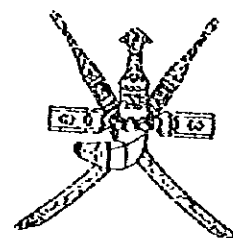


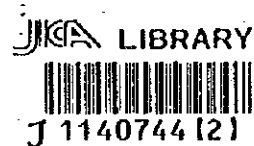
**SULTANATE OF OMAN**  
**MINISTRY OF COMMUNICATIONS**  
**DIRECTORATE GENERAL OF ROADS**



**CONSTRUCTION OF PEDESTRIAN UNDERPASS**  
**AT**  
**BARKA**  
**BATINAH HIGHWAY**

**TENDER DOCUMENT**

**DRAWINGS**



**PACIFIC CONSULTANTS INTERNATIONAL**  
**FUKUYAMA CONSULTANTS INTERNATIONAL**

**March, 1997**

SSF
CR(5)
97-015

**DRAWING SCHEDULE**  
**(PU1-BARKA PEDESTRIAN UNDERPASS)**

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

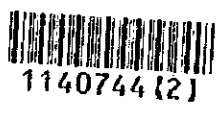
NOTES:		JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	CLIENT :	MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
		JICA STUDY TEAM	PROJECT :	D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
		PACIFIC CONSULTANTS INTERNATIONAL	TITLE :	PU-1, BARKA DRAWING SCHEDULE
		FUKUYAMA CONSULTANTS INTERNATIONAL	DATE :	DWG NO. G-1

Faint header text at the top of the page, possibly containing a title or reference number.

Section of faint text, likely a list or index of items.

Section of faint text, possibly a description or notes.

- 117 - [Faint text]
- 118 - [Faint text]
- 119 - [Faint text]
- 120 - [Faint text]
- 121 - [Faint text]
- 122 - [Faint text]
- 123 - [Faint text]
- 124 - [Faint text]
- 125 - [Faint text]

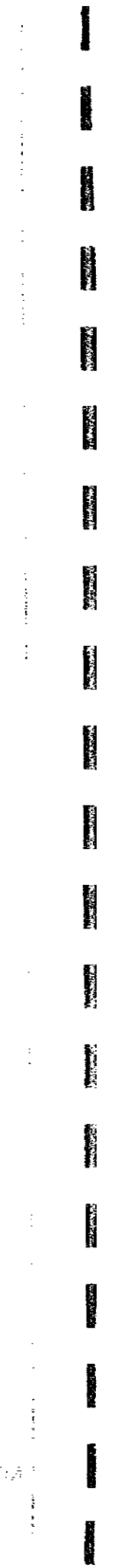


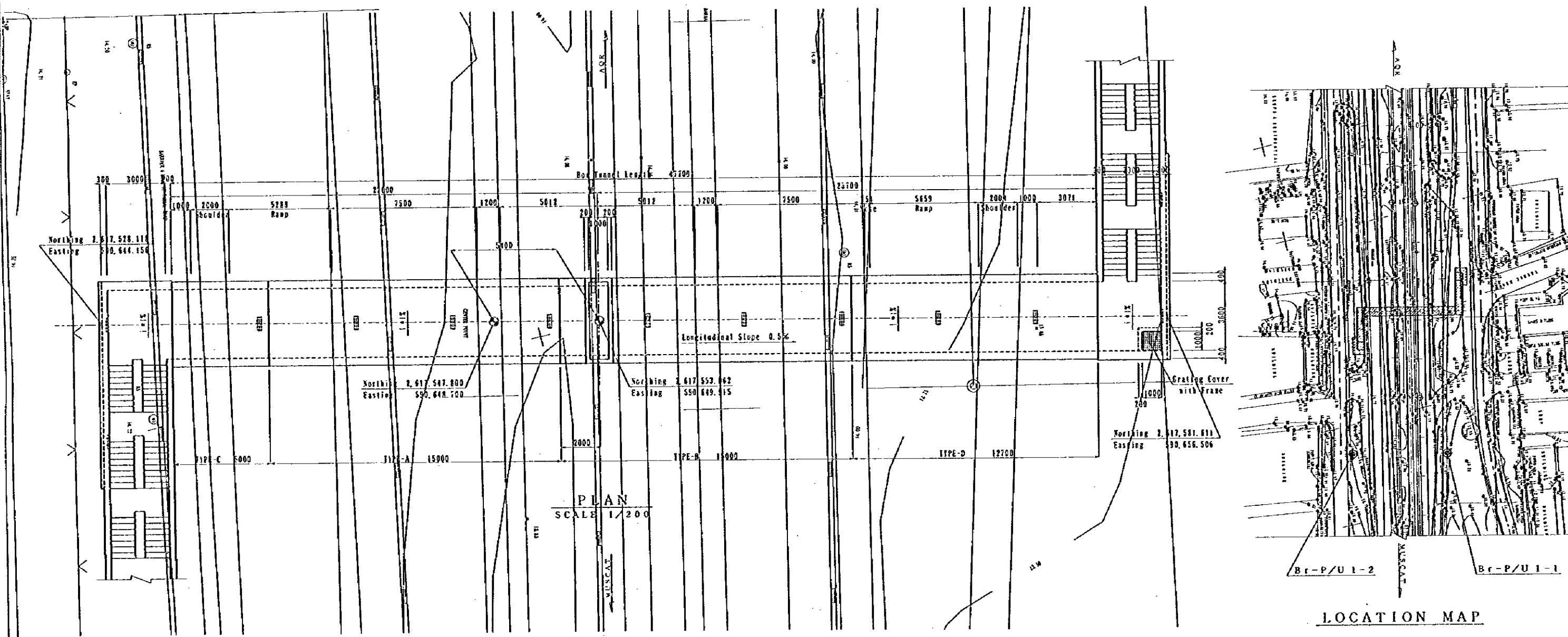
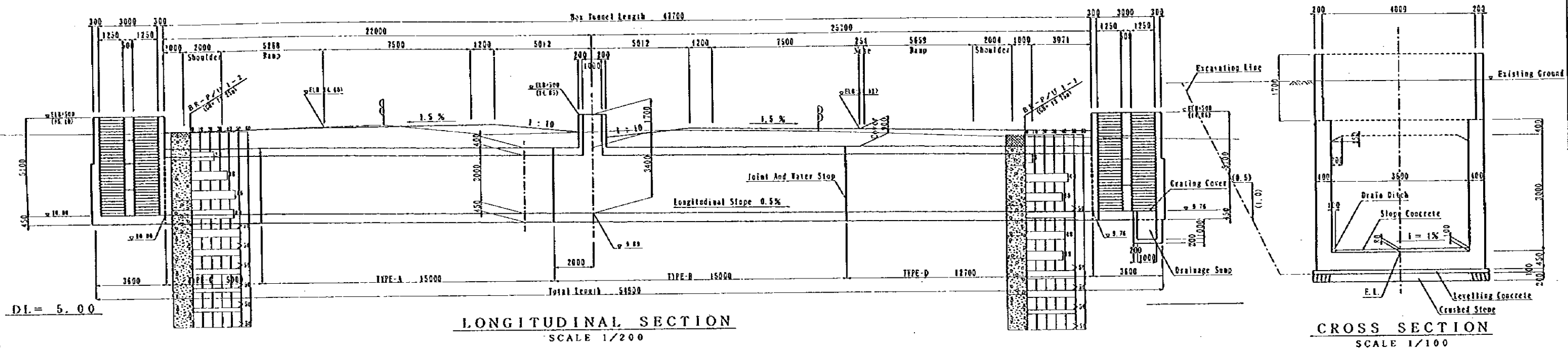
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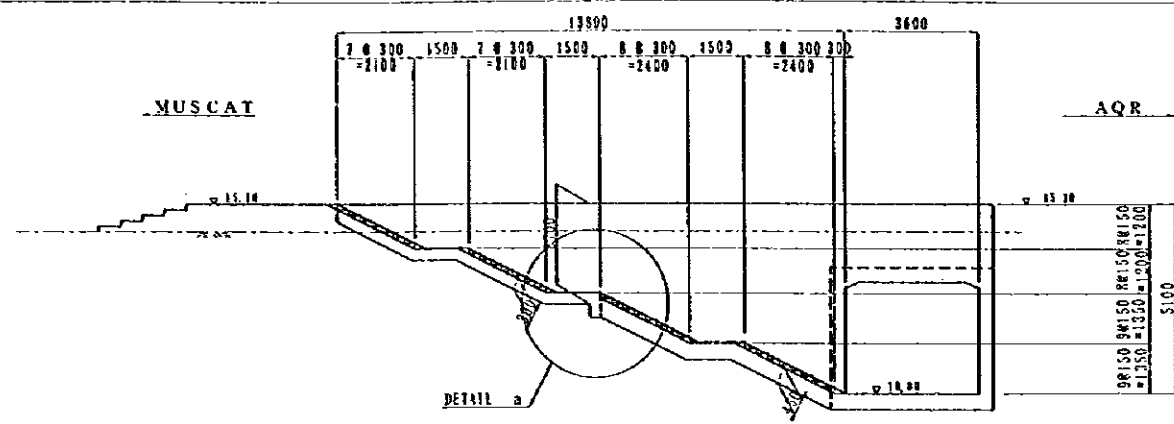
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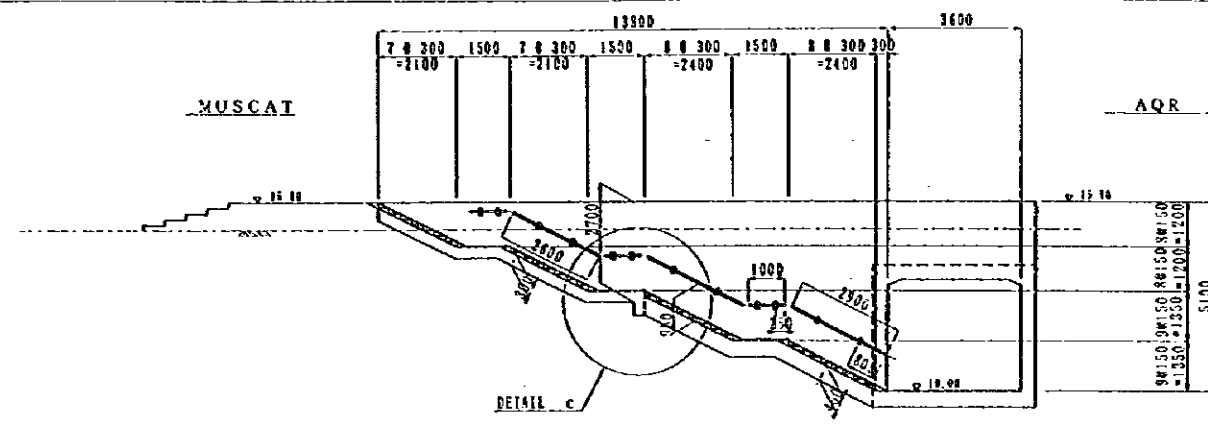




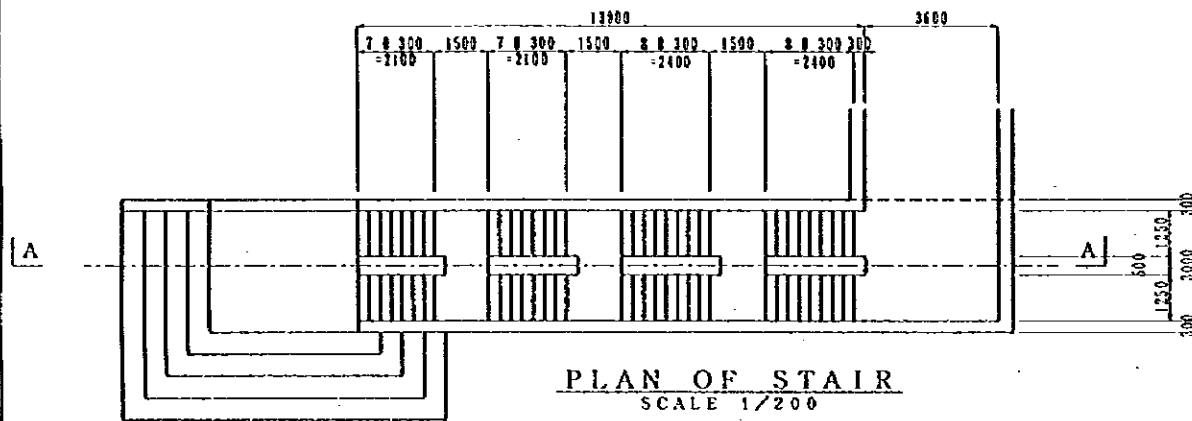
NOTES:	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	CLIENT :	MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
	JICA STUDY TEAM PACIFIC CONSULTANTS INTERNATIONAL PURYAMA CONSULTANTS INTERNATIONAL	PROJECT :	D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
		TITLE :	P/U-1, BARKA GENERAL VIEW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



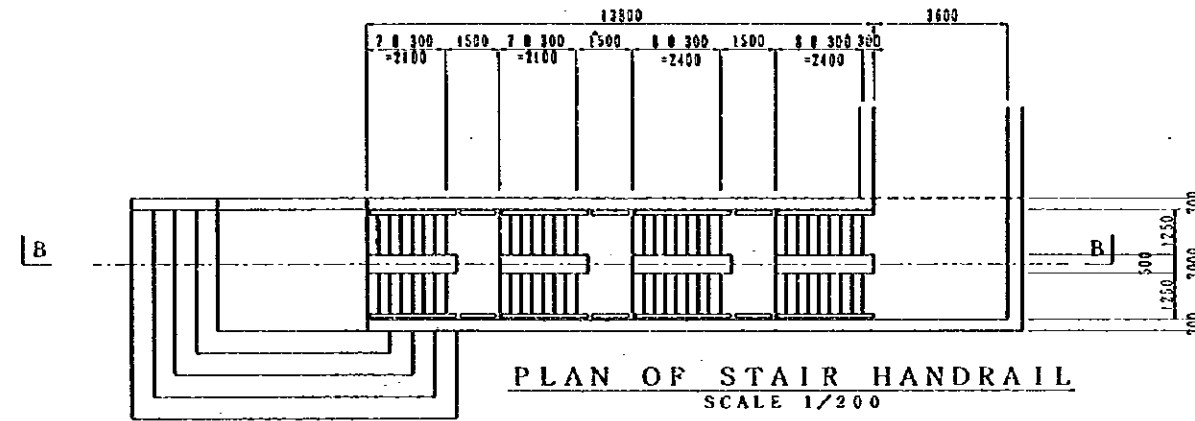
STAIR (SECTION A-A)  
SCALE 1/200



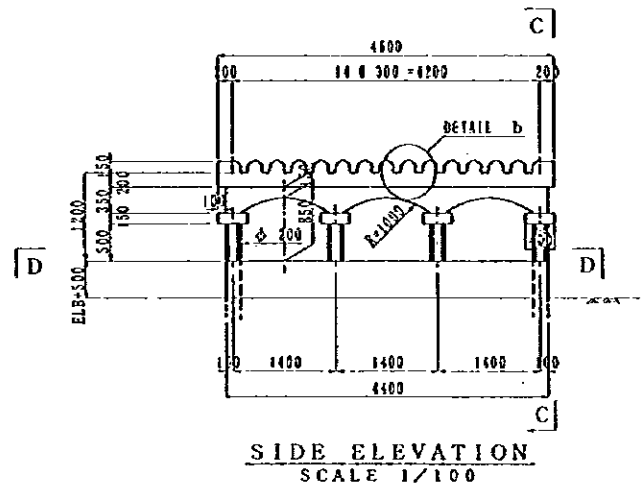
STAIR HANDRAIL (SECTION B-B)  
SCALE 1/200



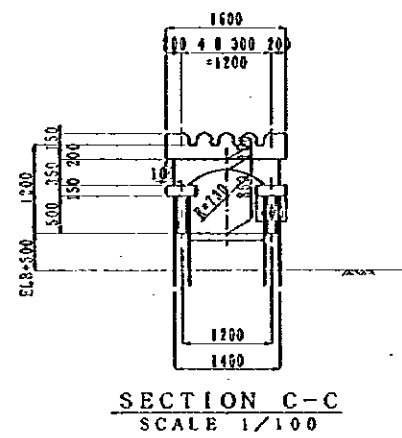
PLAN OF STAIR  
SCALE 1/200



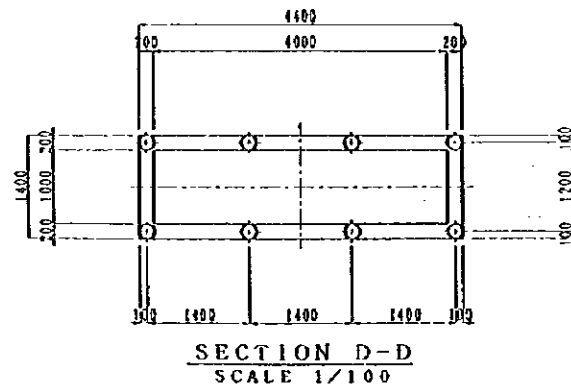
PLAN OF STAIR HANDRAIL  
SCALE 1/200



SIDE ELEVATION  
SCALE 1/100

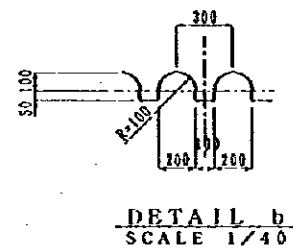


SECTION C-C  
SCALE 1/100

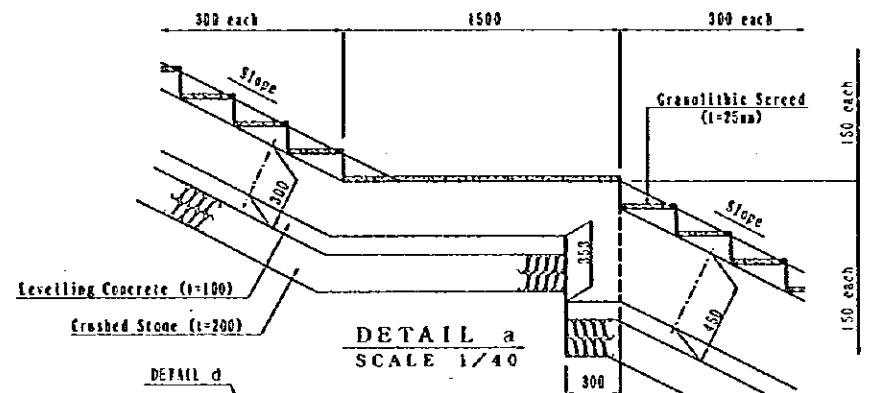


SECTION D-D  
SCALE 1/100

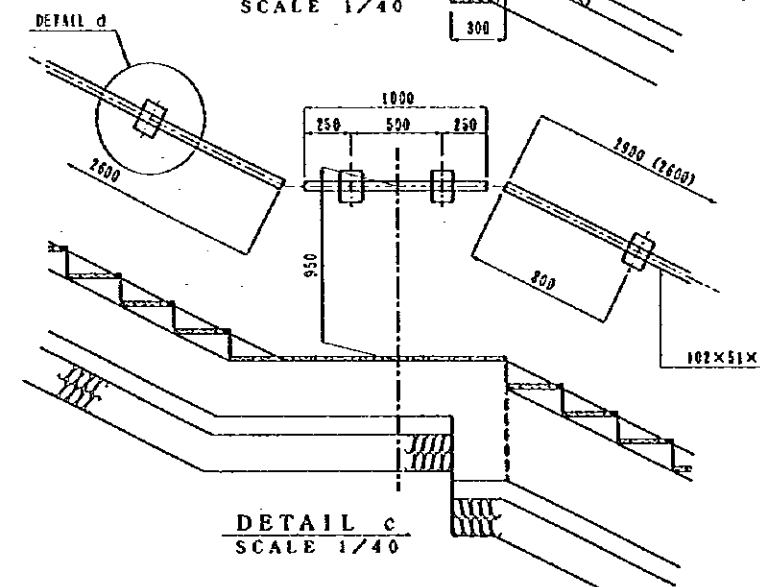
CANOPY ON LIGHT WELL



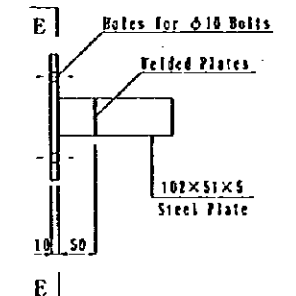
DETAIL b  
SCALE 1/40



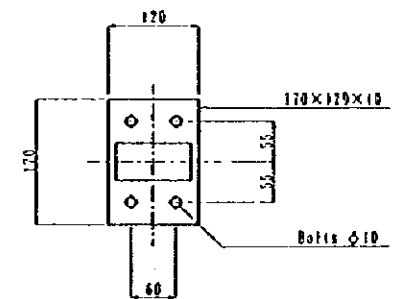
DETAIL a  
SCALE 1/40



DETAIL c  
SCALE 1/40



DETAIL d  
SCALE 1/10

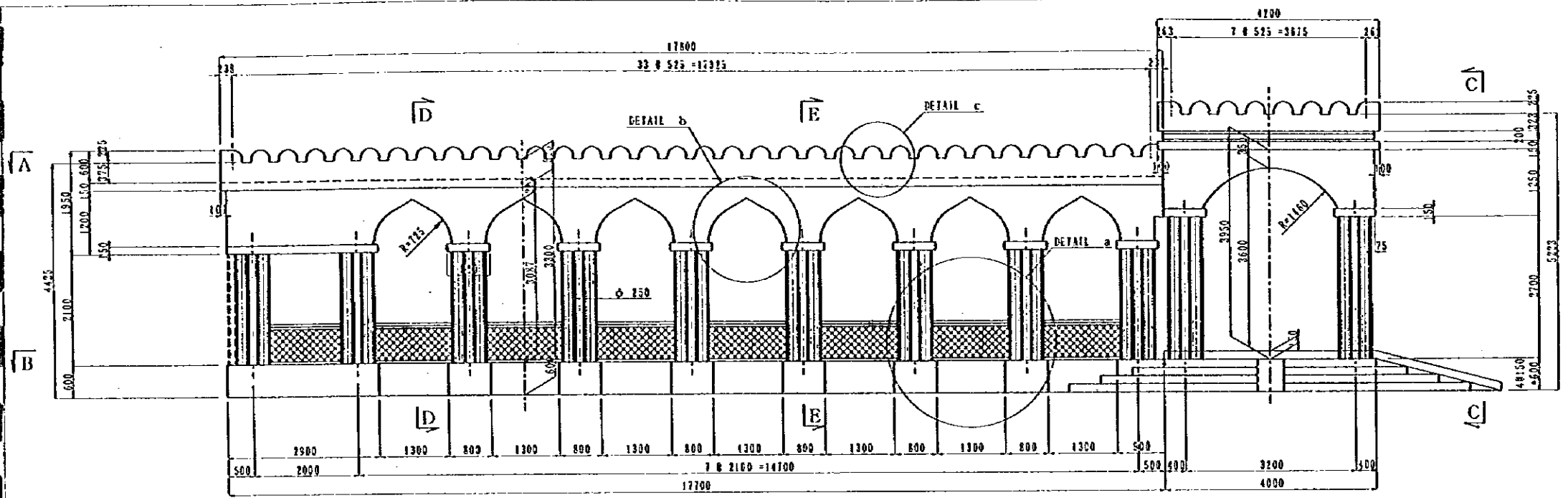


SECTION E-E  
SCALE 1/10

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

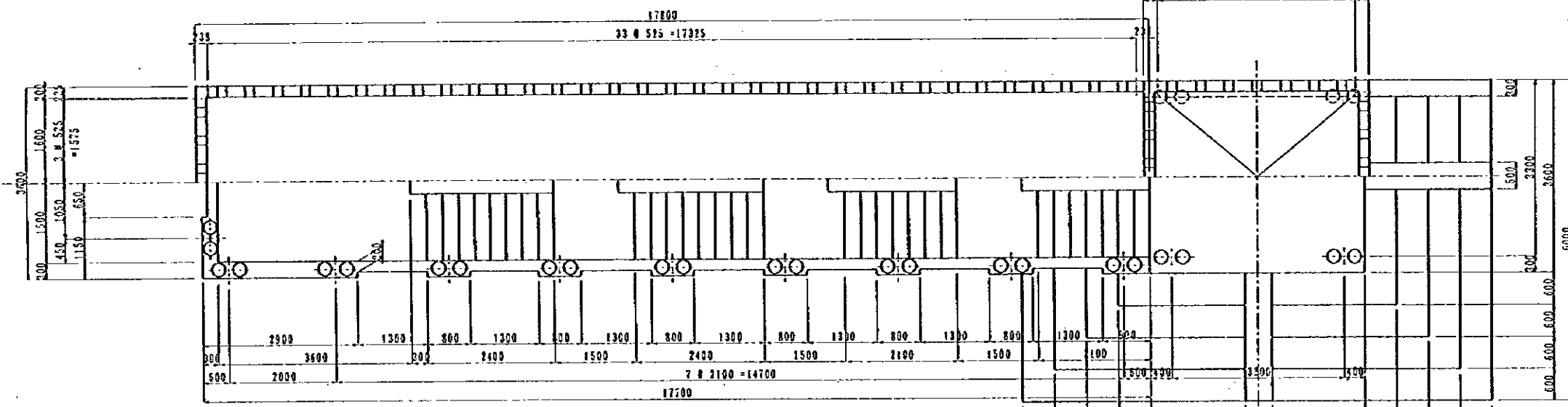
JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)  
JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FLUKYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE : P/U-1, BARKA GENERAL VIEW (2)  
DATE :  
DWG NO. P-2

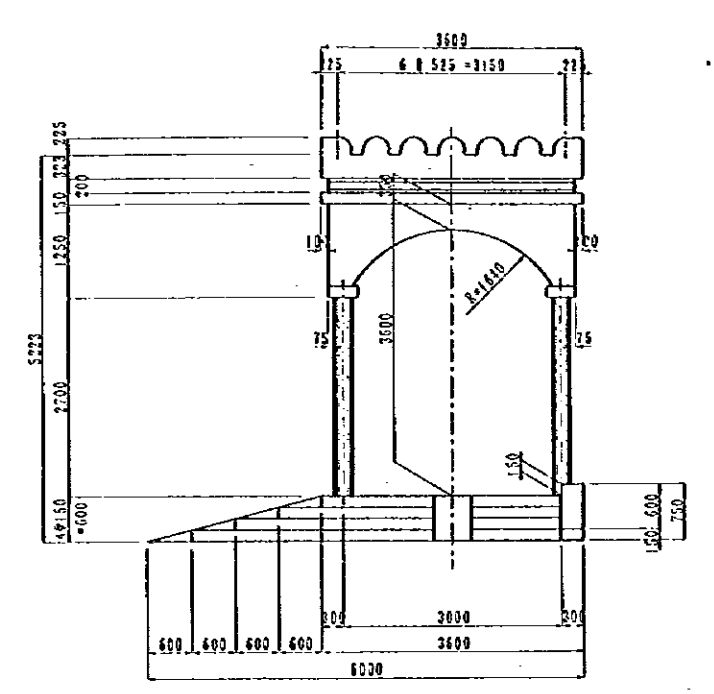


PROFILE OF CANOPY  
SCALE 1/100

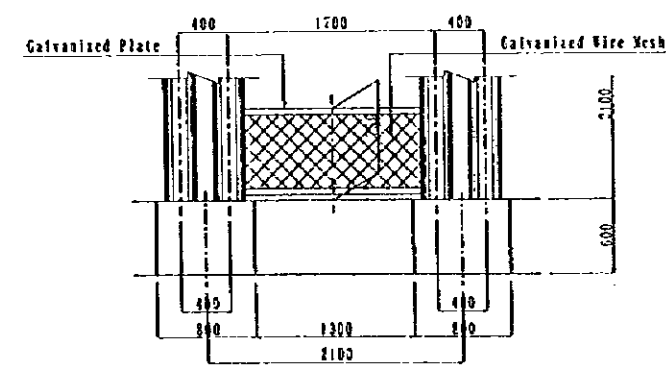
PLAN (A-A)  
SCALE 1/100



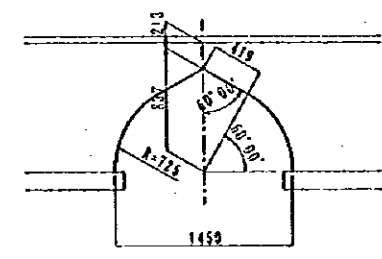
PLAN (B-B)  
SCALE 1/100



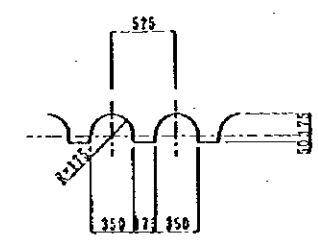
ENTRANCE (C-C)  
SCALE 1/100



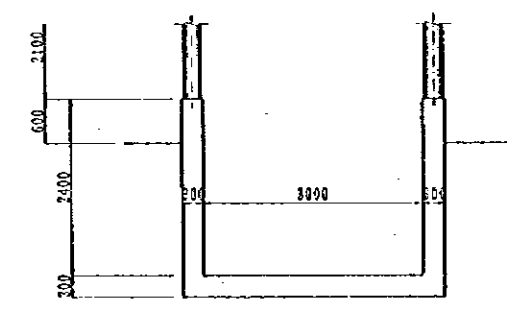
DETAIL a  
SCALE 1/60



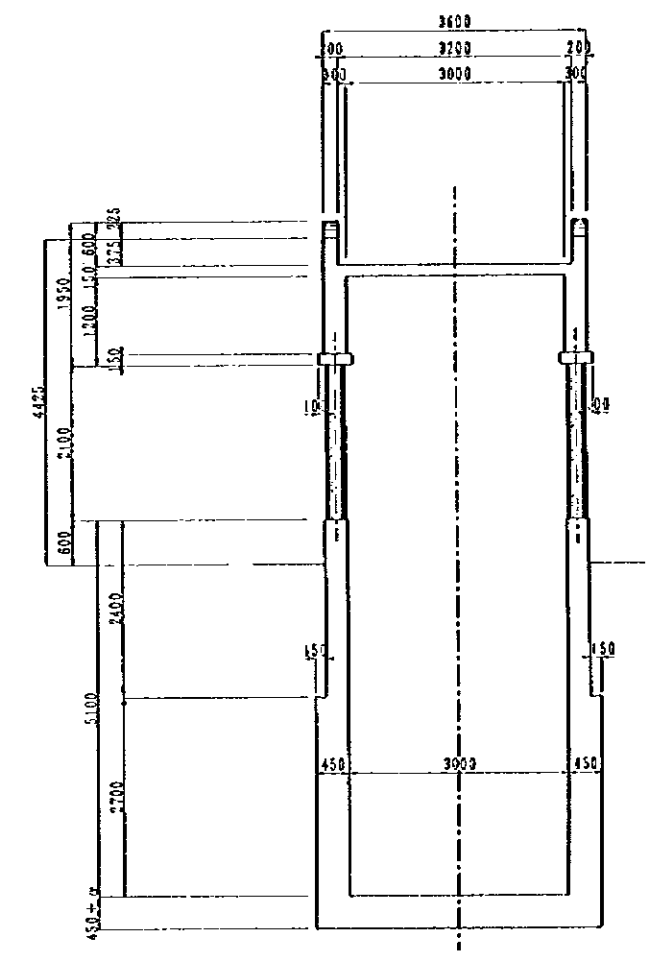
DETAIL b  
SCALE 1/60



DETAIL c  
SCALE 1/60



CROSS SECTION E-E  
SCALE 1/100



CROSS SECTION D-D  
SCALE 1/100

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)

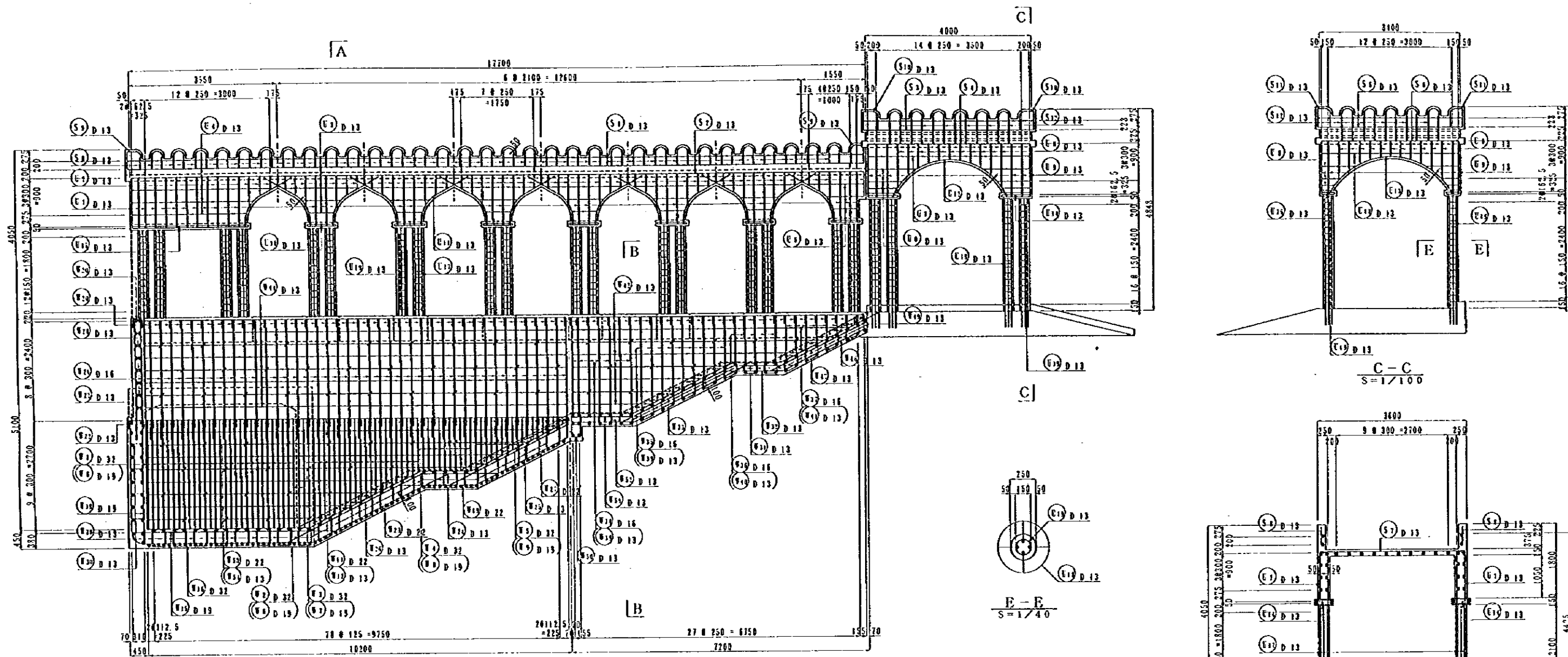
JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

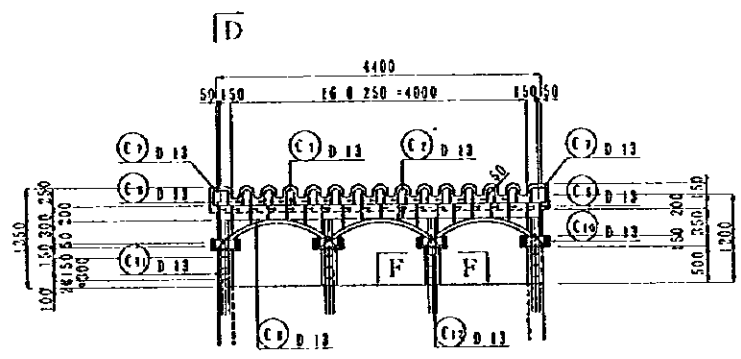
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE : P/U-1, BARKA GENERAL VIEW (3)

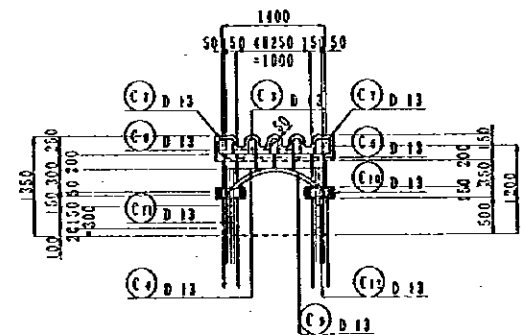
DATE : \_\_\_\_\_ DWG NO. P-3



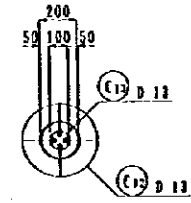
**A**  
SIDE VIEW  
S=1/100



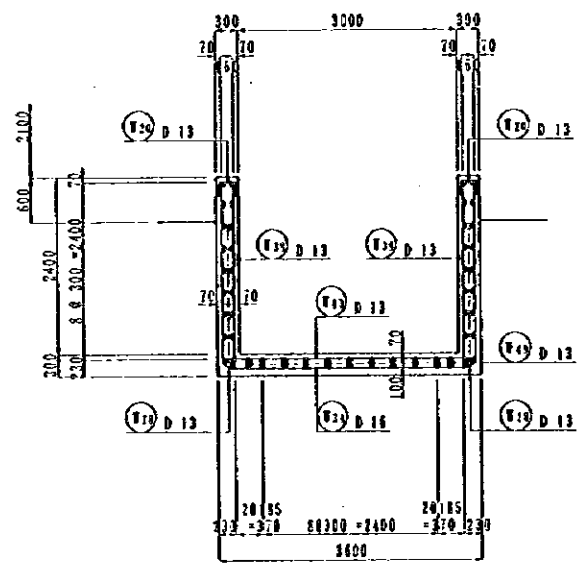
**D**  
CANOPY ON LIGHT  
S=1/100



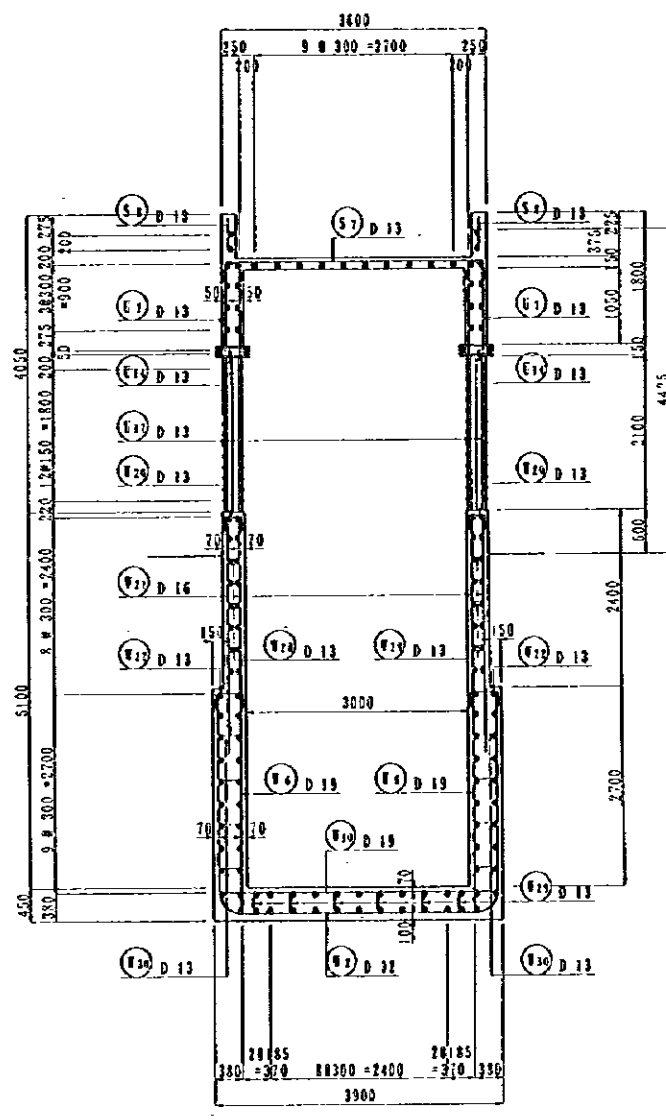
**D-D**  
S=1/100



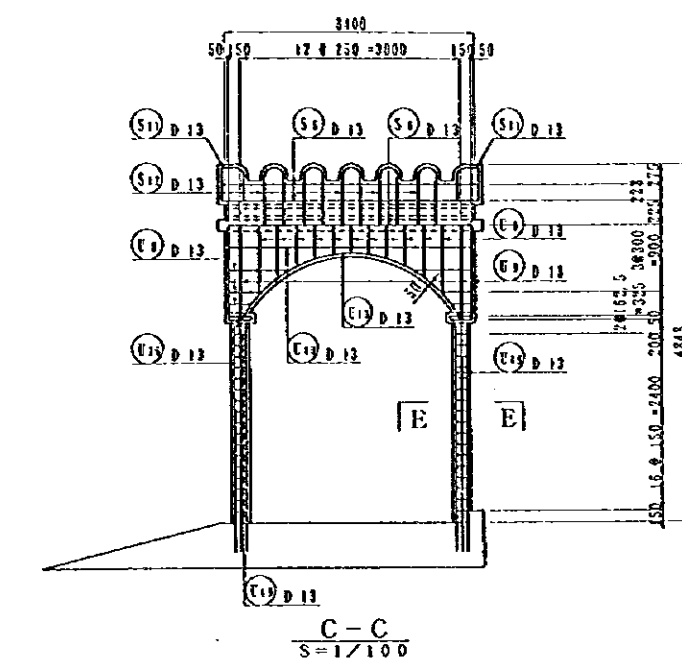
**F-F**  
S=1/40



**B-B**  
S=1/100



**A-A**  
S=1/100

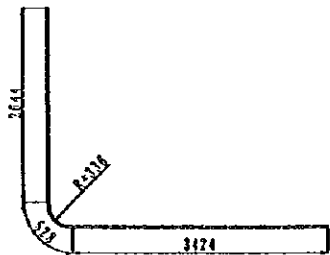


**C-C**  
S=1/100

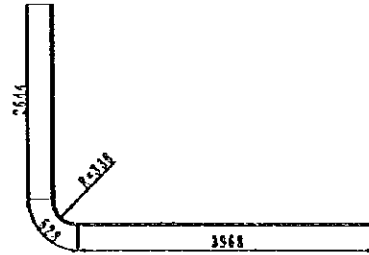
NOTES:

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

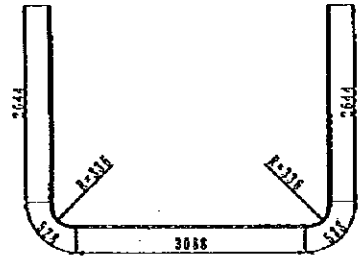
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE : P/U-1, BARKA RE-BAR ARRANGEMENT (1)  
DATE : \_\_\_\_\_  
DNG NO. P-4



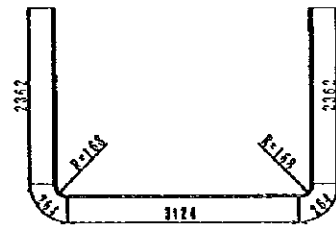
① 23-D32×6600



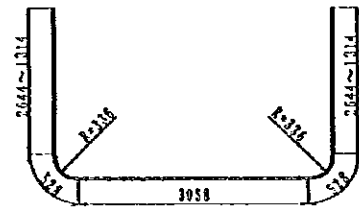
② 30-D32×7140



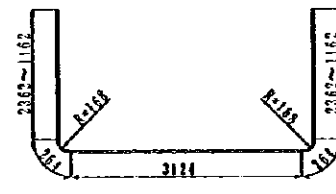
③ 2-D32×5440



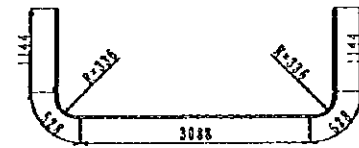
④ 7-D16×8380



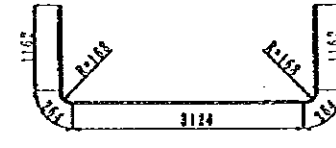
⑤ 22-D32×8110



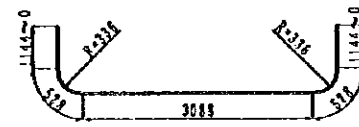
⑥ 8-D16×7180



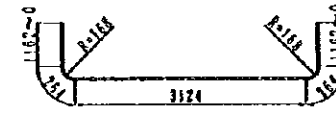
⑦ 10-D32×6440



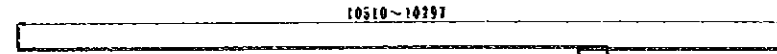
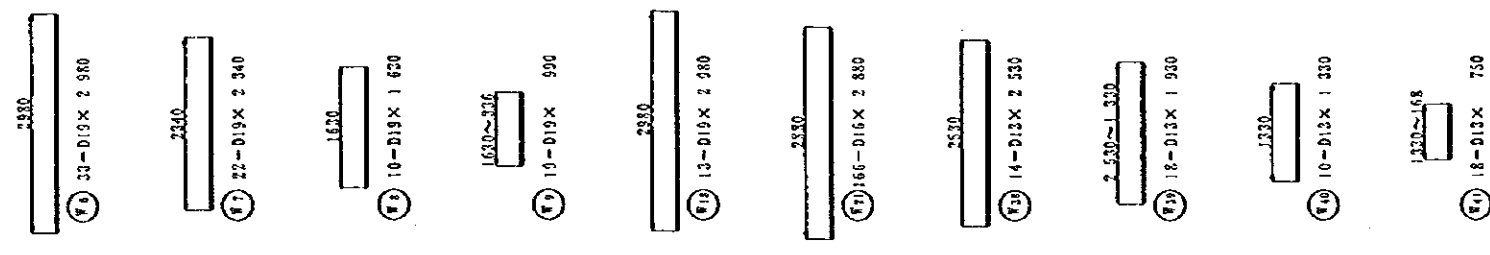
⑧ 5-D16×5980



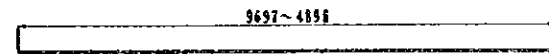
⑨ 19-D32×5290



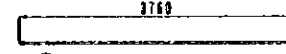
⑩ 9-D16×4920



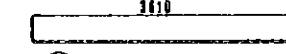
⑳ 3-D22×(10401660) (390)  
 (㉑ 3-D13×(10401390))



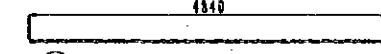
㉒ 2-D22×7300  
 (㉓ 2-D13×7300)



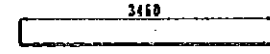
㉔ 41-D13×3780



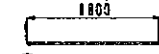
㉕ 10-D22×3610  
 (㉖ 11-D13×3610)



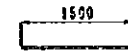
㉗ 15-D19×4840



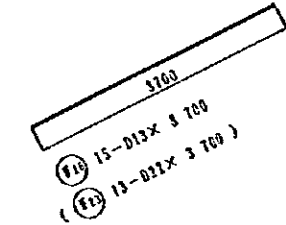
㉘ 16-D13×3480



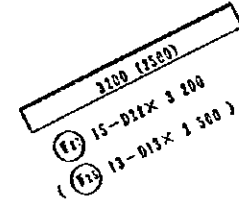
㉙ 15-D13×1800  
 (㉚ 13-D22×1800)



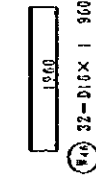
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 (㉜ 13-D13×1500)



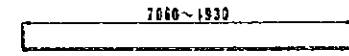
㉝ 15-D13×3700  
 (㉞ 13-D22×3700)



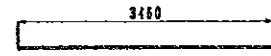
㉟ 15-D22×3200  
 (㊱ 13-D13×2500)



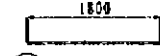
㊲ 32-D16×1900



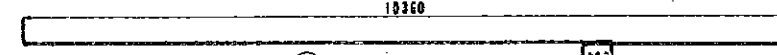
㊳ 32-D13×4500



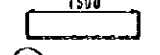
㊴ 30-D13×3480



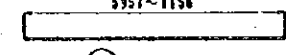
㊵ 15-D13×1800



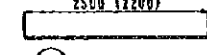
㊶ 30-D13×(10360+390) (390)



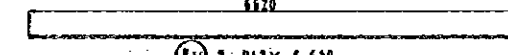
㊷ 13-D13×1500



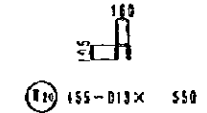
㊸ 7-D12×3560  
 (㊹ 7-D13×3560)



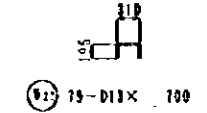
㊺ 15-D13×2500  
 (㊻ 13-D13×2200)



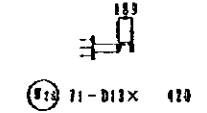
㊼ 2-D13×6620



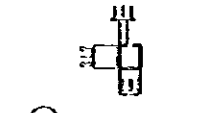
㊽ 155-D13×550



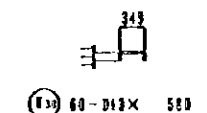
㊾ 79-D13×700



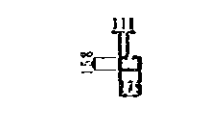
㊿ 71-D13×420



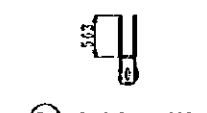
㋀ 117-D13×1160



㋁ 60-D13×580



㋂ 78-D13×820



㋃ 15-D13×1330

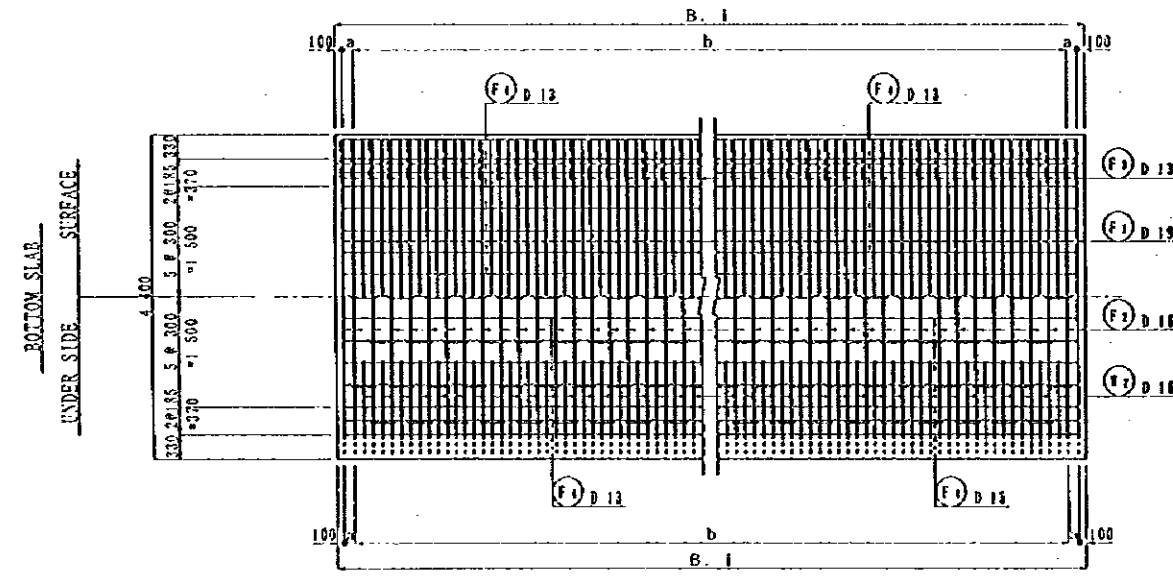
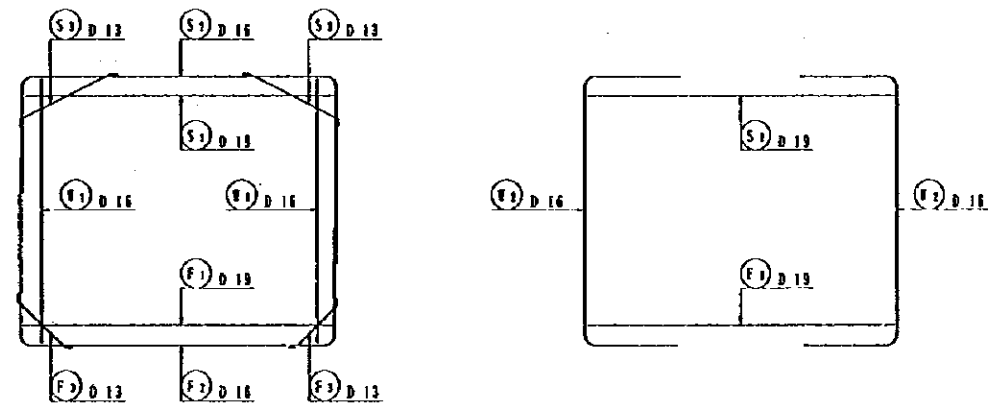
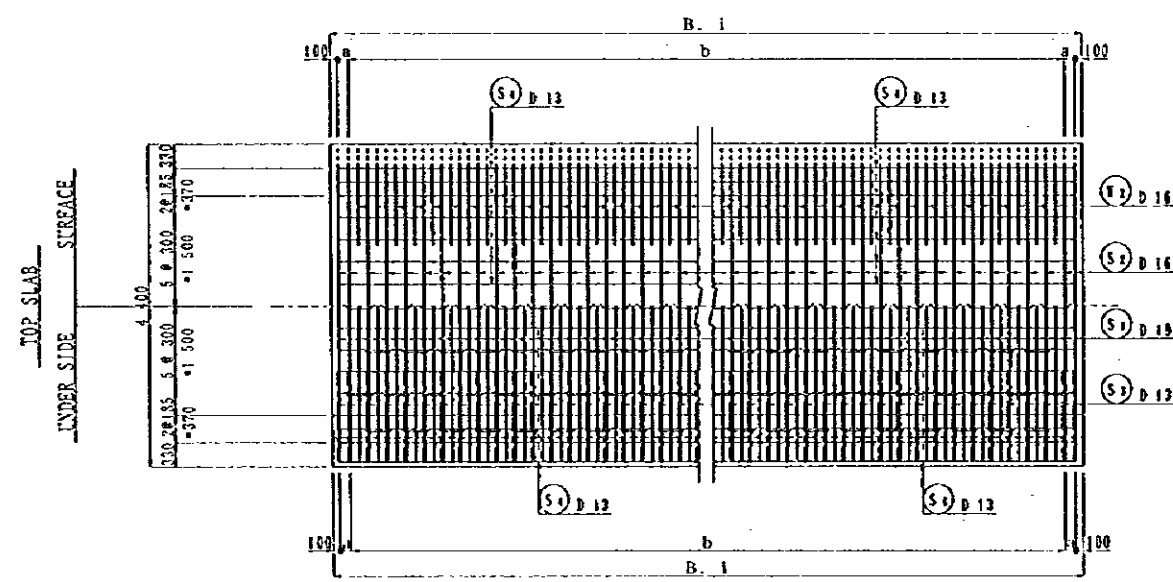
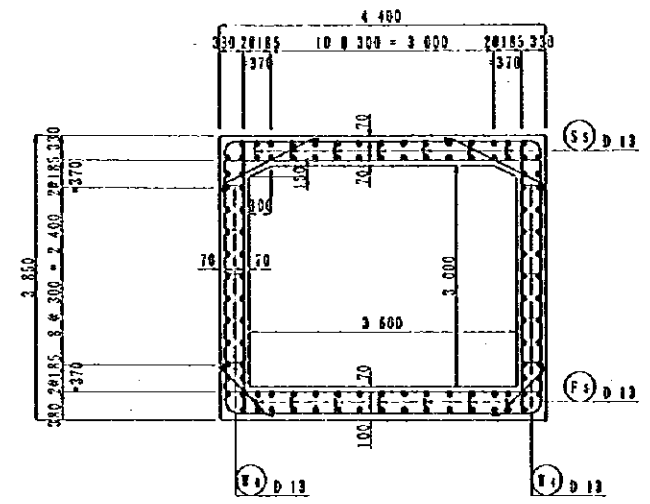
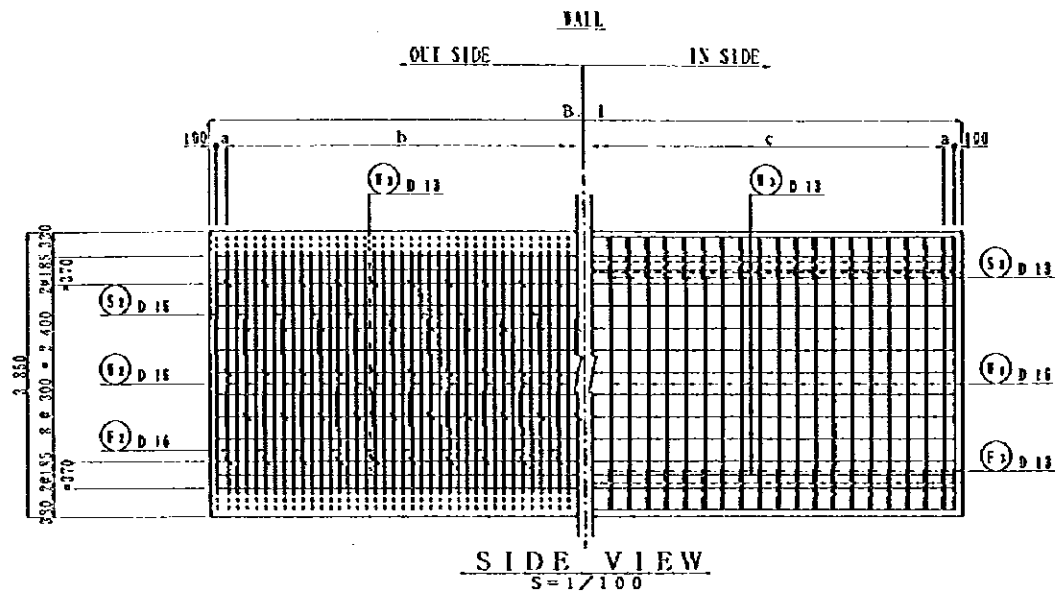
NOTES:

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 : P/U-1, BARKA RE-BAR ARRANGEMENT (2)  
 DATE : \_\_\_\_\_  
 DWG NO. P-5





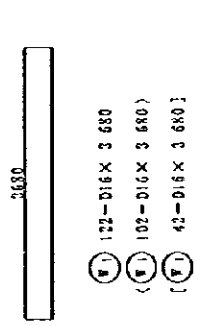


	B. I	a	b	c
TYPE A	15 000	150	116 @ 125	58 @ 250
TYPE C	12 700	—	100 @ 125	50 @ 250
TYPE D	5 000	150	36 @ 125	18 @ 250

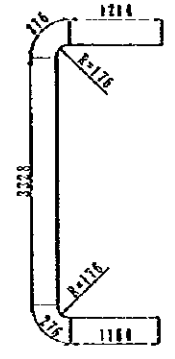
PLAN  
S=1/100

NOTES:

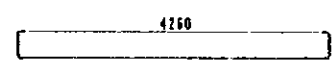
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) JICA STUDY TEAM PACIFIC CONSULTANTS INTERNATIONAL FUKUYAMA CONSULTANTS INTERNATIONAL	CLIENT :	MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
	PROJECT :	D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
	TITLE :	P/U-1, BARKA RE-BAR ARRANGEMENT (4)
	DATE :	DWG NO. P-7



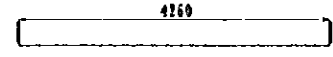
- (S) 122-D16 X 3 680
- (S) 102-D16 X 3 680
- (S) 42-D16 X 3 680



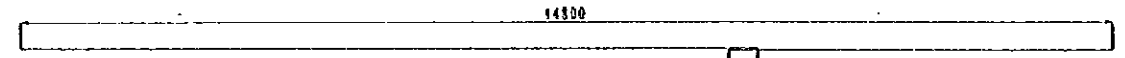
- (S) 116-D16 X 6 260
- (S) 100-D16 X 6 260
- (S) 36-D16 X 6 260



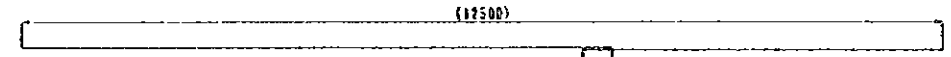
- (S) 119-D19 X 4 260
- (S) 101-D19 X 4 260
- (S) 33-D19 X 4 260



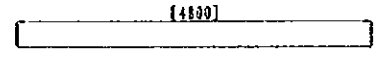
- (F) 119-D19 X 4 260
- (F) 101-D19 X 4 260
- (F) 33-D19 X 4 260



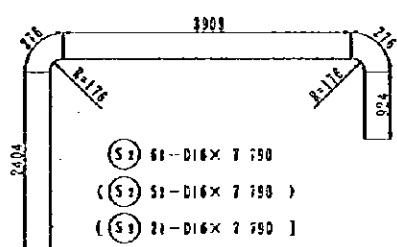
- (S) 32-D13 X (14 800 + 390)
- (S) 44-D13 X (14 800 + 390)
- (S) 32-D13 X (14 800 + 390)



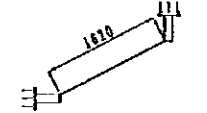
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- (S) 44-D13 X (12 500 + 390)
- (S) 32-D13 X (12 500 + 390)



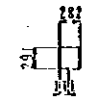
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- (S) 44-D13 X 4 800
- (S) 32-D13 X 4 800



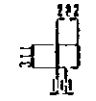
- (S) 61-D16 X 7 790
- (S) 51-D16 X 7 790
- (S) 21-D16 X 7 790



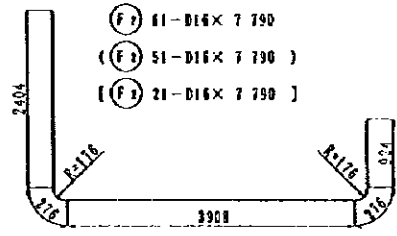
- (S) 122-D13 X 1 850
- (S) 102-D13 X 1 850
- (S) 42-D13 X 1 850



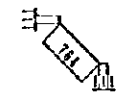
- (S) 203-D13 X 1 030
- (S) 175-D13 X 1 030
- (S) 63-D13 X 1 030



- (F) 203-D13 X 1 130
- (F) 175-D13 X 1 130
- (F) 63-D13 X 1 130



- (F) 61-D16 X 7 790
- (F) 51-D16 X 7 790
- (F) 21-D16 X 7 790



- (F) 122-D13 X 990
- (F) 102-D13 X 990
- (F) 42-D13 X 990



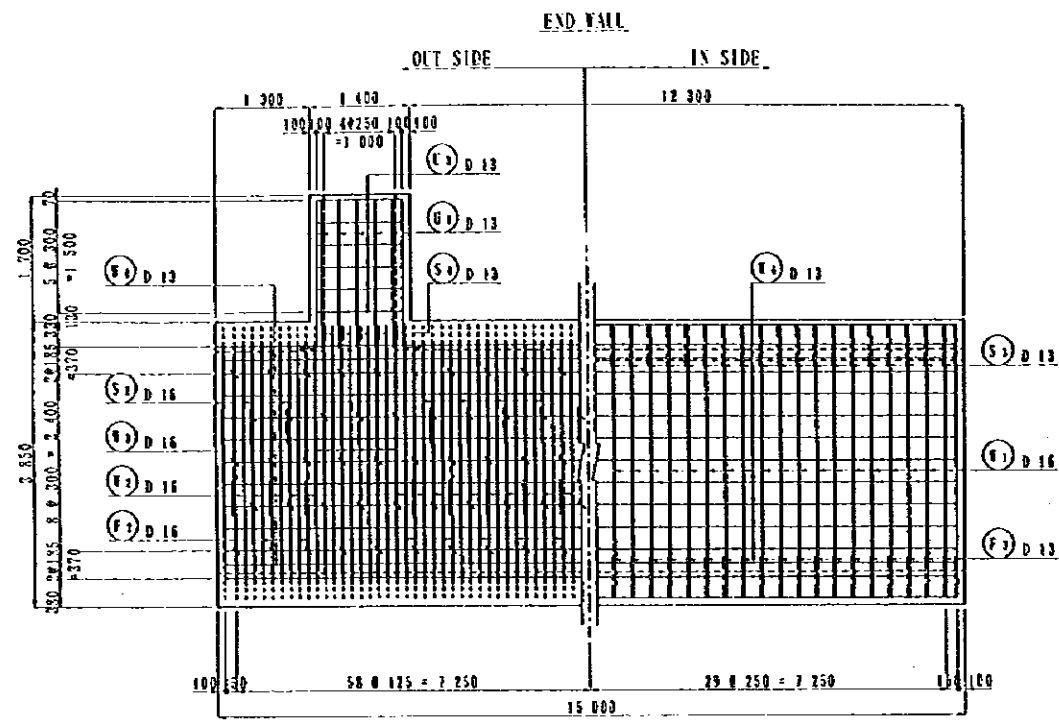
- (F) 284-D13 X 520
- (F) 250-D13 X 520
- (F) 90-D13 X 520

REIN. NO.	Ø (mm)	LENGTH (mm)	SONIHAL WEIGHT	NIND	D WEIGHT	WEIGHT	REMARKS
<b>TYPE-A</b>							
S 1	D 19	4 260	2.235	119	9.571	1133.0	
2	D 16	7 790	1.552	61	12.090	737.5	
3	D 13	1 850	0.994	122	1.839	224.4	
4	"	15 190	"	32	15.099	483.2	
5	"	1 130	"	203	1.083	219.9	
<b>TYPE-B</b>							
N 1	D 16	3 680	1.552	122	5.711	696.7	
2	"	6 260	"	116	9.716	1127.1	
3	D 13	15 190	0.994	44	15.099	664.4	
4	"	920	"	294	0.517	152.0	
<b>TYPE-C</b>							
F 1	D 19	4 260	2.235	119	9.571	1133.0	
2	D 16	7 790	1.552	61	12.090	737.5	
3	D 13	930	0.994	122	0.884	120.0	
4	"	15 190	"	32	15.099	483.2	
5	"	1 130	"	203	1.123	228.0	
<b>TYPE-D</b>							
S 1	D 19	4 260	2.235	101	9.571	961.6	
2	D 16	7 790	1.552	51	12.090	616.6	
3	D 13	1 850	0.994	102	1.839	187.6	
4	"	12 850	"	32	12.813	410.0	
5	"	1 050	"	175	1.083	189.5	
<b>TYPE-E</b>							
N 1	D 16	3 680	1.552	36	5.711	205.6	
2	"	6 260	"	34	9.716	330.3	
3	D 13	12 630	0.994	44	4.225	35.4	
4	"	520	"	250	0.517	129.3	
<b>TYPE-F</b>							
F 1	D 19	4 260	2.235	101	9.571	961.6	
2	D 16	7 790	1.552	51	12.090	616.6	
3	D 13	930	0.994	102	0.984	100.4	
4	"	12 850	"	32	12.813	410.0	
5	"	1 130	"	175	1.123	196.5	
<b>TYPE-G</b>							
S 1	D 19	4 260	2.235	39	9.571	371.3	
2	D 16	7 790	1.552	21	12.090	253.9	
3	D 13	1 850	0.994	42	1.839	77.2	
4	"	4 800	"	32	4.771	152.7	
5	"	1 050	"	63	1.083	69.2	
<b>TYPE-H</b>							
N 1	D 16	3 680	1.552	42	5.711	240.0	
2	"	6 260	"	38	9.716	369.8	
3	D 13	4 800	0.994	44	8.201	203.9	
4	"	520	"	90	0.517	46.5	
<b>TYPE-I</b>							
F 1	D 19	4 260	2.235	39	9.571	371.3	
2	D 16	7 790	1.552	21	12.090	253.9	
3	D 13	930	0.994	42	0.984	41.3	
4	"	4 800	"	32	4.771	152.7	
5	"	1 130	"	63	1.123	70.7	
<b>Summary</b>							
						D 19	4931.6
						D 16	7183.7
						D 13	5581.4
						<b>TOTAL WEIGHT</b>	<b>17696.9</b>

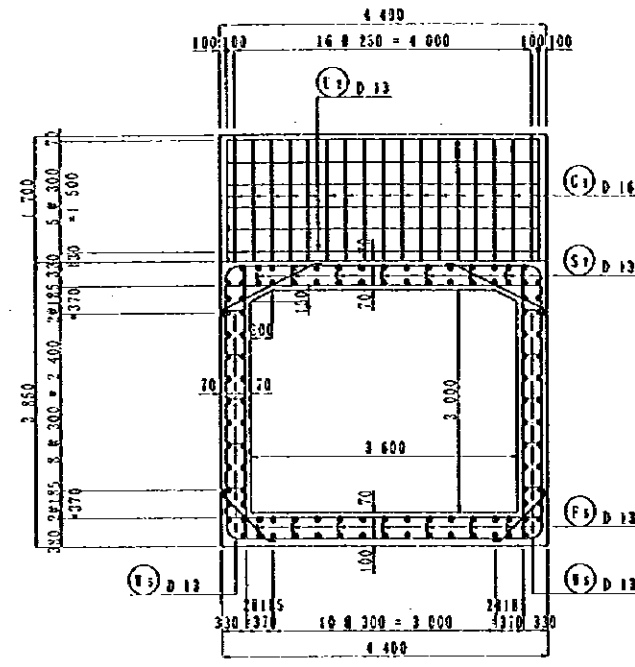
NOTES: ( ) TYPE-C  
[ ] TYPE-D

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

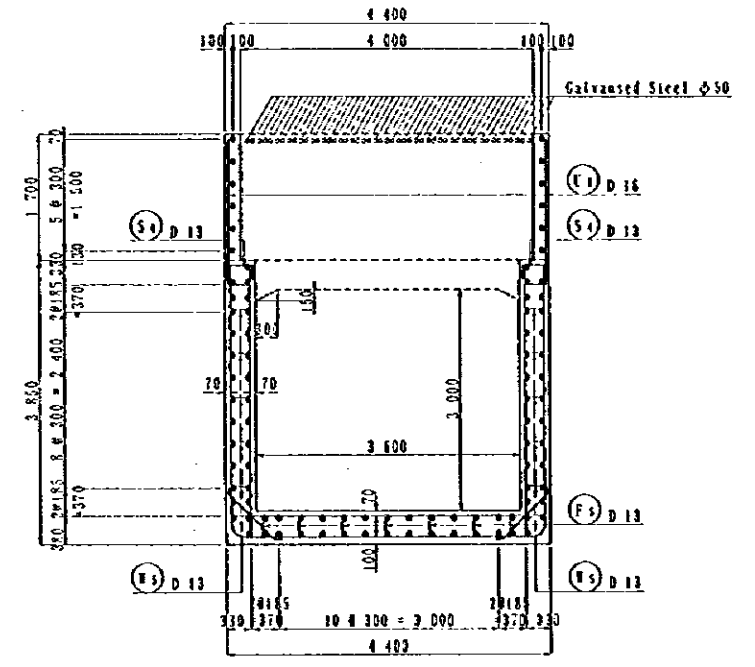
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE : P/U-1, BARKA RE-BAR ARRANGEMENT (S)  
DATE : DWG NO. P-8



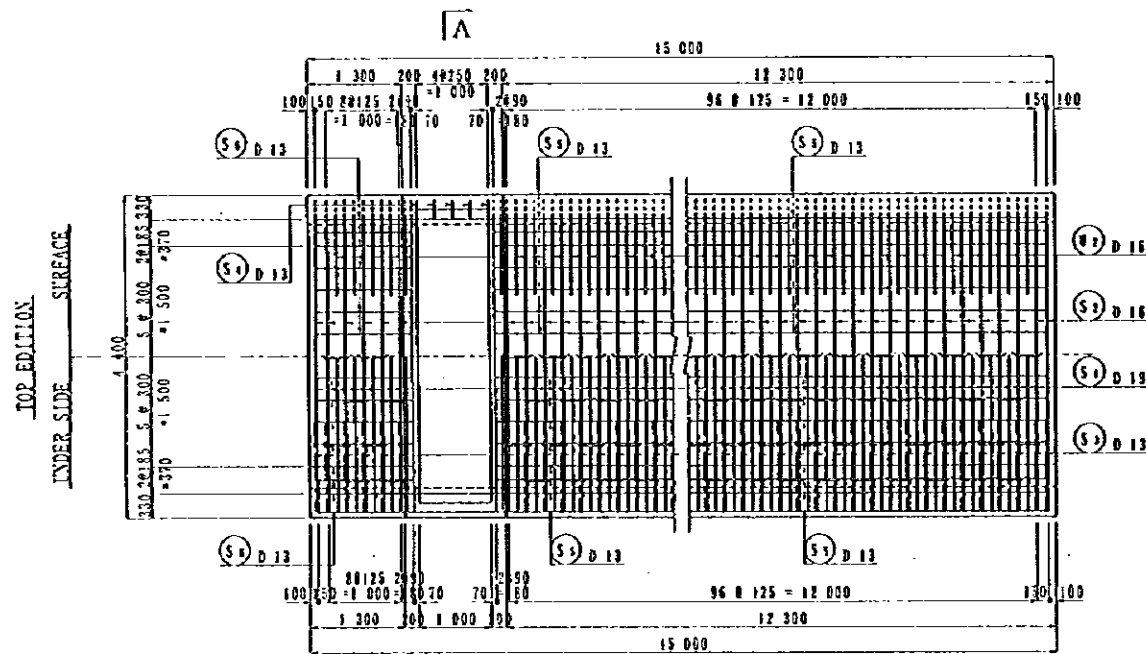
SIDE VIEW  
S=1/100



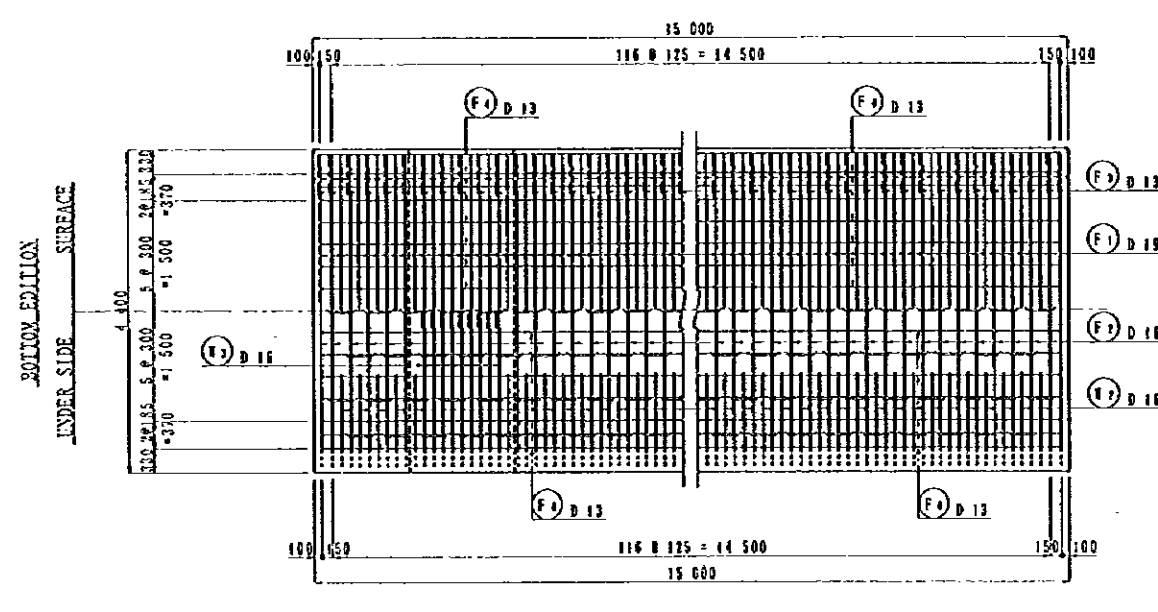
SECTION  
S=1/100



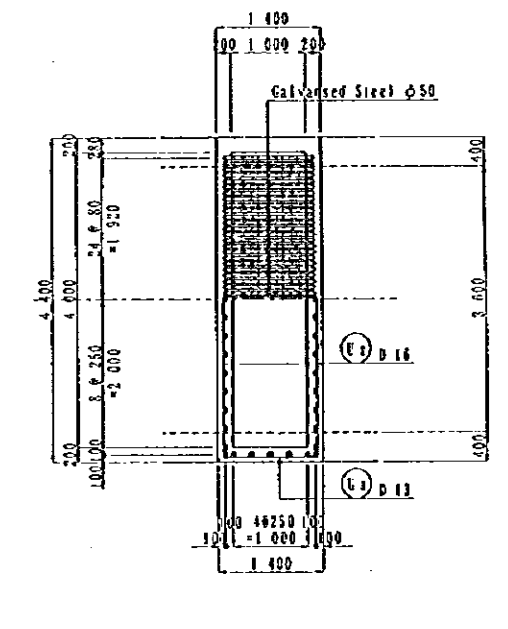
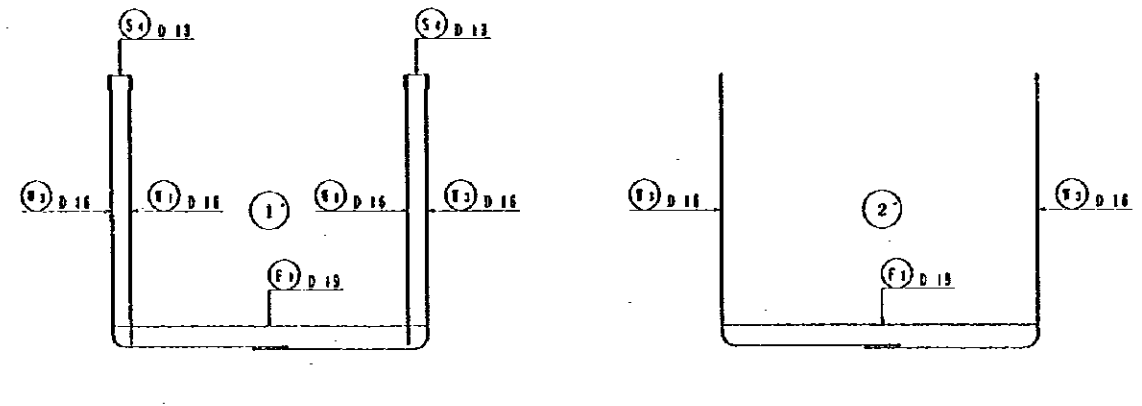
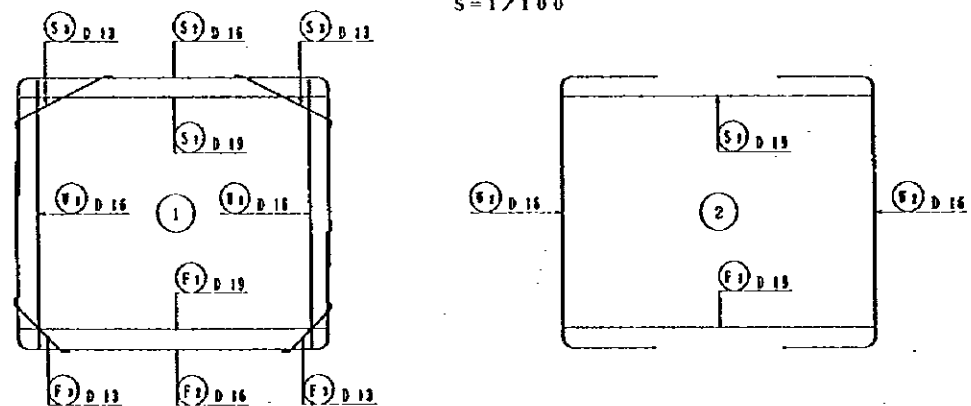
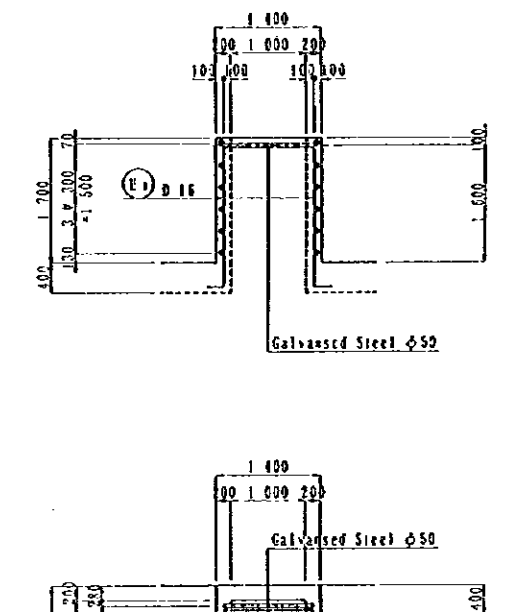
A-A  
S=1/100



PLAN  
S=1/100



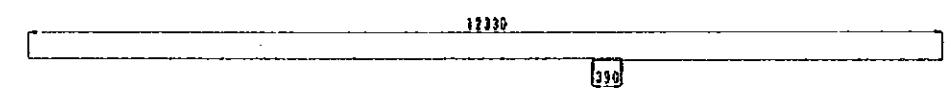
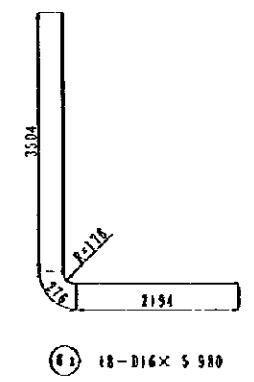
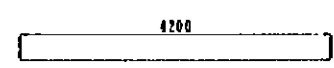
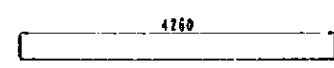
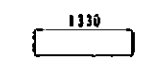
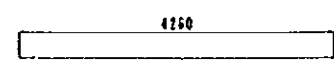
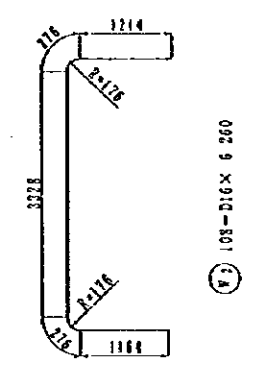
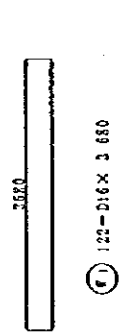
PLAN  
S=1/100



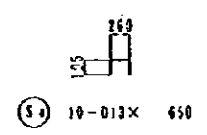
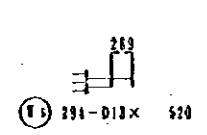
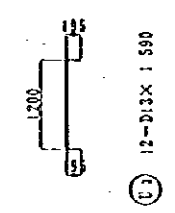
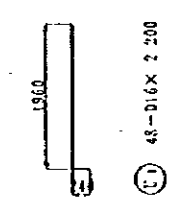
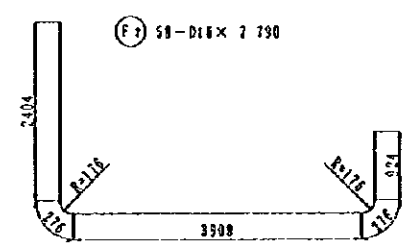
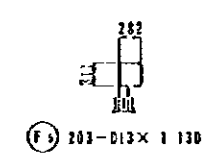
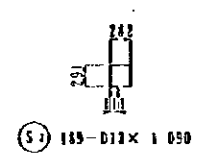
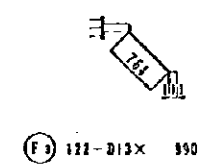
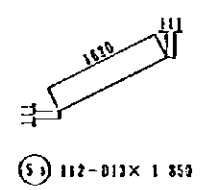
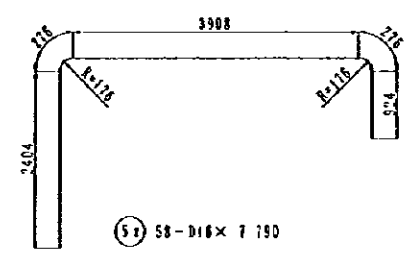
NOTES:

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

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE : P/U-1, BARKA RE-BAR ARRANGEMENT (6)  
DATE :  
DWG NO. P-9



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



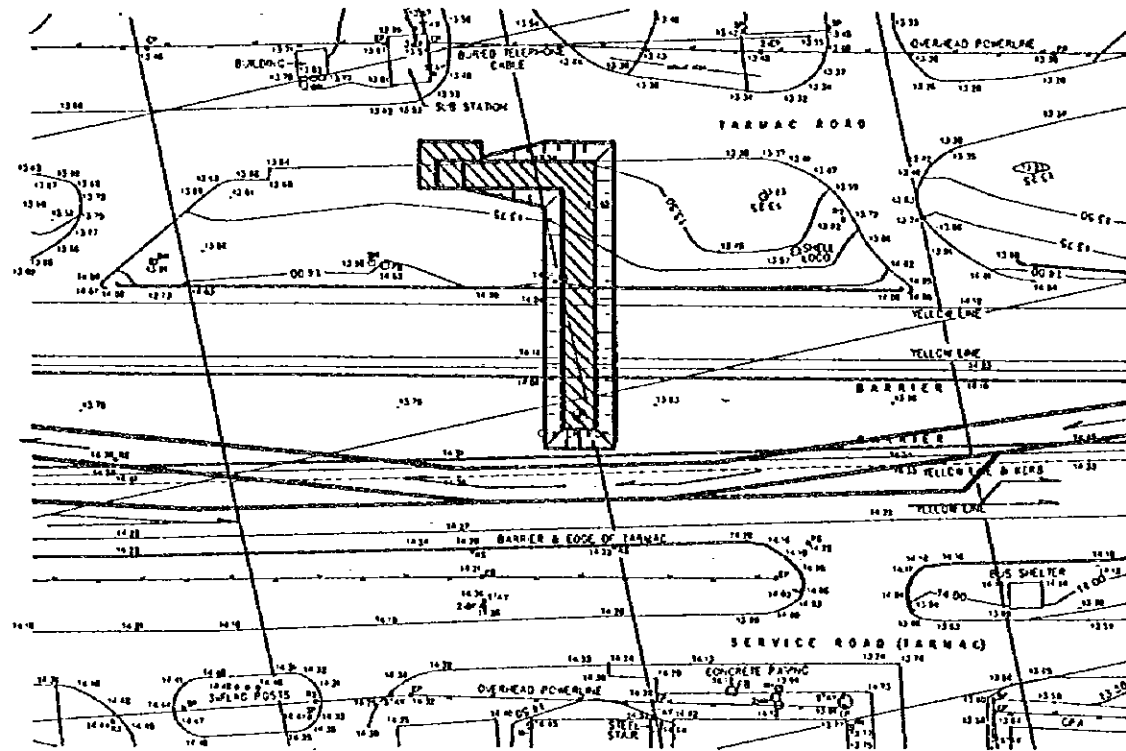
REIN NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	NLWD	E WEIGHT	WEIGHT	REMARKS
<b>TYPE - B</b>							
S 1	D 19	4 260	2.235	111	9.595	1056.8	—
2	D 16	7 790	1.552	58	18.090	701.8	—
3	D 13	1 850	0.994	112	1.841	206.2	—
4	"	650	"	10	0.846	8.5	—
5	"	12 720	"	32	12.844	404.6	—
6	"	1 330	"	32	1.322	42.3	—
7	"	1 030	"	185	1.053	204.7	—
W 1	D 16	3 680	1.552	122	5.711	696.7	—
2	"	6 260	"	108	9.716	1049.3	—
3	"	5 980	"	18	9.281	167.1	—
4	D 13	12 720	0.994	44	12.844	556.3	—
5	"	520	"	294	0.517	152.0	—
F 1	D 19	4 260	2.235	119	9.521	1133.0	—
2	D 16	7 790	1.552	58	12.090	701.8	—
3	D 13	990	0.994	122	0.984	120.9	—
4	"	12 720	"	32	12.844	404.6	—
5	"	1 130	"	203	1.123	228.0	—
G 1	D 16	2 200	1.552	48	3.414	163.9	—
2	D 13	4 200	0.994	12	4.175	50.1	—
3	"	1 590	"	12	1.550	19.0	—
					D 19	2189.8	
					D 16	3479.4	
					D 13	2294.1	
					<b>TOTAL WEIGHT</b>	<b>6063.3</b>	

NOTES:

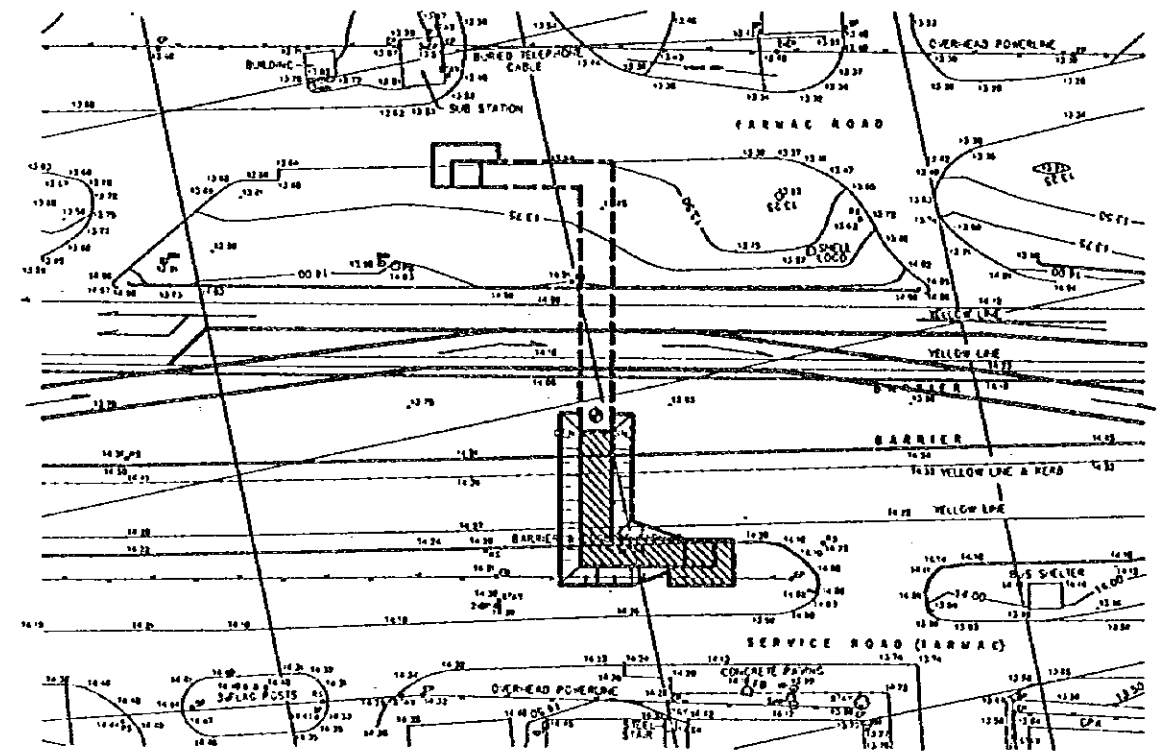
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
 JICA STUDY TEAM  
 PACIFIC CONSULTANTS INTERNATIONAL  
 FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
 PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
 TITLE : P/U-1, BARKA RE-BAR ARRANGEMENT (7)  
 DATE : \_\_\_\_\_ DWG NO. P-10

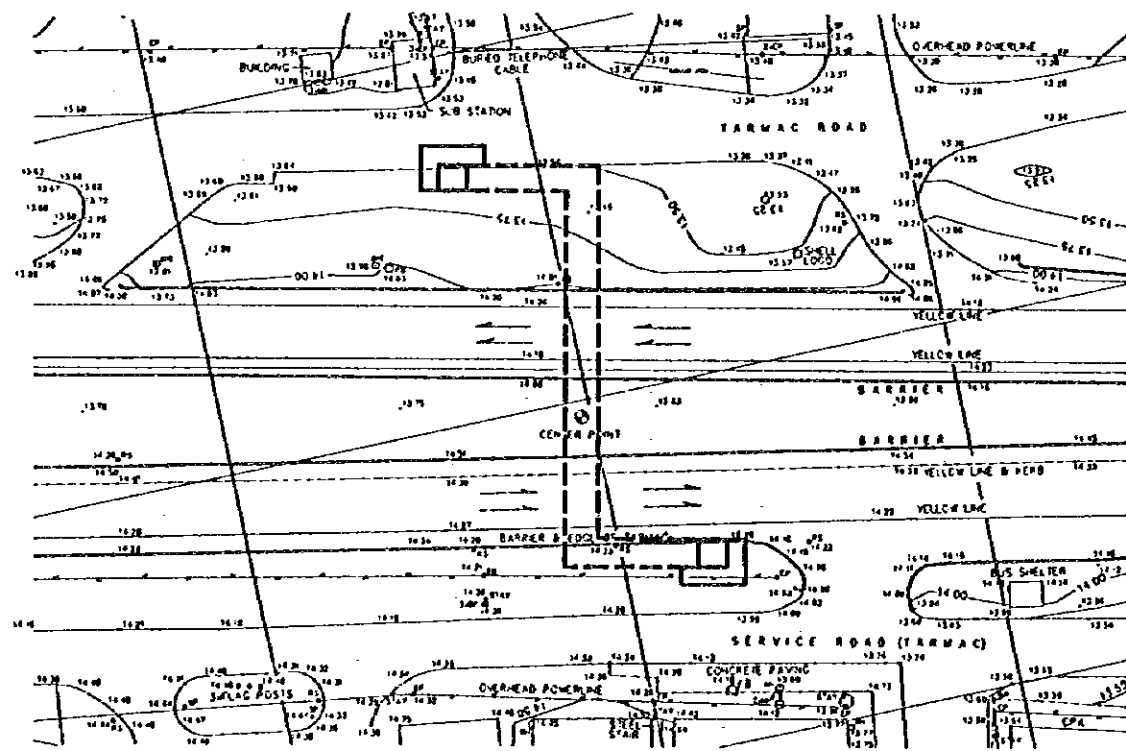
FIRST CONSTRUCTION STAGE



SECOND CONSTRUCTION STAGE



THIRD CONSTRUCTION STAGE



FIRST CONSTRUCTION STAGE

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

SECOND CONSTRUCTION STAGE

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

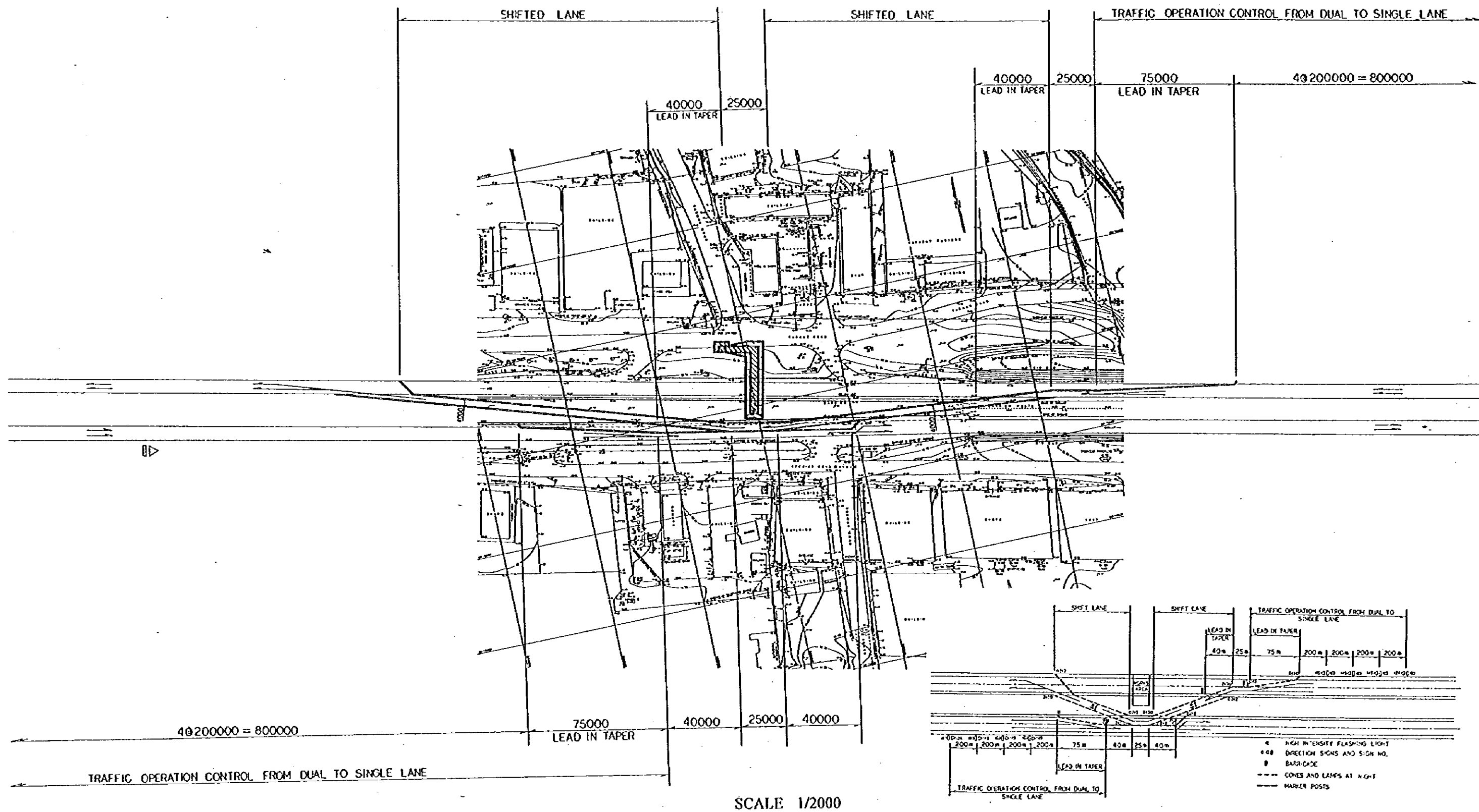
THIRD CONSTRUCTION STAGE

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

NOTES:

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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: SEQUENCE OF BARKA PU CONSTRUCTION  
DATE: \_\_\_\_\_ DWGNO. T-1



GENERAL LAYOUT PLAN OF P/U WORKS

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: DETOUR LAYOUT OF DARKA P/U WORKS  
DATE: \_\_\_\_\_ DWGNO. T-2







