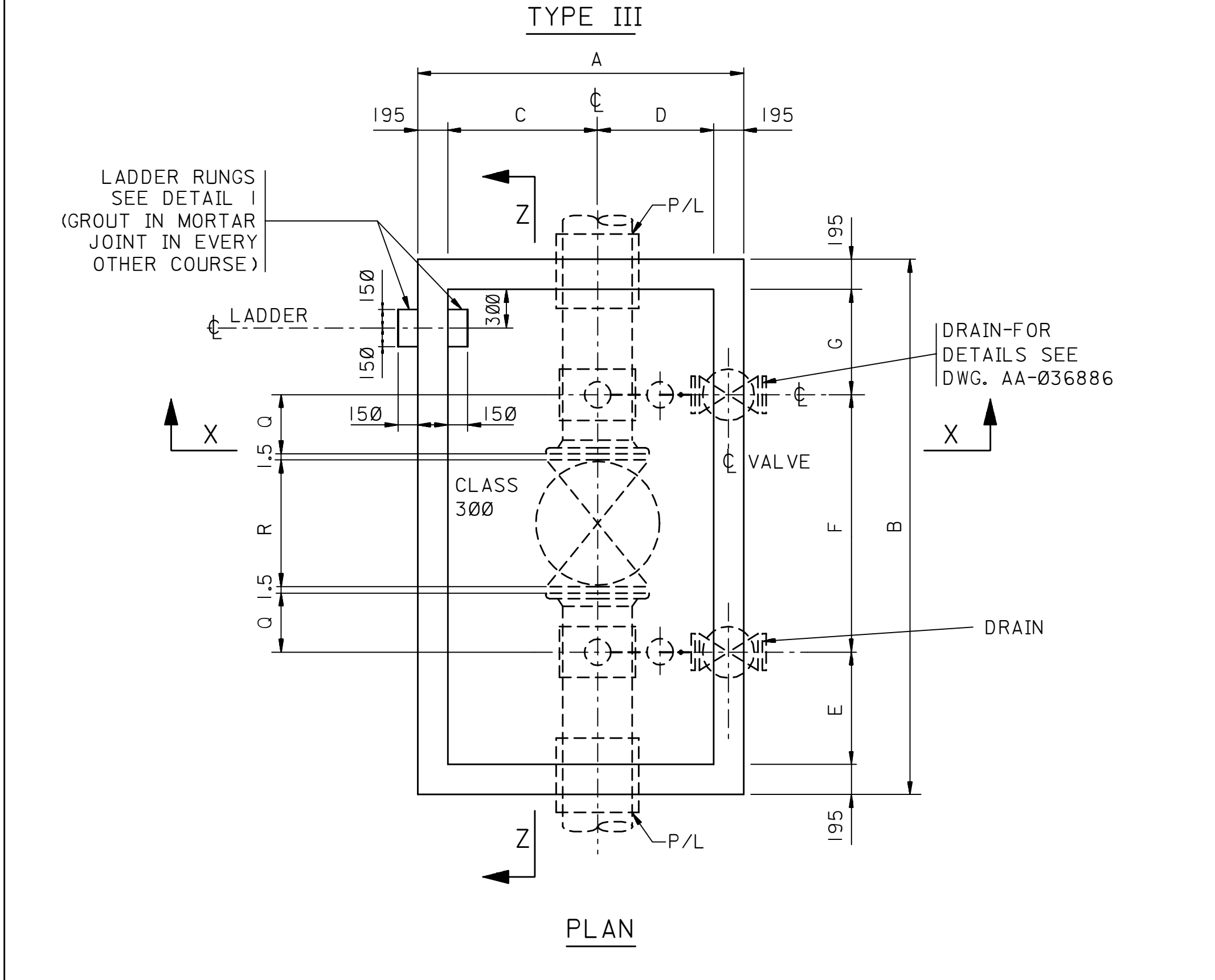
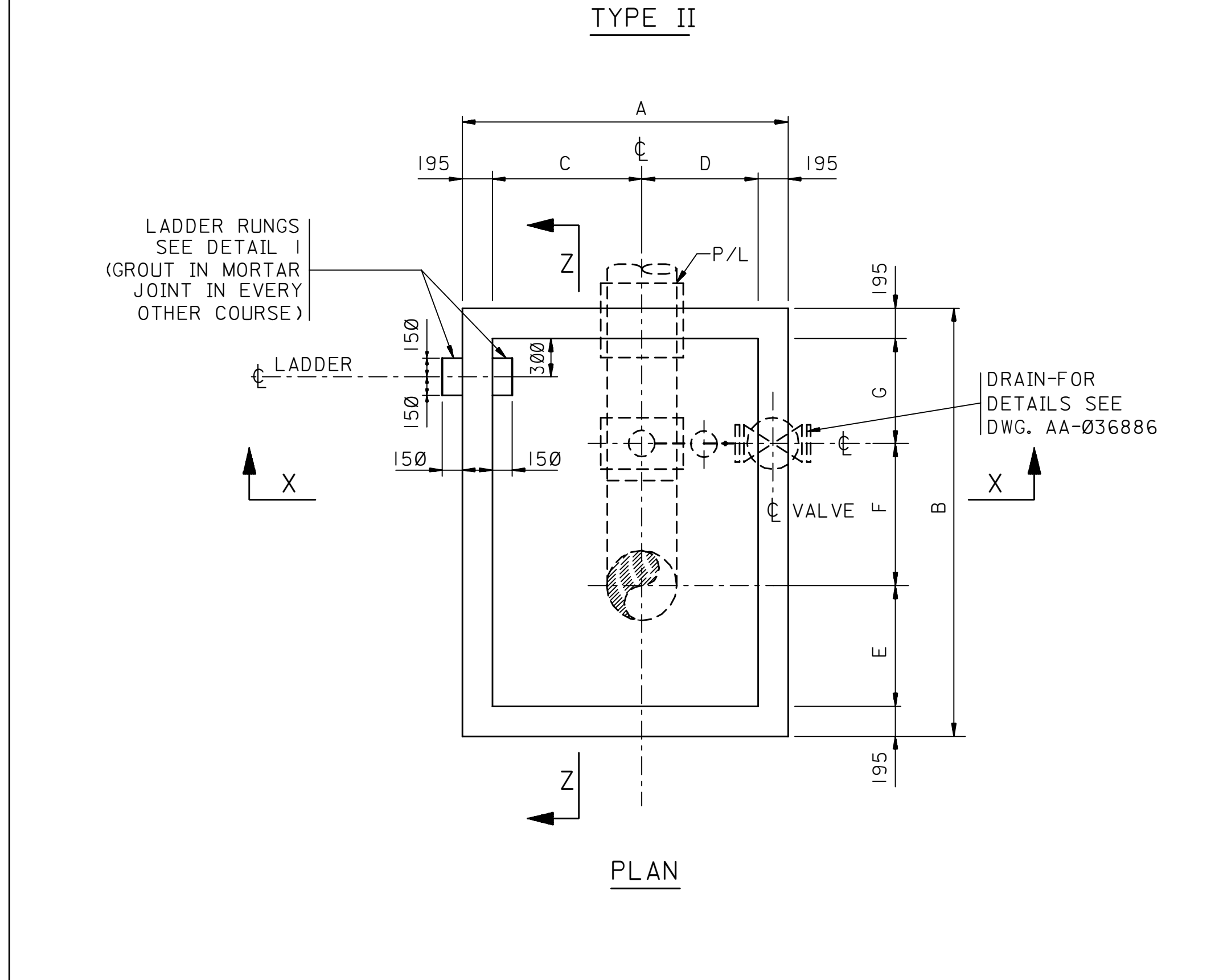
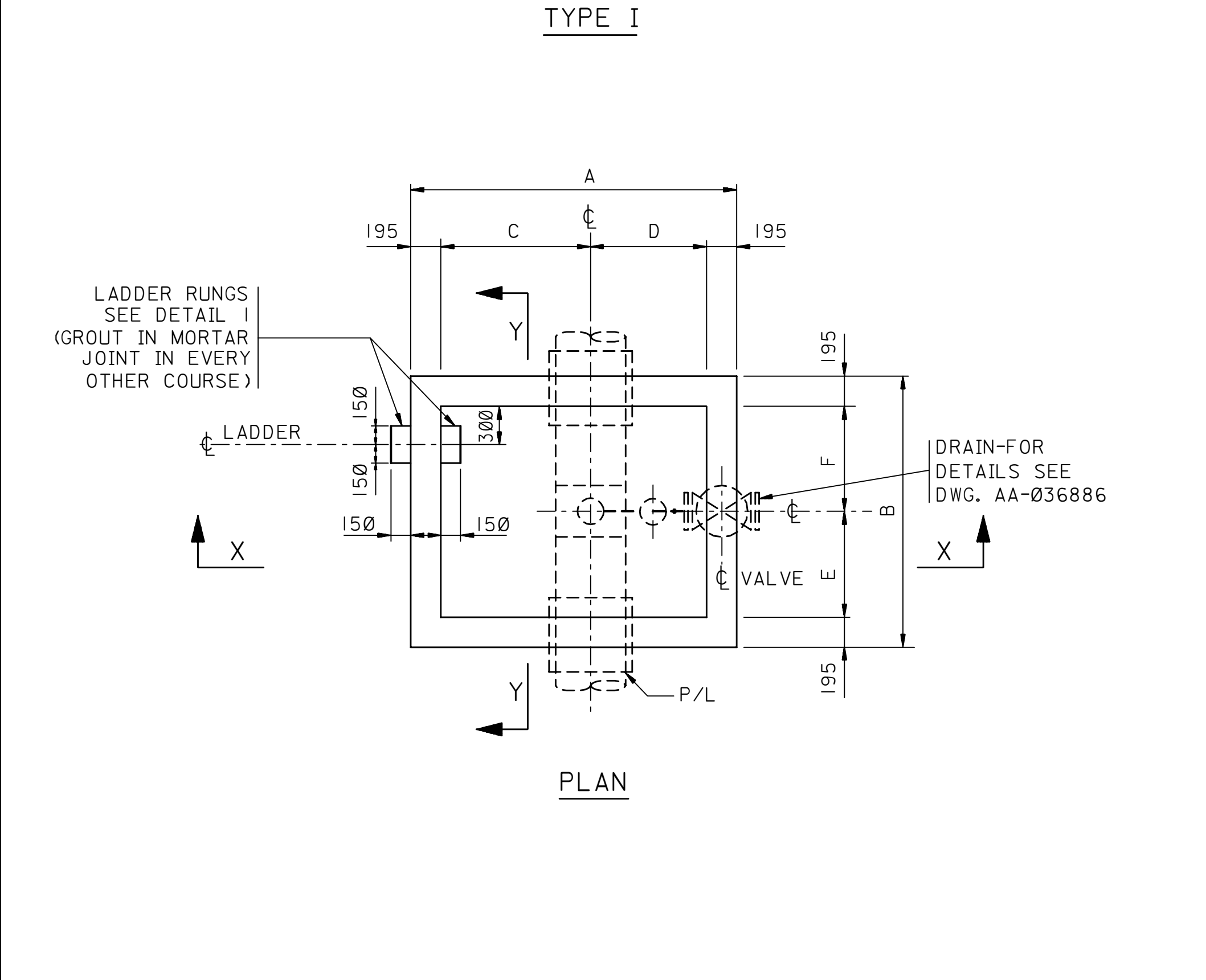




- GENERAL NOTES
- CONCRETE TO BE MIXED, PLACED AND CURED, AND TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 13.8 MPa AFTER 28 DAYS PER CONCRETE CONSTRUCTION SPEC ACS-Q-3.
 - REINFORCEMENT TO BE DEFORMED STEEL.
 - REINFORCEMENT TO HAVE FOLLOWING COVERAGE OF CONCRETE:
 - CONCRETE DEPOSITED DIRECTLY AGAINST GROUND: 75mm.
 - CONCRETE EXPOSED TO GROUND OR TO THE WEATHER BUT PLACED IN FORMS: 50mm.
 - CONCRETE BEAMS: 40mm FOR Ø12mm REBARS OR SMALLER.
 - LAP OF VERTICAL REBARS ON BLOCK WALLS TO BE 50 DIAMETERS.
 - FILL BLOCK CELLS WITH GROUT WHERE REBARS ARE USED.
 - USE 2-Ø5mm HORIZONTAL REBARS (PLAIN) EVERY OTHER COURSE.
 - PAINT LADDER RUNGS IN ACCORDANCE WITH SAUDI ARAMCO PAINT MANUAL AES-H-1: APCS-4.
 - IF VALVE IS FOUNDED BELOW WATER TABLE SEE TYPICAL DETAIL 2.
 - BITUMINOUS MEMBRANE TO BE APPLIED PER CONST. SPEC. ACS-R-5 EXCEPT ONLY (2) MOPPINGS OF ASPHALT AND (2) LAYERS 0.7 KG/m² FELT ARE REQUIRED.
 - THE LIVE LOADS SHOULD NOT AMOUNT TO MORE THAN 5KPa EQUIVALENT TO 300mm OF SAND.
 - CRUSHING STRENGTH OF THE BLOCKS SHOULD BE 4.8 MPa MIN.
 - NO WHEEL LOADS ARE ALLOWED NEARER TO THE BOXES THAN THE DISTANCE FROM GRADE TO BOTTOM OF BLOCKWORK.
 - SLEEVE DIAMETER TO BE 100mm LARGER THAN P/L SIZE. INSTALL A WILLIAMSON OR EQUAL TYPE INSULATOR BETWEEN SLEEVE AND PIPE.
 - ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

VALVE BOX WITH 6" DRAINS							
SUB TYPE	SIZE OF P/L	DIMENSION mm					
		A	B	C	D	E	F
A	20", 22" & 24	2425	2020	1020	1015	815	815
B	30"	2425	2020	990	1045	815	815
C	36"	2630	2020	1120	1120	815	815
D	42" & 48"	2835	2020	1245	1200	815	815

VALVE BOX WITH 6" DRAINS							
SUB TYPE	SIZE OF P/L	DIMENSION mm					
		A	B	C	D	E	F
A	20"	2425	3240	1020	1015	970	1070
B	22"	2425	3240	1020	1015	895	1145
C	24"	2425	3440	1020	1015	1020	1220
D	30"	2425	3645	990	1045	995	1450
E	36"	2630	4050	1120	1120	1175	1675
F	42"	2835	4255	1245	1200	1150	1905
G	48"	2835	4660	1245	1200	1325	2135

VALVE BOX WITH 6" DRAINS									
SUB TYPE	SIZE OF P/L	DIMENSION mm							
		A	B	C	D	E	F	G	Q
A	20"	2425	4050	1020	1015	881	1964	815	485
B	22"	2630	4255	1120	1120	988	2062	815	485
C	24"	2630	4255	1120	1120	934	2116	815	485
D	30"	2835	4660	1170	1275	985	2470	815	535
E	36"	3035	4865	1295	1350	860	2800	815	535
F	42"	3240	5270	1425	1425	835	3230	815	610
G	48"	3240	5675	1425	1425	961	3509	815	610

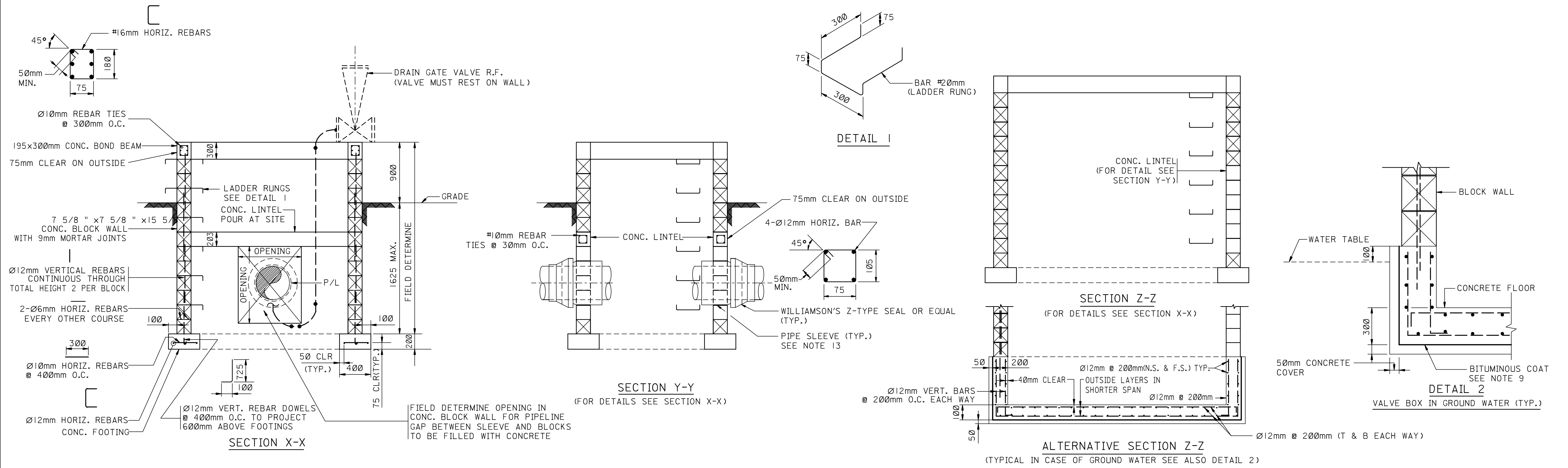
VALVE BOX WITH 12" DRAINS							
SUB TYPE	SIZE OF P/L	DIMENSION mm					
		A	B	C	D	E	F
AA	20", 22" & 24	3035	2220	990	1655	915	915
BB	30"	3035	2220	990	1655	915	915
CC	36"	3240	2220	1195	1655	915	915
DD	42" & 48"	3440	2220	1395	1655	915	915

VALVE BOX WITH 12" DRAINS							
SUB TYPE	SIZE OF P/L	DIMENSION mm					
		A	B	C	D	E	F
AA	20"	3035	3440	990	1655	920	1215
BB	22"	3035	3645	990	1655	1050	1290
CC	24"	3035	3645	990	1655	970	1370
DD	30"	3035	4050	990	1655	1145	1600
EE	36"	3240	4255	1195	1655	1125	1825
FF	42"	3240	4660	1195	1655	1300	2055
GG	48"	3240	4865	1395	1655	1275	2285

VALVE BOX WITH 12" DRAINS									
SUB TYPE	SIZE OF P/L	DIMENSION mm							
		A	B	C	D	E	F	G	Q
AA	20"	3035	4455	990	1655	886	2264	915	635
BB	22"	3240	4660	1195	1655	990	2365	915	635
CC	24"	3240	4660	1195	1655	939	2416	915	635
DD	30"	3240	5065	1195	1655	990	2770	915	685
EE	36"	3440	5470	1395	1655	1065	3100	915	685
FF	42"	3440	5880	1395	1655	1045	3530	915	760
GG	48"	3645	6080	1600	1655	966	3809	915	760

"R" DIMENSION BASED ON CL 300 PIPELINE VALVES

REFERENCE DRAWINGS	
CONCRETE CONSTRUCTION SPECIFICATION	ACS-Q-3
MEMBRANE WATERPROOFING	ACS-R-5
VALVE BOXES, POURED CONCRETE	AA-036365
DETAILS OF PIPELINE DRAINS	AA-036366



02	MAY92	ESSD GMD	DRAWING DIGITIZED INTO CADD DATABASE WITHOUT CHANGES				
REV. NO.	DATE	BY	DESCRIPTION	CHKD.	CERT.	APPD.	
SAUDI ARABIAN OIL COMPANY							
DRAWN BY: BJ CHECKED BY: SH SCALE: NONE							
DATE STARTED: DATE COMPLETED: DEC '82							
OPR'G. DEPT. ENG. DEPT. ORIGINAL SIGNED							
APPD. FOR CONST.							
THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR FOR ORDERING MATERIAL UNTIL CERTIFIED AND DATED							
CERTIFIED ORIGINAL CERTIFIED BY: DATE:							
VALVE BOXES, CONC. BLOCK FOR PIPELINE BLOCK VALVE AND DRAINS METRIC VERSION							
STD. DWG.							
PLANT NO.	INDEX	DRAWING NUMBER	SHT. NO.	REV. NO.			
990	Q	AA-036525	002	02			