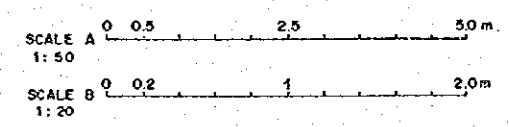
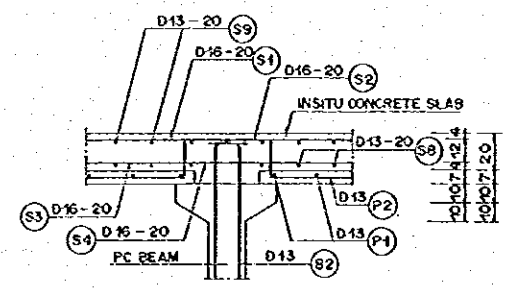
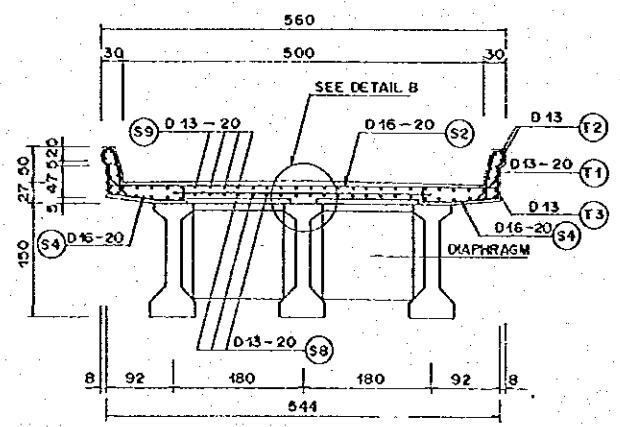


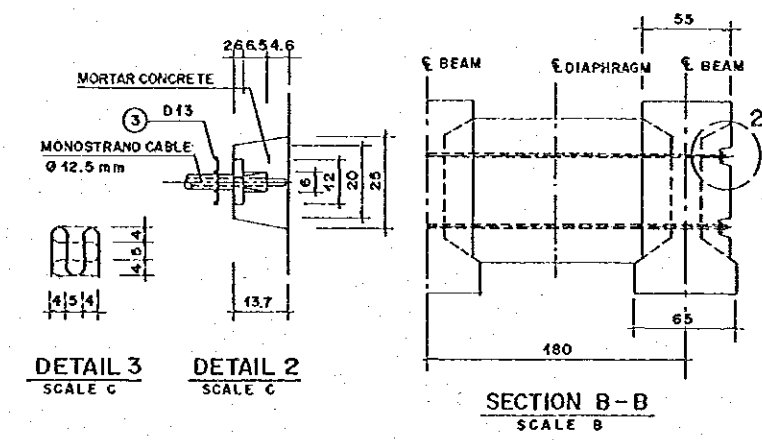
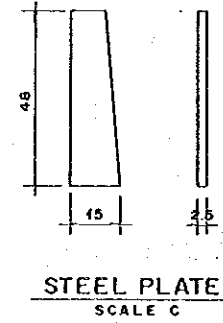
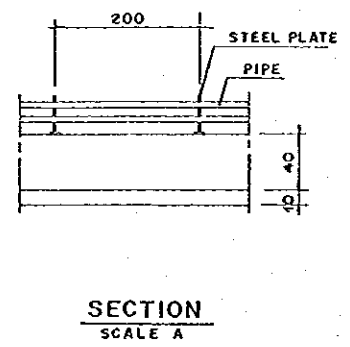
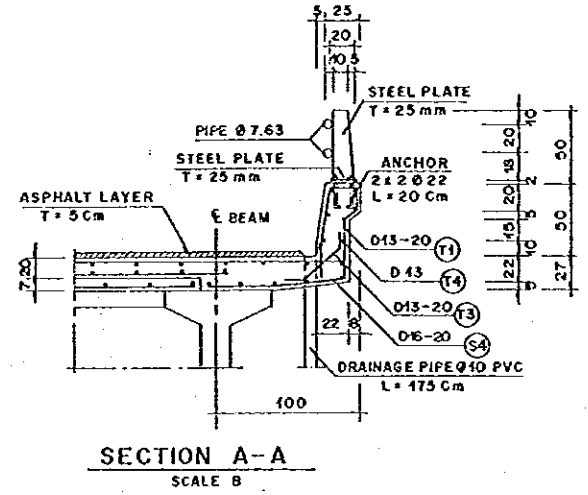
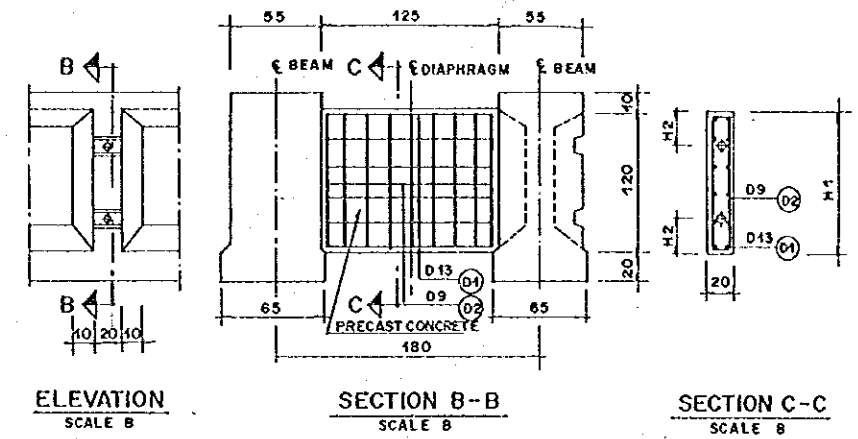
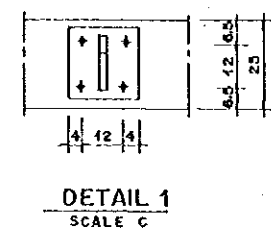
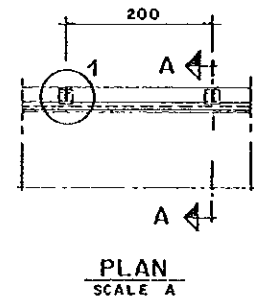
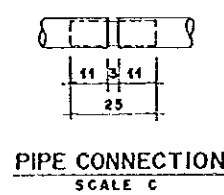
REINFORCING BAR NO.	Ø (mm)	TYPE	BENDING DIMENSION (cm)					TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	WEIGHT PER BAR	NUMBER	WEIGHT	REMARKS
			a	b	c	d	e						
S1	D16	B	130					1.30	1.58	2,054	348	745	
S2	D16	B	536					5.36	1.58	8,469	125	1,059	
S3	D16	B	130					1.30	1.58	2,054	232	477	
S4	D16	E	415	40	87	10	20	6.89	1.58	10,885	121	1,317	
S5	D16	B	115					1.15	1.58	1,817	12	22	
S6	D10	C	27	22	5			1.08	0.56	0,608	28	17	
S7	D10	D	25	10	5			0.55	0.56	0,308	44	14	
S8	D13	A	2,384					23.84	1.04	24,79	28	694	
S9	D13	A	2,384					23.84	1.04	24,79	28	694	
<b>TOTAL</b>											<b>5,009</b>	<b>kg</b>	

LIST OF REINFORCING BAR OF DECK SLAB



THE REPUBLIC OF INDONESIA INDUSTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAWA	
JATUNSELUNGA FLOOD CONTROL PROJECT COMPONENT: WEST FLOODWAY / GARANG RIVER IMPROVEMENT SPILLWAY BRIDGE 4/6 BAR ARRANGEMENT OF DECK SLAB		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA	
JAPAN INTERNATIONAL COOPERATION AGENCY CITY ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND FARCO INTERNATIONAL INC.		DISTRICT SEMARANG CITY	
DESIGNED: <i>Standa</i> CHECKED: <i>Standa</i> CHIEF OF PLANNING AND DESIGN		DRAWING NO. JD-P1-SP-Br-4 SHEET NO. 155	
APPROVED: <i>Standa</i> PROJECT MANAGER		DATE CONTRACT NO.	

NO.	DATE	REVISIONS	ORIGINATOR	DESIGNED	APPROVED



DIAPHRAGM DIMENSION

SIZE (mm)	
H1	1130
H2	250

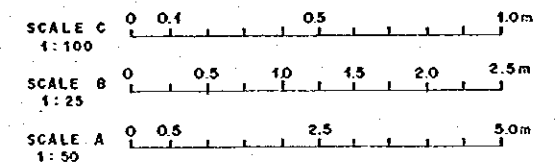
LIST OF REINFORCING BAR OF HAND RAIL

REINFORCING BAR NO.	Ø (mm)	TYPE	BENDING DIMENSION (cm)					TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	NUMBER	WEIGHT (kg)	REMARKS	
			a	b	c	d	e						f
T1	13	J	20	35	20	15	10	30	1.30	1.04	2x120	325	?
T2													
T3	13	L	12	40	15				0.67	1.04	2x120	167	/
T4	13	A	2,413						24.26	1.04	2x7	353	/
TOTAL = 845 kg													

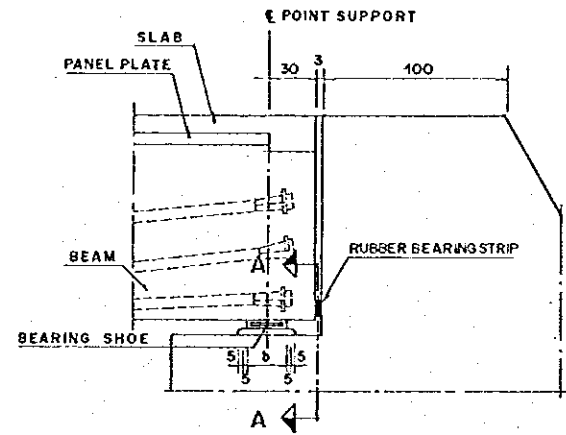
LIST OF REINFORCING BAR OF DIAPHRAGM

REINFORCING BAR NO.	Ø (mm)	TYPE	BENDING DIMENSION (cm)					TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	NUMBER	WEIGHT (kg)	REMARKS
			a	b	c	d	e					
D1	13	B	117					1.17	1.04	72	89	
D2	9	H	42	105	4.5			2.43	0.50	54	66	□
TOTAL = 154 kg												

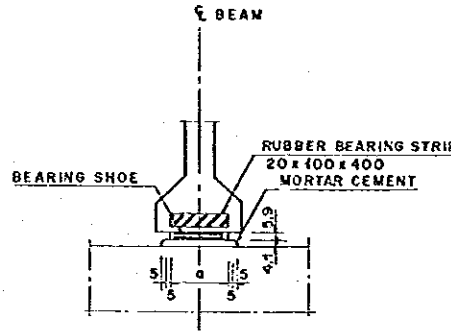
- NOTE :
1. CONCRETE QUALITY OF DIAPHRAGM K-400
  2. MAXIMUM AGREGATE SIZE 20 mm
  3. STEEL QUALITY 8J-32
  4. MINIMUM CONCRETE COVER 20 mm
  5. PIPE AND STEEL PLATE MUST BE GALVANISED
  6. DIAPHRAGM IS PRECAST CONCRETE.
  7. A HOLE DRILLED PRIOR TO SETTING AN ANCHOR



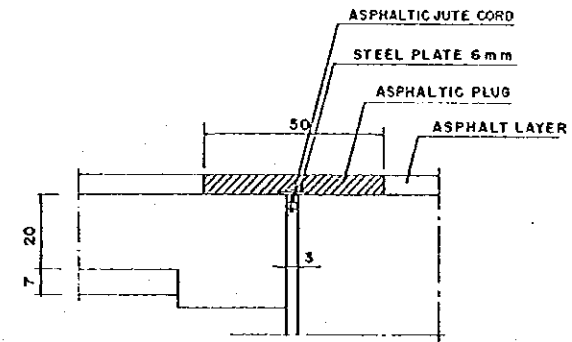
THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT			PROVINCE: CENTRAL JAVA PROJECT NAME: FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCE DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT: SEMARANG CITY DRAWING NO. JD-PI-SP-Br-5 SHEET NO. 165		
JATUNSELUNA FLOOD CONTROL PROJECT COMPONENT: JATIBARANG DAM CONSTRUCTION SPILLWAY BRIDGE 5/6 BAR ARRANGEMENT OF DIAPHRAGM AND HAND RAIL			DESIGNED: <i>[Signature]</i> CHECKED: <i>[Signature]</i> DATE:	CONTRACT NO.	
JICA INTERNATIONAL COOPERATION AGENCY OJIBENINGO CO. LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND PACTO INTERNATIONAL INC.			CHIEF OF PLANNING AND DESIGN PROJECT MANAGER		
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED



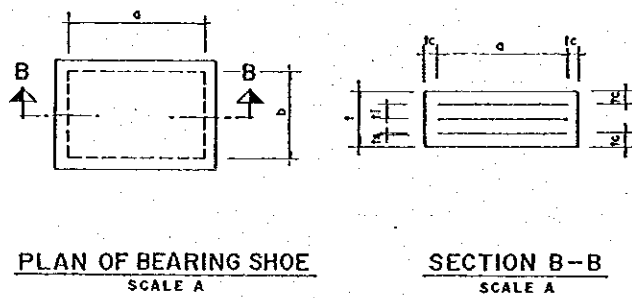
POINT SUPPORT ON ABUTMENT  
SCALE A



SECTION A-A  
SCALE A



DETAIL OF JOINT  
SCALE B

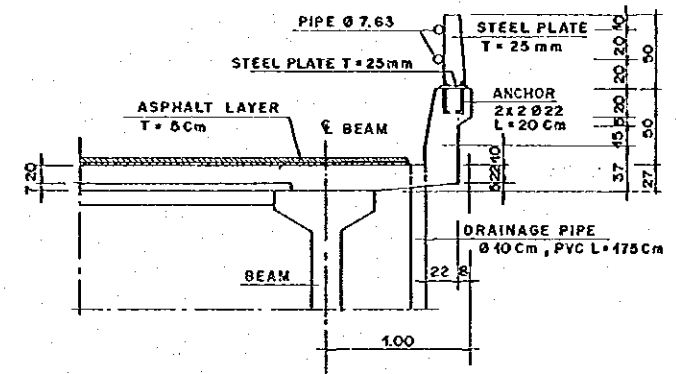


PLAN OF BEARING SHOE  
SCALE A

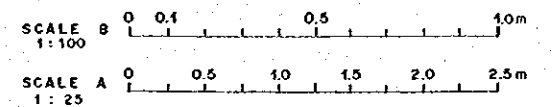
SECTION B-B  
SCALE A

SIZE OF BEARING SHOE (mm)

a	b	STEEL PLATE		RUBBER		TOTAL
		n	Is	Ic	II	
350	280	4	5	6	9	59

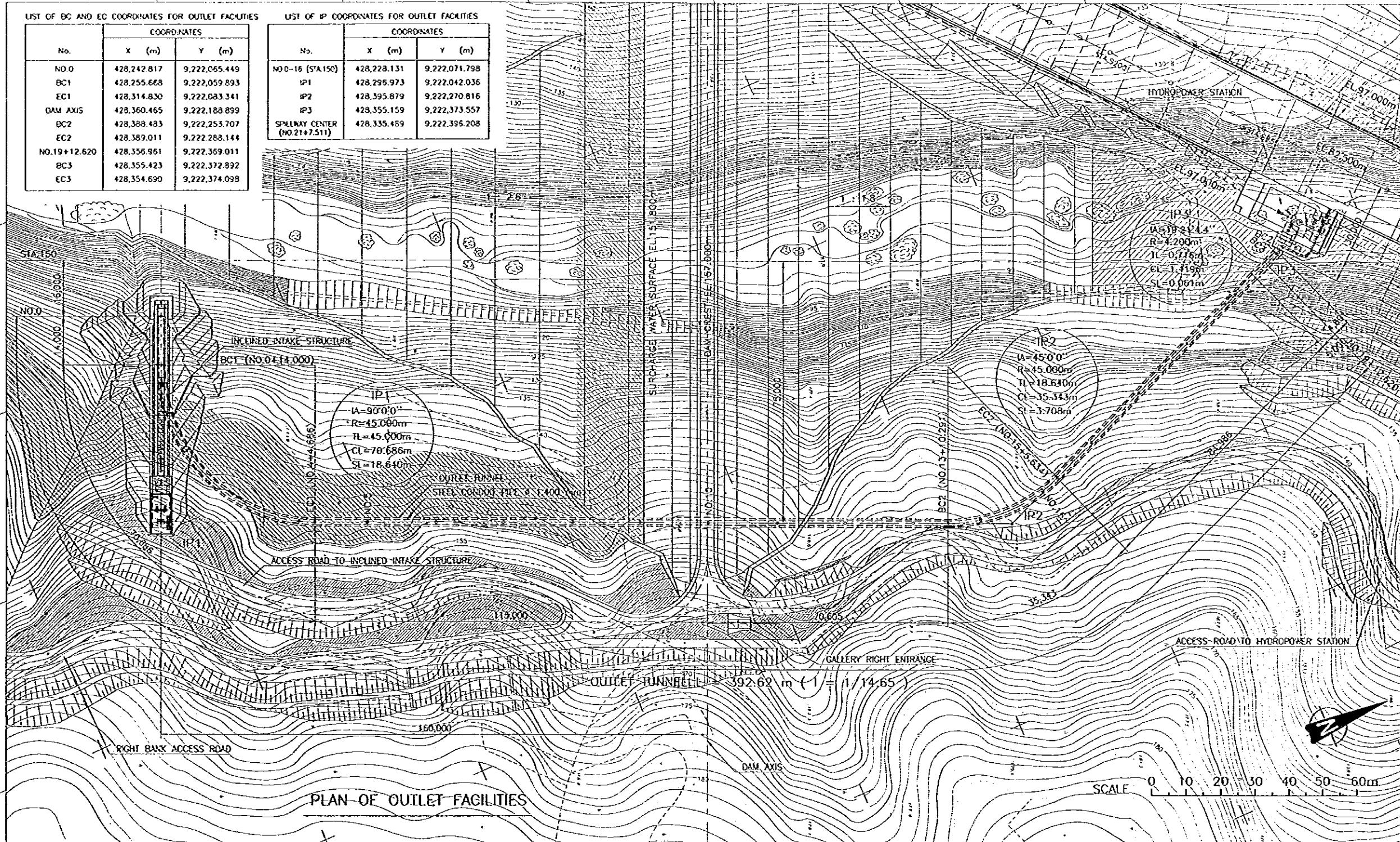


DETAIL OF HAND RAIL  
SCALE A

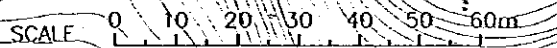


THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT IRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION <b>SPILLWAY BRIDGE 6/6</b> <b>EXPANSION JOINT AND BEARING SHOE</b> <small>JAPAN INTERNATIONAL COOPERATION AGENCY          CUI ENGINEERING CO., LTD. # ARABIC STREET #10          PACIFIC CROSSING CENTER INTERNATIONAL AND          PANCO INTERNATIONAL INC.</small>						PROVINCE CENTRAL JAVA PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY DRAWING NO. JD-PJ-SP-Br-6 SHEET NO. 167	
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED	APPROVED	

LIST OF BC AND EC COORDINATES FOR OUTLET FACILITIES			LIST OF IP COORDINATES FOR OUTLET FACILITIES		
No.	COORDINATES		No.	COORDINATES	
	X (m)	Y (m)		X (m)	Y (m)
NO.0	428,242.817	9,222,065.449	NO.0-16 (STA.150)	428,228.131	9,222,071.798
BC1	428,255.668	9,222,059.893	IP1	428,295.973	9,222,042.036
EC1	428,314.830	9,222,083.341	IP2	428,395.879	9,222,270.816
DAM AXIS	428,360.465	9,222,188.899	IP3	428,355.159	9,222,373.557
BC2	428,388.483	9,222,253.707	SPILLWAY CENTER (NO.21+7.511)	428,335.459	9,222,395.208
EC2	428,389.011	9,222,288.144			
NO.19+12.620	428,356.961	9,222,369.011			
BC3	428,355.423	9,222,372.892			
EC3	428,354.690	9,222,374.098			



PLAN OF OUTLET FACILITIES



NOTES

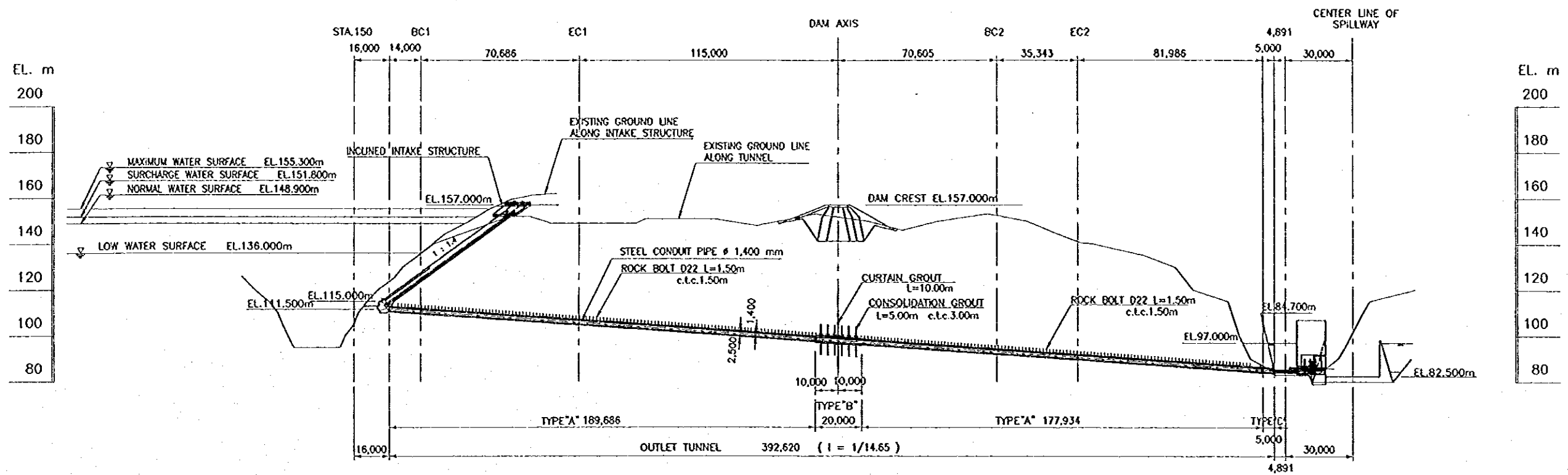
1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.

REFERENCE DRAWINGS

- JD-P1-Of-Tu-1 TUNNEL - PROFILE AND TYPICAL CROSS SECTIONS
- JD-P1-Of-Is-1 INCLINED INTAKE STRUCTURE - LAYOUT PLAN AND PROFILE

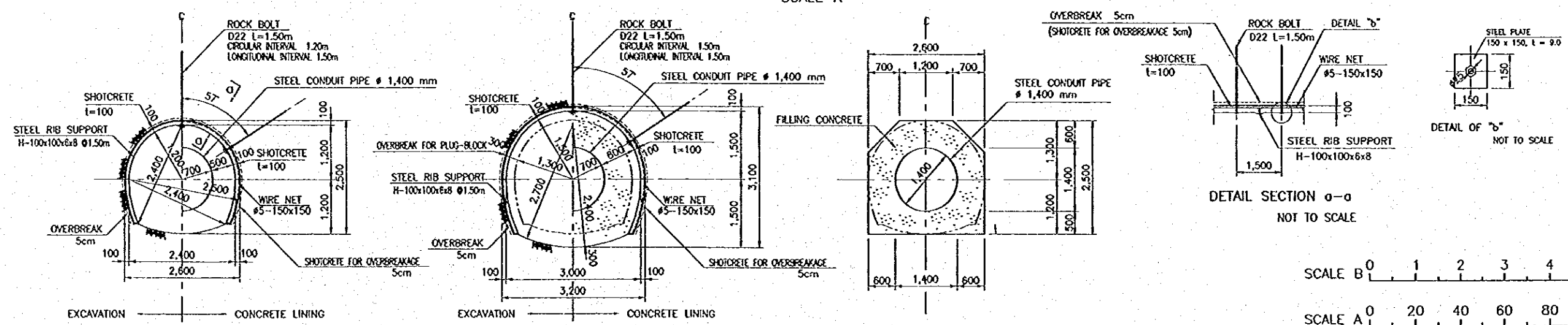
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

	THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROJECT NAME FLOOD CONTROL, URBAN PLANNING AND WATER RESOURCES DEVELOPMENT OF SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT	
	JATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION		SEMARANG CITY	
	OUTLET FACILITIES LAYOUT PLAN		DRAWING NO. JD-P1-Of-P1-1	
	JAPAN INTERNATIONAL COOPERATION AGENCY CITY ENGINEERING CO., LTD. OF ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL PASO INTERNASIONAL S.P.		SHEET NO. 168	
DESIGNED CHECKED CHIEF OF PLANNING AND DESIGN PROJECT MANAGER		DATE CONTRACT NO.		

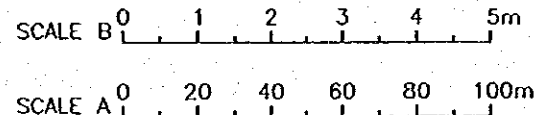


SURVEY POINT	RADIUS OF CURVE	FINISHING HEIGHT	INCREASE THE DISTANCE	DISTANCE
No.0	-16.000	-	16.000	16.000
No.1	BC1	-11.500	0.000	0.000
No.2	No.1	-10.544	14.000	14.000
No.3	No.2	-10.135	6.000	20.000
No.4	No.3	-10.770	40.000	40.000
No.5	No.4	-107.404	60.000	60.000
No.6	EC1	-106.039	80.000	80.000
No.7	No.5	-105.719	84.886	84.886
No.8	No.6	-104.674	100.000	100.000
No.9	No.7	-103.309	120.000	120.000
No.10	No.8	-101.944	140.000	140.000
No.11	No.9	-100.578	160.000	160.000
No.12	No.10	99.213	180.000	180.000
No.13	No.11	98.552	189.686	189.686
No.14	No.12	97.870	199.886	199.886
No.15	No.13	97.186	209.886	209.886
No.16	No.14	96.483	220.000	220.000
No.17	No.15	95.118	240.000	240.000
No.18	No.16	93.753	260.000	260.000
No.19	No.17	93.090	270.291	270.291
No.20	No.18	92.387	280.000	280.000
No.21	No.19	91.022	300.000	300.000
No.22	No.20	90.638	305.634	305.634
No.23	No.21	89.657	320.000	320.000
No.24	No.22	88.292	340.000	340.000
No.25	No.23	86.927	360.000	360.000
No.26	No.24	85.561	380.000	380.000
No.27	No.25	85.041	387.620	387.620
No.28	No.26	84.700	392.620	392.620
No.29	No.27	84.700	397.300	397.300
No.30	No.28	82.500	400.000	400.000
No.31	No.29	82.500	420.000	420.000
No.32	No.30	82.500	427.511	427.511

PROFILE SCALE A



TYPE "A" TYPE "B" TYPE "C" TYPICAL SECTION SCALE B



**NOTES**  
 1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.  
 2. FILLING CONCRETE OF OUTLET TUNNEL SHALL BE OF TYPE D AS PER SPECIFICATION.

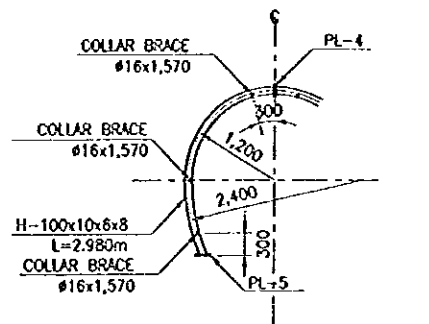
**REFERENCE DRAWINGS**  
 JD-P1-OF-P1-1 OUTLET FACILITIES - LAYOUT PLAN  
 JD-P1-DF-Tu-2 TUNNEL - STEEL RIB SUPPORT AND GROUT PLAN

NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

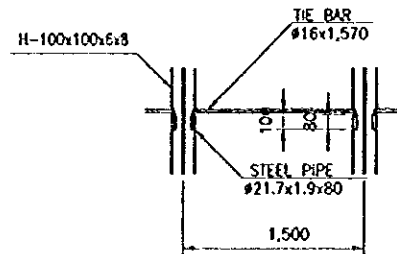
THE REPUBLIC OF INDONESIA  
 MINISTRY OF PUBLIC WORKS  
 DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT

IRATUNSELUNA FLOOD CONTROL PROJECT  
 COMPONENT: JATIBARANG DAM CONSTRUCTION  
 OUTLET FACILITIES  
 TUNNEL  
 PROFILE AND TYPICAL CROSS SECTIONS

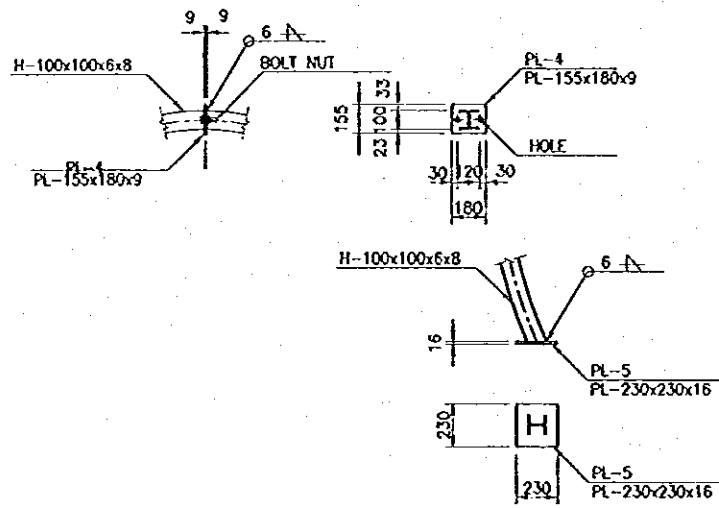
DATE: 16/01/2011  
 PROJECT MANAGER: [Signature]



STEEL RIB SUPPORT  
SCALE B

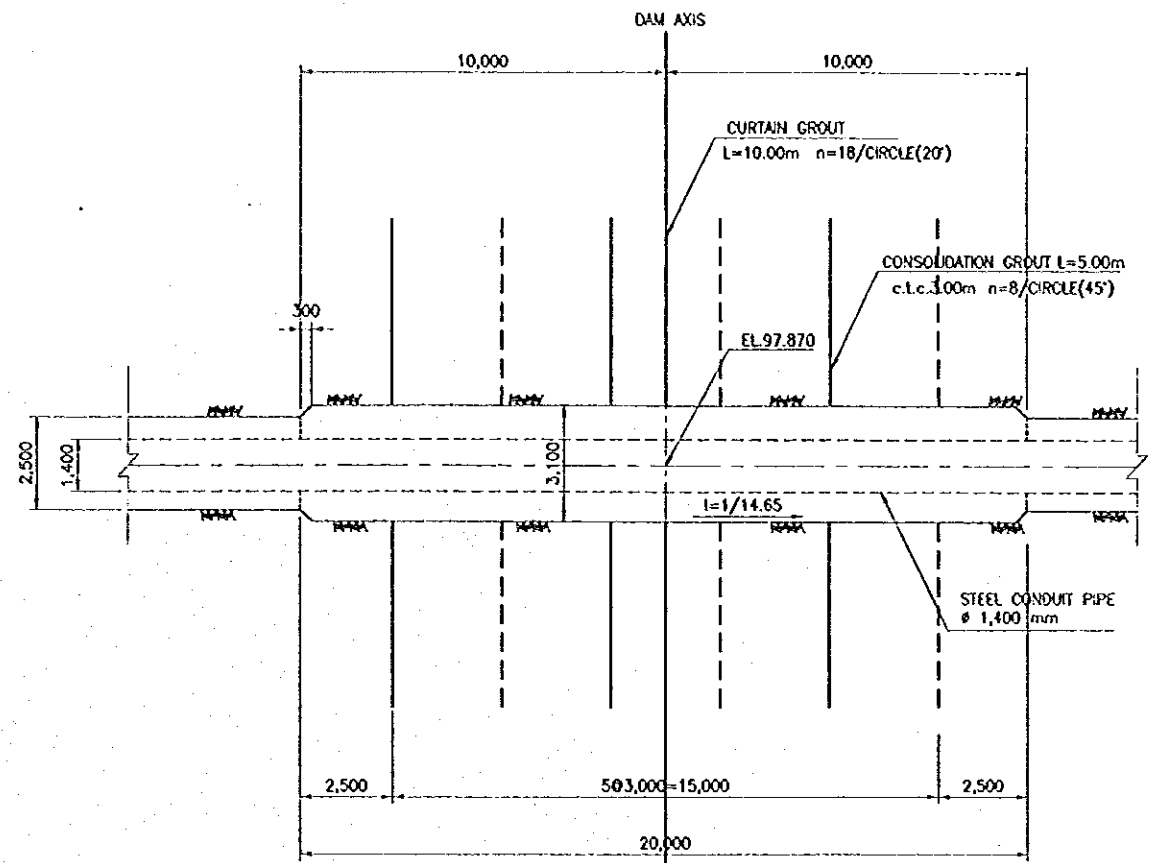


COLLAR BRACE  
SCALE C

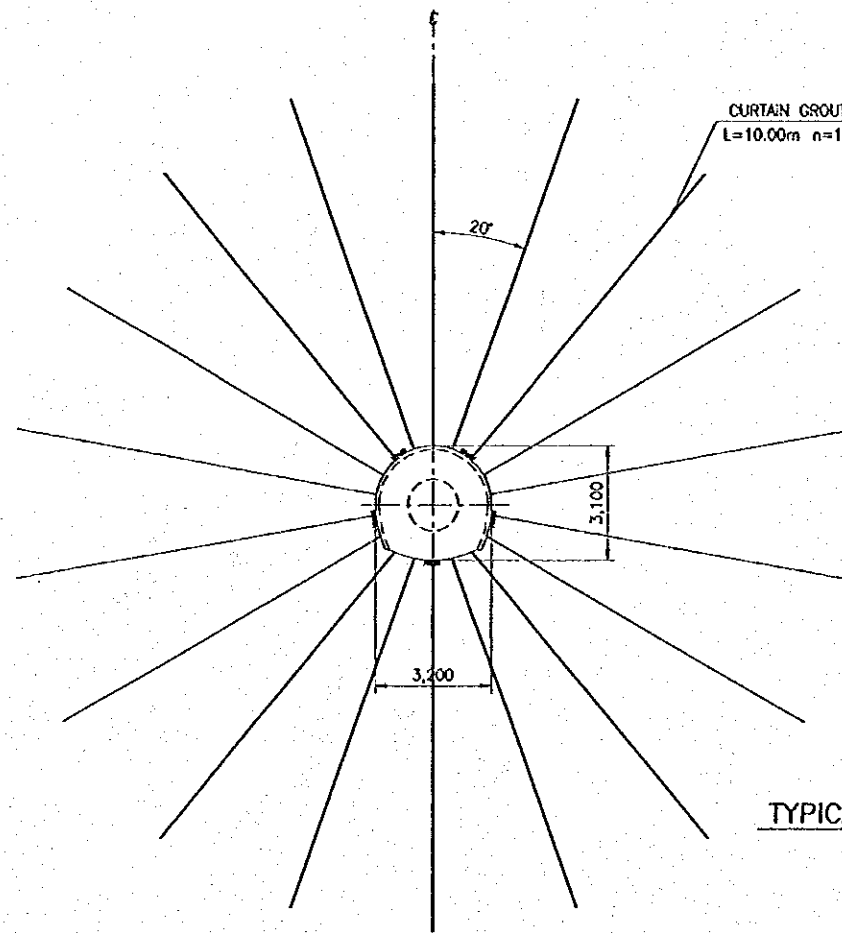


DETAIL OF PLATE  
SCALE C

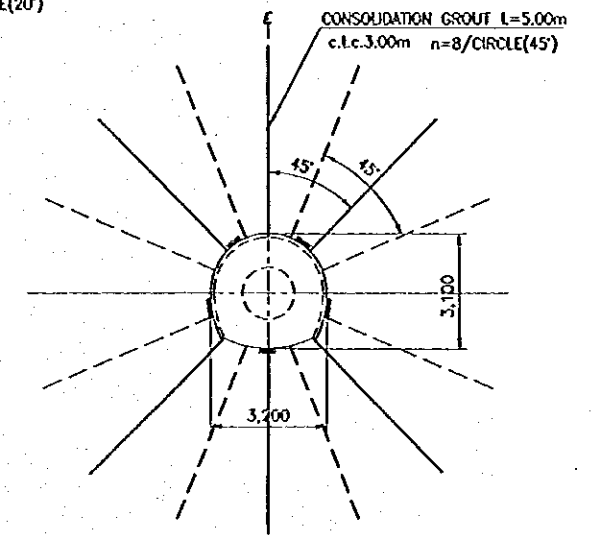
STEEL RIB SUPPORT



PROFILE  
SCALE A



TYPICAL ARRANGEMENT OF CURTAIN GROUT



TYPICAL ARRANGEMENT OF CONSOLIDATION GROUT

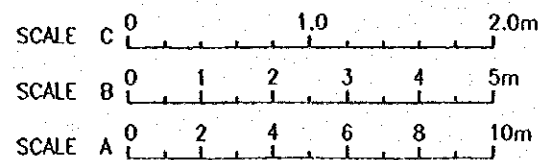
TYPICAL SECTION  
SCALE A

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.
2. FILLING CONCRETE OF OUTLET TUNNEL SHALL BE OF TYPE D AS PER SPECIFICATION.

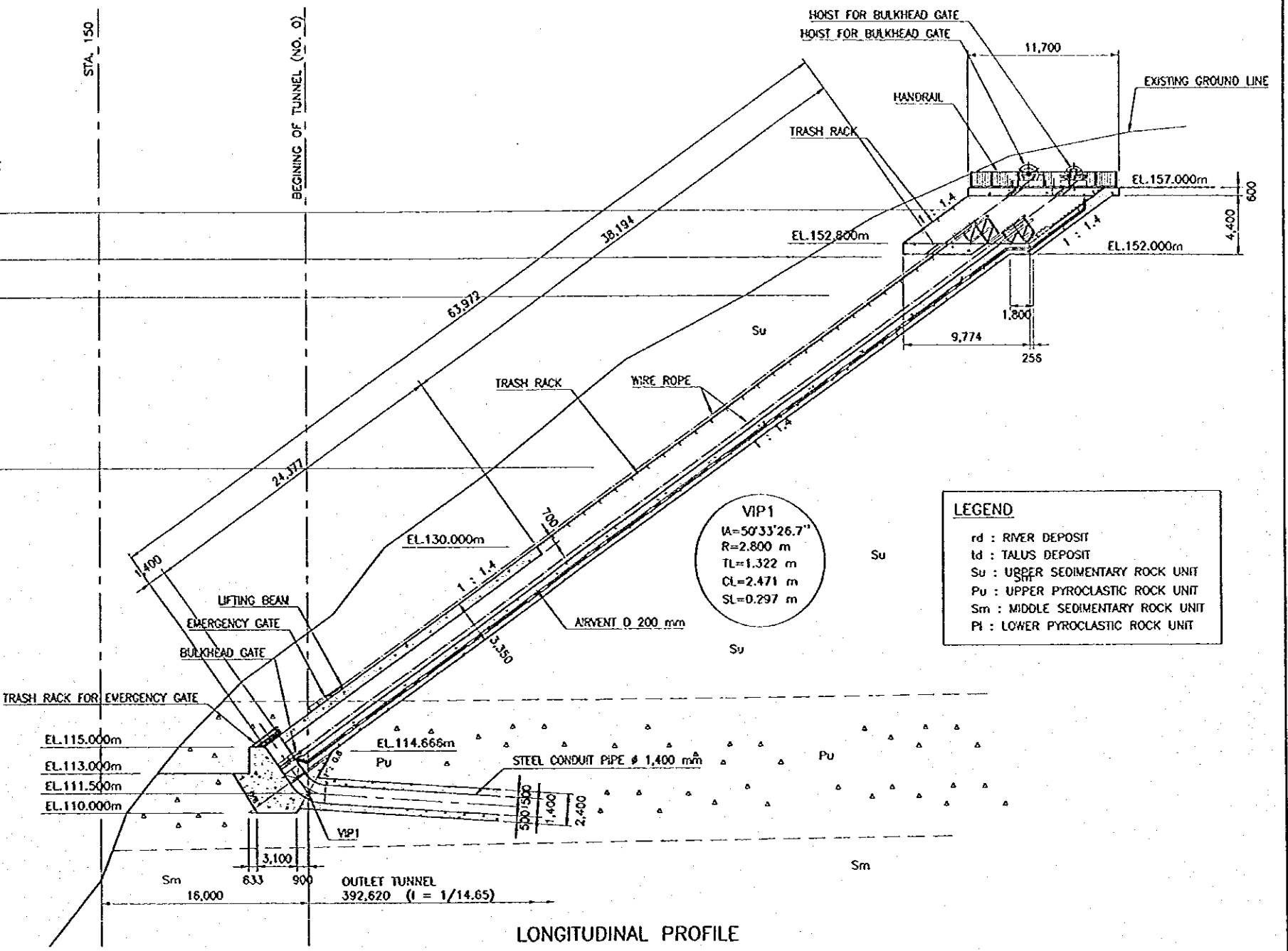
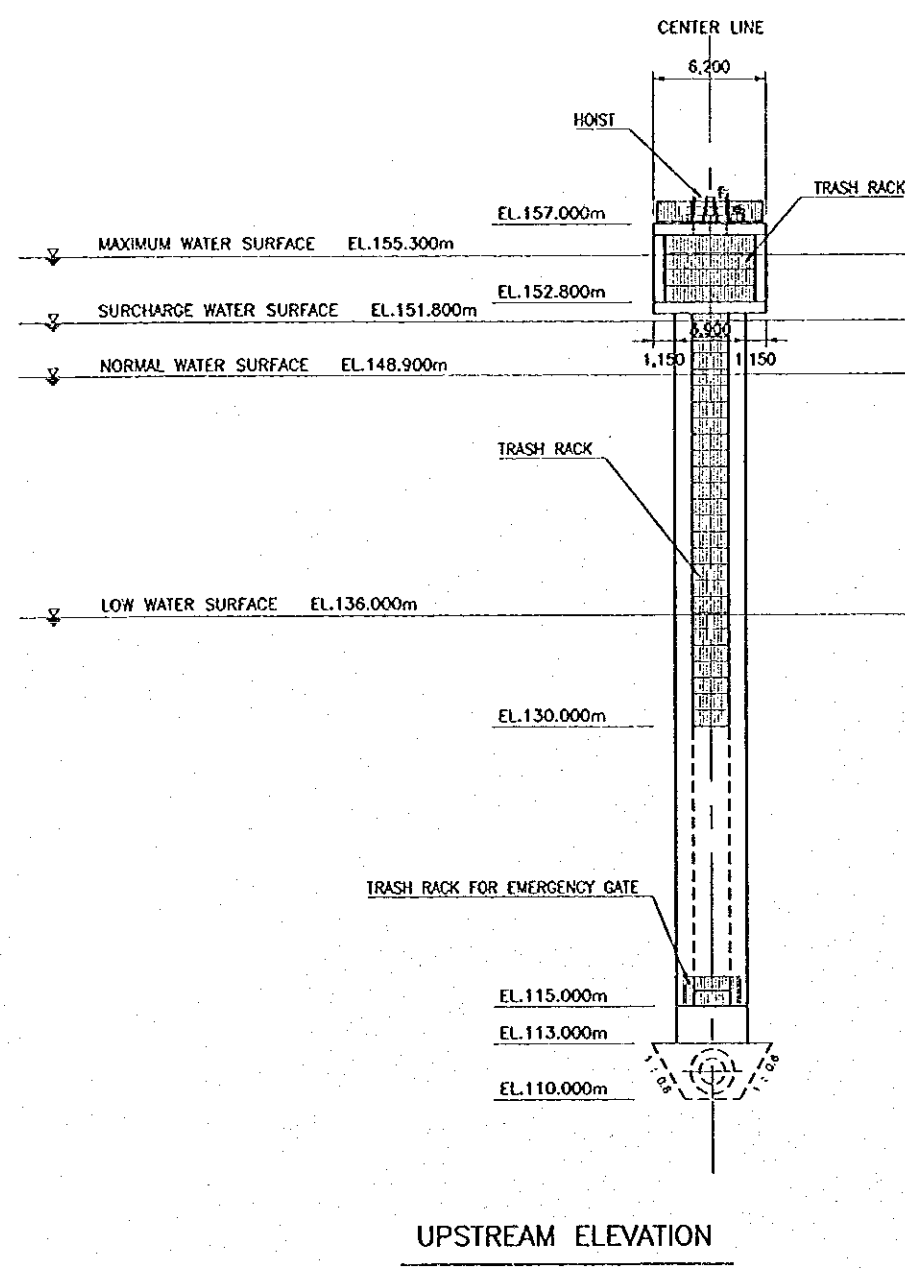
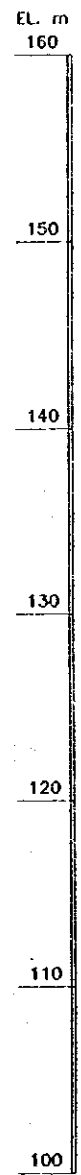
REFERENCE DRAWINGS

- JD-P1-OF-P1-1 OUTLET FACILITIES - LAYOUT PLAN
- JD-P1-OF-Tu-1 TUNNEL - PROFILE AND TYPICAL CROSS SECTIONS



NO.	DATE	REVISIONS	ORIGINATED	DRAWN	CHECKED	APPROVED

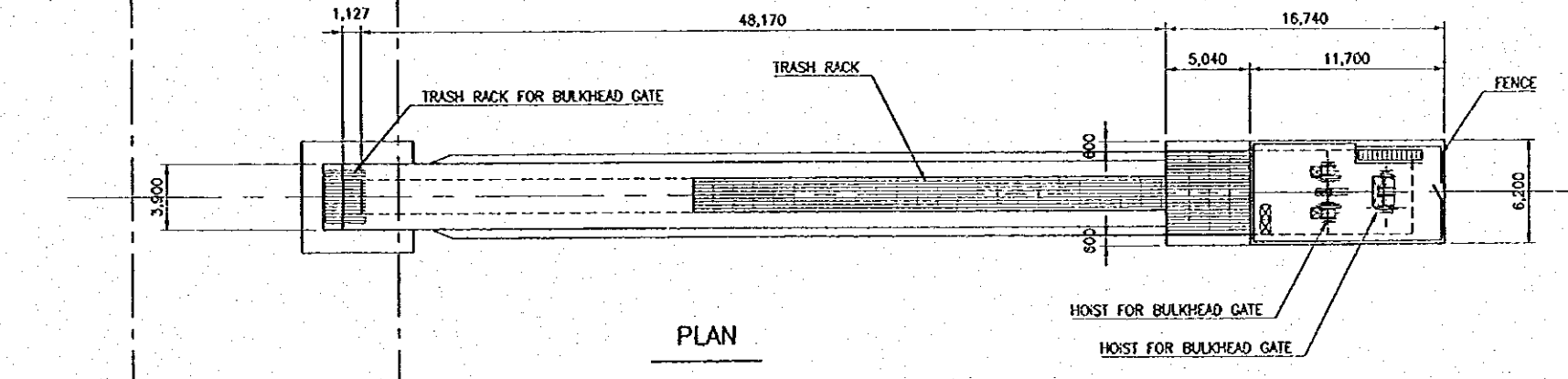
THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAYA
PRATUNNELUNA FLOOD CONTROL PROJECT COMPONENT: JATIBARANG DAM CONSTRUCTION OUTLET FACILITIES TUNNEL STEEL RIB SUPPORT AND GROUT PLAN		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SINGARANG IN THE REPUBLIC OF INDONESIA
JAPAN INTERNATIONAL COOPERATION AGENCY JICA ENGINEERING CO. LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL PACICO INTERNATIONAL INC.		DISTRICT SEMARANG CITY
CHECKED PROJECT MANAGER		DRAWING NO. JD-P1-OF-Tu-2 SHEET NO. 170 DATE CONTRACT NO.



**LEGEND**

- rd : RIVER DEPOSIT
- ld : TALUS DEPOSIT
- Su : UPPER SEDIMENTARY ROCK UNIT
- Pu : UPPER PYROCLASTIC ROCK UNIT
- Sm : MIDDLE SEDIMENTARY ROCK UNIT
- Pl : LOWER PYROCLASTIC ROCK UNIT

**VIP1**  
 A=50'33"26.7"  
 R=2.800 m  
 TL=1.322 m  
 CL=2.471 m  
 SL=0.297 m

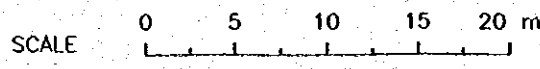


**NOTES**

1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.
2. CONCRETE OF INTAKE STRUCTURE SHALL BE OF TYPE B AS PER SPECIFICATION.
3. GEOLOGICAL INFORMATION IS ONLY FOR REFERENCE.

**REFERENCE DRAWINGS**

- JD-P1-OF-P1-1 OUTLET FACILITIES - LAYOUT PLAN
- JD-P1-DF-Is-1 INCLINED INTAKE STRUCTURE - CONCRETE OUTLINE (1/2)
- JD-P1-DF-Is-2 INCLINED INTAKE STRUCTURE - CONCRETE OUTLINE (2/2)



NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

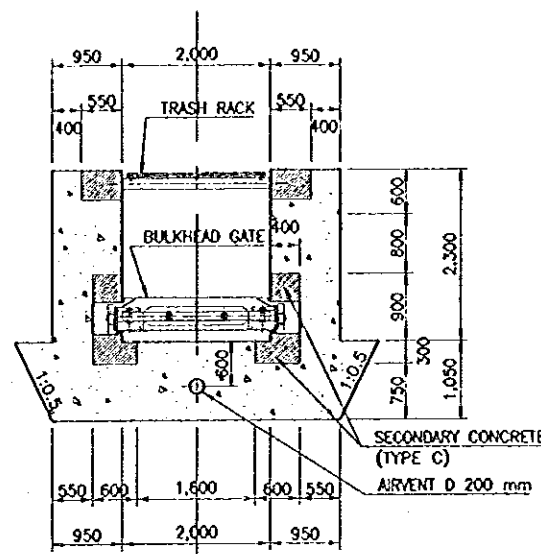
118 REPUBLIC OF INDONESIA  
 MINISTRY OF PUBLIC WORKS  
 DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT  
 AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT

JATUNSELAHA FLOOD CONTROL PROJECT  
 COMPONENT : JATIBARANO DAM CONSTRUCTION  
 OUTLET FACILITIES  
 INCLINED INTAKE STRUCTURE  
 LAYOUT PLAN AND PROFILE

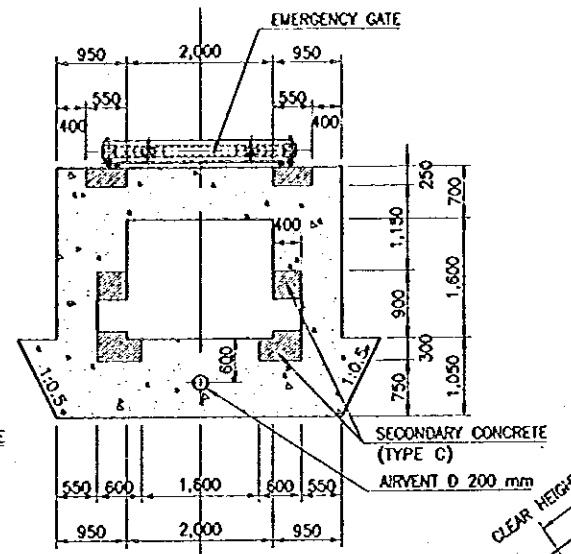
PROVINCE: CENTRAL JAVA  
 PROJECT NAME: FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA  
 DISTRICT: SEMARANG CITY  
 DRAWING NO. JD-P1-OF-Is-1  
 SHEET NO. 171  
 DATE:      CONTRACT NO.:

ELIAT INTERNATIONAL COOPERATION AGENCY  
 PT. BANGUNAN DAN KONSTRUKSI  
 PACIFIC CONSULTANTS INTERNATIONAL  
 JAWABANGSAJALING

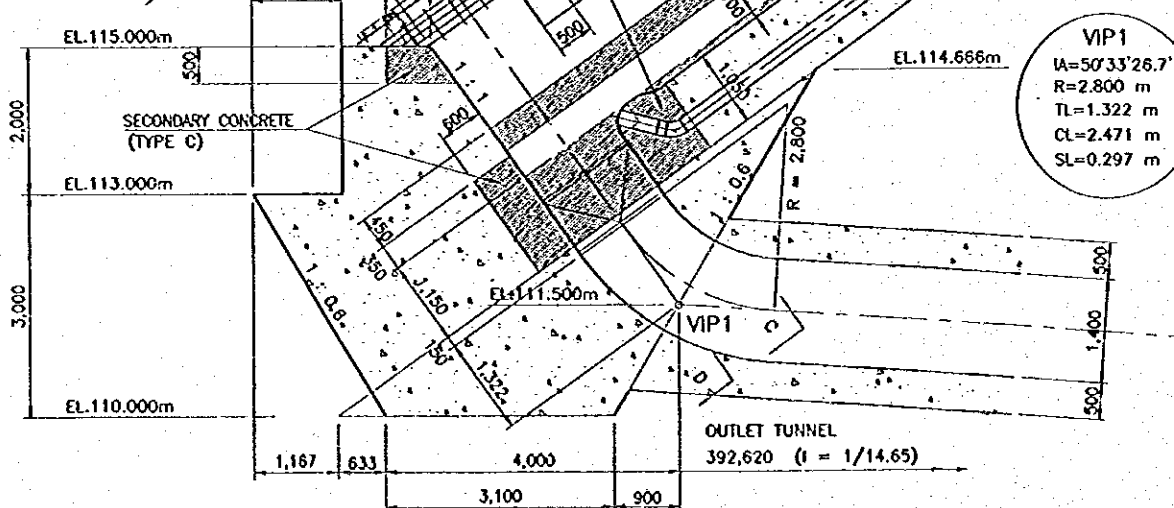
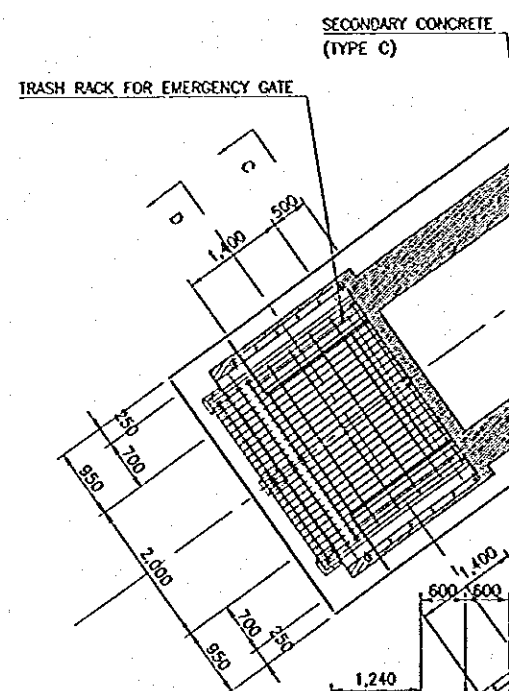
CHECKED:      DESIGNED:      APPROVED:      PROJECT MANAGER:



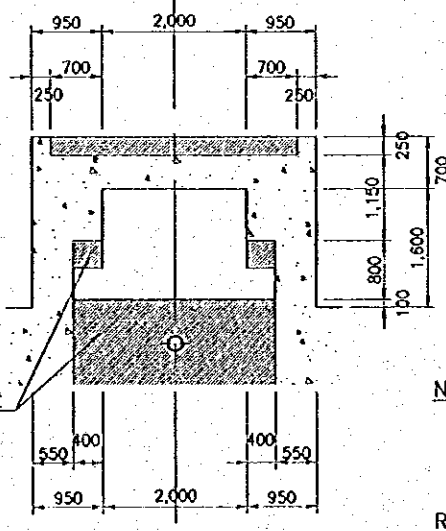
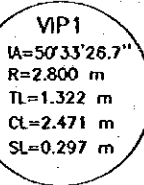
A - A SECTION



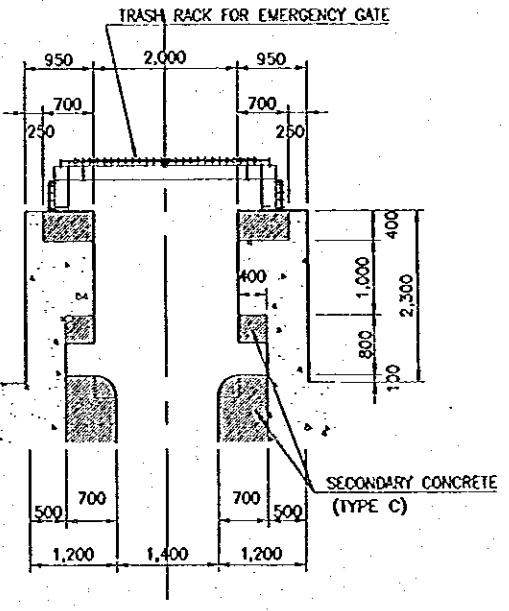
B - B SECTION



LONGITUDINAL PROFILE AND PLAN



C - C SECTION



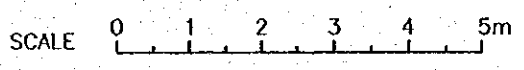
D - D SECTION

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.
2. CONCRETE OF INTAKE STRUCTURE SHALL BE OF TYPE B AS PER SPECIFICATION.
3. SECONDARY CONCRETE FOR BLOCKOUT SHALL BE OF TYPE B AS PER SPECIFICATION.

REFERENCE DRAWINGS

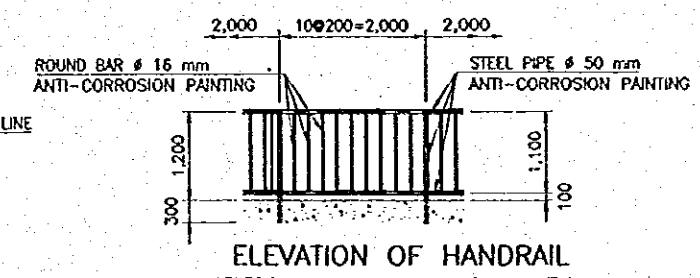
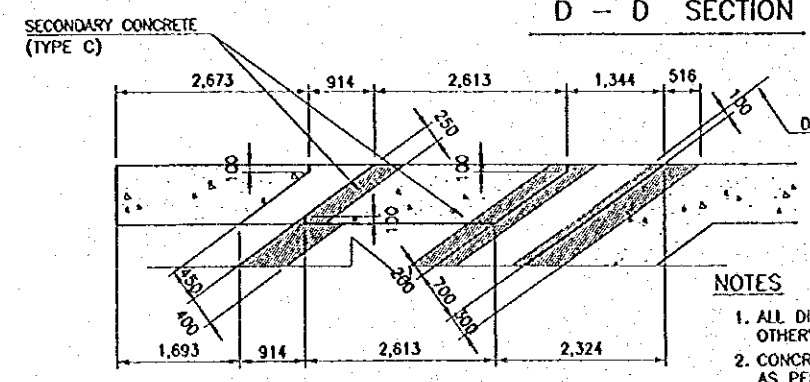
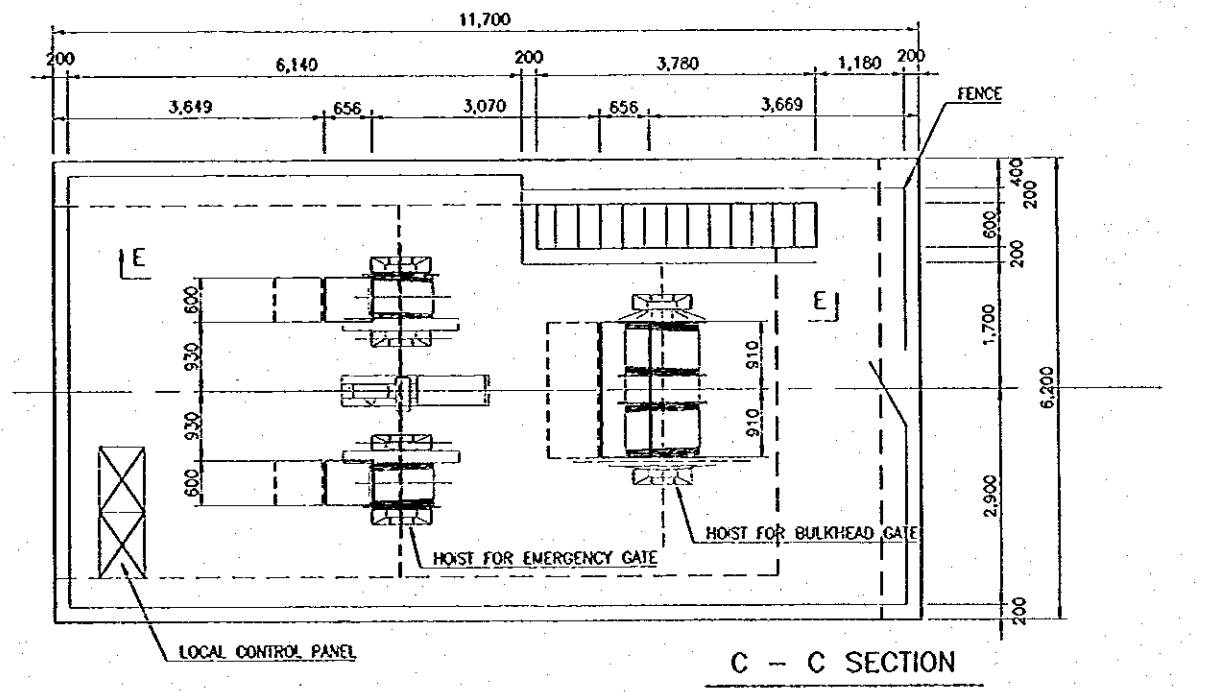
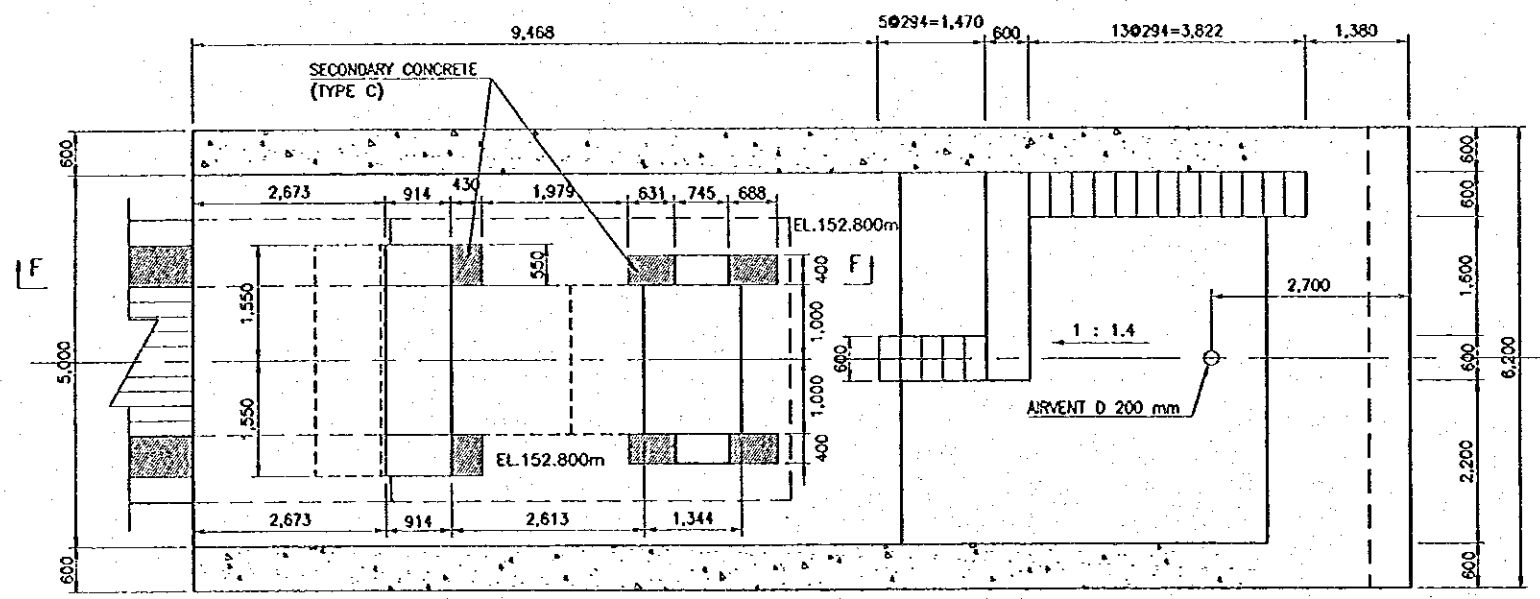
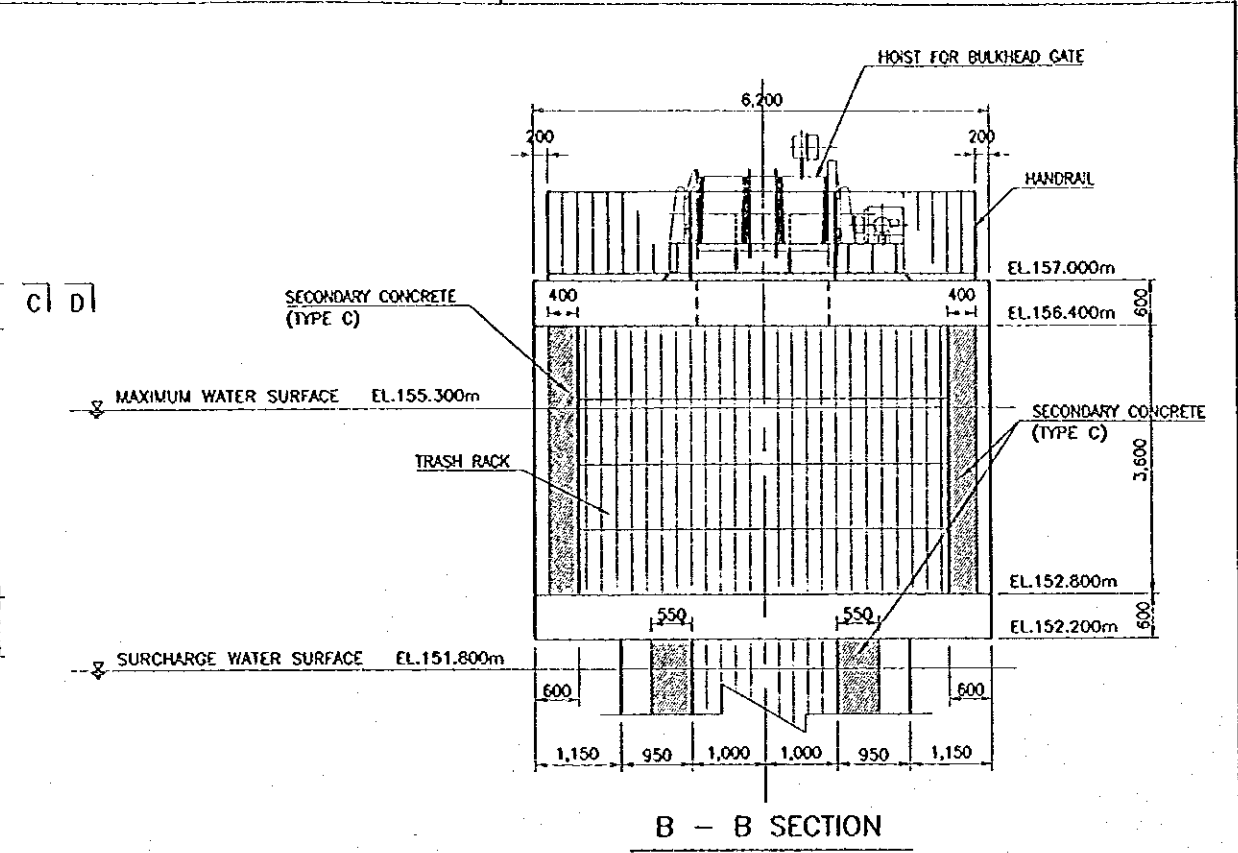
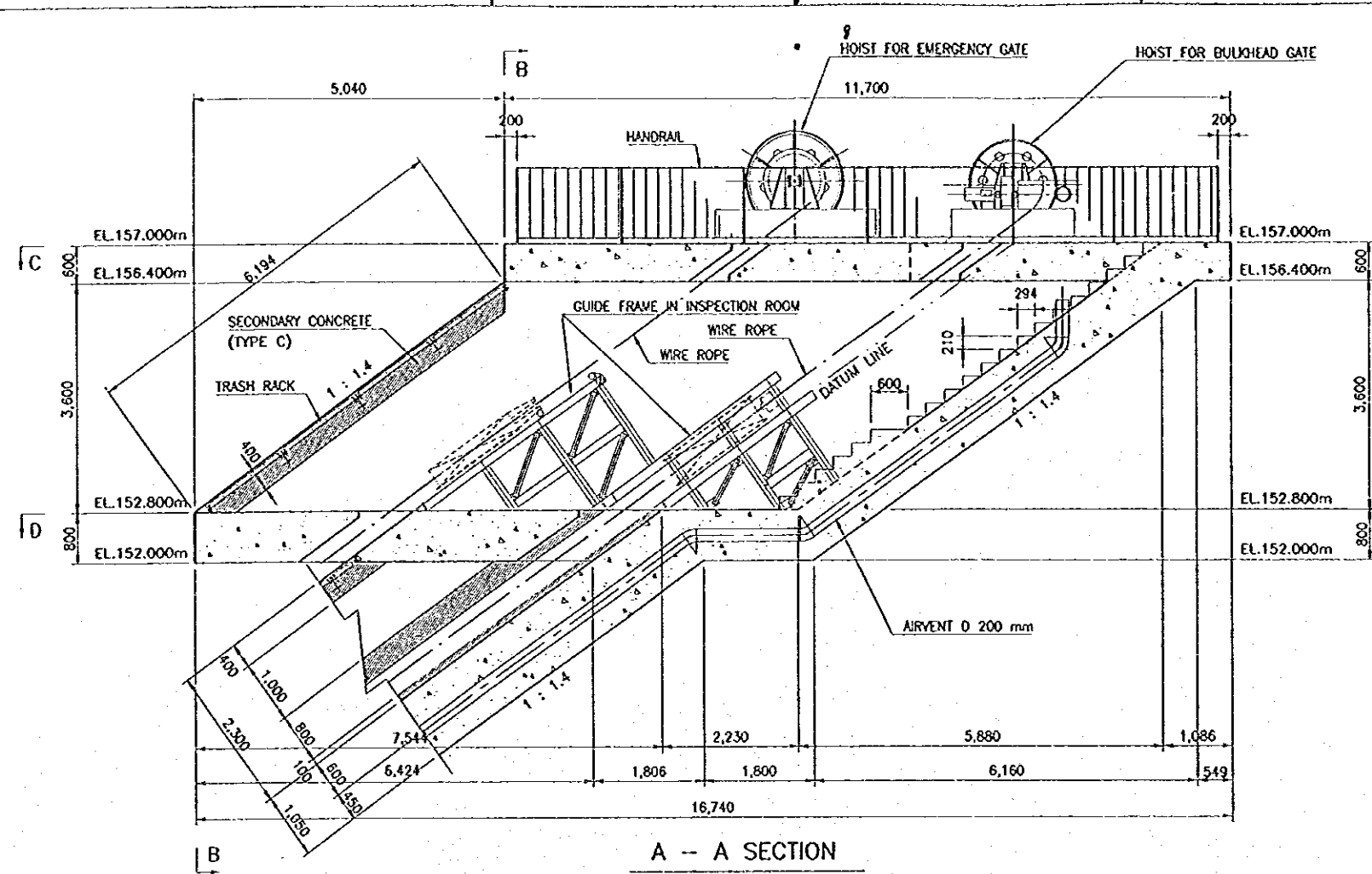
- JD-P1-OF-PI-1 OUTLET FACILITIES - LAYOUT PLAN
- JD-P1-DF-Is-2 INCLINED INTAKE STRUCTURE - CONCRETE OUTLINE (2/2)



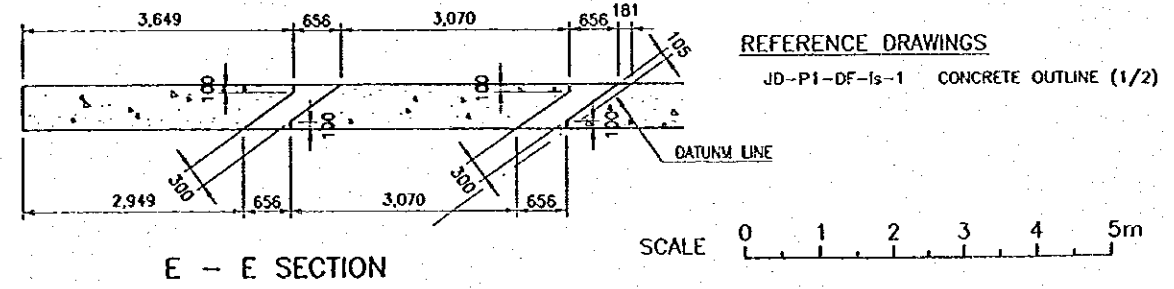
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT IRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION OUTLET FACILITIES INCLINED INTAKE STRUCTURE CONCRETE OUTLINE (1/2)		PROVINCE CENTRAL JAWA PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SURABAYA IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY DRAWING NO. JD-P1-OF-Is-2 SHEET NO. 172 DATE CONTRACT NO.
LAYAN PERENCANAAN DAN KONSULTASI CIVIL ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL PARTNER ENGINEERS INC.	ENGINEERED CHECKED DESIGNED PROJECT MANAGER	APPROVED CHIEF OF PLANNING AND DESIGN





- NOTES**
1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.
  2. CONCRETE OF INTAKE STRUCTURE SHALL BE OF TYPE B AS PER SPECIFICATION.
  3. SECONDARY CONCRETE FOR BLOCKOUT SHALL BE OF TYPE C AS PER SPECIFICATION.

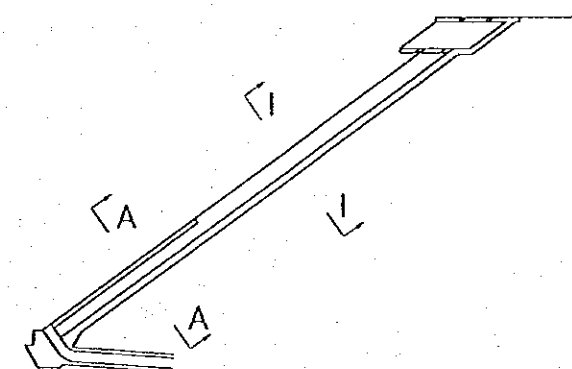
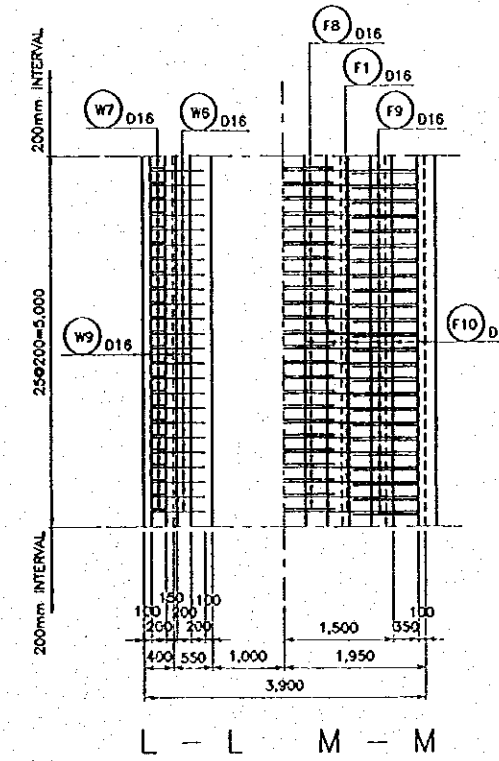
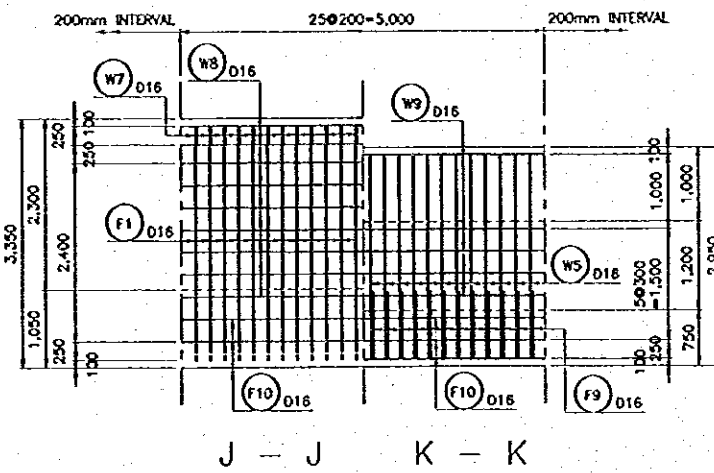
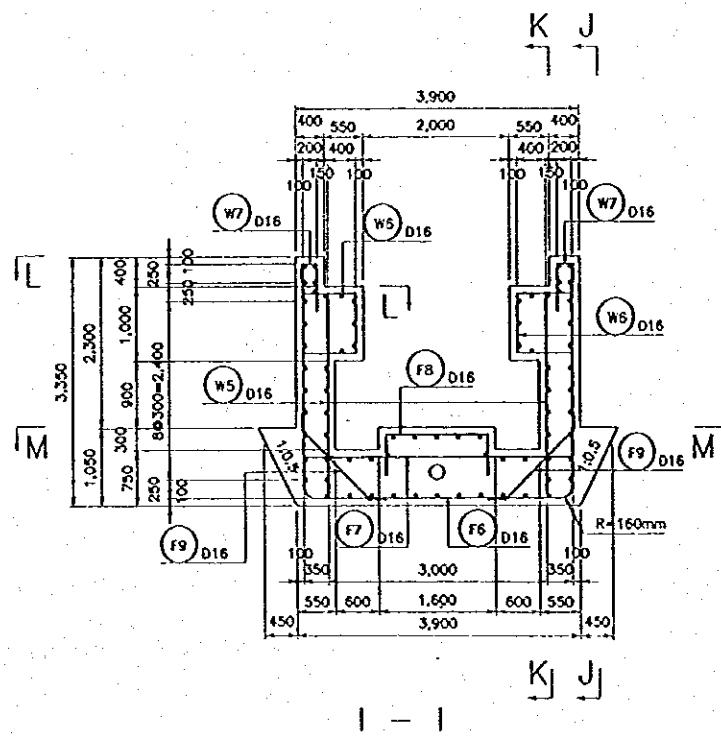
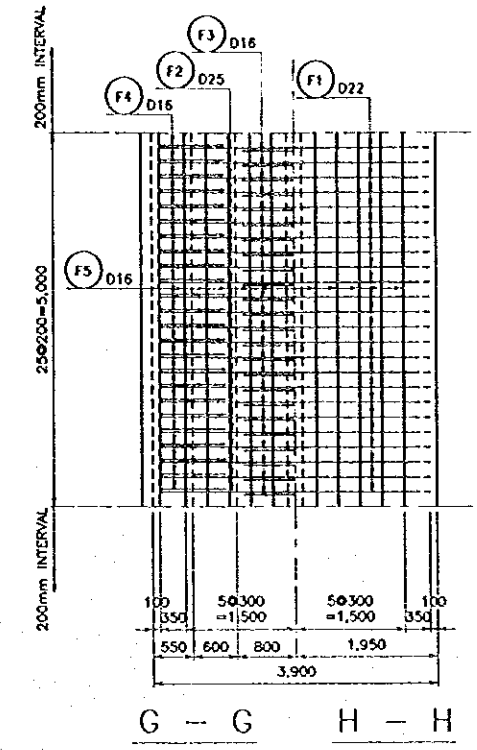
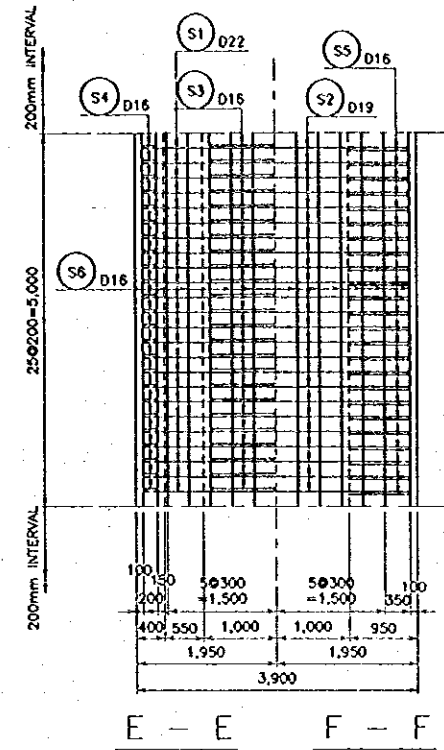
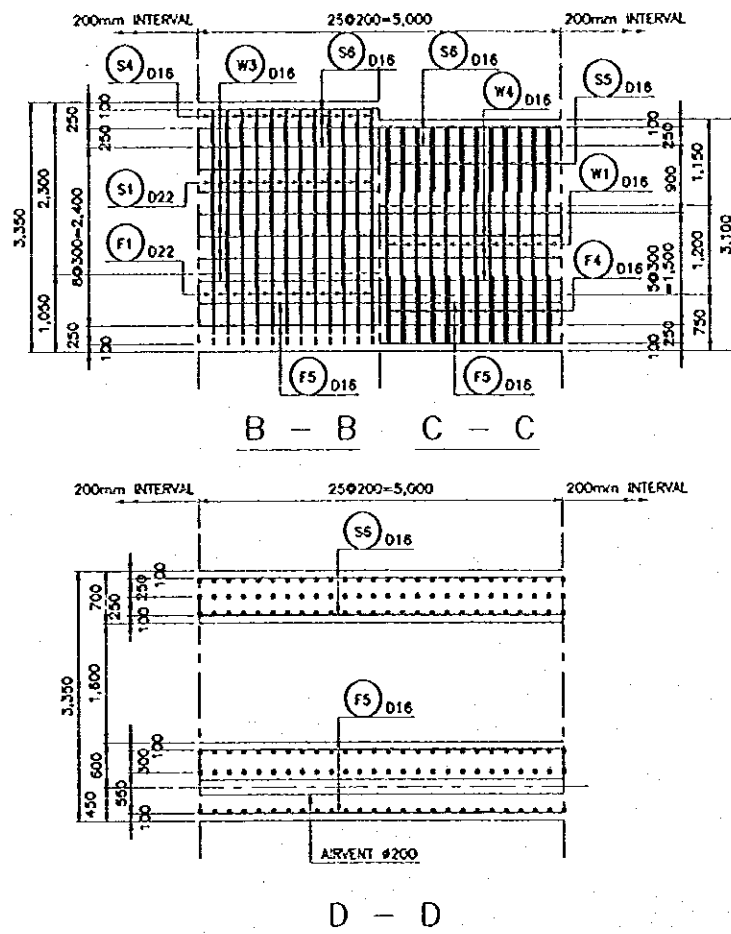
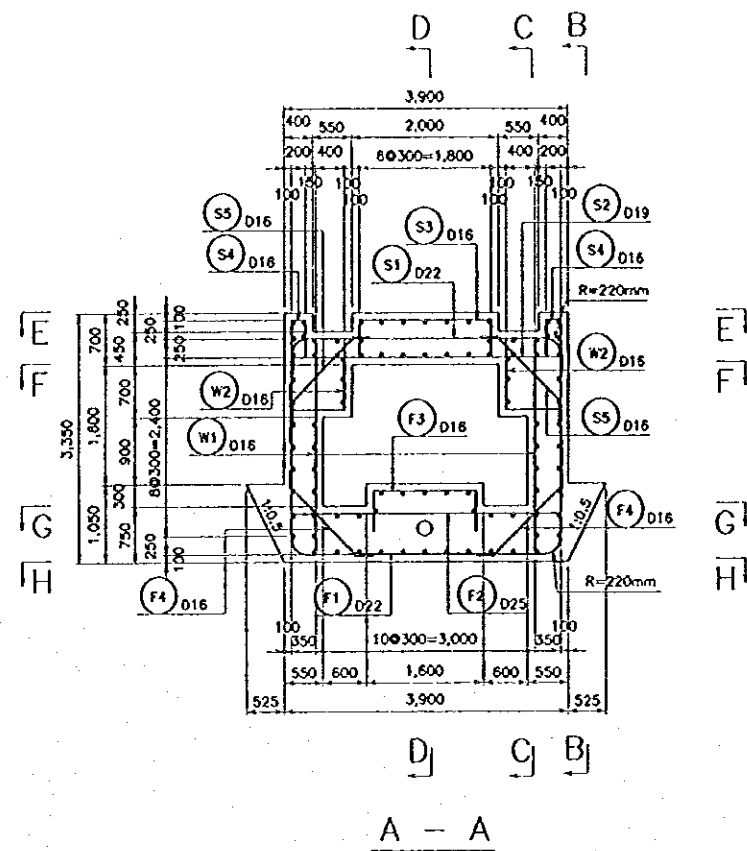


SCALE 0 1 2 3 4 5m

REFERENCE DRAWINGS  
JD-P1-DF-Is-1 CONCRETE OUTLINE (1/2)

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAVA
PT. TUNJUNG LUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION OUTLET FACILITIES INCLINED INTAKE STRUCTURE CONCRETE OUTLINE (2/2)		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
JAPAN INTERNATIONAL COOPERATION AGENCY CITY ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL PUBLIC WORKS CONSULTANTS, INC.		DISTRICT SEMARANG CITY
DESIGNED CHECKED GROUP OF PLANNING AND DESIGN PROJECT MANAGER		DRAWING NO. JD-P1-DF-Is-3 SHEET NO. 173 DATE CONTRACT NO.

NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED



**NOTES**

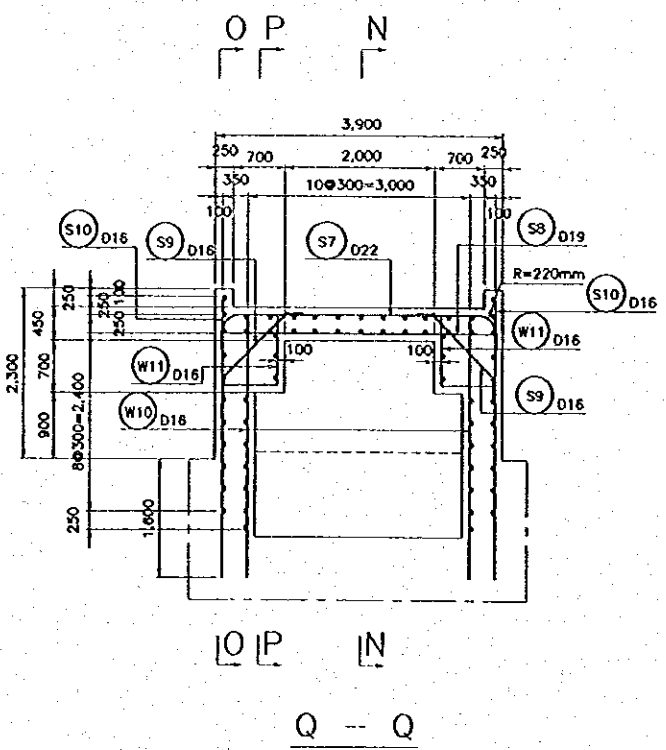
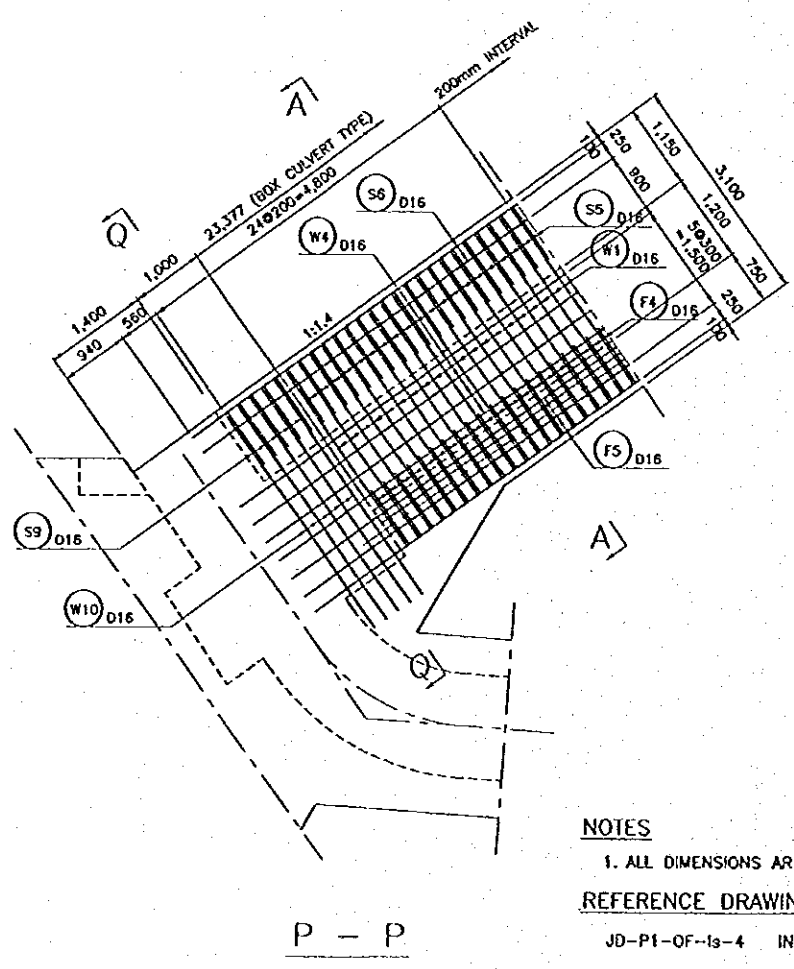
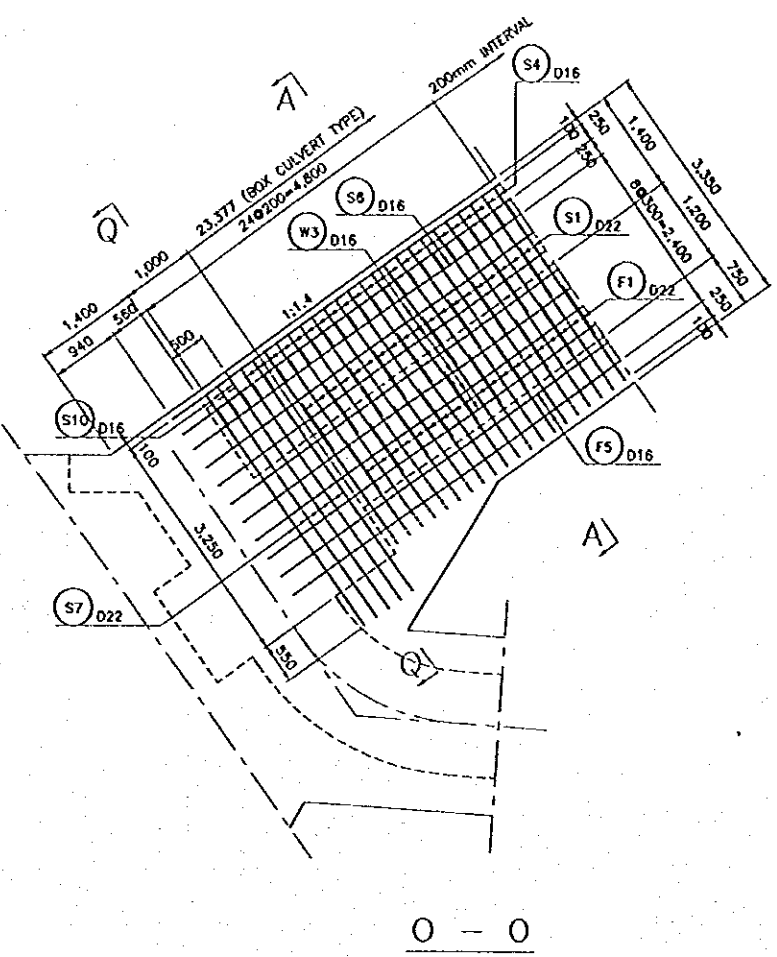
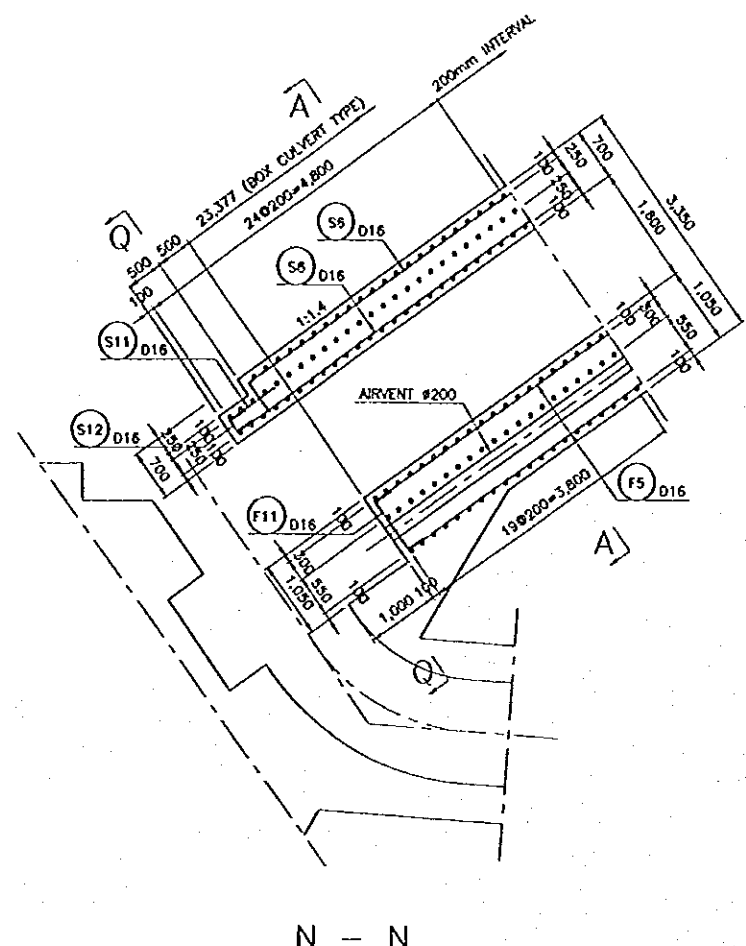
1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.

**REFERENCE DRAWINGS**

JD-P1-OF-1s-5 INCLINED INTAKE FACILITIES - REINFORCEMENT DETAILS (2/6)

NO.	DATE	REVISIONS	ORIGINATOR	DESIGNED	APPROVED

<b>THE REPUBLIC OF INDONESIA</b> MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVIDER CENTRAL JAVA
IRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION OUTLET FACILITIES INCLINED INTAKE STRUCTURE REINFORCEMENT DETAILS (1/8)		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
JAJAH INTERNATIONAL COOPERATION AGENCY CIVIL ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND PARCO INTERNATIONAL INC.		DESIGNER CHECKED DATE
GROUP OF PLANNING AND DESIGN PROJECT MANAGER		STREET NO. 174 DATE CONTRACT NO.



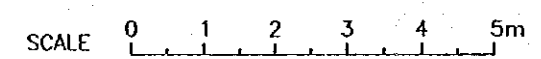
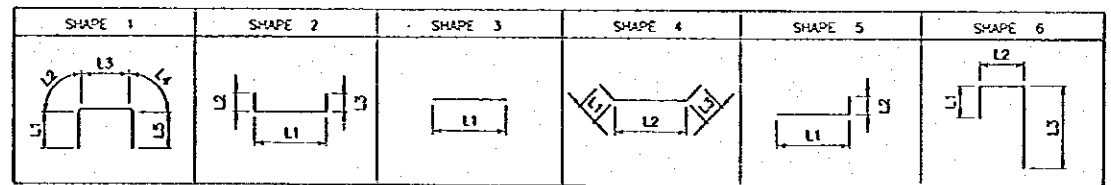
**NOTES**  
 1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.

**REFERENCE DRAWINGS**  
 JD-P1-OF-13-4 INCLINED INTAKE FACILITIES -- REINFORCEMENT DETAILS (1/6)

**BAR WEIGHT**

BAR NO	DIA	NUMBER	LENGTH (mm)							WEIGHT PER "m" (kg)	WEIGHT PER BAR (kg)	WEIGHT (kg)	SHAPE
			TOTAL	L1	L2	L3	L4	L5	R				
<b>(BOX CULVERT TYPE)</b>													
S1	22	25	7,950	1,160	350	3,260	350	1,930	220	2,980	21,009	525	1
S2	19	25	3,700	3,700						2,230	8,251	206	2
S3	16	25	2,820	510	1,800	510				1,580	4,456	111	2
S4	16	50	1,430	510	200	720				1,580	2,259	113	3
S5	16	50	1,720	250	1,220	250				1,580	2,718	136	4
S6	16	34	5,000	5,000						1,580	7,900	269	3
W1	16	50	2,900	2,900						1,580	4,592	229	3
W2	16	50	1,710	760	950					1,580	2,702	135	5
W3	16	12	5,000	5,000						1,580	7,900	95	3
W4	16	14	5,000	5,000						1,580	7,900	111	3
F1	22	25	7,350	2,080	350	3,260	350	1,310	220	2,980	21,903	548	1
F2	25	25	3,700	3,700						3,850	14,245	356	3
F3	16	25	2,500	550	1,400	550				1,580	3,950	99	2
F4	16	50	1,780	250	1,280	250				1,580	2,812	141	4
F5	16	30	5,000	5,000						1,580	7,900	237	3
<b>TOTAL (PER 5.00m)</b>											<b>3,311</b>		
<b>(USHAPE CHANNEL TYPE)</b>													
W5	16	50	2,750	2,750						1,580	4,345	217	3
W6	16	50	2,320	760	800	760				1,580	3,666	183	2
W7	16	50	1,100	250	200	650				1,580	1,738	87	6
W8	16	18	5,000	5,000						1,580	7,900	142	3
W9	16	26	5,000	5,000						1,580	7,900	205	3
F6	16	25	9,880	2,990	260	3,380	260	2,990	160	1,580	15,610	390	1
F7	16	25	3,700	3,700						1,580	5,846	146	3
F8	16	25	2,500	550	1,400	550				1,580	3,950	99	2
F9	16	50	1,780	250	1,280	250				1,580	2,812	141	4
F10	16	30	5,000	5,000						1,580	7,900	237	3
<b>TOTAL (PER 5.00m)</b>											<b>1,847</b>		
<b>(BOX CULVERT TYPE BOTTOM SECTION)</b>													
S7	22	5	10,620	3,330	350	3,260	350	3,330		2,980	31,648	158	1
S8	19	5	3,700	3,700						2,230	8,251	41	3
S9	16	10	1,720	250	1,220	250				1,580	2,718	27	4
S10	16	6	710	710						1,580	1,122	7	3
S11	16	7	740	740						1,580	1,169	8	3
S12	16	5	750	750	250	250				1,580	1,185	6	3
W10	16	10	3,350	3,350						1,580	5,293	53	3
W11	16	10	1,710	760	950					1,580	2,702	27	5
F11	16	8	1,350	250	850	250				1,580	2,133	17	3
<b>TOTAL</b>											<b>344</b>		

**BAR BENDING SCHEDULE**



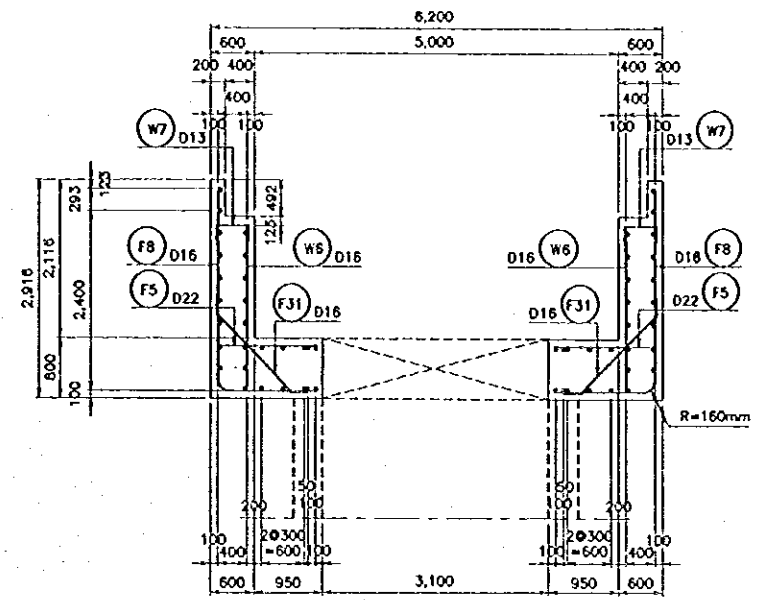
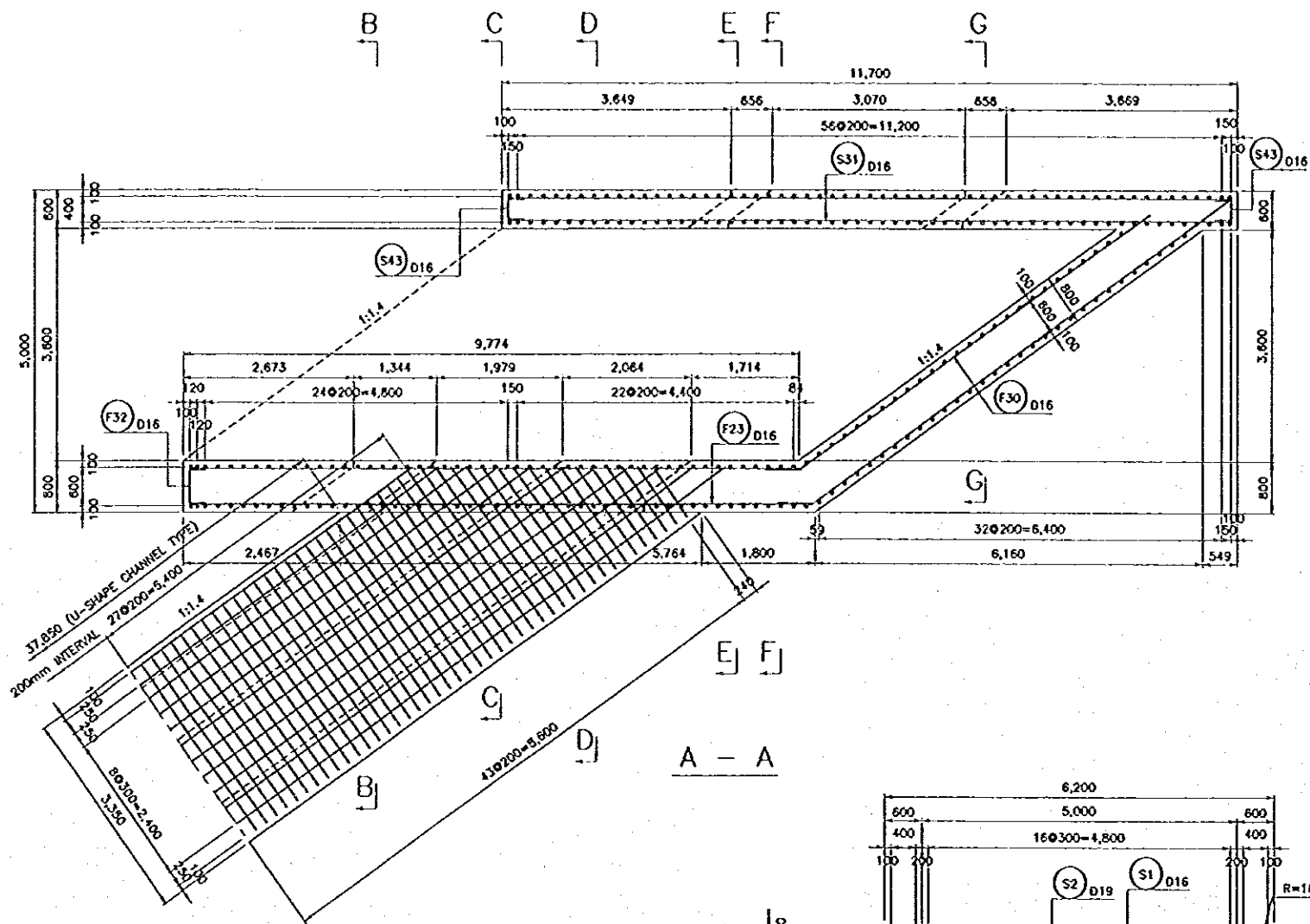
**THE REPUBLIC OF INDONESIA**  
 MINISTRY OF PUBLIC WORKS  
 DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT

**JRATUNSELUNA FLOOD CONTROL PROJECT**  
 COMPONENT : JATIRARANG DAM CONSTRUCTION  
 OUTLET FACILITIES  
 INCLINED INTAKE STRUCTURE  
 REINFORCEMENT DETAILS (2/6)

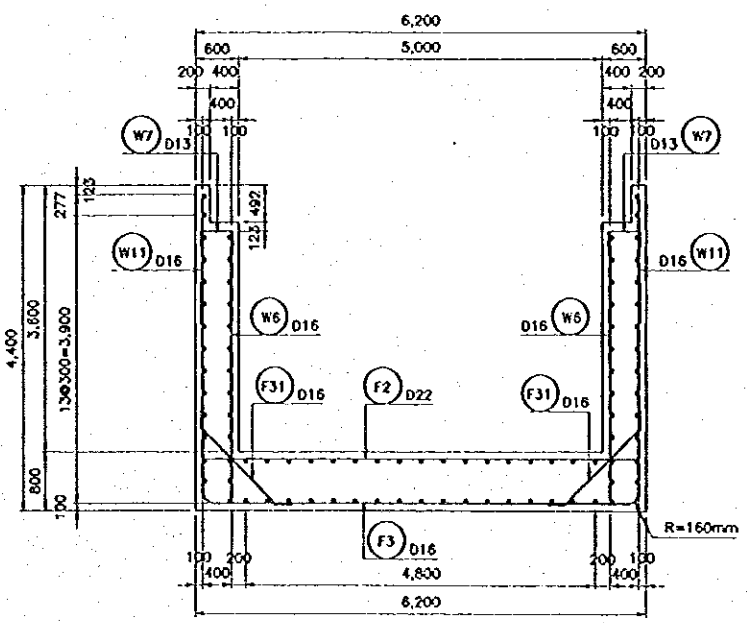
DESIGNED: [Signature]  
 CHECKED: [Signature]  
 CREW OF PLANNING AND DESIGN  
 PROJECT MANAGER

PROVINCE: CENTRAL JAVA  
 PROJECT NAME: FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA  
 DISTRICT: SEMARANG CITY  
 DRAWING NO. JD-P1-OF-13-5  
 SHEET NO. 175  
 DATE: [ ]  
 CONTRACT NO. [ ]

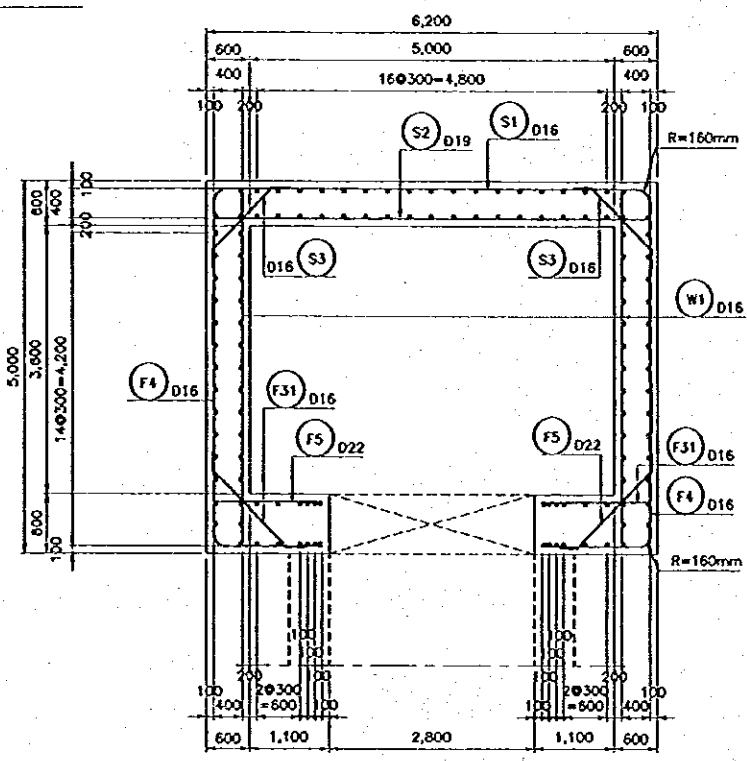
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED



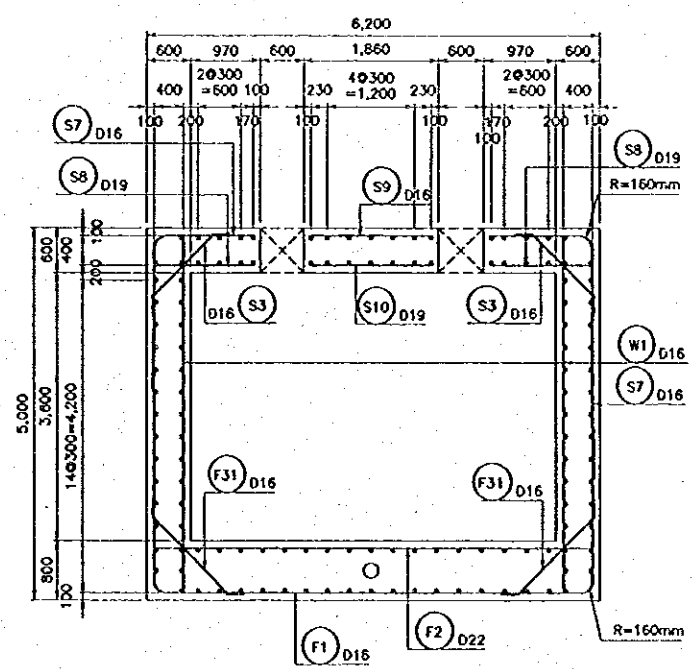
B - B



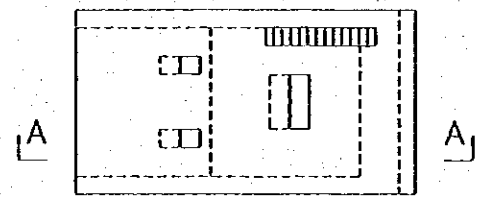
C - C



D - D



E - E



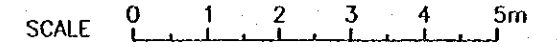
KEY PLAN

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.

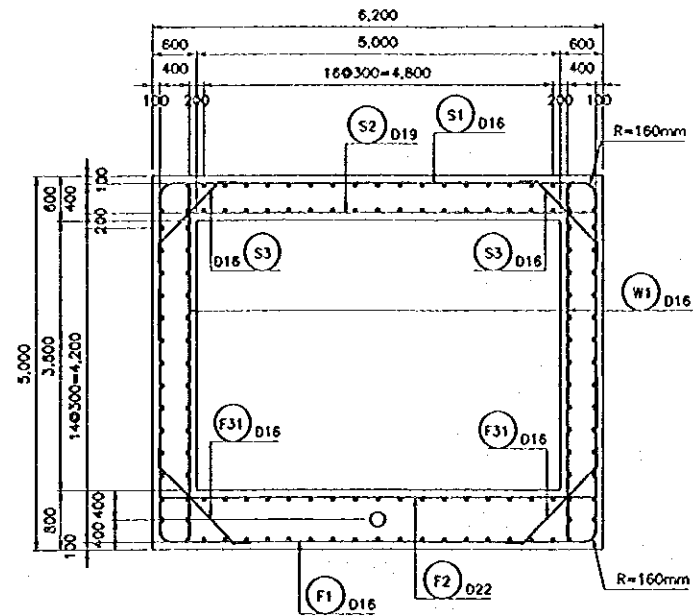
REFERENCE DRAWINGS

- JD-P1-OF-1s-7 INCLINED INTAKE FACILITIES - REINFORCEMENT DETAILS (4/6)
- JD-P1-OF-1s-8 INCLINED INTAKE FACILITIES - REINFORCEMENT DETAILS (5/6)
- JD-P1-OF-1s-9 INCLINED INTAKE FACILITIES - REINFORCEMENT DETAILS (6/6)

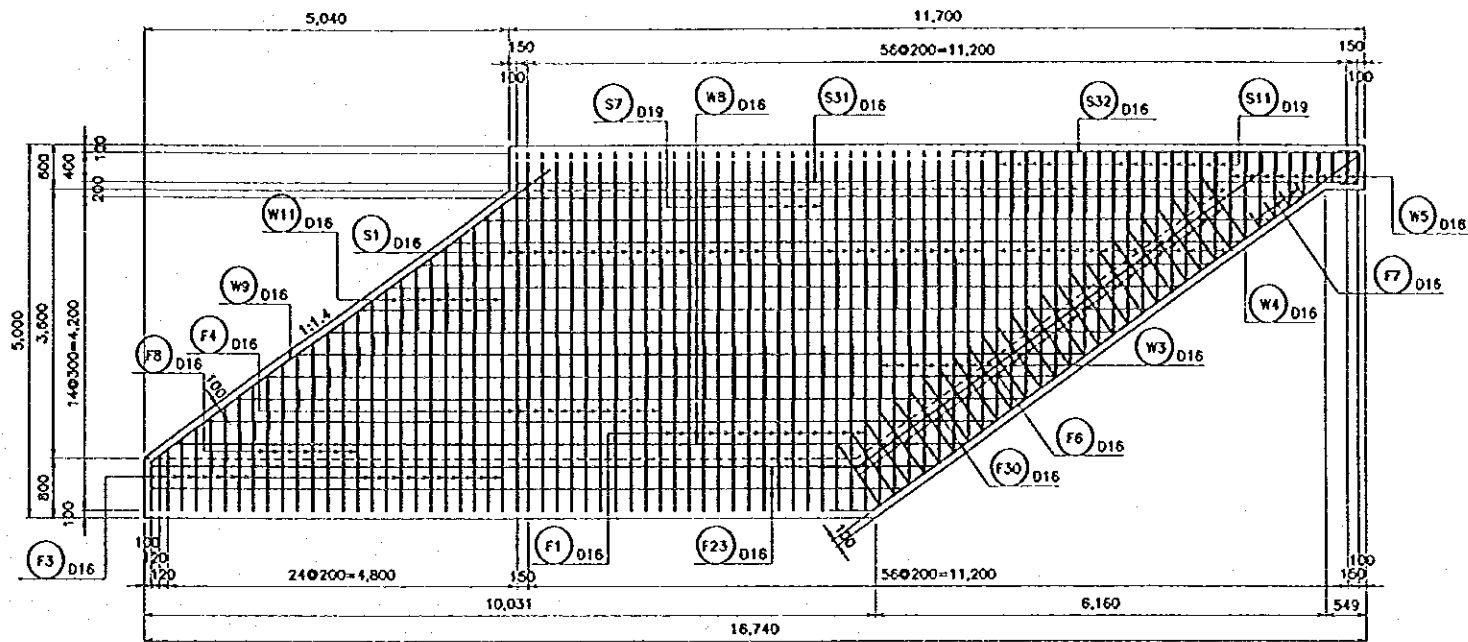


NO.	DATE	REVISIONS	ORIGINATOR	DESIGNED	APPROVED

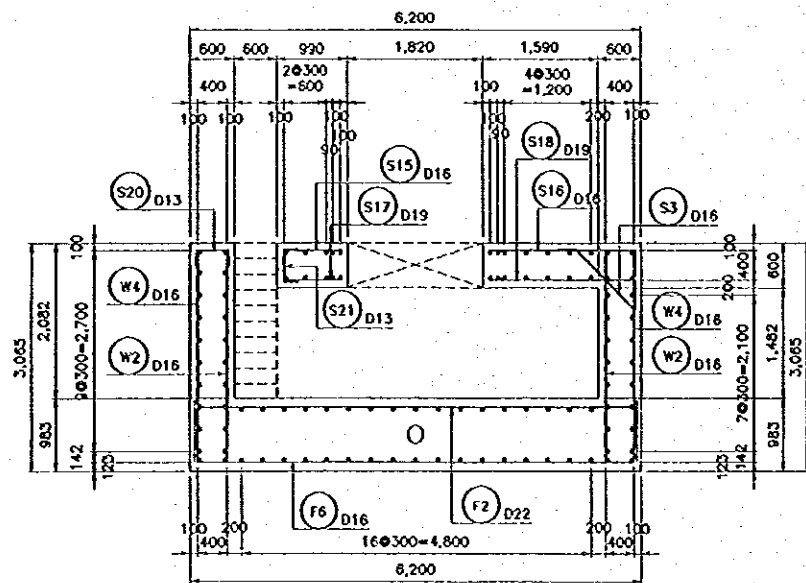
THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAVA
PRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION OUTLET FACILITIES INCLINED INTAKE STRUCTURE REINFORCEMENT DETAILS (3/6)		PROJECT NAME FLOOD CONTROL, DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
JAPAN INTERNATIONAL COOPERATION AGENCY CITY ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND PABCO INTERNATIONAL, INC.		DISTRICT SEMARANG CITY
CHIEF OF PLANNING AND DESIGN		DRAWING NO. JD-P1-OF-1s-6 SHEET NO. 178
PROJECT MANAGER		DATE CONTRACT NO.



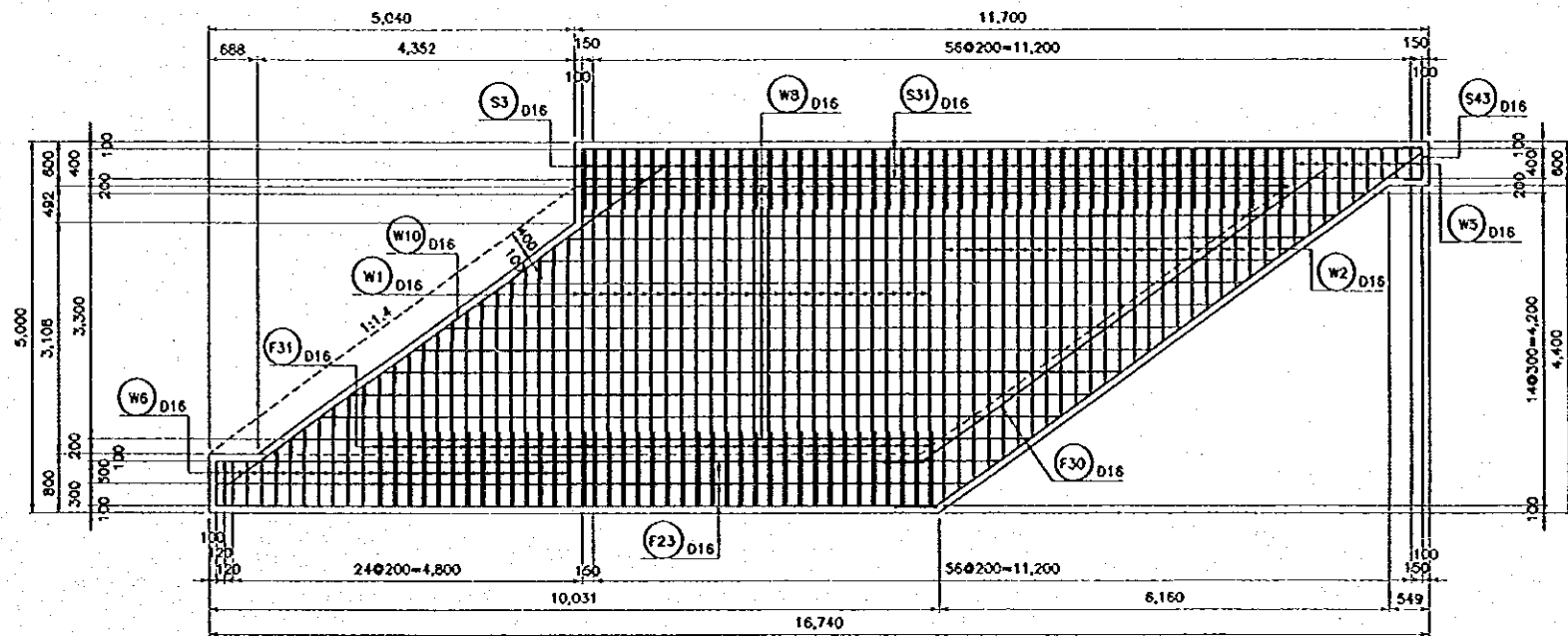
F - F



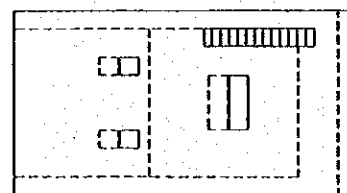
H - H



G - G



I - I



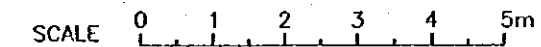
KEY PLAN

**NOTES**

1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.

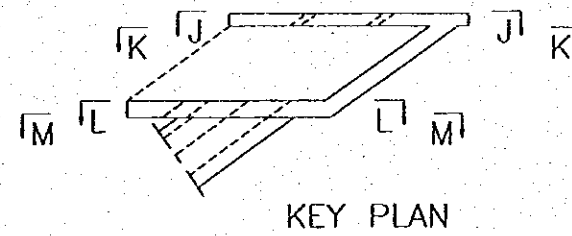
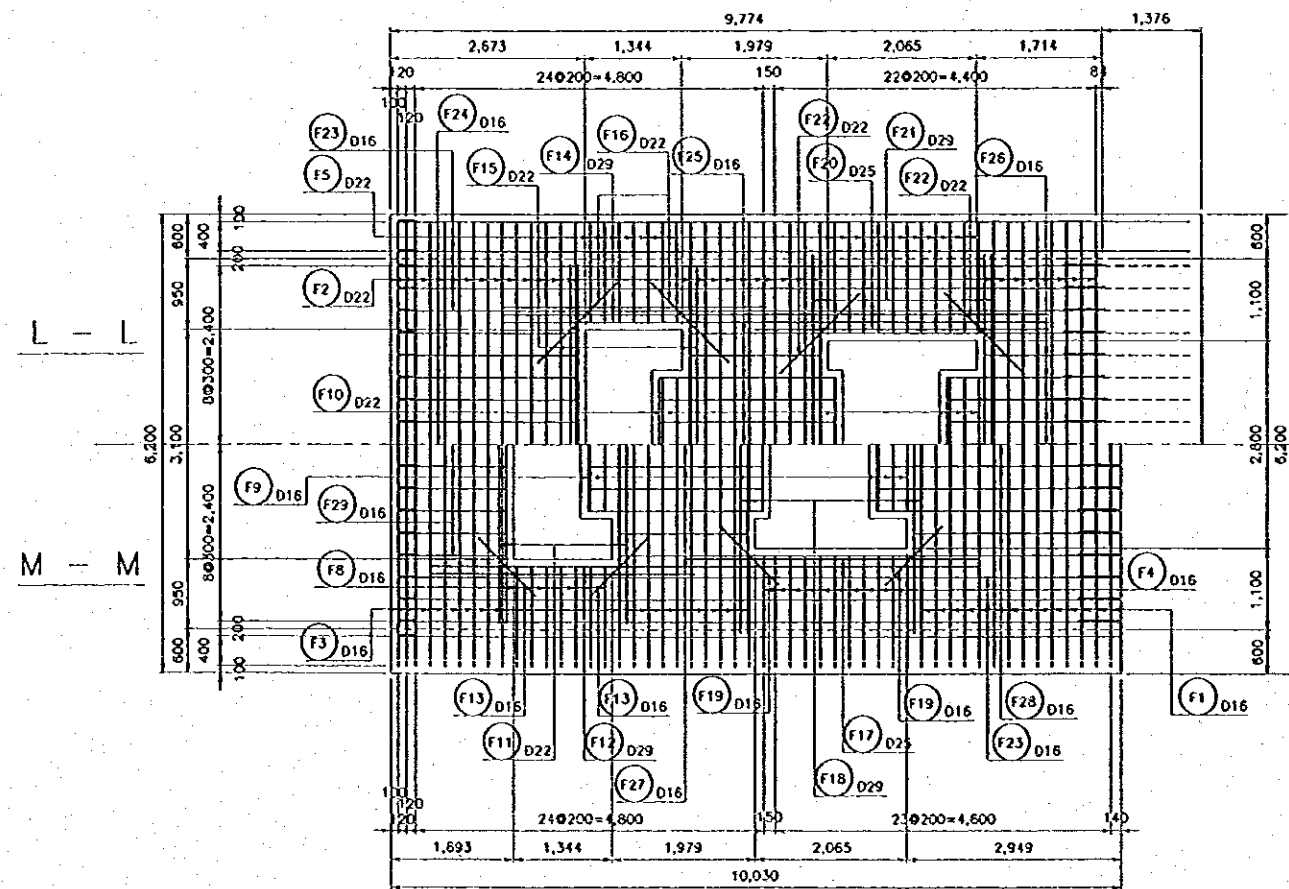
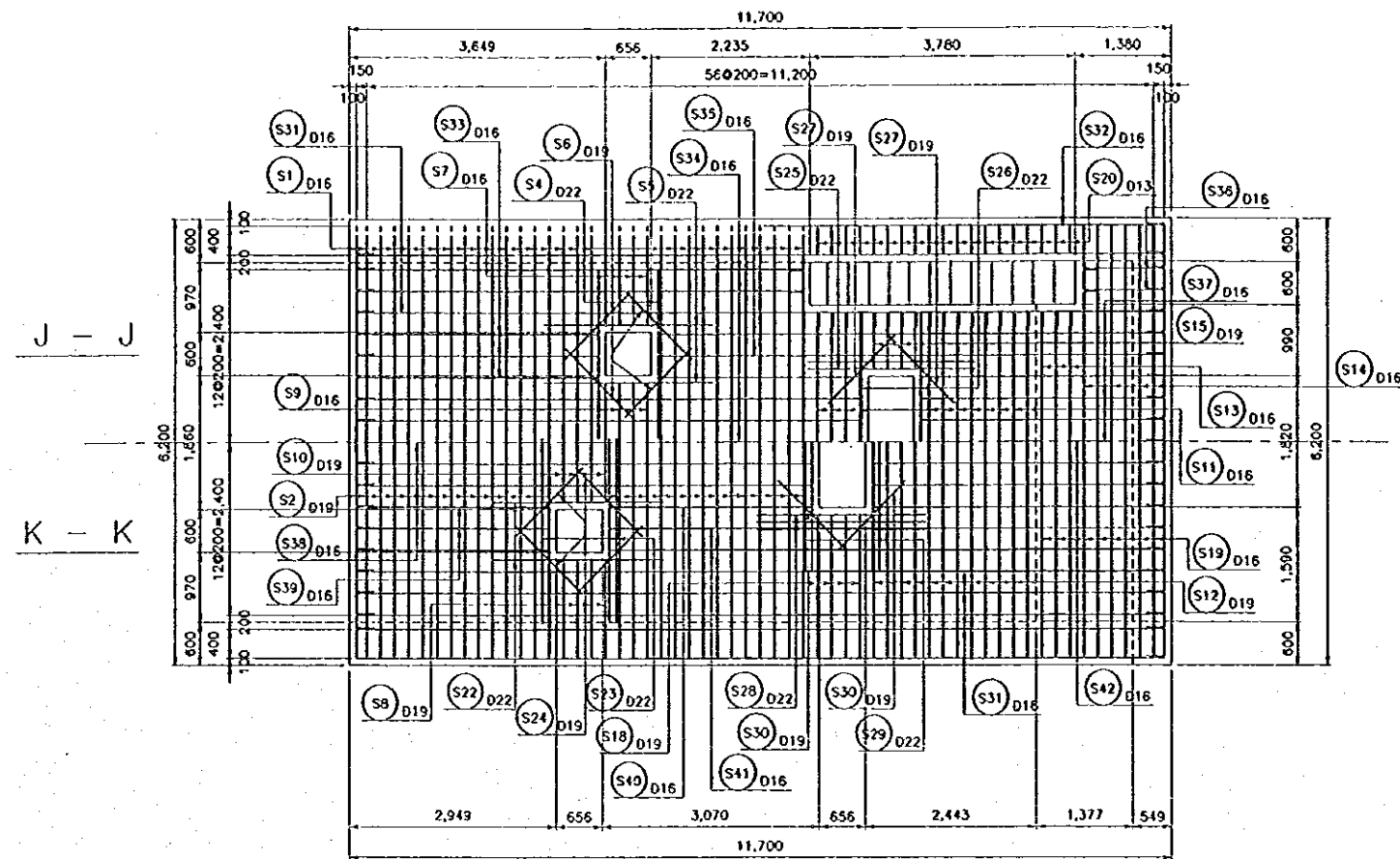
**REFERENCE DRAWINGS**

- JD-P1-OF-1s-6 INCLINED INTAKE FACILITIES - REINFORCEMENT DETAILS (3/6)
- JD-P1-OF-1s-8 INCLINED INTAKE FACILITIES - REINFORCEMENT DETAILS (5/6)
- JD-P1-OF-1s-9 INCLINED INTAKE FACILITIES - REINFORCEMENT DETAILS (6/6)



NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAWA
IRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT: JATIBARANO DAM CONSTRUCTION OUTLET FACILITIES INCLINED INTAKE STRUCTURE REINFORCEMENT DETAILS (4/8)		PROJECT NAME FLOOD CONTROL, IRRIGATION AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE PROVINCE OF INDONESIA
LAFAY INTERNATIONAL COOPERATION AGENCY CIVIL ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND FARCO INTERNATIONAL INC.		DEFECT SEMARANG CITY
DESIGNED CHECKED APPROVED PROJECT MANAGER		DRAWING NO. JD-P1-OF-1s-7 SHEET NO. 177 DATE CONTRACT NO.

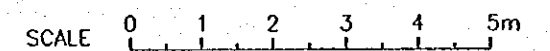


**NOTES**

1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.

**REFERENCE DRAWINGS**

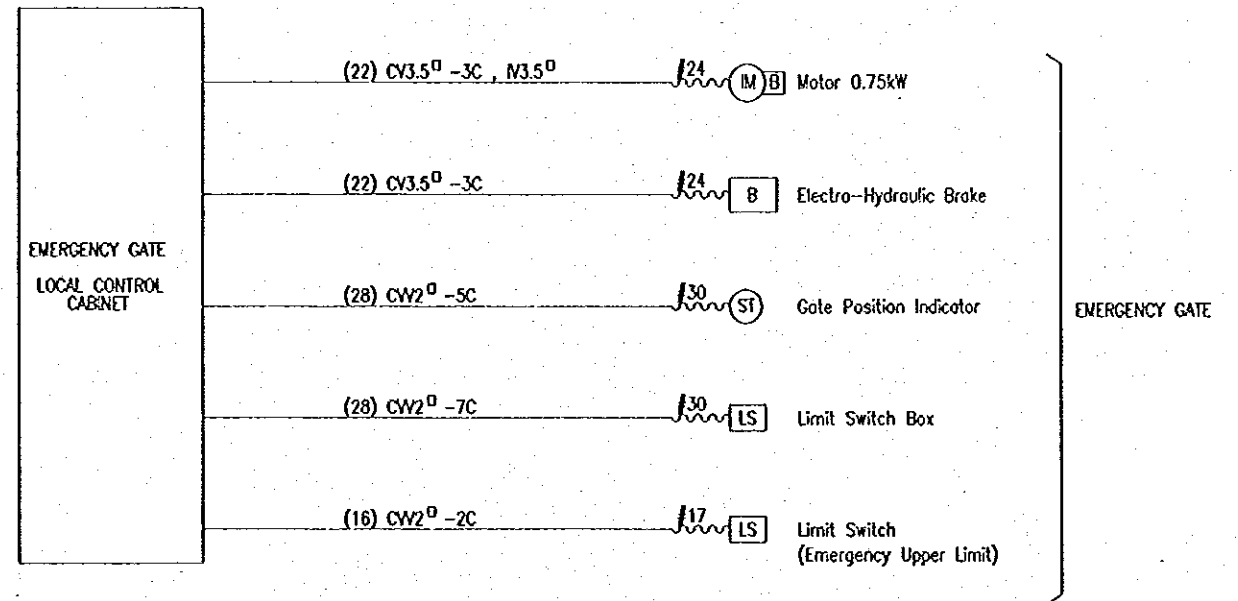
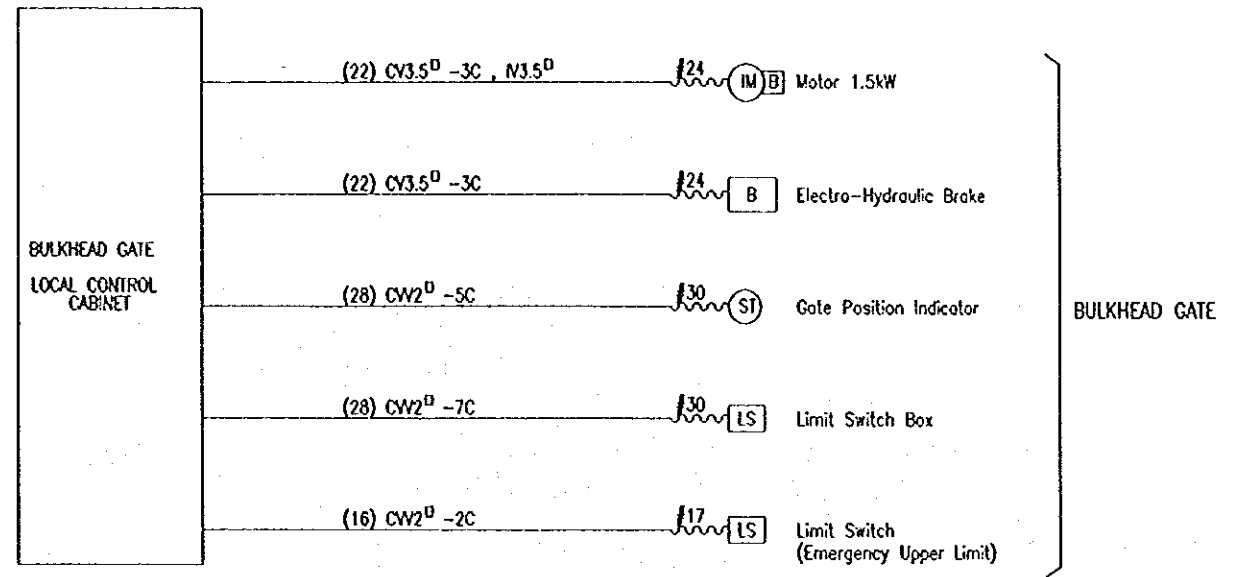
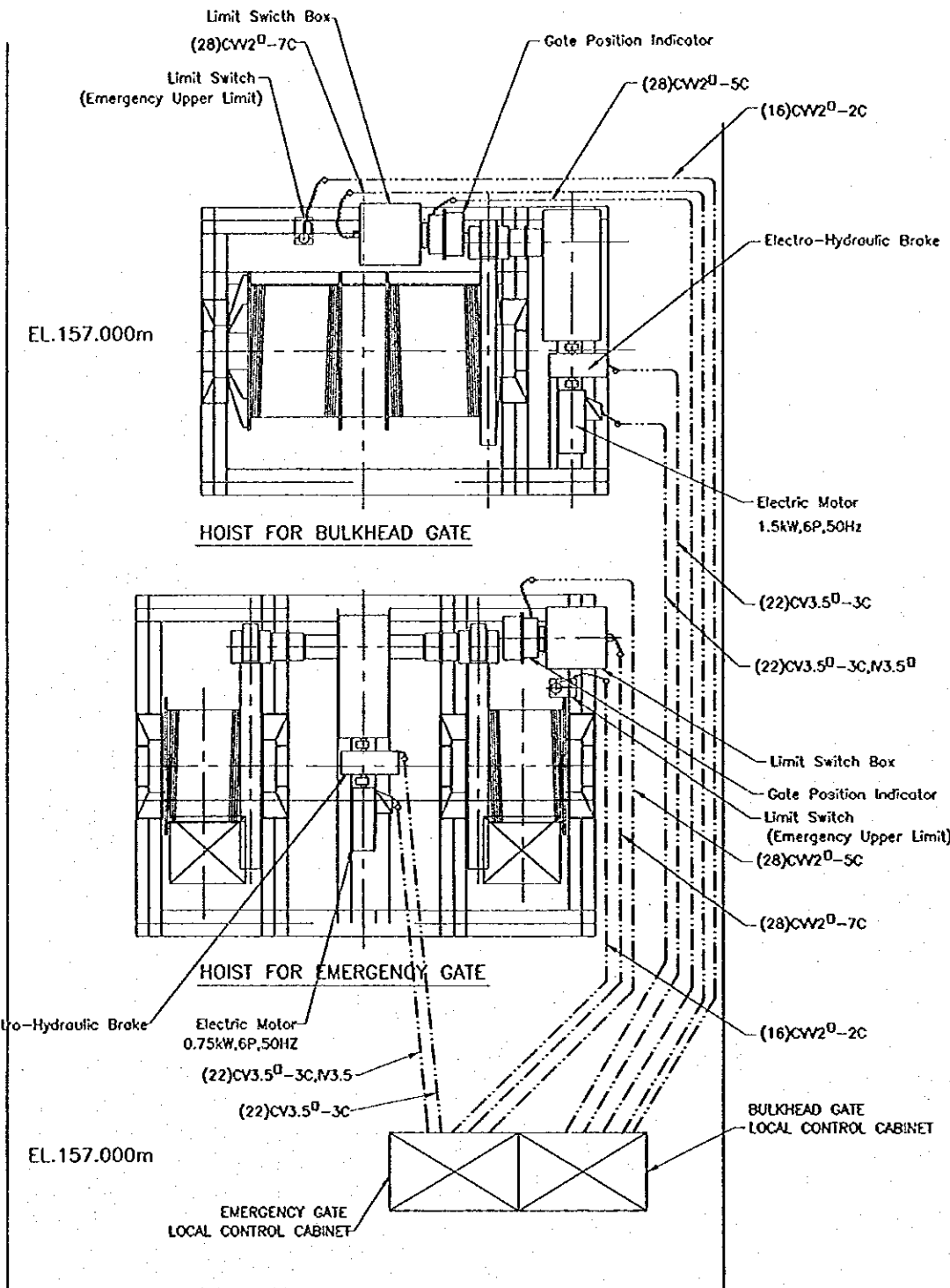
- JD-P1-OF-Is-6 INCLINED INTAKE FACILITIES - REINFORCEMENT DETAILS (3/6)
- JD-P1-OF-Is-7 INCLINED INTAKE FACILITIES - REINFORCEMENT DETAILS (4/6)
- JD-P1-OF-Is-9 INCLINED INTAKE FACILITIES - REINFORCEMENT DETAILS (6/6)



NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

	THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVIDER CENTRAL JAVA
	JRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION OUTLET FACILITIES INCLINED INTAKE STRUCTURE REINFORCEMENT DETAILS (5/6)		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
	LEAN INTERNATIONAL COOPERATION AGENCY CIL ENGINEERING COLTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND TARKO INTERNATIONAL INC.		DISTRICT SEMARANG CITY
	CHIEF OF PLANNING AND DESIGN PROJECT MANAGER		DRAWING NO. JD-P1-OF-Is-8 SHEET NO. 178 DATE CONTRACTING





**LEGEND**

(22) CV 3.5<sup>D</sup> - 3C  
 └── NUMBERS OF CORE  
 └── CONDUCTOR AREA(Sp.mm)  
 CABLE  
 CV :600V Cross Linked Polyethylene Insulated Cable  
 IV :600V Grade Polyvinyl Chloride Insulated Wire  
 CW :Polyvinyl Chloride Insulated and Sheathed Cable

CONDUIT SIZE  
 ( ) :Rigid Steel Conduits  
 / :Flexible Metal Conduit

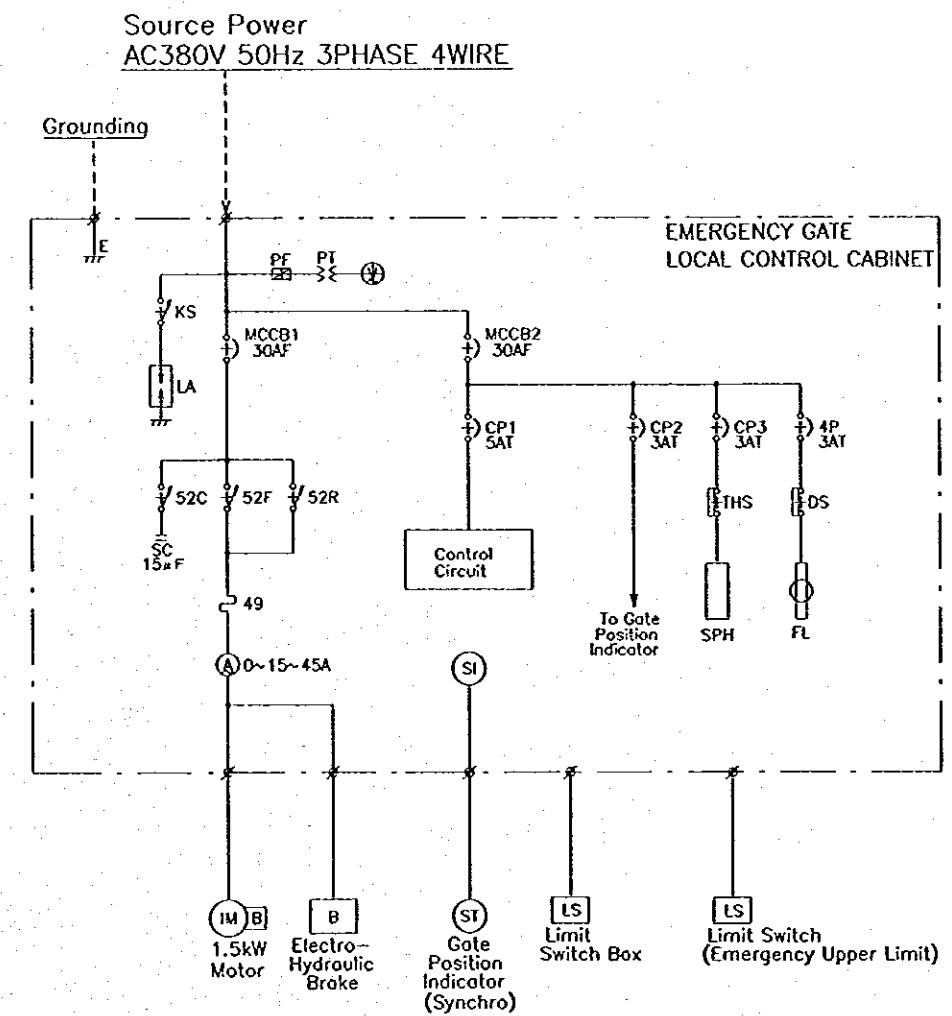
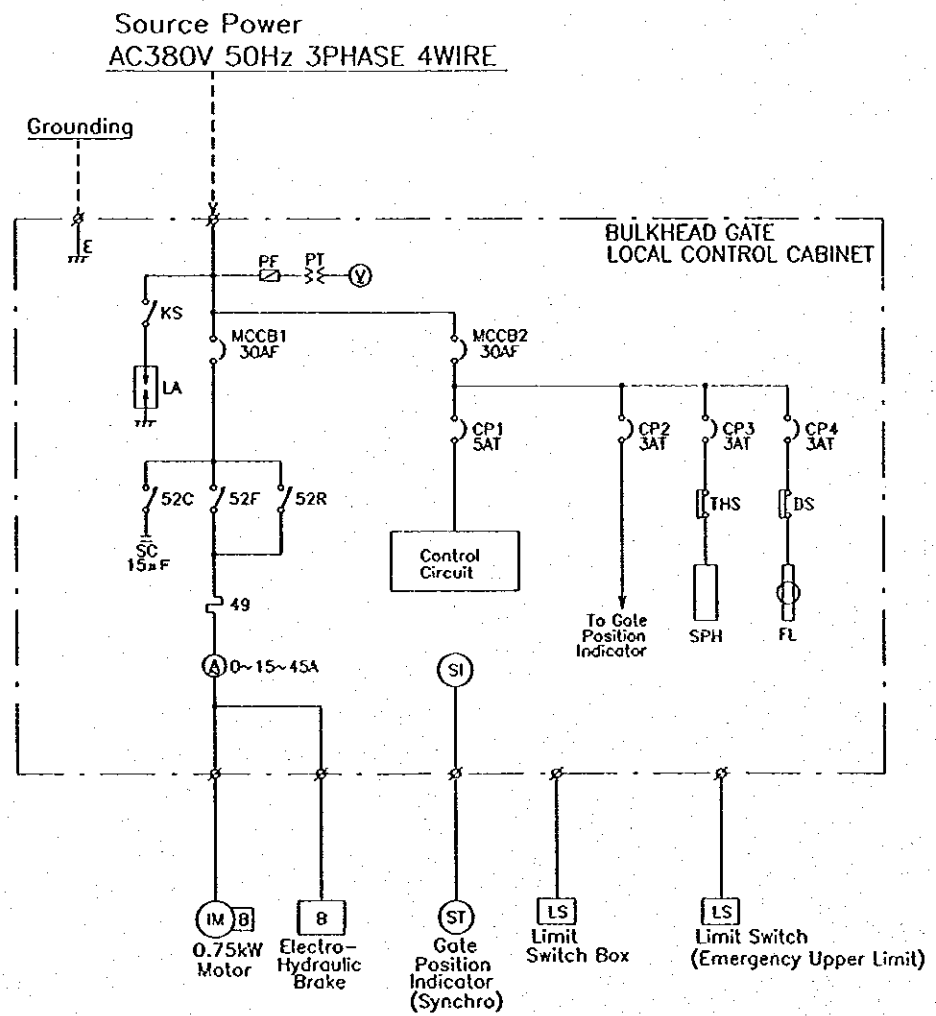
**REFERENCE DRAWINGS**

JD-P1-OF-P1-1 OUTLET FACILITIES -- LAYOUT PLAN  
 JD-P1-DF-EI-2 ELECTRICAL WORKS -- SKELTON DIAGRAM OF BULKHEAD AND EMERGENCY GATES

NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

<b>THE REPUBLIC OF INDONESIA</b> MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAVA
PRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION OUTLET FACILITIES ELECTRICAL WORKS WIRING DIAGRAM OF BULKHEAD AND EMERGENCY GATES		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
JAPAN INTERNATIONAL COOPERATION AGENCY CHUO KAWANISHI CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL JABCO INTERNATIONAL B.C.		DISTRICT SEMARANG CITY
CHIEF OF PLANNING AND DESIGN		DRAWING NO. JD-P1-OF-EI-1 SHEET NO. 180
PROJECT MANAGER		DATE CONTRACT NO.



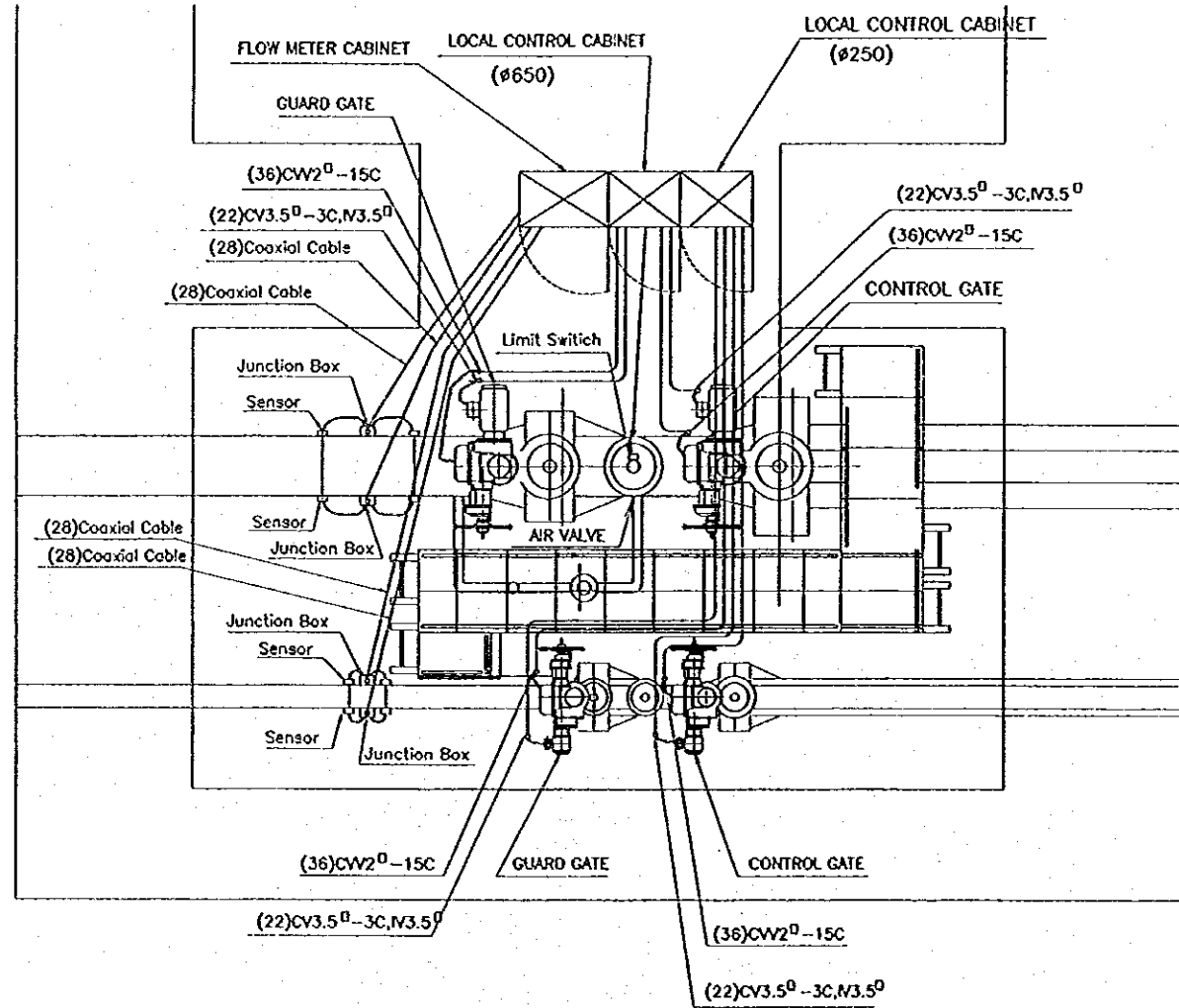


REFERENCE DRAWINGS

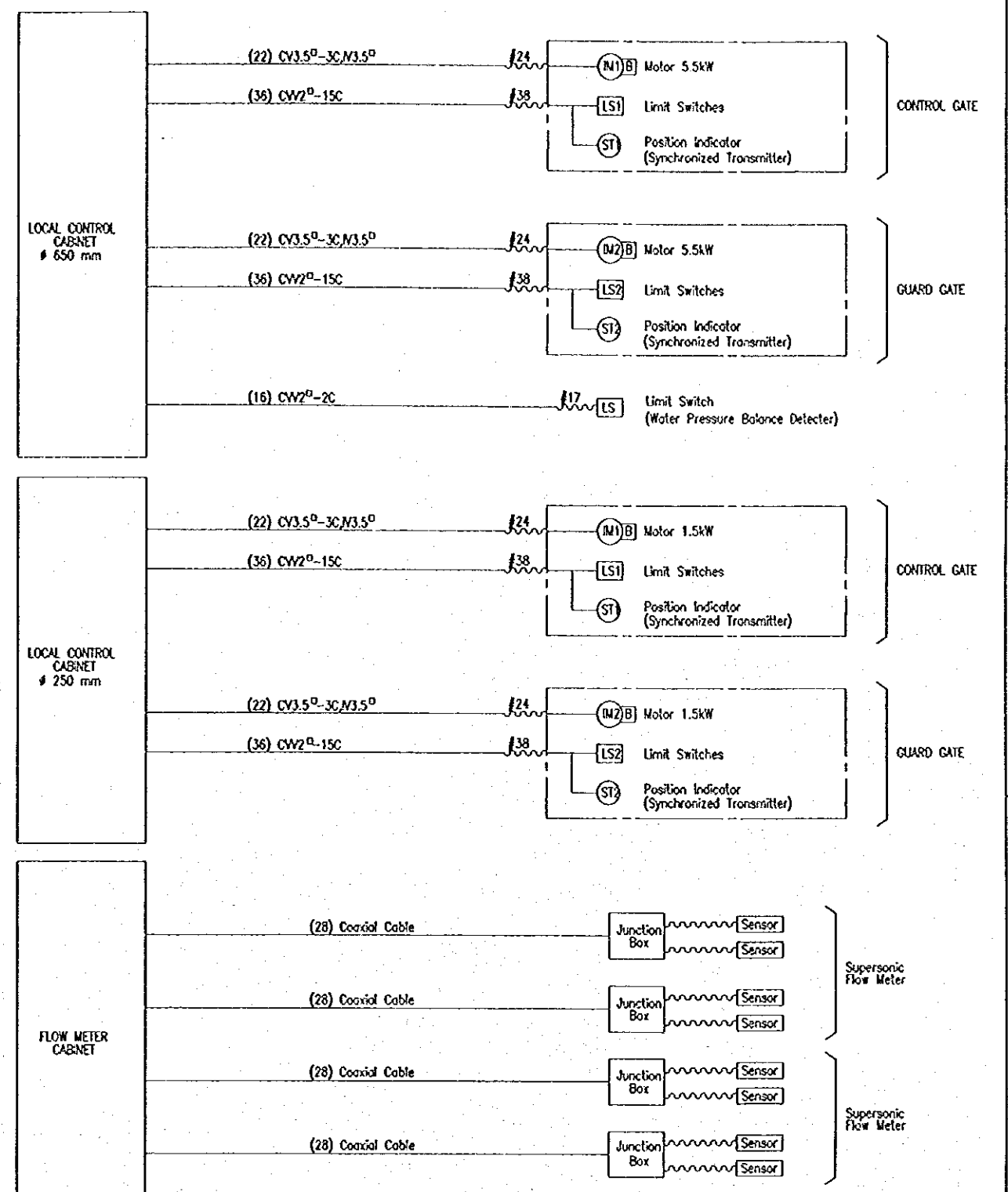
- JD-P1-OF-P1-1 OUTLET FACILITIES - LAYOUT PLAN
- JD-P1-DF-E1-1 ELECTRICAL WORKS - WIRING DIAGRAM OF BULKHEAD AND EMERGENCY GATES

NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

<p>THE REPUBLIC OF INDONESIA</p> <p>MINISTRY OF PUBLIC WORKS</p> <p>DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DRAINAGE</p> <p>AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT</p> <p>FRATUNSELUNA FLOOD CONTROL PROJECT</p> <p>COMPONENT: JATIBARANG DAM CONSTRUCTION</p> <p>OUTLET FACILITIES</p> <p>ELECTRICAL WORKS</p> <p>SKELTON DIAGRAM OF BULKHEAD AND EMERGENCY GATES</p>		<p>PROVINCE</p> <p>CENTRAL JAVA</p> <p>PROJECT NAME</p> <p>FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA</p> <p>DISTRICT</p> <p>SEMARANG CITY</p> <p>DRAWING NO. JD-P1-OF-E1-2</p> <p>SHEET NO. 181</p> <p>DATE</p> <p>CONTRACT NO.</p>
<p>BAJAN INTERNATIONAL COOPERATION AGENCY</p> <p>CIH BANGKORANG CO., LTD. IN ASSOCIATION WITH</p> <p>PACIFIC CONSULTANTS INTERNATIONAL</p> <p>FARPO INTERNATIONAL INC.</p>	<p>DESIGNED</p> <p>CHECKED</p> <p>APPROVED</p> <p>PROJECT MANAGER</p>	<p>DATE</p> <p>CONTRACT NO.</p>



LINE : Embedded Pipe



**LEGEND**

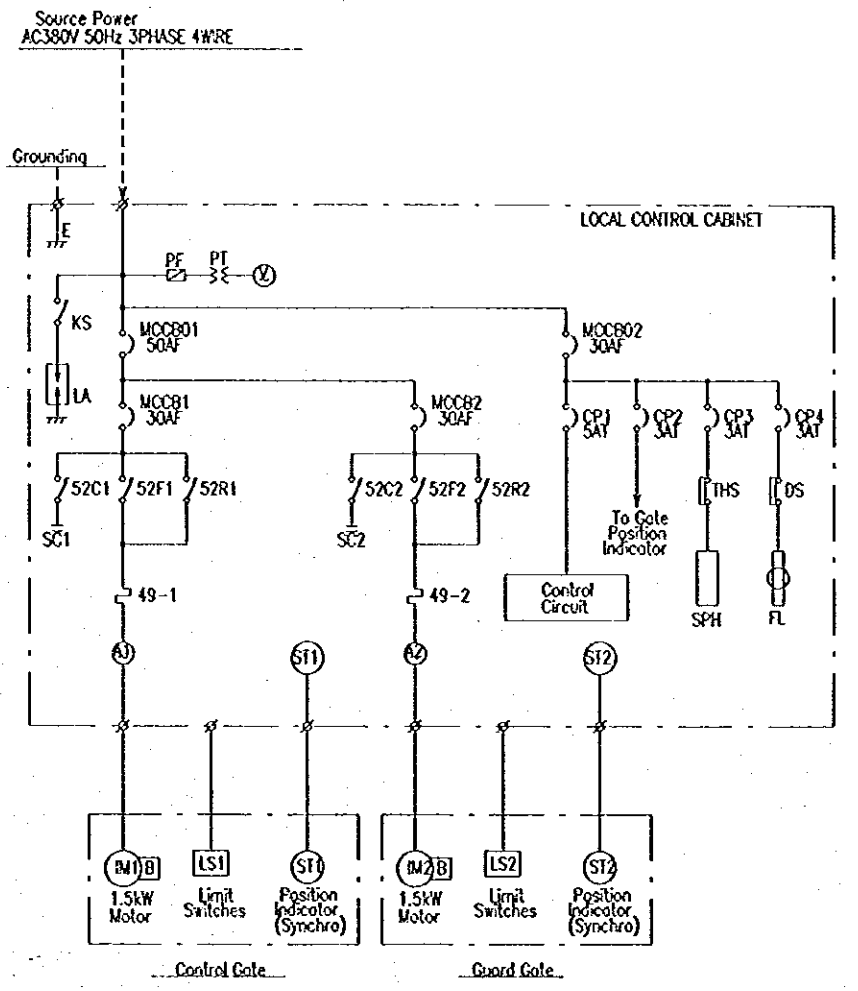
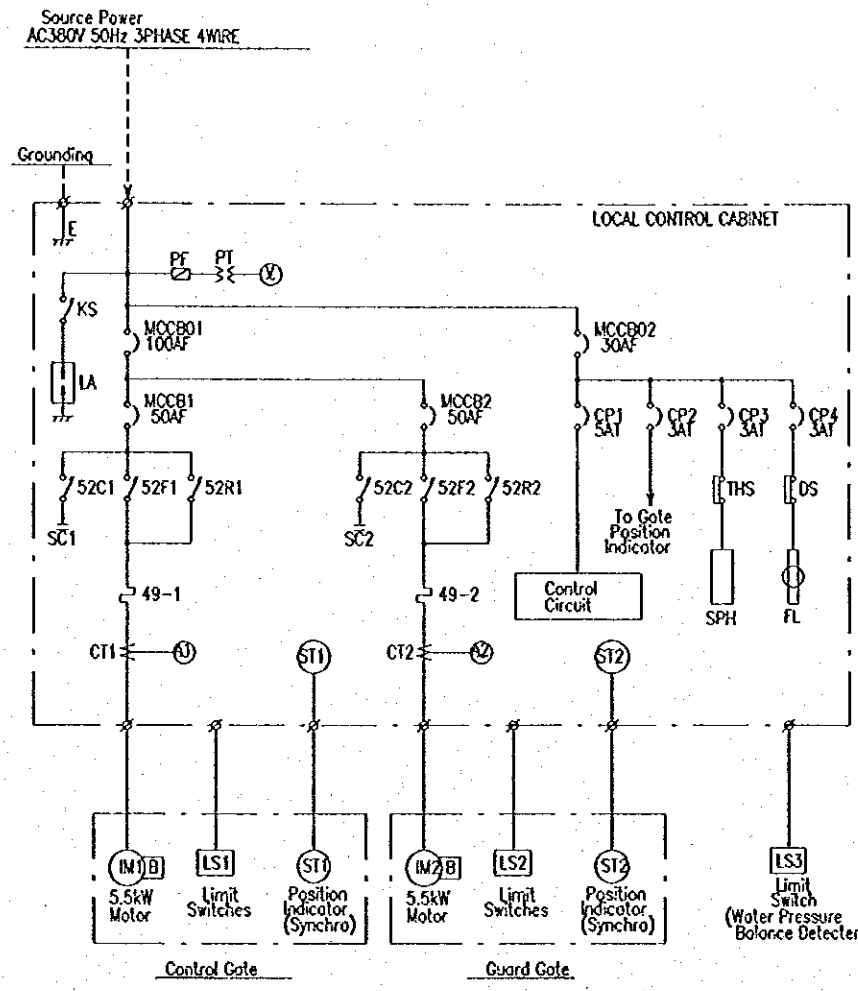
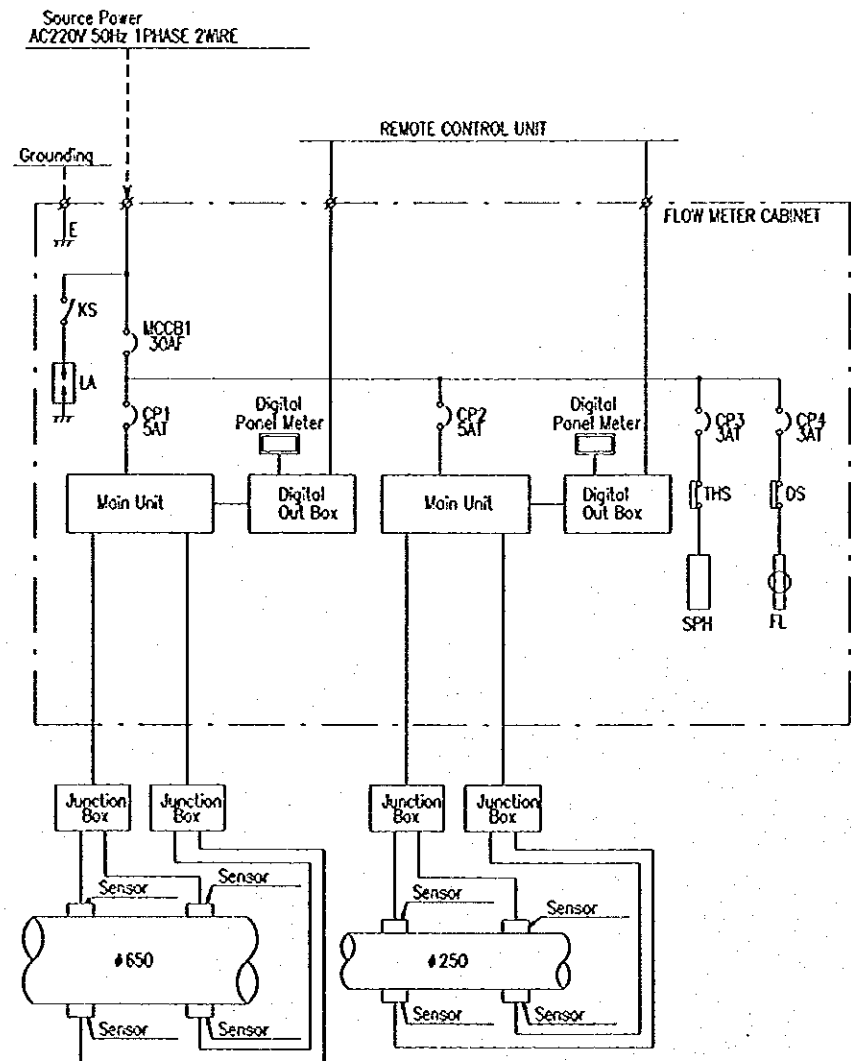
(22) CV 3.5<sup>0</sup>-3C  
 NUMBERS OF CORE  
 CONDUCTOR AREA(Sp,mm)  
 CABLE  
 CV :800V Cross Linked Polyethylene Insulated Cable  
 N :600V Grade Polyvinyl Chloride Insulated Wire  
 CW :Polyvinyl Chloride Insulated and Sheathed Cable  
 CONDUIT SIZE  
 ( ) Rigid Steel Conduits  
 / Flexible Metal Conduit

**REFERENCE DRAWINGS**

- JD-P1-OF-P1-1 OUTLET FACILITIES - LAYOUT PLAN
- JD-P1-DF-EI-4 ELECTRICAL WORKS - SKELTON DIAGRAM OF GUARD AND CONTROL GATES

NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

<b>THE REPUBLIC OF INDONESIA</b> MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT JATUNSELUMA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION OUTLET FACILITIES ELECTRICAL WORKS WIRING DIAGRAM OF GUARD AND CONTROL GATES		PROVINCE CENTRAL JAVA PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCE DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY DRAWING NO. JD-P1-OF-EI-3 SHEET NO. 182
JAPAN INTERNATIONAL COOPERATION AGENCY JICA INTERNATIONAL CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL JAPAN INTERNATIONAL CO.	DESIGNED CHECKED CHIEF OF PLANNING AND DESIGN PROJECT MANAGER	DATE CONTRACT NO.



**NOTES**

1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.

**REFERENCE DRAWINGS**

- JD-P1-OF-P1-1 OUTLET FACILITIES - LAYOUT PLAN
- JD-P1-OF-EI-3 ELECTRICAL WORKS - WIRING DIAGRAM OF GUARD AND CONTROL GATES

NO.	DATE	REVISIONS	ORIGINATED	DRAWN	APPROVED

<b>THE REPUBLIC OF INDONESIA</b> MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAVA
IRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT: JATIBARANG DAM CONSTRUCTION OUTLET FACILITIES ELECTRICAL WORKS SKELTON DIAGRAM OF GUARD AND CONTROL GATES		PROJECT NAME FLOOD CONTROL, CREAM DRAINAGE AND WATER RESOURCES DEVELOPMENT IN IRAGARANG IN THE REPUBLIC OF INDONESIA
JAPAN INTERNATIONAL COOPERATION AGENCY CII (NIPPONKAI GYO KEN) LTD. (AS APPROVED BY) PACIFIC CONSULTANTS INTERNATIONAL PANDU INTERNATIONAL INC.		DISTRICT SEMARANG CITY
DESIGNED CHECKED CHIEF OF PLANNING AND DESIGN PROJECT MANAGER		DRAWING NO. JD-P1-OF-EI-4 SHEET NO. 183 DATE CONTRACT NO.