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 'P' AND 'C'

GENERAL NOTES

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

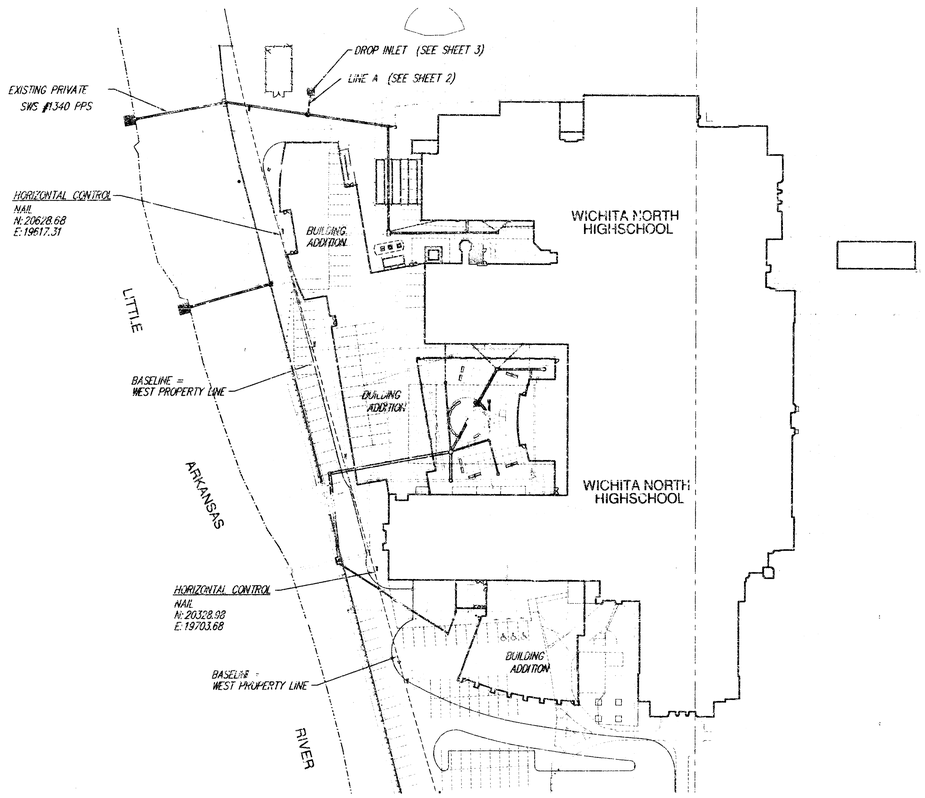
   Kansas One-Call 687-2470

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

Cox Communications	262-0661
Kansas Gas Service	383-8500
Westar	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 COW 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'± 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 ACH 8/30/05

Driveway Approaches _____

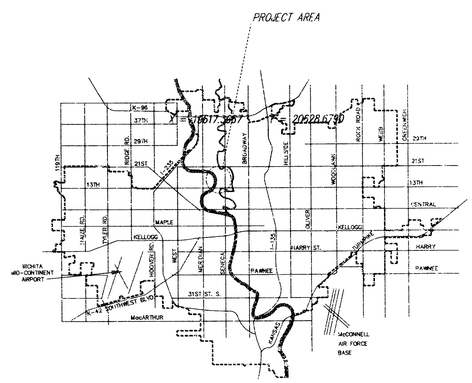
Water Mains _____

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.





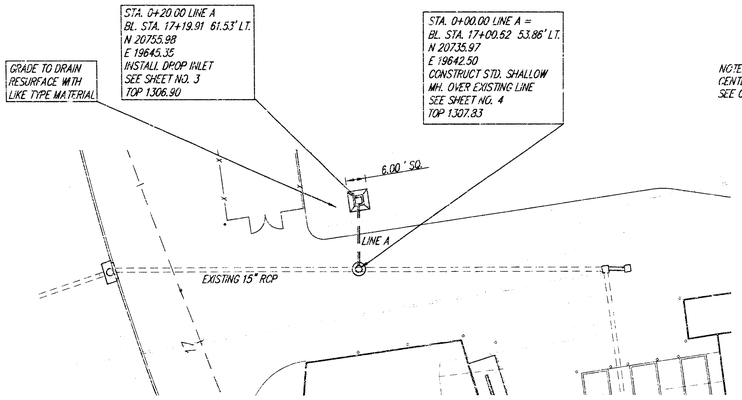
CITY OF WICHITA, KANSAS
JIM ARMOUR, P.E., CITY ENGINEER

Kevin C. Ruggles
8-29-05

As built 10-8-05

Ruggles & Bohm, P.A.
Engineering, Surveying, Land Planning
924 North Main
Wichita, Kansas 67203
www.rbkansas.com
(316) 264-8008
(316) 264-4621 fax
E-mail: info@rbkansas.com

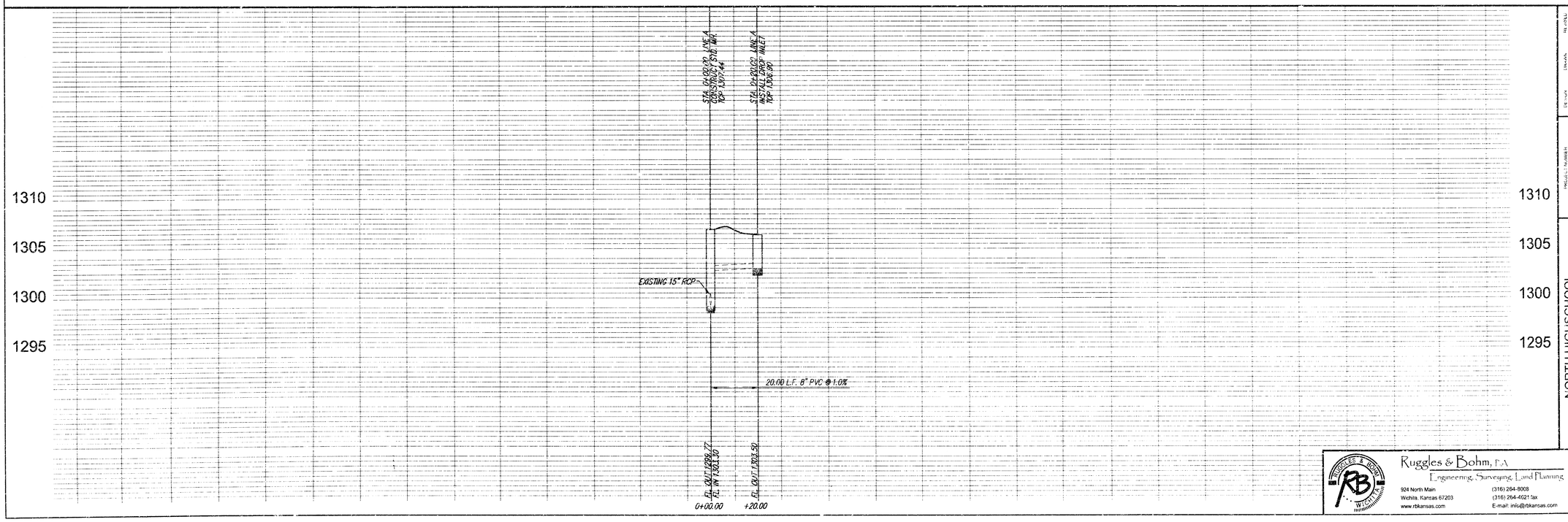
27650



NOTE: BL STATION =
CENTER OF INLET OR MANHOLE
SEE COVERSHEET FOR BASELINE

SCALE: 1"=20'
1"=5'(V)

LINE A



NORTH HIGHSCHOOL
STORM SEWER LINE A
WICHITA, KANSAS

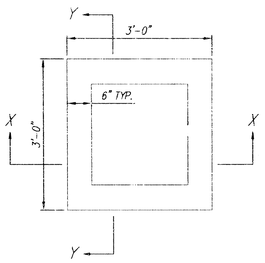
PROJECT NUMBER: 1587 PWS (60786)
DRAWING FILE: Base (SW) Line Proj 27650
DESIGNED: PDC
DRAWN: PDC
CHECKED:
DATE: Aug 25, 2010
REVISIONS

Ruggles & Bohm, P.A.
Engineering, Surveying, Land Planning
924 North Main
Wichita, Kansas 67203
www.rbkansas.com
(316) 264-8008
(316) 264-4021 fax
E-mail: info@rbkansas.com

RB JOB 27650
SHEET 2 OF 4

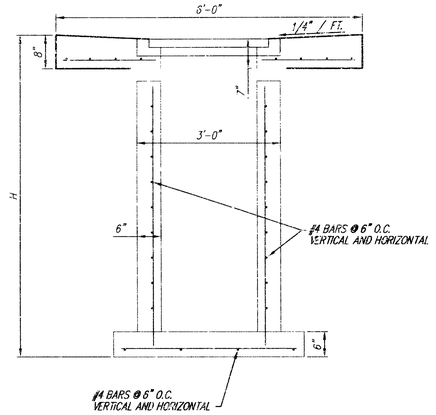
GENERAL NOTES:

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 RE-- QUIREMENTS 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.

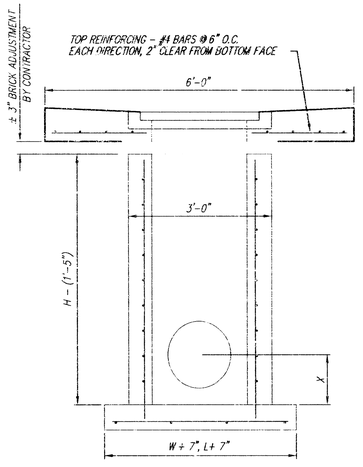


PLAN

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



SECTION X-X



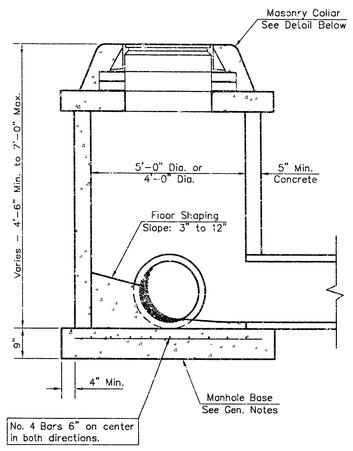
SECTION Y-Y

SINGLE DROP INLET DETAIL

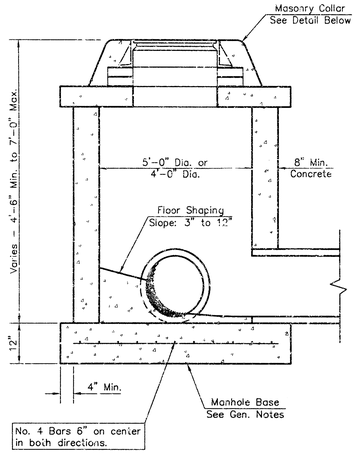
WICHITA NORTH HIGH SCHOOL
DROP INLET DETAIL
WICHITA, KANSAS

Ruggles & Bohm, P.A.
Engineering, Surveying, Land Planning
924 North Main
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www.rbkansas.com
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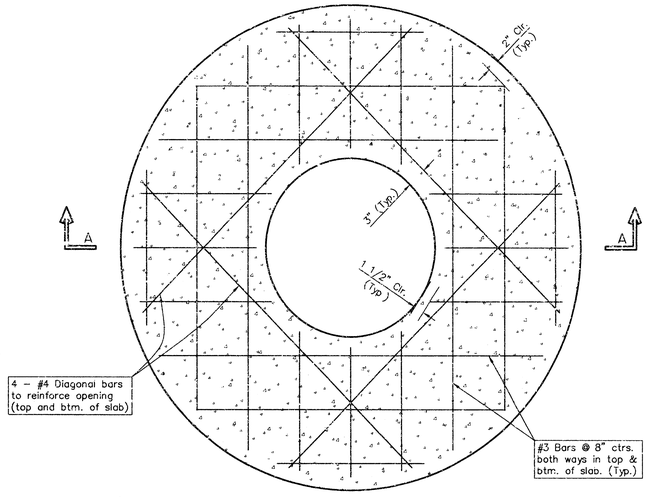
DESIGN	PDC
DRAWN	PDC
REVIEW	
UTILITY	
DATE	Aug. 25, 2005
DRAWING FILE	Base [Details]
PROJECT NUMBER	1587 PPS (607861)
RB JOB #	2042
SHEET	3 OF 4



SHALLOW TYPE "P" MANHOLE



SHALLOW TYPE "C" MANHOLE



PLAN

GENERAL NOTES

1. 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.

2. 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.

3. 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 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.

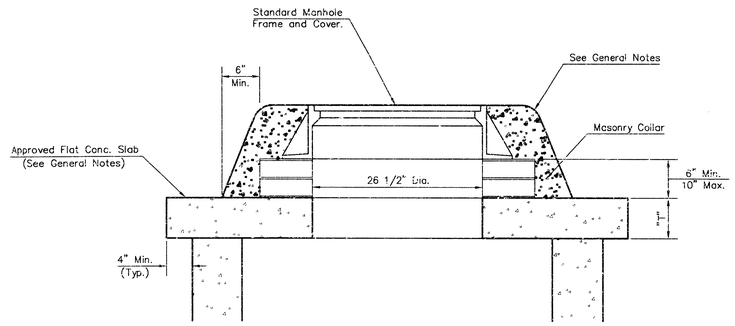
4. Pipes installed within the excavation made for the manhole shall be cradled with concrete to the limits of the manhole excavation. When clay pipe is used, the cradle shall extend to the first joint outside the manhole. The cradle shall be terminated at the clay pipe joint in a manner which will maintain 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.

5. 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.

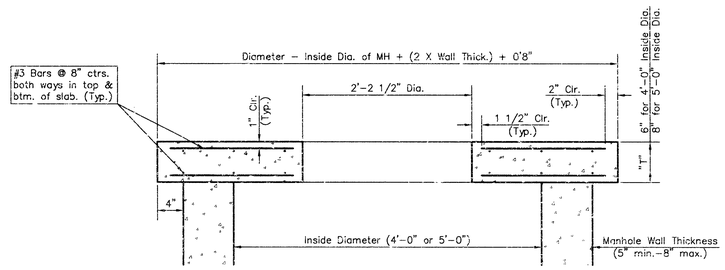
6. The crowns of inflowing pipes shall never be set lower than the crown of the outflowing pipe.

7. 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.

8. All brick used in manhole construction shall meet Grade SW of ASTM C652 or C62-87.



MASONRY COLLAR DETAIL



SECTION A-A

FLAT CONCRETE SLAB DETAILS

THE CITY OF WICHITA

CITY ENGINEER'S OFFICE
CITY HALL – SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4501
(316) 268-4114 FAX

SHALLOW MANHOLES
TYPE 'P' AND 'C'

JIM ARMOUR, P.E. – CITY ENGINEER

PROJECT NUMBER	OCN #
1587 PPS (607861)	
DATE 8/25/2005	SHEET 4 OF 4

18 12 01 13