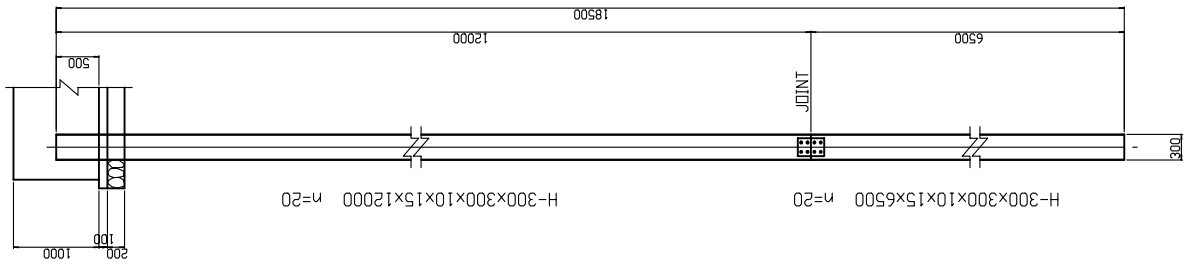


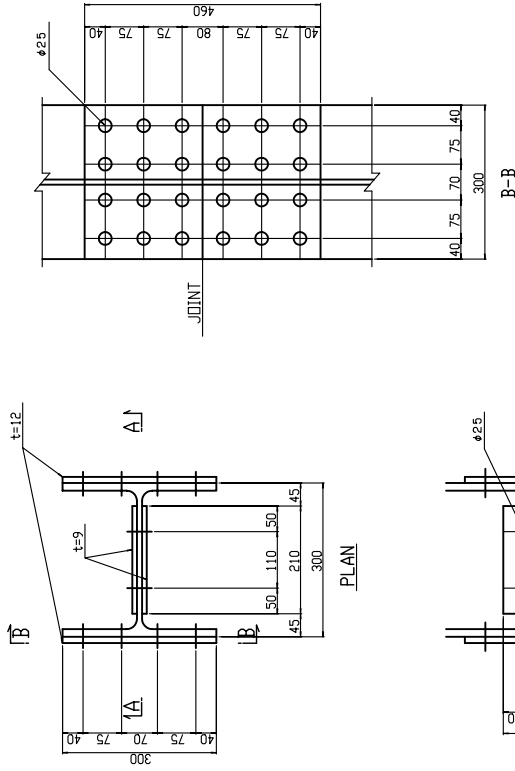




# DETAIL OF FOUNDATION PILE



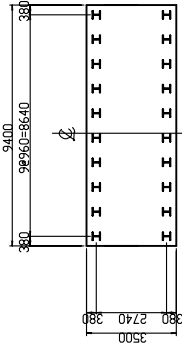
SIDE ELEVATION SCALE 1:30



- 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	REMARKS	
PER ONE PILE							
H	H-300x300x10x15	12000	1	93.00	1116	SS400	
H	H-300x300x10x15	6500	1	93.00	605	SS400	
						TOTAL	1721
PL	300x12	460	2		13.0	SS400	
PL	210x 9	310	2		4.6	SS400	
BN	M22x55		56		0.34	SS400	
						TOTAL	54
PER ONE ABUTMENT(20 PILES)							
H	H-300x300x10x15	12000	20	93.00	1116	SS400	
H	H-300x300x10x15	6500	20	93.00	605	SS400	
						TOTAL	34410
PL	300x12	460	40		13.0	SS400	
PL	210x 9	310	40		4.6	SS400	
BN	M22x55		1120		0.34	SS400	
						TOTAL	1085

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 : DETAIL OF FOUNDATION PILE (TEOUMA BRIDGE)	DRAWING NO : 18

# MATERIAL LIST OF SUBSTRUCTURE A1,A2

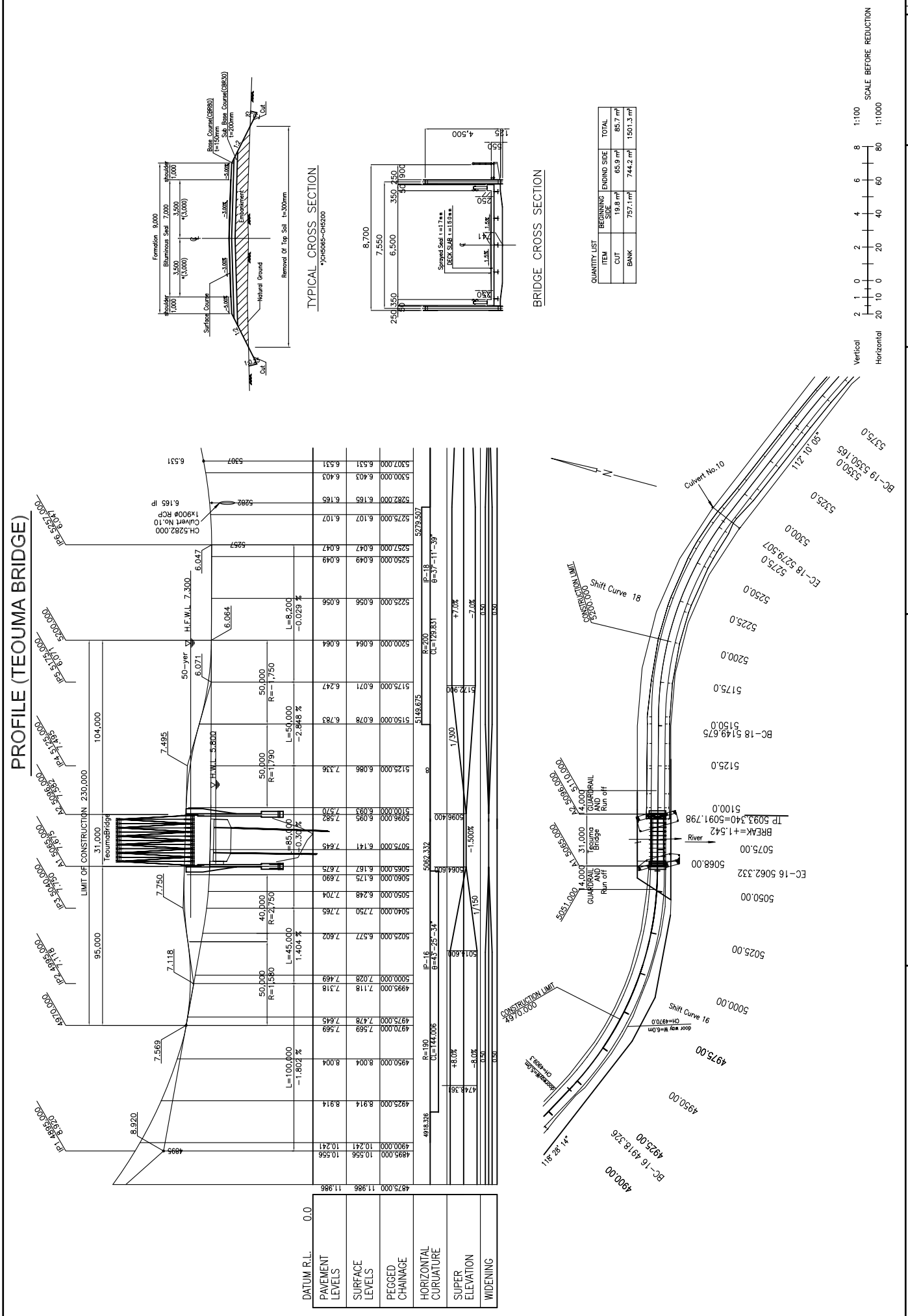
## LIST OF REINFORCEMENT

MARK	SIZE	LENGTH	NO.	UNIT WT.	WT/DNE	WEIGHT	REMARKS
F1	D13	1600	38	0.995	1.59	60	┌
2	"	1600	74	"	1.59	118	┌
3	"	9100	3	"	9.05	27	┌
4	"	9110	2	"	9.06	18	┌
5	"	1660	4	"	1.63	7	┌
7	"	630	38	"	0.63	24	┌
8	"	1420	4	"	1.41	6	┌
9	"	590	9	"	0.59	5	┌
							292 kg
A1	D16	3950	38	1.56	6.16	234	┌
2	D19	4000	38	2.25	9.00	342	┌
3	D13	9510	12	0.995	9.46	114	┌
4	"	9510	12	"	9.46	114	┌
5	D16	10260	7	1.56	16.01	112	┌
6	"	2200	40	"	3.43	137	┌
7	"	1620	40	"	3.53	101	┌
8	"	3950	6	"	6.16	37	┌
9	D13	1510	4	0.995	1.50	6	┌
10	"	1510	4	"	1.50	6	┌
11	"	1520	45	"	1.51	68	┌
							1271 kg
H1	D16	1200	14	1.56	1.87	26	┌
2	"	1500	12	"	2.34	28	┌
							54 kg
F1	D16	1650	50	1.56	2.57	129	┌
2	D19	2490	50	2.25	5.60	280	┌
3	"	4600	40	"	10.35	414	┌
4	"	2440	10	"	5.49	55	┌
5	"	1000	36	"	2.25	81	┌
6	"	580	4	"	1.31	5	┌
7	D13	9100	11	0.995	9.05	100	┌
8	"	9100	17	"	9.05	154	┌
9	"	950	18	"	0.95	17	┌
10	D19	9100	6	2.25	20.48	123	┌
11	"	3810	6	"	8.57	51	┌
12	D13	1130	14	0.995	1.12	16	┌
13	D16	1210	10	1.56	1.89	19	┌
14	"	1210	19	"	1.89	36	┌
							1480 kg

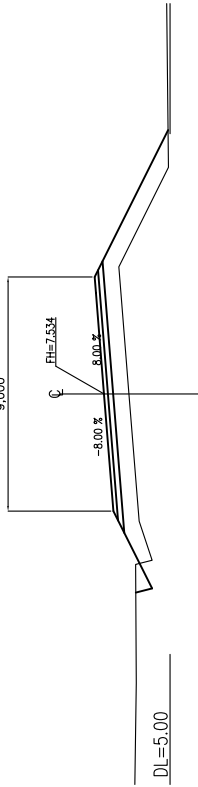
MARK	SIZE	LENGTH	NO.	UNIT WT.	WT/DNE	WEIGHT	REMARKS
K1	D13	1500	27	0.995	1.49	40	┌
2	"	3200	4	"	3.18	13	┌
							53 kg
L1	D16	3450	4	1.56	5.38	22	┌
2	"	3000	7	"	4.68	33	┌
3	D13	1850	11	0.995	1.84	20	┌
4	D16	1540	4	1.56	2.40	10	┌
5	"	2810	6	"	4.38	26	┌
6	"	4900	2	"	7.64	15	┌
7	D13	3400	4	0.995	3.38	14	┌
8	"	2950	7	"	2.94	21	┌
9	"	1850	11	"	1.84	20	┌
10	"	570	11	"	0.57	6	┌
11	"	550	12	"	0.55	7	┌
12	"	410	9	"	0.41	4	┌
							198 kg
K1	D13	1500	27	0.995	1.49	40	┌
2	"	3200	4	"	3.18	13	┌
							53 kg
L1	D16	3450	4	1.56	5.38	22	┌
2	"	3000	7	"	4.68	33	┌
3	D13	1850	11	0.995	1.84	20	┌
4	D16	1540	4	1.56	2.40	10	┌
5	"	2810	6	"	4.38	26	┌
6	"	4900	2	"	7.64	15	┌
7	D13	3400	4	0.995	3.38	14	┌
8	"	2950	7	"	2.94	21	┌
9	"	1850	11	"	1.84	20	┌
10	"	570	11	"	0.57	6	┌
11	"	550	12	"	0.55	7	┌
12	"	410	9	"	0.41	4	┌
							198 kg
K1	D13	1500	27	0.995	1.49	40	┌
2	"	3200	4	"	3.18	13	┌
							53 kg
REINFORCEMENT BAR							
D19	1351 kg	x2	=	2702 kg			
D16	1071 kg	x2	=	2142 kg			
D13	1177 kg	x2	=	2354 kg			
TOTAL	3599 kg	x2	=	7198 kg			
CONCRETE							
	80.2m <sup>3</sup>	x2	=	160.4m <sup>3</sup>			
FORM							
	146.5m <sup>2</sup>	x2	=	293.8m <sup>2</sup>			





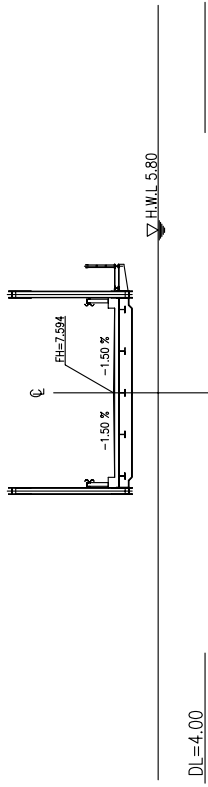
CROSS SECTION(1) SCALE 1:100

STATION:5025.0  
 GH=6.489  
 FH=7.534  
 CA=0.4  
 BA=10.3m<sup>2</sup>  
 9.000



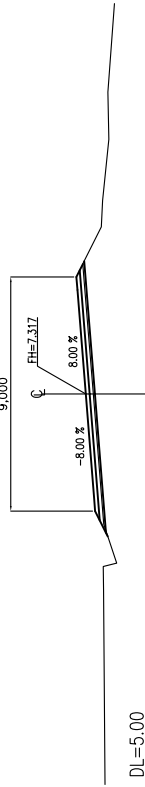
DL=5.00

STATION:5091.798  
 FH=7.394



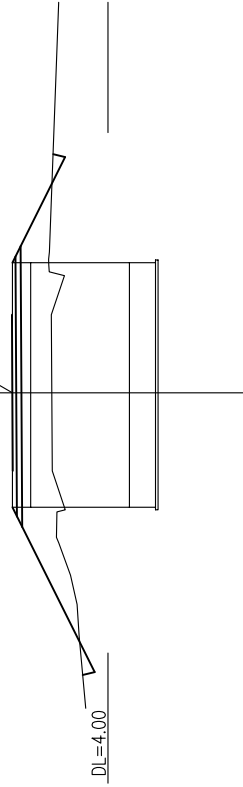
DL=4.00

STATION:5000.0  
 GH=6.954  
 FH=7.317  
 CA= -  
 BA=0.6 m<sup>2</sup>  
 9.000



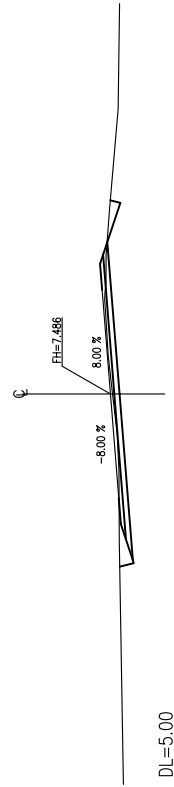
DL=5.00

STATION:5065.0 (A1)  
 GH=6.167  
 FH=7.675  
 CA=0.5 m<sup>2</sup>  
 BA=19.8m<sup>2</sup>  
 FH=7.675



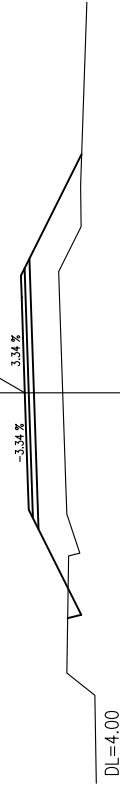
DL=4.00

STATION:4975.0  
 GH=7.400  
 FH=7.466



DL=5.00

STATION:5050.0  
 GH=6.215  
 FH=7.699  
 CA=0.3 m<sup>2</sup>  
 BA=16.8m<sup>2</sup>  
 FH=7.699



DL=4.00



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)  
 (TEOUMA BRIDGE)

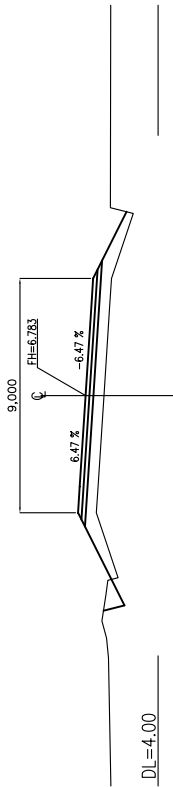
DRAWING No.

21

CROSS SECTION(2) SCALE 1:100

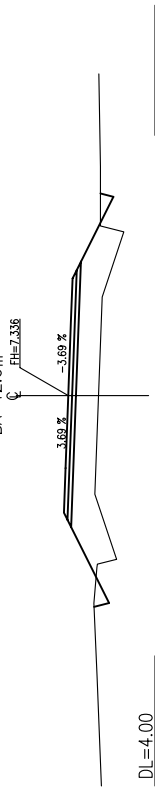
STATION. 5150.0

GH=5.980  
FH=6.783  
CA=0.5 m<sup>2</sup>  
BA=6.0 m<sup>2</sup>



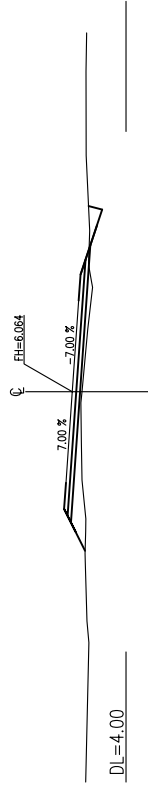
STATION. 5125.0

GH=6.129  
FH=7.336  
CA=0.6 m<sup>2</sup>  
BA=12.6 m<sup>2</sup>



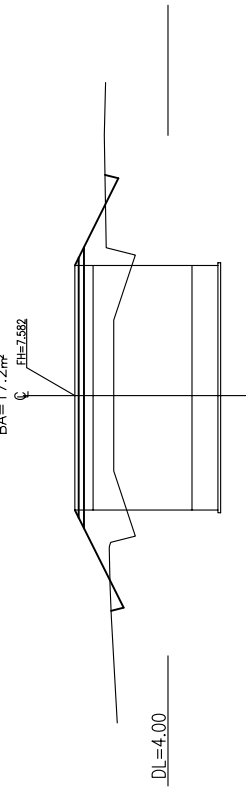
STATION. 5200.0

GH=5.694  
FH=6.064



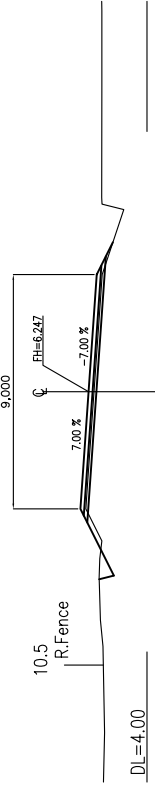
STATION. 5096.2 (A2)

GH=6.095  
FH=7.582  
CA=0.5 m<sup>2</sup>  
BA=17.2 m<sup>2</sup>



STATION. 5175.0

GH=5.869  
FH=6.247  
CA=1.2 m<sup>2</sup>  
BA=0.3 m<sup>2</sup>



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(2)  
(TEOUMA BRIDGE)

DRAWING No.

22

Rev