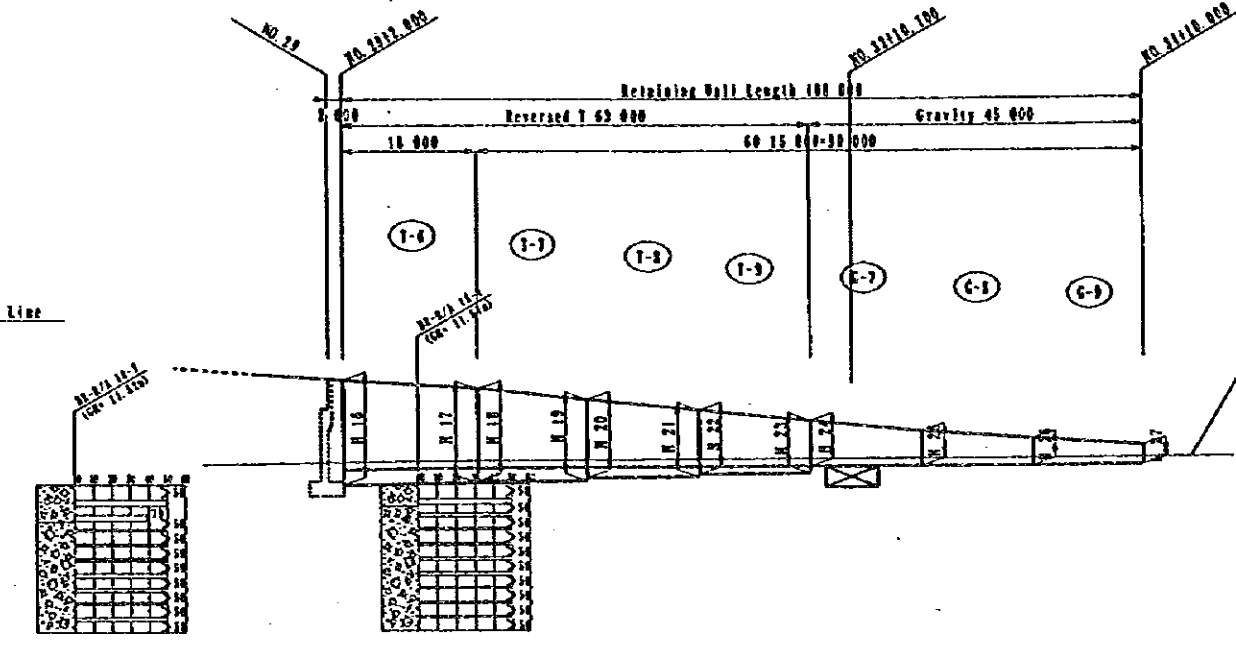
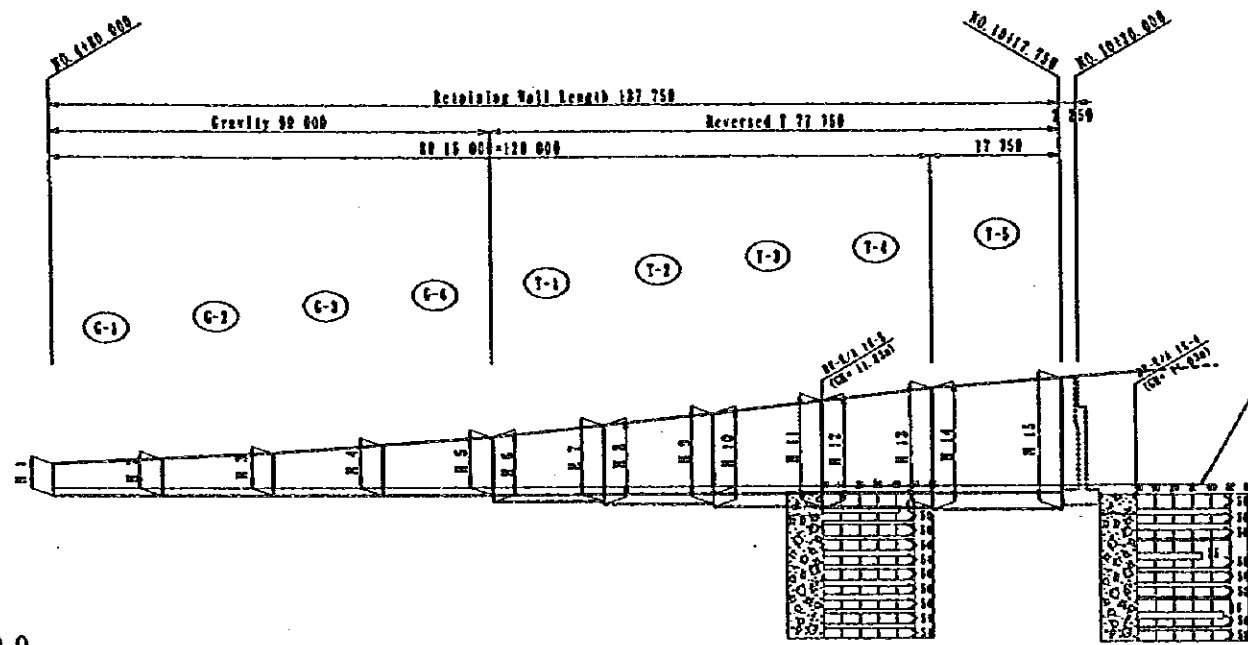
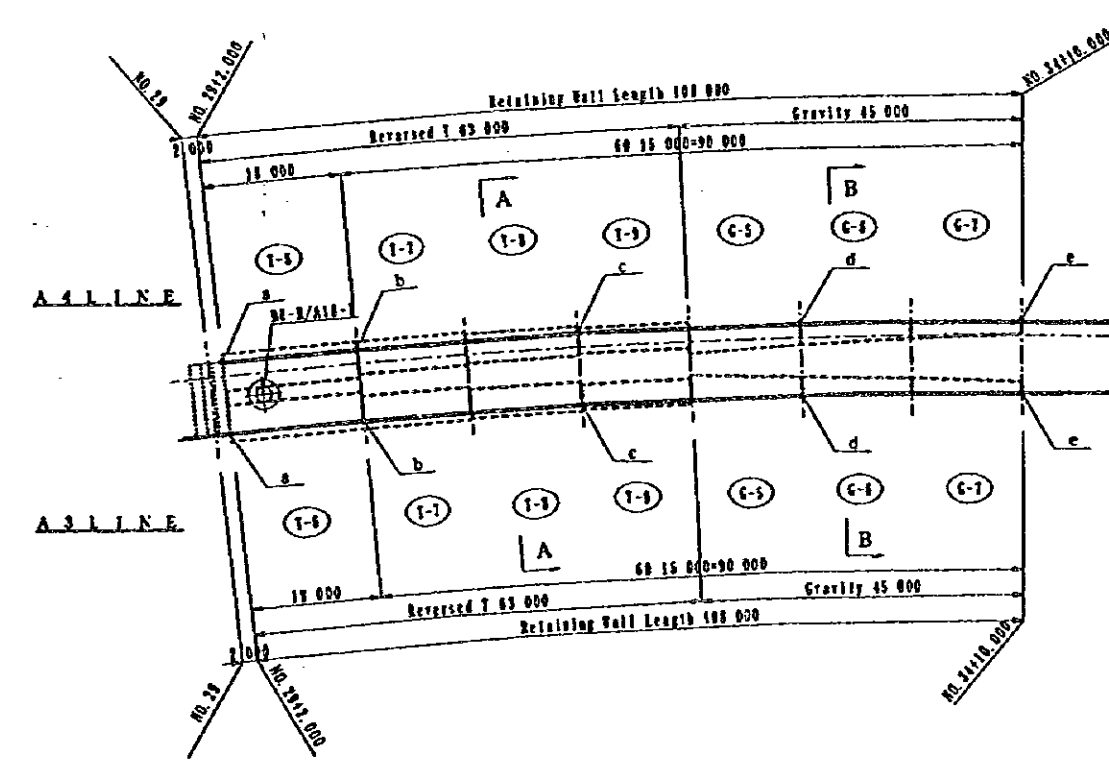
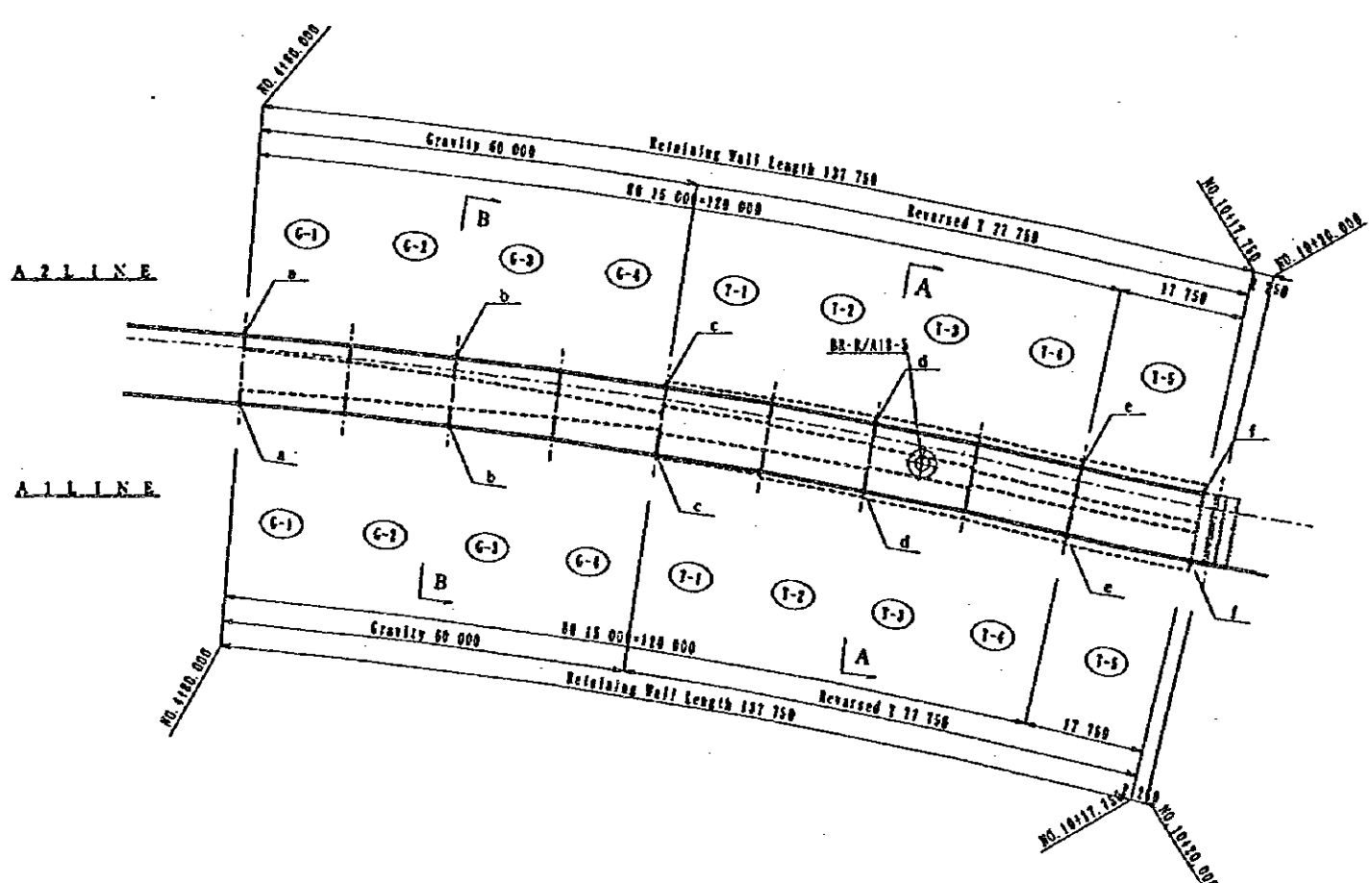


STRUCTURE
-RETAINING WALL



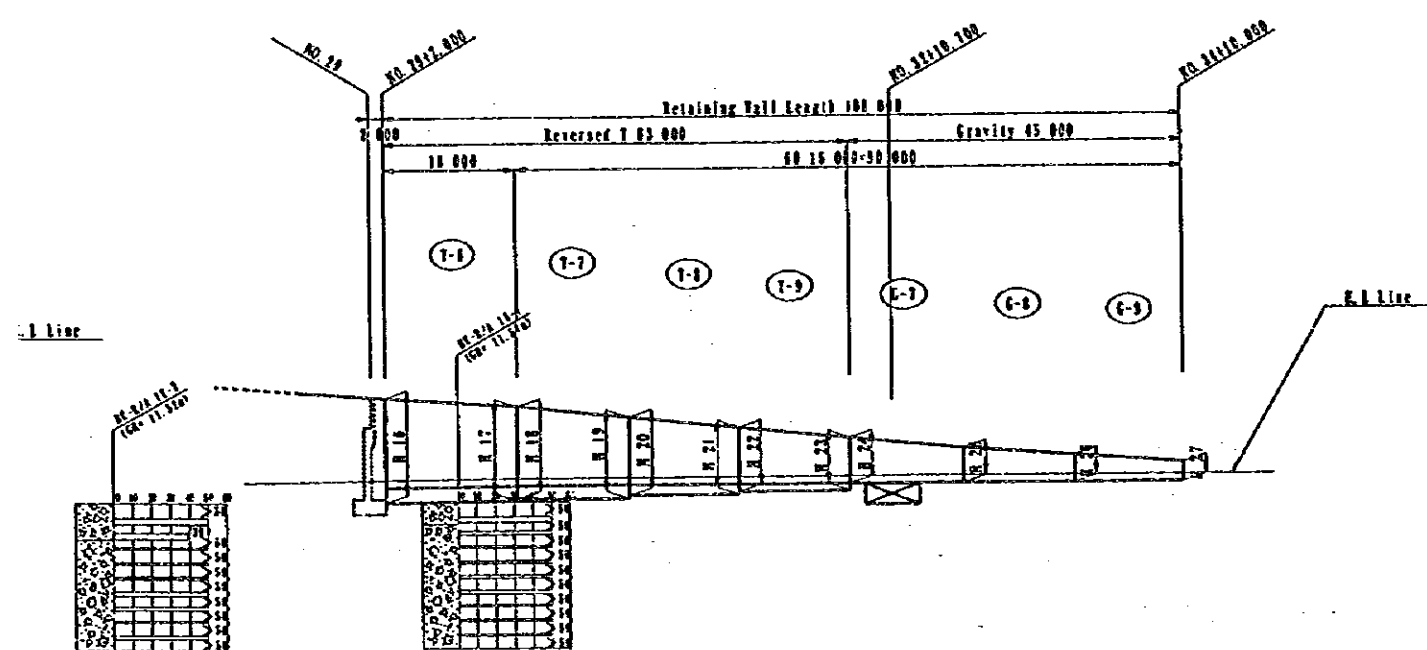
DL=0.00

SIDE VIEW
H=1/1000
V=1/500

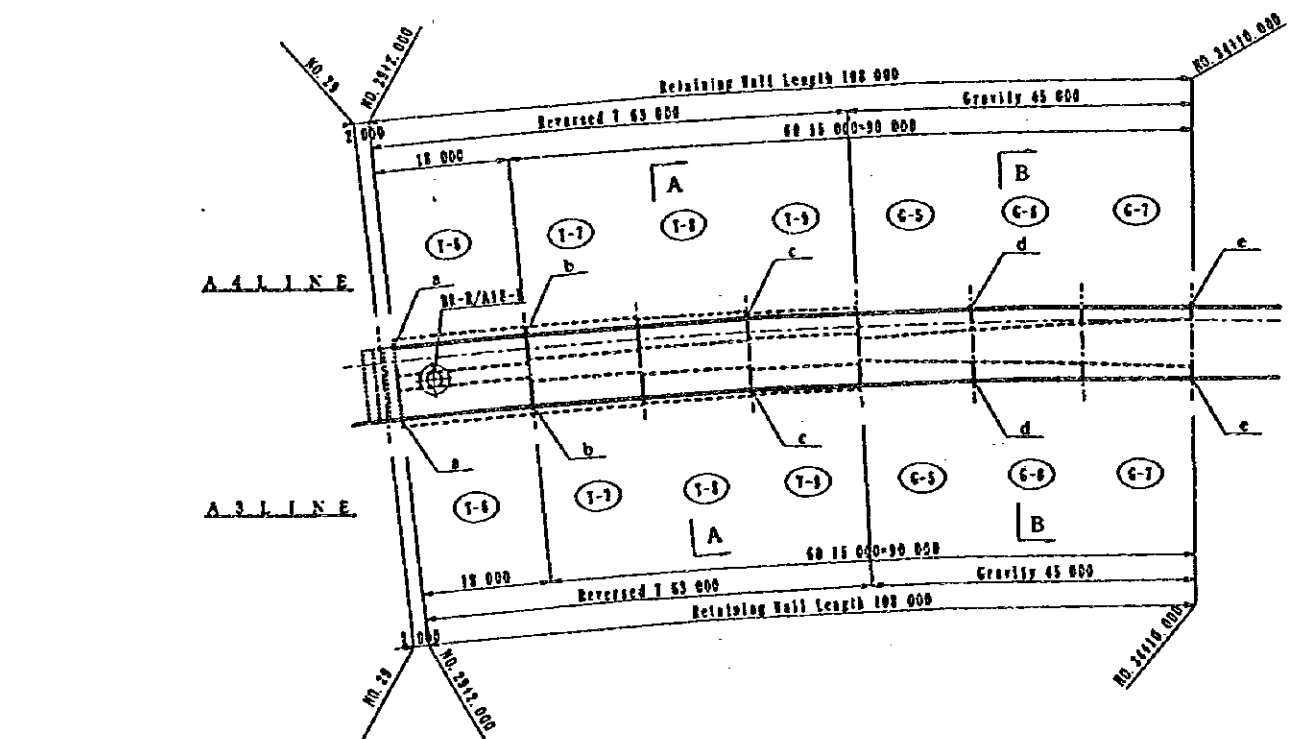
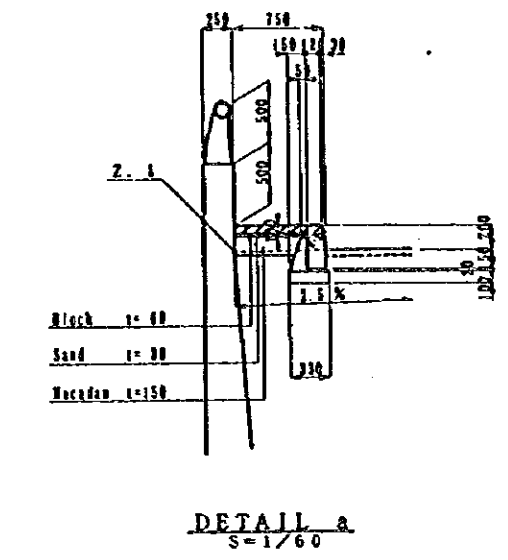
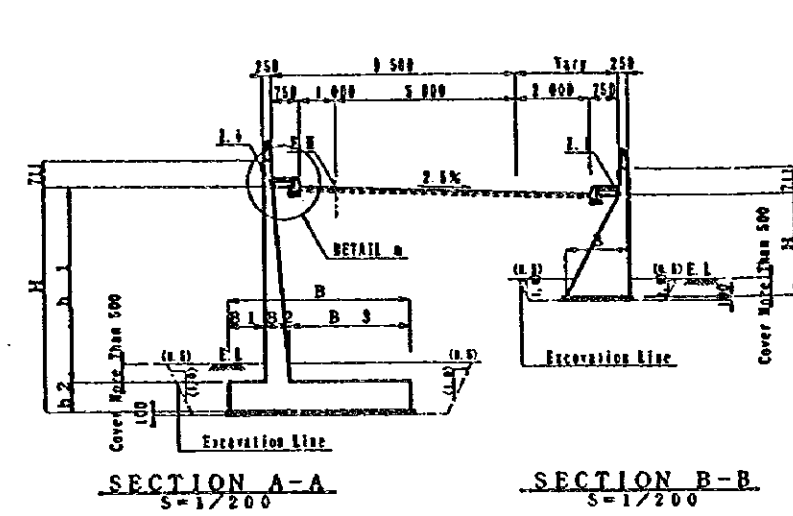


PLAN
S=1/1000

NOTES:



SIDE VIEW
H=1/1000
V=1/500



PLAN
S=1/1000

Reversed T

MARK TYPE	H	h 1	h 2	B	B 1	B 2	B 3
A 2 LINE	T-1	8-4 464	3 954	500	3 500	600	2 430
		7-5 158					509 2 391
		8-5 358	4 668	700	4 000	800	567 2 643
	T-2	9-6 051					603 2 597
		10-6 251	5 351	900	4 500	1 000	645 2 856
		11-6 980	6 080	1 000	5 000	1 000	699 2 801
	T-4	12-7 080					729 3 271
		13-7 808					785 3 215
		14-7 908	6 808	1 100	5 500	1 200	810 3 490
	T-5	15-8 772	7 672				881 3 419
		16-4 207	3 707	500	3 500	600	456 2 444
		7-4 975	4 475	700	4 000	800	499 2 481
	T-2	8-5 175	4 475	700	4 000	800	545 2 656
		9-6 123					596 2 604
		10-6 143	5 243	900	4 500	1 000	637 2 863
T-1	11-6 980					699 2 801	
	12-7 080	6 080	1 000	5 000	1 000	729 3 271	
	13-7 936	6 916	1 100	5 500	1 200	785 3 215	
T-5	14-8 036	6 916	1 100	5 500	1 200	819 3 481	
	15-9 120	8 020				910 3 390	

Gravity

MARK TYPE	H	B
A 2 LINE	G-1	81-2 215 1 292
	G-2	2-2 559 1 459
	G-3	3-2 903 1 686
	G-4	4-3 434 1 912
A 1 LINE	G-1	81-1 951 1 421
	G-2	2-2 295 1 627
	G-3	3-2 639 1 833
	G-4	4-3 173 2 154
G-1	5-3 707 2 474	

Gravity

MARK TYPE	H	B
A 4 LINE	G-3	124-3 617 2 420
	G-4	15-2 959 2 025
	G-1	15-2 427 1 706
	G-1	17-1 894 1 386
A 3 LINE	G-3	124-3 388 2 283
	G-1	15-2 676 1 856
	G-1	17-1 153 1 542
G-1	17-1 629 1 065	

Reversed T

MARK TYPE	H	h 1	h 2	B	B 1	B 2	B 3	
A 4 LINE	T-4	11-7 769	6 769	1 000	5 000	1 000	782 3 218	
		17-6 871					711 3 289	
	T-1	18-6 771	5 871	900	4 500	1 000	683 2 817	
		19-5 973					624 2 876	
	T-3	20-5 773	5 073	700	4 000	800	585 2 815	
		21-4 974	4 274	500	3 500	600	532 2 868	
	T-5	22-4 774					479 2 421	
		23-4 137	3 617				451 2 449	
	A 3 LINE	T-4	11-7 514	6 514	1 000	5 000	1 000	762 3 288
			17-6 611					691 3 309
T-1		18-6 511	5 611	900	4 500	1 000	664 2 836	
		19-5 755					608 2 892	
T-3		20-5 555	4 856	700	4 000	800	570 2 630	
		21-4 799	4 099	500	3 500	600	520 2 680	
T-5		22-4 599					478 2 422	
		23-3 888	3 388				438 2 462	

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
 PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAR HIGHWAY
 JICA STUDY TEAM
 PACIFIC CONSULTANTS INTERNATIONAL
 FUKUYAMA CONSULTANTS INTERNATIONAL
 TITLE : R/A-18, AQR GENERAL VIEW FOR WALL (1)-1
 DATE :
 DWG NO. W-1

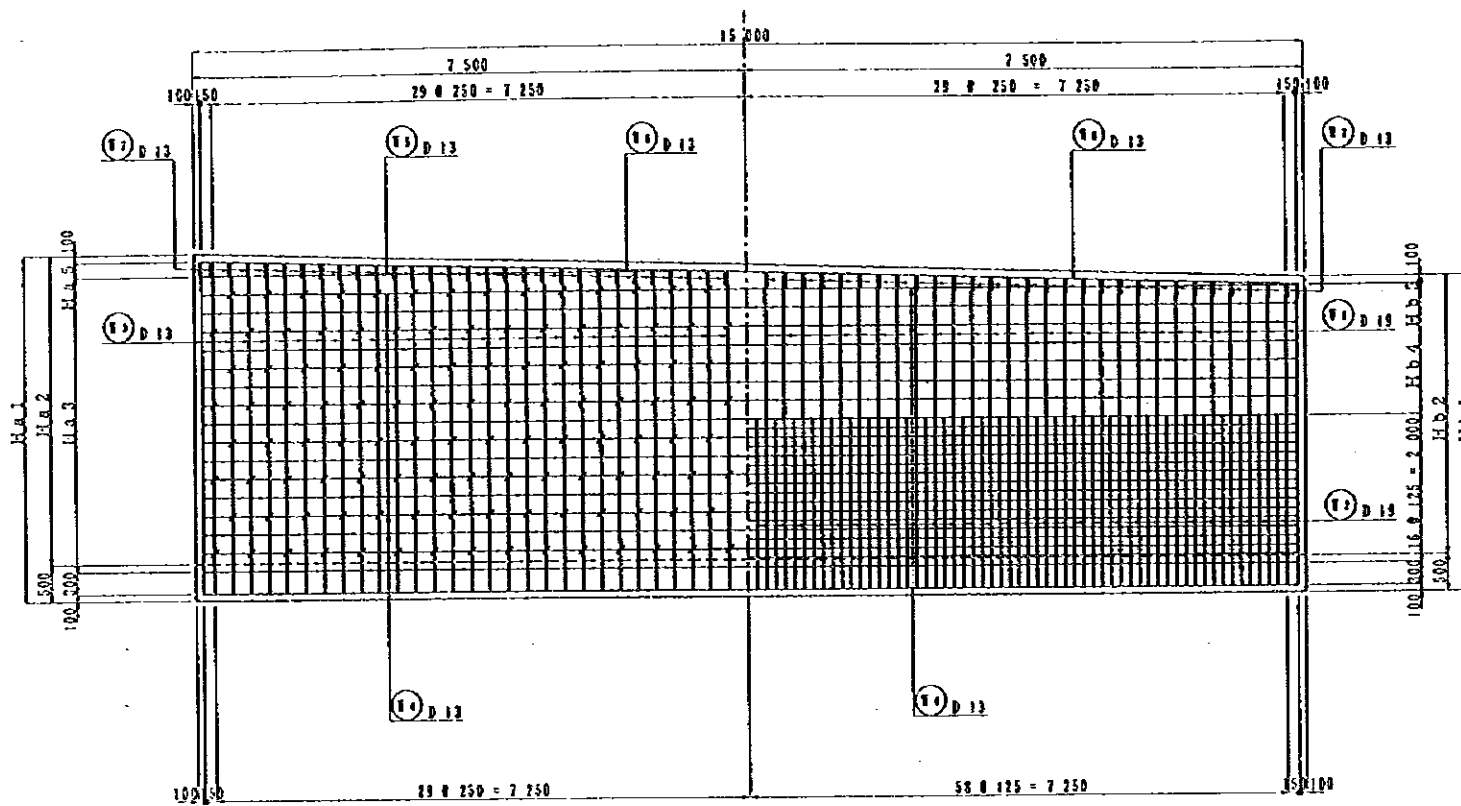
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A 1 L I N E	N	+2742804.89888	+2742822.61680	+2742857.40655	+2742888.15436	+2742907.96140	+2742924.86106
	E	+443540.74743	+443526.68390	+443511.73731	+443945.92456	+443479.43635	+443468.74124
	Z	13.361	14.049	15.117	16.653	18.326	19.430
A 2 L I N E	N	+2742810.16910	+2742836.65672	+2742862.66139	+2742888.15436	+2742913.21700	+2742930.11534
	E	+443549.28507	+443535.20235	+443520.24662	+443504.43442	+443487.94680	+443477.24962
	Z	13.625	14.313	15.374	16.761	18.218	19.191
A 3 L I N E	N	+2743361.63812	+2743334.39512	+2743306.78481	+2743278.83242	+2743260.02007	
	E	+443294.63747	+443307.19735	+443318.92774	+443329.81790	+443336.60626	
	Z	14.049	15.096	16.519	18.031	19.039	
A 4 L I N E	N	+2743364.96161	+2743337.70660	+2743310.08860	+2743282.13236	+2743263.31932	
	E	+443304.13335	+443316.66720	+443328.37953	+443339.25986	+443346.04633	
	Z	14.314	15.379	16.694	18.291	19.289	

NOTES:

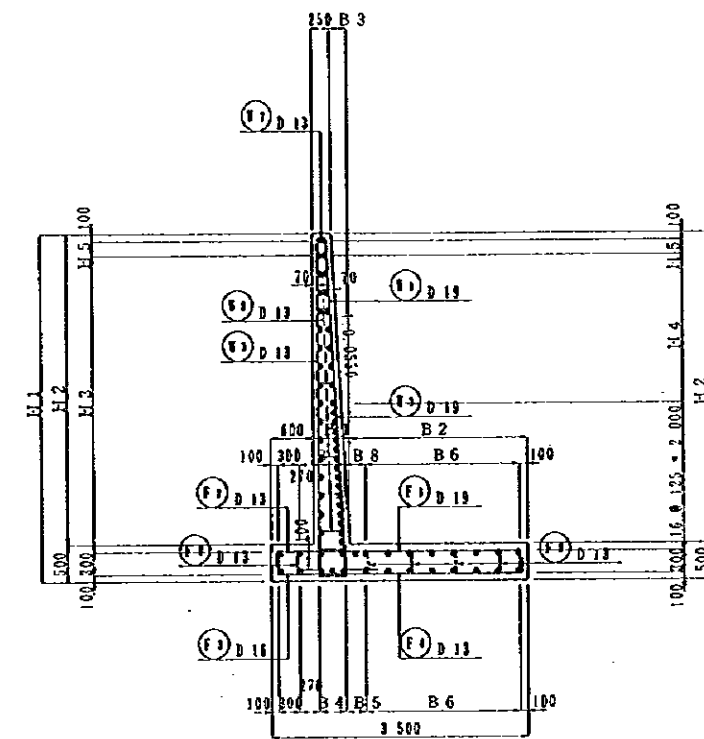
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

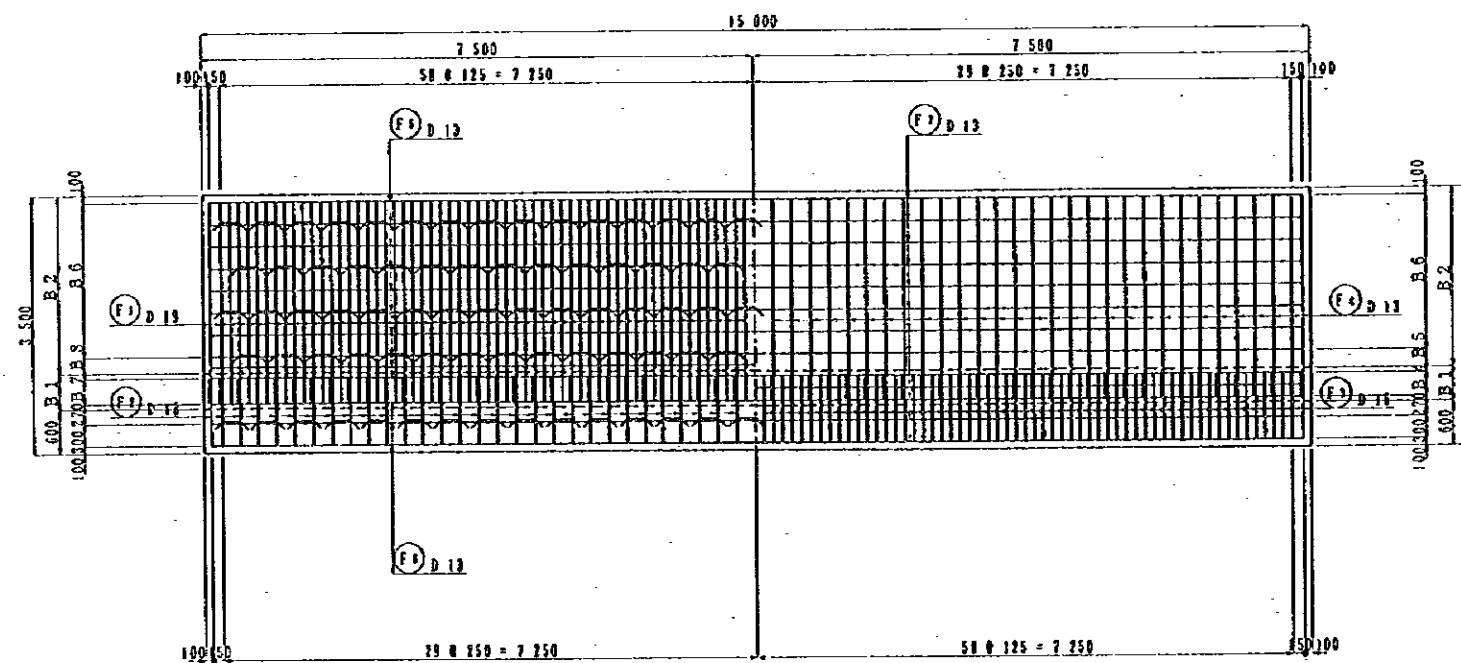
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : R/A-18, AQR GENERAL VIEW FOR WALL (1)-2
DATE : DRG NO. W-2



SIDE VIEW
S=1/100



SECTION
S-1/100



PLAN
S=1/100

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

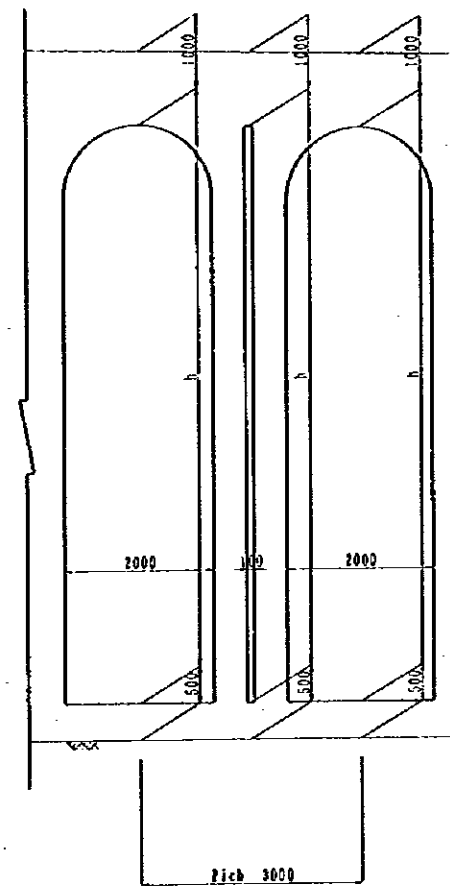
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (I)

DATE

DWG NO. W-3

		T-1			
		a - a		b - b	
A I L I N E	Ha1	4 464	Hb1	5 158	
	Ha2	3 964	Hb2	4 658	
	Ha3	15@250 = 3 750	Hb3	18@250 = 4 500	
	Ha4	7@250 = 1 750	Hb4	10@250 = 2 500	
	Ha5	214	Hb5	158	
	Ba1	470	Bb1	509	
	Ba2	2 430	Bb2	2 391	
	Ba3	220	Bb3	259	
Ba4	2@176.0 = 352	Bb4	2@195.5 = 391		
Ba5	2@139.0 = 278	Bb5	2@119.5 = 239		
Ba6	7@300 = 2 100	Bb6	7@300 = 2 100		
Ba7	335	Bb7	374		
Ba8	2@147.5 = 295	Bb8	2@128.0 = 256		
		T-1			
		a - a		b - b	
A I L I N E	Ha1	4 207	Hb1	4 975	
	Ha2	3 707	Hb2	4 475	
	Ha3	14@250 = 3 500	Hb3	17@250 = 4 250	
	Ha4	6@250 = 1 500	Hb4	9@250 = 2 250	
	Ha5	207	Hb5	225	
	Ba1	456	Bb1	499	
	Ba2	2 444	Bb2	2 401	
	Ba3	206	Bb3	249	
Ba4	2@169.0 = 338	Bb4	2@190.5 = 381		
Ba5	2@146.0 = 292	Bb5	2@124.5 = 249		
Ba6	7@300 = 2 100	Bb6	7@300 = 2 100		
Ba7	321	Bb7	364		
Ba8	2@154.5 = 309	Bb8	2@133.0 = 266		



Slit Shape in Front of Wall
(Thickness t=30 mm)

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

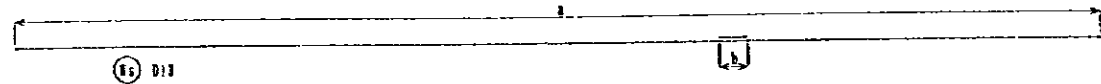
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

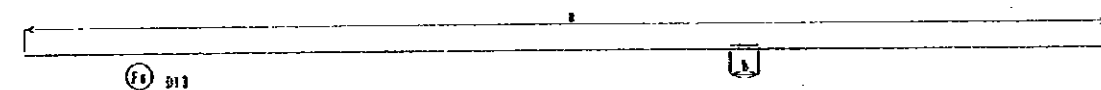
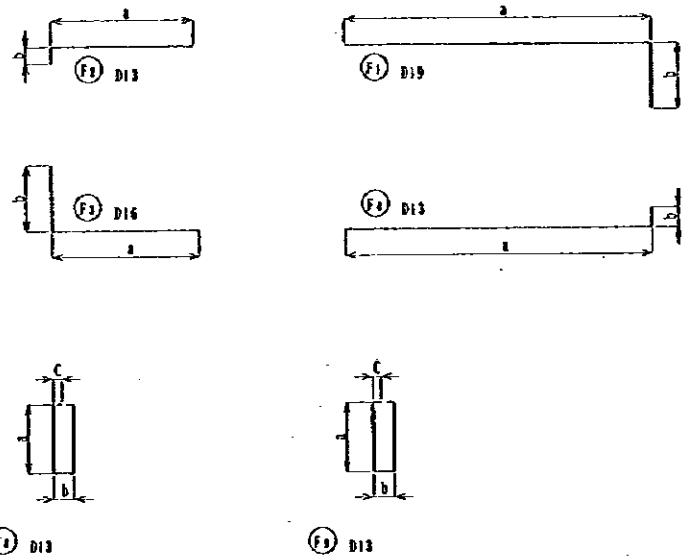
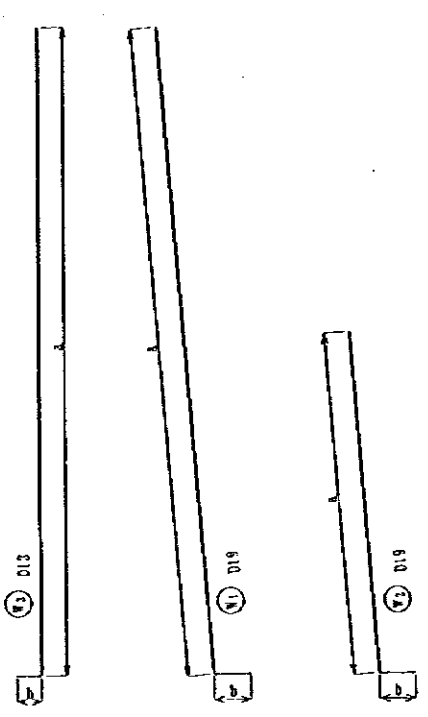
TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (2)

DATE

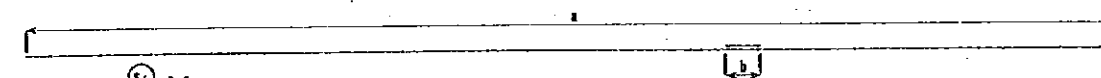
DNV NO. W-4



(E1) D13
(E6) D13



(E18) D13
(E17) D13



(E19) D13

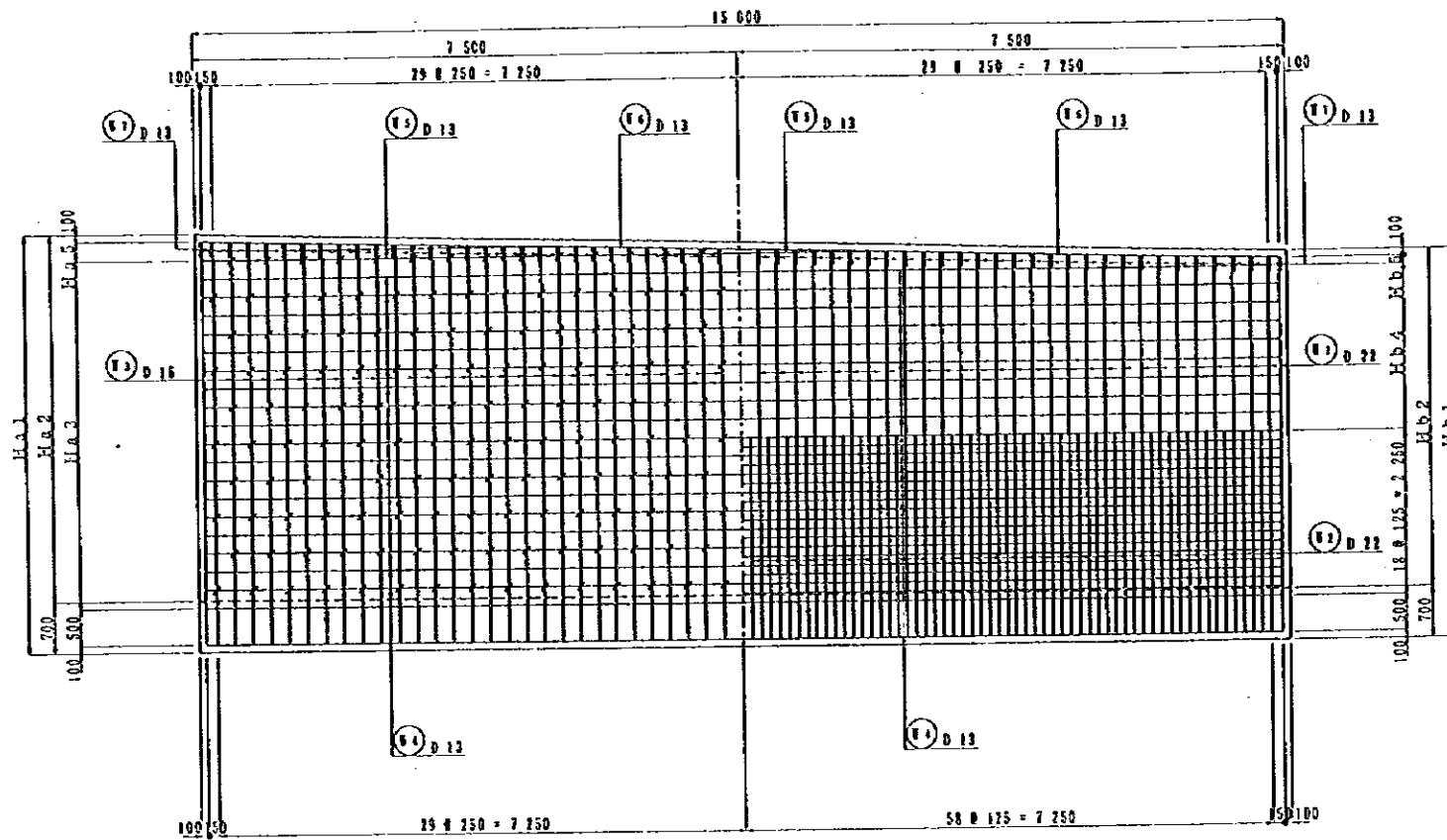
REIN. NO.	φ (mm)	LENGTH (mm)	a	b	c
T 1					
T 1	D 13	4 830	4 282~4 013	285	---
2	"	2 590	2 304	285	---
3	D 13	4 590	4 275~4 005	240	---
4	"	15 190	14 800	390	---
5	"	8 550	4 336~13 871	390	---
6	"	15 210	14 820	390	---
7	"	500	110	195	---
8	"	480	327~170	111	---
F 1					
F 1	D 13	3 260	2 958	300	---
2	D 13	1 110	908	195	---
3	D 16	1 280	980	300	---
4	D 13	2 930	2 730	195	---
5	"	15 150	14 800	390	---
6	"	15 150	14 800	390	---
7	"	15 150	14 800	390	---
8	"	1 160	328	278	111
9	"	1 160	329	279	111

REIN. NO.	φ (mm)	LENGTH (mm)	a	b	c
T 1					
T 1	D 13	4 310	4 276~3 770	285	---
2	"	2 590	2 304	285	---
3	D 13	4 210	4 284~3 764	195	---
4	"	15 190	14 800	390	---
5	"	8 770	4 477~12 071	390	---
6	"	15 200	14 808	390	---
7	"	500	110	195	---
8	"	510	380~185	111	---
F 1					
F 1	D 13	3 250	2 946	300	---
2	D 13	1 120	920	195	---
3	D 16	1 280	980	300	---
4	D 13	2 920	2 720	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 150	14 800	390	---
8	"	1 160	328	278	111
9	"	1 160	329	279	111

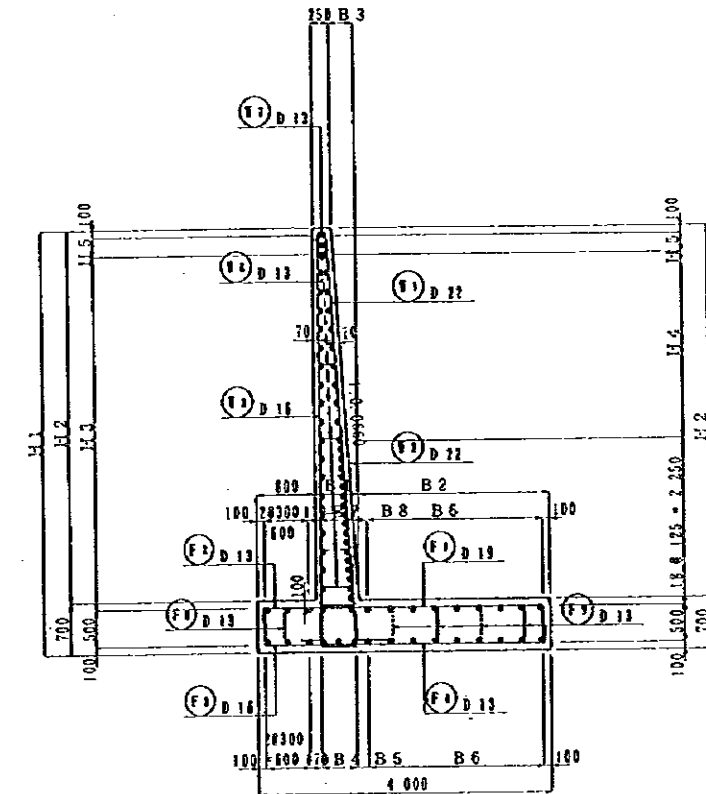
NOTES:

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

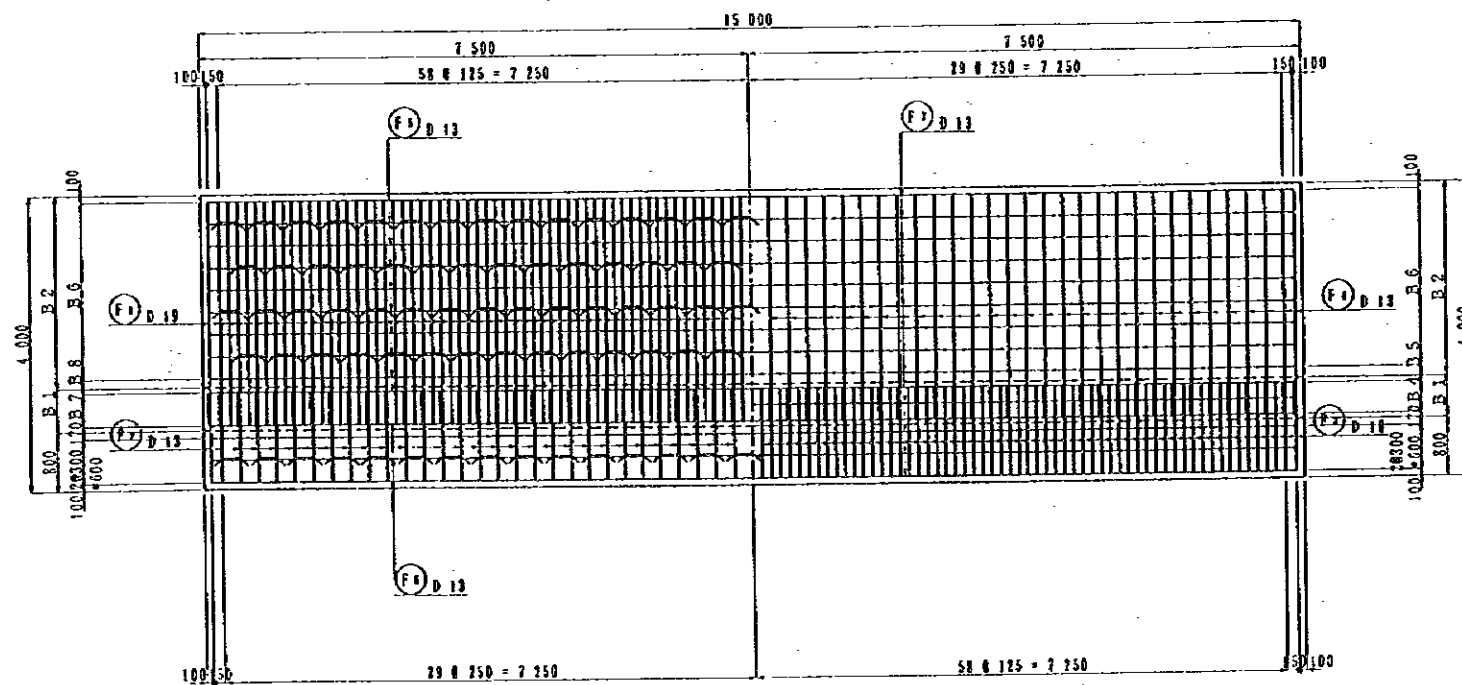
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (3)
DATE : _____ DWG NO. W-5



SIDE VIEW
S=1/100



SECTION
S=1/100



PLAN
S=1/100

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

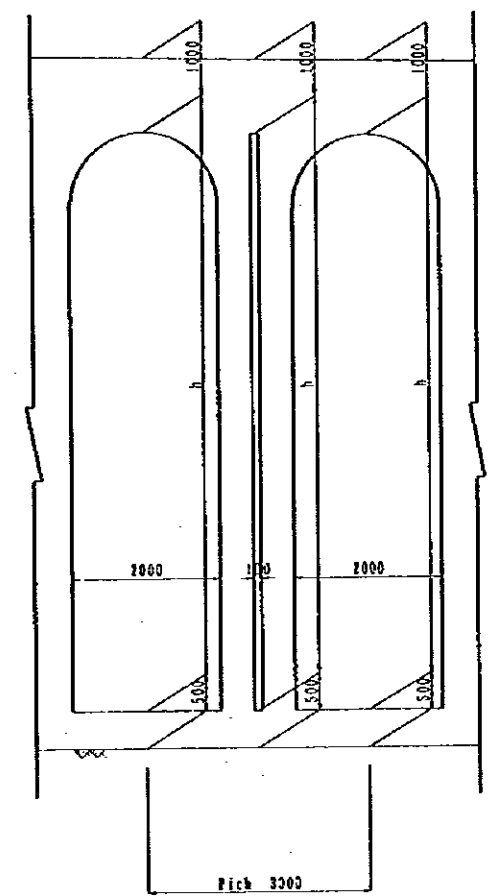
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (4)

DATE

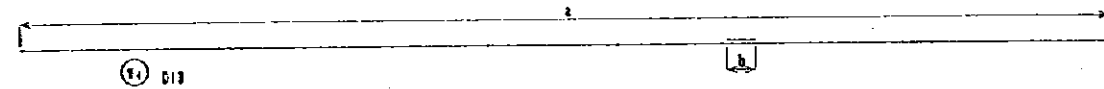
DWG NO. W-6

		T-2		
		a - a	b - b	
A I L I N E	Ha1	5 358	Hb1 6 051	
	Ha2	4 658	Hb2 5 351	
	Ha3	18@250 = 4 500	Hb3 20@250 = 5 000	
	Ha4	9@250 = 2 250	Hb4 11@250 = 2 750	
	Ha5	158	Hb5 2@175.5 = 351	
	Ba1	557	Bb1 603	
	Ba2	2 643	Bb2 2 597	
	Ba3	307	Bb3 353	
	Ba4	2@228 = 456	Bb4 2@251 = 502	
	Ba5	174	Bb5 128	
	Ba6	8@300 = 2 400	Bb6 8@300 = 2 400	
	Ba7	423	Bb7 469	
	Ba8	207	Bb8 161	
			T-2	
			a - a	b - b
	A I L I N E	Ha1	5 175	Hb1 6 123
Ha2		4 475	Hb2 5 243	
Ha3		17@250 = 4 250	Hb3 20@250 = 5 000	
Ha4		8@250 = 2 000	Hb4 11@250 = 2 750	
Ha5		225	Hb5 243	
Ba1		545	Bb1 596	
Ba2		2 655	Bb2 2 604	
Ba3		295	Bb3 346	
Ba4		2@222.0 = 444	Bb4 2@247.5 = 495	
Ba5		186	Bb5 135	
Ba6		8@300 = 2 400	Bb6 8@300 = 2 400	
Ba7		411	Bb7 462	
Ba8		219	Bb8 168	

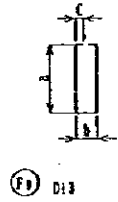
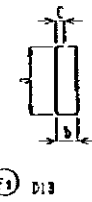
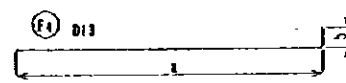
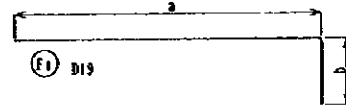
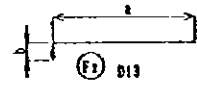


Slit Shape in Front of Wall
(Thickness t=30 mm)

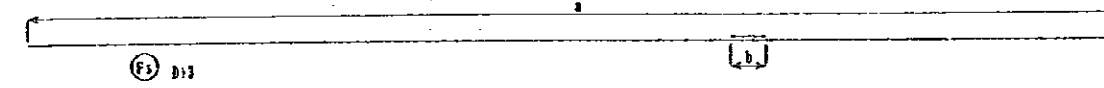
NOTES:	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
	JICA STUDY TEAM PACIFIC CONSULTANTS INTERNATIONAL FUKUYAMA CONSULTANTS INTERNATIONAL	PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
		TITLE : R/A-18. AQR RE-BAR ARRANGEMENT (5)
		DATE : _____ DWG NO. W-7



(E1) D13
(E2) D13



(E1) D13
(E2) D13



(E1) D13

REIN NO	φ (mm)	LENGTH (cm)	a	b	c
T 2					
1	D 22	5 800	5 936~4 956	330	---
2	"	3 090	2 756	330	---
3	D 16	5 690	5 922~4 972	240	---
4	D 13	15 190	14 800	390	---
5	"	8 090	3 794~11 600	---	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	540	468~169	111	---
F 1	D 19	3 670	3 164	500	---
2	D 13	1 400	1 201	195	---
3	D 16	1 650	1 180	500	---
4	D 13	3 230	3 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	1 560	528	278	111
9	"	1 560	523	279	111

REIN NO	φ (mm)	LENGTH (cm)	a	b	c
T 2					
1	D 22	5 850	5 864~5 169	330	---
2	"	3 050	2 756	330	---
3	D 16	5 750	5 851~5 158	240	---
4	D 13	15 190	14 800	390	---
5	"	8 690	3 748~12 835	390	---
6	"	15 210	14 816	390	---
7	"	500	110	195	---
8	"	550	473~174	111	---
F 1	D 16	3 660	3 154	500	---
2	D 13	1 410	1 210	195	---
3	D 16	1 660	1 180	500	---
4	D 13	3 230	3 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	1 560	528	278	111
9	"	1 560	529	279	111

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

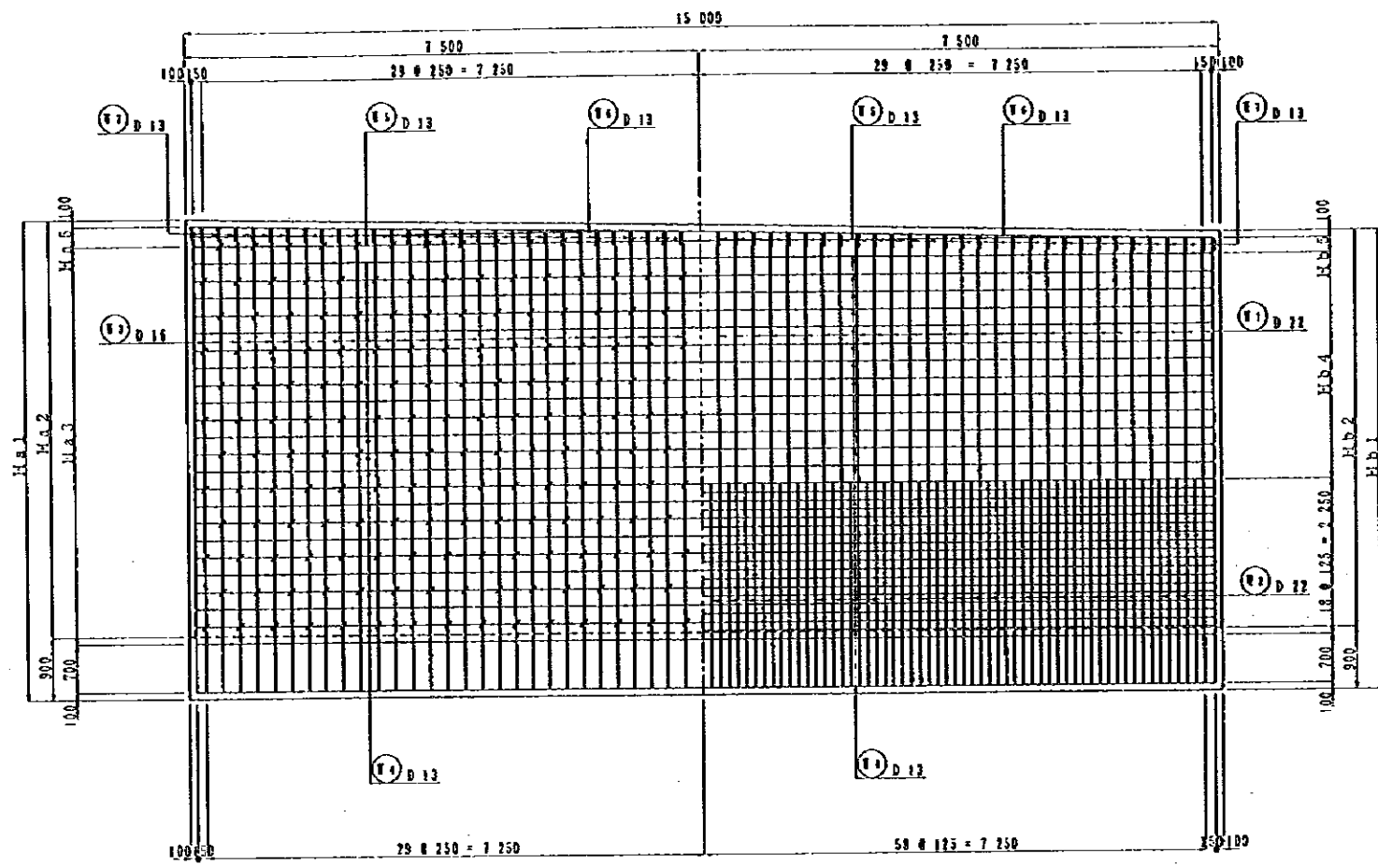
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

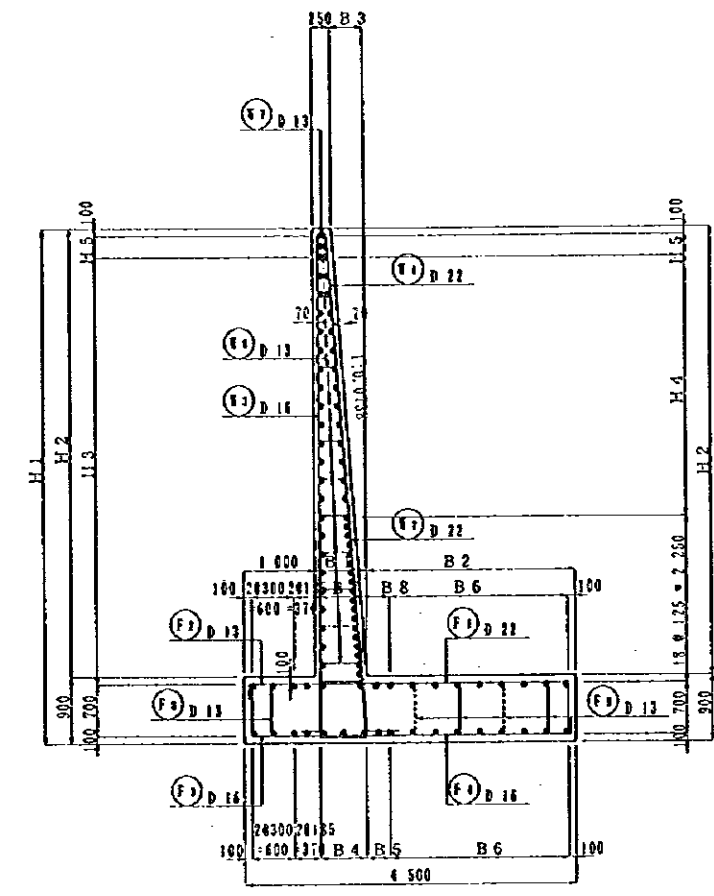
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (6)

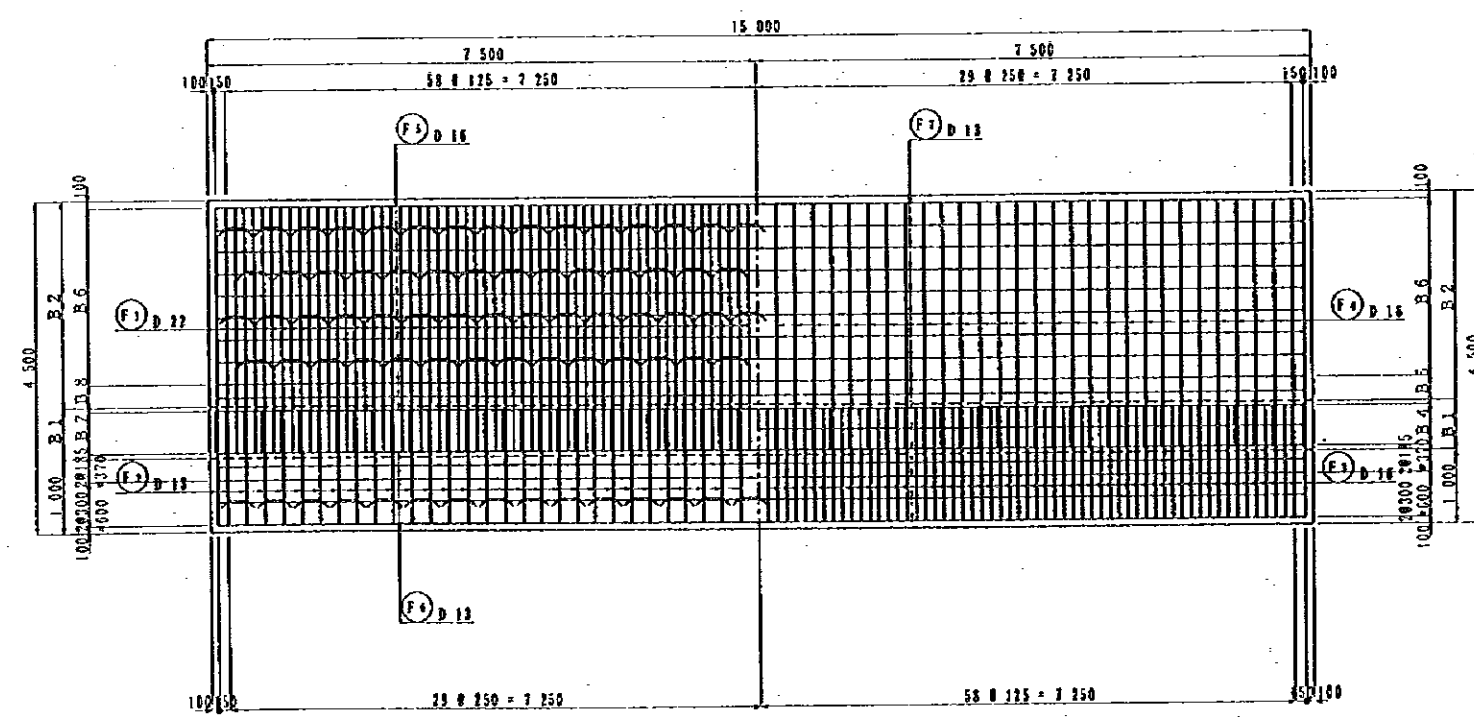
DATE : D/G NO. W-8



SIDE VIEW
S=1/100



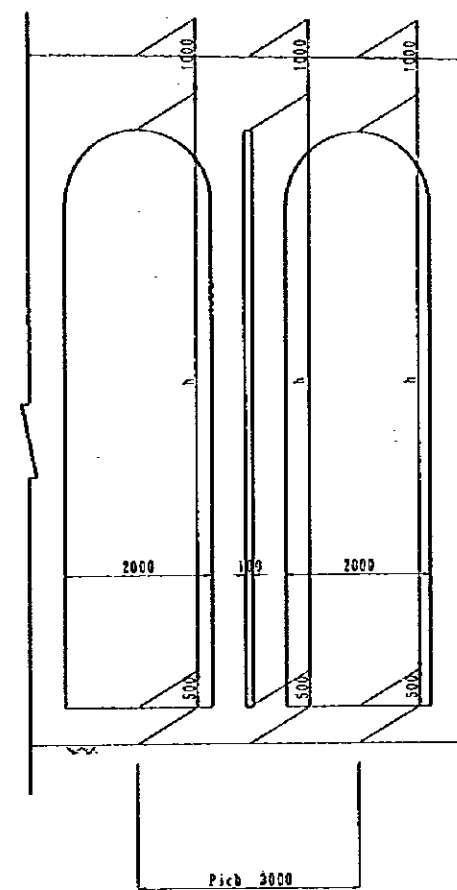
SECTION
S=1/100



PLAN
S=1/100

NOTES:	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
	JICA STUDY TEAM PACIFIC CONSULTANTS INTERNATIONAL FURUYAMA CONSULTANTS INTERNATIONAL	PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
		TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (?)
		DATE : DTG NO. W-9

		T-3				
		a - a		b - b		
A I L I N E	Ha1	6 251	Hb1	6 980		
	Ha2	5 351	Hb2	6 080		
	Ha3	21@250 = 5 250	Hb3	23@250 = 5 750		
	Ha4	12@250 = 3 000	Hb4	14@250 = 3 500		
	Ha5	101	Hb5	2@165 = 330		
	Ba1	645	Bb1	699		
	Ba2	2 855	Bb2	2 801		
	Ba3	395	Bb3	449		
	Ba4	2@282 = 564	Bb4	2@309 = 618		
	Ba5	2@183 = 366	Bb5	2@156 = 312		
	Ba6	8@300 = 2 400	Bb6	8@300 = 2 400		
	Ba7	512	Bb7	566		
	Ba8	2@209 = 418	Bb8	2@182 = 364		
			T-3			
			a - a		b - b	
	A I L I N E	Ha1	6 143	Hb1	6 980	
Ha2		5 243	Hb2	6 080		
Ha3		20@250 = 5 000	Hb3	23@250 = 5 750		
Ha4		11@250 = 2 750	Hb4	14@250 = 3 500		
Ha5		243	Hb5	2@165 = 330		
Ba1		637	Bb1	699		
Ba2		2 863	Bb2	2 801		
Ba3		387	Bb3	449		
Ba4		2@268.5 = 537	Bb4	2@309.0 = 618		
Ba5		2@196.5 = 393	Bb5	2@156.0 = 312		
Ba6		8@300 = 2 400	Bb6	8@300 = 2 400		
Ba7		504	Bb7	566		
Ba8		2@213 = 426	Bb8	2@182 = 364		



Slit Shape in Front of Wall
(Thickness 1=30 mm)

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

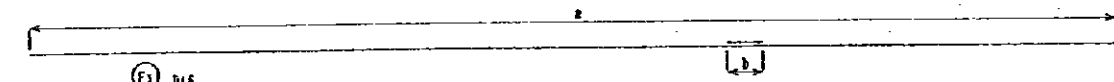
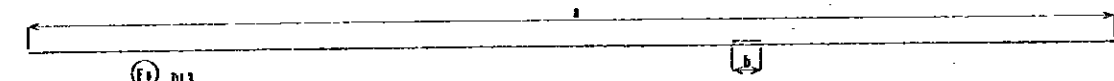
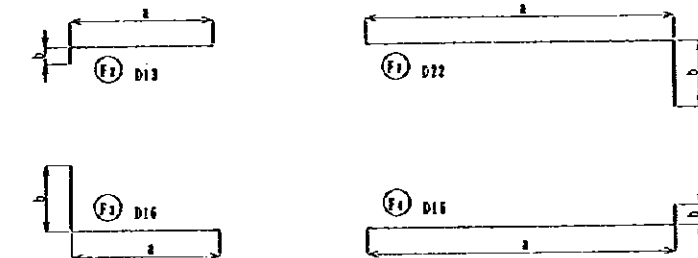
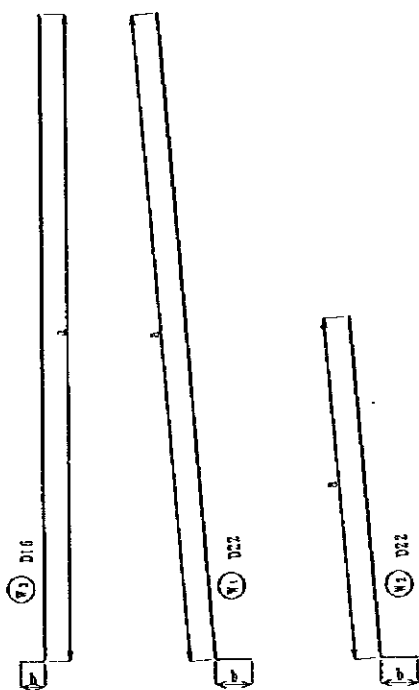
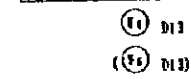
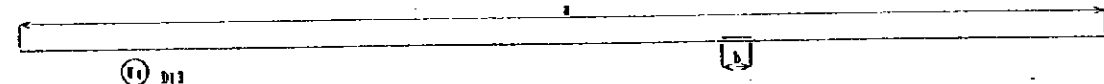
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (8)

DATE : DWG NO. W-10



BEIN NO.	φ (mm)	LENGTH (cm)	a	b	c
T 3					
T 1	D 22	6 710	6 785~6 959	330	---
2	"	3 290	2 958	330	---
3	D 16	6 610	6 785~5 943	240	---
4	D 13	15 190	14 800	390	---
5	"	9 190	8 918~14 676	390	---
6	"	15 230	14 840	390	---
7	"	500	110	195	---
8	"	620	580~211	111	---
F 1					
F 1	D 22	4 160	3 455	700	---
2	D 13	1 700	1 490	195	---
3	D 16	2 650	1 380	700	---
4	"	3 570	3 330	240	---
5	"	15 280	14 800	480	---
6	D 13	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	1 950	778	278	111
9	"	1 970	792	282	111

BEIN NO.	φ (mm)	LENGTH (cm)	a	b	c
T 3					
T 1	D 22	6 760	6 798~6 057	330	---
2	"	3 290	2 958	330	---
3	D 16	6 660	6 780~6 051	240	---
4	D 13	15 150	14 800	390	---
5	"	7 980	8 350~11 775	390	---
6	"	15 210	14 815	390	---
7	"	500	110	195	---
8	"	620	580~211	111	---
F 1					
F 1	D 22	4 160	3 451	700	---
2	D 13	1 700	1 502	195	---
3	D 16	2 650	1 380	700	---
4	"	3 570	3 438	240	---
5	"	15 280	14 800	480	---
6	D 13	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	1 950	778	278	111
9	"	1 970	792	282	111

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUJYAMA CONSULTANTS INTERNATIONAL

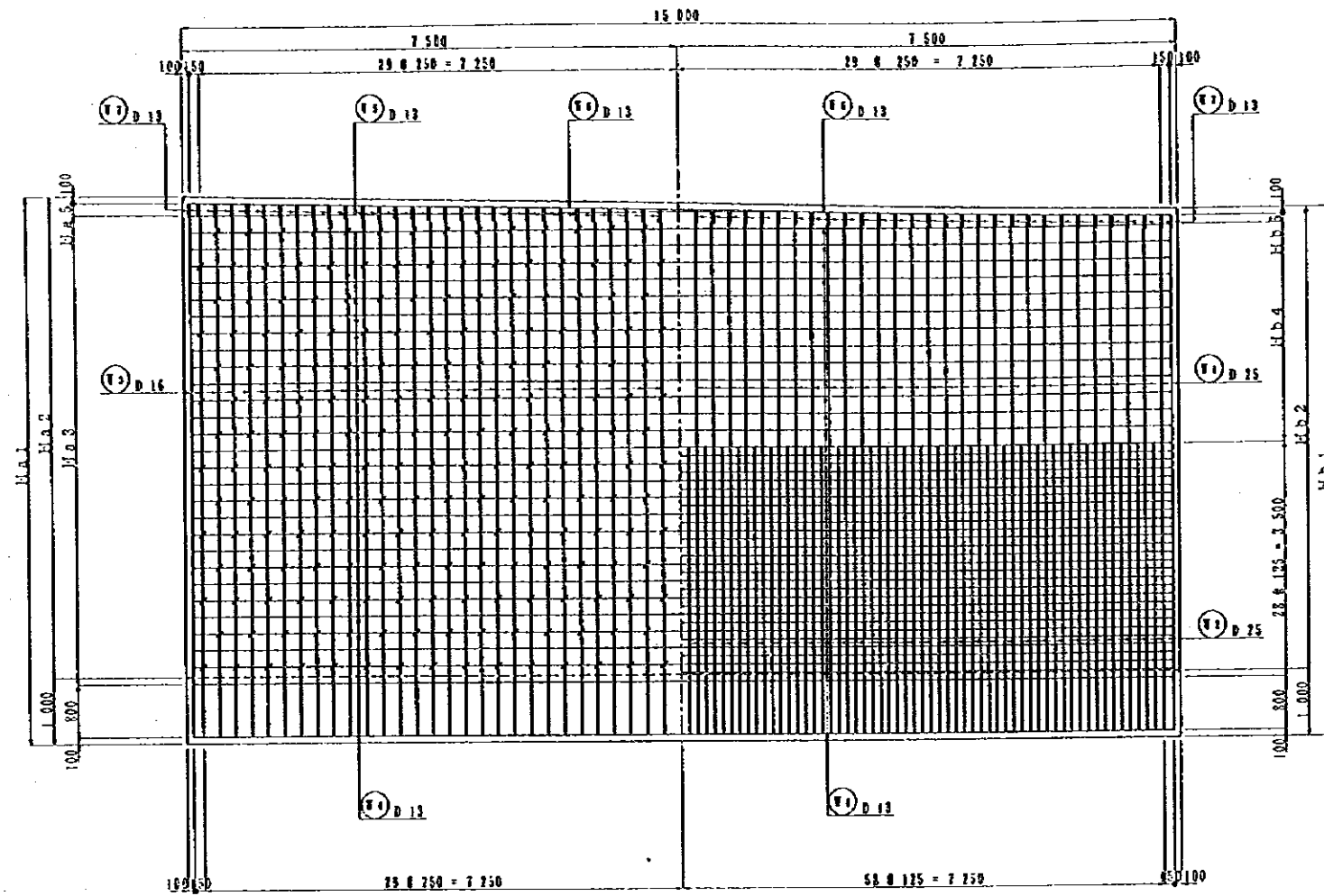
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

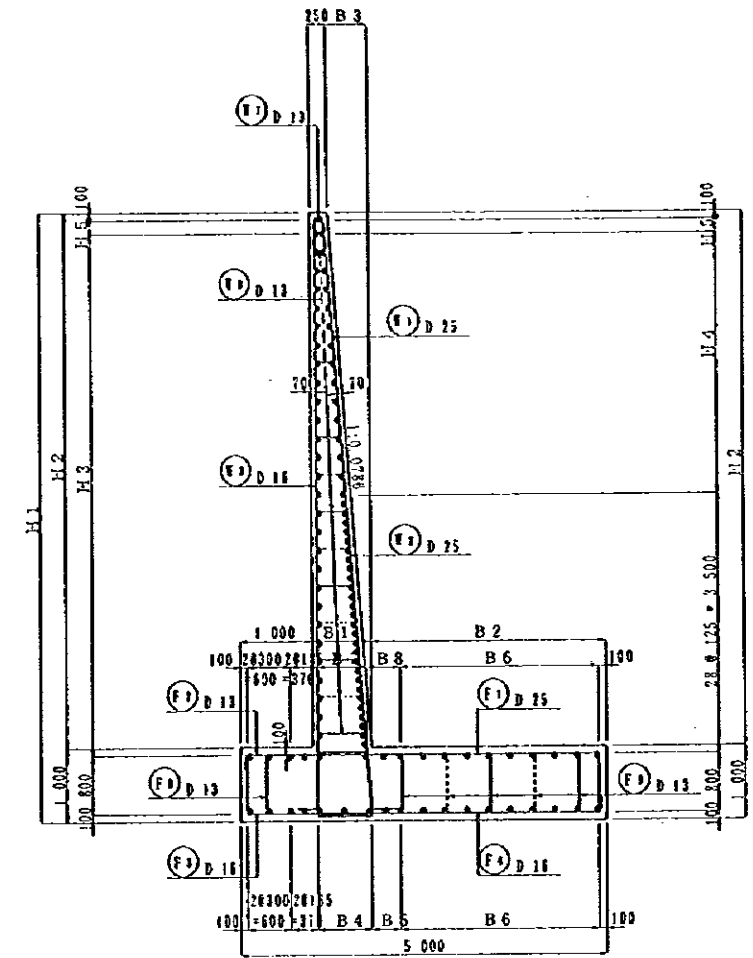
TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (9)

DATE : _____

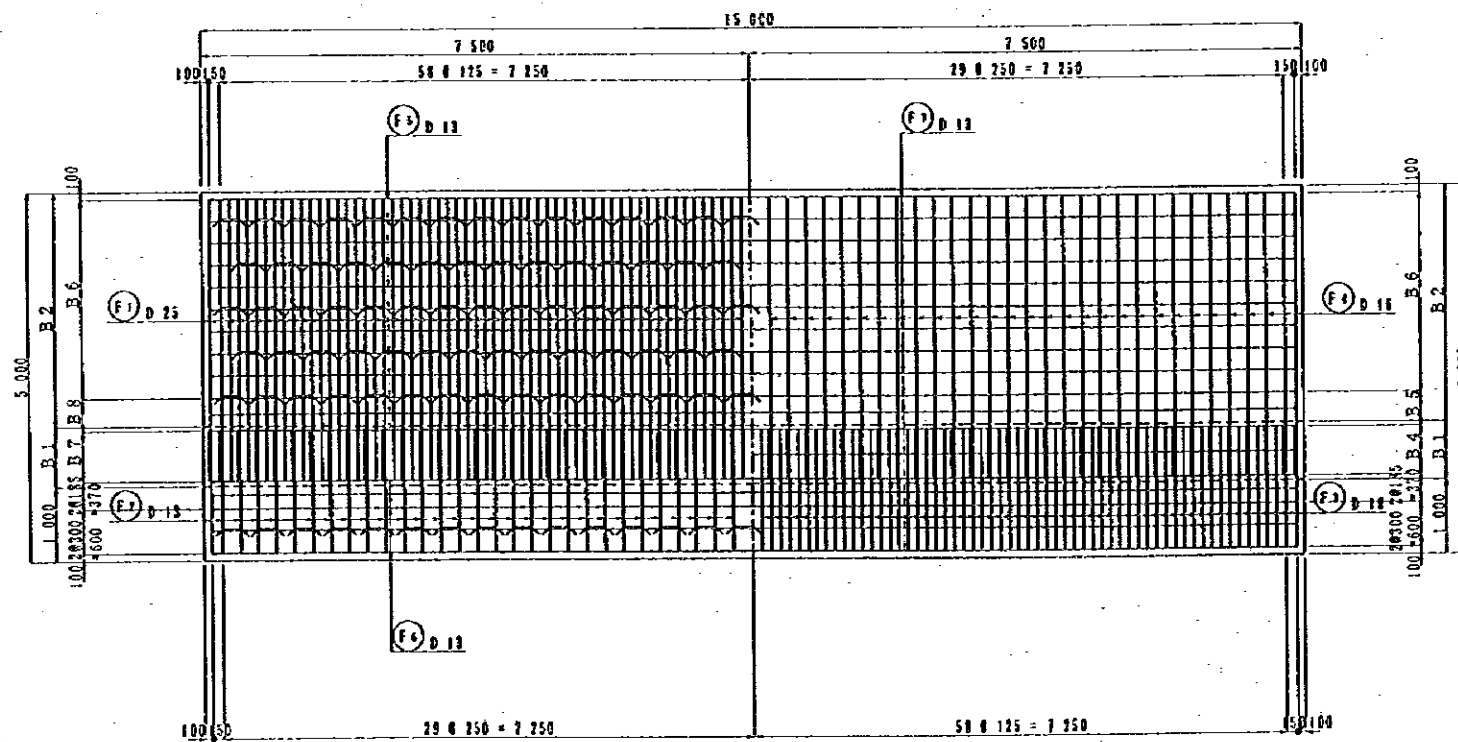
DWG NO. W-11



SIDE VIEW
S=1/100



SECTION
S=1/100



PLAN
S=1/100

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
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PACIFIC CONSULTANTS INTERNATIONAL
FLUKYAMA CONSULTANTS INTERNATIONAL

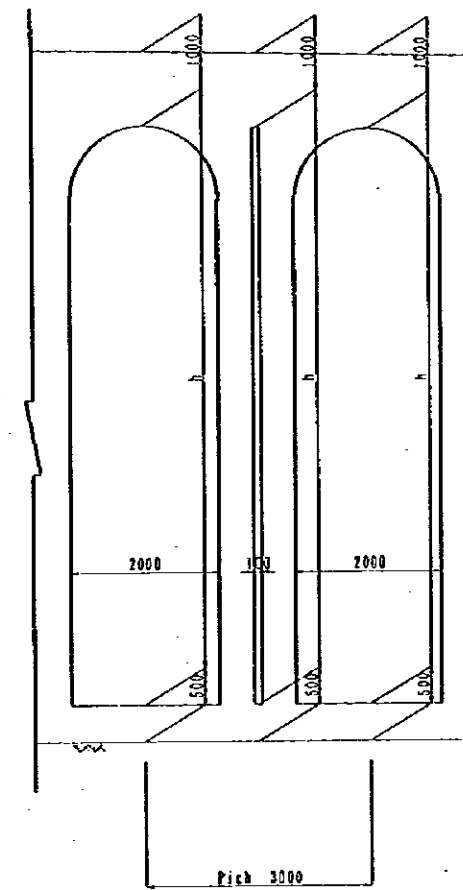
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (10)

DATE : DWG NO. W-12

		T-4		
		a - a	b - b	
A I L I N E	Ha1	7 080	Hb1 7 808	
	Ha2	6 080	Hb2 6 808	
	Ha3	24@250 = 6 000	Hb3 26@250 = 6 500	
	Ha4	10@250 = 2 500	Hb4 12@250 = 3 000	
	Ha5	80	Hb5 2@154 = 308	
	Ba1	729	Bb1 785	
	Ba2	3 271	Bb2 3 215	
	Ba3	479	Bb3 535	
A I L I N E	Ba4	2@328 = 656	Bb4 2@358 = 716	
	Ba5	2@237 = 474	Bb5 2@207 = 414	
	Ba6	9@300 = 2 700	Bb6 9@300 = 2 700	
	Ba7	597	Bb7 653	
	Ba8	2@266.5 = 533	Bb8 2@238.5 = 477	
			T-4	
			a - a	b - b
	A I L I N E	Ha1	7 080	Hb1 7 916
Ha2		6 080	Hb2 6 916	
Ha3		24@250 = 6 000	Hb3 27@250 = 6 750	
Ha4		10@250 = 2 500	Hb4 13@250 = 3 250	
Ha5		80	Hb5 166	
Ba1		729	Bb1 785	
Ba2		3 271	Bb2 3 215	
Ba3		479	Bb3 544	
A I L I N E	Ba4	2@330 = 660	Bb4 2@358 = 716	
	Ba5	2@235 = 470	Bb5 2@207 = 414	
	Ba6	9@300 = 2 700	Bb6 9@300 = 2 700	
	Ba7	597	Bb7 653	
	Ba8	2@266.5 = 533	Bb8 2@238.5 = 477	



Sill Shape in Front of Wall
(Thickness = 30 mm)

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

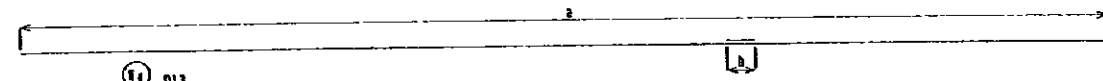
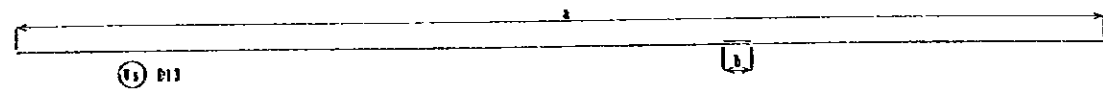
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

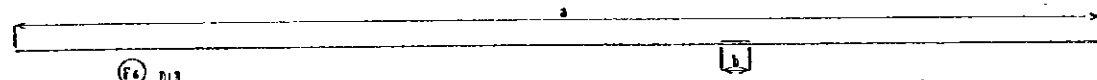
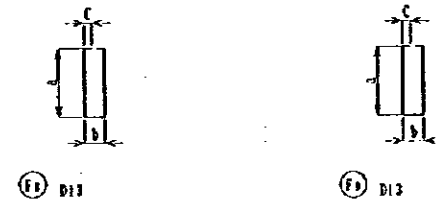
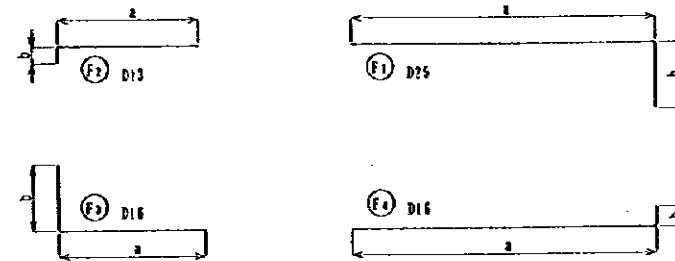
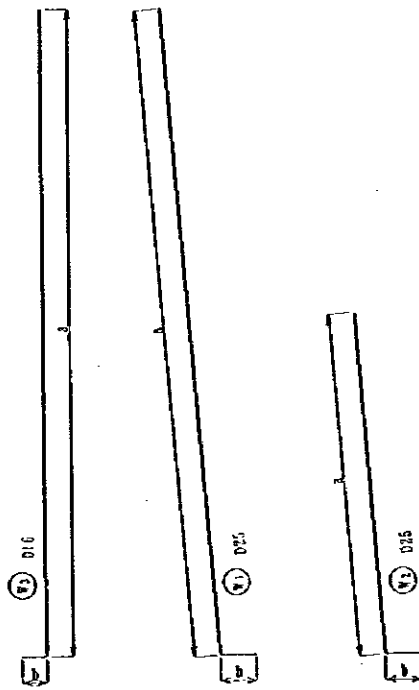
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (11)

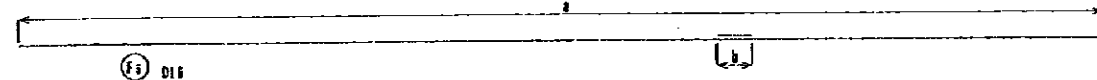
DATE : D/G NO. W-13



(14) D13
(15) D13



(16) D13
(17) D13



(18) D16

REIN. NO.	φ (mm)	LENGTH (mm)	a	b	c
F 4					
1	D 25	7 700	7 740~6 501	375	---
2	"	4 650	4 313	375	---
3	D 16	7 540	7 216~6 880	240	---
4	D 13	15 150	14 800	350	---
5	"	7 760	2 229~11 790	350	---
6	"	15 220	14 824	350	---
7	"	500	110	195	---
8	"	660	667~235	111	---
F 1	D 25	4 760	3 955	800	---
2	D 13	1 750	1 587	195	---
3	D 16	2 180	1 350	800	---
4	"	4 070	3 830	240	---
5	D 13	15 150	14 800	350	---
6	"	15 150	14 800	350	---
7	"	15 150	14 800	350	---
8	"	2 160	828	278	111
9	"	2 180	834	284	111

REIN. NO.	φ (mm)	LENGTH (mm)	a	b	c
F 4					
1	D 25	7 650	7 631~6 501	375	---
2	"	4 690	4 313	375	---
3	D 16	7 430	7 608~6 850	240	---
4	D 13	15 150	14 800	350	---
5	"	7 830	3 131~11 344	350	---
6	"	15 210	14 818	350	---
7	"	500	110	195	---
8	"	650	667~235	111	---
F 1	D 25	4 760	3 955	800	---
2	D 13	1 750	1 587	195	---
3	D 16	2 180	1 350	800	---
4	"	4 070	3 830	240	---
5	D 13	15 150	14 800	350	---
6	"	15 150	14 800	350	---
7	"	15 150	14 800	350	---
8	"	2 160	828	278	111
9	"	2 180	834	284	111

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
PURYAMA CONSULTANTS INTERNATIONAL

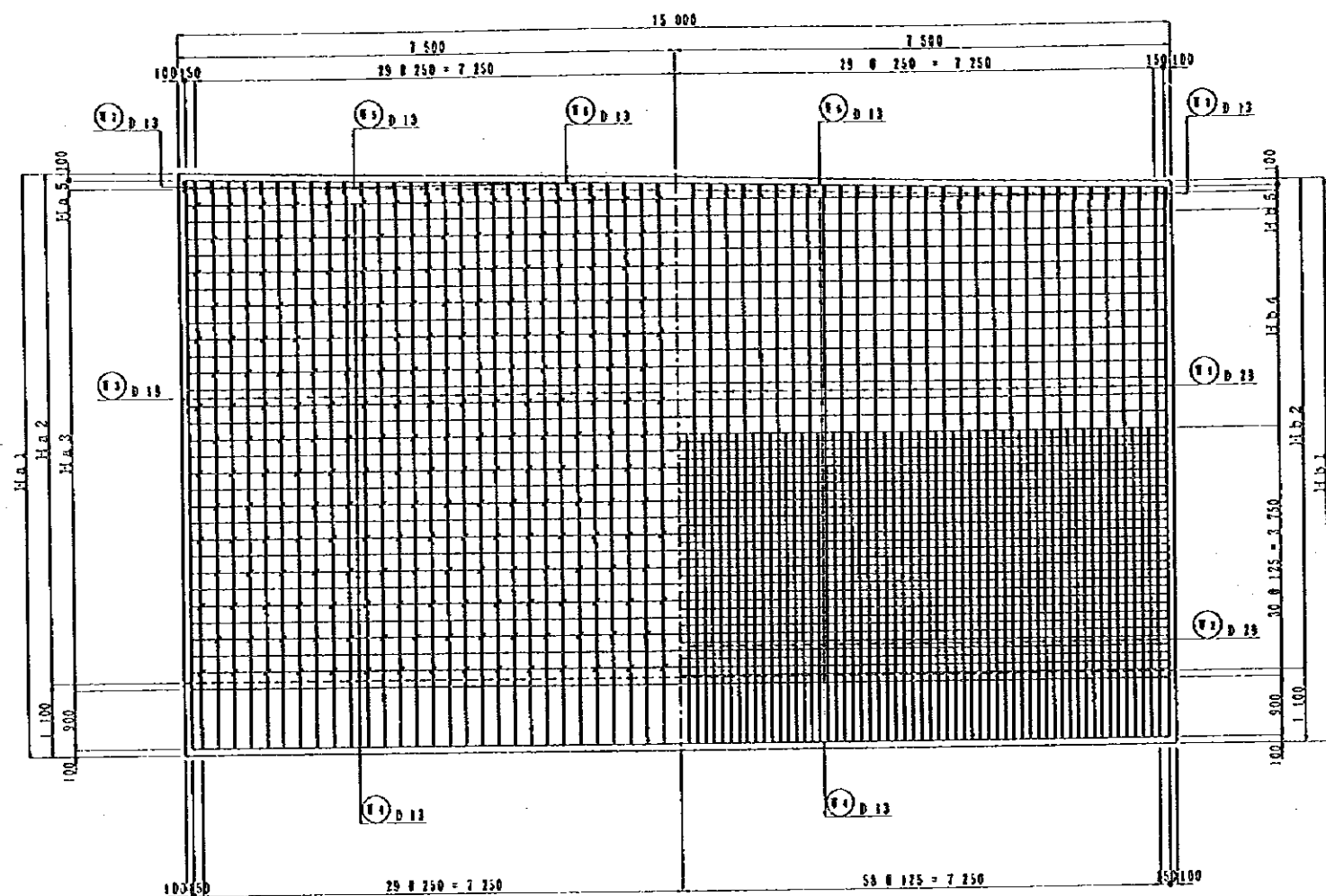
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

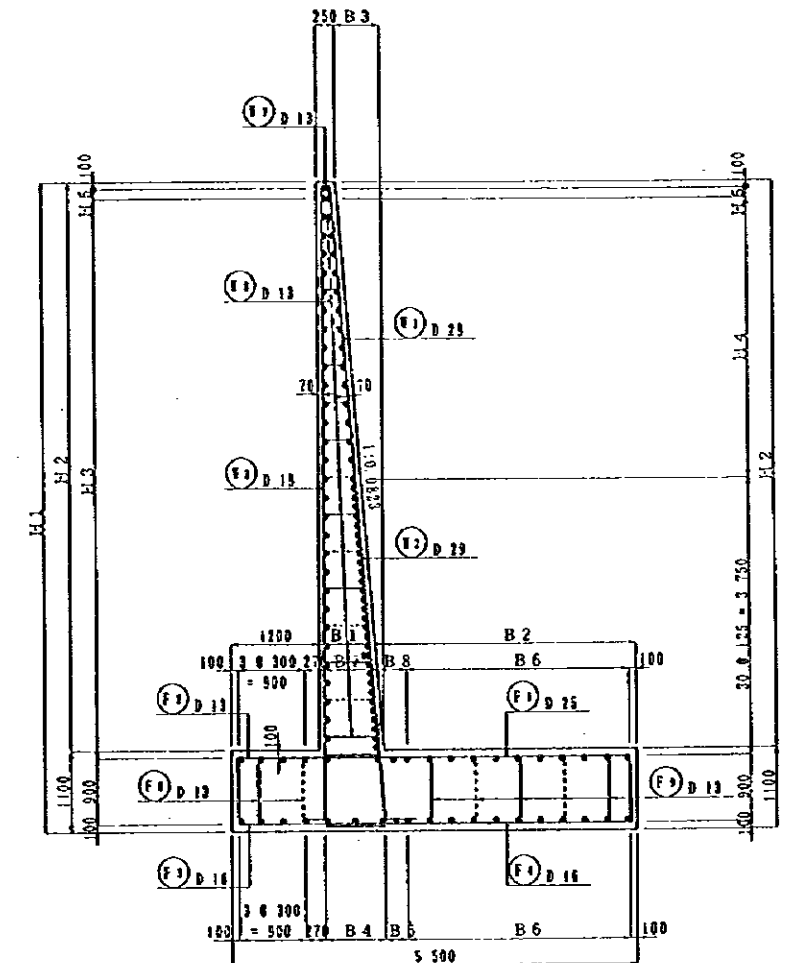
TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (12)

DATE : _____

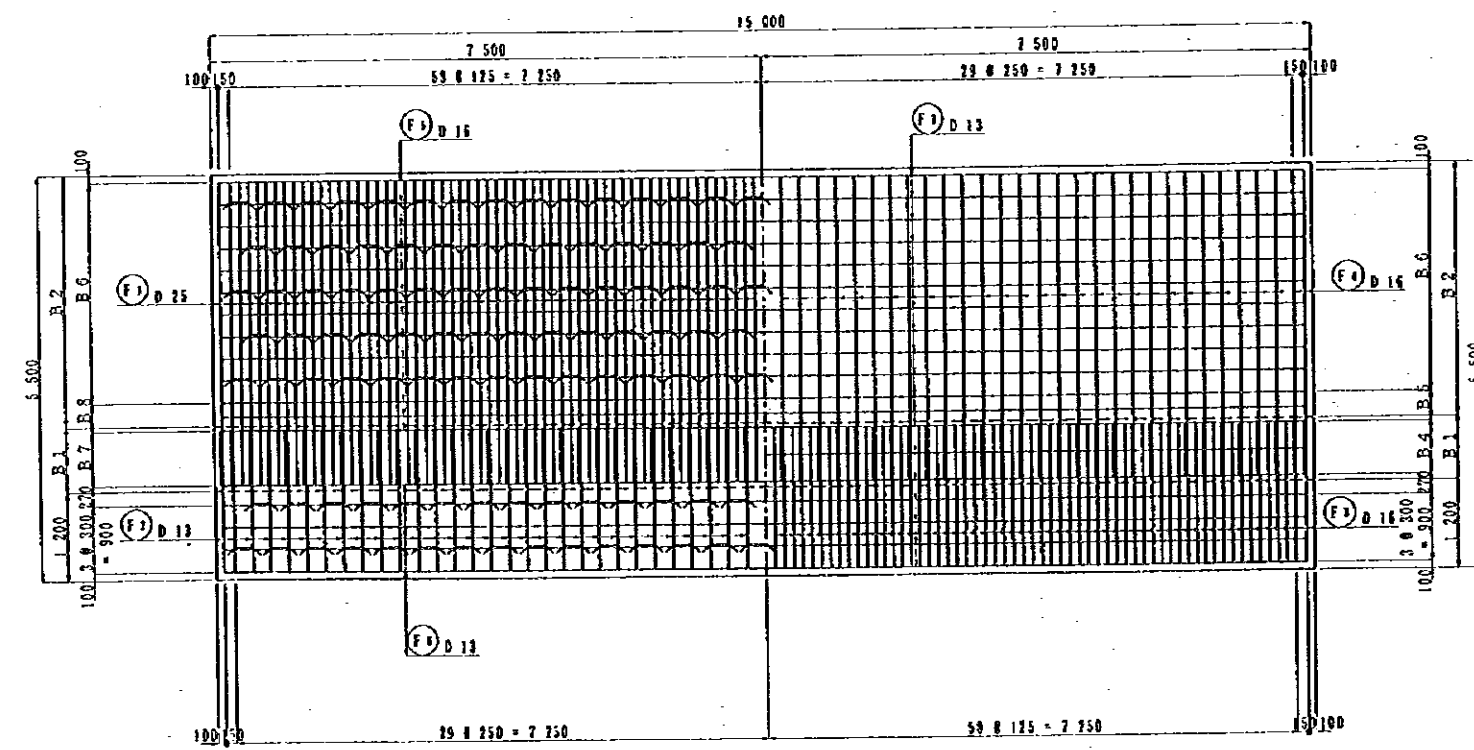
DWG NO. W-14



SIDE VIEW
S=1/100



SECTION
S=1/100

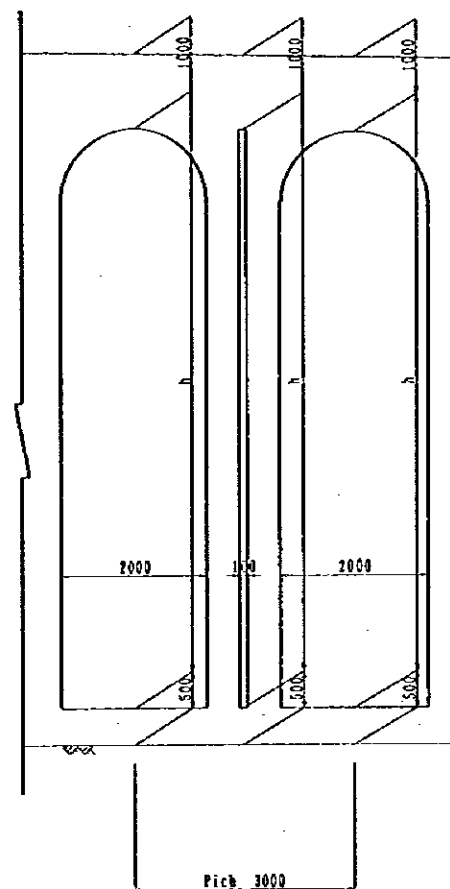


PLAN
S=1/100

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 : R/A-18, AQR RE-BAR ARRANGEMENT (13)
		DATE : _____ DWG NO. W-15

		T-5	
		a - a	b - b
A I L I N E	Ha1	7 908	Hb1 8 772
	Ha2	6 808	Hb2 7 672
	Ha3	27@250 = 6 750	Hb3 30@250 = 7 500
	Ha4	12@250 = 3 000	Hb4 15@250 = 3 750
	Ha5	58	Hb5 172
	Ba1	810	Bb1 881
	Ba2	3 490	Bb2 3 419
	Ba3	560	Bb3 631
Ba4	2@376.0 = 752	Bb4 2@411.5 = 823	
Ba5	2@189.0 = 378	Bb5 2@153.5 = 307	
Ba6	10@300 = 3 000	Bb6 10@300 = 3 000	
Ba7	678	Bb7 749	
Ba8	2@226.0 = 452	Bb8 2@190.5 = 381	
		T-5	
		a - a	b - b
A I L I N E	Ha1	8 016	Hb1 9 120
	Ha2	6 916	Hb2 8 020
	Ha3	27@250 = 6 750	Hb3 31@250 = 7 750
	Ha4	12@250 = 3 000	Hb4 16@250 = 4 000
	Ha5	166	Hb5 2@135 = 270
	Ba1	819	Bb1 910
	Ba2	3 481	Bb2 3 390
	Ba3	569	Bb3 660
Ba4	2@380.5 = 761	Bb4 2@426.0 = 852	
Ba5	2@184.5 = 369	Bb5 2@139.0 = 278	
Ba6	10@300 = 3 000	Bb6 10@300 = 3 000	
Ba7	687	Bb7 778	
Ba8	2@221.5 = 443	Bb8 2@176.0 = 352	



Slit Shape in Front of Wall
(Thickness t=30 mm)

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

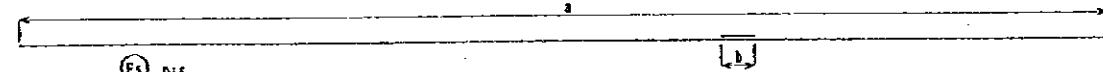
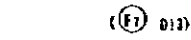
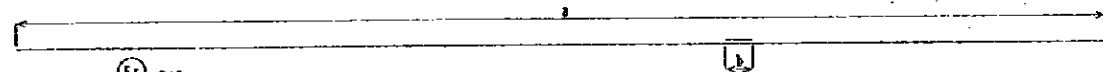
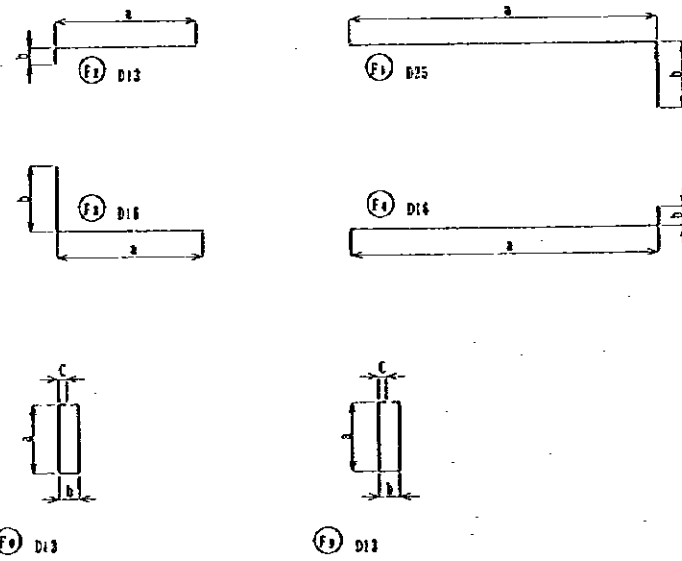
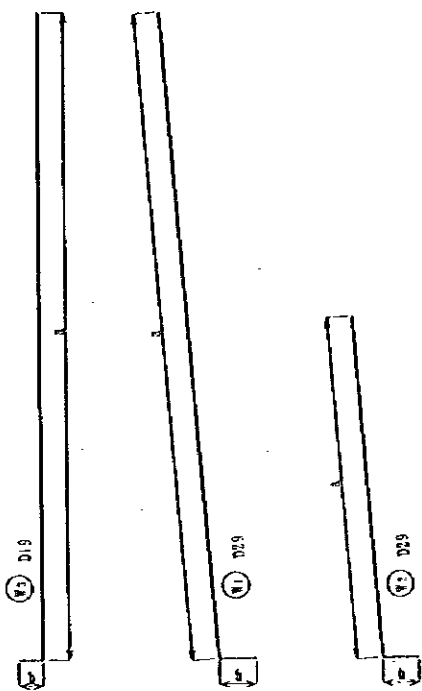
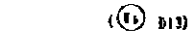
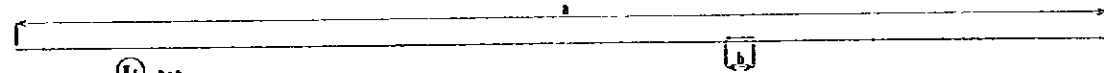
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (14)

DATE

DWG NO. W-16



REIN. NO.	φ (mm)	LENGTH (mm)	a	b	c
T 5					
W 1	D 25	8 810	8 950~7 842	435	---
2	"	5 110	4 666	435	---
3	D 13	8 660	8 920~7 816	285	---
4	D 13	15 190	14 800	390	---
5	"	8 140	8 618~7 674	390	---
6	"	15 240	14 841	390	---
7	"	500	110	195	---
8	"	710	755~178	111	---
F 1	D 25	5 650	4 148	900	---
2	D 13	2 050	1 895	195	---
3	D 16	2 450	1 530	900	---
4	"	4 370	4 130	240	---
5	"	15 280	14 800	480	---
6	D 13	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 360	928	278	111
9	"	2 360	934	284	111

REIN. NO.	φ (mm)	LENGTH (mm)	a	b	c
T 5					
W 1	D 25	8 810	8 601~7 234	435	---
2	"	5 110	4 666	435	---
3	D 13	8 430	8 572~7 705	285	---
4	D 13	15 190	14 800	390	---
5	"	7 620	2 918~11 511	390	---
6	"	15 220	14 825	390	---
7	"	500	110	195	---
8	"	680	766~145	111	---
F 1	D 25	5 650	4 167	900	---
2	D 13	2 080	1 876	195	---
3	D 16	2 480	1 583	900	---
4	"	4 370	4 130	240	---
5	"	15 280	14 826	480	---
6	D 13	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 360	928	278	111
9	"	2 360	938	284	111

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

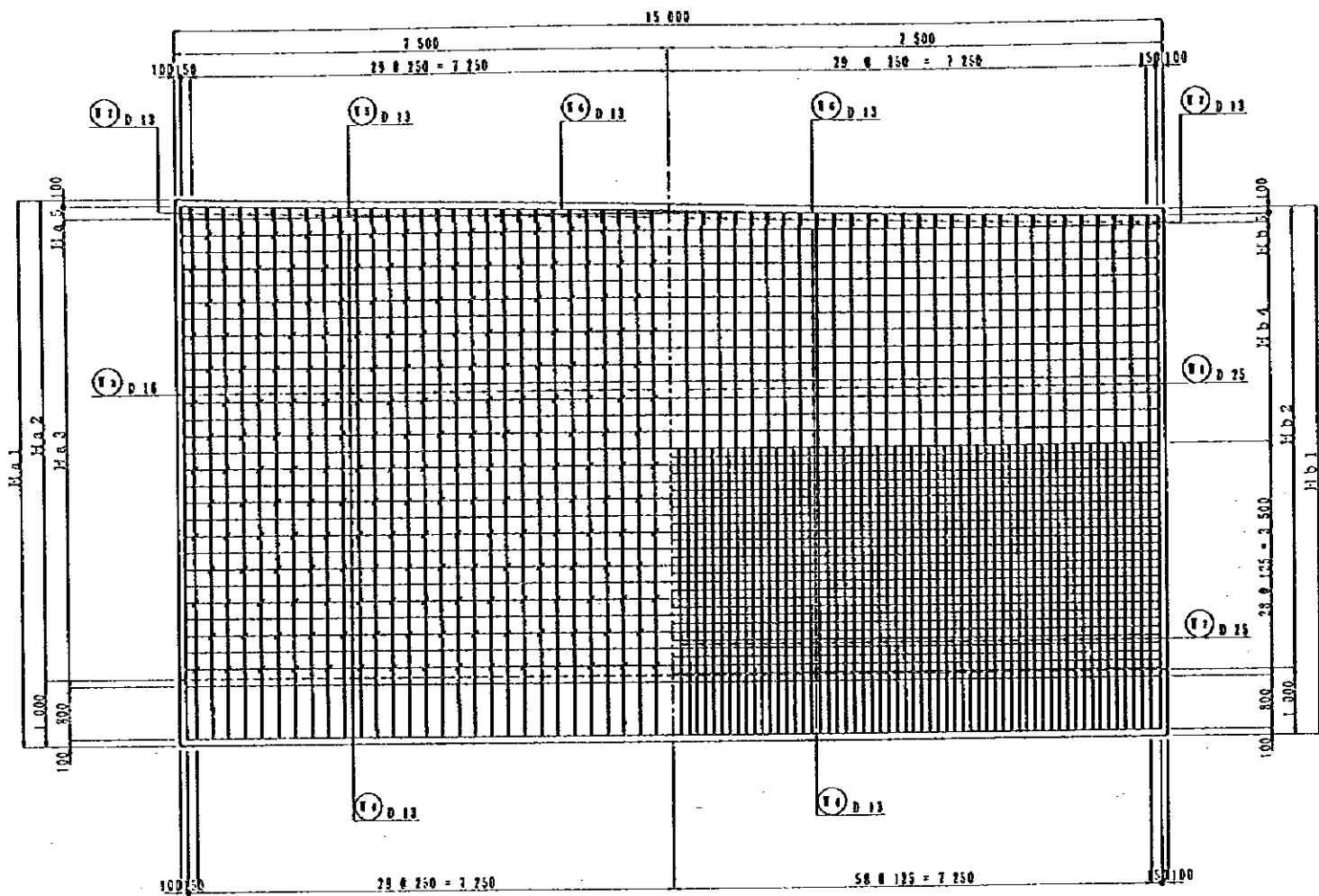
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

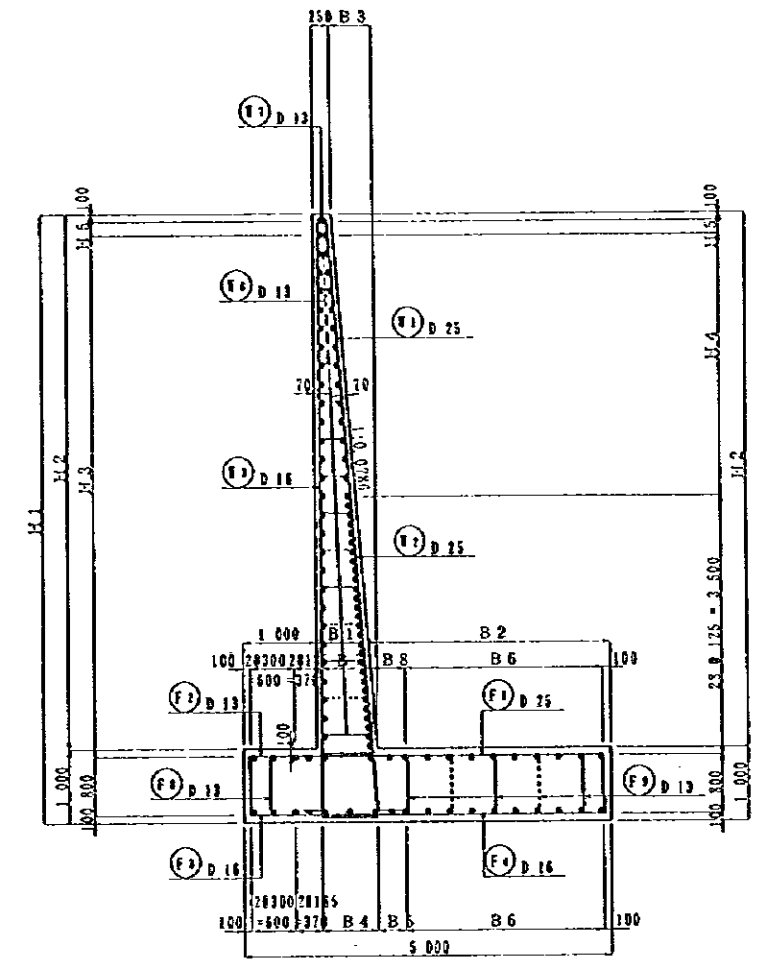
TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (15)

DATE

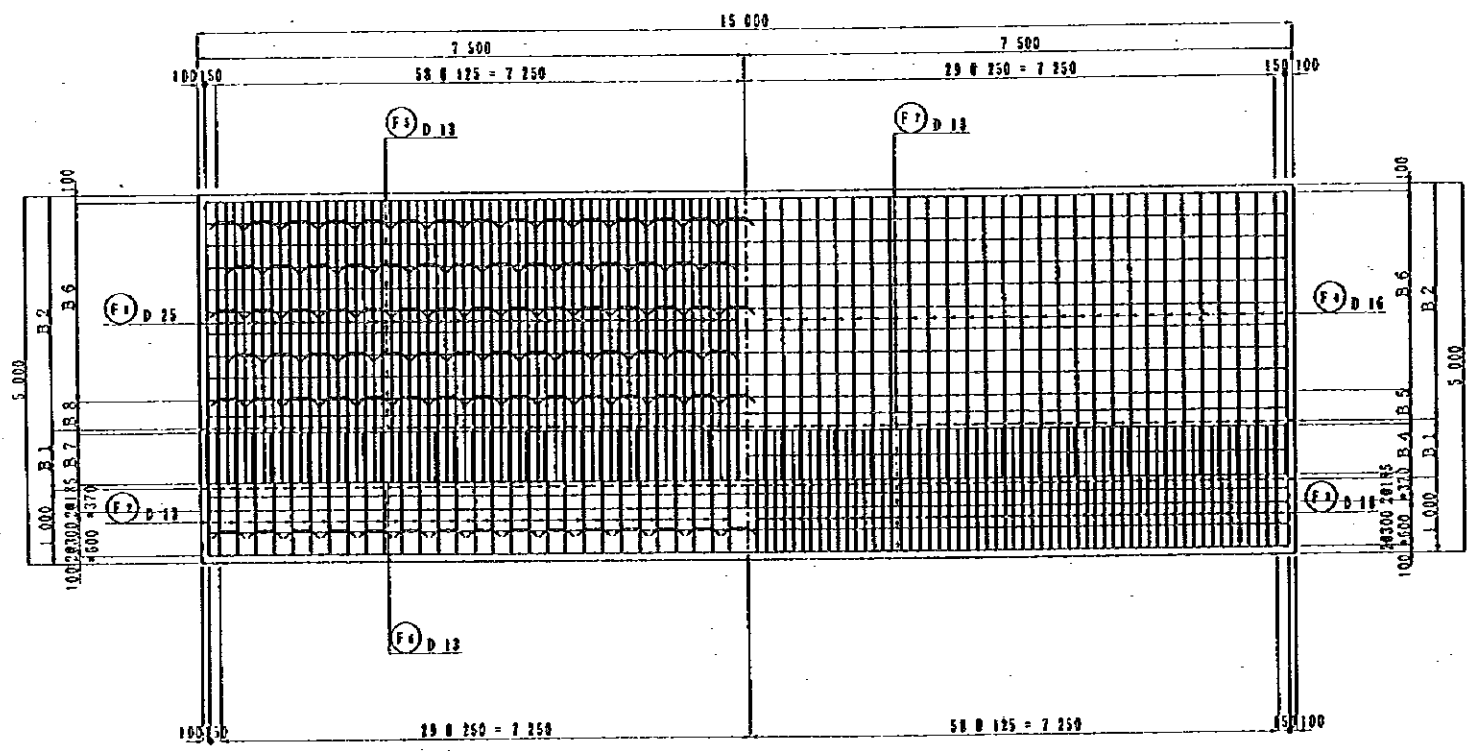
DWG NO. W-17



SIDE VIEW
S=1/100



SECTION
S=1/100



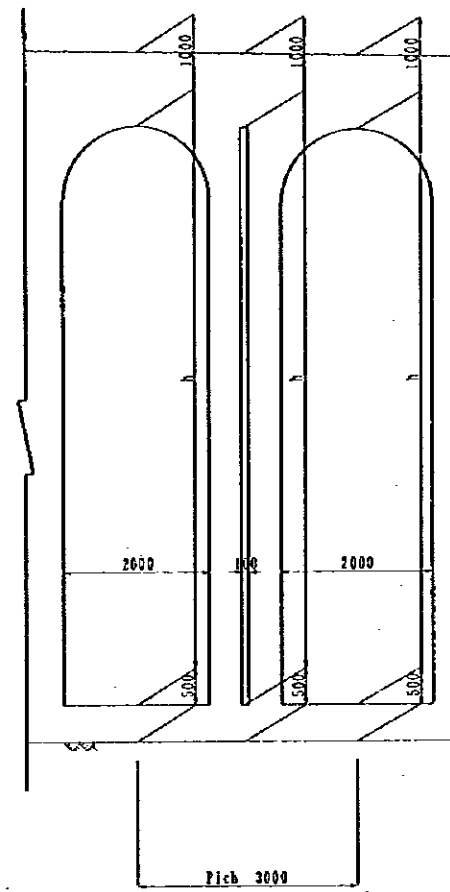
PLAN
S=1/100

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 : R/A-18, AQR RE-BAR ARRANGEMENT (1)
DATE :
DWG NO. W-19

T-6				
	a - a		b - b	
A I L I N E	H a 1	7 769	H b 1	6 871
	H a 2	6 769	H b 2	5 871
	H a 3	26@250 = 6 500	H b 3	23@250 = 5 750
	H a 4	12@250 = 3 000	H b 4	9@250 = 2 250
	H a 5	2@134.5 = 269	H b 5	121
	B a 1	782	B b 1	711
	B a 2	3 218	B b 2	3 289
	B a 3	532	B b 3	461
	B a 4	2@356.5 = 713	B b 4	2@321.0 = 642
	B a 5	2@208.5 = 417	B b 5	2@244.0 = 488
	B a 6	9@300 = 2 700	B b 6	9@300 = 2 700
	B a 7	650	B b 7	579
	B a 8	2@240.0 = 480	B b 8	2@275.5 = 551
	T-6			
		a - a		b - b
	A I L I N E	H a 1	7 514	H b 1
H a 2		6 514	H b 2	5 611
H a 3		25@250 = 6 250	H b 3	22@250 = 5 500
H a 4		11@250 = 2 750	H b 4	8@250 = 2 000
H a 5		2@132 = 264	H b 5	111
B a 1		762	B b 1	691
B a 2		3 288	B b 2	3 309
B a 3		512	B b 3	441
B a 4		2@346.5 = 693	B b 4	2@311.0 = 622
B a 5		2@218.5 = 437	B b 5	2@254.0 = 508
B a 6		9@300 = 2 700	B b 6	9@300 = 2 700
B a 7		630	B b 7	559
B a 8		2@250 = 500	B b 8	2@285.5 = 571



Slit Shape in Front of Wall
(Thickness t=30 mm)

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUJUYAMA CONSULTANTS INTERNATIONAL

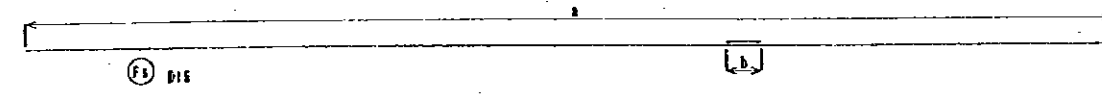
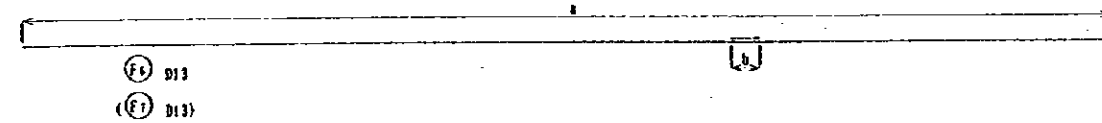
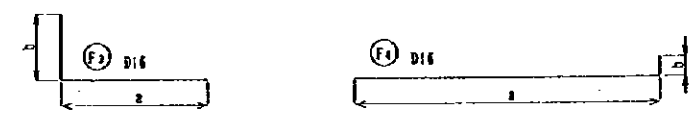
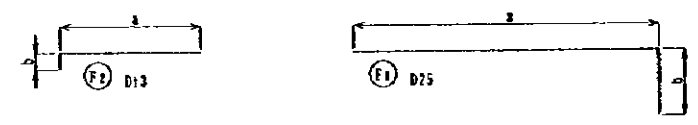
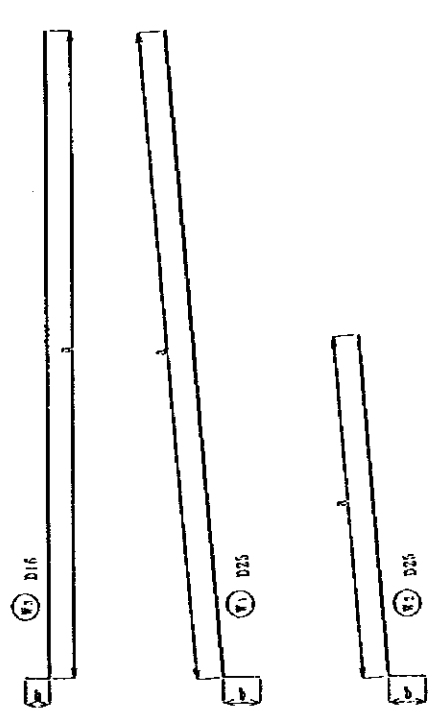
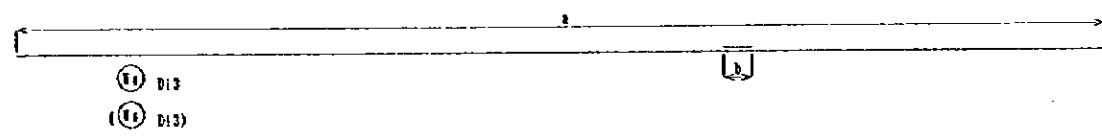
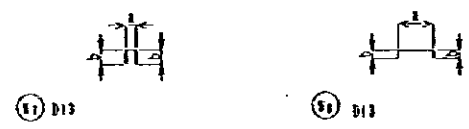
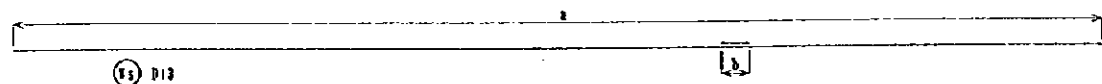
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (2)

DATE

DWG NO. W-20



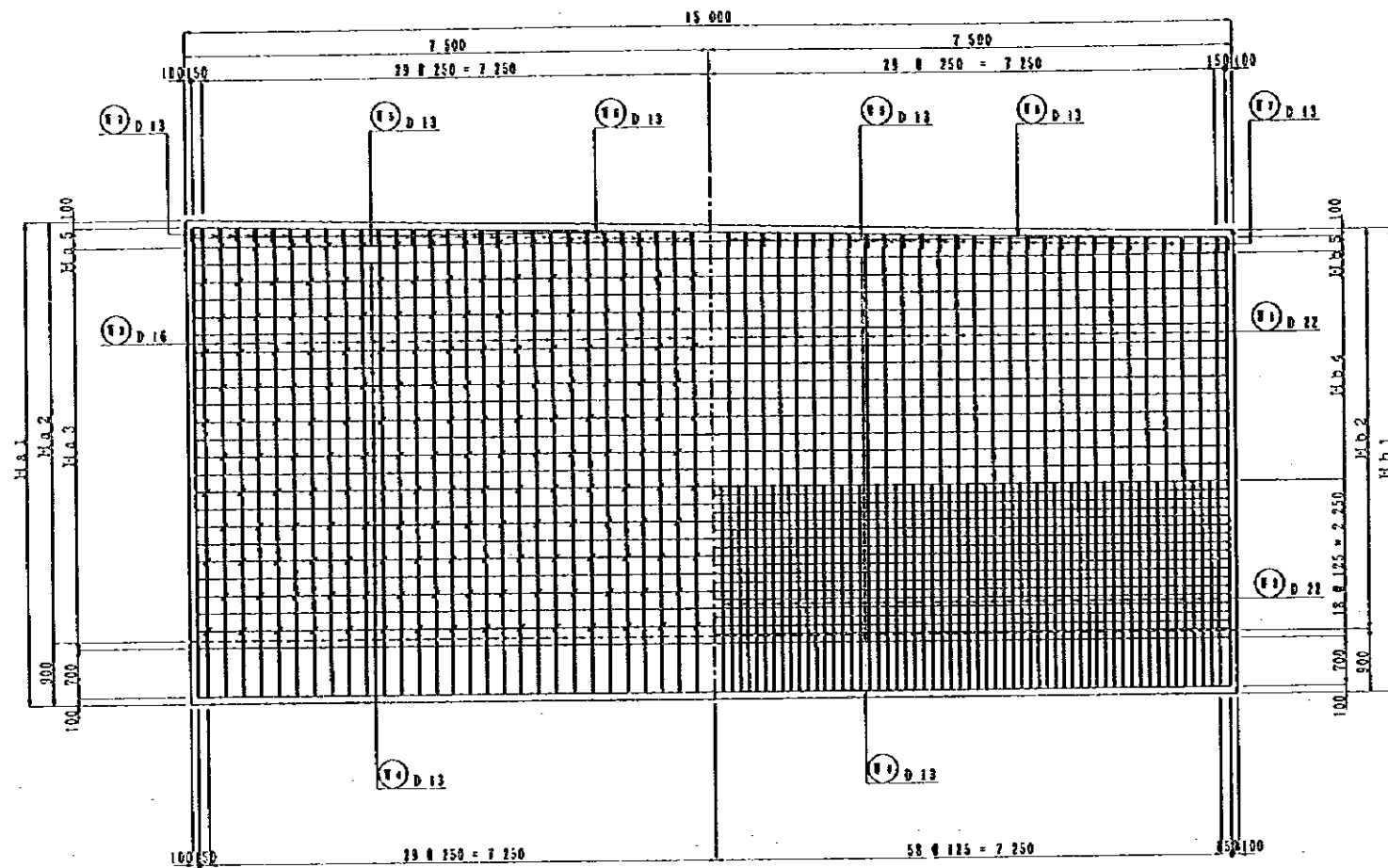
REIN. NO.	φ (mm)	LENGTH (mm)	a	b	c
T 6					
T 1	D 25	7 260	7 337~8 431	375	---
2	"	4 650	4 313	375	---
3	D 16	7 110	7 314~8 411	240	---
4	D 13	15 190	14 800	390	---
5	"	7 240	2 163~12 522	390	---
6	"	15 220	14 878	390	---
7	"	500	110	195	---
8	"	650	644~212	111	---
F 1	D 25	3 450	2 300	4 150	---
2	D 13	1 680	1 430	195	---
3	D 16	2 600	1 450	1 150	---
4	"	2 520	2 330	195	---
5	D 13	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 160	828	278	111
9	"	2 160	834	284	111

REIN. NO.	φ (mm)	LENGTH (mm)	a	b	c
T 6					
T 1	D 22	7 520	7 592~8 697	375	---
2	"	4 690	4 313	375	---
3	D 16	7 360	7 563~8 671	240	---
4	D 13	15 190	14 800	390	---
5	"	7 240	2 217~12 674	390	---
6	"	15 220	14 827	390	---
7	"	500	110	195	---
8	"	650	644~212	111	---
F 1	D 25	4 270	3 556	800	---
2	D 13	1 780	1 577	195	---
3	D 16	2 180	1 330	800	---
4	"	4 070	3 830	240	---
5	D 13	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 160	828	278	111
9	"	2 170	834	284	111

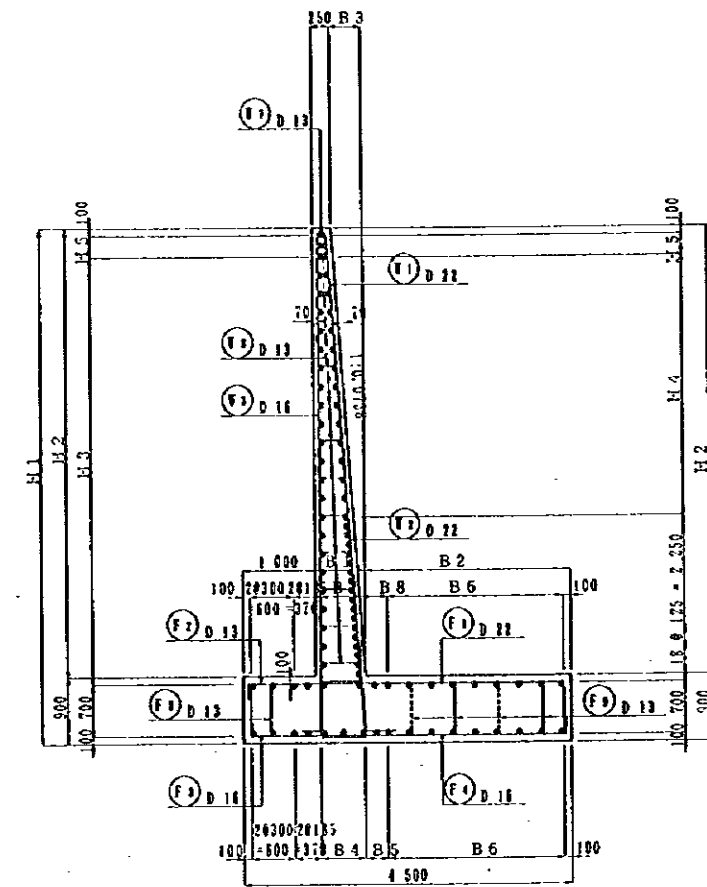
NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
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JICA STLDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

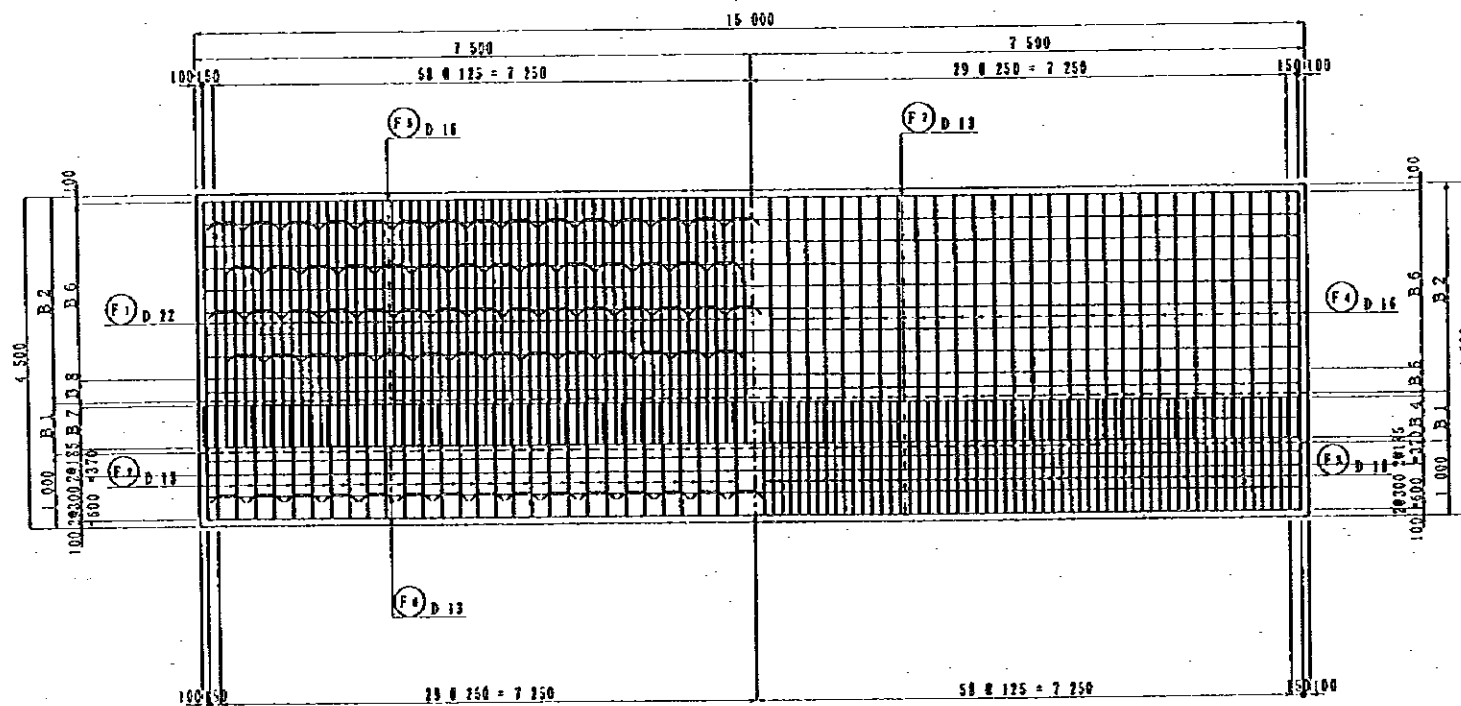
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (3)
DATE :
DWG NO. W-21



SIDE VIEW
S=1/100



SECTION
S=1/100



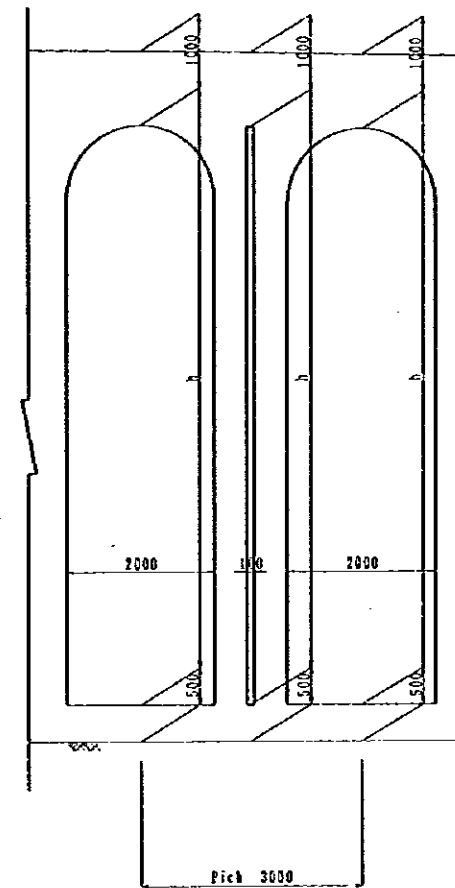
PLAN
S=1/100

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 : R/A-18, AQR RE-BAR ARRANGEMENT (4)
DATE :
DWG NO. W-22

		T-7		
		a - a	b - b	
A I L I N E	Ha1	6 771	Hb1 5 937	
	Ha2	5 871	Hb2 5 073	
	Ha3	23@250 = 5 750	Hb3 20@250 = 5 000	
	Ha4	14@250 = 3 500	Hb4 11@250 = 2 750	
	Ha5	121	Hb5 73	
	Ba1	683	Bb1 624	
	Ba2	2 817	Bb2 2 876	
	Ba3	433	Bb3 374	
A I L I N E	Ba4	2@301.0 = 602	Bb4 2@271.5 = 543	
	Ba5	2@164.0 = 328	Bb5 2@193.5 = 387	
	Ba6	8@300 = 2 400	Bb6 8@300 = 2 400	
	Ba7	550	Bb7 491	
	Ba8	2@190 = 380	Bb8 2@219.5 = 439	
			T-7	
			a - a	b - b
	A I L I N E	Ha1	6 511	Hb1 5 755
Ha2		5 611	Hb2 4 855	
Ha3		22@250 = 5 500	Hb3 19@250 = 4 750	
Ha4		13@250 = 3 250	Hb4 10@250 = 2 500	
Ha5		111	Hb5 105	
Ba1		664	Bb1 608	
Ba2		2 836	Bb2 2 892	
Ba3		414	Bb3 358	
A I L I N E	Ba4	2@291.5 = 583	Bb4 2@263.5 = 527	
	Ba5	2@173.5 = 347	Bb5 2@201.5 = 403	
	Ba6	8@300 = 2 400	Bb6 8@300 = 2 400	
	Ba7	531	Bb7 475	
	Ba8	2@199.5 = 399	Bb8 2@227.5 = 455	



Slit Shape in Front of Wall
(Thickness t=30 mm)

NOTES:-

JAPAN INTERNATIONAL COOPERATION AGENCY
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FUJYAMA CONSULTANTS INTERNATIONAL

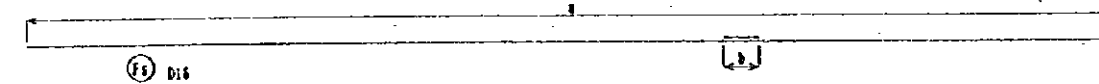
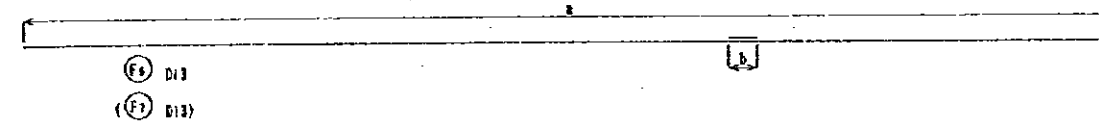
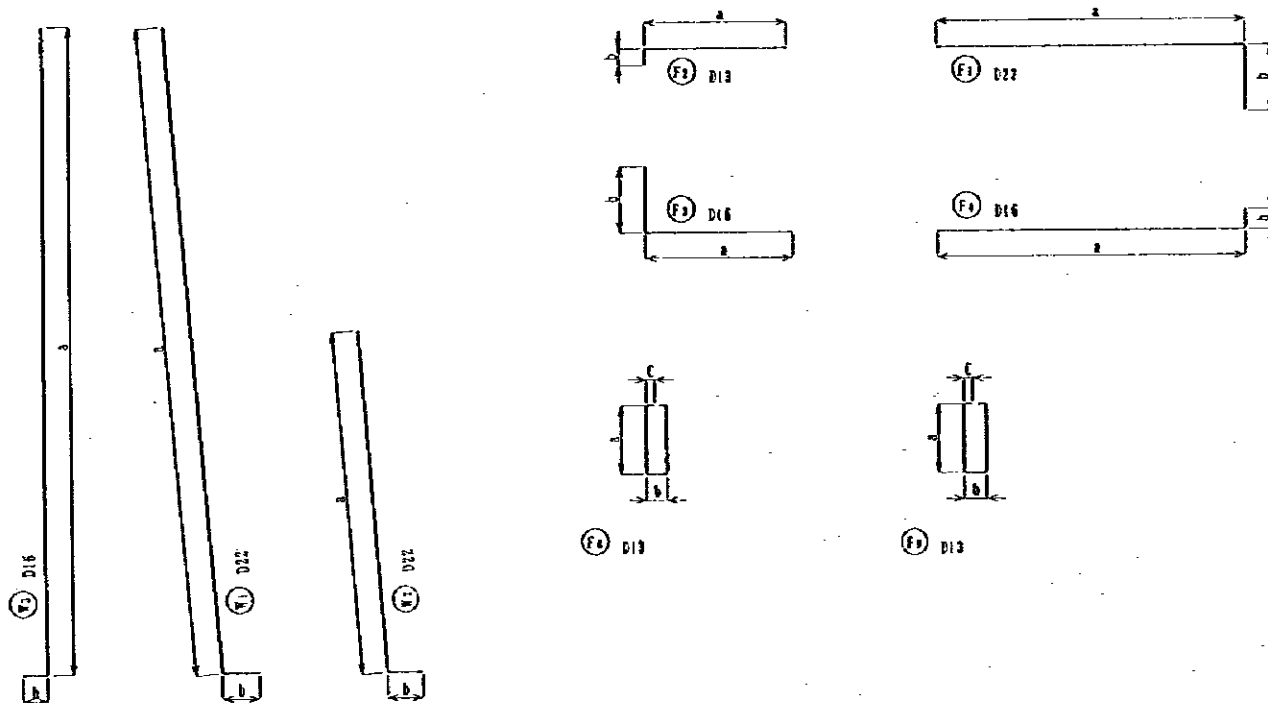
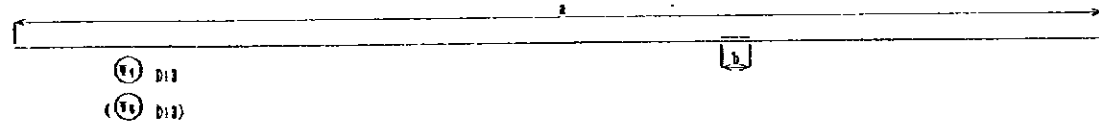
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (5)

DATE

DWG NO. W-23



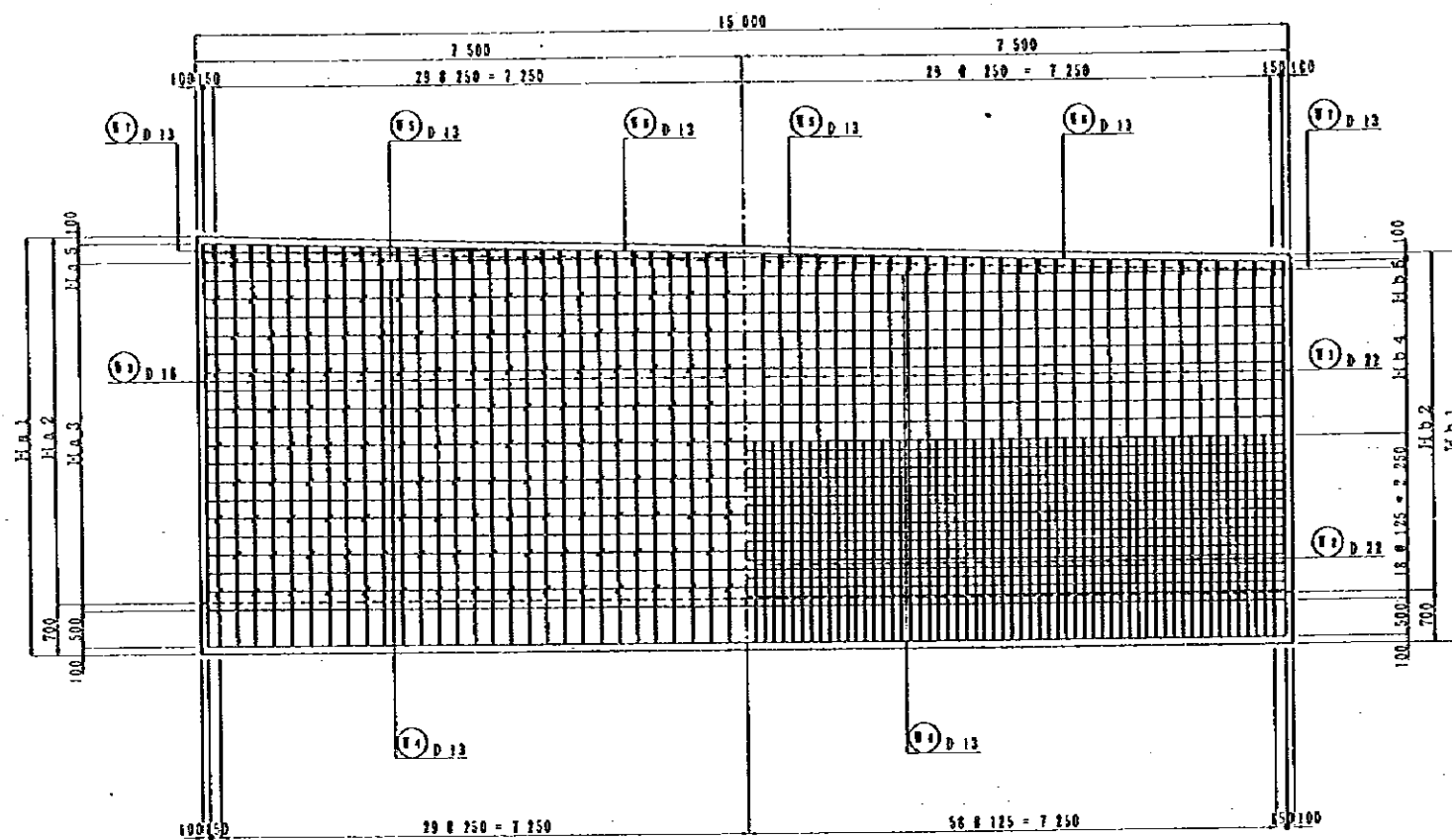
REIN NO.	Ø (mm)	LENGTH (mm)	a	b	c
T T					
W 1	D 22	6 520	6 589~5 789	330	---
2	"	3 292	2 958	330	---
3	D 16	6 470	6 571~5 773	240	---
4	D 13	15 190	14 800	390	---
5	"	7 280	2 244~11 512	390	---
6	"	15 820	14 821	390	---
7	"	500	110	195	---
8	"	610	564~135	111	---
F 1	D 22	4 170	3 470	700	---
2	D 13	1 480	1 484	195	---
3	D 16	2 080	1 380	700	---
4	"	3 570	3 330	240	---
5	"	15 280	14 800	480	---
6	D 13	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	1 960	728	278	111
9	"	1 970	732	282	111

REIN NO.	Ø (mm)	LENGTH (mm)	a	b	c
T T					
W 1	D 22	6 260	6 328~5 570	330	---
2	"	3 290	2 958	330	---
3	D 16	6 180	6 311~5 555	240	---
4	D 13	15 190	14 800	390	---
5	"	7 460	2 173~11 961	390	---
6	"	15 210	14 819	390	---
7	"	500	110	195	---
8	"	610	545~213	111	---
F 1	D 22	4 190	3 482	700	---
2	D 13	1 670	1 466	195	---
3	D 16	2 080	1 380	700	---
4	"	3 570	3 330	240	---
5	"	15 280	14 800	480	---
6	D 13	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	1 960	728	278	111
9	"	1 970	732	282	111

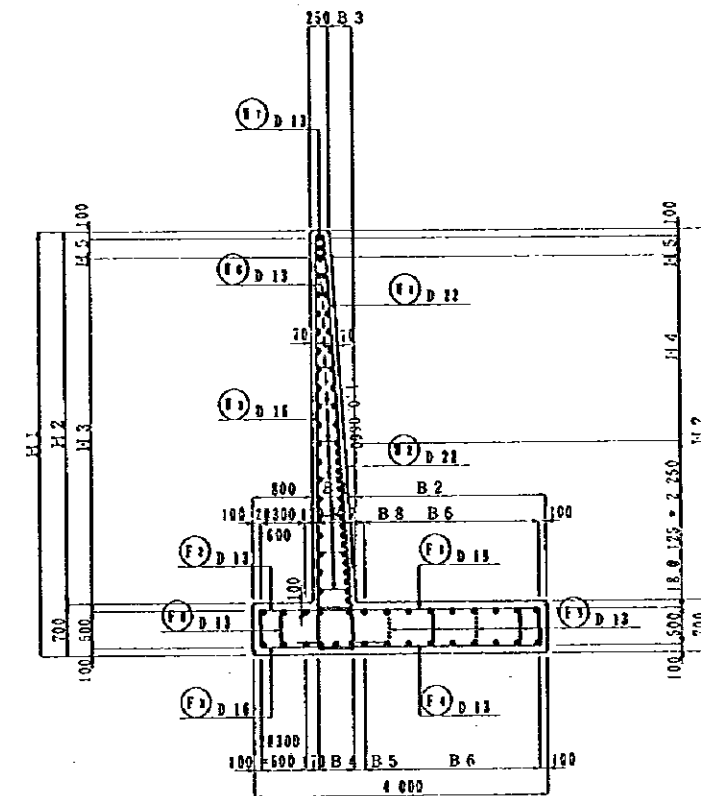
NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
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FUKUYAMA CONSULTANTS INTERNATIONAL

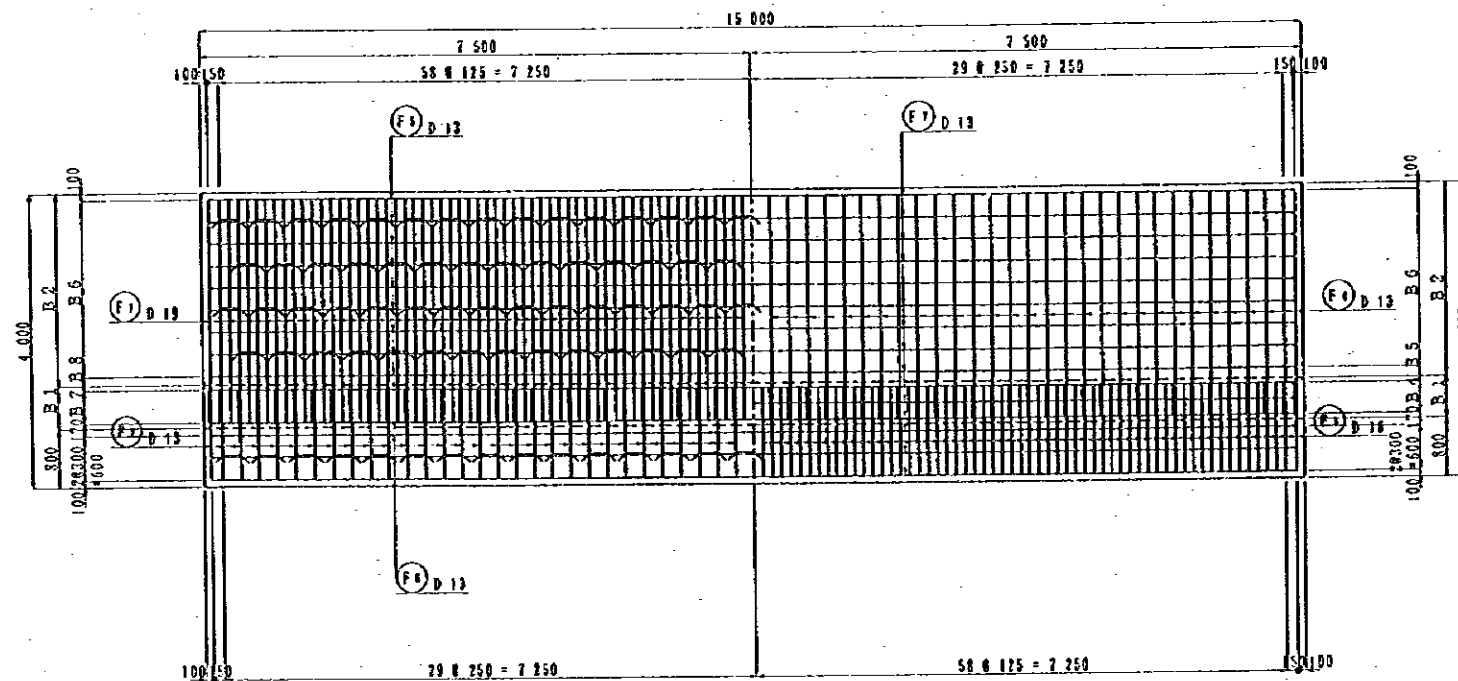
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (6)
DATE : DWG NO. W-24



SIDE VIEW
S=1/100



SECTION
S=1/100



PLAN
S=1/100

NOTES:

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

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

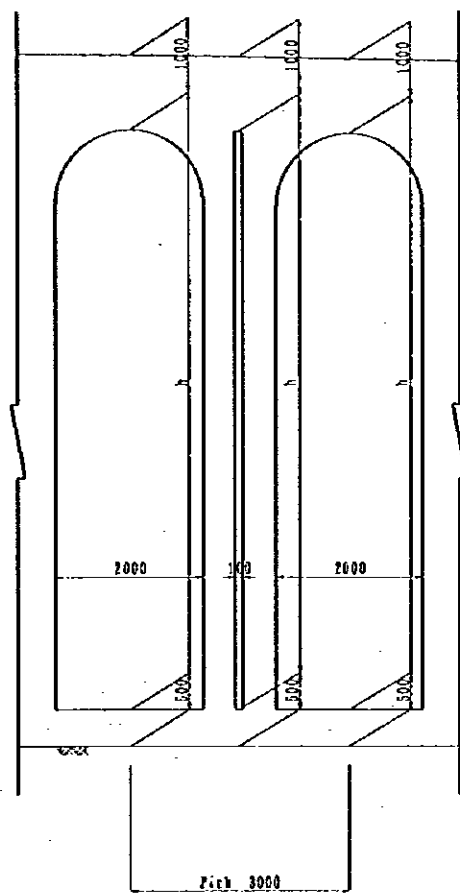
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (7)

DATE

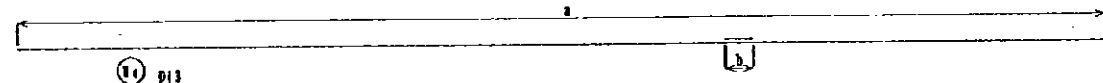
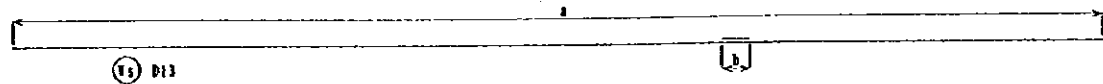
DWG NO. W-25

		T-8		
		a - a	b - b	
A I L I N E	Ha1	5 773	Hb1 4 974	
	Ha2	5 073	Hb2 4 274	
	Ha3	19@250 = 4 750	Hb3 17@250 = 4 250	
	Ha4	10@250 = 2 500	Hb4 8@250 = 2 000	
	Ha5	2@161.5 = 323	Hb5 24	
	Ba1	585	Bb1 532	
	Ba2	2 815	Bb2 2 868	
	Ba3	335	Bb3 282	
A I L I N E	Ba4	2@242.0 = 484	Bb4 2@215.5 = 431	
	Ba5	146	Bb5 199	
	Ba6	8@300 = 2 400	Bb6 8@300 = 2 400	
	Ba7	451	Bb7 398	
	Ba8	179	Bb8 232	
			T-8	
			a - a	b - b
	A I L I N E	Ha1	5 555	Hb1 4 799
Ha2		4 855	Hb2 4 099	
Ha3		19@250 = 4 750	Hb3 16@250 = 4 000	
Ha4		10@250 = 2 500	Hb4 7@250 = 1 750	
Ha5		105	Hb5 99	
Ba1		570	Bb1 520	
Ba2		2 630	Bb2 2 680	
Ba3		320	Bb3 270	
A I L I N E	Ba4	2@234.5 = 469	Bb4 2@209.5 = 419	
	Ba5	161	Bb5 211	
	Ba6	8@300 = 2 400	Bb6 8@300 = 2 400	
	Ba7	436	Bb7 386	
	Ba8	194	Bb8 244	



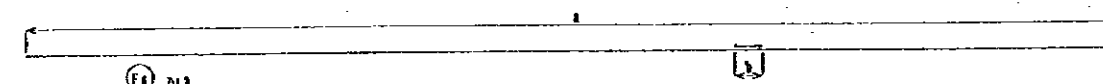
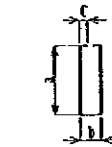
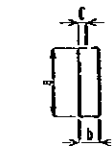
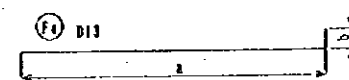
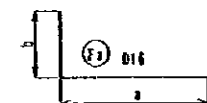
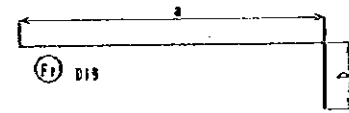
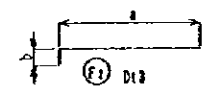
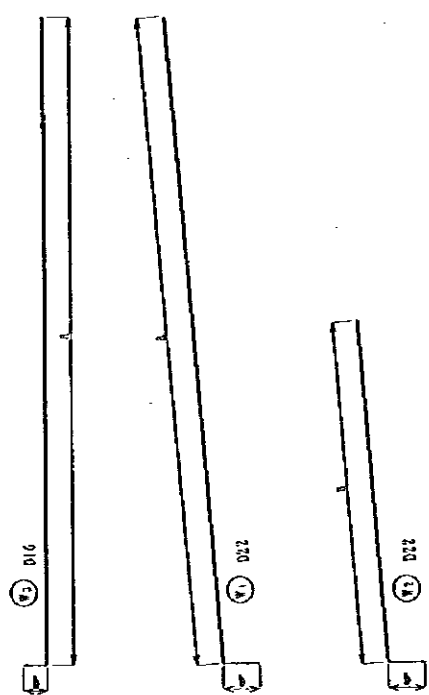
Slit Shape in Front of Wall
(Thickness t=30 mm)

NOTES:	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
	JICA SILTY TEAM PACIFIC CONSULTANTS INTERNATIONAL FUKUYAMA CONSULTANTS INTERNATIONAL	PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
		TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (8)
		DATE : DWG NO. W-26



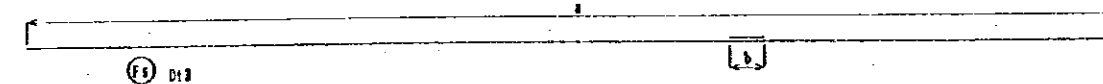
(E4) D13

(E5) D13



(E6) D13

(E7) D13



(E8) D13

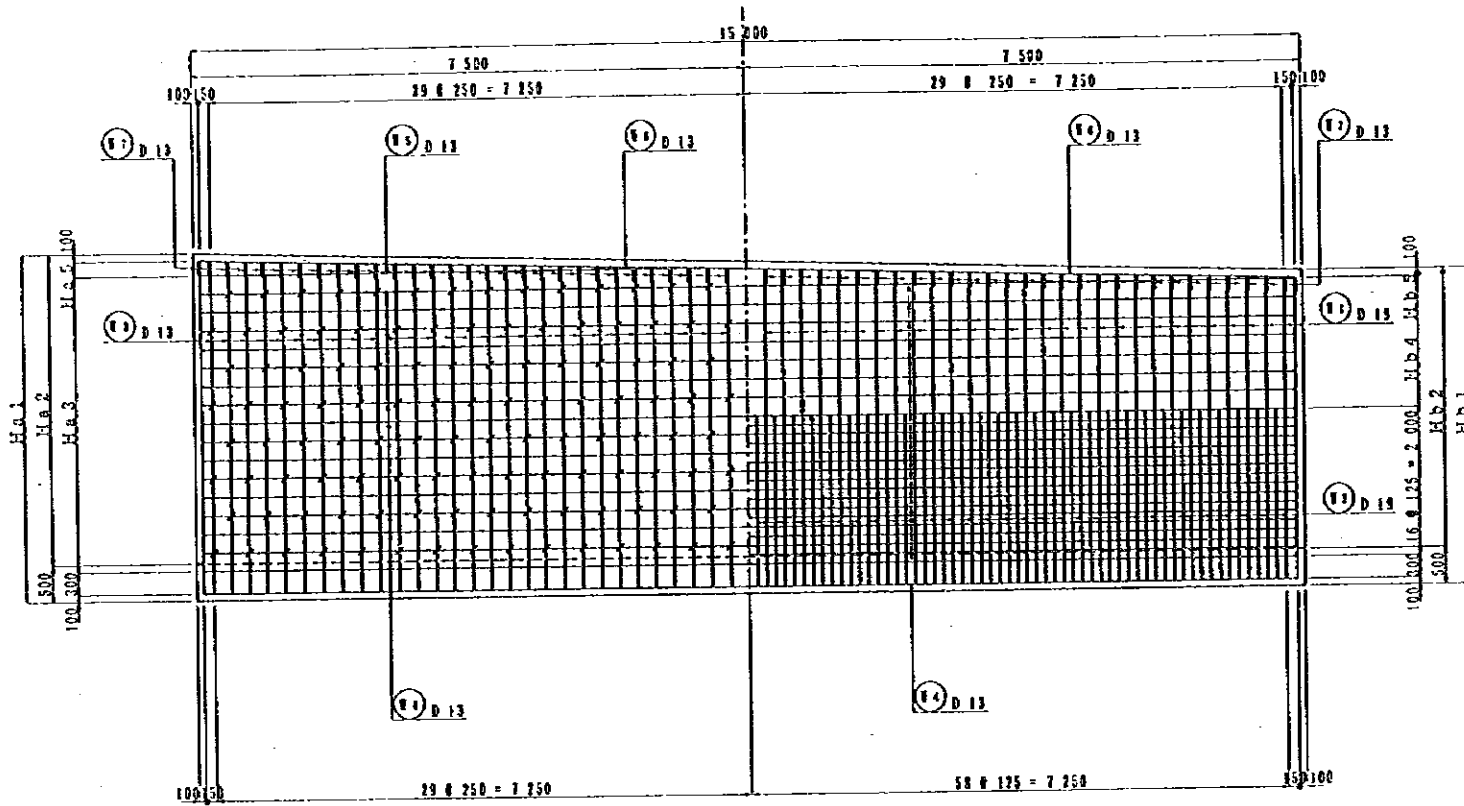
REIN NO.	φ (mm)	LENGTH (mm)	a	b	c
T B					
T 1	D 22	5 520	5 585~4 784	330	---
2	"	3 090	2 756	330	---
3	D 16	5 420	5 573~4 724	240	---
4	D 13	15 190	14 800	390	---
5	"	7 200	2 991~10 614	390	---
6	"	15 220	14 821	390	---
7	"	500	110	195	---
8	"	560	487~203	111	---
F B					
F 1	D 19	3 710	3 266	500	---
2	D 13	1 390	1 189	195	---
3	D 16	1 180	1 180	500	---
4	D 13	3 230	3 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	1 560	528	278	111
9	"	1 560	529	279	111

REIN NO.	φ (mm)	LENGTH (mm)	a	b	c
T B					
T 1	D 22	5 320	5 387~4 609	330	---
2	"	3 090	2 756	330	---
3	D 16	4 240	5 355~4 599	285	---
4	D 13	15 190	14 800	390	---
5	"	7 240	2 034~11 844	390	---
6	"	15 210	14 819	390	---
7	"	500	110	195	---
8	"	550	452~188	111	---
F B					
F 1	D 19	3 690	3 189	500	---
2	D 13	1 370	1 175	195	---
3	D 16	1 680	1 180	500	---
4	D 13	3 230	3 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	1 560	528	278	111
9	"	1 560	529	279	111

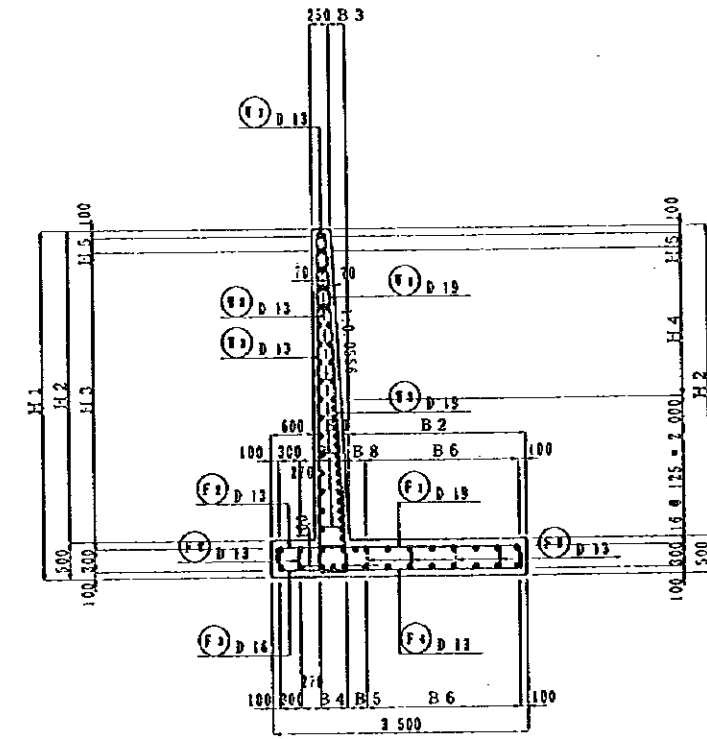
NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
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PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

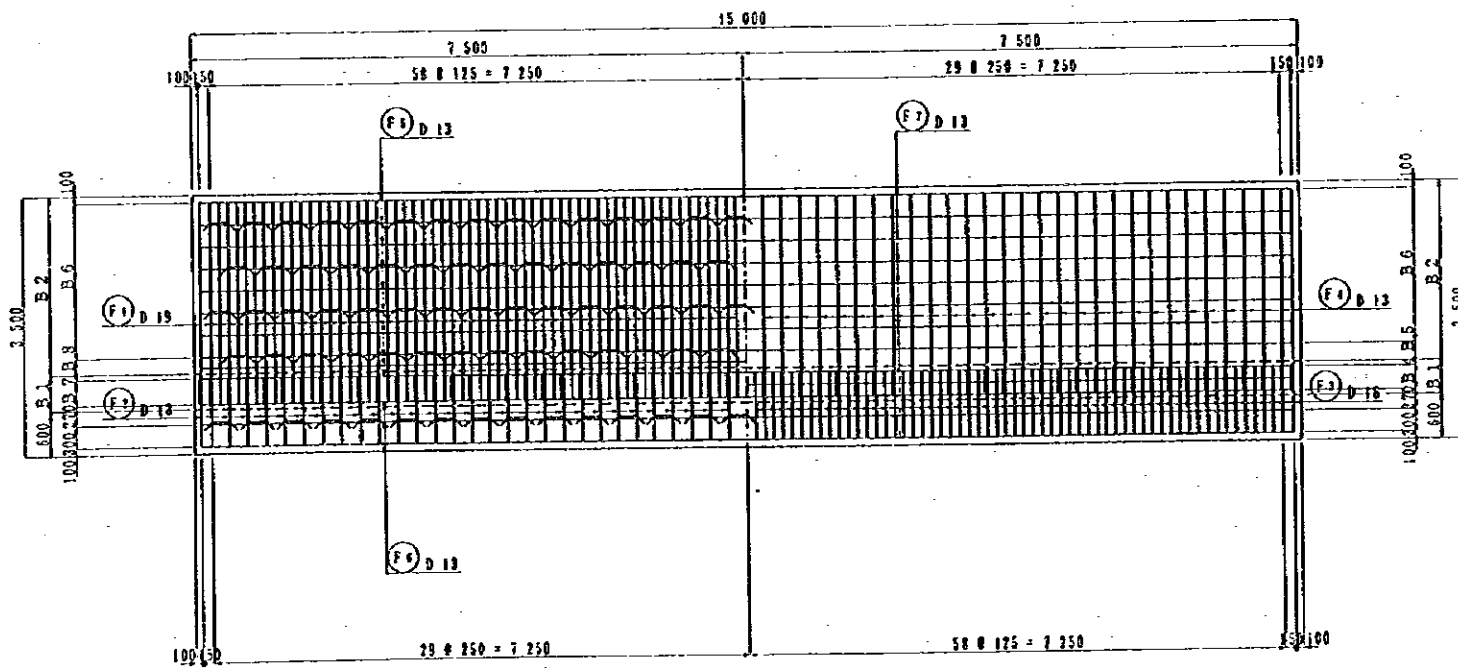
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (9)
DATE : DNG NO. W-27



SIDE VIEW
S=1/100



SECTION
S=1/100



PLAN
S=1/100

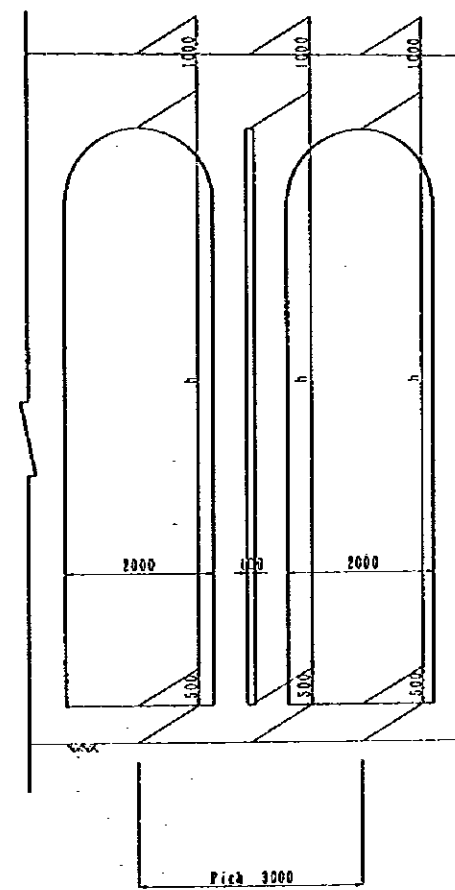
NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUJYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (10)
DATE :
DWG NO. W-28

		T-9		
		a - a	b - b	
A I L I N E	Ha1	4 774	Hb1 4 117	
	Ha2	4 117	Hb2 3 617	
	Ha3	16@250 = 4 000	Hb3 14@250 = 3 500	
	Ha4	8@250 = 2 000	Hb4 6@250 = 1 500	
	Ha5	117	Hb5 117	
	Ba1	479	Bb1 451	
	Ba2	2 421	Bb2 2 449	
	Ba3	229	Bb3 201	
	Ba4	2@180.5 = 361	Bb4 2@166.5 = 333	
	Ba5	2@134.5 = 269	Bb5 2@148.5 = 297	
	Ba6	7@300 = 2 100	Bb6 7@300 = 2 100	
	Ba7	344	Bb7 316	
	Ba8	2@143 = 286	Bb8 2@157 = 314	
			T-9	
			a - a	b - b
	B I L I N E	Ha1	4 599	Hb1 3 888
Ha2		4 099	Hb2 3 388	
Ha3		16@250 = 4 000	Hb3 13@250 = 3 250	
Ha4		8@250 = 2 000	Hb4 5@250 = 1 250	
Ha5		99	Hb5 138	
Ba1		478	Bb1 438	
Ba2		2 422	Bb2 2 462	
Ba3		228	Bb3 188	
Ba4		2@180 = 360	Bb4 2@160 = 320	
Ba5		2@135 = 270	Bb5 2@155 = 310	
Ba6		7@300 = 2 100	Bb6 7@300 = 2 100	
Ba7		343	Bb7 303	
Ba8		2@143.5 = 287	Bb8 2@163.5 = 327	



Slit Shape in Front of Wall
(Thickness t=30 mm)

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 : R/A-18, AQR RE-BAR ARRANGEMENT (11)

DATE

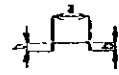
DWG NO. W-29



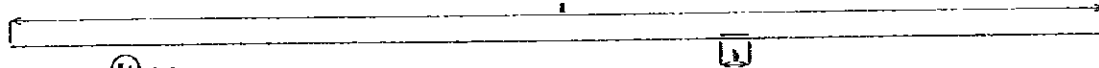
Ⓣ1 D13



Ⓣ1 D13



Ⓣ2 D13

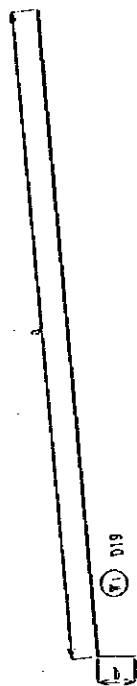


Ⓣ1 D13

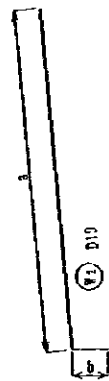
Ⓣ2 D13



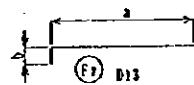
Ⓣ5 D13



Ⓣ6 D13



Ⓣ7 D13



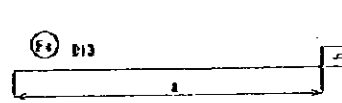
Ⓣ7 D13



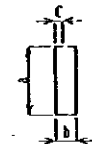
Ⓣ1 D13



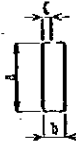
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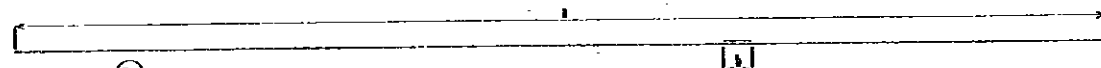
Ⓣ2 D13



Ⓣ8 D13

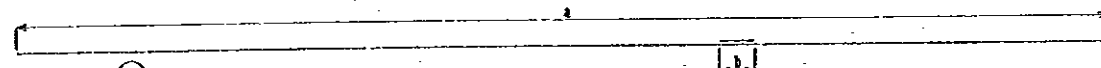


Ⓣ9 D13



Ⓣ3 D13

Ⓣ7 D13



Ⓣ3 D13

REIN NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 9					
1	D 13	4 540	4 591~3 923	285	---
2	"	2 590	2 304	285	---
3	D 13	4 450	4 574~3 917	195	---
4	"	15 190	14 800	390	---
5	"	7 190	2 230~11 367	390	---
6	"	15 210	14 815	390	---
7	"	500	110	195	---
8	"	490	362~167	111	---
F 1					
1	D 19	3 200	2 970	300	---
2	D 13	1 370	895	195	---
3	D 16	1 680	980	300	---
4	D 13	2 930	2 730	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	1 160	328	278	111
9	"	1 160	329	279	111

REIN NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 9					
1	D 13	4 340	4 406~3 694	285	---
2	"	2 590	2 304	285	---
3	D 13	4 240	4 399~3 653	195	---
4	"	15 190	14 800	390	---
5	"	7 660	2 081~12 465	390	---
6	"	15 210	14 817	390	---
7	"	500	110	195	---
8	"	490	362~167	111	---
F 1					
1	D 19	3 280	2 977	300	---
2	D 13	1 690	898	195	---
3	D 16	1 260	980	300	---
4	D 13	2 930	2 730	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	1 160	328	278	111
9	"	1 160	329	279	111

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FLUKYAMA CONSULTANTS INTERNATIONAL

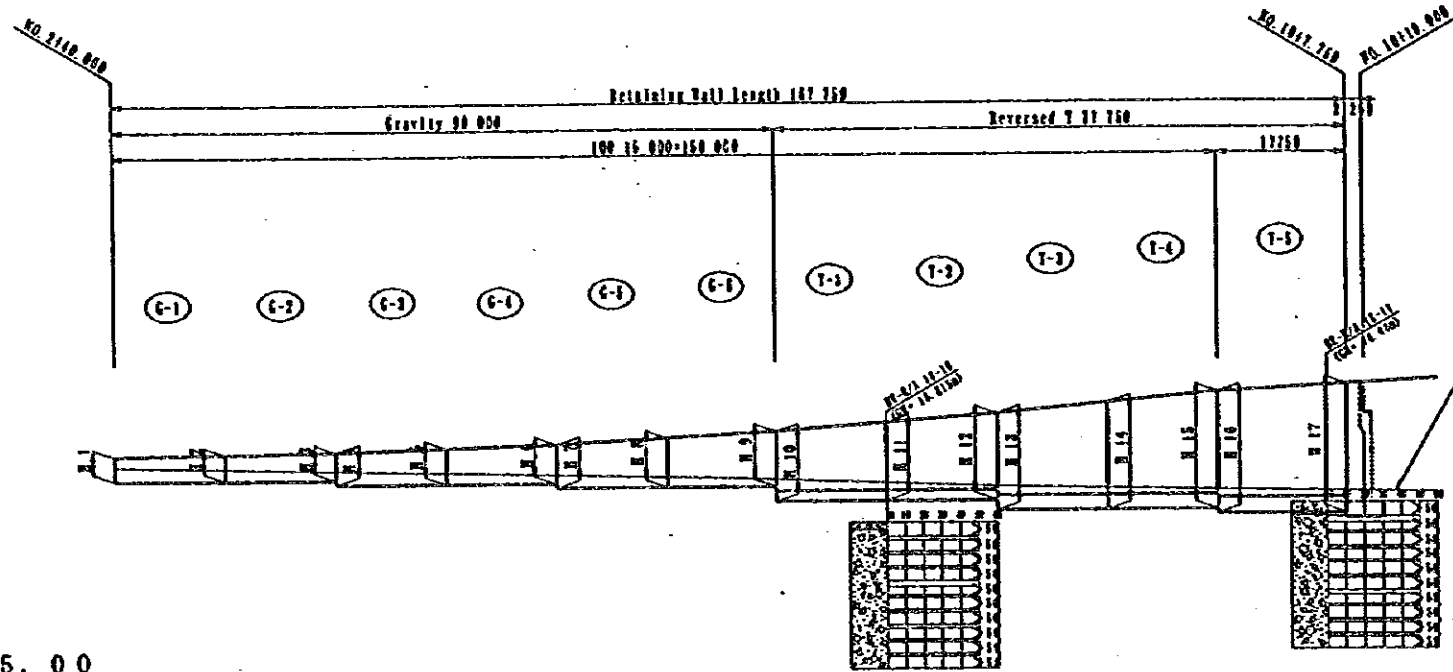
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

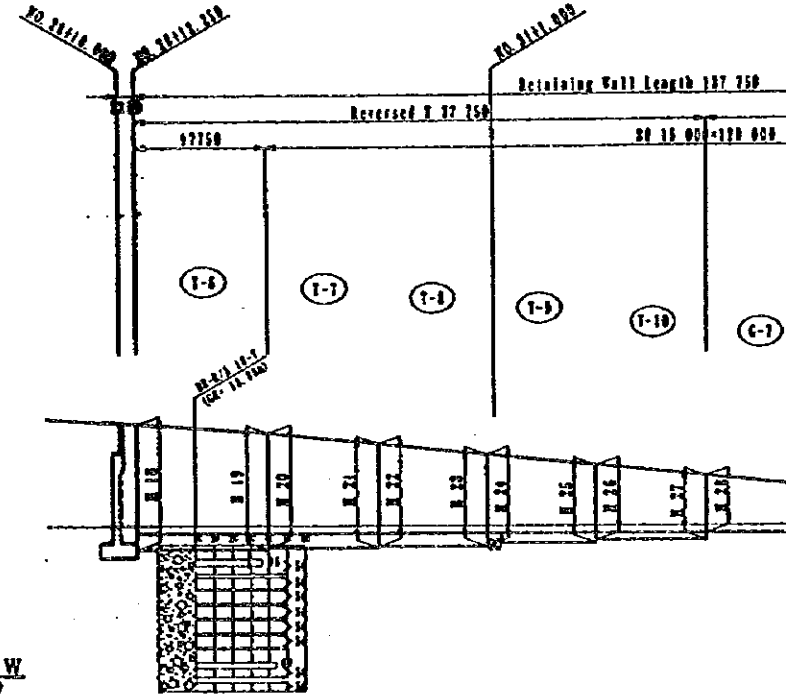
TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (12)

DATE

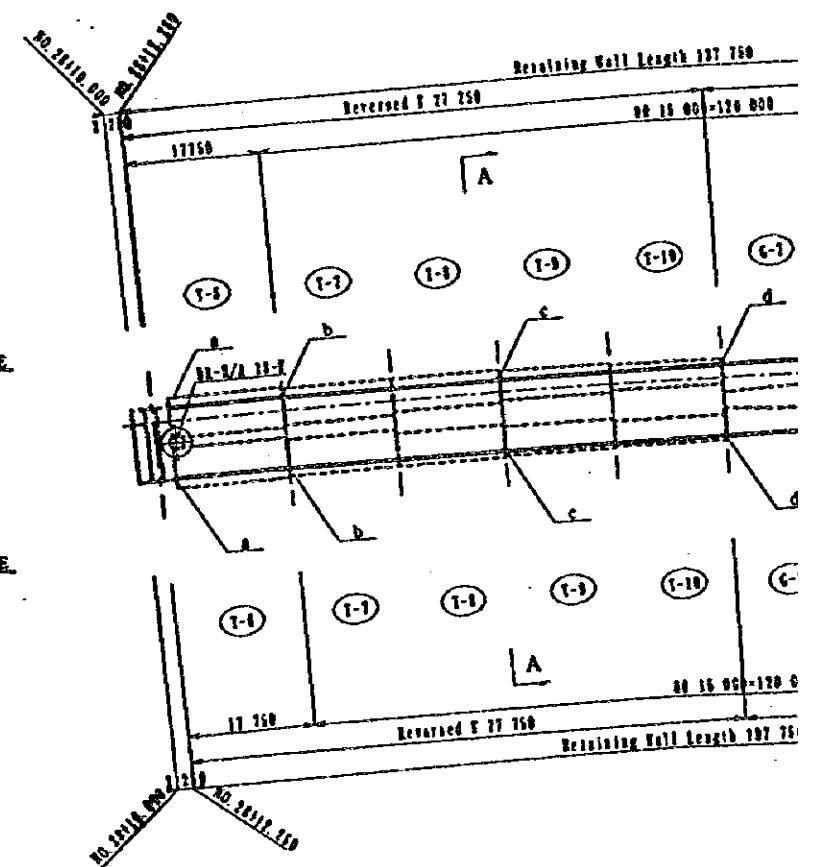
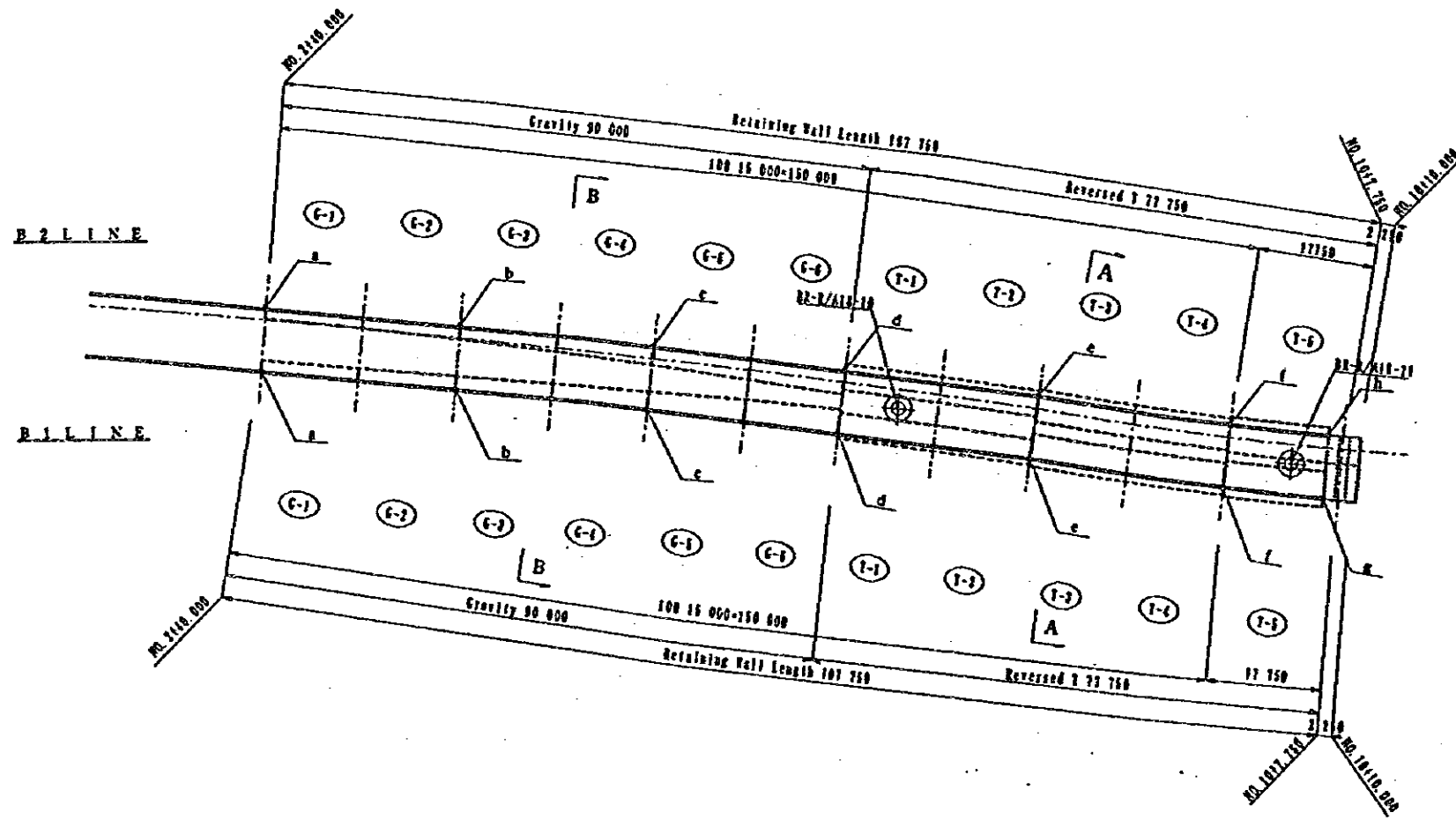
DWG NO. W-30



DL=5.00

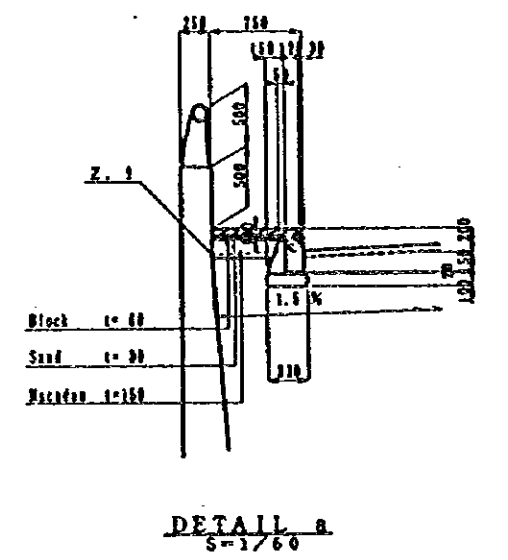
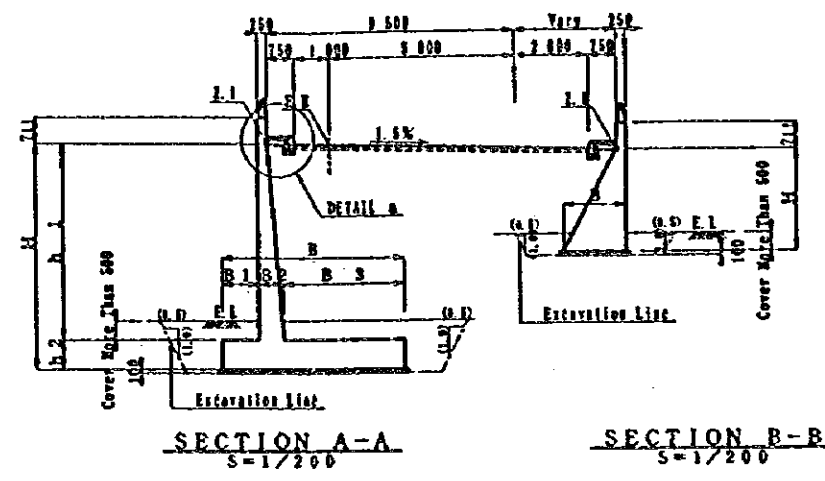
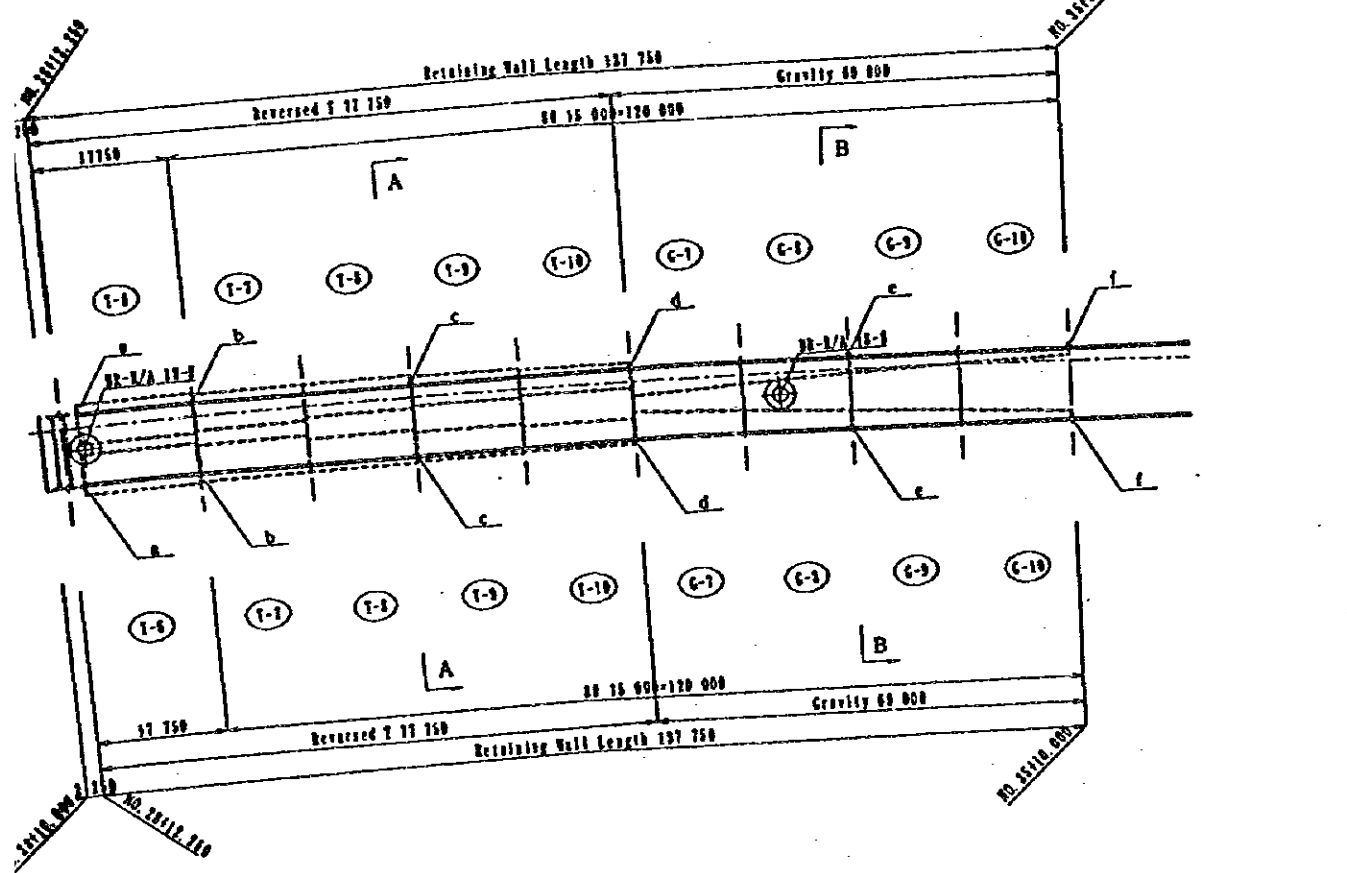
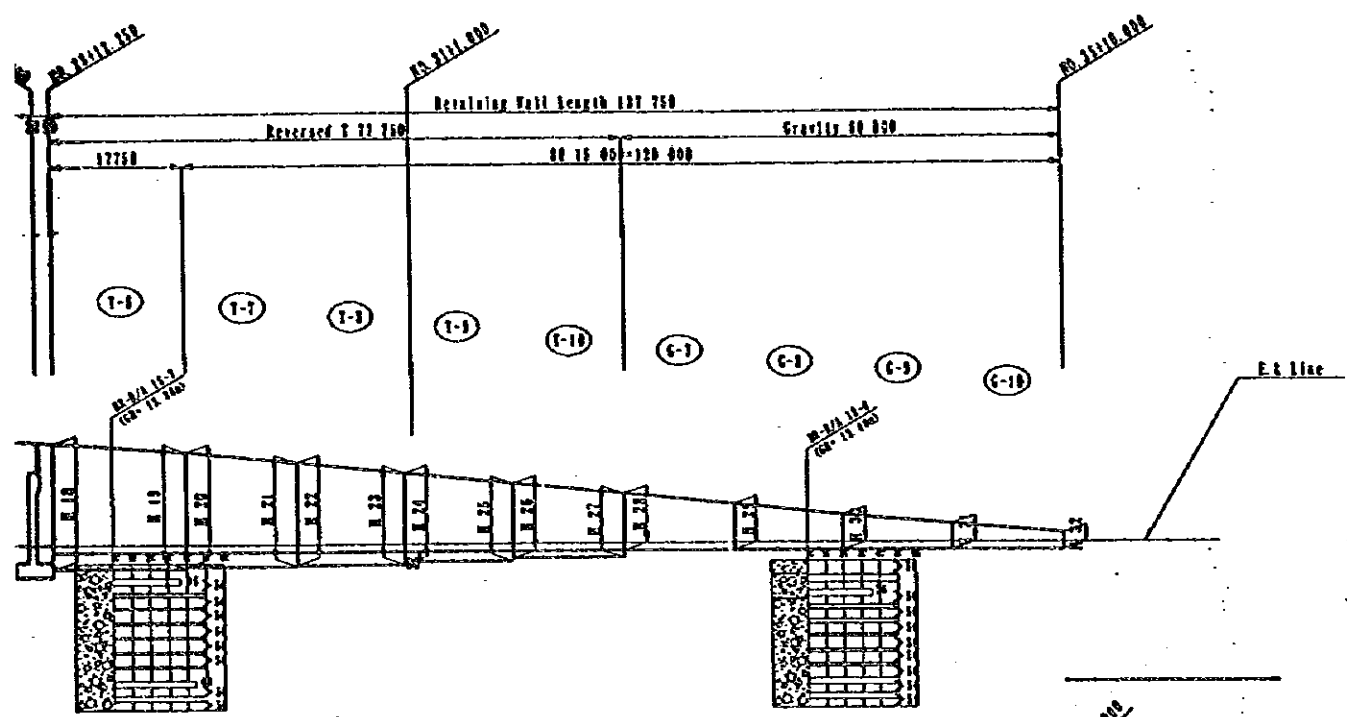


SIDE VIEW
H=1/1000
V=1/500



PLAN
S=1/1000

NOTES:



Reversed T

MARK	TYPE	H	h 1	h 2	B	B 1	B 2	B 3
B 2 L I N E	T-1	11-4 905	4 205	700	4 000	800	528	2 465
	T-2	11-5 421	4 721				562	2 441
	T-3	11-5 937	5 237				596	2 417
	T-4	11-6 637	5 637	1 000	5 000	1 000	693	2 673
	T-5	11-6 637	6 215				738	2 646
B 1 L I N E	T-1	11-4 744	4 044	700	4 000	800	517	2 683
	T-2	11-5 327	4 627				565	2 645
	T-3	11-5 910	5 210				594	2 606
	T-4	11-6 610	5 610	1 000	5 000	1 000	691	3 309
	T-5	11-6 610	6 302				745	3 255

Gravity

MARK	TYPE	H	B
B 2 L I N E	G-1	11-1 812	1 337
	G-2	11-1 920	1 402
	G-3	11-2 028	1 467
	G-4	11-2 328	1 647
	G-5	11-2 577	1 796
B 1 L I N E	G-1	11-1 663	1 248
	G-2	11-1 771	1 313
	G-3	11-1 878	1 377
	G-4	11-2 178	1 567
	G-5	11-2 425	1 705

Reversed T

MARK	TYPE	H	h 1	h 2	B	B 1	B 2	B 3
B 4 L I N E	T-1	11-8 979	7 879	1 100	5 600	1 200	898	3 402
	T-2	11-8 079	6 991				825	3 475
	T-3	11-7 991	6 991	1 000	5 000	1 000	799	3 201
	T-4	11-7 215	6 215				738	3 262
	T-5	11-7 115	6 215	900	4 500	1 000	709	2 791
B 3 L I N E	T-1	11-6 389	5 489				655	2 845
	T-2	11-6 189	5 489	700	4 000	800	612	2 588
	T-3	11-6 439	4 739	500	3 500	500	563	2 637
	T-4	11-6 239	4 739				513	2 387
	T-5	11-4 488	3 988				472	2 428

Gravity

MARK	TYPE	H	B
B 4 L I N E	G-1	11-3 988	2 625
	G-2	11-3 240	2 194
	G-3	11-2 492	1 745
	G-4	11-1 871	1 373
	G-5	11-1 249	999
B 3 L I N E	G-1	11-3 858	2 565
	G-2	11-3 113	2 118
	G-3	11-2 368	1 671
	G-4	11-1 746	1 298
	G-5	11-1 123	924

JAPAN INTERNATIONAL COOPERATION AGENCY
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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 : R/A-18, AQR GENERAL VIEW FOR WALL (2)-1
DATE :
DWG NO. W-33

Point		a	b	c	d	e	f	h
B 1 L I N E	N	+2743220.51814	+2743228.61191	+2743236.12945	+2743243.06777	+2743249.42413	+2743255.93535	+2743260.82120
	E	+ 442413.08534	+ 442441.97238	+ 442471.01471	+ 442500.20084	+ 442529.51922	+ 442568.51315	+ 442578.19626
	Z	19.963	20.178	20.672	21.444	19.829	23.993	24.832
B 2 L I N E	N	+2743210.84608	+2743218.94277	+2743226.45939	+2743233.39291	+2743237.74056	+2743246.26393	+2743251.15219
	E	+ 442415.63773	+ 442444.52395	+ 442473.56651	+ 442502.75377	+ 442532.07403	+ 442561.35478	+ 442580.74779
	Z	20.112	20.328	20.825	21.605	22.637	23.792	24.582
B 3 L I N E	N	+2743493.63110	+2743477.95033	+2743461.88922	+2743445.45136	+2743428.64041	+2743417.22769	
	E	+ 443014.05196	+ 442988.47665	+ 442963.13846	+ 442938.04304	+ 442913.19600	+ 442896.77204	
	Z	15.093	16.338	17.828	19.322	20.816	21.812	
B 4 L I N E	N	+2743485.42698	+2743469.75418	+2743453.69907	+2743437.26528	+2743420.45650	+2743409.04420	
	E	+ 443019.81226	+ 442994.23206	+ 442968.89007	+ 442943.79200	+ 442918.94349	+ 442902.51924	
	Z	15.219	16.462	17.958	19.459	20.961	21.962	

NOTES:-

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

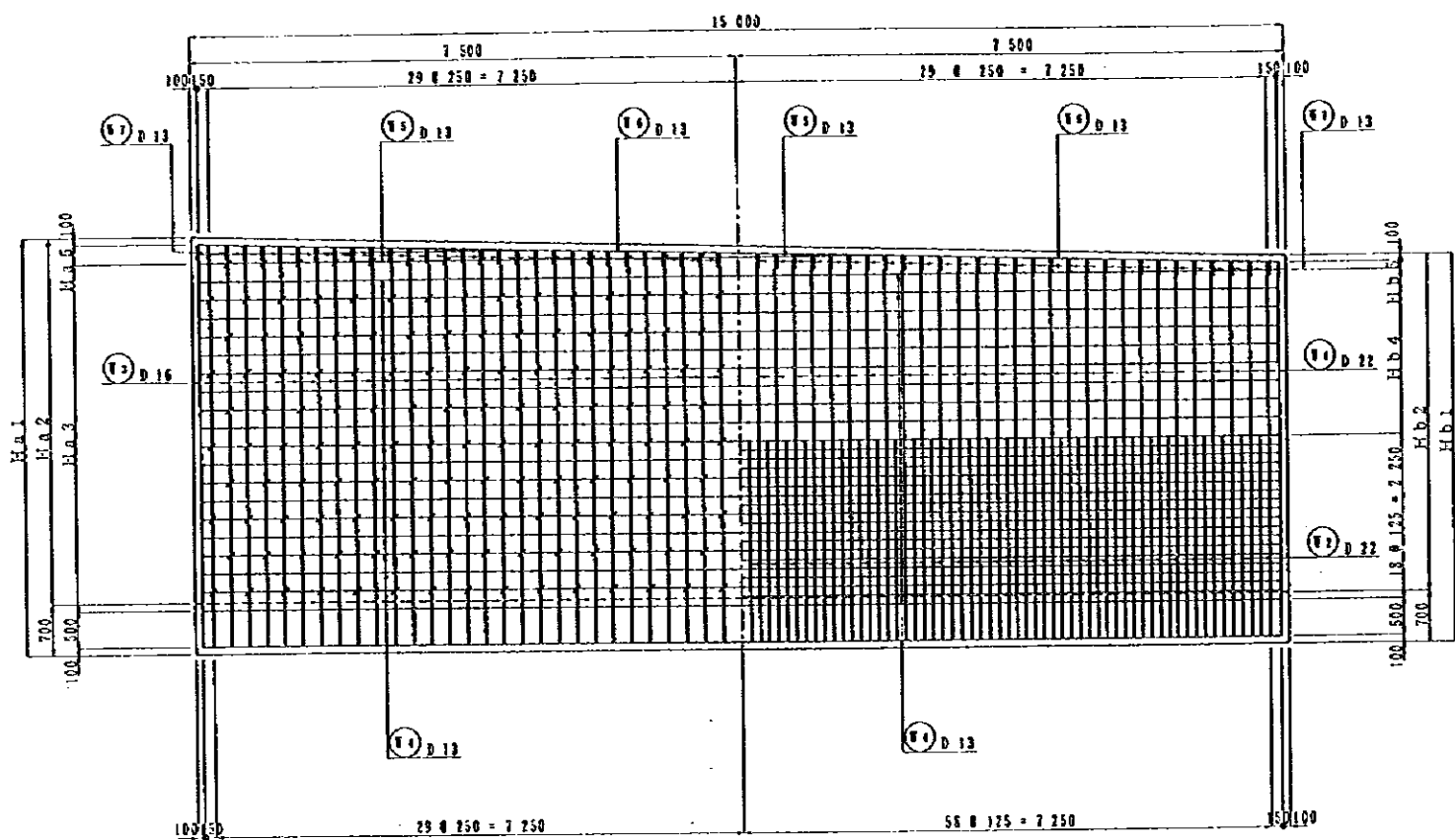
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUJYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

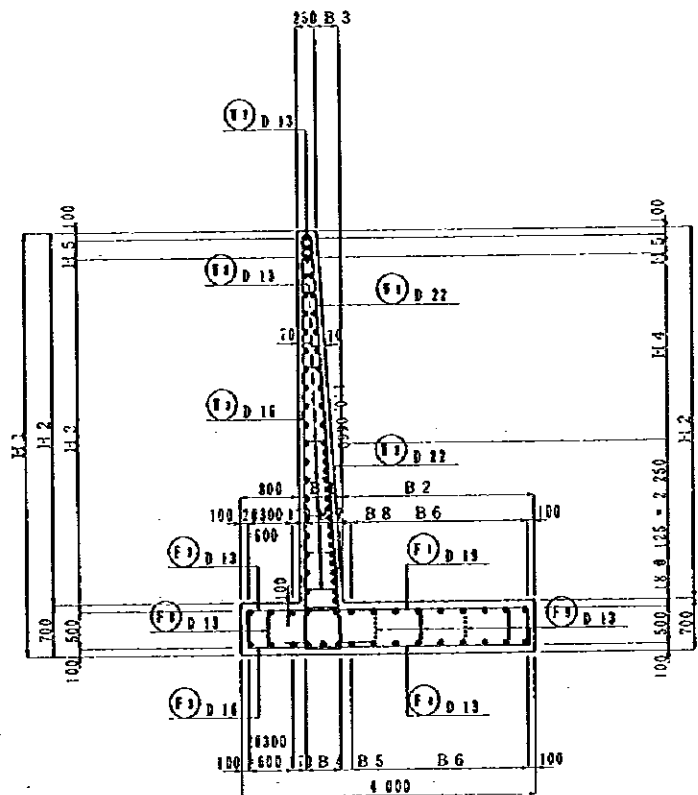
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE R/A-18, AQR GENERAL VIEW FOR WALL (2)-2

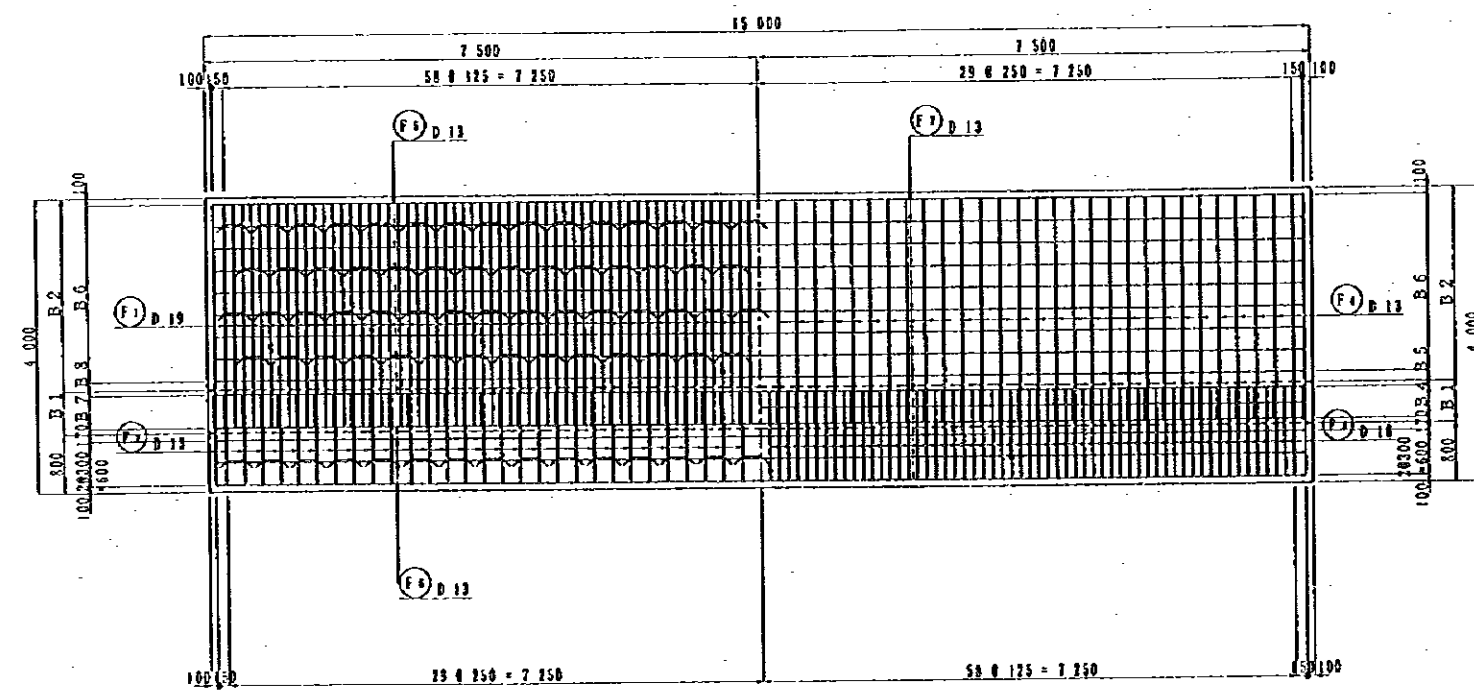
DATE DWG NO. W-33



SIDE VIEW
S=1/100



SECTION
S=1/100



PLAN
S=1/100

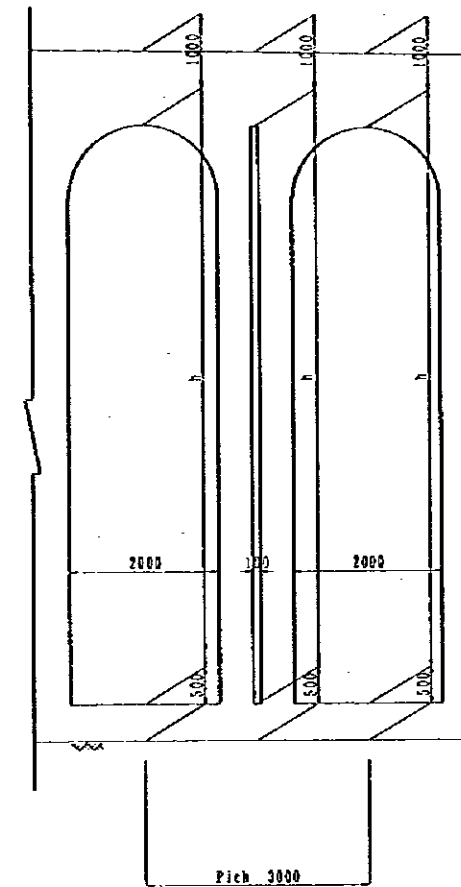
NOTES:

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

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (I)
DATE :
DWG NO. W-34

B I L I N E	T-1				T-2			
	a - a		b - b		a - a		b - b	
	Ha1	4 905	Hb1	5 421	Ha1	5 421	Hb1	5 937
Ha2	4 205	Hb2	4 721	Ha2	4 721	Hb2	5 237	
Ha3	16@250 = 4 000	Hb3	18@250 = 4 500	Ha3	18@250 = 4 500	Hb3	20@250 = 5 000	
Ha4	7@250 = 1 750	Hb4	9@250 = 2 250	Ha4	9@250 = 2 250	Hb4	11@250 = 2 750	
Ha5	205	Hb5	221	Ha5	221	Hb5	237	
Ba1	528	Bb1	562	Ba1	562	Bb1	595	
Ba2	2 672	Bb2	2 638	Ba2	2 638	Bb2	2 605	
Ba3	278	Bb3	312	Ba3	312	Bb3	345	
Ba4	2@213.5 = 427	Bb4	2@230.5 = 461	Ba4	2@230.5 = 461	Bb4	2@247.0 = 494	
Ba5	203	Bb5	169	Ba5	169	Bb5	136	
Ba6	8@300 = 2 400	Bb6	8@300 = 2 400	Ba6	8@300 = 2 400	Bb6	8@300 = 2 400	
Ba7	394	Bb7	428	Ba7	428	Bb7	461	
Ba8	236	Bb8	202	Ba8	202	Bb8	169	

B I L I N E	T-1				T-2			
	a - a		b - b		a - a		b - b	
	Ha1	4 744	Hb1	5 327	Ha1	5 327	Hb1	5 910
Ha2	4 044	Hb2	4 627	Ha2	4 627	Hb2	5 210	
Ha3	16@250 = 4 000	Hb3	18@250 = 4 500	Ha3	18@250 = 4 500	Hb3	20@250 = 5 000	
Ha4	7@250 = 1 750	Hb4	9@250 = 2 250	Ha4	9@250 = 2 250	Hb4	11@250 = 2 750	
Ha5	44	Hb5	127	Ha5	127	Hb5	210	
Ba1	517	Bb1	555	Ba1	555	Bb1	594	
Ba2	2 683	Bb2	2 645	Ba2	2 645	Bb2	2 606	
Ba3	267	Bb3	305	Ba3	305	Bb3	344	
Ba4	2@208 = 416	Bb4	2@227.0 = 454	Ba4	2@227.0 = 454	Bb4	2@246.6 = 493	
Ba5	214	Bb5	176	Ba5	176	Bb5	137	
Ba6	8@300 = 2 400	Bb6	8@300 = 2 400	Ba6	8@300 = 2 400	Bb6	8@300 = 2 400	
Ba7	383	Bb7	421	Ba7	421	Bb7	460	
Ba8	247	Bb8	209	Ba8	209	Bb8	170	



Slit Shape in Front of Wall
(thickness t=30 mm)

NOTES:

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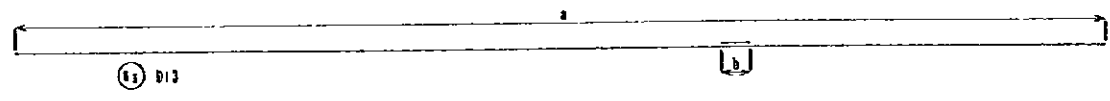
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

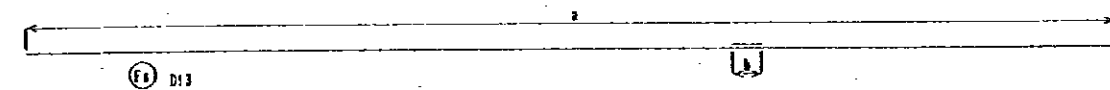
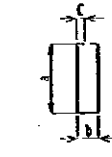
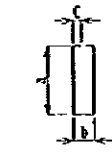
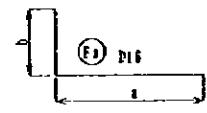
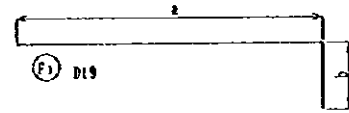
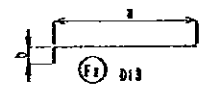
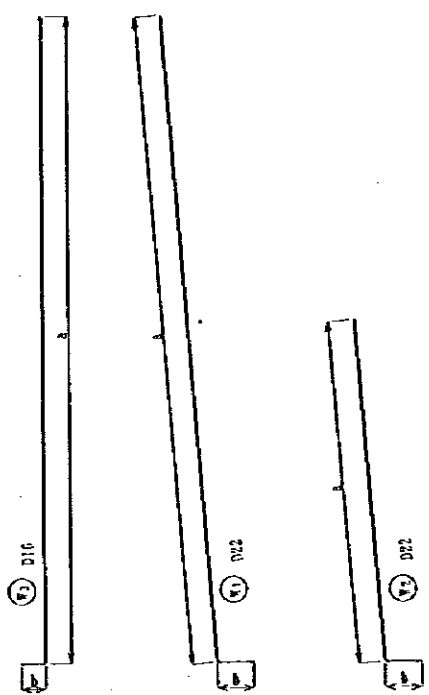
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (2)

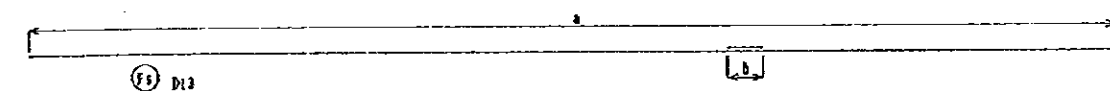
DATE : D/G NO. W-35



(E7) D13
(E8) D13



(E9) D13
(E10) D13



(E11) D13

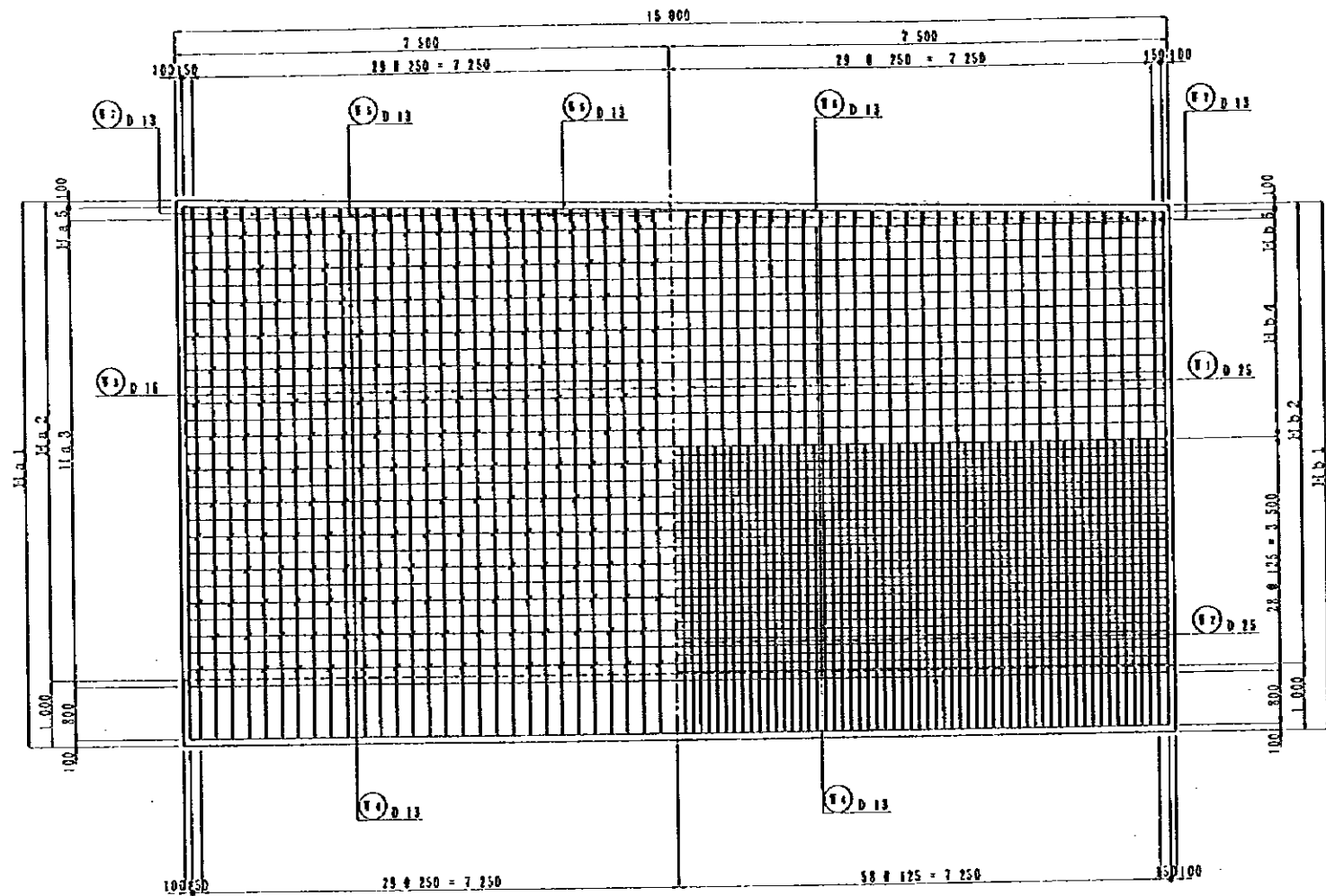
REIN NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 1					
W 1	D 22	5 180	5 138~4 554	330	---
2	"	3 090	2 756	330	---
3	D 16	5 050	5 127~4 544	240	---
4	D 13	15 190	14 800	390	---
5	"	6 400	3 224~3 570	390	---
6	"	15 210	14 811	390	---
7	"	500	110	195	---
8	"	530	437~173	111	---
F 1	D 19	3 700	3 198	500	---
2	D 13	1 370	1 166	195	---
3	D 16	1 680	1 180	500	---
4	D 13	3 230	3 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	1 560	528	278	111
9	"	1 560	529	279	111
T 2					
W 1	D 22	5 740	5 722~5 138	330	---
2	"	3 090	2 756	330	---
3	D 16	5 660	5 710~5 127	240	---
4	D 13	15 190	14 800	390	---
5	"	8 900	5 331~11 678	390	---
6	"	15 210	14 811	390	---
7	"	500	110	195	---
8	"	550	476~173	111	---
F 1	D 16	3 660	3 160	500	---
2	D 13	1 400	1 205	195	---
3	D 16	1 680	1 180	500	---
4	D 13	3 230	3 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	1 560	528	278	111
9	"	1 560	529	279	111

REIN NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 1					
W 1	D 22	5 310	5 232~4 715	330	---
2	"	3 090	2 756	330	---
3	D 16	5 210	5 221~4 705	240	---
4	D 13	15 190	14 800	390	---
5	"	10 370	6 339~13 509	390	---
6	"	15 200	14 809	390	---
7	"	500	110	195	---
8	"	540	445~180	111	---
F 1	D 19	3 690	3 183	500	---
2	D 13	1 370	1 175	195	---
3	D 16	1 680	1 180	500	---
4	D 13	3 230	3 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	1 560	528	278	111
9	"	1 560	529	279	111
T 2					
W 1	D 22	5 830	5 749~5 232	330	---
2	"	3 090	2 756	330	---
3	D 16	5 720	5 737~5 221	240	---
4	D 13	15 190	14 800	390	---
5	"	10 750	6 826~13 968	390	---
6	"	15 200	14 809	390	---
7	"	500	110	195	---
8	"	560	477~180	111	---
F 1	D 19	3 660	3 156	500	---
2	D 13	1 410	1 205	195	---
3	D 16	1 680	1 180	500	---
4	D 13	3 230	3 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	1 560	528	278	111
9	"	1 560	529	279	111

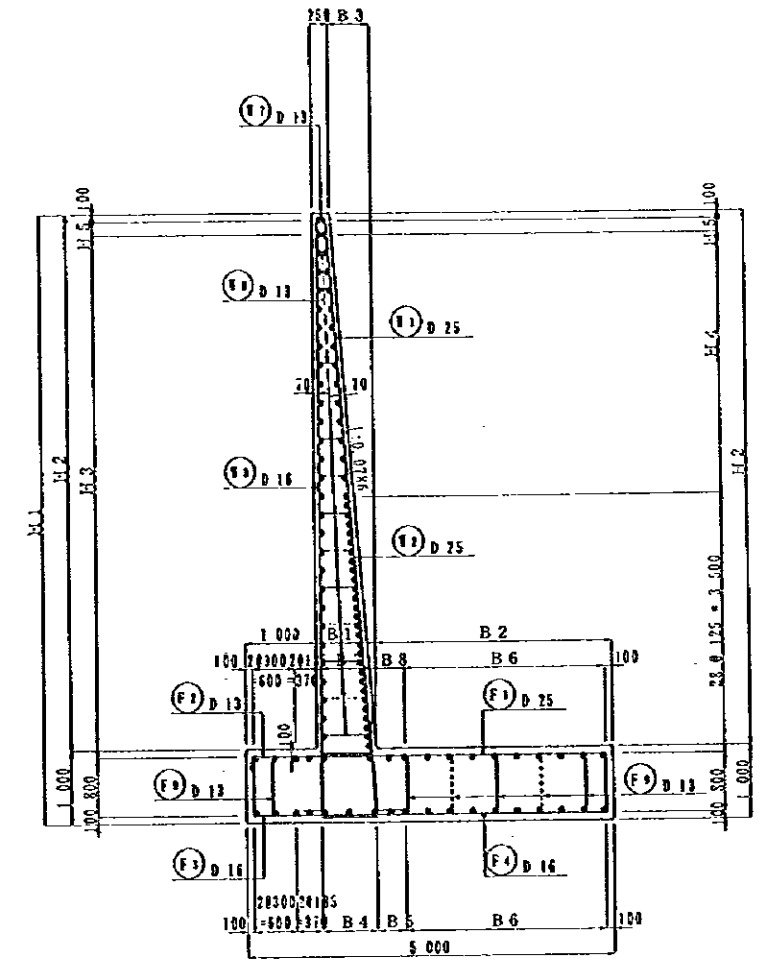
NOTES:

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

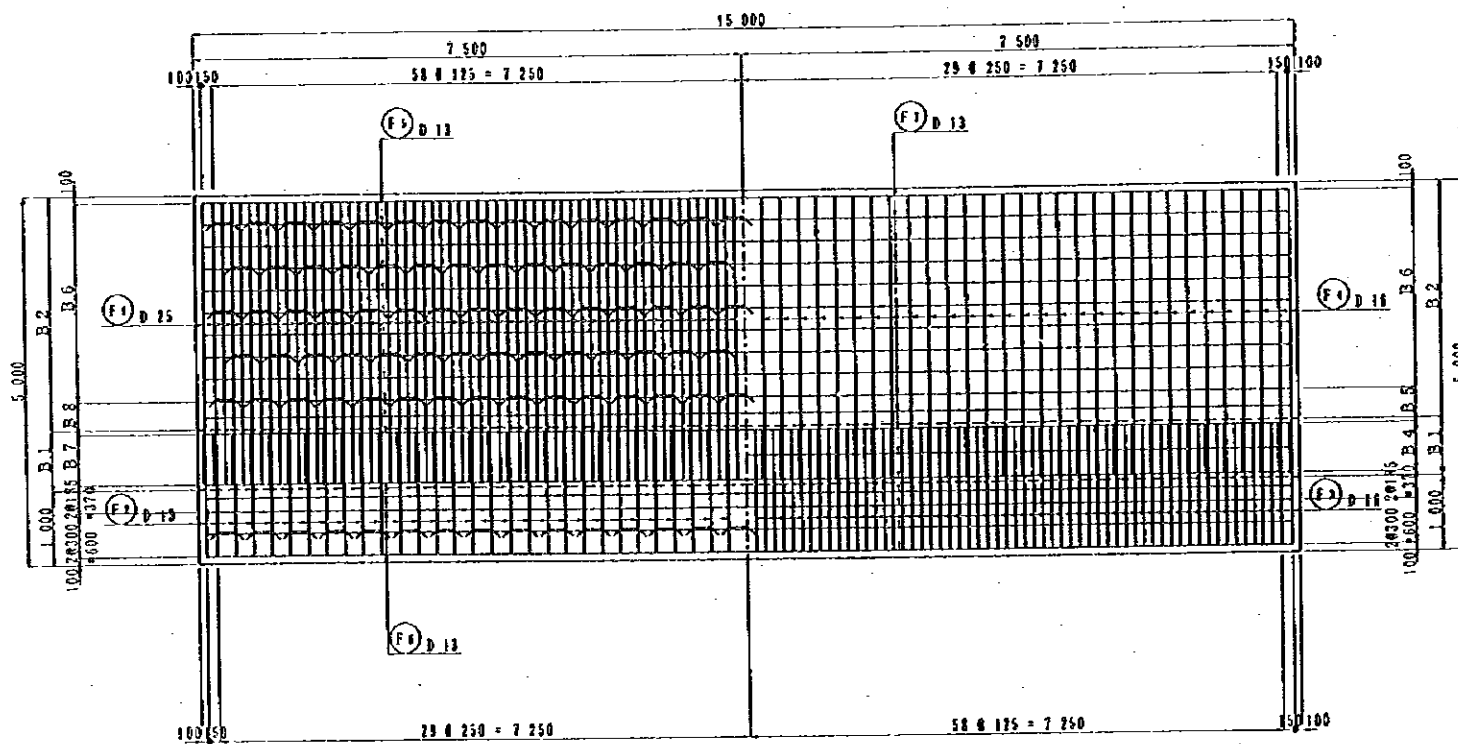
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
 PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
 TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (3)
 DATE : DVC NO. W-36



SIDE VIEW
S=1/100



SECTION
S=1/100



PLAN
S=1/100

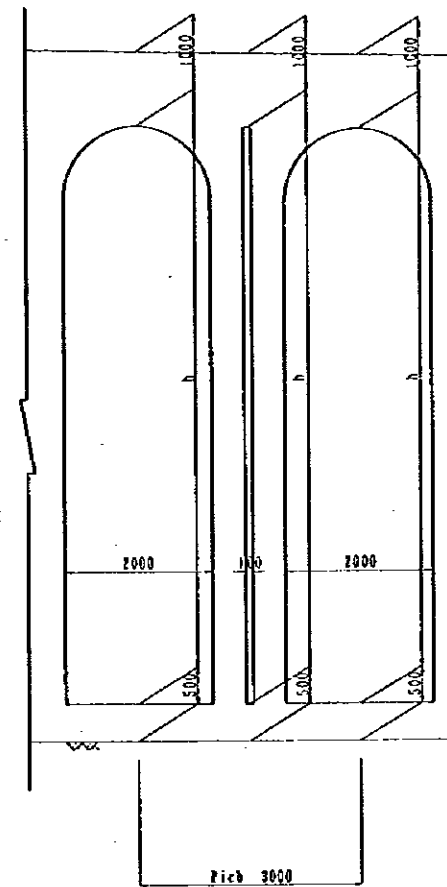
NOTES:

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 : R/A-18, AQR RE-BAR ARRANGEMENT (4)
DATE : DWG NO. W-37

B I L I N E	T-3				T-4			
	a - a		b - b		a - a		b - b	
	Ha	Hb	Ha	Hb	Ha	Hb	Ha	Hb
1	6 637	7 215	7 215	7 215	7 215	7 792	7 792	7 792
2	5 637	6 215	6 215	6 215	6 215	6 792	6 792	6 792
3	22@250 = 5 500	24@250 = 6 000	24@250 = 6 000	24@250 = 6 000	24@250 = 6 000	26@250 = 6 500	26@250 = 6 500	26@250 = 6 500
4	8@250 = 2 000	10@250 = 2 500	10@250 = 2 500	10@250 = 2 500	10@250 = 2 500	12@250 = 3 000	12@250 = 3 000	12@250 = 3 000
5	137	215	215	215	215	2@146 = 292	2@146 = 292	2@146 = 292
6	693	738	738	738	738	784	784	784
7	3 307	3 262	3 262	3 262	3 262	3 216	3 216	3 216
8	443	488	488	488	488	534	534	534
9	2@312.0 = 624	2@334.5 = 669	2@334.5 = 669	2@334.5 = 669	2@334.5 = 669	2@357.5 = 715	2@357.5 = 715	2@357.5 = 715
10	2@253.0 = 506	2@230.5 = 461	2@230.5 = 461	2@230.5 = 461	2@230.5 = 461	2@207.5 = 415	2@207.5 = 415	2@207.5 = 415
11	9@300 = 2 700	9@300 = 2 700	9@300 = 2 700	9@300 = 2 700	9@300 = 2 700	9@300 = 2 700	9@300 = 2 700	9@300 = 2 700
12	561	606	606	606	606	652	652	652
13	2@284.5 = 569	2@262.0 = 524	2@262.0 = 524	2@262.0 = 524	2@262.0 = 524	2@239.0 = 478	2@239.0 = 478	2@239.0 = 478

B I L I N E	T-3				T-4			
	a - a		b - b		a - a		b - b	
	Ha	Hb	Ha	Hb	Ha	Hb	Ha	Hb
1	6 610	7 302	7 302	7 302	7 302	7 993	7 993	7 993
2	5 610	6 302	6 302	6 302	6 302	6 993	6 993	6 993
3	22@250 = 5 500	24@250 = 6 000	24@250 = 6 000	25@250 = 6 250	25@250 = 6 250	27@250 = 6 750	27@250 = 6 750	27@250 = 6 750
4	8@250 = 2 000	10@250 = 2 500	10@250 = 2 500	11@250 = 2 750	11@250 = 2 750	13@250 = 3 250	13@250 = 3 250	13@250 = 3 250
5	110	2@151 = 302	52	52	52	243	243	243
6	691	745	745	745	745	800	800	800
7	3 309	3 255	3 255	3 255	3 255	3 200	3 200	3 200
8	441	495	495	495	495	550	550	550
9	2@311.0 = 622	2@338.0 = 676	2@338.0 = 676	2@338.0 = 676	2@338.0 = 676	2@365.5 = 731	2@365.5 = 731	2@365.5 = 731
10	2@254.0 = 508	2@227.0 = 454	2@227.0 = 454	2@227.0 = 454	2@227.0 = 454	2@199.5 = 399	2@199.5 = 399	2@199.5 = 399
11	9@300 = 2 700	9@300 = 2 700	9@300 = 2 700	9@300 = 2 700	9@300 = 2 700	9@300 = 2 700	9@300 = 2 700	9@300 = 2 700
12	559	613	613	613	613	668	668	668
13	2@285.5 = 571	2@258.5 = 517	2@258.5 = 517	2@258.5 = 517	2@258.5 = 517	2@231.0 = 462	2@231.0 = 462	2@231.0 = 462



Slit Shape in Front of Wall
(Thickness t=30 mm)

NOTES:

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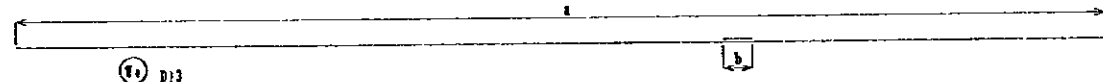
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

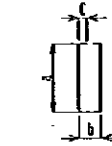
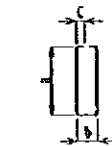
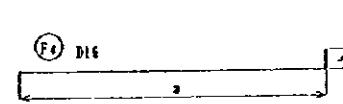
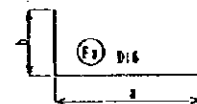
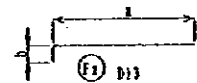
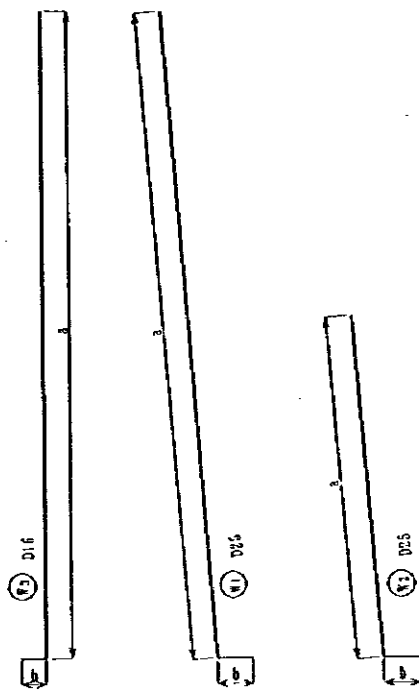
TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (S)

DATE

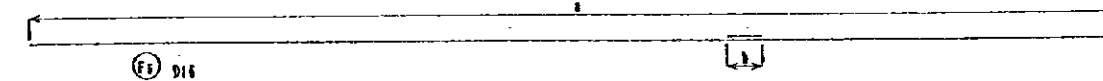
DWG NO. W-38



(E1) D13
(E2) D13



(E1) D13
(E2) D13



(E1) D16

REIN. NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 3					
W 1	D 25	7 160	7 124~6 439	375	---
2	"	4 690	4 313	375	---
3	D 16	7 800	7 102~6 410	240	---
4	D 13	15 190	14 800	390	---
5	"	7 918	3 223~11 806	390	---
6	"	15 210	14 816	350	---
7	"	500	110	195	---
8	"	650	637~205	111	---
F 1	D 25	4 800	3 994	800	---
2	D 13	1 750	1 548	195	---
3	D 16	2 180	1 390	800	---
4	"	4 070	3 830	240	---
5	D 13	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 160	828	278	111
9	"	2 180	834	284	111

REIN. NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 4					
W 1	D 25	7 850	7 817~7 124	375	---
2	"	4 690	4 313	375	---
3	D 16	7 690	7 203~7 102	240	---
4	D 13	15 190	14 800	390	---
5	"	8 280	5 205~10 659	---	---
6	"	15 190	14 816	390	---
7	"	500	110	195	---
8	"	650	637~171	111	---
F 1	D 25	4 740	3 940	800	---
2	D 13	1 800	1 603	195	---
3	D 16	2 180	1 390	800	---
4	"	4 070	3 830	240	---
5	D 13	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 160	828	278	111
9	"	2 180	834	284	111

REIN. NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 3					
W 1	D 25	7 130	7 037~6 457	375	---
2	"	4 690	4 313	375	---
3	D 16	6 970	7 015~6 437	240	---
4	D 13	15 190	14 800	390	---
5	"	3 100	5 505~11 907	390	---
6	"	15 210	14 811	350	---
7	"	500	110	195	---
8	"	630	620~158	111	---
F 1	D 25	4 800	3 997	800	---
2	D 13	1 760	1 556	195	---
3	D 16	2 180	1 380	800	---
4	"	4 070	3 830	195	---
5	D 13	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 160	828	278	111
9	"	2 180	834	284	111

REIN. NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 4					
W 1	D 25	7 710	7 615~7 037	375	---
2	"	4 690	4 313	375	---
3	D 16	7 710	7 592~7 015	240	---
4	D 13	15 190	14 800	390	---
5	"	8 370	3 745~13 902	390	---
6	"	15 210	14 811	390	---
7	"	500	110	195	---
8	"	660	660~191	111	---
F 1	D 25	4 760	3 951	800	---
2	D 13	1 790	1 591	195	---
3	D 16	2 180	1 390	800	---
4	"	4 070	3 830	195	---
5	D 13	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 160	828	278	111
9	"	2 180	834	284	111

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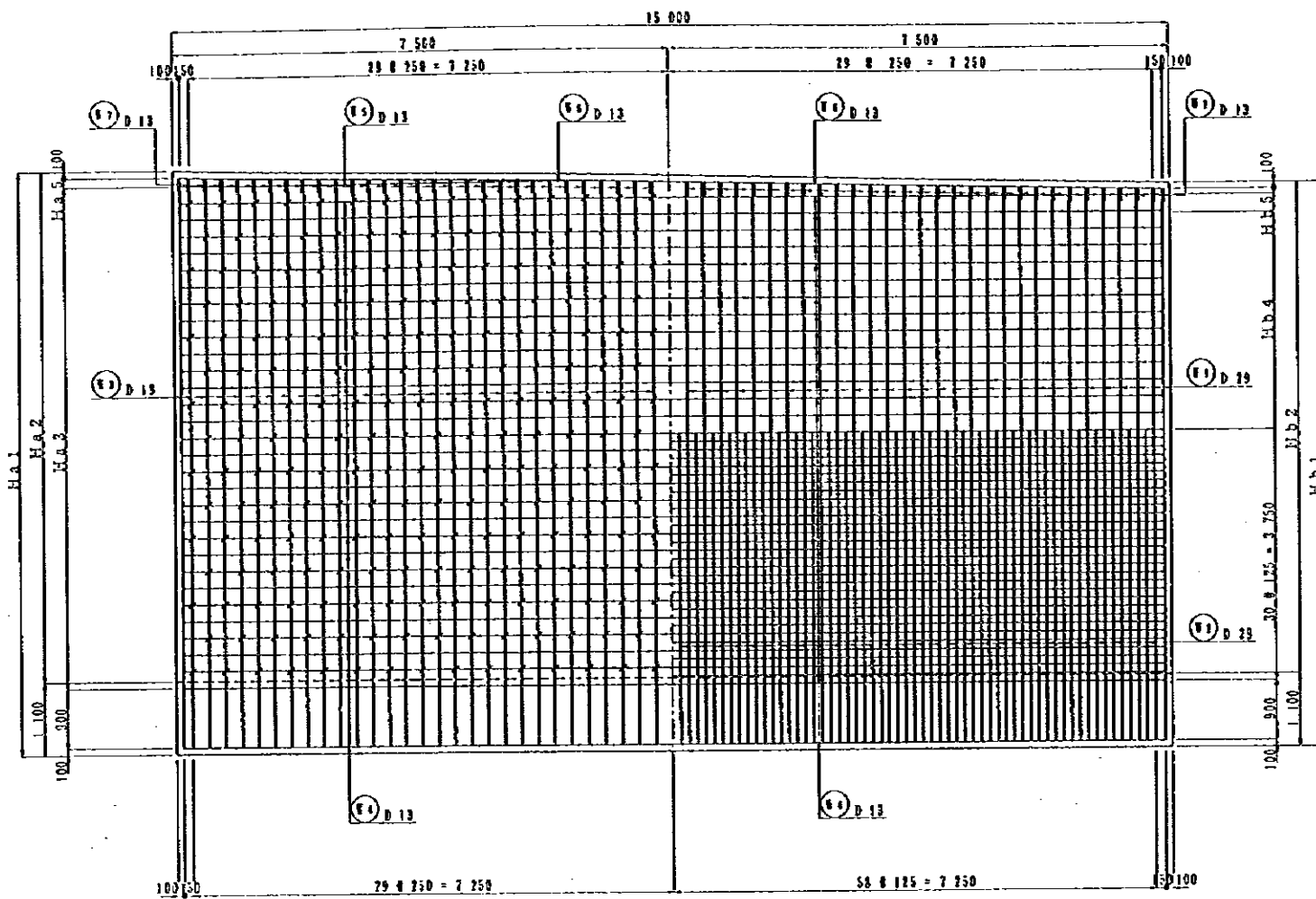
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

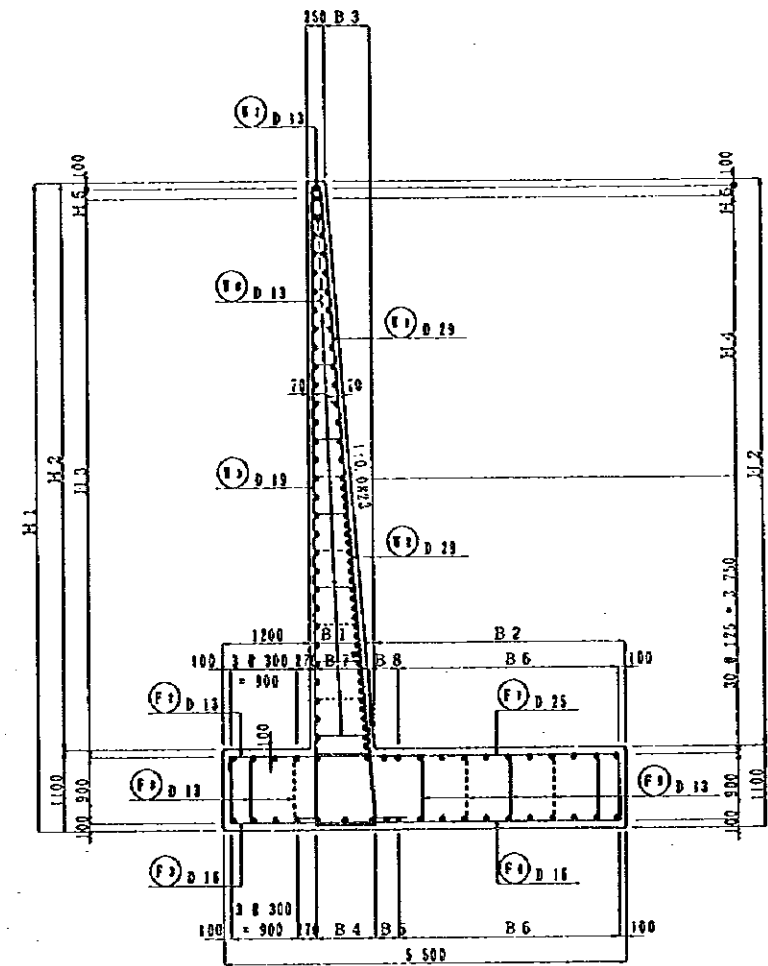
TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (6)

DATE

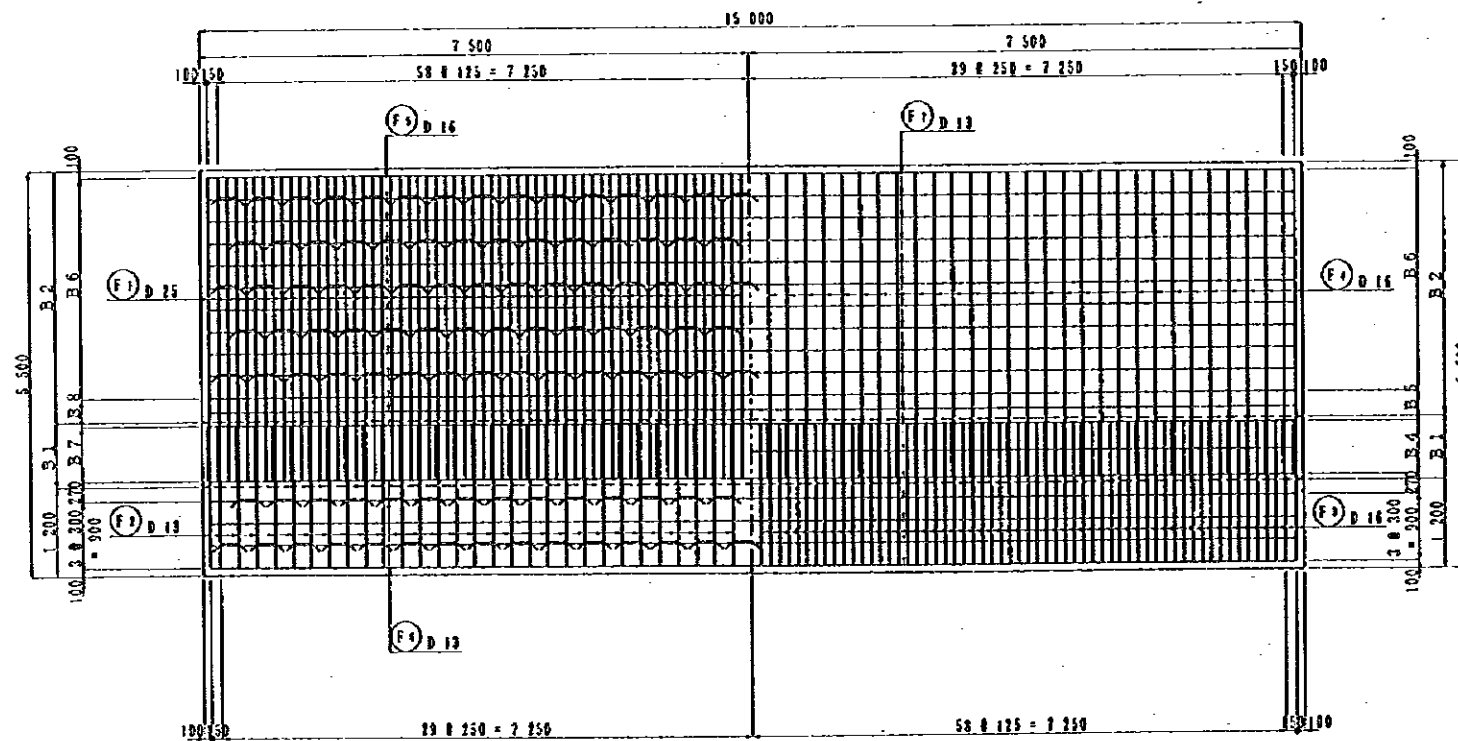
DRG NO. W-39



SIDE VIEW
S=1/100



SECTION
S=1/100



PLAN
S=1/100

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CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

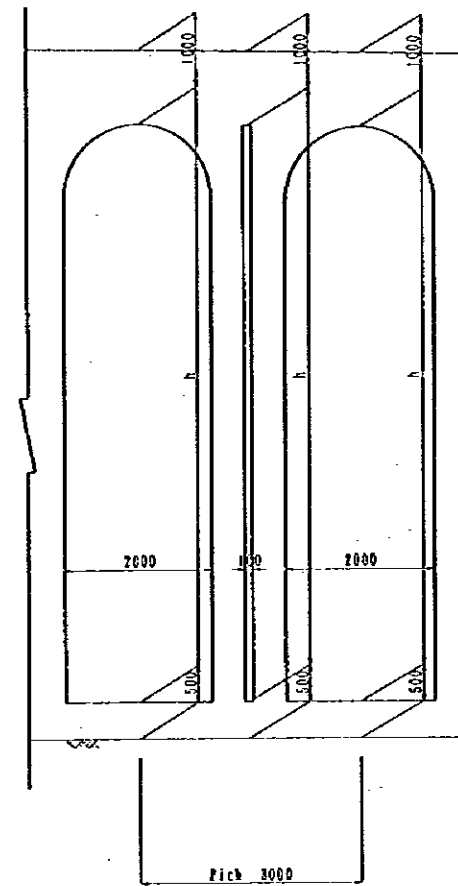
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (7)

DATE

DWG NO. W-40

		T-5		
		a - a	b - b	
B I L I N E	Ha1	8 092	Hb1 8 793	
	Ha2	6 992	Hb2 7 693	
	Ha3	27@250 = 5 750	Hb3 30@250 = 7 500	
	Ha4	12@250 = 3 000	Hb4 15@250 = 3 750	
	Ha5	242	Hb5 193	
	Ba1	825	Bb1 883	
	Ba2	3 475	Bb2 3 417	
	Ba3	575	Bb3 633	
	Ba4	2@383.5 = 767	Bb4 2@412.5 = 825	
	Ba5	2@196.5 = 393	Bb5 2@151.5 = 303	
	Ba6	10@300 = 3 000	Bb6 10@300 = 3 000	
	Ba7	693	Bb7 751	
	Ba8	2@218.5 = 437	Bb8 2@189.5 = 379	
			T-5	
			a - a	b - b
	B I L I N E	Ha1	8 293	Hb1 9 038
Ha2		7 193	Hb2 7 938	
Ha3		28@250 = 7 000	Hb3 31@250 = 7 750	
Ha4		13@250 = 3 250	Hb4 16@250 = 4 000	
Ha5		193	Hb5 188	
Ba1		842	Bb1 903	
Ba2		3 458	Bb2 3 647	
Ba3		592	Bb3 653	
Ba4		2@392.0 = 784	Bb4 2@422.5 = 845	
Ba5		2@173.0 = 346	Bb5 2@142.5 = 285	
Ba6		10@300 = 3 000	Bb6 10@300 = 3 000	
Ba7		710	Bb7 771	
Ba8		2@210.0 = 420	Bb8 2@179.5 = 359	



Slit Shape in Front of Wall
(Thickness t=30 mm)

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CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

TITLE : R/A-18, AQR RE-BAR ARRANGEMENT (8)

DATE

DWG NO. W-41