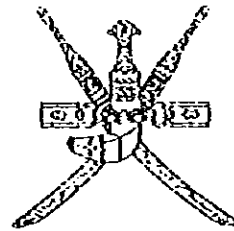




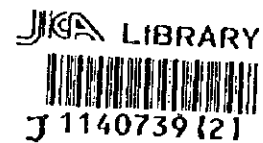
SULTANATE OF OMAN
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF ROADS



CONSTRUCTION OF PEDESTRIAN UNDERPASS
AT
AL BILLAH
BATINAH HIGHWAY

TENDER DOCUMENT

DRAWINGS



PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

March, 1997

SSF
CR(5)
97-015

DRAWING SCHEDULE
(PU2-AL BILLAH PEDESTRIAN UNDERPASS)

SHEET NO.	DRAWING TITLE
G	
GENERAL	
G - 1	Drawing Schedule
P	
PEDESTRIAN UNDERPASS	
P - 1	General View (1)
P - 2	General View (2)
P - 3	General View (3)
P - 4	Re-bar Arrangement (1)
P - 5	Re-bar Arrangement (2)
P - 6	Re-bar Arrangement (3)
P - 7	Re-bar Arrangement (4)
P - 8	Re-bar Arrangement (5)
P - 9	Re-bar Arrangement (6)
P - 10	Re-bar Arrangement (7)
P - 11	Re-bar Arrangement (8)
P - 12	Re-bar Arrangement (9)
P - 13	Re-bar Arrangement (10)
T	
TEMPORARY WORKS	
T - 1	Construction Sequence
T - 2	Detour Layout

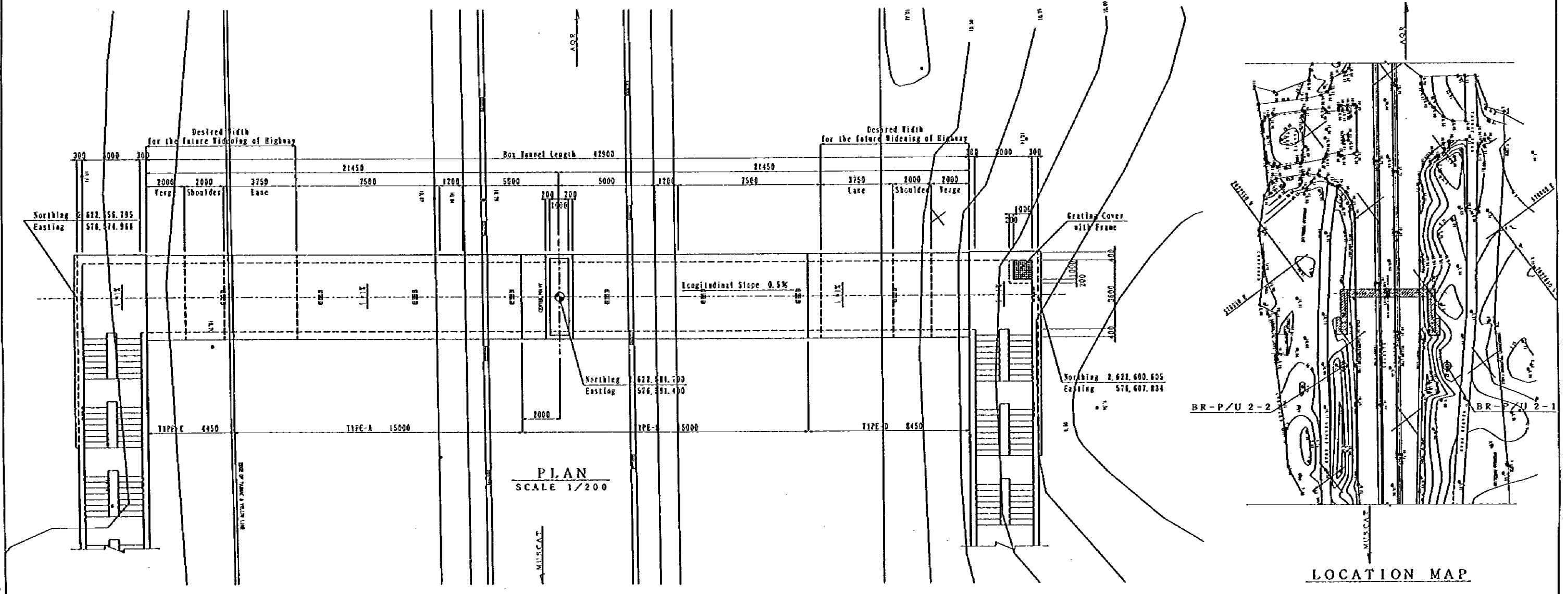
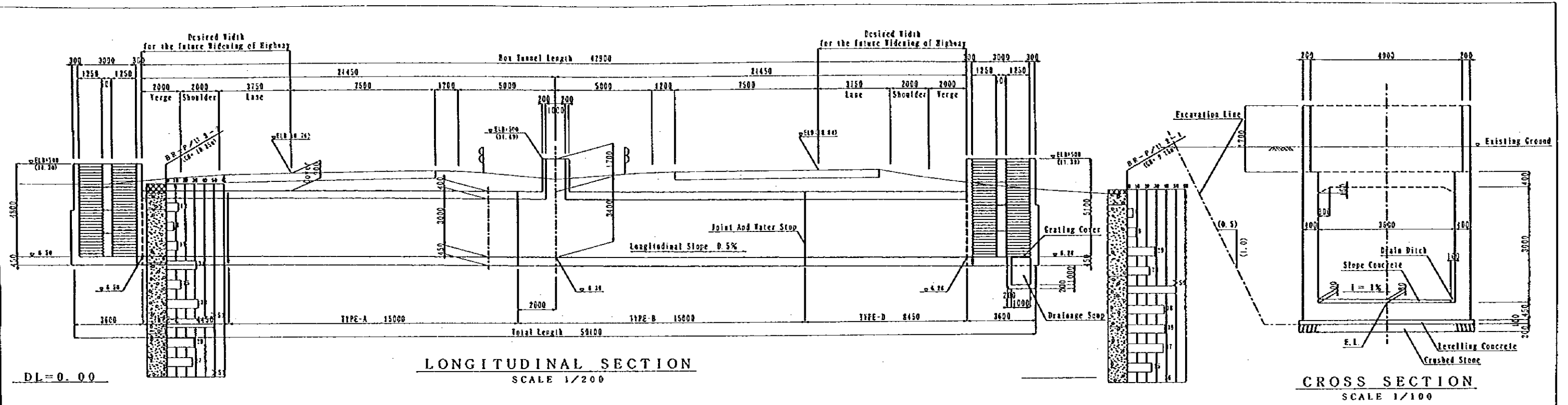
NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : PU-2, AL BILLAH DRAWING SCHEDULE
DATE : _____ DWG NO. G-1

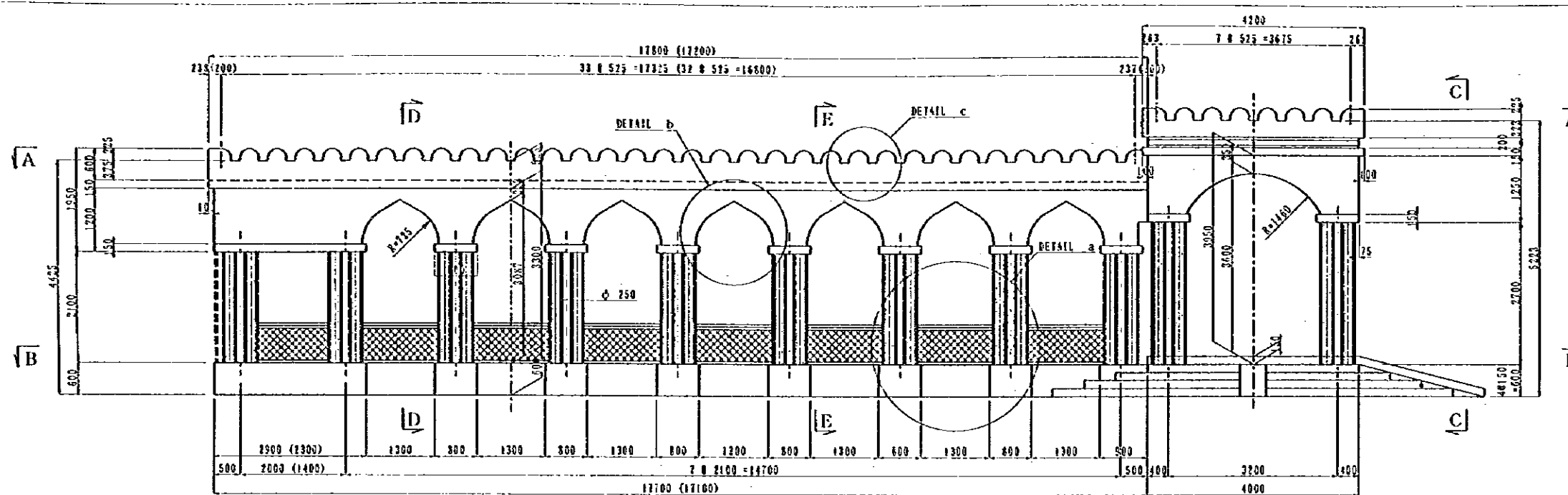


1140739 (2)

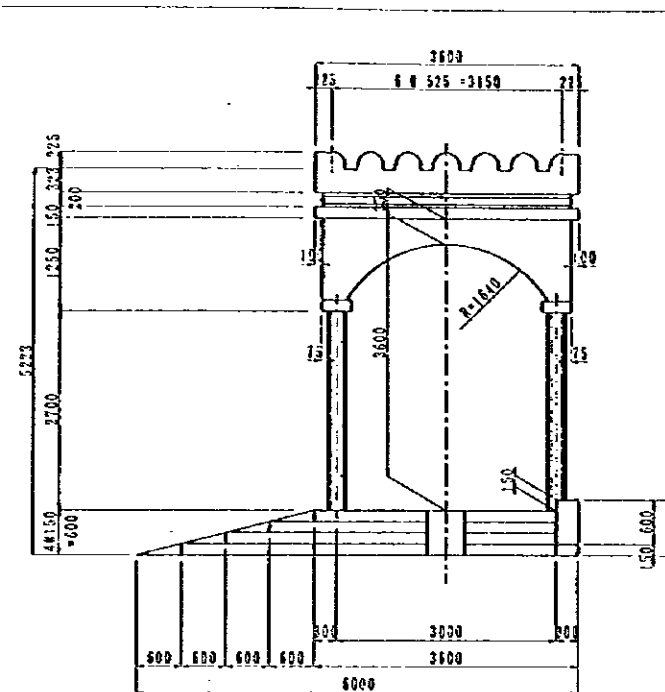


NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
	PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
JICA STUDY TEAM PACIFIC CONSULTANTS INTERNATIONAL FUJIKAWA CONSULTANTS INTERNATIONAL	TITLE : P/U-2, AL BILLAH GENERAL VIEW (1)
DATE	DWG NO. P-1

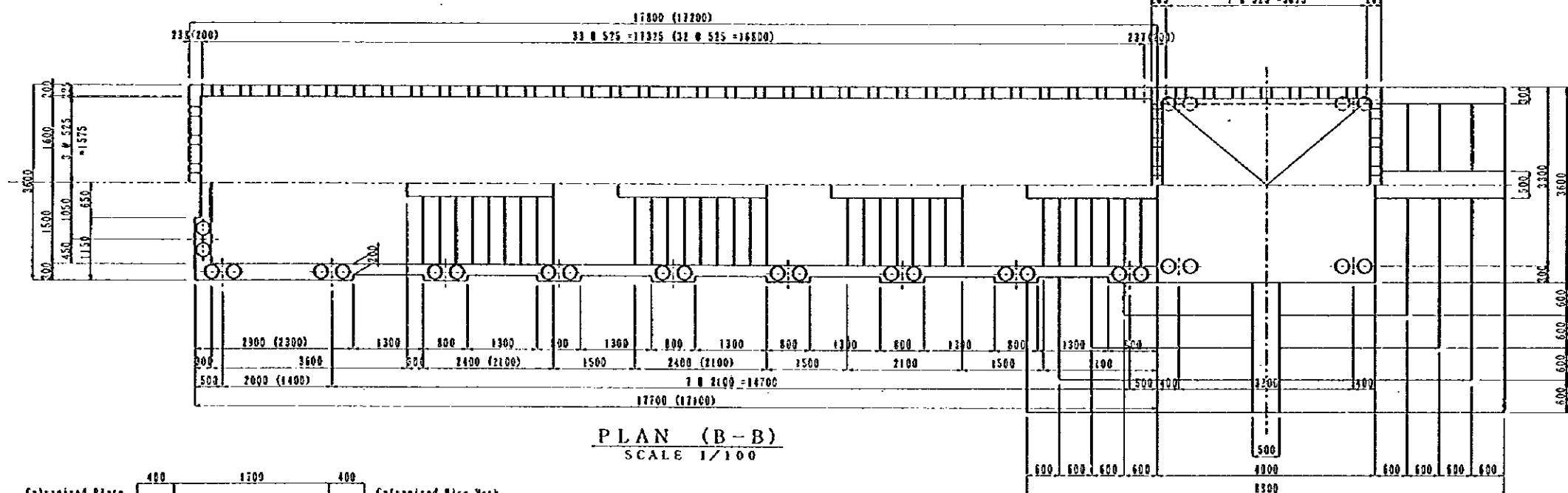


PROFILE OF CANOPY
SCALE 1/100

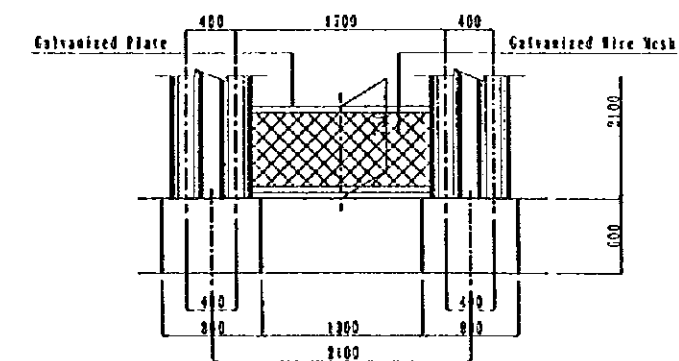


ENTRANCE (C-C)
SCALE 1/100

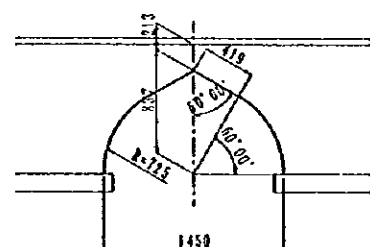
PLAN (A-A)
SCALE 1/100



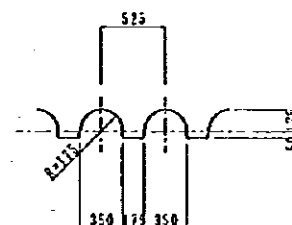
PLAN (B-B)
SCALE 1/100



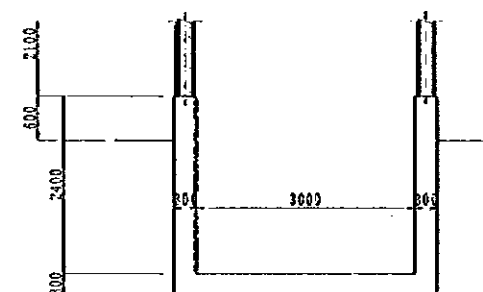
DETAIL a
SCALE 1/60



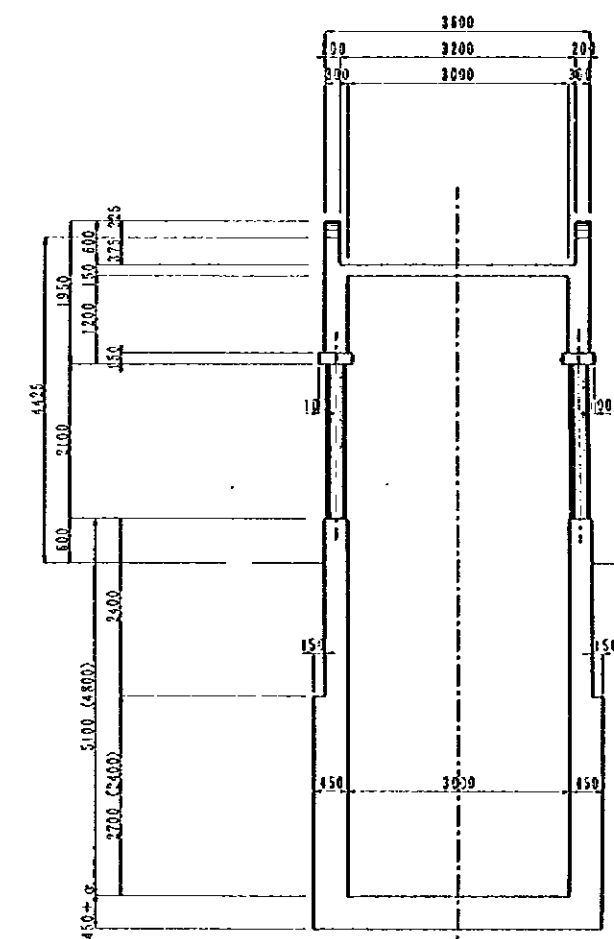
DETAIL b
SCALE 1/60



DETAIL c
SCALE 1/60



CROSS SECTION E-E
SCALE 1/100



CROSS SECTION D-D
SCALE 1/100

NOTES: Dimensions of () value are for inland stair.

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

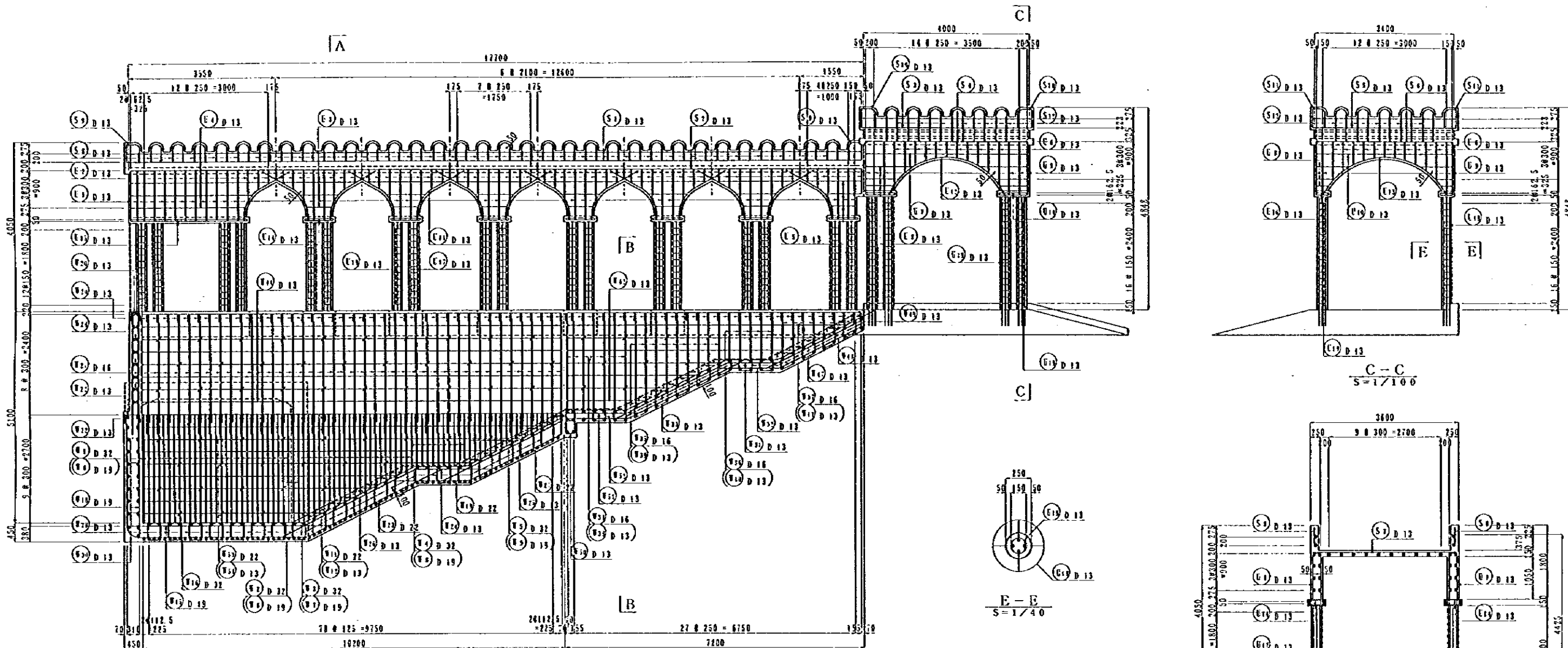
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

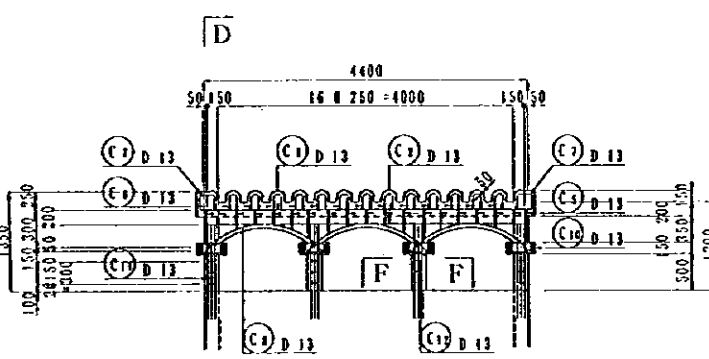
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE : P/U-2, AL BILLAH GENERAL VIEW (3)

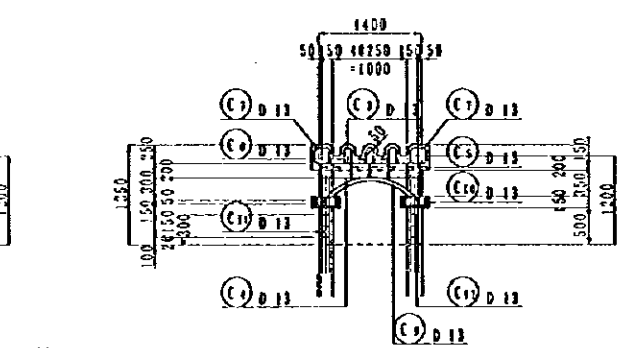
DATE : _____ DWG NO. P-3



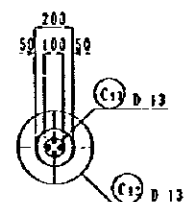
A
SIDE VIEW
S=1/100



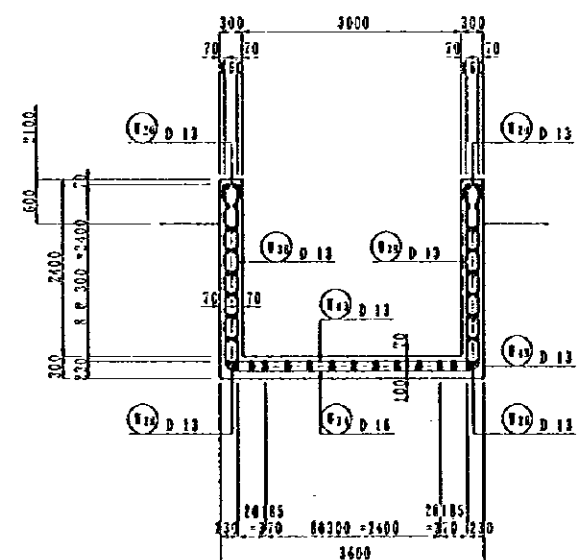
D
CANOPY ON LIGHT
S=1/100



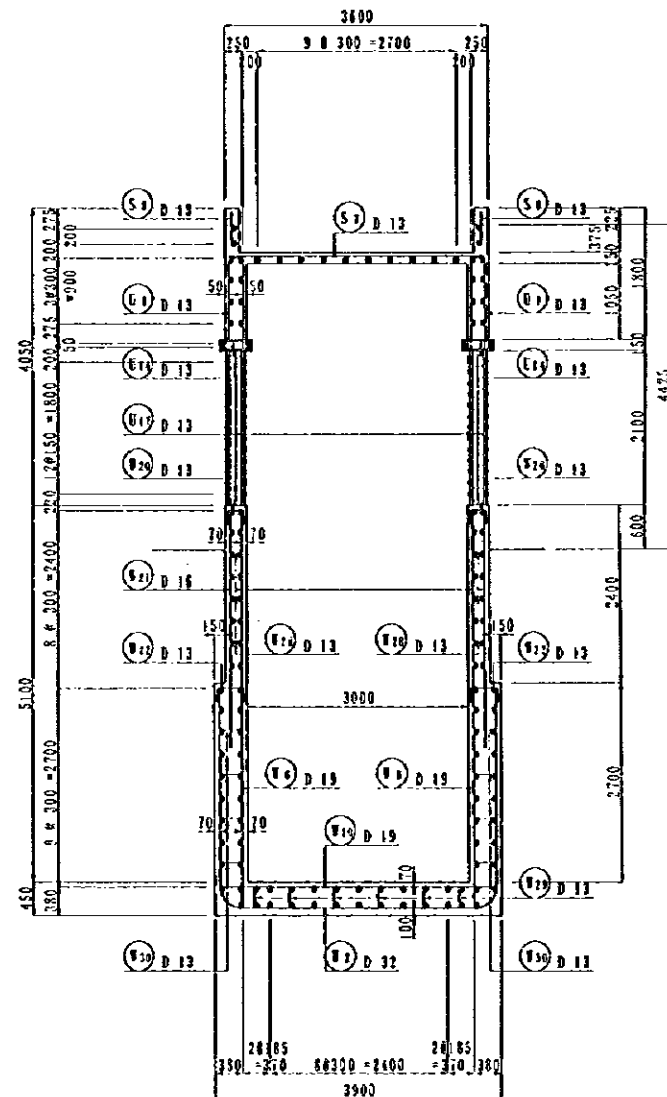
D-D
S=1/100



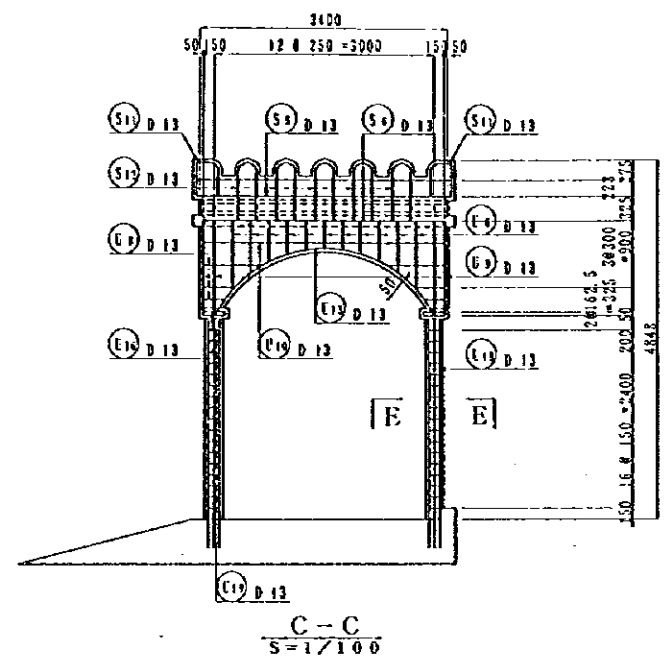
F-F
S=1/40



B-B
S=1/100



A-A
S=1/100

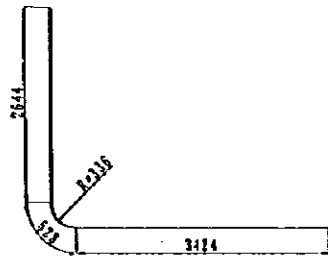


C-C
S=1/100

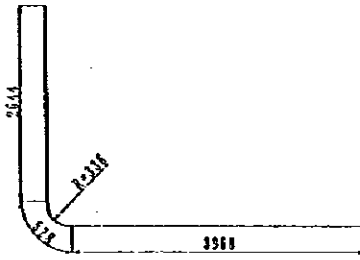
NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
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PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

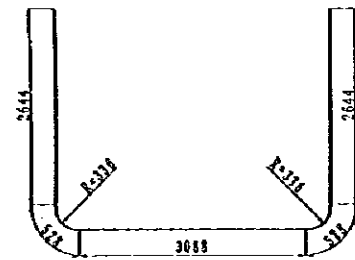
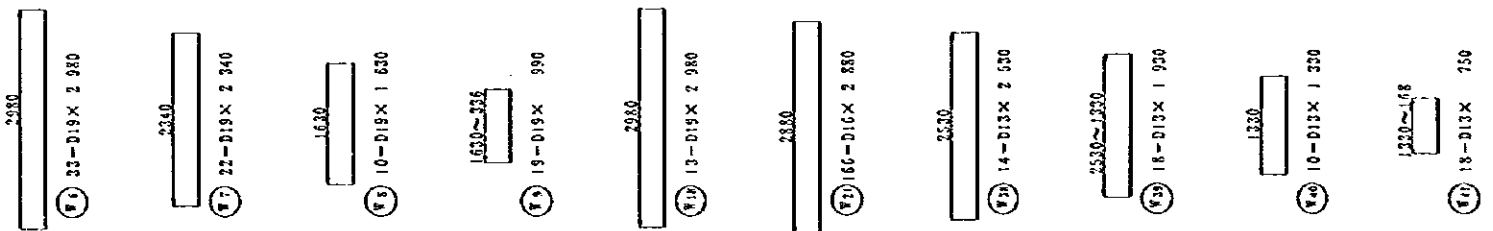
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : P/U-2, AL-BILLAH RE-BAR ARRANGEMENT (1)
DATE : _____ DWG NO. P-4



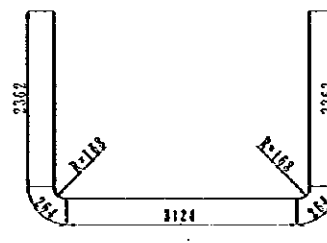
(E1) 29-D32 x 6 600



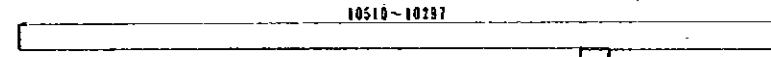
(E16) 30-D32 x 7 140



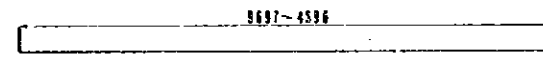
(E2) 2-D32 x 9 440



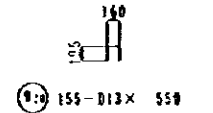
(E3) 7-D16 x 8 350



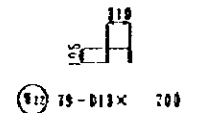
(E1) 3-D22 x (10 450+660) (860)(350)
(E12) 3-D13 x (10 450+390)



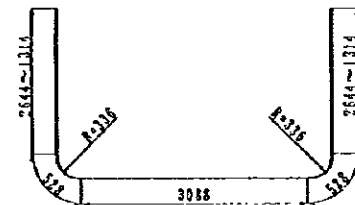
(E12) 7-D22 x 7 300
(E12) 7-D13 x 7 300



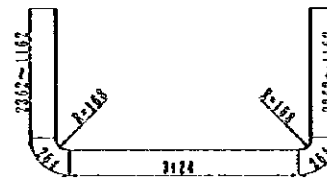
(E10) 156-D13 x 550



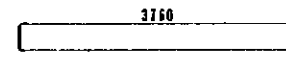
(E12) 79-D13 x 700



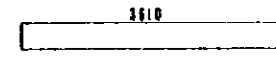
(E1) 22-D32 x 8 110



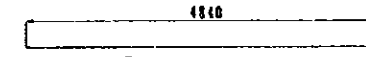
(E2) 9-D16 x 7 180



(E10) 41-D19 x 3 760



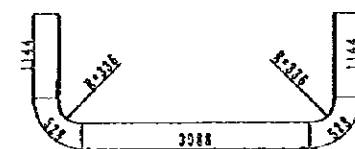
(E12) 10-D22 x 3 610
(E12) 11-D13 x 3 610



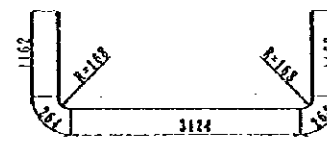
(E12) 15-D19 x 4 860



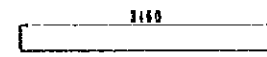
(E12) 71-D13 x 420



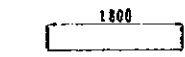
(E4) 10-D32 x 6 410



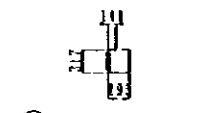
(E30) 5-D16 x 5 980



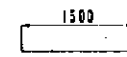
(E11) 16-D13 x 3 160



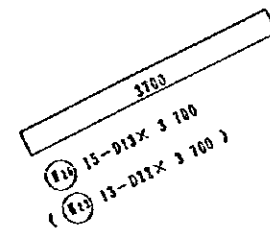
(E12) 15-D13 x 1 800
(E12) 13-D22 x 1 800



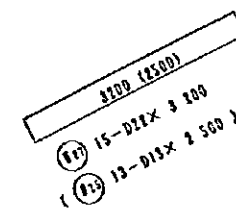
(E12) 117-D13 x 1 100



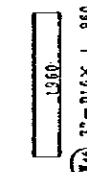
(E12) 15-D13 x 1 500
(E12) 13-D13 x 1 500



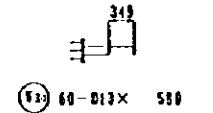
(E12) 15-D13 x 3 700
(E12) 13-D13 x 3 700



(E12) 15-D22 x 3 700
(E12) 13-D13 x 3 500



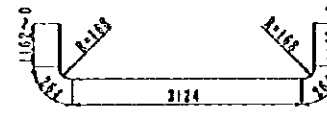
(E14) 32-D16 x 1 960



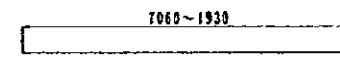
(E12) 60-D13 x 580



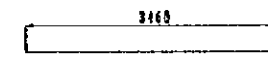
(E5) 18-D32 x 5 250



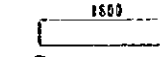
(E12) 8-D16 x 4 820



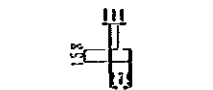
(E12) 32-D13 x 4 500



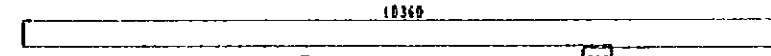
(E12) 30-D13 x 3 160



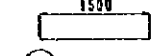
(E12) 15-D13 x 1 800



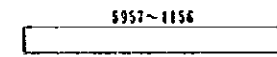
(E12) 78-D13 x 820



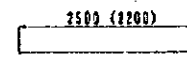
(E12) 30-D13 x (10 360+350) (350)



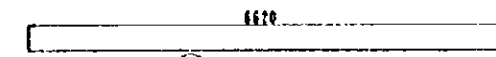
(E12) 13-D13 x 1 500



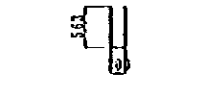
(E12) 7-D22 x 3 500
(E12) 7-D13 x 3 500



(E12) 15-D13 x 1 500
(E12) 13-D13 x 1 200



(E12) 2-D13 x 6 620



(E12) 15-D13 x 1 300

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

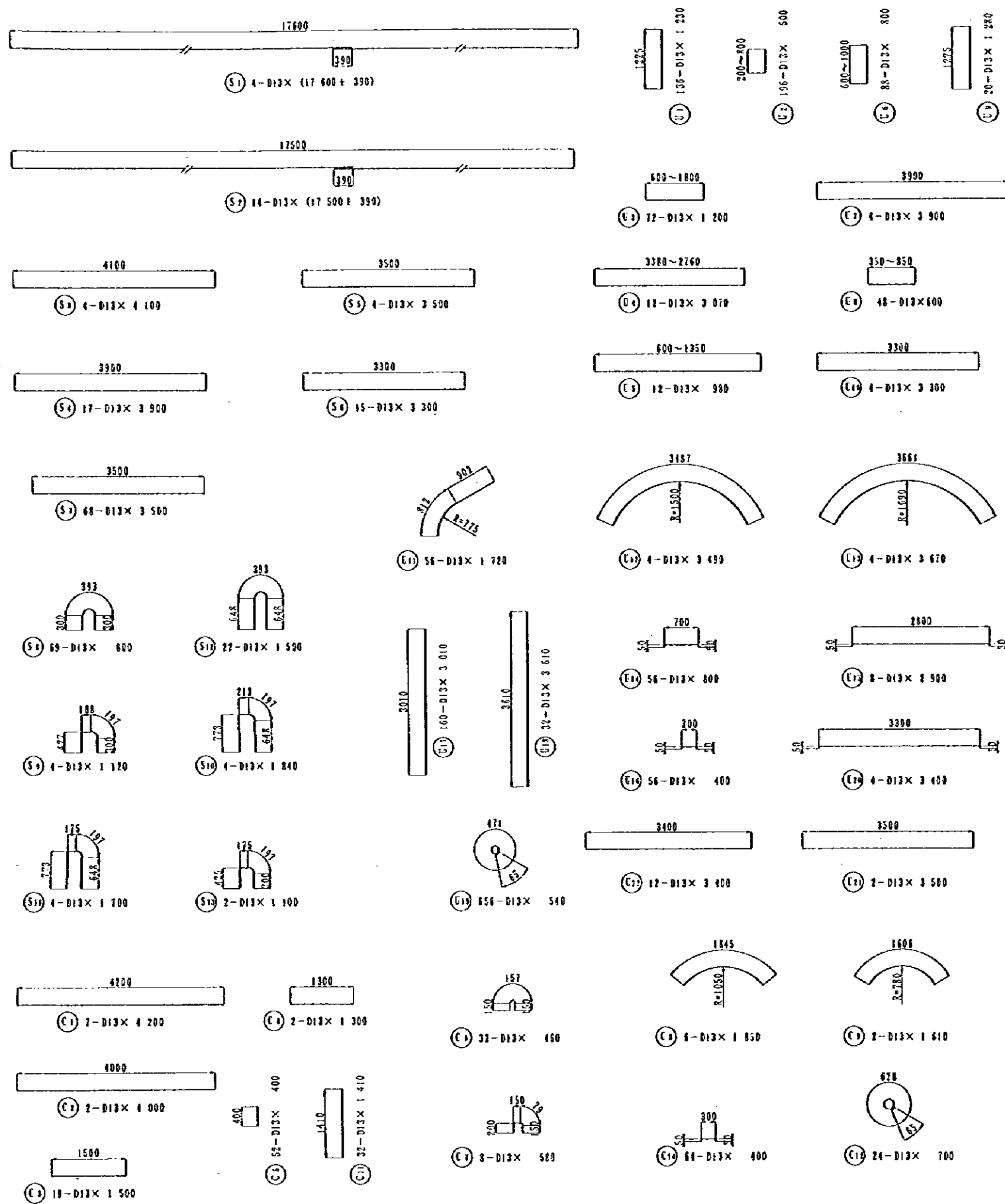
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAR HIGHWAY

TITLE : P/U-2, AL BILLAH RE-BAR ARRANGEMENT (2)

DATE

DWC NO. P-5



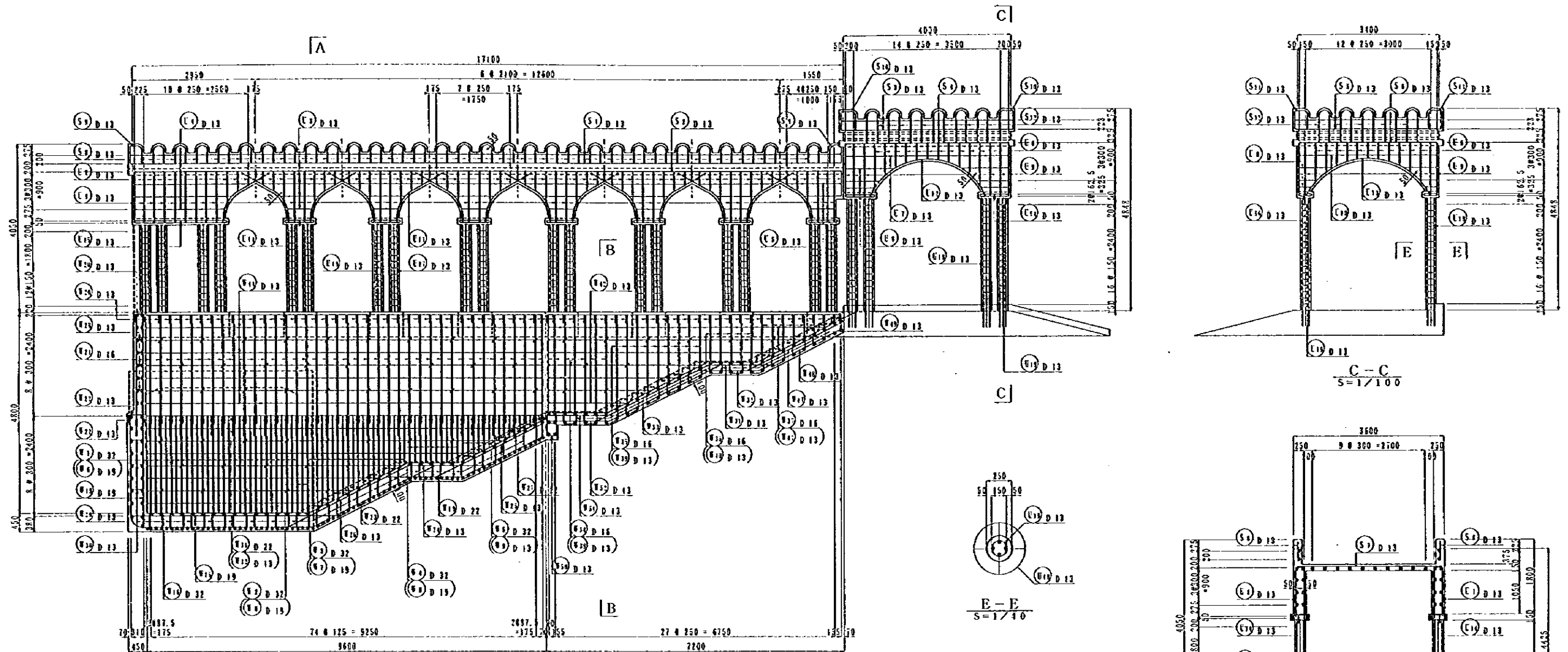
REIN NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	NO.	U WEIGHT	WEIGHT	REMARKS
S 1	D 13	6 600	6.403	29	47.260	1225.5	
2	"	9 440	"	2	60.444	120.9	
3	"	8 110	"	22	51.928	1142.4	"
4	"	6 410	"	10	41.235	412.4	"
5	"	5 290	"	19	33.872	643.6	"
6	D 19	2 980	2.235	33	6.660	219.8	
7	"	2 340	"	22	5.230	115.1	"
8	"	1 630	"	10	3.643	36.4	"
9	"	930	"	19	2.213	42.0	"
10	"	3 700	"	41	8.270	339.1	"
11	D 22	11 070	3.042	3	33.473	101.0	"
12	D 13	10 800	0.994	3	10.235	32.2	"
13	D 22	3 610	3.042	10	10.302	109.8	"
14	D 13	3 610	0.994	11	3.589	39.5	"
15	"	4 840	"	15	4.811	72.2	"
16	D 32	7 410	6.403	30	47.446	1423.4	
17	D 13	3 440	0.994	18	3.439	55.0	"
18	D 19	2 980	2.235	13	6.660	86.6	
19	D 22	1 800	3.042	13	5.476	71.2	"
20	D 13	550	0.994	155	0.547	84.8	
21	D 16	2 880	1.552	168	4.470	742.0	
22	D 13	700	0.994	75	0.696	55.0	
23	D 22	3 700	3.042	13	11.255	146.3	
24	D 13	1 800	0.994	15	1.289	26.8	"
25	"	2 500	"	13	2.485	32.3	"
26	"	3 700	"	15	3.476	55.2	"
27	D 22	3 200	3.042	15	9.724	146.0	"
28	D 13	420	0.994	31	0.417	37.9	"
29	"	1 160	"	117	1.152	134.9	
30	"	580	"	60	0.577	34.6	
31	"	1 500	"	15	1.491	22.4	"
32	"	1 500	"	13	1.491	19.4	"
33	"	3 560	"	7	3.539	24.8	"
34	D 16	8 380	1.552	7	13.096	91.0	
35	"	2 180	"	7	11.143	78.0	"
36	"	5 980	"	5	9.281	46.4	"
37	"	4 820	"	9	7.481	67.3	"
38	D 13	2 530	0.994	14	2.515	35.2	
39	"	1 330	"	10	1.322	13.2	"
40	"	750	"	18	0.746	13.4	"
41	"	4 500	"	32	4.473	143.1	"
42	"	3 460	"	30	3.439	103.2	"
43	"	10 750	"	30	10.666	320.8	"
44	"	3 560	"	7	3.539	24.8	"
45	"	3 560	"	7	3.539	24.8	"
46	D 16	1 560	1.552	32	3.042	97.3	
47	D 13	2 500	0.994	15	2.485	37.9	"
48	"	2 200	"	13	2.187	28.4	"
49	"	820	"	68	0.615	55.4	
50	"	1 330	"	15	1.322	19.8	
51	"	1 800	"	15	1.789	26.8	"
52	"	1 500	"	13	1.491	19.4	"
53	D 22	7 300	3.042	7	29.207	155.4	"
54	D 13	7 300	0.994	7	7.256	50.8	"
55	"	6 820	"	2	6.580	13.2	"
9375.0							

REIN NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	NO.	U WEIGHT	WEIGHT	REMARKS
S 1	D 13	17 930	0.994	4	17.682	71.5	"
2	"	17 630	"	14	17.783	249.0	"
3	"	4 100	"	4	4.075	16.3	"
4	"	3 900	"	17	3.977	65.9	"
5	"	3 500	"	4	3.479	13.9	"
6	"	3 300	"	15	3.280	49.2	"
7	"	3 500	"	69	3.479	238.6	"
8	"	800	"	69	0.795	54.9	"
9	"	1 080	"	4	1.074	4.3	"
10	"	1 840	"	4	1.829	7.3	"
11	"	1 700	"	4	1.690	6.8	"
12	"	1 500	"	22	1.491	32.8	"
13	"	1 100	"	2	1.093	2.2	"
810.7							
U 1	D 13	1 230	0.994	138	1.223	166.3	
2	"	500	"	198	0.497	97.4	"
3	"	1 200	"	72	1.193	85.9	"
4	"	3 070	"	12	3.052	36.6	"
5	"	980	"	12	0.974	11.7	"
6	"	800	"	88	0.795	70.0	
7	"	3 900	"	4	3.877	15.5	"
8	"	600	"	48	0.596	28.6	"
9	"	1 240	"	70	1.222	25.4	"
10	"	3 300	"	4	3.280	12.1	"
11	"	1 720	"	56	1.710	95.8	"
12	"	3 430	"	4	3.469	13.9	"
13	"	3 670	"	4	3.648	14.6	"
14	"	800	"	56	0.795	44.5	"
15	"	2 900	"	8	2.883	23.1	"
16	"	400	"	56	0.398	22.3	"
17	"	3 010	"	160	2.992	478.7	
18	"	3 610	"	32	3.588	114.8	"
19	"	540	"	656	0.537	352.3	"
20	"	3 400	"	4	3.380	13.5	"
21	"	3 500	"	2	3.479	7.0	"
22	"	3 400	"	12	3.380	40.6	"
1777.6							
C 1	D 13	4 200	0.994	7	4.175	29.2	"
2	"	4 000	"	2	3.976	8.0	"
3	"	1 500	"	19	1.491	28.3	"
4	"	1 300	"	2	1.292	2.6	"
5	"	400	"	52	0.398	20.7	
6	"	460	"	32	0.457	14.6	"
7	"	580	"	8	0.577	4.6	"
8	"	1 850	"	6	1.839	11.0	"
9	"	1 610	"	2	1.600	3.2	"
10	"	490	"	61	0.398	25.5	"
11	"	1 410	"	32	1.402	44.9	
12	"	700	"	24	0.696	16.7	"
203.3							
					D 32	4968.2	
					D 22	729.7	
					D 19	833.0	
					D 16	1112.0	
					D 13	6457.7	
TOTAL WEIGHT						12116.6	

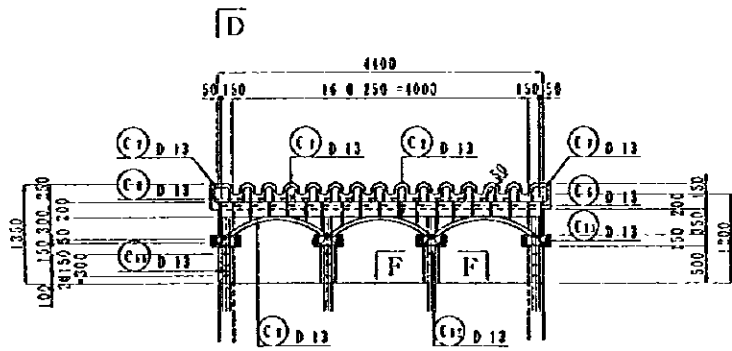
NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 JICA STUDY TEAM
 PACIFIC CONSULTANTS INTERNATIONAL
 FURUYAMA CONSULTANTS INTERNATIONAL

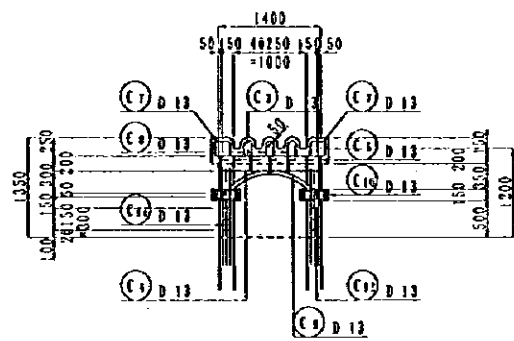
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
 PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
 TITLE : P/U-2, AL BILLAH RE-BAR ARRANGEMENT (3)
 DATE : _____ DWG NO. P-6



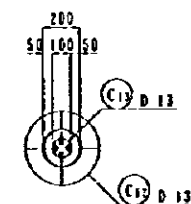
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S=1/100



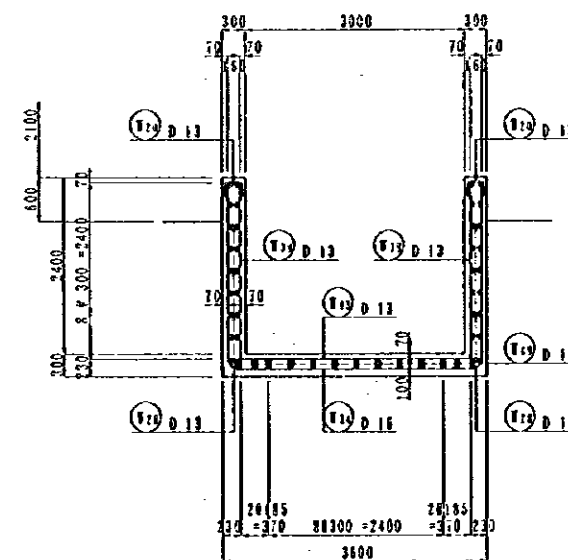
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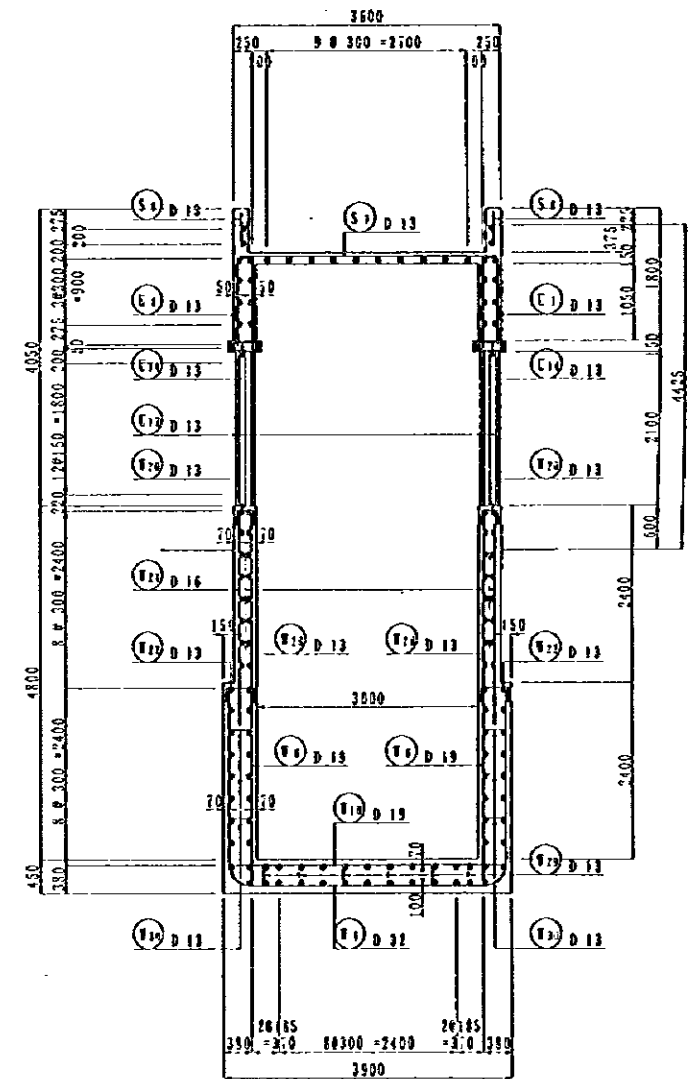
D-D
S=1/100



F-F
S=1/40



B-B
S=1/100

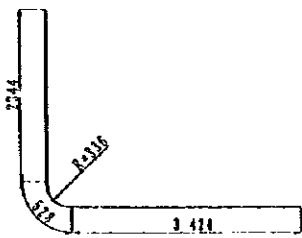


A-A
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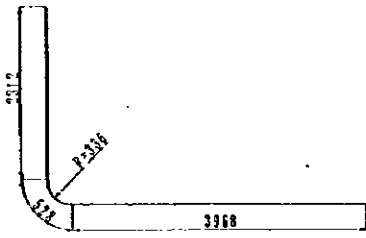
NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
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JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUJUKAWA CONSULTANTS INTERNATIONAL

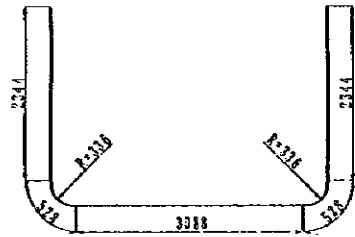
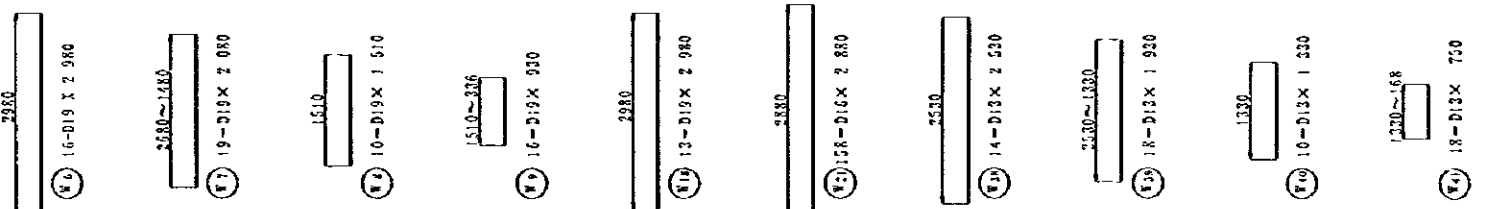
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PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : P/U-2, AL BILLAH RE-BAR ARRANGEMENT (4)
DATE : DTG NO. P-7



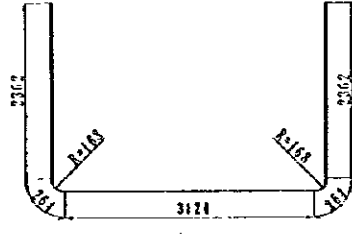
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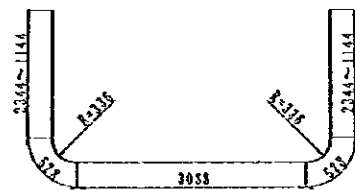
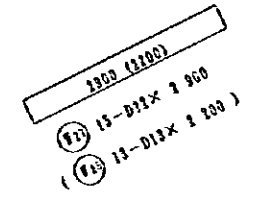
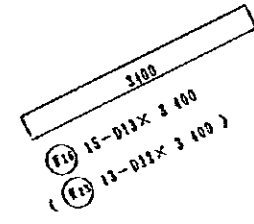
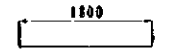
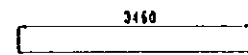
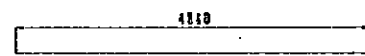
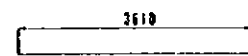
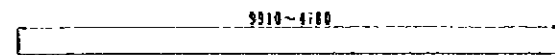
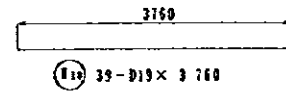
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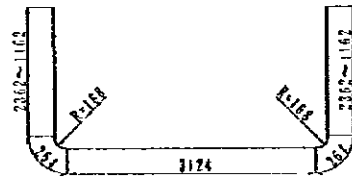
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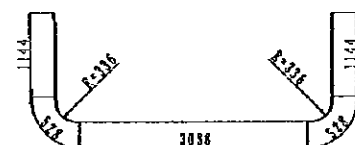
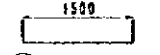
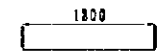
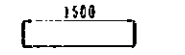
7-D16 x 8 380



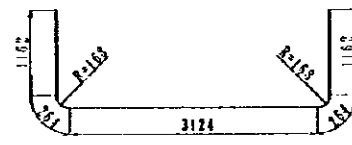
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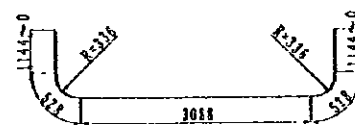
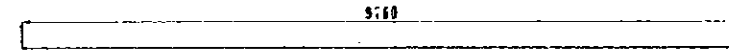
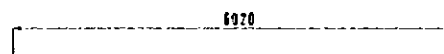
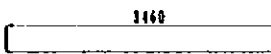
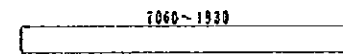
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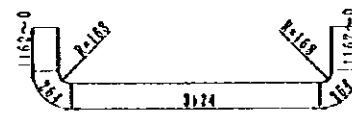
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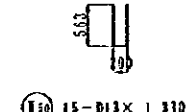
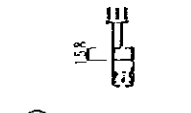
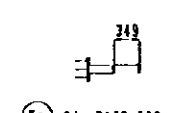
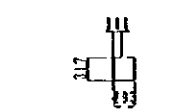
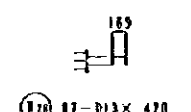
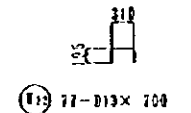
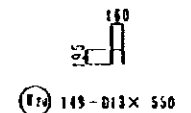
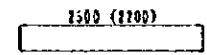
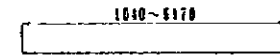
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16-D32 x 5 250

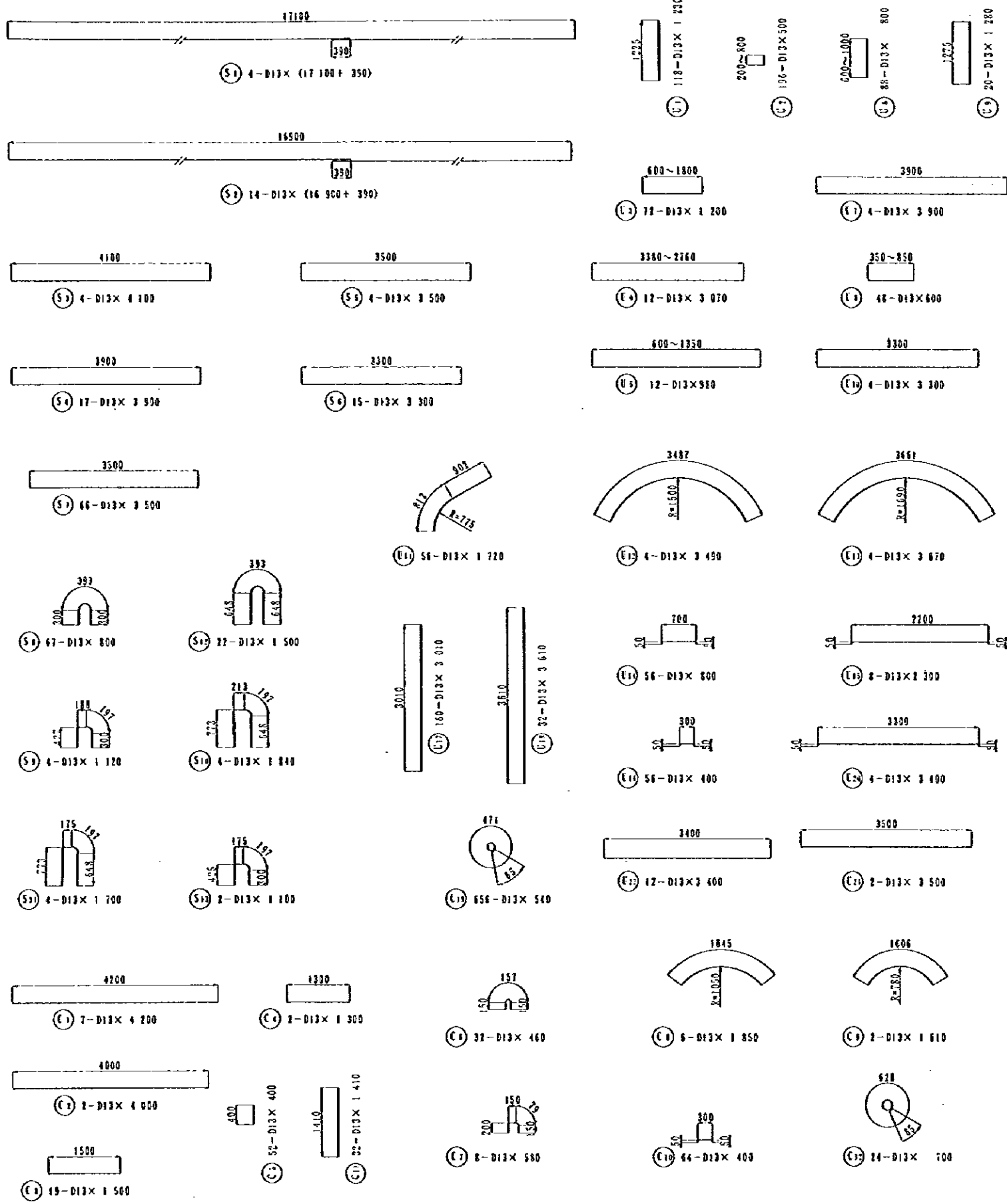


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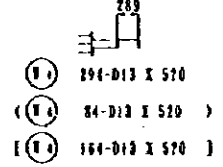
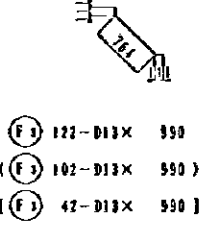
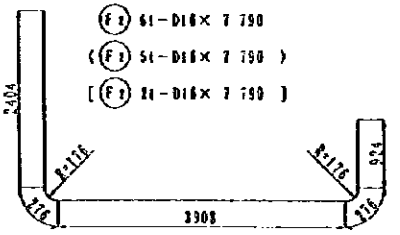
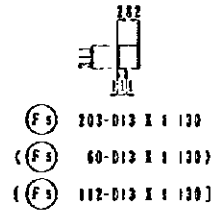
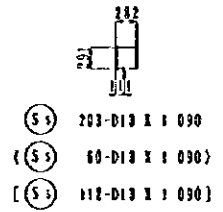
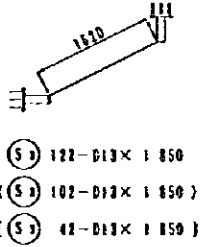
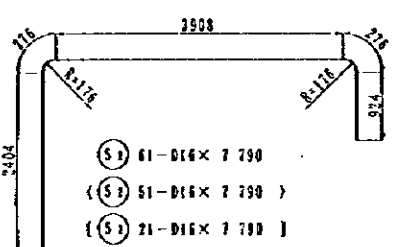
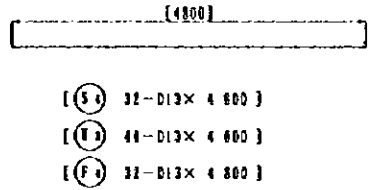
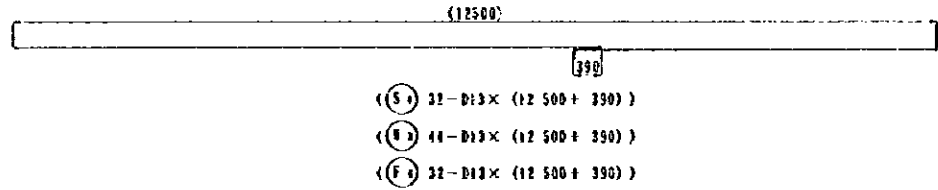
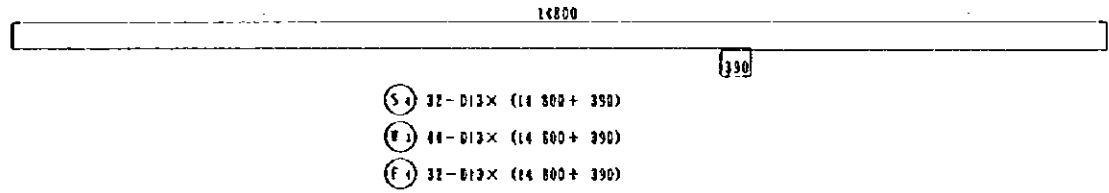
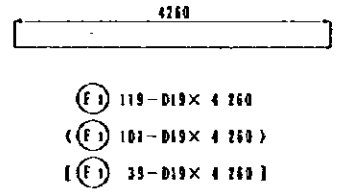
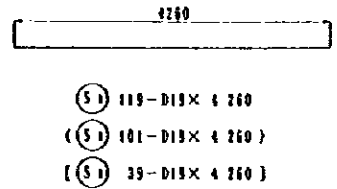
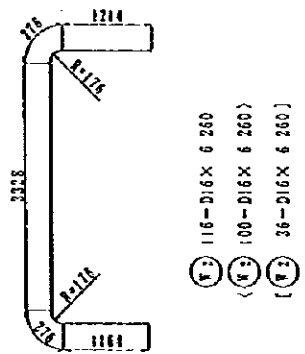
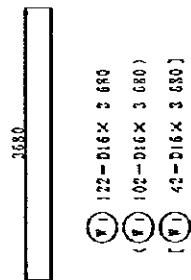
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JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
JICA STUDY TEAM PACIFIC CONSULTANTS INTERNATIONAL FLKYAMA CONSULTANTS INTERNATIONAL	PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
	TITLE : P/U-2, AL BILLAH RE-BAR ARRANGEMENT (5)
	DATE : _____ DWG NO. P-8



REIN NO.	Ø (mm)	LENGTH (mm)	VOLUMETRIC WEIGHT	NLMB	E WEIGHT	WEIGHT	REMARKS
1	D 13	6 300	0.403	29	40.339	1169.0	┌
2	"	8 640	"	2	56.603	483.2	└
3	"	7 610	"	19	48.727	925.8	//
4	"	6 440	"	10	41.235	412.4	//
5	"	5 290	"	16	33.878	542.0	//
6	D 19	2 950	2.235	16	6.690	106.8	
7	"	2 060	"	19	6.649	88.3	//
8	"	1 510	"	10	3.275	33.8	//
9	"	930	"	18	2.079	33.3	//
10	"	3 760	"	39	8.404	327.7	—
11	D 22	7 350	3.042	8	22.359	178.9	//
12	D 13	7 350	0.994	8	7.350	58.8	//
13	D 22	3 610	3.042	9	10.981	98.8	//
14	D 13	3 610	0.994	10	3.592	35.9	//
15	D 19	4 640	2.235	15	10.817	162.3	//
16	D 32	6 810	6.403	30	43.604	1308.1	┌
17	D 13	3 440	0.994	16	3.439	55.0	—
18	D 19	2 950	2.235	13	6.690	86.6	
19	D 22	1 800	3.042	13	5.476	71.2	—
20	D 13	550	0.994	149	0.547	81.5	└
21	D 16	2 880	1.552	158	4.470	706.2	└
22	D 13	700	0.994	77	0.696	59.1	└
23	D 22	3 400	3.042	13	3.678	131.5	//
24	D 13	1 800	0.994	15	4.023	60.3	—
25	"	2 260	"	13	2.187	28.4	//
26	"	3 400	"	15	3.383	50.7	//
27	D 22	2 900	3.042	15	8.822	132.3	//
28	D 13	420	0.994	89	0.418	37.2	└
29	"	1 168	"	114	1.153	121.4	└
30	"	550	"	34	0.577	19.6	└
31	"	1 500	"	15	1.491	22.4	//
32	"	1 500	"	13	1.491	19.4	//
33	"	3 610	"	8	3.588	28.7	└
34	D 16	8 320	1.552	7	13.006	91.0	└
35	"	7 180	"	9	11.143	100.3	—
36	"	5 990	"	5	9.281	46.4	—
37	"	4 870	"	9	7.481	67.3	—
38	D 13	2 530	0.994	14	2.515	35.2	
39	"	1 930	"	18	1.918	34.5	—
40	"	1 330	"	19	1.322	13.2	—
41	"	750	"	18	0.748	13.4	—
42	"	4 500	"	32	4.473	143.1	—
43	"	3 440	"	29	3.439	99.7	—
44	"	9 740	"	23	9.701	271.6	—
45	D 22	3 610	3.042	8	10.982	87.9	—
46	D 16	1 660	1.552	32	2.576	82.4	
47	D 13	2 500	0.994	15	2.485	37.3	—
48	"	2 200	"	13	2.187	28.4	—
49	"	820	"	78	0.815	63.6	└
50	"	1 330	"	15	1.322	19.8	└
51	"	1 800	"	15	1.783	26.8	—
52	"	1 500	"	13	1.491	19.4	—
2 254.4							

REIN NO.	Ø (mm)	LENGTH (mm)	VOLUMETRIC WEIGHT	NLMB	E WEIGHT	WEIGHT	REMARKS
5	D 13	17 490	0.994	4	17.385	69.5	—
2	"	17 290	"	14	17.188	240.6	—
3	"	4 100	"	4	4.075	16.3	—
4	"	3 900	"	11	3.877	65.9	//
5	"	3 500	"	4	3.479	13.9	//
6	"	3 300	"	15	3.280	49.2	//
7	"	3 500	"	68	3.479	235.6	//
8	"	600	"	67	0.755	53.3	└
9	"	1 120	"	4	1.113	4.5	└
10	"	1 840	"	4	1.819	7.3	—
11	"	1 700	"	4	1.690	6.8	—
12	"	1 500	"	22	1.491	32.8	—
13	"	1 100	"	2	1.033	2.2	└
791.9							
E 1	D 13	1 230	0.994	118	1.223	144.3	
2	"	500	"	196	0.437	87.4	//
3	"	1 200	"	72	1.193	85.9	—
4	"	3 070	"	12	3.052	36.6	//
5	"	950	"	12	0.974	11.2	//
6	"	800	"	88	0.795	70.0	
7	"	3 900	"	4	3.877	15.5	—
8	"	600	"	34	0.596	20.3	//
9	"	1 260	"	20	1.272	25.4	//
10	"	3 300	"	4	3.280	13.1	//
11	"	1 720	"	56	1.710	95.2	└
12	"	3 430	"	4	3.469	13.9	—
13	"	3 670	"	4	3.648	16.6	//
14	"	800	"	55	0.795	44.5	└
15	"	2 300	"	3	2.256	18.3	//
16	"	400	"	56	0.398	22.3	└
17	"	3 010	"	160	2.992	478.2	
18	"	3 610	"	32	3.588	114.8	└
19	"	560	"	156	0.537	352.1	○
20	"	3 100	"	4	3.350	12.5	—
21	"	3 500	"	2	3.479	7.0	—
22	"	3 400	"	12	3.350	40.6	//
1 736.2							
C 1	D 13	4 200	0.994	7	4.175	29.2	—
2	"	4 000	"	2	3.976	8.0	//
3	"	1 500	"	19	1.491	28.3	//
4	"	1 300	"	2	1.292	2.6	
5	"	400	"	52	0.398	20.7	
6	"	450	"	32	0.457	14.6	└
7	"	500	"	8	0.577	4.6	└
8	"	1 850	"	6	1.839	11.0	—
9	"	1 610	"	2	1.600	3.2	//
10	"	400	"	64	0.398	25.4	└
11	"	1 410	"	32	1.402	44.9	//
12	"	700	"	24	0.696	16.7	○
263.1							
D 32 4 471.3							
D 22 203.6							
D 19 838.6							
D 16 1 693.6							
D 13 4 192.6							
TOTAL WEIGHT 11 299.7							

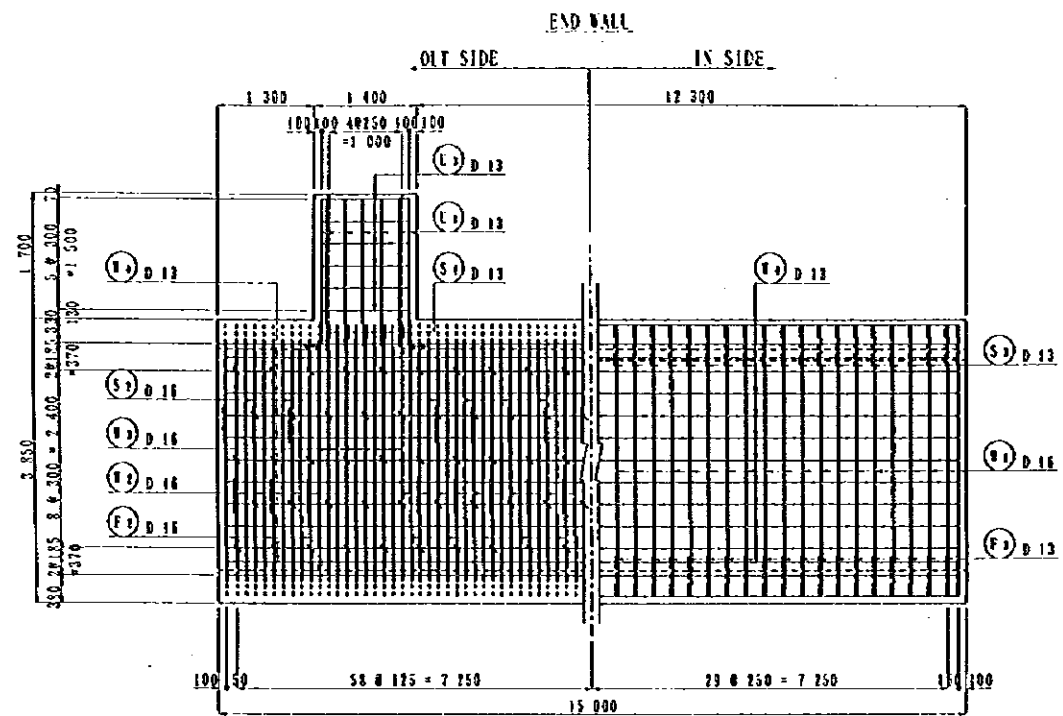


REIN. NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	NUMB	L. WEIGHT	WEIGHT	REMARKS
TYPE-A							
S 1	D 19	4 260	2.235	119	9.521	1133.0	
2	D 16	7 790	1.552	61	12.090	737.5	
3	D 13	1 850	0.994	122	1.835	224.4	
4	"	15 190	"	32	15.099	483.2	
5	"	1 090	"	203	1.083	219.9	
							8139.9
TYPE-B							
M 1	D 16	8 680	1.552	122	5.211	636.7	
2	"	6 260	"	116	9.716	1127.1	
3	D 13	15 190	0.994	44	15.099	664.4	
4	"	520	"	294	0.517	152.0	
TYPE-C							
S 1	D 19	4 260	2.235	35	9.521	333.2	
2	D 16	7 790	1.552	18	12.090	217.6	
3	D 13	1 850	0.994	36	1.835	66.2	
4	"	4 250	"	32	4.225	135.2	
5	"	1 130	"	60	1.123	67.4	
							2371.2
TYPE-D							
S 1	D 19	4 260	2.235	67	9.521	637.9	
2	D 16	7 790	1.552	34	12.090	411.1	
3	D 13	1 850	0.994	68	1.835	125.1	
4	"	8 250	"	32	8.201	262.4	
5	"	1 090	"	112	1.083	68.2	
							4517.1
							0 19 4208.2
							0 16 6121.7
							0 13 4718.3
TOTAL WEIGHT							15048.2

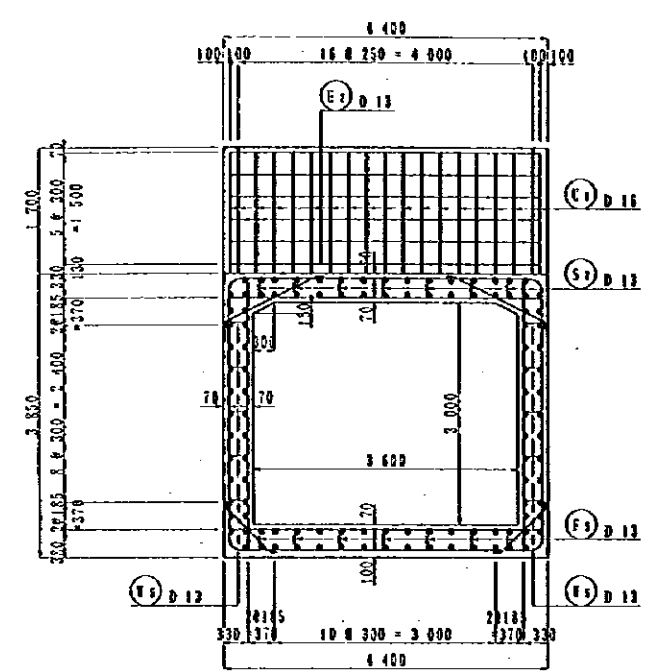
NOTES: () TYPE-C
[] TYPE-D

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

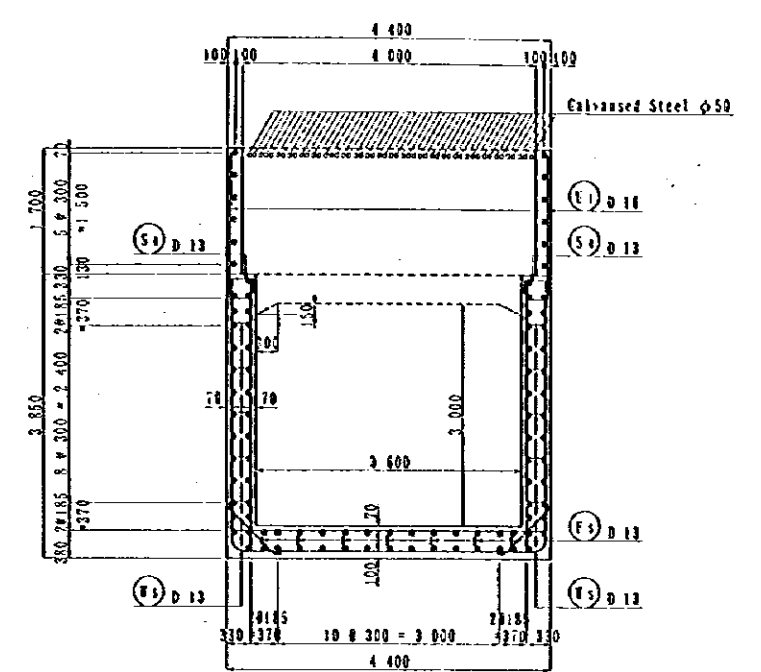
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : P/U-2, AL BILLAH RE-BAR ARRANGEMENT (8)
DATE : _____ DWG NO. P-11



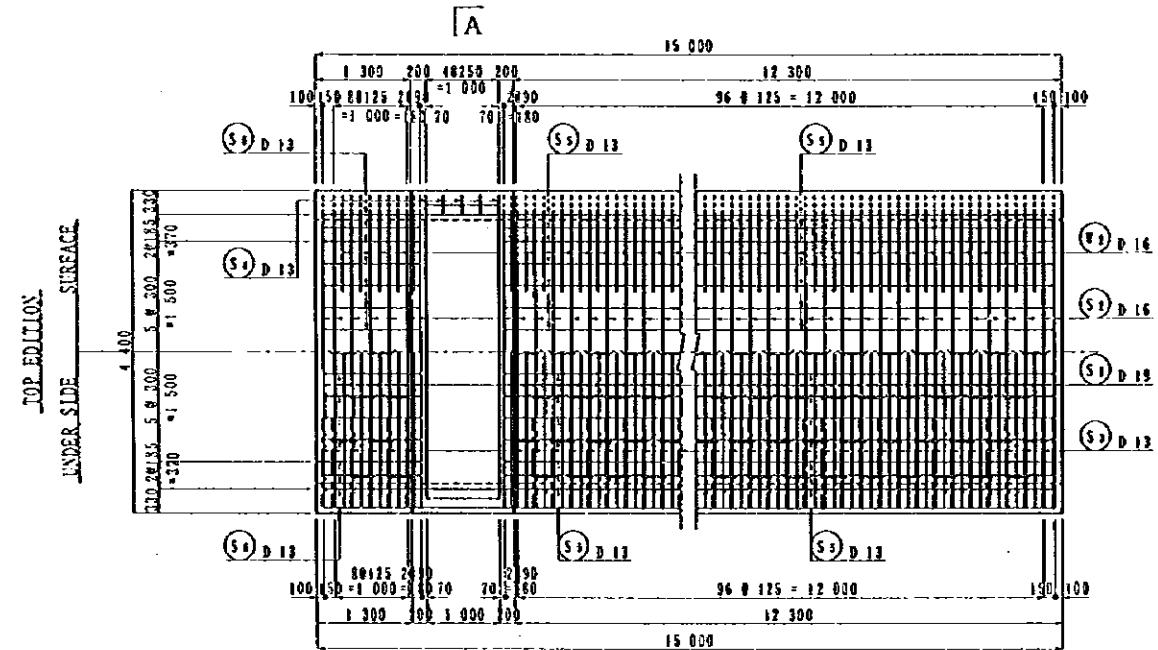
SIDE VIEW
S=1/100



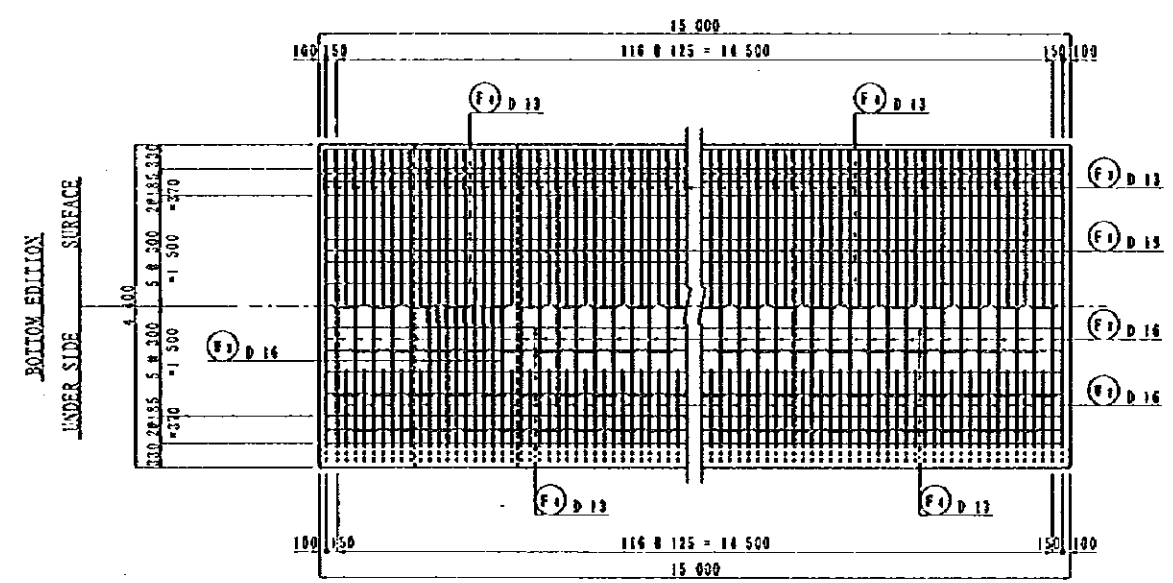
SECTION
S=1/100



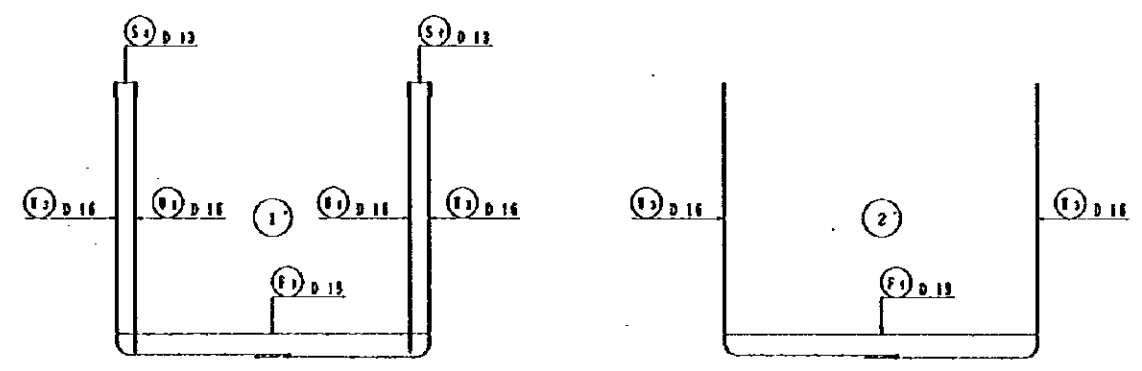
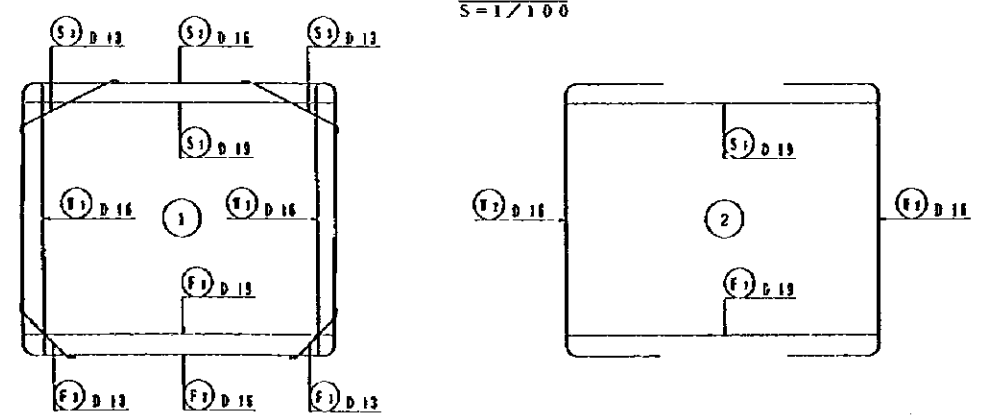
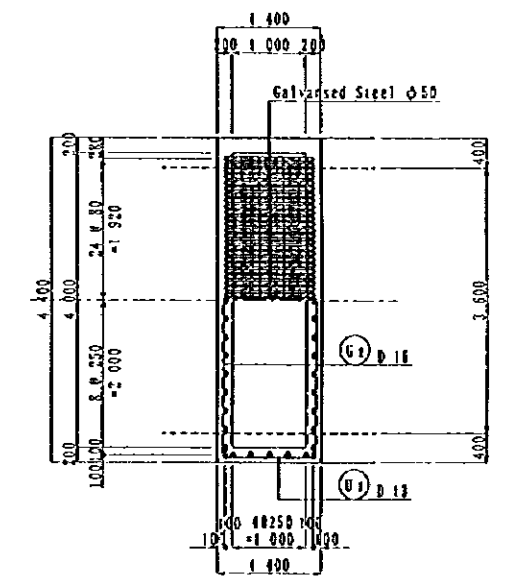
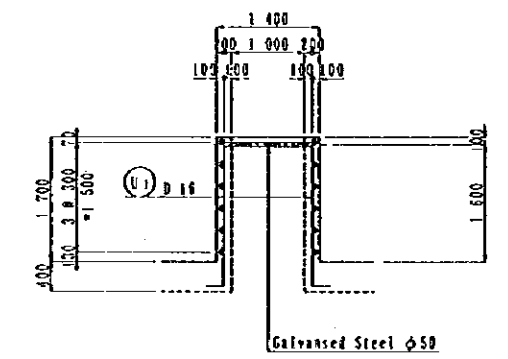
A-A
S=1/100



PLAN
S=1/100

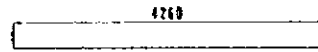
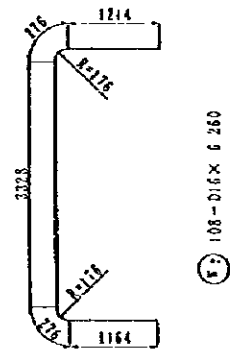
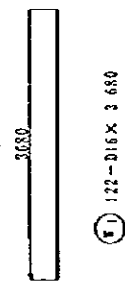


PLAN
S=1/100

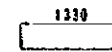


NOTES:

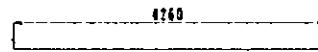
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	CLIENT :	MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
	PROJECT :	D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
JICA STUDY TEAM PACIFIC CONSULTANTS INTERNATIONAL FUJYAMA CONSULTANTS INTERNATIONAL	TITLE :	P/U-2, AL BILLAH RE-BAR ARRANGEMENT (9)
	DATE	DWG NO. P-12



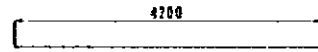
(S) 111-D19 x 4 260



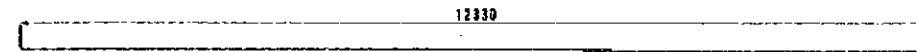
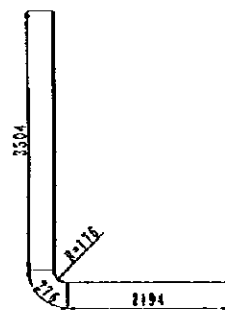
(S) 32-D13 x 1 330



(E) 119-D19 x 4 260

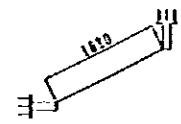


(E) 12-D13 x 4 200



(E) 44-D13 x (12 330 + 390)
 (F) 32-D13 x (12 330 + 390)
 (S) 32-D13 x (12 330 + 390)

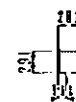
REIN. NO.	φ (mm)	LENGTH (mm)	NOMINAL WEIGHT	NO.	E WEIGHT	WEIGHT	REMARKS
TYPE - B							
S 1	D 19	4 260	2.235	111	9.555	1058.8	—
2	D 16	7 290	1.552	58	12.090	781.2	□
3	D 13	1 850	0.994	112	1.114	206.2	□
4	"	650	"	10	0.646	6.5	□
5	"	12 720	"	32	12.644	404.6	—
6	"	1 330	"	32	1.312	42.3	—
7	"	1 090	"	185	1.833	204.7	□
E 1	D 16	3 680	1.552	122	5.711	616.7	—
2	"	6 260	"	108	9.716	1049.3	—
3	"	5 980	"	18	9.281	167.1	—
4	D 13	12 720	0.994	44	12.644	556.3	—
5	"	520	"	294	0.567	152.0	—
F 1	D 19	4 260	2.235	119	9.521	1133.0	—
2	D 16	7 290	1.552	58	12.090	781.2	—
3	D 13	950	0.994	122	0.994	120.0	—
4	"	12 720	"	32	12.644	404.6	—
5	"	1 130	"	203	1.173	228.0	□
U 1	D 16	2 200	1.552	48	3.414	169.9	—
2	D 13	4 260	0.994	12	4.175	50.1	—
3	"	1 590	"	12	1.580	19.0	—
						D 19	2149.8
						D 16	3479.4
						D 13	2394.1
						TOTAL WEIGHT	8063.3



(S) 112-D13 x 1 850



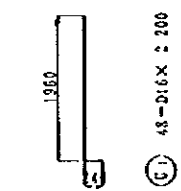
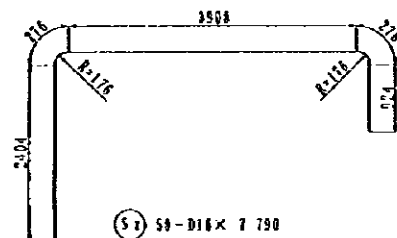
(F) 122-D13 x 990



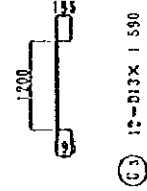
(S) 189-D13 x 1 050



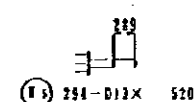
(F) 202-D13 x 1 130



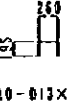
(E) 48-D16 x 2 200



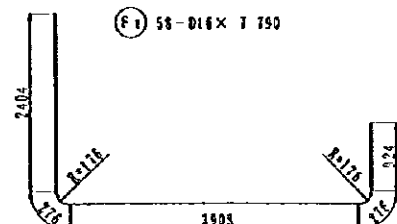
(E) 12-D13 x 1 590



(E) 294-D13 x 520



(S) 10-D13 x 650



NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

JICA STUDY TEAM
 PACIFIC CONSULTANTS INTERNATIONAL
 FURUKAWA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

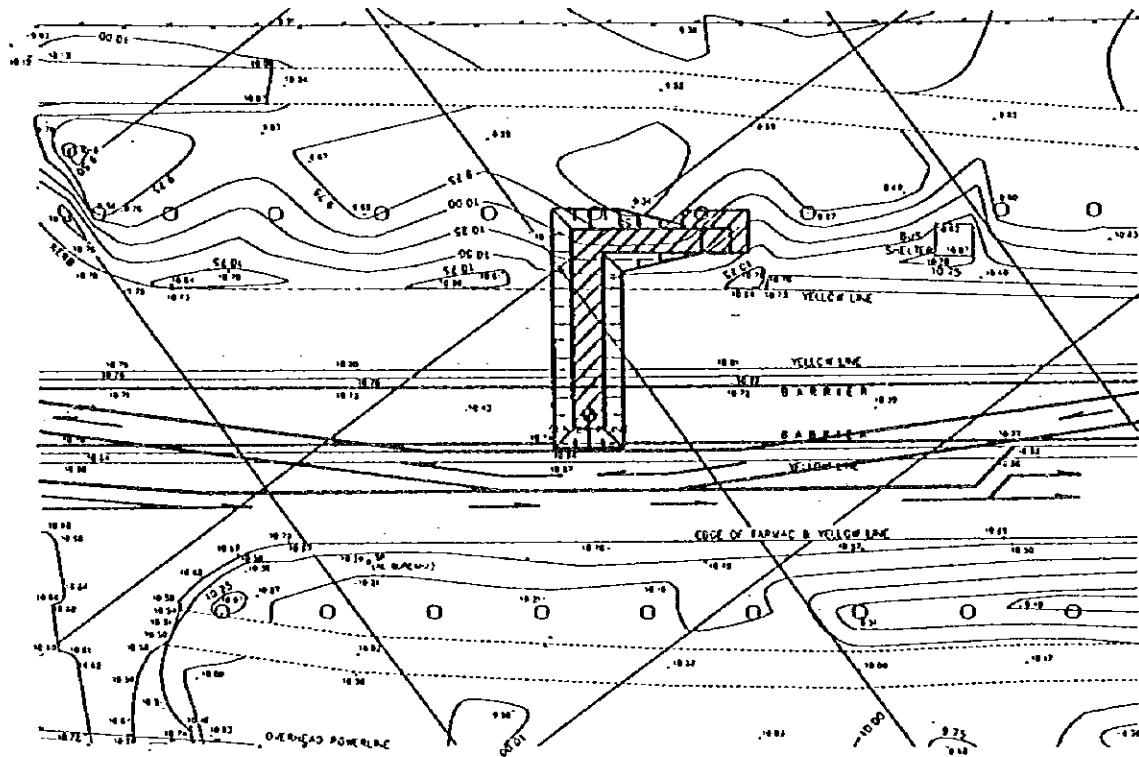
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE : P/U-2, AL BILLAH RE-BAR ARRANGEMENT (10)

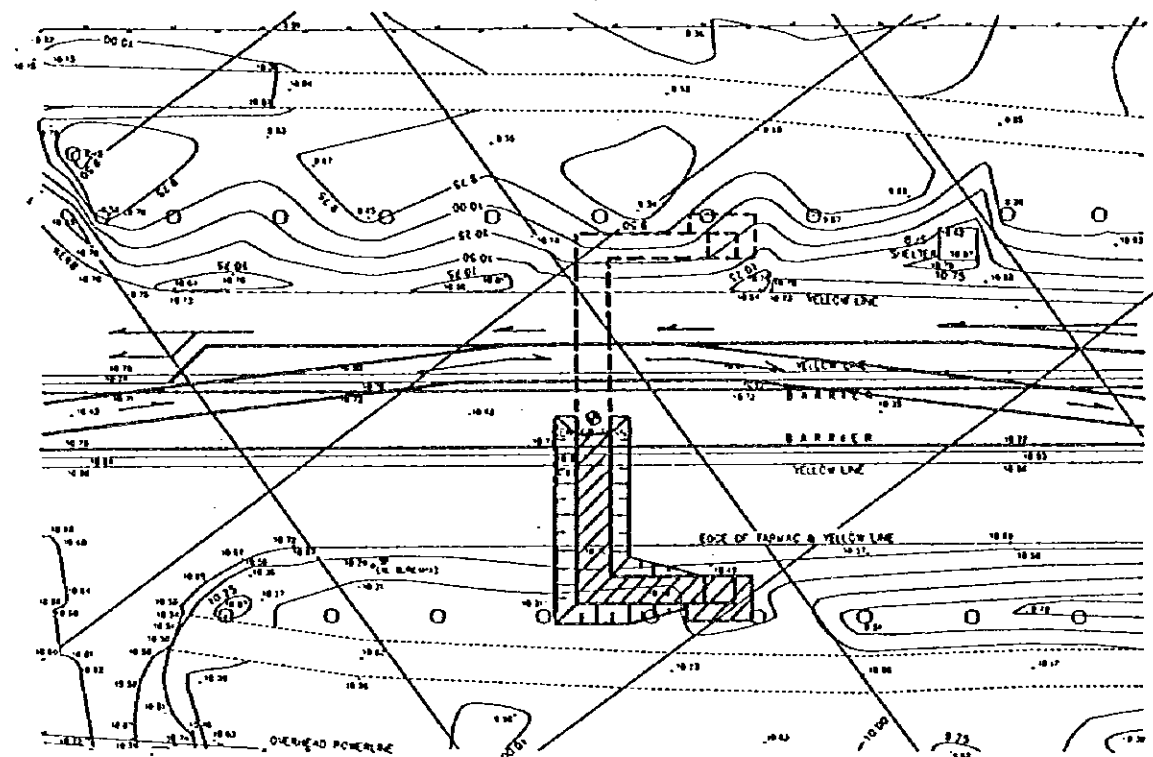
DATE

DWG NO. P-13

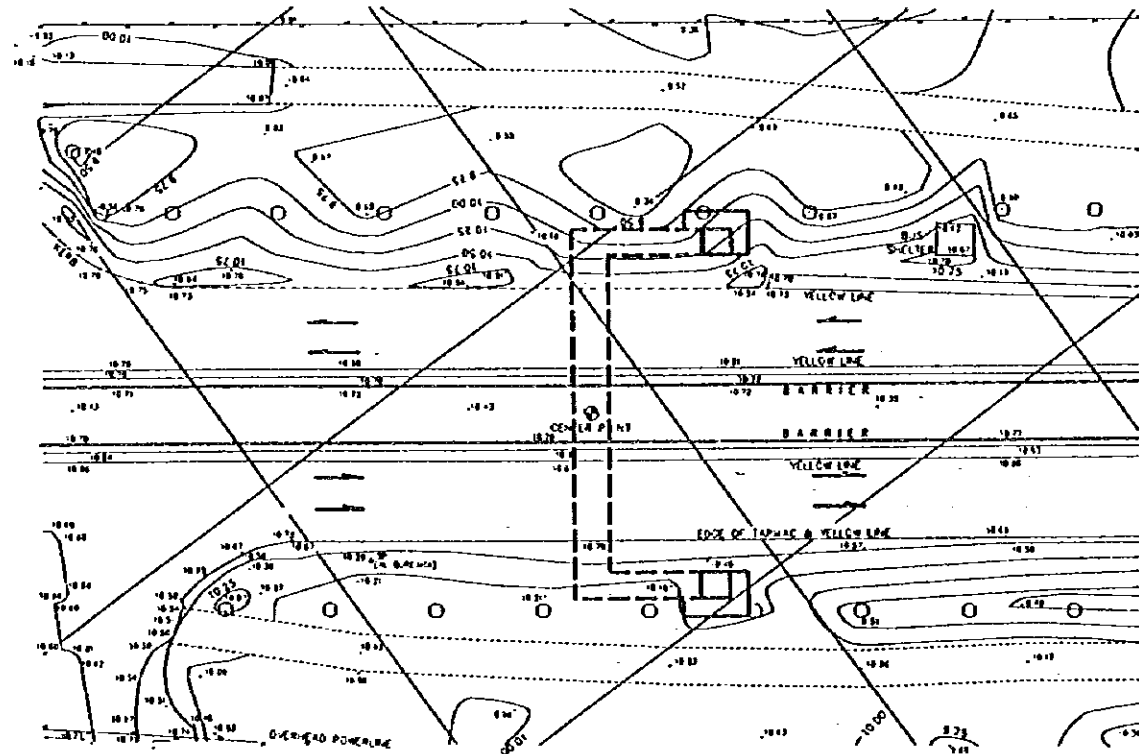
FIRST CONSTRUCTION STAGE



SECOND CONSTRUCTION STAGE



THIRD CONSTRUCTION STAGE



FIRST CONSTRUCTION STAGE

1. Divert traffic from the existing carriageway and demarcate the yard for the first stage of construction.
2. Carry out the first stage of construction for the underpass.
3. After completion of first stage of construction, restore the existing carriageway to allow traffic flow.

SECOND CONSTRUCTION STAGE

1. Divert traffic from the other carriageway and demarcate the yard for the second stage of construction.
2. Carry out the second stage of construction for the underpass.
3. After completion of second stage of construction, restore the existing carriageway to allow traffic flow.

THIRD CONSTRUCTION STAGE

1. Carry out accessory installation work for pedestrian underpass and open it to use.
2. Construction completed.

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

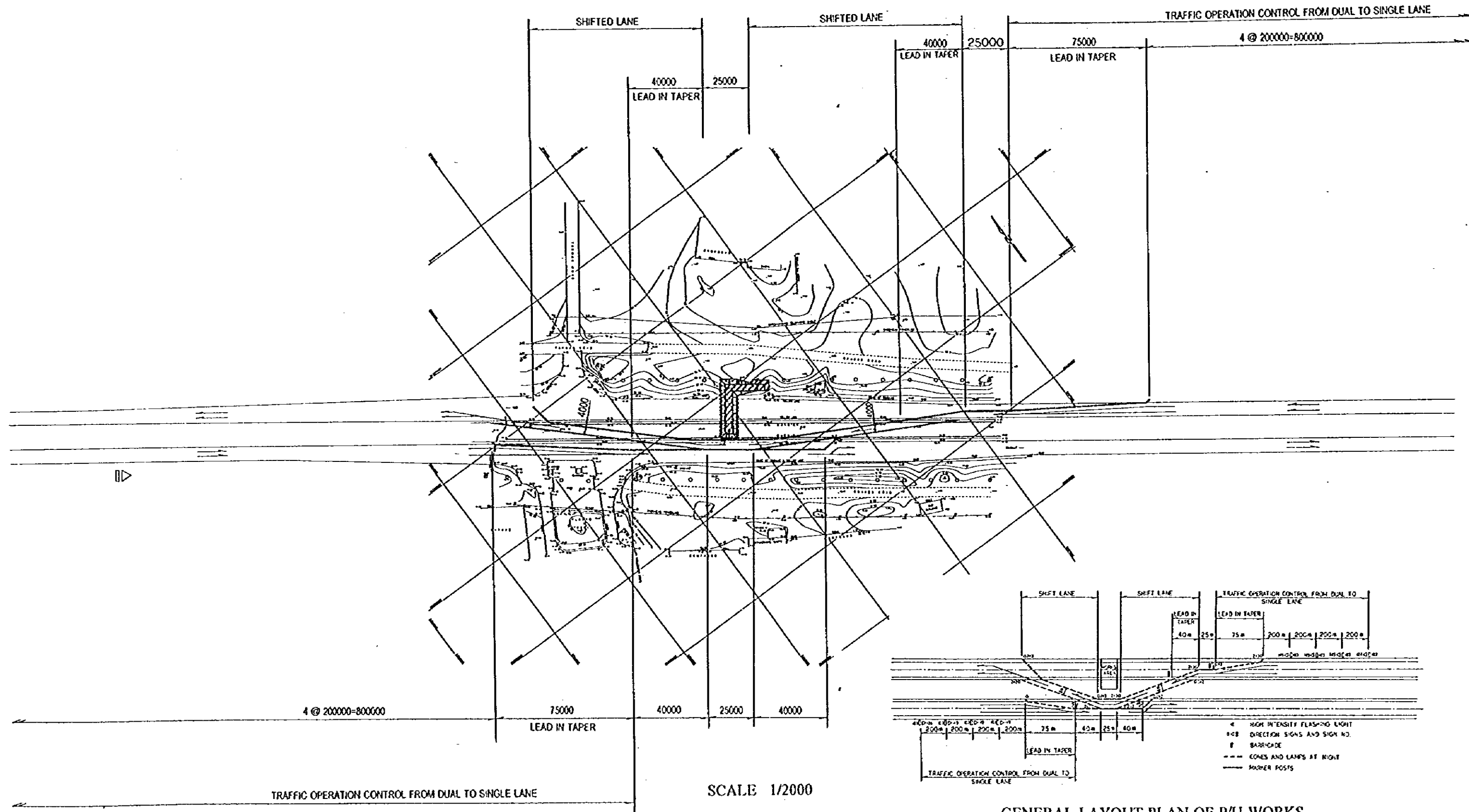
PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE SEQUENCE OF ALBILLAH PAU CONSTRUCTION

DATE

DWGNO.

T-1



GENERAL LAYOUT PLAN OF P/U WORKS

NOTES:	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
	JICA STUDY TEAM PACIFIC CONSULTANTS INTERNATIONAL FUKUYAMA CONSULTANTS INTERNATIONAL	PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
		TITLE: DETOUR LAYOUT OF AL BILLAH P/U WORKS
		DATE: _____ DWGNO. T-2



