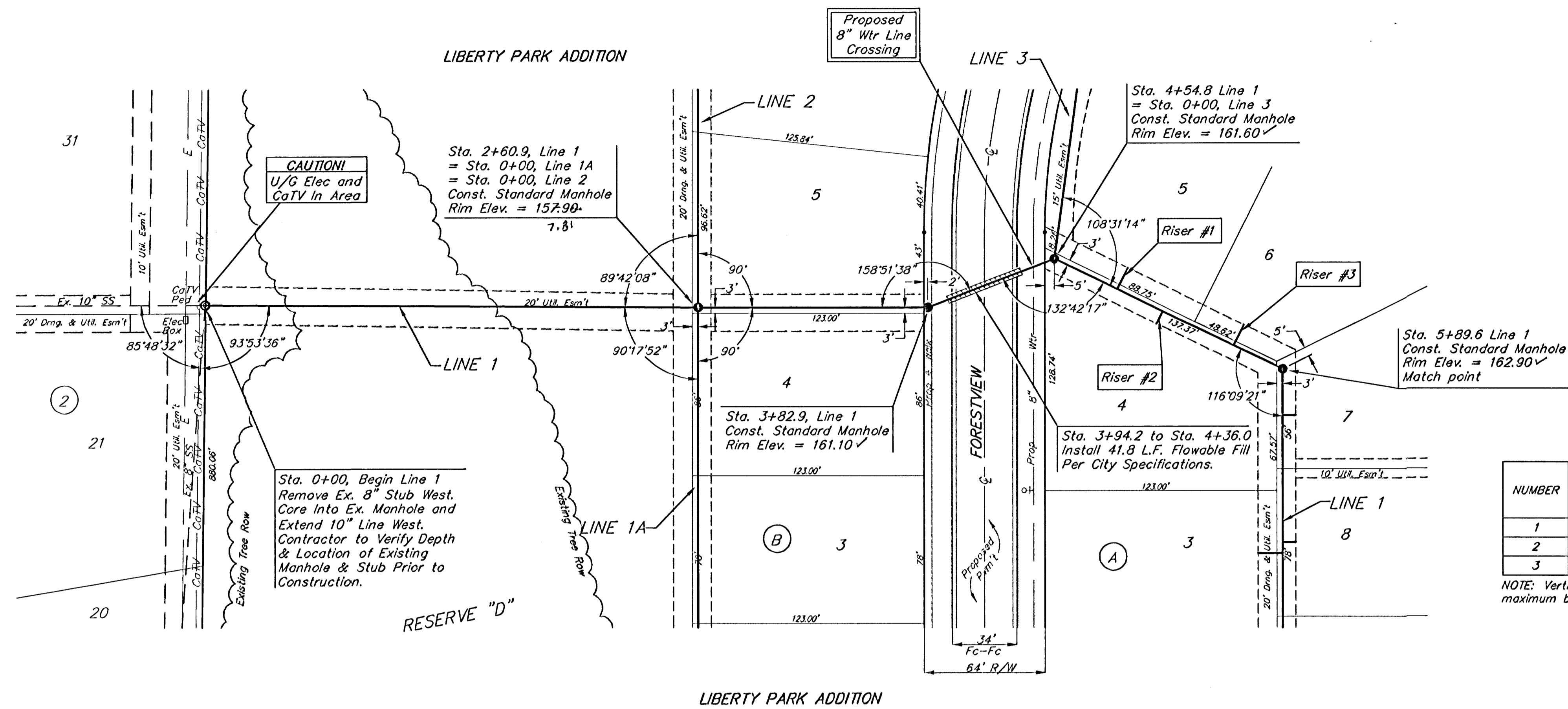
**BAUGHMAN COMPANY P.A.**  
 ENGINEERING, SURVEYING, & PLANNING  
 315-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

**BENCHMARK:**  
 135th St. W. & 13th St. N. - City of  
 Wichita Benchmark Disc, SE corner of  
 intersection.  
 56' East of Centerline  
 55' North of Centerline  
 Elev. = 167.83 City Datum  
 (1355.23 NGVD29)

60d Nail in High Line Pole, 800' W. &  
 31' N. of the NE cor., NW1/4, Sec. 13,  
 Twp. 27-S, R-2-W  
 Elev. = 1350.08 NGVD29  
 (162.68 City Datum)

HICKORY CREEK  
 ESTATES

Remove Existing Trees  
 only as necessary for  
 construction. Cost to be  
 included in Bid Item "Site  
 Clearing & Restoration".

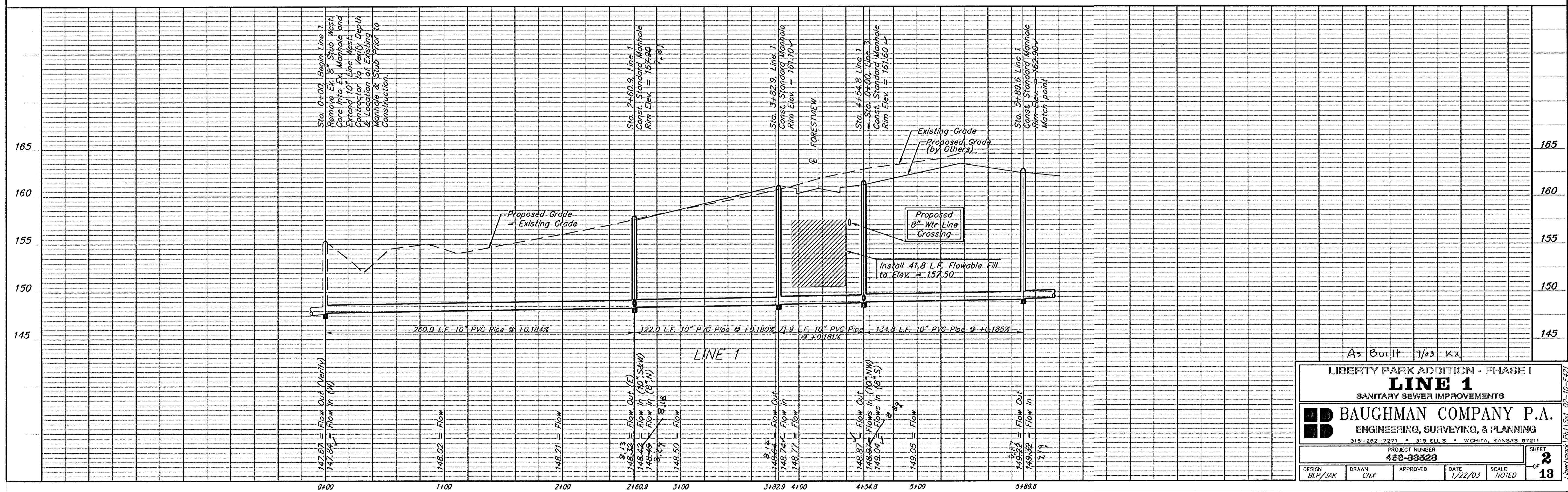


Scale: 1" = 40' Horizontal  
 1" = 5' Vertical  
 • = Iron

SEWER SERVICE TABLE

NUMBER	TYPE	LOCATION				FOR INFORMATION ONLY	
		LOT NO.	BLOCK NO.	LINE NO.	STATION/DIRECTION	APPROXIMATE LENGTH 4" PIPE VERTICAL	HORIZONTAL
1	8" X 4" Tee Saddle	5	A	1	4+92.1/Lt.	9.0'	13.0'
2	8" X 4" Tee Saddle	4	A	1	5+18.9/Rt.	10.0'	7.0'
3	8" X 4" Tee Saddle	6	A	1	5+60.8/Lt.	10.0'	12.5'

NOTE: Vertical Riser Pipe shall be extended to 2' minimum above ground water elevation and 4' maximum below proposed ground elevation.



As Built 9/03 kx

LIBERTY PARK ADDITION - PHASE I  
**LINE 1**  
 SANITARY SEWER IMPROVEMENTS

**BAUGHMAN COMPANY P.A.**  
 ENGINEERING, SURVEYING, & PLANNING  
 316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

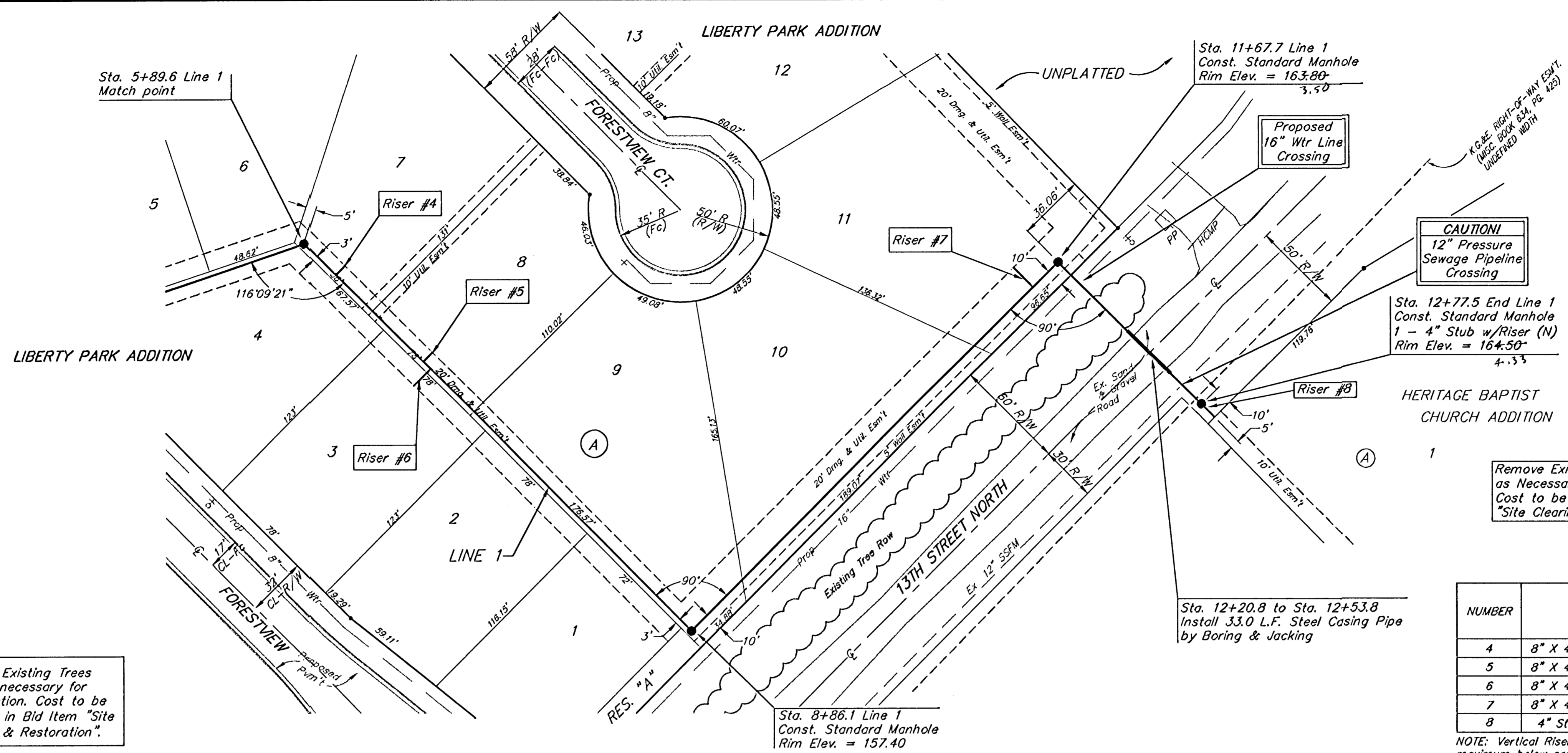
PROJECT NUMBER  
**488-83628**

DESIGN: BLP/JAK    DRAWN: GHX    APPROVED:    DATE: 1/22/03    SCALE: NOTED

SHEET **2** OF **13**

**BENCHMARK:**  
 135th St. W. & 13th St. N. - City of  
 Wichita Benchmark Disc, SE corner of  
 intersection.  
 56' East of Centerline  
 55' North of Centerline  
 Elev. = 167.83 City Datum  
 (1355.23 NGVD29)

60d Nail in High Line Pole, 800' W. &  
 31' N. of the NE cor., NW1/4, Sec. 13,  
 Twp. 27-S, R-2-W  
 Elev. = 1350.08 NGVD29  
 (162.68 City Datum)



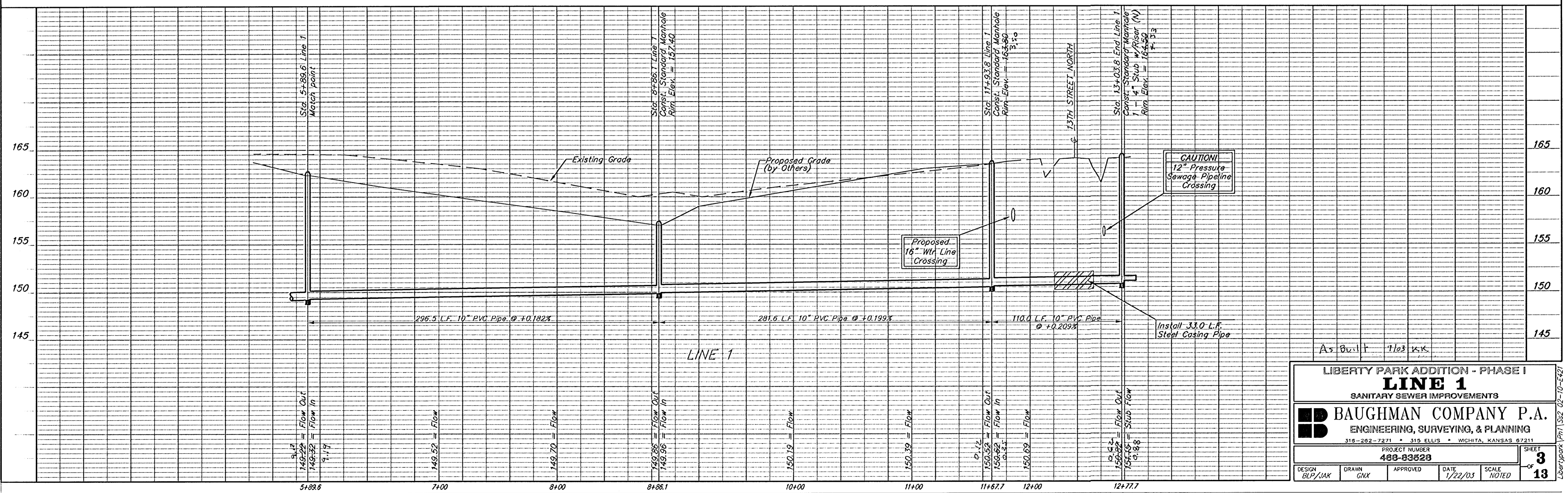
Scale: 1" = 40' Horizontal  
 1" = 5' Vertical  
 • = Iron

**SEWER SERVICE TABLE**

NUMBER	TYPE	LOCATION			FOR INFORMATION ONLY	
		LOT NO.	BLOCK NO.	LINE NO.	STATION/DIRECTION	APPROXIMATE LENGTH 4" PIPE
4	8" X 4" Tee Saddle	7	A	1	6+13.5/Lt.	7.0' 7.0'
5	8" X 4" Tee Saddle	8	A	1	6+80.5/Lt.	7.0' 7.0'
6	8" X 4" Tee Saddle	3	A	1	6+86.3/Rt.	7.0' 13.0'
7	8" X 4" Tee Saddle	11	A	1	11+48.6/Lt.	7.0' 15.0'
8	4" Stub w/ Riser	1	A	1	12+77.5	9.0' 10.0'

NOTE: Vertical Riser Pipe shall be extended to 2' minimum above ground water elevation and 4' maximum below proposed ground elevation.

Remove Existing Trees only as necessary for construction. Cost to be included in Bid Item "Site Clearing & Restoration".



LIBERTY PARK ADDITION - PHASE I  
**LINE 1**  
 SANITARY SEWER IMPROVEMENTS

**BAUGHMAN COMPANY P.A.**  
 ENGINEERING, SURVEYING, & PLANNING  
 315-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER  
**468-83523**

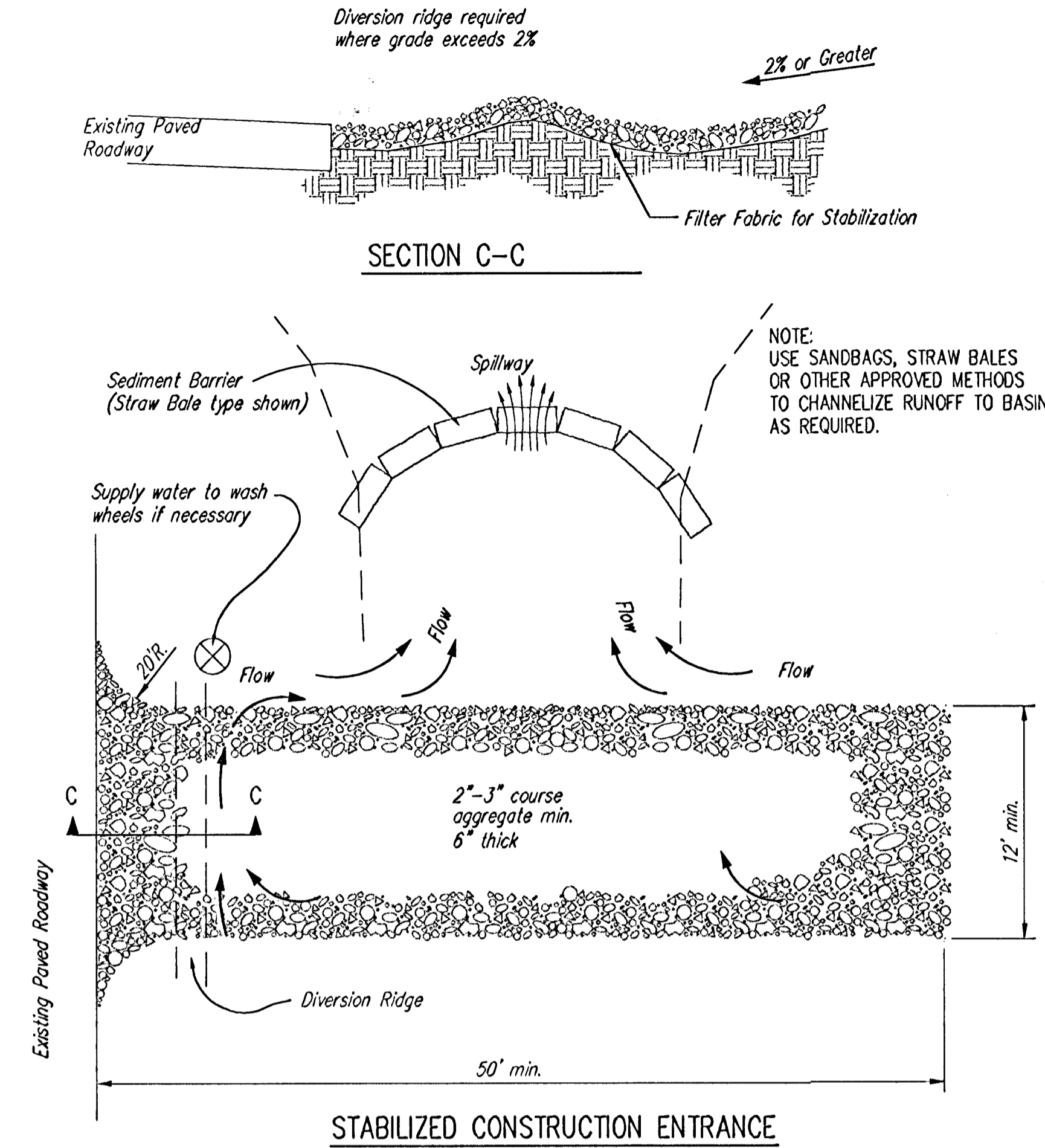
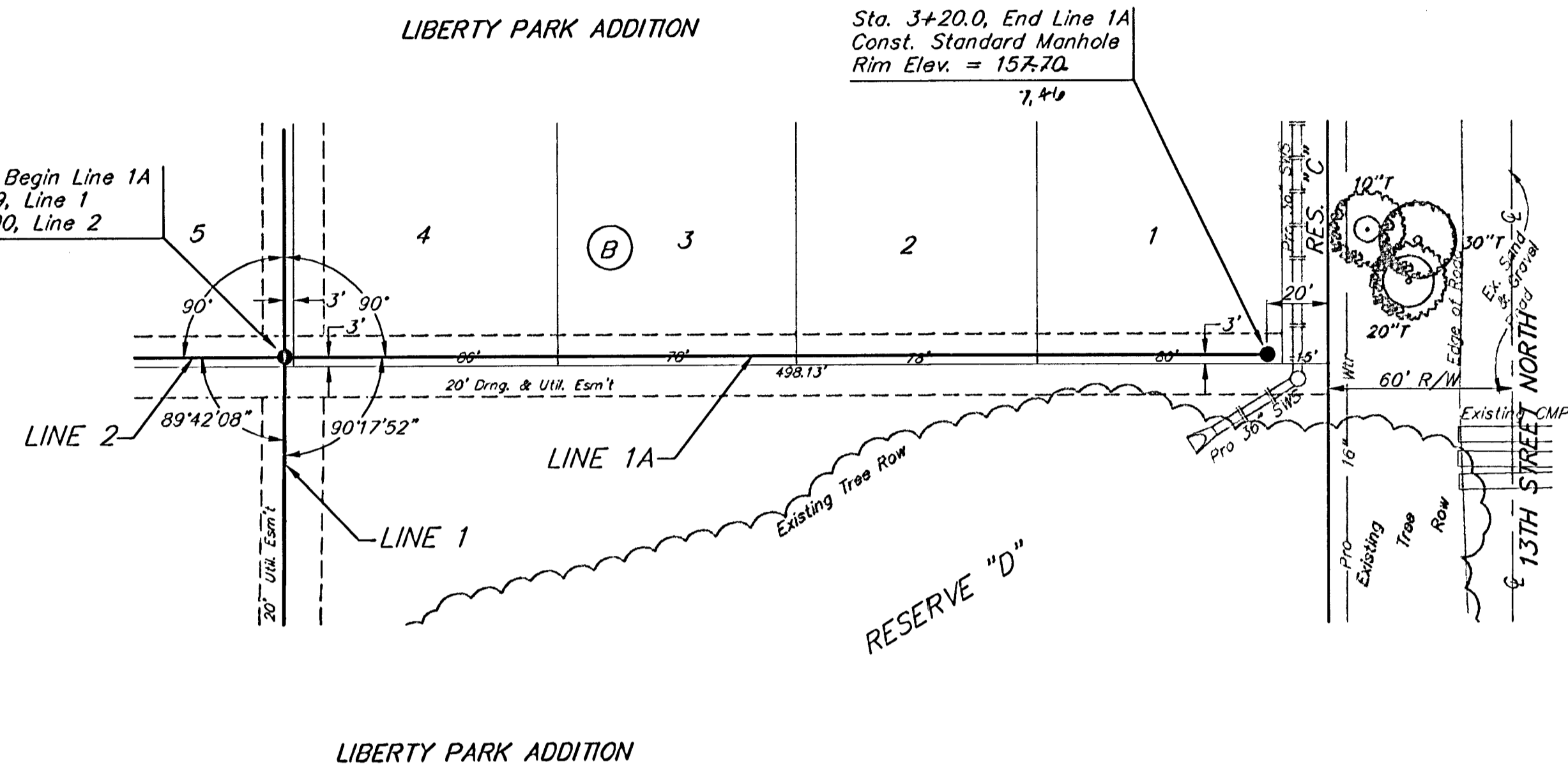
DESIGN: BLP/JAK    DRAWN: GHX    APPROVED: \_\_\_\_\_    DATE: 1/22/03    SCALE: NOTED

SHEET **3** OF **13**

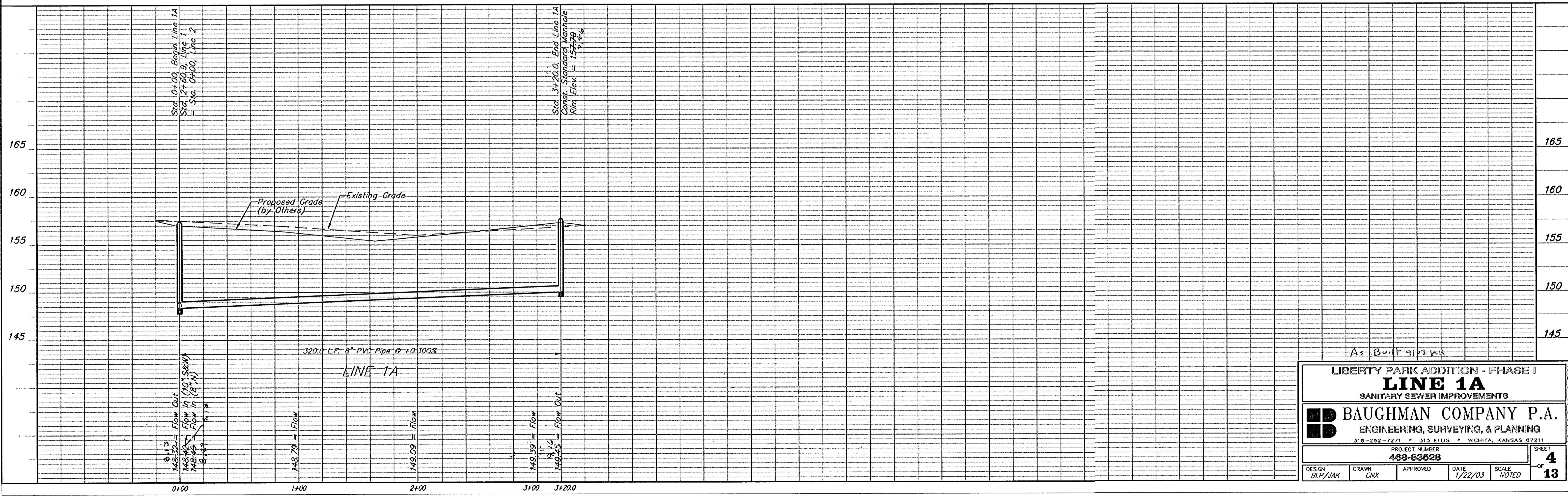
**BENCHMARK:**  
 135th St. W. & 13th St. N. - City of  
 Wichita Benchmark Disc, SE corner of  
 intersection.  
 56' East of Centerline  
 55' North of Centerline  
 Elev. = 167.83 City Datum  
 (1355.23 NGVD29)

60d Nail in High Line Pole, 800' W. &  
 31' N. of the NE cor., NW1/4, Sec. 13,  
 Twp. 27-S, R-2-W  
 Elev. = 1350.08 NGVD29  
 (162.68 City Datum)

Scale: 1" = 40' Horizontal  
 1" = 5' Vertical  
 • = Iron



- NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
  2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
  3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
  4. DRIVE ENTRANCES ONTO RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER SHOWN, BUT WHEEL WASHING MAY BE REQUIRED IF STABILIZED ENTRANCE IS NOT SUFFICIENT TO KEEP MUD FROM BEING TRACKED ONTO ADJACENT STREET. ENTRANCE SHALL EXTEND FROM BACK OF CURB TO DWELLING.



LIBERTY PARK ADDITION - PHASE I  
**LINE 1A**  
 SANITARY SEWER IMPROVEMENTS

**BAUGHMAN COMPANY P.A.**  
 ENGINEERING, SURVEYING, & PLANNING  
 318-262-7271 • 313 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER  
**488-83628**

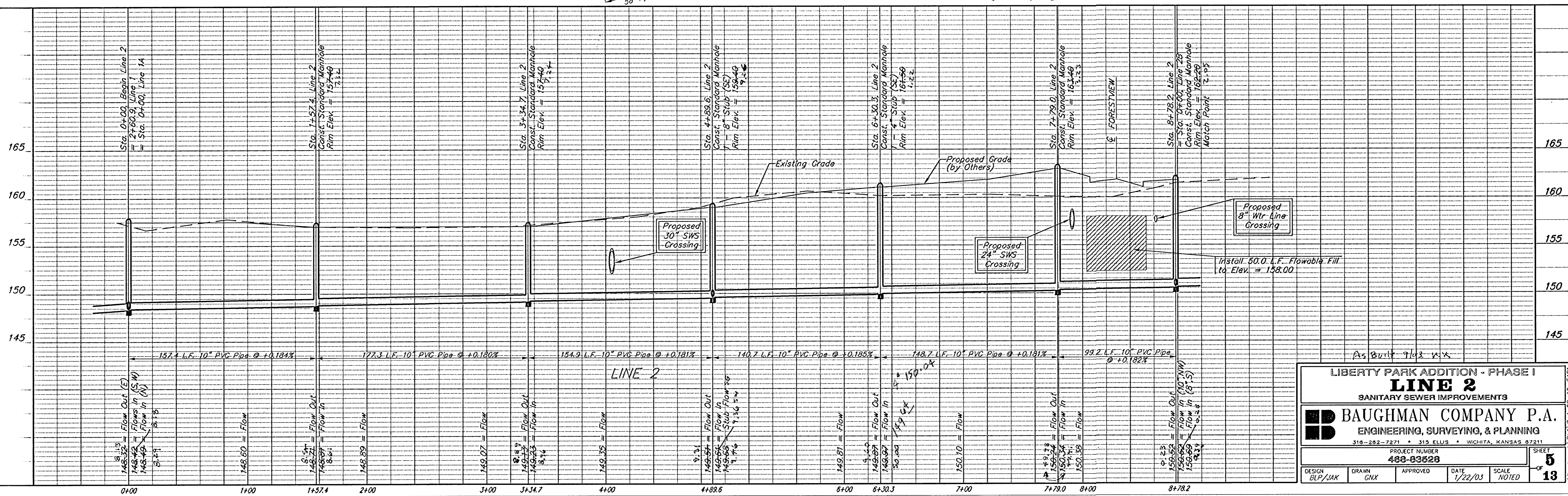
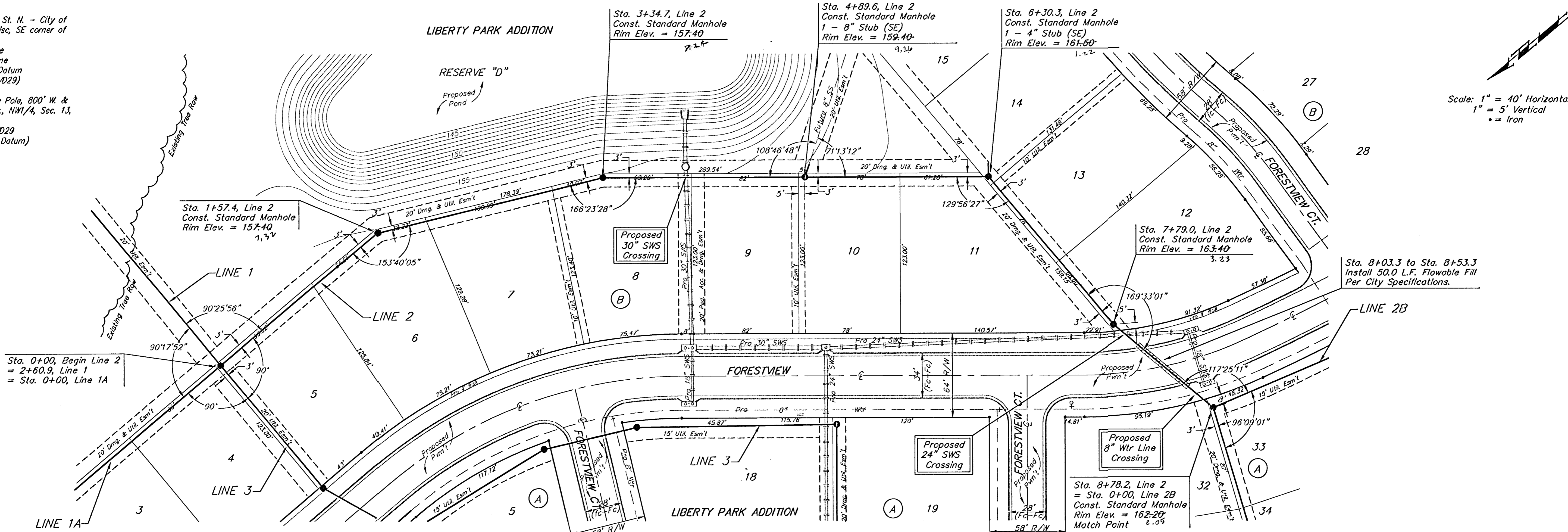
DATE  
 1/22/03

SCALE  
 NOTED

SHEET  
**4**  
 OF  
**13**

**BENCHMARK:**  
 135th St. W. & 13th St. N. - City of  
 Wichita Benchmark Disc, SE corner of  
 intersection.  
 56' East of Centerline  
 55' North of Centerline  
 Elev. = 167.83 City Datum  
 (1355.23 NGVD29)

60d Nail in High Line Pole, 800' W. &  
 31' N. of the NE cor., NW1/4, Sec. 13,  
 Twp. 27-S, R-2-W  
 Elev. = 1350.08 NGVD29  
 (162.68 City Datum)



LIBERTY PARK ADDITION - PHASE I  
**LINE 2**  
 SANITARY SEWER IMPROVEMENTS

**BAUGHMAN COMPANY P.A.**  
 ENGINEERING, SURVEYING, & PLANNING  
 316-282-7271 • 315 ELLIS • WICHITA, KANSAS 67211

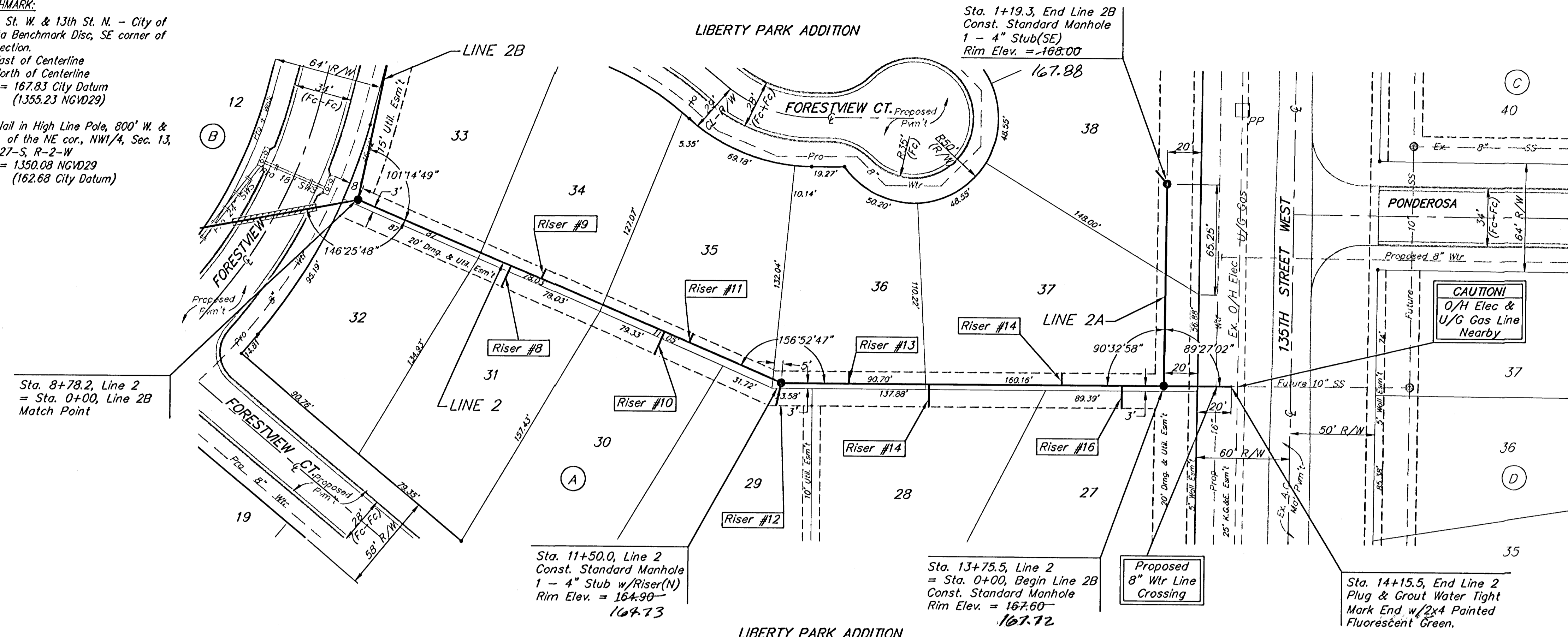
PROJECT NUMBER  
**480-03528**

DESIGN: BLP/JAK    DRAWN: GNY    APPROVED: \_\_\_\_\_    DATE: 1/22/03    SCALE: NOTED

SHEET  
**5**  
 OF  
**13**

**BENCHMARK:**  
 135th St. W. & 13th St. N. - City of  
 Wichita Benchmark Disc, SE corner of  
 intersection.  
 56' East of Centerline  
 55' North of Centerline  
 Elev. = 167.83 City Datum  
 (1355.23 NGVD29)

60d Nail in High Line Pole, 800' W. &  
 31' N. of the NE cor., NW1/4, Sec. 13,  
 Twp. 27-S, R-2-W  
 Elev. = 1350.08 NGVD29  
 (162.68 City Datum)



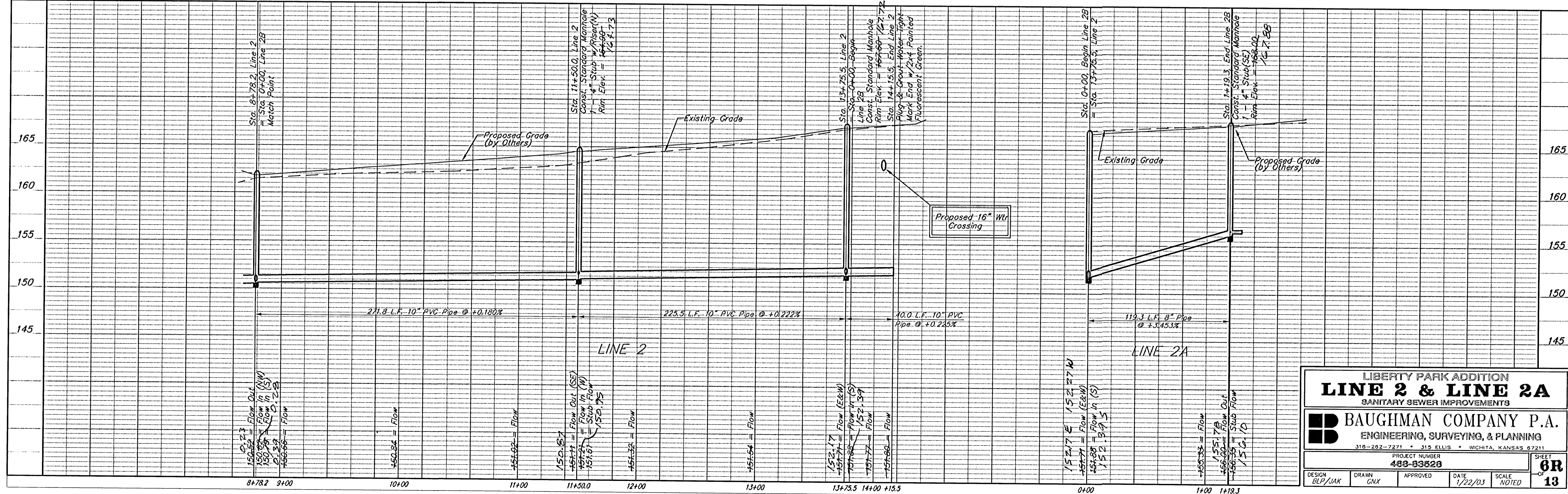
Scale: 1" = 40' Horizontal  
 1" = 5' Vertical  
 • = Iron

**SEWER SERVICE TABLE**

NUMBER	TYPE	LOCATION			FOR INFORMATION ONLY		
		LOT NO.	BLOCK NO.	LINE NO.	STATION\ DIRECTION	APPROXIMATE LENGTH 4" PIPE VERTICAL	HORIZONTAL
8	8" X 4" Tee Saddle	31	A	2	9+76.7/Rt.	8.0'	14.0'
9	8" X 4" Tee Saddle	34	A	2	9+96.2/Lt.	8.0'	6.0'
10	8" X 4" Tee Saddle	30	A	2	10+74.9/Rt.	8.5'	14.5'
11	8" X 4" Tee Saddle	35	A	2	10+90.8/Lt.	9.0'	5.5'
12	4" Stub	29	A	2	11+50.0/Rt.	9.5'	13.0'
13	8" X 4" Tee Saddle	36	A	2	11+90.0/Lt.	9.5'	7.0'
14	8" X 4" Tee Saddle	28	A	2	12+37.2/Rt.	10.0'	13.0'
15	8" X 4" Tee Saddle	37	A	2	13+15.4/Lt.	10.5'	7.0'
16	8" X 4" Tee Saddle	27	A	2	13+50.8/Rt.	11.0'	13.0'

NOTE: Vertical Riser Pipe shall be extended to 2' minimum above ground water elevation and 4' maximum below proposed ground elevation.

**REVISIONS:**  
 Line 2A: End manhole relocated from Sta. 0+71.8, Line 2A to Sta. 1+19.3, Line 2A  
 - JAK - 2/28/03



LIBERTY PARK ADDITION  
**LINE 2 & LINE 2A**  
 SANITARY SEWER IMPROVEMENTS

**BAUGHMAN COMPANY P.A.**  
 ENGINEERING, SURVEYING, & PLANNING  
 315-282-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER  
**468-83528**

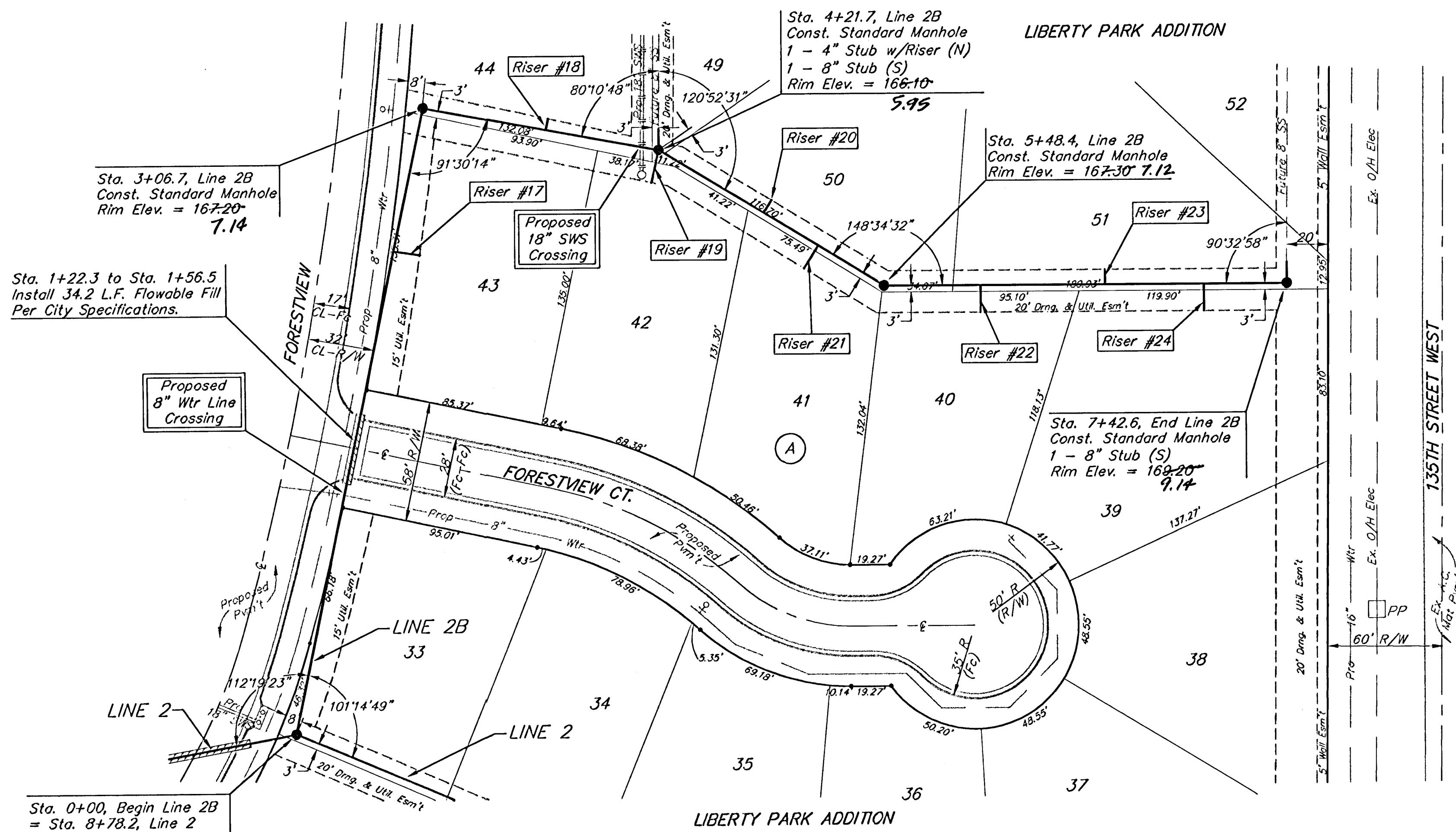
DESIGN: BLP/JAK DRAWN: CNX APPROVED: DATE: 1/22/03 SCALE: NOTED

SHEET  
**6R**  
 13

Liberty Park (P) 135 02-10-EX21

**BENCHMARK:**  
 135th St. W. & 13th St. N. - City of  
 Wichita Benchmark Disc, SE corner of  
 intersection.  
 56' East of Centerline  
 55' North of Centerline  
 Elev. = 167.83 City Datum  
 (1355.23 NGVD29)

60d Nail in High Line Pole, 800' W. &  
 31' N. of the NE cor., NW1/4, Sec. 13,  
 Twp. 27-S, R-2-W  
 Elev. = 1350.08 NGVD29  
 (162.68 City Datum)



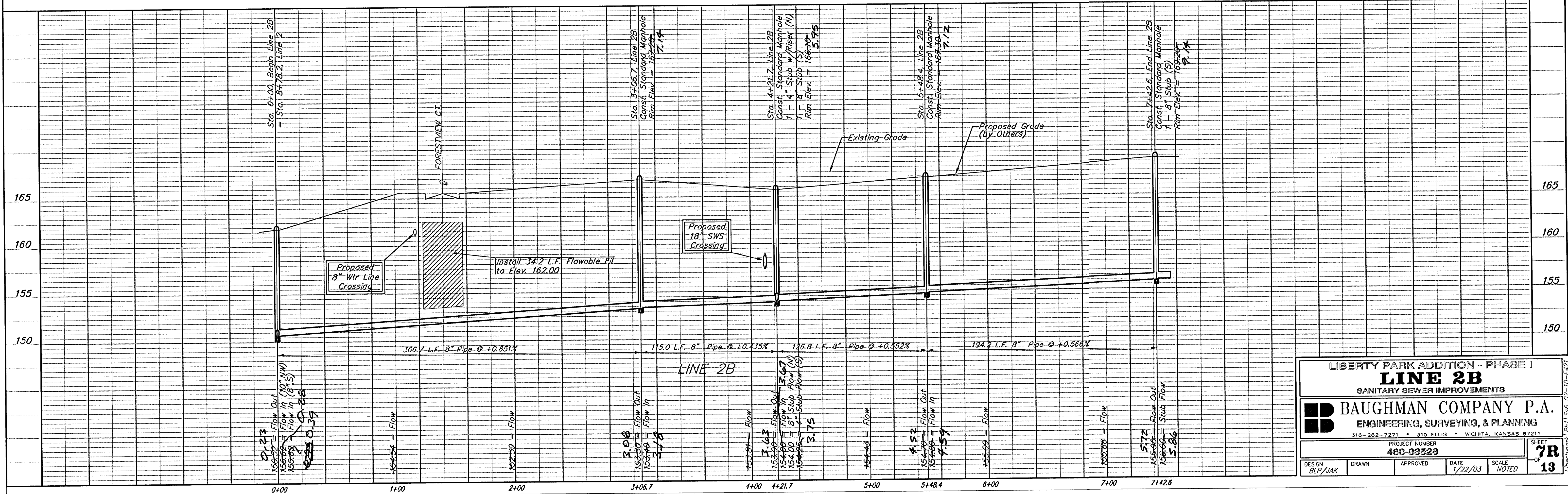
Scale: 1" = 40' Horizontal  
 1" = 5' Vertical  
 • = Iron

**SEWER SERVICE TABLE**

NUMBER	TYPE	LOCATION			FOR INFORMATION ONLY	
		LOT NO.	BLOCK NO.	LINE NO.	STATION\ DIRECTION	APPROXIMATE LENGTH 4" PIPE VERTICAL HORIZONTAL
17	8" X 4" Tee Saddle	43	A	2B	2+37.0/Rt.	9.5' 9.5'
18	8" X 4" Tee Saddle	44	A	2B	3+67.0/Lt.	9.0' 5.0'
19	8" X 4" Tee Saddle	42	A	2B	4+22.3/Rt.	8.0' 16.0'
20	8" X 4" Tee Saddle	50	A	2B	4+81.5/Lt.	8.0' 7.0'
21	8" X 4" Tee Saddle	41	A	2B	5+12.2/Rt.	8.0' 13.0'
22	4" Stub w/ Riser	40	A	2B	5+95.8/Rt.	8.0' 13.0'
23	8" X 4" Tee Saddle	51	A	2B	6+55.7/Lt.	8.5' 7.0'
24	8" X 4" Tee Saddle	39	A	2B	7+03.3/Rt.	9.0' 13.0'

NOTE: Vertical Riser Pipe shall be extended to 2' minimum above ground water elevation and 4' maximum below proposed ground elevation.

**REVISIONS:**  
 Line 2B: Riser #20 relocated from Sta. 4+91.5, Line 2B to Sta. 4+81.5, Line 2B -  
 JAK - 2/28/03



LIBERTY PARK ADDITION - PHASE I  
**LINE 2B**  
 SANITARY SEWER IMPROVEMENTS

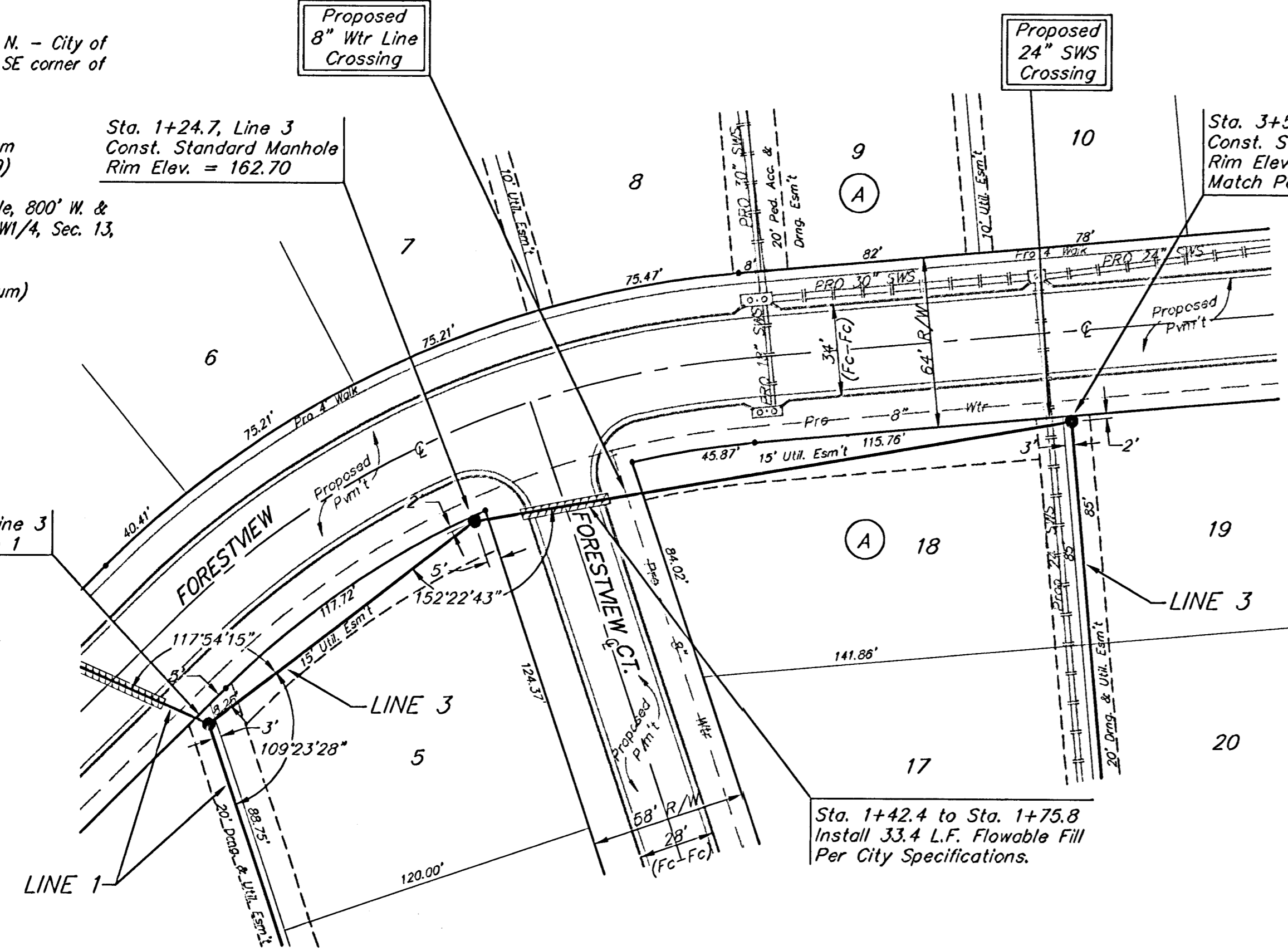
**BAUGHMAN COMPANY P.A.**  
 ENGINEERING, SURVEYING, & PLANNING  
 318-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER  
**488-83628**

DESIGN: BLP/JAK | DRAWN: | APPROVED: | DATE: 1/22/03 | SCALE: NOTED | SHEET: 7R OF 13

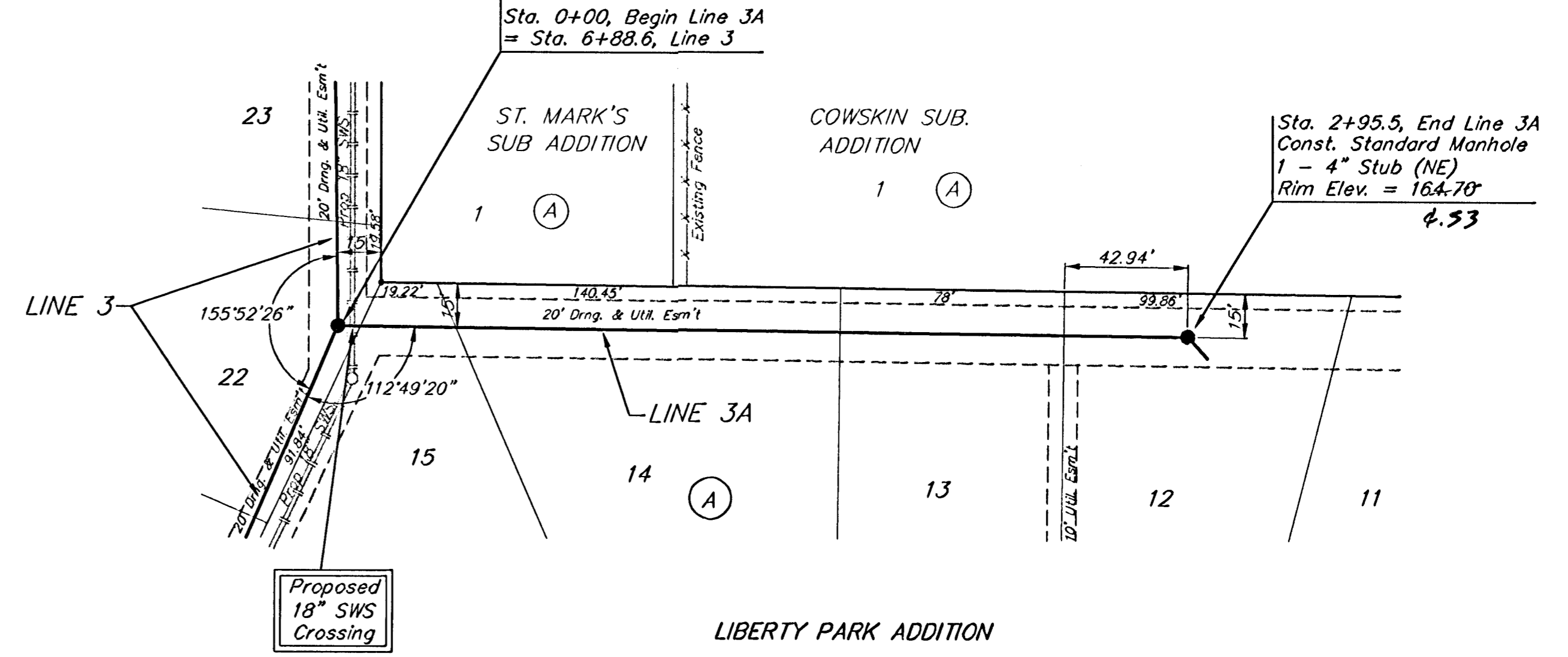
**BENCHMARK:**  
 135th St. W. & 13th St. N. - City of  
 Wichita Benchmark Disc, SE corner of  
 intersection.  
 56' East of Centerline  
 55' North of Centerline  
 Elev. = 167.83 City Datum  
 (1355.23 NGVD29)

60d Nail in High Line Pole, 800' W. &  
 31' N. of the NE cor., NW1/4, Sec. 13,  
 Twp. 27-S, R-2-W  
 Elev. = 1350.08 NGVD29  
 (162.68 City Datum)

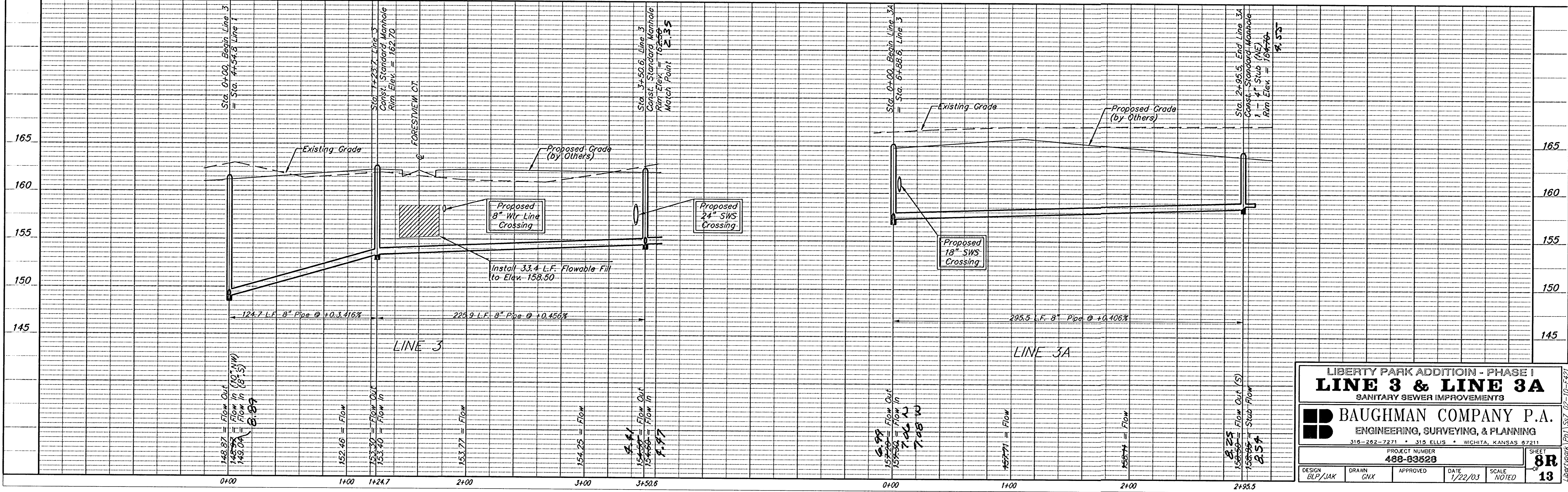


Scale: 1" = 40' Horizontal  
 1" = 5' Vertical  
 • = Iron

Scale: 1" = 40' Horizontal  
 1" = 5' Vertical  
 • = Iron



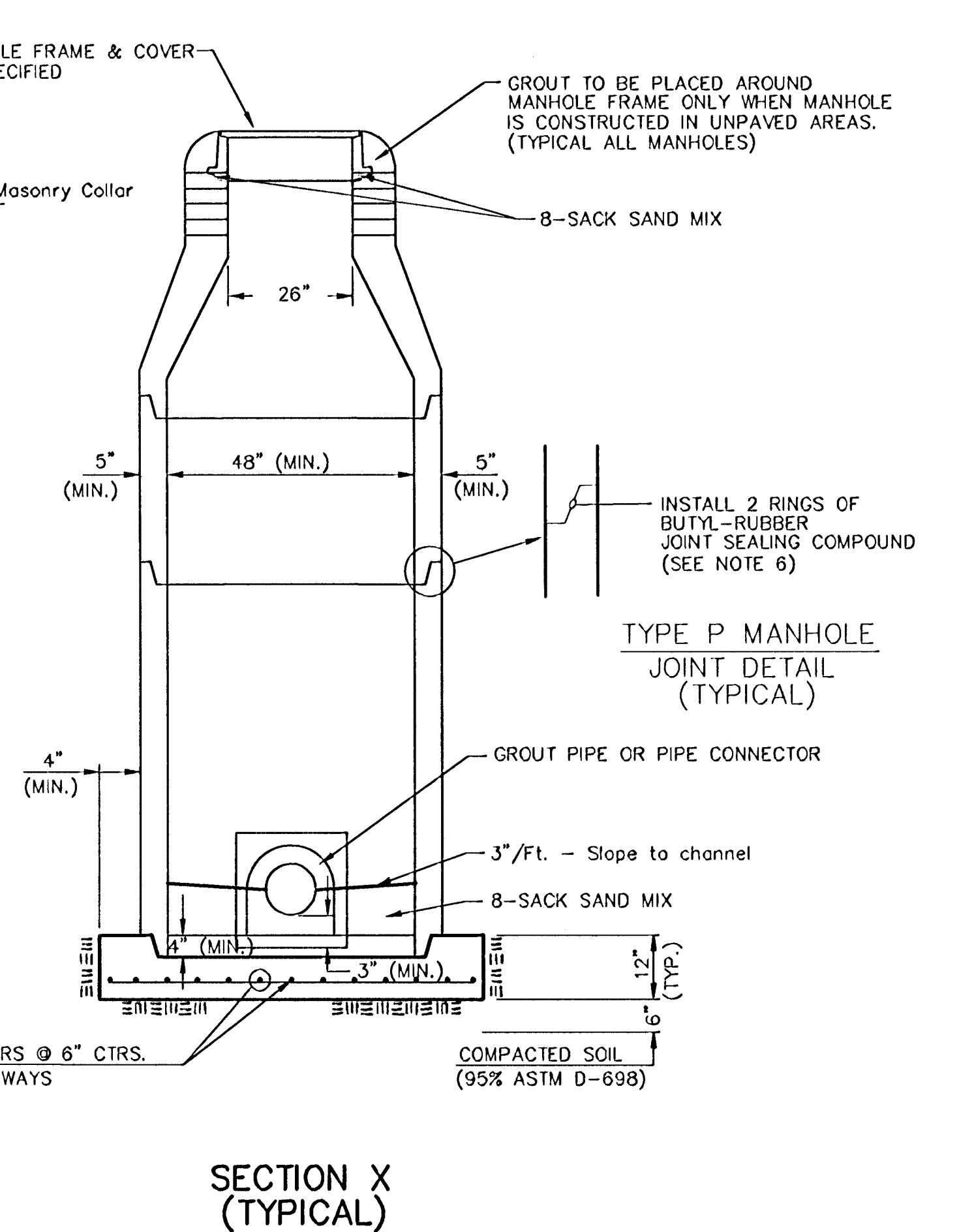
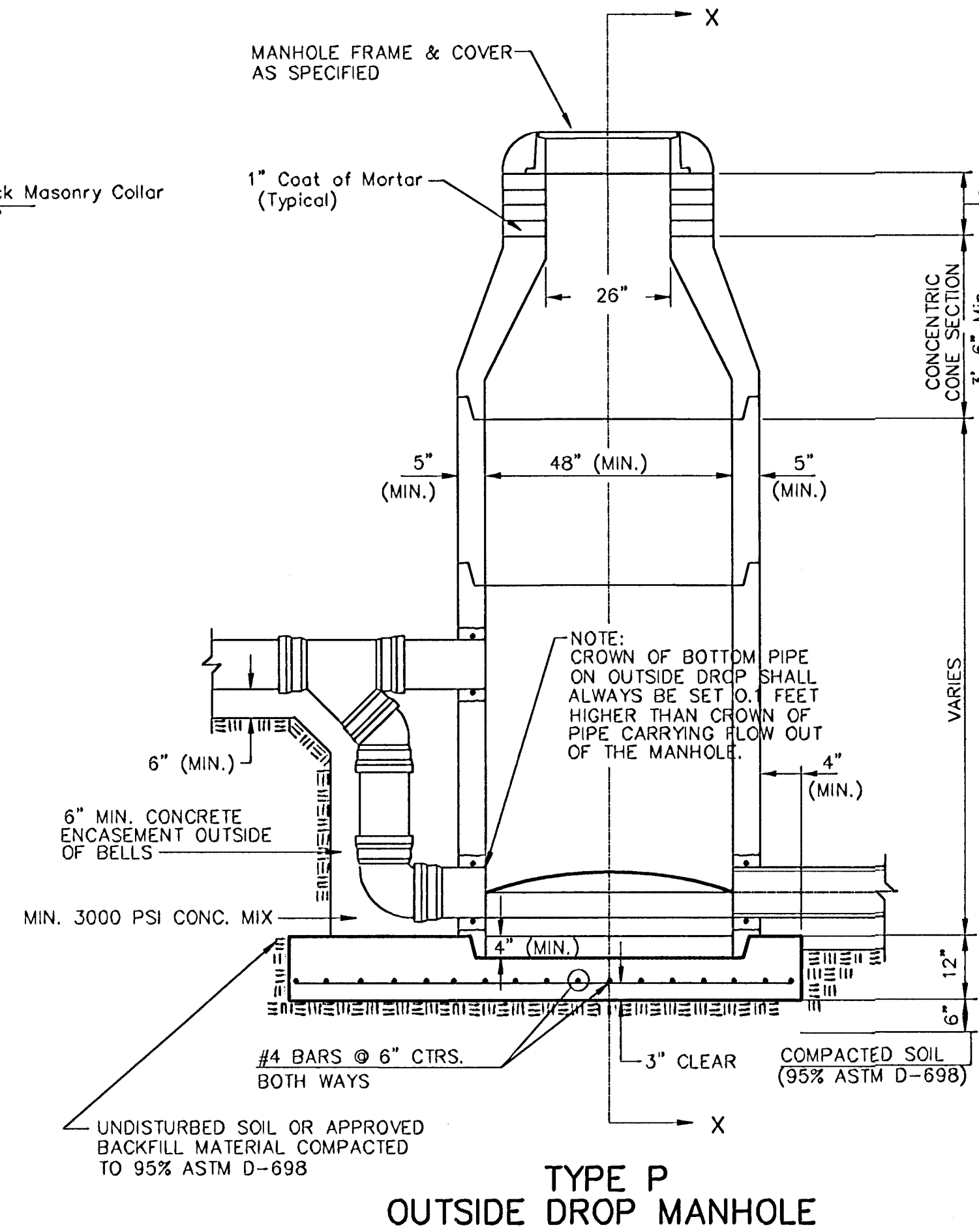
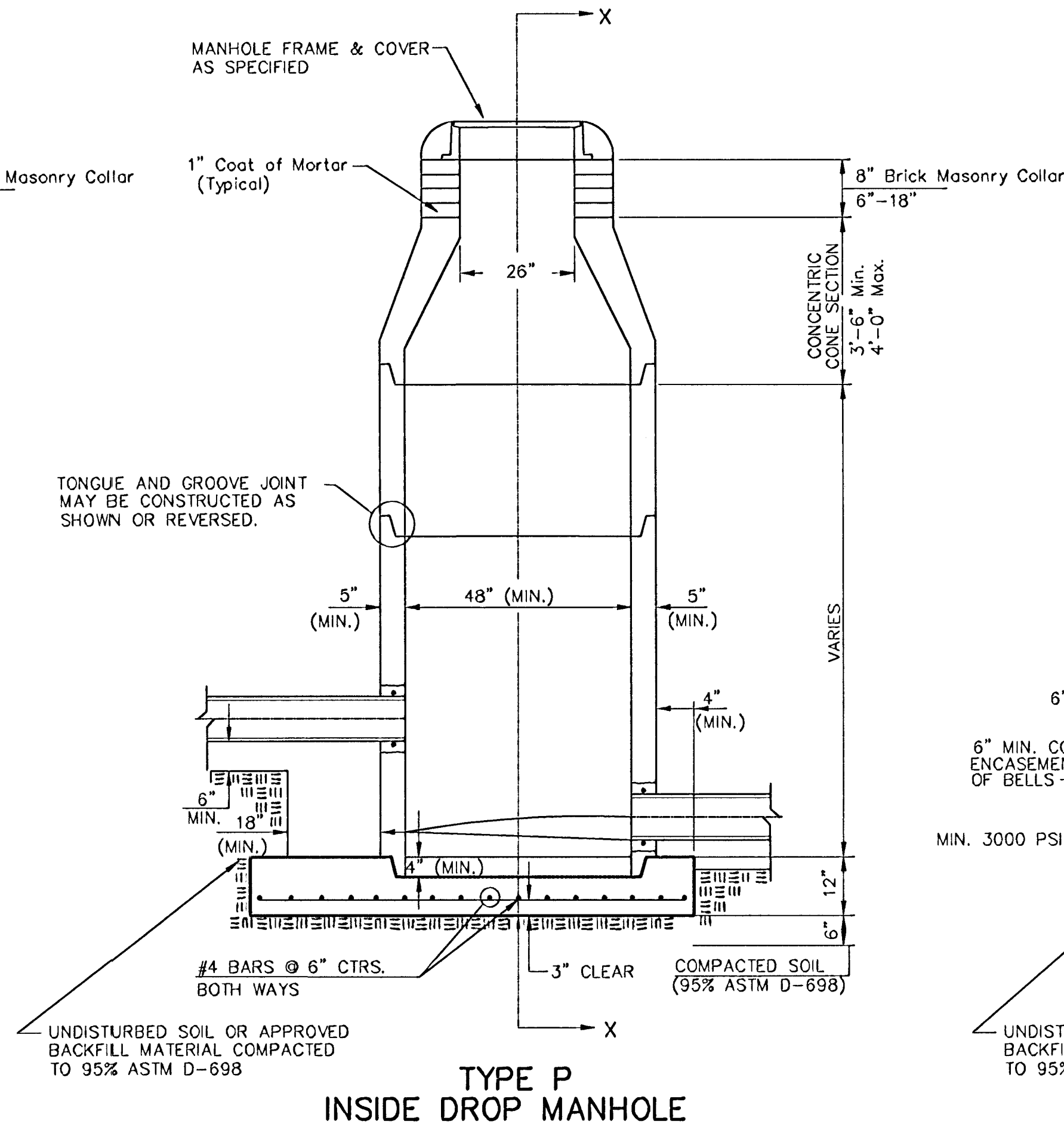
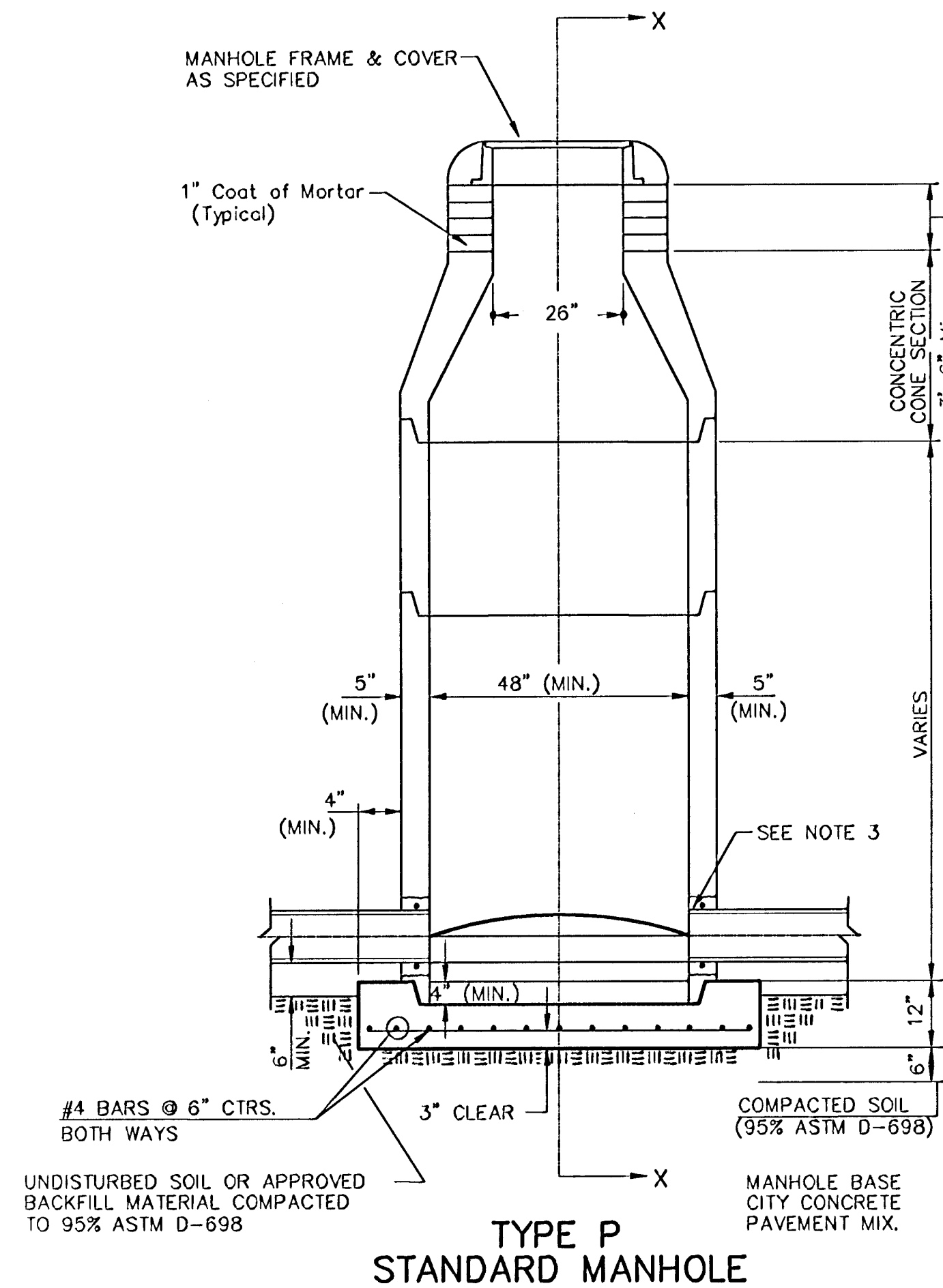
**REVISIONS:**  
 Line 3A: End manhole relocated from Sta. 2+57.5, Line 3A to Sta. 2+95.5, Line 3A  
 - JAK - 2/28/03



LAT 1 MAIN 5, NW1



# SEWER APPURTENANCES DETAILS



### GENERAL NOTES

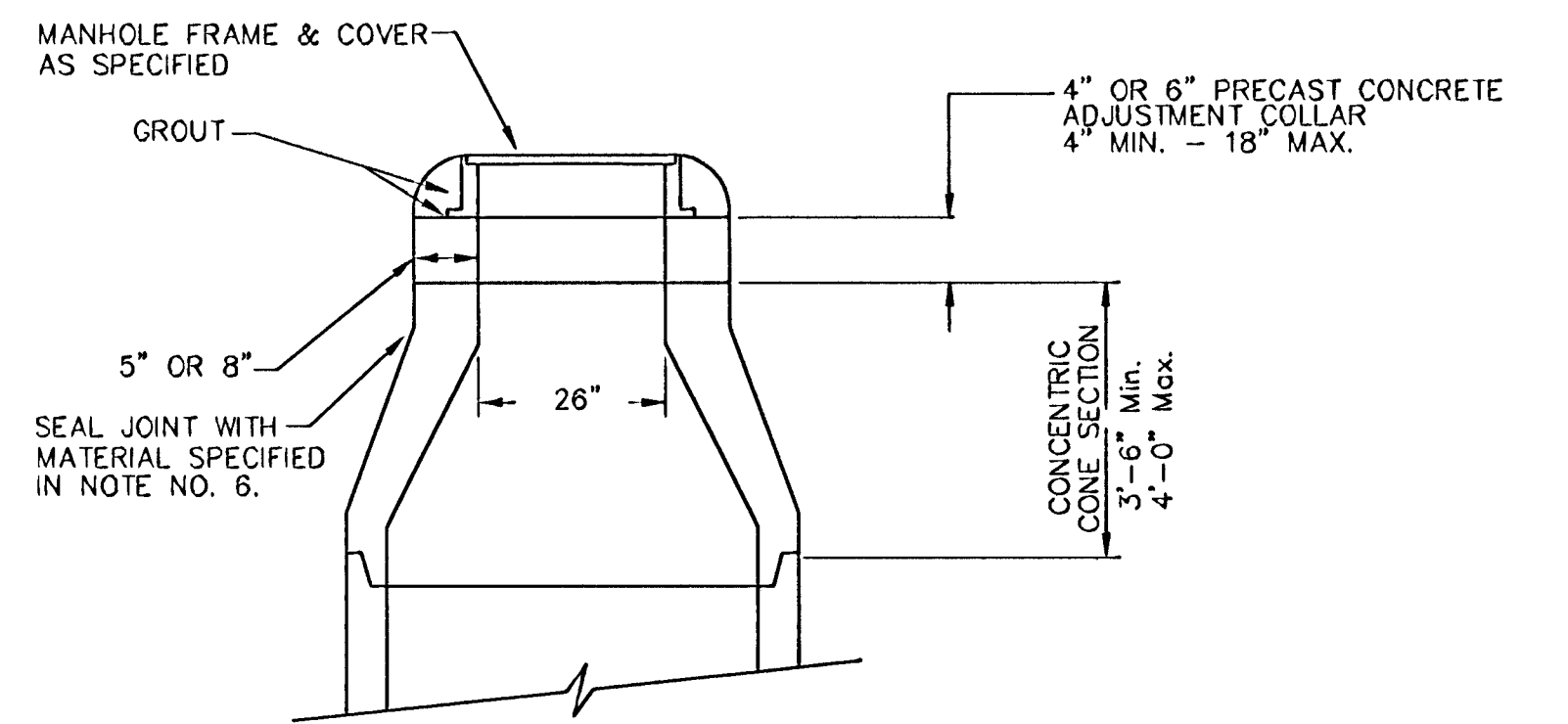
#### PRECAST MANHOLE NOTES

- 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 TNEVEC 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 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 NON-SHRINK 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 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.

### ALTERNATE CONSTRUCTION IN UNPAVED AREAS



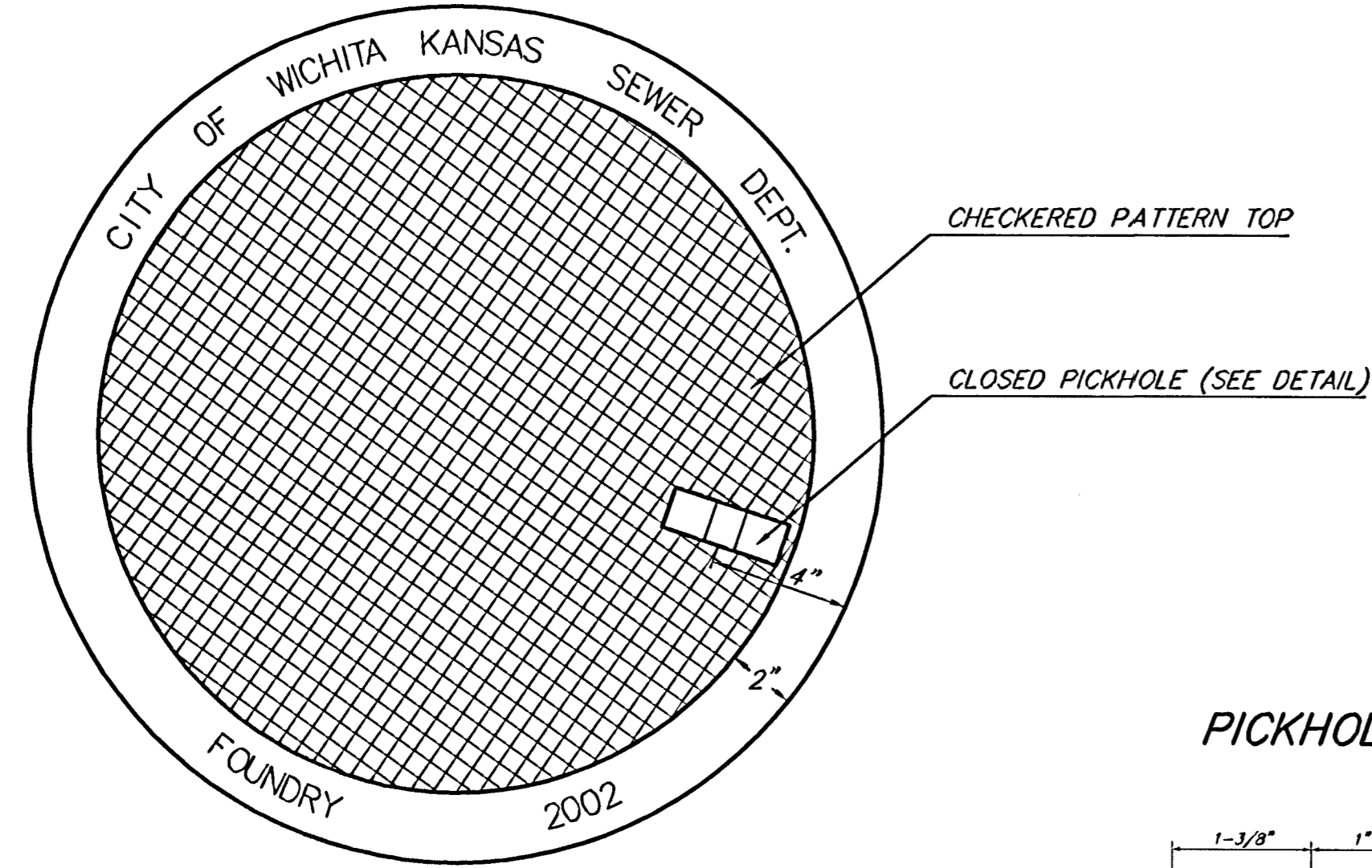
**STD. MANHOLE DETAILS**  
SEWER APPURTENANCES

**BAUGHMAN COMPANY P.A.**  
ENGINEERING, SURVEYING, & PLANNING  
318-202-7271 • 315 ELLIS • WICHITA, KANSAS 67211

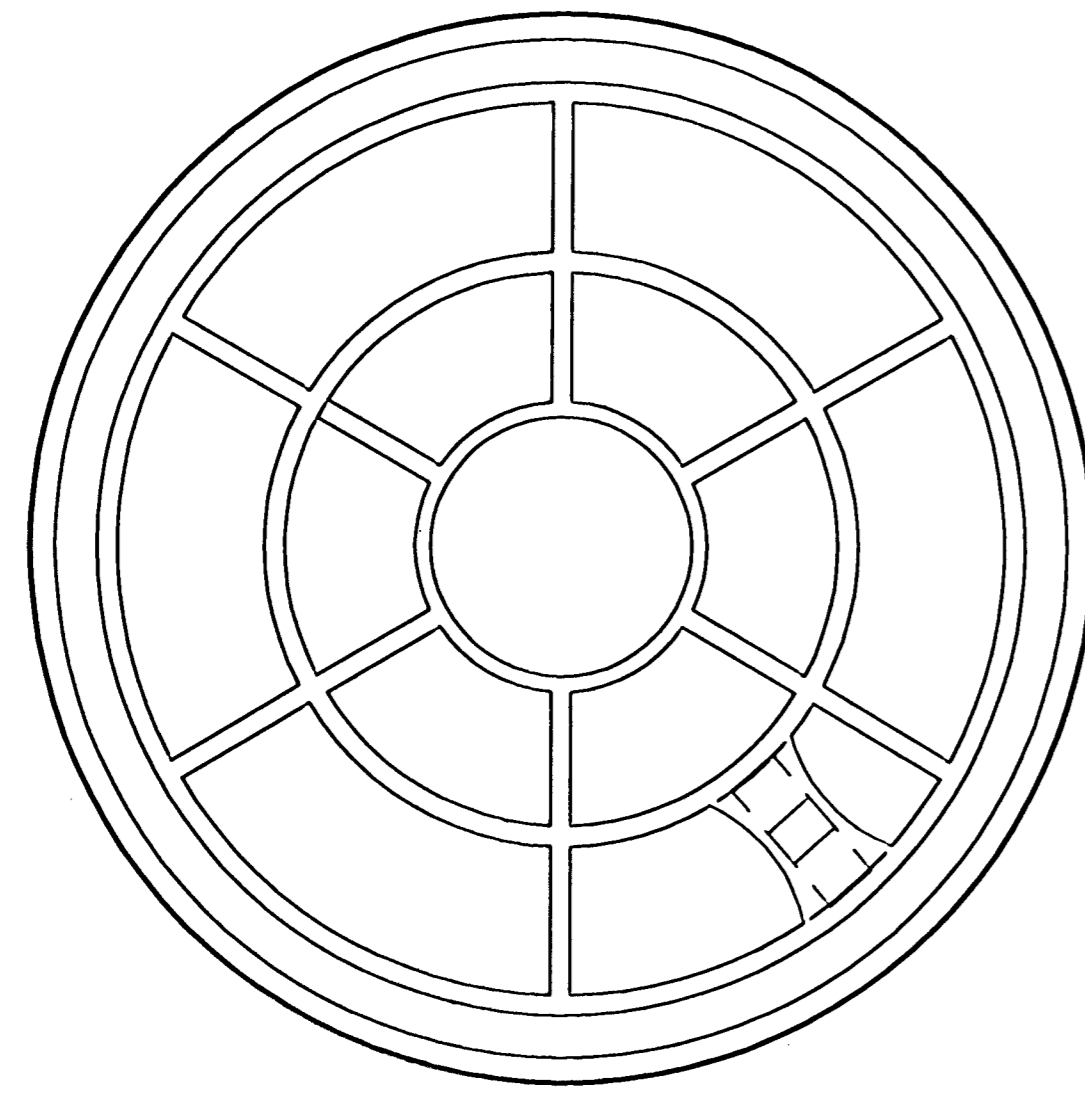
PROJECT NUMBER: 488-03620  
SHEET 10 OF 13

DESIGN: STAFF    DRAWN: STAFF    APPROVED:    DATE: 1/22/03    SCALE: NONE

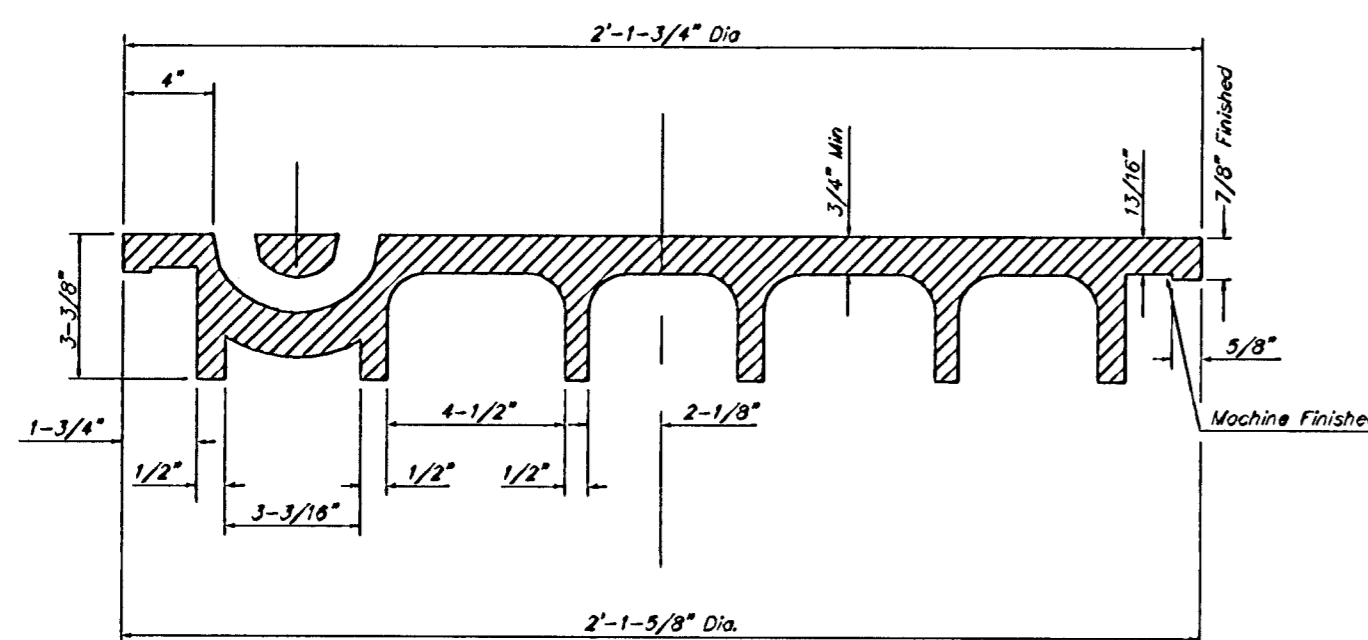
MANHOLE COVER  
Weight = 180 Lbs.



TOP VIEW



BOTTOM VIEW

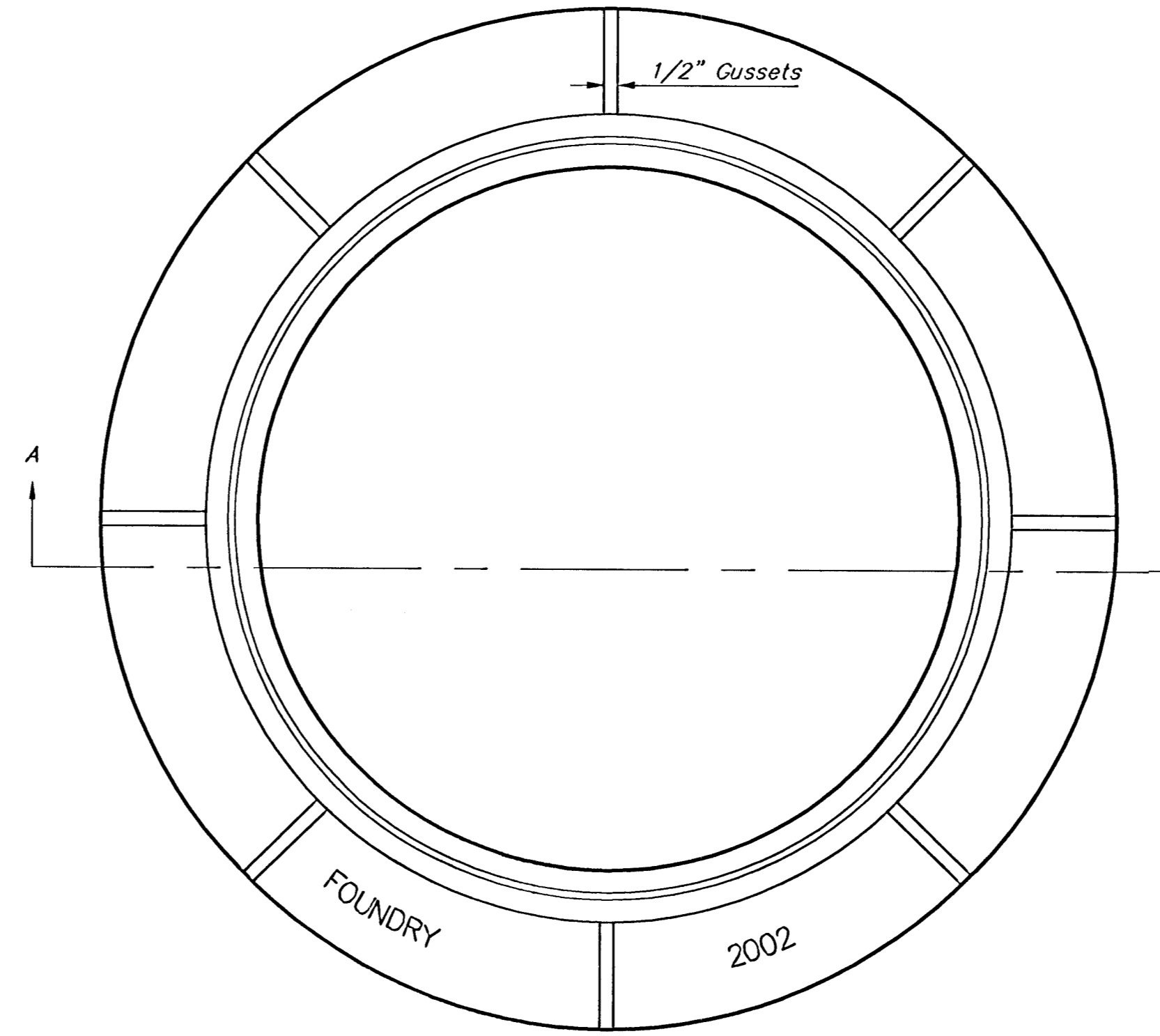


SECTION VIEW

# MANHOLE FRAME AND COVER DETAIL

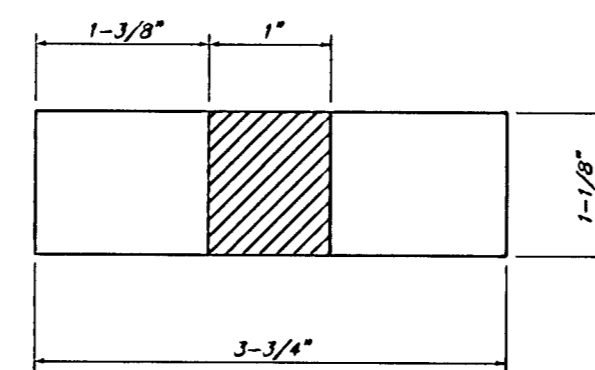
ADOPTED AS STANDARD DESIGN BY  
CITY OF WICHITA, KANSAS

MANHOLE FRAME  
Weight = 145 Lbs.

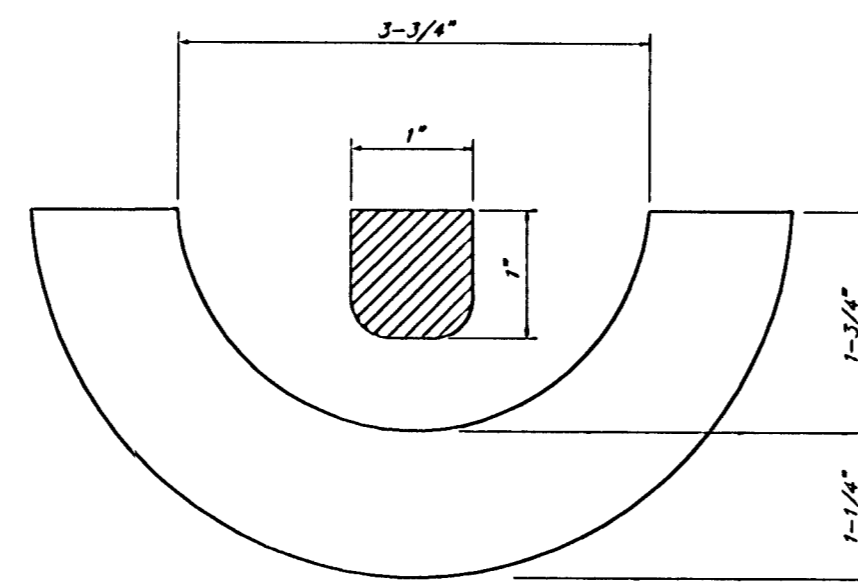


TOP VIEW

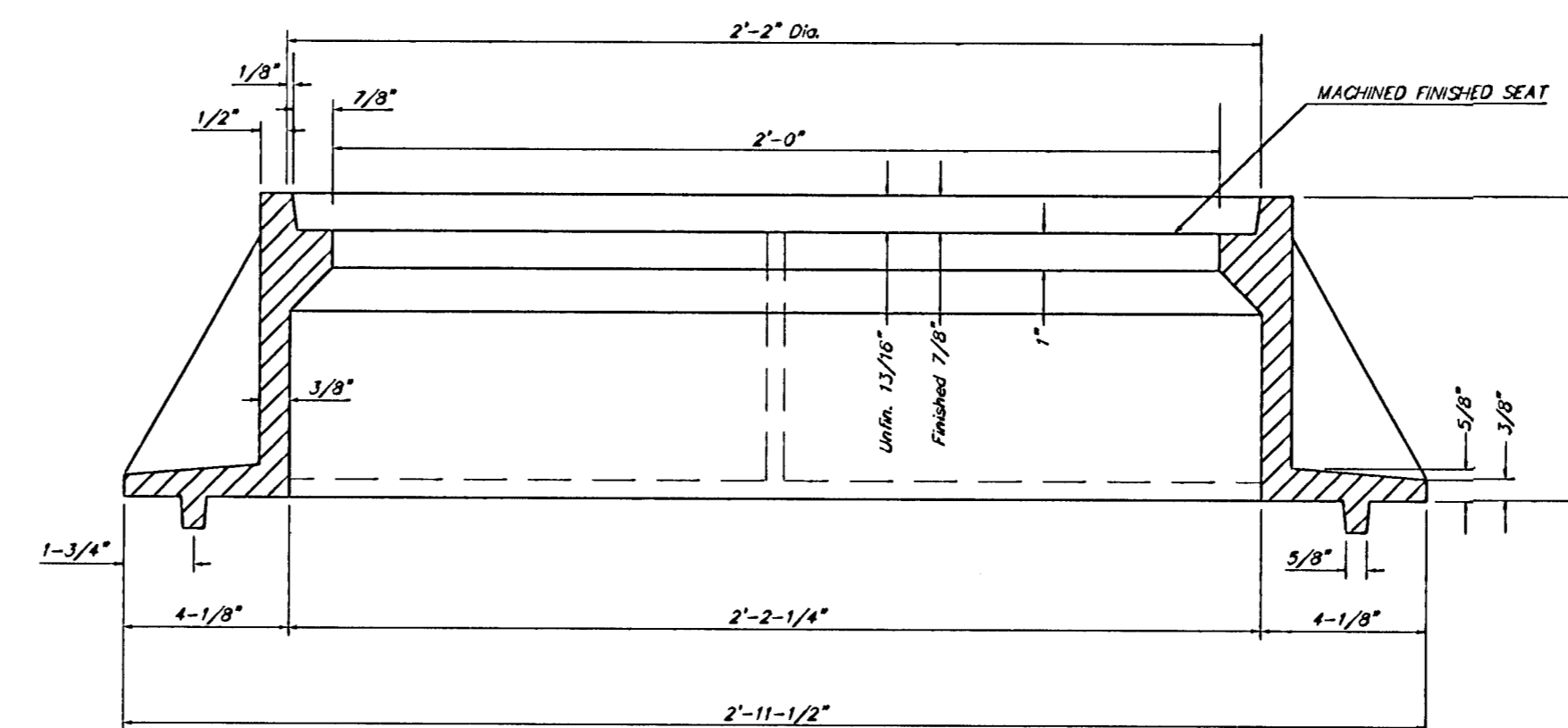
PICKHOLE DETAIL



TOP VIEW



SECTION 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 SURFACE BLOCKOUT AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

MANHOLE FRAME AND COVER DETAIL  
ADOPTED AS STANDARD DESIGN BY  
CITY OF WICHITA, KANSAS

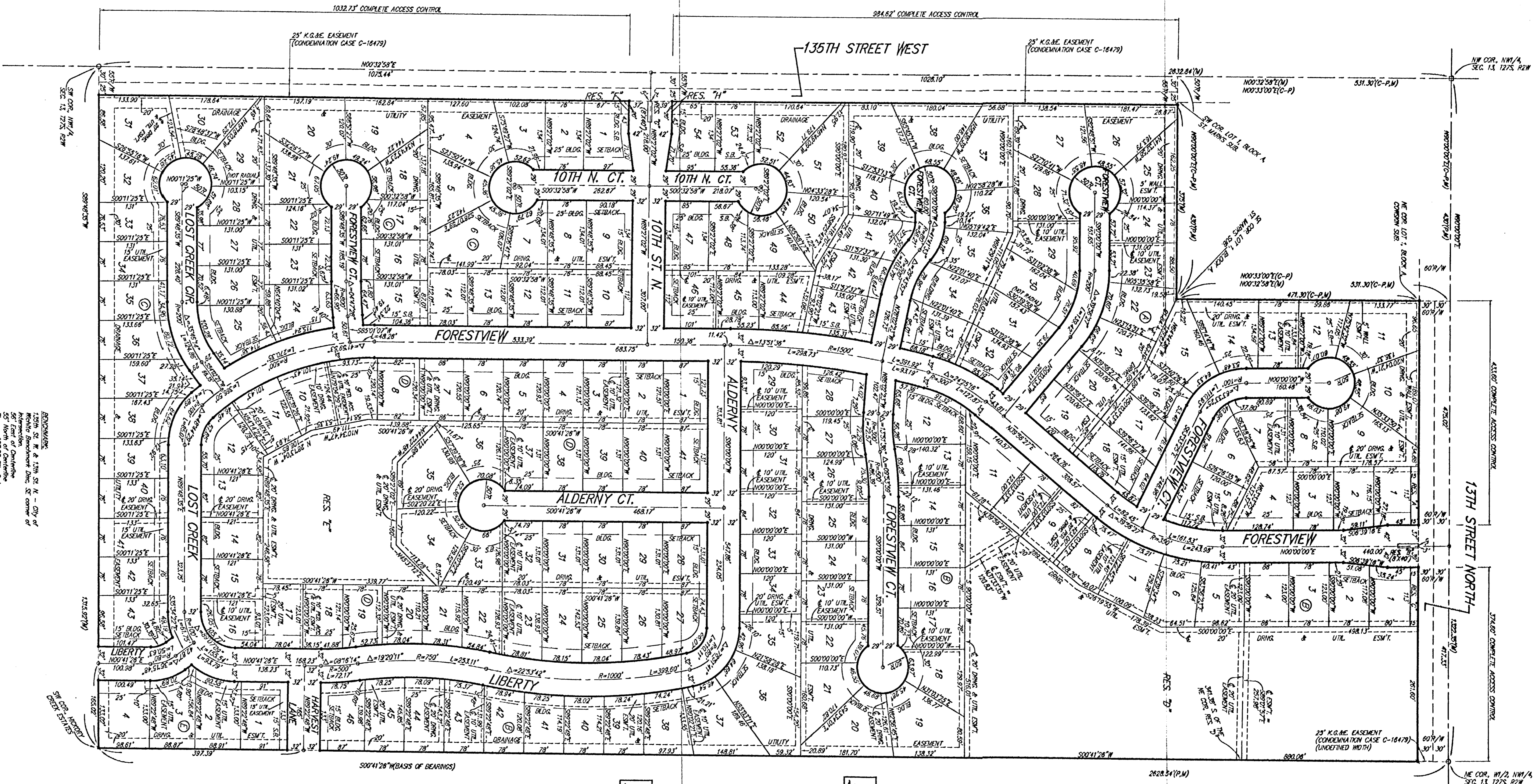
**BAUGHMAN COMPANY P.A.**  
ENGINEERING, SURVEYING, & PLANNING  
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER <b>488-83628</b>		SHEET <b>11</b>	
DESIGN STAFF	DRAWN STAFF	APPROVED	DATE 1/22/03
		SCALE NONE	OF <b>13</b>

L. Decius, Manager

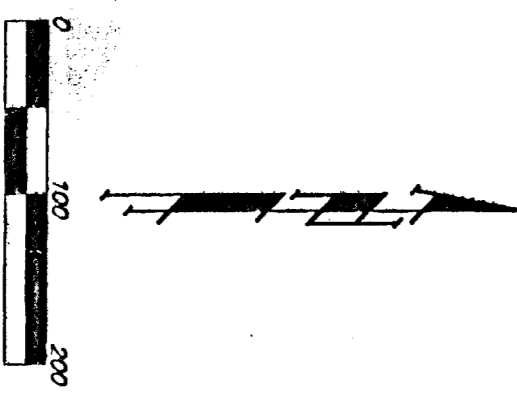


# LIBERTY PARK AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS



NOTE: The platting of this plat has been approved by the Sedgewick County Board of Commissioners, Wichita, Kansas, on this \_\_\_\_\_ day of \_\_\_\_\_, 2002. The platting of this plat is subject to the approval of the City Council of the City of Wichita, Kansas, on this \_\_\_\_\_ day of \_\_\_\_\_, 2002. The platting of this plat is subject to the approval of the Sedgewick County Board of Commissioners, Wichita, Kansas, on this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

MINIMUM BUILDING FOOTPRINTS FOR LOT	MINIMUM BUILDING FOOTPRINTS FOR BLOCK	MINIMUM BUILDING FOOTPRINTS FOR CITY BLOCK
1-10	B	56x5
6-22, 33-35	D	56x5



State of Kansas) SS We, Baughman Company, P.A., Surveyors in  
Sedgewick County) and state do hereby certify that we have surveyed and  
platted "LIBERTY PARK", an addition to Wichita, Sedgewick County, Kansas  
and that the accompanying plat is a true and correct exhibit of the property  
surveyed, described as the NW/2 of the NW/4 of Sec. 13, Tp. 27-S,  
R-2-W of the 6th P.M., Sedgewick County, Kansas, EXCEPT that part platted  
as Conklin Sub., Sedgewick County, Kansas, and EXCEPT that part platted  
as St. Marks Sub., Sedgewick County, Kansas, all being subject to road rights-  
of-way of record.  
Existing public easements and dedications  
being recited by virtue of K.S.A. 12-512(b).  
Baughman Company, P.A.

Michael D. Conroy  
Michael G. Conroy  
2002 Surveyor

Know all men by these presents that we, the undersigned, have caused the land in the surveyors certificate to be platted into Lots, Blocks, Streets, and Reserves, to be known as LIBERTY PARK, an addition to Wichita, Sedgewick County, Kansas. The utility easements are hereby granted as indicated for the construction and maintenance of all public utilities. The drainage and utility easements are hereby granted as indicated for drainage purposes and for the construction and maintenance of all public utilities. The drainage easements are hereby granted as indicated for drainage purposes. The drainage and pedestrian access easement is hereby granted as indicated for drainage purposes and for pedestrian access to or from Reserve "D" and no fences or other obstructions shall be constructed or placed on or within this easement. The utility and pedestrian access easements are hereby granted as indicated for the construction and maintenance of all public utilities and for pedestrian access to or from Reserve "E" and no fences or other obstructions shall be constructed or placed on or within these easements. The wall easements are hereby granted as indicated for the construction and maintenance of a private screening wall and utility main lines and service lines shall be allowed to cross these easements. The streets are hereby dedicated to and for the use of the public. Reserves "A", "C", "F", and "H" are reserved for entry monuments, landscaping, open space, berms, drainage purposes, and utilities. Reserves "B" and "G" are reserved for entry monuments, sheets, landscaping, open space, drainage purposes, and utilities. Reserves "D" and "E" are reserved for landscaping, lakes, open space, berms, drainage purposes, and utilities as confirmed to easements. Reserves "A", "B", "C", "D", "E", "F", "G", and "H", will be owned and maintained by the homeowners association for the addition. Access easements shall be as depicted on the face of the plat and are hereby granted to the City of Wichita, Kansas. The minimum Building Foot Elevation for the lowest opening to the structures shall be as indicated on the face of the plat.  
Kelsey Investments, Inc.

Paul E. Kelsey  
Paul E. Kelsey  
President

State of Kansas) SS The foregoing instrument acknowledged before  
Sedgewick County) me, this \_\_\_\_\_ day of September, 2002, by Paul E. Kelsey, President of  
Kelsey Investments, Inc., on behalf of the corporation.  
My App't. Exp. 11/1/04  
DANA M. DECKER, Notary Public

DANA M. DECKER  
DANA M. DECKER  
SVP

State of Kansas) SS The foregoing instrument acknowledged before  
Sedgewick County) me, this \_\_\_\_\_ day of September, 2002, by David E. Vasegar,  
SVP of Legacy Bank, on behalf of the bank.  
My App't. Exp. 11/1/04  
DANA M. DECKER, Notary Public

Legacy Bank  
David E. Vasegar  
SVP

This plat of "LIBERTY PARK", an addition to  
Wichita, Sedgewick County, Kansas has been submitted to and approved by  
the Wichita-Sedgewick County Metropolitan Area Planning Commission,  
Wichita, Kansas.  
Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2002.  
Wichita-Sedgewick County Metropolitan Area Planning Commission

This plat approved and all dedications  
shown hereon accepted by the City Council of the City of Wichita,  
Kansas, this \_\_\_\_\_ day of \_\_\_\_\_, 2002.  
At the direction of the City Council

Chris Orzeches  
City Manager

Pat Burnett  
City Clerk

Reviewed in accordance with K.S.A. 58-2005  
on this \_\_\_\_\_ day of \_\_\_\_\_, 2002.  
Tina L. Robella, L.S. #1246  
Deputy County Surveyor  
Sedgewick County, Kansas

Entered on transfer record this \_\_\_\_\_ day  
of \_\_\_\_\_, 2002.  
Don Brasse  
County Clerk

State of Kansas) SS This is to certify that this plat has been  
Sedgewick County) filed for record in the office of the Register of Deeds this \_\_\_\_\_ day  
of \_\_\_\_\_, 2002 at \_\_\_\_\_ o'clock \_\_\_\_\_ M., and is duly recorded.

Bill Meek  
Register of Deeds

Linda Kitzire  
Deputy

BAUGHMAN COMPANY, P.A.  
ENGINEERING SURVEYING & PLANNING  
2000 W. 13th St., Suite 100  
Wichita, Kansas 67202