

PRIVATE STORM SEWER EXTENSION TO SERVE WICHITA NORTH HIGHSCHOOL PRIVATE PROJECT NUMBER 1587 PPS (607861)

INDEX OF SHEETS

1. TITLE SHEET
2. STORM SEWER PLAN & PROFILE (LINE A)
3. DROP INLET DETAILS
4. SHALLOW MANHOLES TYPE 'D' AND 'C'

GENERAL NOTES

1. Contractor will be required to provide a minimum advance notice of forty-eight (48) hours to utility companies prior to starting any excavation as follows:

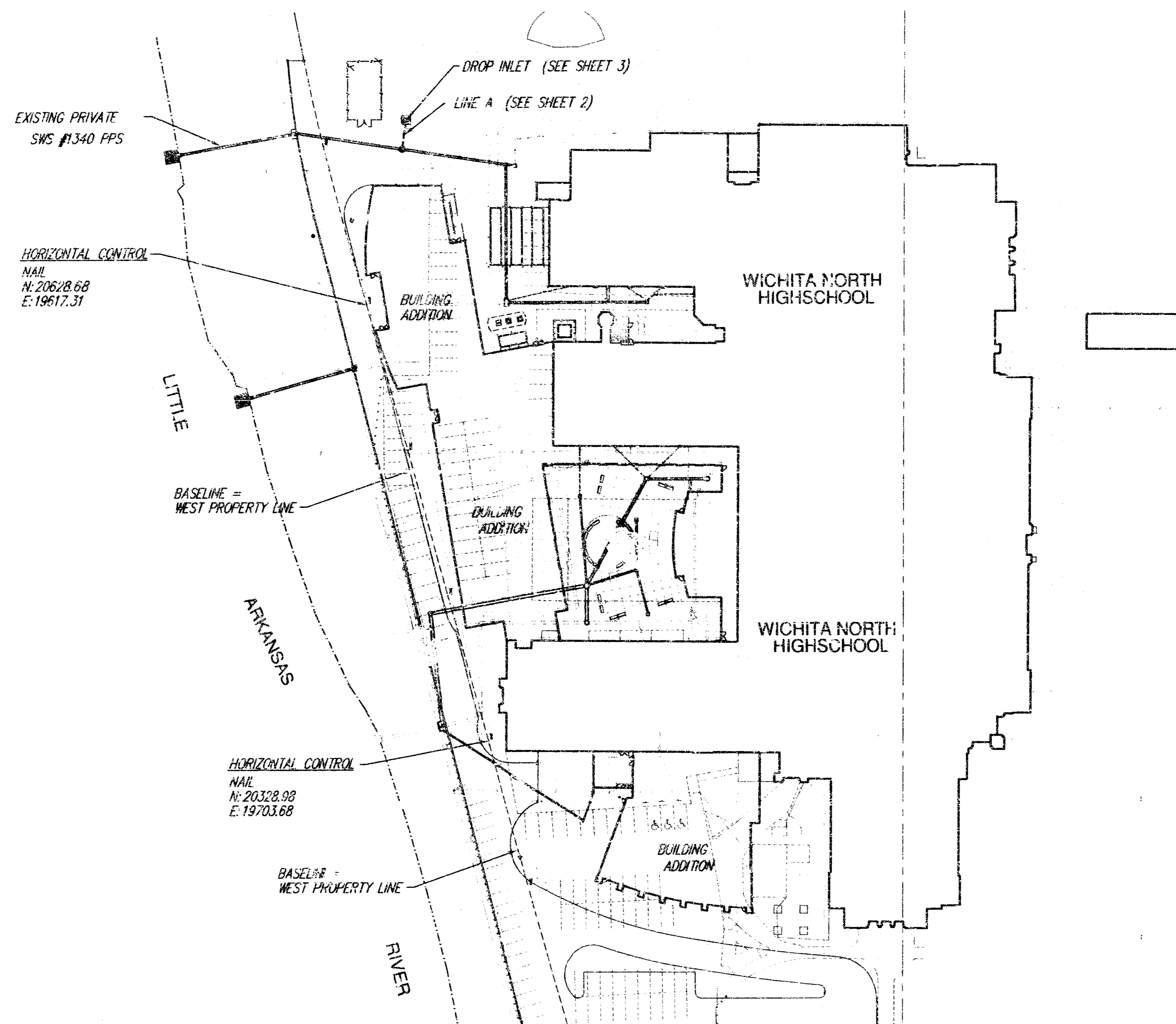
Kansas One-Call 687-2470

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

Cox Communications	262-0561
Kansas Gas Service	383-8500
Westor	383-8600
Aquila Energy	1-800-303-0357
Southwestern Bell Telephone Company	1-800-286-8313
City of Wichita Water Department	262-5000
City of Wichita Sewer Maintenance	262-6000

2. 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.

3. A saw cut of the full depth of existing surface courses or pavement thickness shall be provided at locations where proposed construction abuts an existing surface course or pavement for which partial removal of that surface or pavement is required, except when such saw cuts are within three (3) feet of an existing joint the limits of removal shall be extended to the existing joint.



BENCHMARKS

BM #1 OOW DISC, LITTLE ARKANSAS RIVER & 13TH STREET NE COR. OF BRIDGE ELEV. 1311.33 M.S.L.

BM #2 SQ. CUT ON TOP OF CURB 7 1/2' EAST OF E. END OF NE CURB RETURN OF ALLEY, N. SIDE OF 15TH STREET BETWEEN ARKANSAS AND JACKSON. ELEV. 1307.09 M.S.L.

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

Sanitary Sewers _____

Storm Sewers ACT 8/30/05

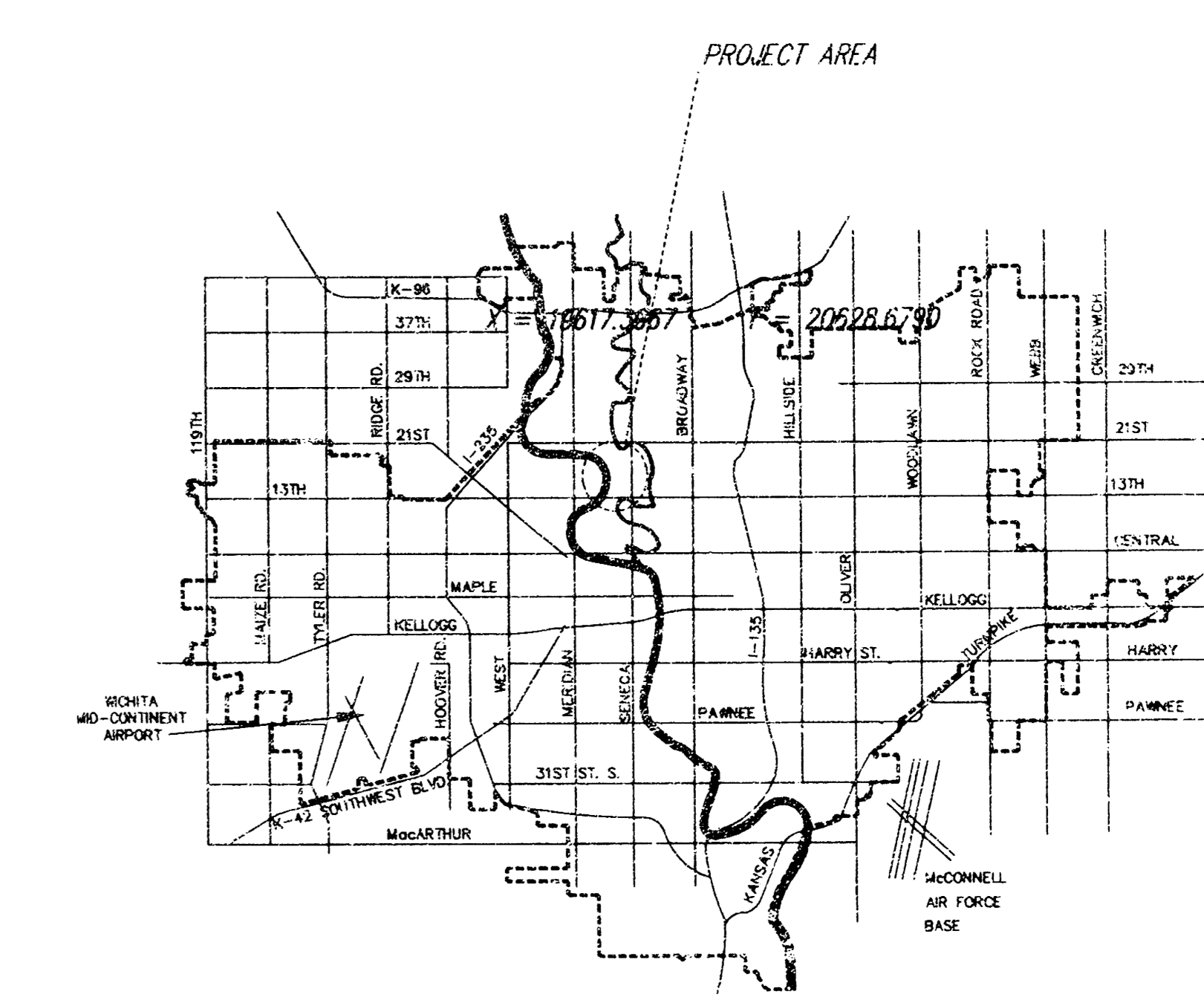
Driveway Approaches _____

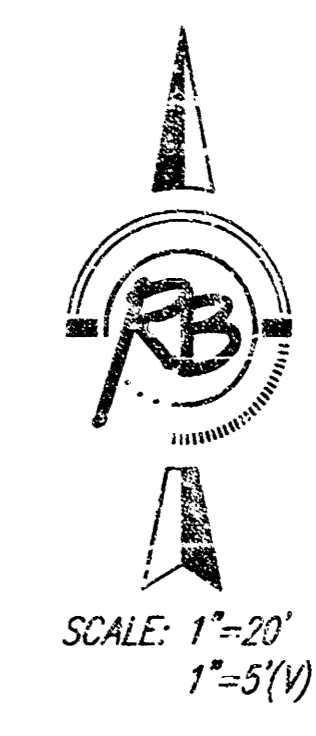
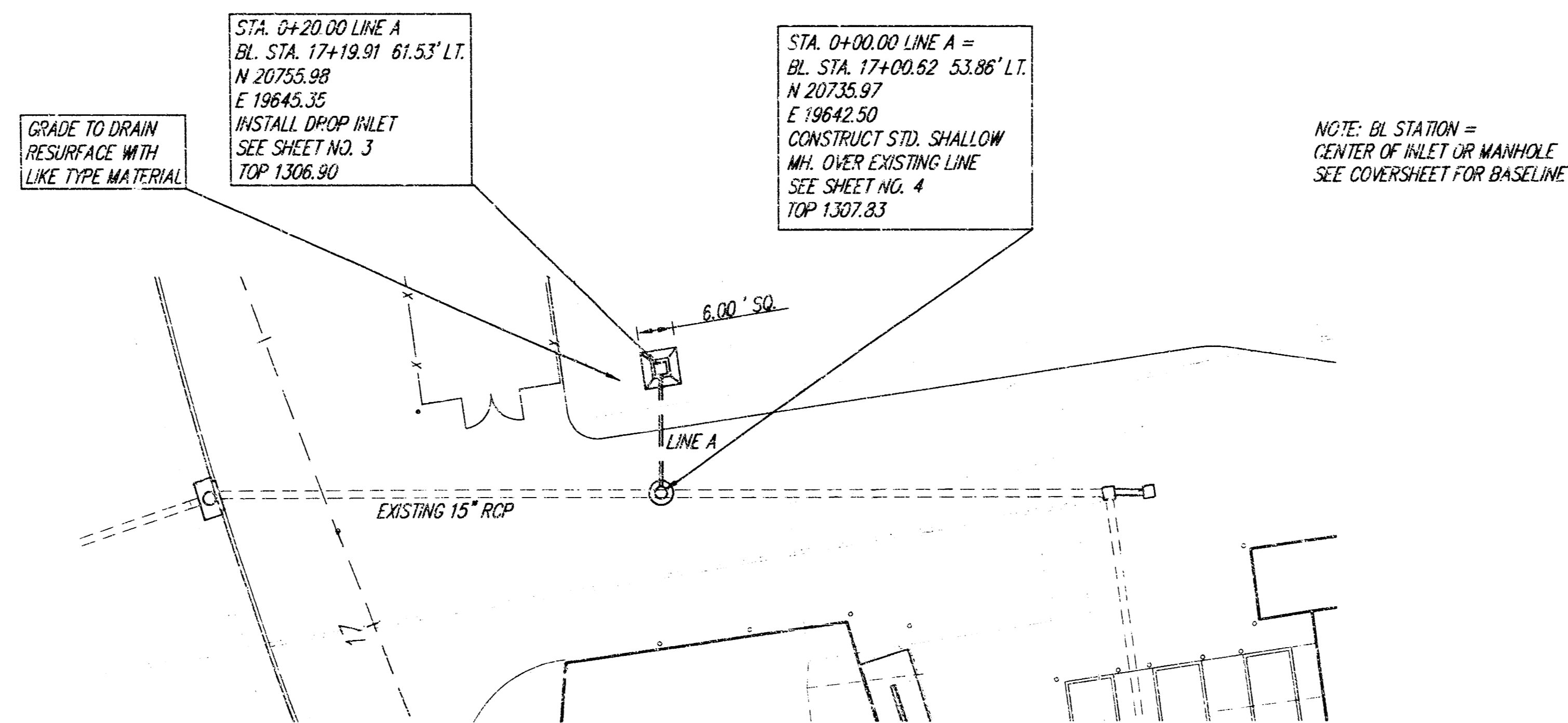
Water Mains _____

Paving _____

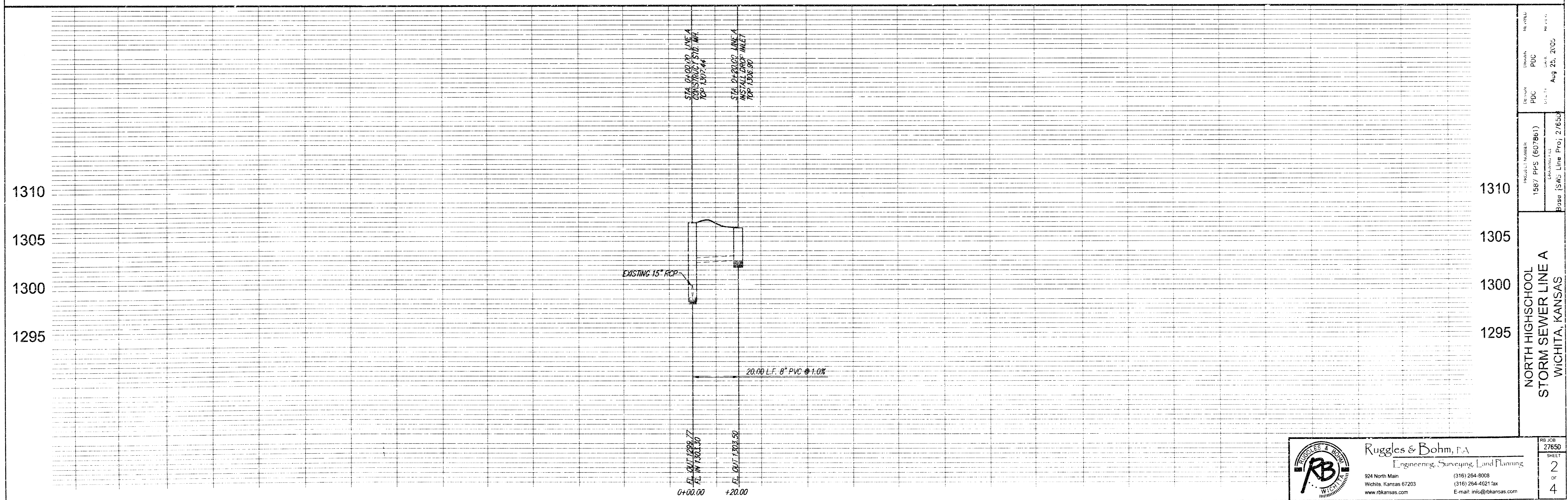
NOTE TO CONTRACTORS

Inspection and testing for this project are to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Licensed Professional Engineer. No work shall be performed in dedicated easements or public right-of-way by the Contractor without such inspection, nor shall any work be commenced without written authorization by the City Engineer.



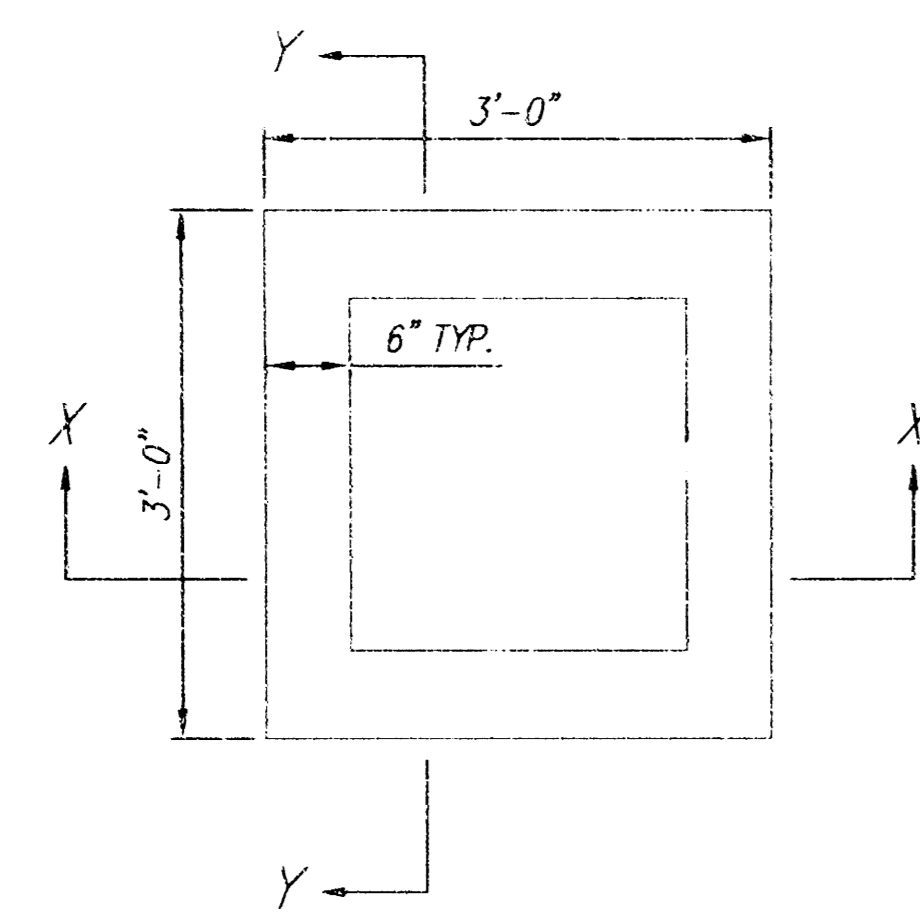


LINE A



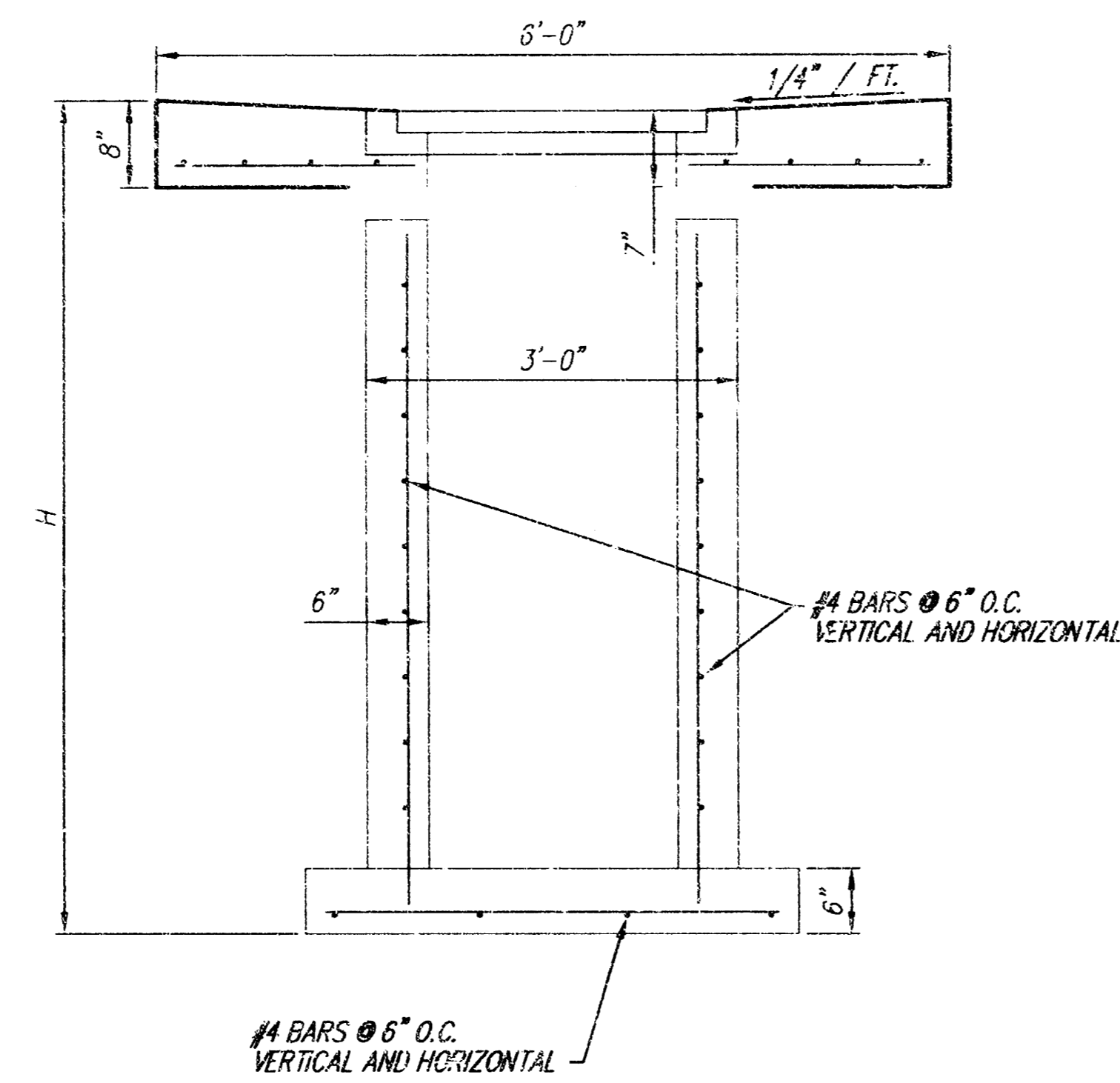
REVISION	DATE	BY	CHKD
1	Aug 25, 2009	PCD	PCD
PROJECT NUMBER: 1987 PPS (607861)			
PROJECT TITLE: Storm Sewer Line Proj. 2 (635)			
NORTH HIGH SCHOOL STORM SEWER LINE A WICHITA, KANSAS			
PROJECT NUMBER	DATE	SHEET	TOTAL SHEETS
1987 PPS (607861)	Aug 25, 2009	2	4

Ruggles & Bohm, P.A.
 Engineering, Surveying, Land Planning
 924 North Main
 Wichita, Kansas 67203
 www.rbkansas.com
 (316) 264-9008
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 E-mail: info@rbkansas.com

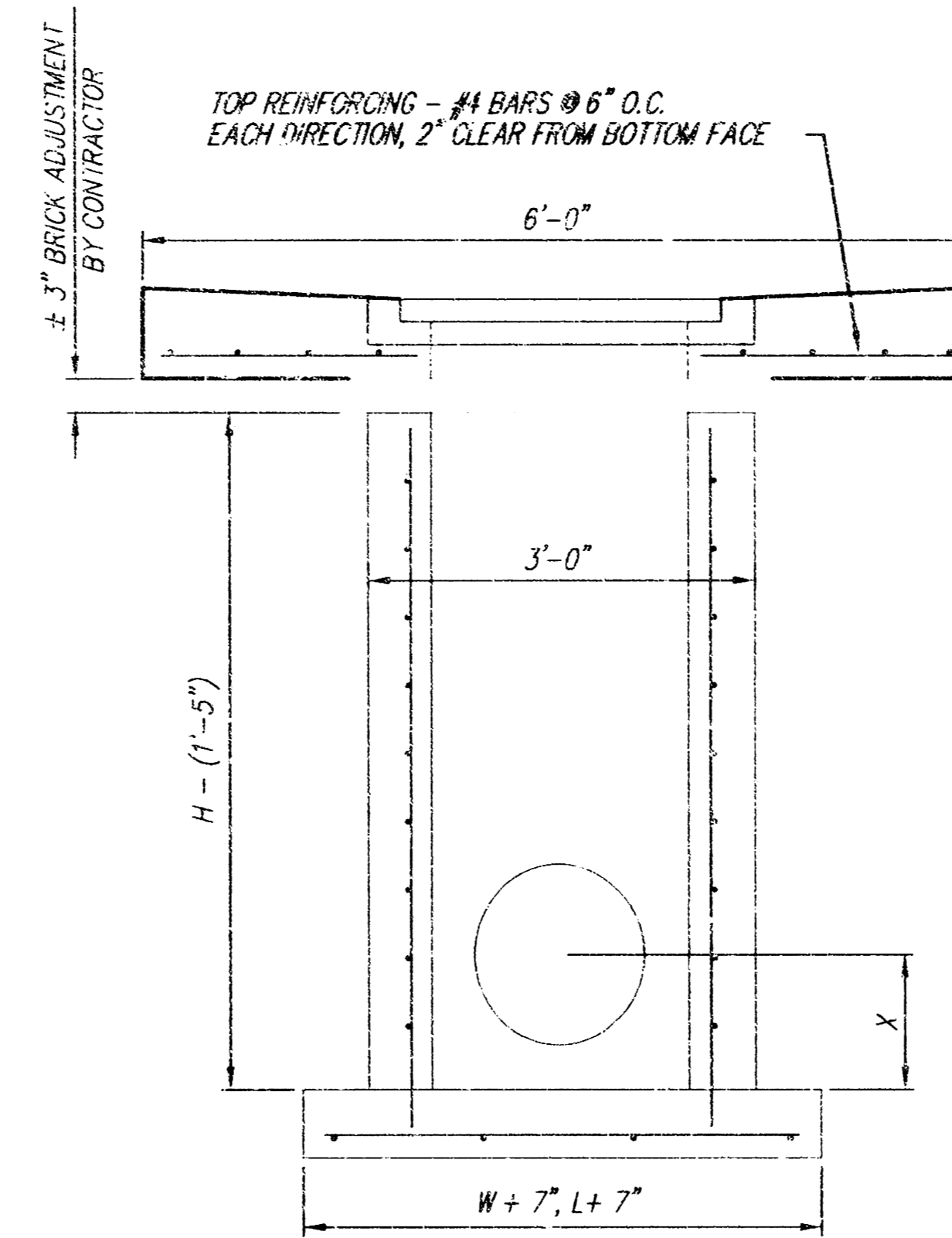


PLAN

NOTE: FRAME AND GRATE TO BE
DEETER FOUNDARY 2410 OR APPROVED EQUAL
INLET MAY BE PRECAST OR CAST-IN-PLACE.



SECTION X-X

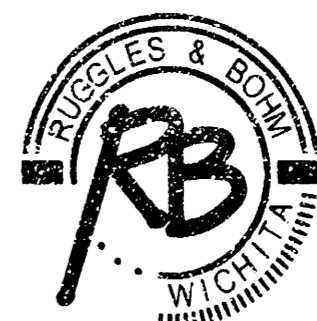


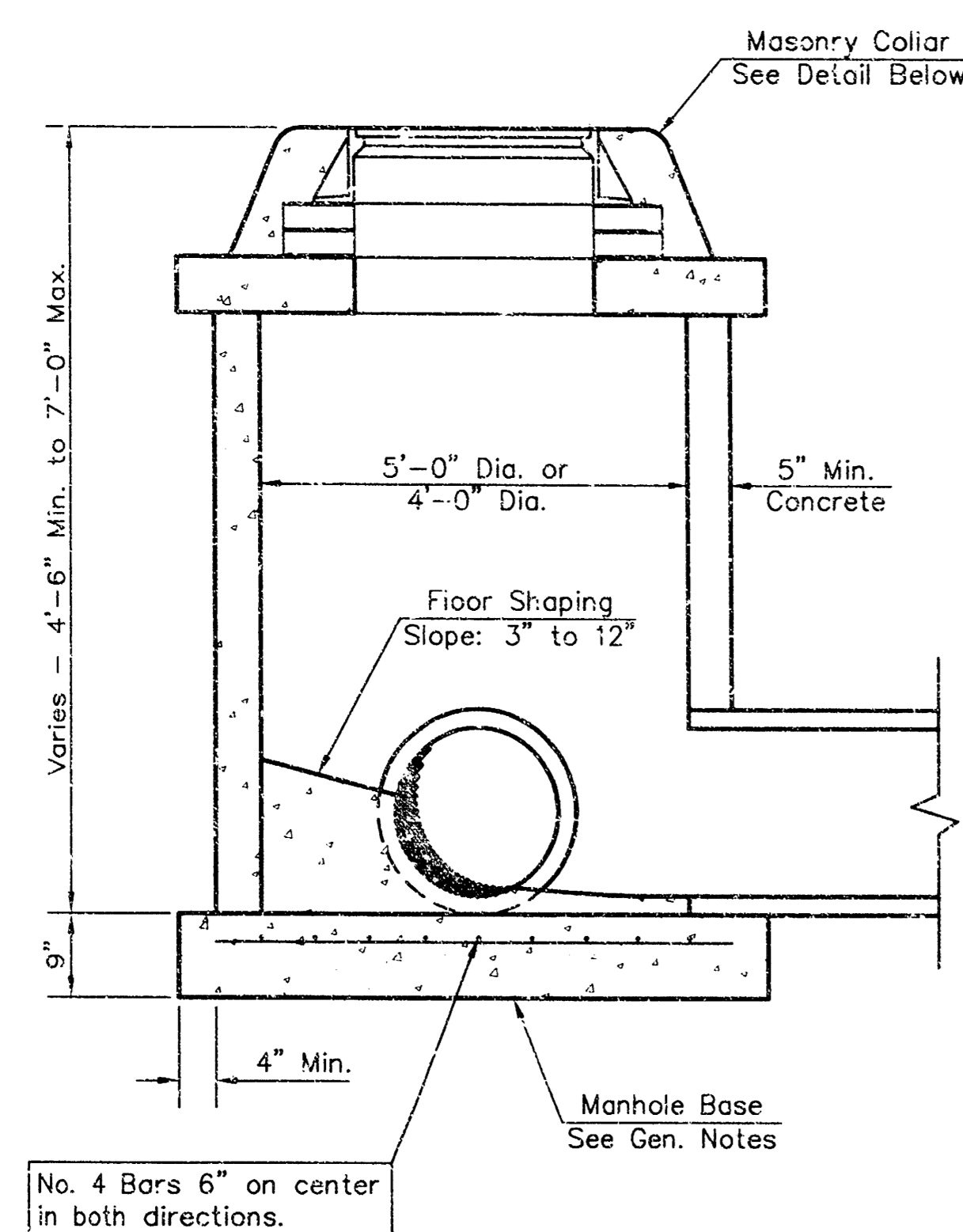
SECTION Y-Y

GENERAL NOTES:

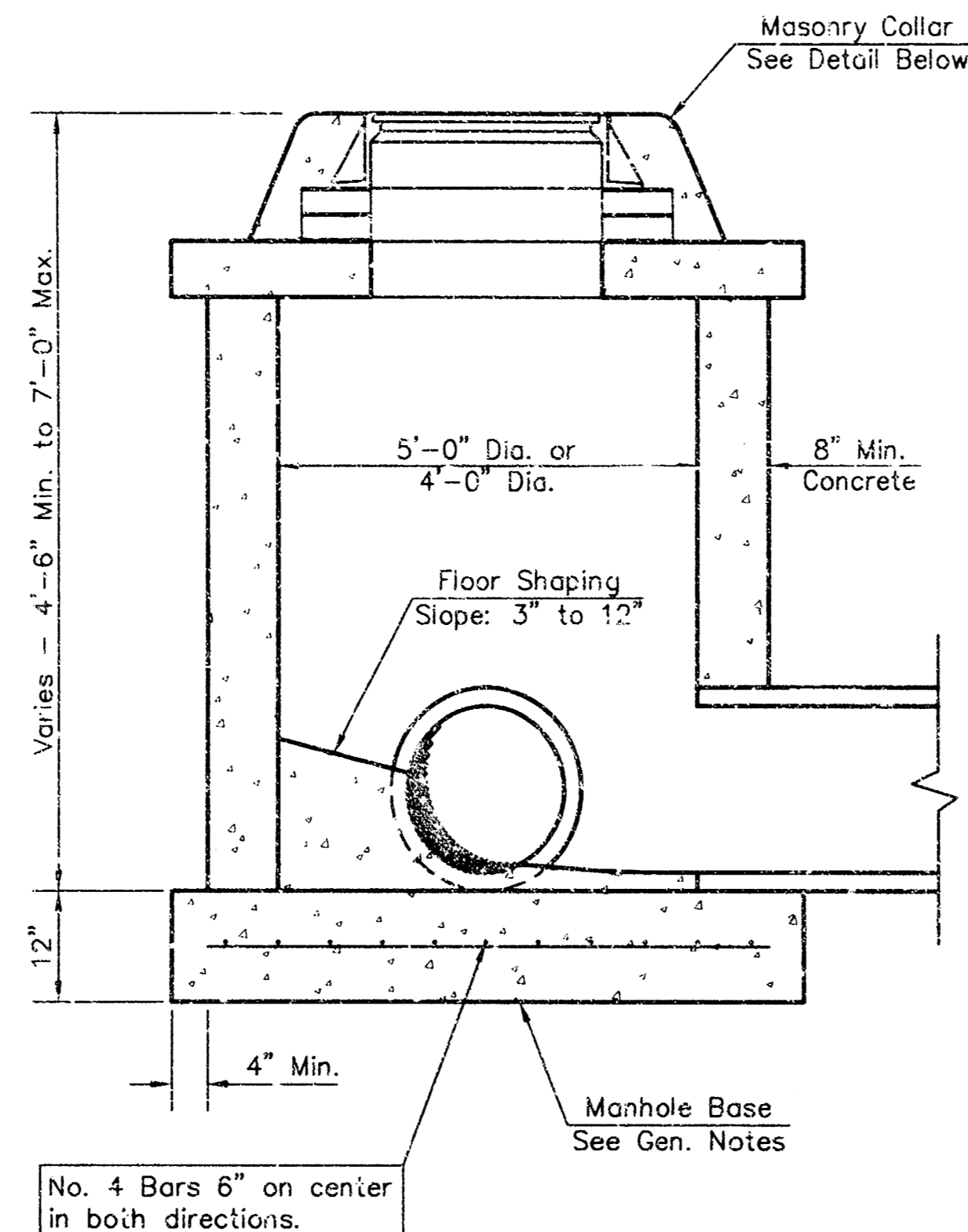
1. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN INLET WALLS AND BASES SHALL CONFORM TO THE REQUIREMENTS FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS, USING CITY CONCRETE™ PAVEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE INLET FRAME AS SHOWN ON THE DRAWINGS WHEN INLETS ARE CONSTRUCTED IN UNPAVED AREAS. COMPLETED INLET SHALL BE WITHOUT LEAKS AND WATER TIGHT.
2. THE FLOORS OF ALL INLETS SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE INLETS WILL BE SELF-CLEANING. USING 8-SACK SAND MIX CONCRETE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE. INLET FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS.
3. INLET COVER CASTINGS AND INLET FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
4. THE ENDS OF ALL PIPES IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF INLET WALL.
5. PRECAST CONCRETE CONSTRUCTION MAY BE USED AT THE CONTRACTOR'S OPTION, WITH ENGINEER'S APPROVAL.

SINGLE DROP INLET DETAIL

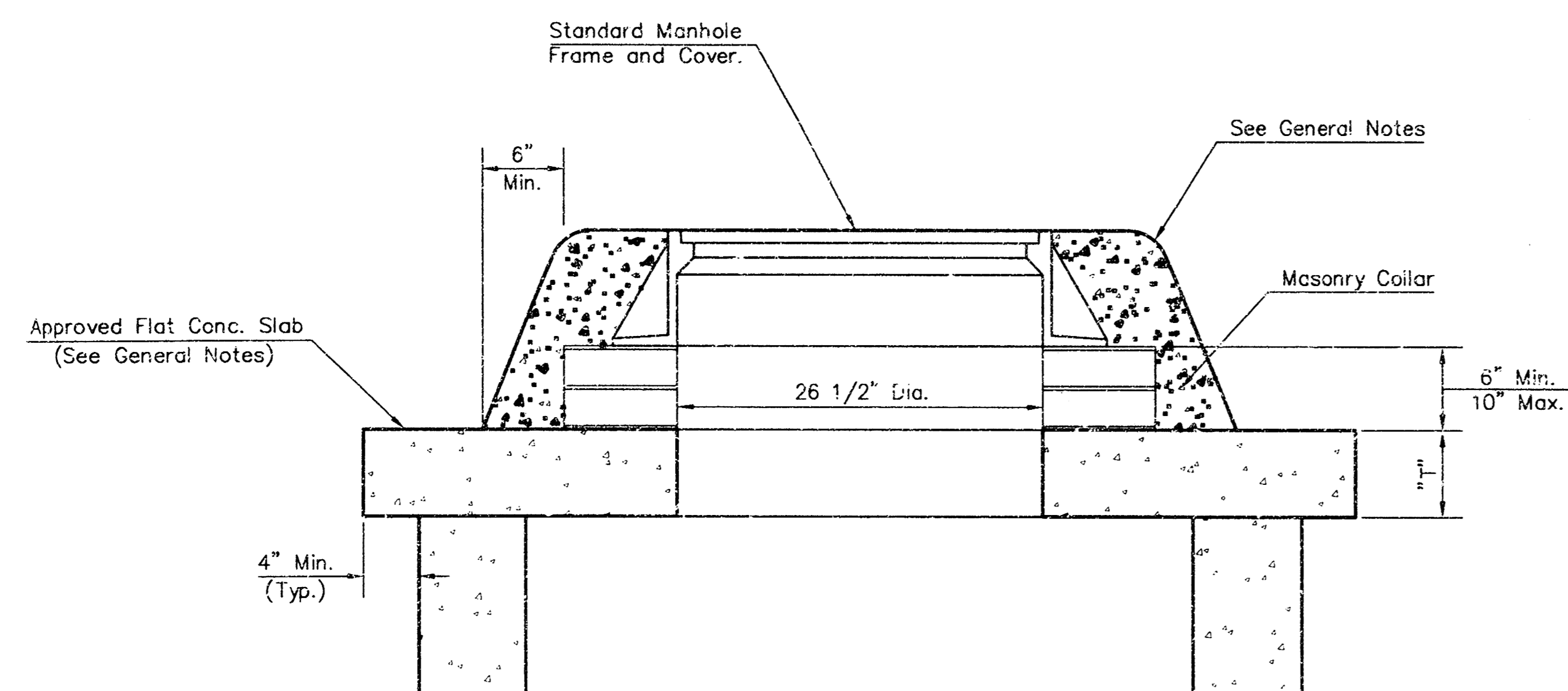
WICHITA NORTH HIGH SCHOOL DROP INLET DETAIL WICHITA, KANSAS			
	Ruggles & Bohm, P.A. Engineering, Surveying, Land Planning		DESIGN: PDC DRAWN: PDC REVIEW:
	924 North Main (316) 264-8008 Wichita, Kansas 67203 (316) 264-4621 fax www.rbkansas.com E-mail: info@rbkansas.com		UTILITY:
DRAWING FILE: Base [Details]	PROJECT NUMBER: 1587 PPS (607851)	DATE: Aug. 25, 2009	SHEET 3 OF 4



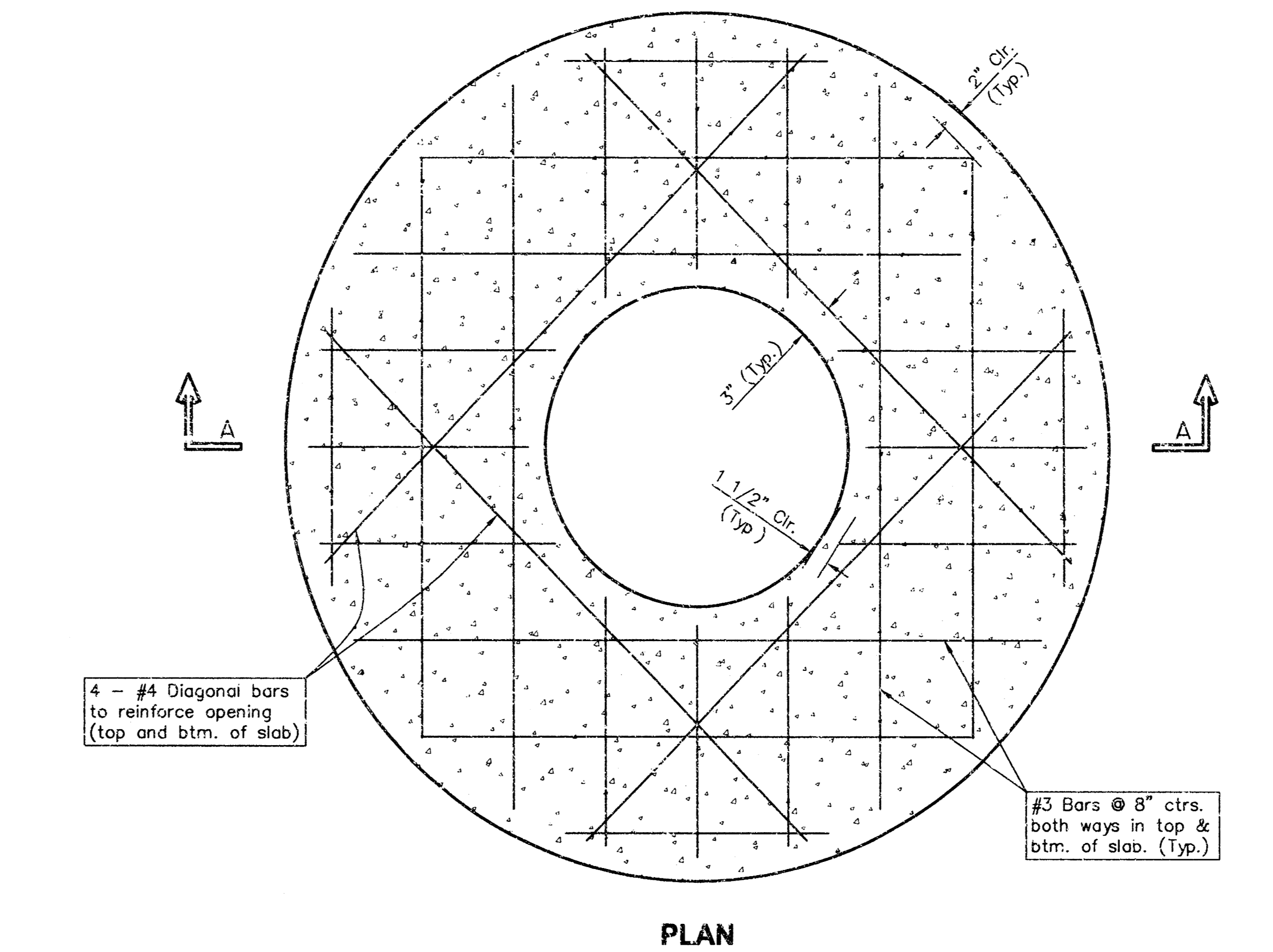
SHALLOW TYPE "P" MANHOLE



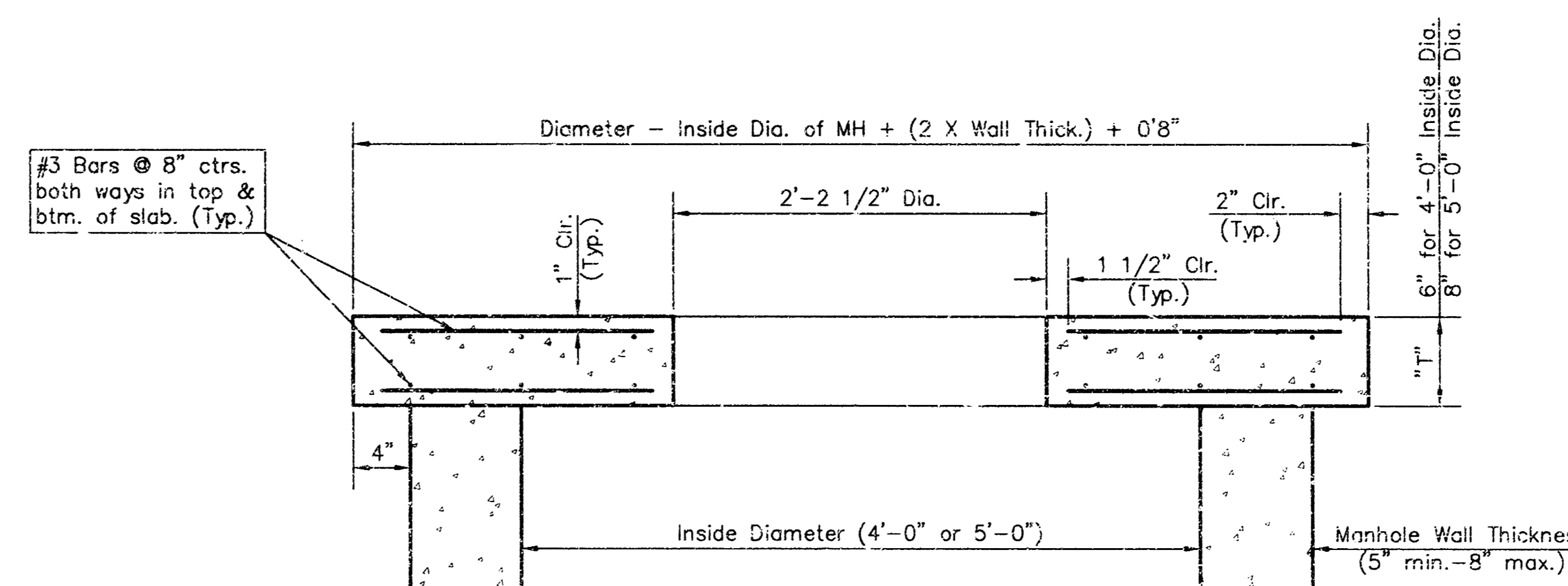
SHALLOW TYPE "C" MANHOLE



MASONRY COLLAR DETAIL



PLAN



SECTION A-A

FLAT CONCRETE SLAB DETAILS

GENERAL NOTES

- 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 cement 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 6" 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.
- 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. Manhole floors shall have slopes of 3 inches per foot in the areas outside of the flow channels sloping toward the flow channel. 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 pipes 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 - 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 drawings.
- The crowns of inflowing pipes shall be set lower than the crown of the outflowing pipe.
- Standard shallow manholes type "P" and "C" shall be paid for at the unit price bid per each for the type and diameter indicated. All standard shallow manhole diameters will be 4' unless indicated otherwise.
- All brick used in manhole construction shall meet Grade SW of ASTM C652 or C62-87.

<p>THE CITY OF WICHITA</p> <p>CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-1501 (316) 266-4114 FAX</p>	SHALLOW MANHOLES TYPE 'P' AND 'C'	
	JIM ARMOUR, P.E. - CITY ENGINEER	
PROJECT NUMBER 1587 PPS (607861)	DATE 8/25/2005	
SHEET 4 OF 4		