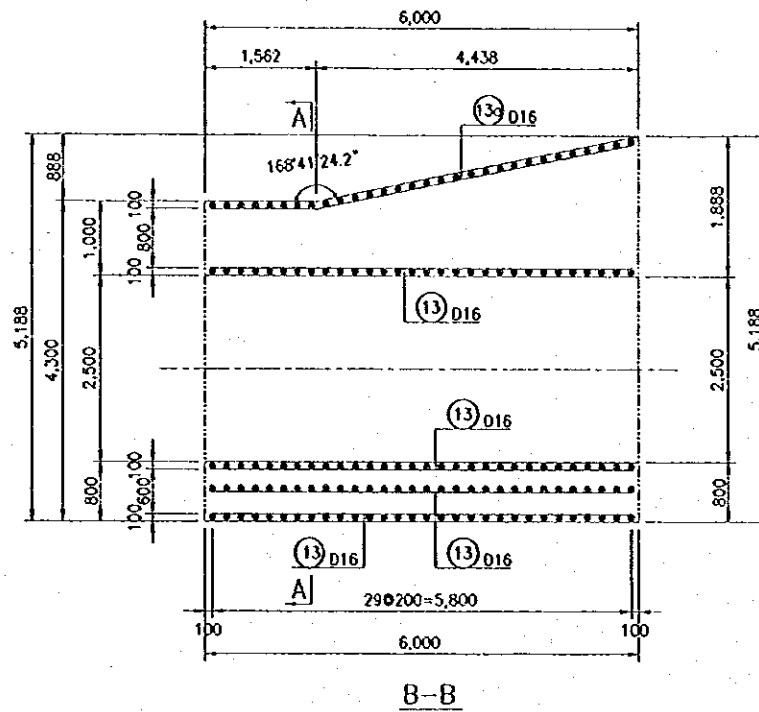
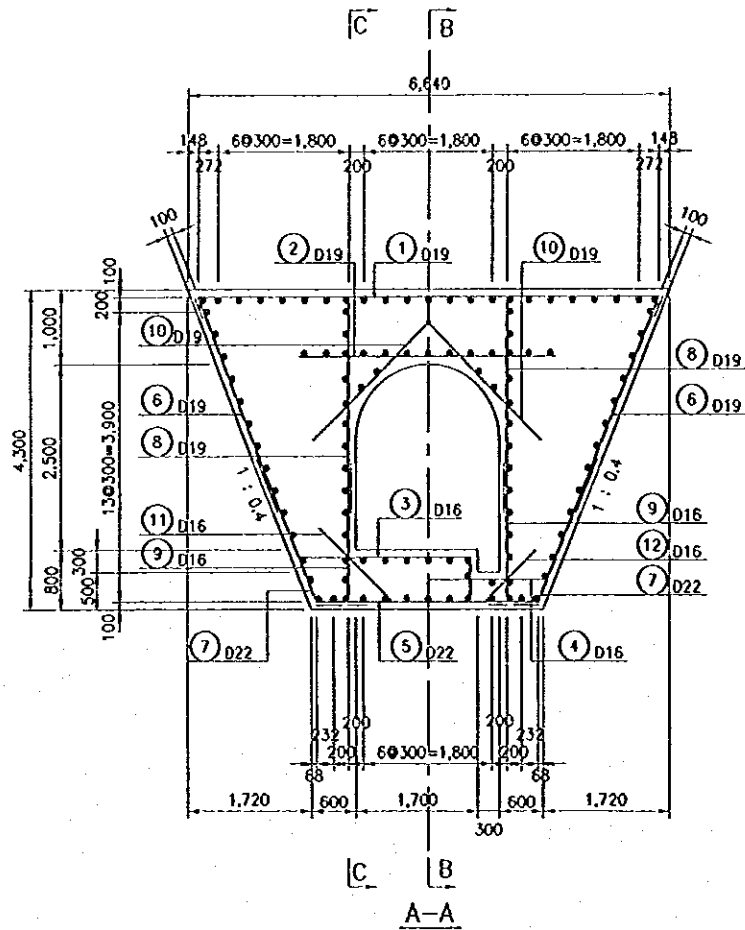


GALLERY REINFORCEMENT BAR ARRANGEMENT (PATTERN II), BLOCK 13, 32



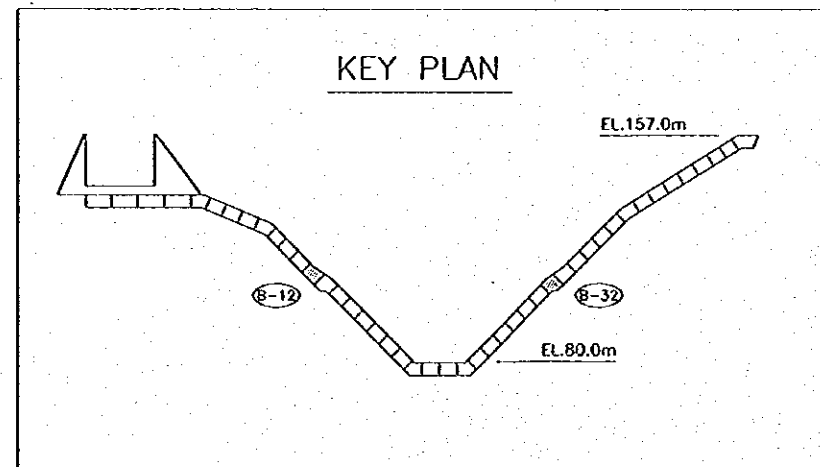
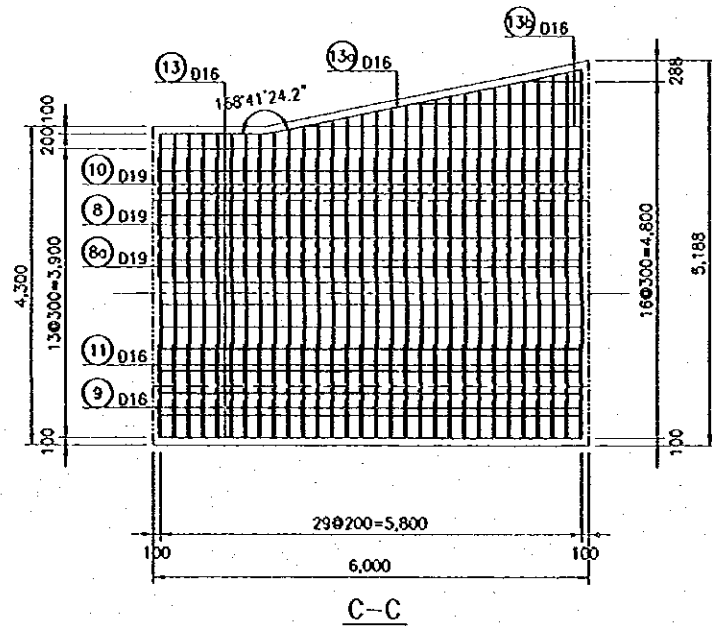
BAR WEIGHT FOR GALLERY B-13, 32

BAR NO.	DIA	NUMBER	LENGTH (mm)			WEIGHT PER "m" (kg)	WEIGHT PER BAR (kg)	WEIGHT (kg)	SHAPE		
			TOTAL	L1	L2					L3	
1	19	30	6,950	300	6,350	300	2,230	15,499	465	1	
2	19	30	3,540	3,540			2,230	7,894	237	2	
3	16	30	2,980	2,380	600		1,580	4,708	141	3	
4	16	30	1,660	1,660			1,580	2,623	79	2	
5	22	30	3,750	340	3,070	340	2,980	11,175	335	4	
6	19	16	3,110	3,110			2,230	6,935	111	2	
6a	19	44	3,610	3,610 *			2,230	8,050	354	2	
7	22	60	2,410	2,070	340		2,980	7,182	431	3	
8	19	16	2,900	2,900			2,230	6,467	103	2	
8a	19	44	3,350	3,350 *			2,230	7,471	329	2	
9	16	60	2,120	1,870	250		1,580	3,350	201	5	
10	19	60	2,260	2,260			2,230	5,040	302	2	
11	16	60	1,410	1,410			1,580	2,228	134	2	
12	16	60	990	990			1,580	1,564	94	2	
13	16	88	5,800	5,800			1,580	9,164	806	2	
13a	16	23	5,900	1,480	4,420		1,580	9,322	214	5	
13b	16	12	2,330	2,330 *			1,580	3,681	44	2	
TOTAL									4,380		

NOTE: NUMBER HAVING SIGN "\*" IS AVERAGE.

BAR BENDING SCHEDULE

SHAPE 1	SHAPE 2	SHAPE 3	SHAPE 4	SHAPE 5



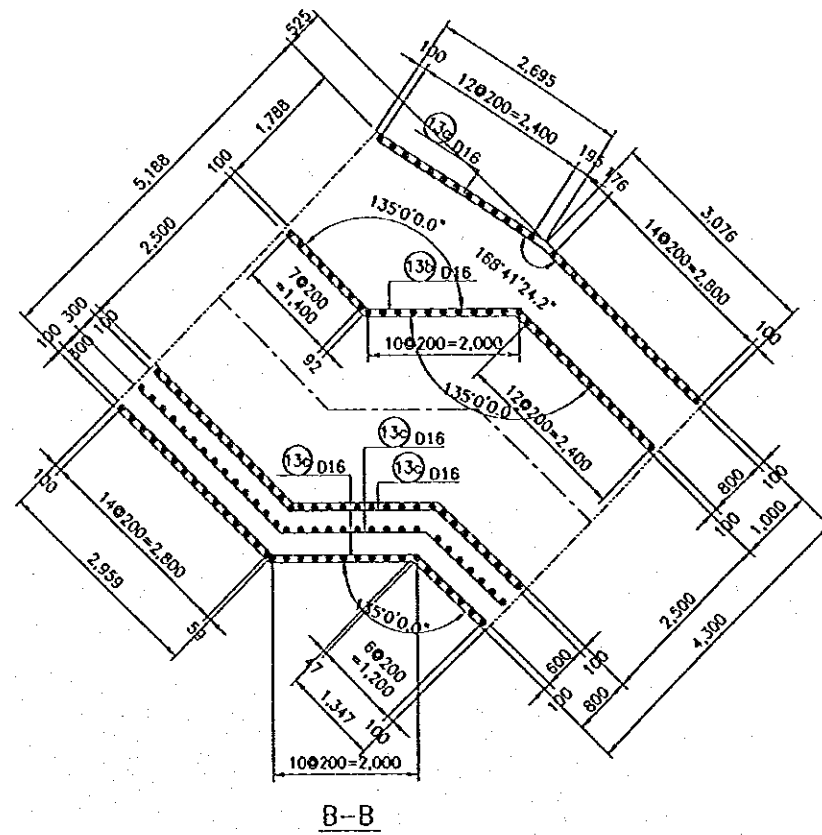
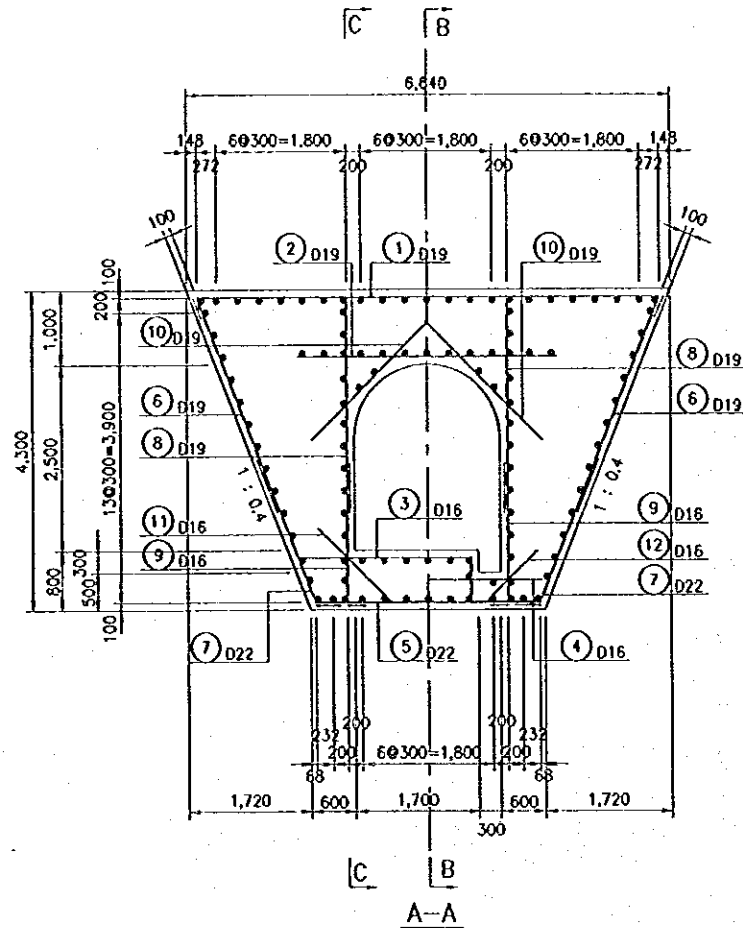
SCALE 0 1 2 3 4 5m

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

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT			PROVINCE CENTRAL JAVA	
JRA TUNSELUNA FLOOD CONTROL PROJECT COMPONENT: IATIBARANG DAM CONSTRUCTION EMBANKMENT DAM GALLERY REINFORCEMENT DETAILS (9/24)			PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCE DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA	
JAPAN INTERNATIONAL COOPERATION AGENCY CTI ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL JARDI INTERNATIONAL INC.			DISTRICT SEMARANG CITY	
DESIGNED CHECKED CORRECTED			DRAWING NO. JD-P1-EO-Re-9 SHEET NO. 55	
CURVE OF PLANNING AND DESIGN PROJECT MANAGER			DATE CONTRACT NO.	

NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

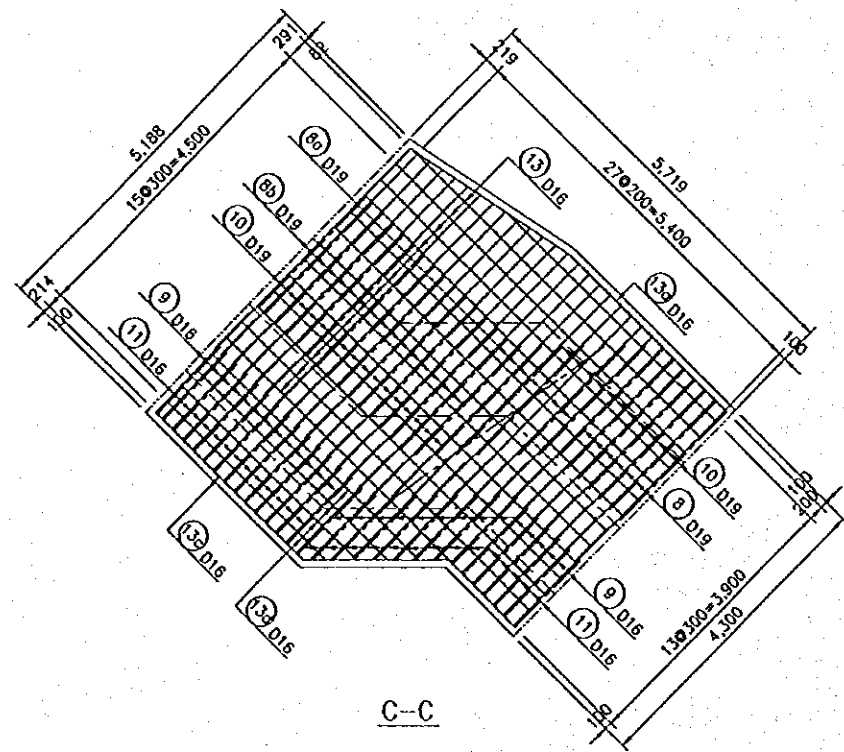
GALLERY REINFORCEMENT BAR ARRANGEMENT (PATTERN II), BLOCK 14, 31



BAR WEIGHT FOR GALLERY B-14, B-31

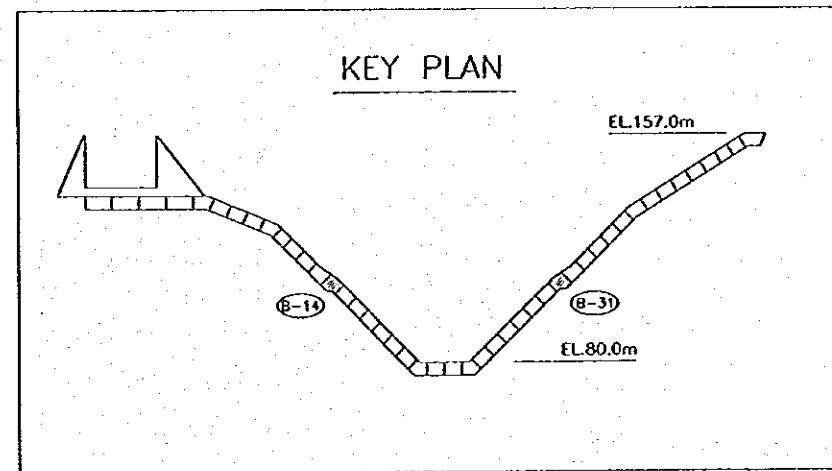
BAR NO.	DIA	NUMBER	LENGTH (mm)			WEIGHT PER "m" (kg)	WEIGHT PER BAR (kg)	WEIGHT (kg)	SHAPE		
			TOTAL	L1	L2					L3	
1	19	28	6,950	300	5,350	300	2,230	15,499	434	1	
2	19	32	3,540	3,540			2,230	7,894	253	2	
3	16	32	2,980	2,380	600		1,580	4,708	151	3	
4	16	31	1,660	1,660			1,580	2,623	81	2	
5	22	32	3,750	340	3,070	340	2,980	11,175	358	4	
6	19	14	3,110	3,110			2,230	6,935	97	2	
6e	19	14	4,080	4,080*			2,230	9,098	127	2	
6b	19	30	4,380	4,380*			2,230	9,767	293	2	
7	22	58	2,410	2,070	340		2,980	7,182	417	5	
8	19	14	2,900	2,900			2,230	6,467	91	2	
8a	19	14	3,790	3,790*			2,230	8,452	118	2	
8b	19	30	4,060	4,060*			2,230	9,054	272	2	
9	16	58	2,120	1,870	250		1,580	3,350	194	3	
10	19	58	2,260	2,260			2,230	5,040	292	2	
11	16	29	1,410	1,410			1,580	2,228	65	2	
12	16	29	990	990			1,580	1,564	45	2	
13	16	50	5,520	5,520			1,580	8,722	436	2	
13a	16	23	5,580	2,600	2,980		1,580	8,816	203	5	
13b	16	17	6,120	1,500	2,000	2,620	1,580	9,670	164	6	
13c	16	17	6,120	2,740*	2,000	1,380*	1,580	9,670	164	6	
13d	16	16	3,530	3,530*			1,580	5,577	89	2	
							TOTAL		4,344		

NOTE: NUMBER HAVING SIGN "\*" IS AVERAGE.



BAR BENDING SCHEDULE

SHAPE 1	SHAPE 2	SHAPE 3	SHAPE 4	SHAPE 5	SHAPE 6



SCALE 0 1 2 3 4 5m

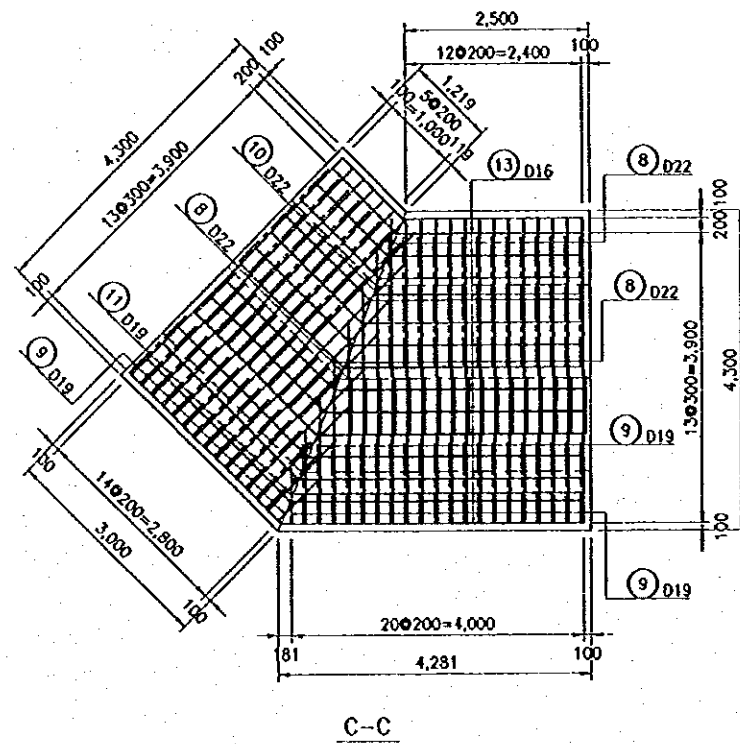
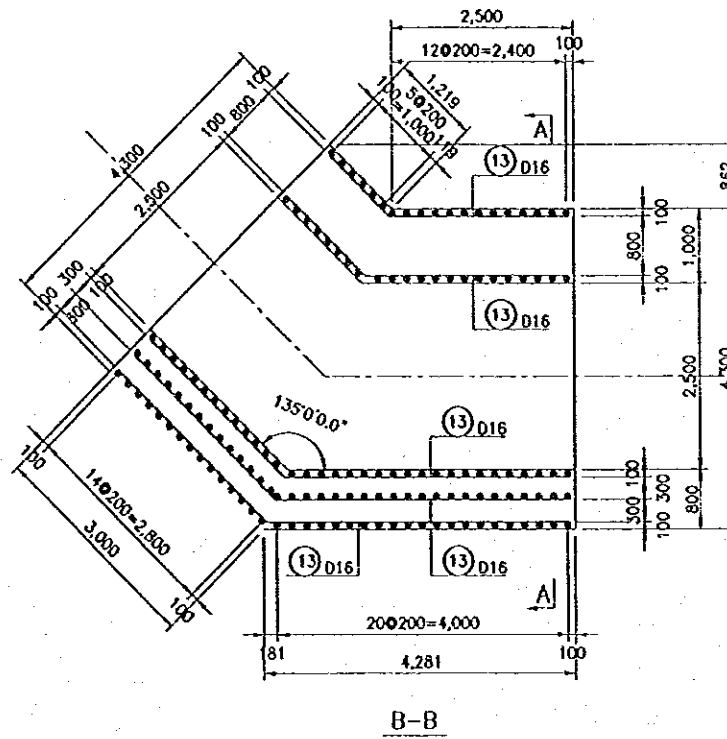
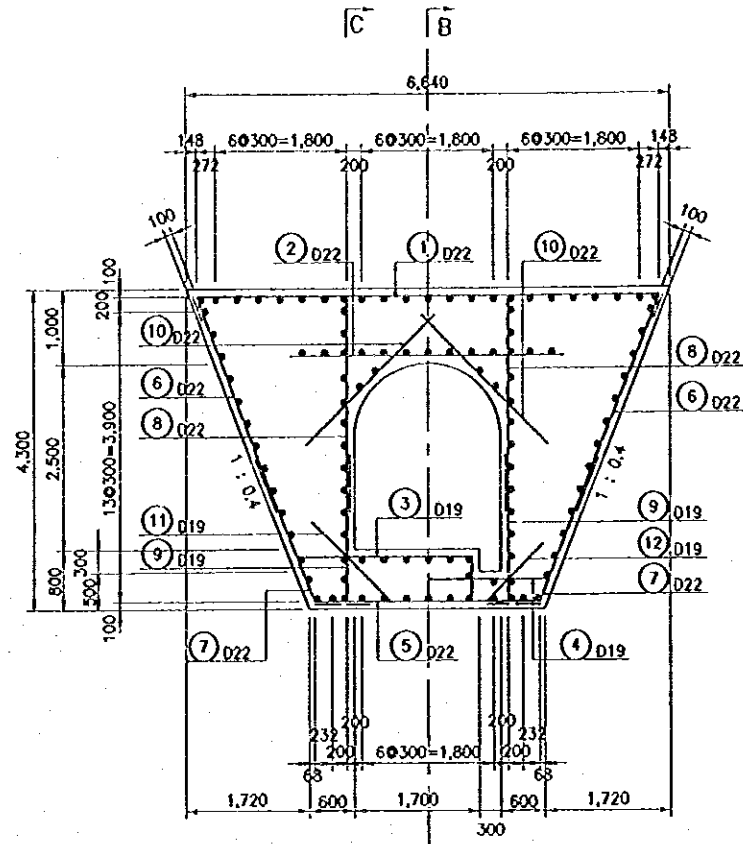
NOTE

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

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: JATIBARANG DAM CONSTRUCTION EMBANKMENT DAM GALLERY REINFORCEMENT DETAILS (10/24)		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY
JAPAN INTERNATIONAL COOPERATION AGENCY CEI ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CENTRAL SOUTH INTERNATIONAL PACIFIC INTERNATIONAL INC.		DRAWING NO. JD-P1-ED-R8-10 SHEET NO. 57 DATE CONTRACT NO.
DESIGNED CHECKED CEEF OF PLANNING AND DESIGN PROJECT MANAGER		DATE CONTRACT NO.

GALLERY REINFORCEMENT BAR ARRANGEMENT (PATTERN I), BLOCK 21, 24



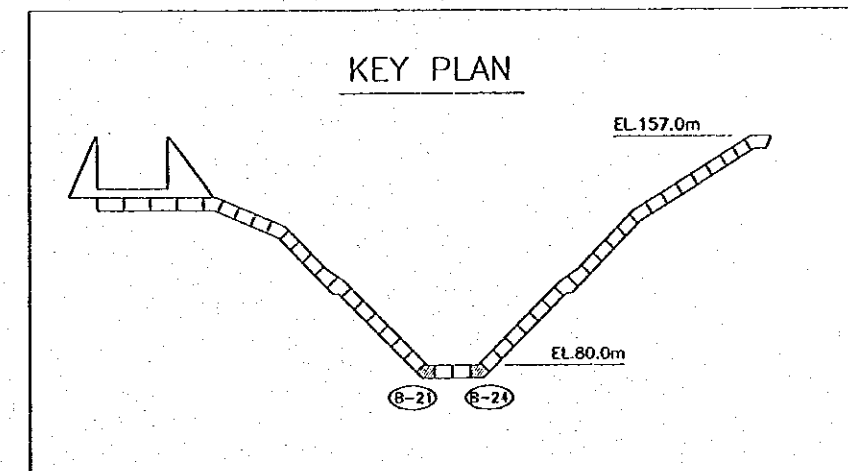
BAR WEIGHT FOR GALLERY B-21, B-24

BAR NO.	DIA	NUMBER	LENGTH (mm)			WEIGHT PER "m" (kg)	WEIGHT PER BAR (kg)	WEIGHT (kg)	SHAPE	
			TOTAL	L1	L2					L3
1	22	19	7,030	340	6,350	340	2,980	20,949	398	1
2	22	22	3,740	3,740			2,980	11,145	245	2
3	19	33	2,910	2,310	600		2,230	6,489	214	3
4	19	35	1,620	1,620			2,230	3,613	126	2
5	22	36	3,750	340	3,070	340	2,980	11,175	402	4
6	22	56	3,030	3,030			2,980	9,029	506	2
7	22	72	2,710	2,370	340		2,980	8,076	581	5
8	22	56	2,900	2,900			2,980	8,642	484	3
9	19	72	2,570	2,270	300		2,230	5,731	413	2
10	22	44	2,460	2,460			2,980	7,331	323	2
11	19	34	1,520	1,520			2,230	3,390	115	2
12	19	34	1,100	1,100			2,230	2,453	83	2
13	16	111	5,310	2,010 *	3,300 *		1,580	8,390	931	5
						TOTAL		4,821		

NOTE: NUMBER HAVING SIGN "\*" IS AVERAGE.

BAR BENDING SCHEDULE

SHAPE 1	SHAPE 2	SHAPE 3	SHAPE 4	SHAPE 5



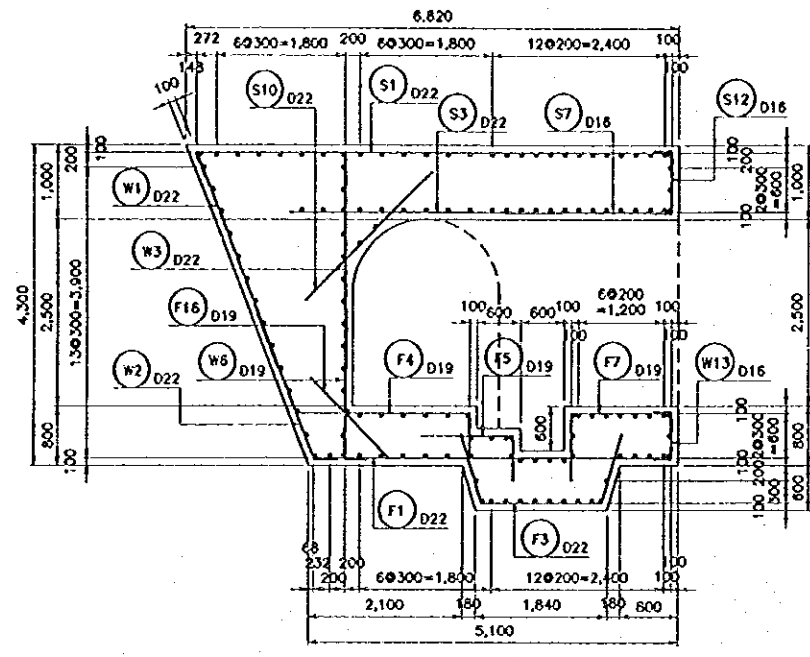
SCALE 0 1 2 3 4 5m

NOTE

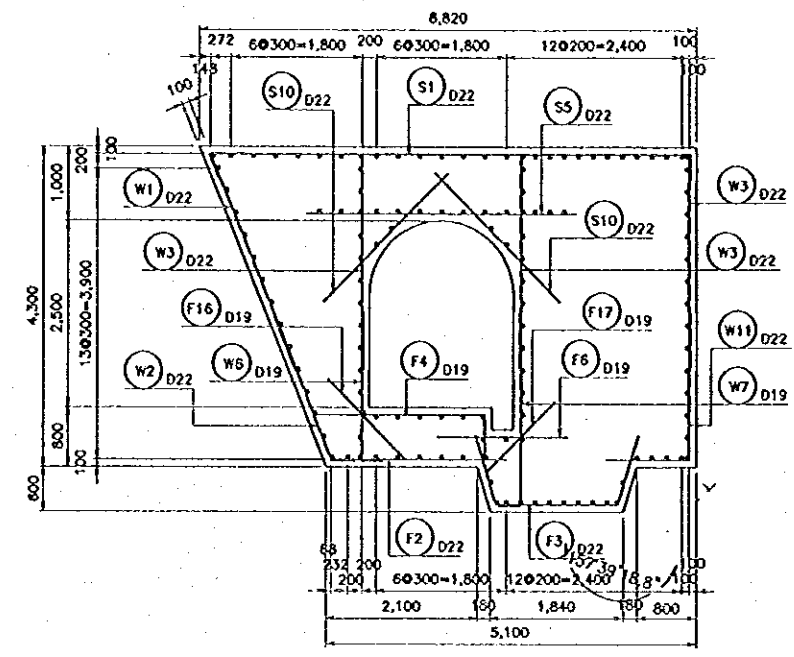
1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT			PROVINCE CENTRAL JAVA			
IRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT: IATIRARANO DAM CONSTRUCTION EMBANKMENT DAM GALLERY REINFORCEMENT DETAILS (11/24)			PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT OF SEMARANG IN THE REPUBLIC OF INDONESIA			
JAWA INTERNATIONAL COOPERATION AGENCY CIBI ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL JAWO INTERNATIONAL P.C.			DRAUGHTING NO. JO-P1-ED-Rg-11 SHEET NO. 58			
CHIEF OF PLANNING AND DESIGN			DATE CONTRACT NO.			
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED	PROJECT MANAGER

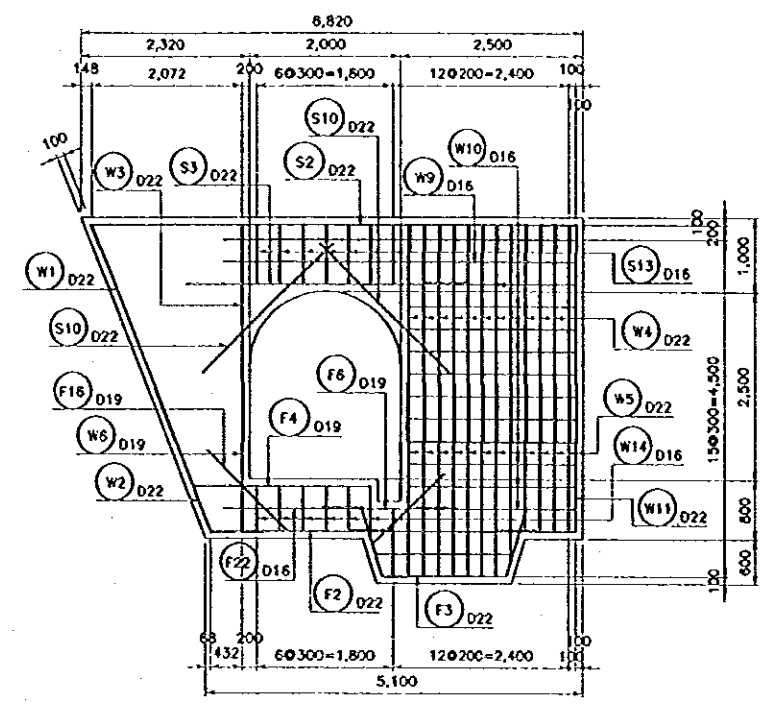
GALLERY REINFORCEMENT BAR ARRANGEMENT (PATTERN I), BLOCK 23 (1/2)



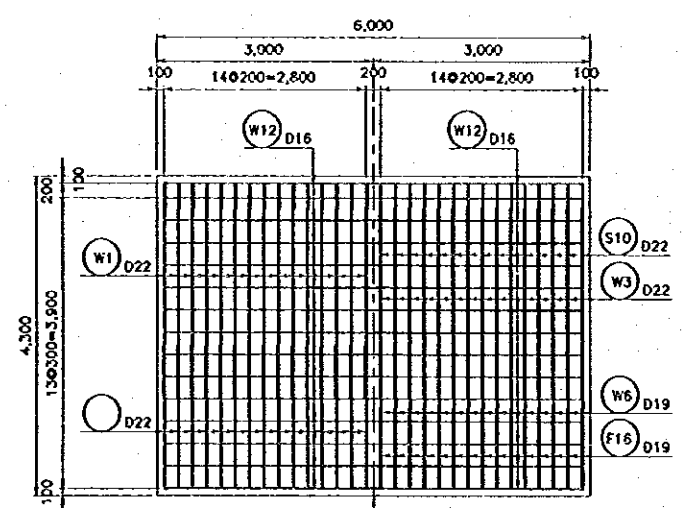
A - A



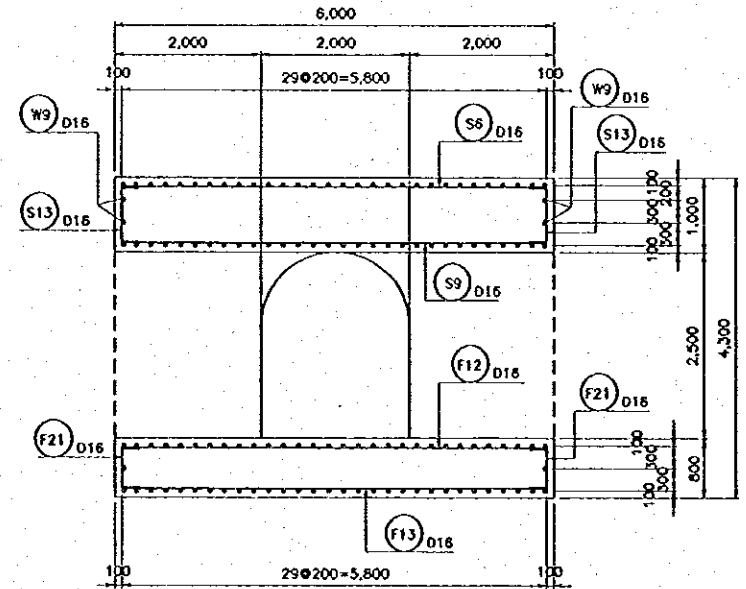
B - B



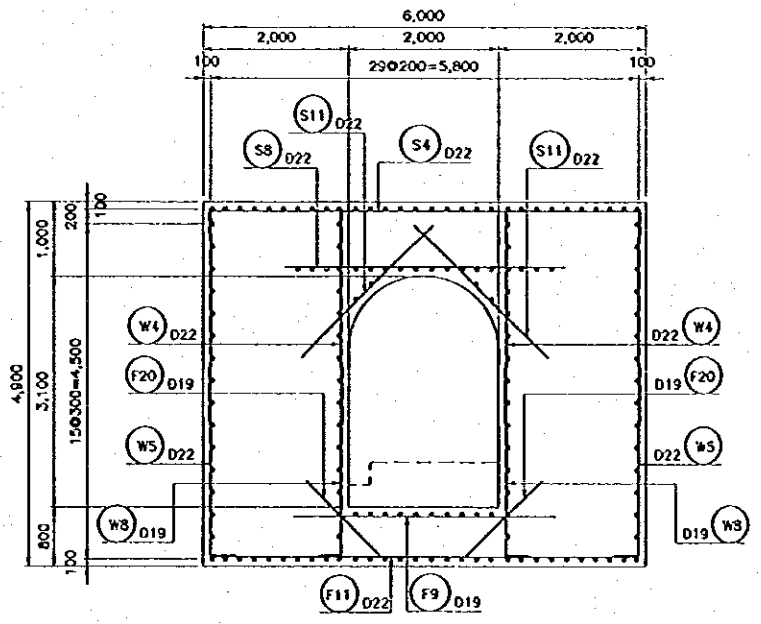
C - C



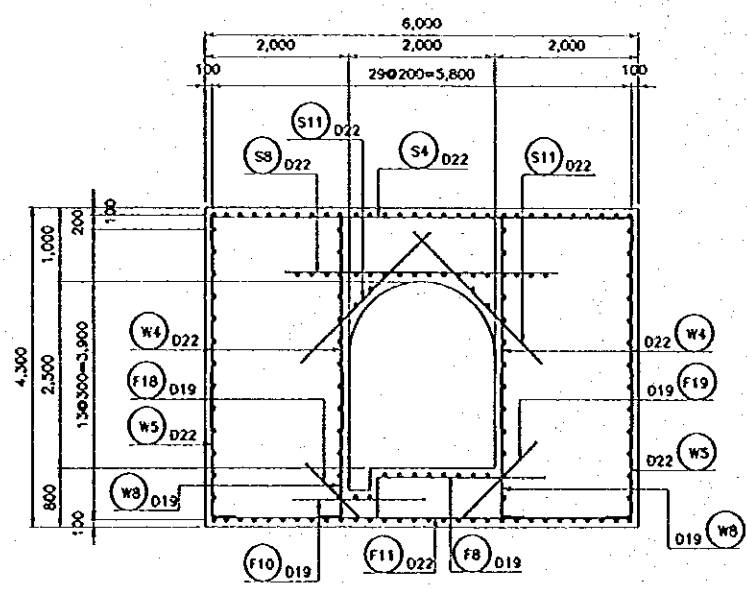
D - D | E - E



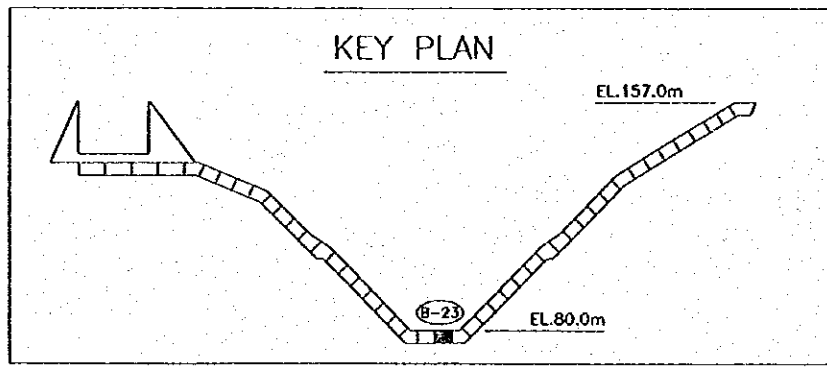
F - F



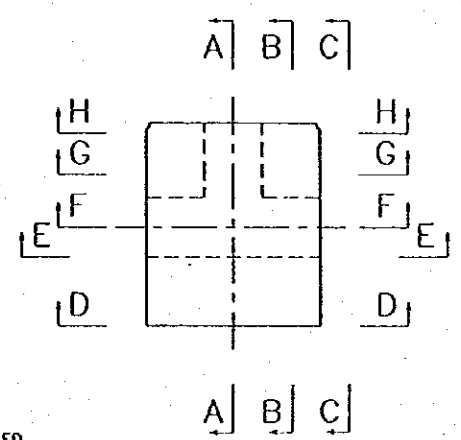
G - G



H - H



KEY PLAN



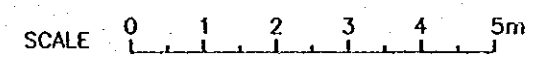
KEY PLAN

NOTE

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

REFERENCE DRAWINGS

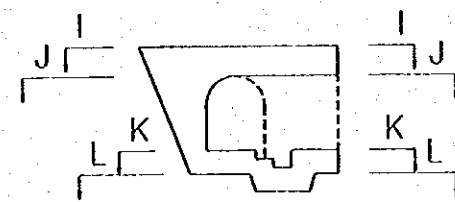
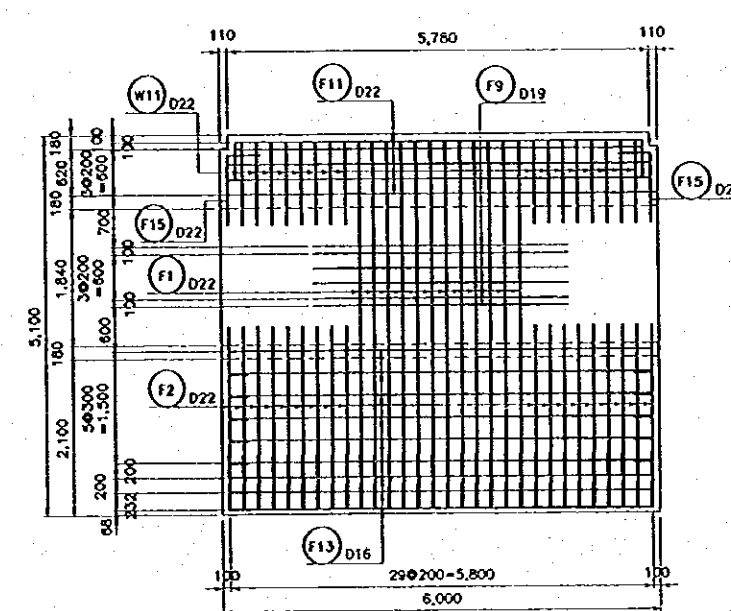
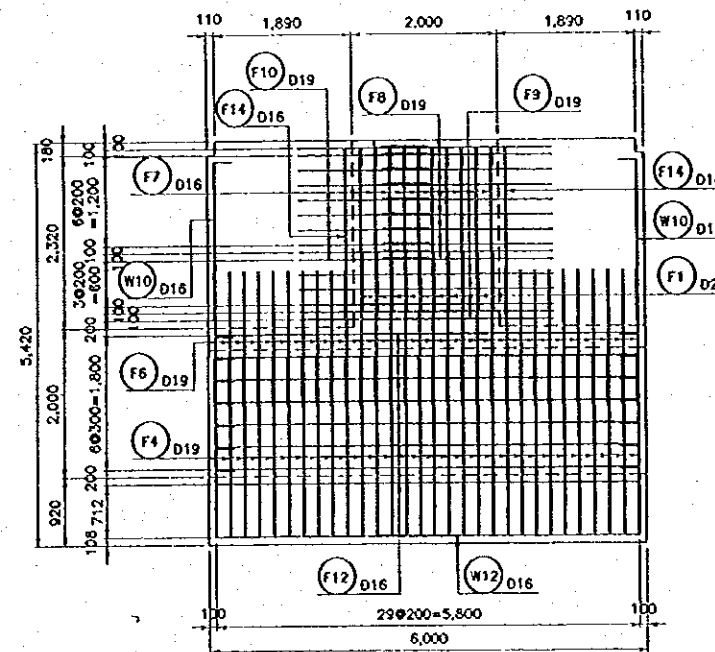
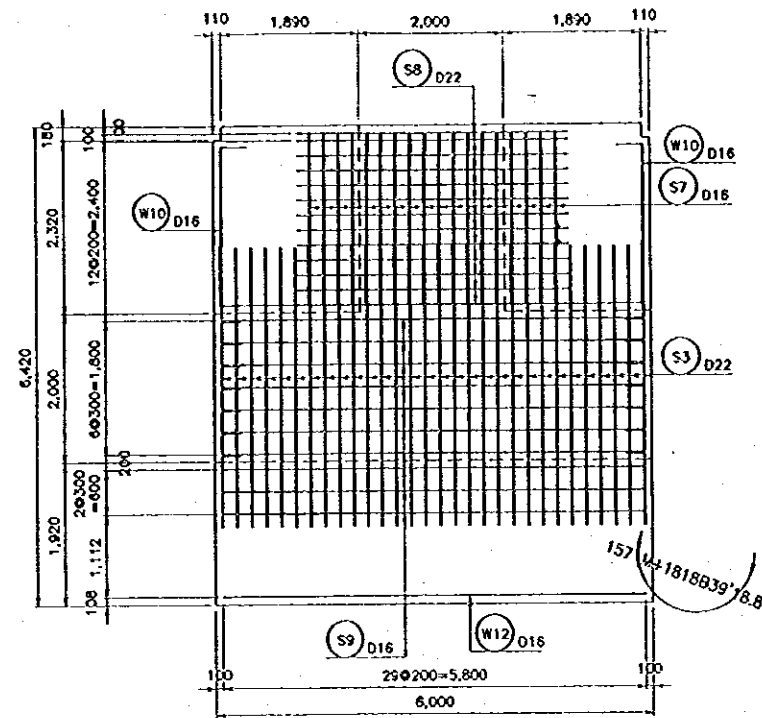
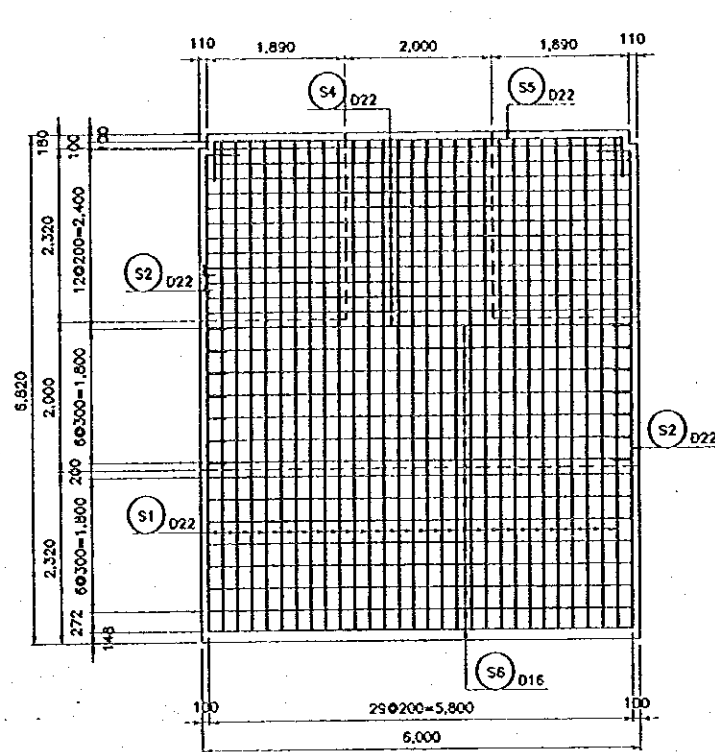
JD-P1-ED-Re-13 GALLERY - REINFORCEMENT DETAILS (13/24)



NO.	DATE	REVISIONS	ORIGINATED	DRAWN	APPROVED

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF URBAN SETTLEMENT		PROVINCE CENTRAL JAVA
IRATUNDELLUNA FLOOD CONTROL PROJECT COMPONENT: JATIBARANG DAM CONSTRUCTION GALLERY REINFORCEMENT DETAILS (12/24)		PROJECT NAME FLOODPREVENTION, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE PROVINCE OF INDONESIA
JAPAN INTERNATIONAL COOPERATION AGENCY CTE ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND JACOBS INTERNATIONAL INC.		DISTRICT SEMARANG CITY
OFFICE OF PLANNING AND DESIGN PROJECT MANAGER		DRAWING NO. JD-P1-ED-Re-12 SHEET NO. 59 DATE CONTRACT NO.

# GALLERY REINFORCEMENT BAR ARRANGEMENT (PATTERN I), BLOCK 23 (2/2)



KEY PLAN

**NOTE**

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

**REFERENCE DRAWINGS**

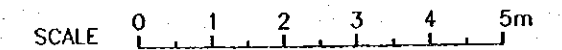
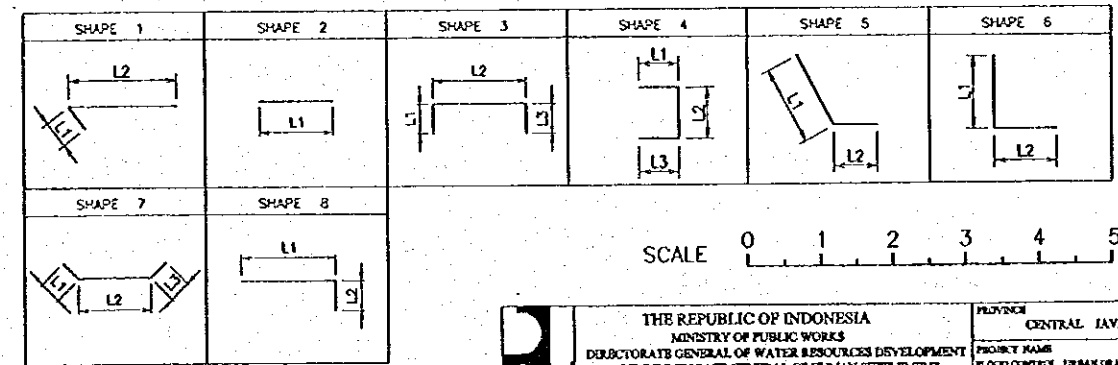
JD-P1-ED-Re-12 GALLERY - REINFORCEMENT DETAILS (12/24)

**BAR WEIGHT FOR GALLERY B-23**

BAR NO.	DIA	NUMBER	LENGTH (mm)				WEIGHT PER "m" BAR (kg)	WEIGHT PER BAR (kg)	WEIGHT (kg)	SHAPE	
			TOTAL	L1	L2	L3					L4
S1	22	28	6,920	340	6,580		2,980	20,672	577	1	
S2	22	2	7,190	340	6,850		2,980	21,476	43	1	
S3	22	30	3,740	3,740			2,980	11,145	334	2	
S4	22	13	6,480	340	5,800	340	2,980	19,310	251	3	
S5	22	1	6,620	520	5,580	520	2,980	19,728	20	3	
S6	16	19	5,800	5,800			1,580	9,164	174	1	
S7	16	22	2,300	2,300			1,580	3,634	80	1	
S8	22	13	3,740	3,740			2,980	11,145	145	1	
S9	16	10	5,800	5,800			1,580	9,164	92	1	
S10	22	50	2,450	2,450			2,980	7,331	367	1	
S11	22	26	2,460	2,460			2,980	7,331	191	1	
S12	16	10	1,300	250	800	250	1,580	2,054	21	4	
S13	16	14	1,300	250	800	250	1,580	2,054	29	4	
W1	22	30	3,130	3,130			2,980	9,327	280	1	
W2	22	30	2,410	2,070	340		2,980	7,182	215	5	
W3	22	70	2,900	2,900			2,980	8,642	605	1	
W4	22	52	2,900	2,900			2,980	8,642	449	1	
W5	22	26	2,600	2,260*	340		2,980	7,748	201	6	
W6	19	30	2,270	1,970	300		2,230	5,062	152	6	
W7	19	20	2,870	2,570	300		2,230	6,400	128	1	
W8	19	25	2,560	2,260*	300		2,230	5,709	148	1	
W9	16	4	4,750	4,750			1,580	7,505	30	1	
W10	16	22	2,650	2,300	350		1,580	4,187	92	6	
W11	22	20	3,080	1,970	1,110		2,980	9,178	184	6	
W12	16	26	5,800	5,800			1,580	9,164	238	1	
W13	16	10	1,100	250	600	250	1,580	1,738	17	1	
W14	16	14	1,250	250	750*	250	1,580	1,975	28	1	
F1	22	10	4,940	4,940			2,980	14,721	147	1	
F2	22	20	2,430	2,430			2,980	7,241	145	1	
F3	22	30	3,640	970	1,700	970	2,980	10,847	325	7	
F4	19	30	2,590	2,380	610		2,230	6,668	200	8	
F5	19	10	1,850	1,250	610		2,230	4,148	41	8	
F6	19	20	1,800	1,800			2,230	4,014	80	1	
F7	19	10	2,310	1,400	910		2,230	5,151	52	8	
F8	19	10	2,860	2,300	560		2,230	6,378	64	8	
F9	19	5	3,500	3,500			2,230	7,805	39	1	
F10	19	10	1,810	1,810			2,230	4,036	40	1	
F11	22	5	5,800	5,800			2,980	17,284	86	1	
F12	16	12	5,800	5,800			1,580	9,164	110	1	
F13	16	26	5,800	5,800			1,580	9,164	238	1	
F14	16	2	2,300	2,300			1,580	3,634	7	1	
F15	22	2	1,380	930	450		2,980	4,112	8	8	
F16	19	30	1,520	1,520			2,230	3,390	102	1	
F17	19	20	1,340	1,340			2,230	2,988	60	1	
F18	19	5	1,030	1,030			2,230	2,297	11	1	
F19	19	5	1,450	1,450			2,230	3,234	16	1	
F20	19	8	1,450	1,450			2,230	3,234	26	1	
F21	16	12	1,100	250	600	250	1,580	1,738	21	4	
F22	16	2	1,850	1,850			1,580	2,923	6	1	
			TOTAL						6,915		

NOTE: NUMBER HAVING SIGN "\*" IS AVERAGE.

**BAR BENDING SCHEDULE**



NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

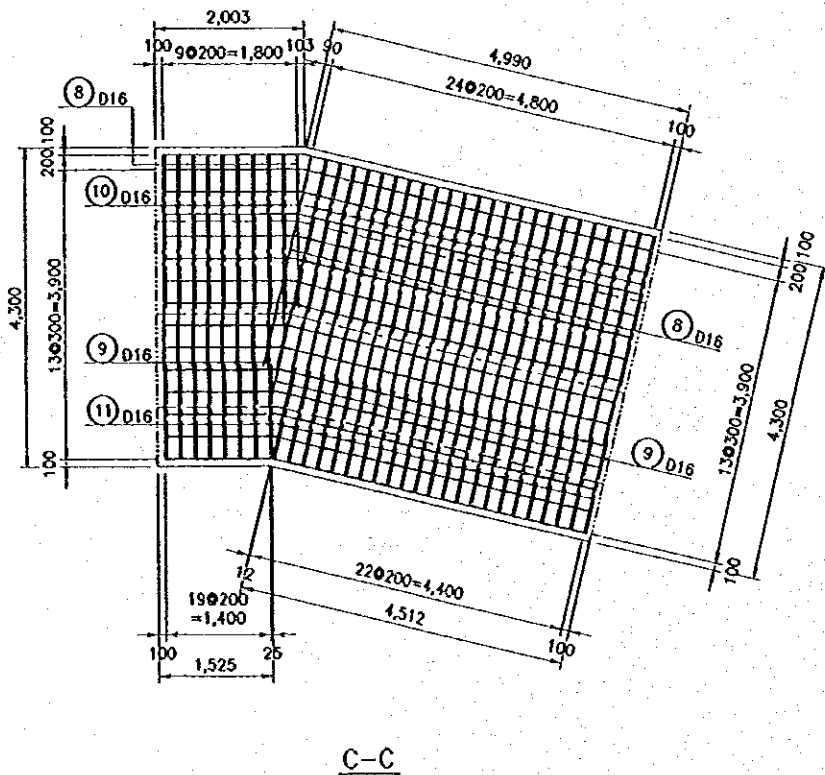
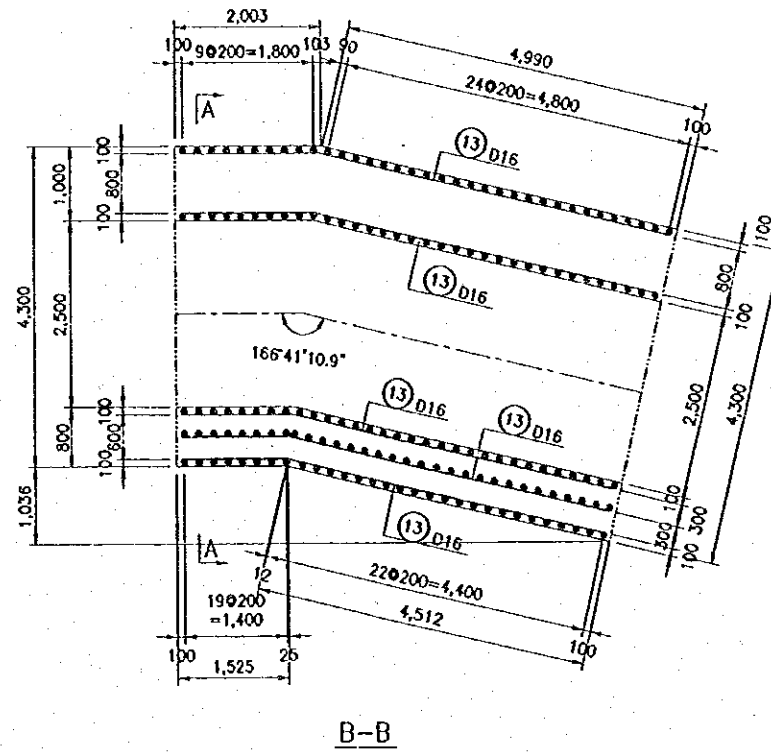
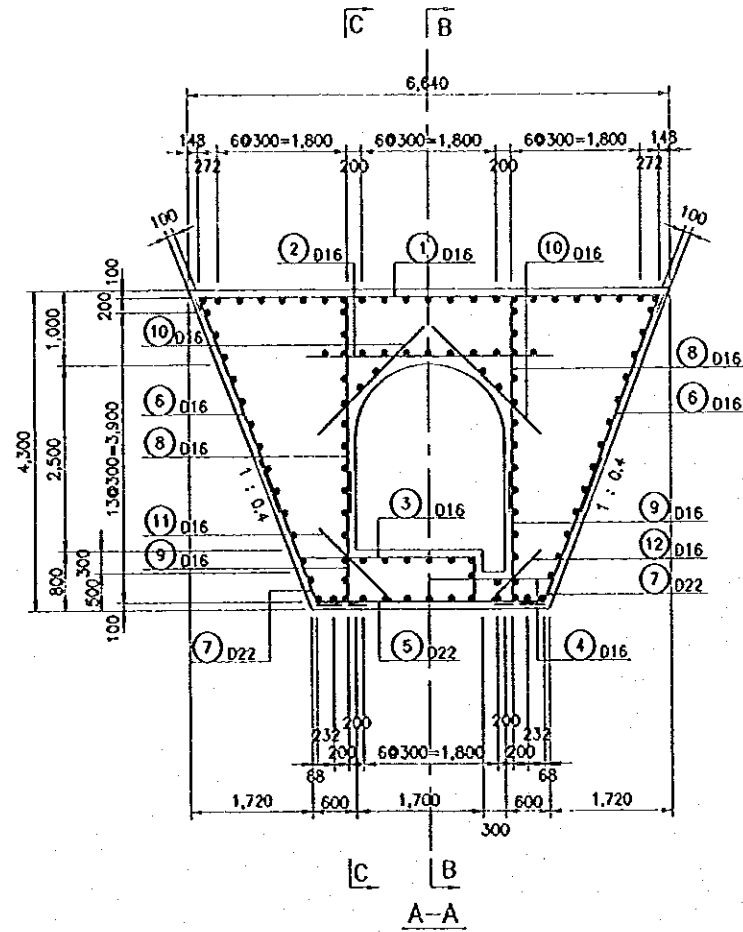
**THE REPUBLIC OF INDONESIA**  
 MINISTRY OF PUBLIC WORKS  
 DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT  
 AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT  
**TRATUNSELUNA FLOOD CONTROL PROJECT**  
 COMPONENT: JATIBARANG DAM CONSTRUCTION  
 EMBANKMENT DAM  
 GALLERY  
**REINFORCEMENT DETAILS (13/24)**

JAPAN INTERNATIONAL COOPERATION AGENCY  
 CITY ENGINEERING CO., LTD. (SUB-CONTRACTOR)  
 PACIFIC OCEAN CONSULTING INTERNATIONAL, INC.  
 (GENERAL CONTRACTOR)

DESIGNED: [Signature]  
 CHECKED: [Signature]  
 APPROVED: [Signature]  
 PROJECT MANAGER: [Signature]

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-ED-Re-13  
 SHEET NO. 60  
 DATE: [ ] [ ] [ ] [ ] [ ] [ ]  
 CONTRACT NO.: [ ] [ ] [ ] [ ] [ ] [ ]

GALLERY REINFORCEMENT BAR ARRANGEMENT (PATTERN III), BLOCK 37

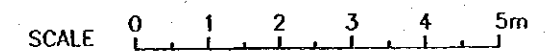
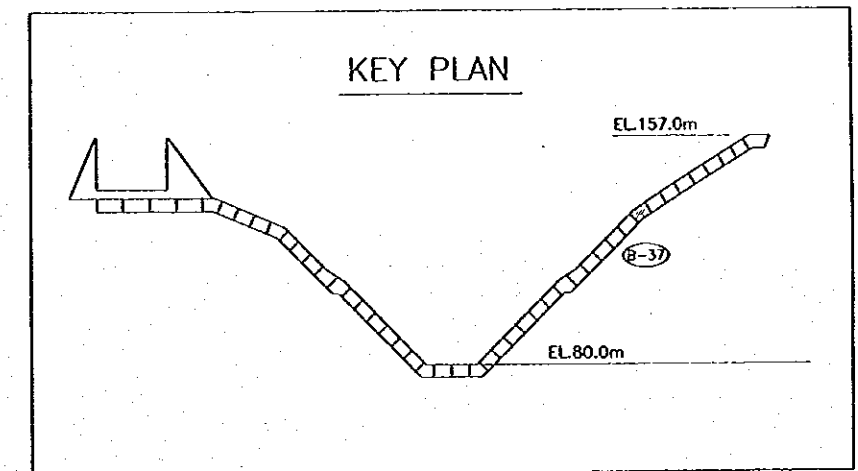
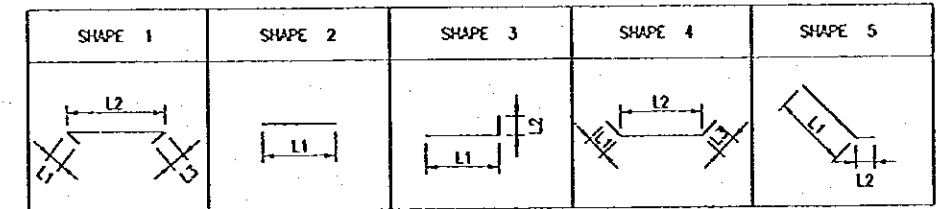


BAR WEIGHT FOR GALLERY B-37

BAR NO	DIA	NUMBER	LENGTH (mm)			WEIGHT PER "m" BAR (kg)	WEIGHT PER BAR (kg)	WEIGHT (kg)	SHAPE	
			TOTAL	L1	L2					L3
1	16	35	6,850	250	6,350	250	1,580	10,873	379	1
2	16	34	3,320	3,320			1,580	5,246	178	2
3	16	31	2,530	2,330	600		1,580	4,708	146	3
4	16	31	1,660	1,660			1,580	2,623	81	2
5	22	30	3,750	340	3,070	340	2,980	11,175	335	4
6	16	70	3,130	3,130			1,580	4,945	346	2
7	22	60	2,410	2,070	340		2,980	7,182	431	5
8	16	70	2,900	2,900			1,580	4,582	321	2
9	16	64	2,010	1,760	250		1,580	3,176	203	3
10	16	64	2,040	2,040			1,580	3,223	206	2
11	16	31	1,410	1,410			1,580	2,228	69	2
12	16	31	990	990			1,580	1,564	48	2
13	16	109	6,130	1,670*	4,460*		1,580	9,685	1,056	5
						TOTAL			3,799	

NOTE: NUMBER HAVING SIGN "\*" IS AVERAGE.

BAR BENDING SCHEDULE

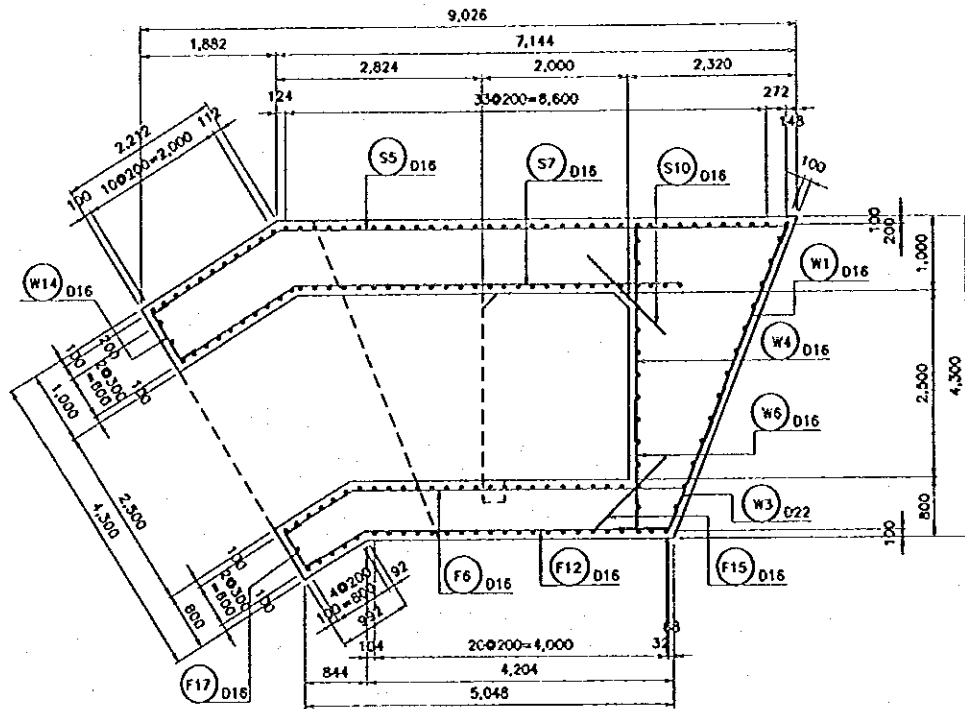


NOTE

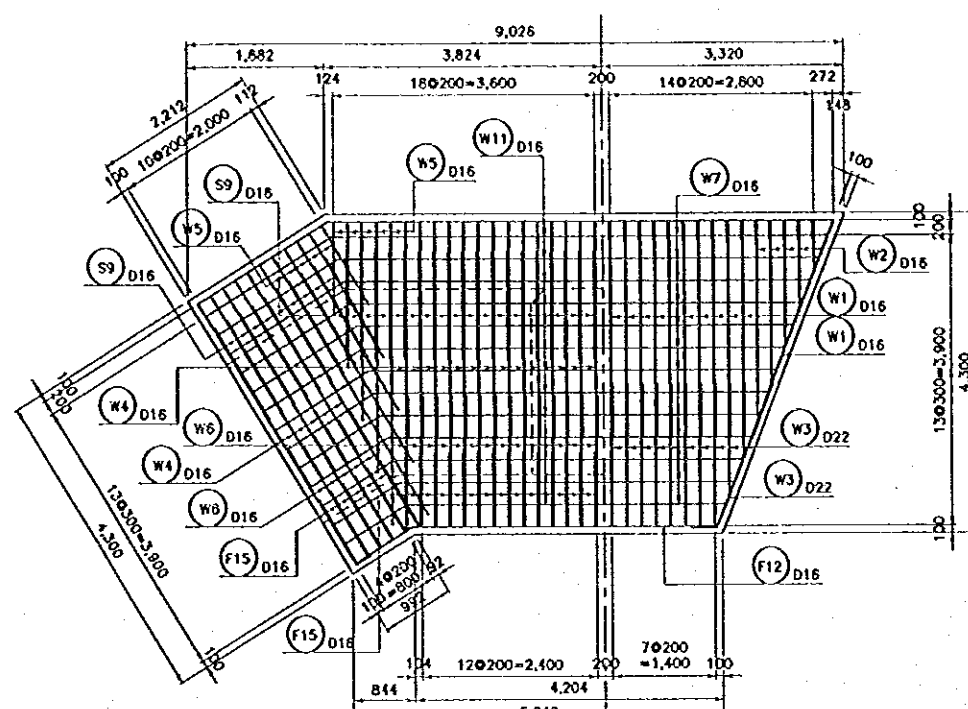
1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT IRATUNSELUMA FLOOD CONTROL PROJECT COMPONENT : JATIBAJANG DAM CONSTRUCTION EMBANKMENT DAM GALLERY REINFORCEMENT DETAILS (14/24)					PROVINCE CENTRAL JAVA PROJECT NAME FLOOD CONTROL, URBAN PLANNING AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY DRAWING NO. JO-P1-ED-RE-14 SHEET NO. 81 DATE CONTRACT NO.	
SAFARI INTERNATIONAL COOPERATION AGENCY (SIC) BERSEKUTUHAN CO., LTD. IN ASSOCIATION WITH JACOB CUYLER & PARTNERS INTERNATIONAL FABOD INTERNATIONAL INC.					DESIGNED CHECKED APPROVED	
NO. DATE KEYWORDS					ORIGINATED DESIGNED APPROVED	
APPROVED					PROJECT MANAGER	

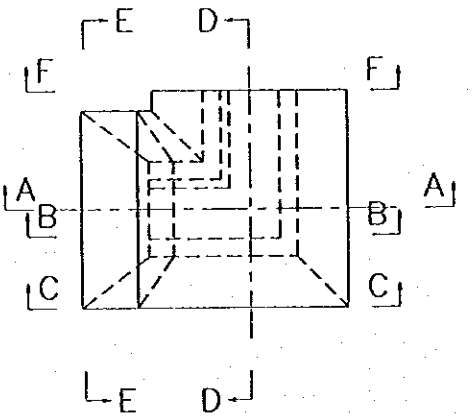
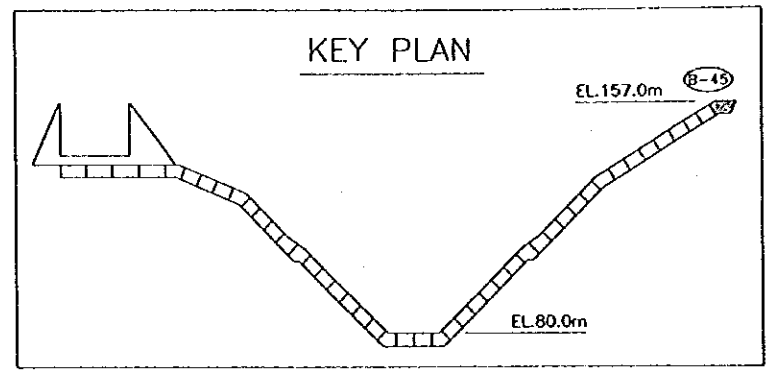
GALLERY REINFORCEMENT BAR ARRANGEMENT (PATTERN III), BLOCK 45 (1/2)



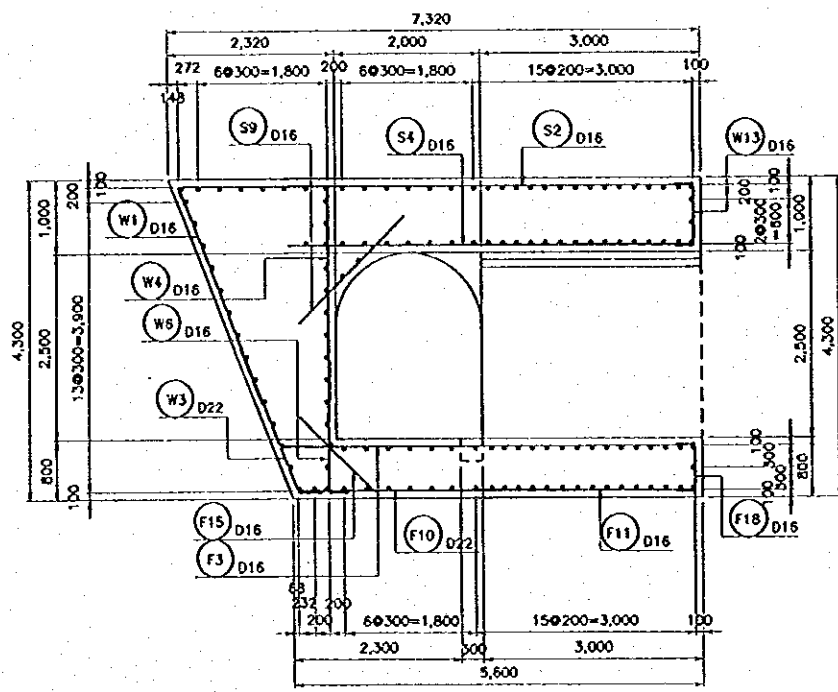
A - A



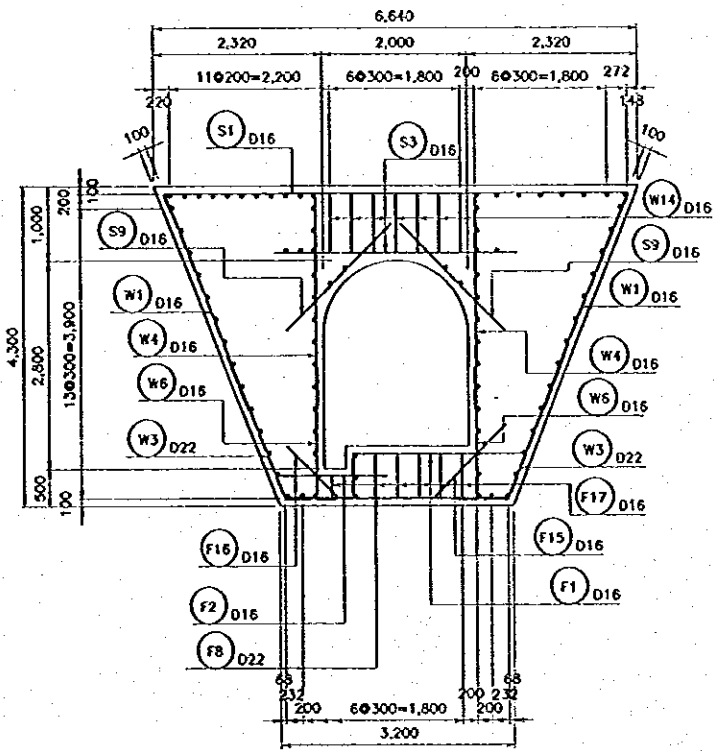
B - B | C - C



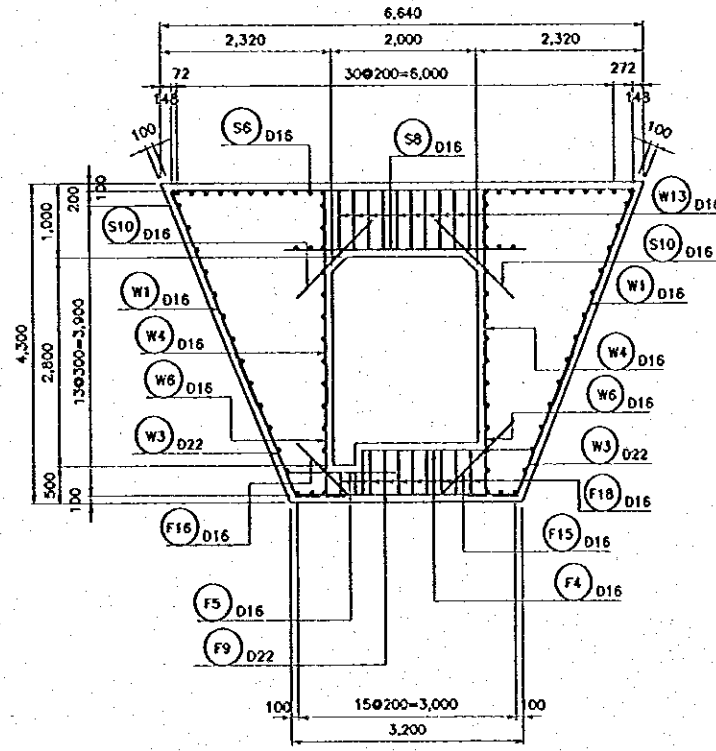
KEY PLAN



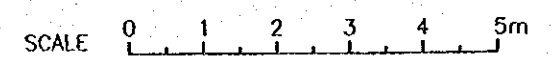
D - D



E - E



F - F

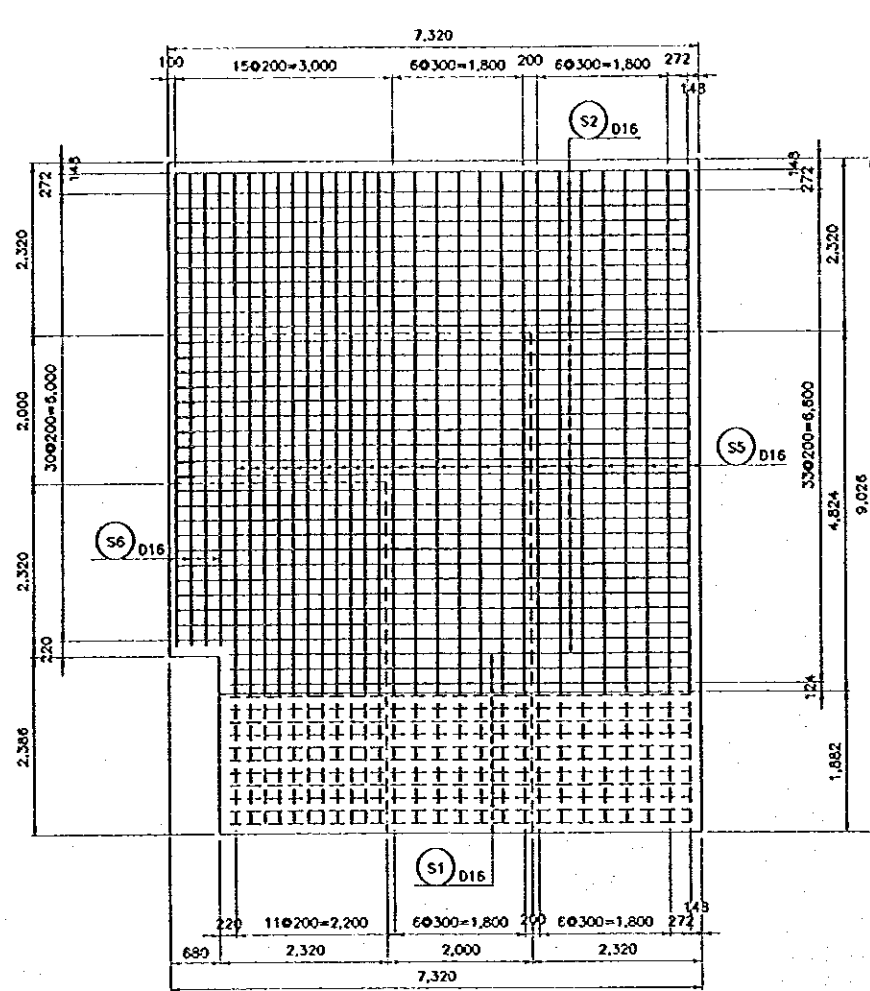


**NOTE**  
1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.

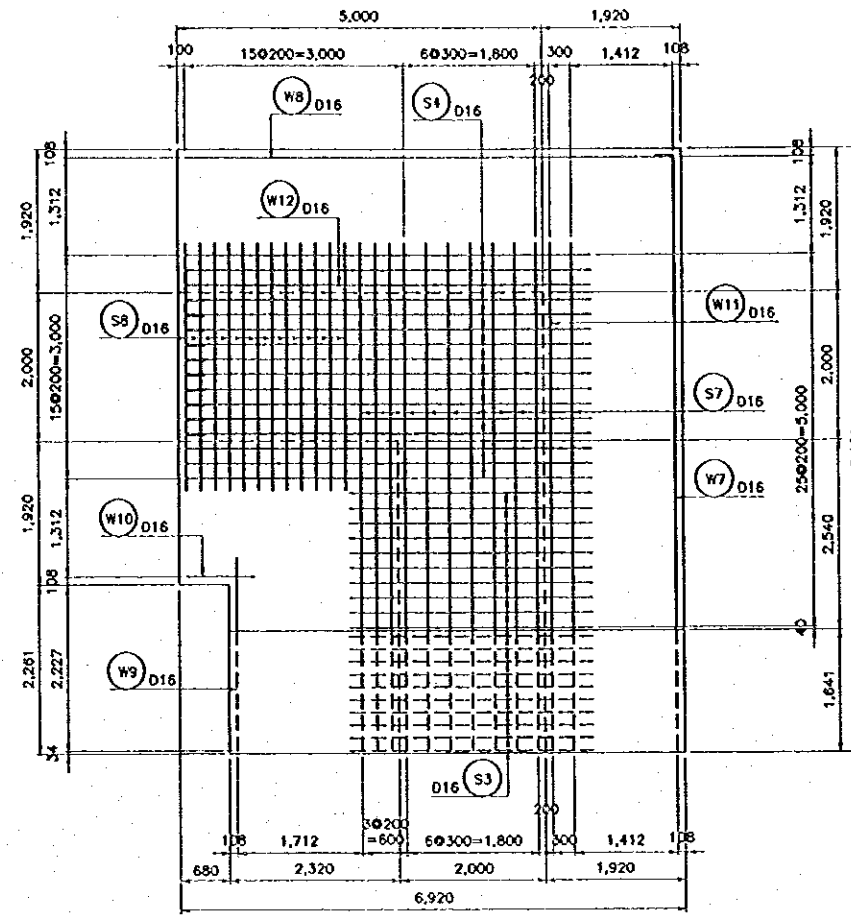
**REFERENCE DRAWINGS**  
JD-P1-ED-Re-16 GALLERY - REINFORCEMENT DETAILS (16/24)

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT			PROVIDER CENTRAL JAWA	
IRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT: JATBARANG DAM CONSTRUCTION EMBANKMENT DAM GALLERY REINFORCEMENT DETAILS (15/24)			PROJECT NAME FLOOD CONTROL, DAM, DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA	
JAPAN INTERNATIONAL COOPERATION AGENCY CH. ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND JABCO INTERNATIONAL INC.			LOCATION SEMARANG CITY	
CHIEF OF PLANNING AND DESIGN PROJECT MANAGER			DRAWING NO. JD-P1-ED-RS-15 SHEET NO. 62	
NO. DATE REVISIONS ORIGINATED DESIGNED APPROVED			DATE CONTRACT NO.	

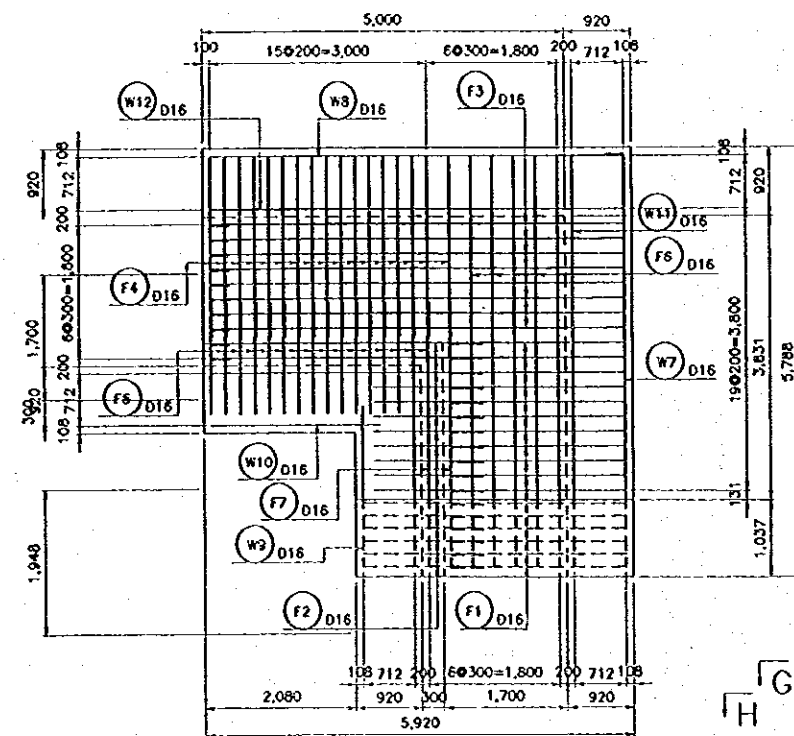
GALLERY REINFORCEMENT BAR ARRANGEMENT (PATTERN III), BLOCK 45 (1/2)



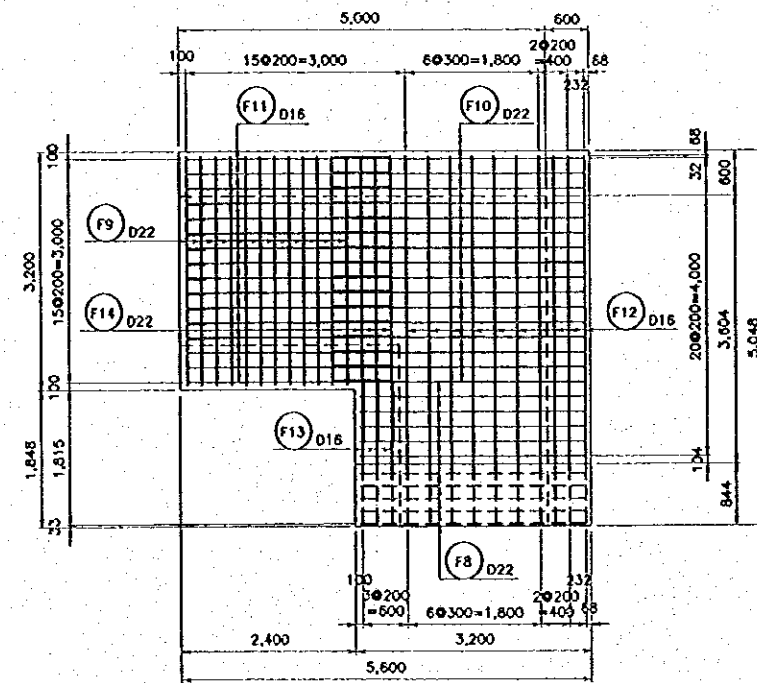
G - G



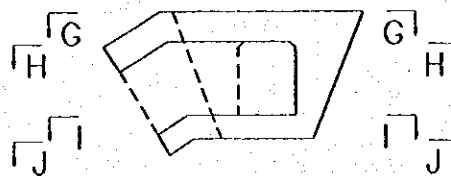
H - H



I - I



J - J



KEY PLAN

NOTE

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

REFERENCE DRAWINGS

JD-P1-ED-Re-15 GALLERY - REINFORCEMENT DETAILS (15/24)

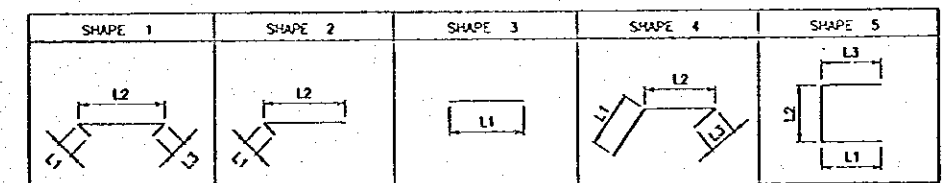
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

BAR WEIGHT FOR GALLERY B-45

BAR NO.	DIA	NUMBER	LENGTH (mm)				WEIGHT PER "m" (kg)	WEIGHT PER BAR (kg)	WEIGHT (kg)	SHAPE
			TOTAL	L1	L2	L3				
S1	16	14	6,850	250	6,350	250	1,580	10,823	152	1
S2	16	33	7,330	250	7,080		1,580	11,581	382	2
S3	16	20	3,320	3,320			1,580	5,246	105	3
S4	16	16	5,560	5,560			1,580	8,785	141	3
S5	16	15	9,310	2,090	6,970	250	1,580	14,710	221	4
S6	16	4	6,850	250	6,350	250	1,580	10,823	43	3
S7	16	11	7,130	1,850	5,270		1,580	11,265	124	3
S8	16	12	3,320	3,320			1,580	5,246	63	3
S9	16	59	2,040	2,040			1,580	3,223	190	3
S10	16	39	1,490	1,490			1,580	2,354	92	3
W1	16	70	3,130	3,130			1,580	4,945	346	3
W2	16	15	2,880	2,880			1,580	4,550	68	3
W3	22	70	2,410	2,070	340		2,580	7,182	503	2
W4	16	64	2,900	2,900			1,580	4,582	293	3
W5	16	20	2,880	2,880			1,580	4,550	91	3
W6	16	64	2,010	1,760	250		1,580	3,176	203	3
W7	16	13	7,380	1,520	5,610	250	1,580	11,660	152	4
W8	16	13	6,280	6,280			1,580	9,922	129	3
W9	16	13	2,500	1,520	980		1,580	3,950	51	2
W10	16	13	940	940			1,580	1,485	19	3
W11	16	13	6,290	1,520	5,270		1,580	10,728	139	2
W11a	16	13	3,960	1,520	2,440		1,580	6,257	81	3
W12	16	13	5,560	5,560			1,580	8,785	114	3
W12a	16	13	2,800	2,800			1,580	4,424	58	3
W13	16	10	1,300	250	800	250	1,580	2,054	21	5
W14	16	7	1,300	250	800	250	1,580	2,054	14	5
F1	16	17	2,990	610	2,380		1,580	4,724	80	2
F2	16	17	1,510	1,510			1,580	2,385	41	3
F3	16	8	5,720	5,720			1,580	9,038	72	3
F4	16	17	2,990	610	2,380		1,580	4,724	80	2
F5	16	16	1,510	1,510			1,580	2,385	38	3
F6	16	5	5,730	1,090	4,640		1,580	9,053	45	2
F7	16	2	3,800	1,110	2,690		1,580	6,004	12	2
F8	22	11	3,070	3,070			2,980	9,149	101	3
F9	22	12	3,070	3,070			2,980	9,149	110	3
F10	22	16	3,410	3,410			2,980	10,162	163	3
F11	16	16	2,800	2,800			1,580	4,424	71	3
F12	16	10	5,090	920	4,170		1,580	8,042	80	2
F13	16	3	2,030	920	1,110		1,580	3,207	10	3
F14	22	3	3,810	3,810			2,580	11,354	34	3
F15	16	50	1,410	1,410			1,580	2,228	111	3
F16	16	26	990	990			1,580	1,564	41	3
F17	16	7	1,100	250	600	250	1,580	1,738	12	5
F18	16	10	1,100	250	600	250	1,580	1,738	17	3
TOTAL									4,913	

NOTE: NUMBER HAVING SIGN "\*" IS AVERAGE.

BAR BENDING SCHEDULE

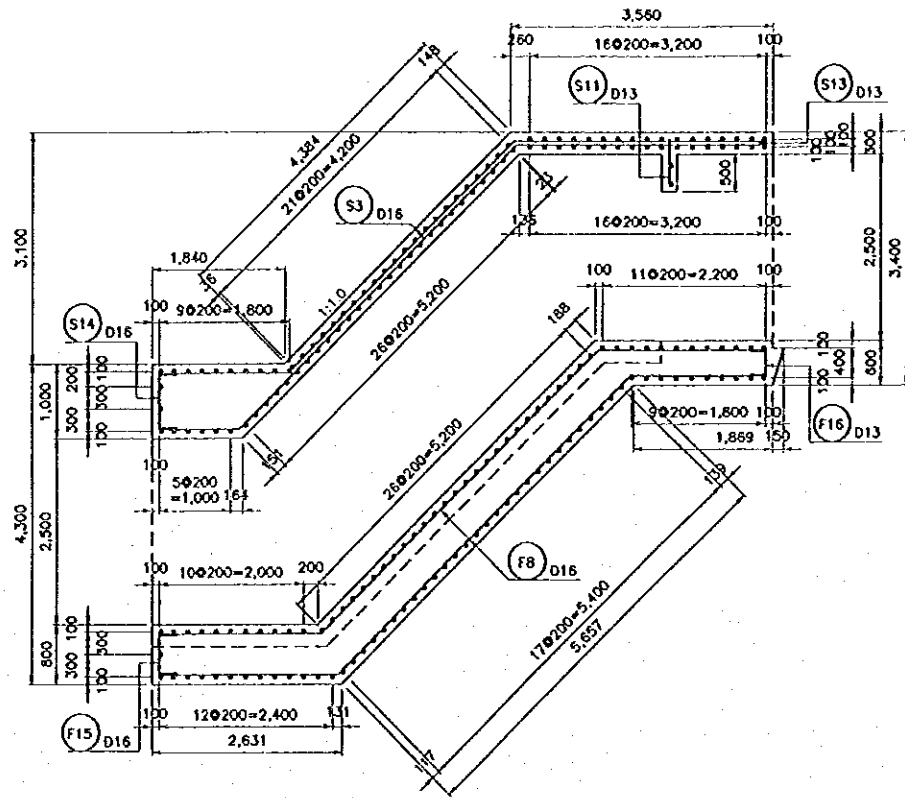


SCALE 0 1 2 3 4 5m

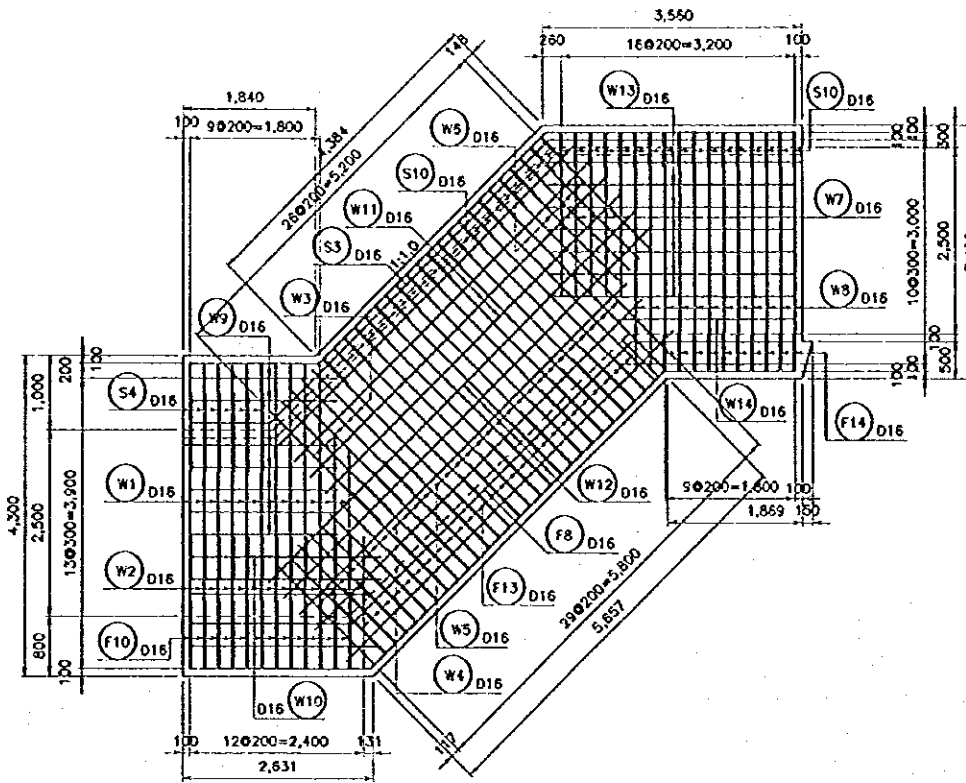
THIS REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
JATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION EMBANKMENT DAM GALLERY REINFORCEMENT DETAILS (16/24)		PROJECT LOCATION SEMARANG CITY
DRAWING NO. JD-P1-ED-Re-16 SHEET NO. 63		DATE CONTRACT NO.
CHIEF OF PLANNING AND DESIGN	PROJECT MANAGER	DATE



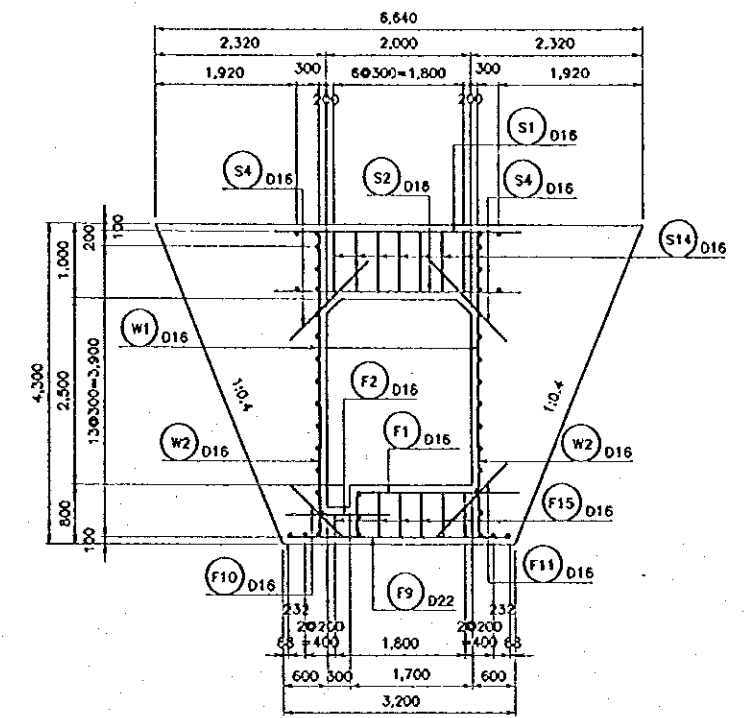
# GALLERY REINFORCEMENT BAR ARRANGEMENT (PATTERN III), BLOCK 46 (1/2)



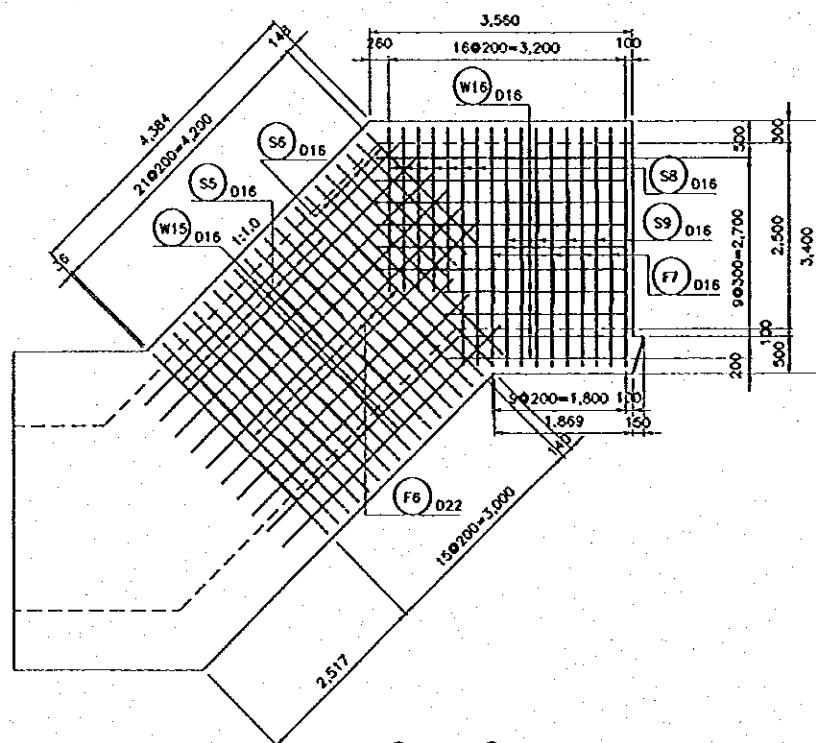
A - A



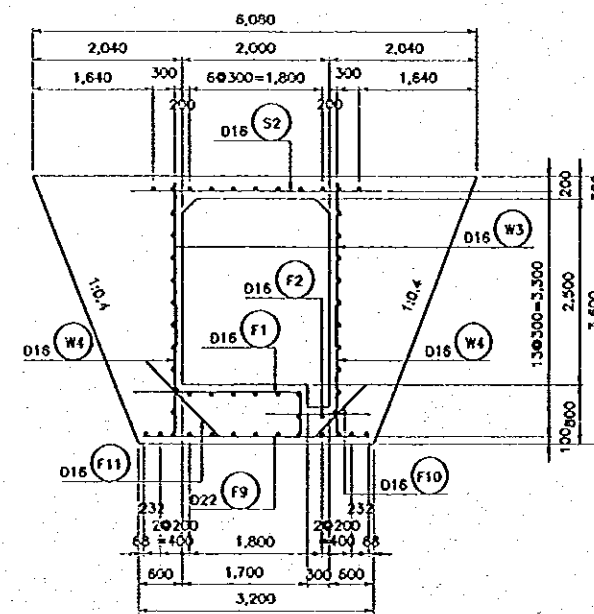
B - B



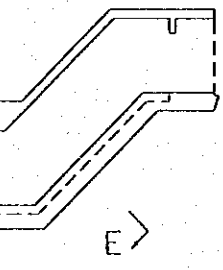
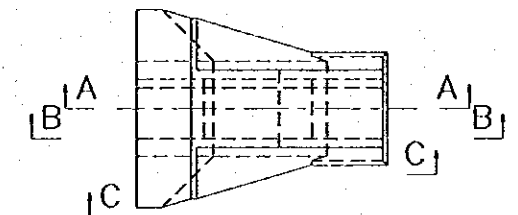
D - D



C - C



E - E



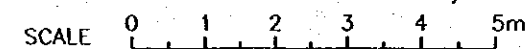
KEY PLAN

**NOTE**

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

**REFERENCE DRAWINGS**

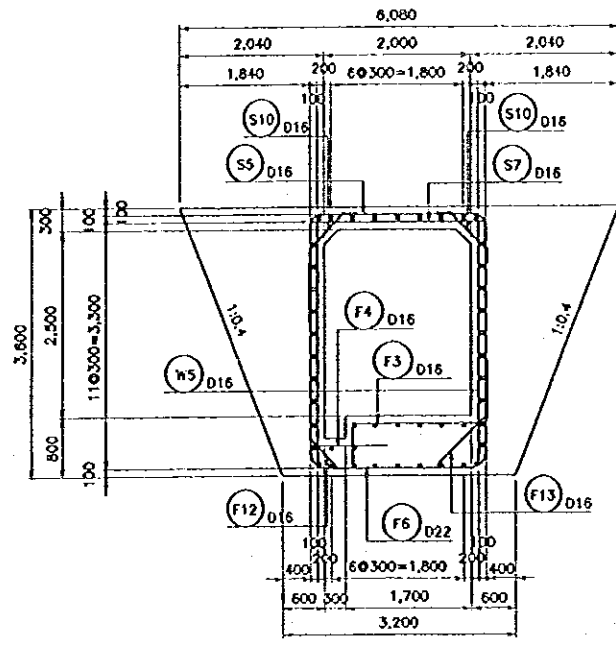
JO-P1-ED-Re-18 GALLERY - REINFORCEMENT DETAILS (18/24)



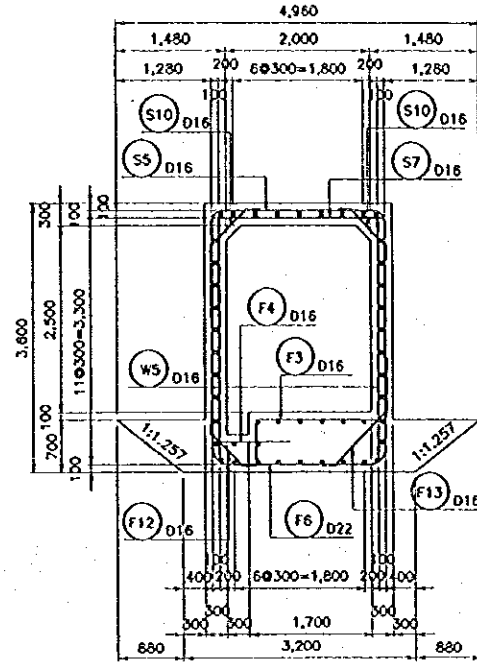
NO.	DATE	REVISIONS	ORIGINATED	DISKOPED	APPROVED

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 : JATIBARANG DAM CONSTRUCTION EMBANKMENT DAM GALLERY REINFORCEMENT DETAILS (17/24)	PROVIDER	CENTRAL JAYA
	PROJECT NAME	FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT
	LOCATION	SEMARANG CITY
JAPAN INTERNATIONAL COOPERATION AGENCY CHE ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND TAIKOO INTERNATIONAL INC. CHIEF OF PLANNING AND DESIGN PROJECT MANAGER	DRAWING NO.	JO-P1-ED-Re-17
	REVISION NO.	64
	DATE	
	CONTRACT NO.	

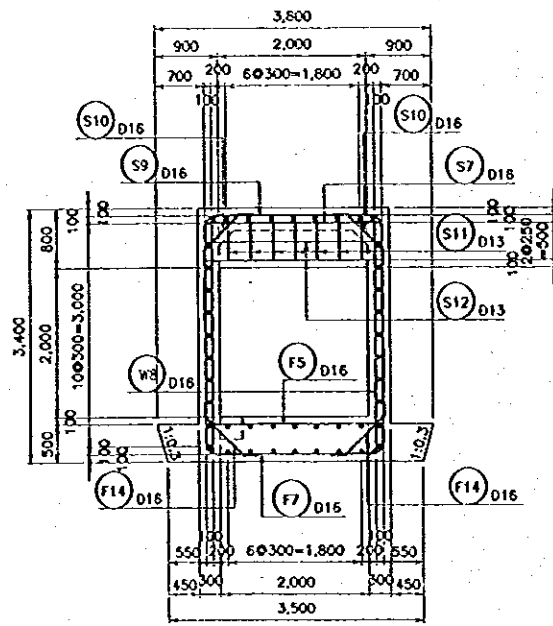
GALLERY REINFORCEMENT BAR ARRANGEMENT (PATTERN III), BLOCK 46 (1/2)



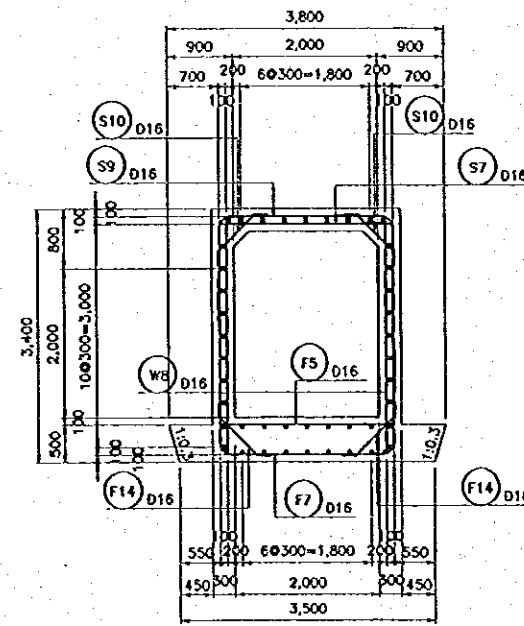
F - F



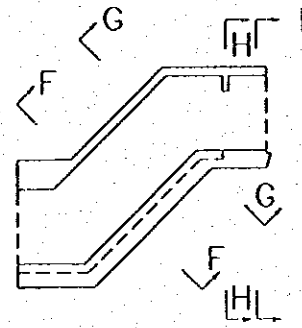
G - G



H - H



I - I



KEY PLAN

NOTE

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

REFERENCE DRAWINGS

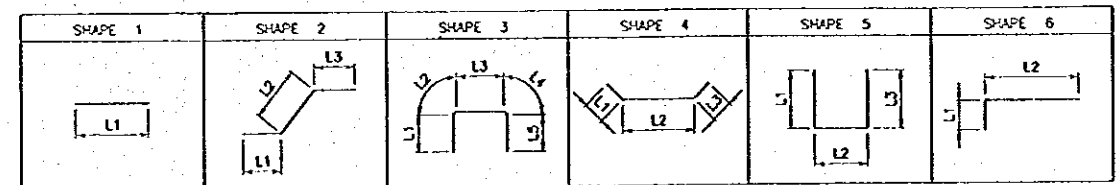
JD-P1-ED-Re-17 GALLERY -- REINFORCEMENT DETAILS (17/24)

BAR WEIGHT FOR GALLERY B-46

BAR NO	DIA	NUMBER	LENGTH (mm)						WEIGHT PER "m" (kg)	WEIGHT PER BAR (kg)	WEIGHT (kg)	SHAPE	
			TOTAL	L1	L2	L3	L4	L5					R
S1	16	10	3,400	3,400					1,580	5,372	54	1	
S2	16	11	3,400	3,400					1,580	5,372	59	1	
S3	16	18	9,740	1,460*	4,880*	3,430*			1,580	15,389	277	2	
S3a	16	4	2,040	2,040					1,580	3,223	13	1	
S4	16	12	1,490	1,490					1,580	2,354	28	1	
S5	16	16	6,460	1,270	260	2,080	260	2,590	160	1,580	10,207	163	3
S6	16	6	6,840	2,120*	260	2,080	260	2,120*	160	1,580	10,807	65	3
S7	16	39	2,380	2,380					1,580	3,760	147	1	
S8	16	7	7,680	2,540*	260	2,080	260	2,540*	160	1,580	12,134	85	3
S9	16	10	5,080	1,240	260	2,080	260	1,240	160	1,580	8,026	82	3
S10	16	78	1,150	250	650	250			1,580	1,817	142	4	
S11	13	7	600	600					1,040	0,624	4	1	
S12	13	2	2,400	2,400					1,040	2,496	5	1	
S13	13	7	500	200	100	200			1,040	0,520	4	5	
S14	16	7	1,300	250	800	250			1,580	2,054	14	5	
W1	16	24	2,320	2,320*					1,580	3,666	88	1	
W2	16	26	1,760	1,760					1,580	2,781	72	1	
W3	16	10	2,100	2,100					1,580	3,318	33	1	
W4	16	24	1,860	1,860					1,580	2,939	71	1	
W5	16	36	3,400	3,400					1,580	5,372	193	1	
W6	16	8	2,100	2,100					1,580	3,318	27	1	
W7	16	10	2,200	2,200					1,580	3,476	35	1	
W8	16	24	3,200	3,200					1,580	5,056	121	1	
W9	16	14	2,040	2,040					1,580	3,223	45	1	
W10	16	8	2,640	2,640					1,580	4,171	33	1	
W11	16	8	5,680	5,680					1,580	8,974	72	1	
W12	16	10	6,680	6,680*					1,580	10,554	106	1	
W13	16	14	3,380	3,380					1,580	5,340	75	1	
W14	16	4	2,440	2,440					1,580	3,855	15	1	
W15	16	20	4,600	4,600*					1,580	7,268	145	1	
W16	16	20	2,910	2,910*					1,580	4,598	92	1	
F1	16	21	2,870	610	2,260				1,580	4,535	95	6	
F2	16	21	1,400	1,400					1,580	2,212	46	1	
F3	16	22	2,410	610	1,800				1,580	3,808	84	6	
F4	16	22	1,050	1,050					1,580	1,659	35	1	
F5	16	7	2,400	2,400					1,580	3,792	27	1	
F6	22	16	6,400	2,530	350	1,960	350	1,210	220	2,930	19,072	305	3
F7	16	10	6,040	2,200	260	2,080	260	1,240	160	1,580	9,543	95	1
F8	16	18	9,930	2,370*	5,520*	2,040*			1,580	15,689	282	2	
F8a	16	4	2,590	2,590					1,580	4,092	16	1	
F9	22	13	3,070	3,070					2,930	9,149	119	1	
F10	16	12	990	990					1,580	1,564	19	1	
F11	16	12	1,410	1,410					1,580	2,228	27	1	
F12	16	26	1,070	250	570	250			1,580	1,691	44	4	
F13	16	26	1,490	250	990	250			1,580	2,354	61	4	
F14	16	20	1,210	250	710	250			1,580	1,912	38	4	
F15	16	6	1,100	250	600	250			1,580	1,738	10	5	
F16	13	7	800	200	400	200			1,040	0,832	6	5	
									TOTAL		3,673		

NOTE: NUMBER HAVING SIGN "\*" IS AVERAGE.

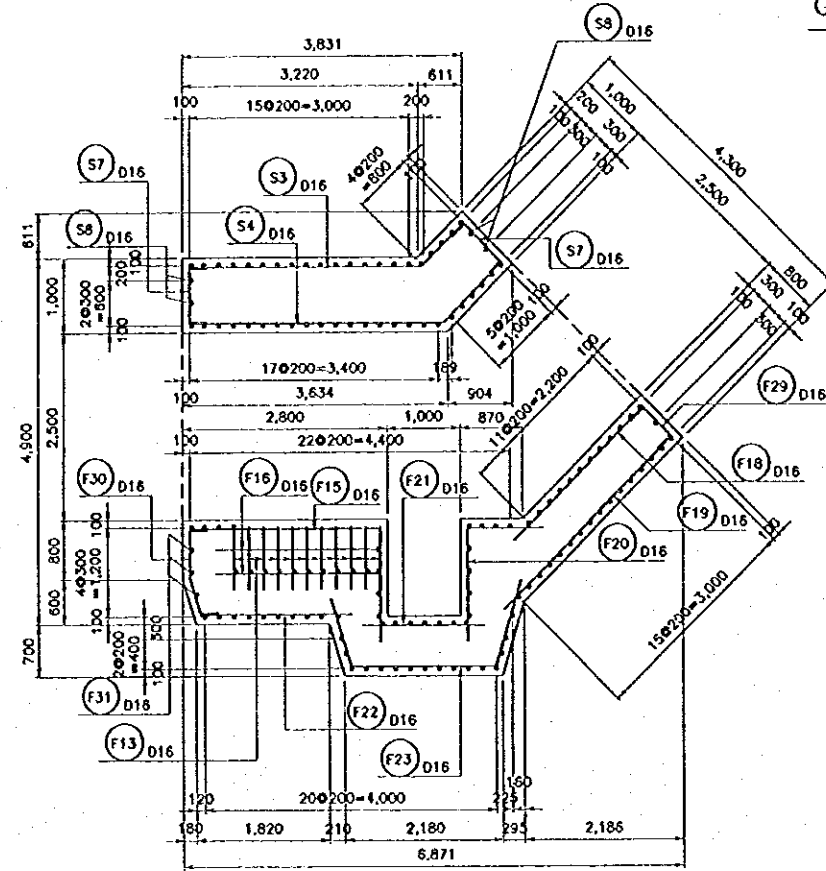
BAR BENDING SCHEDULE



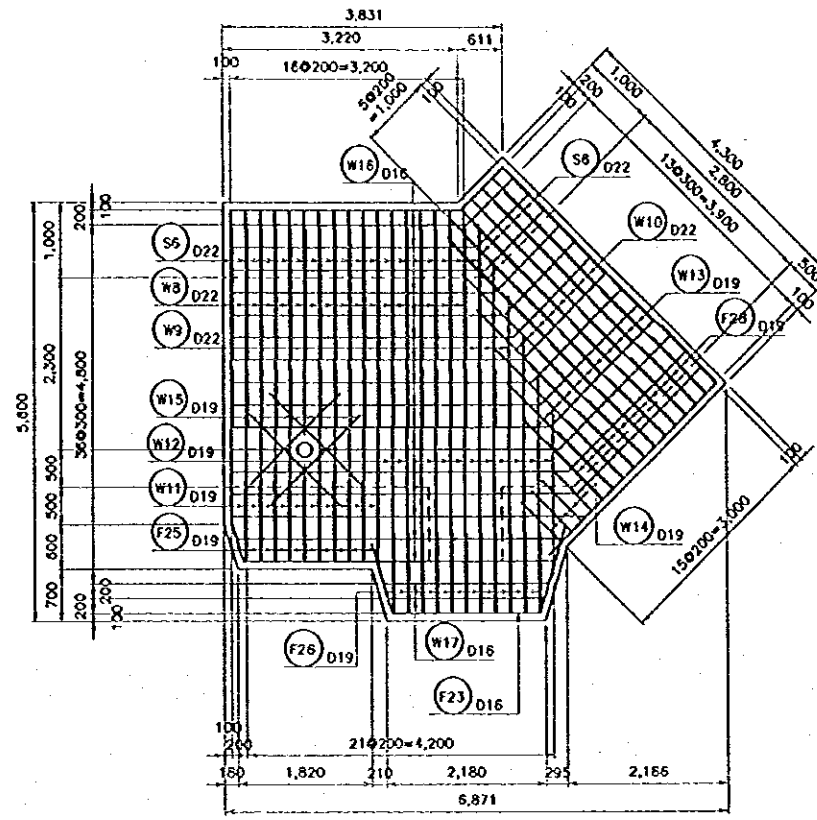
SCALE 0 1 2 3 4 5m

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT			PROVINCE CENTRAL JAVA		
IRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT 2: JATIBARANG DAM CONSTRUCTION EMBANKMENT DAM GALLERY REINFORCEMENT DETAILS (18/24)			PROJECT NAME FLOOD CONTROL, DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA		
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)			DRAWING NO. JD-P1-ED-Re-18 SHEET NO. 65		
CHIEF OF PLANNING AND DESIGN			DATE CONTRACT NO.		
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

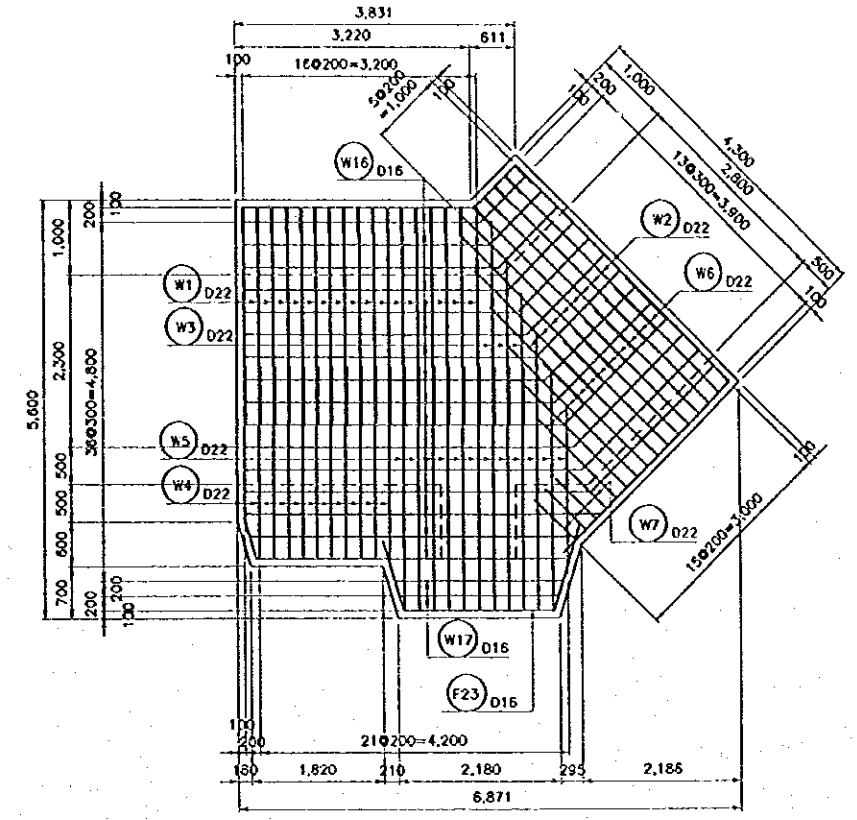
GALLERY REINFORCEMENT BAR ARRANGEMENT (PATTERN I), BLOCK 50 (1/2)



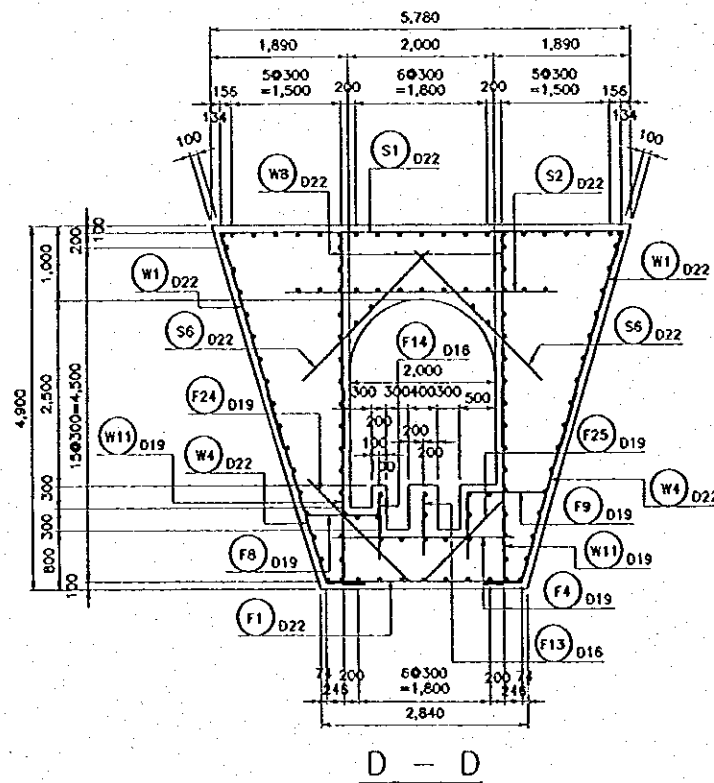
A - A



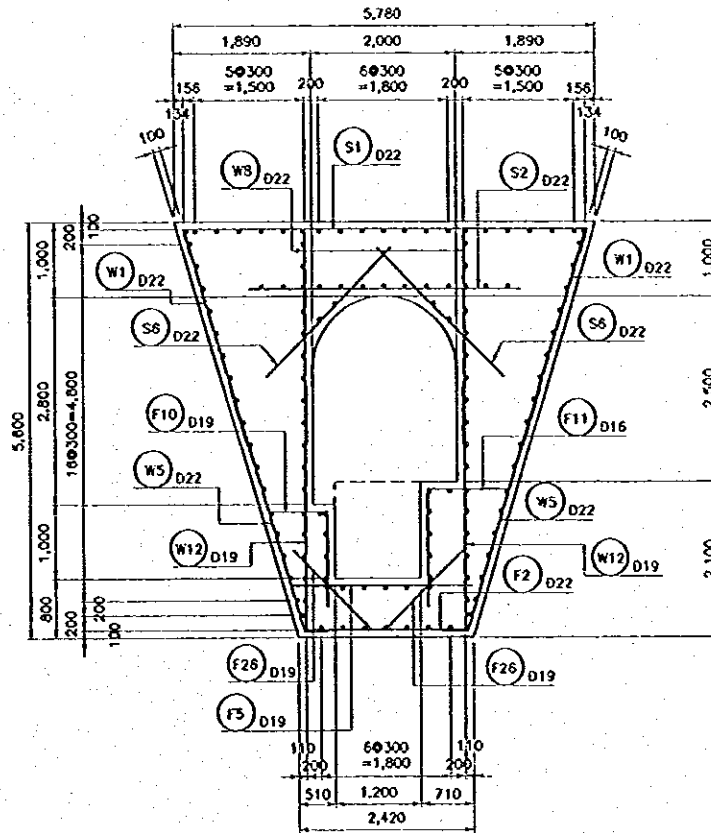
B - B



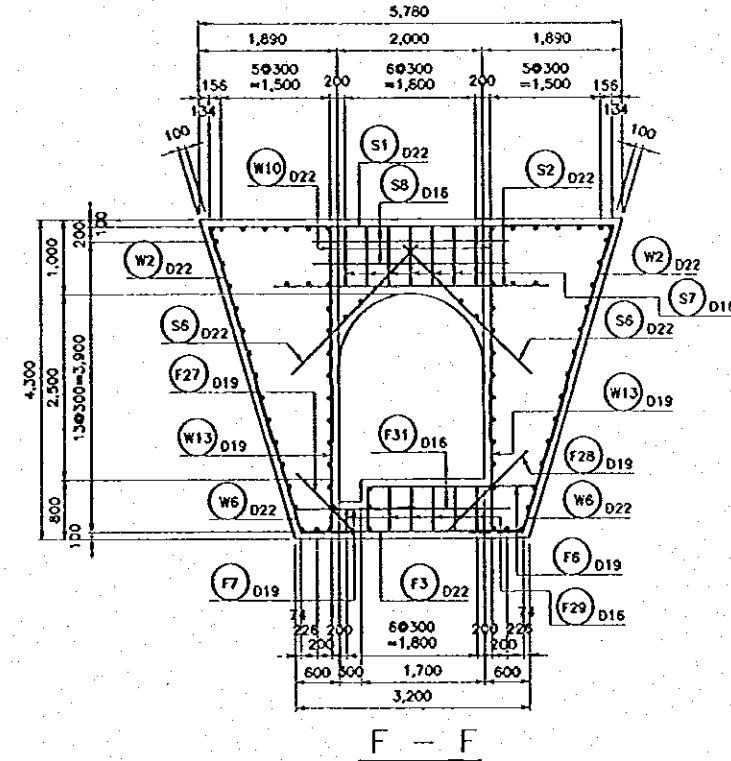
C - C



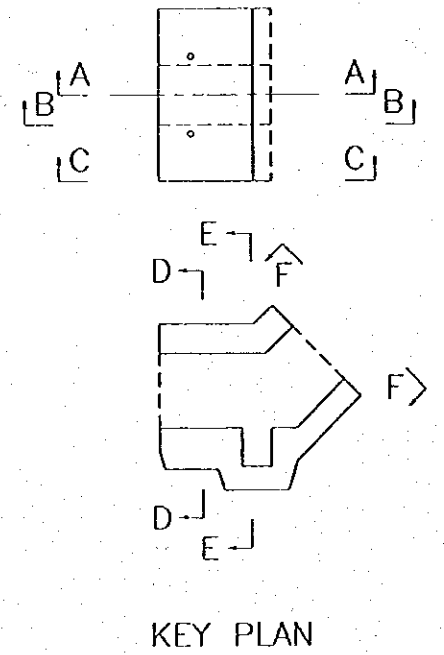
D - D



E - E

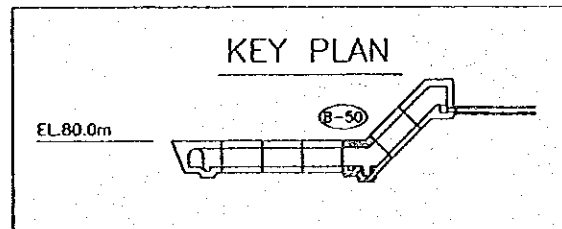


F - F



KEY PLAN

SCALE 0 1 2 3 4 5m



KEY PLAN

NOTE

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

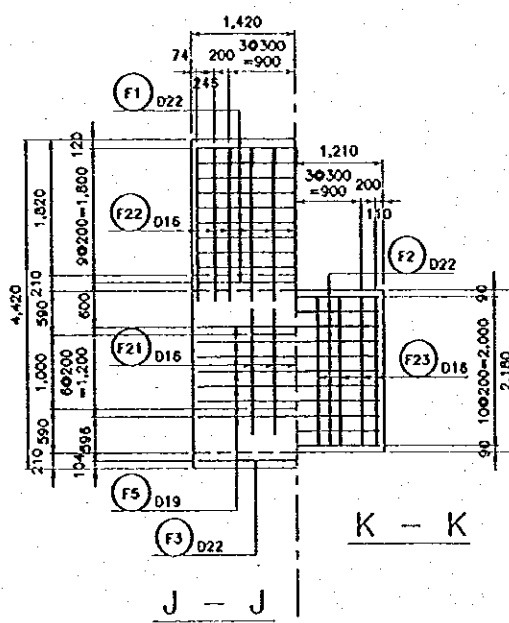
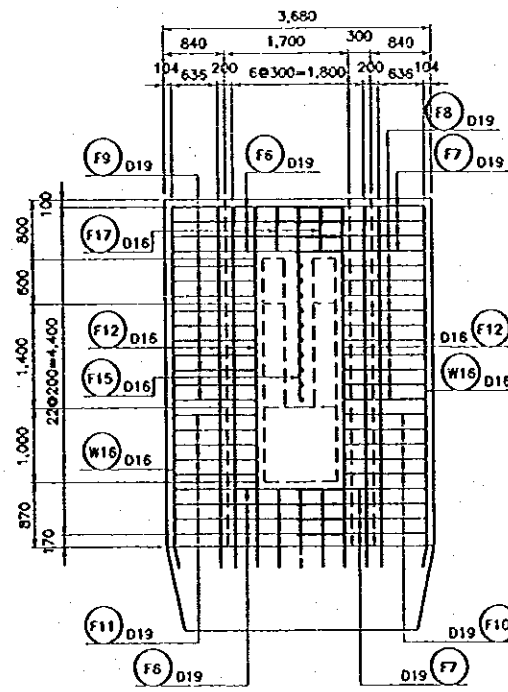
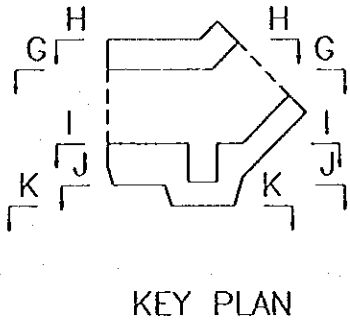
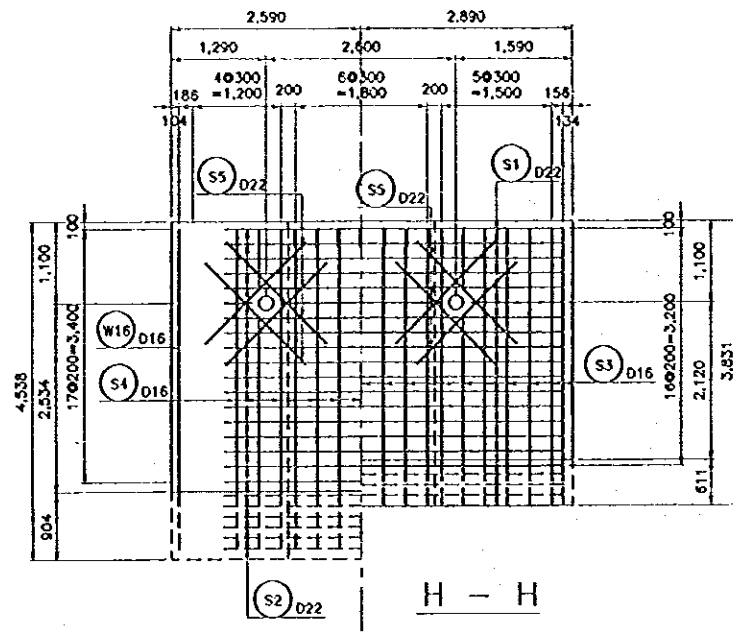
REFERENCE DRAWINGS

JD-P1-ED-Re-20 GALLERY - REINFORCEMENT DETAILS (20/24)

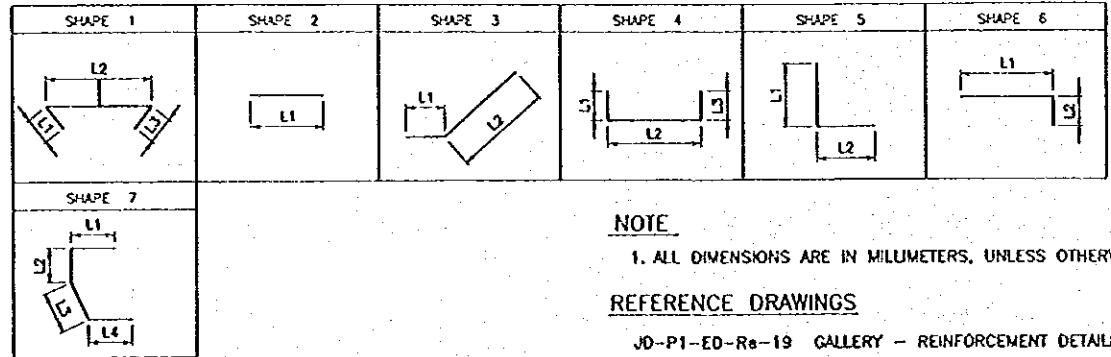
NO.	DATE	REVISION	ORIGINATED	DESIGNED	APPROVED

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROJECT CENTRAL JAVA PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY DRAWING NO. JO-P1-ED-Re-19 SHEET NO. 66 DATE CONTRACT NO.
JAPAN INTERNATIONAL COOPERATION AGENCY CITY ENGINEERING CO. LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND PAKCO INTERNATIONAL S.S.		DESIGNER CHECKER APPROVED PROJECT MANAGER

GALLERY REINFORCEMENT BAR ARRANGEMENT (PATTERN I), BLOCK 50 (2/2)



BAR BENDING SCHEDULE

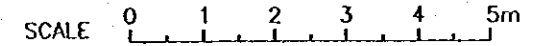


NOTE  
1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.  
REFERENCE DRAWINGS  
JD-P1-ED-Ra-19 GALLERY - REINFORCEMENT DETAILS (19/24)

BAR WEIGHT FOR GALLERY B-50

BAR NO.	DIA	NUMBER	LENGTH (mm)						WEIGHT PER "m" (kg)	WEIGHT PER BAR (kg)	WEIGHT (kg)	SHAPE
			TOTAL	L1	L2	L3	L4	L5				
S1	22	21	6,200	340	5,520	340			2,980	18,476	338	1
S2	22	24	3,740	3,740					2,980	11,145	267	2
S3	16	21	3,980	3,170	810				1,580	6,288	132	3
S4	16	13	4,640	3,500	1,140				1,580	7,331	95	3
S5	22	16	1,940	1,940					2,980	5,781	92	2
S6	22	48	2,450	2,450					2,980	7,331	352	2
S7	16	14	1,300	250	800	250			1,580	2,054	29	4
S8	16	4	2,680	2,680					1,580	4,234	17	1
W1	22	34	3,030	3,030					2,580	9,029	307	2
W2	22	18	2,470	2,470*					2,580	7,361	132	2
W3	22	6	2,340	2,340*					2,980	6,973	42	2
W4	22	22	2,990	2,650	340				2,980	8,910	196	3
W5	22	24	2,830	2,830*					2,980	8,433	202	2
W6	22	24	1,830	1,830*					2,980	5,453	131	2
W7	22	8	810	810					2,580	2,414	19	2
W8	22	34	2,900	2,900					2,980	8,642	294	2
W9	22	6	2,240	2,240*					2,580	6,675	40	2
W10	22	18	2,360	2,360*					2,980	7,033	127	2
W11	19	22	2,870	2,570	300				2,230	6,400	141	5
W12	19	24	2,710	2,710*					2,230	6,043	145	2
W13	19	24	2,050	1,750*	300				2,230	4,572	110	5
W14	19	8	770	770					2,230	1,717	14	2
W15	19	8	1,740	1,740					2,230	3,880	31	2
W16	16	60	5,350	3,760*	1,590*				1,580	8,453	507	3
W17	16	8	2,220	2,220*					1,580	3,508	28	2
F1	22	15	2,700	2,700					2,980	8,045	121	2
F2	22	11	2,280	2,280					2,980	6,794	75	2
F3	22	16	3,060	3,060					2,980	9,119	145	2
F4	19	10	2,500	2,500					2,230	5,575	56	2
F5	19	7	2,520	2,520					2,230	5,620	39	2
F6	19	20	2,920	610	2,310				2,230	6,512	130	6
F7	19	20	1,670	1,670					2,230	3,724	74	2
F8	19	10	1,620	1,020	600				2,230	3,613	36	6
F9	19	10	2,010	900	1,110				2,230	4,483	45	6
F10	19	5	2,120	830	1,290				2,230	4,728	24	5
F11	19	5	2,710	1,120	1,590				2,230	6,043	30	5
F12	16	6	6,880	4,620	2,260				1,580	10,870	65	3
F13	16	10	840	840					1,580	1,327	13	2
F14	16	10	540	540					1,580	853	9	2
F15	16	1	2,600	2,600					1,580	4,168	4	2
F16	16	6	2,240	2,240					1,580	3,539	21	2
F17	16	2	600	600					1,580	948	2	2
F18	16	8	2,500	2,500					1,580	3,950	32	2
F19	16	8	3,260	3,260					1,580	5,151	41	2
F20	16	3	2,610	1,540	1,070				1,580	4,124	12	5
F21	16	13	1,680	1,680					1,580	2,654	35	2
F22	16	11	2,070	2,070					1,580	3,271	35	2
F23	16	9	4,220	970	2,040	1,210			1,580	6,668	60	6
F24	19	10	1,950	1,950					2,230	4,349	43	2
F25	19	10	1,520	1,520					2,230	3,390	34	2
F26	19	22	1,520	1,520					2,230	3,390	75	2
F27	19	12	1,100	1,100					2,230	2,453	29	2
F28	19	12	1,520	1,520					2,230	3,390	41	2
F29	16	6	1,100	250	600	250			1,580	1,738	10	4
F30	16	6	1,730	250	690	540	250		1,580	2,733	16	7
F31	16	4	1,530	1,530					1,580	2,417	10	2
									TOTAL		5,202	

NOTE: NUMBER HAVING SIGN\*\* IS AVERAGE.



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

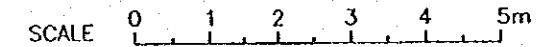
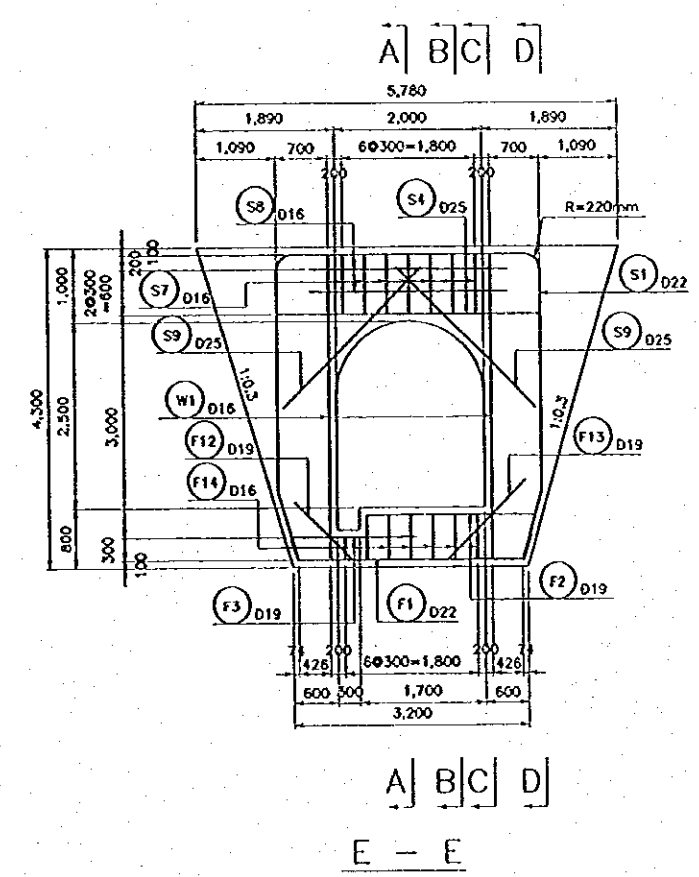
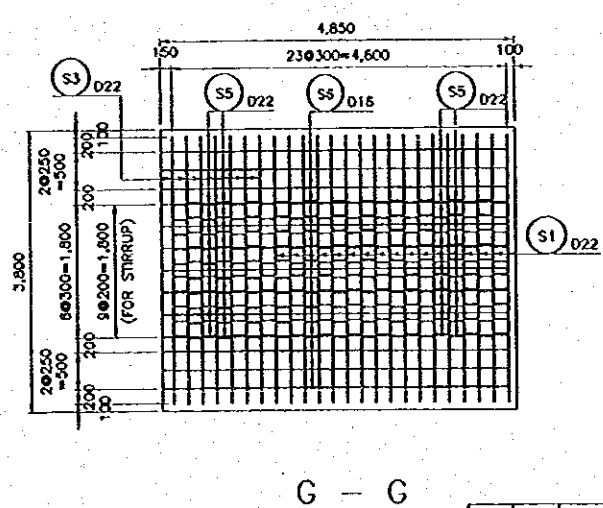
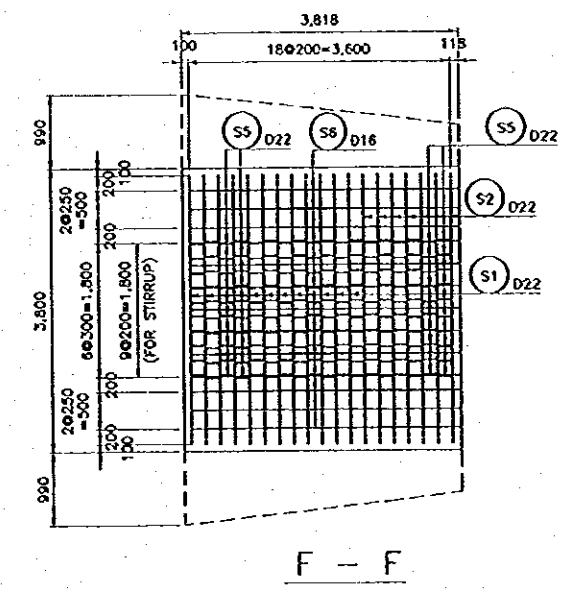
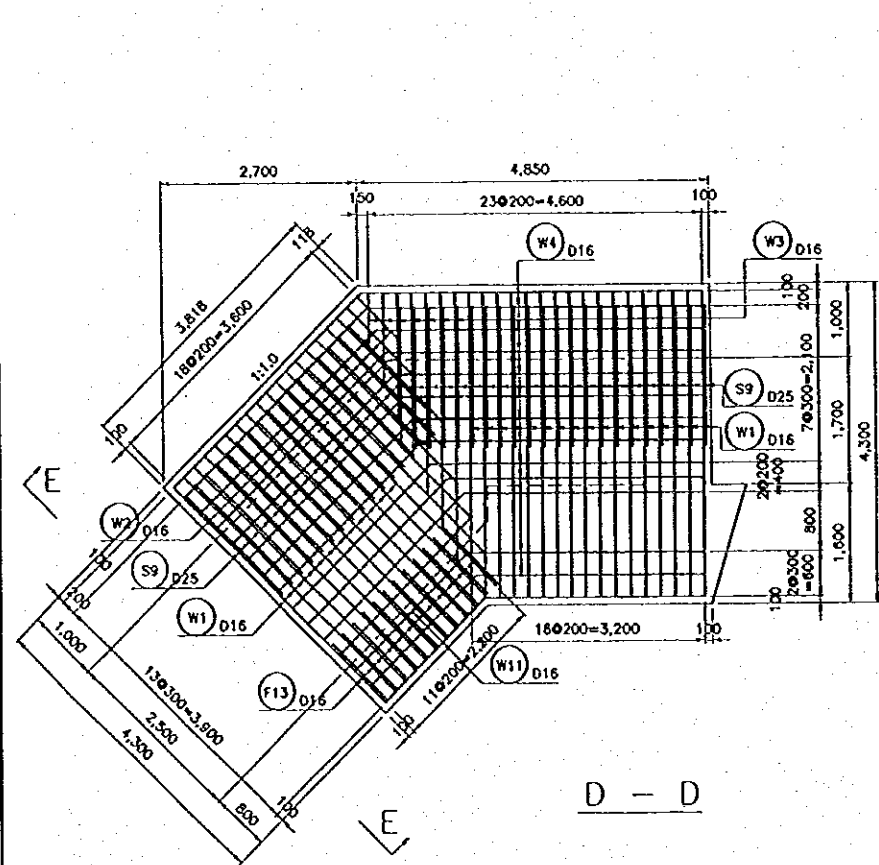
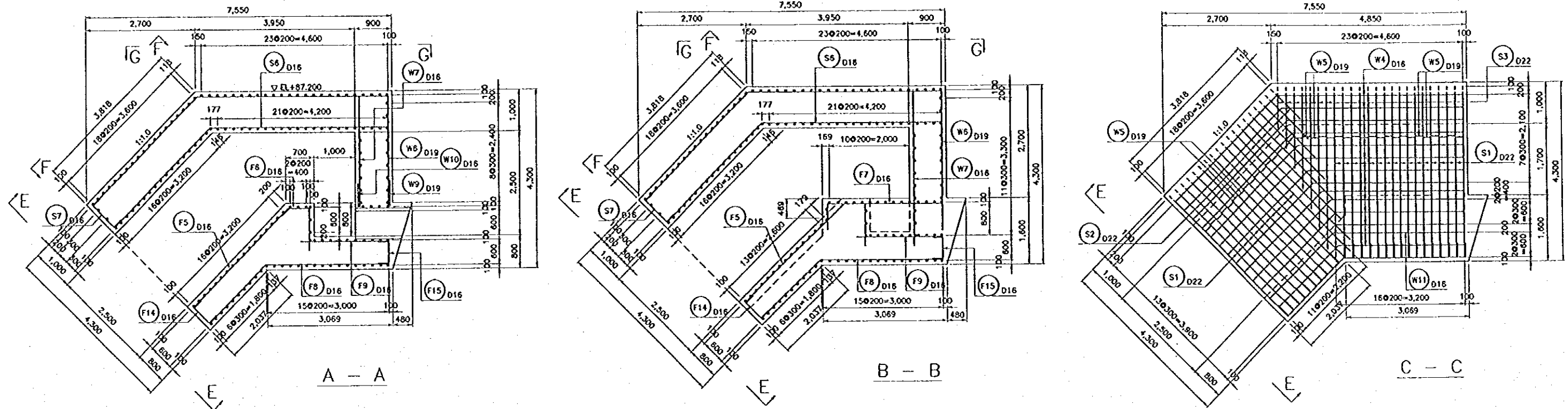
JRATUNSELUNA FLOOD CONTROL PROJECT  
COMPONENT: JATIBARANG DAM CONSTRUCTION  
EMBARANG DAM  
GALLERY  
REINFORCEMENT DETAILS (20/24)

PROVINCE: CENTRAL JAWA  
PROJECT NAME: FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA  
DISTRICT: SEMARANG CITY  
DRAWING NO. JD-P1-ED-Ra-20  
SHEET NO. 67

DATE: \_\_\_\_\_ CONTRACT NO. \_\_\_\_\_

PROJECT MANAGER: \_\_\_\_\_

GALLERY REINFORCEMENT BAR ARRANGEMENT (PATTERN I), BLOCK 52 (1/2)



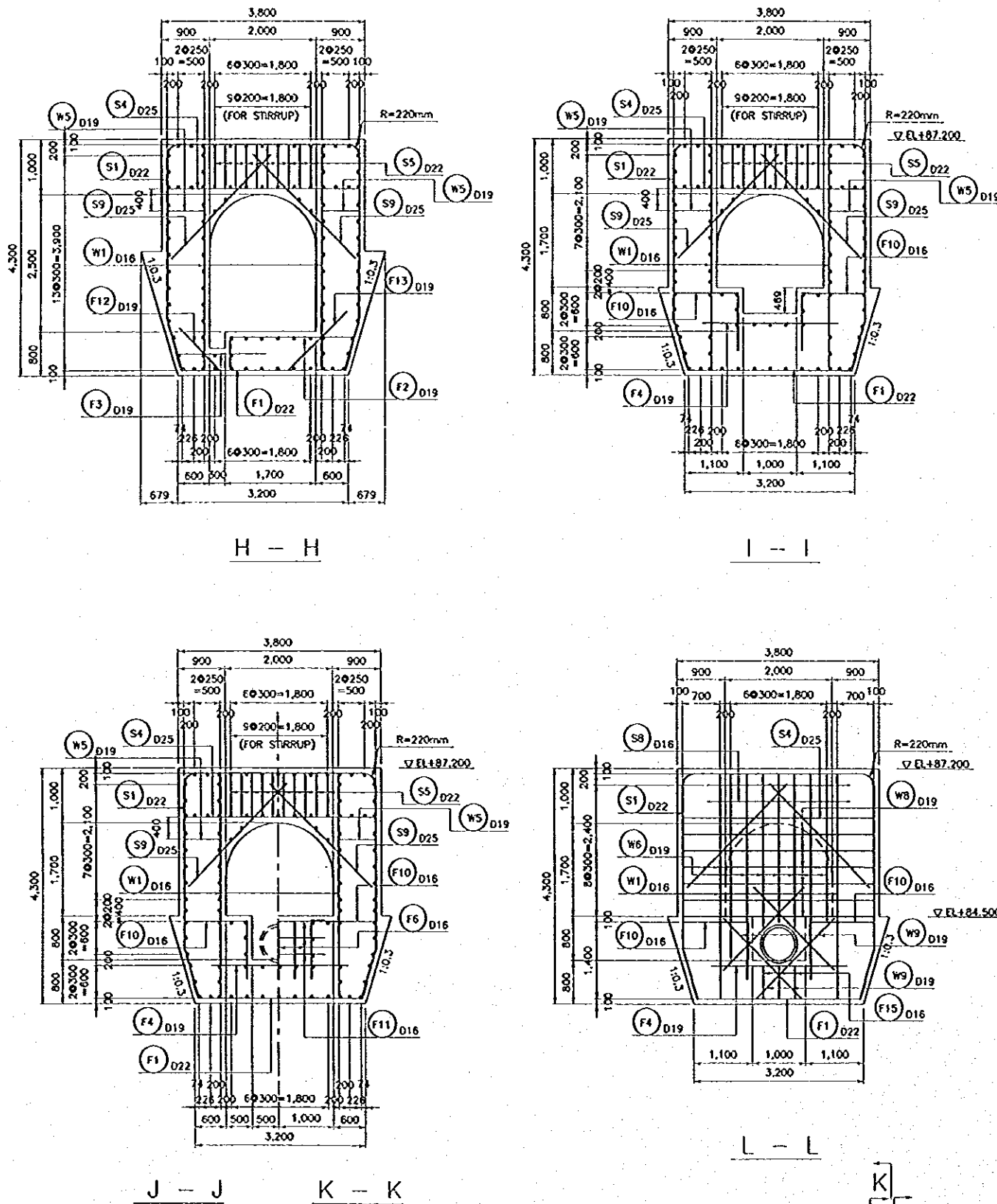
- NOTES**
1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.
  2. HOOK OF REINFORCING BAR "SS,W5" SHOULD BE FURNISHED AT COMPRESSION SIDE OF STRUCTURAL CALCULATION.

**REFERENCE DRAWINGS**  
 JD-P1-ED-Re-22 GALLERY - REINFORCEMENT DETAILS (22/24)

NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED	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
JRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION EMBANKMENT DAM GALLERY REINFORCEMENT DETAILS (21/24)		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN BURELAND, IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY
JAPAN INTERNATIONAL COOPERATION AGENCY CHUO KOGYO GAKKAU KENKU GYO KAI PACIFIC CONSULTANTS INTERNATIONAL INC. JAPAN INTERNATIONAL CO.		DRAWING NO. JD-P1-ED-Re-21 SHEET NO. 68
DESIGNED CHECKED CROW OF PLANNING AND DESIGN PROJECT MANAGER		DATE CONTRACT NO.

GALLERY REINFORCEMENT BAR ARRANGEMENT (PATTERN III), BLOCK 52 (2/2)

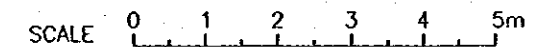
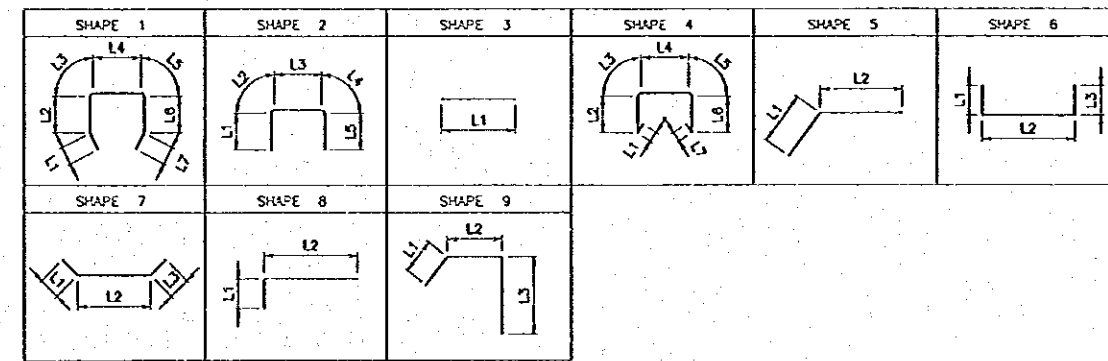


BAR WEIGHT FOR GALLERY B-46

BAR NO	DIA	NUMBER	LENGTH (mm)										WEIGHT PER "m" (kg)	WEIGHT PER BAR (kg)	WEIGHT (kg)	SHAPE		
			TOTAL	L1	L2	L3	L4	L5	L6	L7	R							
S1	22	29	11,720	960	2,970	350	3,160	350	2,230*					220	2,980	34,926	1013	1
S2	22	7	8,320	2,230*	350	3,160	350	2,230*					220	2,980	24,794	174	2	
S3	22	7	8,300	2,220*	350	3,160	350	2,220*					220	2,980	24,734	173	2	
S4	25	40	3,600	3,600											3,850	13,850	554	3
S5	22	410	2,290	220	790	80	110	80	790	220	45			2,980	6,824	2795	4	
S9	16	26	8,070	3,520*	4,550*									1,580	12,751	332	5	
S7	16	7	1,300	250	800	250								1,580	2,054	14	6	
S8	16	4	2,680	2,680										1,580	4,234	17	3	
S9	25	78	2,680	2,680										3,850	10,318	805	3	
W1	16	58	4,100	4,100										1,580	6,478	376	3	
W2	16	14	2,240	2,240*										1,580	3,539	50	3	
W3	16	14	2,230	2,230*										1,580	3,523	49	3	
W4	16	30	6,730	2,850*	3,880*									1,580	10,633	319	5	
W5	19	74	2,030	190	700	60	130	60	700	190	38			2,230	4,527	335	4	
W6	19	7	3,370	3,370										2,230	7,515	53	3	
W7	16	7	3,260	3,260										1,580	5,151	36	3	
W8	19	6	3,600	3,600										2,230	8,028	48	3	
W9	19	4	2,140	2,140										2,230	4,772	19	3	
W10	16	4	1,920	1,920										1,580	3,034	12	3	
W11	16	4	5,250	2,110*	3,140*									1,580	8,295	33	5	
F1	22	26	3,740	340	3,060	340								2,980	11,145	290	7	
F2	19	14	2,920	610	2,310									2,230	6,512	91	8	
F3	19	14	1,690	1,690										2,230	3,769	53	3	
F4	19	20	2,540	2,540										2,230	5,664	113	3	
F5	16	8	3,360	3,360										1,580	5,309	42	3	
F6	16	4	1,850	250	560	1,040								1,580	2,923	12	9	
F7	16	4	3,500	630	2,870									1,580	5,530	22	8	
F8	16	9	4,990	1,930	3,010									1,580	7,884	71	5	
F9	16	9	2,140	2,140										1,580	3,381	30	8	
F10	16	30	2,250	1,050	1,200									1,580	3,555	107	3	
F11	16	3	1,680	1,680										1,580	2,654	8	3	
F12	16	12	1,100	1,100										1,580	1,738	21	3	
F13	16	12	1,520	1,520										1,580	2,402	29	3	
F14	16	6	1,100	250	600	250								1,580	1,738	10	6	
F15	16	3	1,100	250	600	250								1,580	1,738	5	6	
												TOTAL		8,114				

NOTE: NUMBER HAVING SIGN "\*" IS AVERAGE.

BAR BENDING SCHEDULE

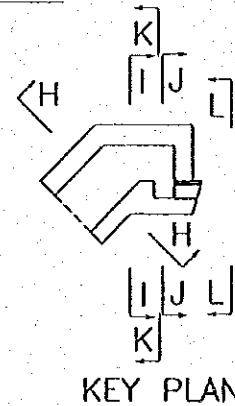


NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.
2. HOOK OF REINFORCING BAR "SS,W5" SHOULD BE FURNISHED AT COMPRESSION SIDE OF STRUCTURAL CALCULATION.

REFERENCE DRAWINGS

JD-P1-ED-Re-21 GALLERY - REINFORCEMENT DETAILS (21/24)

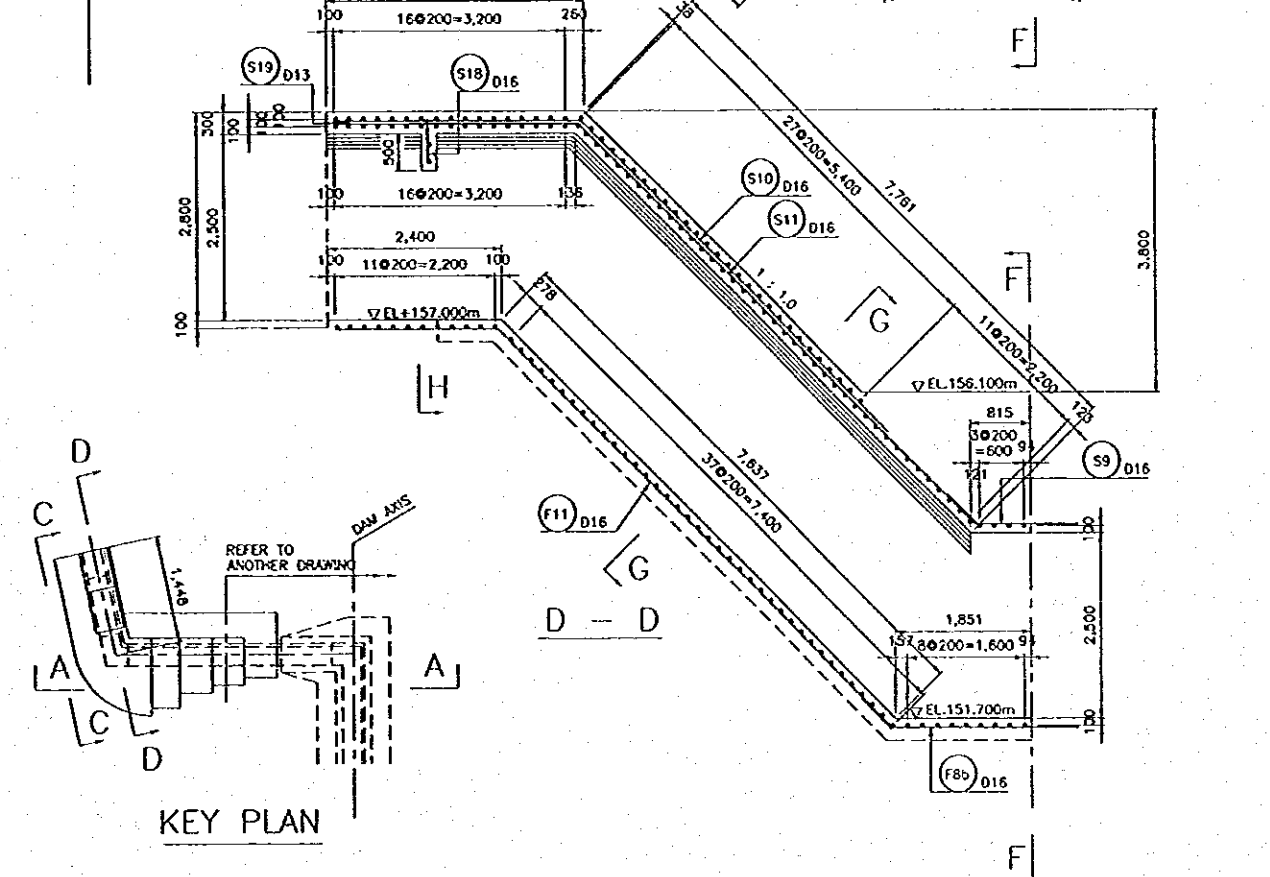
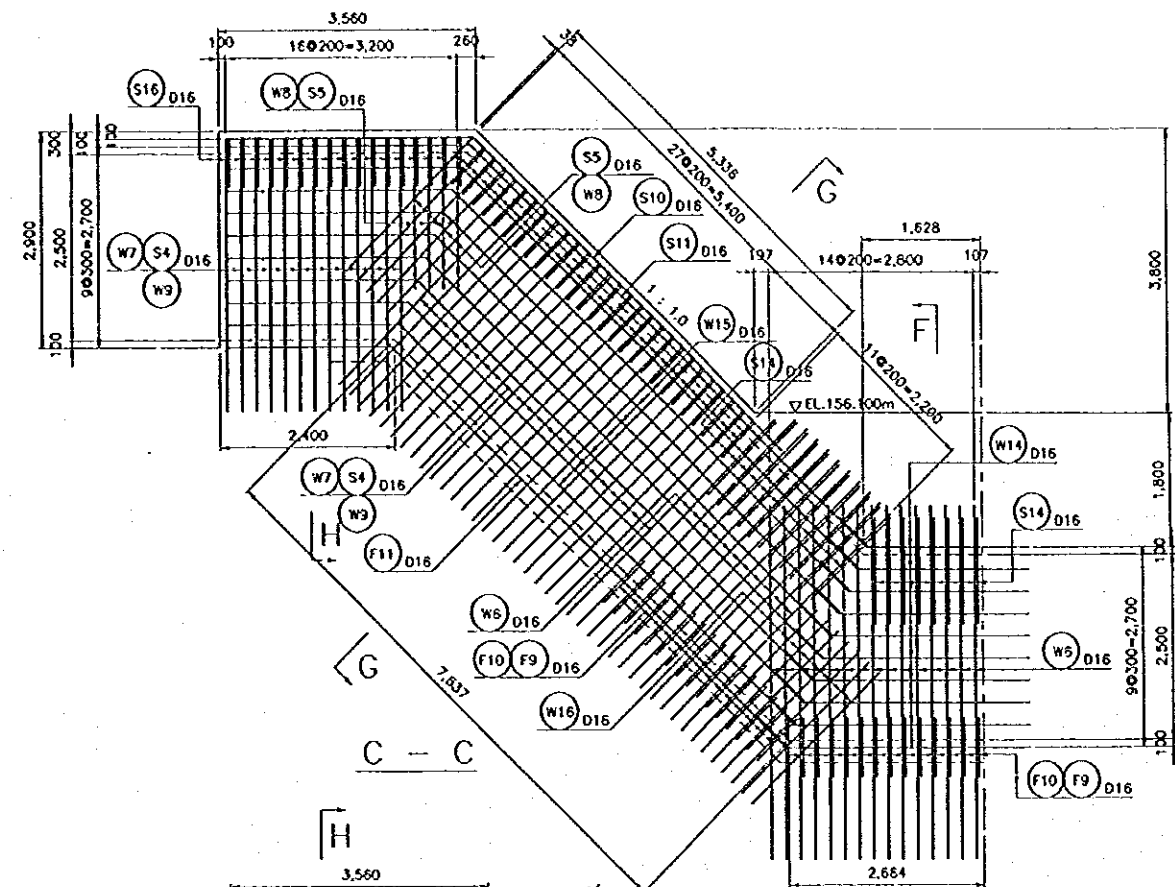
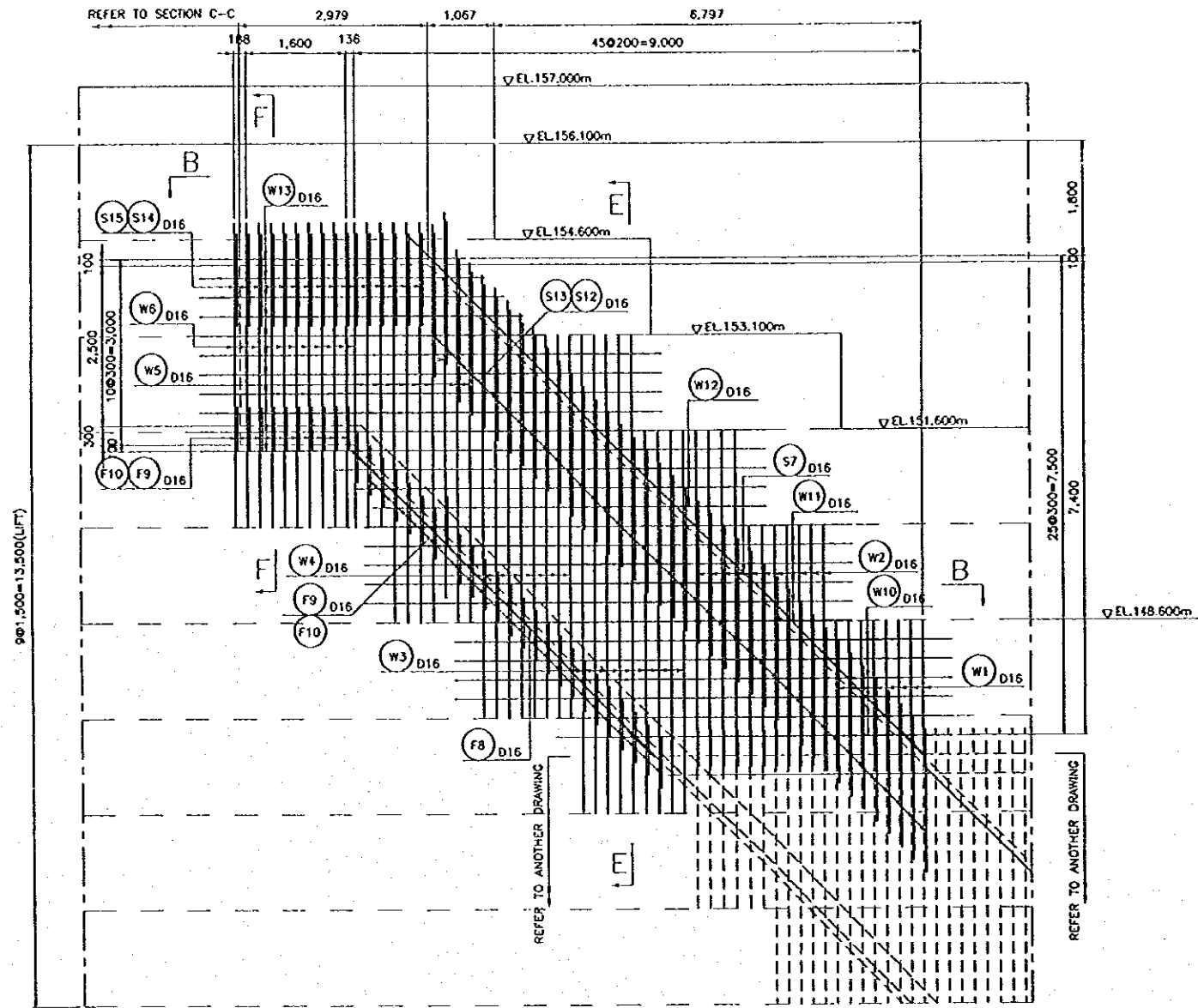


KEY PLAN

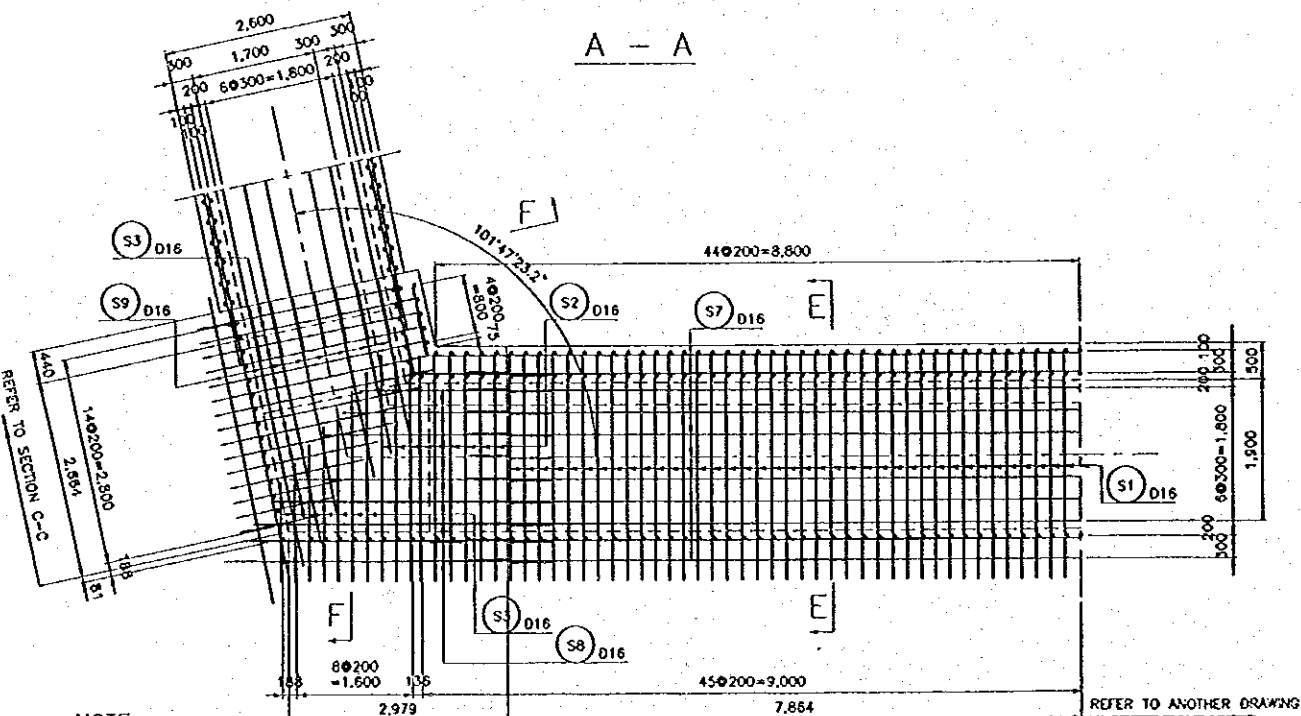
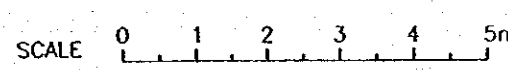
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAVA
IRATUNSIJUNA FLOOD CONTROL PROJECT COMPONENT: JATIBARANG DAM CONSTRUCTION EMBANKMENT DAM GALLERY REINFORCEMENT DETAILS (22/24)		PROJECT NAME FLOOD CONTROL, EMBANKMENT AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
JAPAN INTERNATIONAL COOPERATION AGENCY OJI ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSTRUCTION INTERNATIONAL AND SASECO INTERNATIONAL, INC.		DISTRICT SEMARANG CITY
DESIGNED CHECKED CEORP OF PLANNING AND DESIGN PROJECT MANAGER		DRAWING NO. JD-P1-ED-Re-22 SHEET NO. 63 DATE CONTRACT NO.

GALLERY REINFORCEMENT BAR ARRANGEMENT (PATTERN III), LEFT ENTRANCE (1/2)



KEY PLAN



A - A

B - B

NOTE

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

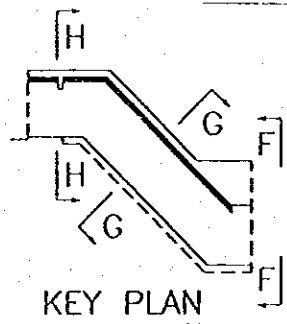
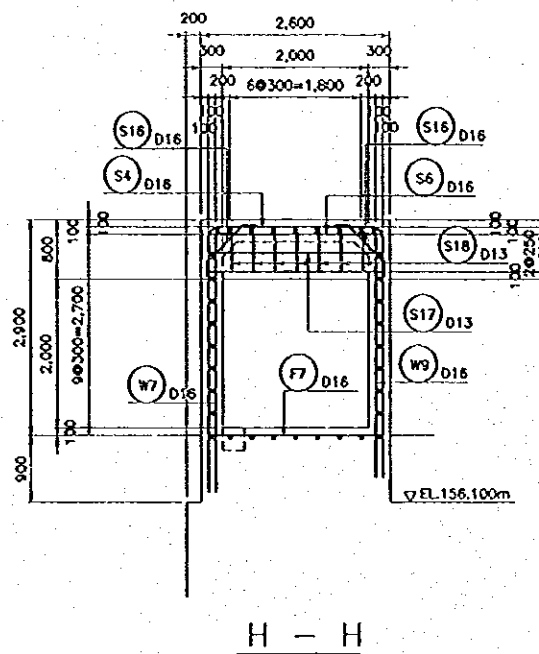
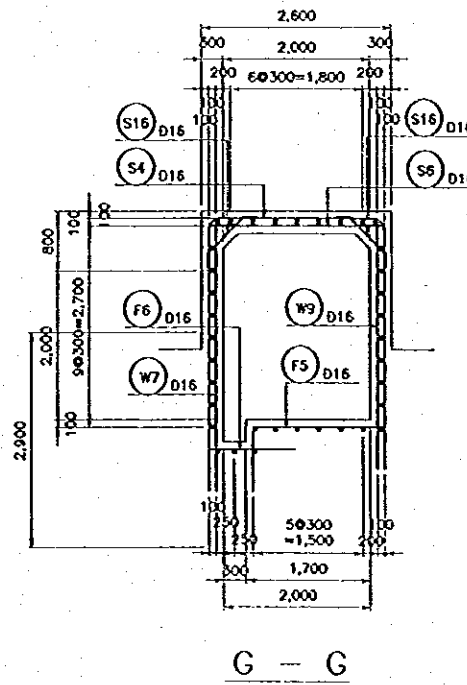
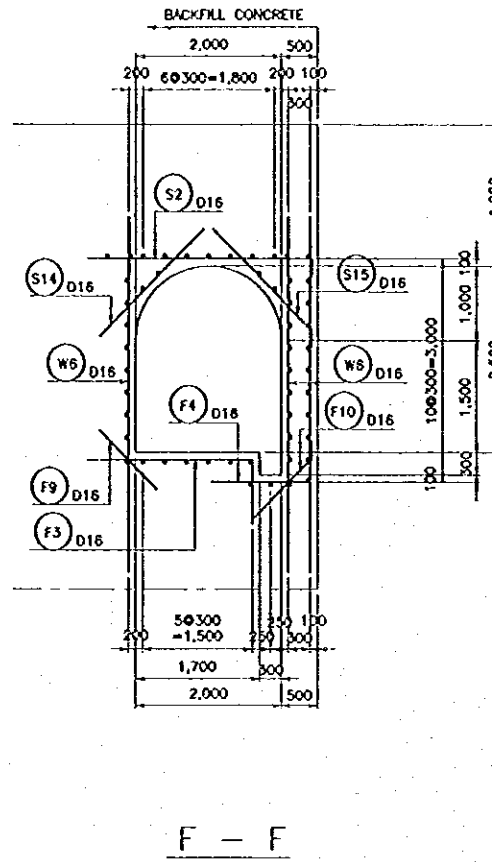
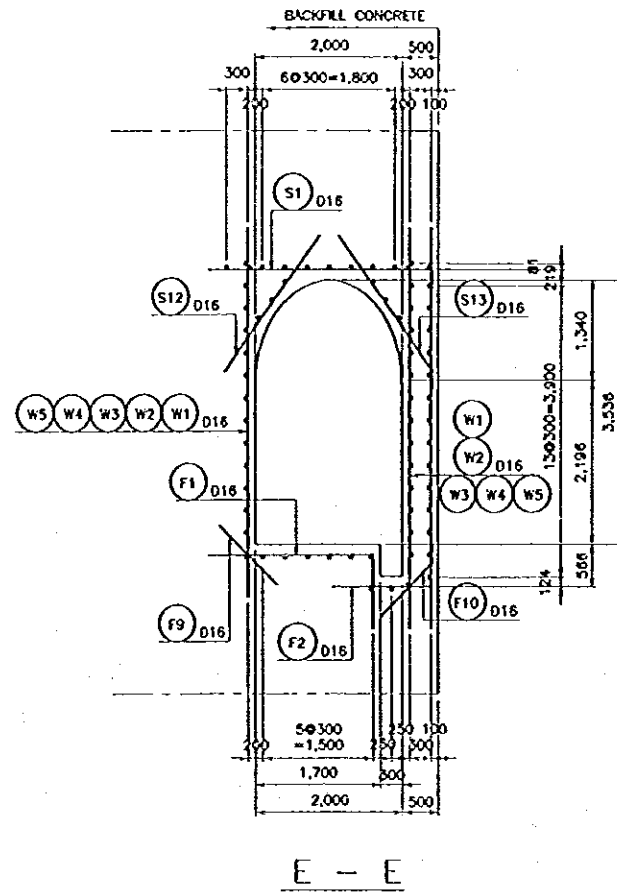
REFERENCE DRAWINGS

JD-P1-ED-Re-24 GALLERY - REINFORCEMENT DETAILS (24/24)

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
JRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION GALLERY REINFORCEMENT DETAILS (23/24)		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
SAFARI INTERNATIONAL GEOGRAPHICAL AGENCY CUI ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND PAKSI INTERNASIONAL, INC.		DISTRICT SEMARANG CITY
DESIGNED CHECKED PROJECT MANAGER	DATE CONTRACT NO.	DRAWING NO. JD-P1-ED-Re-23 SHEET NO. 70

GALLERY REINFORCEMENT BAR ARRANGEMENT (PATTERN III), LEFT ENTRANCE (2/2)



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

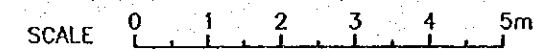
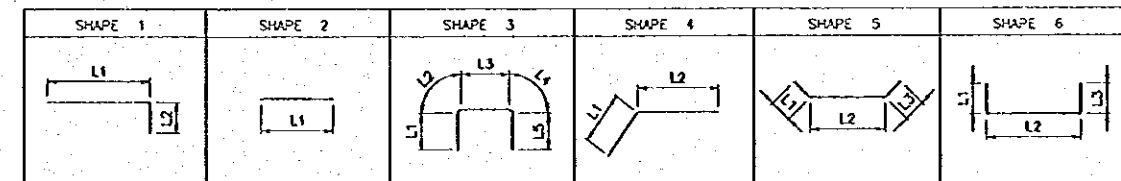
REFERENCE DRAWINGS  
JD-P1-ED-R6-23 GALLERY - REINFORCEMENT DETAILS (23/24)

BAR WEIGHT FOR LEFT ENTRANCE

BAR NO.	DIA	NUMBER	LENGTH (mm)						WEIGHT PER "m" BAR (kg)	WEIGHT PER BAR (kg)	WEIGHT (kg)	SHAPE
			TOTAL	L1	L2	L3	L4	L5				
S1	16	40	3,310	3,060	250				1,580	5,230	209	1
S2	16	9	3,060	3,060					1,580	4,835	48	1
S3	16	22	2,100	2,100*					1,580	3,318	73	2
S4	16	36	9,300	3,500	260	2,080	260	3,200	1,580	14,654	529	3
S5	16	9	6,840	2,120*	260	2,080	260	2,120*	1,580	10,807	97	3
S6	16	44	2,380	2,380					1,580	3,760	165	2
S7	16	17	11,590	11,590					1,580	18,312	311	2
S8	16	12	3,170	3,170*					1,580	5,009	60	2
S9	16	12	3,160	3,160*					1,580	4,993	60	2
S10	16	9	9,380	3,420	5,960				1,580	14,820	133	4
S11	16	9	11,020	3,380	7,640				1,580	17,412	157	4
S12	16	40	2,240	2,240					1,580	3,539	142	2
S13	16	40	2,450	2,200	250				1,580	3,871	155	4
S14	16	35	2,040	2,040					1,580	3,223	113	2
S15	16	13	2,150	1,900	250				1,580	3,397	44	4
S16	16	88	1,150	250	650	250			1,580	1,817	160	5
S17	13	2	2,380	2,380					1,040	2,475	5	2
S18	13	7	600	600					1,040	0,624	4	2
S19	13	7	500	200	100	200			1,040	0,520	4	6
W1	16	24	2,260	2,260					1,580	3,571	86	2
W2	16	33	4,510	4,510*					1,580	7,126	235	2
W3	16	27	6,750	6,750*					1,580	10,665	288	2
W4	16	24	6,470	6,470*					1,580	10,223	245	2
W5	16	27	5,200	5,200*					1,580	8,216	222	2
W6	16	41	4,760	4,760					1,580	7,521	308	2
W7	16	36	3,650	3,650					1,580	5,757	208	2
W8	16	18	2,270	2,270*					1,580	3,587	65	2
W9	16	36	3,350	3,350					1,580	5,293	191	2
W10	16	18	7,120	7,120*					1,580	11,250	202	2
W11	16	18	7,020	7,020*					1,580	11,092	200	2
W12	16	9	6,490	6,490*					1,580	10,254	92	2
W13	16	33	6,590	6,590*					1,580	10,412	344	2
W14	16	30	3,350	2,790*	560				1,580	5,293	159	4
W15	16	32	10,460	7,640	2,820*				1,580	16,527	529	4
W16	16	14	2,480	2,480					1,580	3,918	55	2
F1	16	25	3,210	2,260	950				1,580	5,072	127	1
F2	16	25	1,360	1,360					1,580	2,149	54	2
F3	16	40	3,120	2,260	860				1,580	4,930	197	1
F4	16	40	1,360	1,360					1,580	2,149	85	2
F5	16	25	2,660	1,800	860				1,580	4,203	105	1
F6	16	25	1,160	1,160					1,580	1,833	45	2
F7	16	8	2,400	2,400					1,580	3,792	30	2
F8	16	9	6,790	6,790					1,580	10,728	97	2
F8a	16	9	2,260	1,700*	560				1,580	3,571	32	4
F8b	16	9	3,720	3,160*	560				1,580	5,878	53	4
F9	16	65	1,120	1,120					1,580	1,770	115	2
F10	16	41	1,240	950	250				1,580	1,959	80	4
F11	16	11	9,890	7,640	2,250				1,580	15,626	172	4
TOTAL										7,088		

NOTE: NUMBER HAVING SIGN "\*" IS AVERAGE.

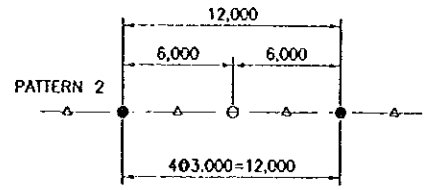
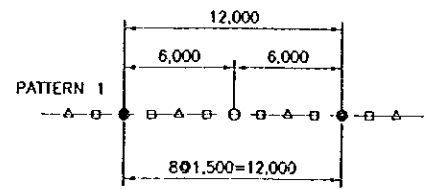
BAR BENDING SCHEDULE



THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT				PROVINCE CENTRAL JAVA	
JRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION EMBANKMENT DAM GALLERY REINFORCEMENT DETAILS (24/24)				PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCE DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY	
DRAWING NO. JD-P1-ED-R6-24 SHEET NO. 71				DATE CONTRACT NO.	
REVISIONS NO. DATE ORIGINATED DESIGNED APPROVED				DESIGNED CHECKED CHIEF OF PLANNING AND DESIGN PROJECT MANAGER	



**PATTERN OF CURTAIN GROUT HOLES**



LEGEND  
● PILOT HOLES    ▲ SECONDARY HOLES  
○ PRIMARY HOLES    □ TERTIARY HOLES



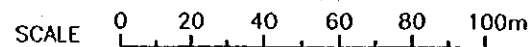
**ARRANGEMENT OF CURTAIN GROUT HOLES**

**NOTES**

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

**REFERENCE DRAWINGS**

- JD-P1-ED-Gr-2 ARRANGEMENT OF FOUNDATION GROUTING (2/3)
- JD-P1-ED-Gr-3 ARRANGEMENT OF FOUNDATION GROUTING (3/3)



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
PRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION EMBANKMENT DAM ARRANGEMENT OF FOUNDATION GROUTING (1/3)		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SURABAYA IN THE REPUBLIC OF INDONESIA
SURABAYA INTERNATIONAL COOPERATION AGENCY CIL ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL PACIFIC INTERNATIONAL INC.		DISTRICT SEMARANG CITY
DESIGNED CHECKED	DATE CONTRACT NO.	DRAWING NO. JD-P1-ED-Gr-1 SHEET NO. 72
CHIEF OF PLANNING AND DESIGN PROJECT MANAGER	APPROVED	DATE