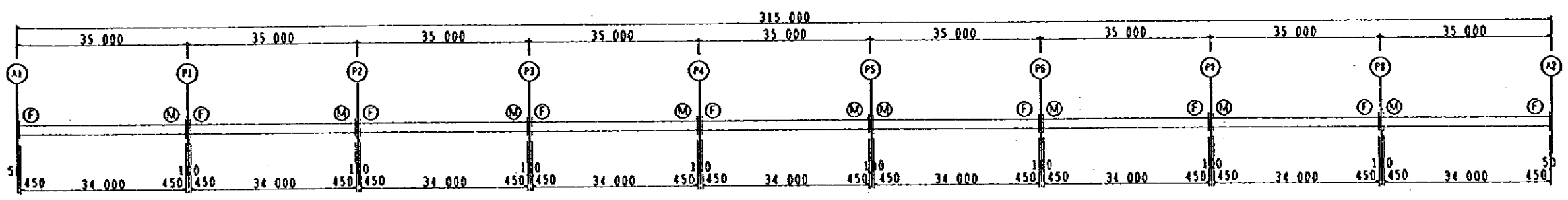
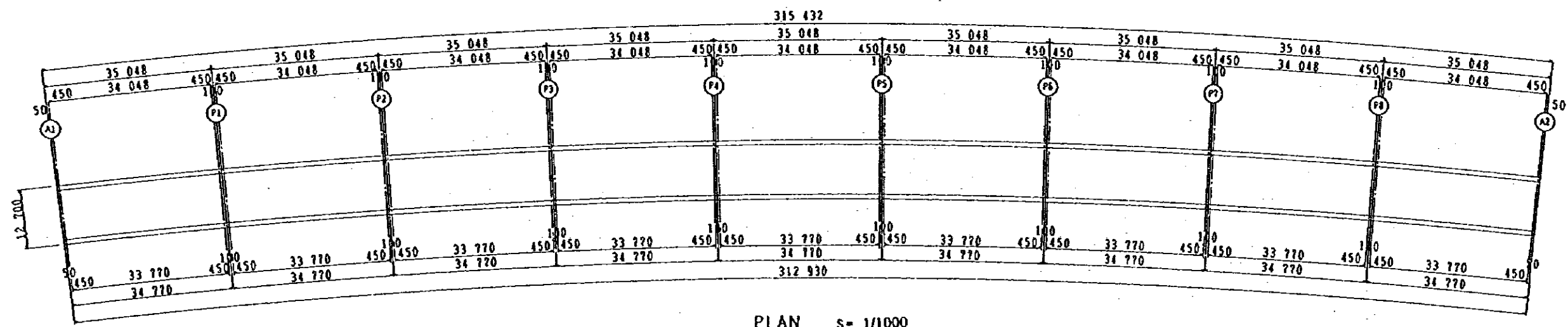


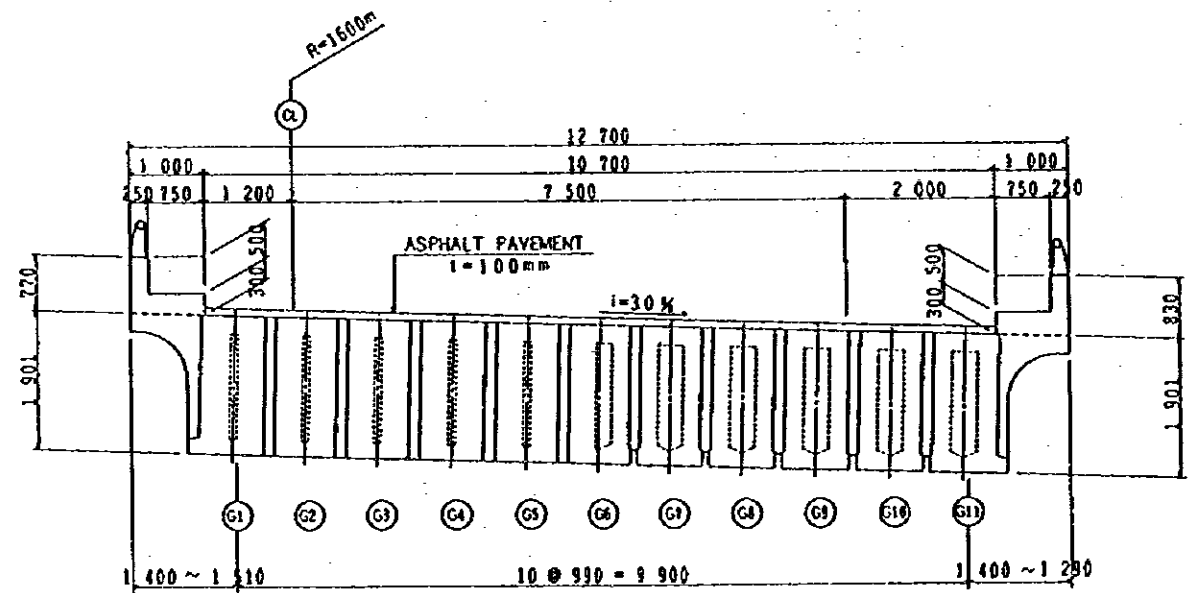
RA/12 SOHAR



PROFILE OF BRIDGE (AT CL) s=1/1000

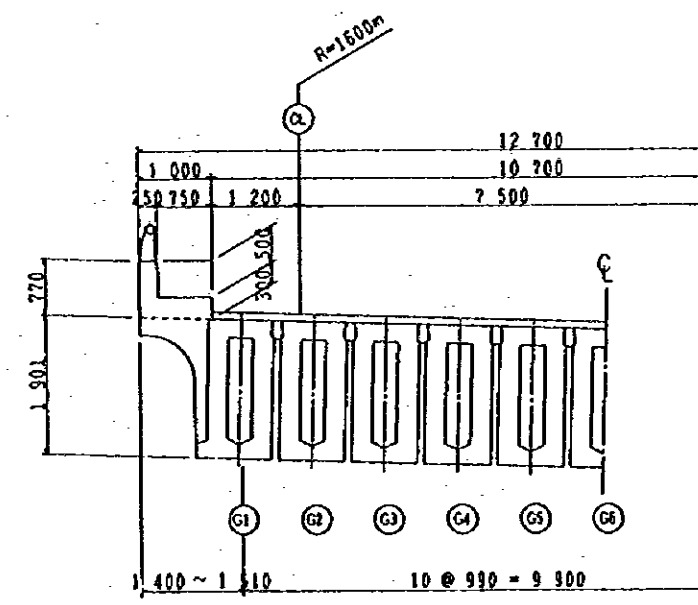


PLAN s=1/1000



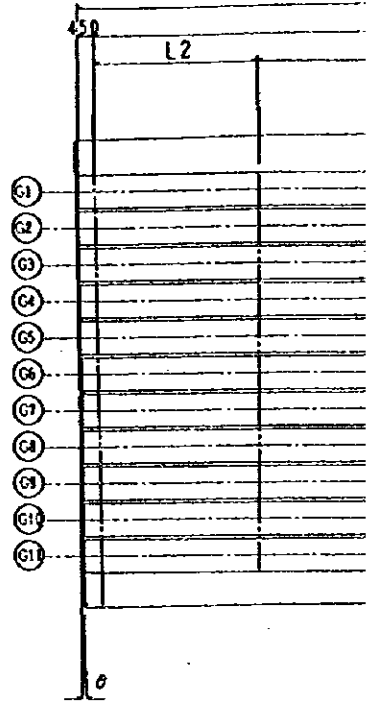
GIRDER END MIDDLE SPAN

SECTION s=1/100



TYPICAL SEC.

GENERAL VIEW OF BRIDGE AT B-LINE

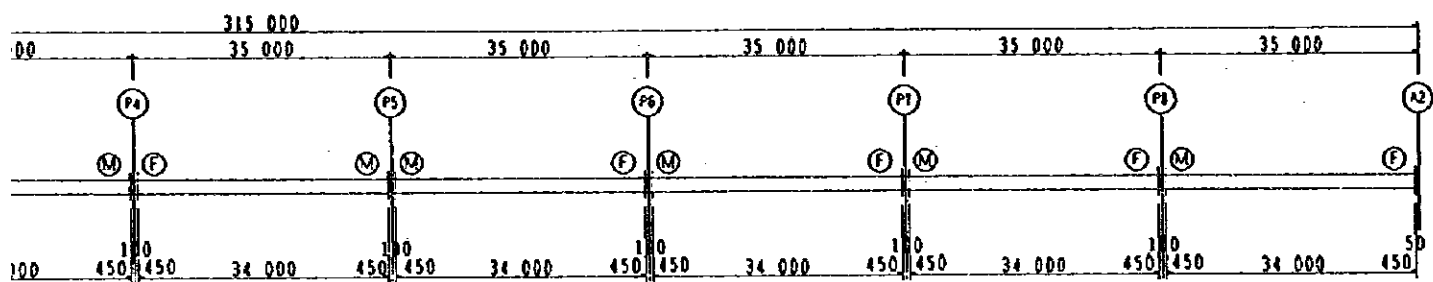


		G1	
A1 ~ P1	L0	34 920	31
	L1	34 020	31
P8 ~ A2	L2	4 260.0	4
	θ	0.62667	0.1
P1 ~ P2	L0	34 918	31
	L1	34 019	31
P7 ~ P8	L2	4 258.5	4
	θ	0.62667	0.1
P2 ~ P3	L0	34 918	31
	L1	34 018	31
P6 ~ P7	L2	4 258.0	4
	θ	0.62667	0.1
P3 ~ P4	L0	34 917	31
	L1	34 017	31
P5 ~ P6	L2	4 258.5	4
	θ	0.62667	0.1
P4 ~ P5	L0	34 917	31
	L1	34 017	31
	L2	4 258.5	4
	θ	0.62667	0.1

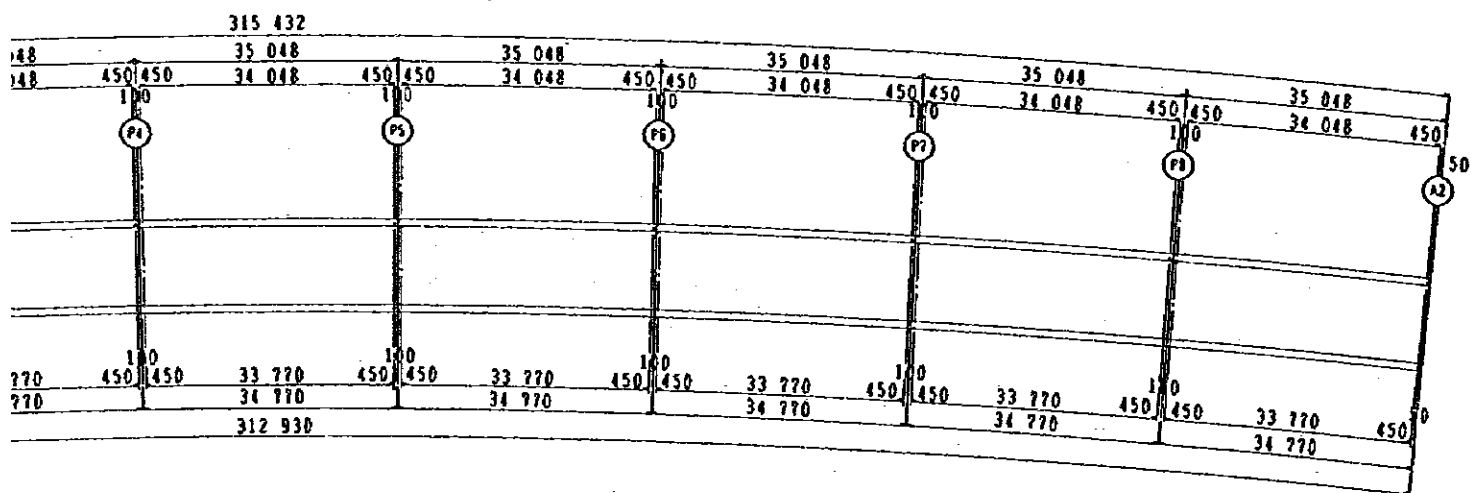
NOTES:

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

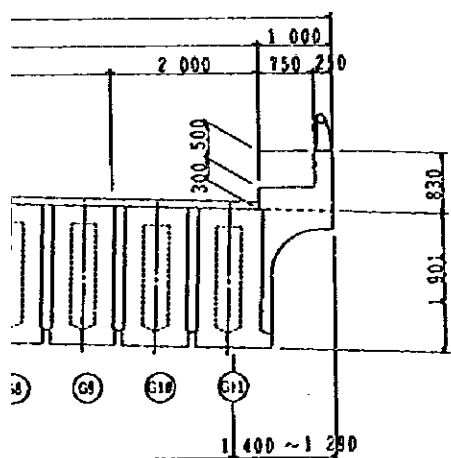
RA/12 SOHAR



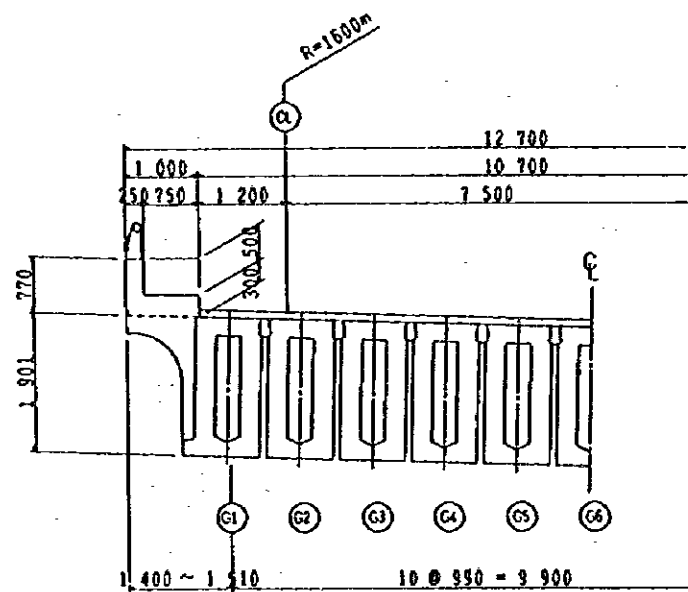
FILE OF BRIDGE (AT CL) s= 1/1000



PLAN s= 1/1000

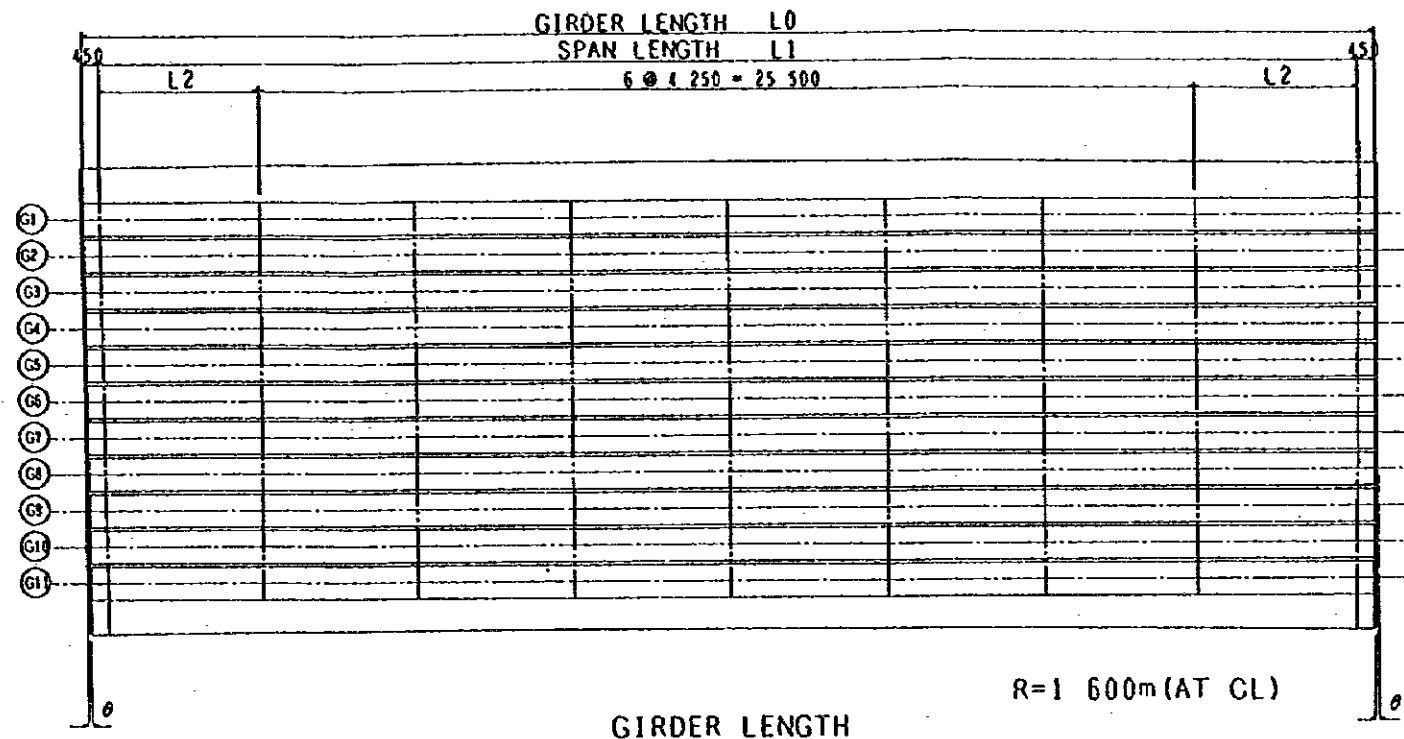


SINGLE SPAN SECTION s= 1/100



TYPICAL SEC.

GENERAL VIEW OF BRIDGE AT B-LINE

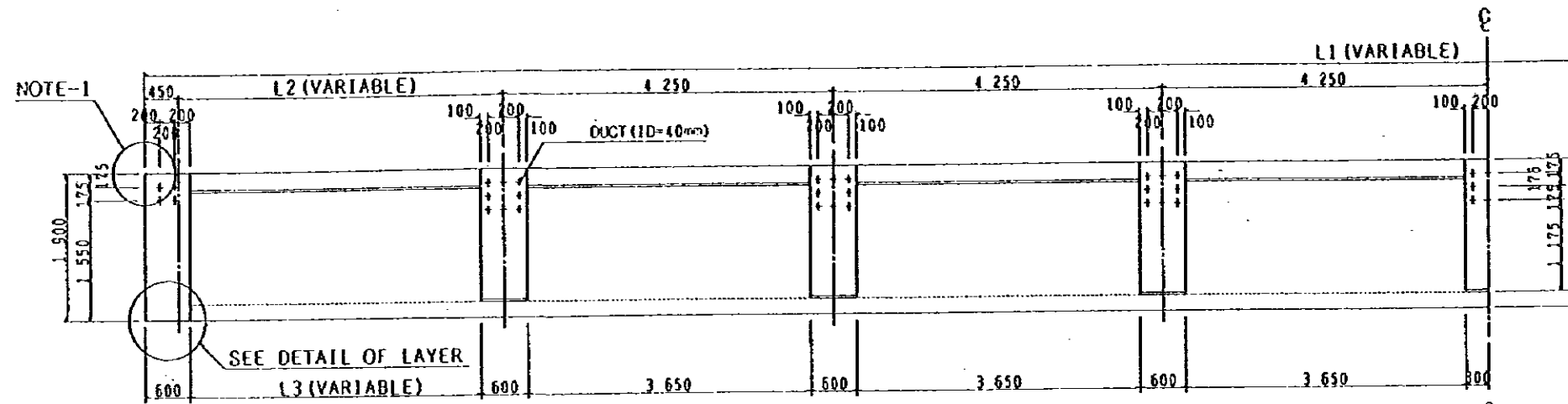


		G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	REMARKS
A1 ~ P1	L0	34 920	34 899	34 877	34 855	34 834	34 812	34 790	34 769	34 747	34 725	34 704	INCLINER LENGTH
	L1	34 020	33 999	33 977	33 955	33 934	33 912	33 890	33 869	33 847	33 825	33 804	"
P1 ~ A2	L2	4 2600	4 2485	4 2385	4 2275	4 2170	4 2060	4 1950	4 1845	4 1735	4 1625	4 1520	"
	Ø	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	"
P1 ~ P2	L0	34 919	34 897	34 875	34 854	34 832	34 810	34 789	34 767	34 745	34 724	34 702	INCLINER LENGTH
	L1	34 019	33 997	33 975	33 954	33 932	33 910	33 889	33 867	33 845	33 824	33 802	"
P2 ~ P3	L2	4 2595	4 2485	4 2375	4 2270	4 2160	4 2050	4 1945	4 1835	4 1725	4 1620	4 1510	"
	Ø	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	"
P2 ~ P3	L0	34 918	34 896	34 874	34 853	34 831	34 809	34 788	34 766	34 744	34 723	34 701	INCLINER LENGTH
	L1	34 018	33 996	33 974	33 953	33 931	33 909	33 888	33 866	33 844	33 823	33 801	"
P3 ~ P4	L2	4 2590	4 2480	4 2370	4 2265	4 2155	4 2045	4 1940	4 1830	4 1720	4 1615	4 1505	"
	Ø	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	"
P3 ~ P4	L0	34 917	34 895	34 874	34 852	34 830	34 809	34 787	34 765	34 744	34 722	34 700	INCLINER LENGTH
	L1	34 017	33 995	33 974	33 952	33 930	33 909	33 887	33 865	33 844	33 822	33 800	"
P4 ~ P5	L2	4 2585	4 2475	4 2370	4 2260	4 2150	4 2045	4 1935	4 1825	4 1720	4 1610	4 1500	"
	Ø	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	"
P4 ~ P5	L0	34 917	34 895	34 874	34 852	34 830	34 809	34 787	34 765	34 744	34 722	34 700	INCLINER LENGTH
	L1	34 017	33 995	33 974	33 952	33 930	33 909	33 887	33 865	33 844	33 822	33 800	"
	L2	4 2585	4 2475	4 2370	4 2260	4 2150	4 2045	4 1935	4 1825	4 1720	4 1610	4 1500	"
	Ø	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	0.62667	"

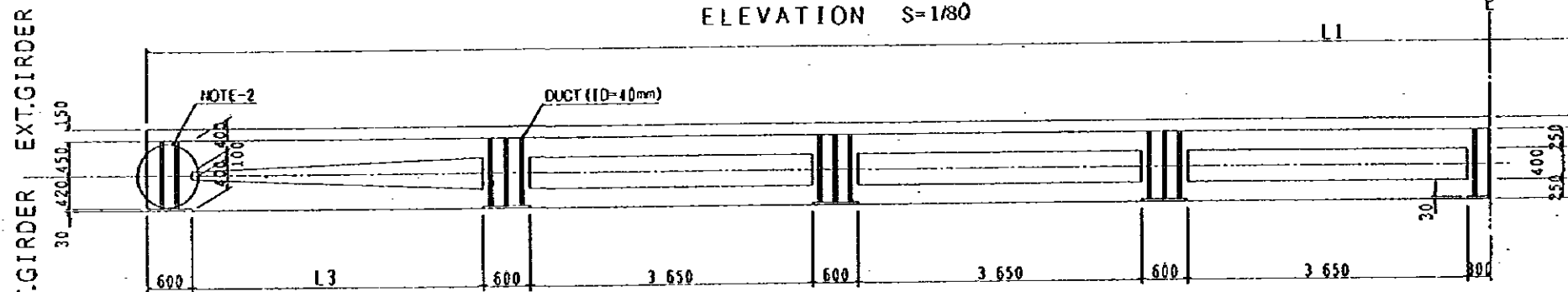
DIMENSION LIST FOR B-LINE

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
JICA STUDY TEAM	PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
PACIFIC CONSULTANTS INTERNATIONAL	TITLE: GENERAL VIEW OF BRIDGE AT B-LINE
FUKUYAMA CONSULTANTS INTERNATIONAL	DATE: _____ DWGNO. B-15

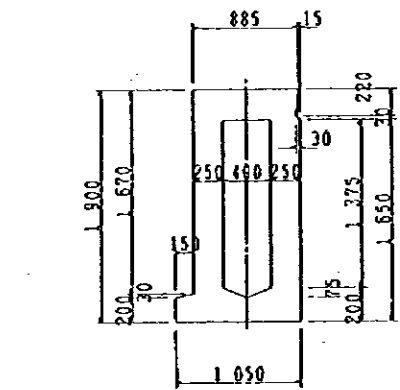
RA/12 SOHAR



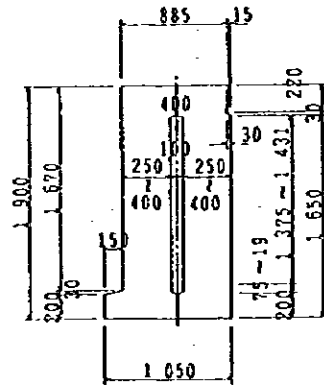
ELEVATION S=1/80



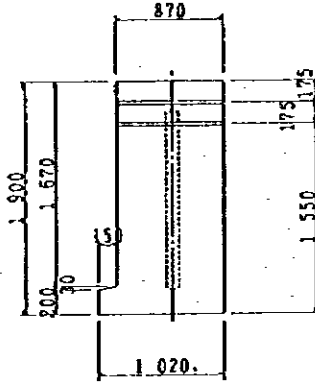
PLAN S=1/80



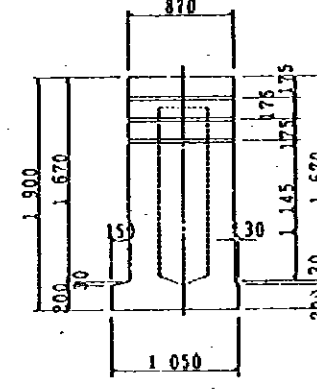
TYPICAL SECTION



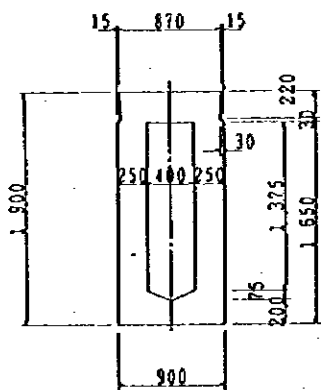
AT WEB WIDENED



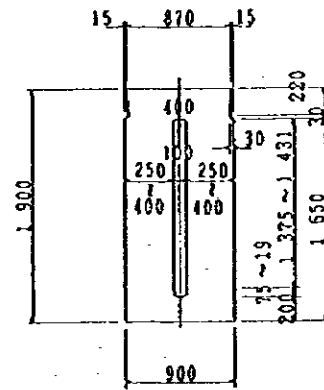
AT GIRDER END



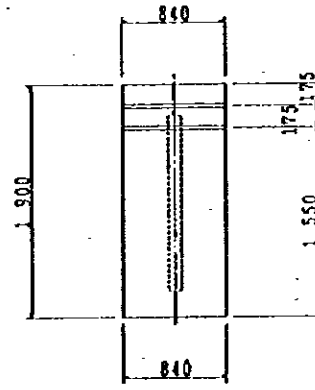
AT CROSS BEAM



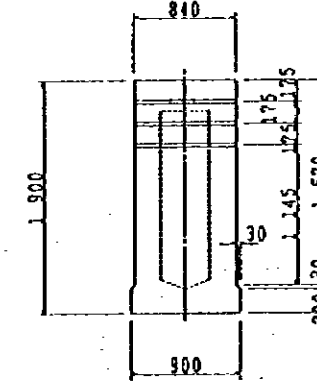
TYPICAL SECTION



AT WEB WIDENED



AT GIRDER END



AT CROSS BEAM

SECTION OF INT.GIRDER S=1/60

STRUCTURAL DETAIL OF MAIN GIRDER AT B-LINE

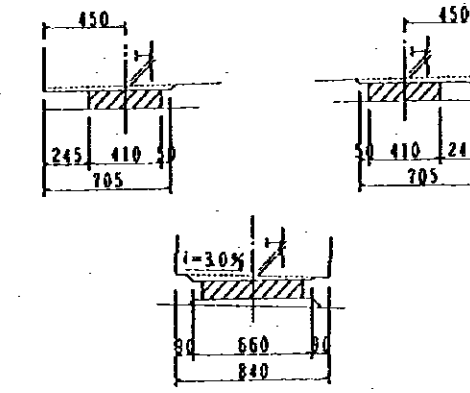
L1	34 920 ~ 34 700
L2	4 260 ~ 4 150
L3	3 810 ~ 3 700

MAX. MIN. VALUE OF L

SEE AND CHECK VALUE OF L PER GIRDER FROM GENERAL VIEW SHEET (DIMENSION LIST)

NOTE-1: CONSIDERING THE EFFECT LONGITUDINAL SLOPE (1%) TO END GIRDER BOTH ENDS SHOULD BE FIXED PARALLEL TO Y-AXIS

NOTE-2: INCLINE TENDON ENCASMENT FOR ABUTMENTS AND PIERS ONLY, SEE VALUE OF θ



DETAIL OF LAYER S=1/40

	T	REMARKS
A1 ~ P1	FIX	22
P8 ~ A2	MOV	18
P1 ~ P2	FIX	30
P7 ~ P8	MOV	20
P2 ~ P3	FIX	29
P6 ~ P7	MOV	21
P3 ~ P4	FIX	21
P5 ~ P6	MOV	23
F4 ~ F5	FIX	25
	MOV	25

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

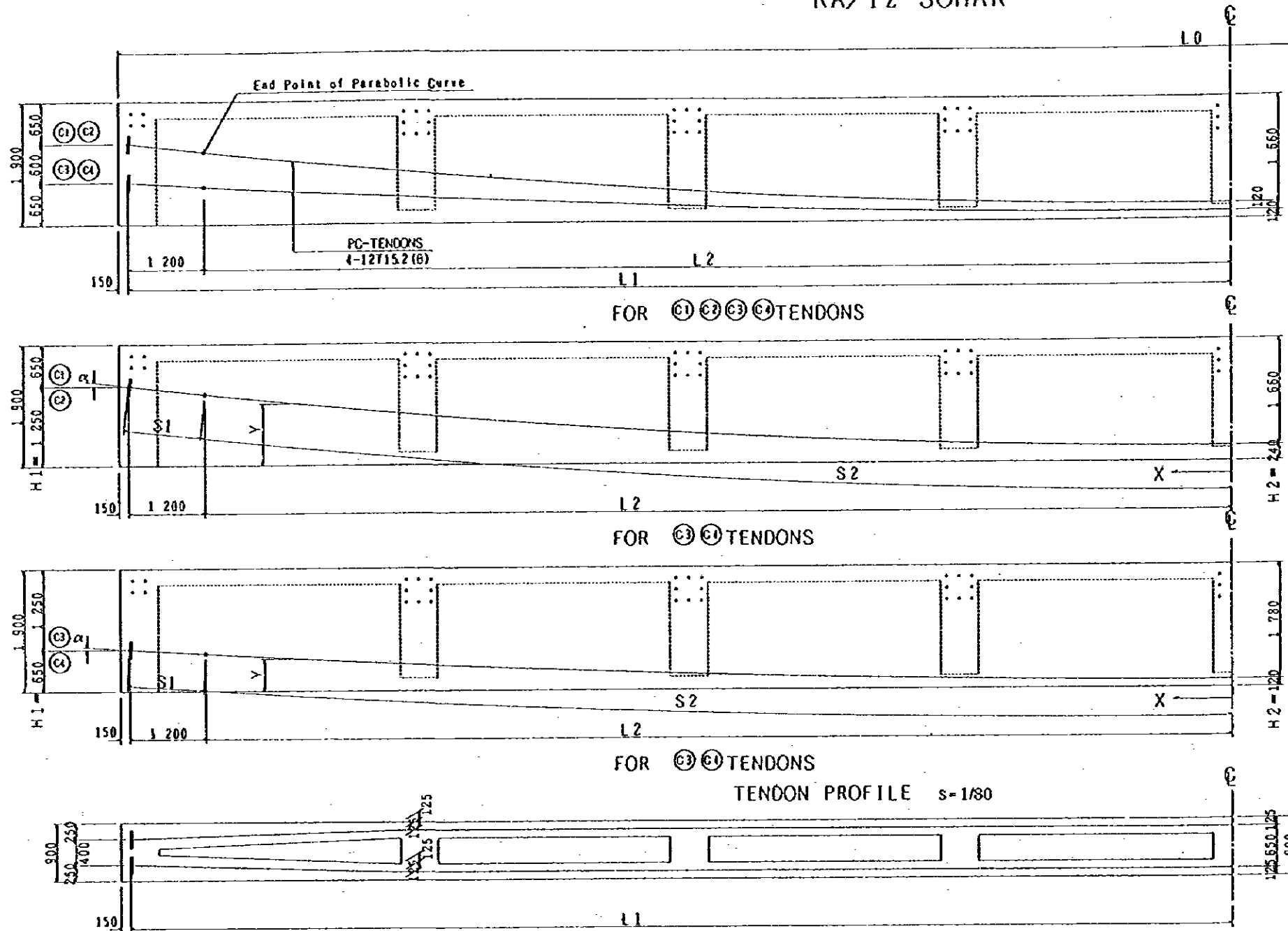
TITLE: STRUCTURAL DETAIL OF MAIN GIRDER AT B-LINE

DATE

DWGNO.

B-16

RA/12 SOHAR



L0	34 920 ~ 34 700
L1	17 310.0 ~ 17 200.0
L2	16 110.0 ~ 16 000.0

SEE AND CHECK VALUE OF L FOR OTHER GIRDER LENGTH FROM GENERAL VIEW SHEET

	L1	L2	α deg	S1	S2	2x(S1+S2)	W / Cable	W (kg)
C1 C2	17 255	16 055	6.2713	1 207	16 087	34 588	457.0	914.0
C3 C4	17 255	16 055	3.2909	1 202	16 064	34 532	456.2	912.4
TOTAL								1 826.4

W COMPUTED BASED ON GIRDER LENGTH 34.810m (AVE.)
EXTRA LENGTH FOR TENSIONING IS NOT INCLUDED
 $w=13.212\text{kg/m/Cable (12T15.2B)}$

NOTE :

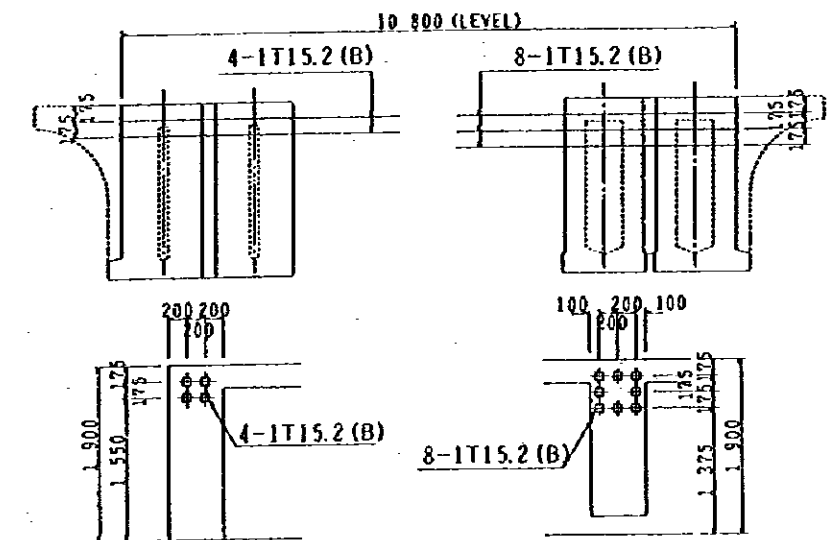
$$Y = (H1 - H2) / (L2 \times (L2 \times L1 - L2)) \times X^2 + H2$$

$$\alpha = 2 \times (H1 - H2) / (2 \times L1 - L2) \text{ rad.}$$

$$S1 = 1\ 200 / \cos \alpha$$

$$S2 = L2 \times (1 + 8/3 \times \alpha^2 - 32/5 \times \alpha^4 + 128/7 \times \alpha^6 - 512/9 \times \alpha^8)$$

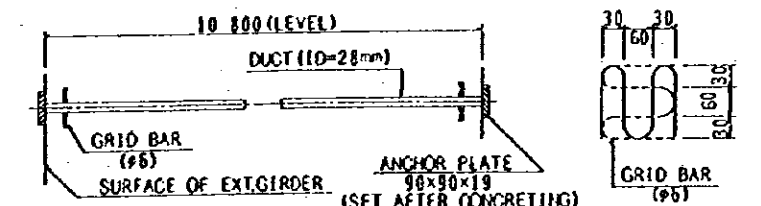
$$n = (H1 - H2 - \tan \alpha \times 1\ 200) / (2 \times L2)$$



GIRDER END

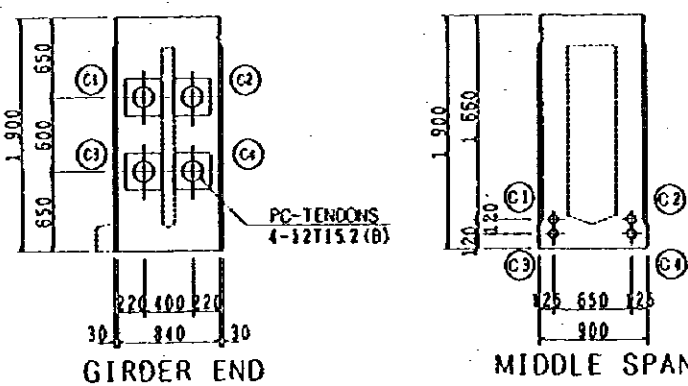
CROSS BEAM

LATERAL TENDON ARRANGEMENT s=1/80



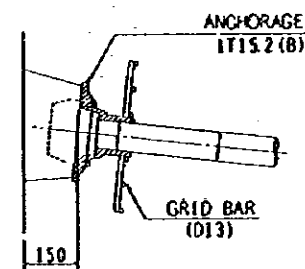
DETAIL OF ANCHORAGE s=1/20, 1/10

FOR CROSS BEAM

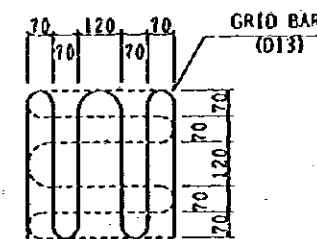


SECTION s=1/60

FOR MAIN GIRDER



DETAIL OF ANCHORAGE s=1/20



DETAIL OF TENDONS AT B-LINE

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

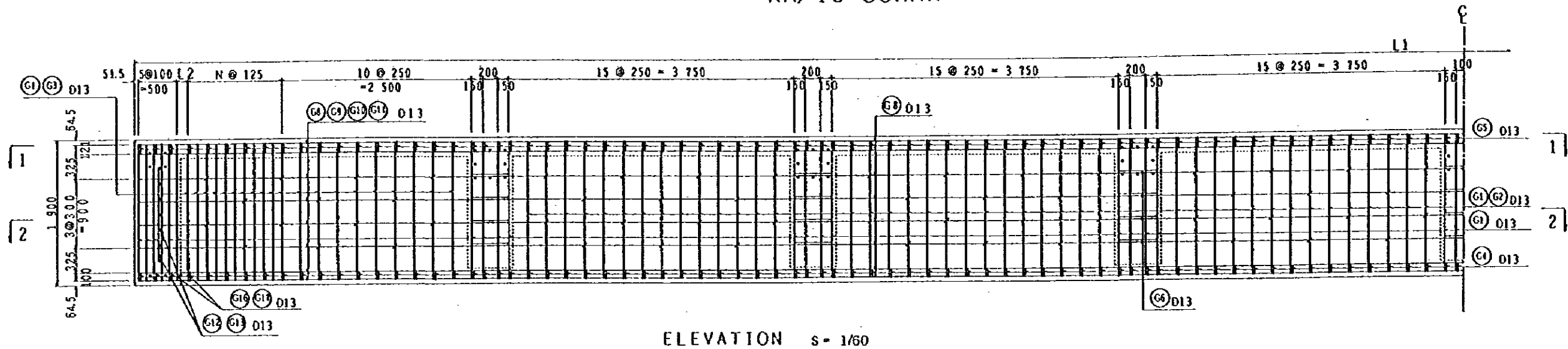
TITLE: DETAIL OF TENDONS AT B-LINE

DATE:

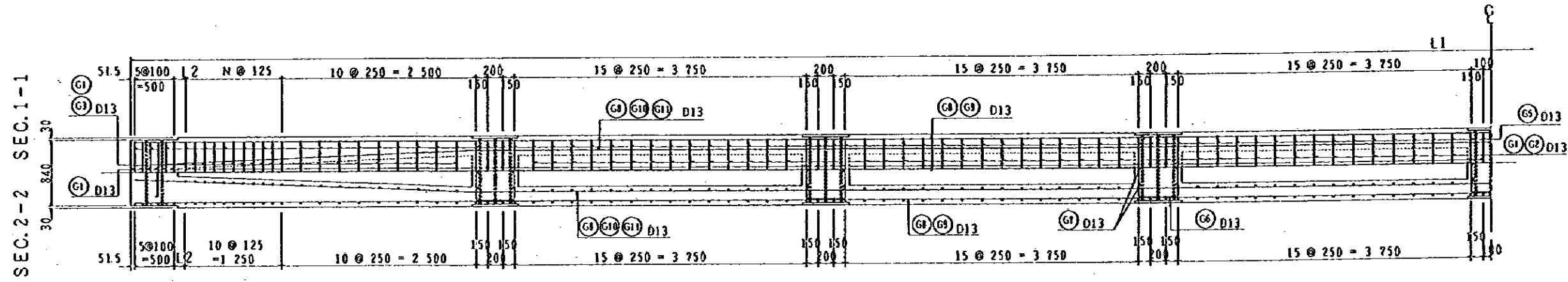
DWGNO.

B-17

RA/12 SOHAR



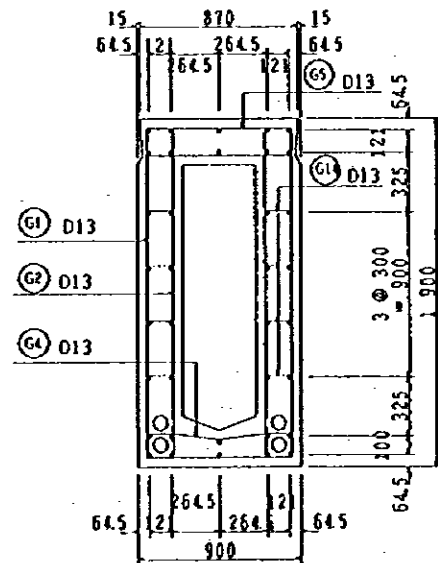
ELEVATION s = 1/60



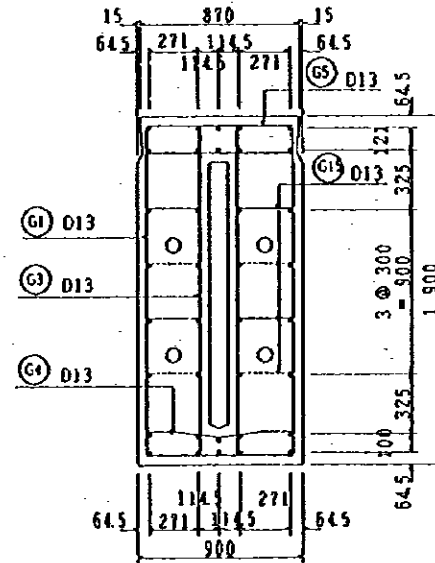
PLAN s = 1/60

	L1	N1 @ 125	L2
G2 ~ G6	34 899 ~ 34 809	10 @ 125	1480 ~ 1030
G7 ~ G10	34 190 ~ 34 122	9 @ 125	2185 ~ 1845

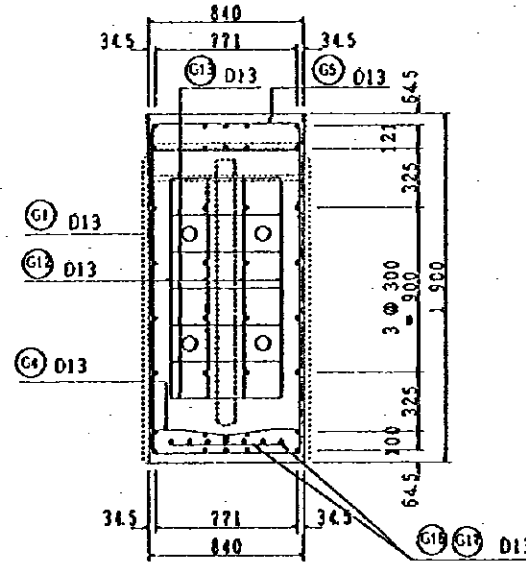
SEE AND CHECK VALUE OF L FOR OTHER INT.GIRDER LENGTH FROM GENERAL VIEW SHEET



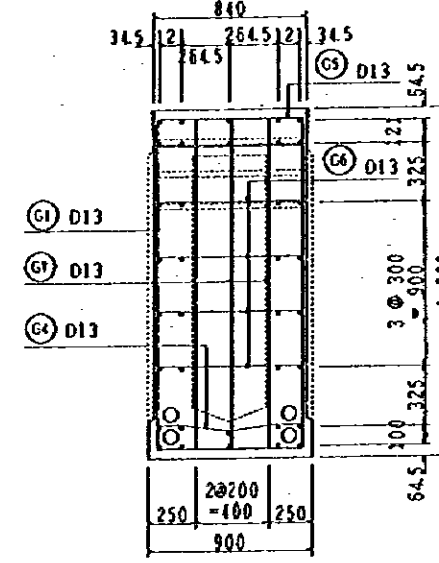
TYPICAL SECTION



AT WEB WIDENED



AT GIRDER END



AT CROSS BEAM

SECTION s = 1/40

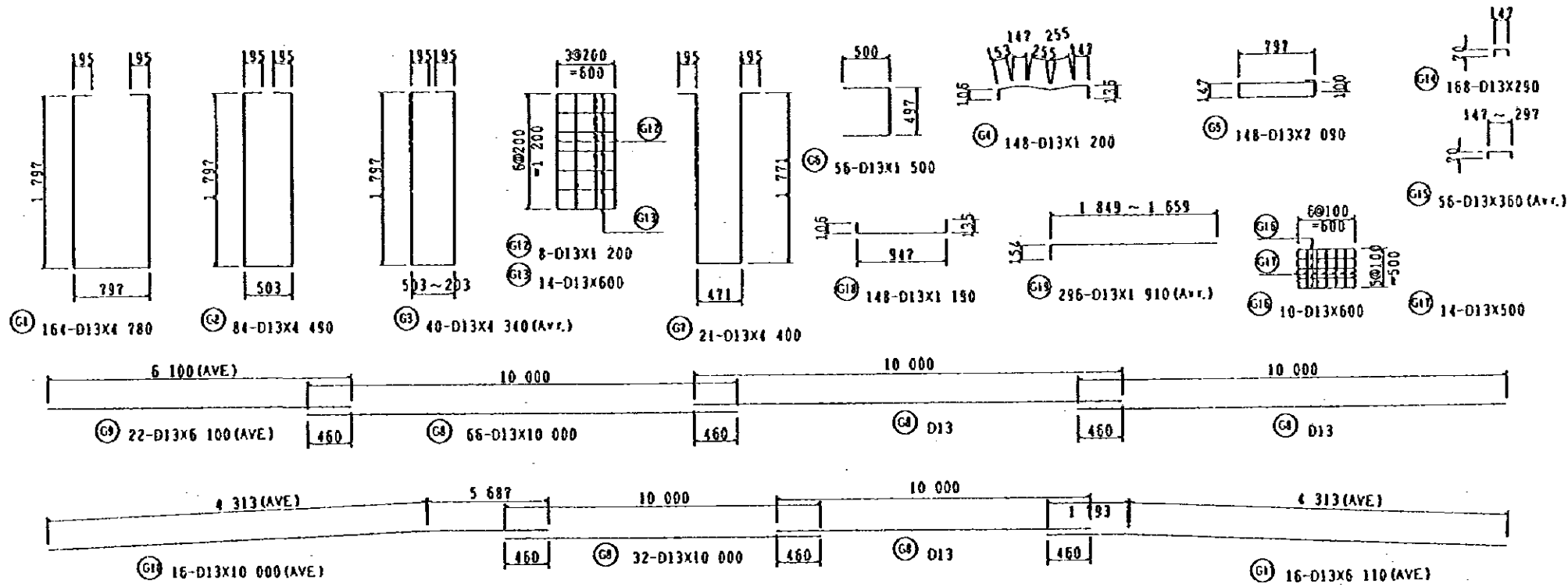
B-LINE RE-BAR ARRANGEMENT-2 (INT.GIRDER)

NOTES:

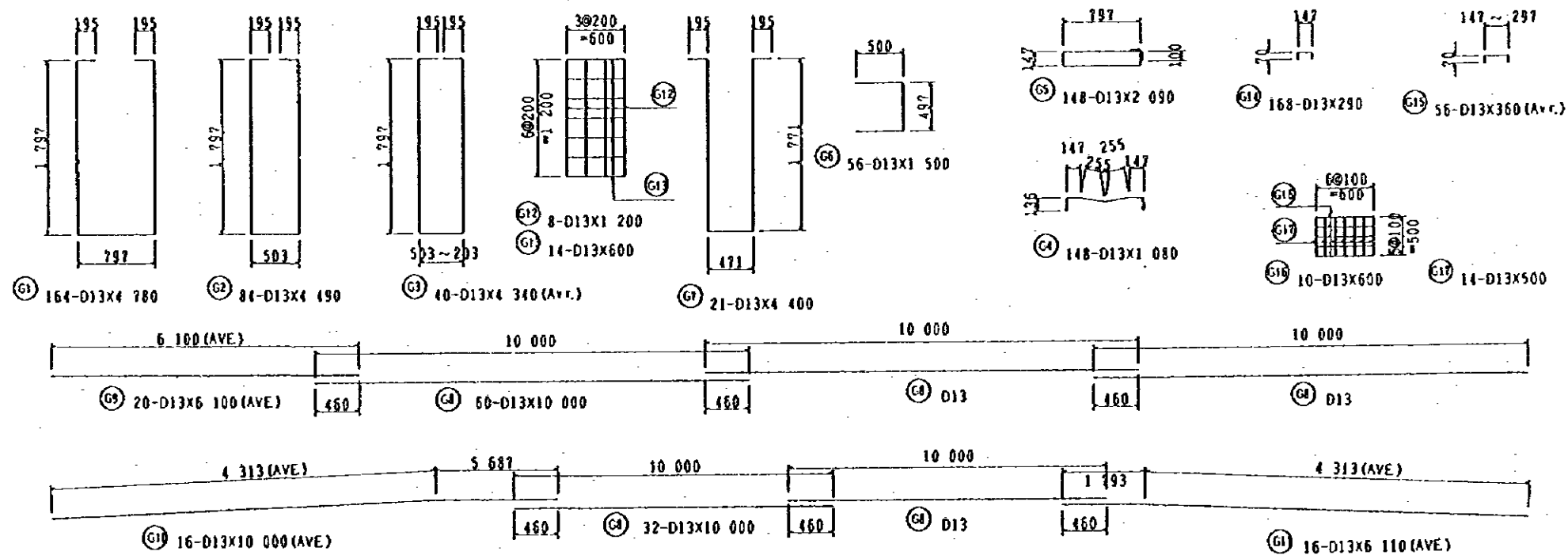
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 JICA STUDY TEAM
 PACIFIC CONSULTANTS INTERNATIONAL
 FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
 PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
 TITLE: RE-BAR ARRANGEMENT(2/2) AT B-LINE
 DATE: _____ DWGNO. B-19

RA/12 SOHAR



FOR EXT.GIRDER $s=1/80$



FOR INT.GIRDER $s=1/80$

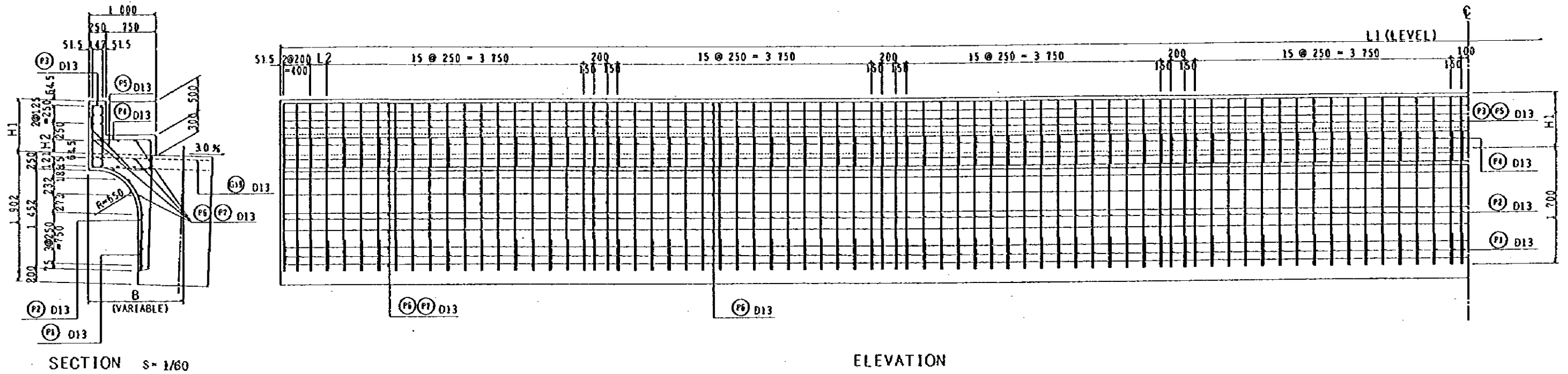
BAR SCHEDULE OF MAIN GIRDER AT B-LINE

NOTES:

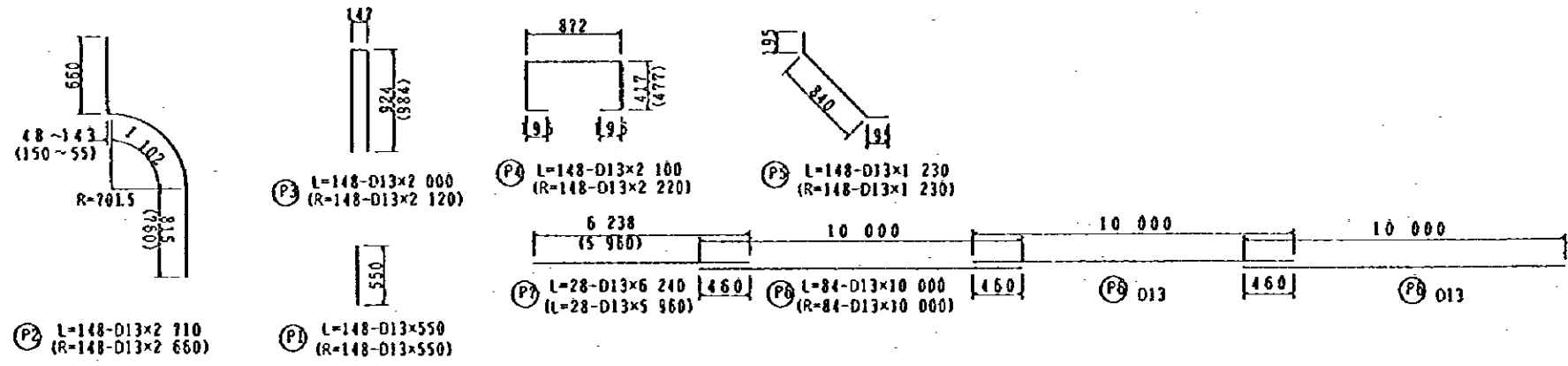
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL,
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE: BAR SCHEDULE OF MAIN GIRDER AT B-LINE
DATE: _____ DWGNO. B-20

RA/12 SOHAR



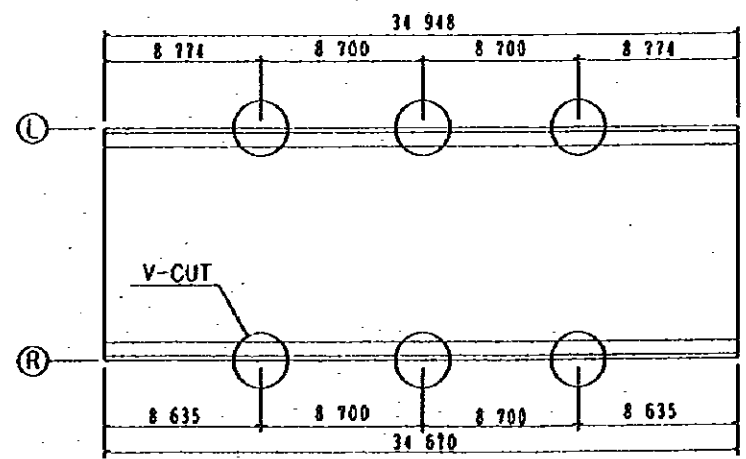
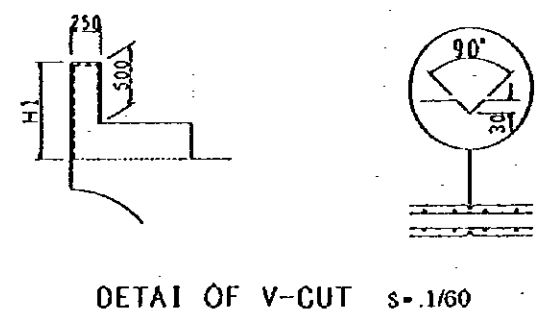
RE-BAR ARRANGEMENT S= 1/60



	(A1) ~ (A2)	REMARKS
L	L1	31 948 LEVEL
	L2	2725 LEVEL
	B	1 400 ~ 1 495 VARIABLE
	H1	770
	H2	205.5
R	L1	31 670 LEVEL
	L2	1335 LEVEL
	B	1 400 ~ 1 305 VARIABLE
	H1	830
	H2	265.5

DIMENSION LIST

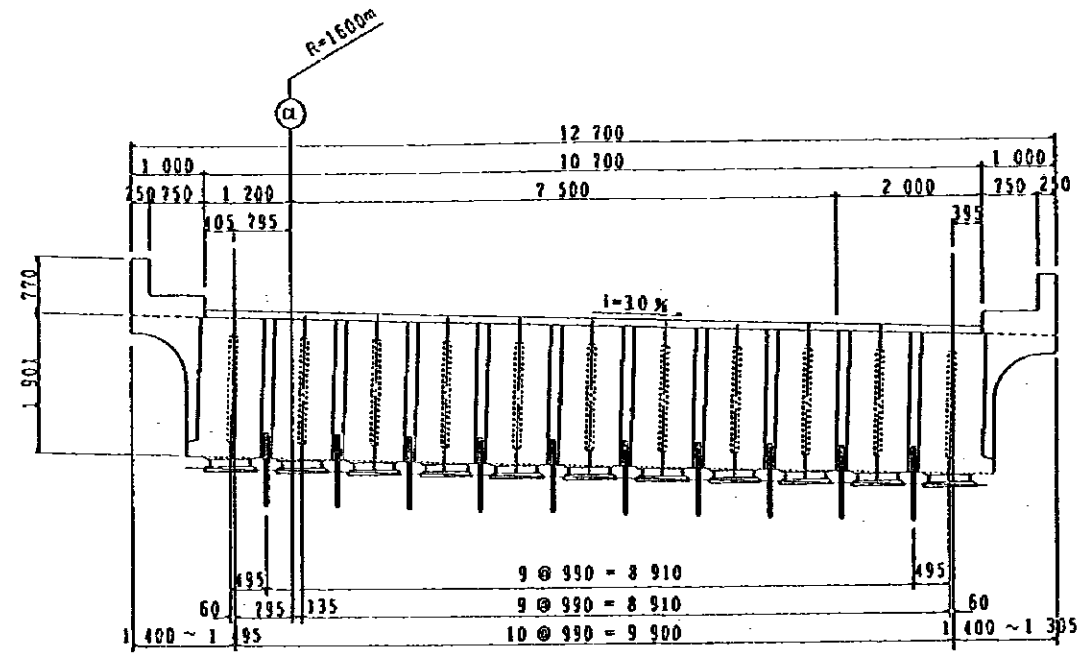
BAR SCHEDULE



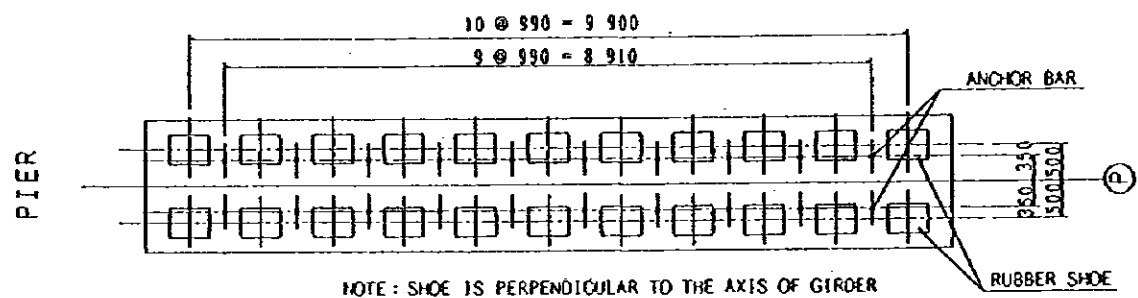
RAILING AND CANTILEVER SLAB AT B-LINE

NOTES:	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
	JICA STUDY TEAM	PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
	PACIFIC CONSULTANTS INTERNATIONAL	TITLE: RAILING AND CANTILEVER SLAB AT B-LINE
	FUKUYAMA CONSULTANTS INTERNATIONAL	DATE: _____ DWGNO. B-21

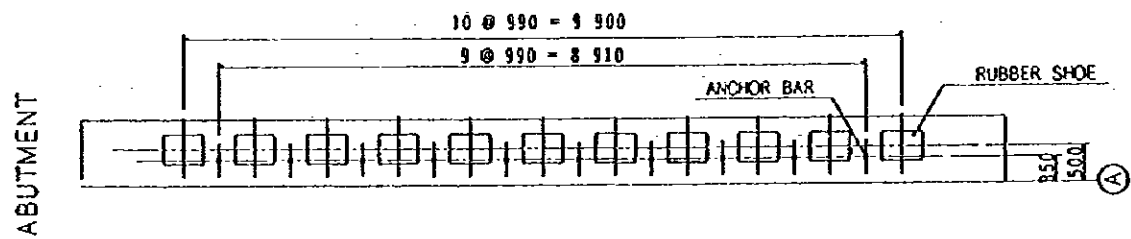
RA/12 SOHAR



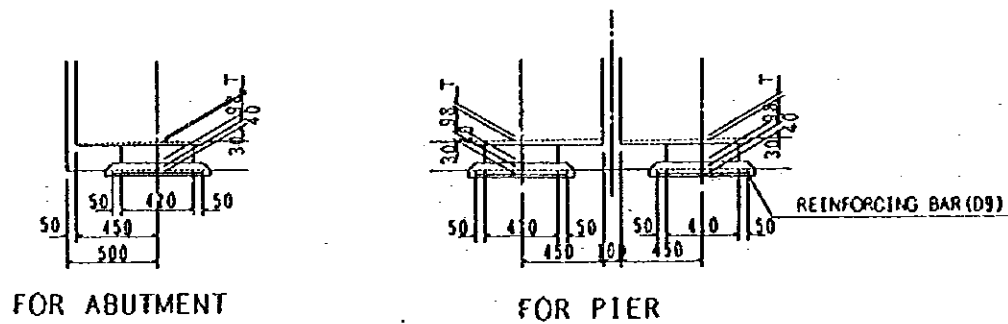
SECTION S=1/100



NOTE: SHOE IS PERPENDICULAR TO THE AXIS OF GIRDER

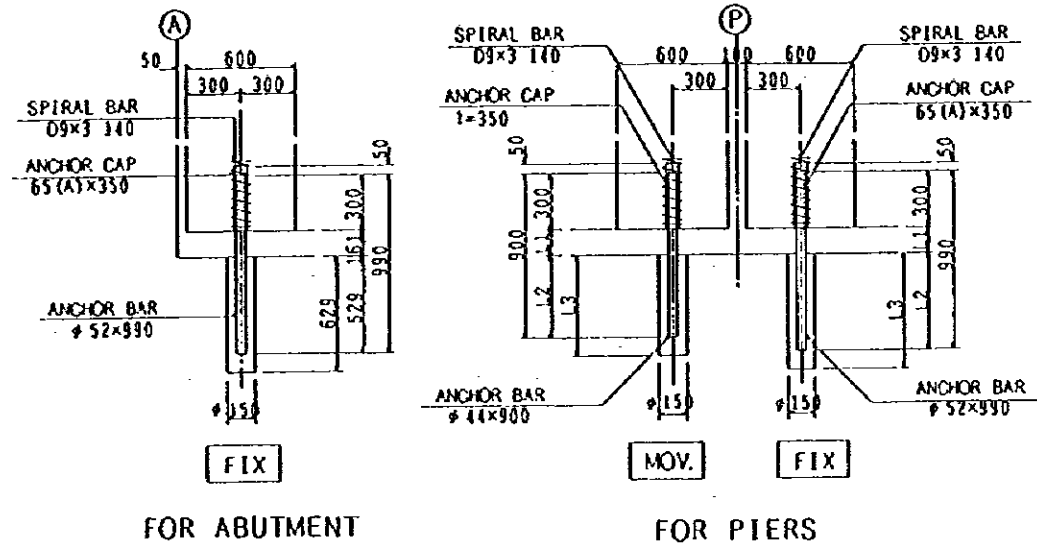


PLAN S=1/100
DETAIL OF SHOE AND ANCHOR BAR

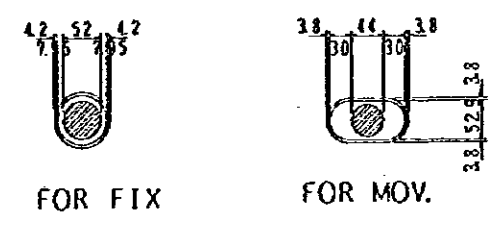


DETAIL OF SHOE S=1/40

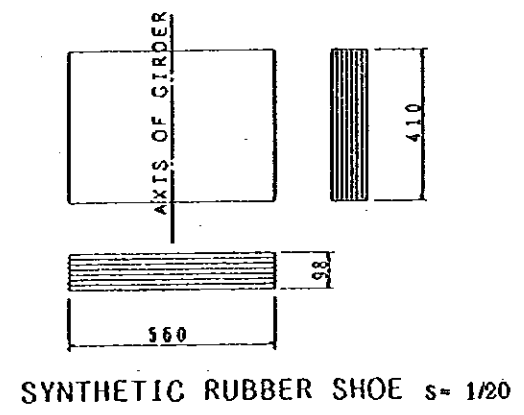
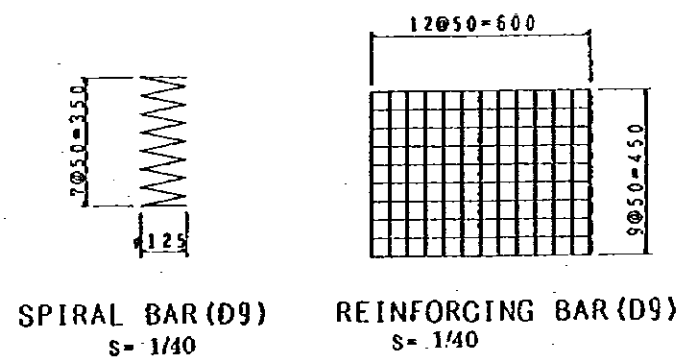
DETAIL OF SHOE AND ANCHOR BAR AT B-LINE



DETAIL OF ANCHOR BAR S=1/40



ANCHOR CAP S=1/10



SYNTHETIC RUBBER SHOE S=1/20

		(PER SPAN)			
		DESCRIPTION	UNIT	QUANTITY	REMARKS
FIX		ANCHOR BAR (GALV.)	kg	165.0	w=16.50 kg/pc.
		ANCHOR CAP (GALV.)	kg	26.2	w= 2.62 kg/pc.
		FILLER	kg	9.5	w=0.945 kg/anc.
		SYNTHETIC RUBBER SHOE	Pcs	11	560x410x98
		REINFORCING BAR	kg	73.0	w=6.61 kg/Set
		SPIRAL BAR	kg	12.6	w=1.76 kg/pc.
MOV.		NON SHRINKAGE MORTAR	m ³	0.308	0.028m ³ /Shoe
		"	m ³	0.100	0.010m ³ /Hole(AVE)
		ANCHOR BAR (GALV.)	kg	107.4	w=10.74 kg/pc.
		ANCHOR CAP (GALV.)	kg	29.3	w= 2.93 kg/pc.
		FILLER	kg	18.9	w=1.890 kg/anc.
		SYNTHETIC RUBBER SHOE	Pcs	11	560x410x98
	REINFORCING BAR	kg	73.0	w=6.61 kg/Set	
	SPIRAL BAR	kg	12.6	w=1.76 kg/pc.	
	NON SHRINKAGE MORTAR	m ³	0.308	0.028m ³ /Shoe	
	"	m ³	0.100	0.010m ³ /Hole(AVE)	

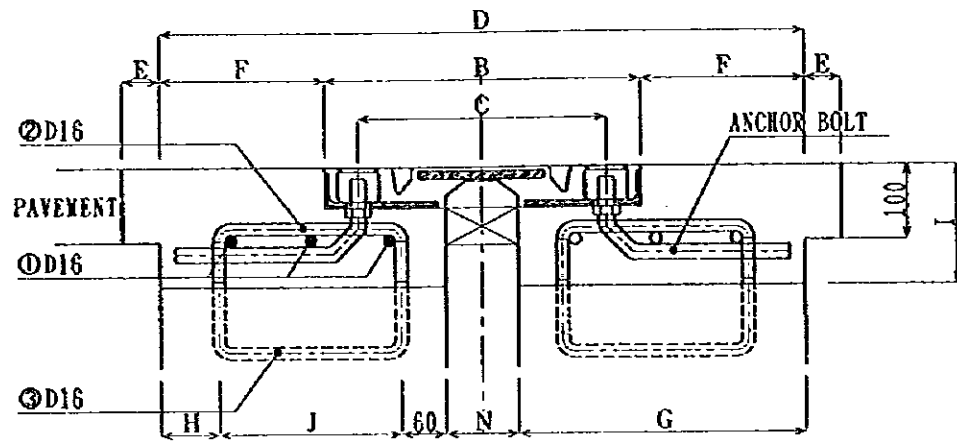
MATERIAL LIST

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: DETAIL OF SHOE AND ANCHOR BAR AT B-LINE
DATE: DWGNO. B-22

S O H A R

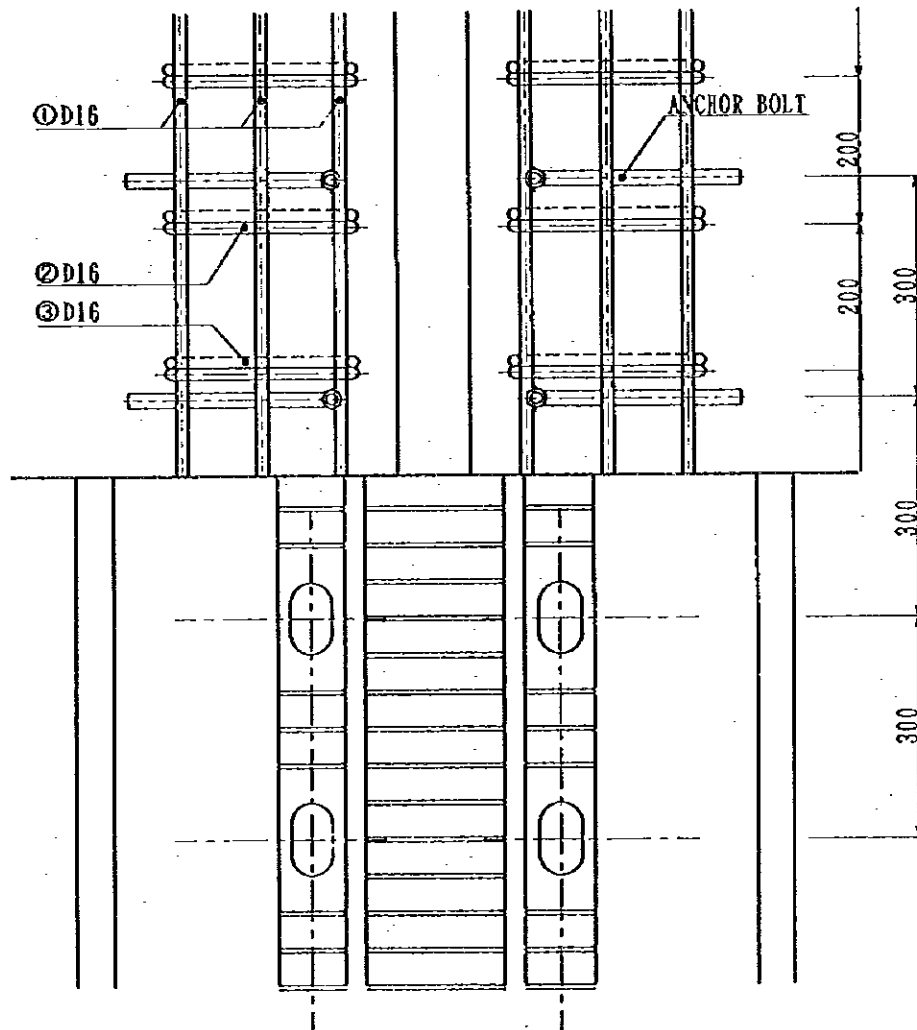


MEASURE DATA

	A	B	C	D	E	F	G	H	I	J	STANDARD SPACE BETWEEN SLABS N	TRAVEL
PIER	54	433	340	879	50	223	390	80	160	250	100	80
ABUT	40	303	235	709	50	203	330	70	150	200	50	50

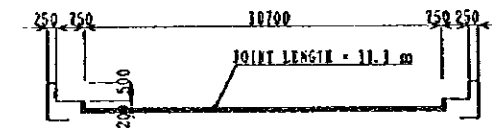
MATERIAL LIST (PER 10 m)

MATERIAL	CLASSIFICATION	UNIT	PIER	ABUT
TRANSFLEX JOINT	INCLUDING ANCHORBOLT	m	10.0	10.0
SEALANT	FOR JOINT SEALS	kg	22.5	16.0
	FOR PLUG HOLE	kg	8.5	4.0
REINFORCING BAR	ØD16	kg	93.60	93.60
	ØD16	kg	60.84	53.04
RECESS CONCRETE	HIGH-EARLY STRENGTH CONCRETE	m ³	1.143	0.964
COLORING AGENT OF THE FACE	3 kg/m ²	kg	16.0	15.0
POLYURETHANE FORM		m	10.0	10.0
TRANSIENT FILLING MATERIAL	SAND	m ³	0.66	0.53
	ASPHALT CONCRETE	m ³	0.73	0.60



QUANTITY LIST

	PIER	ABUTMENT
AL KHABURAHN	16	4
TOTAL LENGTH	177.6	14.4



JOINT LENGTH PER 1 PLACE

TRANSFLEX JOINT

S-1/10

NOTES:

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CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

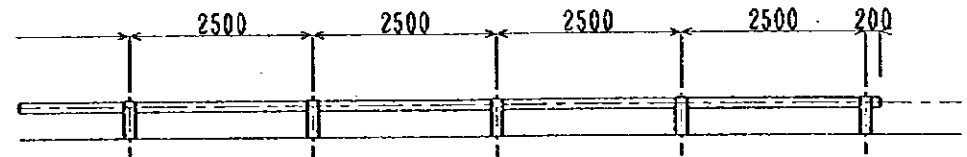
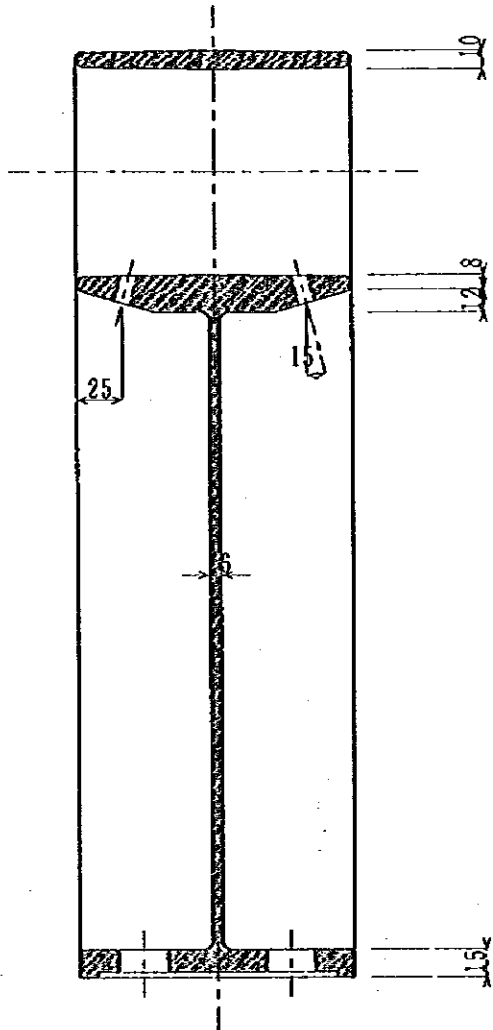
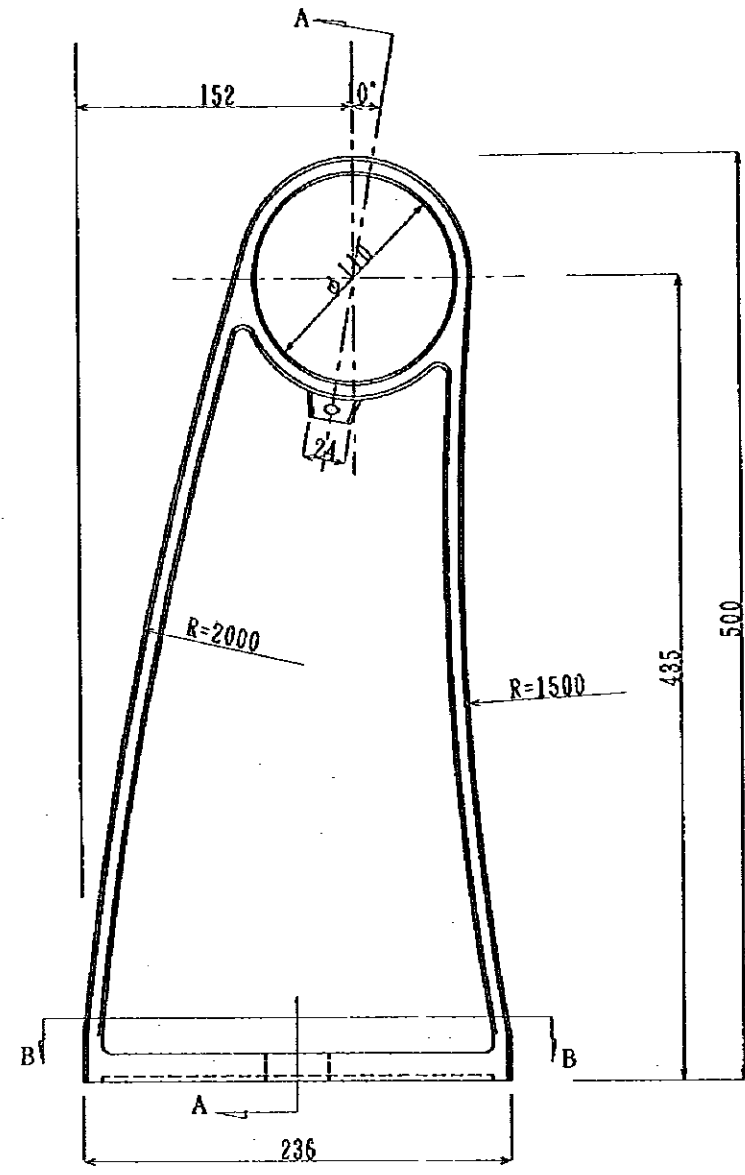
TITLE: EXPANSION JOINT

DATE:

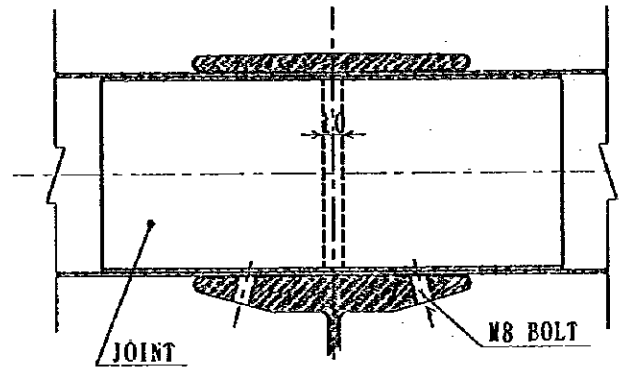
DWGNO.

B-23

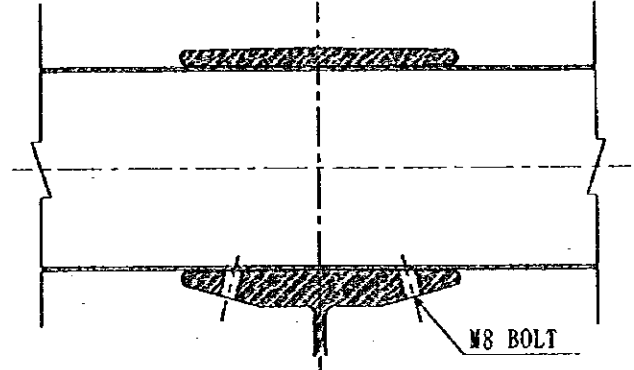
S O H A R



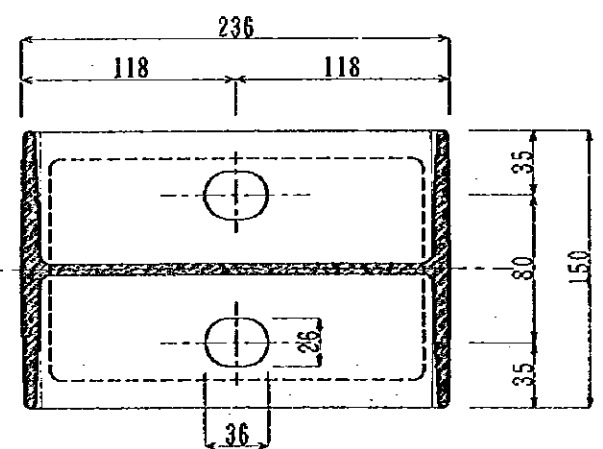
POST ARRANGEMENT



RAIL JOINT SECTION

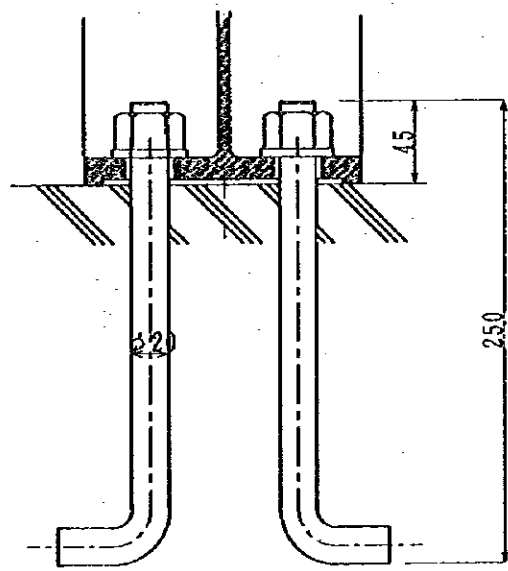


RAIL PENETRATING SECTION

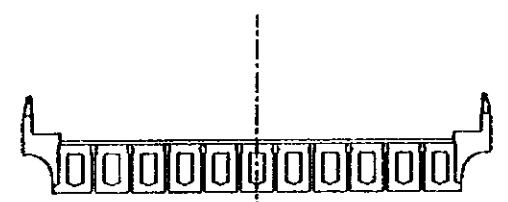


B-B SECTION

POST SCALE



ANCHOR BOLT



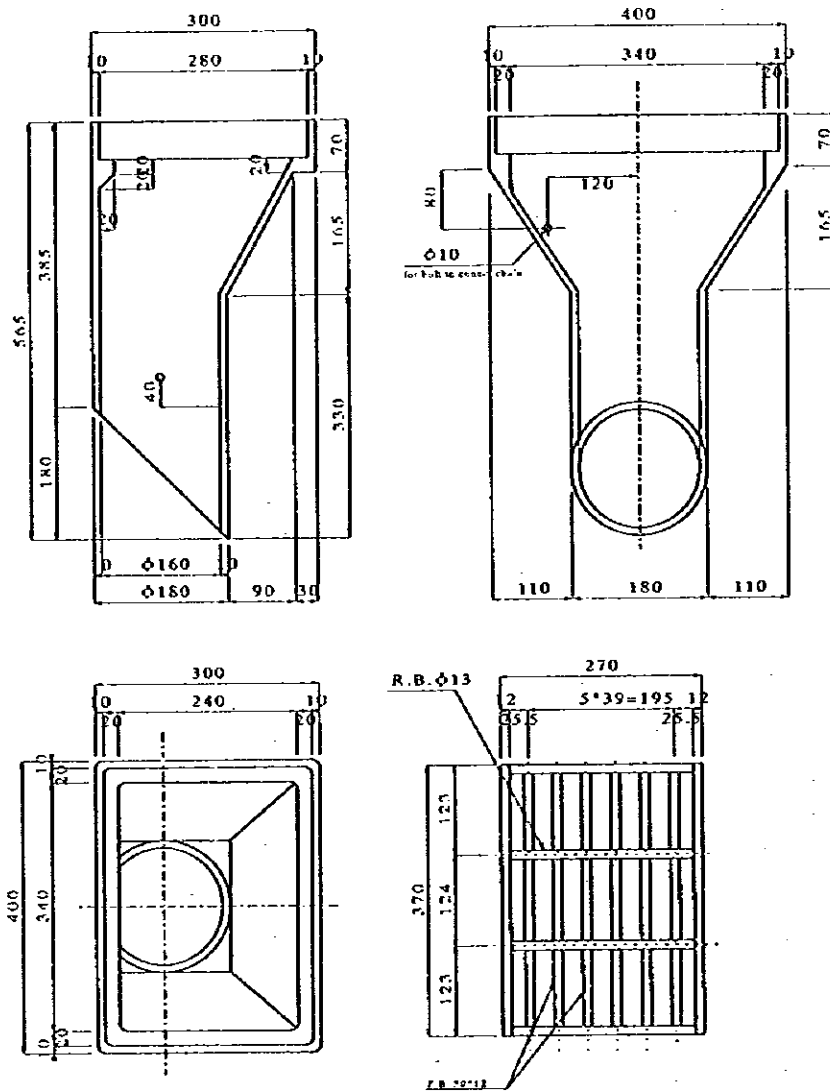
HANDRAIL LOCATION

H A N D R A I L S=1:4
ALMINIUM PRODUCTS

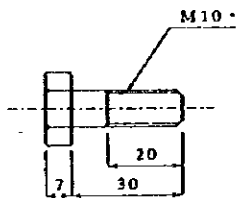
NOTES:	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)		CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS	
	JICA STUDY TEAM		PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY	
	PACIFIC CONSULTANTS INTERNATIONAL		TITLE: HANDRAIL	
	IUKUYAMA CONSULTANTS INTERNATIONAL		DATE:	DWGNO. B-24

BRIDGE DRAINAGE DETAILS (SOHAR FLYOVER)

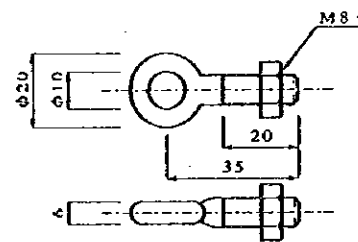
CATCH BASIN (S=1:5)



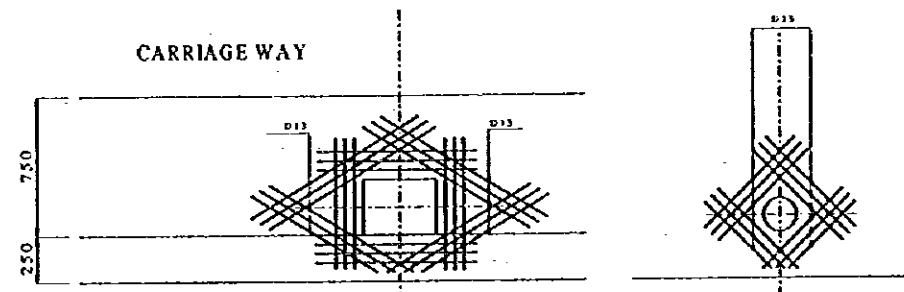
BISS (S=1:1)



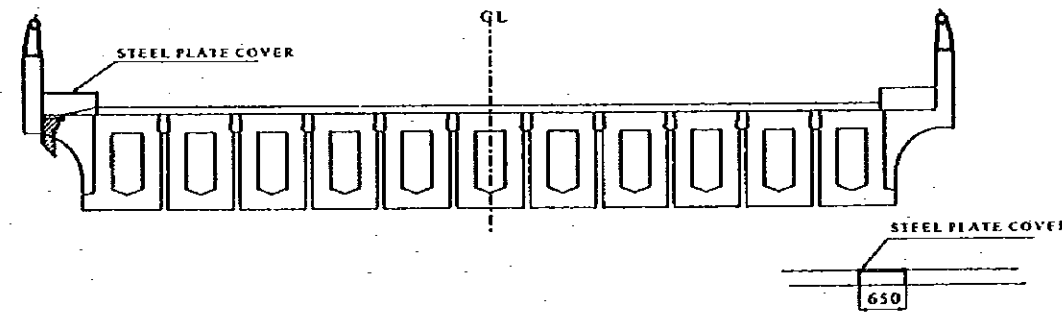
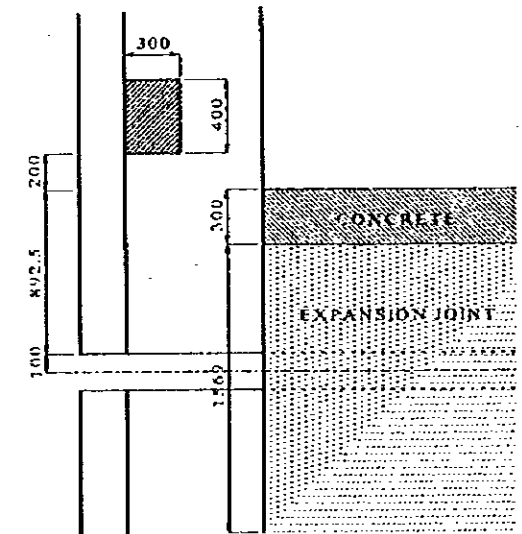
BOLT TO CONNECT CHAIN (S=1:1)



REINFORCING (S=1:20)

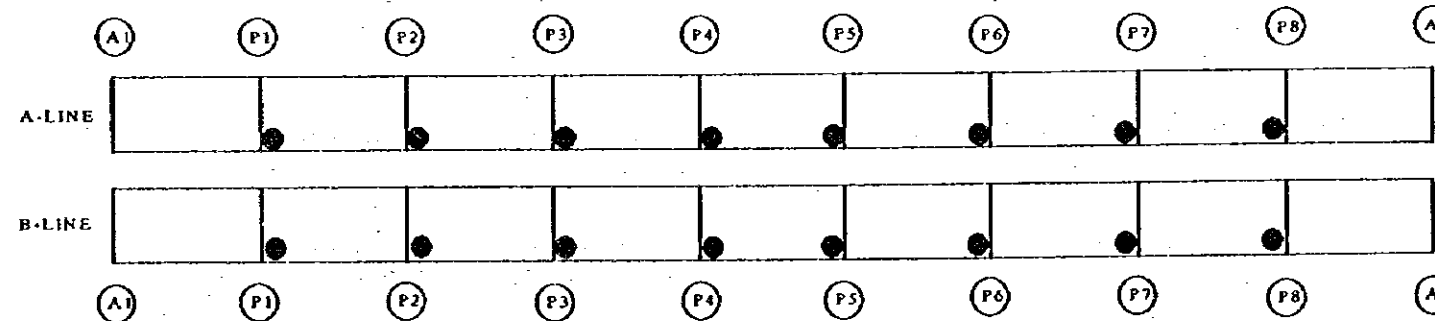


INSTALLING LOCATION DETAIL



CROSS SECTIONAL LOCATION

INSTALLING LOCATIONS



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

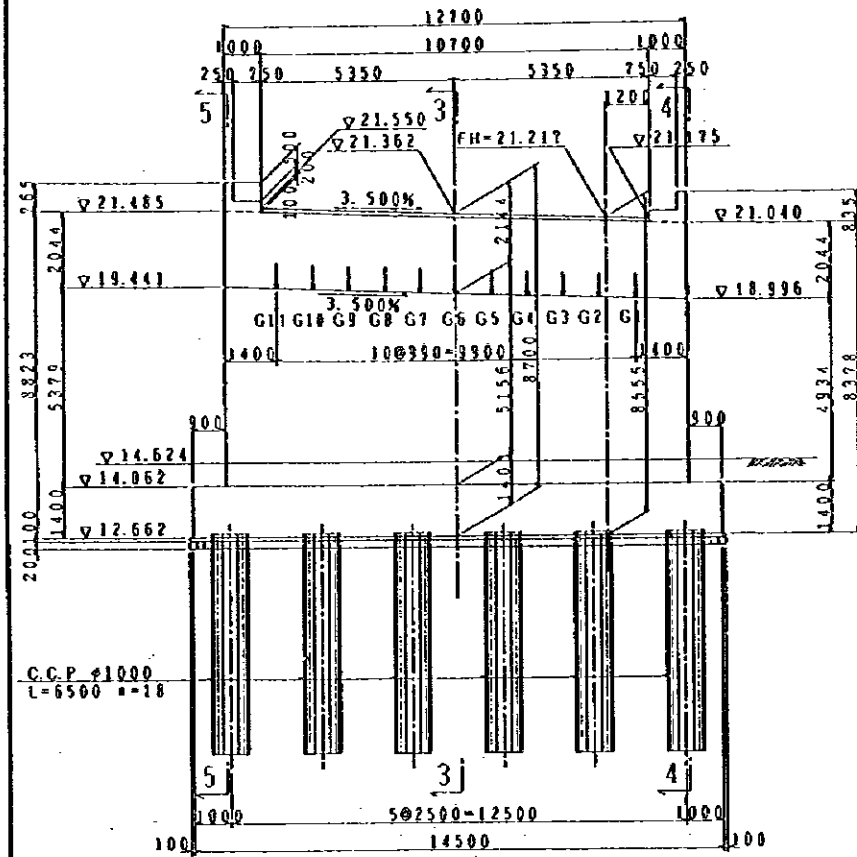
PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE: BRIDGE DRAINAGE DETAILS (SOHAR)

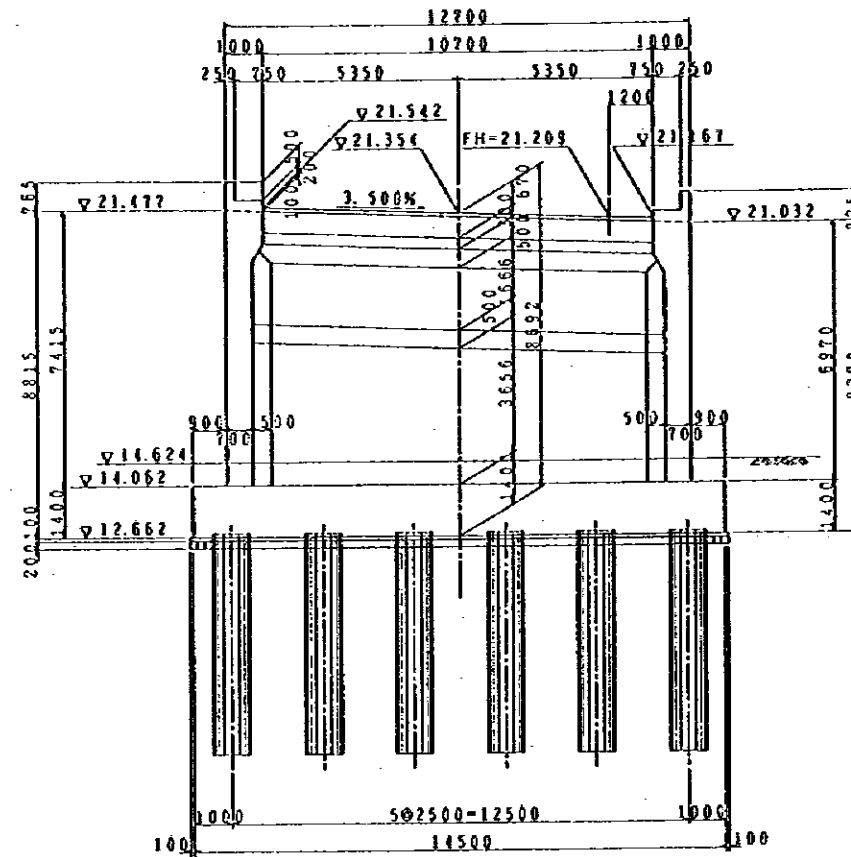
DATE:

DWG. NO. B-25

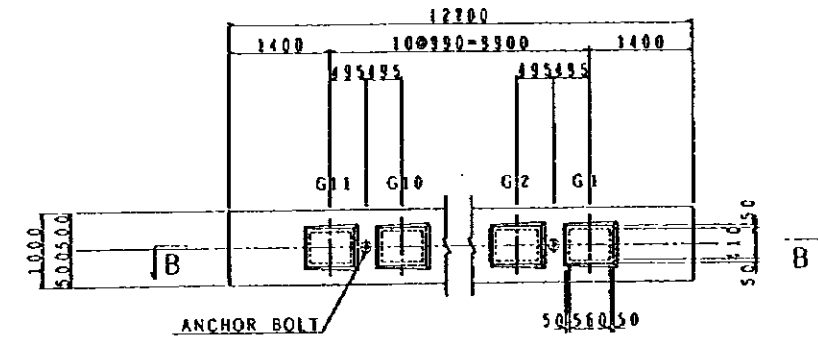
RA/12 SOHAR



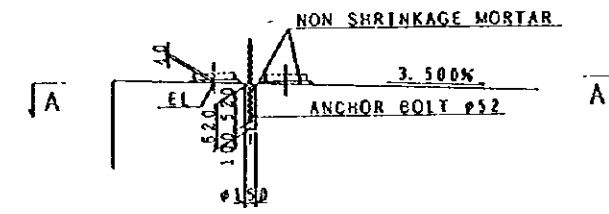
SECTION 1-1 S=1/200



SECTION 2-2 S=1/200



SECTION A-A S=1/100



SECTION B-B S=1/100

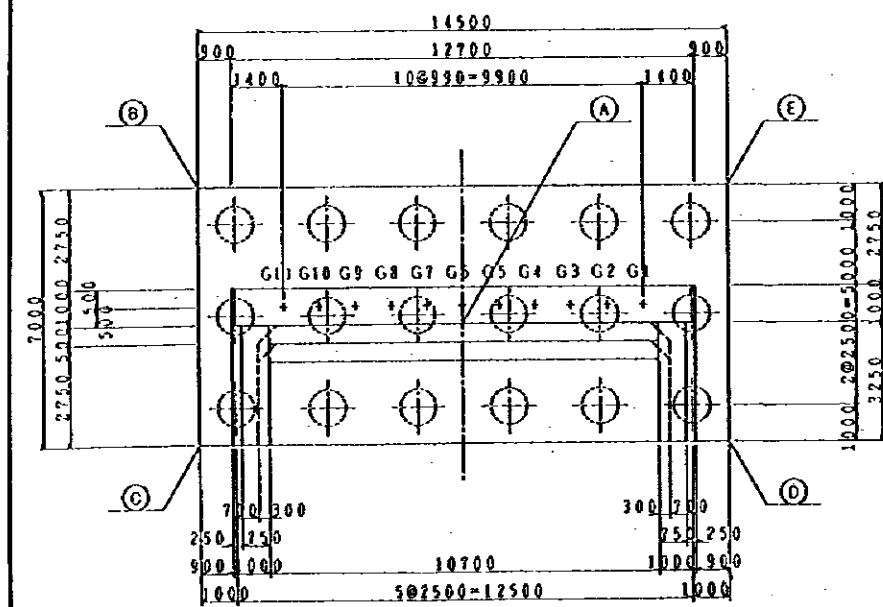
DETAIL OF SHOE BED

SHOE ELEVATION (EL) TABLE

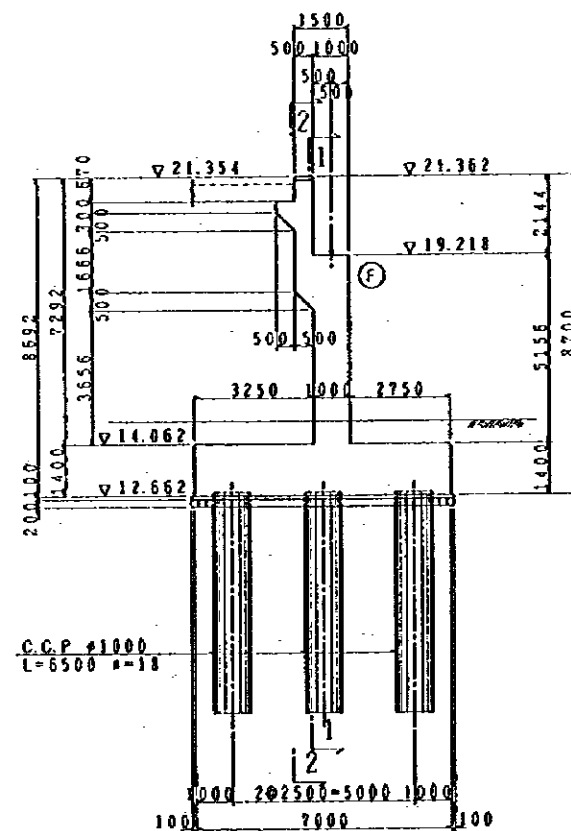
EL	G 1	G 11
EL	19.045	19.392

CO-ORDINATES LIST

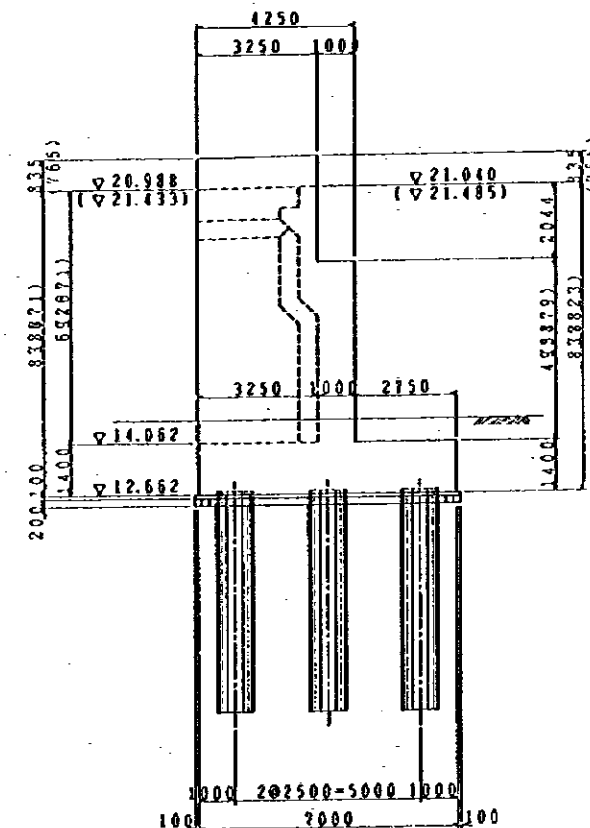
A	X	92194.8483
	Y	72463.1369
B	X	92204.3592
	Y	72470.4536
C	X	92208.6810
	Y	72469.9510
D	X	92193.0018
	Y	72459.9426
E	X	92199.6820
	Y	72465.6469



PLAN S=1/200



SECTION 3-3 S=1/200



SECTION 4-4 (5-5) S=1/200

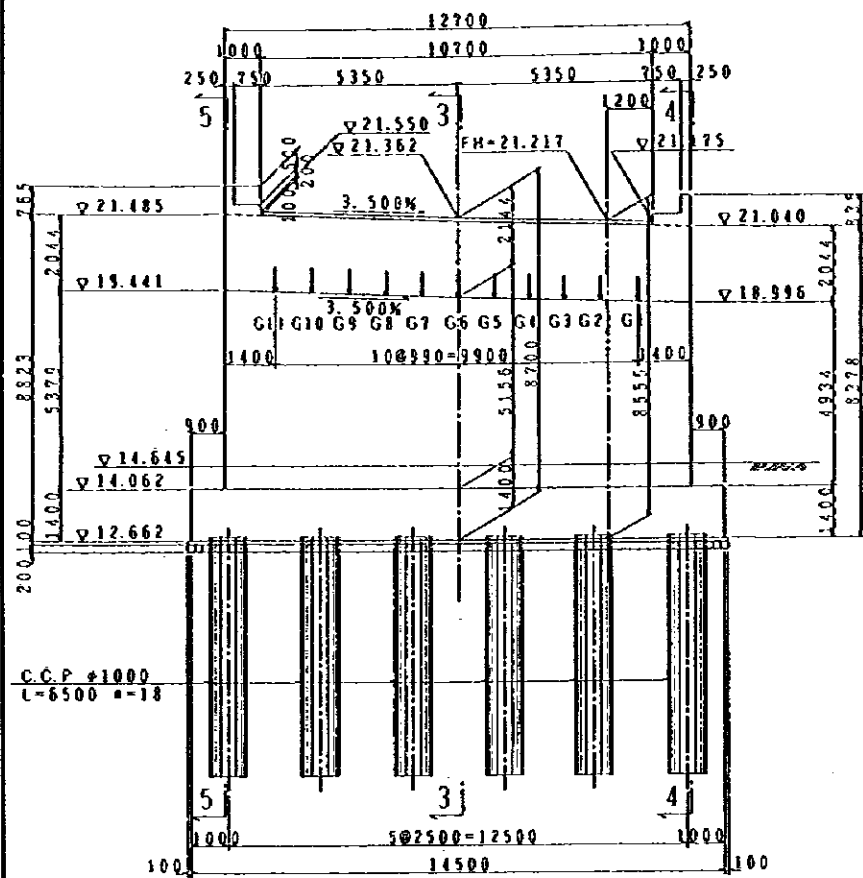
STRUCTURAL DETAIL OF A1 ABUTMENT AT A-LINE

NOTES:

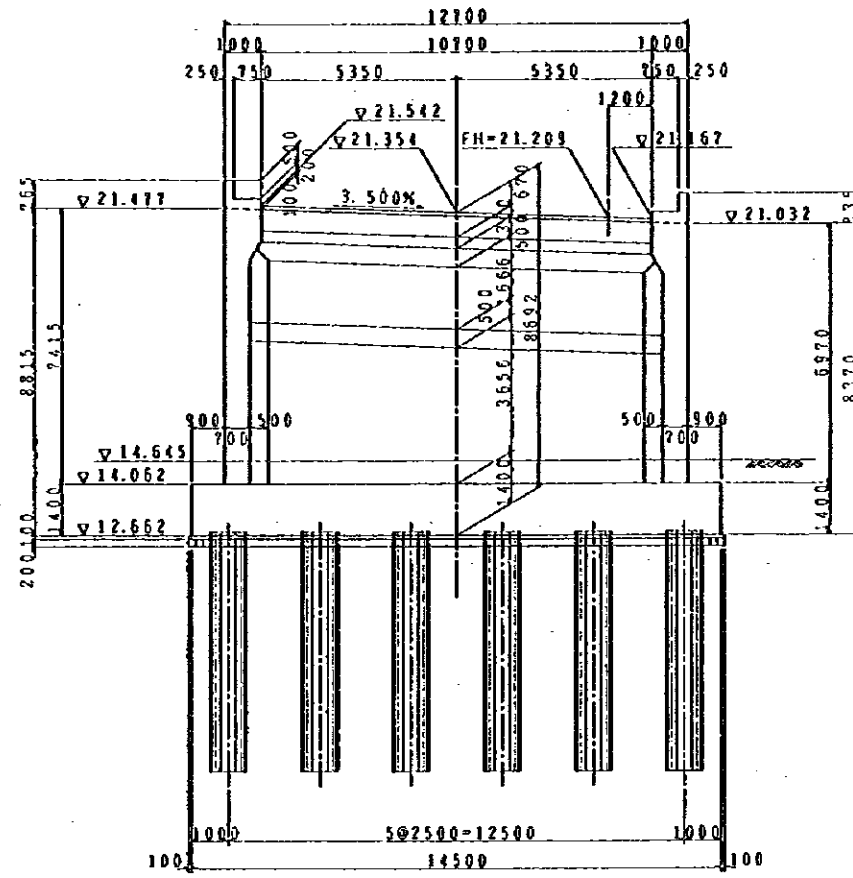
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE: STRUCTURAL DETAIL OF A1 ABUTMENT AT A-LINE
DATE: DWGNO. B-26

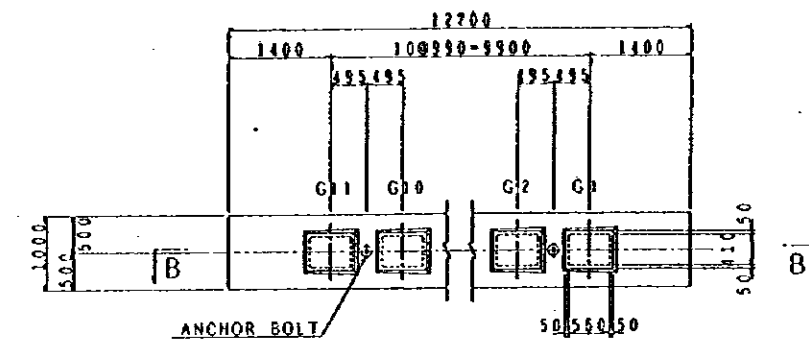
RA/12 SOHAR



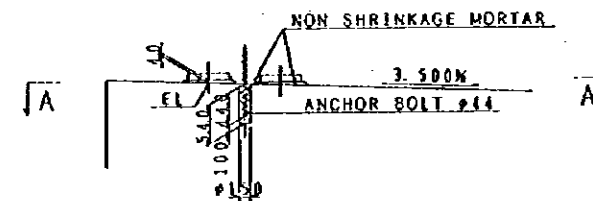
SECTION 1-1 S= 1/200



SECTION 2-2 S= 1/200



SECTION A-A S= 1/100



SECTION B-B S= 1/100

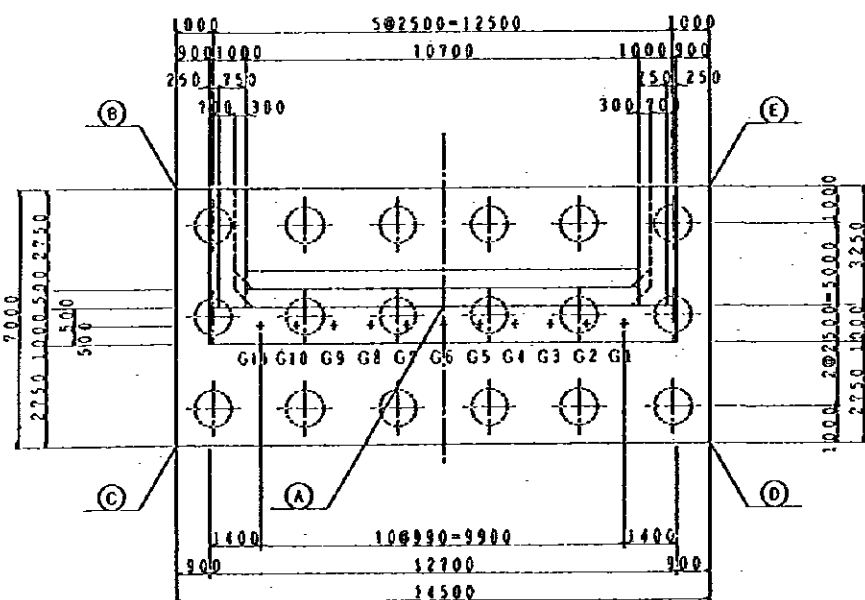
DETAIL OF SHOE BED

SHOE ELEVATION (EL) TABLE

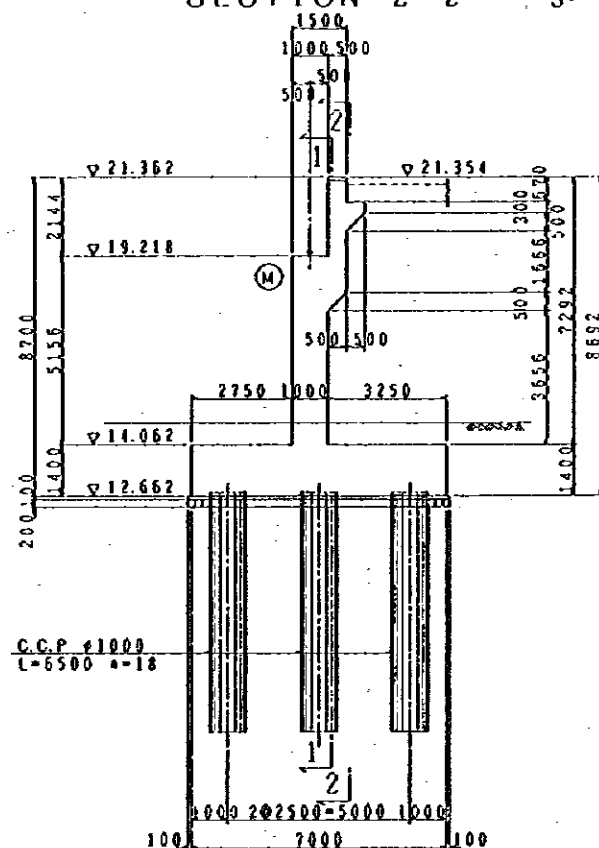
EL	G1	G11
	19.045	19.392

CO-ORDINATES LIST

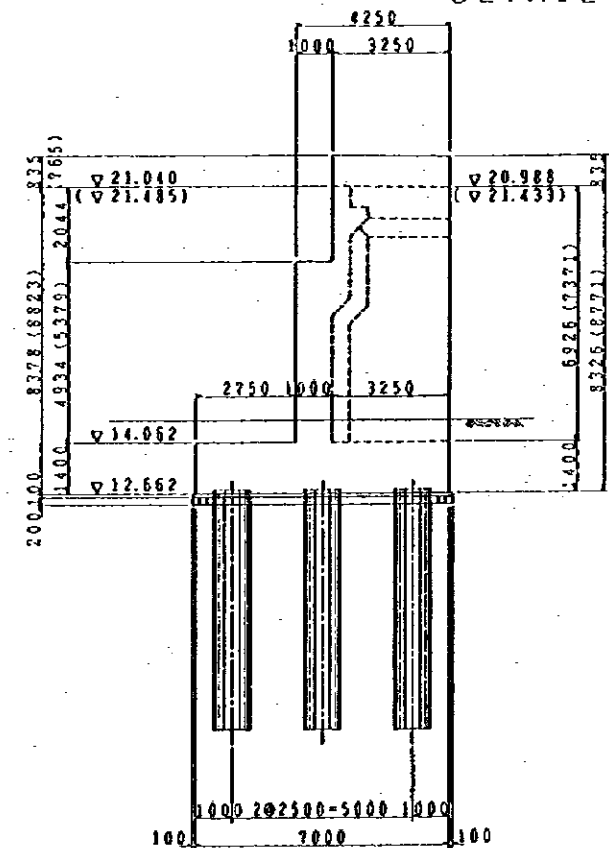
A	X	Y
A	X	92057.8593
	Y	72746.1906
B	X	92025.8545
	Y	72754.8341
C	X	92069.8911
	Y	72743.8147
D	X	92057.3397
	Y	72741.2718
E	X	92053.8931
	Y	72747.1941



PLAN S=1/200



SECTION 3-3 S= 1/200



SECTION 4-4 (5-5) S= 1/200

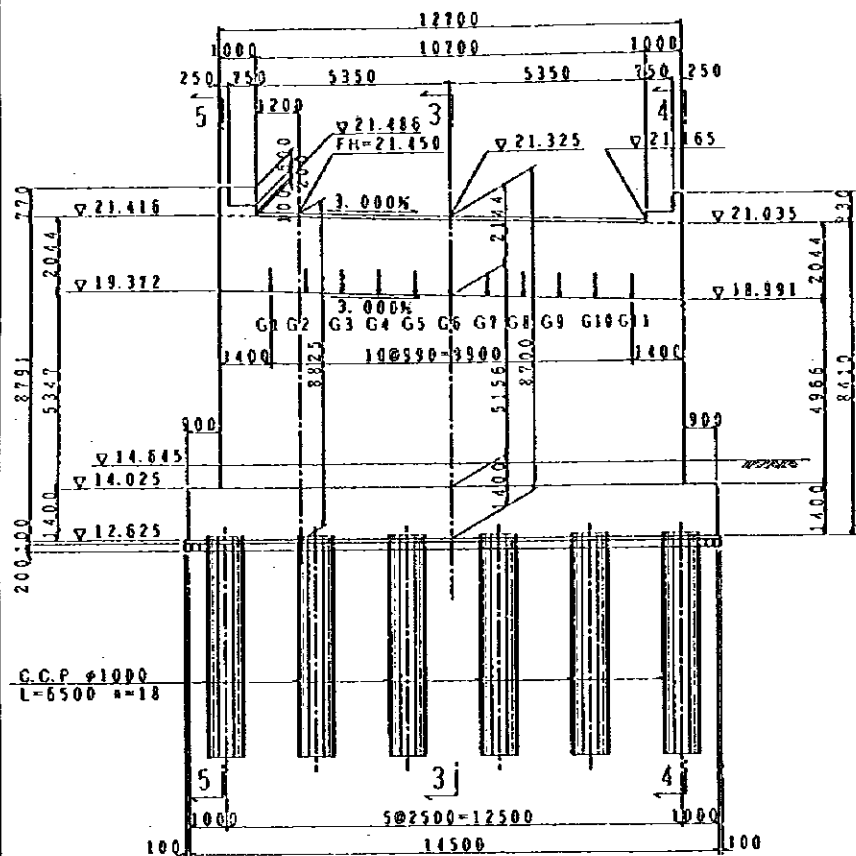
STRUCTURAL DETAIL OF A2 ABUTMENT AT A-LINE

NOTES:

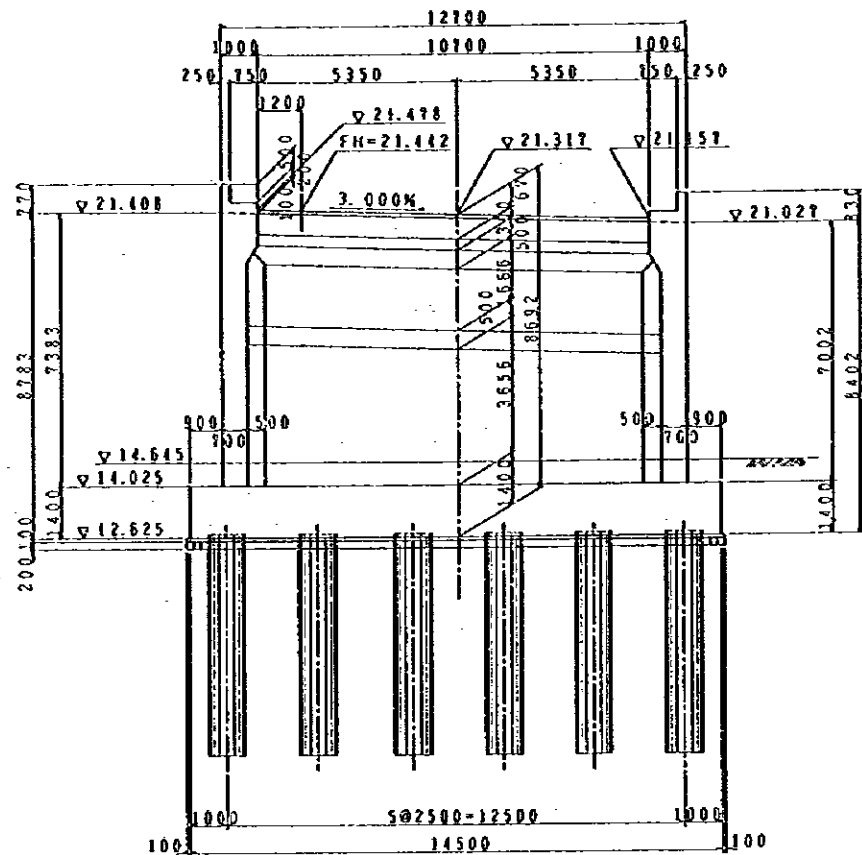
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE: STRUCTURAL DETAIL OF A2 ABUTMENT AT A-LINE
DATE: DWGNO. B-27

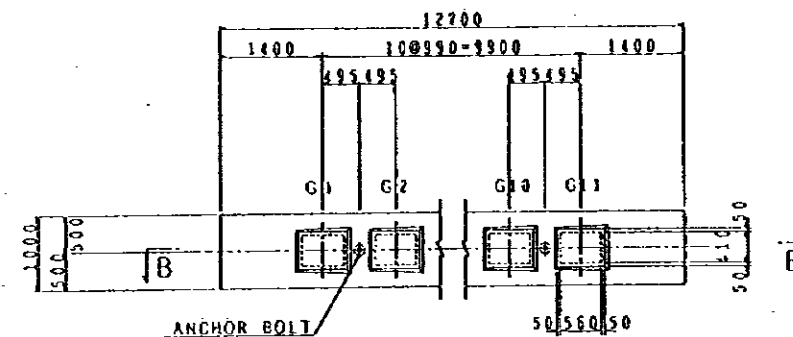
RA/12 SOHAR



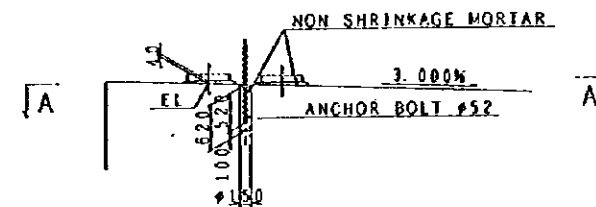
SECTION 1-1 S= 1/200



SECTION 2-2 S= 1/200



SECTION A-A S= 1/100

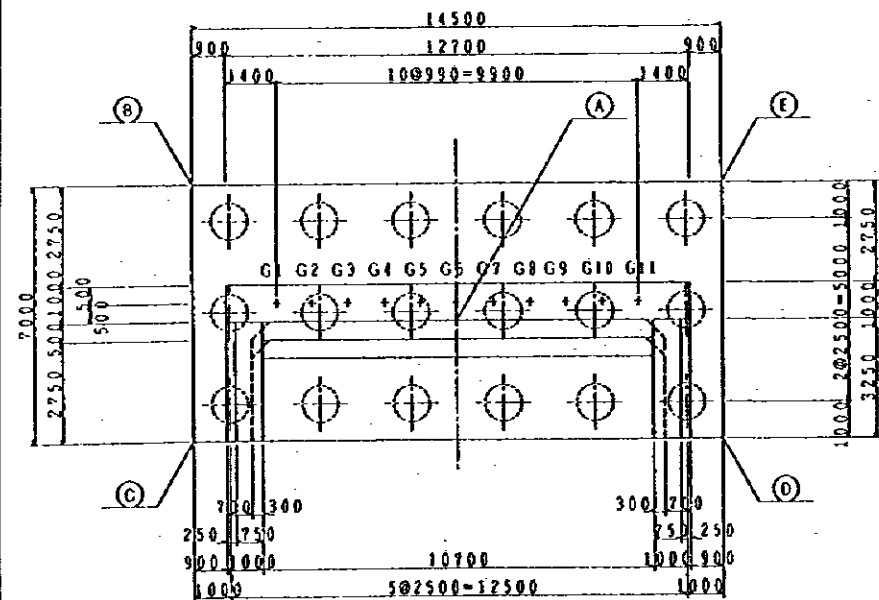


SECTION B-B S= 1/100

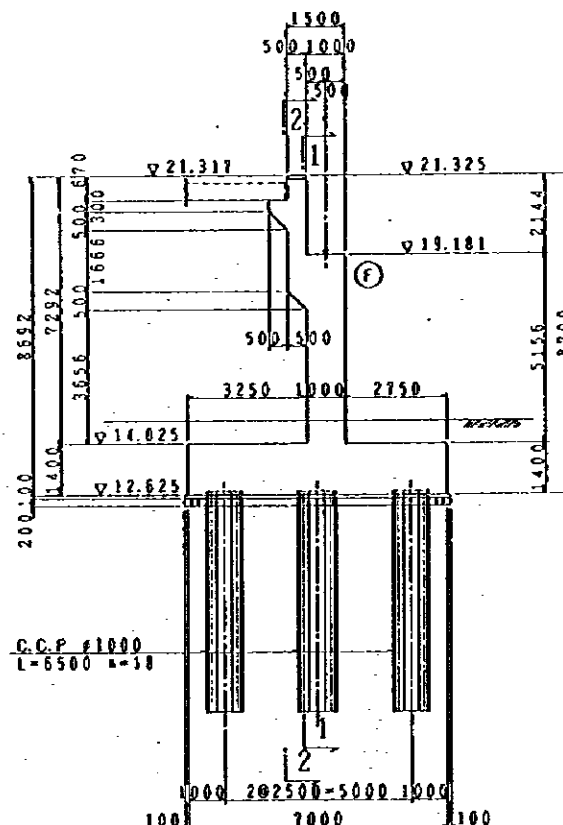
DETAIL OF SHOE BED

SHOE ELEVATION (EL) TABLE

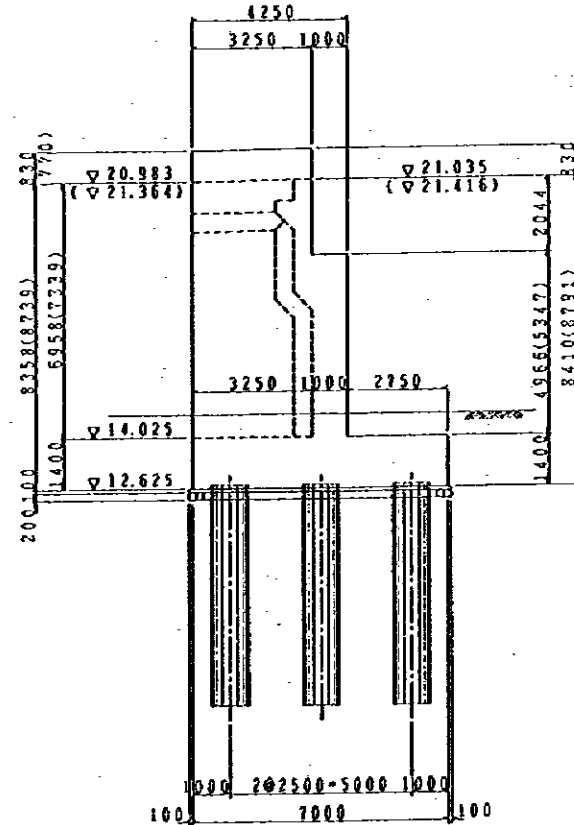
E L	G 1	G11
	19.330	19.033



P L A N S= 1/200



SECTION 3-3 S= 1/200



SECTION 4-4 (5-5) S= 1/200

STRUCTURAL DETAIL OF AI ABUTMENT AT B-LINE

CO-ORDINATES LIST

A	X	Y
A	82158.5755	72444.8282
B	82158.1291	72448.8299
C	82160.8143	72442.3653
D	82147.8247	72437.9066
E	82144.5825	72443.8571

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY

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

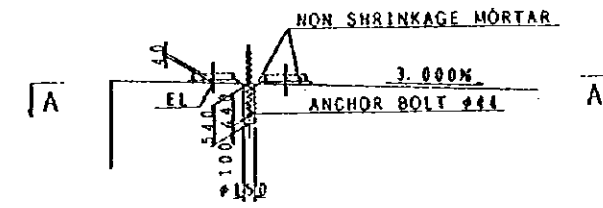
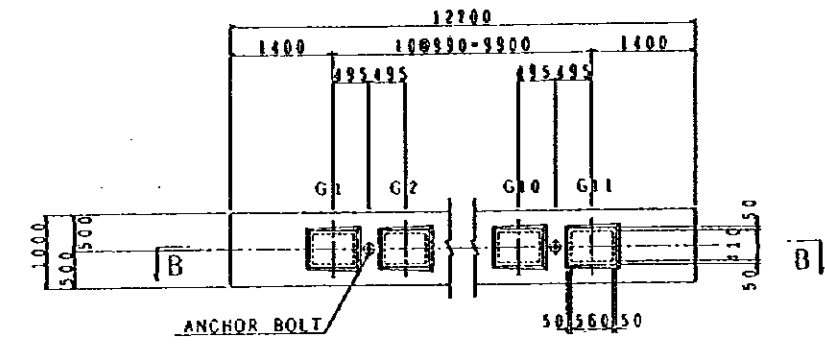
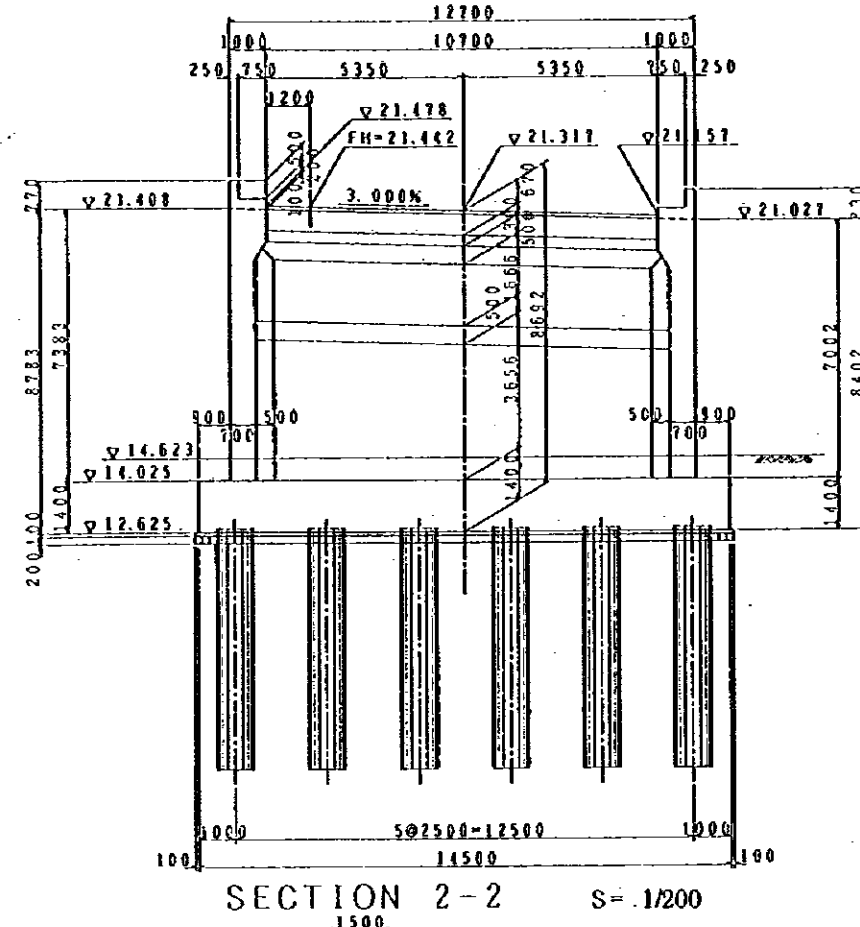
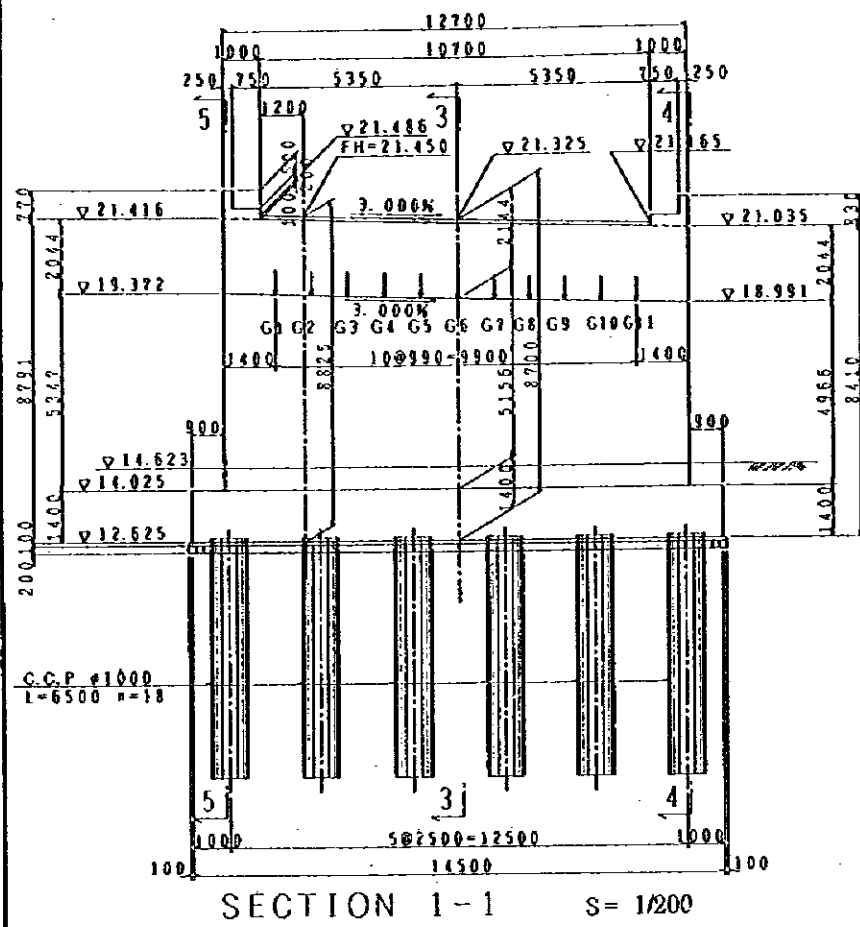
TITLE: STRUCTURAL DETAIL OF AI ABUTMENT AT B-LINE

DATE

DWGNO.

B-28

RA/12 SOHAR



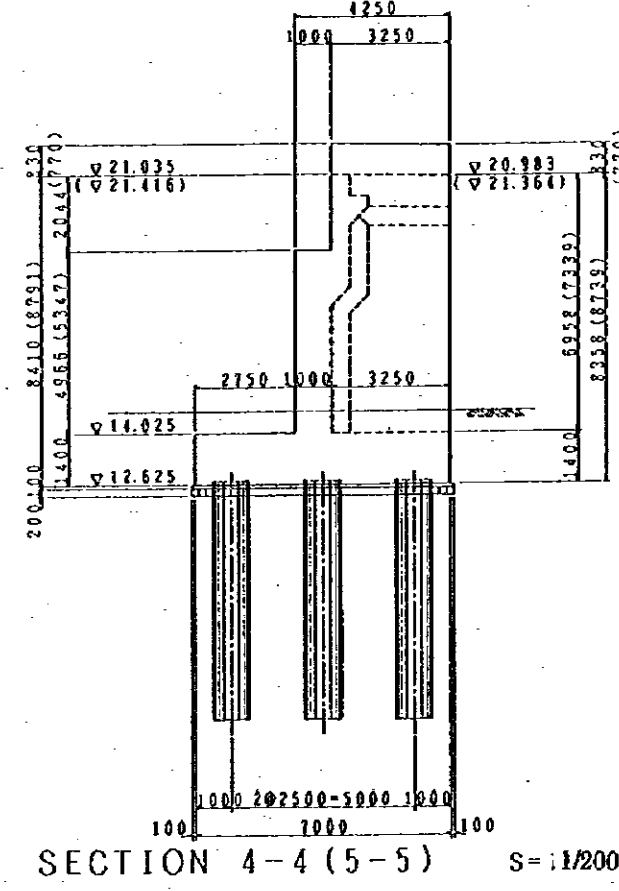
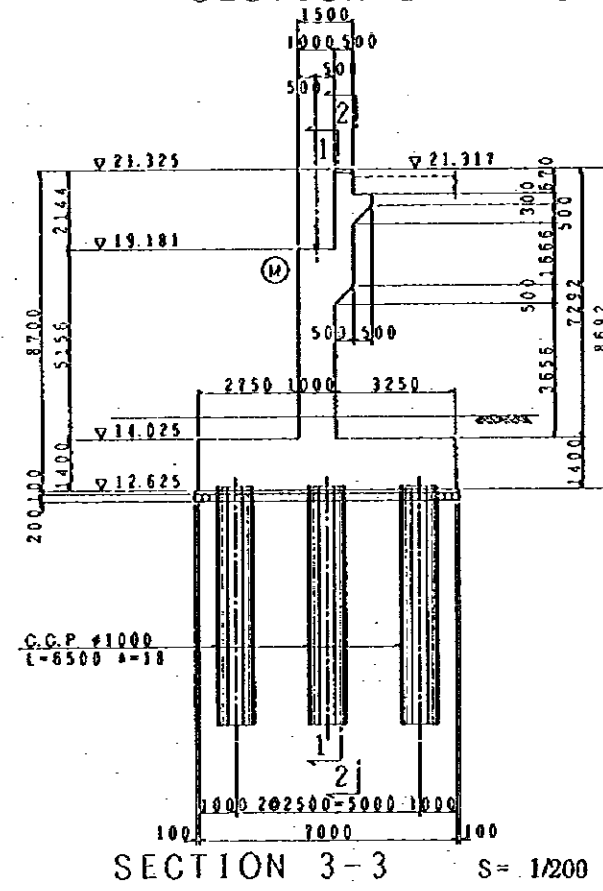
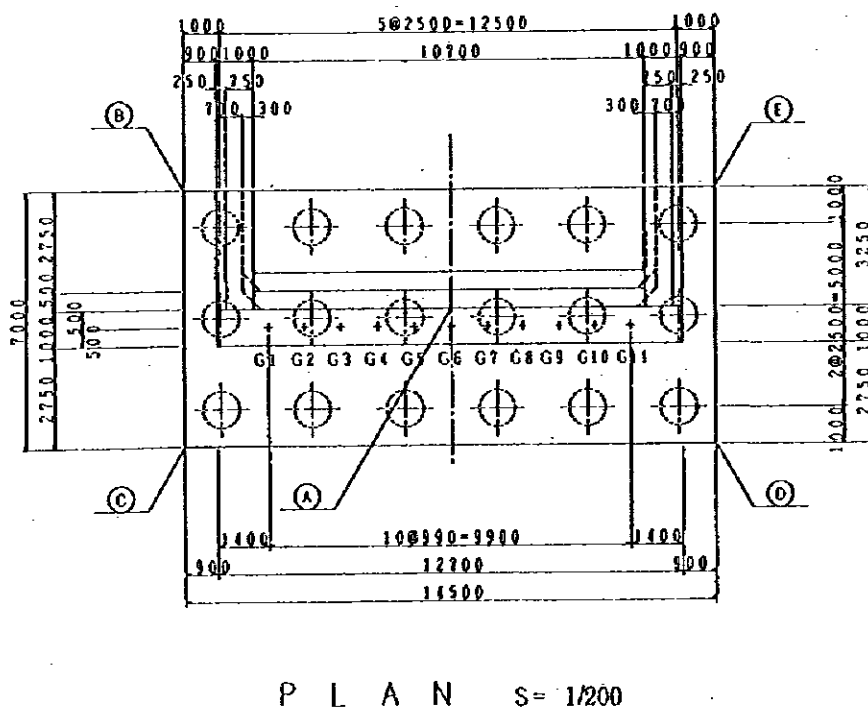
DETAIL OF SHOE BED

SHOE ELEVATION (EL) TABLE

	G 1	G11
E L	19.330	19.033

CO-ORDINATES LIST

	X	Y
A	82018.4526	22726.8697
B	82018.3836	22731.2637
C	82023.6702	22725.5074
D	82018.7322	22717.8501
E	82062.8550	22723.6484



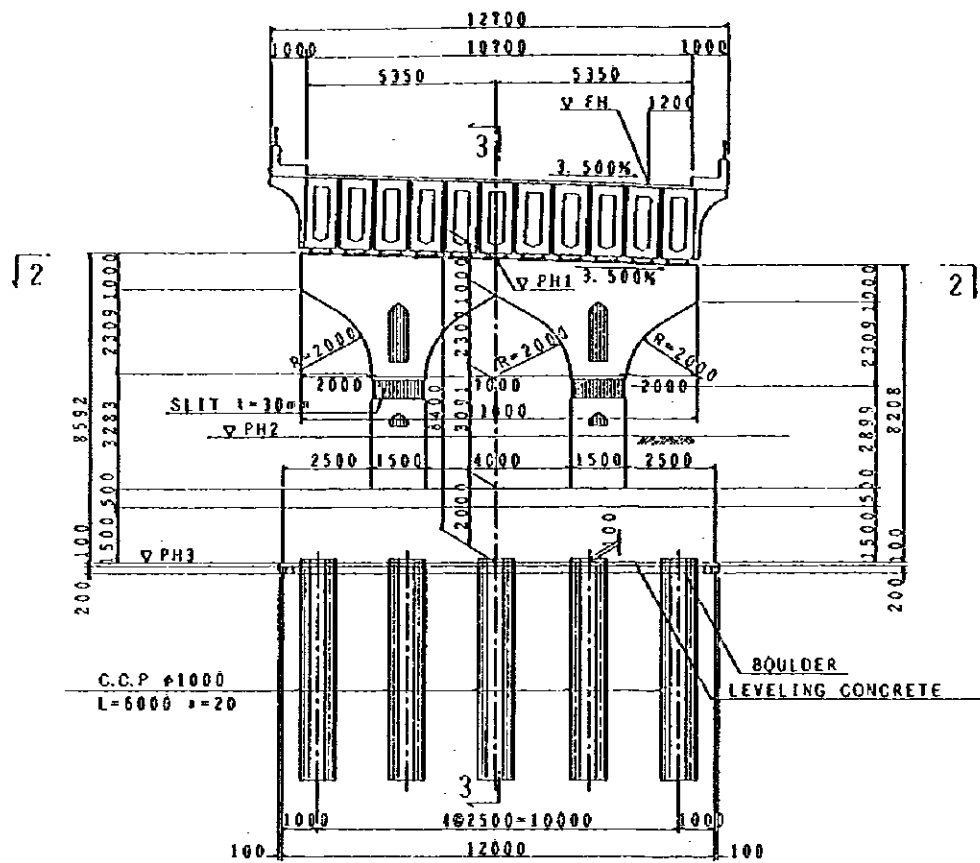
STRUCTURAL DETAIL OF A2 ABUTMENT AT B-LINE

NOTES:

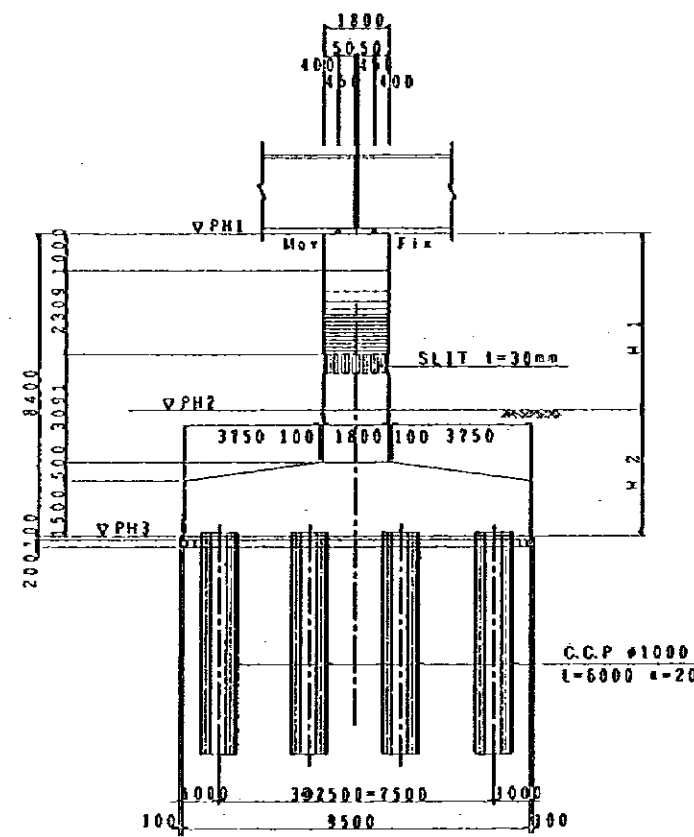
JAPAN INTERNATIONAL COOPERATION AGENCY
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PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE: STRUCTURAL DETAIL OF A2 ABUTMENT AT B-LINE
DATE: _____ DWGNO. B-29

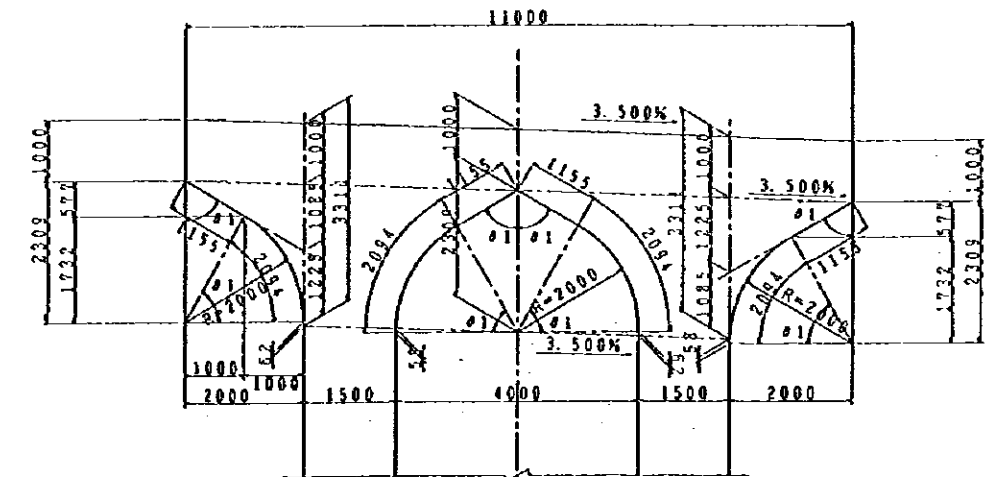
RA/12 SOHAR



SECTION 1-1 S= 1/200



SECTION 3-3 S= 1/200



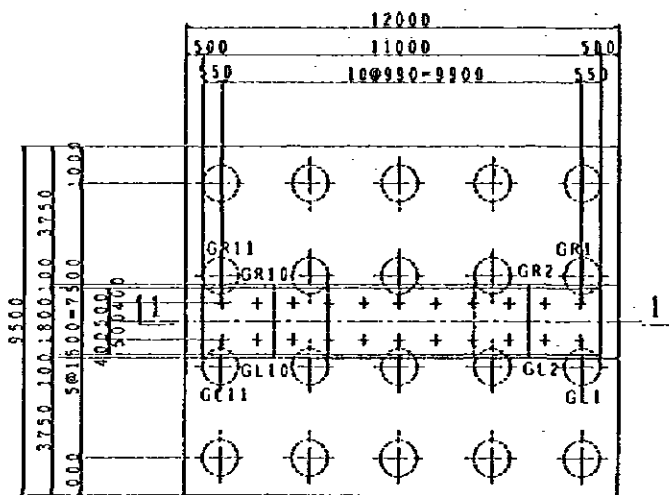
BEAM DETAIL S= 1/120

DEMENSION TABLE

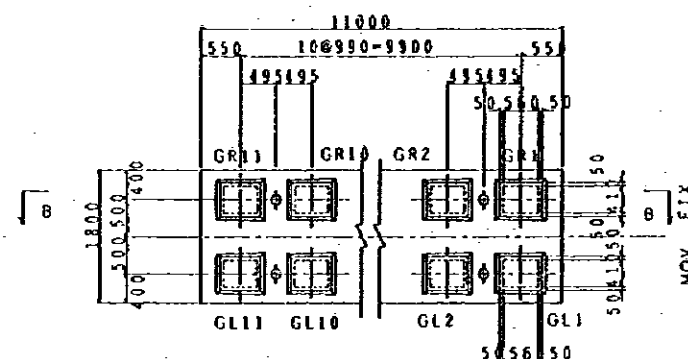
	PH1	PH2	PH3	H 1	H 2
P 1	19.690	14.593	11.290	5.097	3.303
P 2	20.057	14.562	11.657	5.495	2.905
P 3	20.302	14.490	11.902	5.812	2.588
P 4	20.425	14.490	12.025	5.935	2.465
P 5	20.425	14.490	12.025	5.935	2.465
P 6	20.302	14.490	11.902	5.812	2.588
P 7	20.057	14.564	11.657	5.493	2.907
P 8	19.690	14.604	11.290	5.086	3.314

SHOE ELEVATION (EL) TABLE

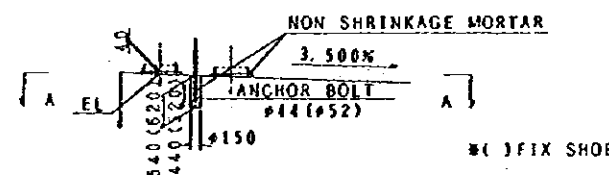
	GL1(GR1)	GL1 (GR1)
P 1	19.863	19.517
P 2	20.230	19.884
P 3	20.415	20.129
P 4	20.598	20.252
P 5	20.598	20.252
P 6	20.415	20.129
P 7	20.230	19.884
P 8	19.863	19.517



SECTION 2-2 S= 1/200



SECTION A-A S= 1/100



SECTION B-B S= 1/100

DETAIL OF SHOE BED

STRUCTURAL DETAIL OF TWO-COLUMN PIER FOR P1~P8 AT A-LINE (1/2)

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

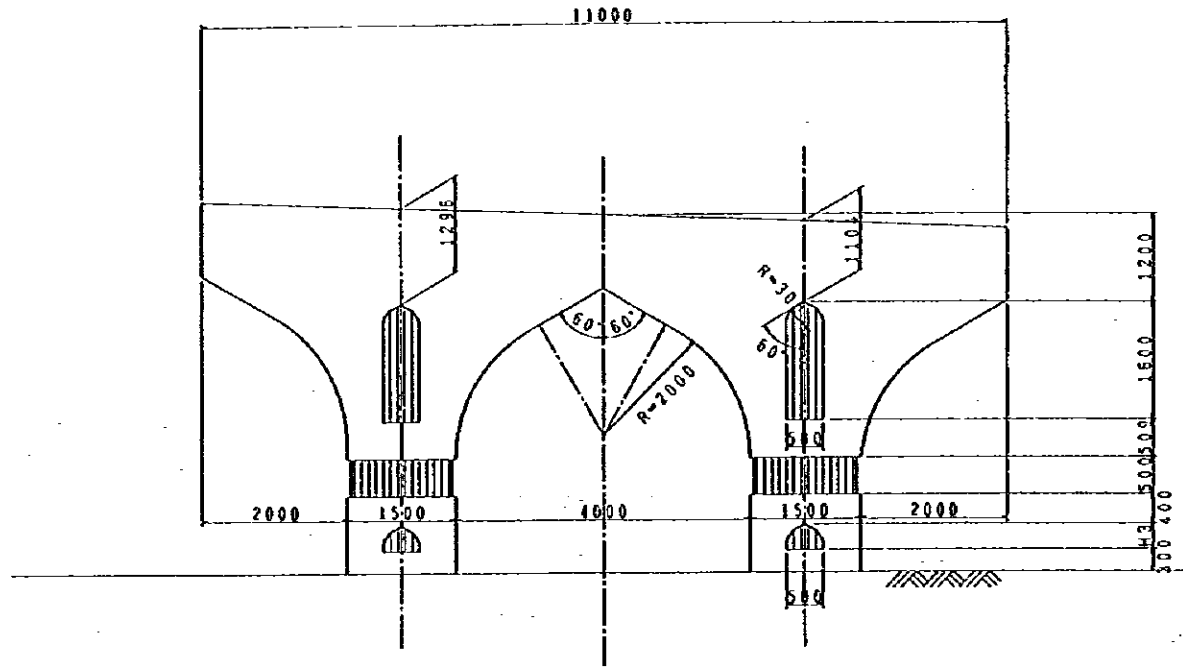
TITLE: STRUCTURAL DETAIL OF TWO-COLUMN PIER FOR P1~P8 AT A-LINE (1/2)

DATE

DWGNO.

B-30

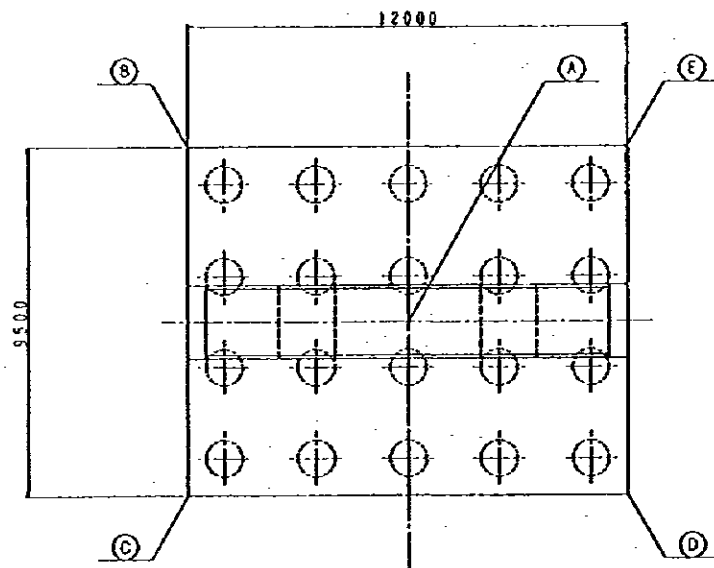
RA/12 SOHAR



SLIT OF PLAN S= 1/100

DEMENSION (H₃) TABLE

	A-LINE
P 1	588
P 2	986
P 3	1303
P 4	1426
P 5	1426
P 6	1303
P 7	984
P 8	577



FRAMING PLAN S= 1/200

CO-ORDINATES LIST

		A	B	C	D
P1	X	92182.8282	92180.6295	92184.0035	92182.7858
	Y	72436.0070	72504.0522	72495.1715	72490.0017
P2	X	92185.9902	92177.5878	92181.1828	92178.0752
	Y	72528.5869	72536.0542	72528.0106	72522.4887
P3	X	92158.9422	92163.7317	92167.5453	92156.5561
	Y	72580.7349	72589.2199	72580.5196	72555.7818
P4	X	92141.8930	92149.0695	92153.0594	92148.2306
	Y	72592.0721	72601.2792	72593.0783	72587.5858
P5	X	92126.6519	92133.6105	92137.8542	92132.1188
	Y	72624.1781	72632.0518	72624.4684	72618.1828
P6	X	92114.6269	92117.9543	92121.0192	92111.2202
	Y	72655.2933	72664.2483	72655.8578	72650.2304
P7	X	92093.8287	92100.2412	92105.0042	92094.5485
	Y	72685.9282	72695.1188	72688.8428	72680.6517
P8	X	92076.2782	92082.5518	92087.4208	92072.1153
	Y	72716.2736	72725.5341	72717.8965	72711.2487

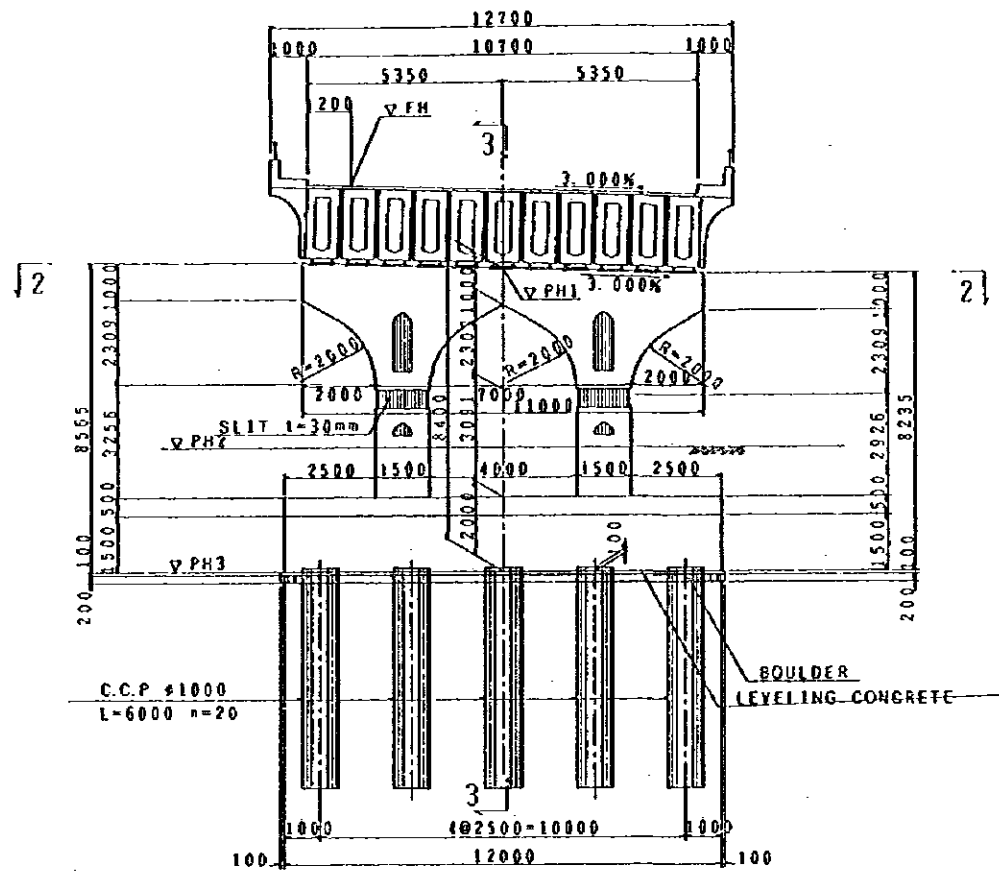
STRUCTURAL DETAIL OF TWO-COLUMN PIER FOR P1~P8 AT A-LINE (2/2)

NOTES:

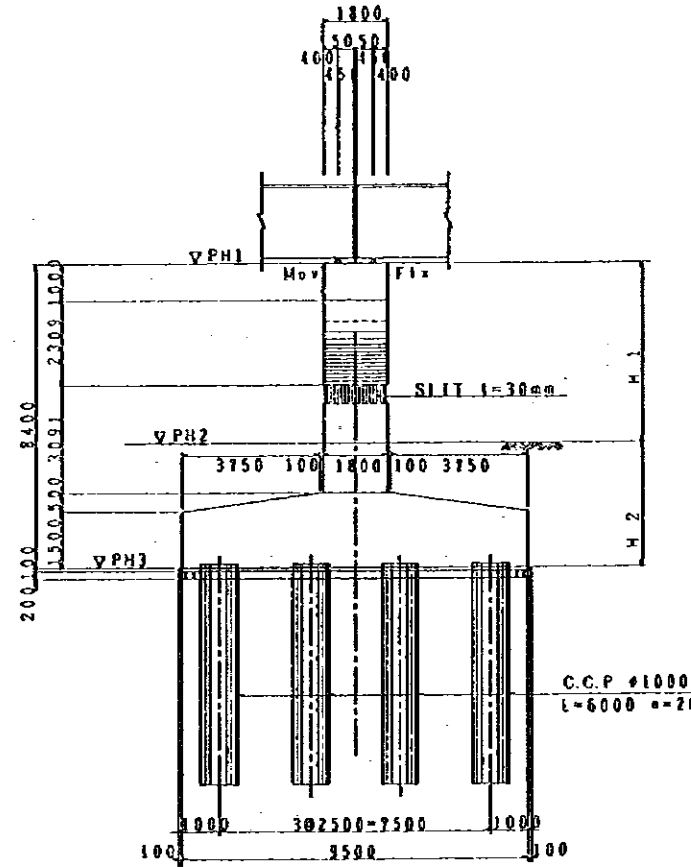
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE: STRUCTURAL DETAIL OF TWO-COLUMN PIER(P1~P8) AT A-LINE (2/2)
DATE: _____ DWGNO. B-31

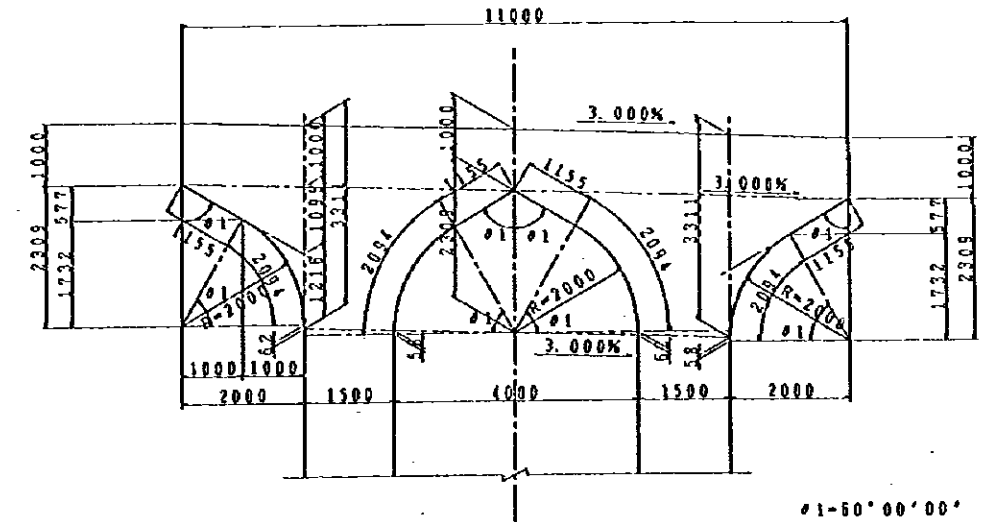
RA/12 SOHAR



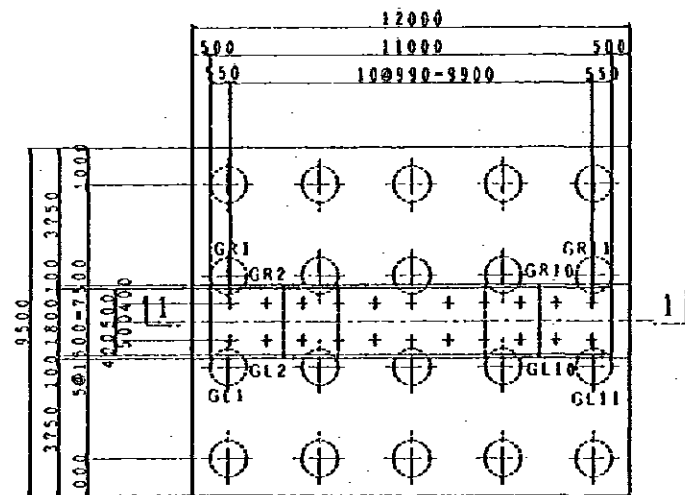
SECTION 1-1 S= 1/200



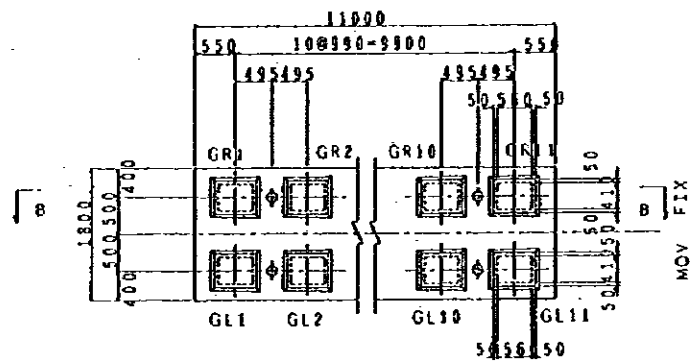
SECTION 3-3 S= 1/200



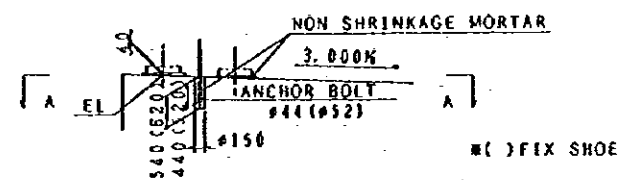
BEAM DETAIL S= 1/120



SECTION 2-2 S= 1/200



SECTION A-A S= 1/100



SECTION B-B S= 1/100

DETAIL OF SHOE BED

DEMENSION TABLE

	PH1	PH2	PH3	H 1	H 2
P 1	19.653	14.605	11.253	5.058	3.352
P 2	20.021	14.566	11.621	5.455	2.945
P 3	20.266	14.490	11.866	5.776	2.624
P 4	20.398	14.490	11.988	5.898	2.502
P 5	20.388	14.490	11.988	5.898	2.502
P 6	20.266	14.490	11.866	5.776	2.624
P 7	20.021	14.564	11.621	5.457	2.943
P 8	19.653	14.593	11.253	5.060	3.340

SHOE ELEVATION (EL) TABLE

	GL1 (GR1)	GL11 (GR11)
P 1	19.802	19.504
P 2	20.170	19.872
P 3	20.415	20.117
P 4	20.537	20.239
P 5	20.537	20.239
P 6	20.415	20.117
P 7	20.170	19.872
P 8	19.802	19.504

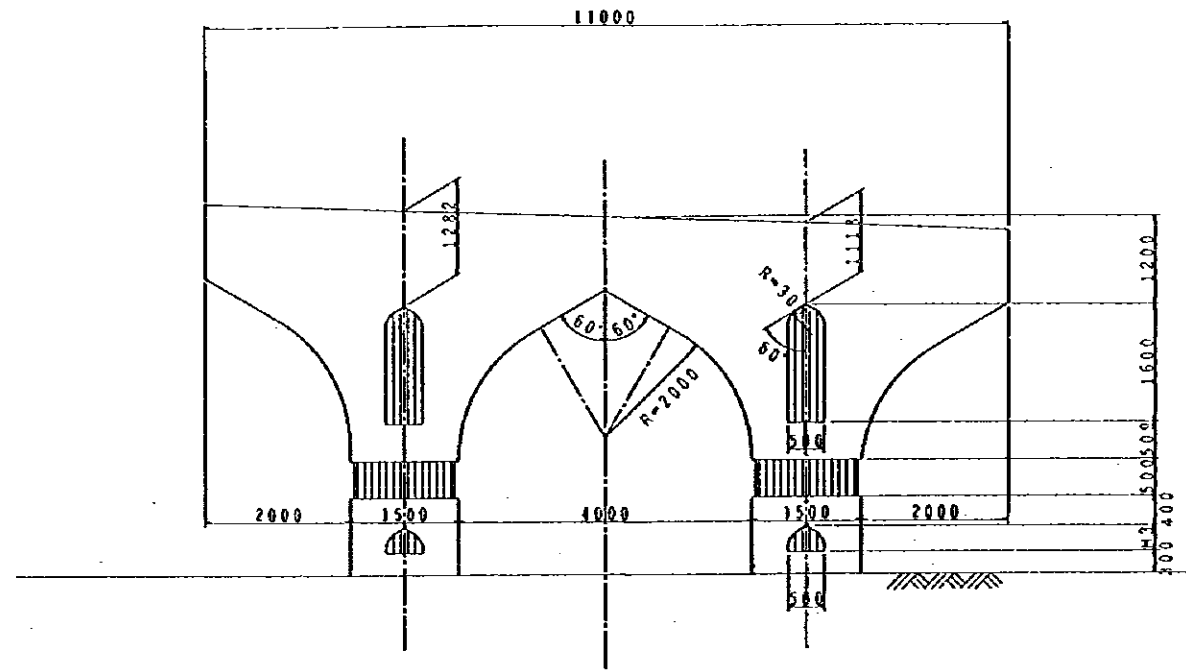
STRUCTURAL DETAIL OF TWO-COLUMN PIER FOR P1~P8 AT B-LINE (1/2)

NOTES:

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FUKUYAMA CONSULTANTS INTERNATIONAL

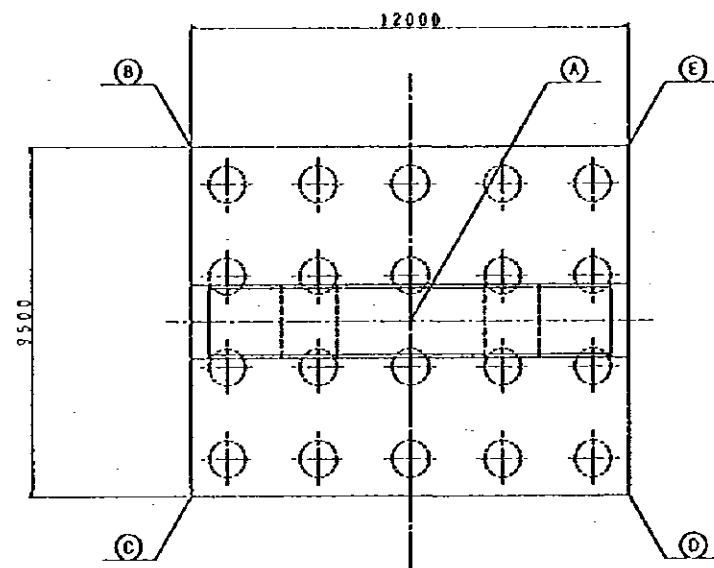
CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE: STRUCTURAL DETAIL OF TWO-COLUMN PIER FOR P1~P8 AT B-LINE (1/2)
DATE: _____ DWGNO. B-32

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DEMENSION (H₃) TABLE

	B-LINE
P 1	548
P 2	945
P 3	1267
P 4	1388
P 5	1388
P 6	1267
P 7	948
P 8	551



CO-ORDINATES LIST

		A	B	C	D
P1	X	82144.8118	82143.8771	82147.8846	82156.8322
	Y	72478.8547	72482.8922	72473.8532	72468.8333
P2	X	82180.7985	82180.5908	82184.8901	82183.8379
	Y	72508.7787	72514.8741	72505.7240	72501.8518
P3	X	82118.7560	82118.4388	82118.8887	82119.8487
	Y	72541.8644	72548.5555	72531.8834	72528.8749
P4	X	82182.8771	82181.7087	82185.7871	82184.8132
	Y	72573.8361	72578.8210	72569.7419	72564.5939
P5	X	82088.7887	82088.8272	82090.4929	82079.7697
	Y	72684.8494	72689.7558	72681.8666	72685.8791
P6	X	82070.8328	82070.8618	82074.5119	82068.8524
	Y	72695.7983	72689.8435	72682.4501	72686.8283
P7	X	82058.8218	82058.8202	82057.8529	82047.8759
	Y	72686.8218	72671.5707	72668.8267	72657.8253
P8	X	82036.8224	82035.7107	82048.8233	82030.8271
	Y	72686.8386	72781.8222	72683.7314	72687.8383

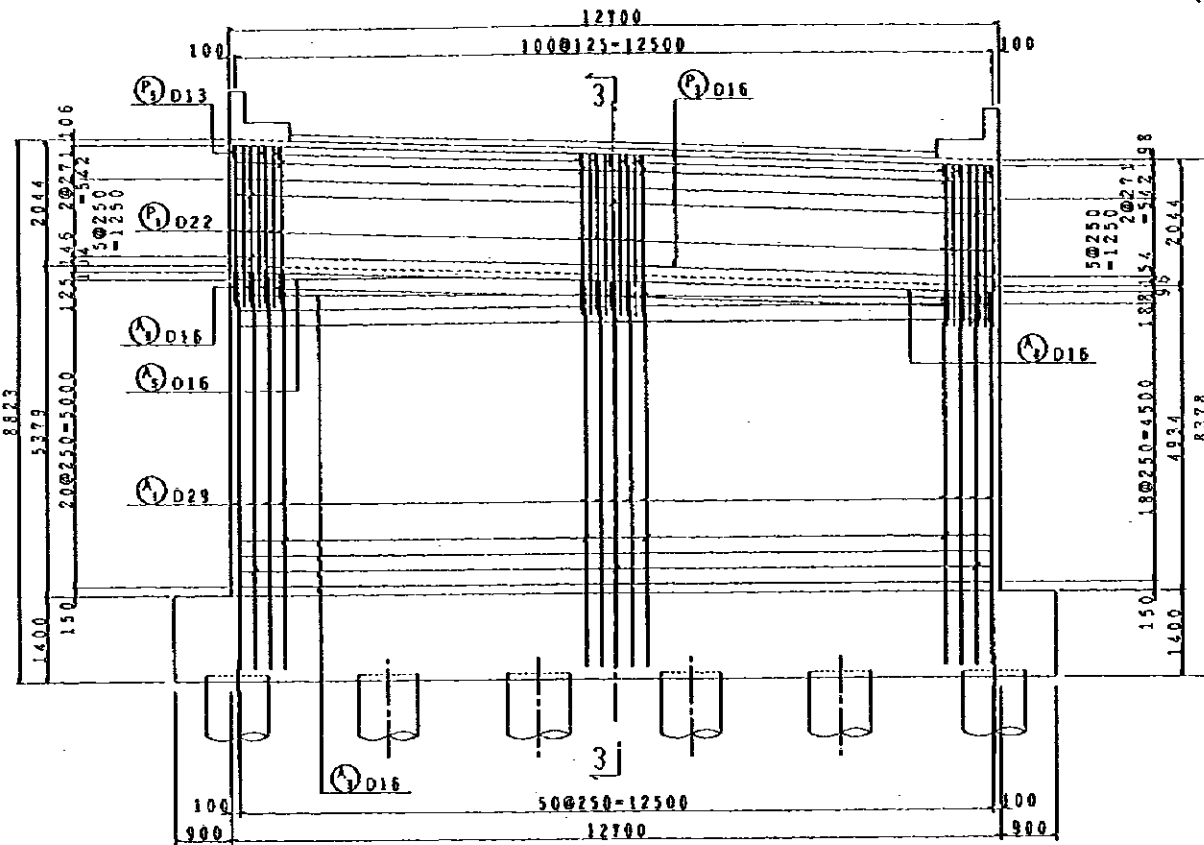
STRUCTURAL DETAIL OF TWO-COLUMN PIER FOR P1~P8 AT B-LINE (2/2)

NOTES:

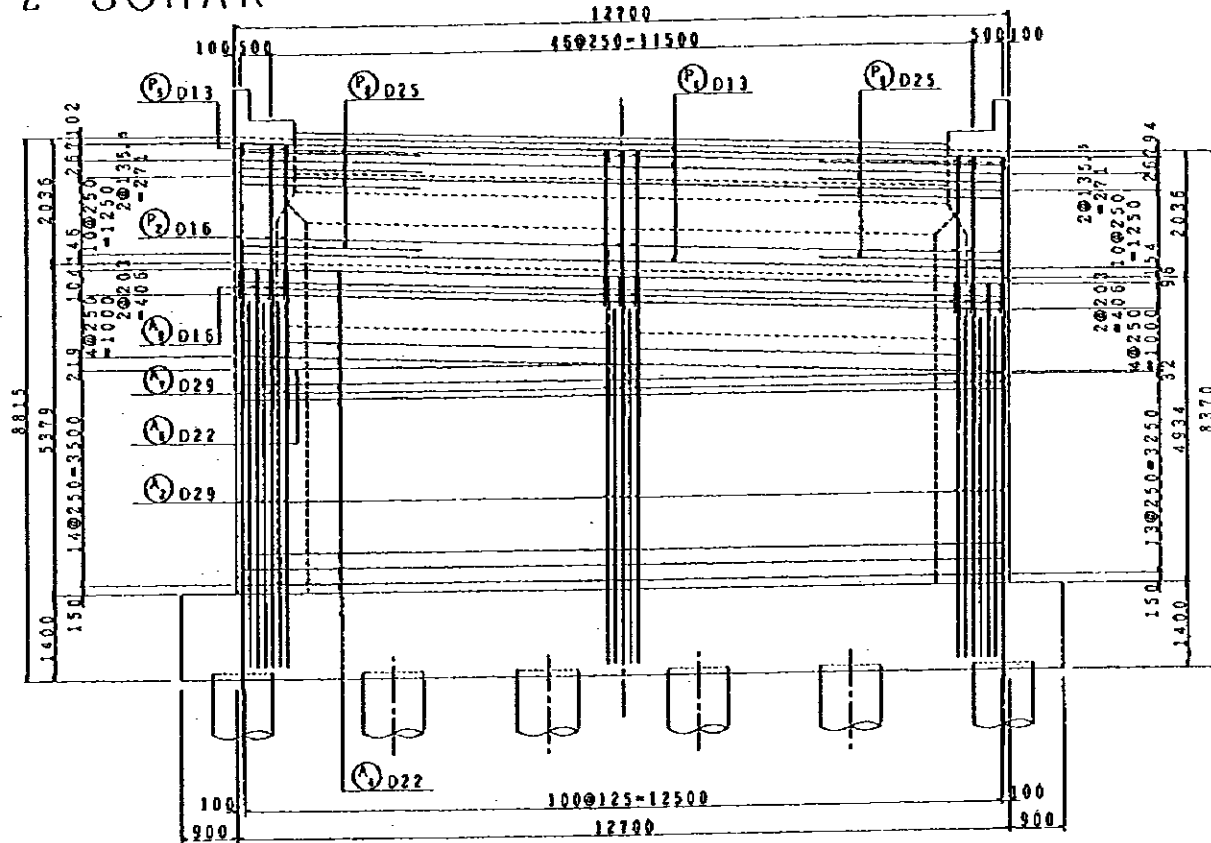
JAPAN INTERNATIONAL COOPERATION AGENCY
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FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE: STRUCTURAL DETAIL OF TWO-COLUMN PIER(P1~P8) AT B-LINE (1/2)
DATE: _____
DWGNO. B-33

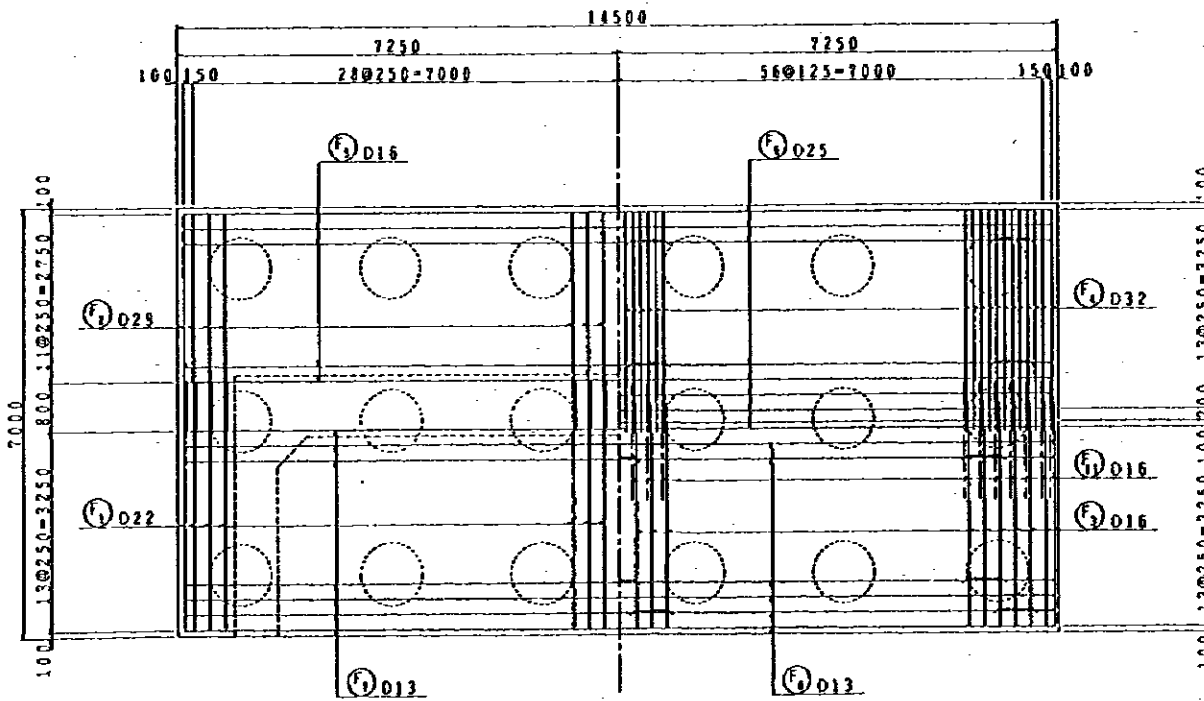
RA/12 SOHAR



SECTION 1-1 S=1/120

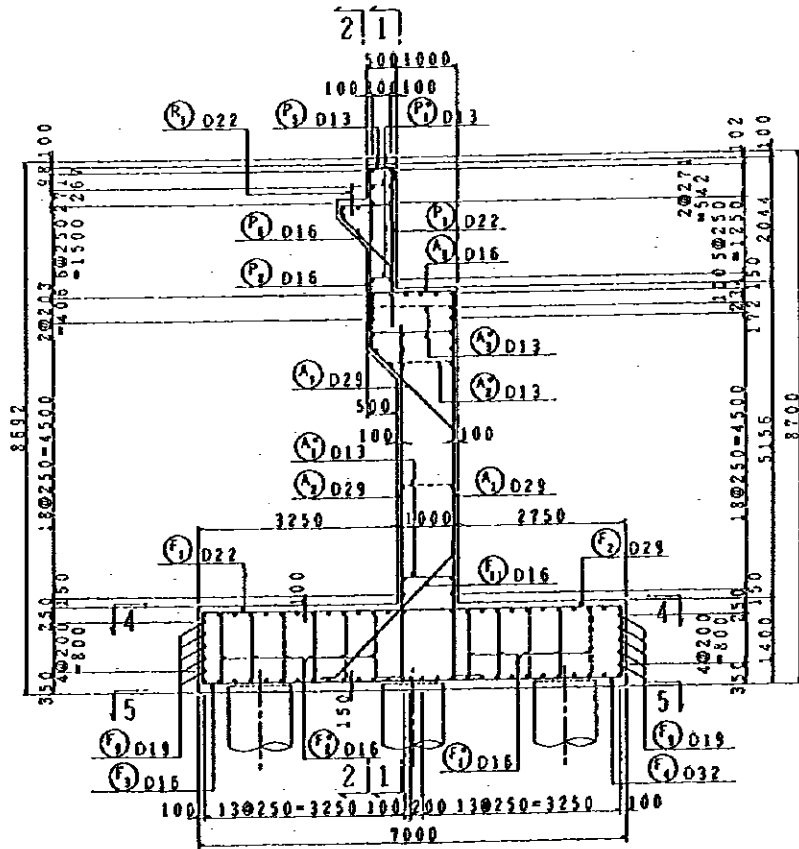


SECTION 2-2 S=1/120



SECTION 4-4 S=1/120

SECTION 5-5 S=1/120



SECTION 3-3 S=1/120

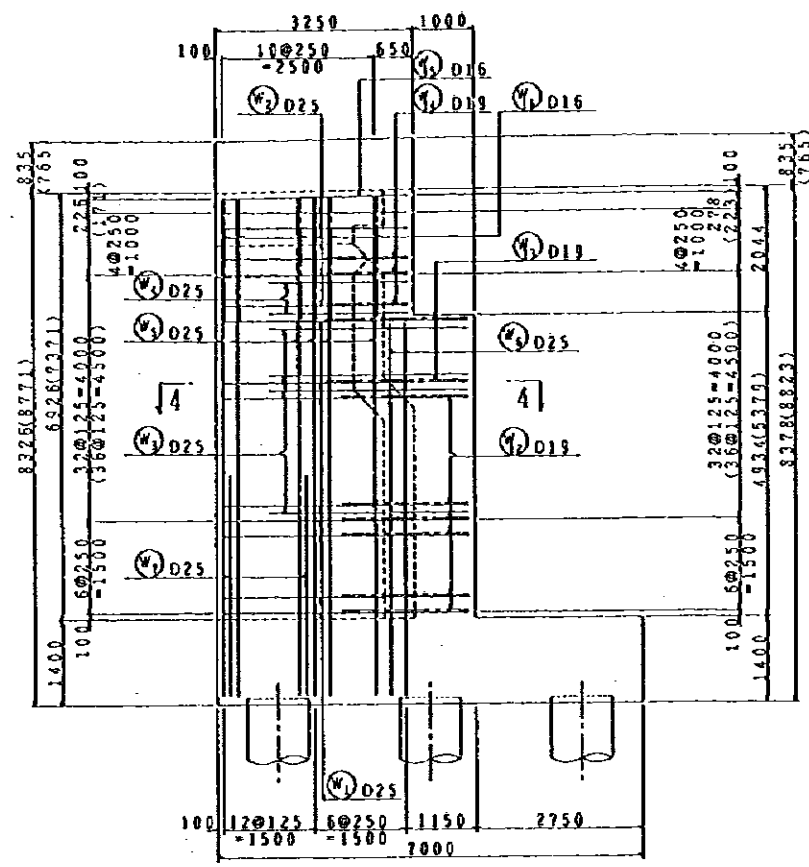
RE-BAR ARRANGEMENT OF A1 ABUTMENT AT A-LINE (1/3)

NOTES:

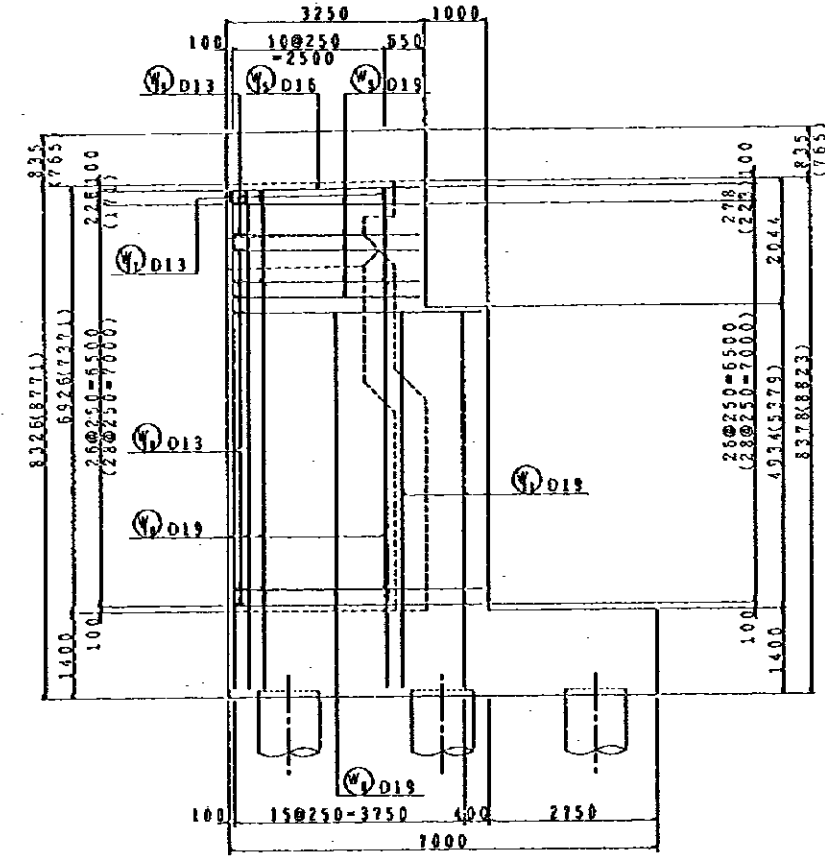
JAPAN INTERNATIONAL COOPERATION AGENCY
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FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE: RE-BAR ARRANGEMENT OF A1 ABUTMENT AT A-LINE (1/3)
DATE: _____ DWGNO. B-34

RA/12 SOHAR

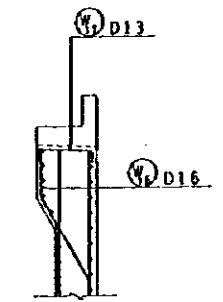


SECTION 1-1 S=1/120

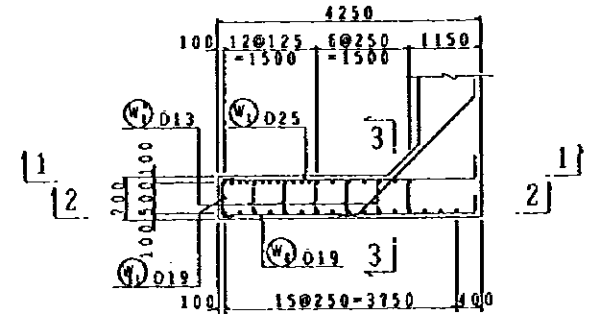


SECTION 2-2 S=1/120

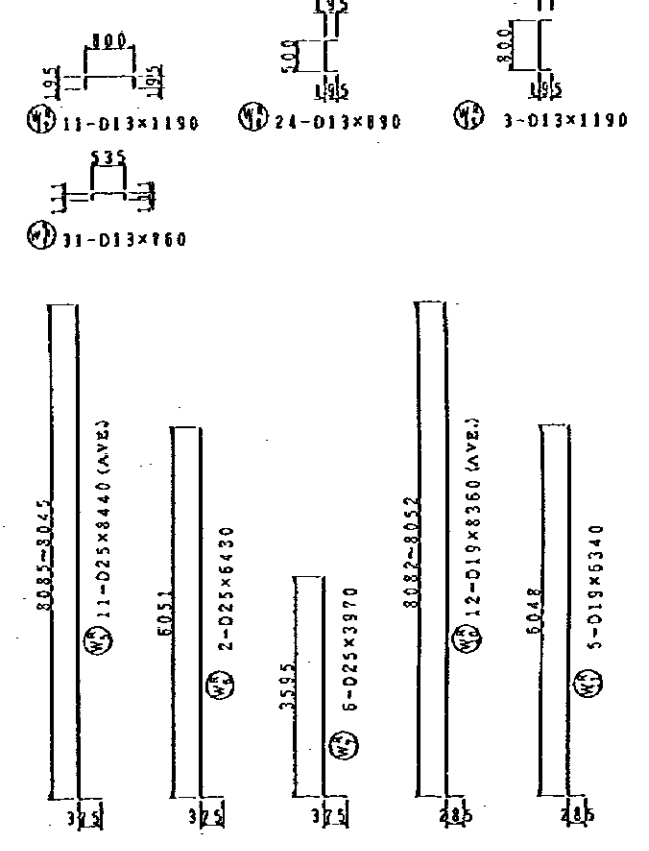
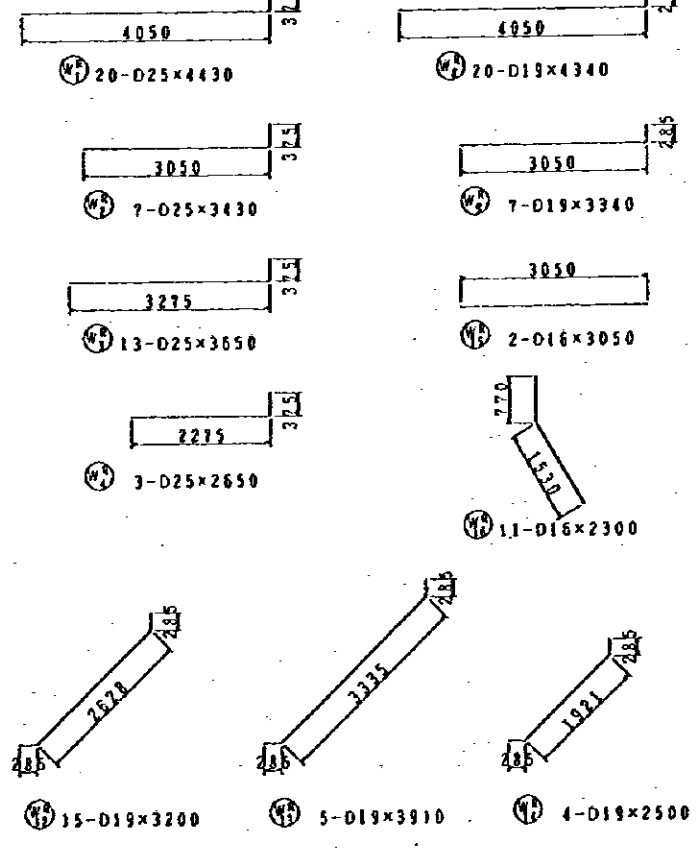
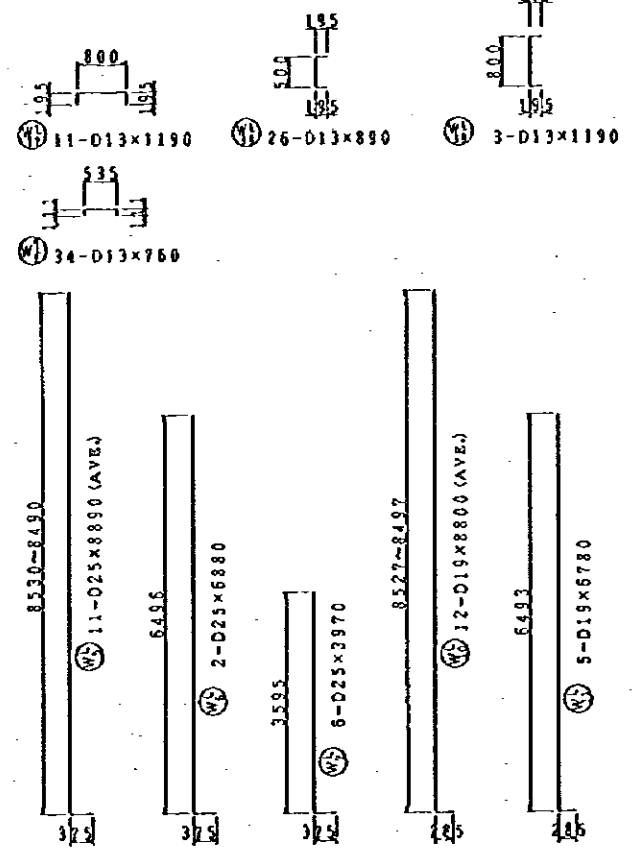
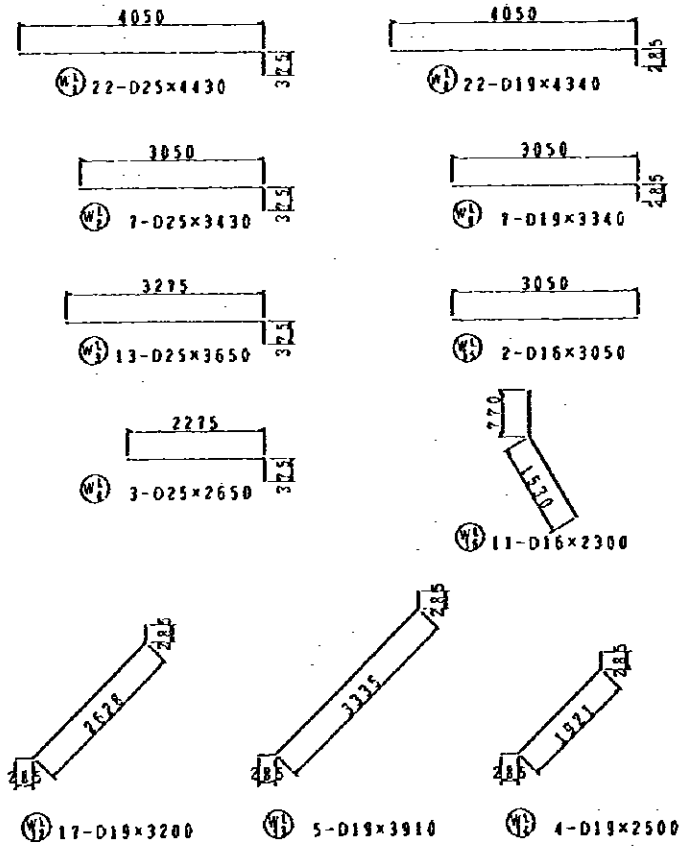
NOTE: LEFT WING



SECTION 3-3 S=1/120



SECTION 4-4 S=1/120

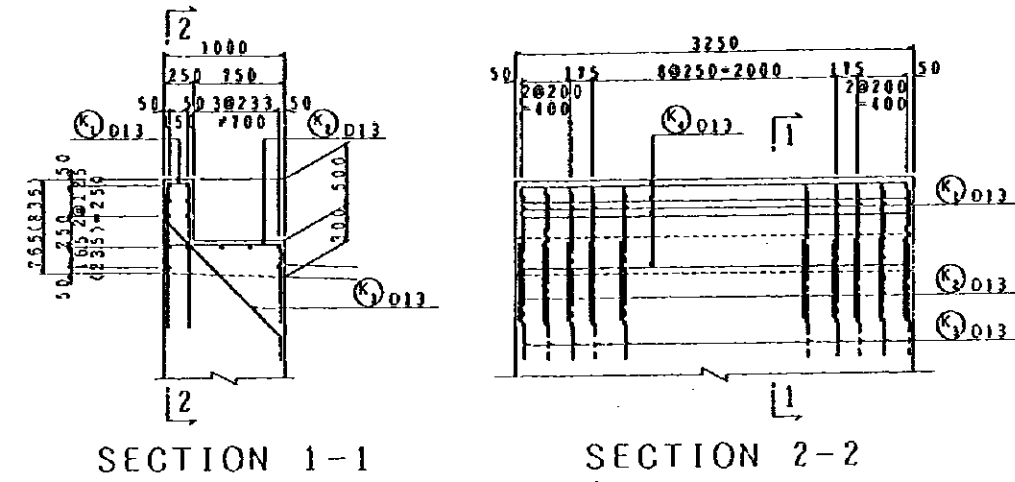
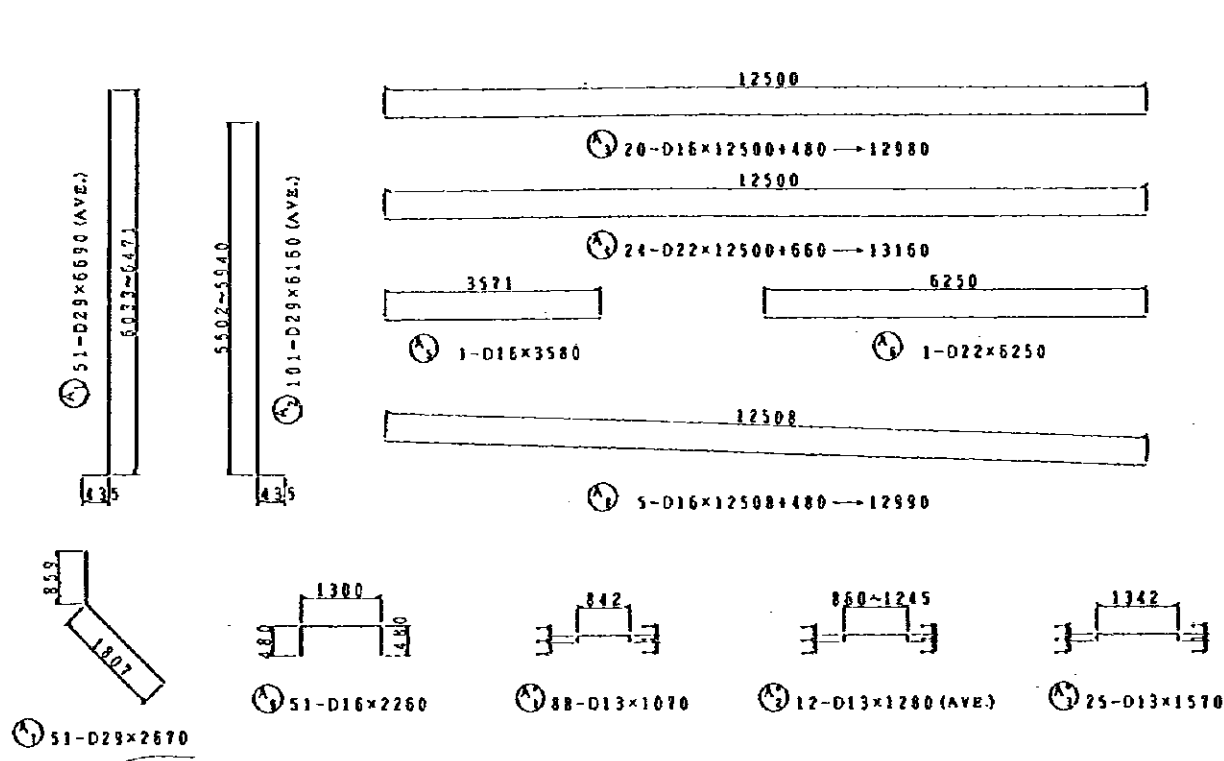


RE-BAR ARRANGEMENT OF A1 ABUTMENT AT A-LINE (2/3)

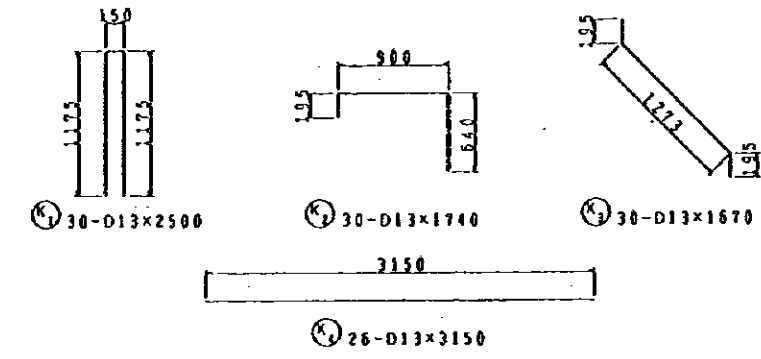
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JICA STUDY TEAM PACIFIC CONSULTANTS INTERNATIONAL FUKUYAMA CONSULTANTS INTERNATIONAL		PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY	
		TITLE: RE-BAR ARRANGEMENT OF A1 ABUTMENT AT A-LINE (2/3)	
		DATE:	DWGNO. B-35

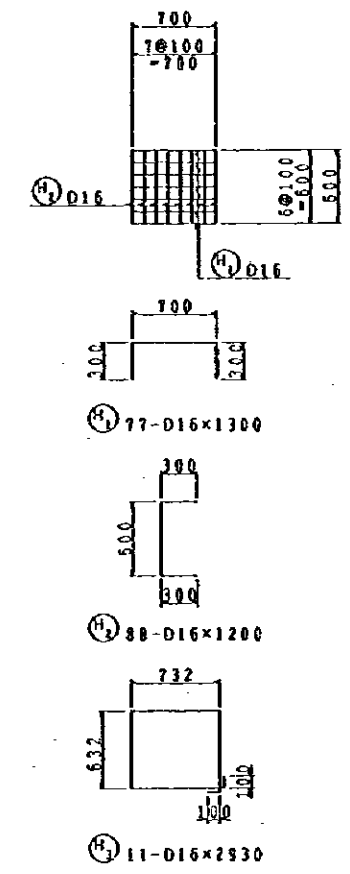
RA/12 SOHAR



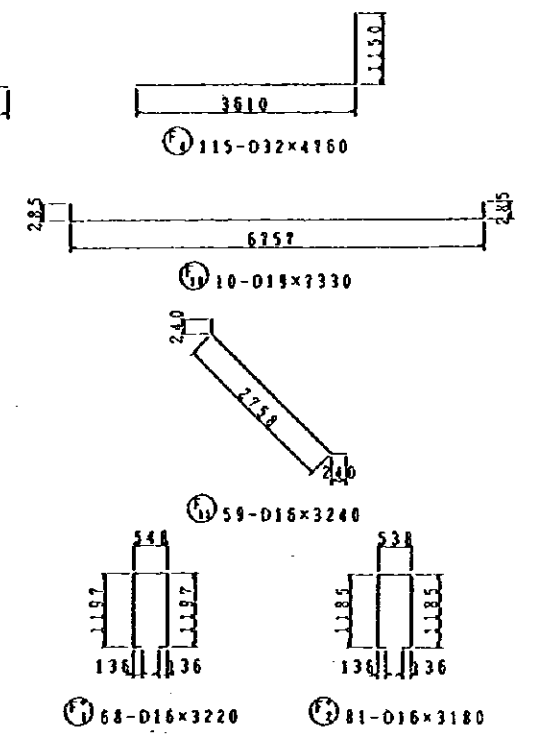
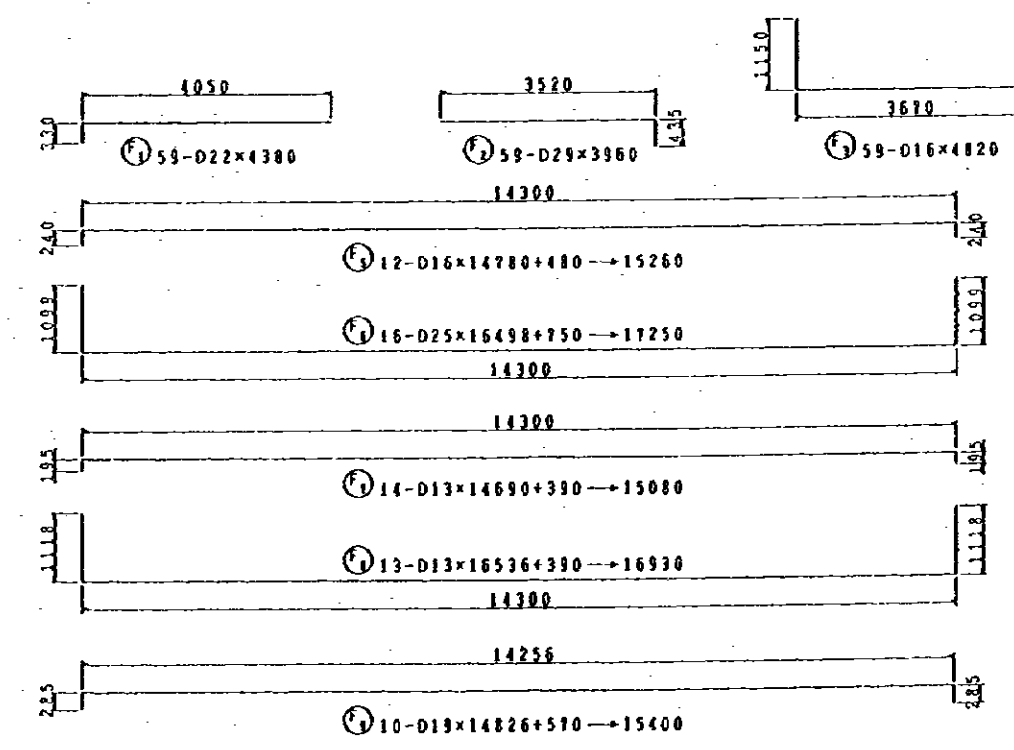
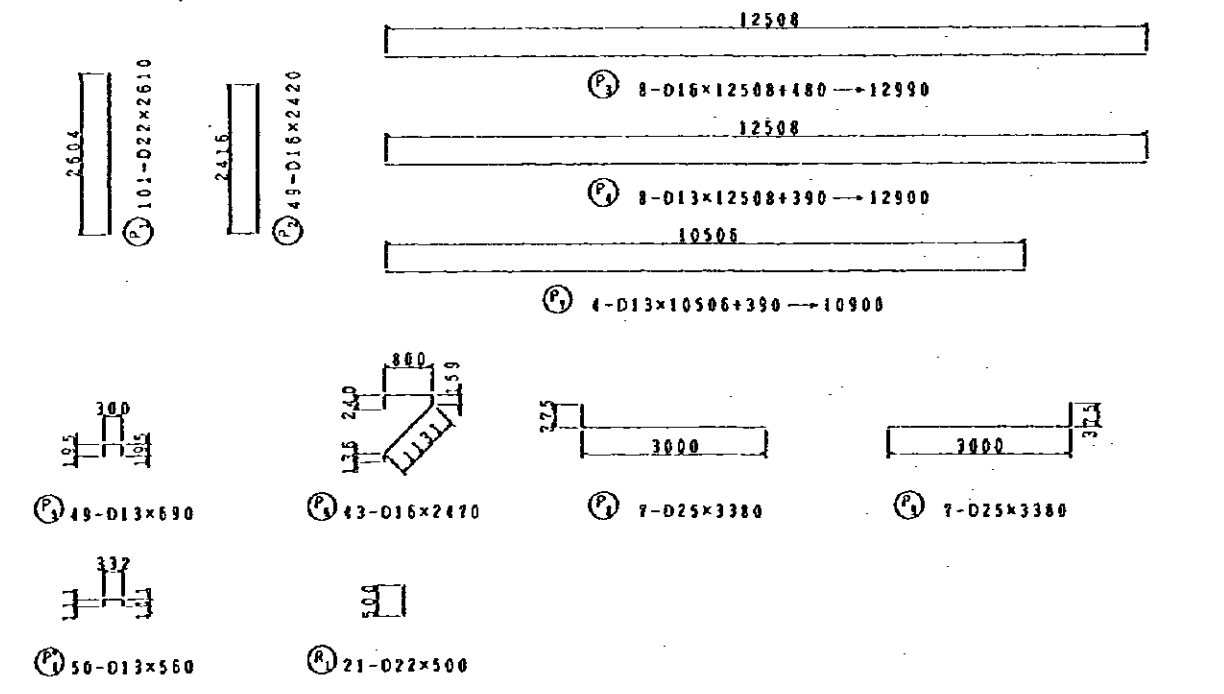
NOTE: () RIGHT RAILING



DETAIL OF RAILING S=1/60



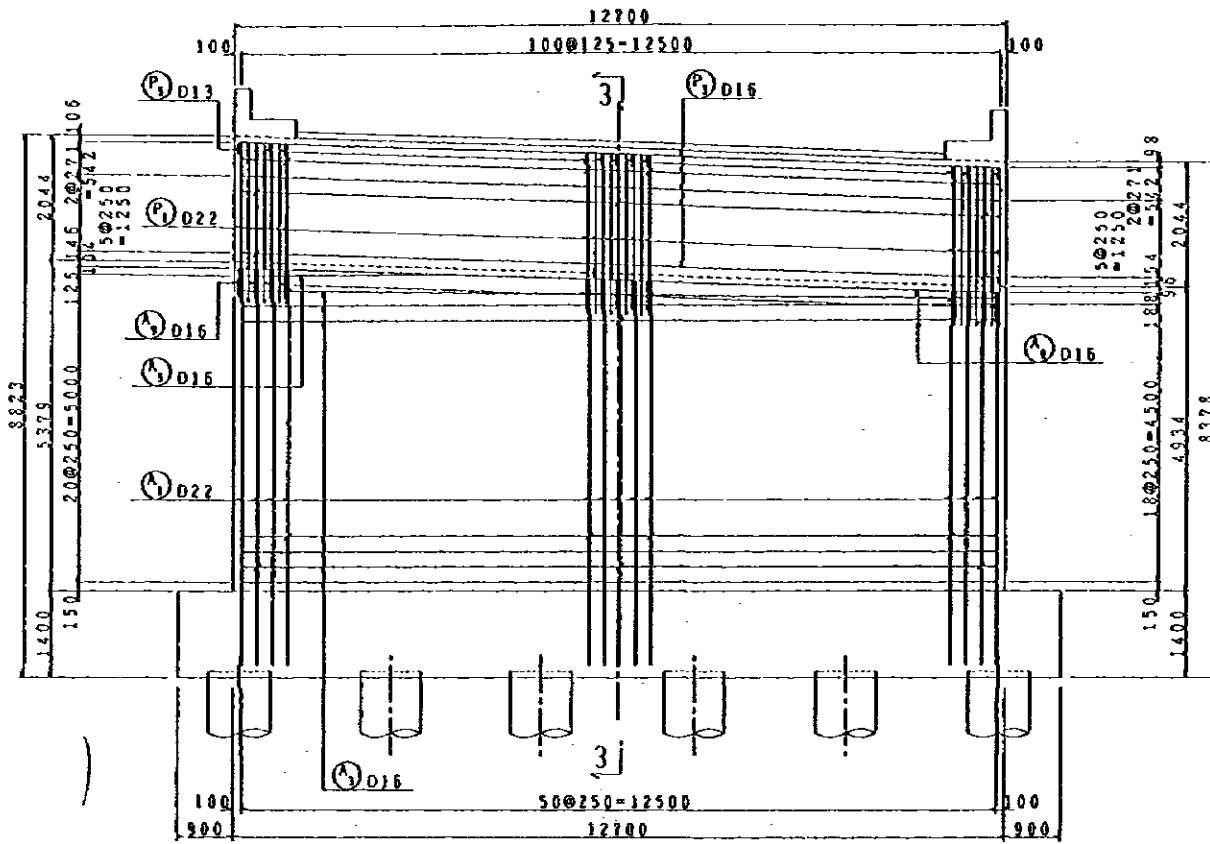
DETAIL OF SHOE BED S=1/60



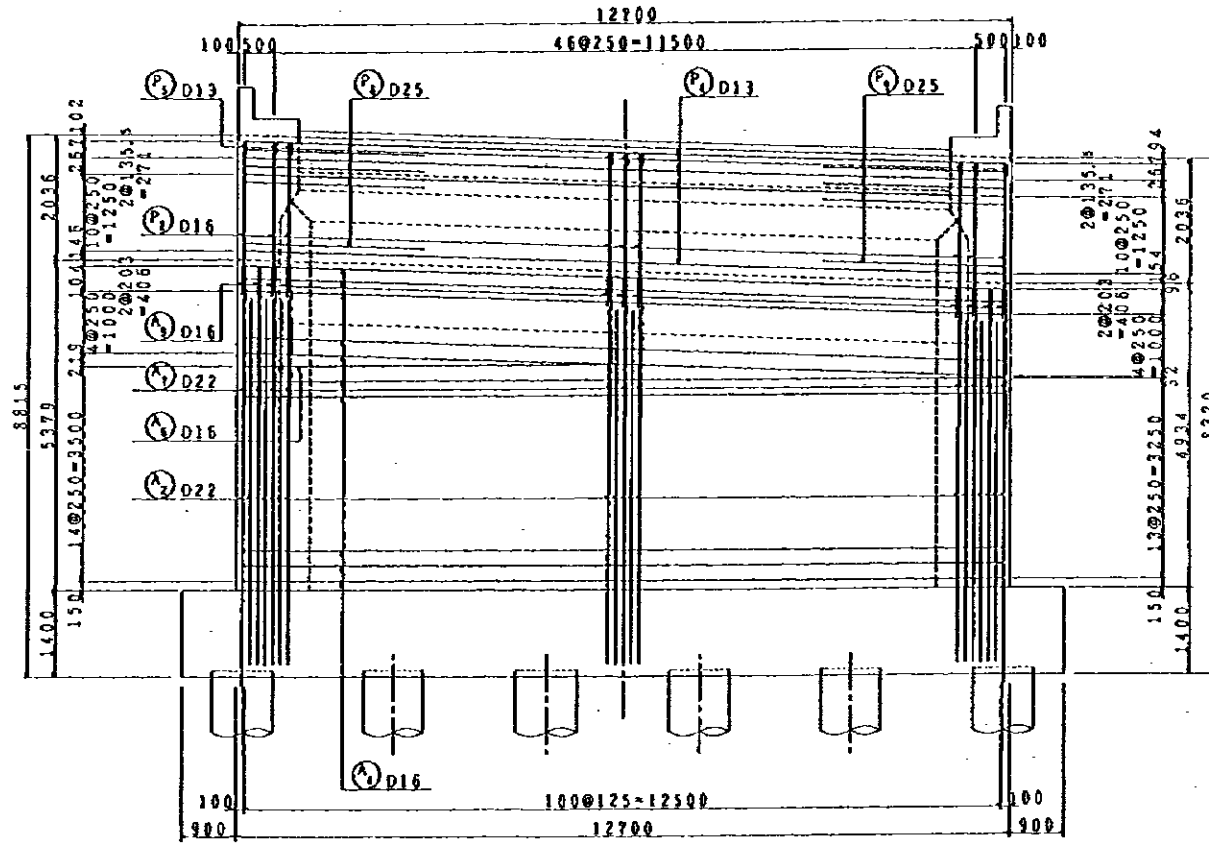
RE-BAR ARRANGEMENT OF A1 ABUTMENT AT A-LINE (3/3)

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: RE-BAR ARRANGEMENT OF A1 ABUTMENT AT A-LINE (3/3)
		DATE: _____ DWGNO. B-36

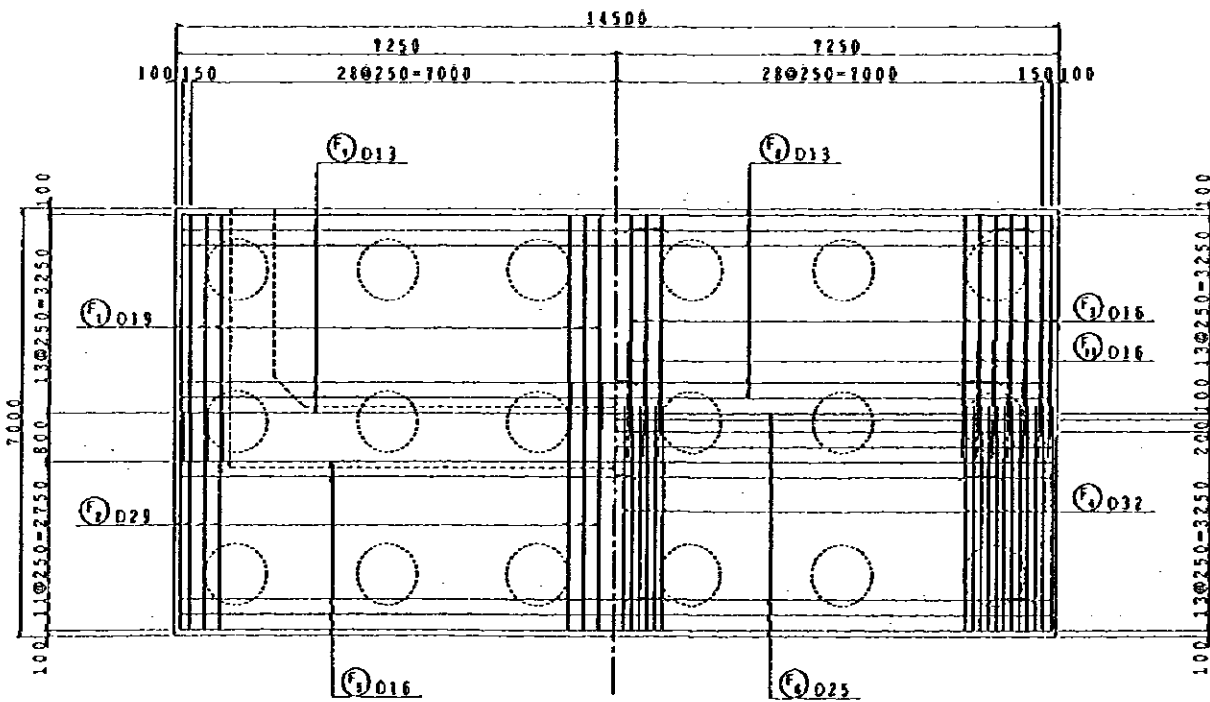
RA/12 SOHAR



SECTION 1-1 S=1/120

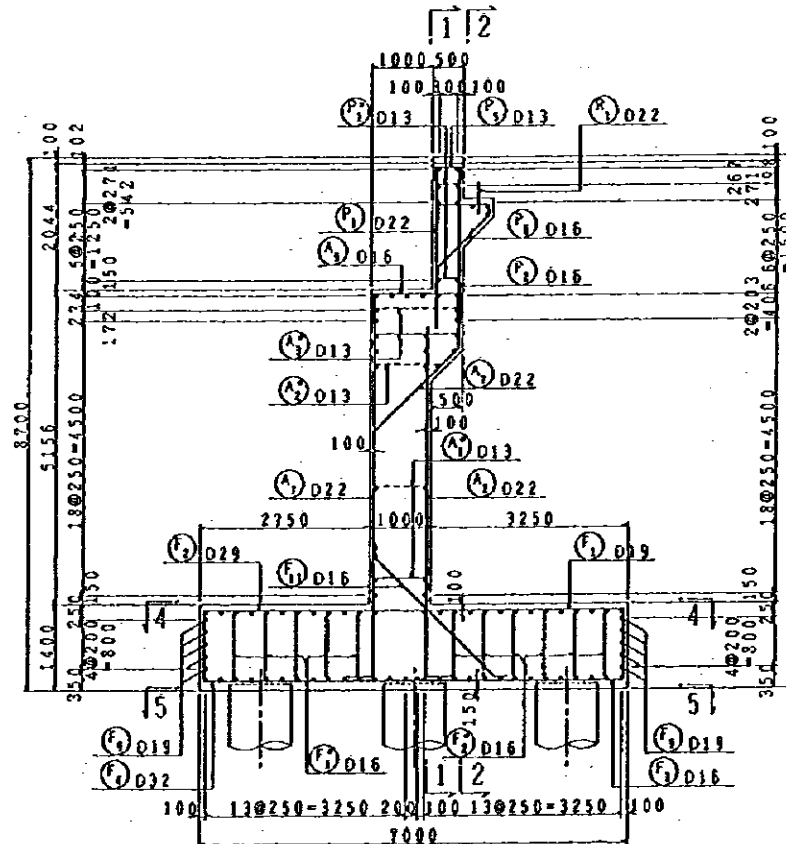


SECTION 2-2 S=1/120



SECTION 4-4 S=1/120

SECTION 5-5 S=1/120



SECTION 3-3 S=1/120

NOTE: RE-BAR ARRANGEMENT OF WING IS AS SAME AS IN A1 ABUTMENT.

RE-BAR ARRANGEMENT OF A2 ABUTMENT AT A-LINE (1/2)

NOTES:

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JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT: DD ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

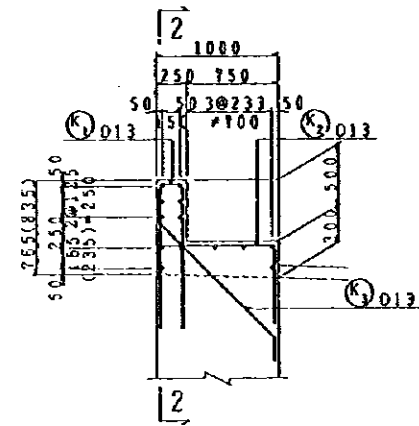
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DATE

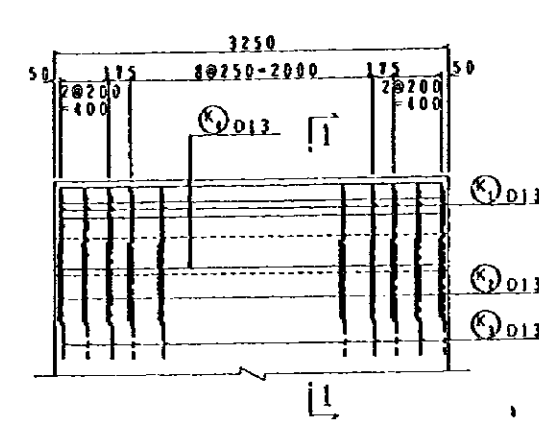
DWGNO.

B-37

RA/12 SOHAR

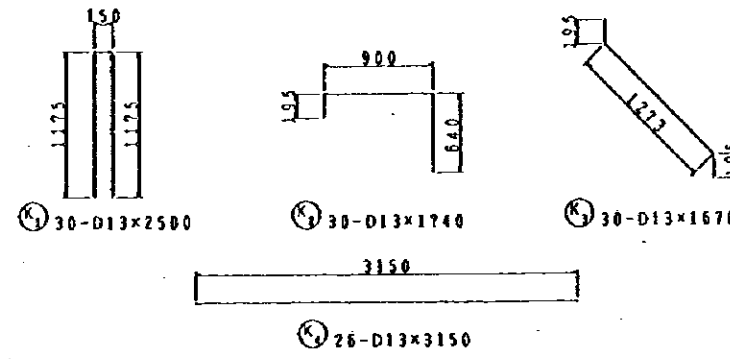
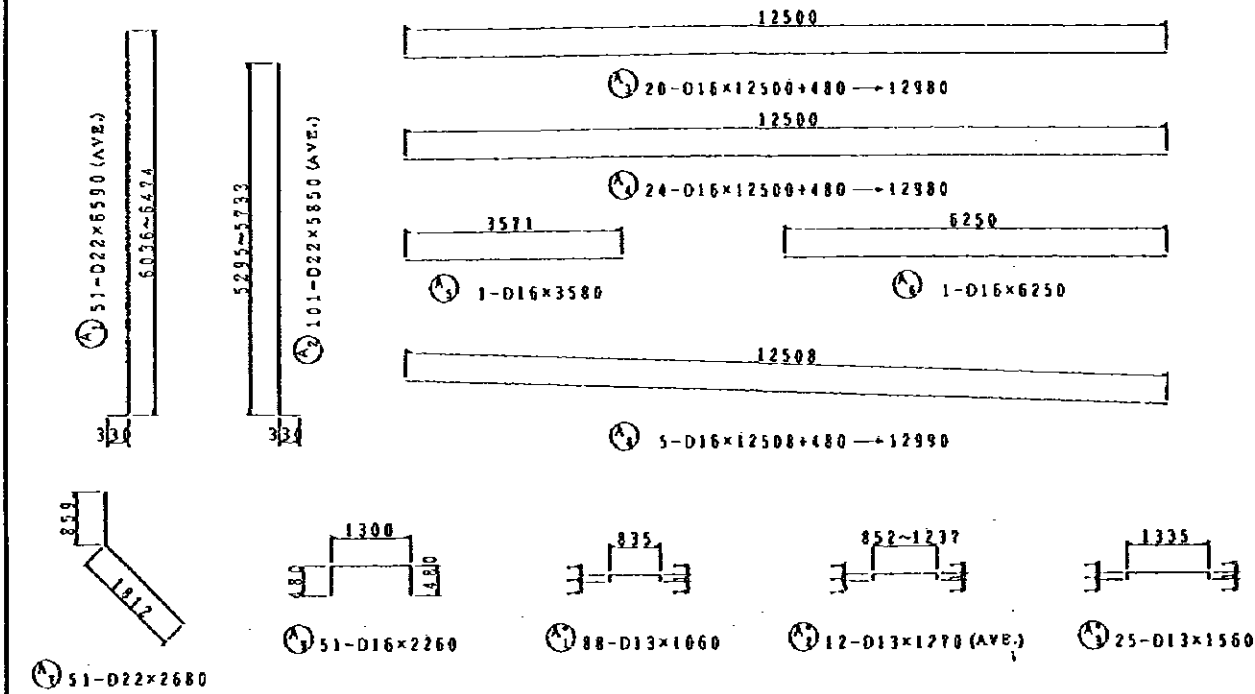


SECTION 1-1

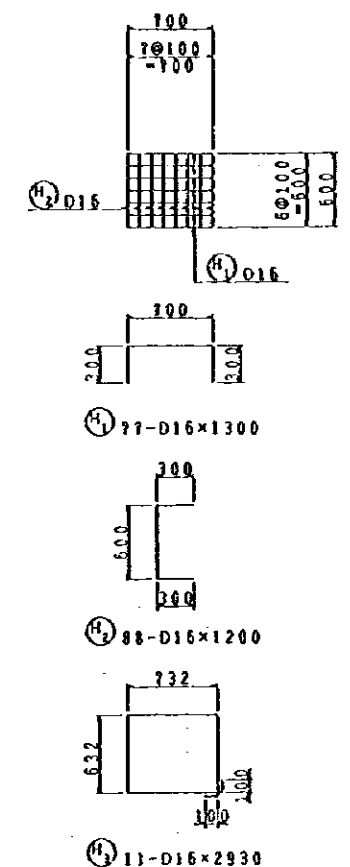


SECTION 2-2

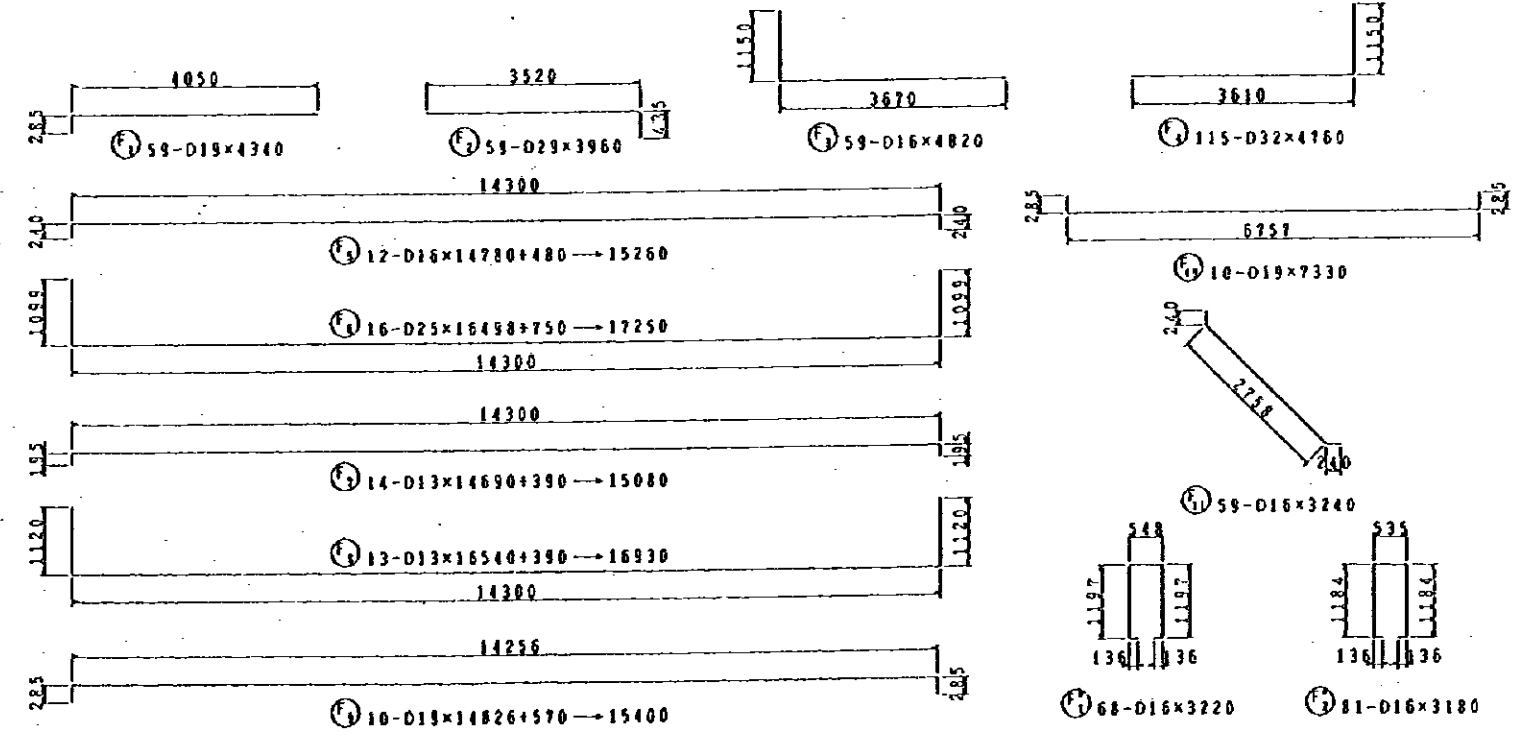
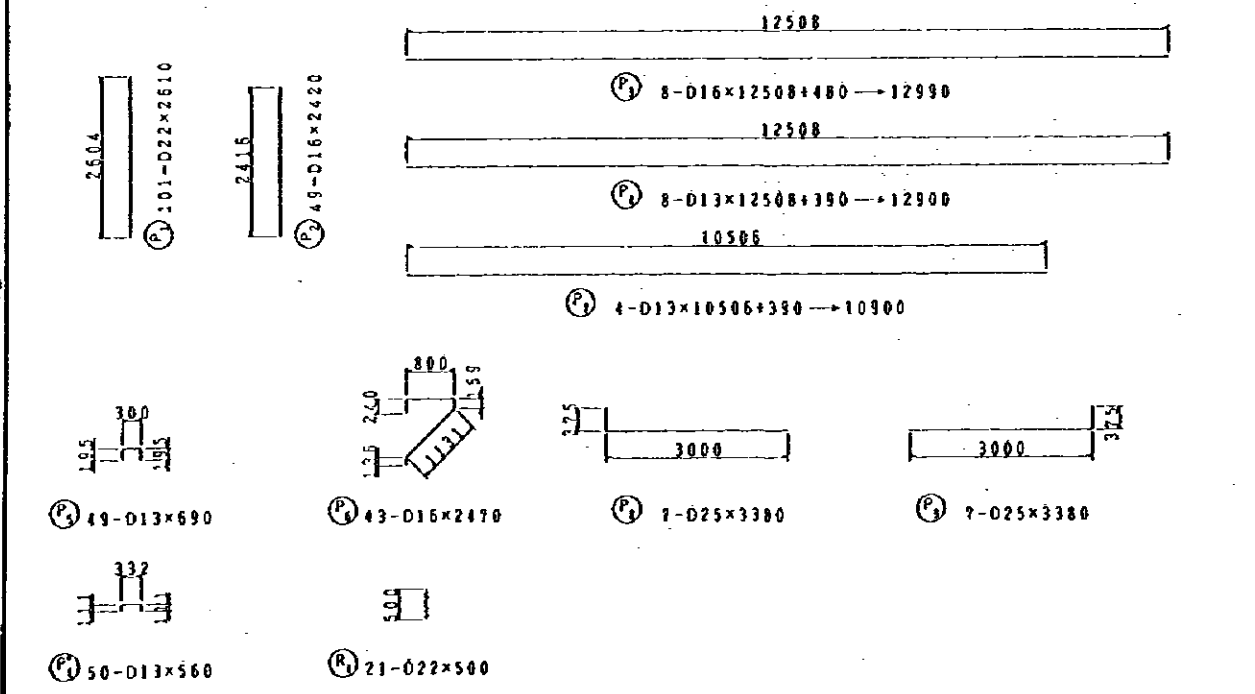
NOTE: () RIGHT RAILING



DETAIL OF RAILING S= 1/60



DETAIL OF SHOE BED S= 1/60



RE-BAR ARRANGEMENT OF A2 ABUTMENT AT A-LINE (2/2)

NOTES:

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CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

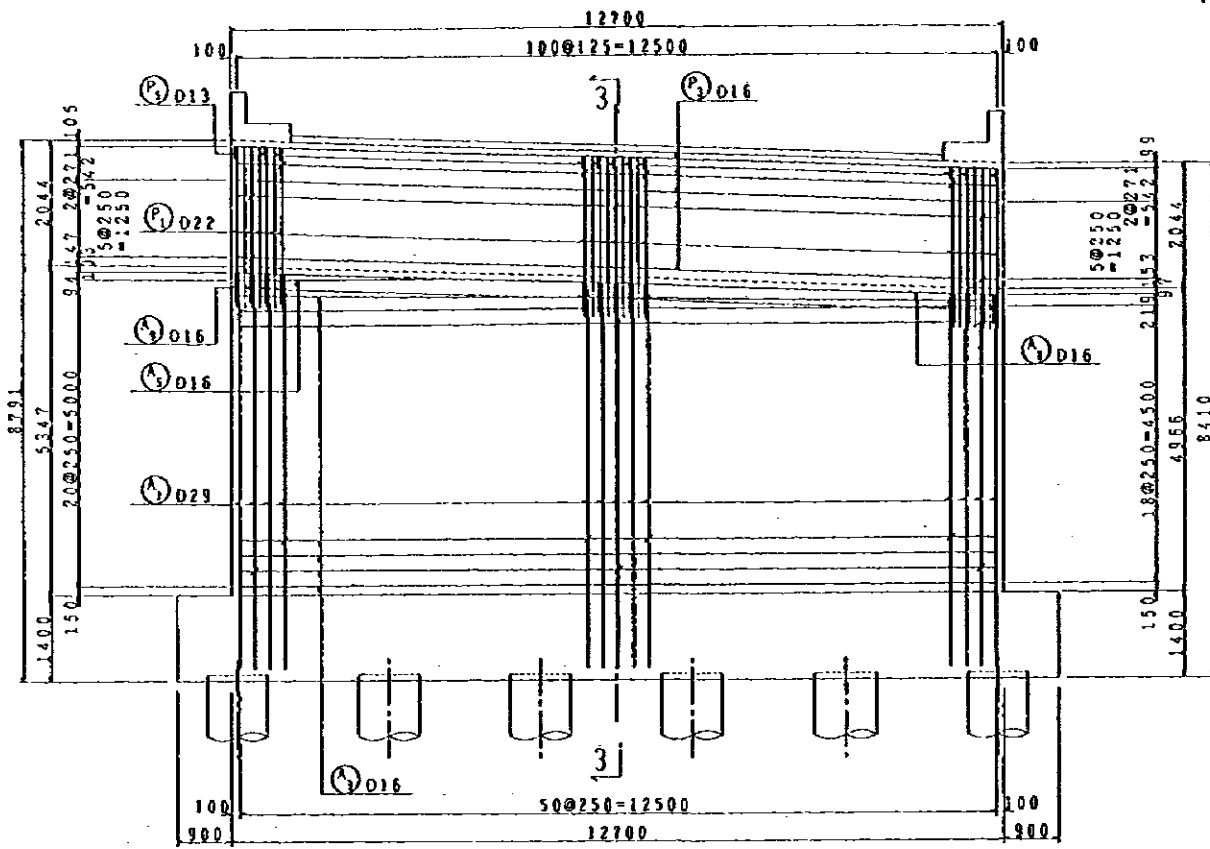
TITLE RE-BAR ARRANGEMENT OF A2 ABUTMENT AT A-LINE (2/2)

DATE

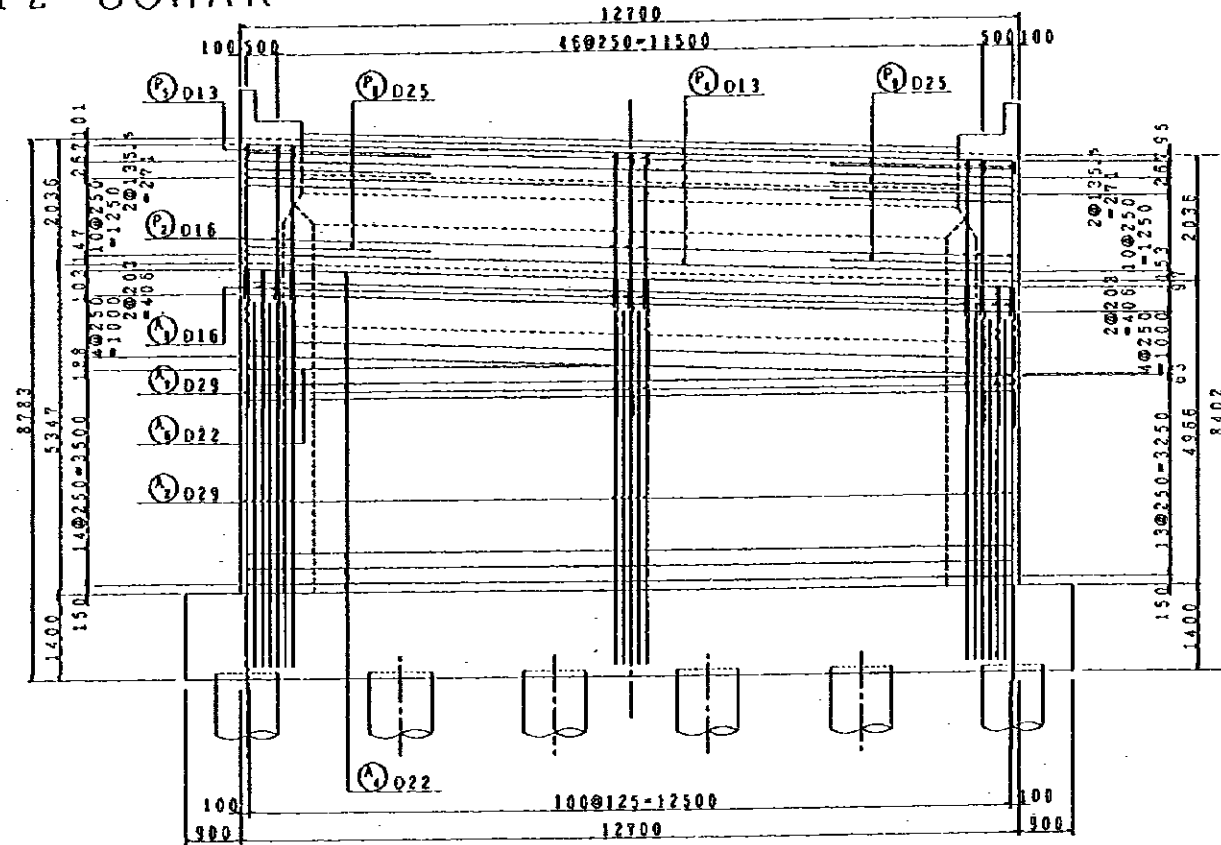
DWGNO.

B-38

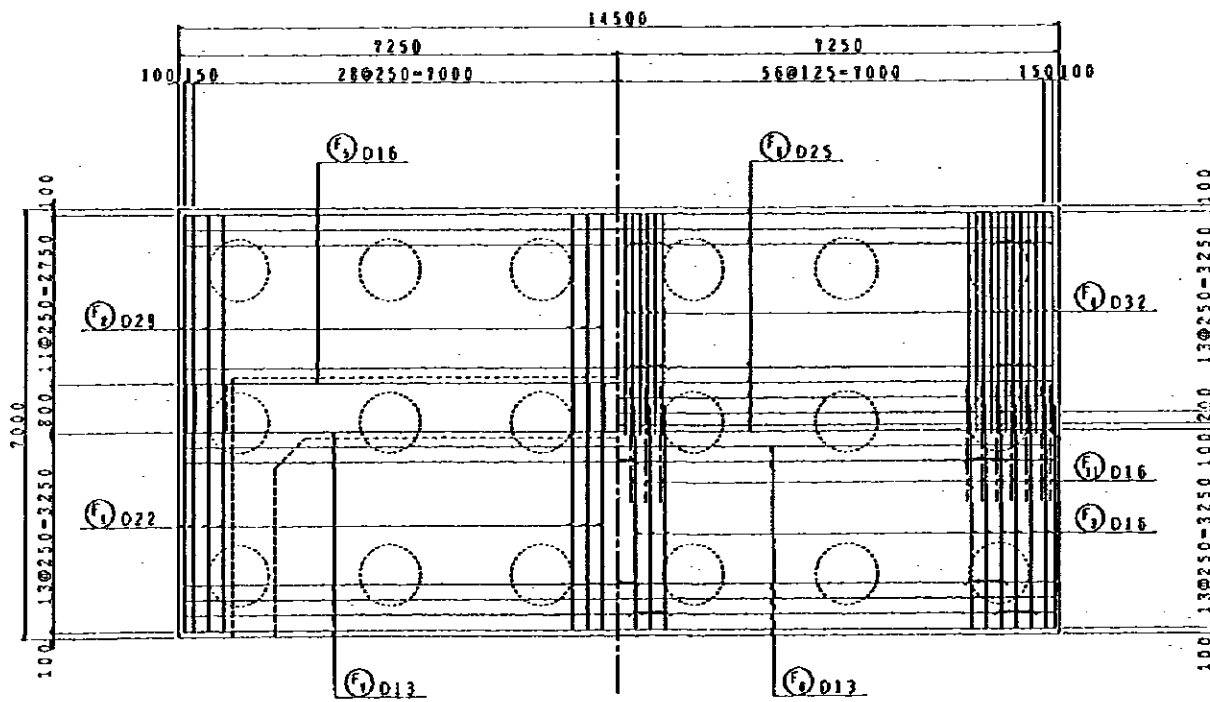
RA/12 SOHAR



SECTION 1-1 S= 1/120

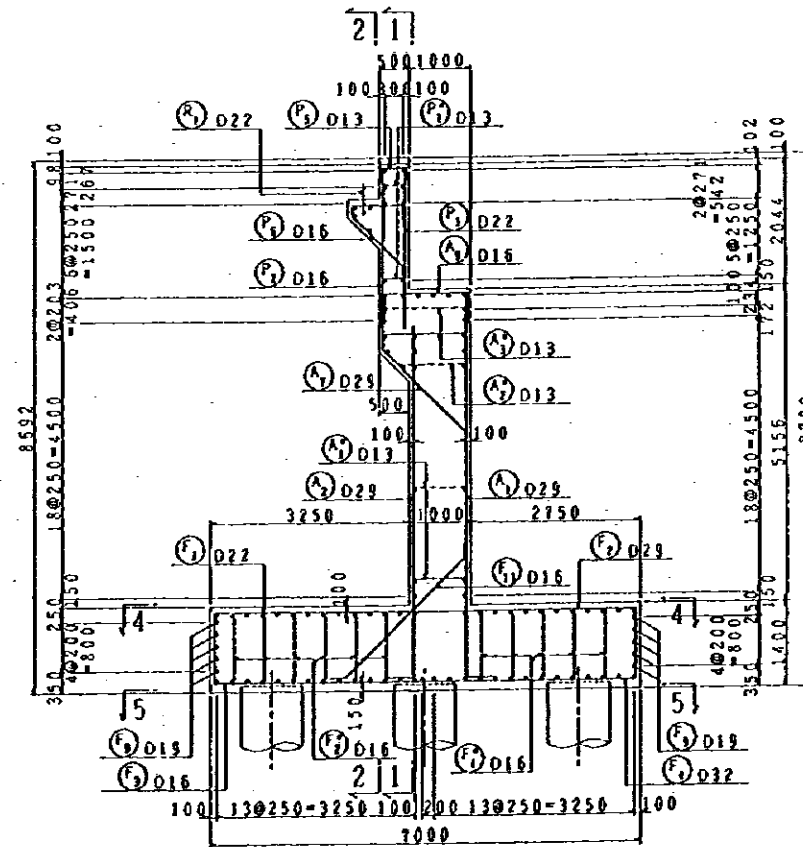


SECTION 2-2 S= 1/120



SECTION 4-4 S= 1/120

SECTION 5-5 S= 1/120



SECTION 3-3 S= 1/120

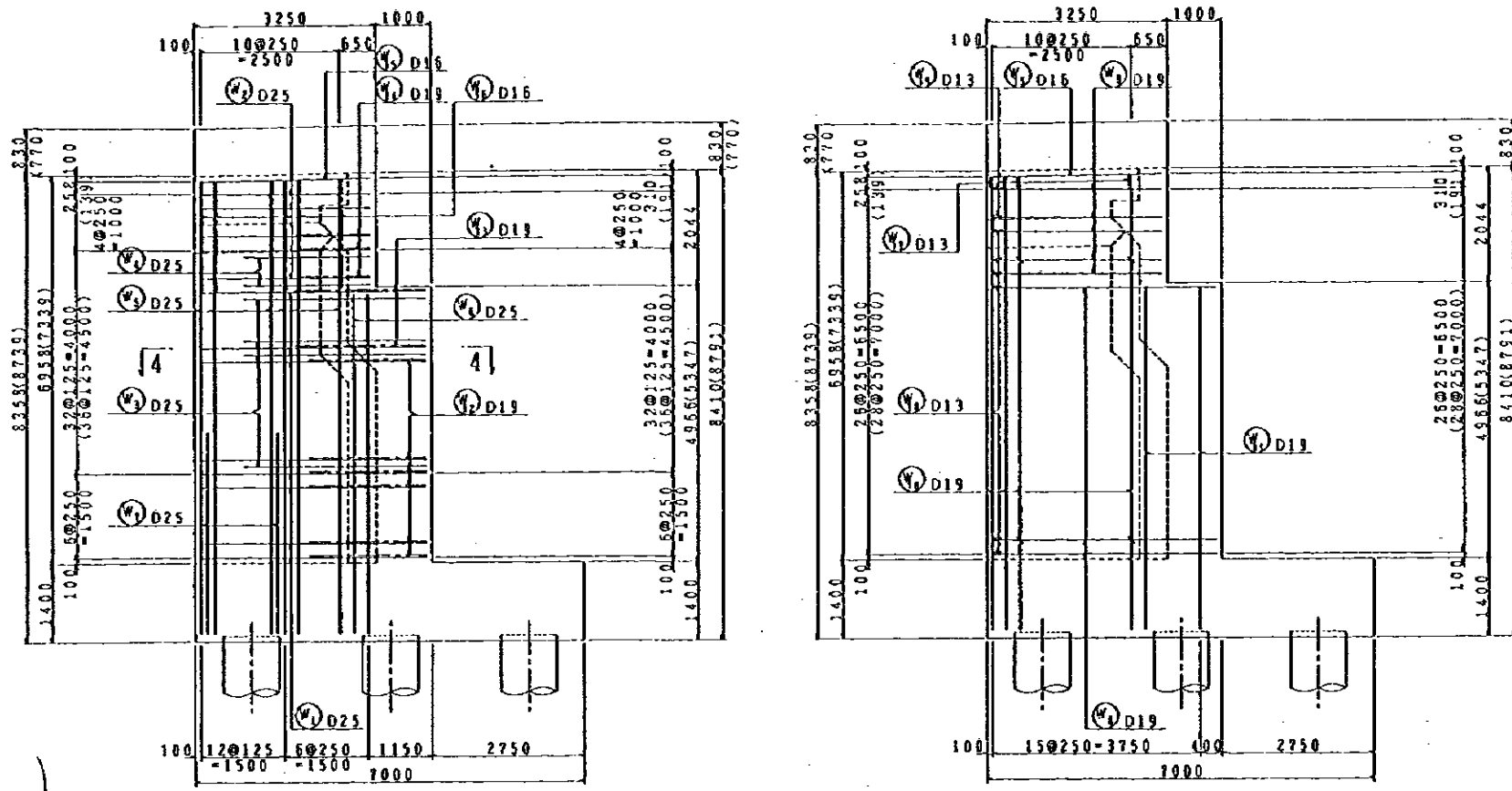
RE-BAR ARRANGEMENT OF A1 ABUTMENT AT B-LINE (1/3)

NOTES:

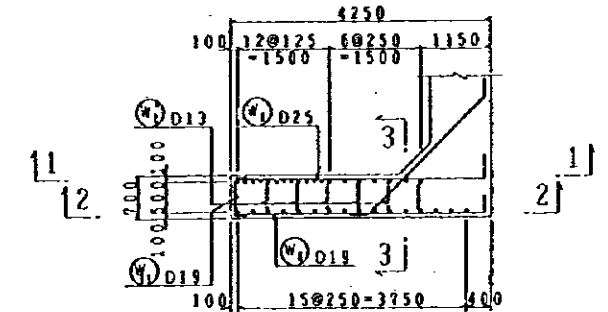
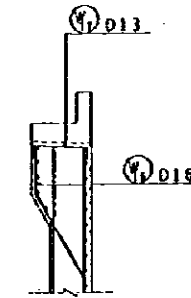
JAPAN INTERNATIONAL COOPERATION AGENCY
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PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS	
PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY	
TITLE: RE-BAR ARRANGEMENT OF A1 ABUTMENT AT B-LINE (1/3)	
DATE	DWGNO. B-39

RA/12 SOHAR

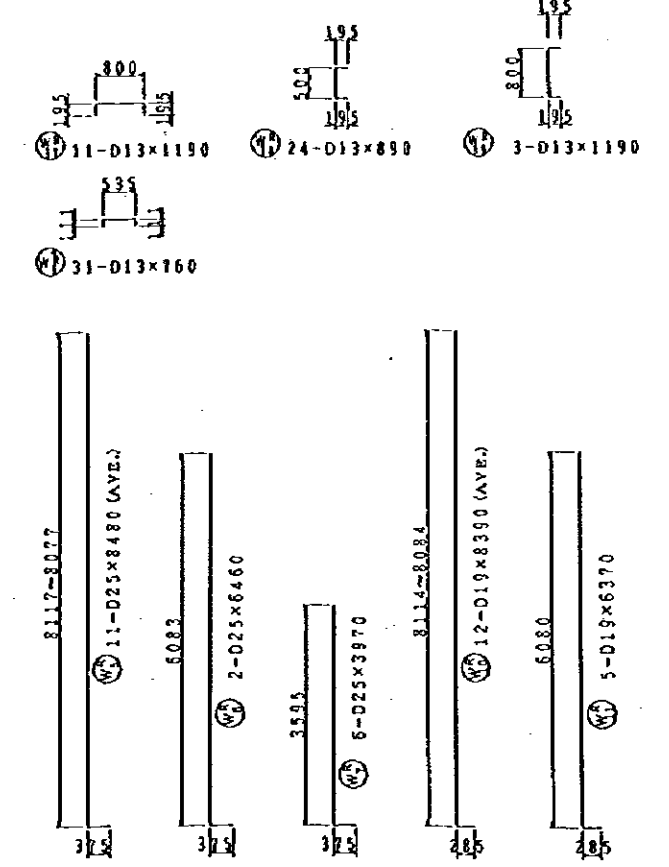
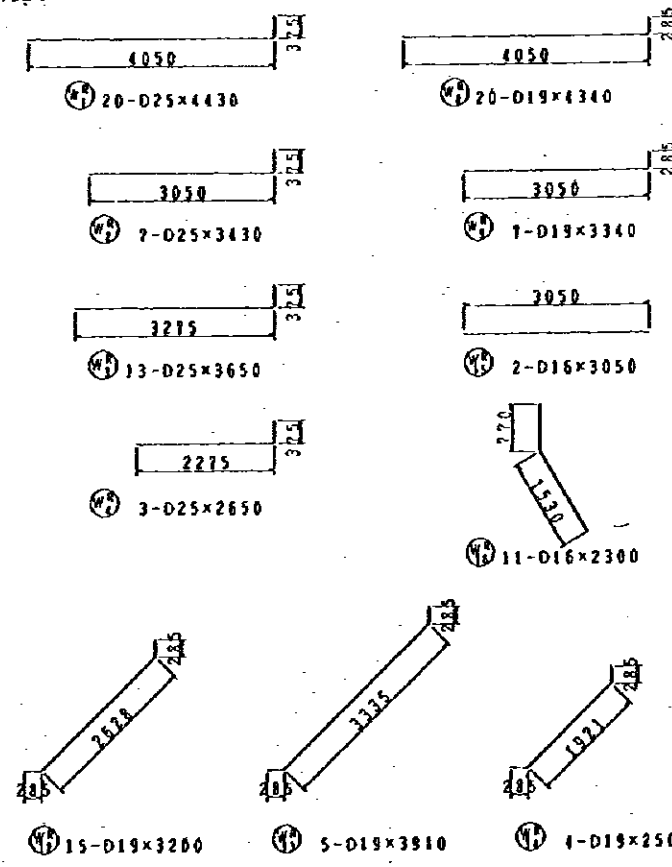
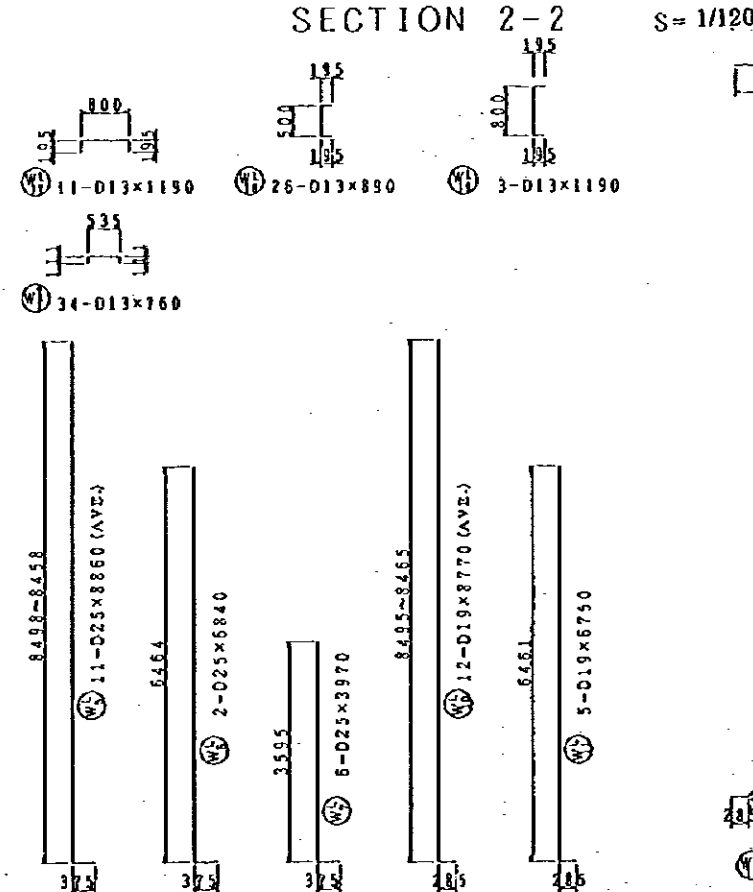
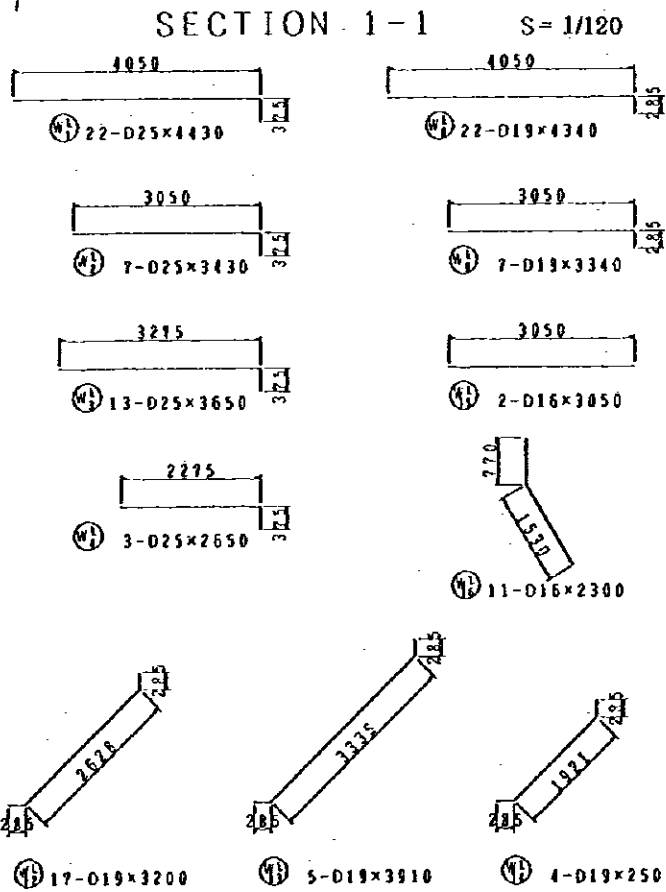


NOTE: () LEFT WING



SECTION 3-3 S= 1/120

SECTION 4-4 S= 1/120



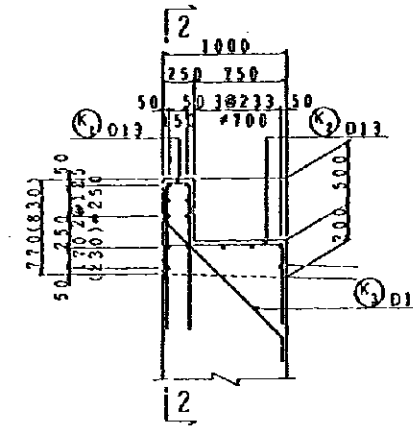
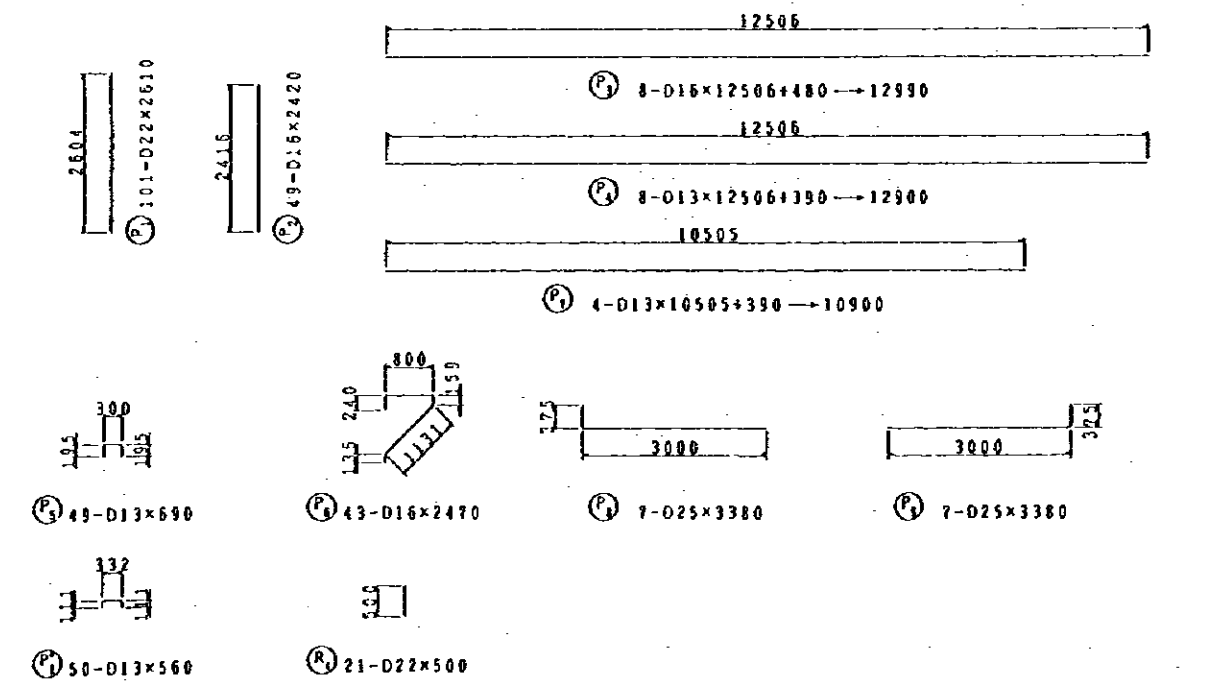
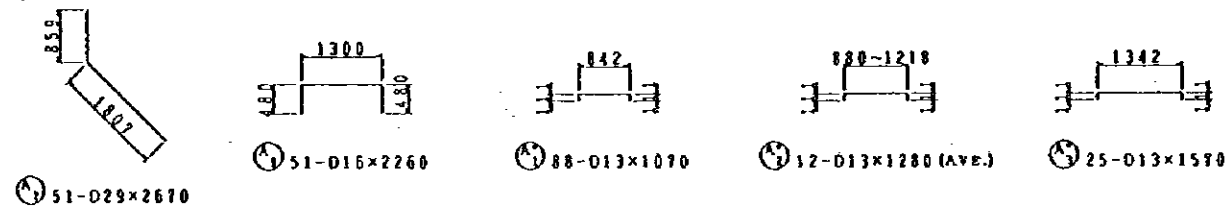
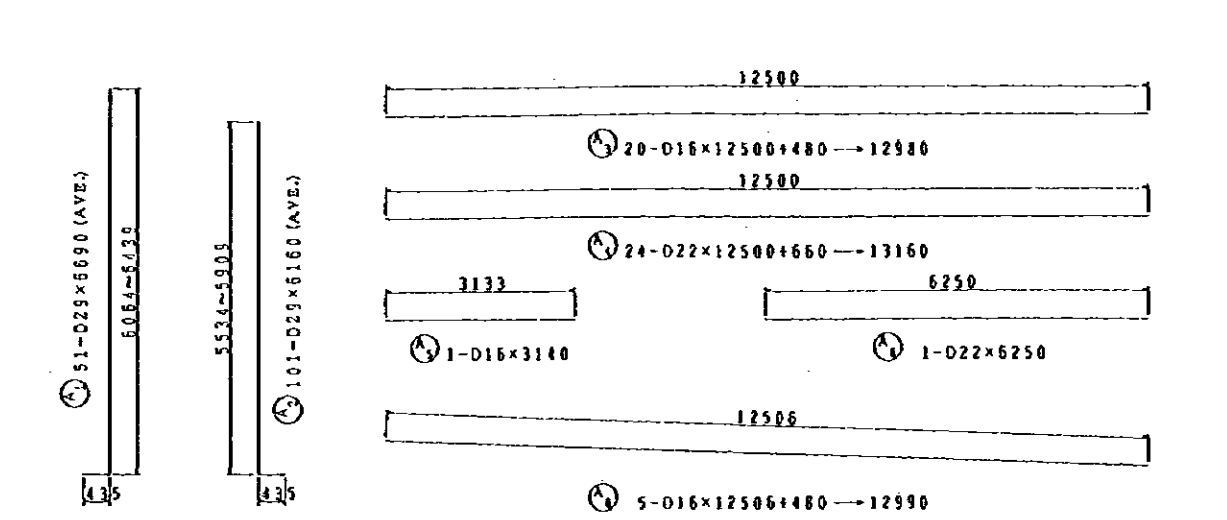
RE-BAR ARRANGEMENT OF A1 ABUTMENT AT B-LINE (2/3)

NOTES:

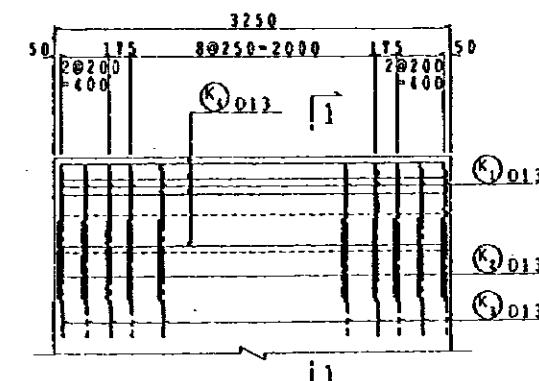
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PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS	
PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY	
TITLE: RE-BAR ARRANGEMENT OF A1 ABUTMENT AT B-LINE (2/3)	
DATE:	DWGNO. B-40

RA/12 SOHAR

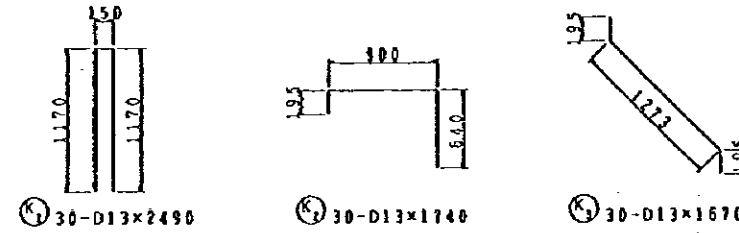


SECTION 1-1

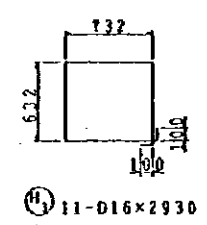
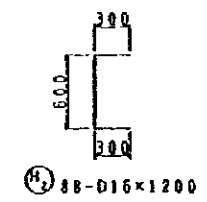
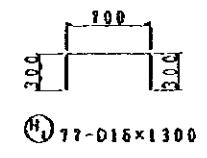
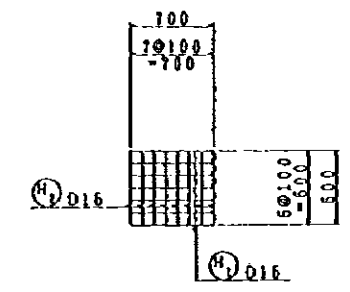


SECTION 2-2

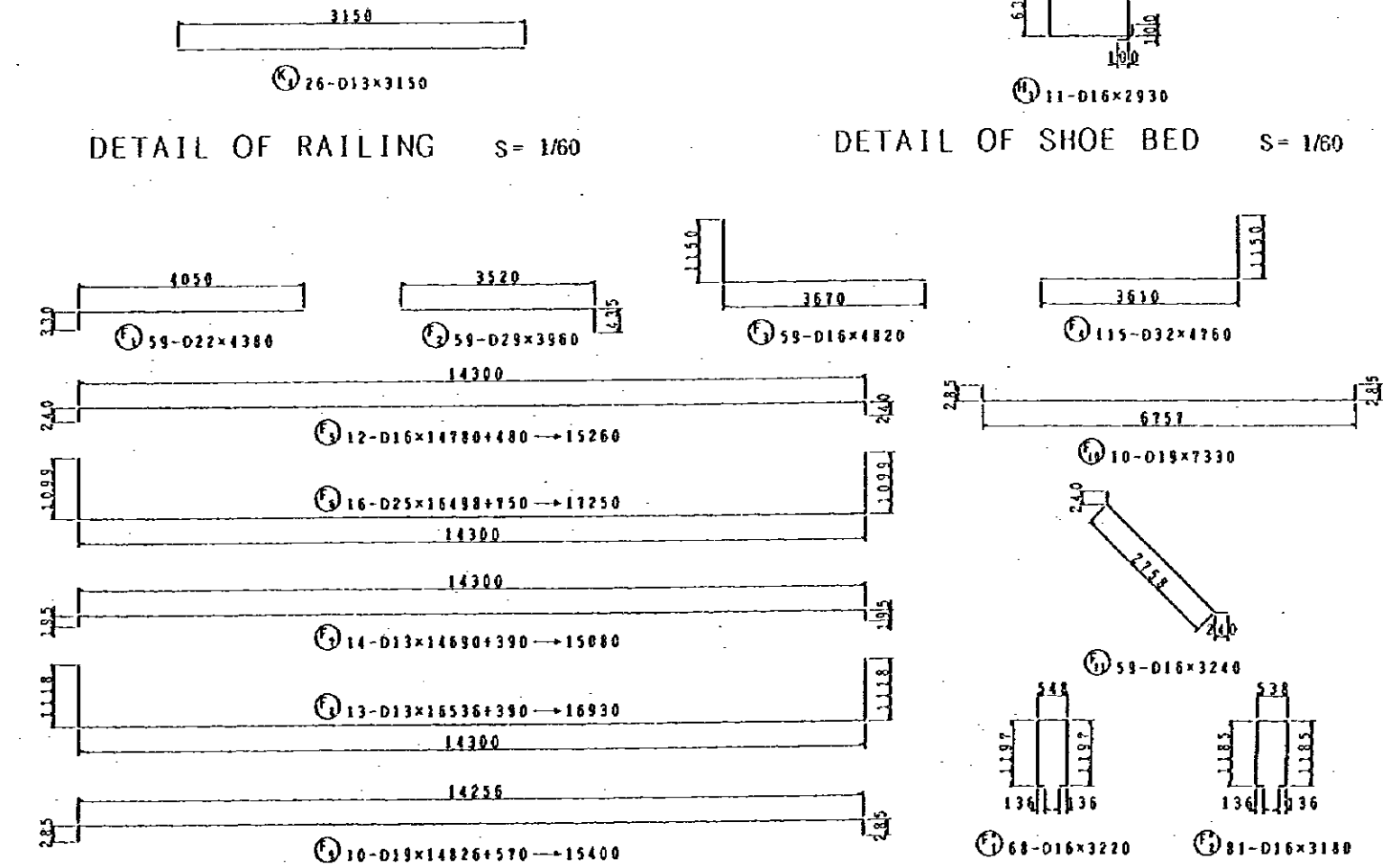
NOTE: () RIGHT RAILING



DETAIL OF RAILING S= 1/60



DETAIL OF SHOE BED S= 1/60



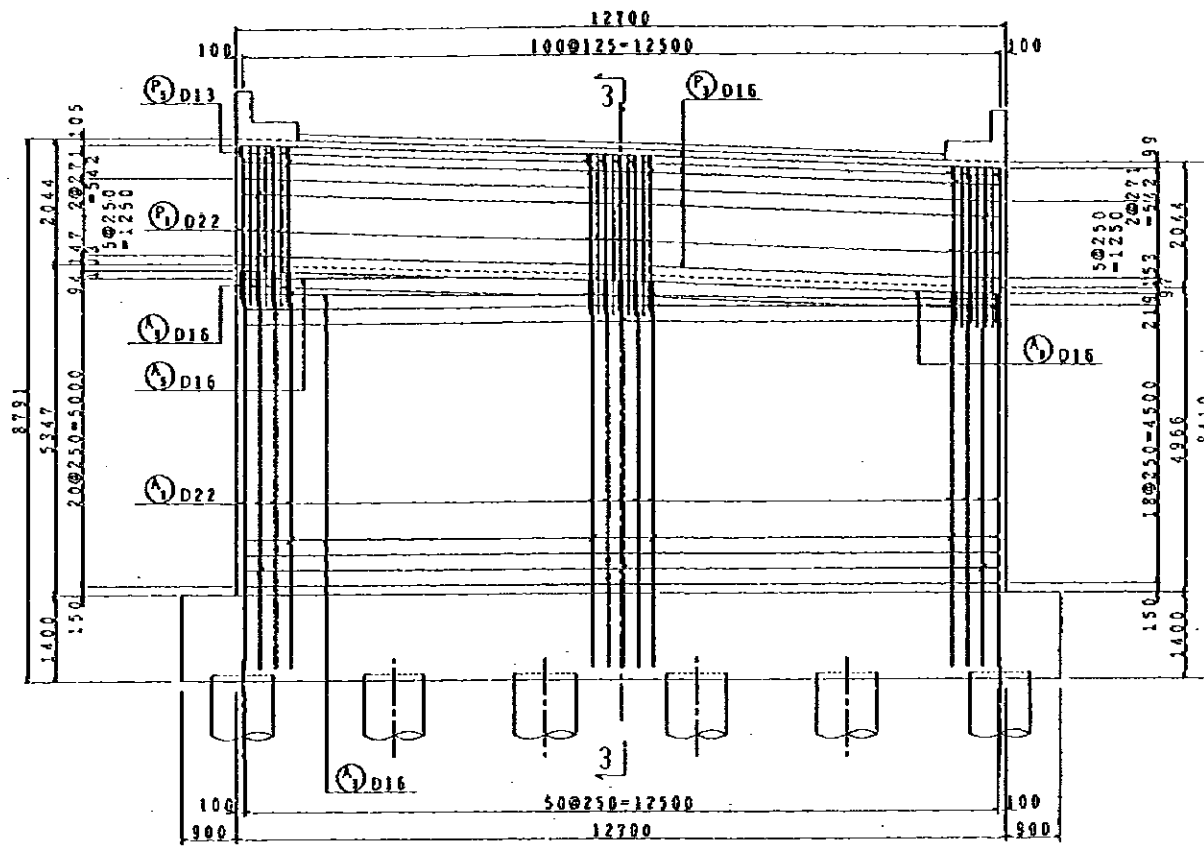
RE-BAR ARRANGEMENT OF A1 ABUTMENT AT B-LINE (3/3)

NOTES:

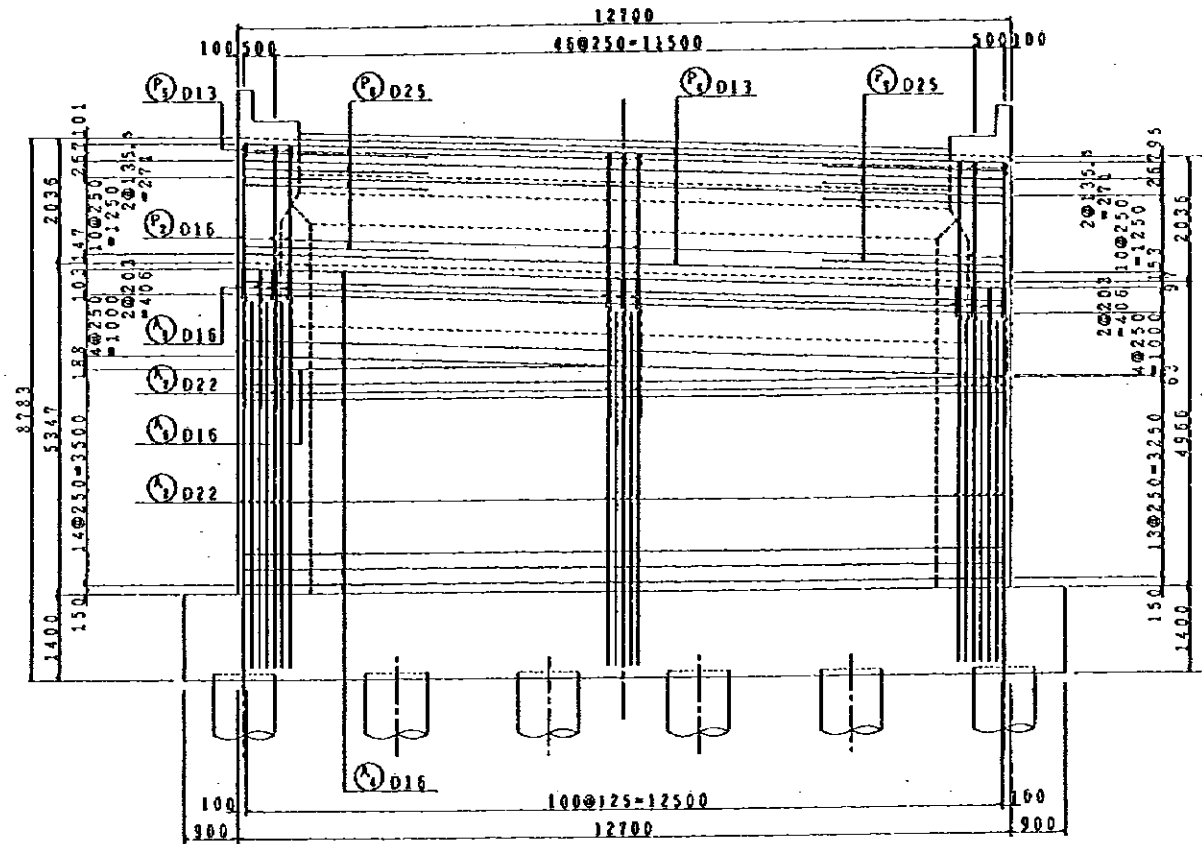
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE: RE-BAR ARRANGEMENT OF A1 ABUTMENT AT B-LINE (3/3)
DATE: _____ DWGNO. B-41

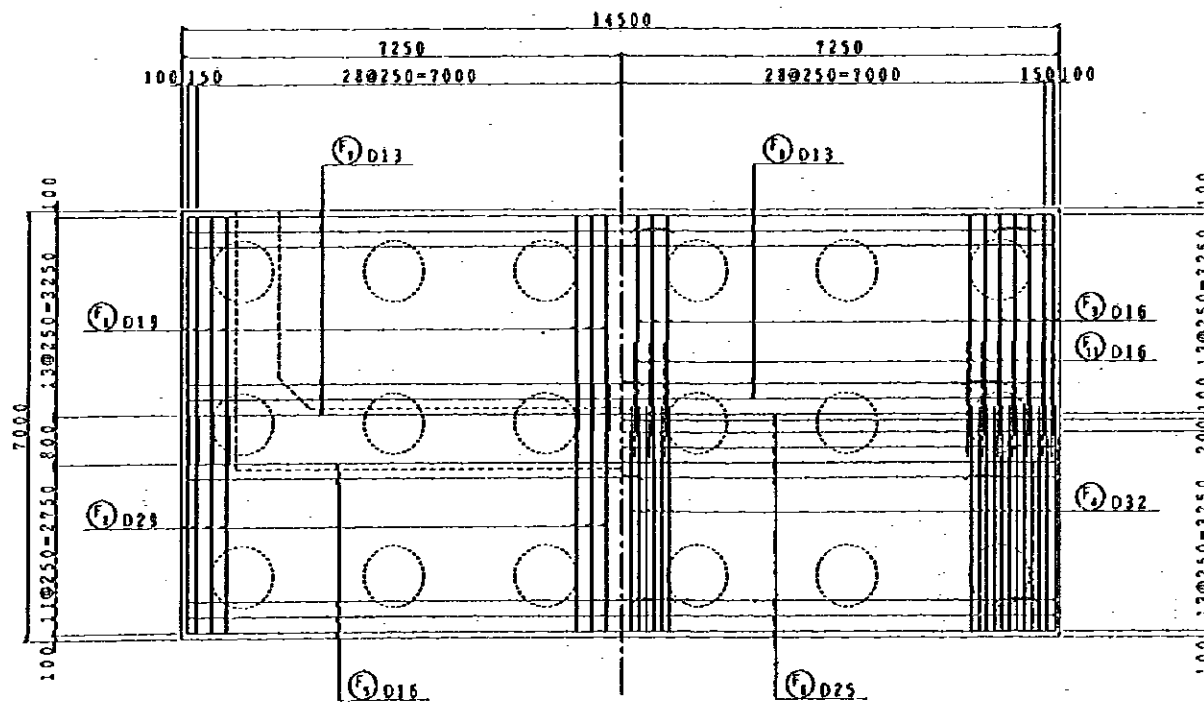
RA/12 SOHAR



SECTION 1-1 S = 1/120

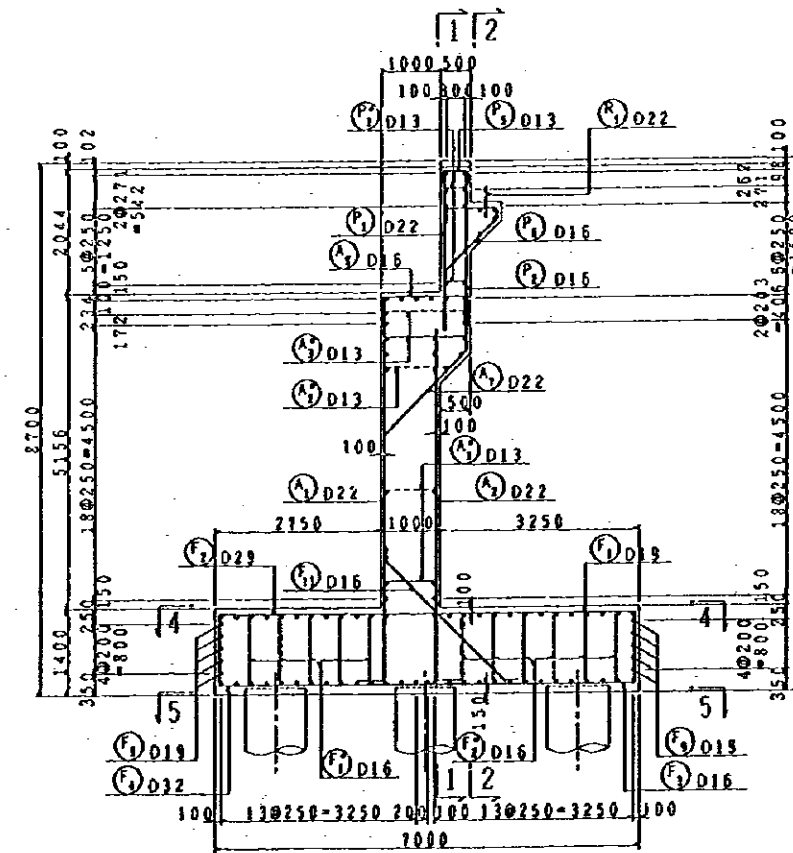


SECTION 2-2 S = 1/120



SECTION 4-4 S = 1/120

SECTION 5-5 S = 1/120



SECTION 3-3 S = 1/120

NOTE : RE-BAR ARRANGEMENT OF WING IS AS SAME AS IN A1 ABUTMENT.

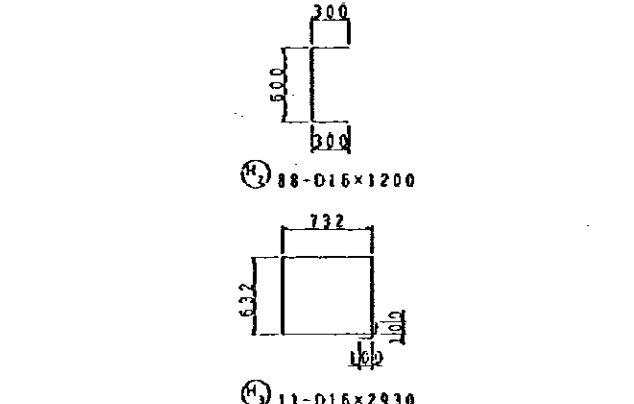
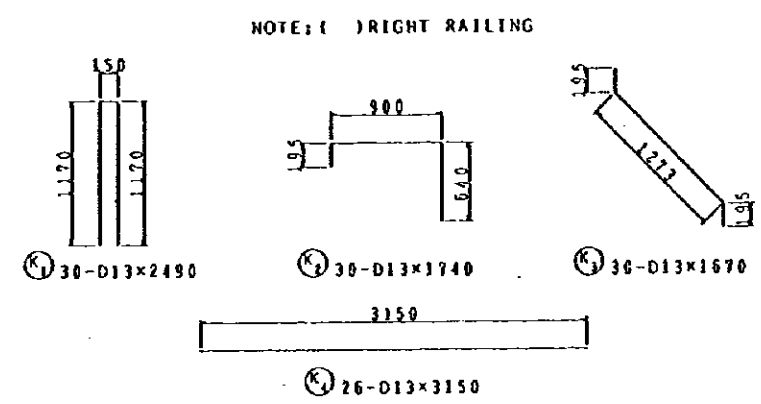
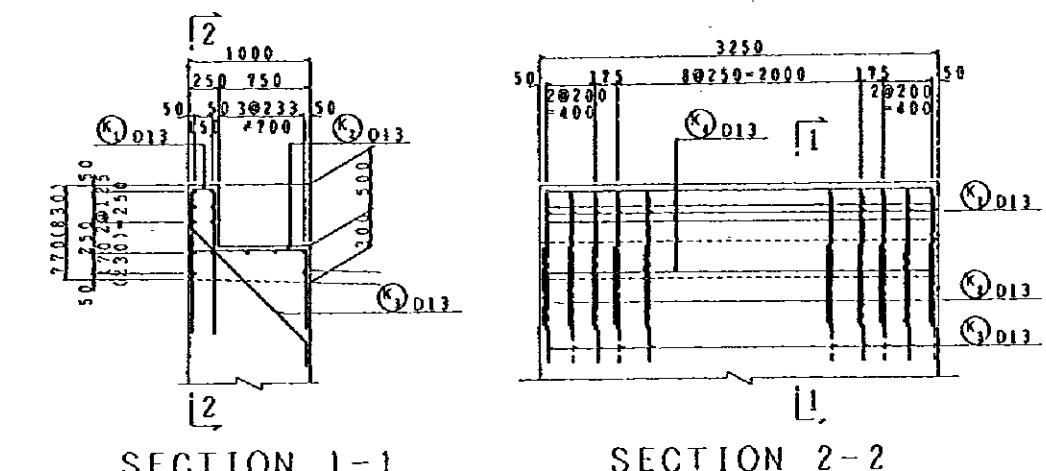
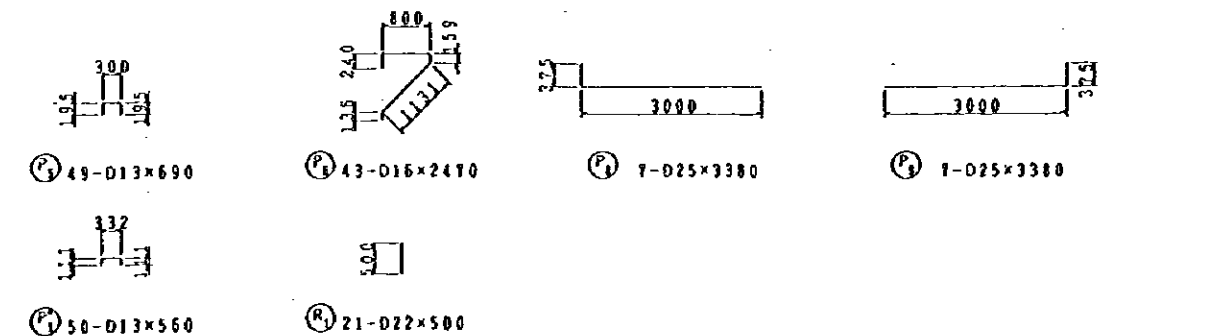
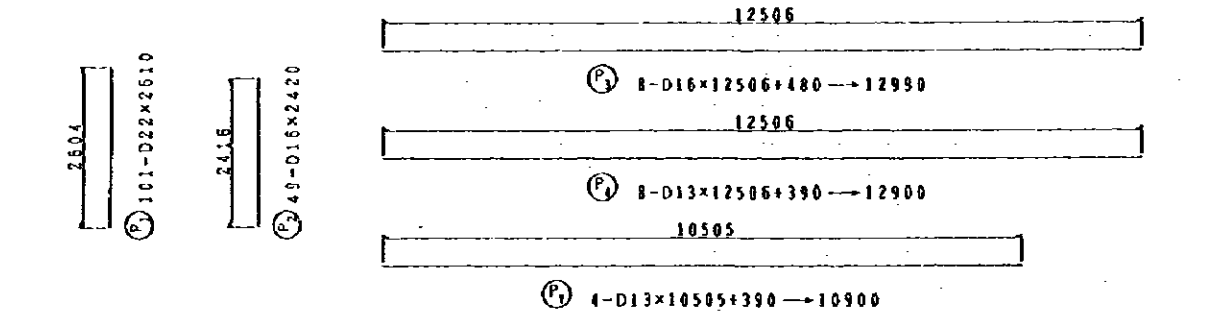
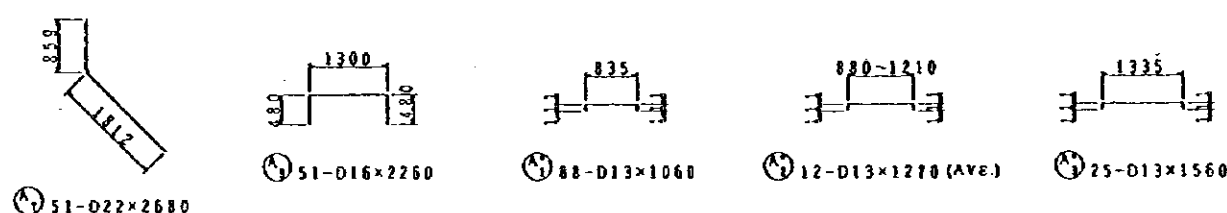
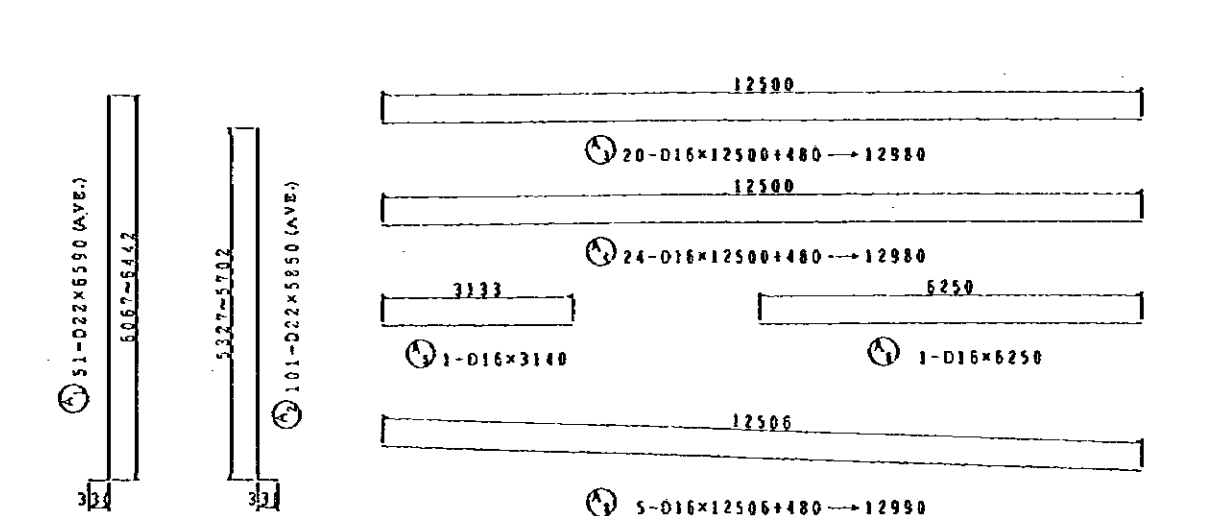
RE-BAR ARRANGEMENT OF A2 ABUTMENT AT B-LINE (1/2)

NOTES:

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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 : RE-BAR ARRANGEMENT OF A2 ABUTMENT AT B-LINE (1/2)
DATE : _____ DWGNO. : B-42

RA/12 SOHAR

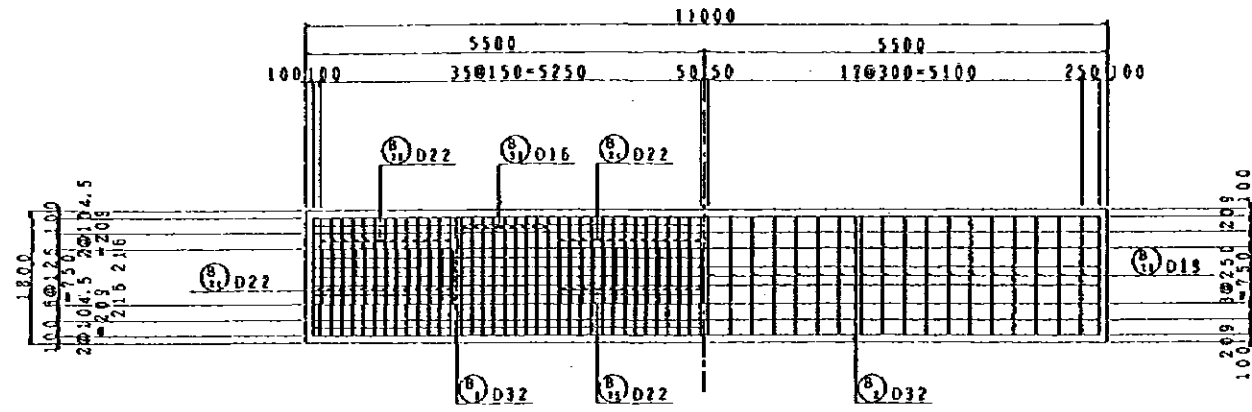


DETAIL OF RAILING S=1/60 DETAIL OF SHOE BED S=1/60

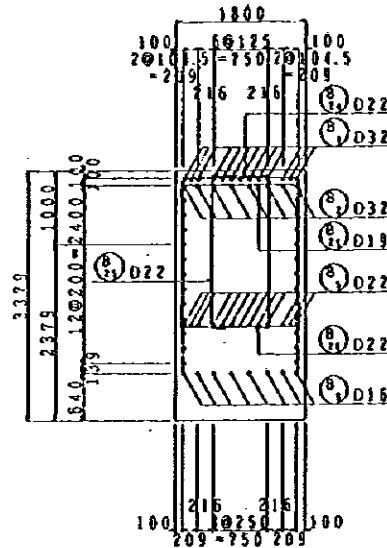
RE-BAR ARRANGEMENT OF A2 ABUTMENT AT B-LINE (2/2)

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: RE-BAR ARRANGEMENT OF A2 ABUTMENT AT B-LINE (2/2)	DATE:
	DWGNO. B-43	

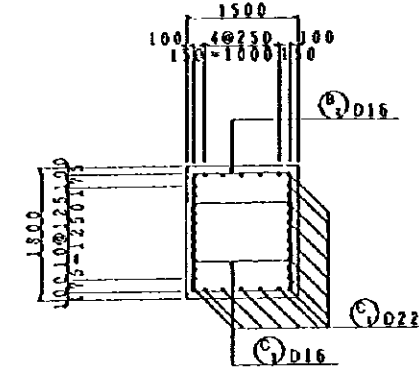
RA/12 SOHAR



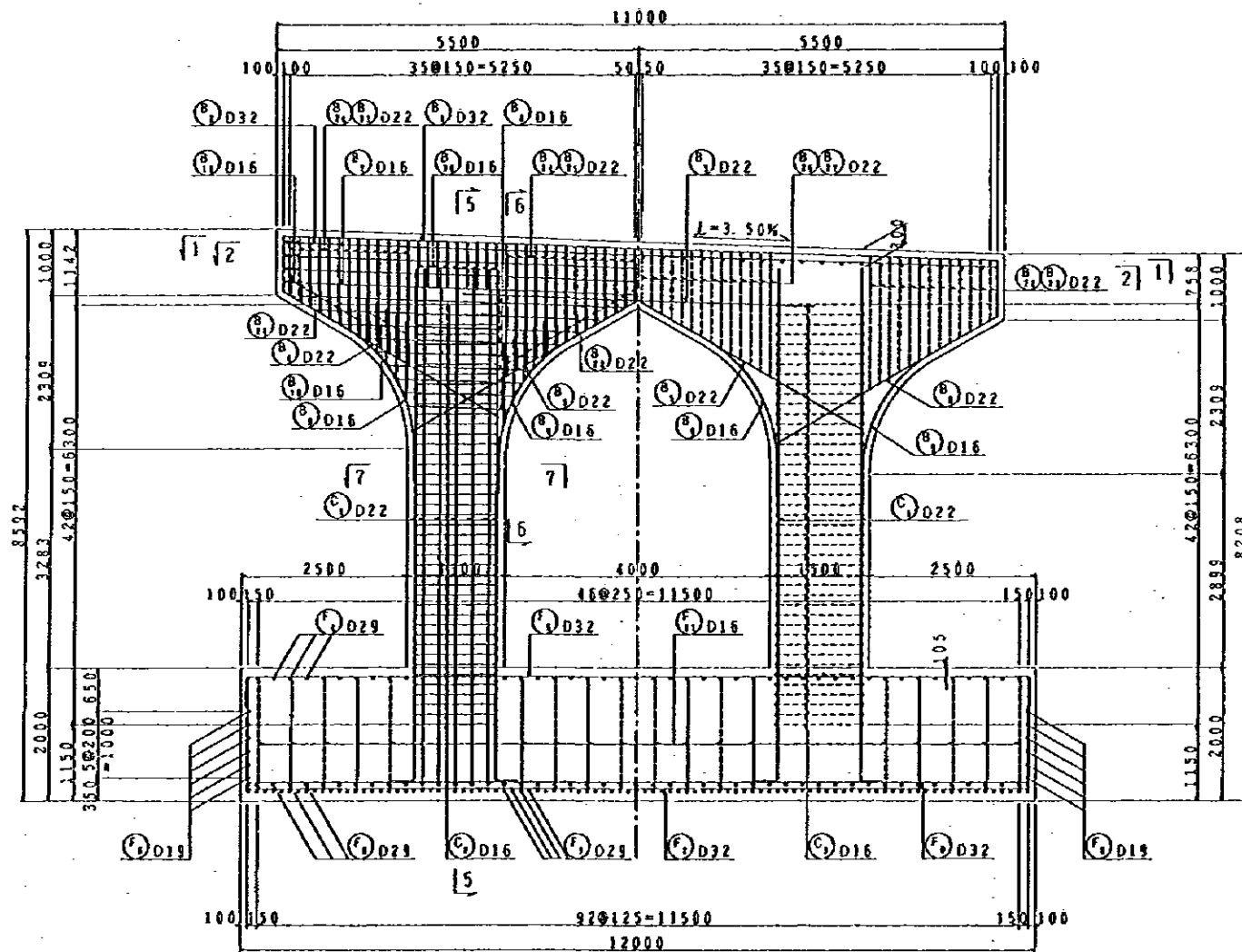
SECTION 1 - 1 S=1/100 SECTION 2 - 2 S=1/100



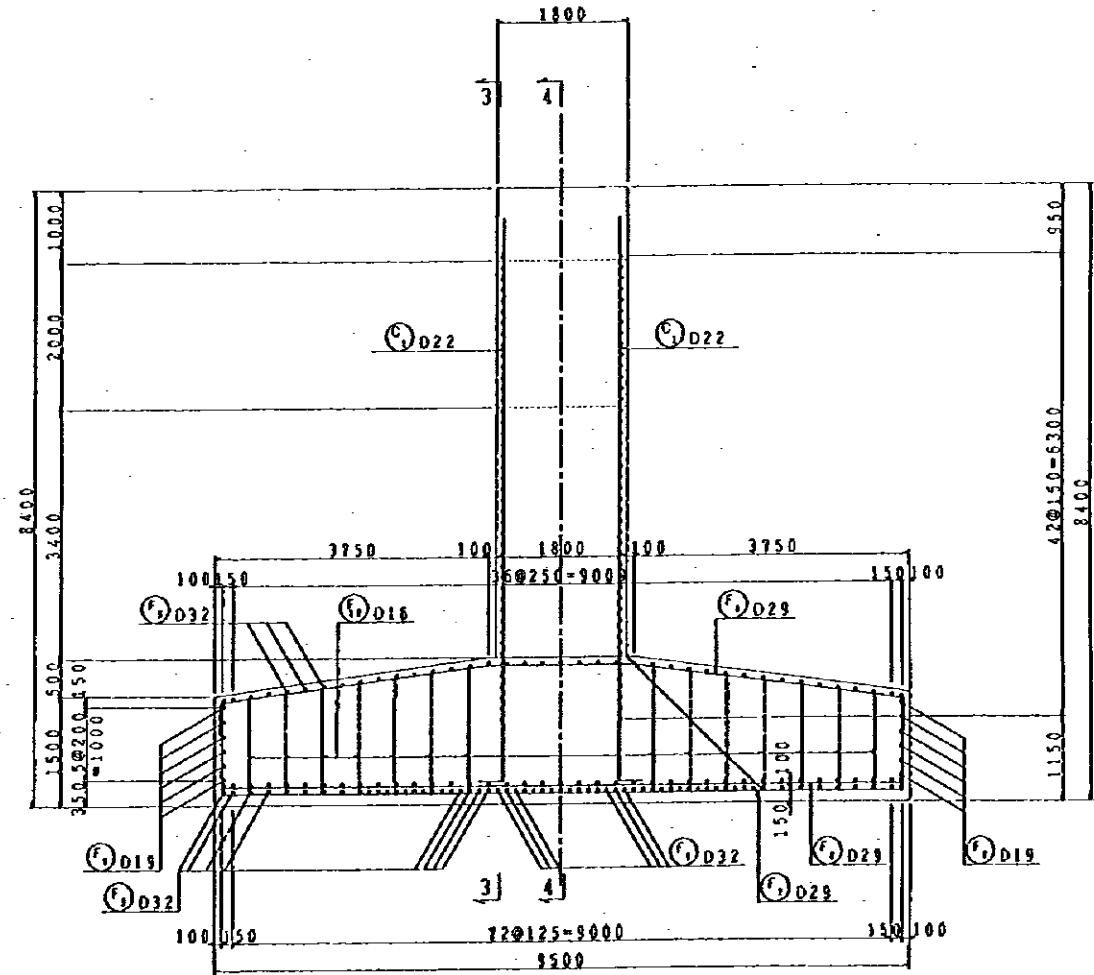
SECTION 6 - 6 S=1/100



SECTION 7 - 7 S=1/100



SECTION 3 - 3 S=1/100 SECTION 4 - 4 S=1/100



SECTION 5 - 5 S=1/100

RE-BAR ARRANGEMENT OF TWO-COLUMN PIER FOR P1~P8 AT A-LINE (1/2)

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
YUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

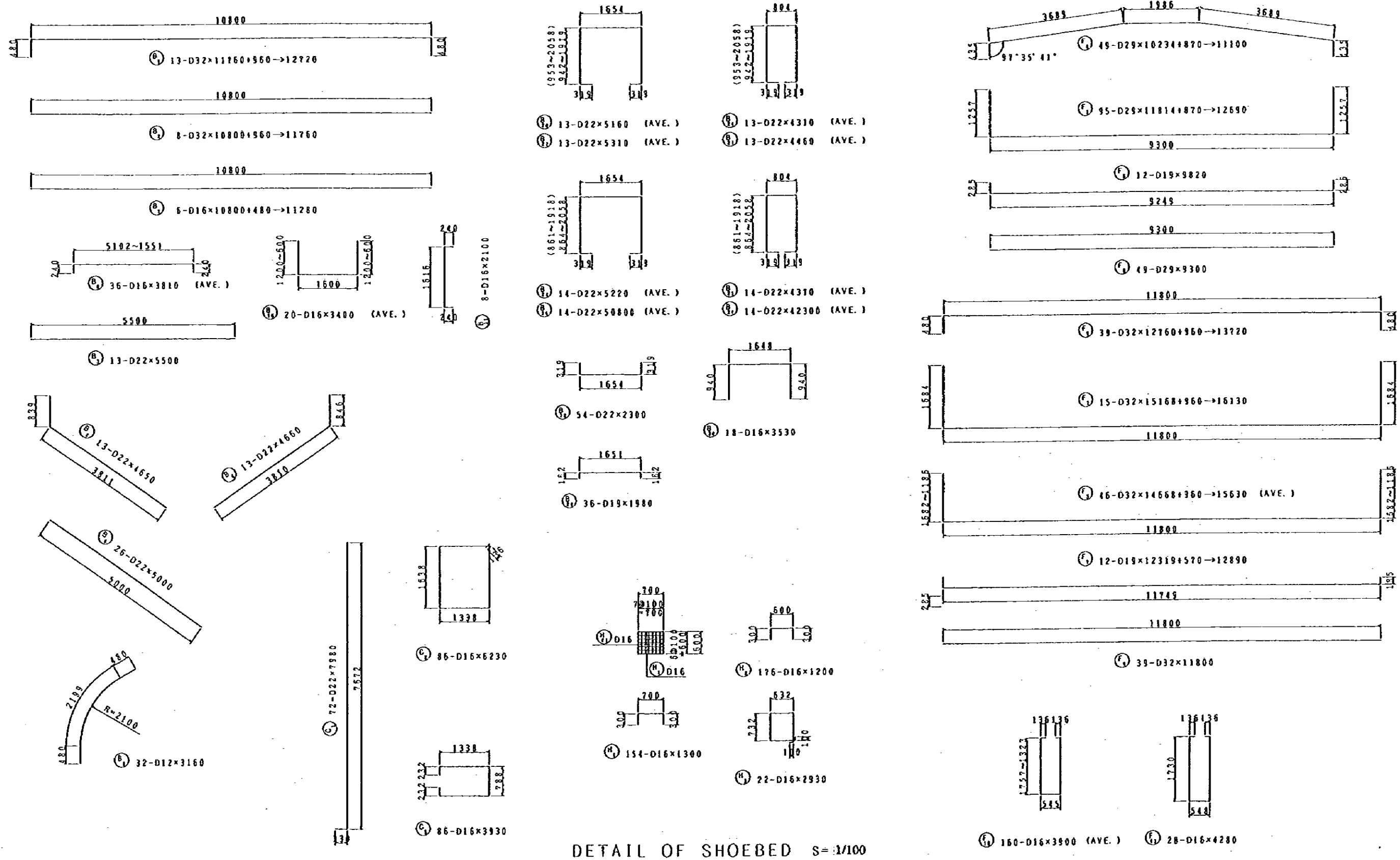
TITLE: RE-BAR ARRANGEMENT OF TWO-COLUMN PIER FOR P1~P8 AT A-LINE (1/2)

DATE

DWGNO.

B-44

RA/12 SOHAR

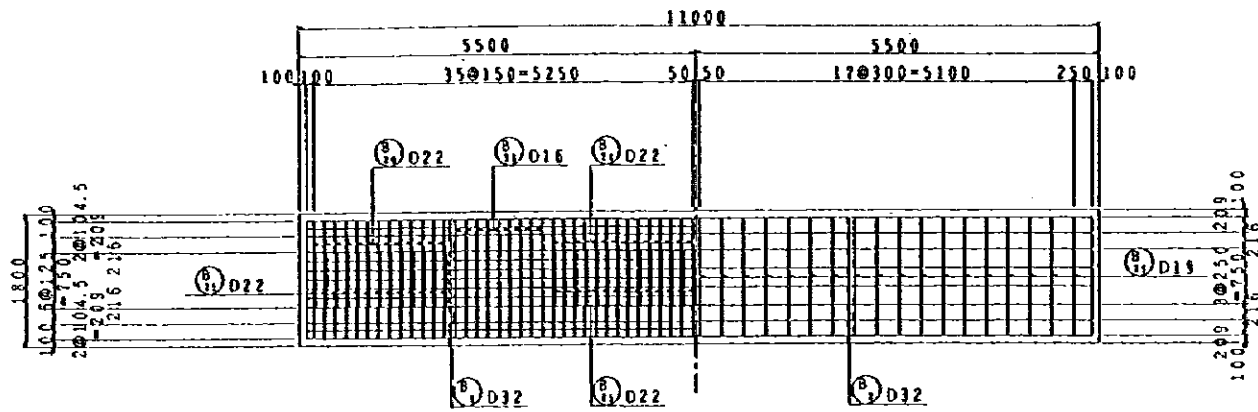


DETAIL OF SHOEBED S=1/100

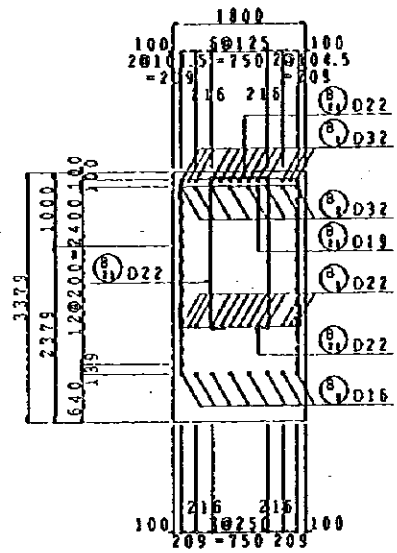
RE-BAR ARRANGEMENT OF TWO-COLUMN PIER FOR P1~P8 AT A-LINE (2/2)

NOTES:	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
	JICA STUDY TEAM PACIFIC CONSULTANTS INTERNATIONAL YUKUYAMA CONSULTANTS INTERNATIONAL	PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
		TITLE: RE-BAR ARRANGEMENT OF TWO-COLUMN PIER FOR P1~P8 AT A-LINE (2/2)
	DATE	DWGNO. B-45

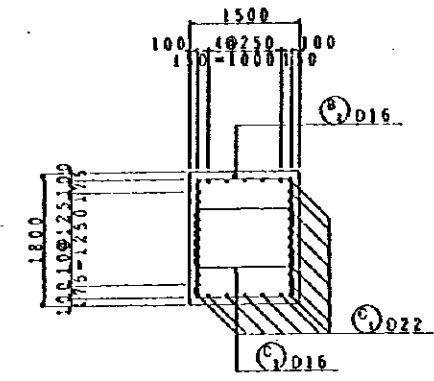
RA/12 SOHAR



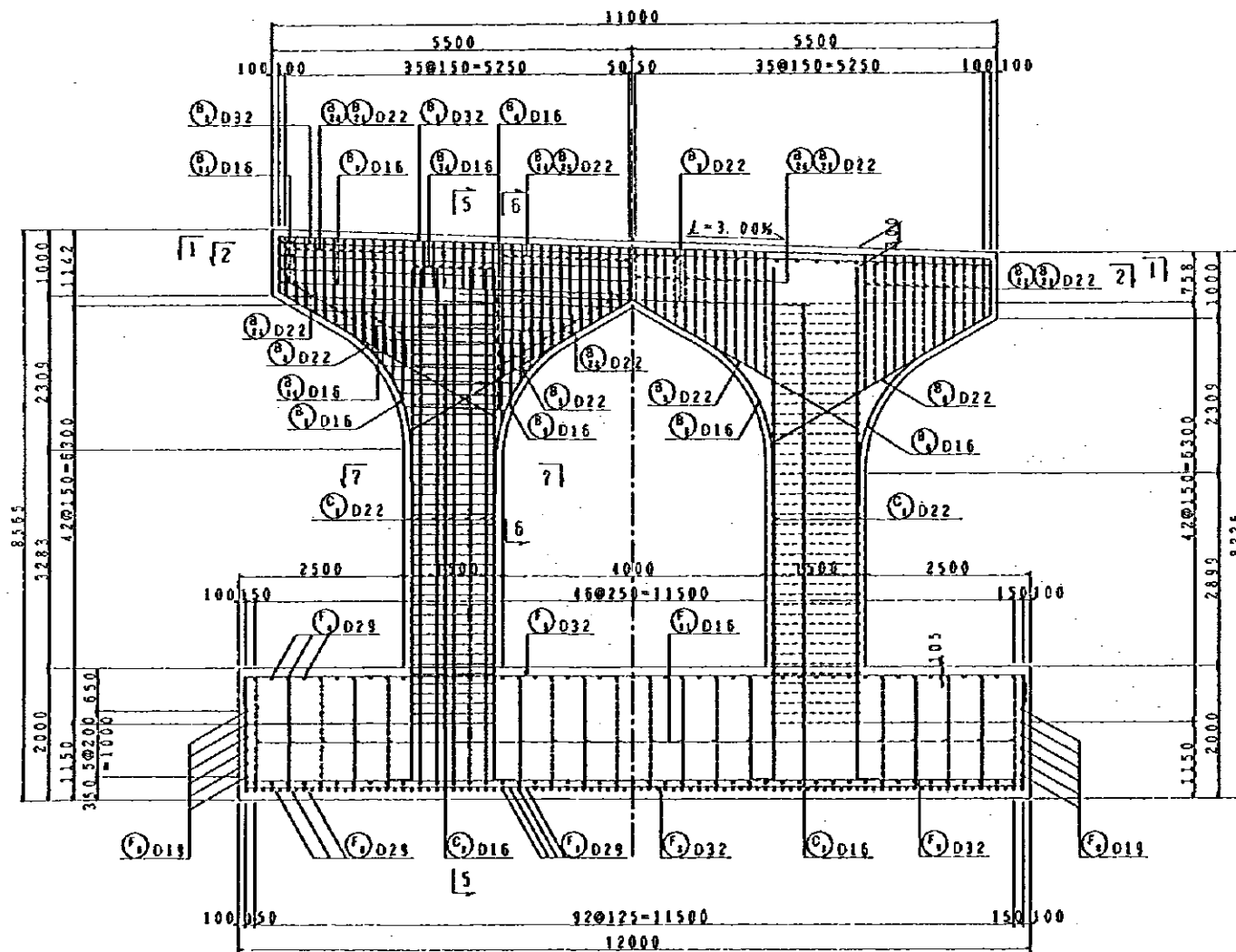
SECTION 1 - 1 S= 1/100 SECTION 2 - 2 S= 1/100



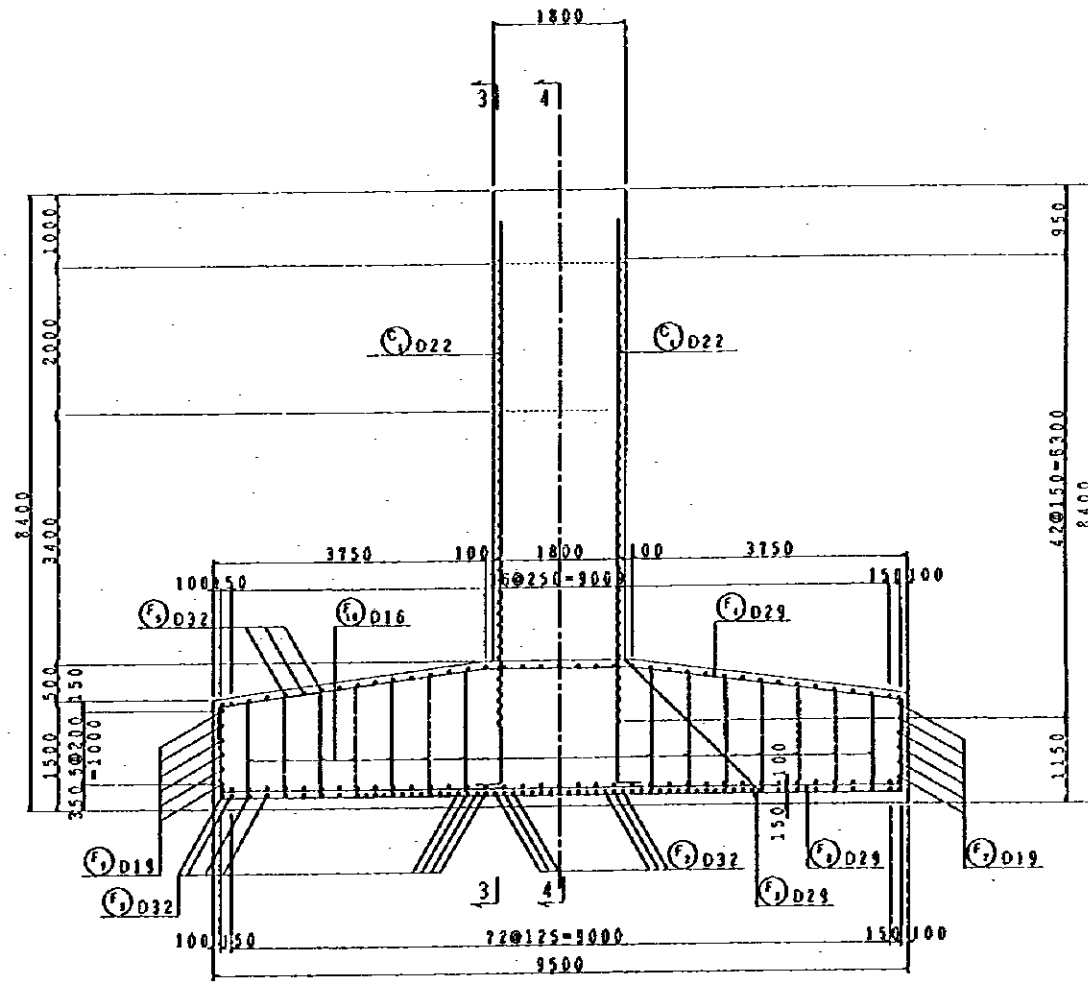
SECTION 6 - 6 S= 1/100



SECTION 7 - 7 S= 1/100



SECTION 3 - 3 S= 1/100 SECTION 4 - 4 S= 1/100



SECTION 5 - 5 S= 1/100

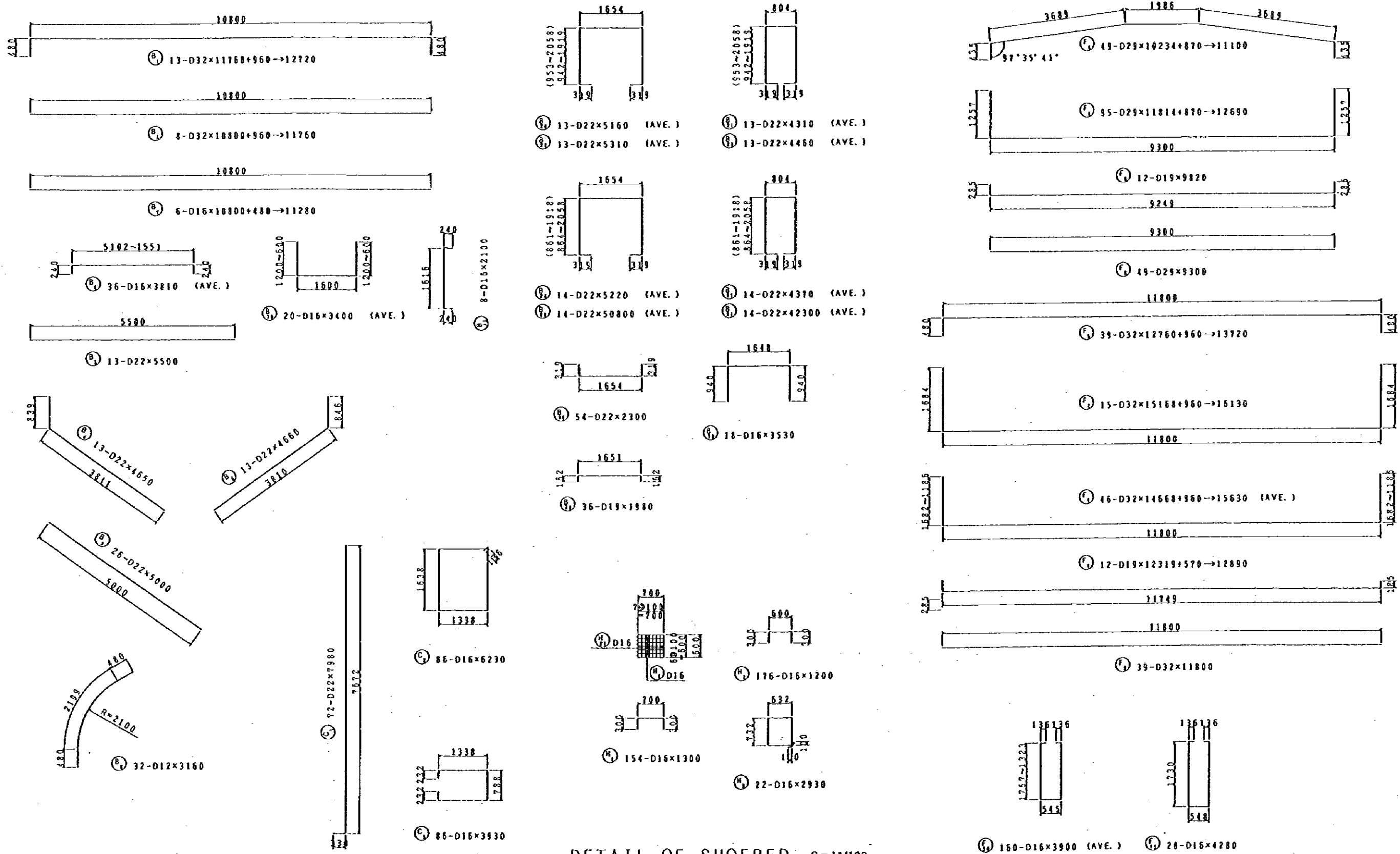
RE-BAR ARRANGEMENT OF TWO-COLUMN PIER FOR P1~P8 AT B-LINE (1/2)

NOTES:

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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: RE-BAR ARRANGEMENT OF TWO-COLUMN PIER FOR P1~P8 AT B-LINE (1/2)	
DATE	DWGNO. B-46

RA/12 SOHAR



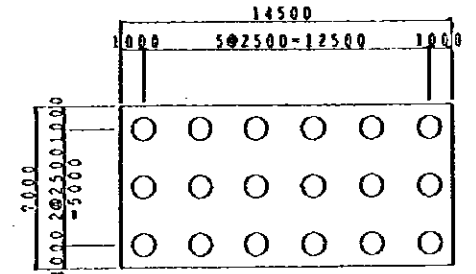
DETAIL OF SHOEBED S=11/100

RE-BAR ARRANGEMENT OF TWO-COLUMN PIER FOR P1~P8 AT B-LINE (2/2)

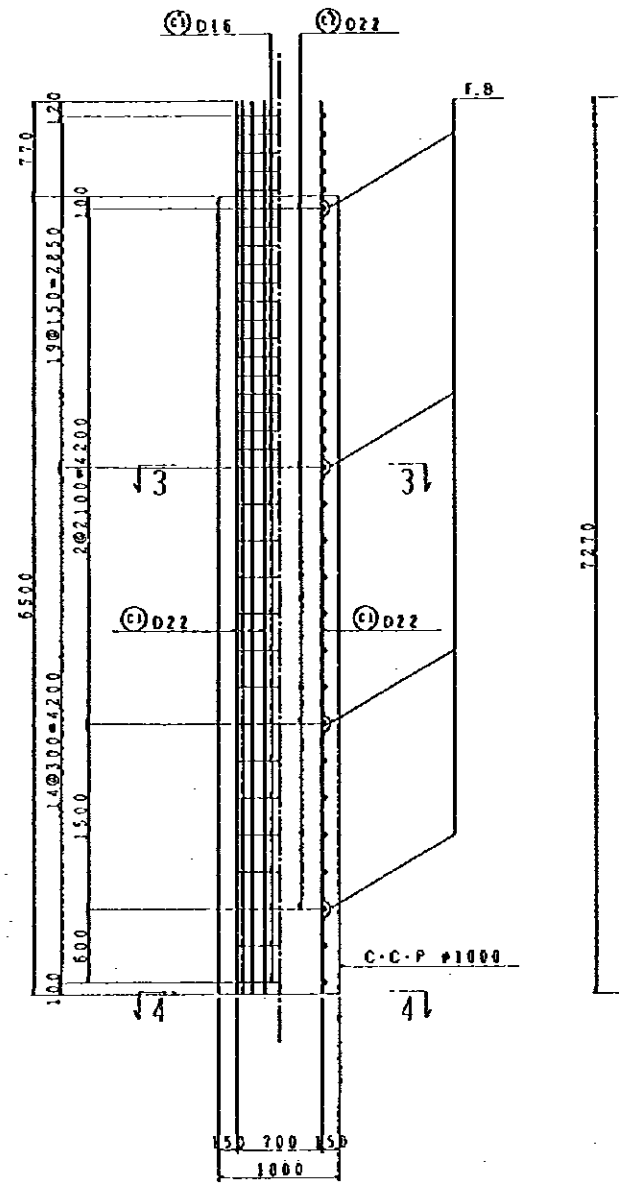
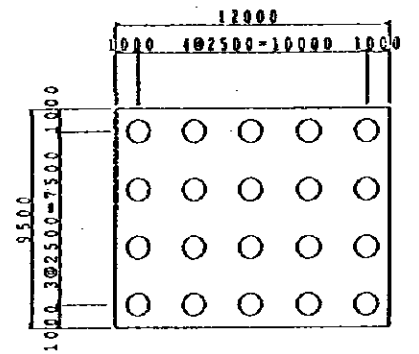
NOTES:	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
	JICA STUDY TEAM PACIFIC CONSULTANTS INTERNATIONAL FUKUYAMA CONSULTANTS INTERNATIONAL	PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
		TITLE: RE-BAR ARRANGEMENT OF TWO-COLUMN PIER FOR P1~P8 AT B-LINE (2/2)
		DATE: _____ DWGNO. B-47

RA/12 SOHAR

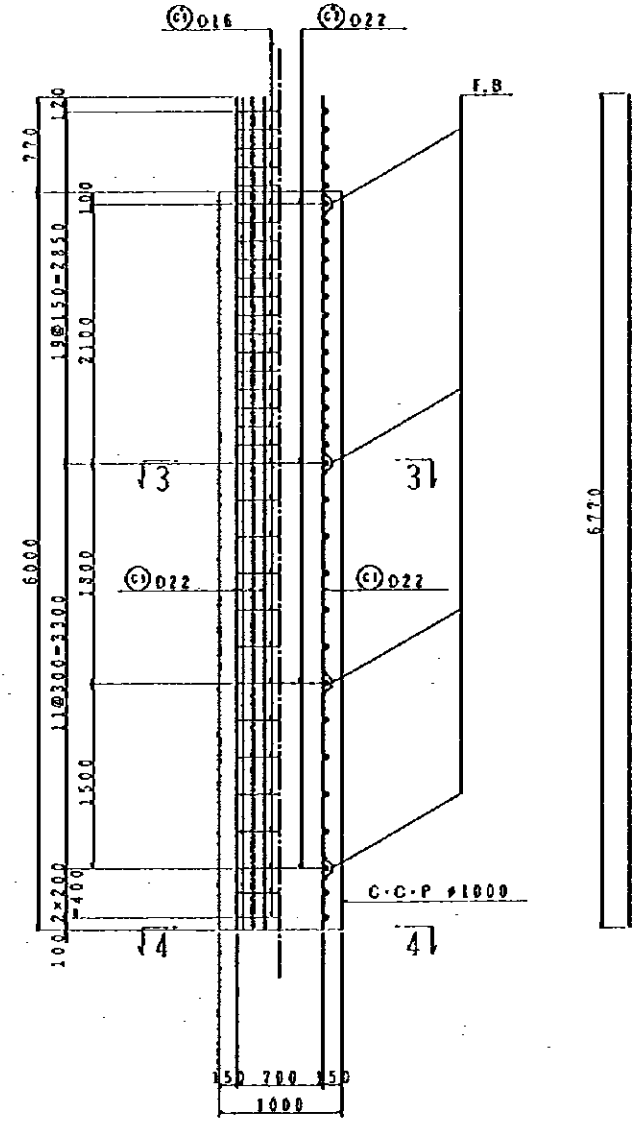
ABUTMENT n=18



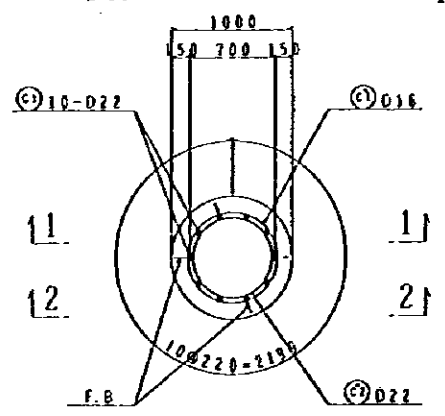
PIER n=20



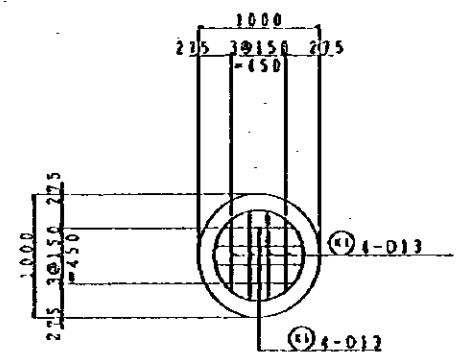
SECTION 1-1 S= 1/60 SECTION 2-2 S= 1/60



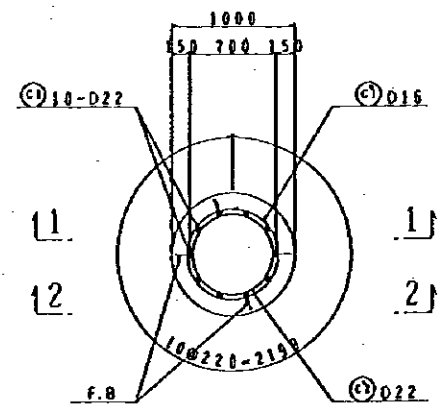
SECTION 1-1 S= 1/60 SECTION 2-2 S= 1/60



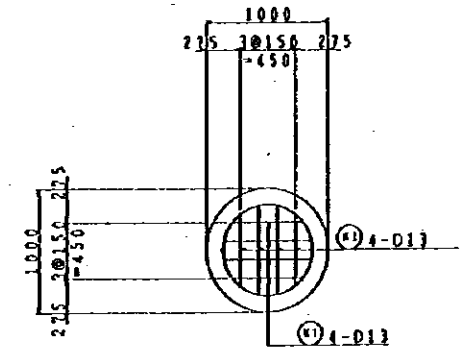
SECTION 3-3 S= 1/60



SECTION 4-4 S= 1/60



SECTION 3-3 S= 1/60



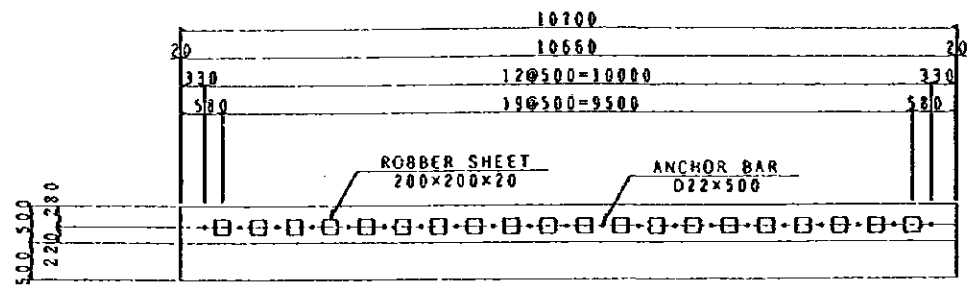
SECTION 4-4 S= 1/60

ABUTMENT

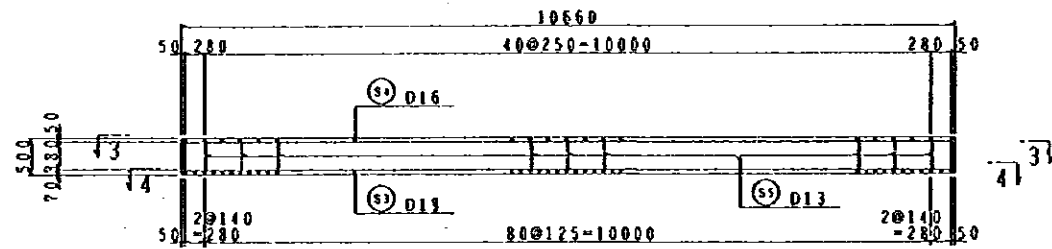
PIER

RE-BAR ARRANGEMENT OF PILE FOUNDATION

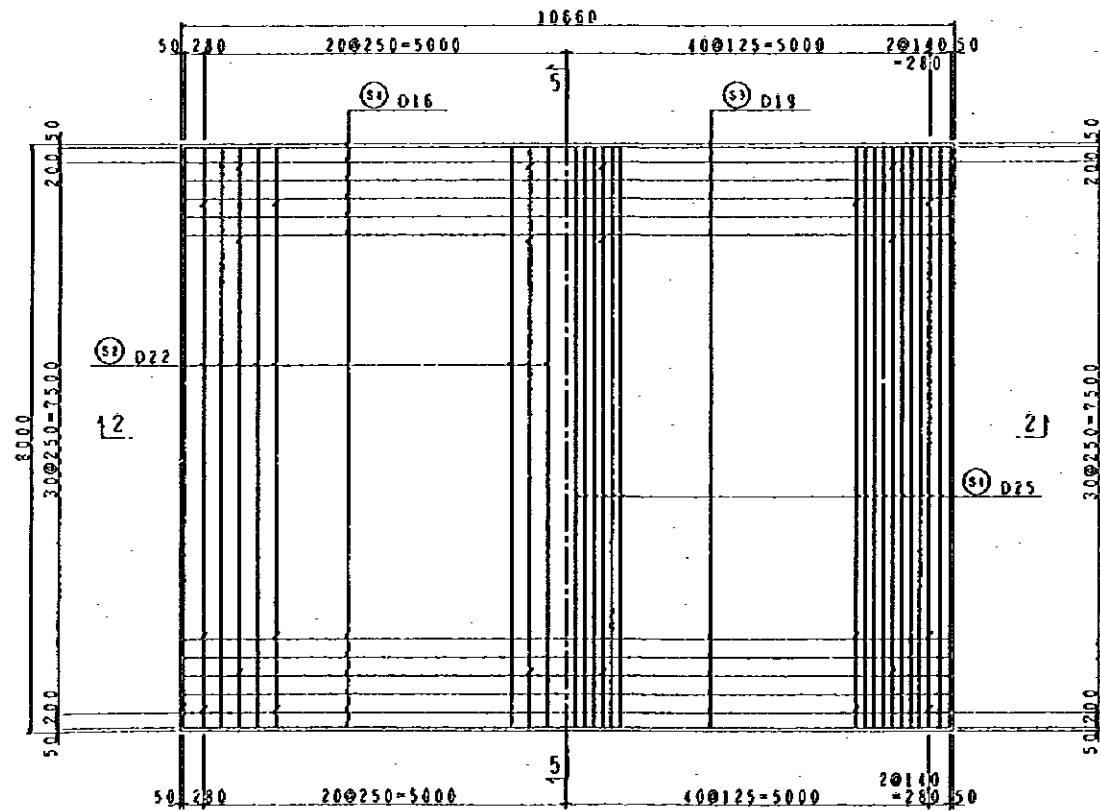
NOTES: This drawing shows one pile foundation. This is applied for all substructures in RA/12 SOHAR. The total number of pile foundations are 18 for one abutment, 20 for one pier.	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
	JICA STUDY TEAM PACIFIC CONSULTANTS INTERNATIONAL FUKUYAMA CONSULTANTS INTERNATIONAL	PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
		TITLE: RE-BAR ARRANGEMENT OF PILE FOUNDATION
		DWGNO. B-48



SECTION 1-1 S=1/100

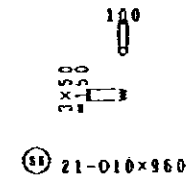
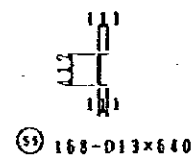
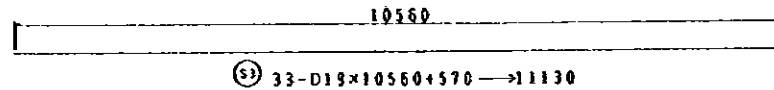
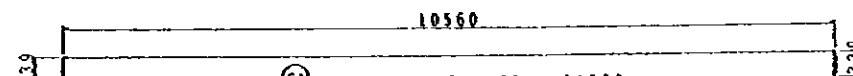


SECTION 2-2 S=1/100

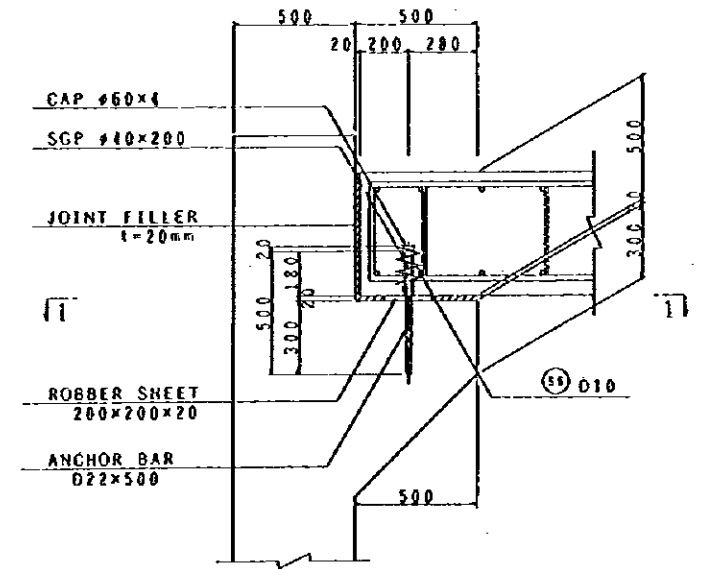


SECTION 3-3 S=1/100

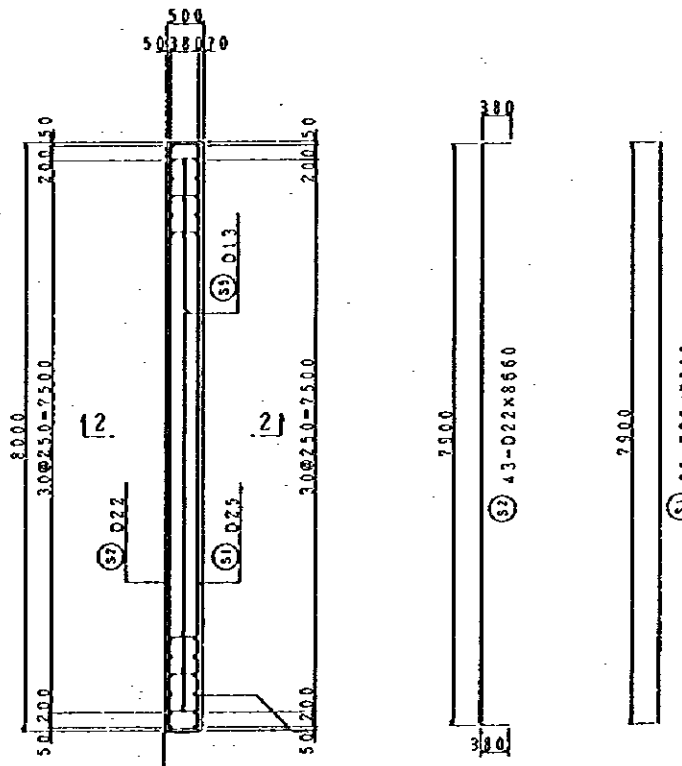
SECTION 4-4 S=1/100



SECTION 5-5 S=1/100



PLAN S=1/30



RE-BAR ARRANGEMENT OF APPROACH SLAB

NOTES:

This drawing shows one approach slab. This is applied for all 4 abutments. So the total number of approach slabs are 4.

JAPAN INTERNATIONAL COOPERATION AGENCY
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CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

TITLE: RE-BAR ARRANGEMENT OF APPROACH SLAB


DATE

DWGNO.

B-49

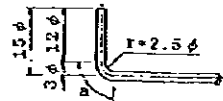
BAR BENDING DIAGRAM

LAP JOINT LENGTH




φ	a	LAP JOINT LENGTH
D13	390	
D16	480	
D19	570	
D22	660	
D25	750	
D29	870	
D32	960	

	JAPAN		ORIN	
	CROSS-SECTIONAL AREA (cm ²)	NOMINAL WEIGHT (kg/m)	CROSS-SECTIONAL AREA (cm ²)	NOMINAL WEIGHT (kg/m)
D13	1.267	0.995	1.290	0.991
D16	1.986	1.56	2.000	1.552
D19	2.865	2.25	2.839	2.255
D22	3.871	3.04	3.871	3.042
D25	5.067	3.98	5.097	3.973
D29	6.421	5.04	6.452	5.059
D32	7.912	6.23	8.191	6.403

BENDING DIMENSION (MAIN REINFORCEMENT)

φ	BENDING DIMENSION		HOOK LENGTH
	β ≤ 90° R = 3φ	β > 90° R = 5.5φ	
D13	39	71.5	 $R = r + \phi / 2$
D16	48	88	
D19	57	104.5	
D22	66	121	
D25	75	137.5	
D29	87	159.5	
D32	96	176	

BENDING DIMENSION (STIRRUP, ERECTION BAR)

φ	R = 2.5φ	β = 90°		β = 45°		HOOK LENGTH		
		a	s	a	s	STIRRUP	ERECTION BAR	HOOP
D13	32.5	51	77	51	77	 $R = r + \phi / 2$	 $R = r + \phi / 2$	 $R = r + \phi / 2$
D16	40	63	94	63	94			
D19	47.5	75	112	75	112			
D22	55	88	130	88	130			

NOTES:

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FUKUYAMA CONSULTANTS INTERNATIONAL

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

TITLE: BAR BENDING DIAGRAM

DATE: DWGNO. B-50