

WHISPERING BROOK COMMERCIAL 2ND ADDITION (A REPLAT OF WHISPERING BROOK COMMERCIAL ADDITION) TO WICHITA, SEDGWICK COUNTY, KANSAS

CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK, P.E., CITY ENGINEER
PRIVATE STORM WATER SEWER
IN
WHISPERING BROOK COMMERCIAL 2ND ADDITION
CITY OF WICHITA PRIVATE PROJECT NO. 1125PPS (607861)

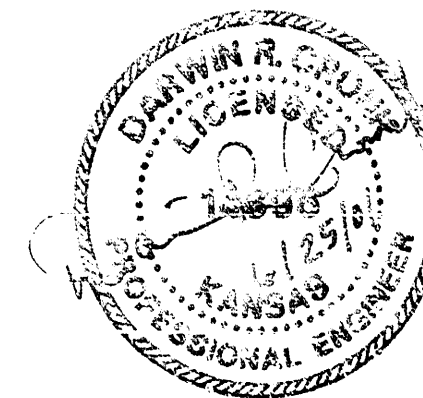
SCALE: 1" = 100'

• = 3/4" IRON PIPE WITH PEC CAP UNLESS NOTED OTHERWISE

B.M. RAILROAD SPIKE IN EAST FACE POWER POLE AT SW CORNER
WOODLAWN AND BELLVIEW.
ELEV. = 182.42 (CITY DATUM)
ELEV. = 1370.82 (N.G.V.D.)

B.M. 1" POST 10' N.E. OF PROPERTY CORNER 220' WEST OF
WOODLAWN ROAD 280' SOUTH OF 37TH STREET NORTH
CENTERLINE.
ELEV. 188.05 (CITY DATUM)
ELEV. 1375.45 (N.G.V.D.)

CITY: CITY OF WICHITA BENCHMARK 78' E. AND 58' S. OF
THE CENTERLINES OF 37TH ST. AND WOODLAWN.
ELEV. = 183.04 (CITY DATUM)
ELEV. = 1370.44 (N.G.V.D.)



APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

NOTE TO CONTRACTOR

SANITARY SEWERS

STORM SEWERS 1/8" 6/29/01

DRIVEWAY APPROACHES

WATER MAINS

PAVING

INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSED CONSULTING ENGINEERING FIRM CONTRACTED BY THE CONTRACTOR. 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 UNTIL SUCH INSPECTION IS ARRANGED FOR AND REQUIRED BONDS HAVE BEEN SUBMITTED TO AND APPROVED BY THE CITY. NOR SHALL ANY WORK BE COMMENCED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER. IMPROVEMENTS PERFORMED UNDER THIS PROJECT SHALL NOT BE ACCEPTED BY THE CITY UNTIL ALL APPLICABLE DOCUMENTATION HAS BEEN SUBMITTED TO THE CITY ENGINEER. THIS MAY INCLUDE: AS-BUILT DRAWINGS, INSPECTION LOGS, TEST DOCUMENTATION, TV TAPES, AND A CERTIFICATE OF COMPLETION. THE ABOVE SHALL BE PERFORMED BY THE CONSULTING FIRM CONTRACTED TO INSPECT THIS PROJECT.

CONTROL POINTS		
COORDINATE LIST		
POINT	NORTH	EAST
1	5,000.0700	5,000.0000
2	5,741.8323	5,000.0000
3	5,002.0741	4,033.8686
4	4,925.1562	4,925.0000
5	4,750.1562	4,925.0000
6	4,850.1248	4,933.9999
7	4,100.1248	4,933.9999
8	4,101.4067	4,325.0012
9	4,941.4069	4,325.0010
10	4,940.7294	4,650.0002
11	4,925.5210	4,750.0004
12	5,005.5050	2,359.3360

4 = COORDINATE POINT NO.

GENERAL NOTES

- ALL CONSTRUCTION AND MATERIALS TO COMPLY WITH CITY OF WICHITA SPECIFICATIONS AND STANDARDS.
- ALL ELEVATIONS SHOWN ARE BASED ON CITY OF WICHITA DATUM.
- THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.
- AT LEAST 72 HOURS PRIOR TO BEGINNING EXCAVATION (EXCLUDING WEEKENDS AND HOLIDAYS), THE CONTRACTOR SHALL CONTACT THE KANSAS ONE-CALL SYSTEM, A UTILITY LOCATION SERVICE, AT (316) 887-2470 TO REQUEST THE LOCAL UTILITY COMPANIES MARK ANY EXISTING LINES WITHIN THE PROJECT AREA.
- 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 LOCATIONS, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR THE DESIGN. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
- 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 SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL MANHOLE COVERS.
- ALL LAWN/TURF AREAS ON ADJACENT PROPERTIES DISTURBED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE RESTORED WITH THE SAME GRASS/SEED AS EXISTING. RESTORATION OF DISTURBED AREAS SHALL INCLUDE, BUT NOT BE LIMITED TO, TOP SOIL PREPARATION, SEEDING, MULCH, AND/OR RESEEDING. ALL SEEDING/SODDING WORK SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES INCLUDING ANY TREES REMOVED AND TREE TRIMMINGS SHALL BE DISPOSED OF ON SITES PROVIDED BY THE CONTRACTOR. THESE SITES SHALL ALSO 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 WILL 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 MAY REQUIRE ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED DISPOSAL LOCATION.
- THE CONTRACTOR SHALL AVOID REMOVAL OR TRIMMING OF ANY TREES OR SHRUBS WHERE POSSIBLE. WHERE THE CONTRACTOR BELIEVES THE REMOVAL OR TRIMMING IS UNAVOIDABLE, HE SHALL COORDINATE SUCH WORK WITH THE ENGINEER.
- THE CONTRACTOR SHALL PREVENT ANY CONSTRUCTION DEBRIS FROM ENTERING THE EXISTING SANITARY SEWER AND/OR STORM SEWER DURING CONSTRUCTION.
- CONTRACTOR IS REQUIRED TO MAINTAIN CONTINUOUS FLOW OF SEWAGE IN EXISTING MAINS AT ALL TIMES.
- THE CONTRACTOR SHALL SEED ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WITH TEMPORARY RYE GRASS. RYE GRASS SEED SHALL BE PLANTED AT A MINIMUM RATE OF SIX (6) POUNDS PER ONE THOUSAND (1,000) SQUARE FEET. THIS TEMPORARY SEEDING MAY BE OMITTED ONLY IF PERMANENT SEEDING IS TO BE COMPLETED WITHIN 14 DAYS AFTER THE AREA HAS BEEN DISTURBED.
- THE CONTRACTOR IS REQUIRED TO PREVENT SEDIMENT LOSEN RUNOFF FROM ENTERING ADJACENT ROADWAYS AND STORM SEWER SYSTEMS. THIS MAY INCLUDE ERECTING SILT FENCE ALONG ADJACENT ROADWAYS, INSTALLING INLET PROTECTION FOR INLETS ON WOODLAWN AND DITCH CHECKS ALONG 37TH STREET NORTH OR TEMPORARY SEEDING OF DISTURBED AREAS THAT WILL NOT HAVE ACTIVITY FOR MORE THAN 14 DAYS. SEE LANDSCAPE PLAN AND SPECIFICATIONS FOR SEEDING, MULCHING AND TOP SOIL PREPARATION. SEE SH. NOS. C18 FOR EROSION CONTROL PLAN AND DETAILS.
- THE WATER DEPARTMENT SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, WATER VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.

BOOKED
E-6
10/2/03
RDL

WHISPERING BROOK COMMERCIAL 2ND ADDITION

PLAT AND GENERAL NOTES



Professional Engineering Consultants, P.A.
303 S. TOPKA • WICHITA, KANSAS 67202
316-262-2691 • FAX 316-262-3003

Designed by GLM Checked by
Drawn by GLM Date MAY 2001 Job No. 011

DSNR: S&D OFFER: S&D SCALE: 1"=100.00
Q:\2001\11135\PLAT 06-22-2001 08:40:57 am

WHISPERING BROOK ADDITION

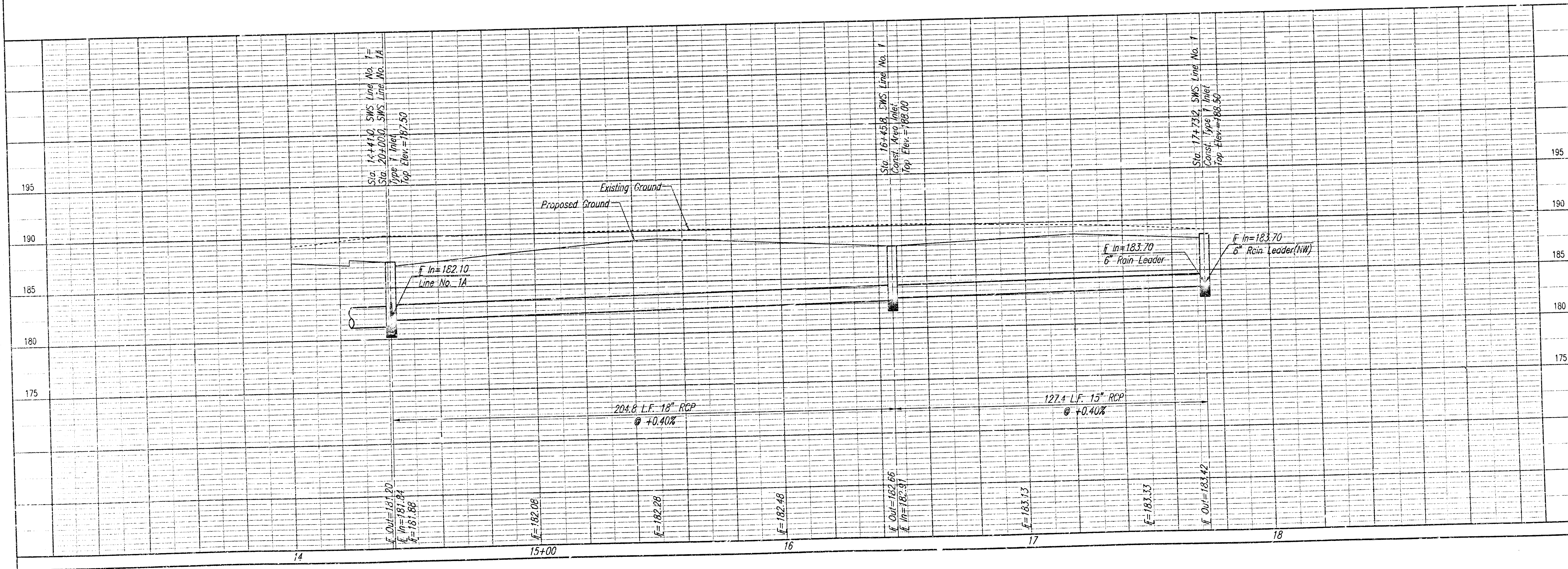
4543.9870 N, 4338.5044 E
Sta. 14+41.0, SWS Line No. 1
Sta. 20+00.0, SWS Line No. 2
Type 1 Inlet
Top Elev.=187.50

4,651.0770 N, 4,506.500 E
Sta. 16+45.8, SWS Line No. 1
Const. Area Inlet
L=5'-4", W=3'-4"
Top Elev.=188.00
Install 127.4 L.F. 15" RCP (E)
Install Inlet Protection
See Sh. Nos. C10 & C20

4676.4071 N, 4632.9967 E
Sta. 17+73.2, SWS Line No. 1
Const. Type 1 Inlet
L=6'-4", W=4'-4"
Top Elev.=188.50
Install 5" PVC Stub and Plug (NW)
Install 6" PVC Stub and Plug (S)
Install Inlet Protection
See Sh. Nos. C9 & C20

SCALE: 1"=20'

Proposed Building



SWS LINE NO. 1
STA. 14+41.0 TO STA. 17+73.2

Professional Engineering Consultants, P.A.
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316-262-2601 • FAX 316-262-3005



Sheet 3

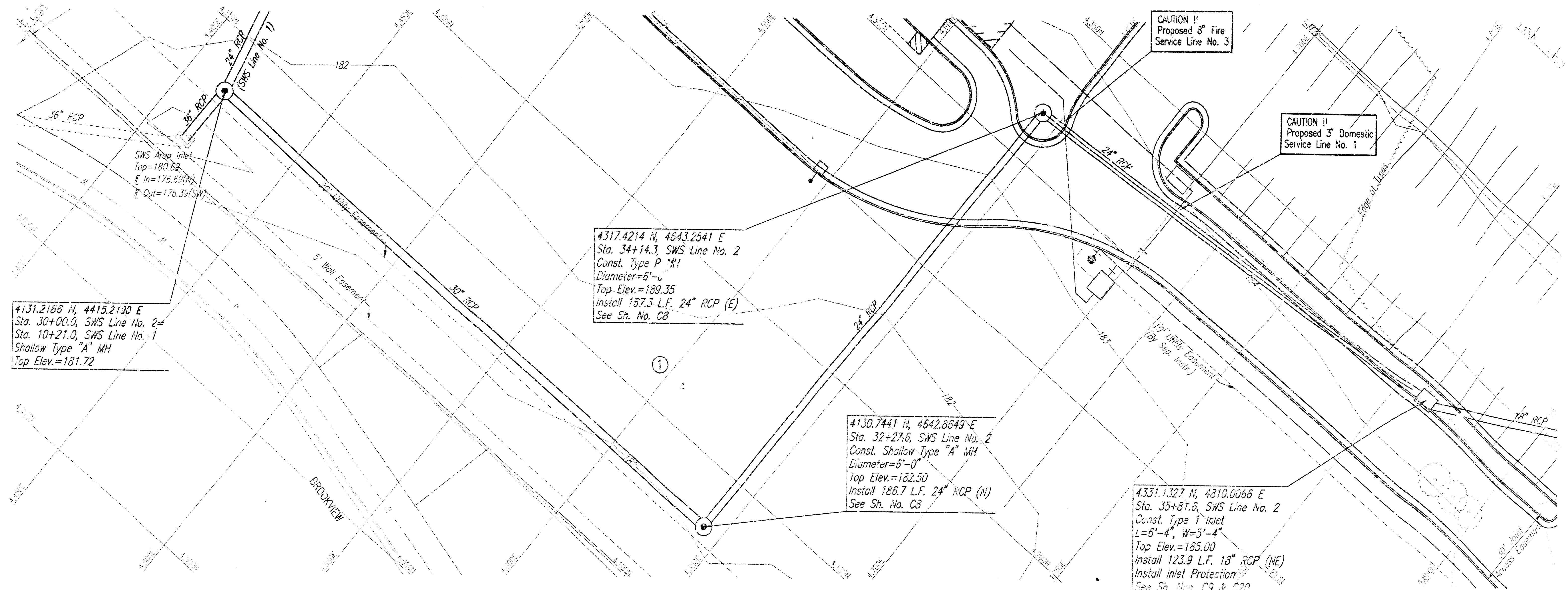
WHISPERING BROOK COMMERCIAL 2ND ADDITION

Job No. 011.5

Date: MAY 2001

By: KTR

Scale: 1"=20'



4131.2166 N, 4415.2190 E
Sta. 30+00.0, SWS Line No. 2
Sta. 10+21.0, SWS Line No. 1
Shallow Type "A" MH
Top Elev. = 181.72

4317.4214 N, 4643.2541 E
Sta. 34+14.3, SWS Line No. 2
Const. Type P "H"
Diameter = 6'-0"
Top Elev. = 189.35
Install 167.3 L.F. 24" RCP (E)
See Sh. No. C8

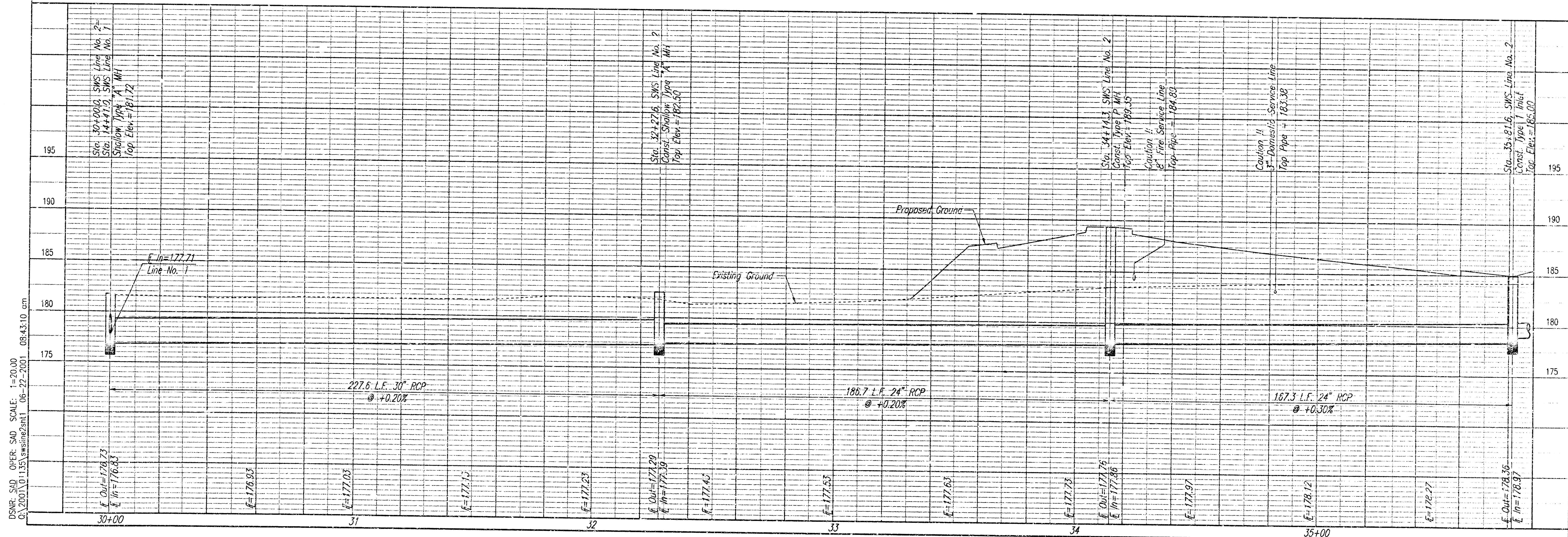
4130.7441 N, 4642.8649 E
Sta. 32+27.6, SWS Line No. 2
Const. Shallow Type "A" MH
Diameter = 6'-0"
Top Elev. = 182.50
Install 186.7 L.F. 24" RCP (N)
See Sh. No. C3

4331.1327 N, 4310.0066 E
Sta. 35+81.6, SWS Line No. 2
Const. Type 1 Inlet
L = 6'-4", W = 5'-4"
Top Elev. = 185.00
Install 123.9 L.F. 18" RCP (NE)
Install Inlet Protection
See Sh. Nos. C3 & C20

CAUTION !!
Proposed 8" Fire
Service Line No. 3

CAUTION !!
Proposed 3" Domestic
Service Line No. 1

SCALE: 1" = 20'



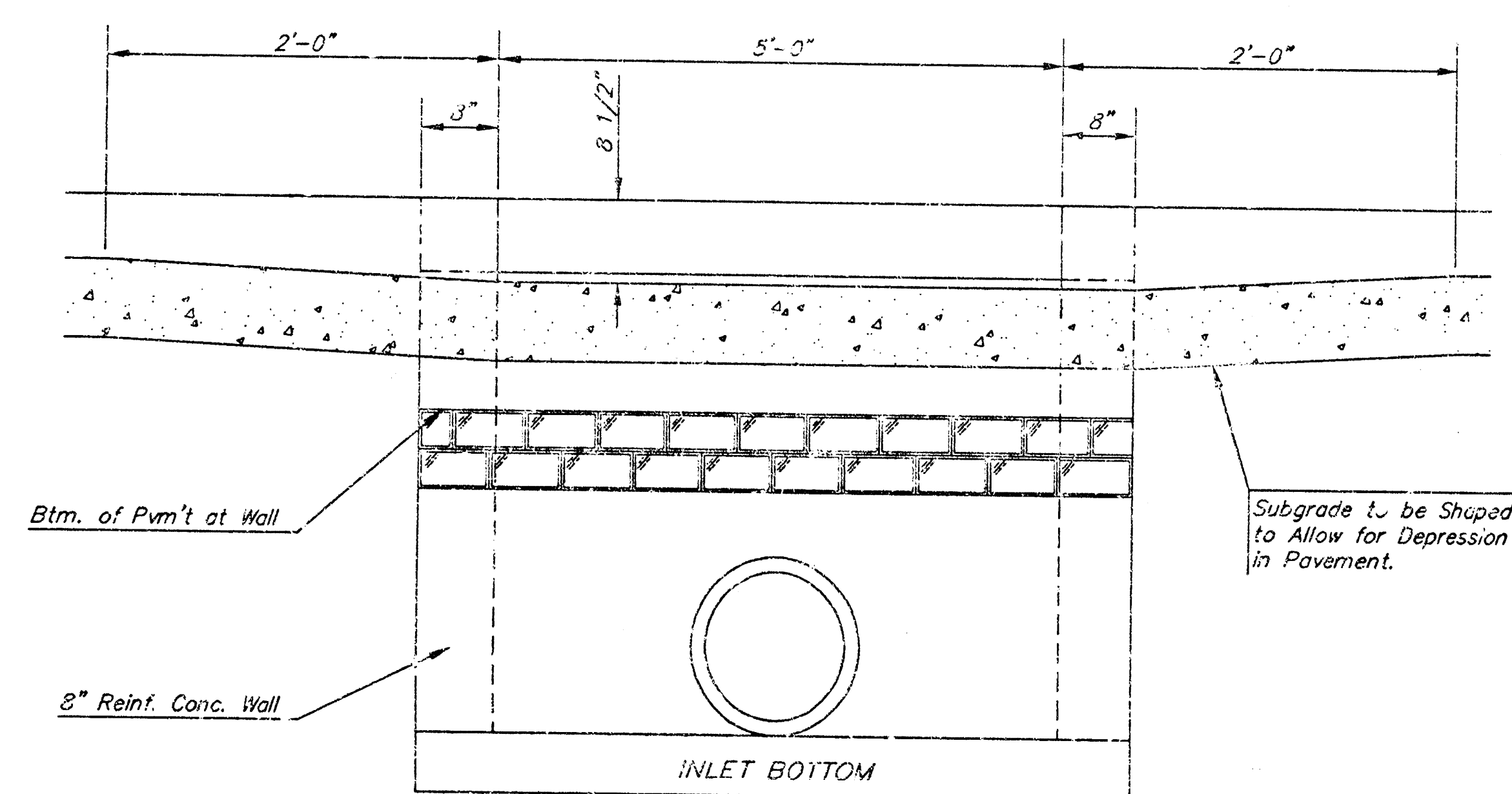
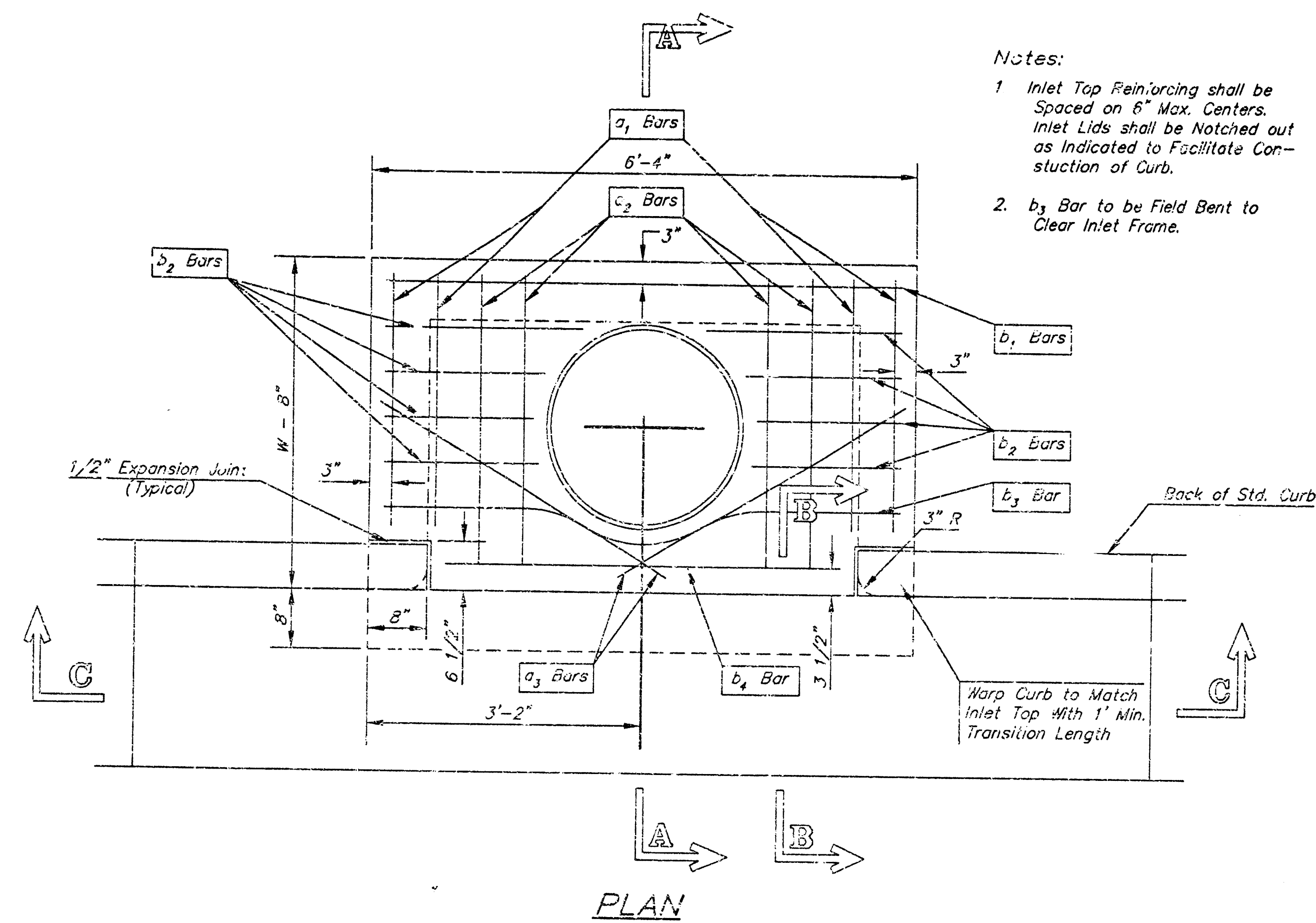
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SWS LINE NO. 2
STA. 30+00.0 TO STA. 35+81.6

Professional Engineering Consultants, P.A.
303 S. TORREY WICHITA, KANSAS 67202
(781) 326-2601 • FAX 316-242-3663

Job No. 01135
Date: Mar 2001

Sheet

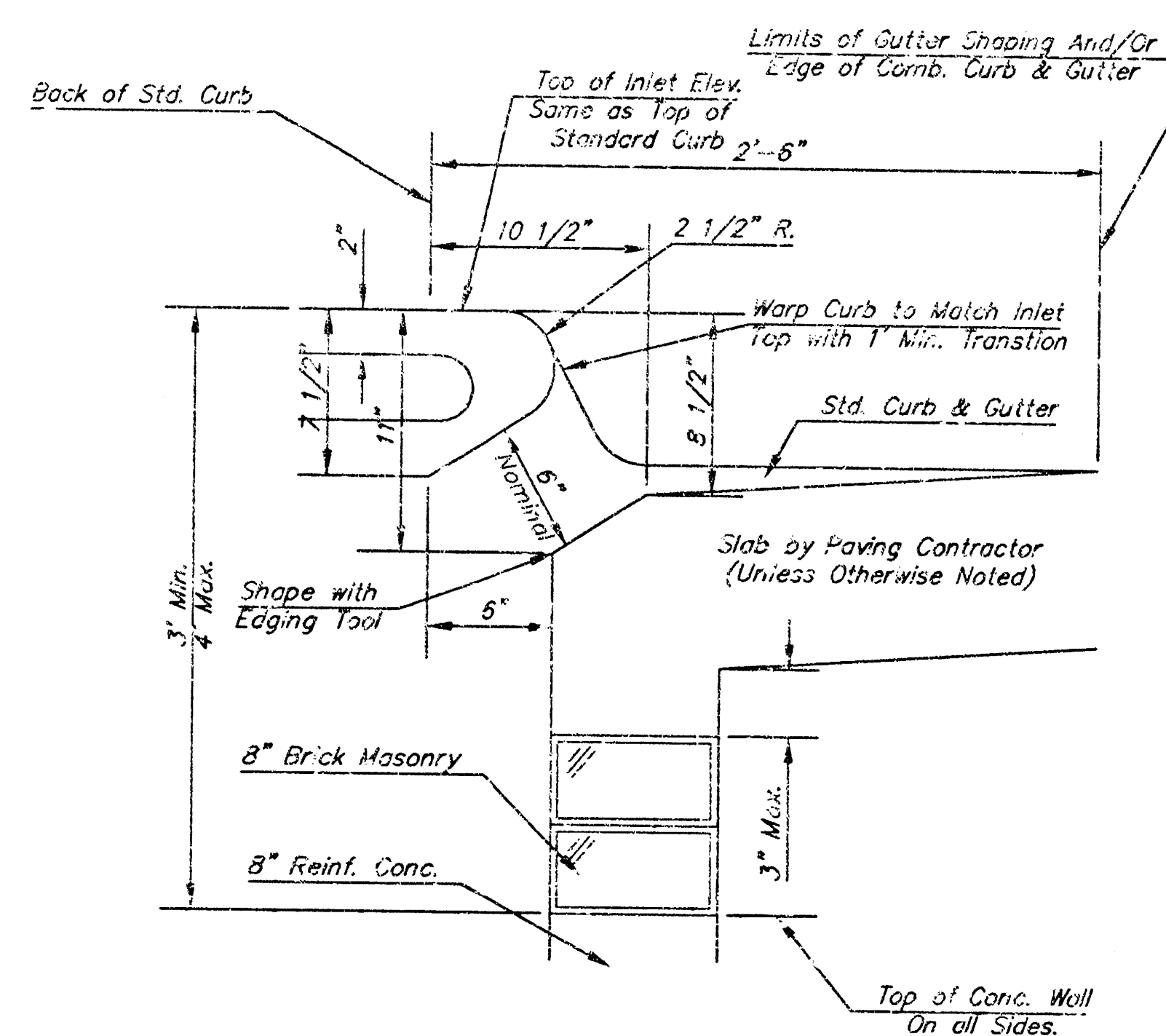
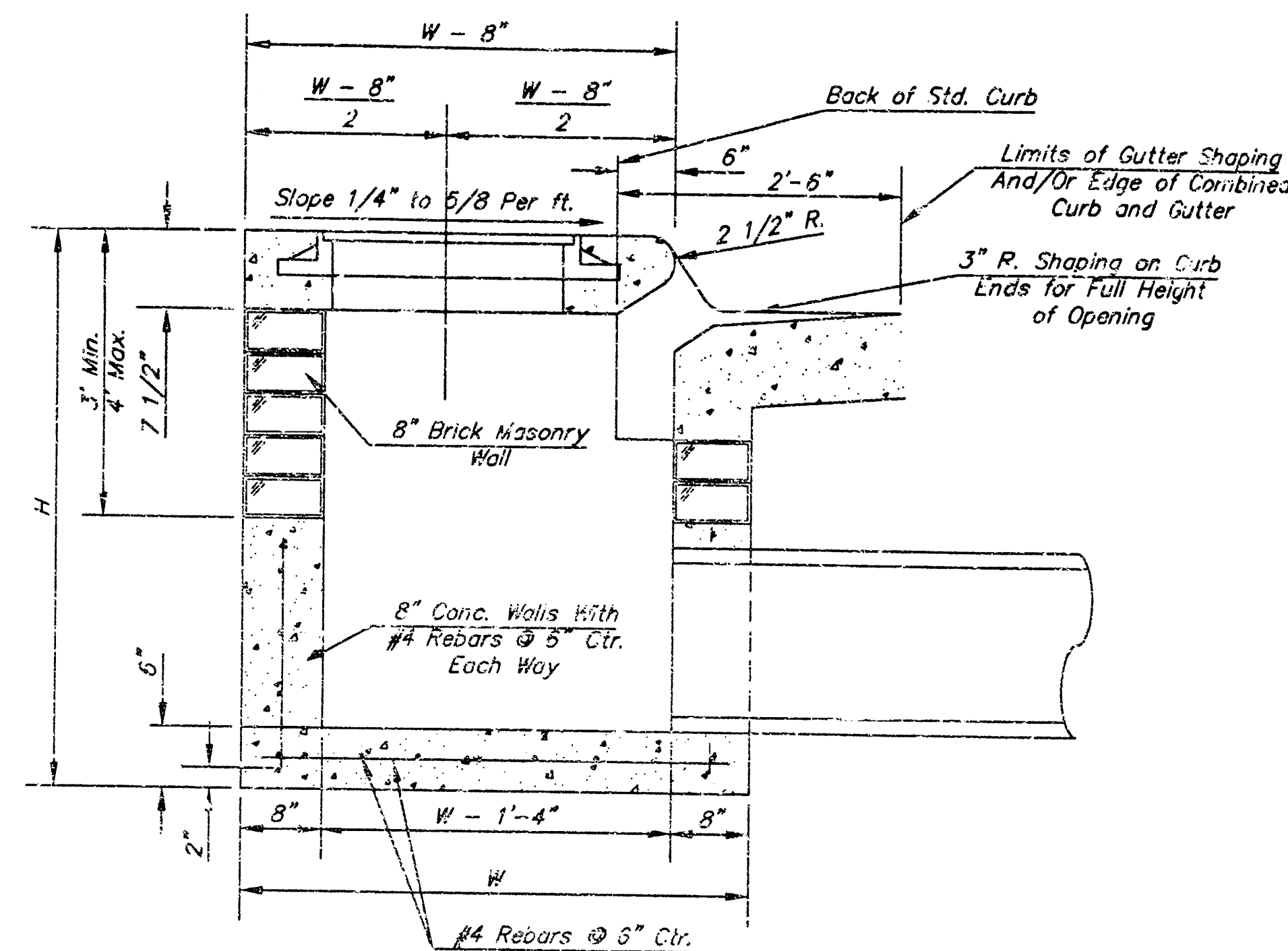


STEEL SCHEDULE

STEEL SCHEDULE												
BAR	a ₁	a ₂	a ₃	a ₄				a ₅	b ₃	b ₄	WT. Lbs.	
				#4-4"	#4-5'-4"	#4-5'-1"	#4-7'-4"	#4-8'-4"				
NUMBER	4	4	2	1	3	5	7	9	6	1		
SIZE	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6		
LENGTH:	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"	-	6'-1"	-	-	1'-9"	6'-2"	4'-8"	101±
	W=7'-4"	11'-7"	12'-7"	7'-0"	-	-	6'-1"	-	1'-9"	6'-2"	4'-8"	121±
	W=8'-4"	13'-7"	14'-7"	8'-0"	-	-	-	6'-1"	1'-9"	6'-2"	4'-8"	141±

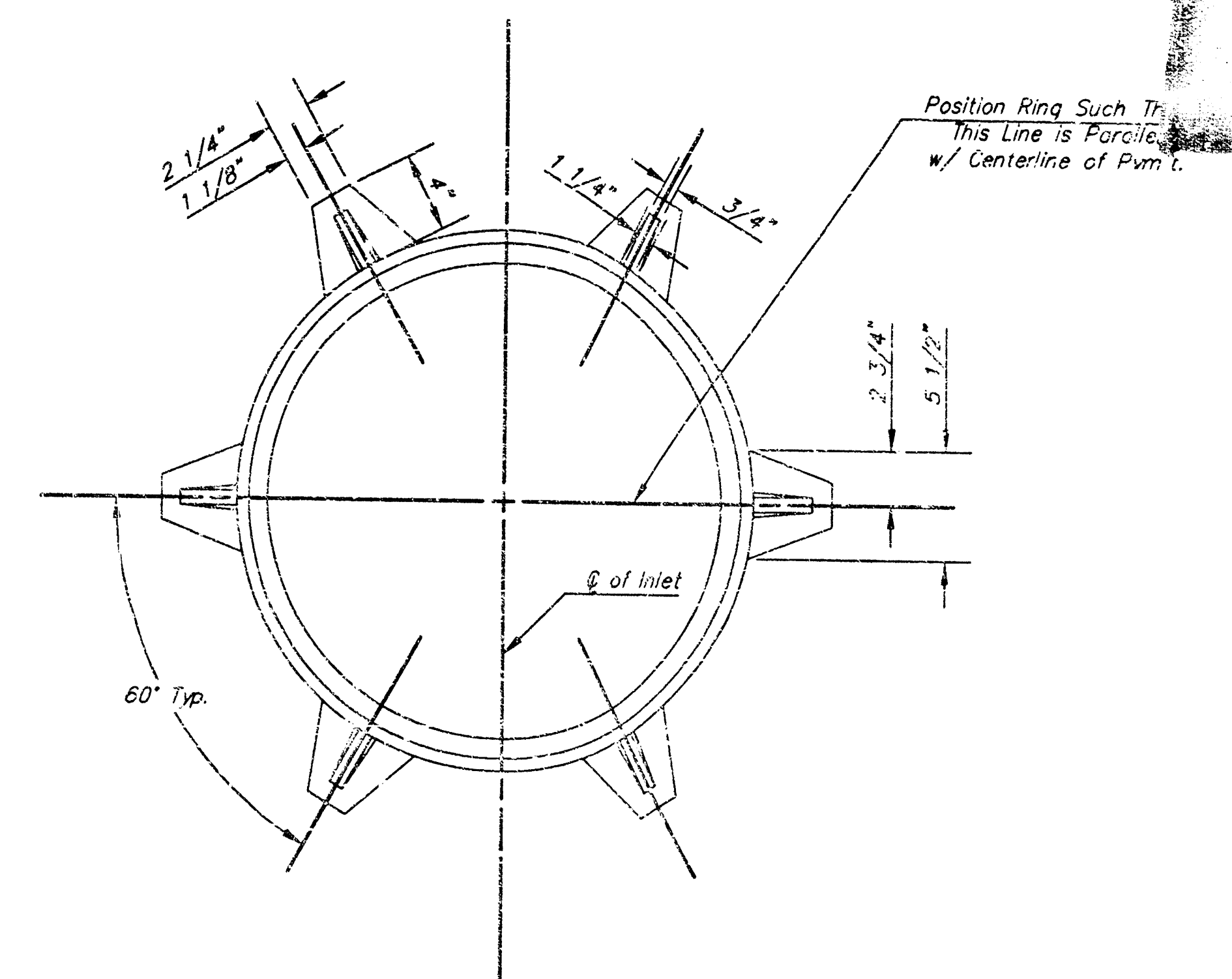
Note: a₃ Bars to be Placed Approx. 2" Below Top of Inlet Cover.

W	PRE-CAST TOP SIZE	PIPE SIZE	CUL. YD. CONC.
4'-4"	3'-8" 6'-4" 7 1/2"	21" & SMALLER	0.38±
5'-4"	4'-8" 6'-4" 7 1/2"	24" & 30"	0.51±
6'-4"	5'-8" 6'-4" 7 1/2"	36" & 42"	0.64±
7'-4"	6'-8" 6'-4" 7 1/2"	48" & 54"	0.77±
8'-4"	7'-8" 6'-4" 7 1/2"	60" & 66"	0.90±

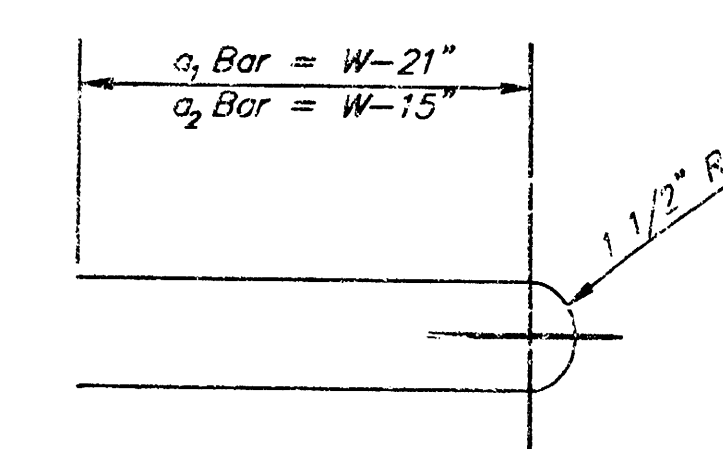


GENERAL NOTES

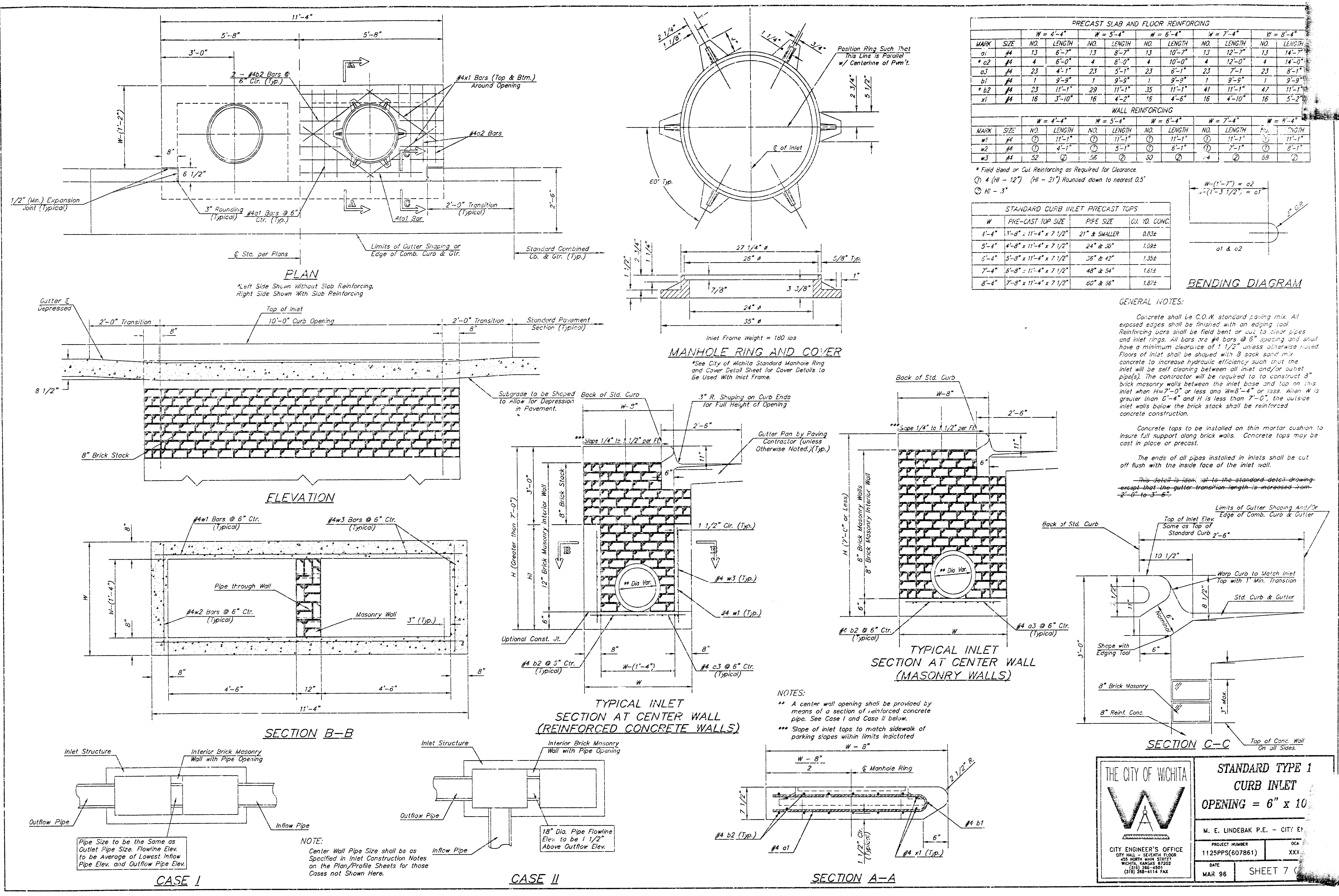
- Concrete tops to be installed on thin mortar cushion to insure full support along brick walls. Concrete tops may be cast in place or precast. Concrete used for inlet construction shall be concrete pavement mix.
- Contractor shall have the option of constructing 8" brick masonry walls between the concrete 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.



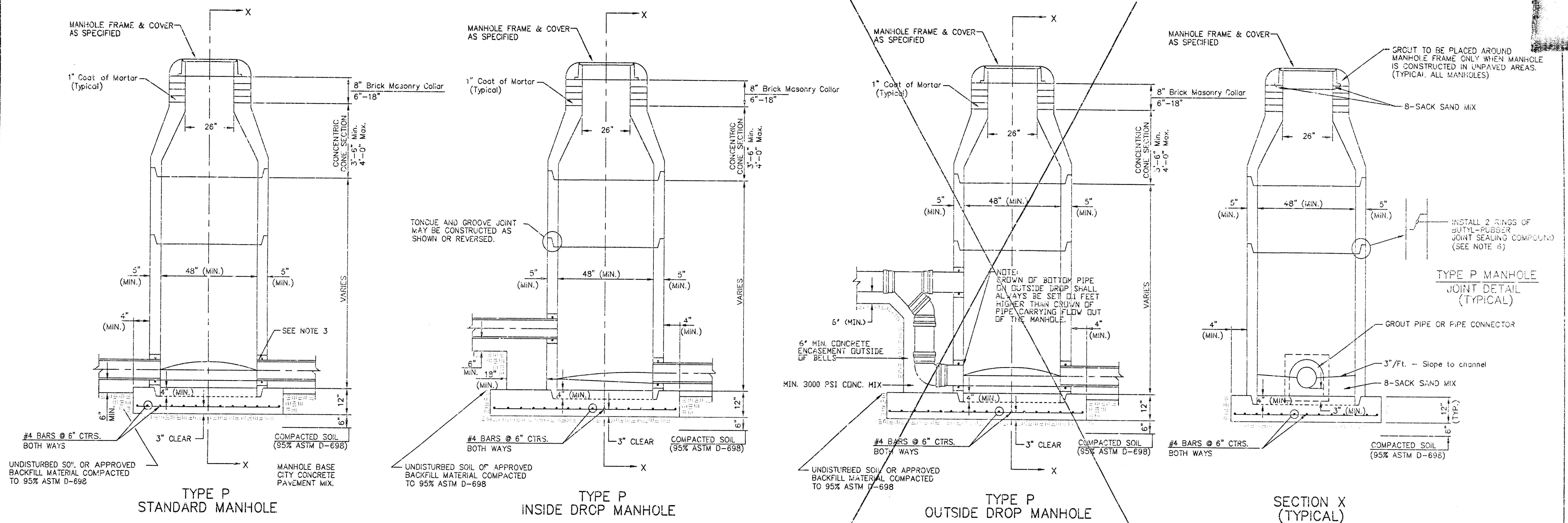
*See City of Wichita Standard Manhole Ring and Cover Detail Sheet for Cover Details to Be Used With Inlet Frame.



THE CITY OF WICHITA CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 405 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 266-4501 (316) 266-4114 FAX	STANDARD TYPE 1 CURB INLET OPENING = 6" x 5"	
	M. E. LINDEBAK P.E. - CITY ENGR.	
	PROJECT NUMBER 1125PPS(607861)	QCA NO. XXXXXX
	DATE MAR 96	SHEET 6 OF



SEWER APPURTENANCES DETAILS

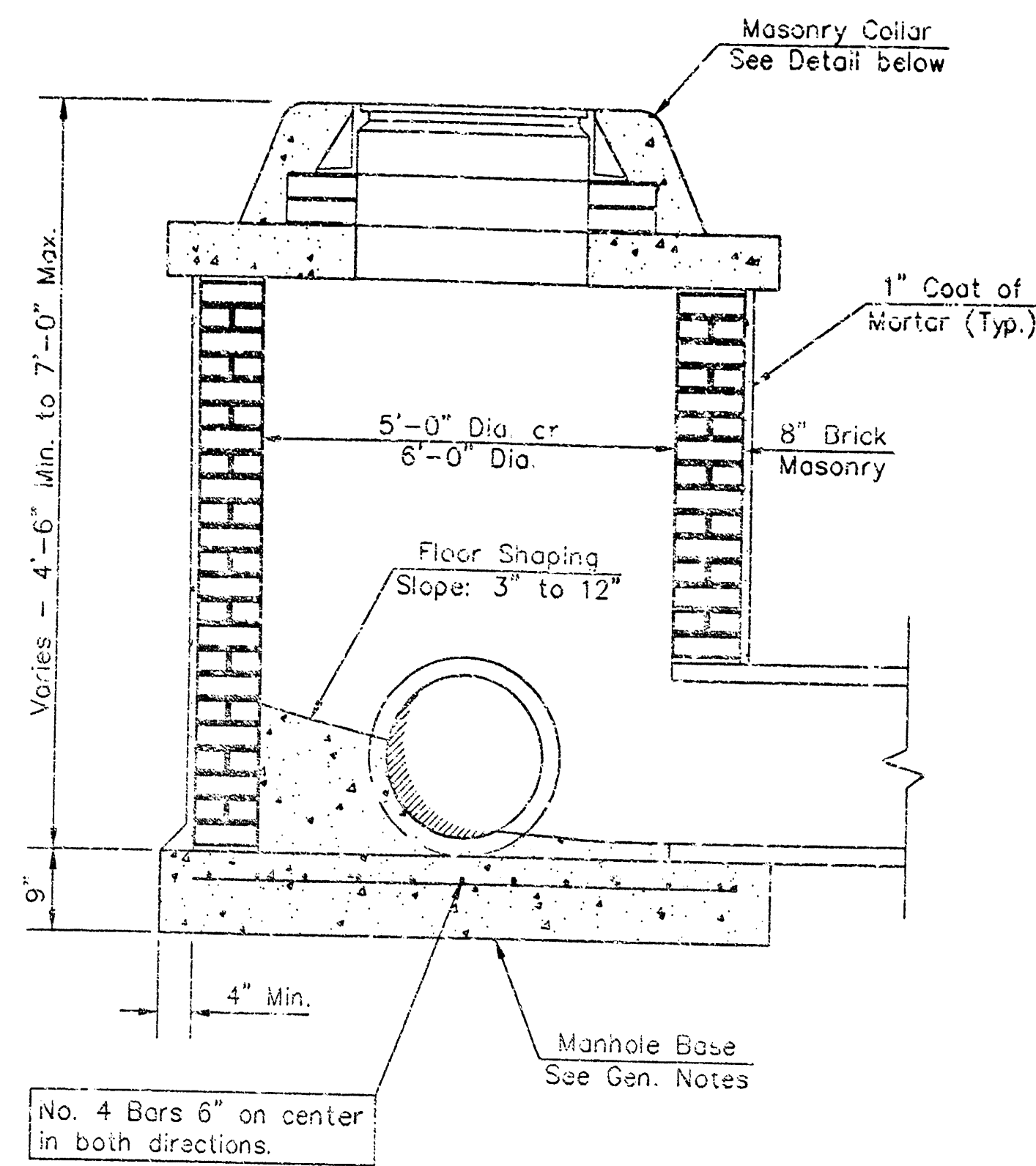


- GENERAL NOTES**
- PRECAST MANHOLE NOTES**
1. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
 2. NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
 3. APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER 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 GROUDED 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.
 4. ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS TNECO-SERIES 66 HT-BUILD EPOXYLINE DRY THICKNESS OF 8 MILS (MIN.)
 5. EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MODULARMA-633 BITUMINOUS COATING.
 6. JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
 7. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
 8. 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.
 9. LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
 10. 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.

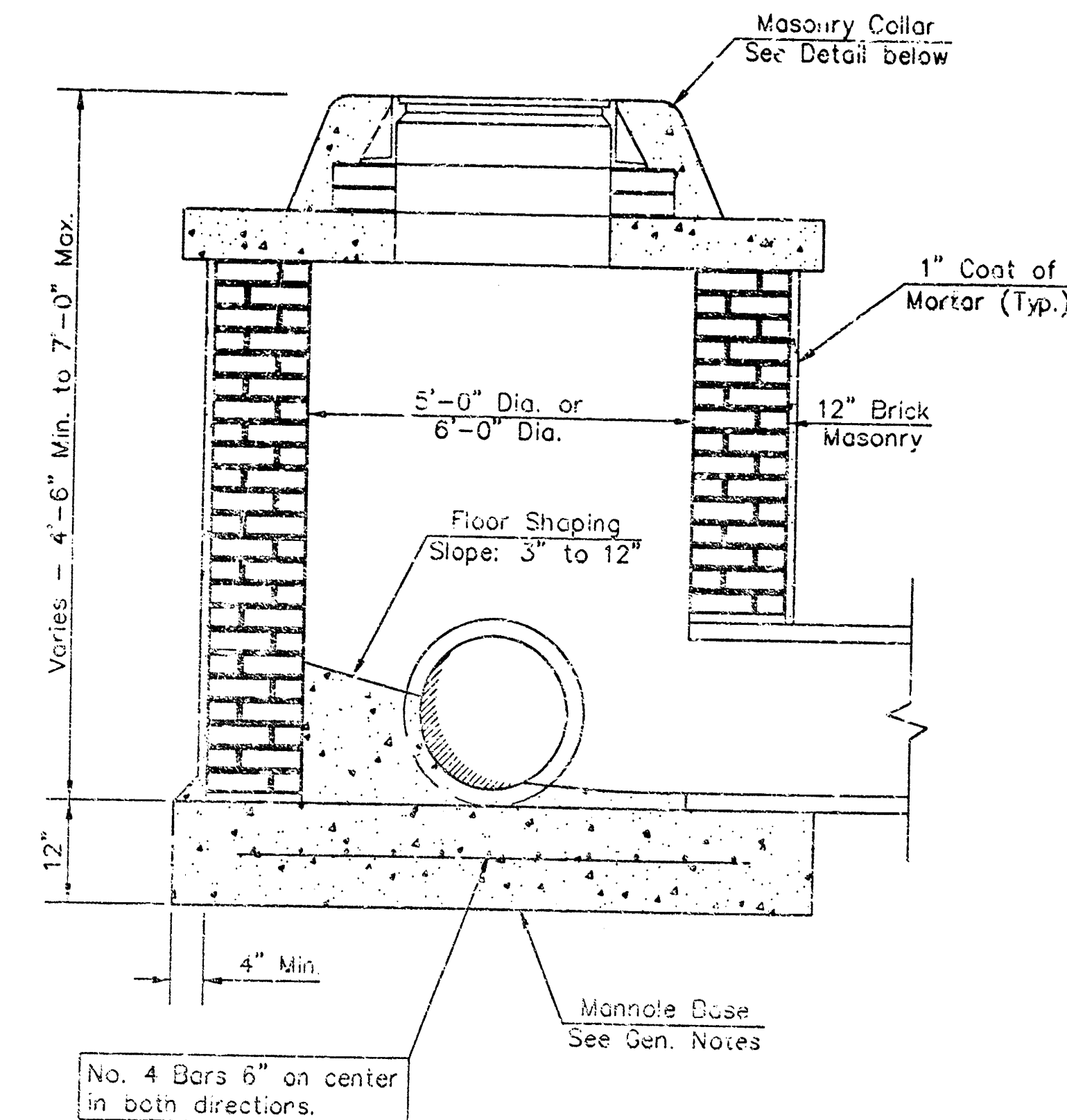
11. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
12. 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 GROUDED 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 GROUDED 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 COMING 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.
13. 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.
14. 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.

15. 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.
16. 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.
17. 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.
18. 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.

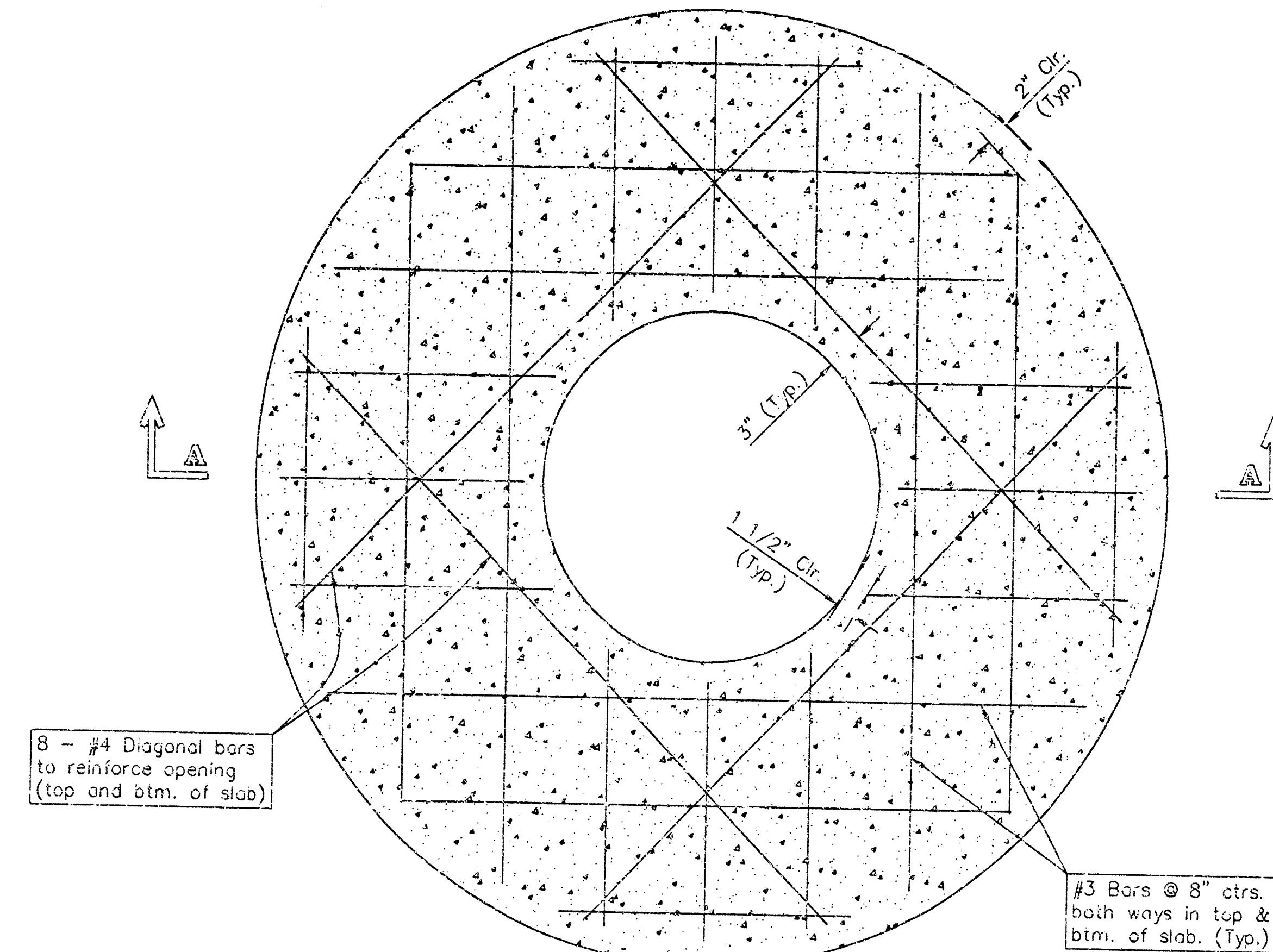
THE CITY OF WICHITA CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 425 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-4501 (316) 268-4114 FAX	STANDARD TYPE 'P' MANHOLES	
	M. E. LINDEBAK P.E. - CITY	
	PROJECT NUMBER 1125PPS(607861)	SHEET 9
	DATE MAR 96	X



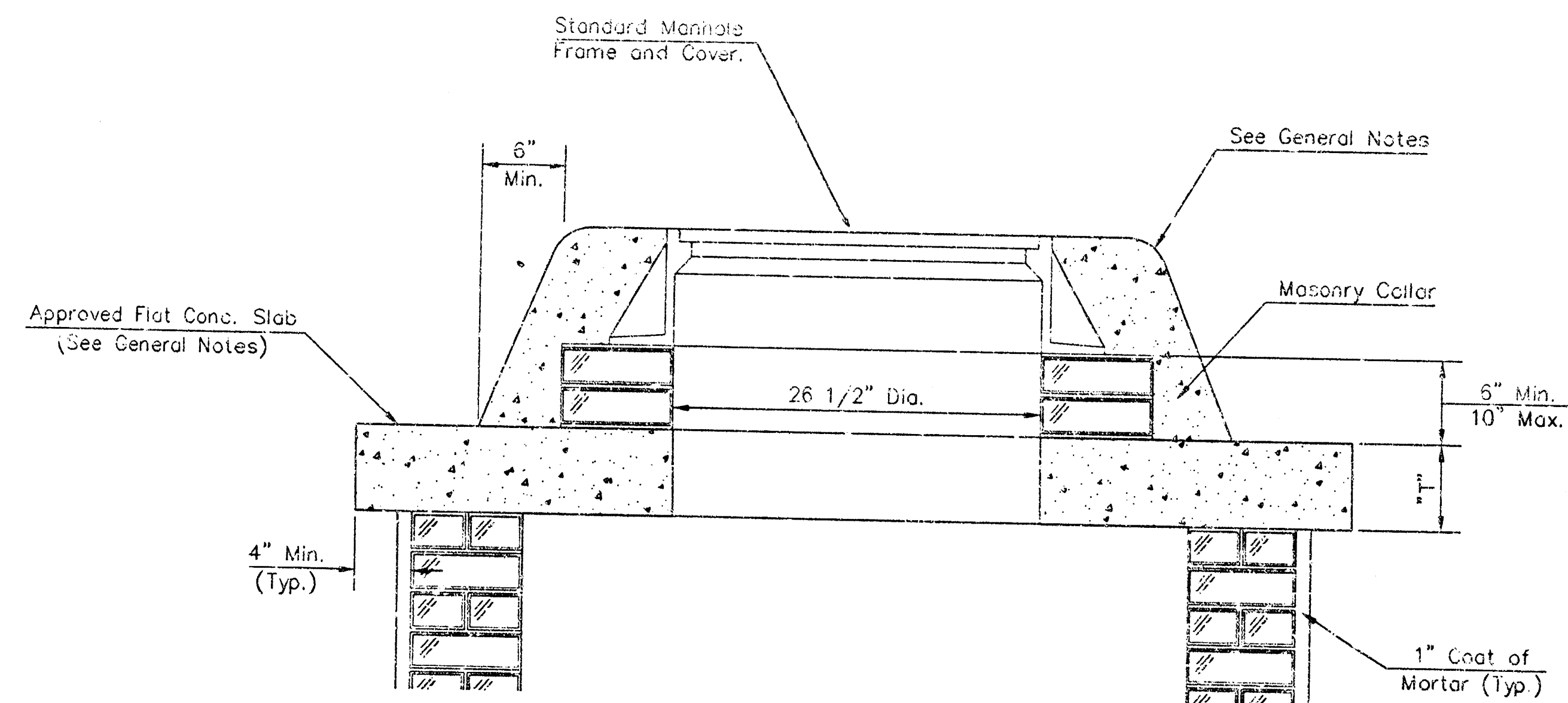
SHALLOW TYPE "A" MANHOLE



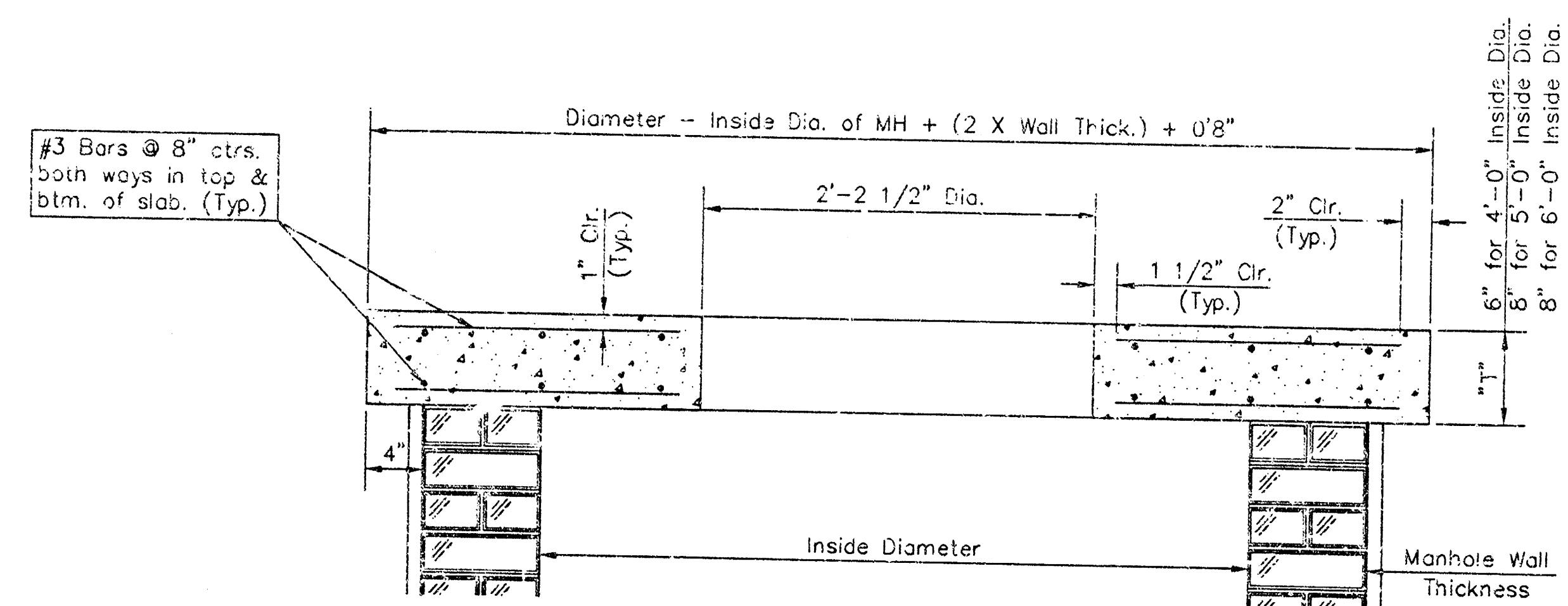
SHALLOW TYPE "B" MANHOLE



PLAN

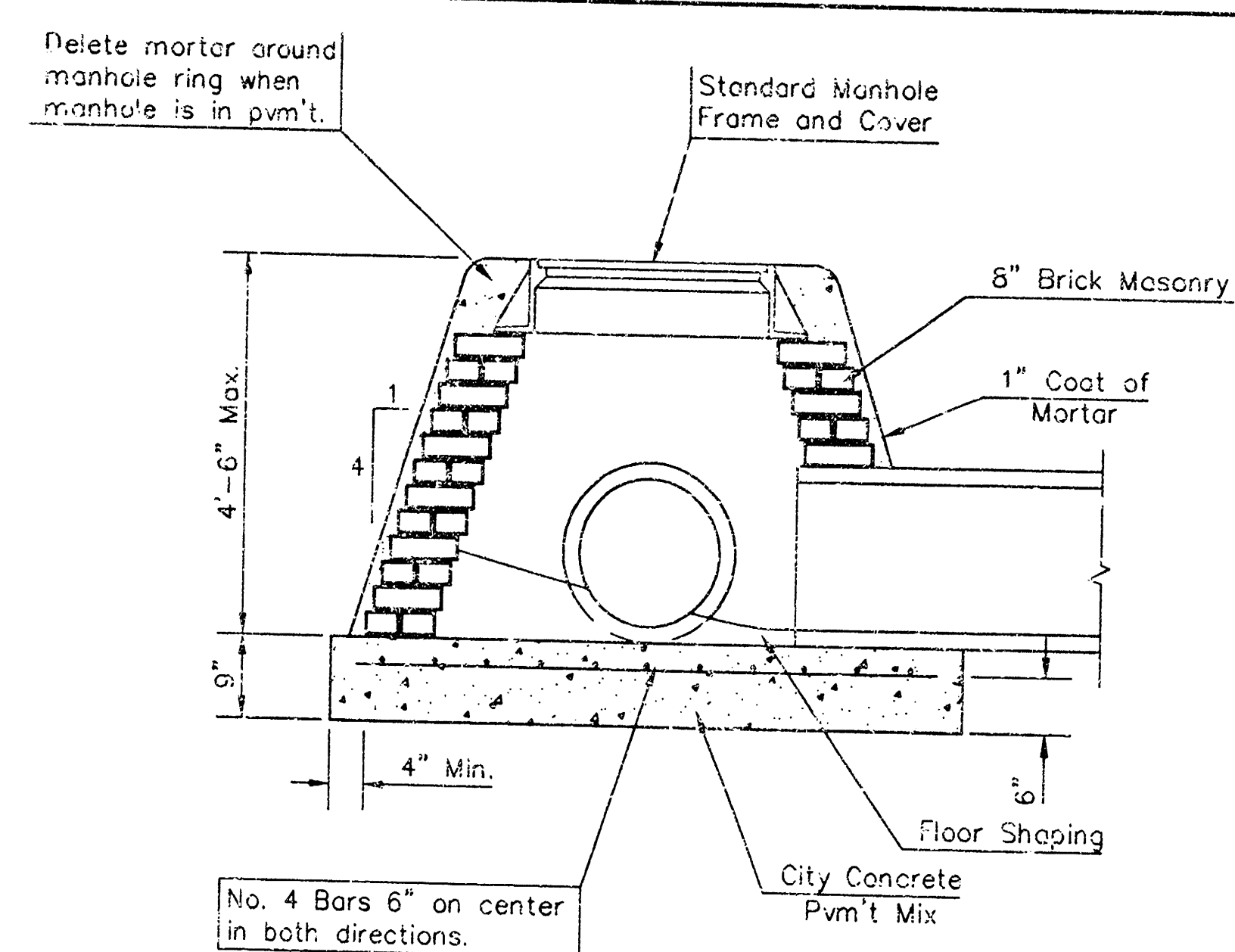


MASONRY COLLAR DETAIL

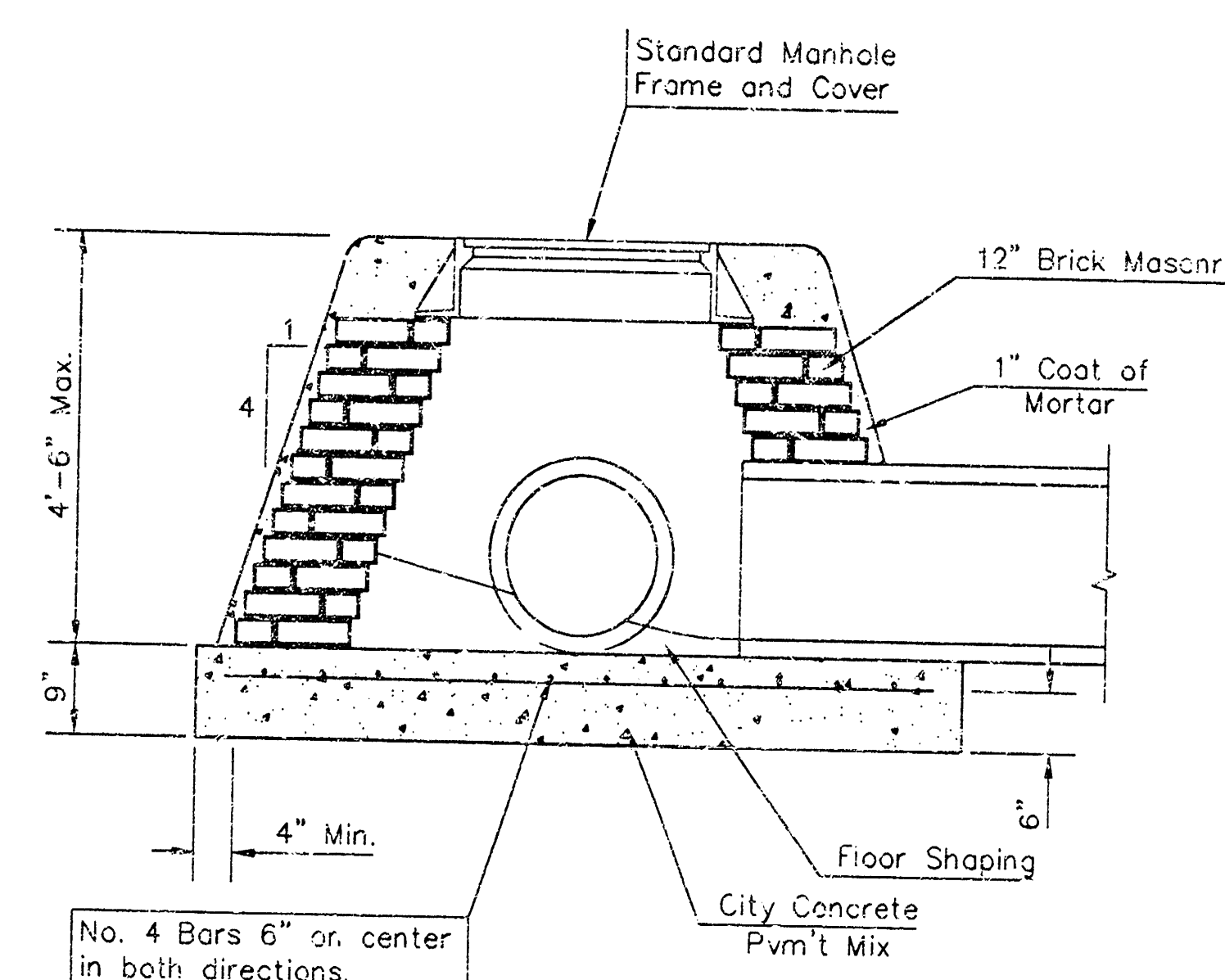


SECTION A--A

FLAT CONCRETE SLAB DETAILS



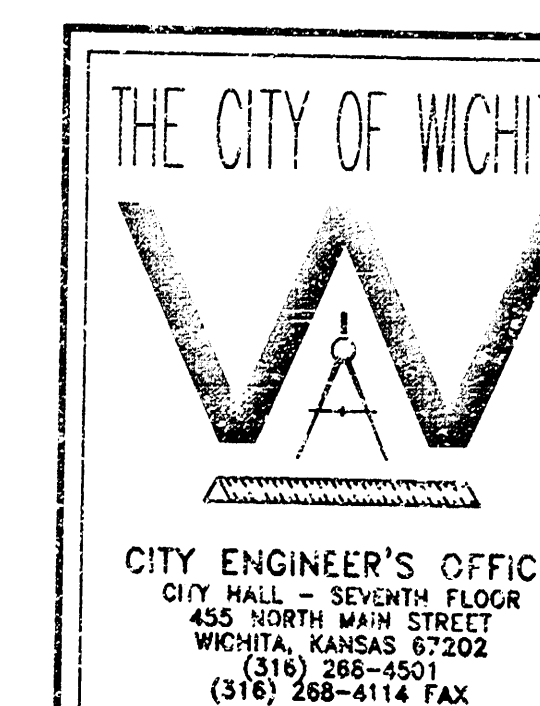
SPECIAL SHALLOW TYPE "A" MANHOLE



SPECIAL SHALLOW TYPE "B" MANHOLE

GENERAL NOTES

1. Mortar used in masonry construction shall contain 3 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. Type "A" shallow manholes can be used on sewers when the manhole is not located within public street pavement. Manholes constructed where pipe sizes are smaller than 24" shall have an inside diameter of 4'-0". Manholes constructed where pipe sizes are 24" or larger shall have an inside diameter of 6'-0". Completed manholes shall be without leaks and water tight. Inside diameter is noted on plans.
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. Reinforcing steel shall be installed in the manhole base and shall be placed on 6" centers in both directions.
3. The floors of all manholes shall be sloped 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 cradling within manhole excavation or to clay pipe joints outside 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 "A" and "B" shall be paid for at the unit price bid per each for the type and diameter indicated. Standard special shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type 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.



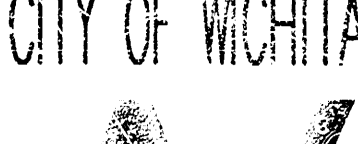
STANDARD/SPECIAL SHALLOW MANHOLES TYPE 'A' & 'B'

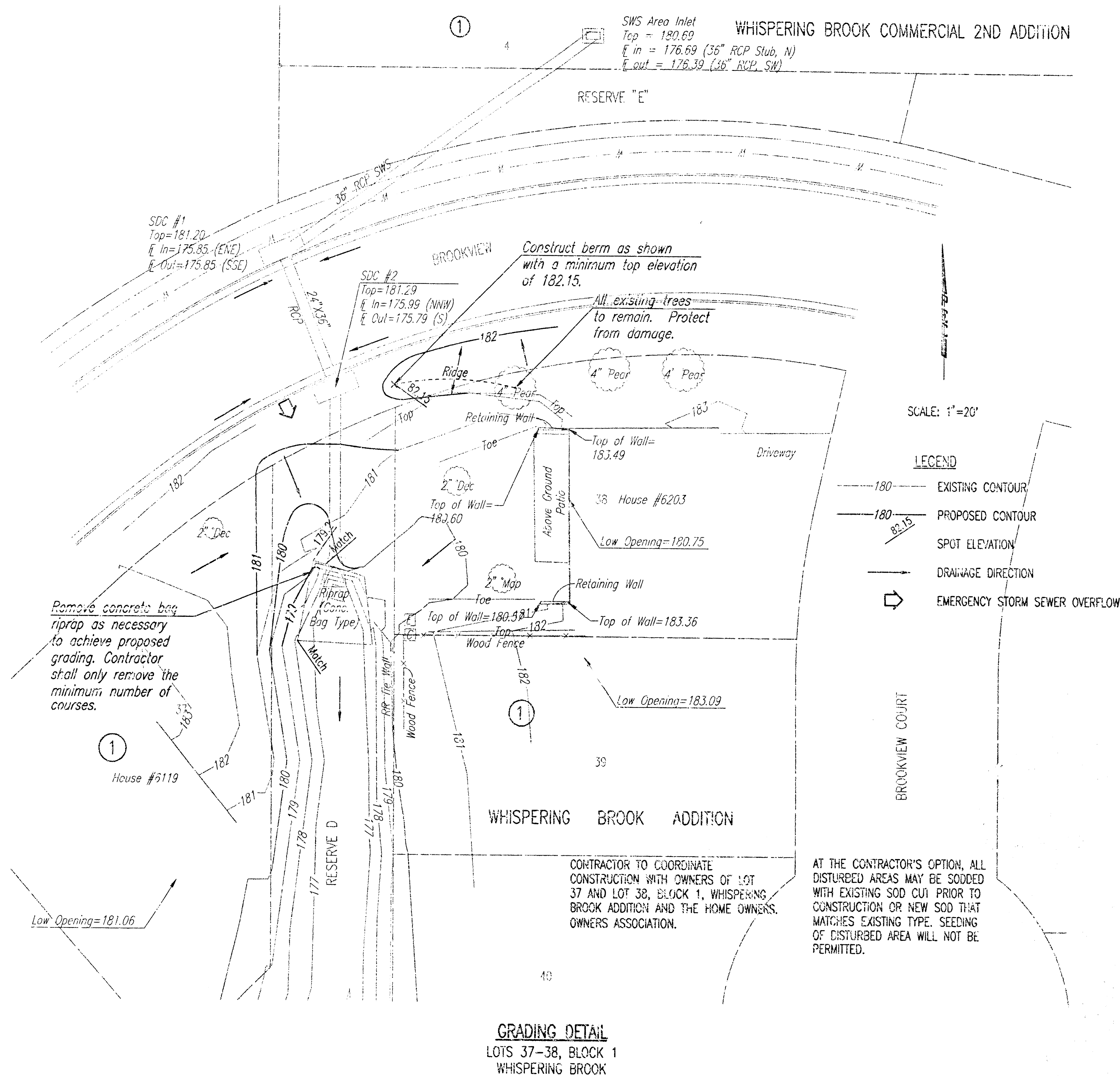
M. E. LINDEBAK P.E. - CITY ENGINEER

PROJECT NUMBER
1125PPS(607861)

DATE
MAR 96

SHEET 10 OF 12

THE CITY OF WICHITA  CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 405 NORTH WASHINGTON WICHITA, KANSAS 67202 (316) 268-6901 (316) 268-6114 FAX	MANHOLE FRAME AND COVER W. E. LINDEBAK P.E. - CITY ENGINEER <table border="1"> <tr> <td data-bbox="2531 1659 2626 1682"> PROJECT NUMBER 1125PPPS(607861) </td> <td data-bbox="2626 1659 2742 1682"> DCA. NO. XXXXXX </td> </tr> <tr> <td data-bbox="2531 1682 2626 1705"> DATE MAR 96 </td> <td data-bbox="2626 1682 2742 1705"> SHEET 11 OF 12 </td> </tr> </table>	PROJECT NUMBER 1125PPPS(607861)	DCA. NO. XXXXXX	DATE MAR 96	SHEET 11 OF 12
PROJECT NUMBER 1125PPPS(607861)	DCA. NO. XXXXXX				
DATE MAR 96	SHEET 11 OF 12				



WHISPERING BROOK COMMERCIAL 2ND ADDITION

OFF-SITE GRADING

Professional Engineering Consultants, P.C.
303 S. TORREDA • WICHITA, KANSAS 67202
316-242-4691 • FAX 316-262-3003

Designed by	KER	Checked by	ORC
Drawn by	KER	Date	JUNE 2001
		Job No.	

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