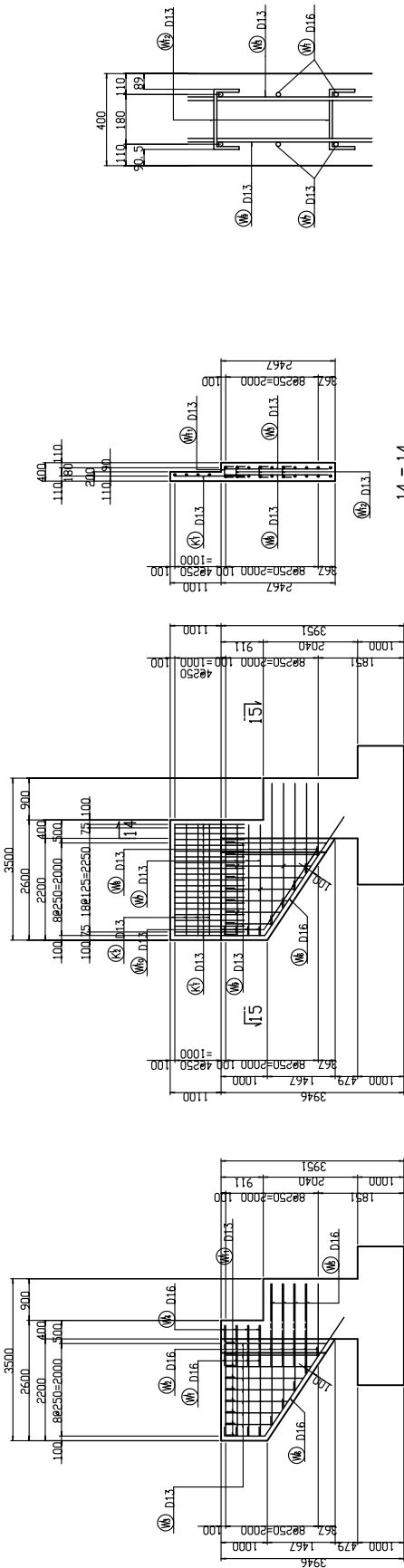


BAR ARENGEMENT OF ABUTMENT A1,A2 (6) SCALE 1 : 50

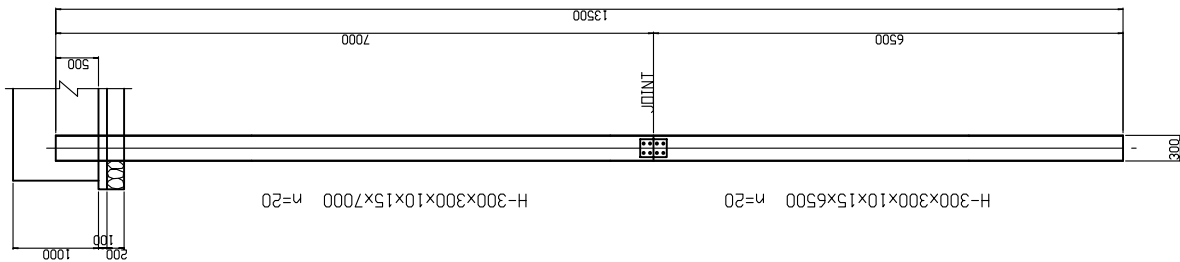


DETAIL OF WING WALL

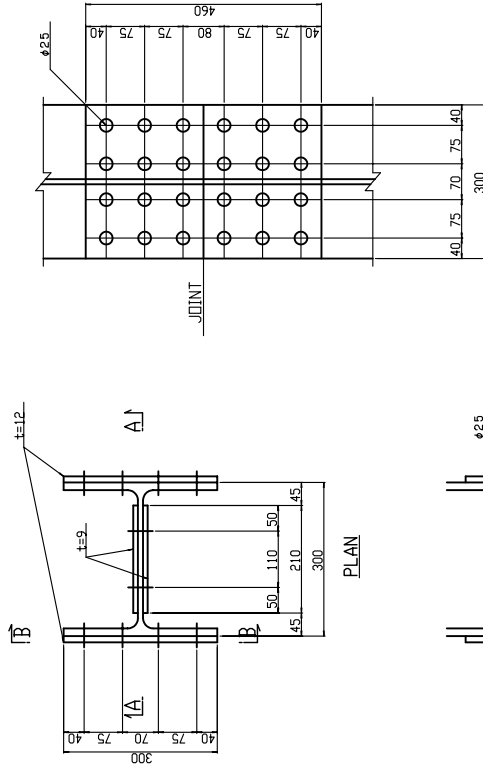
Note  
All dimensions are shown in millimeter  
unless otherwise indicated.

	GOVERNMENT OF THE REPUBLIC OF VANUATU PUBLIC WORKS DEPARTMENT	JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	PROJECT BASIC DESIGN STUDY ON THE PROJECT FOR THE REHABILITATION OF BRIDGES ON THE RING ROAD IN THE EFATE ISLAND	TITLE : BAR ARENGEMENT OF ABUTMENT A1,A2 (6) (RENTAPAO BRIDGE)	DRAWING No: 37
	28				

# DETAIL OF FOUNDATION PILE

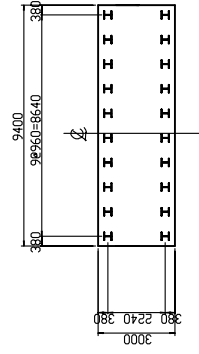


SIDE ELEVATION SCALE 1 : 30



2-PL 300x12x460  
2-PL 210x 9x310  
56-BN M22x55

DETAIL OF JOINT SCALE 1 : 5



KEY PLAN SCALE 1 : 100

## MATERIAL LIST

Unit : kg

ITEM	SECTION	LENGTH	NO.	UNIT WT.	WT/DNE	WEIGHT	REMARKS
PER ONE PILE							
H	H-300x300x10x15	7000	1	93.00	651	651	SS400
H	H-300x300x10x15	6500	1	93.00	605	605	SS400
						TOTAL	1256
PL	300x12	460	2		13.0	26	SS400
~	210x9	310	2		4.6	9	SS400
BN	M22x55		56		0.34	19	SS400
						TOTAL	54
PER ONE ABUTMENT (20 PILES)							
H	H-300x300x10x15	7000	20	93.00	651	13020	SS400
H	H-300x300x10x15	6500	20	93.00	605	12090	SS400
						TOTAL	25110
PL	300x12	460	40		13.0	520	SS400
~	210x9	310	40		4.6	184	SS400
BN	M22x55		1120		0.34	381	SS400
						TOTAL	1065

Note  
All dimensions are shown in millimeter  
unless otherwise indicated.

# MATERIAL LIST OF SUBSTRUCTURE

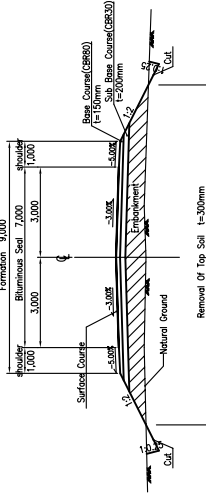
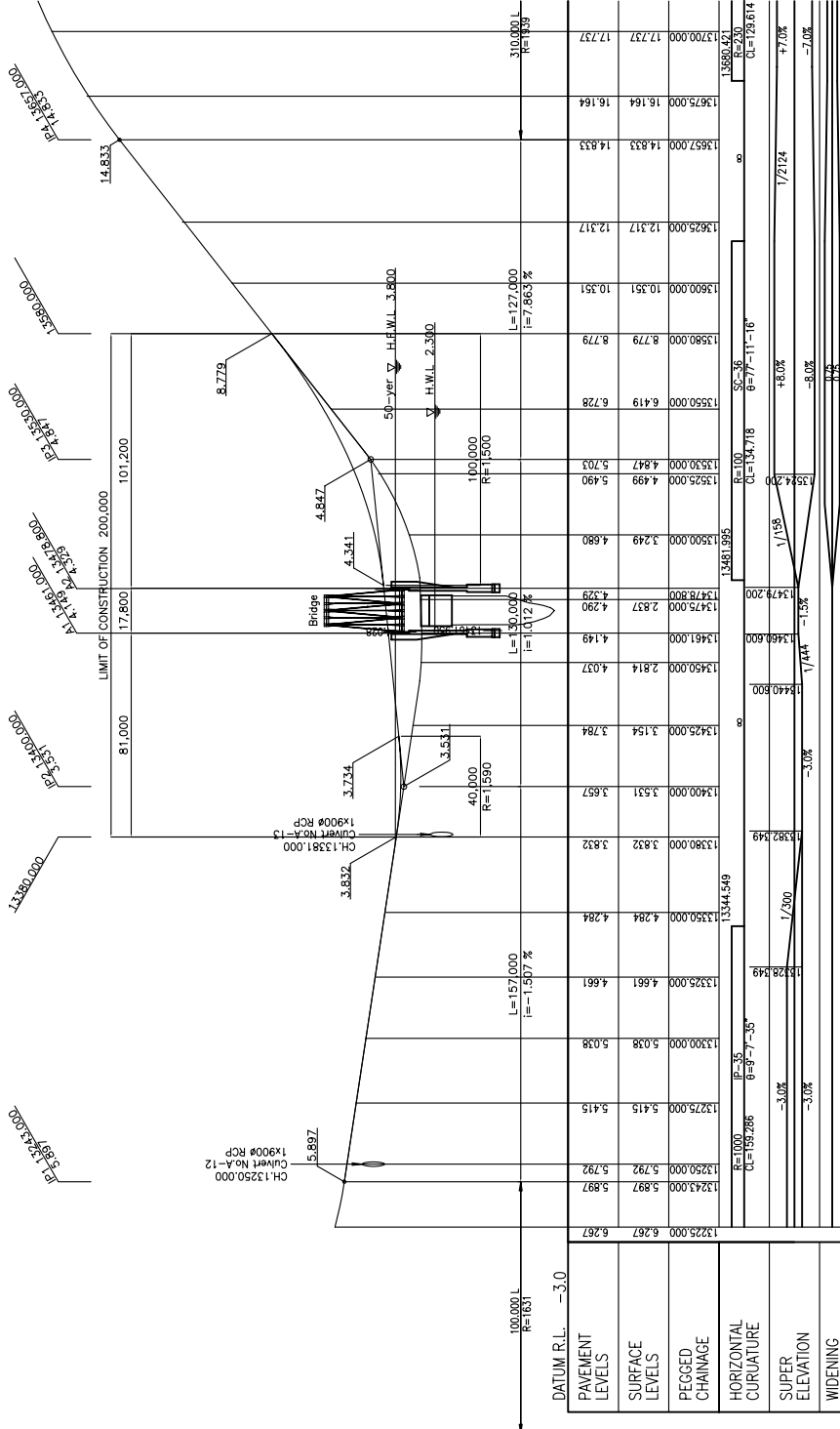
## LIST OF REINFORCEMENT

MARK	SIZE	LENGTH	NL	UNIT WT.	WT/DNE	WEIGHT	REMARKS
P1	D13	1570	39	0.995	1.56	61	I
2	"	1570	73	"	1.56	114	I
3	"	9100	3	"	9.05	27	"
4	"	9100	3	"	9.05	27	"
5	"	9110	2	"	9.06	18	"
6	"	1660	4	"	1.65	7	"
7	"	630	39	"	0.63	25	"
8	"	1420	4	"	1.41	6	"
9	"	590	9	"	0.59	5	"
							290 kg
A1	D16	2980	39	1.56	4.65	181	I
2	"	2980	39	"	4.65	181	J
3	D13	9510	8	0.995	9.46	76	"
4	"	9510	8	"	9.46	76	"
5	D16	10260	7	1.56	16.01	112	"
6	"	2200	38	"	3.43	130	"
7	"	1610	38	"	2.51	95	"
8	"	2980	6	"	4.65	28	"
9	D13	1500	2	0.995	1.49	3	J
10	"	1500	2	"	1.49	3	J
11	"	1520	26	"	1.51	39	"
							924 kg
H1	D16	1000	12	1.56	1.56	19	"
2	"	1400	8	"	2.18	17	"
							36 kg
F1	D16	3180	50	1.56	4.96	248	"
2	"	4100	40	"	6.40	256	"
3	"	1940	10	"	3.03	30	"
4	"	1000	36	"	1.56	56	"
5	"	580	4	"	0.90	4	"
6	D13	9100	9	0.995	9.05	81	"
7	"	9100	14	"	9.05	127	"
8	"	950	18	"	0.95	17	"
9	D19	9100	6	2.25	20.48	123	"
10	"	3310	6	"	7.45	45	"
11	D13	1120	10	0.995	1.11	11	"
12	D16	1210	10	1.56	1.89	19	J
13	"	1210	10	"	1.89	19	J
							1006 kg

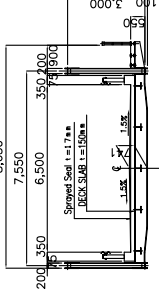
MARK	SIZE	LENGTH	NL	UNIT WT.	WT/DNE	WEIGHT	REMARKS
K1	D13	1500	21	0.995	1.49	31	I
2	"	2400	4	"	2.39	10	"
							41 kg
M1	D16	2650	4	1.56	4.13	17	"
2	"	2570	5	"	4.01	20	"
3	D13	1600	8	0.995	1.59	13	"
4	D16	1540	4	1.56	2.40	10	"
5	"	2810	4	"	4.38	18	"
6	"	3930	2	"	6.13	12	"
7	D13	2600	4	0.995	2.59	10	"
8	"	2920	5	"	2.51	13	"
9	"	1600	8	"	1.59	13	"
10	"	570	9	"	0.57	5	"
11	"	550	9	"	0.55	5	"
12	"	410	4	"	0.41	2	"
							138 kg
K1	D13	1500	21	0.995	1.49	31	I
2	"	2400	4	"	2.39	10	"
							41 kg
M1	D16	2650	4	1.56	4.13	17	"
2	"	2570	5	"	4.01	20	"
3	D13	1600	8	0.995	1.59	13	"
4	D16	1540	4	1.56	2.40	10	"
5	"	2810	4	"	4.38	18	"
6	"	3930	2	"	6.13	12	"
7	D13	2600	4	0.995	2.59	10	"
8	"	2520	5	"	2.51	13	"
9	"	1600	8	"	1.59	13	"
10	"	570	9	"	0.57	5	"
11	"	550	9	"	0.55	5	"
12	"	410	4	"	0.41	2	"
							138 kg
K1	D13	1500	21	0.995	1.49	31	I
2	"	2400	4	"	2.39	10	"
							41 kg
REINFORCEMENT BAR							
D19	168	kg	X2	=	336	kg	
D16	1549	kg	X2	=	3098	kg	
D13	927	kg	X2	=	1854	kg	
TOTAL	2644	kg	X2	=	5288	kg	
CONCRETE							
		61.2m <sup>3</sup>	X2	=	122.4m <sup>3</sup>		
FORM							
		112.0m <sup>2</sup>	X2	=	224.0m <sup>2</sup>		



# PROFILE (RENTAPAO BRIDGE)

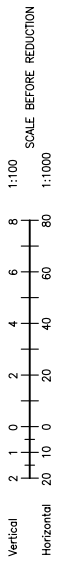
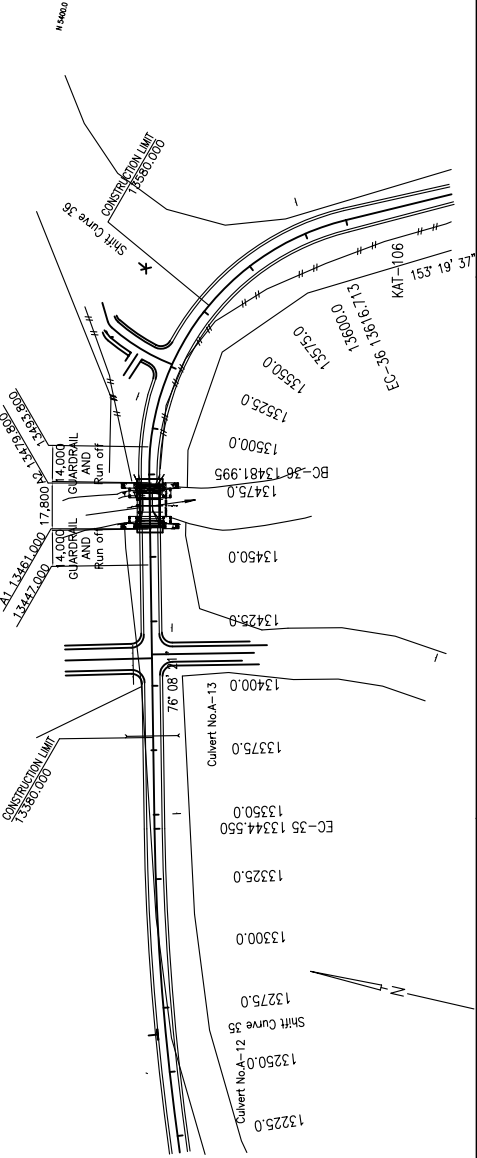


TYPICAL CROSS SECTION

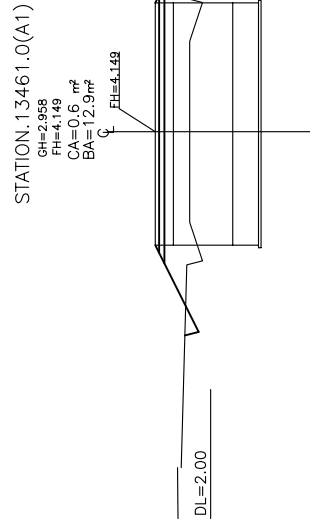
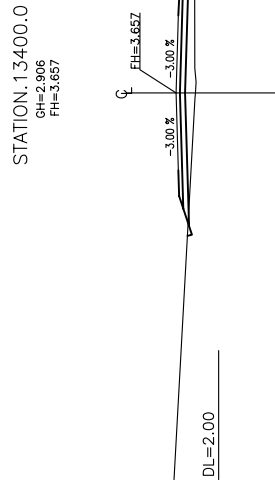
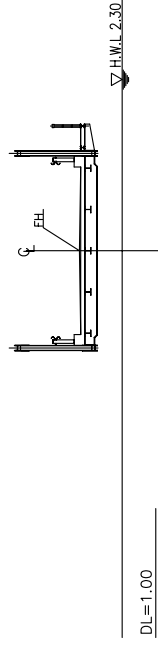
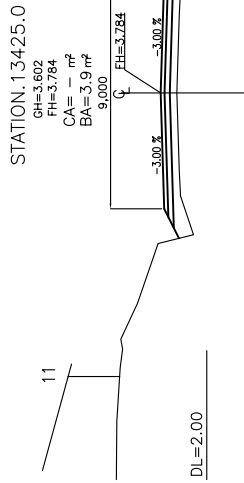
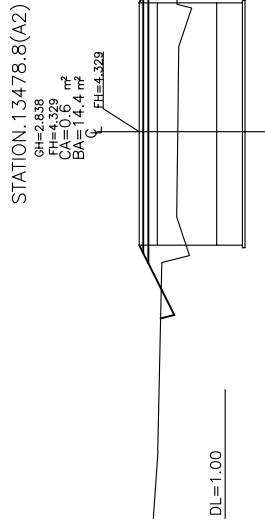
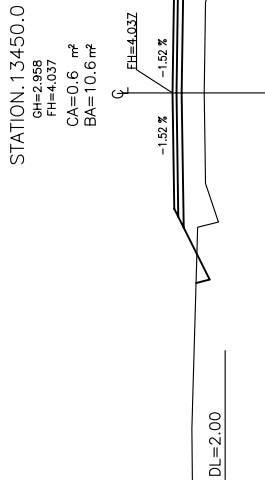


BRIDGE CROSS SECTION

ITEM	BEGINNING SIDE	ENDING SIDE	TOTAL
CUT	14.1 m <sup>2</sup>	57.4 m <sup>2</sup>	71.5 m <sup>2</sup>
BANK	359.4 m <sup>2</sup>	846.6 m <sup>2</sup>	1208.0 m <sup>2</sup>



CROSS SECTION(1) SCALE 1:100



GOVERNMENT OF THE REPUBLIC OF VANUATU  
 PUBLIC WORKS DEPARTMENT

JAPAN INTERNATIONAL COOPERATION AGENCY  
 KATAHIRA & ENGINEERS INTERNATIONAL

PROJECT : BASIC DESIGN STUDY ON THE PROJECT FOR  
 THE REHABILITATION OF BRIDGES  
 ON THE RING ROAD IN THE EFATE ISLAND

TITLE : CROSS SECTION(1)  
 (RENTAPAO BRIDGE)

DRAWING No.

41

No.