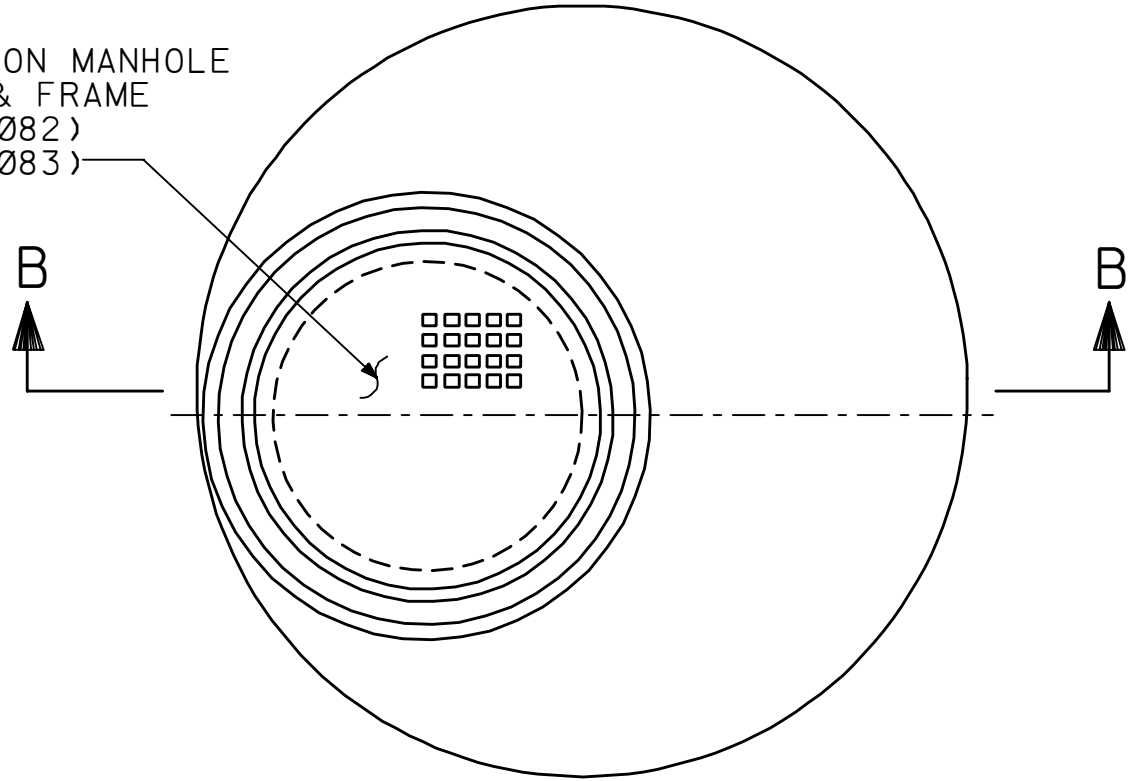
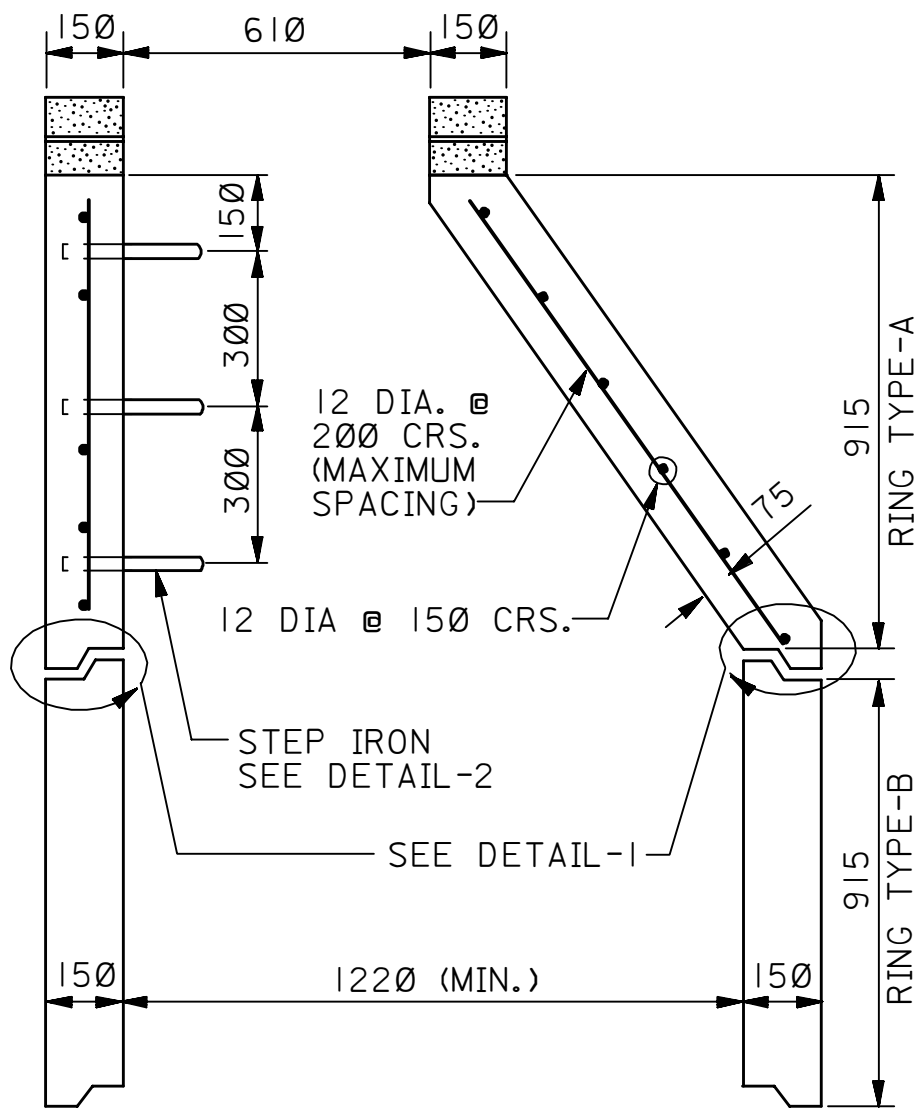


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ON REV.	NO.	DRAWING NO.	INDEX	PLANT NO.

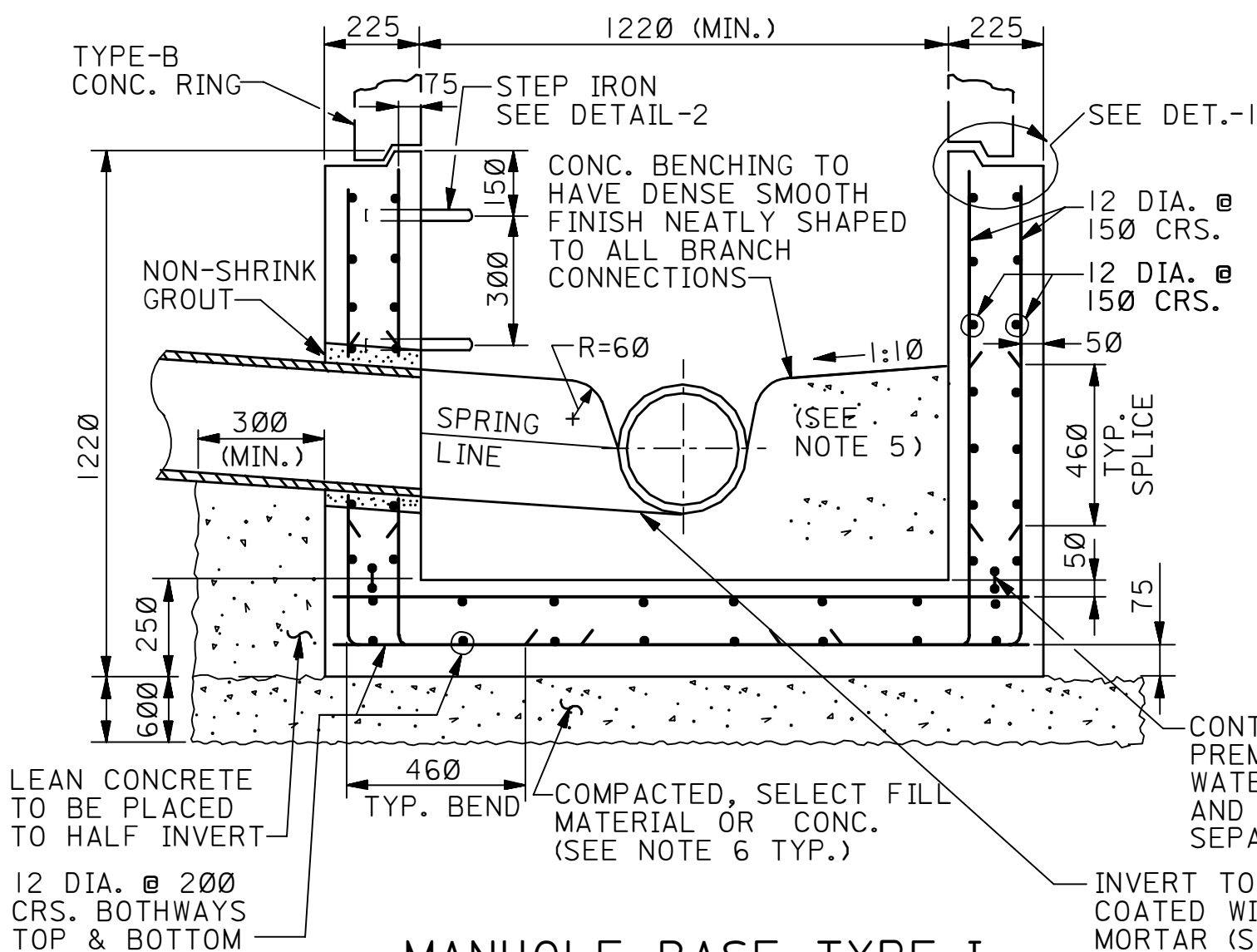
CAST IRON MANHOLE COVER & FRAME (AE-036082) (AE-036083)



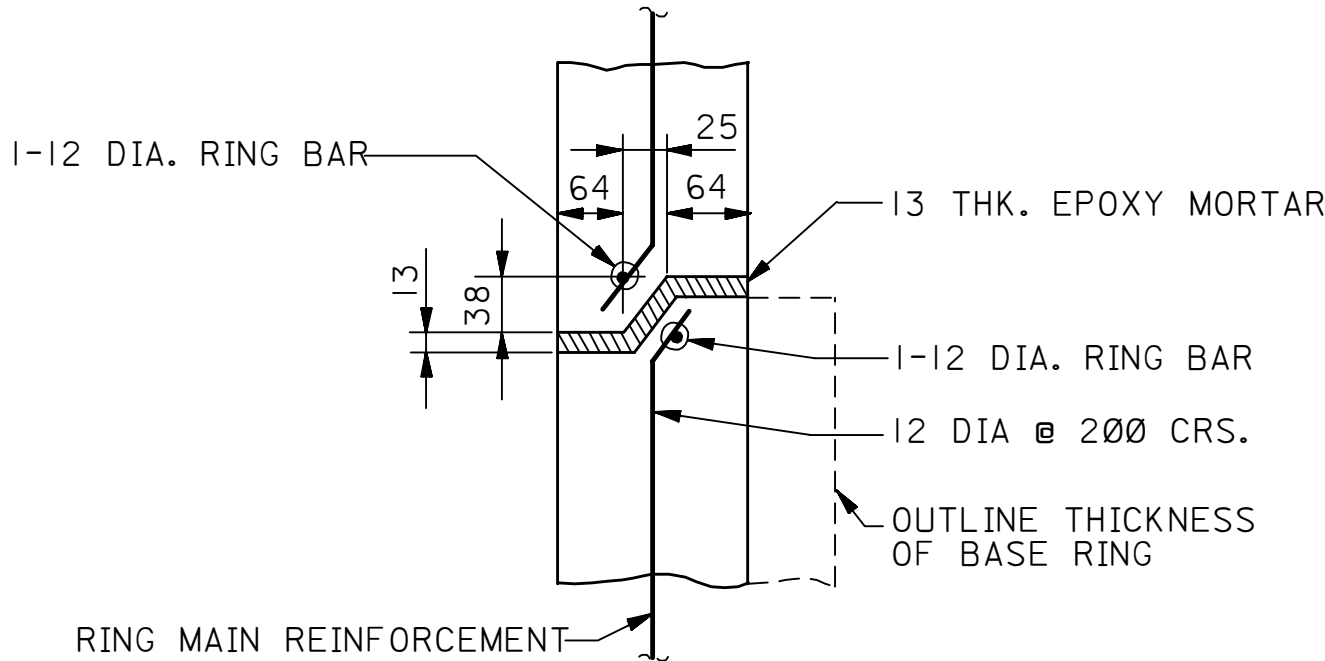
PLAN (TYPE-I & II)



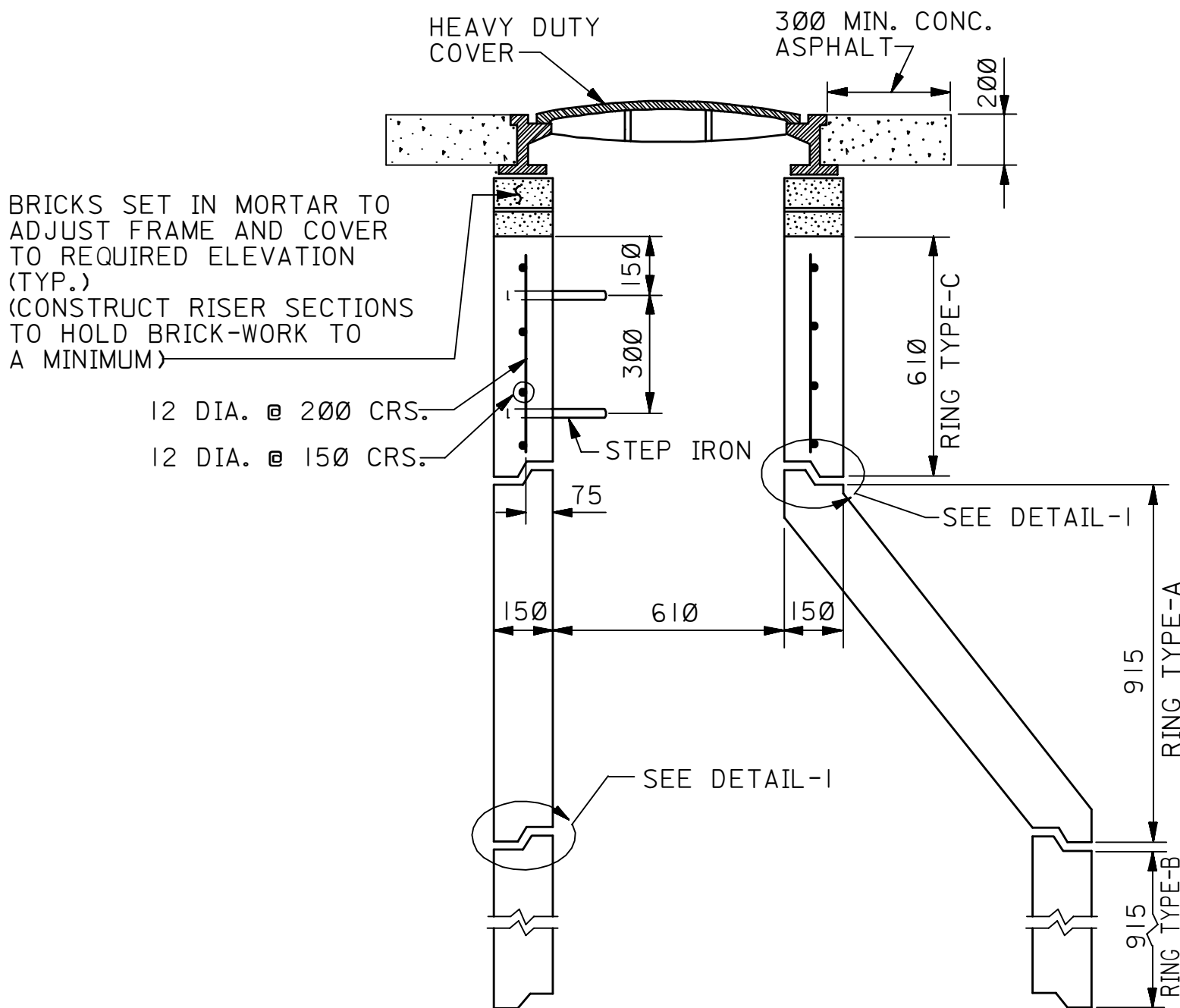
SECTION B-B (TYPE-I)



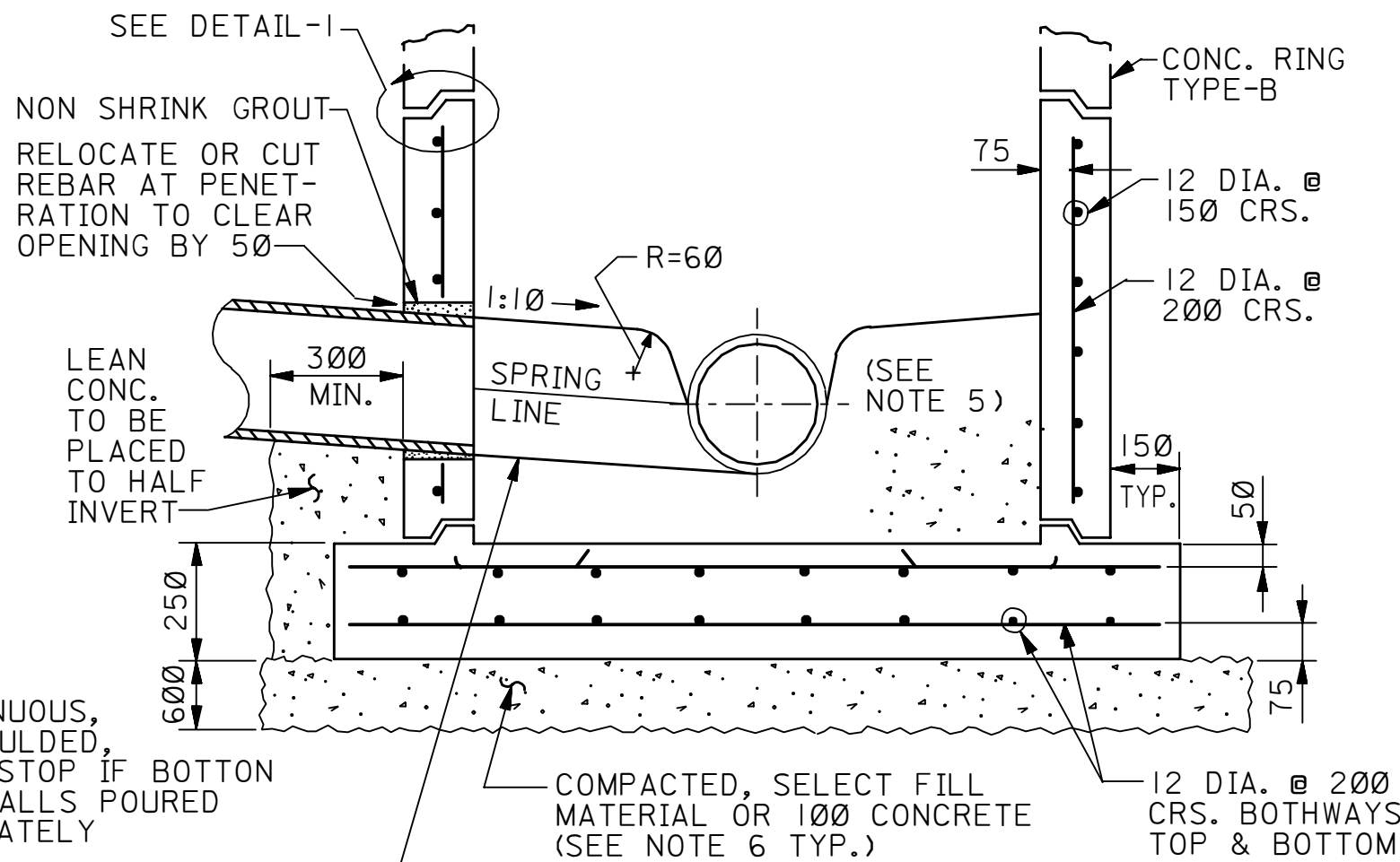
MANHOLE BASE TYPE-I
(FOR CONSTRUCTION BELOW WATER TABLE)



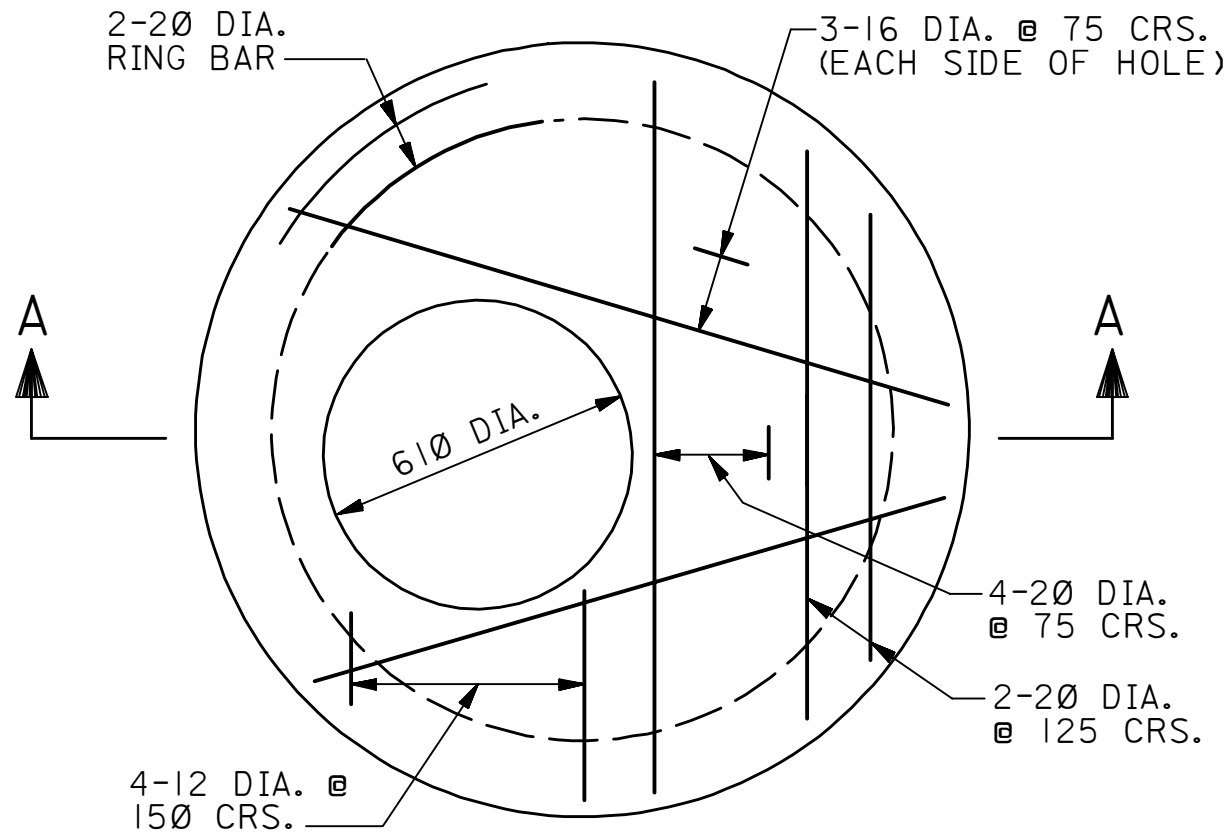
DETAIL-1



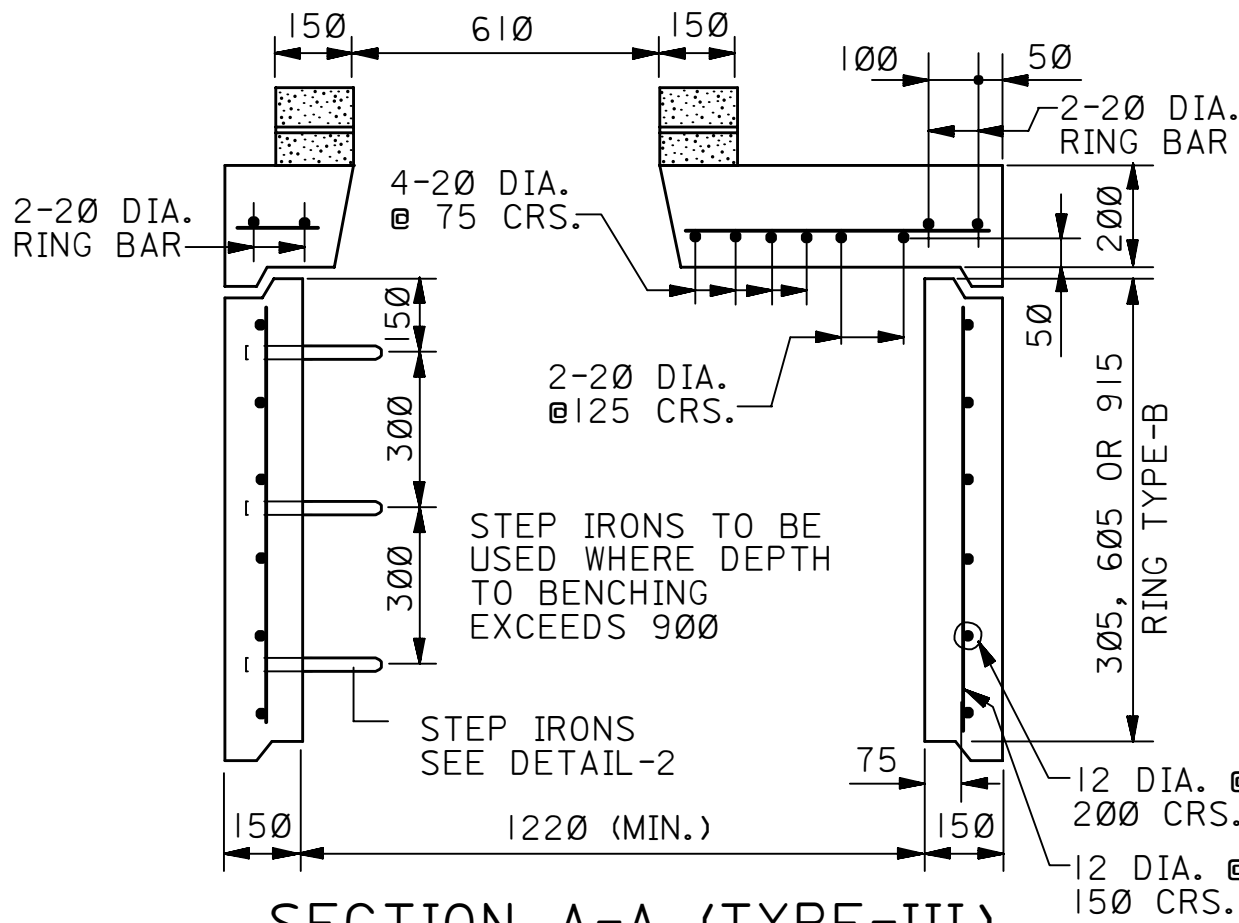
SECTION B-B (TYPE-II)



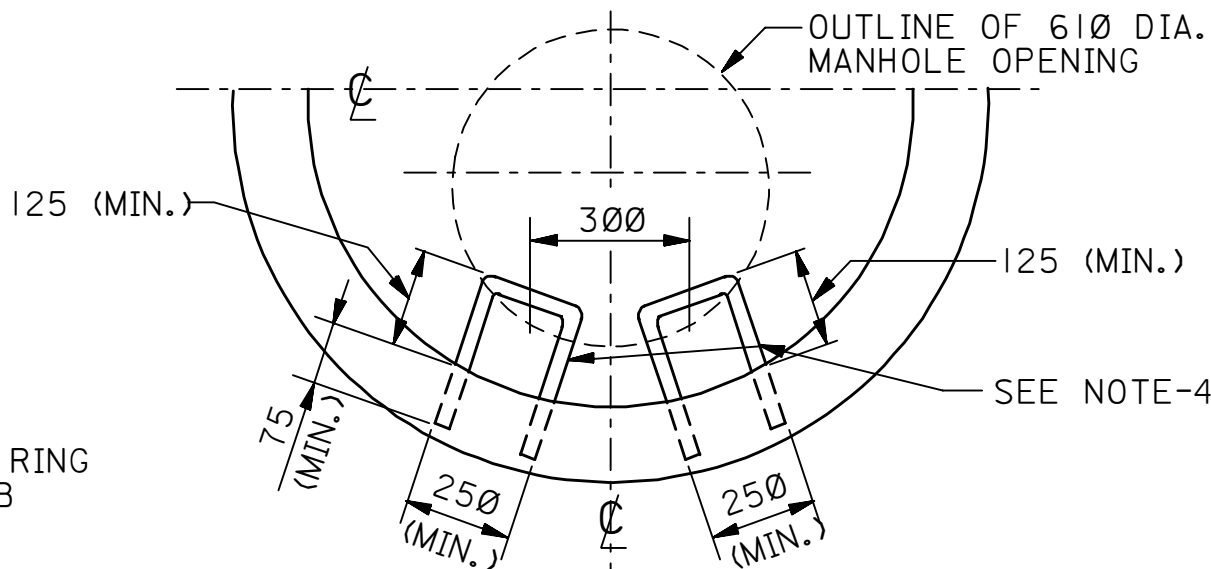
MANHOLE BASE TYPE-II
(FOR CONSTRUCTION ABOVE WATER TABLE)



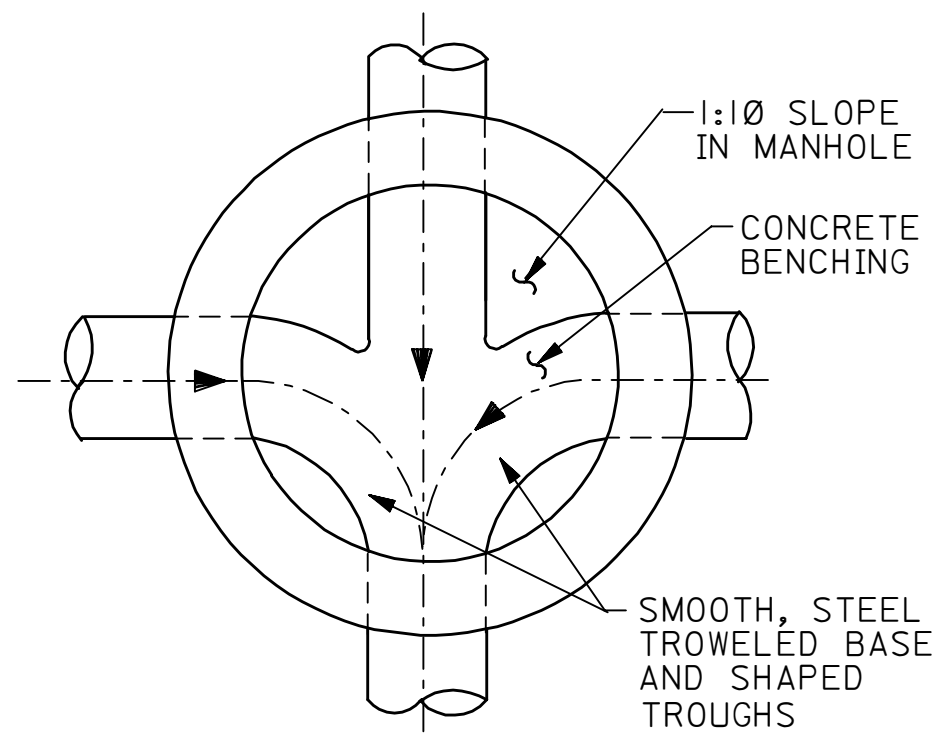
PLAN (TYPE-III)



SECTION A-A (TYPE-III)
(SUITABLE WHERE SEWER IS LESS THAN 2M DEEP)



DETAIL-2



BOTTOM PLAN

NOTES:

- CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 27.6 MPa AT 28 DAYS. (SULFATE RESISTING CEMENT) PER AES-Q-3 AND 09-AMSS=97.
- JOINTS BETWEEN MANHOLE RINGS AND PIPE/WALL JOINT SHALL BE SEALED USING EPOXY GROUT A.M.S. NO. 09-240-417 TO ASSIST IN LOCATION AND TO PROVIDE OPTIMUM ADHESION.
- EXTERIOR SURFACES OF ALL METALS CAST INTO, ATTACHED TO, OR A PART OF THE CONCRETE STRUCTURE SHALL BE PAINTED PRIOR TO CASTING, ATTACHMENT, OR PLACEMENT WITH COAL-TAR EPOXY PAINT PER AES-H-1, APCS-3.
- MANHOLE STEPS SHALL BE MINIMUM 19 DIA. GALVANIZED REBAR OR PREFABRICATED, COATED STEP DESIGNED TO RESIST HORIZONTAL PULL OUT LOAD OF 1800 N AND VERTICAL LOAD OF 3600 N.
- BOTTOM SLAB SHALL BE UNDERLAIN BY 0.15mm (0.006") POLYETHYLENE SHEETING, WHICH SHALL BE LARGE ENOUGH TO BE LAPPED ABOVE THE FOUNDATION AND SEALED AGAINST THE STRUCTURE WALLS. WALLS BELOW WATERTABLE SHALL BE WATERPROOFED WITH EITHER OF THE FOLLOWING PRODUCTS:
A) APPLY 2 COATS OF COLD-APPLIED BITUMASTIC PER AES-H-1, APCS-10. [AMS 09-611-720].
B) APPLY 2 COATS OF EXTRATITE FOUNDATION COATING [AMS 09-610-850] AFTER EXTRATITE CONCRETE PRIMER [AMS 09-708-080] PER MANUFACTURER'S INSTRUCTIONS.
- DEGREE OF COMPACTION FOR THE SUPPORTING SOIL SHALL BE 70% RELATIVE DENSITY (ASTM D-2049) FOR COHESIONLESS SOILS OR 95% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D-698 FOR COHESIVE AND MARL MATERIALS.
- ALL DIMENSIONS ARE IN MILLIMETER UNLESS NOTED OTHERWISE.

NOTES FOR QUALITY CONTROL

- NO UNITS SHALL BE USED WHICH ARE CRACKED, HONEYCOMBED, OR WHICH DO NOT CONFORM TO THE DIMENSIONS SHOWN WITHIN THE FOLLOWING TOLERANCES.
DIAMETER : ± 3 mm
HEIGHT : ± 3 mm
- A CIRCULAR STEEL TEMPLATE SHALL BE USED TO CHECK THAT THE UNITS ARE TRULY CIRCULAR.
- ALL JOINTS SHALL BE COMPLETELY FILLED WITH THE SPECIFIED JOINTING COMPOUND.
- THE CAST IRON MANHOLE FRAME SHALL BE PLACED WITHIN 25 mm OF FINAL GRADE.

TYPICAL INSTALLATION DRAWING

REV. NO.	DATE	BY	DESCRIPTION	CHKD.	CERT.	APPD.
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FOR ARABIAN AMERICAN OIL COMPANY

DRAWN BY NAEEM CHECKED BY _____ SCALE: NONE
DATE STARTED 11-03-85 DATE COMPLETED 11-03-85
OPR'G. DEPT. _____ ENG. DEPT. _____

THIS MATERIAL IS NOT TO BE USED FOR CONSTRUCTION OR FOR ORDERING MATERIAL UNTIL CERTIFIED AND DATED	CERTIFIED DATE
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SANITARY SEWER MANHOLE

PRECAST CONCRETE

PLAN, SECTION & DETAIL

STD. DWG			METRIC	
PLANT NO.	INDEX	DRAWING NO.	SH. NO.	REV. NO.
990	S	AB-036380	001	00