

STORM WATER SEWER IMPROVEMENTS
TO SERVE

R & L CARPENTER 3RD ADDITION

Private Project Number
765 PPS (607861)

CITY OF WICHITA, KANSAS
Michael E. Lindebak, P.E. City Engineer

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:

Cablevision 262-4270
K.P.L. Gas Service Company 263-2081
Kansas Gas & Electric Company 263-7511
Arkia Gas Company 264-1141
or 942-8350
Southwestern Bell Telephone Company 263-8161
City of Wichita Water Department 1-571-2611
City of Wichita Sewer Maintenance 268-4908
268-4071

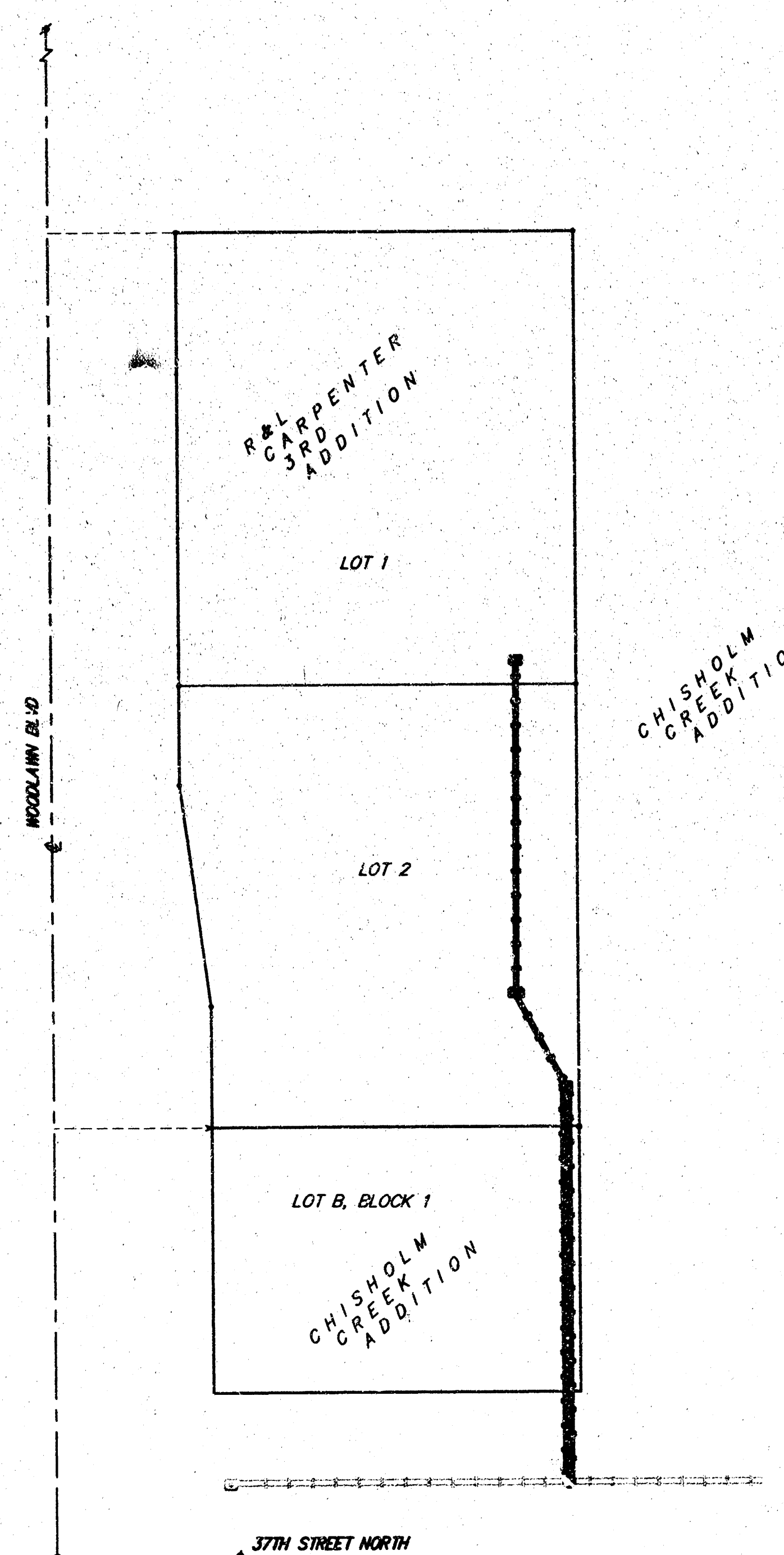
2. Underground utility service lines and overhead utility pole lines are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
3. Contractor shall not start work on the project until the project inspector is assigned to the project and is present on the site. Any work done without inspection will be required to be uncovered for inspection.
4. All areas disturbed by construction operations shall be seeded with Kansas Premium Fescue Blend at the rate of 340 lbs./acre. Fertilizer (16-20-6) shall be applied at the rate of 170 lbs./acre.
5. The Contractor shall notify pipeline companies at least 24 hours in advance of any work being performed across and/or adjacent to pipelines.
6. 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.
7. 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.

BENCHMARK:

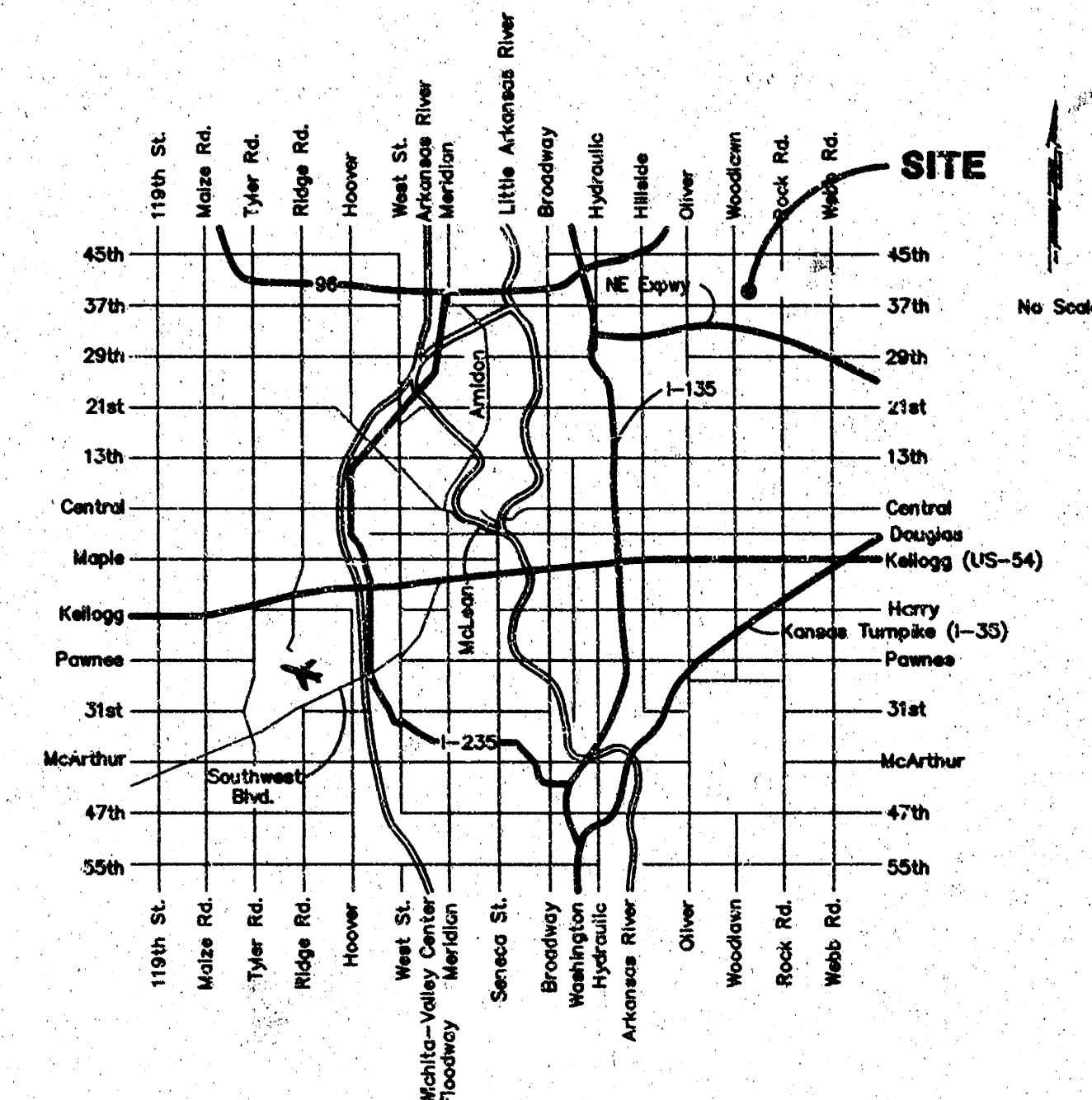
City of Wichita Benchmark Disc -
Southeast Corner Of The
Intersection of the E of Woodlawn
and the E of 37th St. North.
Elev. = 163.04 City Datum

INDEX:

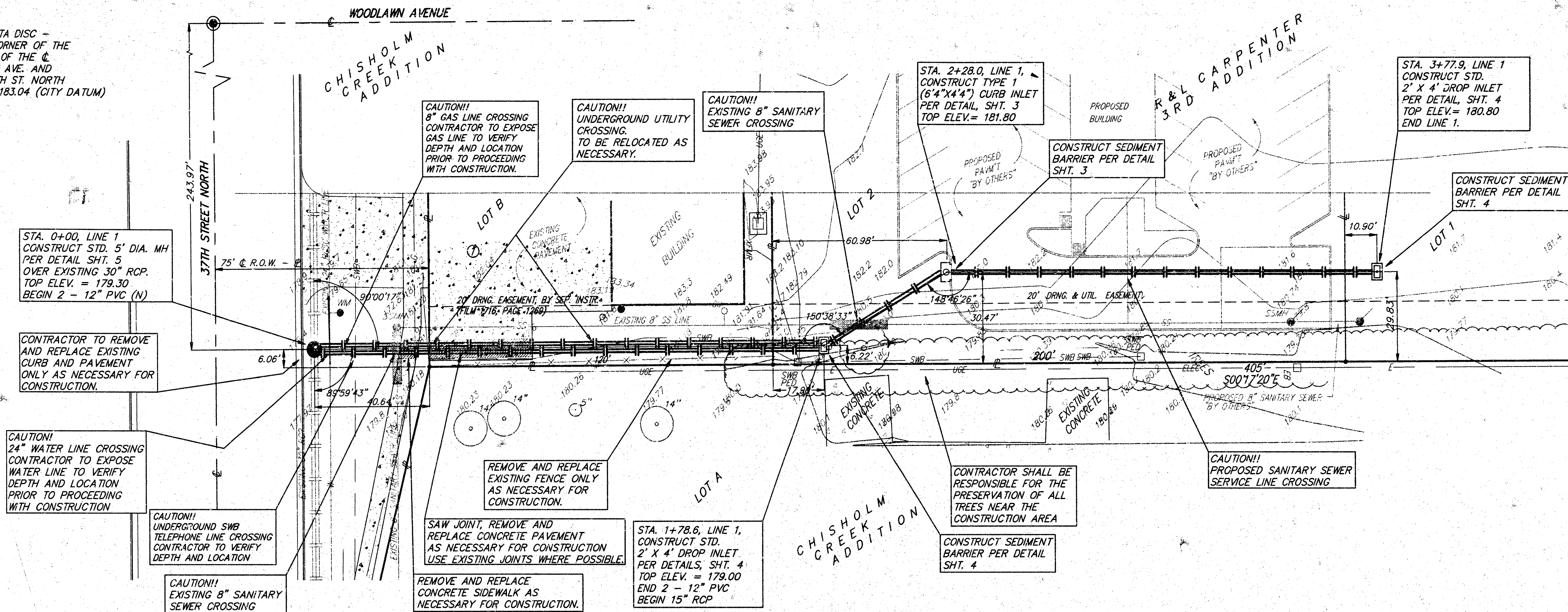
- 1 Title Sheet
2 SWS Line 1
3 Type 1 Curb Inlet Detail
4 Drop Inlet Detail
5 Std. Manhole Detail
6 MHI Frame and Cover Detail
7 Copy of Plat



SCALE:
1" = 60'
• = Iron

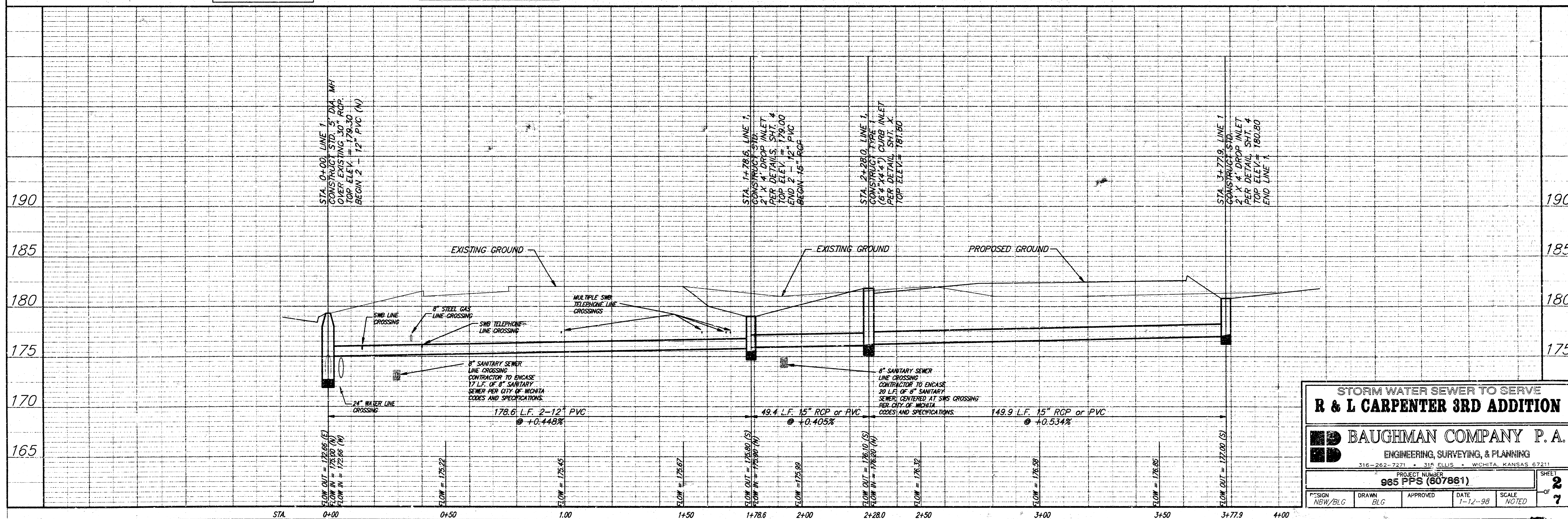


BENCHMARK:
CITY OF WICHITA DISC -
SOUTHEAST CORNER OF THE
INTERSECTION OF THE E.
OF WOODLAWN AVE. AND
THE E. OF 37TH ST. NORTH
ELEVATION = 183.04 (CITY DATUM)



SCALE:
1" = 20' HORIZONTAL
1" = 5' VERTICAL
• = IRON

REVISED 1-20-98



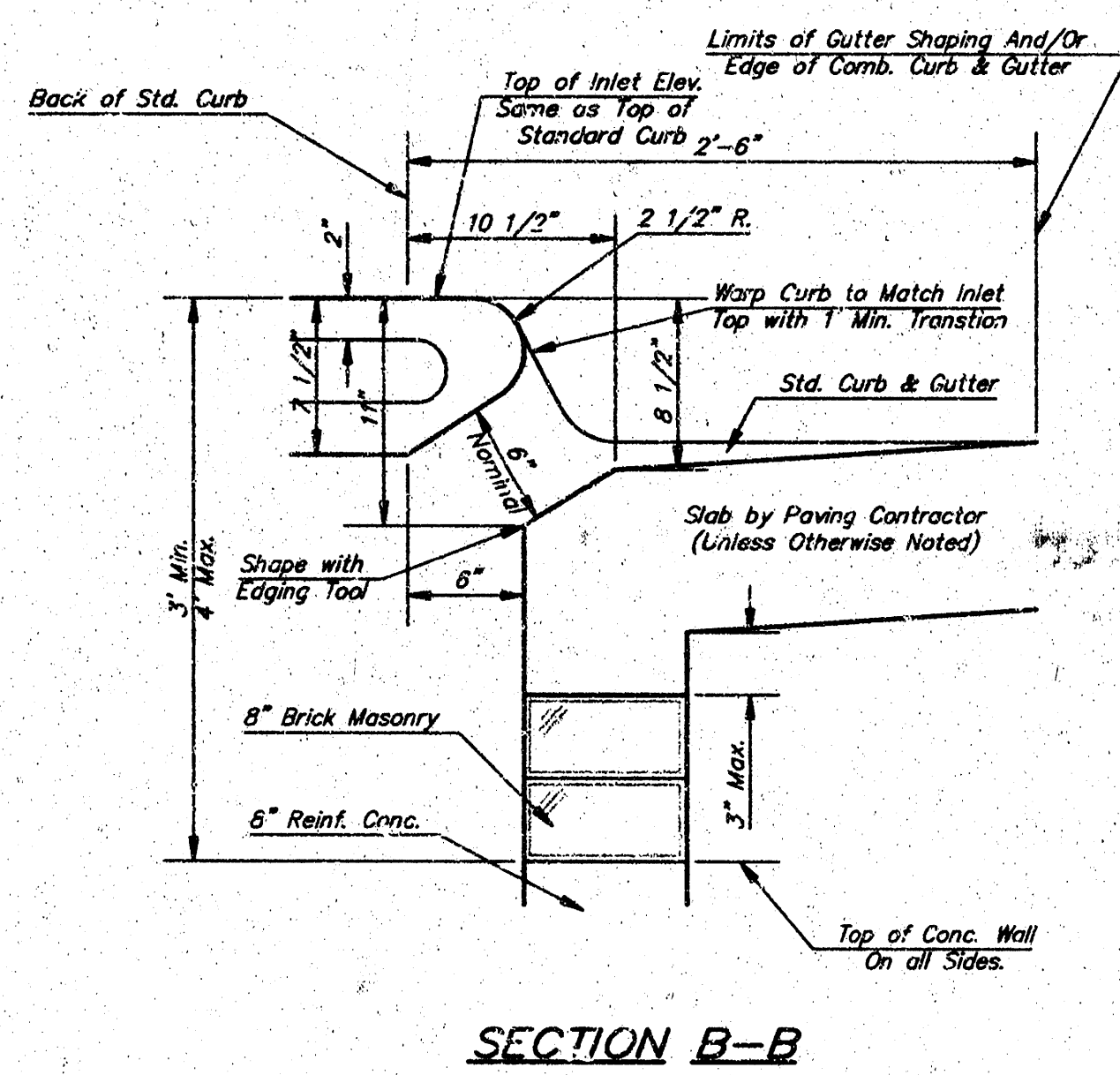
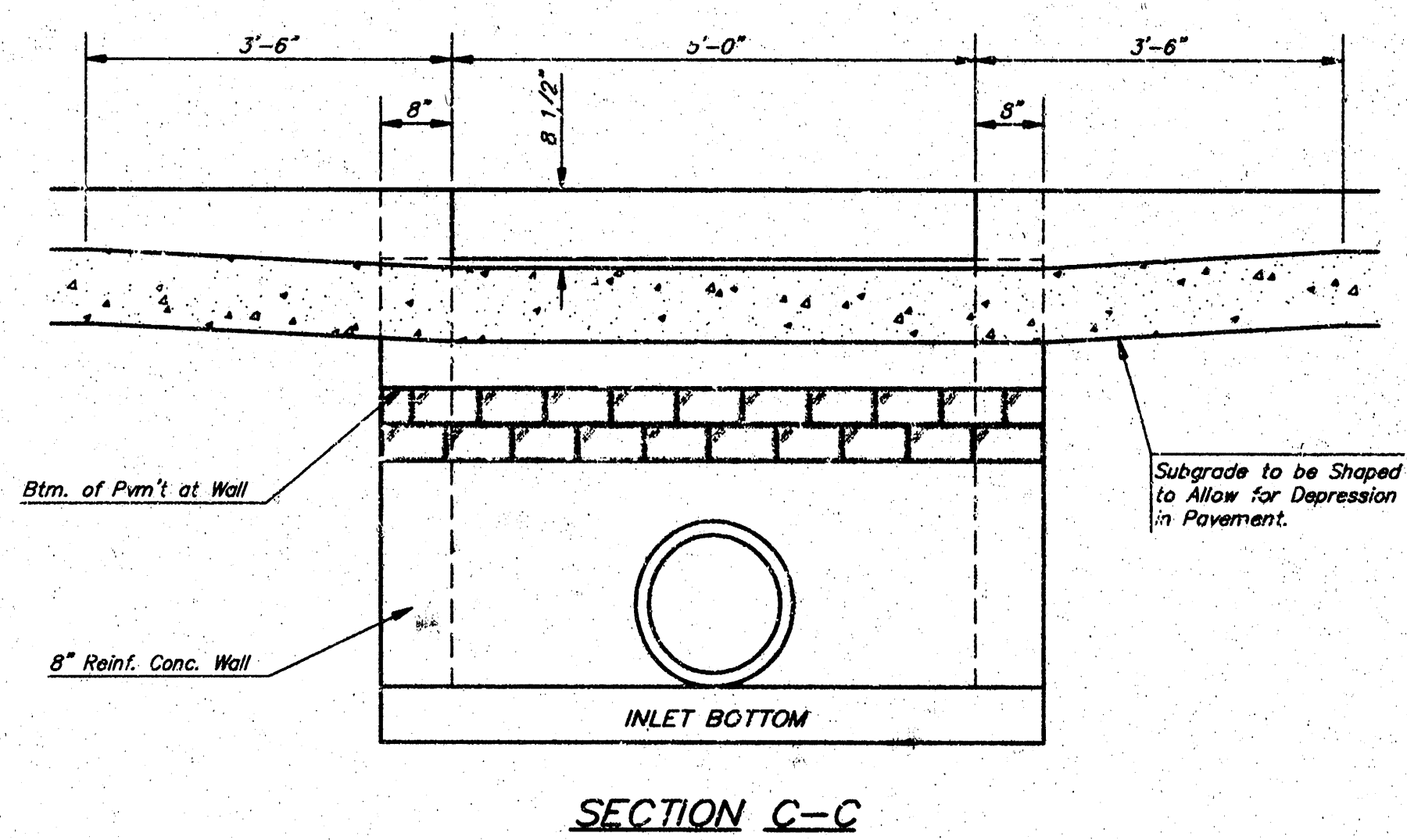
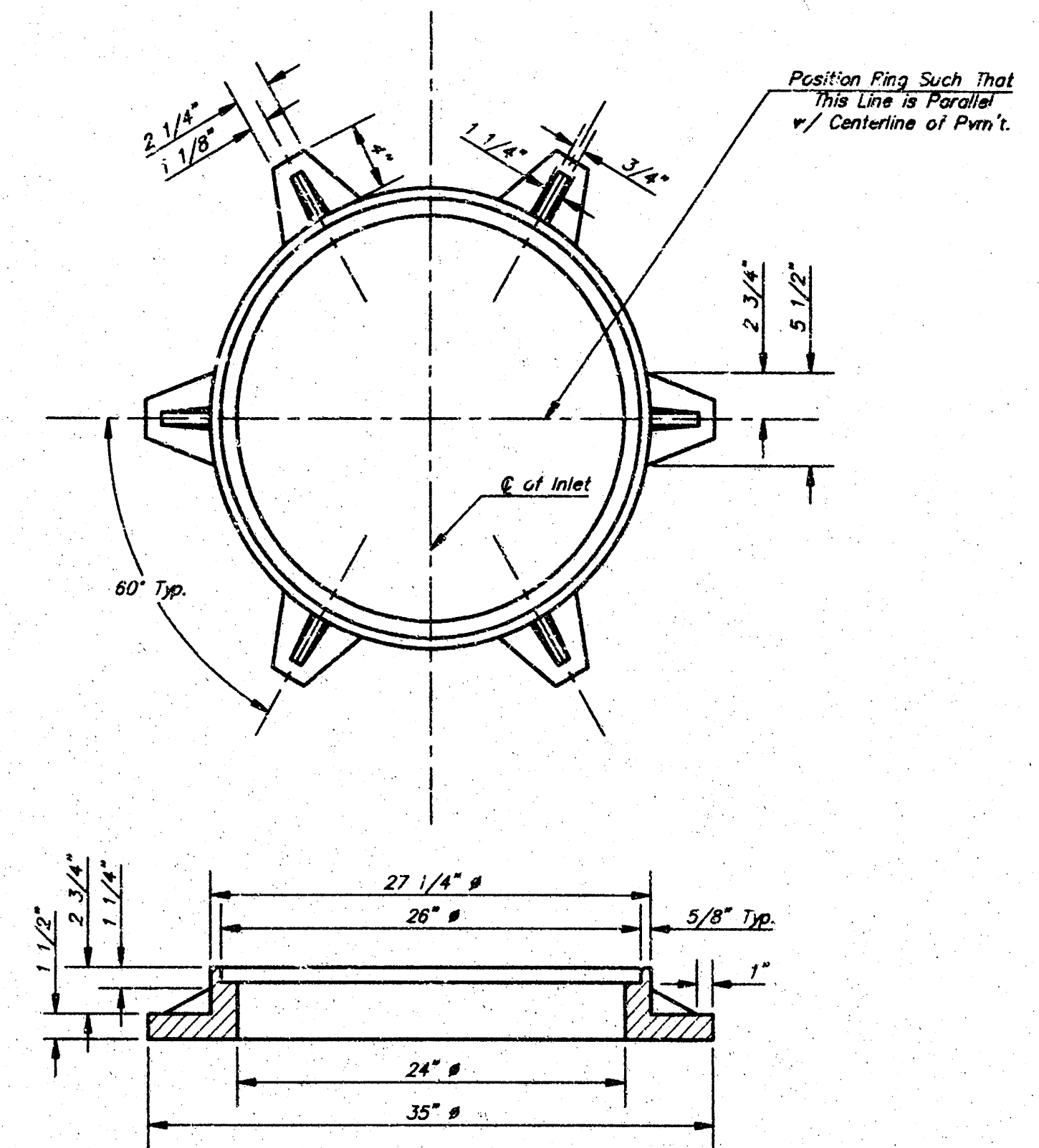
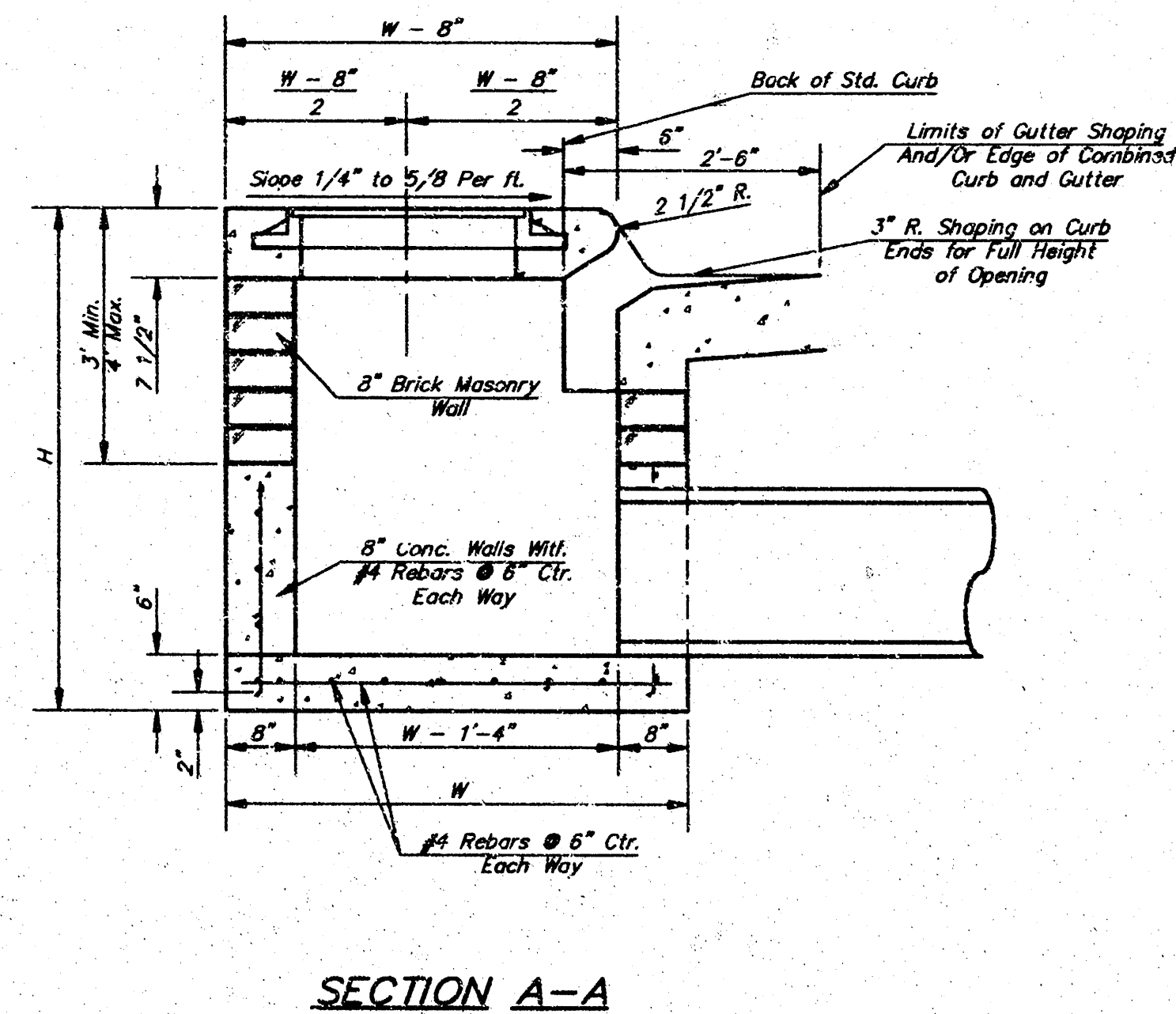
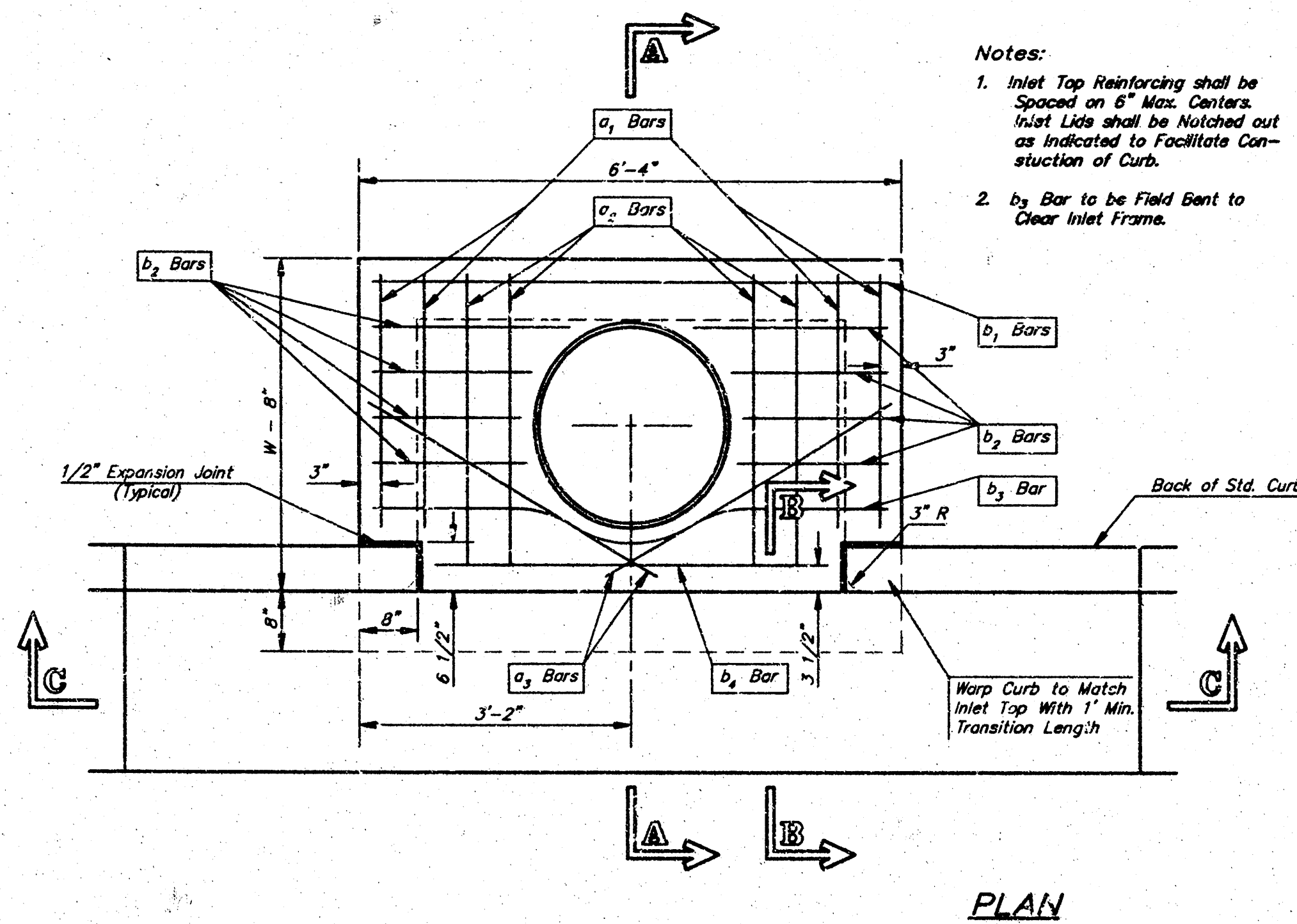
**STORM WATER SEWER TO SERVE
R & L CARPENTER 3RD ADDITION**

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-262-7271 • 317 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER
985 PPS (607861)

DESIGN: NEW/BLG DRAWN: BLG APPROVED: DATE: 1-12-98 SCALE: NOTED

SHEET
2
7

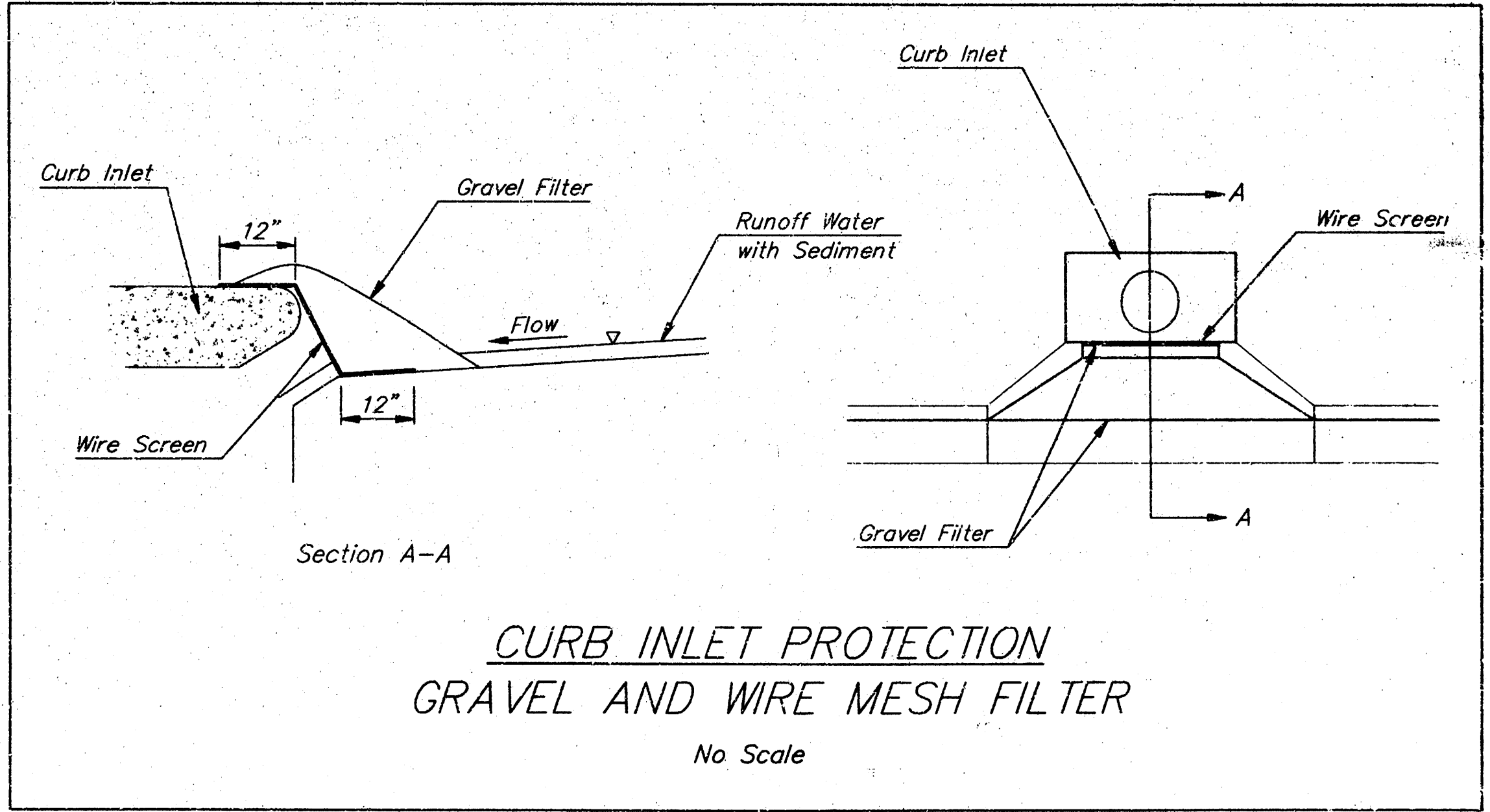
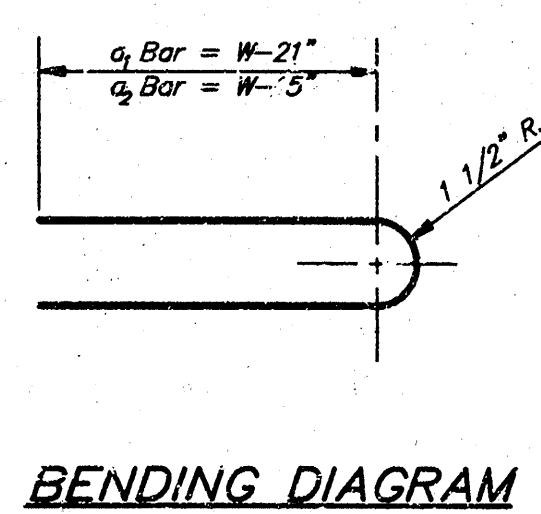


STEEL SCHEDULE

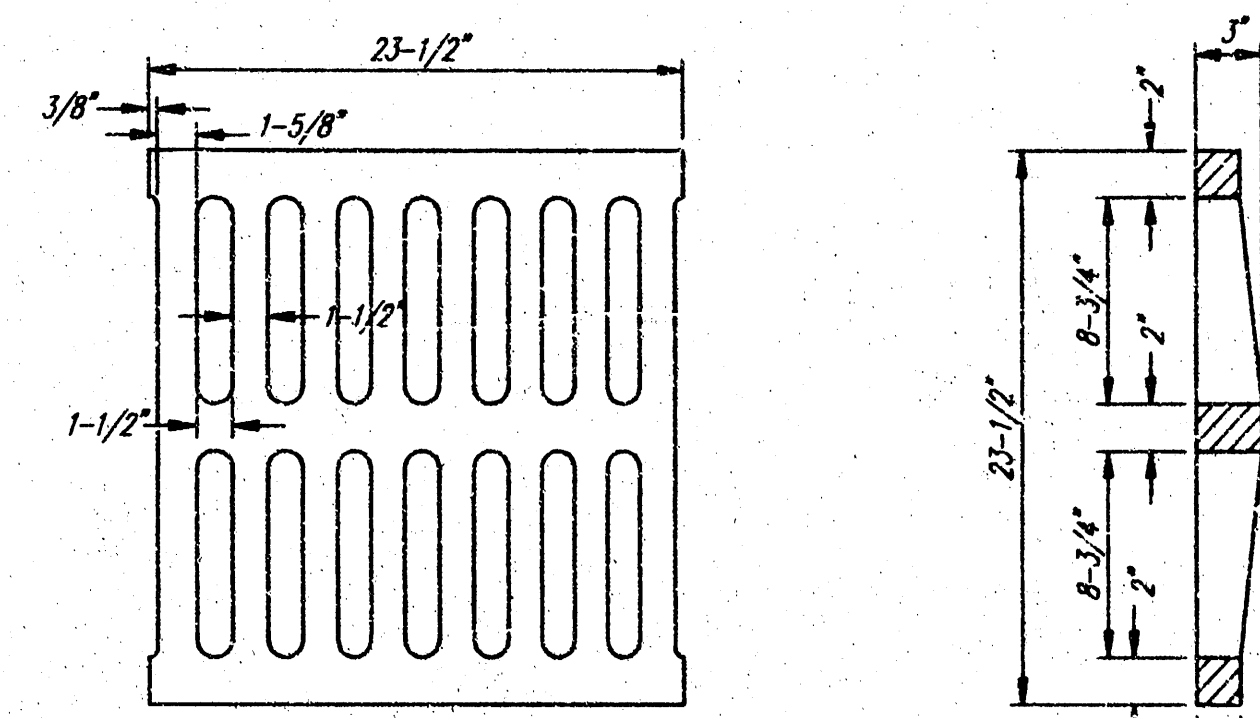
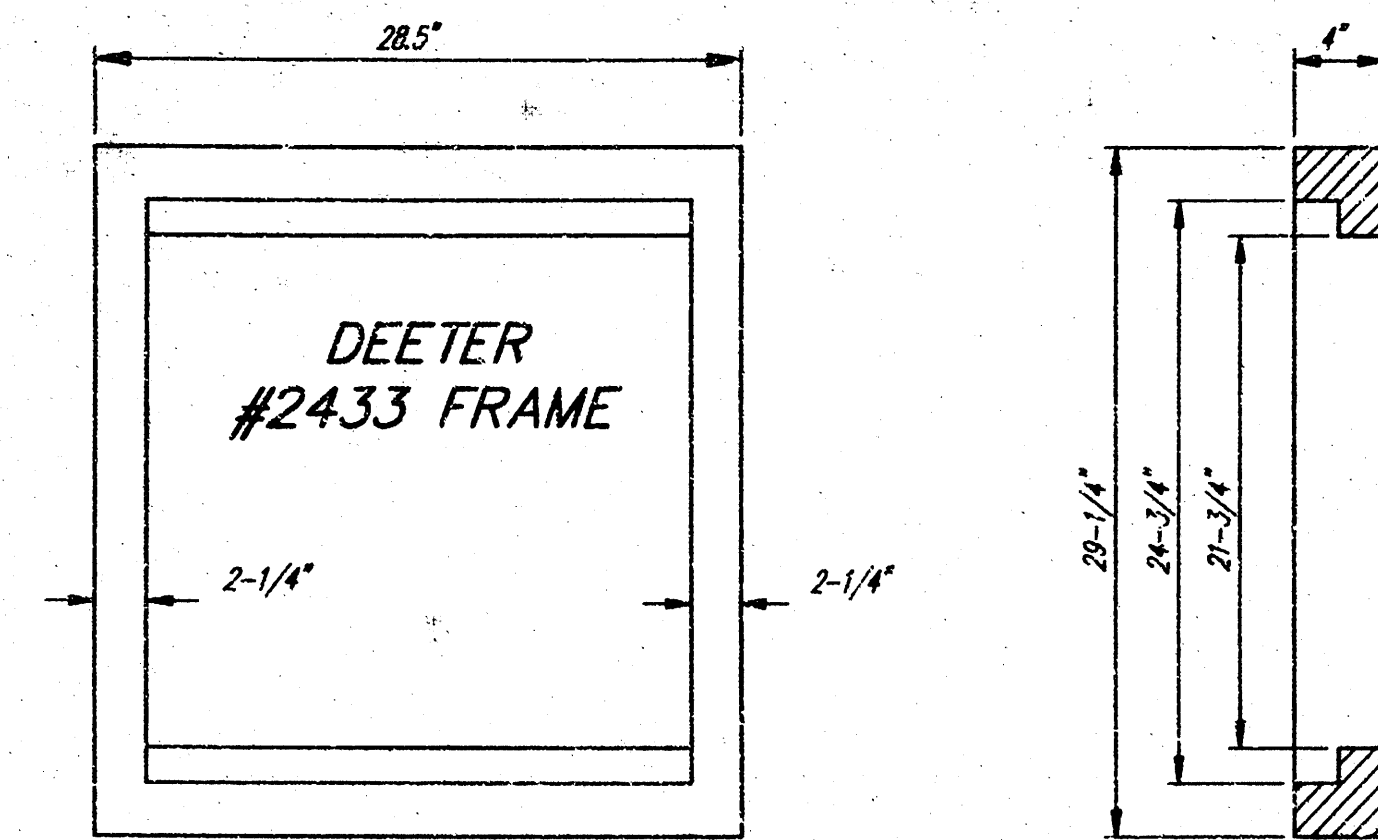
BAR	a ₁	a ₂	a ₃	a ₄	a ₅	a ₆	a ₇	a ₈	a ₉	a ₁₀	a ₁₁	a ₁₂	a ₁₃	a ₁₄	a ₁₅	a ₁₆	a ₁₇	a ₁₈	a ₁₉	a ₂₀	WT. Lbs.
NUMBER	4	4	2	1	3	5	7	9	6	1	1										
SIZE	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	
W=4'-4"	5'-7"	6'-7"	4'-0"	6'-1"	-	-	-	-	1'-9"	6'-2"	4'-8"	60±									
W=5'-4"	7'-7"	8'-7"	5'-0"	6'-1"	-	-	-	-	1'-9"	6'-2"	4'-8"	81±									
W=6'-4"	9'-7"	10'-7"	6'-0"	-	-	-	-	-	1'-9"	6'-2"	4'-8"	101±									
W=7'-4"	11'-7"	12'-7"	7'-0"	-	-	-	-	-	1'-9"	6'-2"	4'-8"	121±									
W=8'-4"	13'-7"	14'-7"	8'-0"	-	-	-	-	-	1'-9"	6'-2"	4'-8"	141±									

GENERAL NOTES

- Concrete taps to be installed on thin mortar cushion to insure full support along brick walls. Concrete taps may be cast in place or precast. Concrete used for inlet construction shall be concrete pavement mix.
- Contractor shall have the option of constructing 8" brick masonry walls between the concrete inlet base and top on this inlet when W=6'-4" and H=7'-0" or less.
- Inlet invert shall be shaped with 8 sack sand mix concrete to create flow channels and to increase hydraulic efficiency such that the inlet will be self cleaning between all inlet and/or outlet pipes.
- The ends of all pipes installed in inlets shall be cut off flush with the inside face of the inlet wall.
- This detail is identical to the standard detail drawing except that the gutter transition length is increased from 2'-0" to 3'-6".



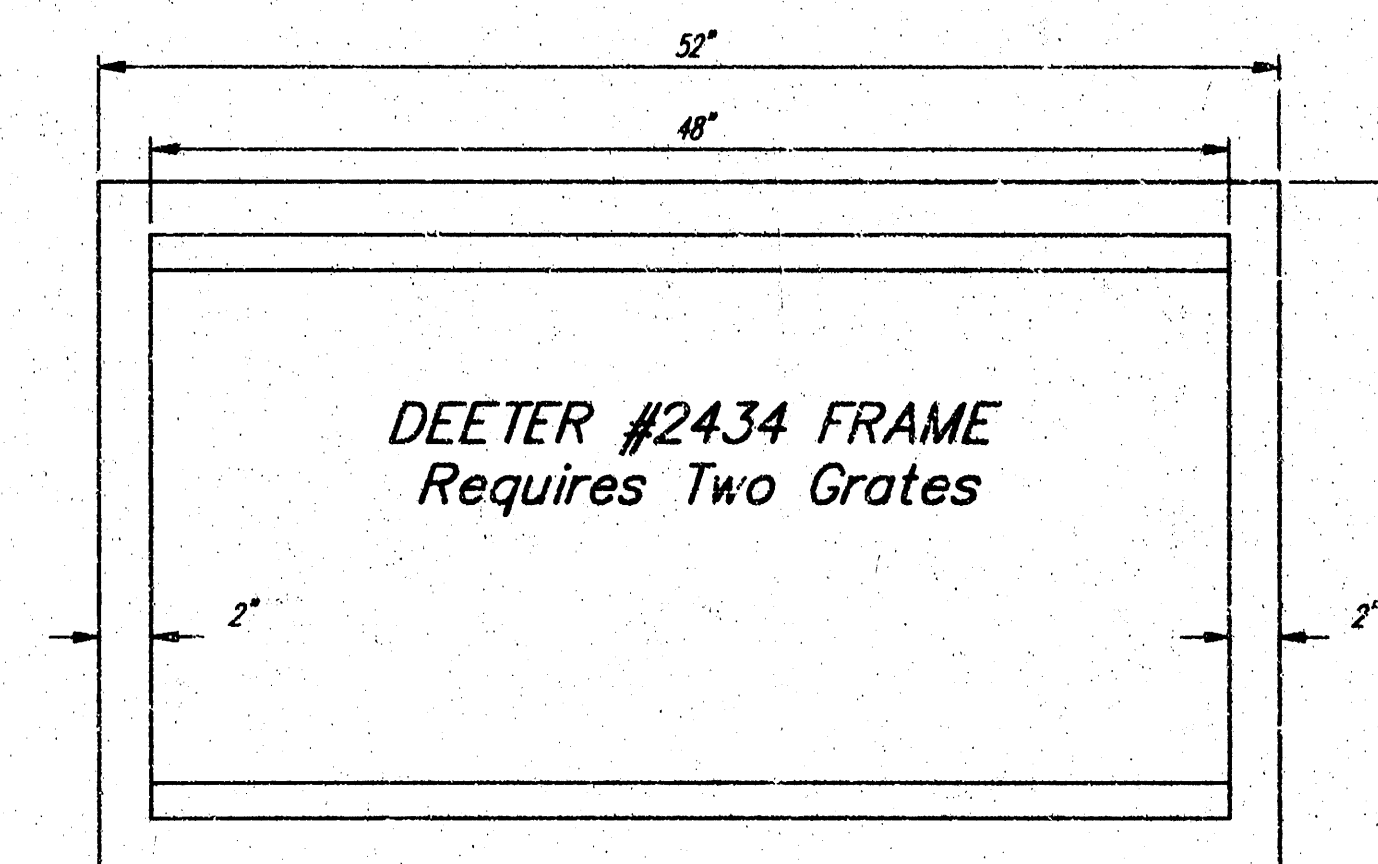
MODIFIED CURB INLET
TYPE 1 CURB INLET
BAUGHMAN COMPANY P. A.
 ENGINEERING, SURVEYING, & PLANNING
 318-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211
 PROJECT NUMBER **785 PPS (607861)**
 DESIGN T.C.R. DRAWN LANG APPROVED DATE JUNE 1997 SCALE NONE
 SHEET **3** OF **7**



DEETER #2433 GRATE

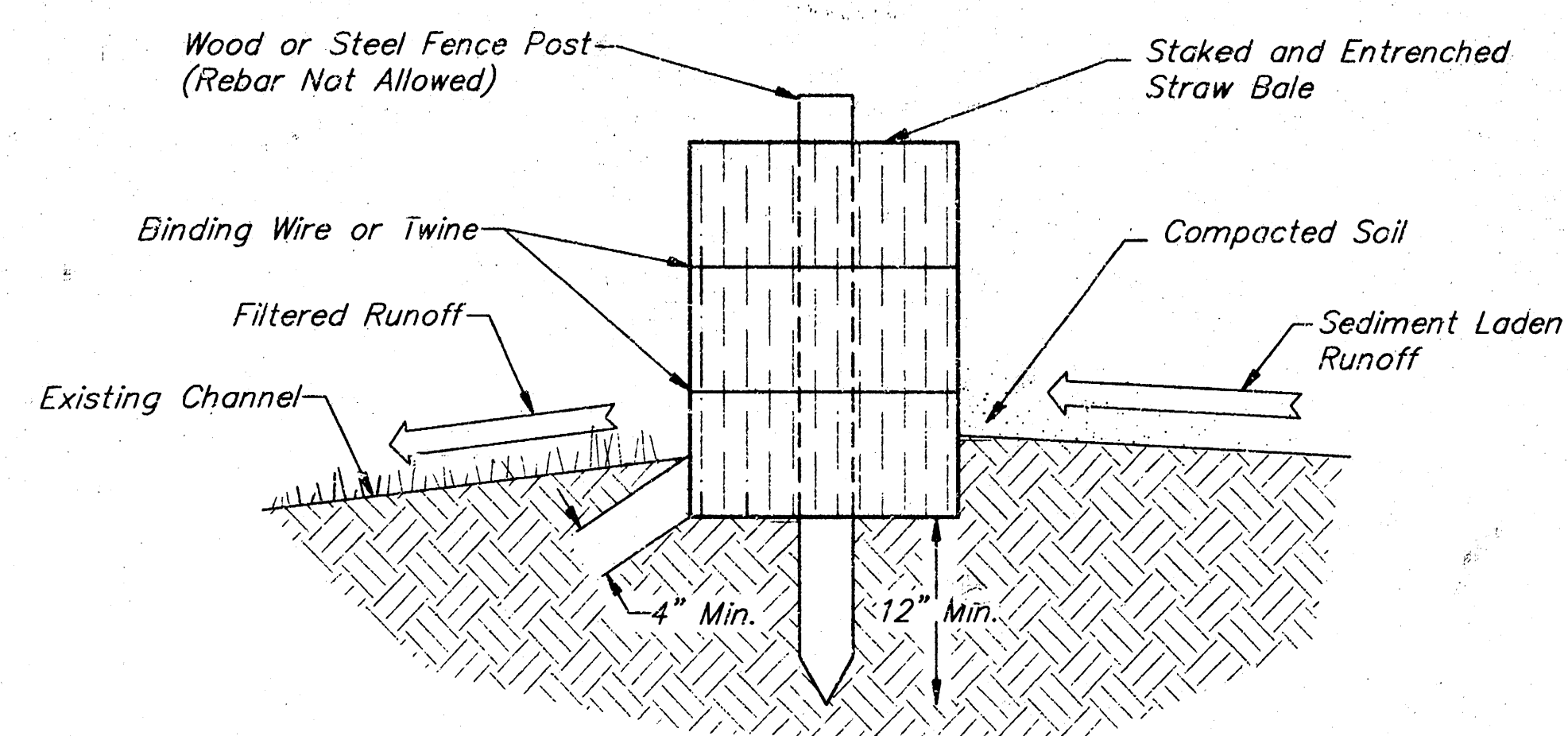
24" x 24" Frame and Grate Detail

NOTE: Grates shall be imprinted on the top surface with "CITY OF WICHITA" using letters at least 1" in height. Other marking methods may be approved by the engineer.

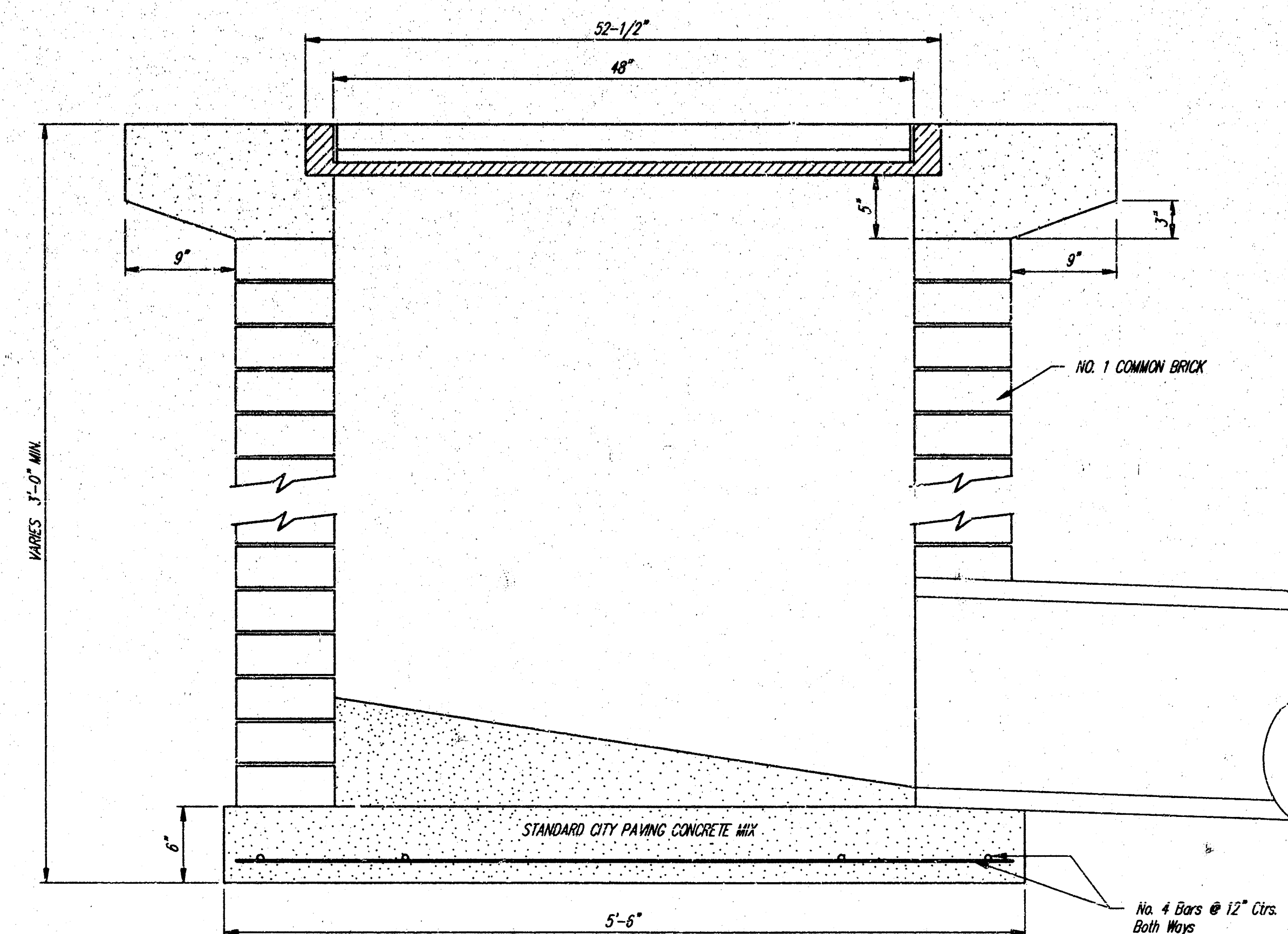
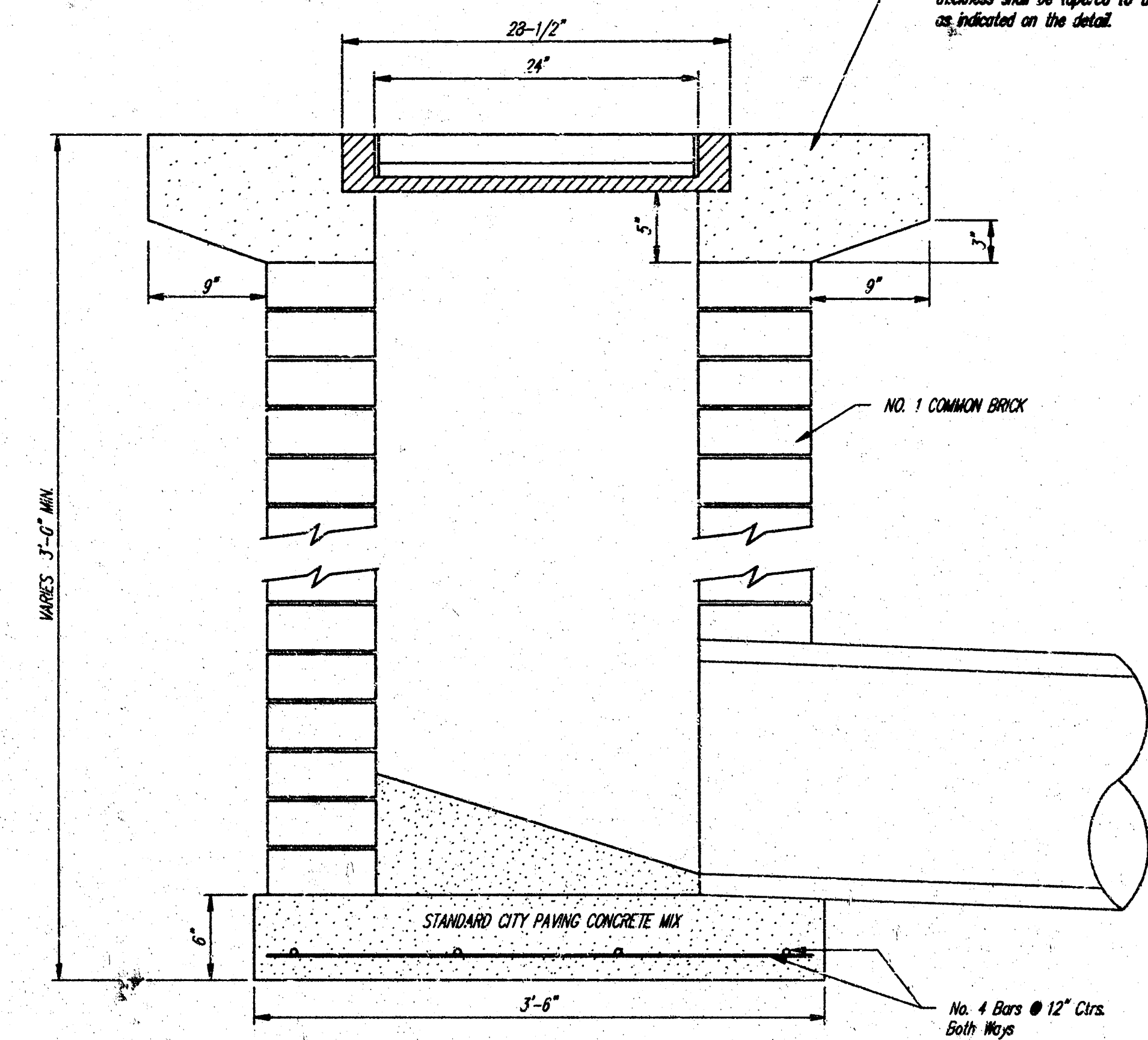
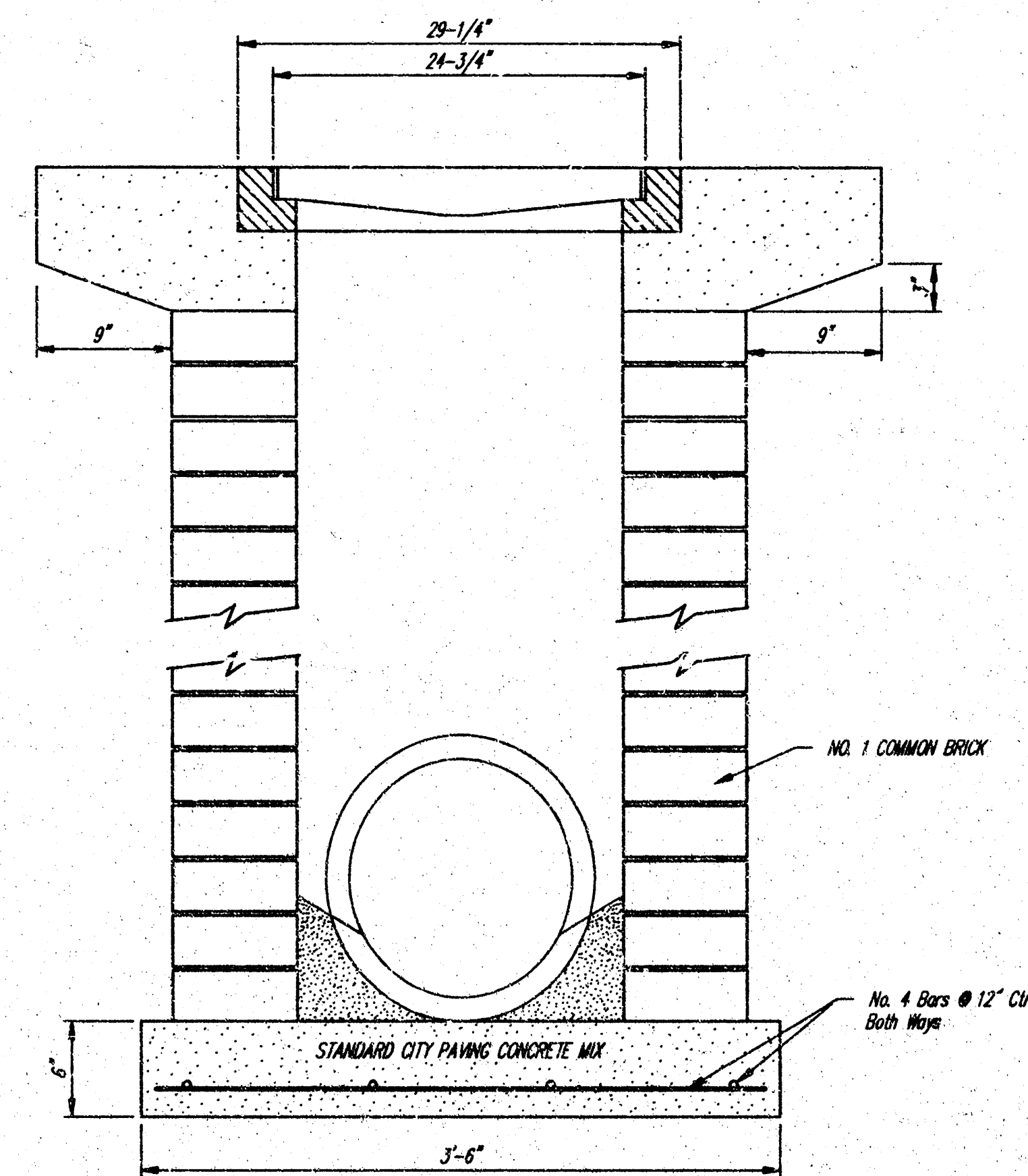


DEETER #2434 FRAME
Requires Two Grates

Double 24" x 24" Frame Detail

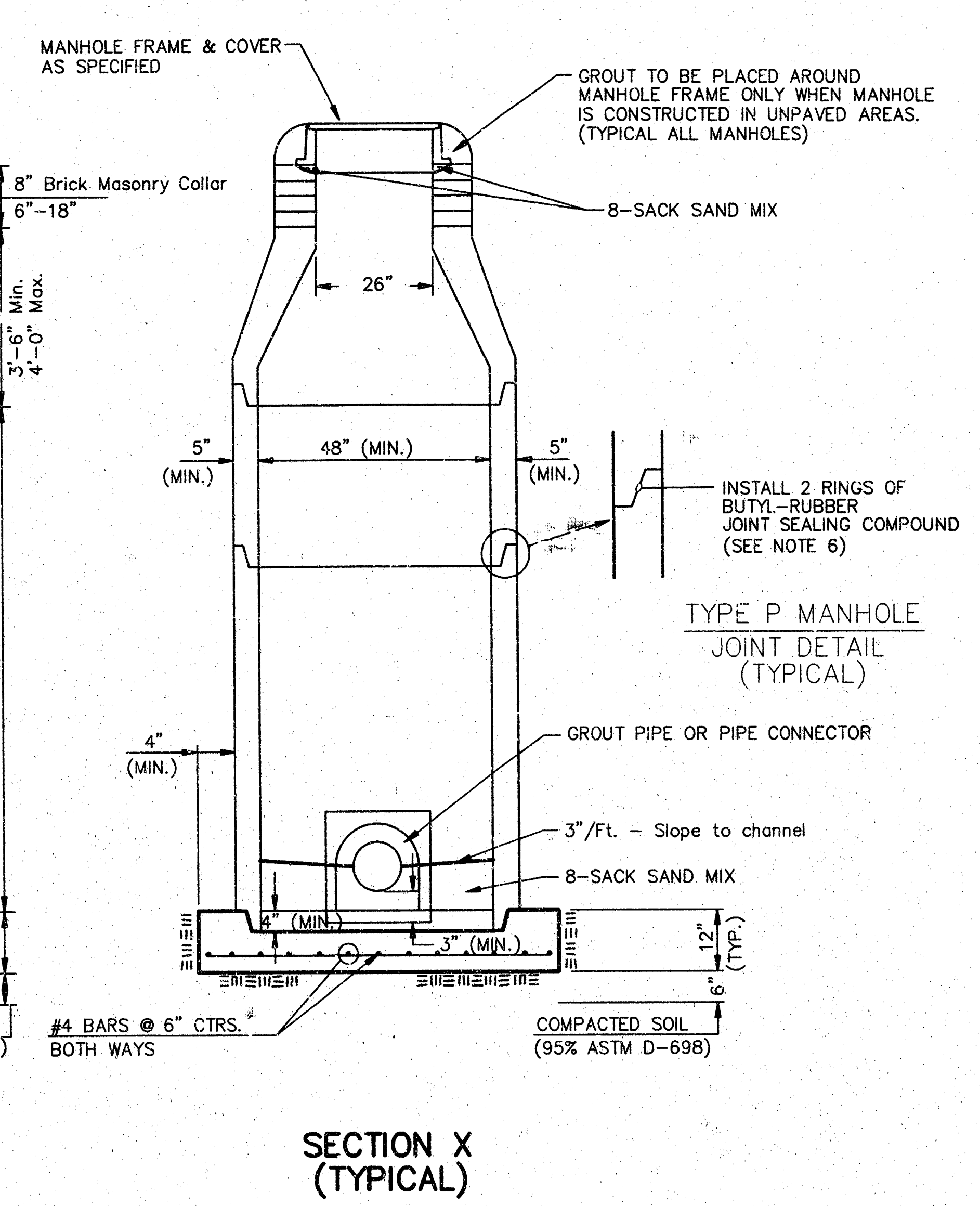
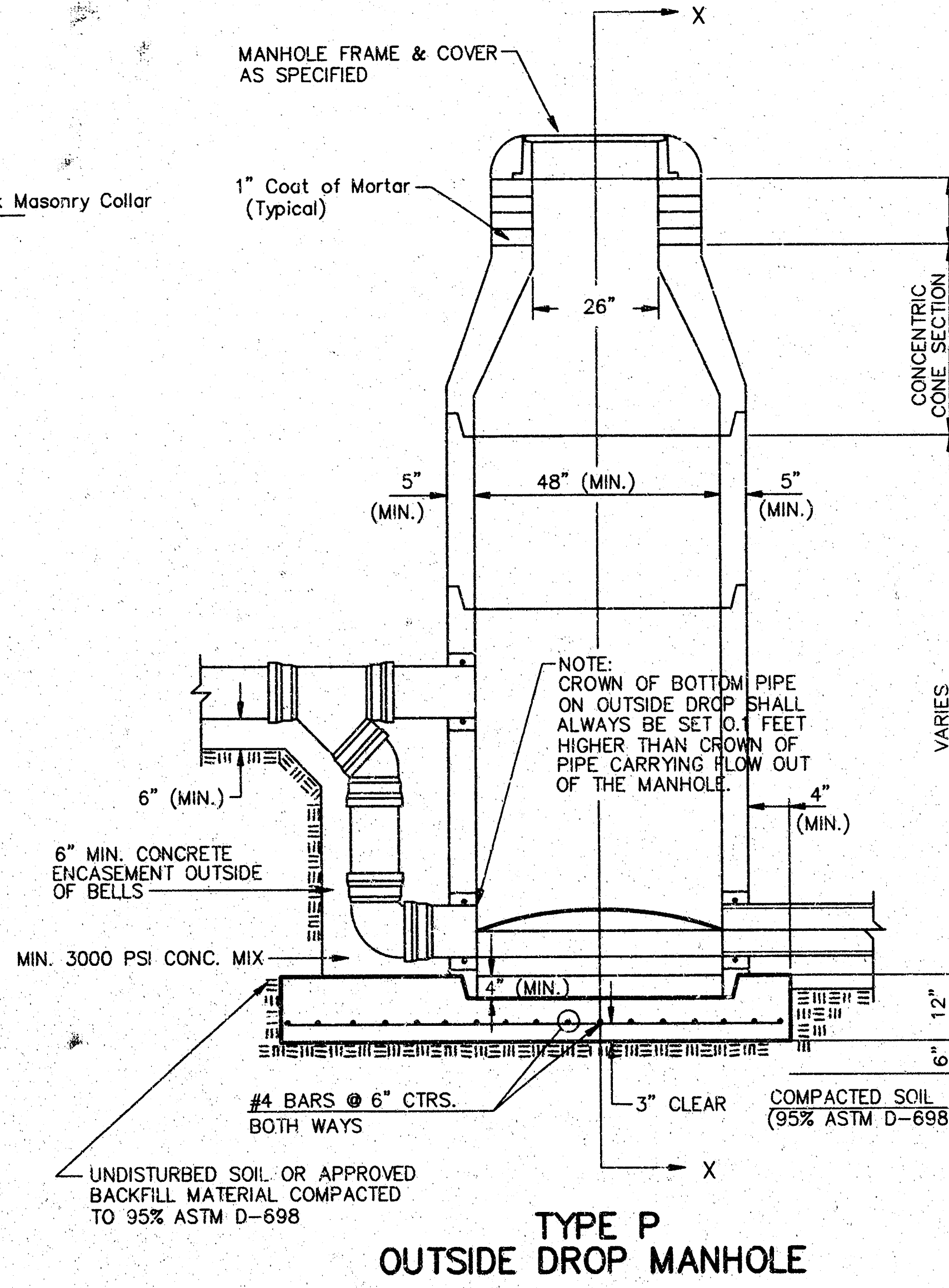
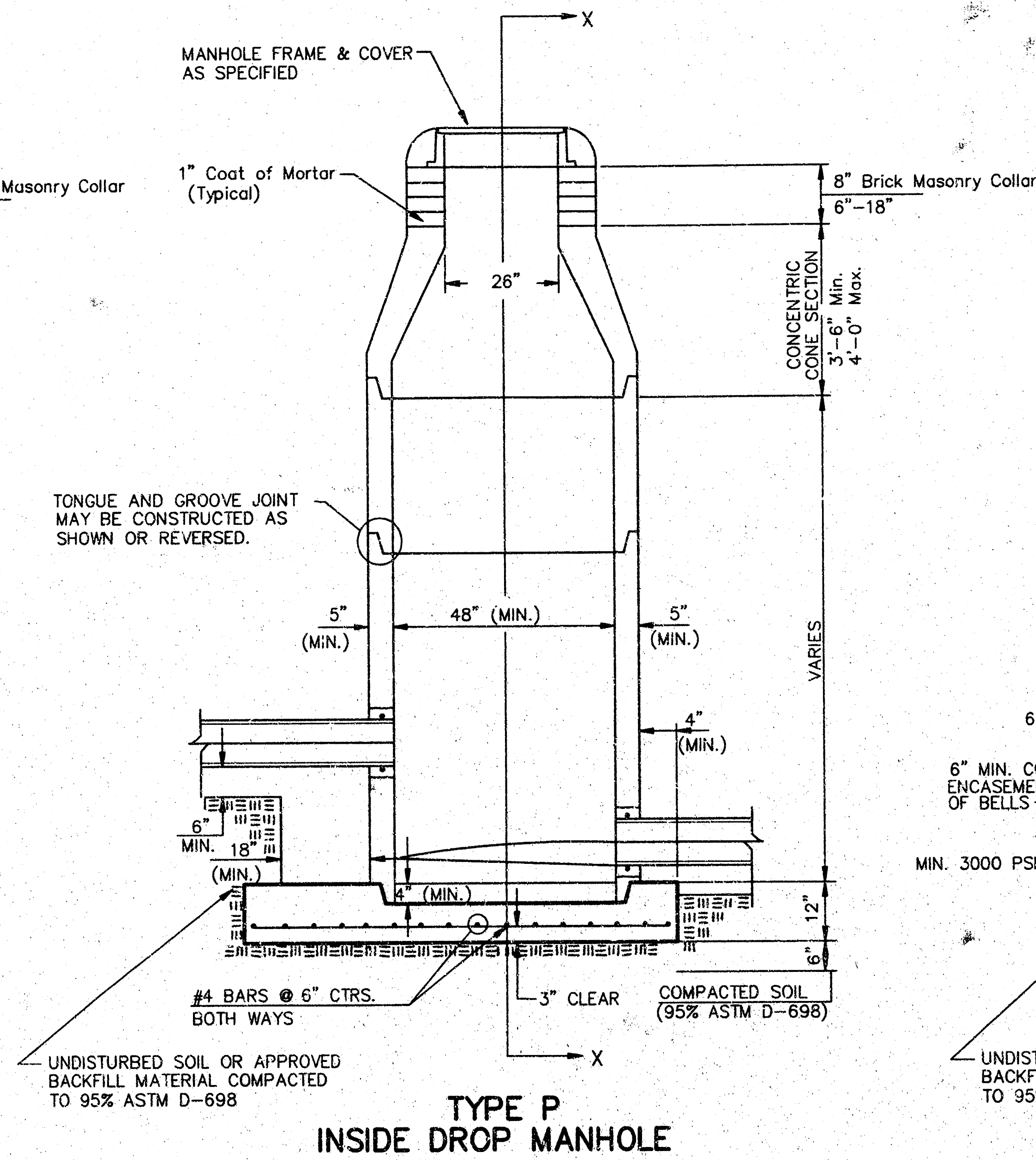
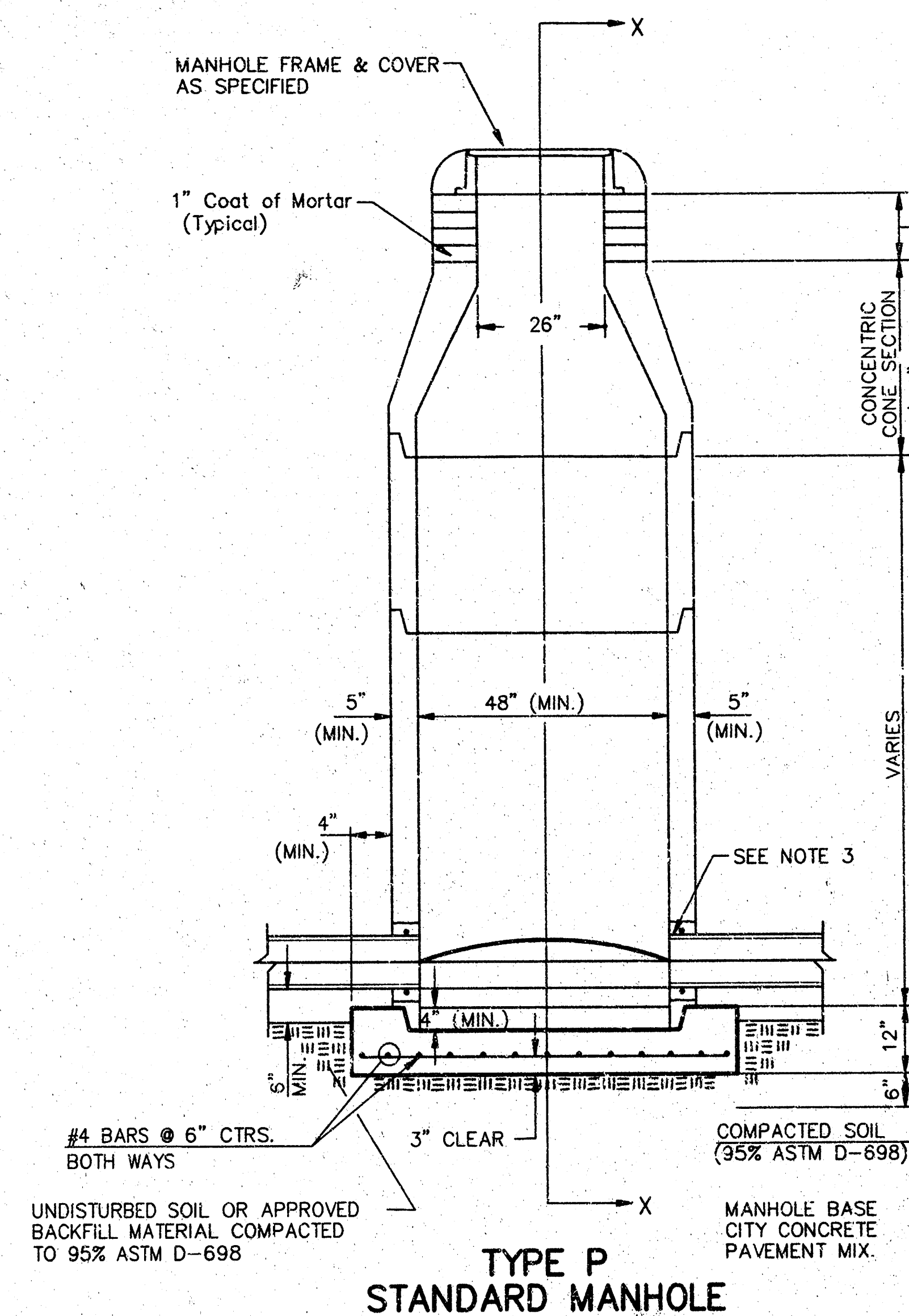


Straw Bale Barrier Detail
No Scale



City of Wichita Standard Drop Inlet					
BAUGHMAN COMPANY P. A. ENGINEERING, SURVEYING, & PLANNING 318-262-7271 • 318 ELLIS • WICHITA, KANSAS 67211					
PROJECT NUMBER 785 PPS (607861)					
DESIGN C.O.W.	DRAWN Staff	APPROVED	DATE 7-97	SCALE NONE	SHEET 4 OF 7

SEWER APPURTENANCES DETAILS



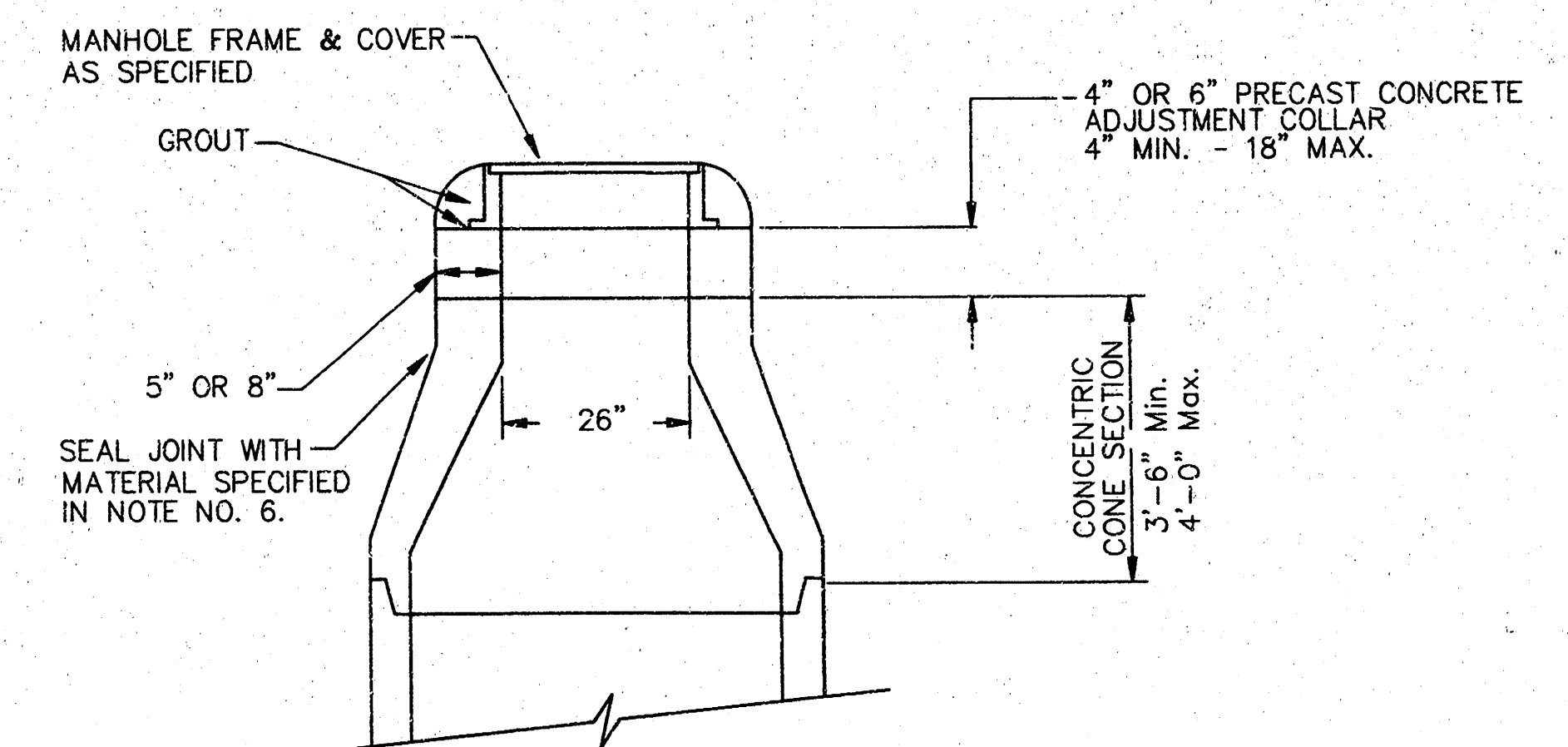
GENERAL NOTES

PRECAST MANHOLE NOTES

- ALL PRECAST CONCRETE 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 ENCASUREMENT 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 TNEC 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 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.

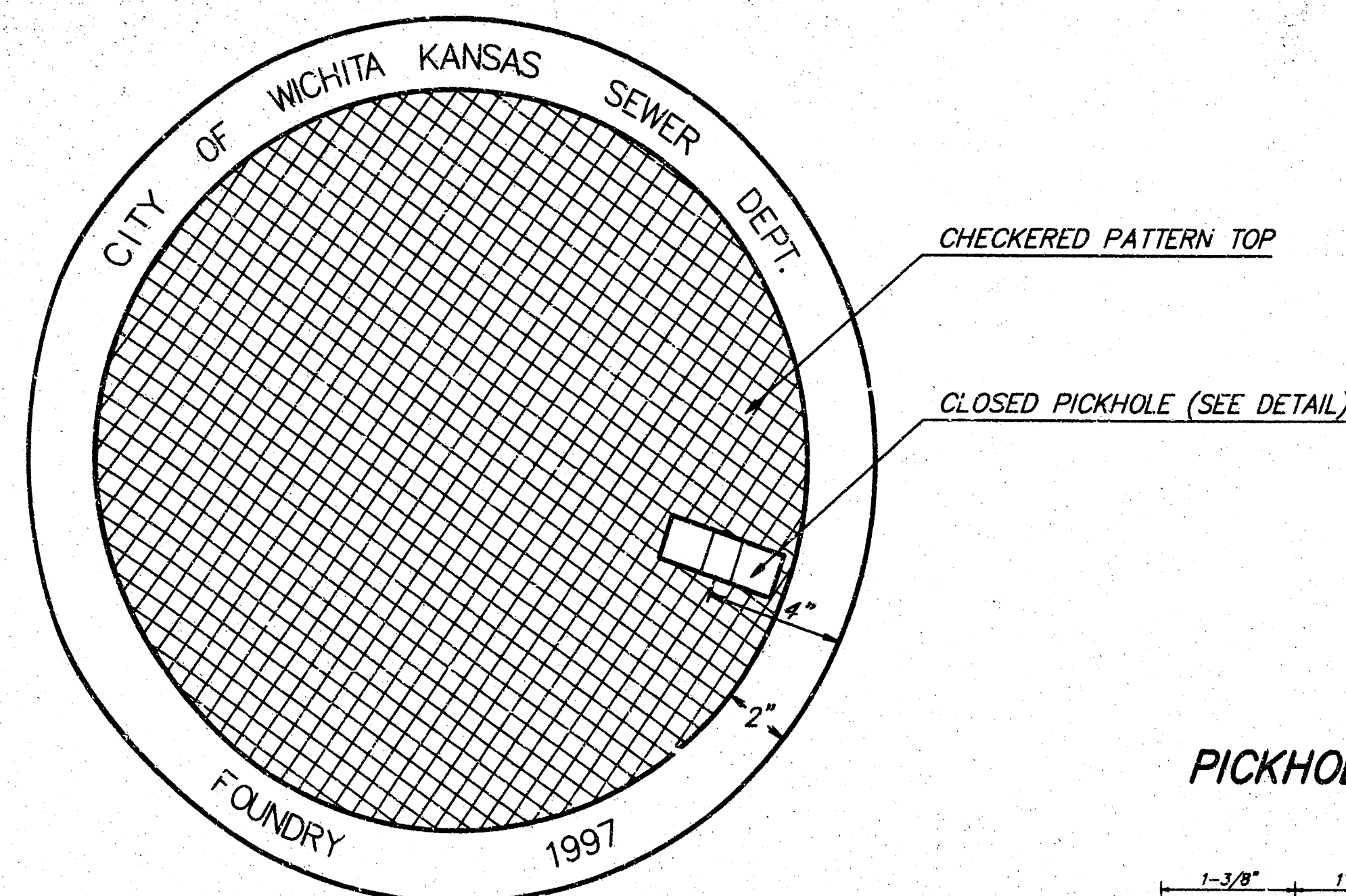
- REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED 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 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.

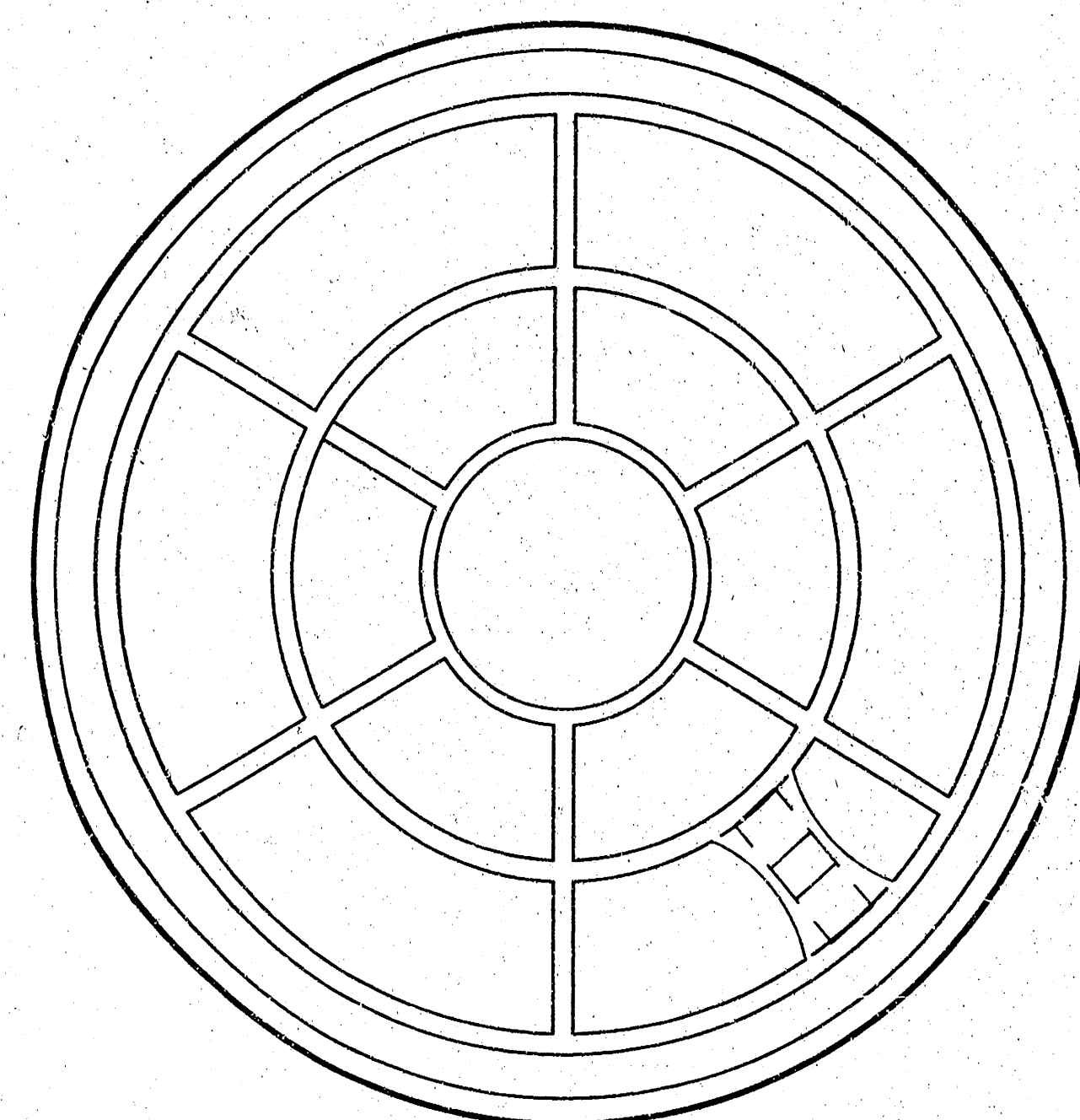


CITY OF WICHITA	
STD. MANHOLE DETAILS	
& SEWER APPURTENANCES DETAIL	
BAUGHMAN COMPANY P.A.	
ENGINEERING, SURVEYING, & PLANNING	
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211	
PROJECT NUMBER	
DESIGN	DRAWN
C.O.W.	Staff
APPROVED	DATE
SCALE	1"=1'-0"
SHEET 5 OF 7	

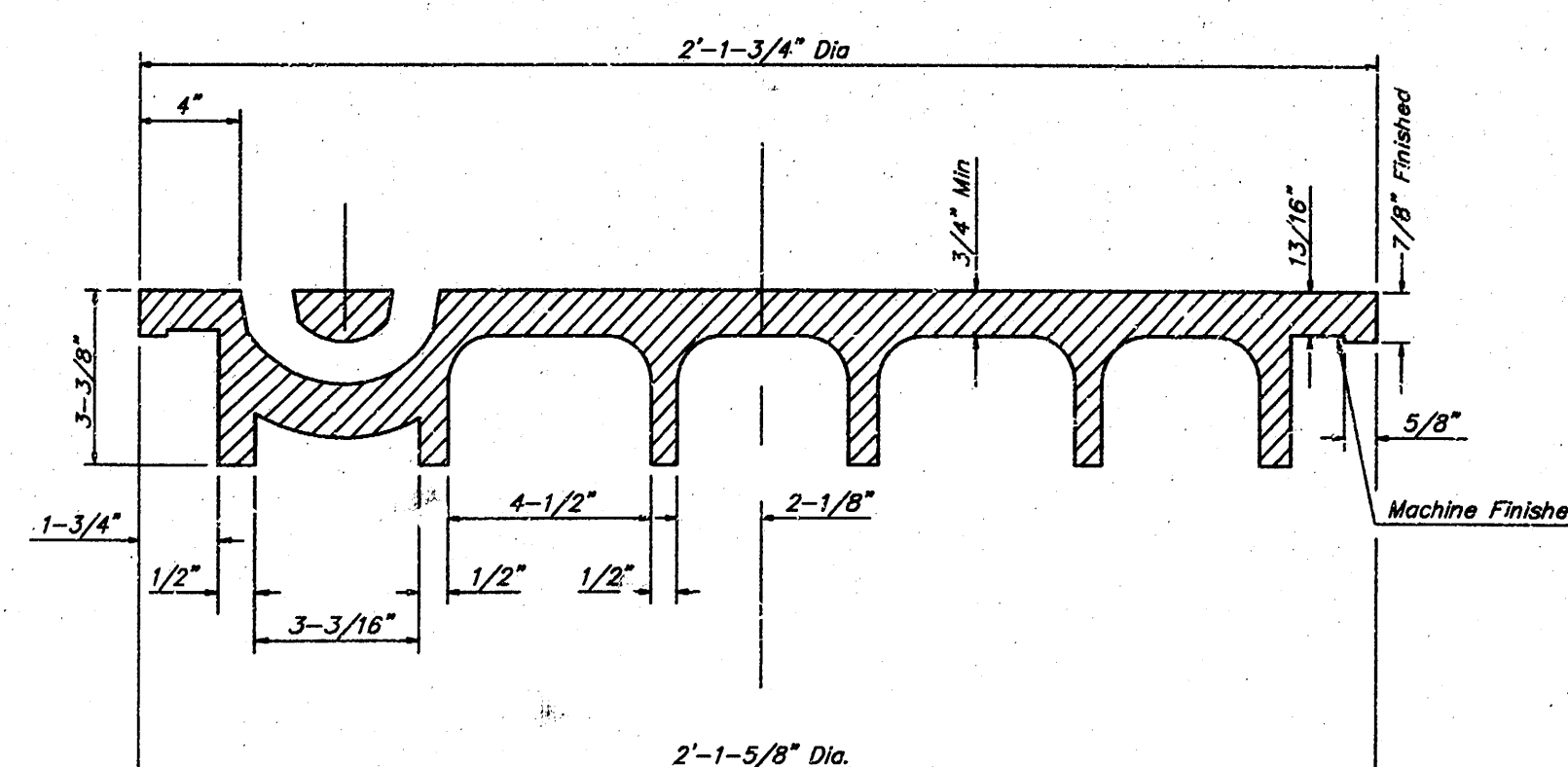
MANHOLE COVER
Weight = 180 Lbs.



TOP VIEW

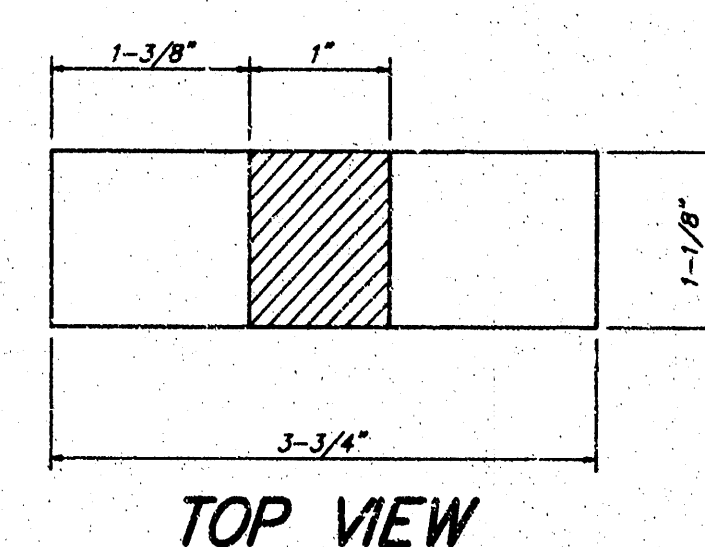


BOTTOM VIEW

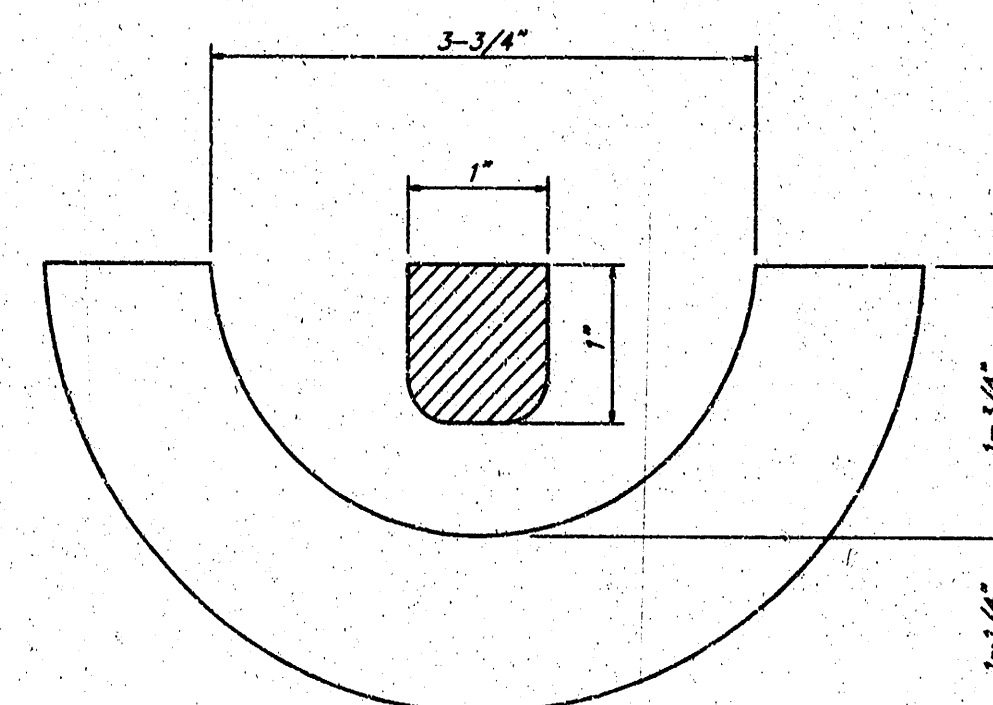


SECTION VIEW

PICKHOLE DETAIL



TOP VIEW

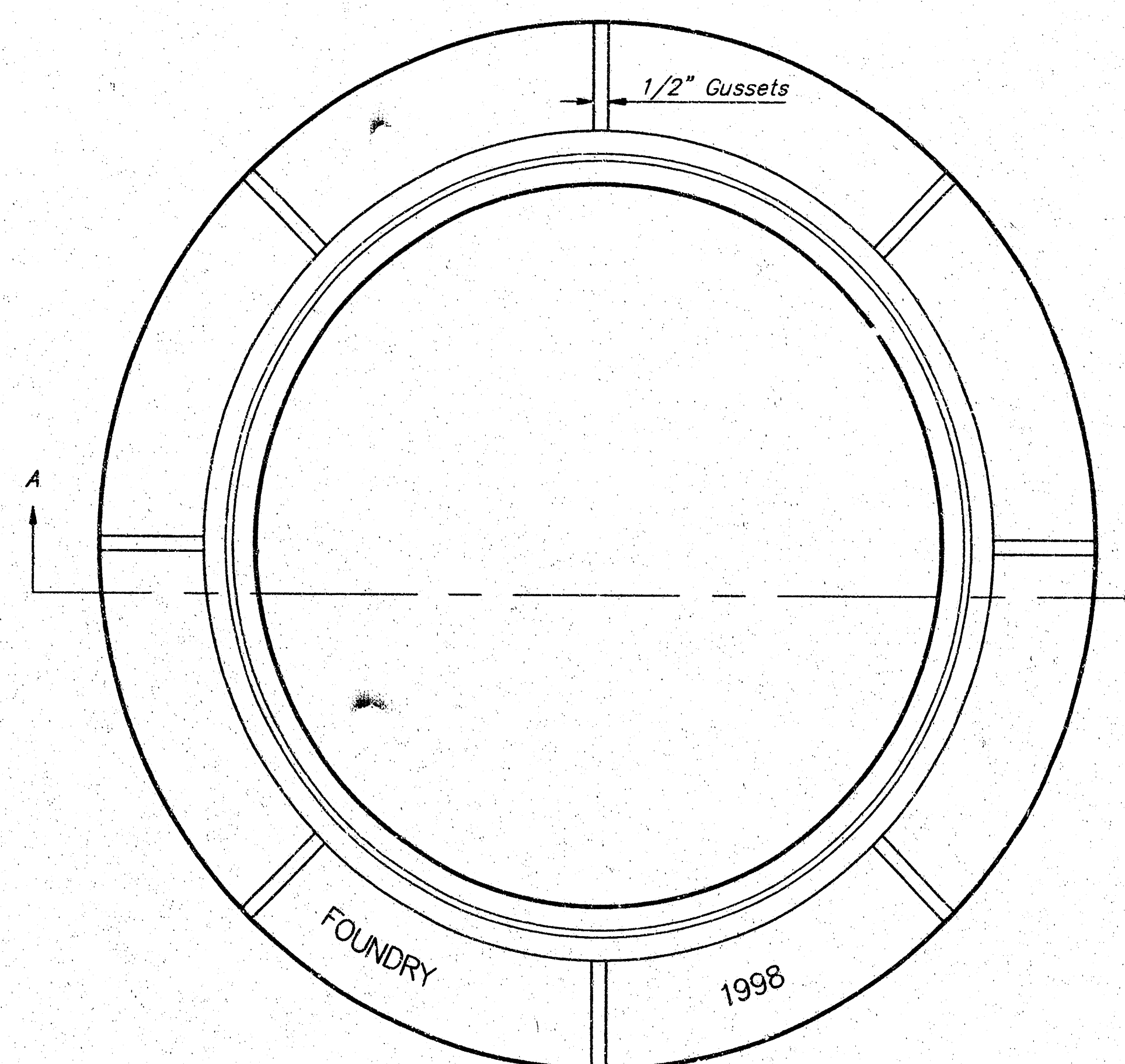


SECTION VIEW

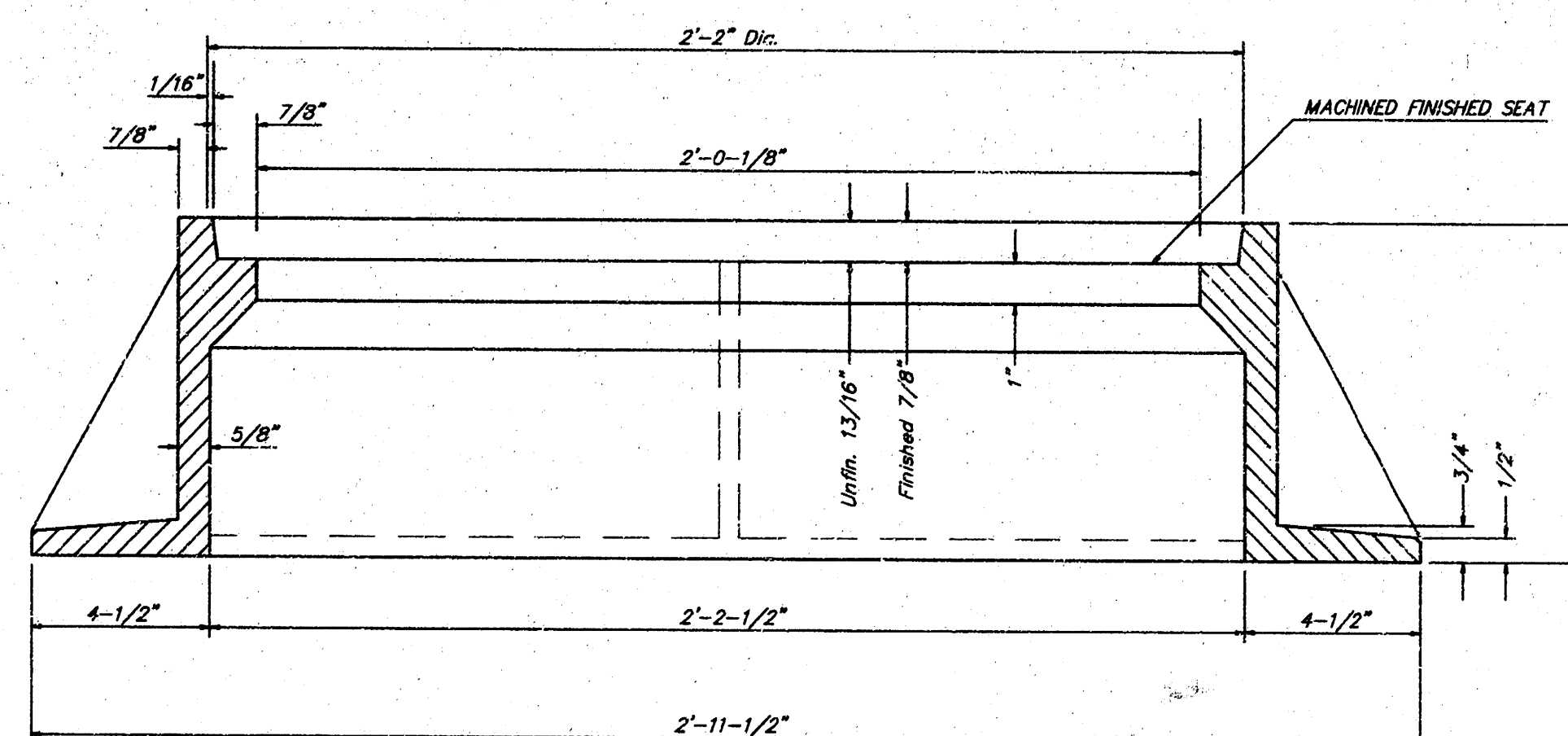
MANHOLE FRAME AND COVER DETAIL

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.

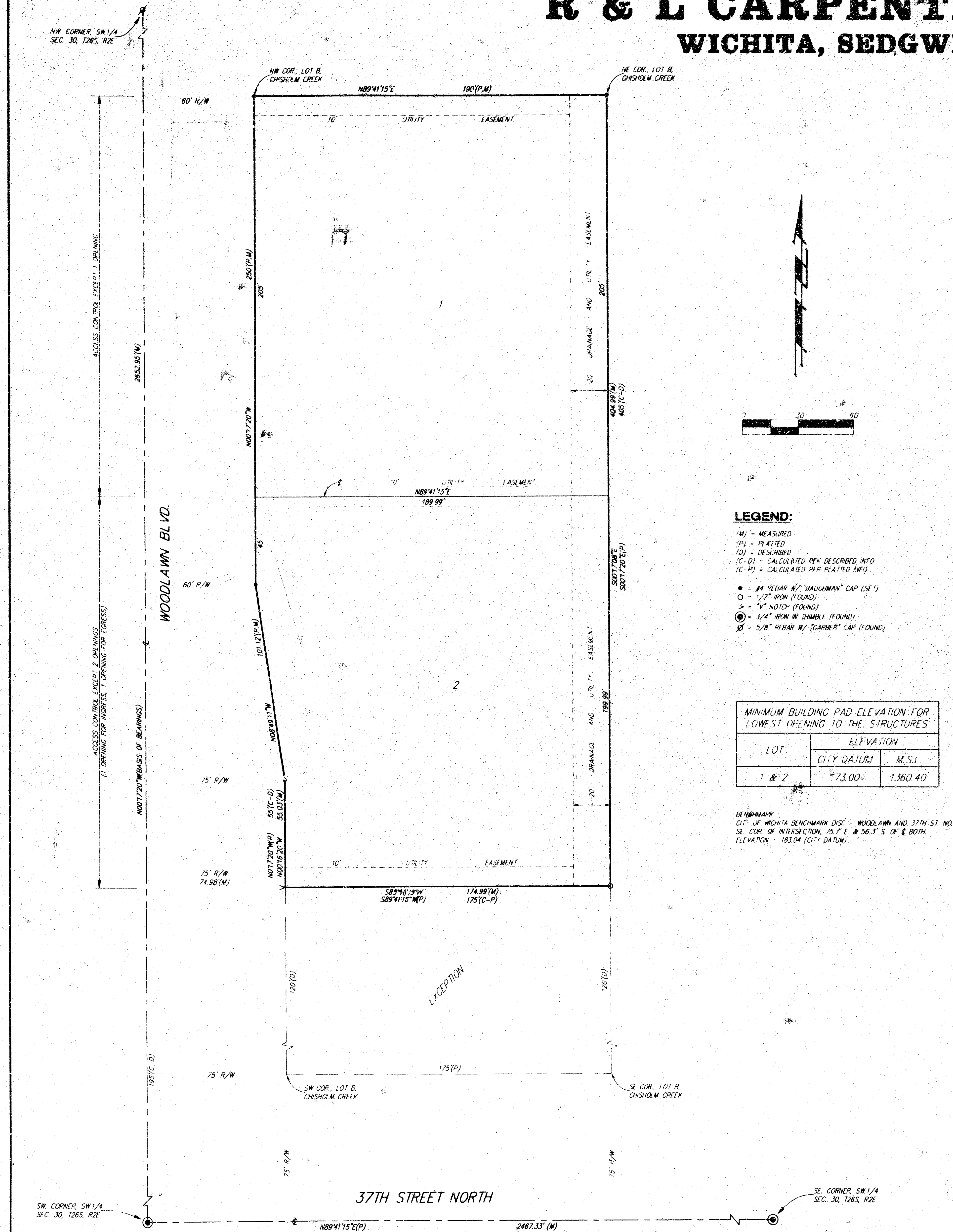
THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING 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.

MANHOLE FRAME AND COVER DETAIL					
ADOPTED AS STANDARD DESIGN BY CITY OF WICHITA, KANSAS					
BAUGHMAN COMPANY P. A.					
ENGINEERING, SURVEYING, & PLANNING					
316-262-2211 316-262-2211 WICHITA, KANSAS 67211					
PROJECT NUMBER 785 PPS (607861)					
DESIGN	DRAWN Staff	APPROVED	DATE	SCALE	SHEET 6

R & L CARPENTER 3RD ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS



State of Kansas) SS We, Baughman Company P.A., Surveyors in aforesaid Sedgwick County and State do hereby certify that we have surveyed and platted "R & L CARPENTER 3RD ADDITION" Wichita, Sedgwick County, Kansas, and that the accompanying plat is a true and correct exhibit of the property surveyed, described as and being a replat of Lot B, except the South 120 feet thereof, Block 1, Chisholm Creek Addition to Sedgwick County Kansas.

All being situated in the SW 1/4 of Sec. 30, Twp. 26-S, R-2-E of the 6th P.M., Sedgwick County, Kansas.

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

Baughman Co., P.A.

Michael G. Conrey, Surveyor

This plat of "R & L CARPENTER 3RD ADDITION" an Addition to Wichita, Sedgwick County, Kansas has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas. Dated this 14th day of June, 1997. Wichita-Sedgwick County Metropolitan Area Planning Commission



John C. Frye, Chairman
Marvin S. Krout, Secretary

This plat approved and all dedications shown hereon accepted by the City Council of the City of Wichita, Kansas, this 23rd day of September, 1997.

Bob Knight, Mayor
Pat Burnett, City Clerk

Know all men by these presents that we, the undersigned, have caused the land in the surveyors certificate to be platted into Lots to be known as "R & L CARPENTER 3RD ADDITION", Wichita, Sedgwick County, Kansas. The utility easements are hereby granted as indicated for the construction and maintenance of all public utilities. The drainage and utility easement is hereby granted as indicated for drainage purposes and for the construction and maintenance of all public utilities. All egress rights of access to or from Woodlawn Blvd. over and across the west line of Lots 1 and 2 are hereby granted to the City of Wichita, Kansas provided, however, that Lot 1 shall have access to Woodlawn Blvd. at one location and Lot 2 shall have access to Woodlawn Blvd. at two locations, (one opening for ingress and one opening for egress), all as shall be determined by the City Engineer of the City of Wichita, Kansas. The Minimum Building Pad Elevation for the lowest opening to the structures for Lots 1 and 2 shall be 173.00 City Datum (1360.40 M.S.L.).

R & L Carpenter Enterprises, LLC

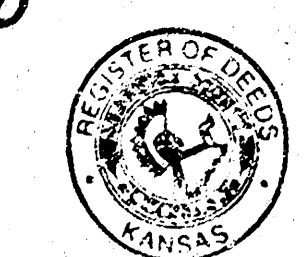
Roger L. Carpenter, Member

Entered on transfer record this 15th day of October, 1997.



James Alford, County Clerk

State of Kansas) SS This is to certify that this plat has been filed for record in the office of the Register of Deeds, this 15th day of October, 1997, at 4:30 o'clock P.M. and is duly recorded.



Larry Consolver, Register of Deeds
Michael D. Hurtt, Deputy

State of Kansas) SS The foregoing instrument acknowledged before me, this 26th day of August, 1997, by Roger L. Carpenter, Member of R & L Carpenter Enterprises, LLC, on behalf of the company.

Paul J. Mansfield, Notary Public
My App't. Exp. 10-13-98

#1639610

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

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