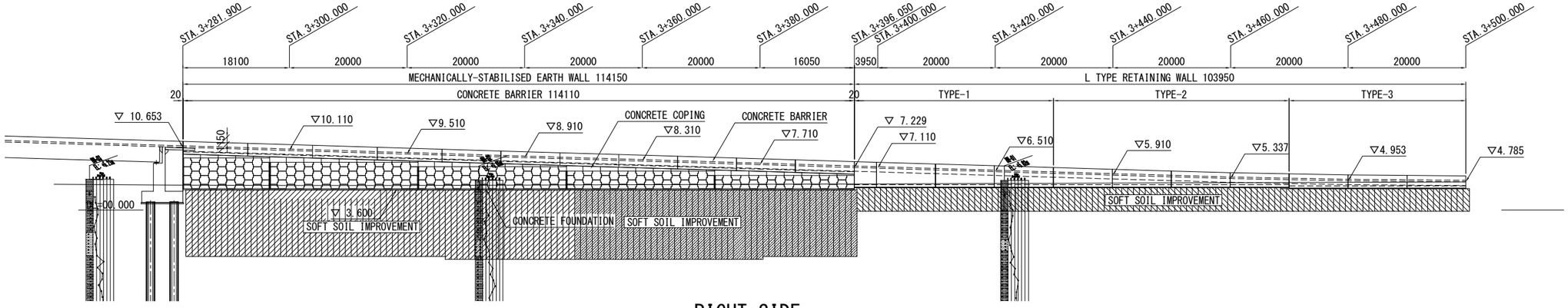
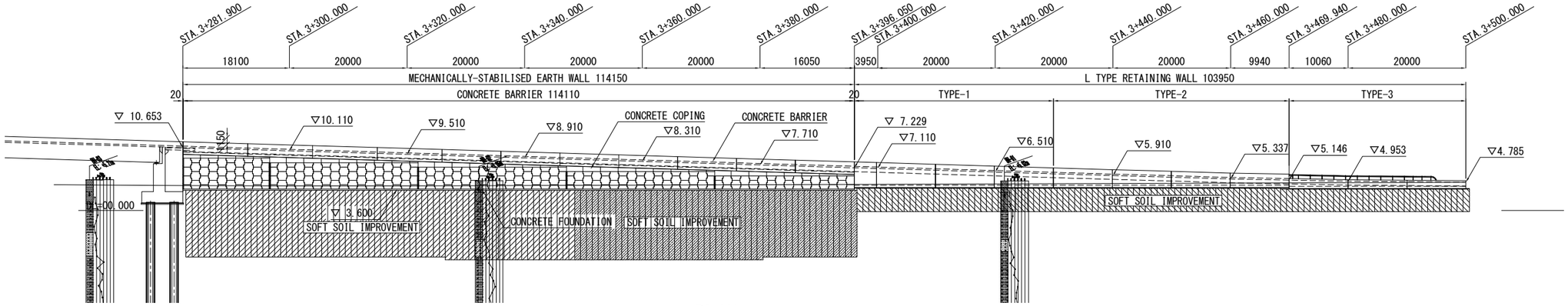
GENERAL PLAN OF MECHANICALLY-STABILISED EARTH WALL(1)

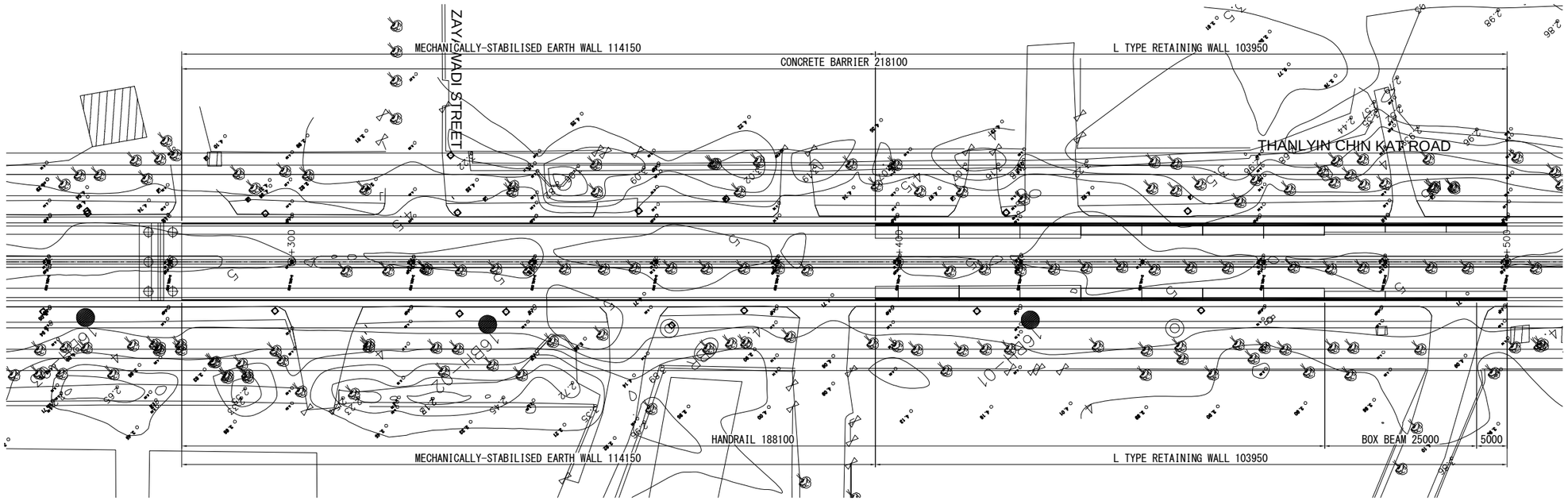
LEFT SIDE(DEVELOP FROM BACK SIDE) S=1:800



RIGHT SIDE S=1:800



PLAN S=1:800

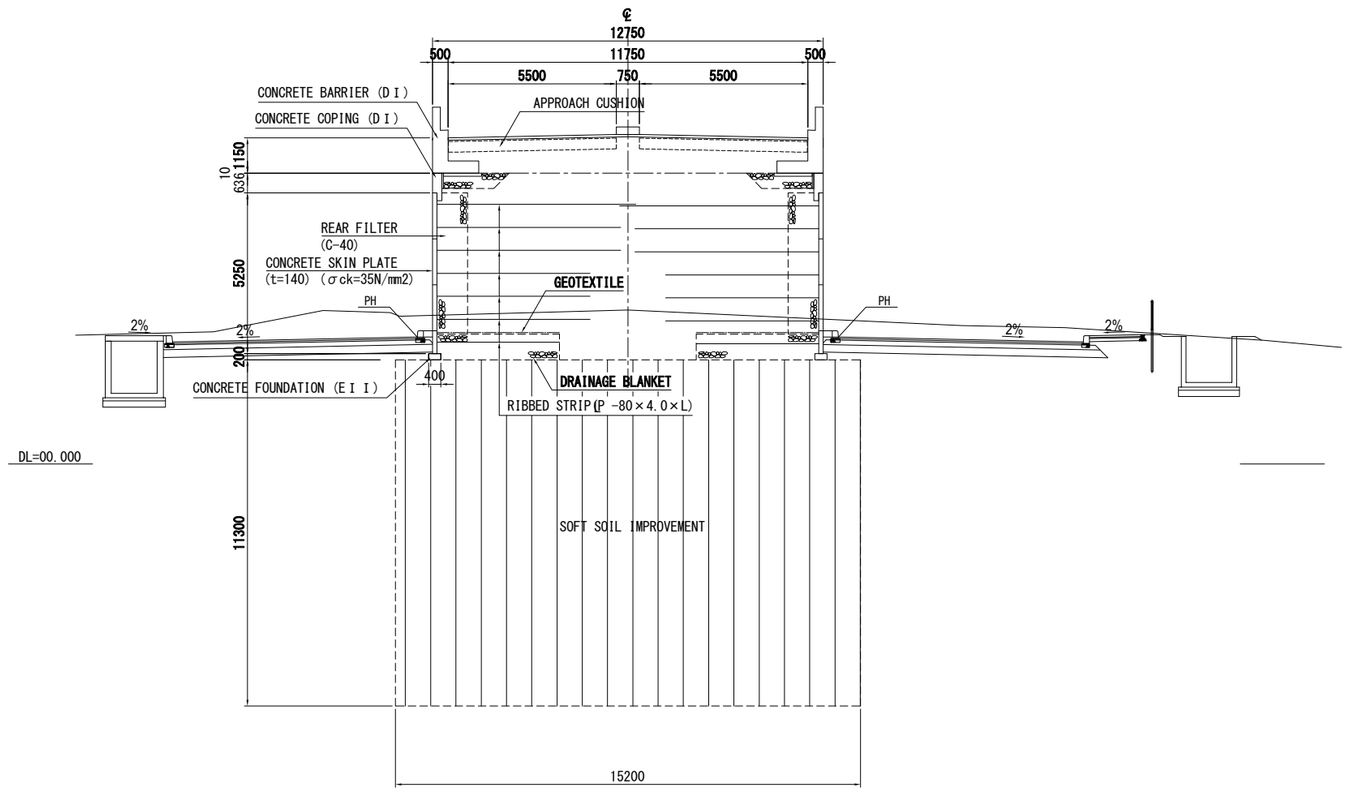


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	GENERAL PLAN OF MECHANICALLY-STABILISED EARTH WALL(1)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4000

GENERAL PLAN OF MECHANICALLY-STABILISED EARTH WALL(2)

TYPICAL CROSS SECTION S=1:200

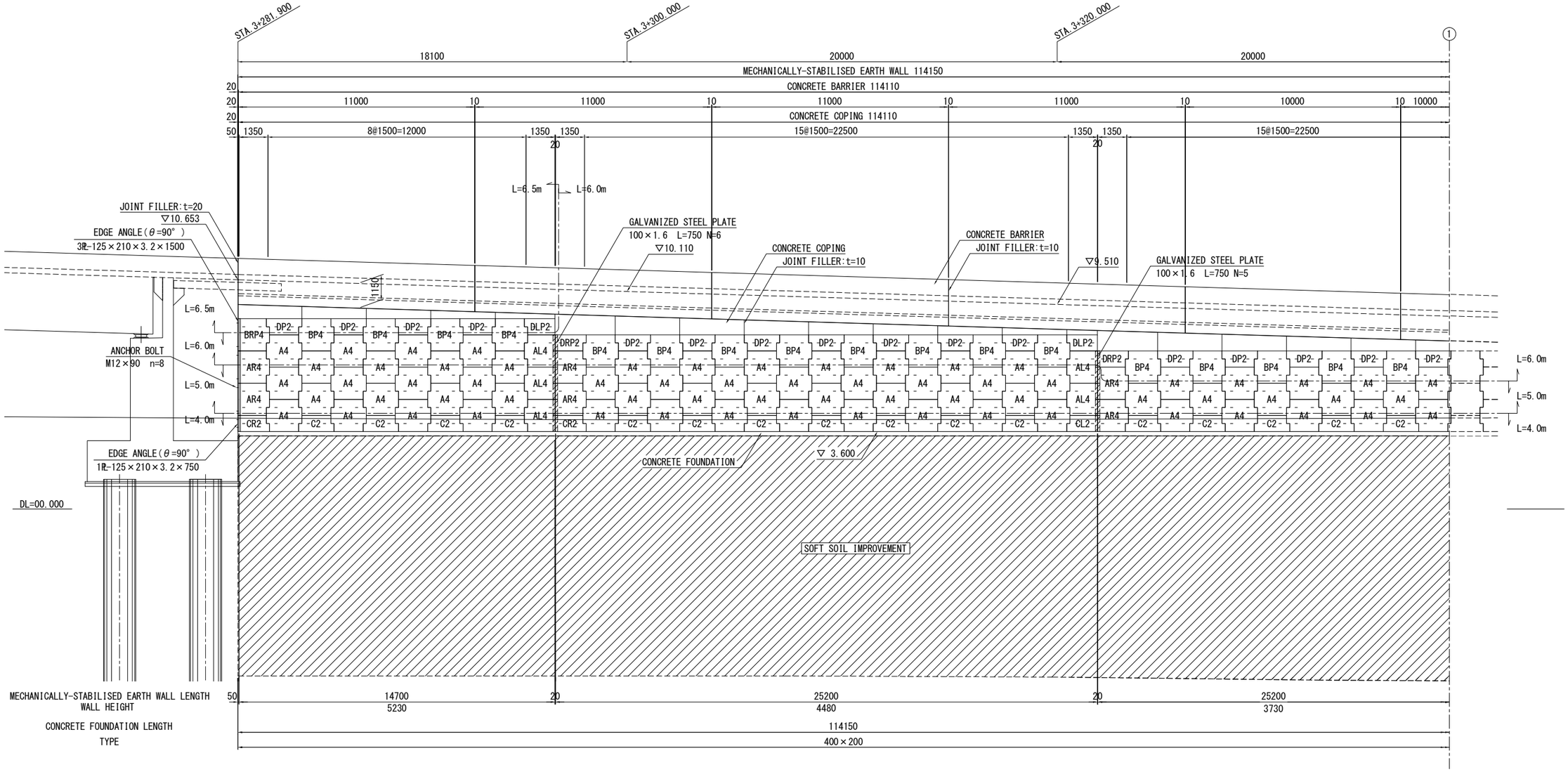


PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

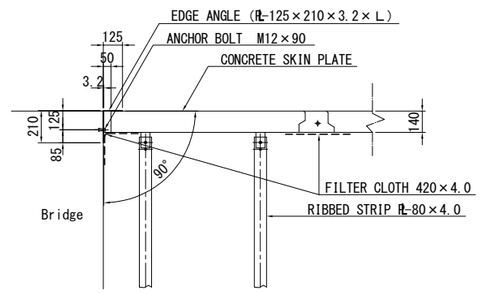
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	GENERAL PLAN OF MECHANICALLY-STABILISED EARTH WALL(2)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4010

ARRANGEMENT OF CONCRETE SKIN PLATE OF MECHANICALLY-STABILISED EARTH WALL(1)

LEFT SIDE(DEVELOP FROM BACK SIDE) S=1:800



EDGE DETAIL DRAWING S=1:40



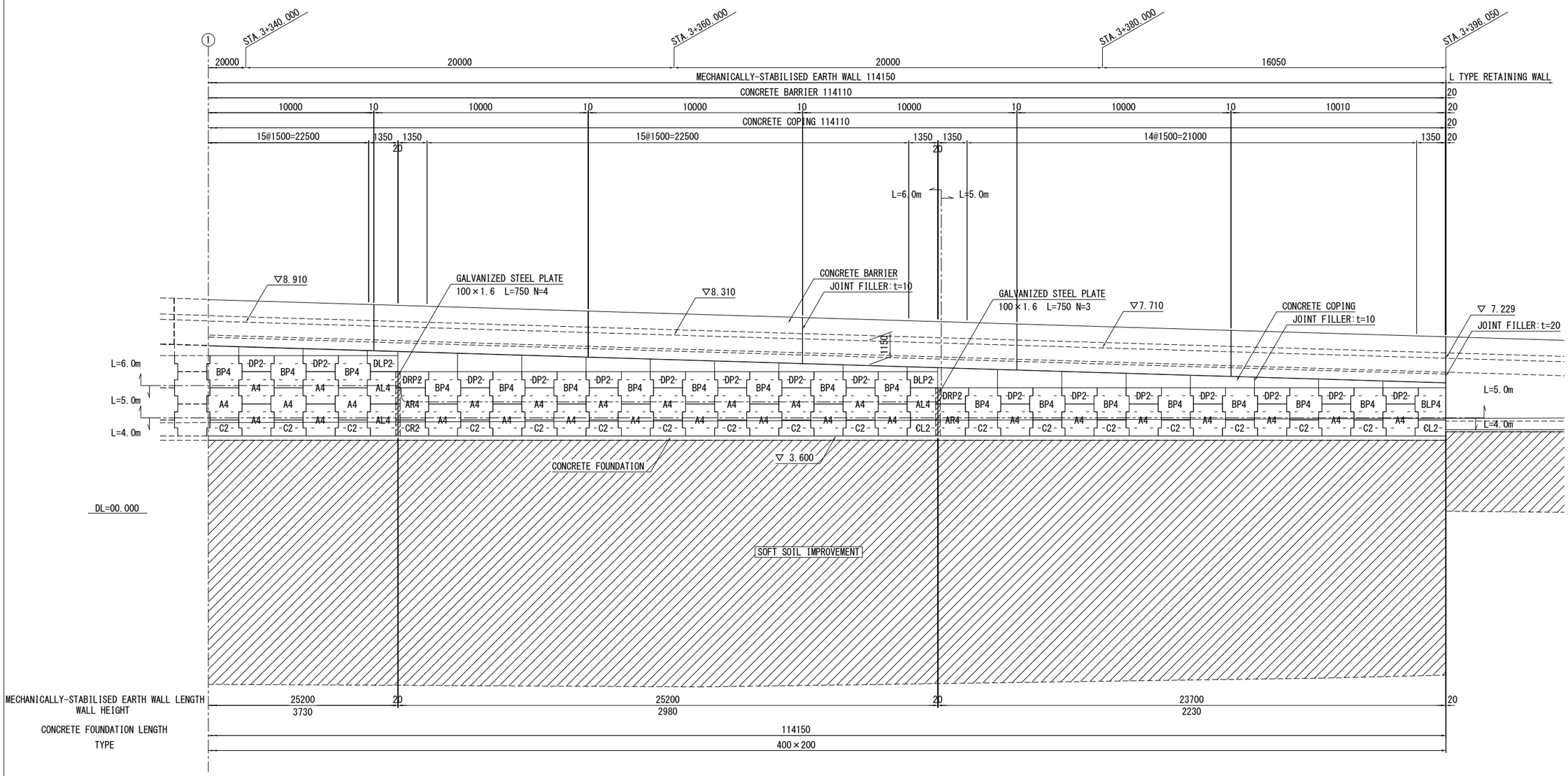
NOTE)
1) The mark "L"indicates the length of steel strip determined by the stability calculation.
2) Wall length indicates the length of wall surface.

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	DRAWING TITLE: ARRANGEMENT OF CONCRETE SKIN PLATE OF MECHANICALLY-STABILISED EARTH WALL(1)	PACKAGE: 3 / DWG No.: P3-RD-4020

	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

ARRANGEMENT OF CONCRETE SKIN PLATE OF MECHANICALLY-STABILISED EARTH WALL(2)

LEFT SIDE(DEVELOP FROM BACK SIDE) S=1:800



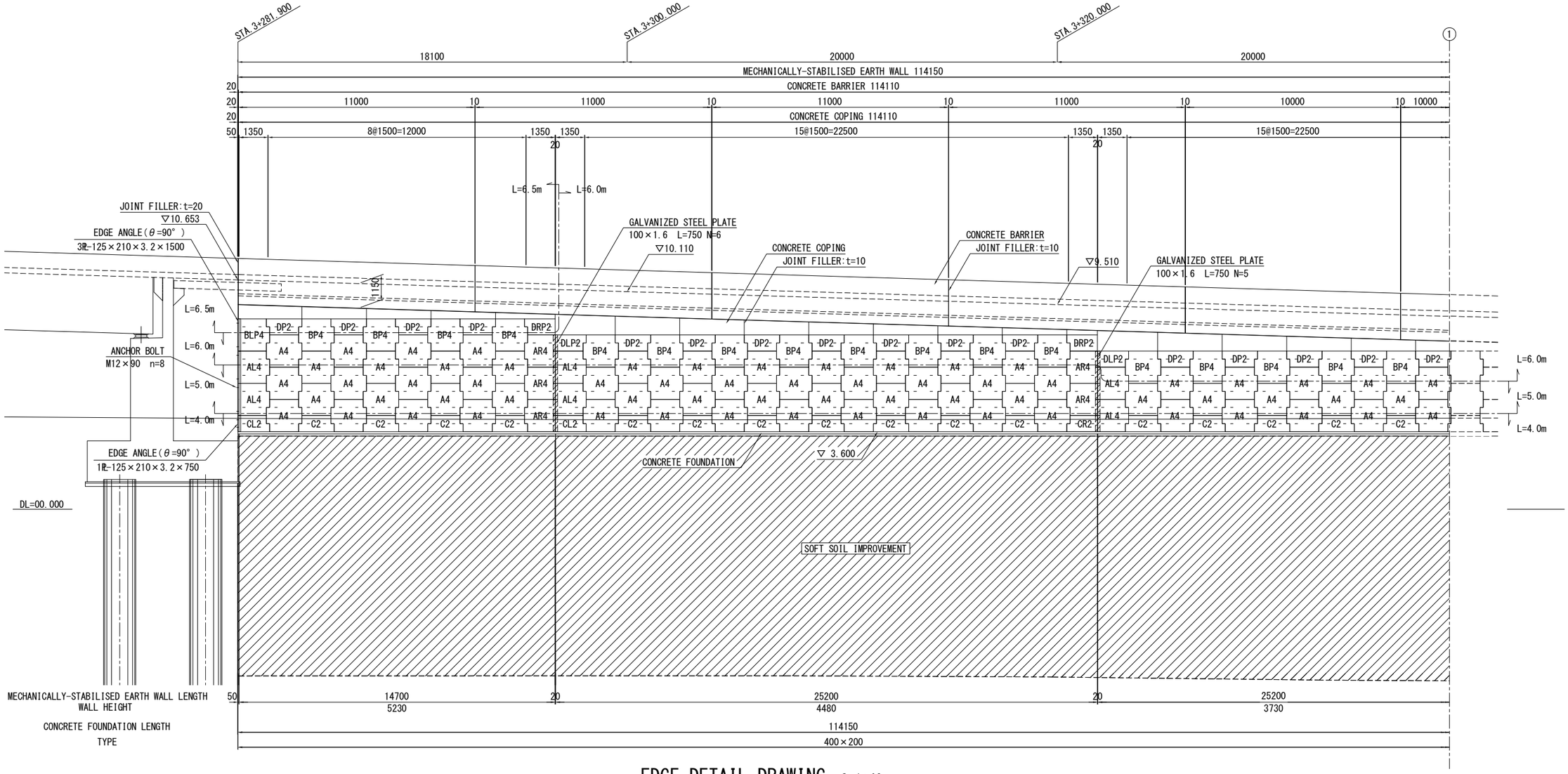
NOTE)
1) The mark "L" indicates the length of steel strip determined by the stability calculation.
2) Wall length indicates the length of wall surface.

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

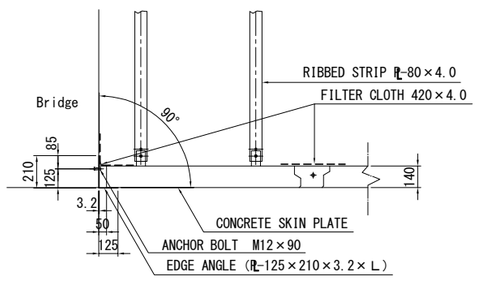
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	ARRANGEMENT OF CONCRETE SKIN PLATE OF MECHANICALLY-STABILISED EARTH WALL(2)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4030

ARRANGEMENT OF CONCRETE SKIN PLATE OF MECHANICALLY-STABILISED EARTH WALL(3)

RIGHT SIDE S=1:800



EDGE DETAIL DRAWING S=1:40



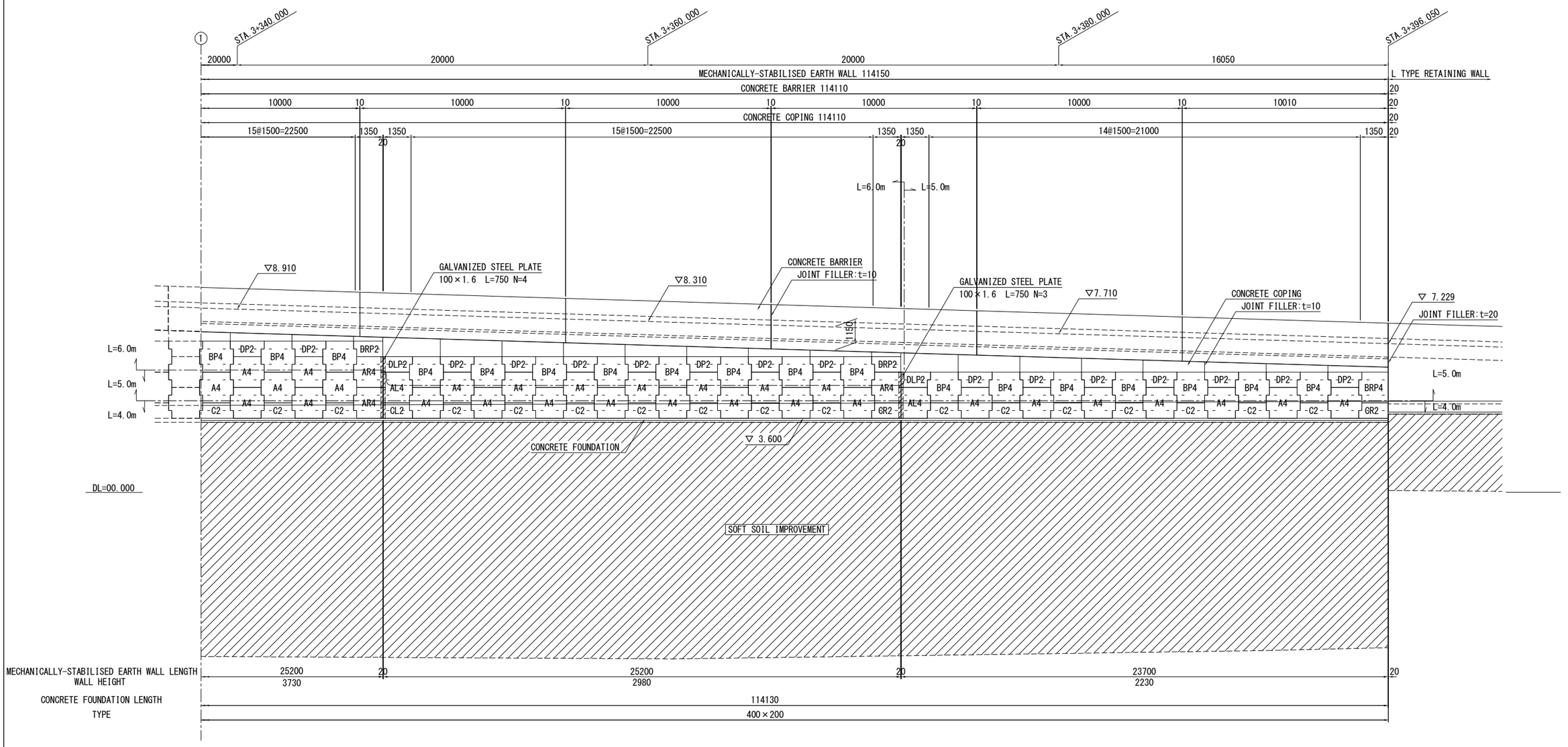
NOTE)
1) The mark "L" indicates the length of steel strip determined by the stability calculation.
2) Wall length indicates the length of wall surface.

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	ARRANGEMENT OF CONCRETE SKIN PLATE OF MECHANICALLY-STABILISED EARTH WALL(3)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4040

ARRANGEMENT OF CONCRETE SKIN PLATE OF MECHANICALLY-STABILISED EARTH WALL(4)

RIGHT SIDE S=1:800



NOTE)
1) The mark "L" indicates the length of steel strip determined by the stability calculation.
2) Wall length indicates the length of wall surface.

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

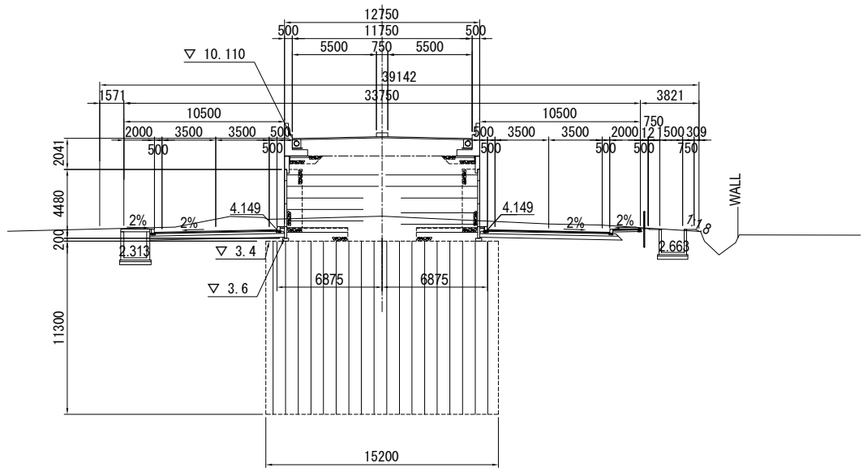
	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

DRAWING TITLE	PACKAGE
ARRANGEMENT OF CONCRETE SKIN PLATE OF MECHANICALLY-STABILISED EARTH WALL(4)	3
	DWG No.
	P3-RD-4050

CROSS SECTION(1) S=1 : 400

STA. 3+300

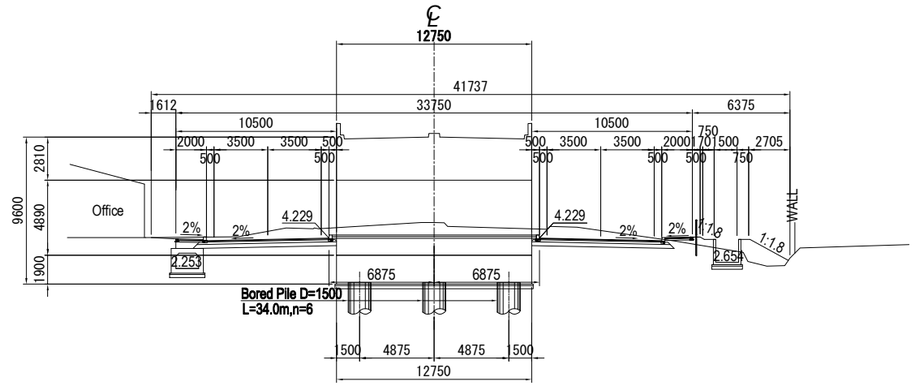
GH = 5.03
PH = 4.149



DL=3.00

STA. 3+280

GH = 5.25
PH = 4.229



DL=3.00

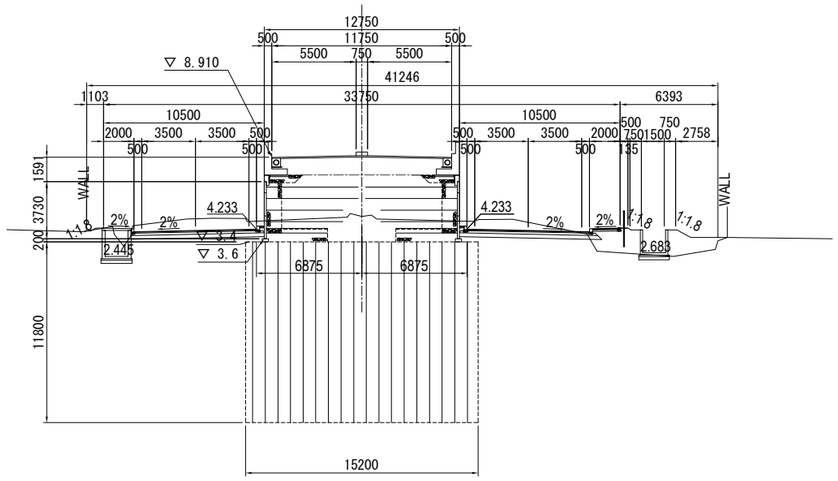
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	DRAWING TITLE: CROSS SECTION(1)	PACKAGE: 3
					DWG No.: P3-RD-4060

	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

CROSS SECTION(2) S=1 : 400

STA. 3+340

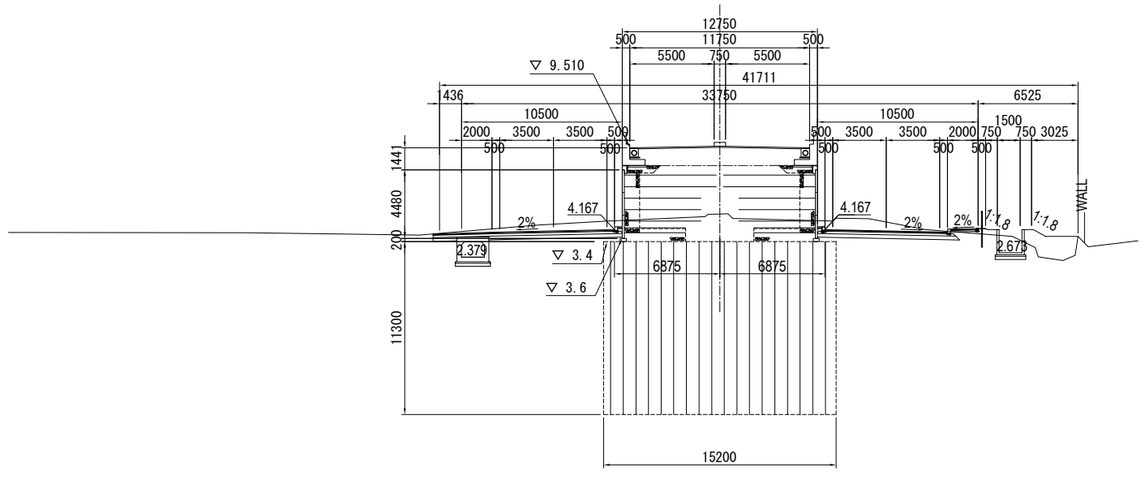
GH = 5.06
PH = 4.233



DL=3.00

STA. 3+320

GH = 5.18
PH = 4.167



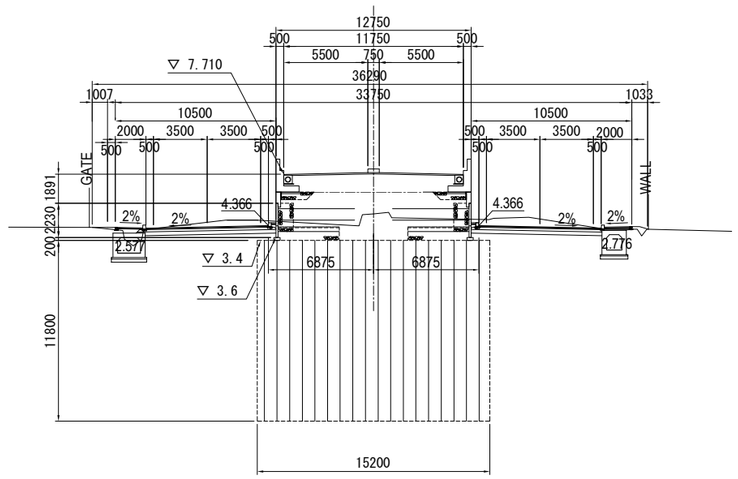
DL=3.00

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	DRAWING TITLE: CROSS SECTION(2)	PACKAGE: 3
					DWG No.: P3-RD-4070

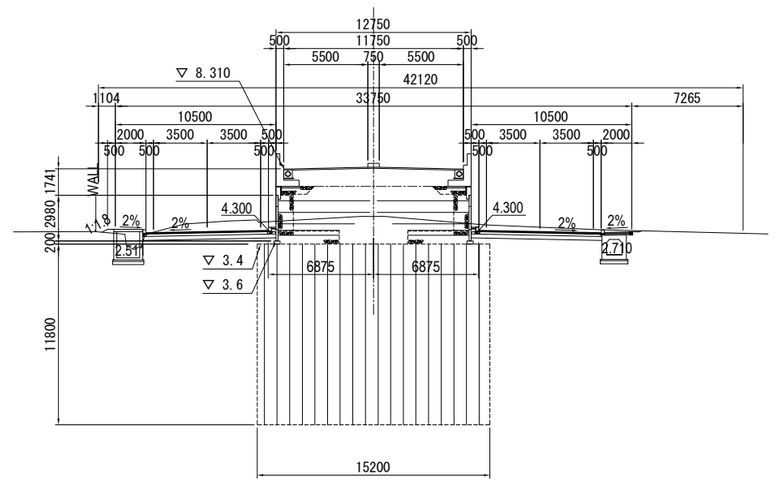
	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

CROSS SECTION(3) S=1 : 400

STA. 3+380
GH = 5.13
PH = 4.366



STA. 3+360
GH = 5.20
PH = 4.300



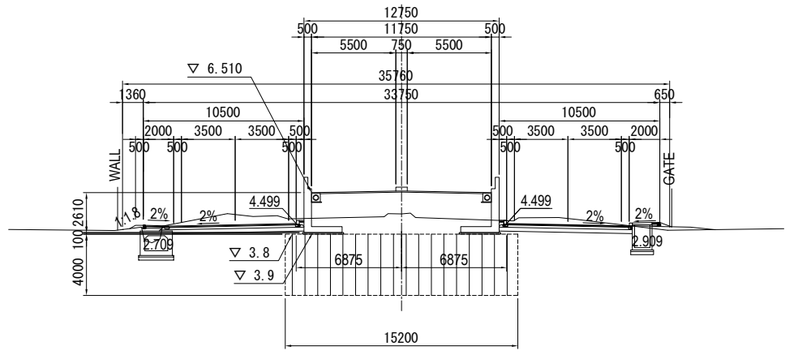
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	CROSS SECTION(3)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4080

CROSS SECTION(4) S=1 : 400

STA. 3+420

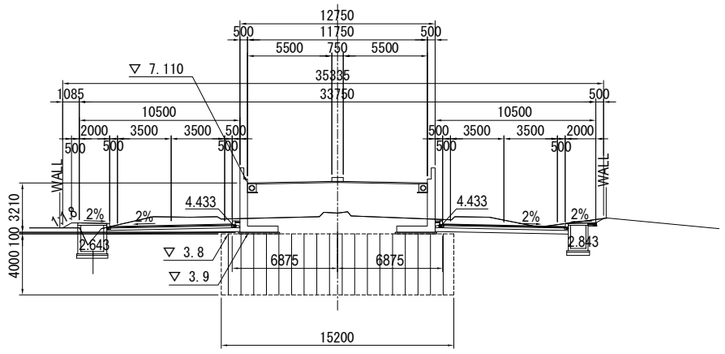
GH = 5.12
PH = 4.499



DL=3.00

STA. 3+400

GH = 5.15
PH = 4.433



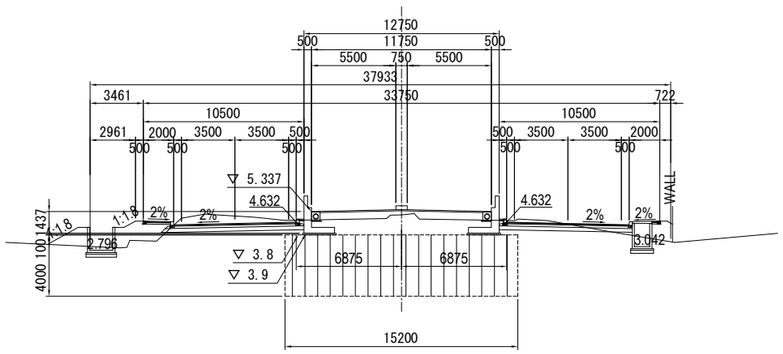
DL=3.00

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	PREPARED BY	K. TACHIBANA		29 Sep.2017	CROSS SECTION(4)	3
				CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
				APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4090

CROSS SECTION(5) S=1 : 400

STA. 3+460

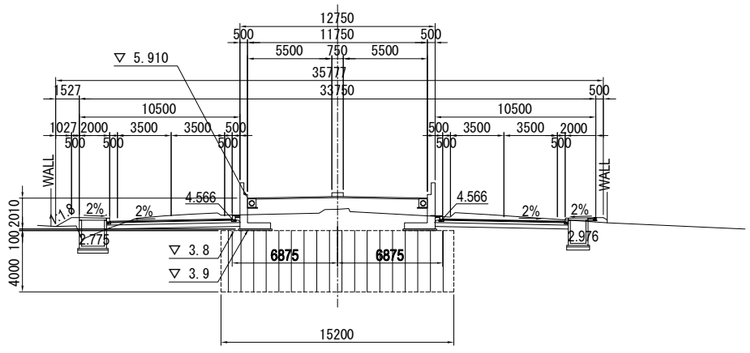
GH = 5.11
PH = 4.632



DL=3.00

STA. 3+440

GH = 5.19
PH = 4.566



DL=3.00

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

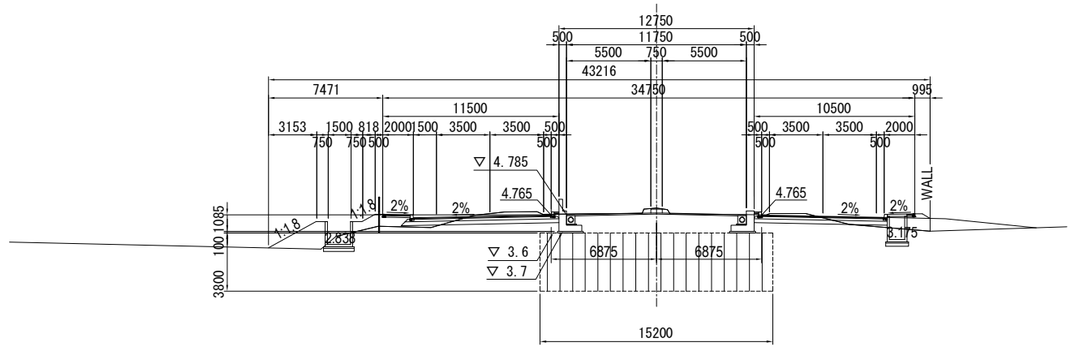
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	CROSS SECTION(5)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4100

CROSS SECTION(6) S=1 : 400

STA. 3+500

GH = 5.23
PH = 4.765

℄

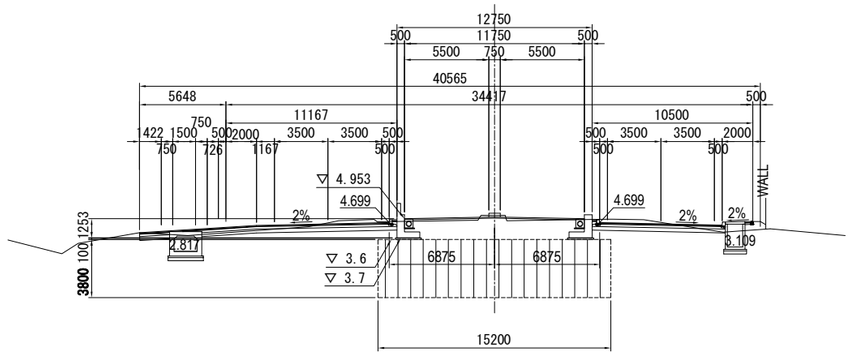


DL=3.00

STA. 3+480

GH = 5.16
PH = 4.699

℄



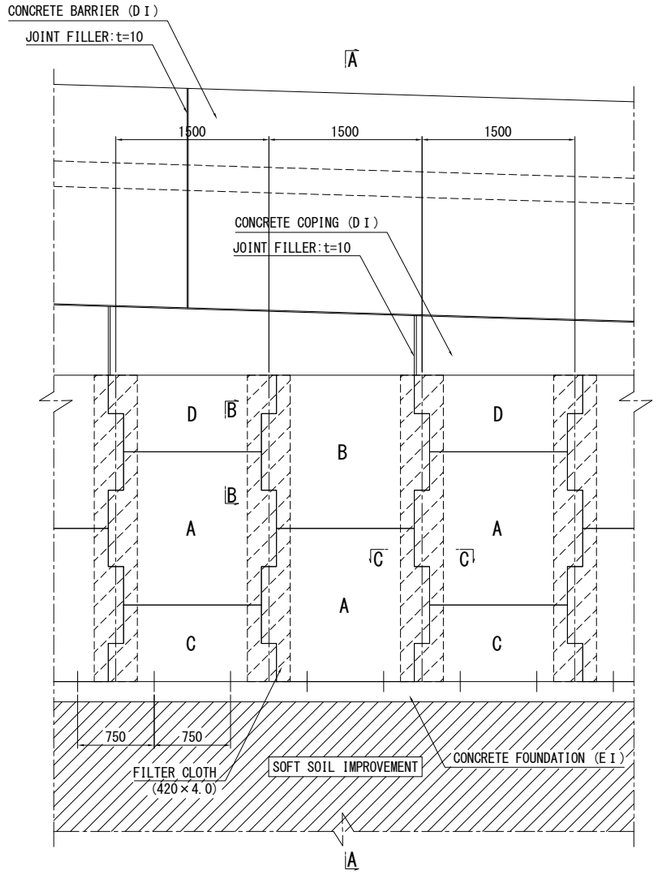
DL=3.00

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	DRAWING TITLE: CROSS SECTION(6)	PACKAGE: 3
					DWG No.: P3-RD-4110

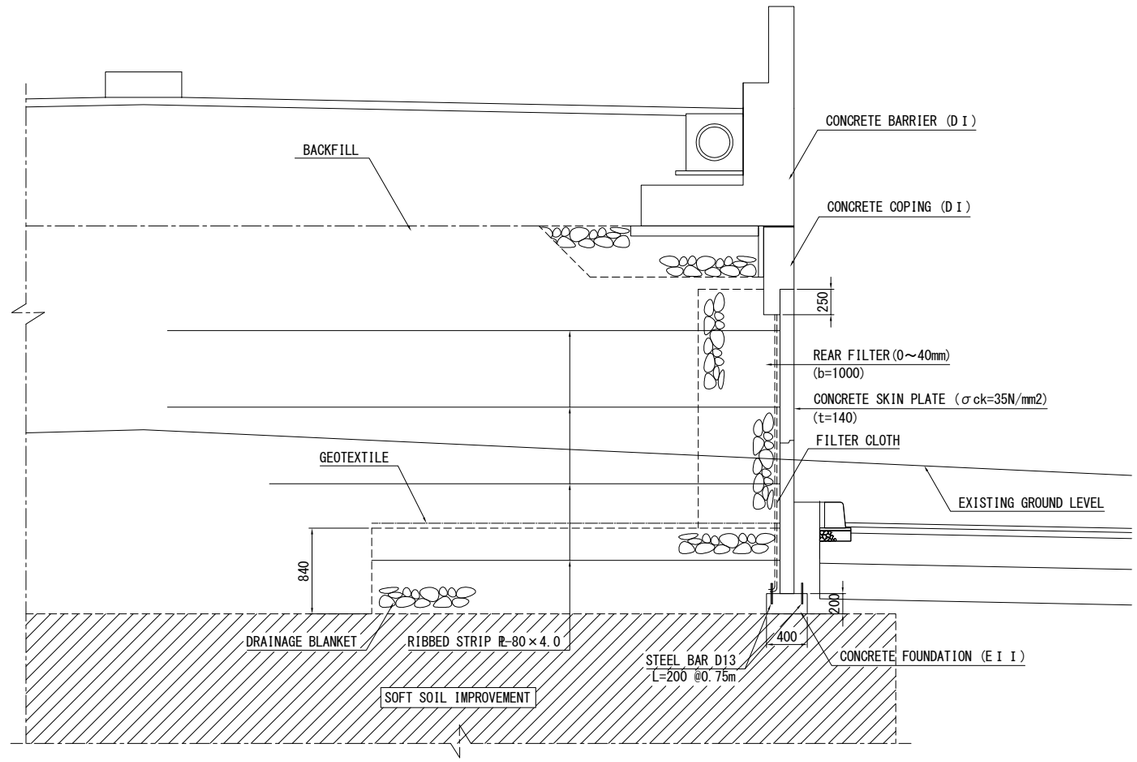
	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

DETAIL OF MECHANICALLY-STABILISED EARTH WALL(1)

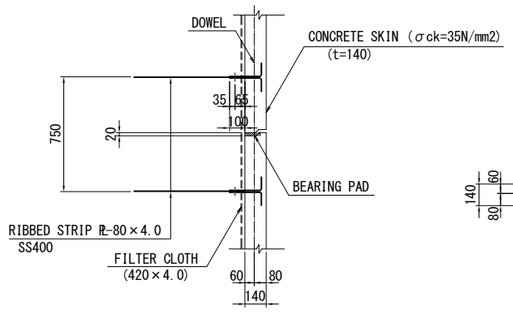
SKIN ARRANGEMENT S=1:60



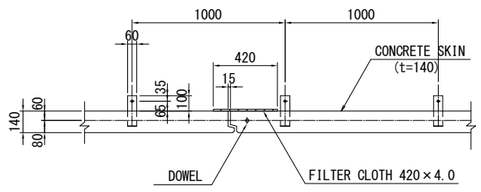
A-A CROSS SECTION S=1:60



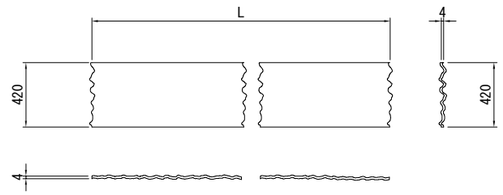
B-B CROSS SECTION S=1:40



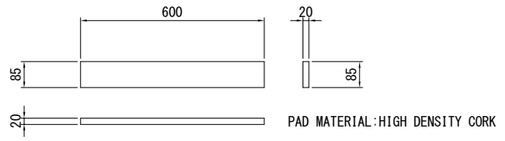
C-C CROSS SECTION S=1:40



FILTER CLOTH S=1:40



BEARING PAD S=1:20

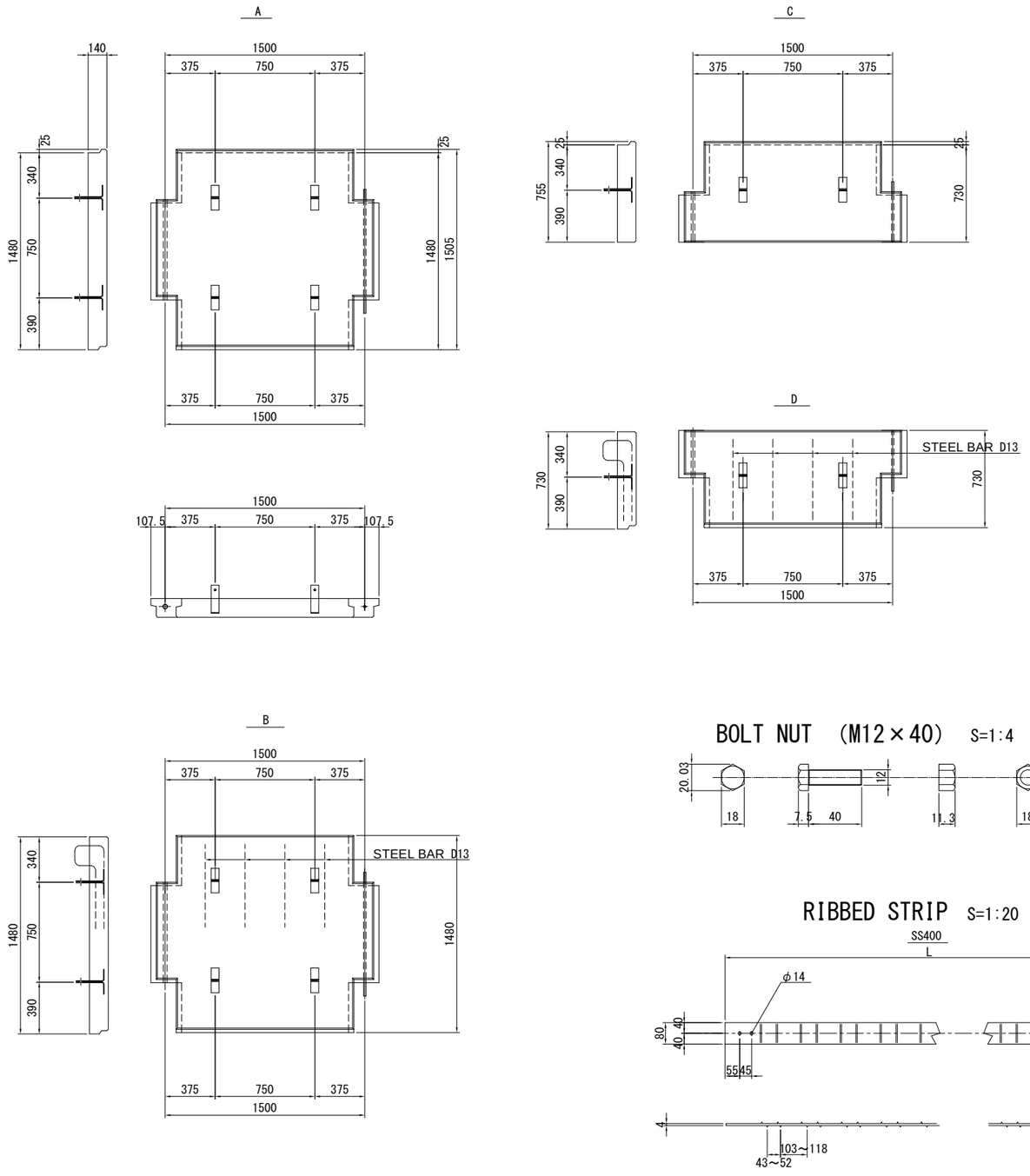


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	DETAIL OF MECHANICALLY-STABILISED EARTH WALL(1)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4120

DETAIL OF MECHANICALLY-STABILISED EARTH WALL(2)

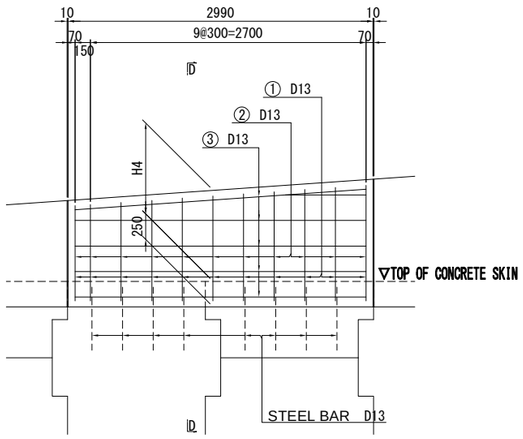
TYPE OF CONCRETE SKIN S=1:40



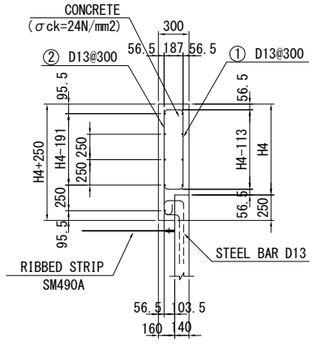
BOLT NUT (M12×40) S=1:4

RIBBED STRIP S=1:20

COPING REINFORCEMENT S=1:60

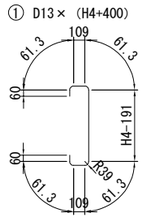


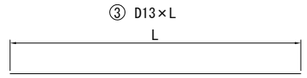
D-D CROSSSECTION



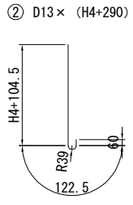
NOTE) "H4" IS THE HIGH
OF COPING REINFORCEMENT

BAR SCHEDULING





NOTE) L SHOWS THE CENTER OF BAR

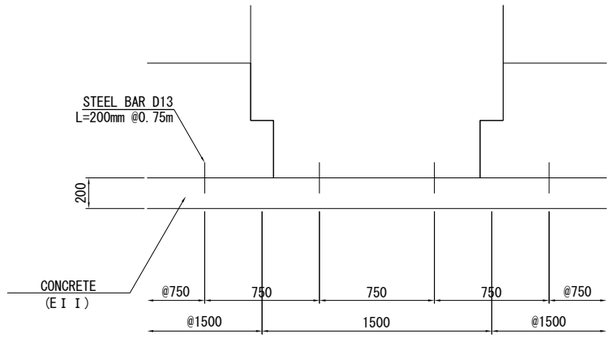


PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	DETAIL OF MECHANICALLY-STABILISED EARTH WALL(2)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4130

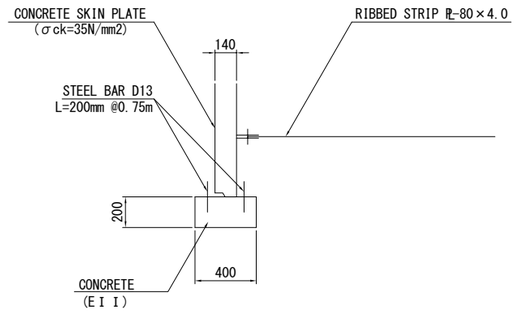
DETAIL OF MECHANICALLY-STABILISED EARTH WALL(3)

CONCRETE FOUNDATION DRAWING S=1:40

FRONT VIEW DRAWING



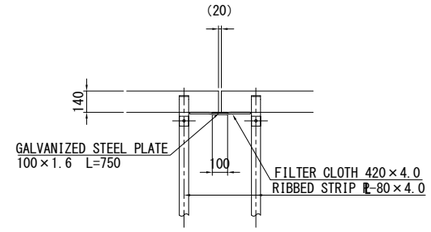
CROSS SECTION



NOTE) 1. FOUNDATION WORK OF TOP FINISH:TROWEL FINISH

JOINT DETAIL DRAWING S=1:40

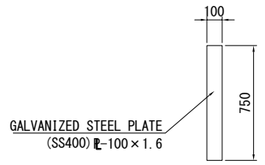
CROSS SECTION



ex : 1.( ) THE LOCAL ADJUSTMENT

GALVANIZED STEEL PLATE S=1:40

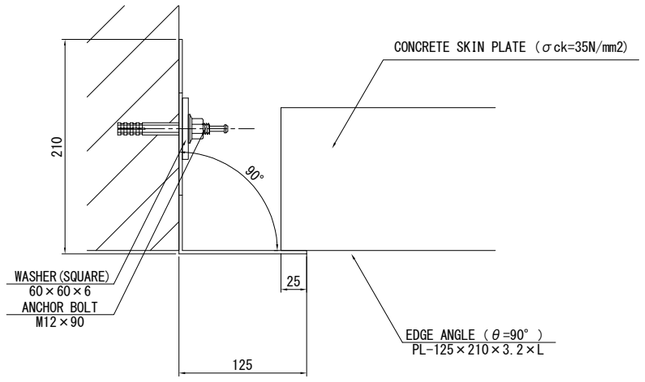
FRONT VIEW DRAWING



CROSS SECTION

EDGE DETAIL DRAWING

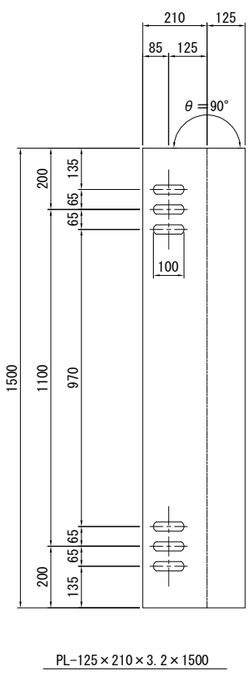
CROSS SECTION S=1:6



NOTE) 1. BOLT IT IS USED TWO PER ONE EDGE ANGLE

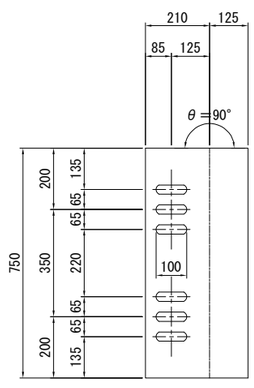
EDGE ANGLE BRACKET S=1:20

L=1500

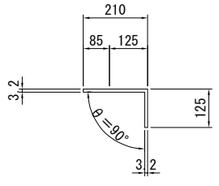


PL-125×210×3.2×1500

L=750



PL-125×210×3.2×750

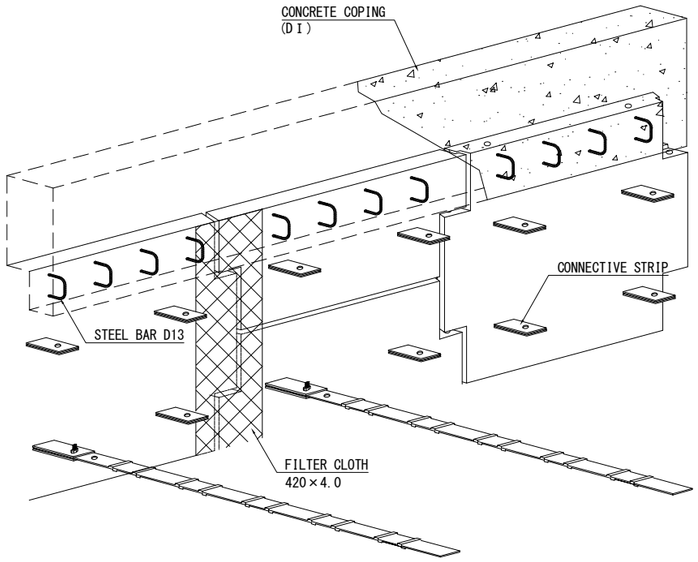


PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	DETAIL OF MECHANICALLY-STABILISED EARTH WALL(3)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4140

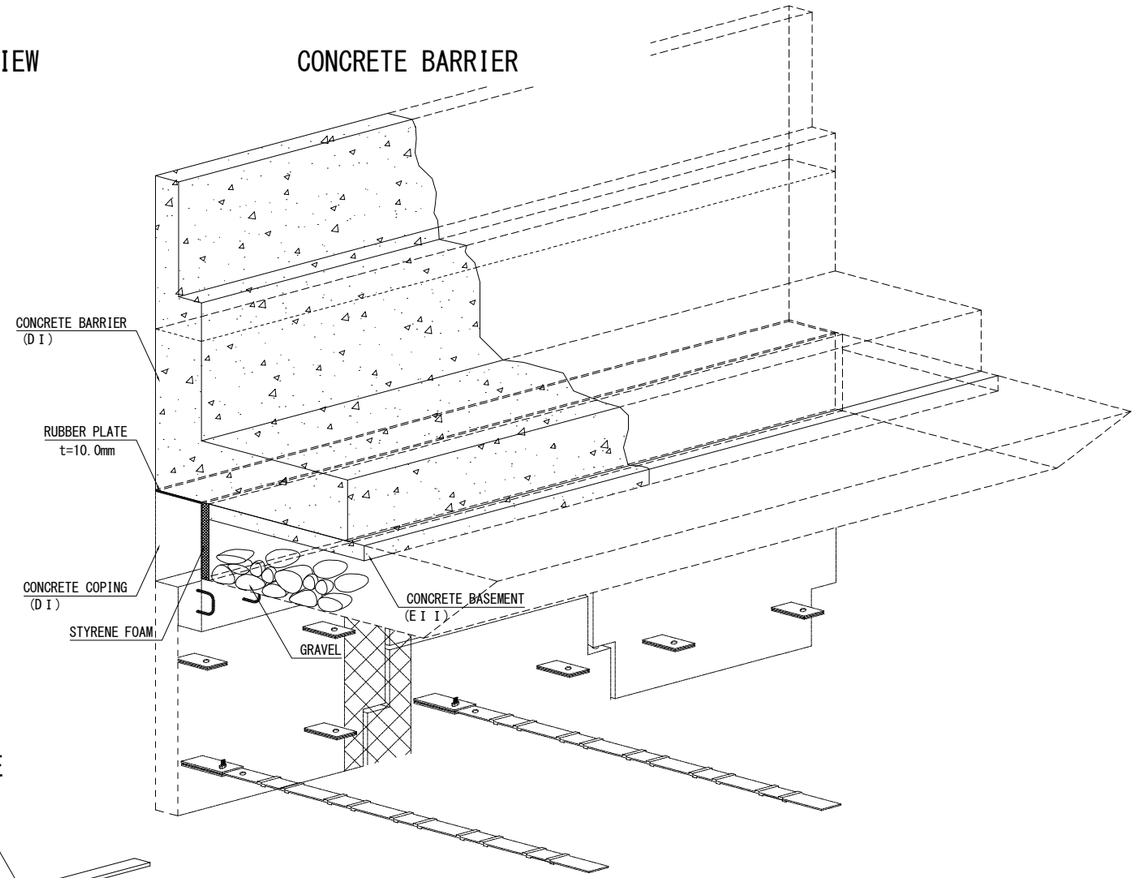
DETAIL OF MECHANICALLY-STABILISED EARTH WALL(4)

CONCRETE COPING

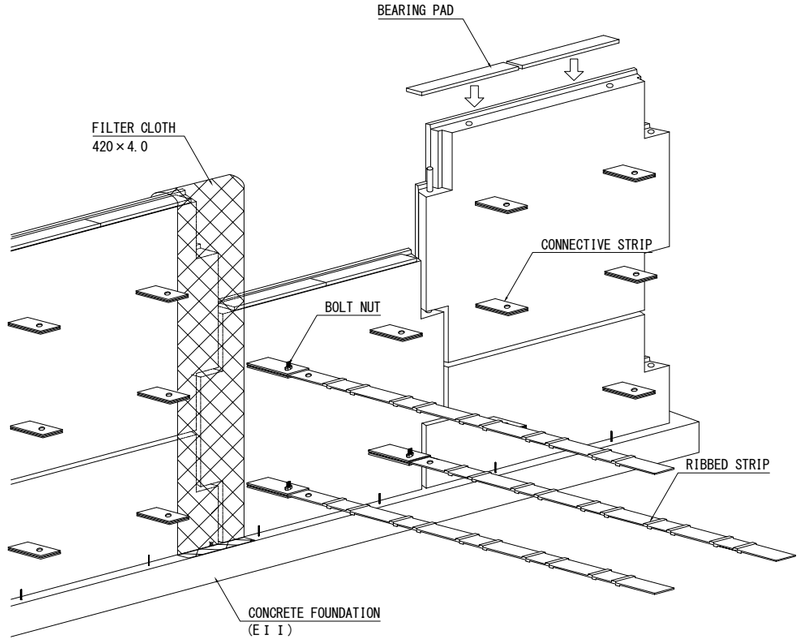


BIRD'S EYE VIEW

CONCRETE BARRIER



CONCRETE SKIN PLATE

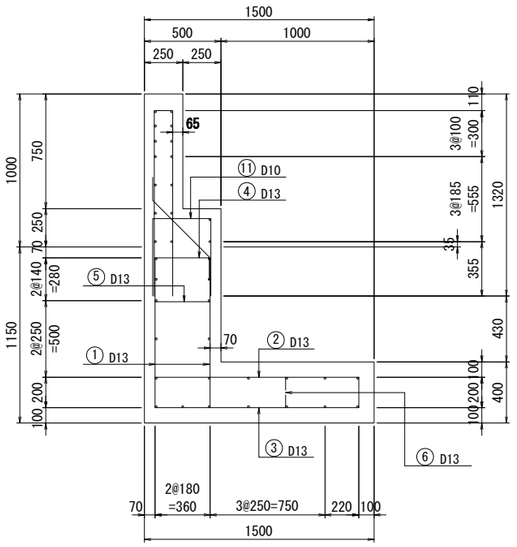


PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

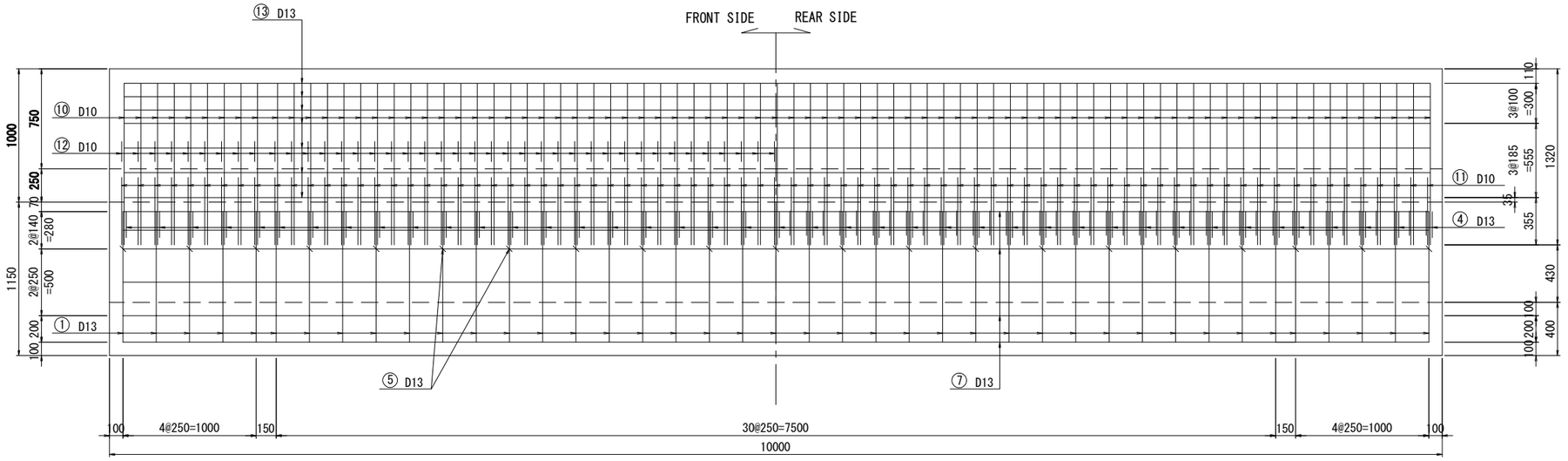
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	DETAIL OF MECHANICALLY-STABILISED EARTH WALL(4)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4150

DETAIL OF CONCRETE BARRIER ON MECHANICALLY-STABILISED EARTH WALL(1) S=1:40

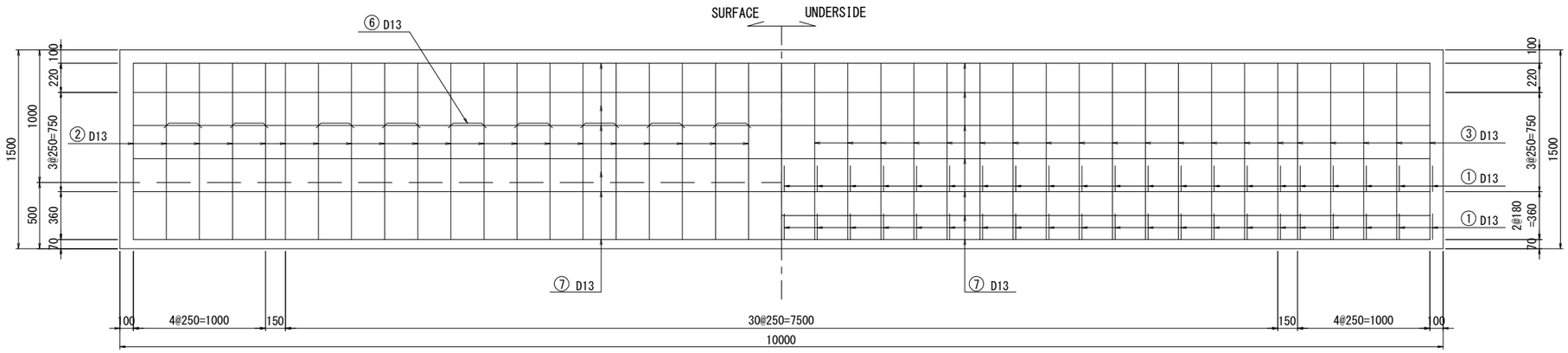
SECTION



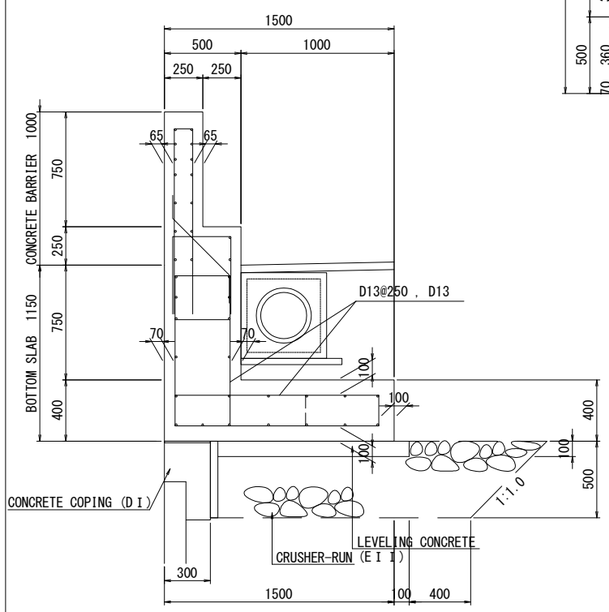
BREST WALL



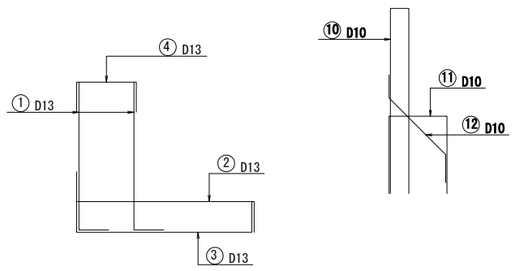
BOTTOM SLAB



SETTING



BAR ASSEMDLING

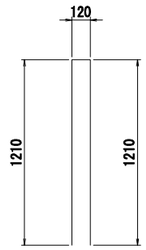


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

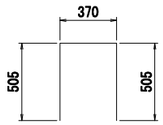
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	DETAIL OF CONCRETE BARRIER ON MECHANICALLY-STABILISED EARTH WALL(1)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4160

DETAIL OF CONCRETE BARRIER ON MECHANICALLY-STABILISED EARTH WALL(2)

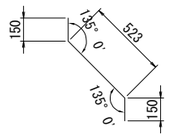
BAR SCHEDULING



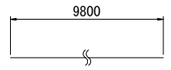
⑩ 79-D10×2540



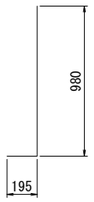
⑪ 41-D10×1380



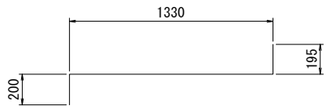
⑫ 41-D10× 830



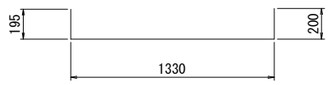
⑬ 16-D10×9800



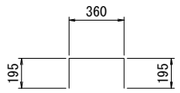
① 82-D13×1180



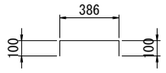
② 41-D13×1730



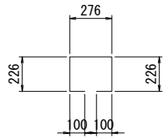
③ 41-D13×1730



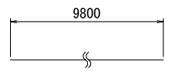
④ 41-D13× 750



⑤ 21-D13× 590



⑥ 18-D13× 930



⑦ 21-D13×9800

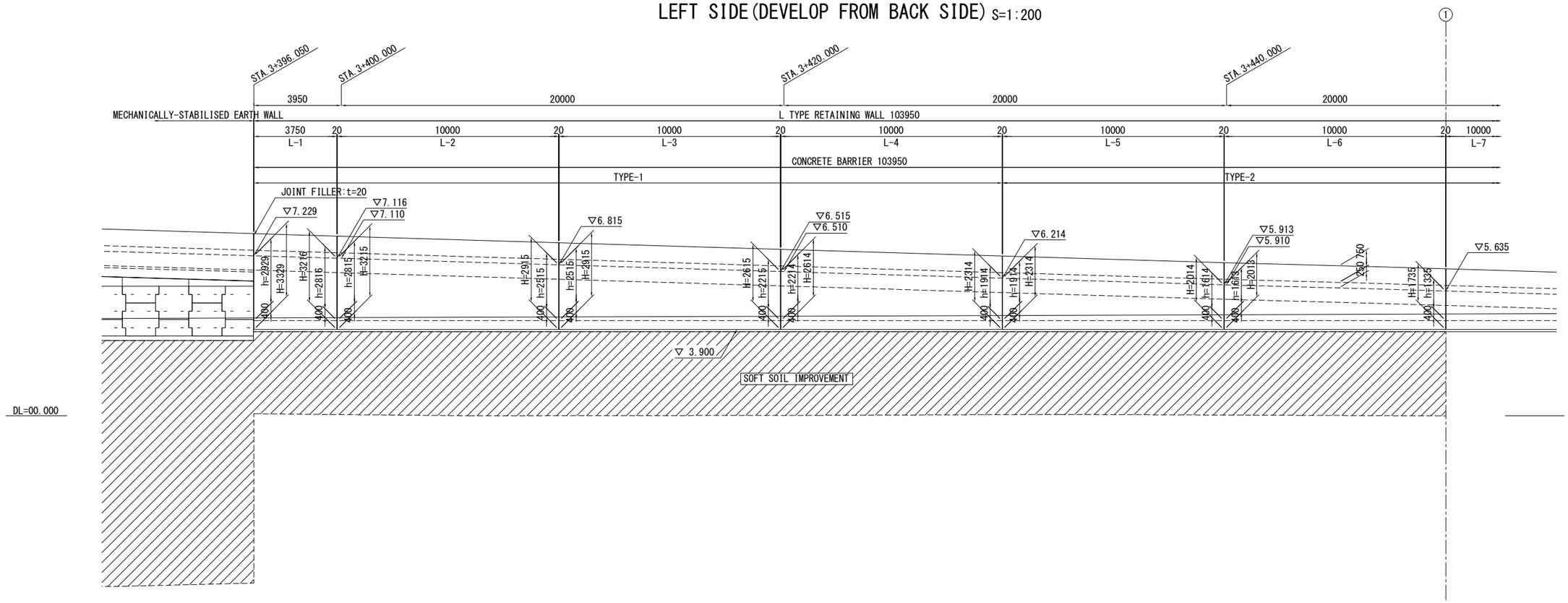
LIST OF REINFORCEMENT (per10.0m)

NAME	PIANETER	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/BAR (kg)	WEIGHT (kg)	REMARKS
HANDRAIL							
10	D10	2540	79	0.560	1.42	112	
11	D10	1380	41	0.560	0.77	32	
12	D10	830	41	0.560	0.46	19	
13	D10	9800	16	0.560	5.49	88	
BOTTOM SLAB							
1	D13	1180	82	0.995	1.17	96	
2	D13	1730	41	0.995	1.72	71	
3	D13	1730	41	0.995	1.72	71	
4	D13	750	41	0.995	0.75	31	
5	D13	590	21	0.995	0.59	12	
6	D13	930	18	0.995	0.93	17	
7	D13	9800	21	0.995	9.75	205	
					D10	251 kg	
					D13	503 kg	
				total		754 kg	

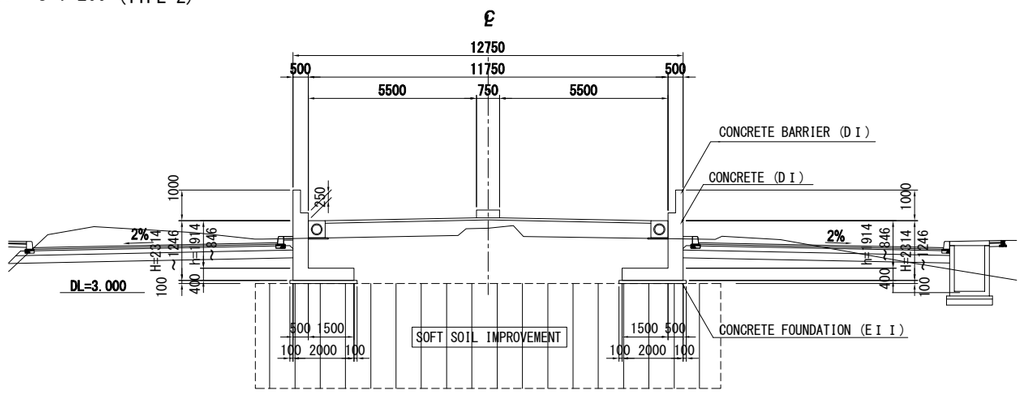
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	DETAIL OF CONCRETE BARRIER ON MECHANICALLY-STABILISED EARTH WALL(2)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4170

DETAIL OF L TYPE RETAINING WALL(1)

LEFT SIDE(DEVELOP FROM BACK SIDE) S=1:200



CROSS SECTION S=1:200 (TYPE-2)



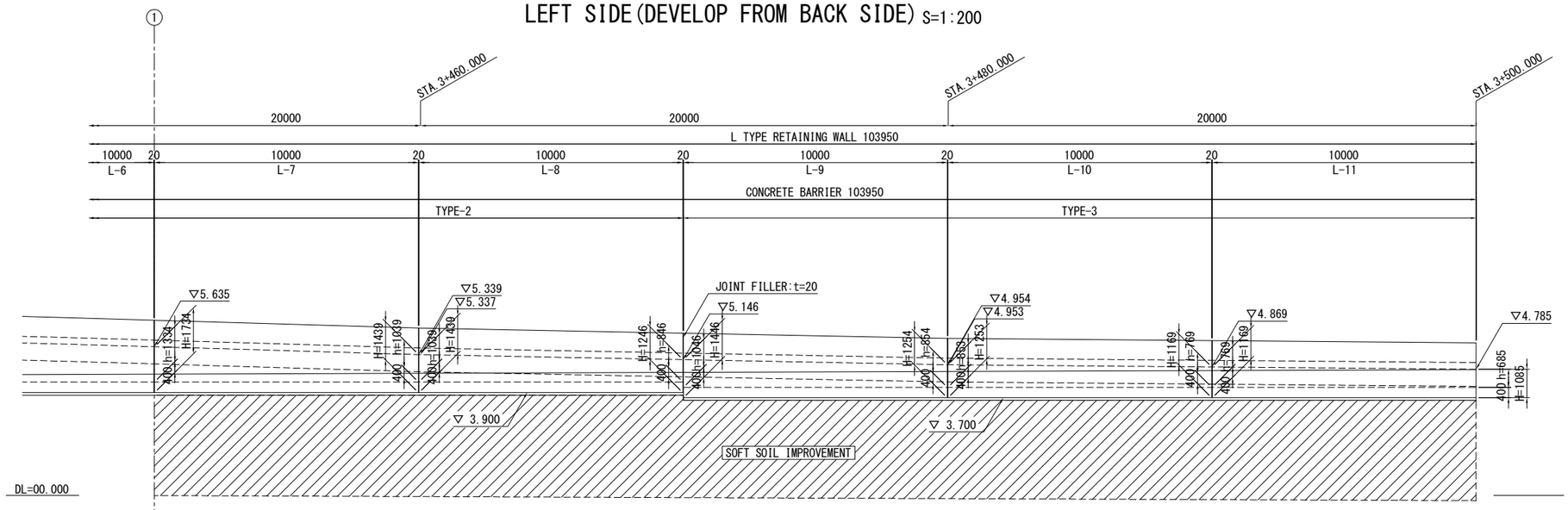
(TYPE-1)

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

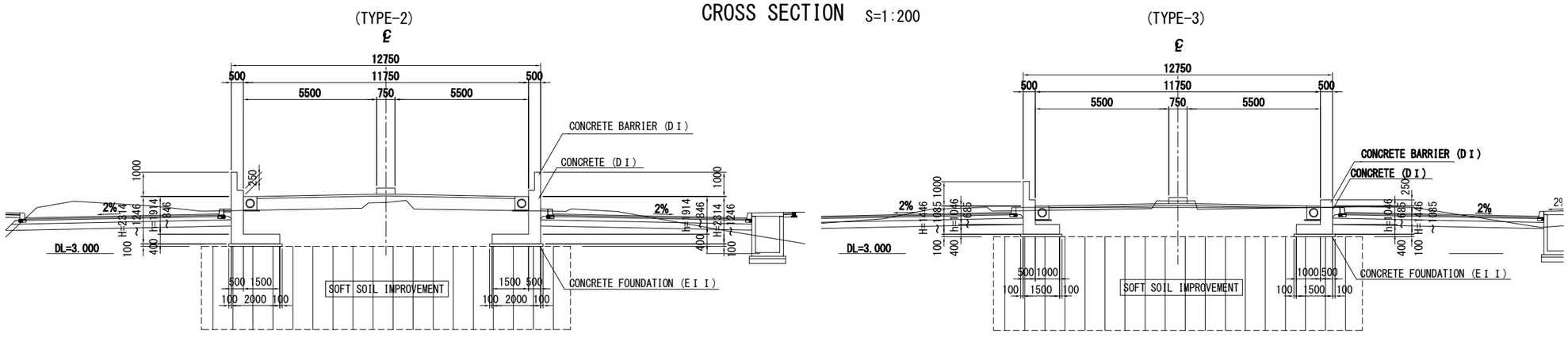
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	DETAIL OF L TYPE RETAINING WALL(1)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4180

DETAIL OF L TYPE RETAINING WALL(2)

LEFT SIDE(DEVELOP FROM BACK SIDE) S=1:200



CROSS SECTION S=1:200

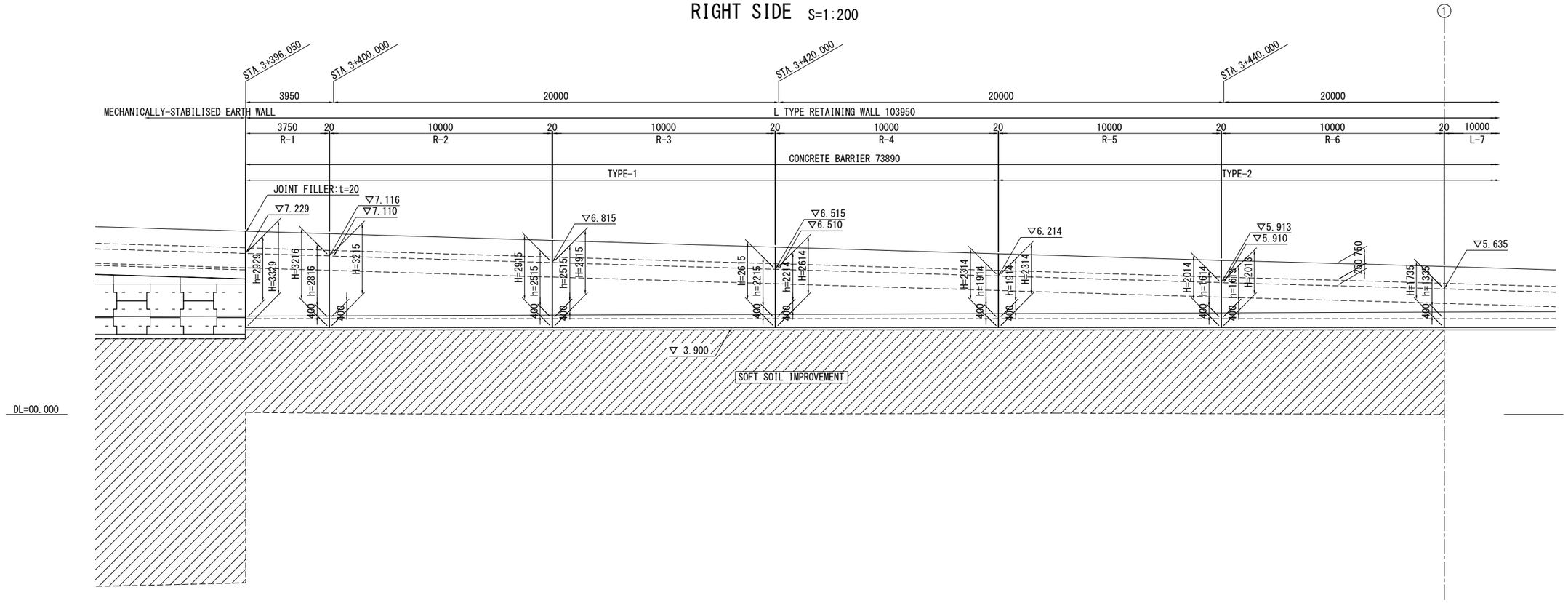


PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	DETAIL OF L TYPE RETAINING WALL(2)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4190

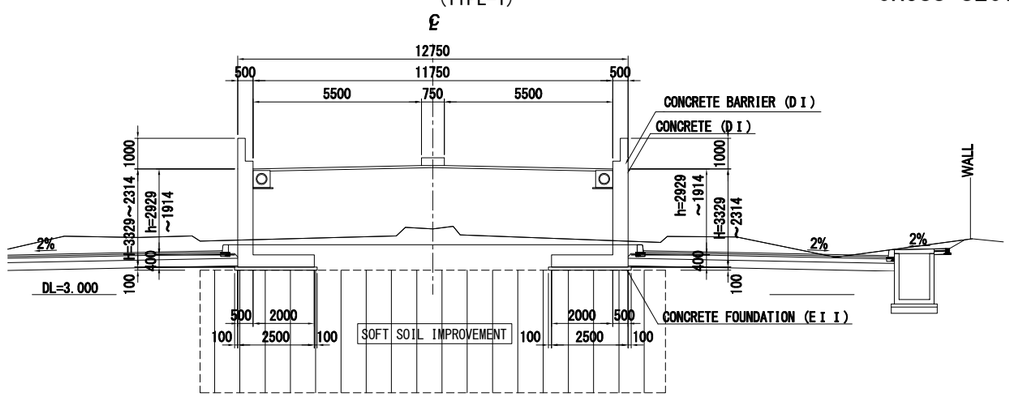
DETAIL OF L TYPE RETAINING WALL(3)

RIGHT SIDE S=1:200

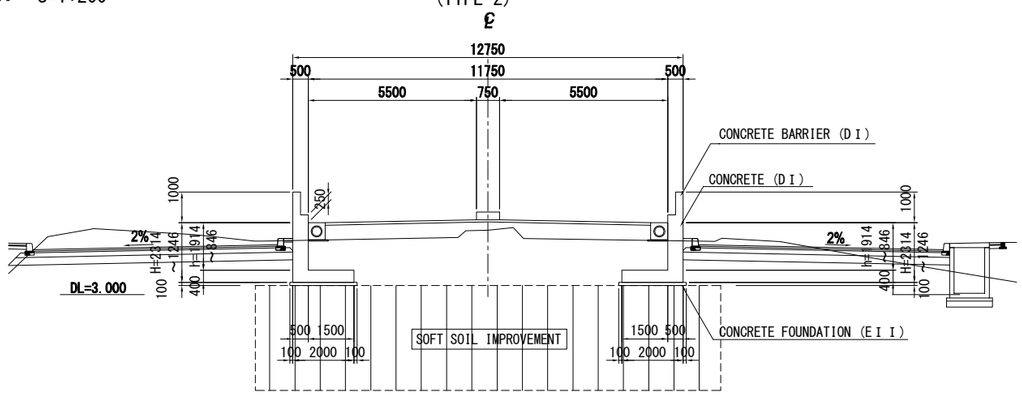


CROSS SECTION S=1:200

(TYPE-1)



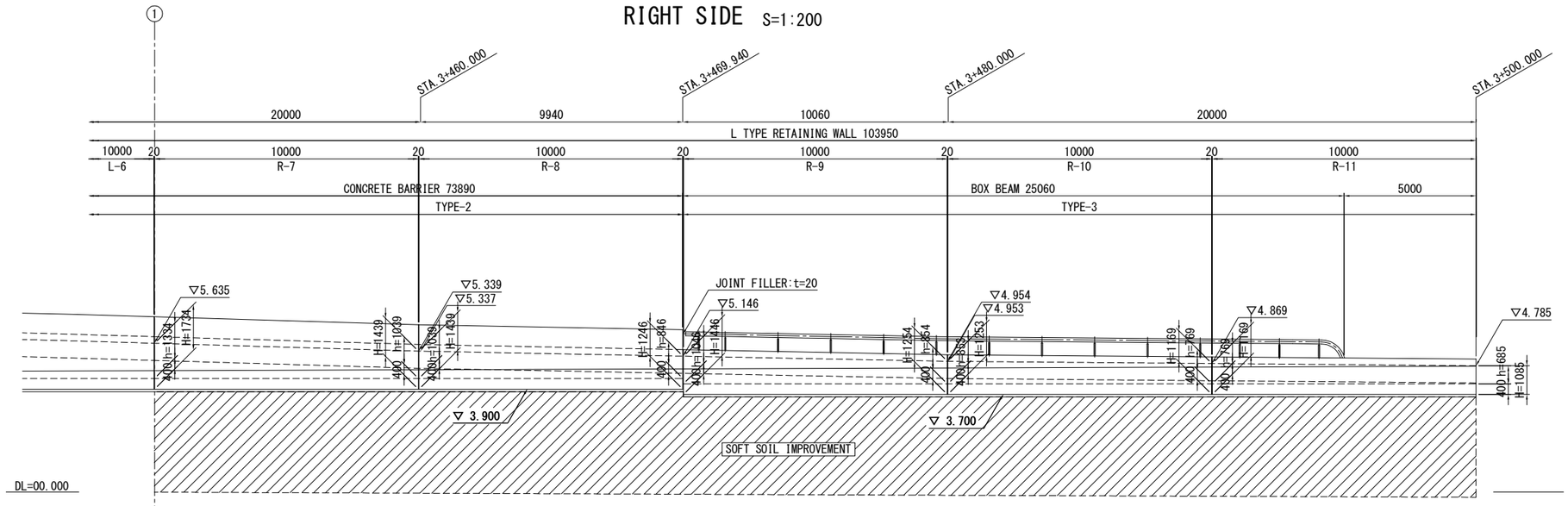
(TYPE-2)



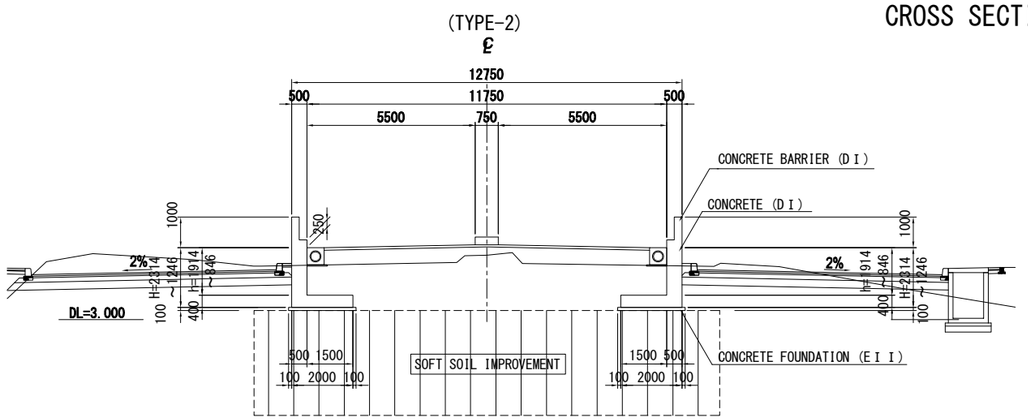
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	DETAIL OF L TYPE RETAINING WALL(3)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4200

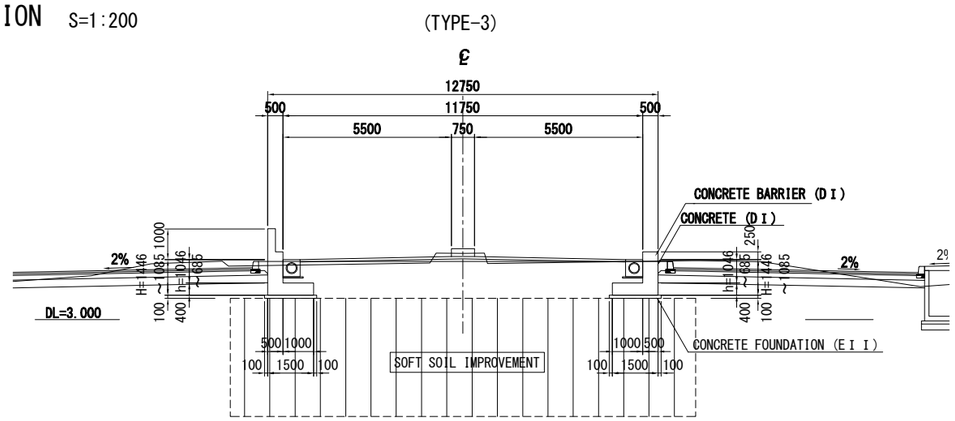
DETAIL OF L TYPE RETAINING WALL(4)

RIGHT SIDE S=1:200



CROSS SECTION S=1:200





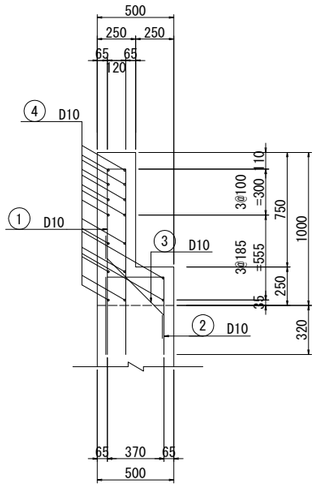
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	DETAIL OF L TYPE RETAINING WALL(4)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4210

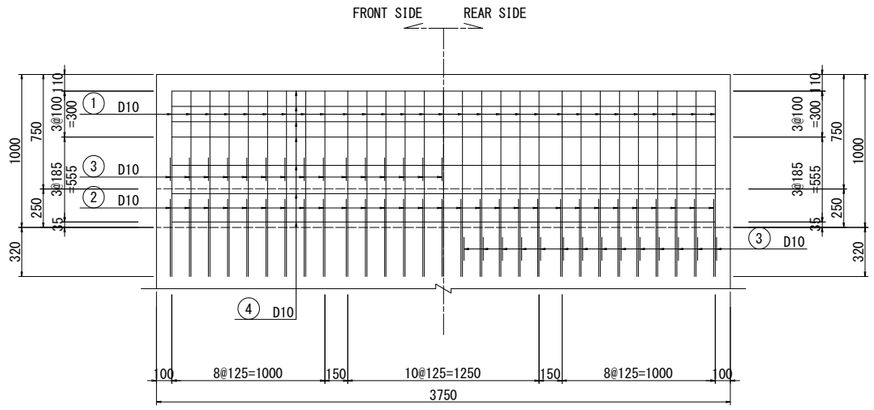
BAR ARRANGEMENT OF L TYPE RETAINING WALL(1)　S=1:40

CONCRETE BARRIER(1) L-1・R-1

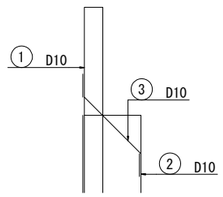
SECTION



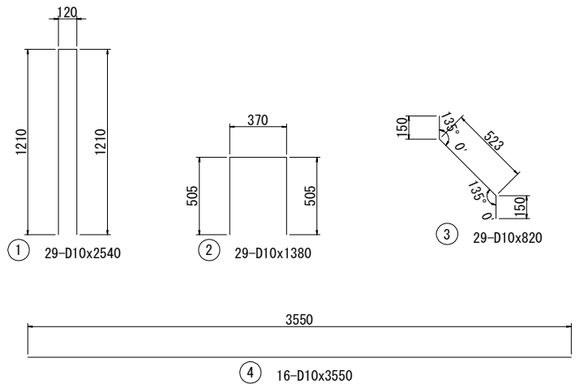
BREST WALL



BAR ASSEMDLING



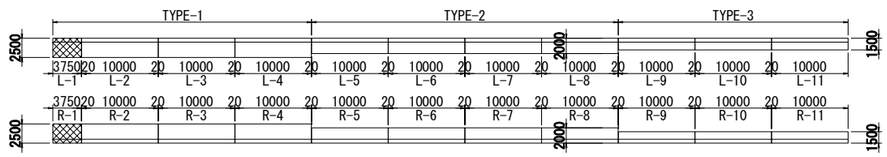
BAR SCHEDULING



LIST OF REINFORCEMENT

NAME	PIANETER	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/BAR (kg)	WEIGHT (kg)	REMARKS
1	D10	2540	29	0.56	1.42	41	
2	D10	1380	29	0.56	0.77	22	
3	D10	820	29	0.56	0.46	13	
4	D10	3550	16	0.56	1.99	32	
						108	
					D10	108 kg	
					total	108 kg	

KEY PLAN



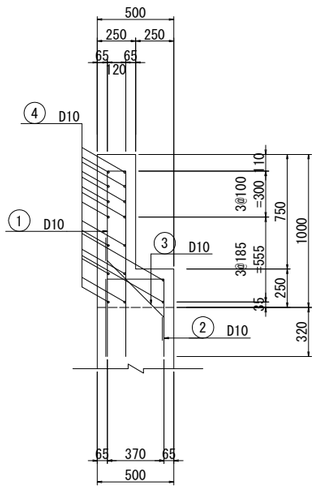
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	BAR ARRANGEMENT OF L TYPE RETAINING WALL(1)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4220

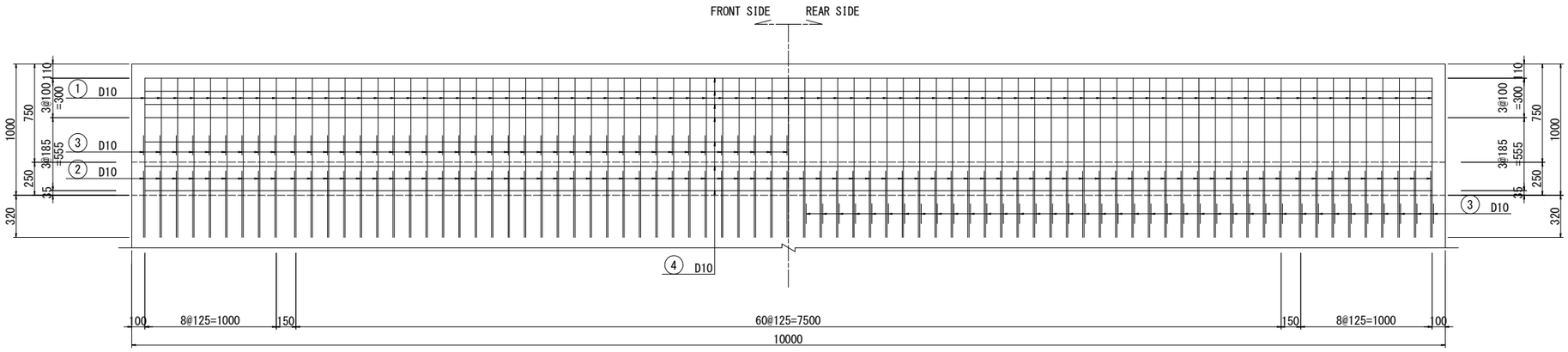
BAR ARRANGEMENT OF L TYPE RETAINING WALL(2) S=1:40

CONCRETE BARRIER(2) L2～11・R2～8

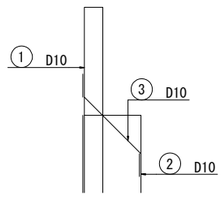
SECTION



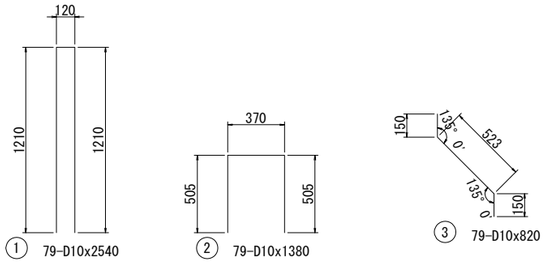
BREST WALL

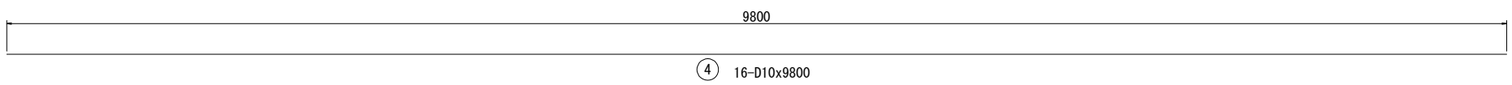


BAR ASSEMDLING



BAR SCHEDULING

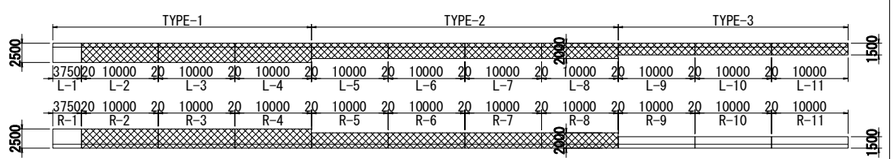




LIST OF REINFORCEMENT

NAME	PIANETER	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/BAR (kg)	WEIGHT (kg)	REMARKS
1	D10	2540	79	0.56	1.42	112	
2	D10	1380	79	0.56	0.77	61	
3	D10	820	79	0.56	0.46	36	
4	D10	9800	16	0.56	5.49	88	
						297	
					D10	297 kg	
					total	297 kg	

KEY PLAN



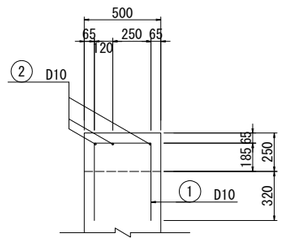
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	BAR ARRANGEMENT OF L TYPE RETAINING WALL(2)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4230

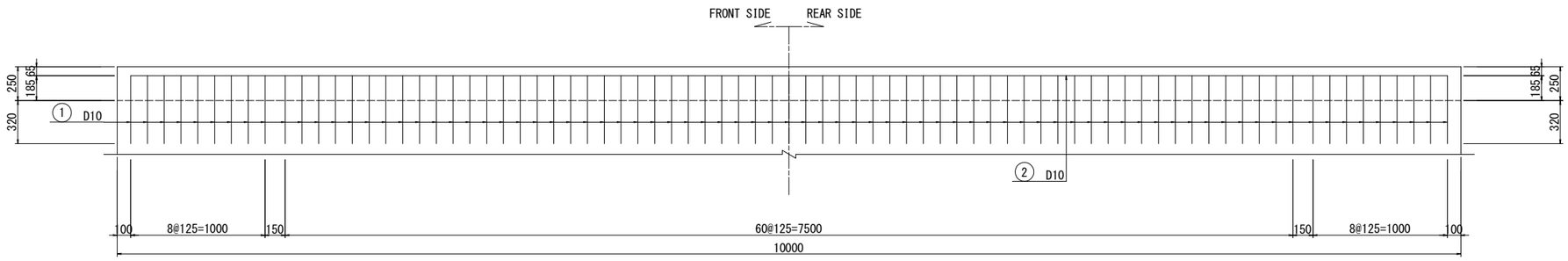
BAR ARRANGEMENT OF L TYPE RETAINING WALL(3) S=1:40

CONCRETE BARRIER(3) R-9～11

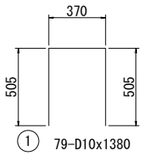
SECTION

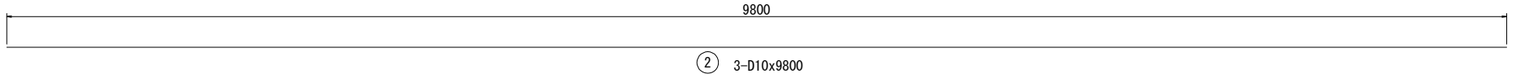


BREST WALL



BAR SCHEDULING

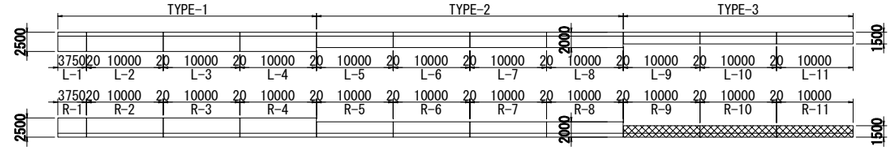




LIST OF REINFORCEMENT

NAME	PIANETER	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/BAR (kg)	WEIGHT (kg)	REMARKS
1	D10	1380	79	0.56	0.77	61	
2	D10	9800	3	0.56	5.49	16	
						77	
					D10	77 kg	
					total	77 kg	

KEY PLAN



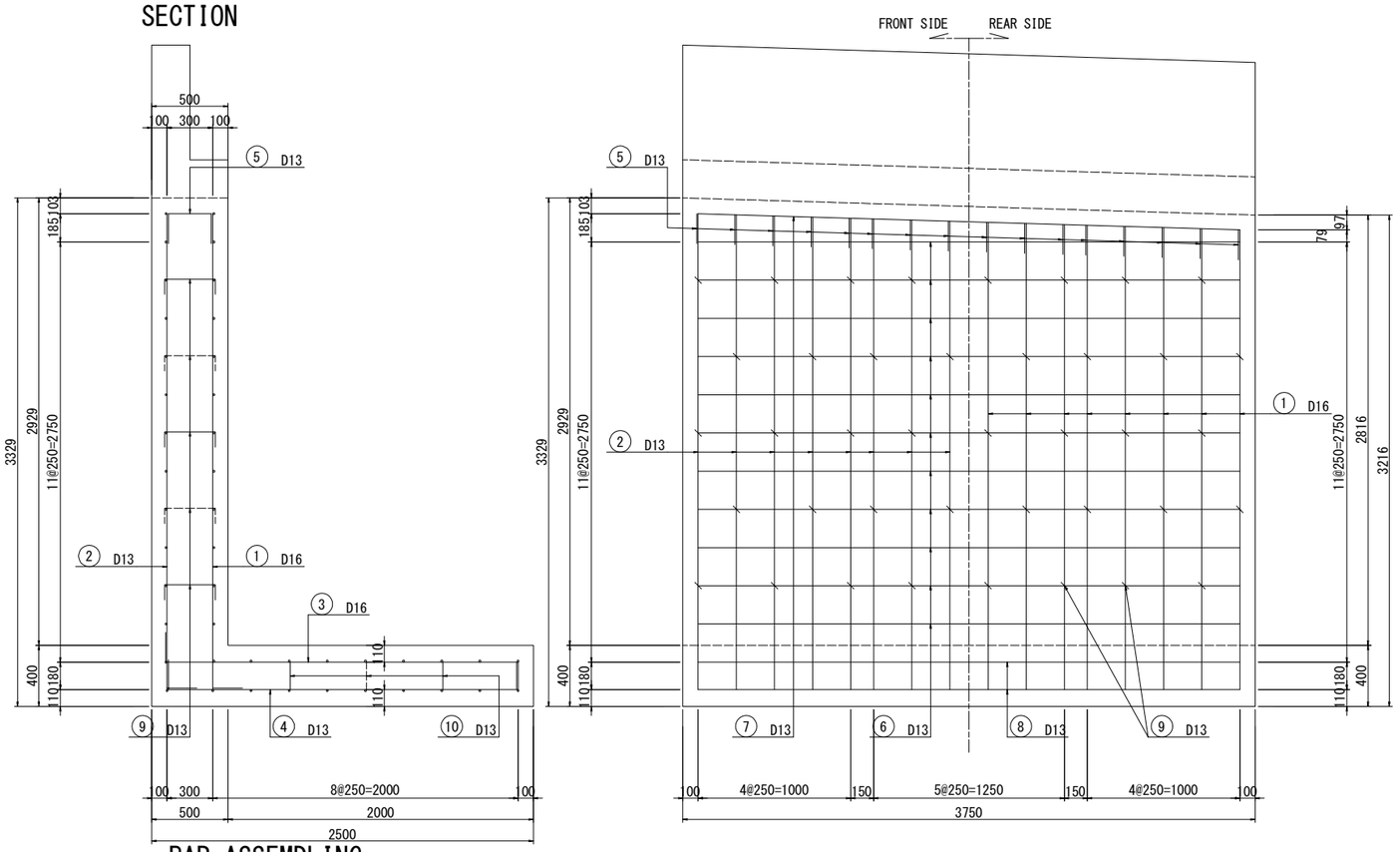
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	BAR ARRANGEMENT OF L TYPE RETAINING WALL(3)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4240

BAR ARRANGEMENT OF L TYPE RETAINING WALL(4) S=1:40

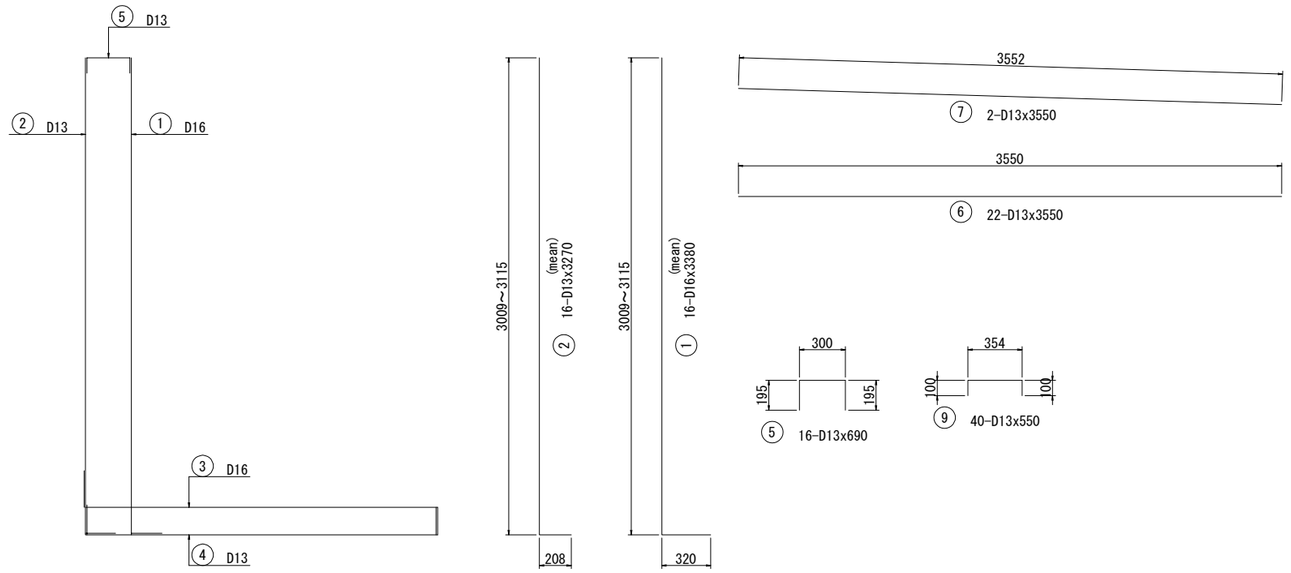
WALL(1) L-1・R-1

BREST WALL



SECTION

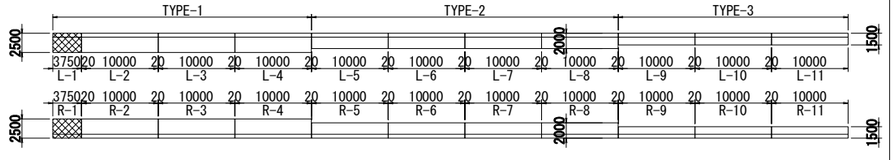
BAR ASSEMDLING



LIST OF REINFORCEMENT

NAME	PIANETER	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/BAR (kg)	WEIGHT (kg)	REMARKS
1	D16	3380	16	1.56	5.27	84	(mean)
2	D13	3270	16	0.995	3.25	52	(mean)
3	D16	2720	16	1.56	4.24	68	
4	D13	2680	16	0.995	2.67	43	
5	D13	690	16	0.995	0.69	11	
6	D13	3550	22	0.995	3.53	78	
7	D13	3550	2	0.995	3.53	7	
8	D13	3550	20	0.995	3.53	71	
9	D13	550	40	0.995	0.55	22	
10	D13	1150	11	0.995	1.14	13	
						449	
					D13	297 kg	
					D16	152 kg	
					total	449 kg	

KEY PLAN



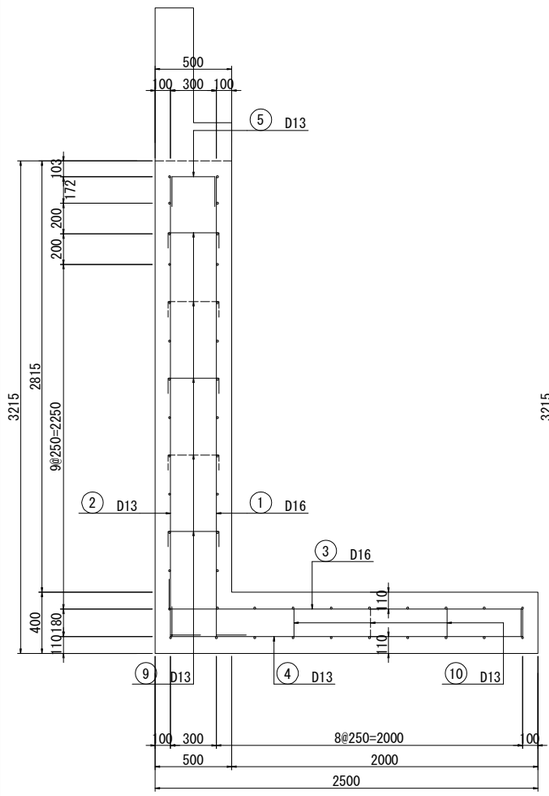
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	BAR ARRANGEMENT OF L TYPE RETAINING WALL(4)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4250

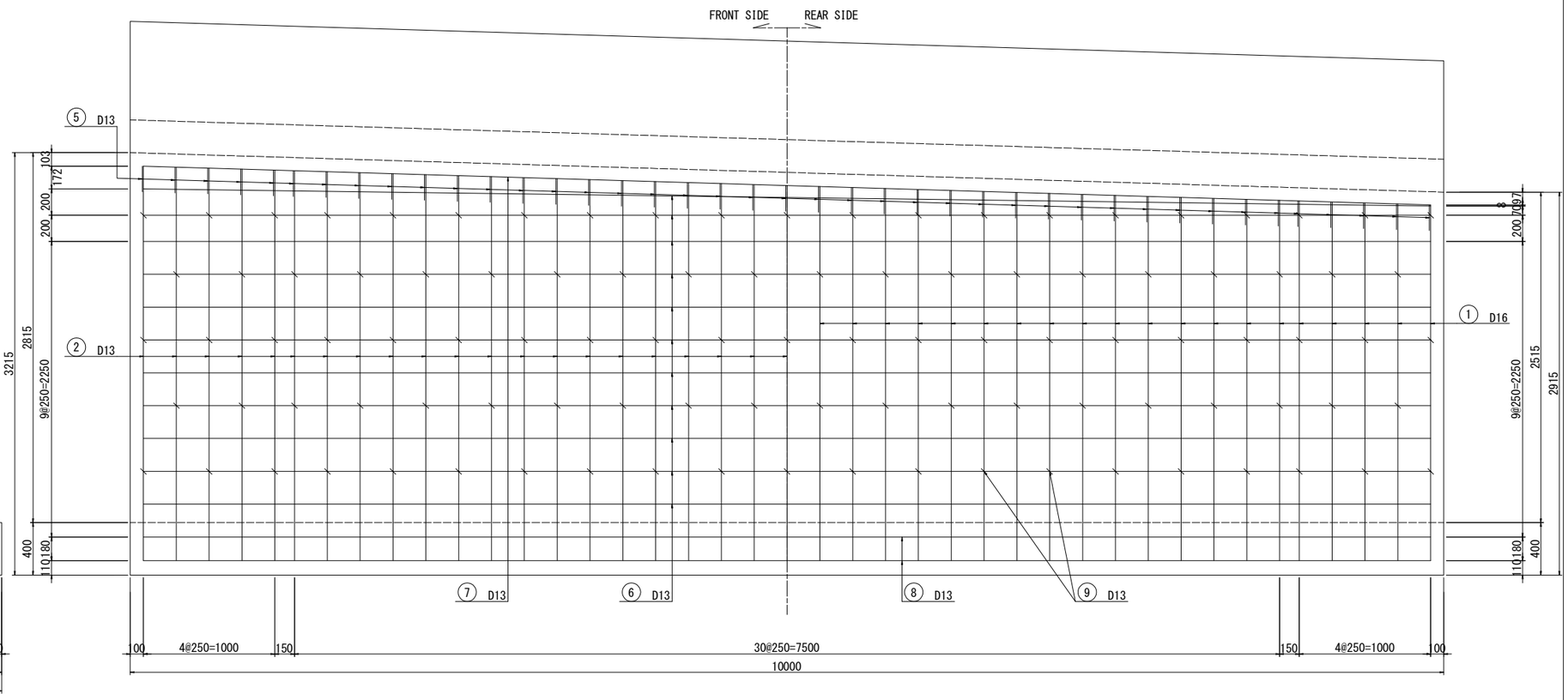
BAR ARRANGEMENT OF L TYPE RETAINING WALL(5) S=1:40

WALL(2) L-2・R-2

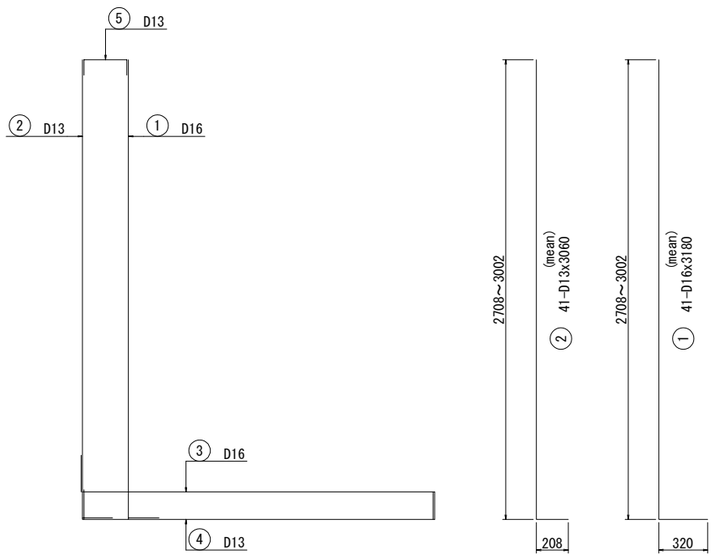
SECTION

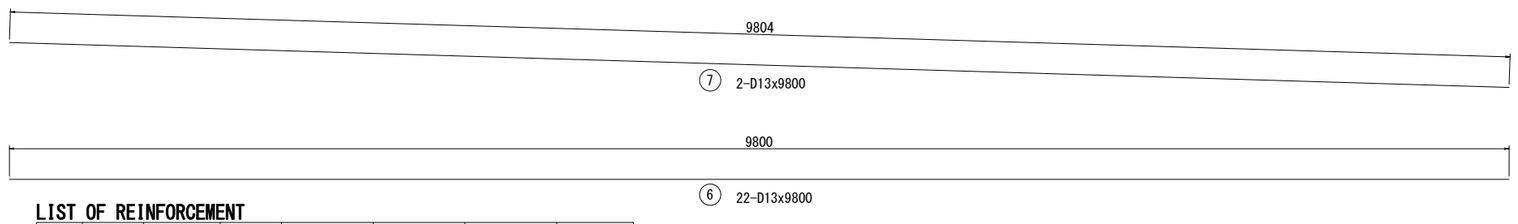


BREST WALL



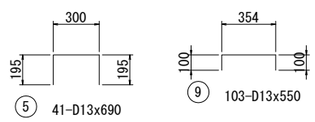
BAR ASSEMDLING



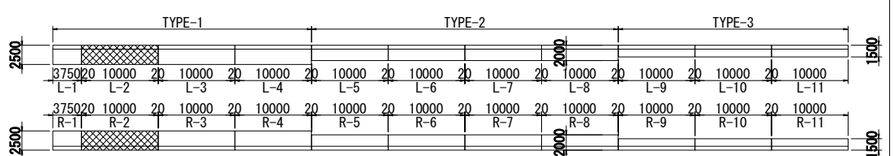


LIST OF REINFORCEMENT

NAME	PIANETER	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/BAR (kg)	WEIGHT (kg)	REMARKS
1	D16	3180	41	1.56	4.96	203	(mean)
2	D13	3060	41	0.995	3.04	125	(mean)
3	D16	2720	41	1.56	4.24	174	
4	D13	2680	41	0.995	2.67	109	
5	D13	690	41	0.995	0.69	28	
6	D13	9800	22	0.995	9.75	215	
7	D13	9800	2	0.995	9.75	20	
8	D13	9800	20	0.995	9.75	195	
9	D13	550	103	0.995	0.55	57	
10	D13	1150	30	0.995	1.14	34	
						1160	
					D13	783 kg	
					D16	377 kg	
					total	1160 kg	



KEY PLAN



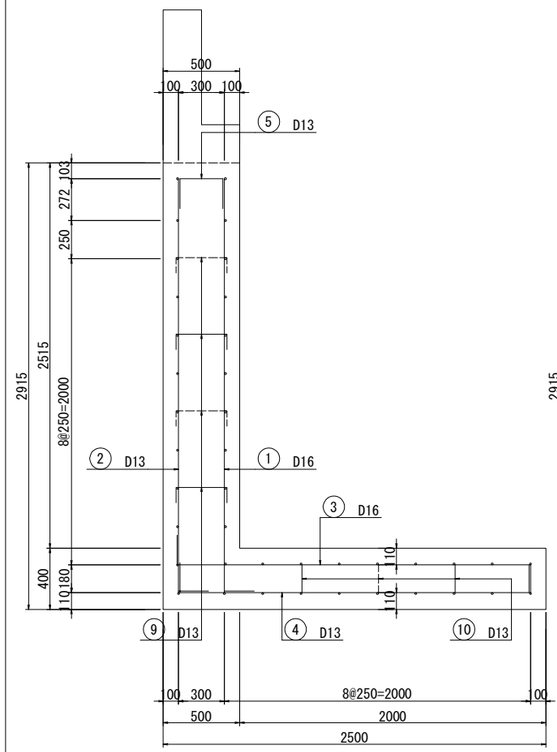
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	BAR ARRANGEMENT OF L TYPE RETAINING WALL(5)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4260

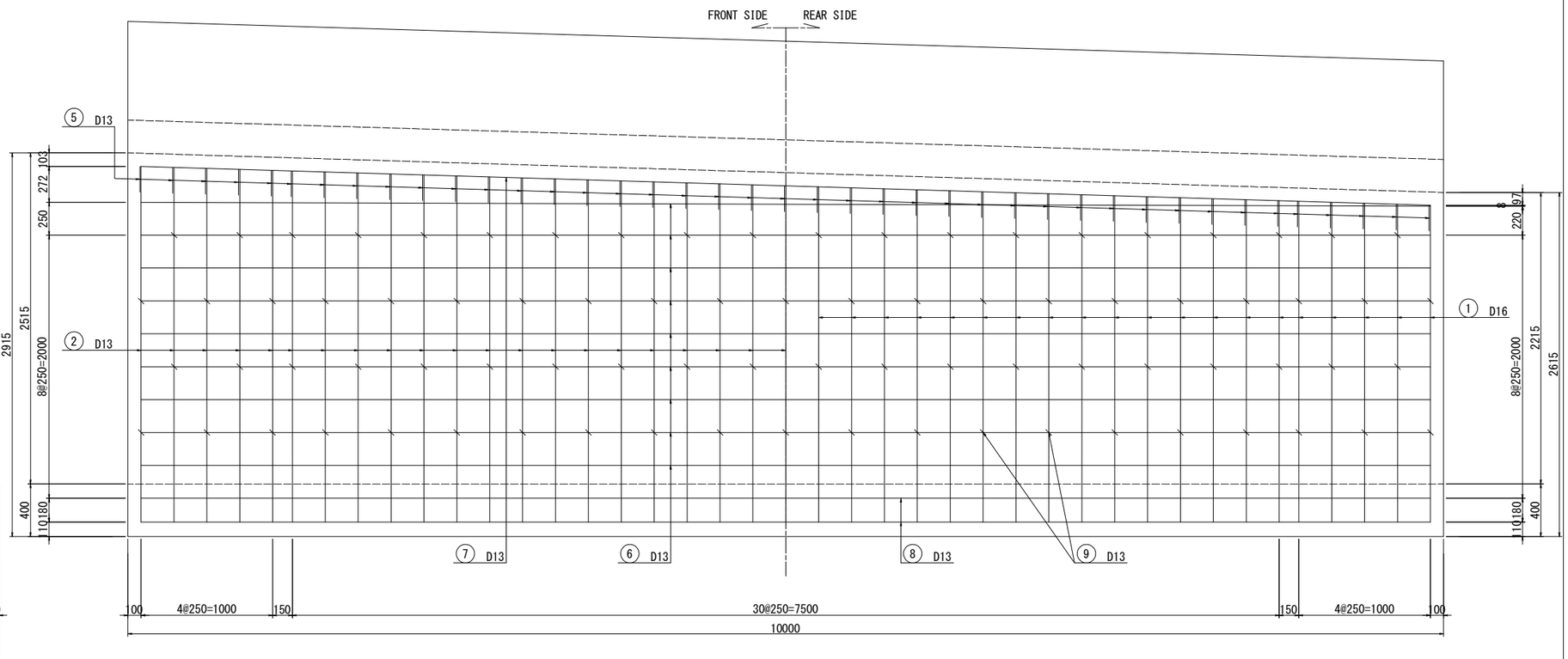
BAR ARRANGEMENT OF L TYPE RETAINING WALL(6) S=1:40

WALL(3) L-3・R-3

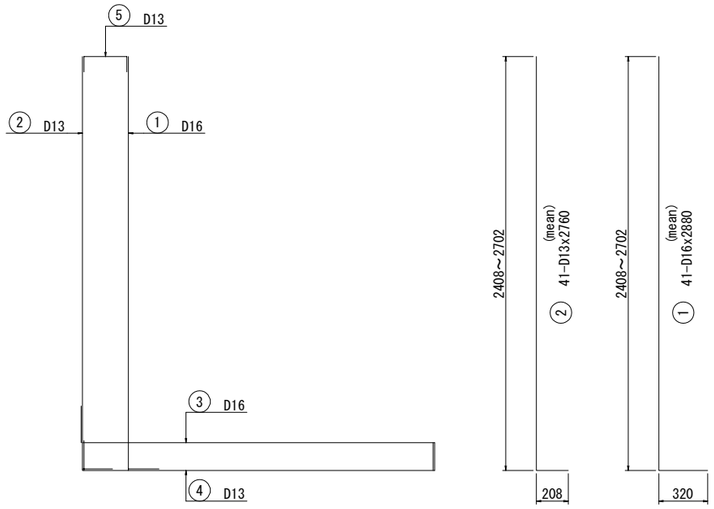
SECTION

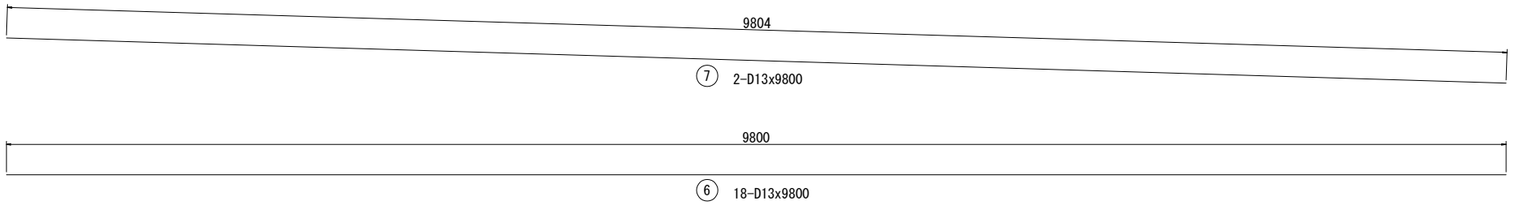


BREST WALL



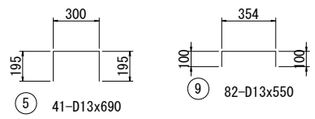
BAR ASSEMDLING



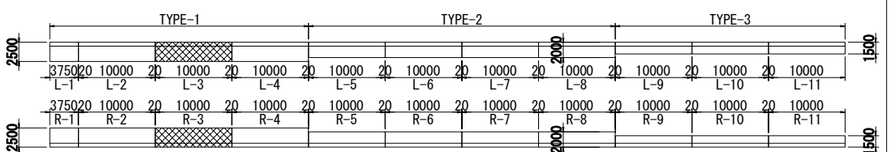


LIST OF REINFORCEMENT

NAME	PIANETER	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/BAR (kg)	WEIGHT (kg)	REMARKS
1	D16	2880	41	1.56	4.49	184	(mean)
2	D13	2760	41	0.995	2.75	113	(mean)
3	D16	2720	41	1.56	4.24	174	
4	D13	2680	41	0.995	2.67	109	
5	D13	690	41	0.995	0.69	28	
6	D13	9800	18	0.995	9.75	176	
7	D13	9800	2	0.995	9.75	20	
8	D13	9800	20	0.995	9.75	195	
9	D13	550	82	0.995	0.55	45	
10	D13	1150	30	0.995	1.14	34	
						1078	
					D13	720 kg	
					D16	358 kg	
					total	1078 kg	



KEY PLAN



PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

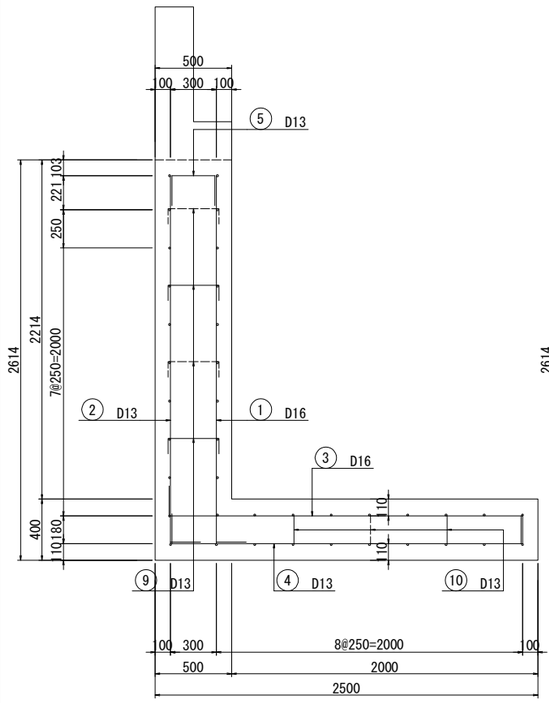
	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF L TYPE RETAINING WALL(6)	3
	DWG No.
	P3-RD-4270

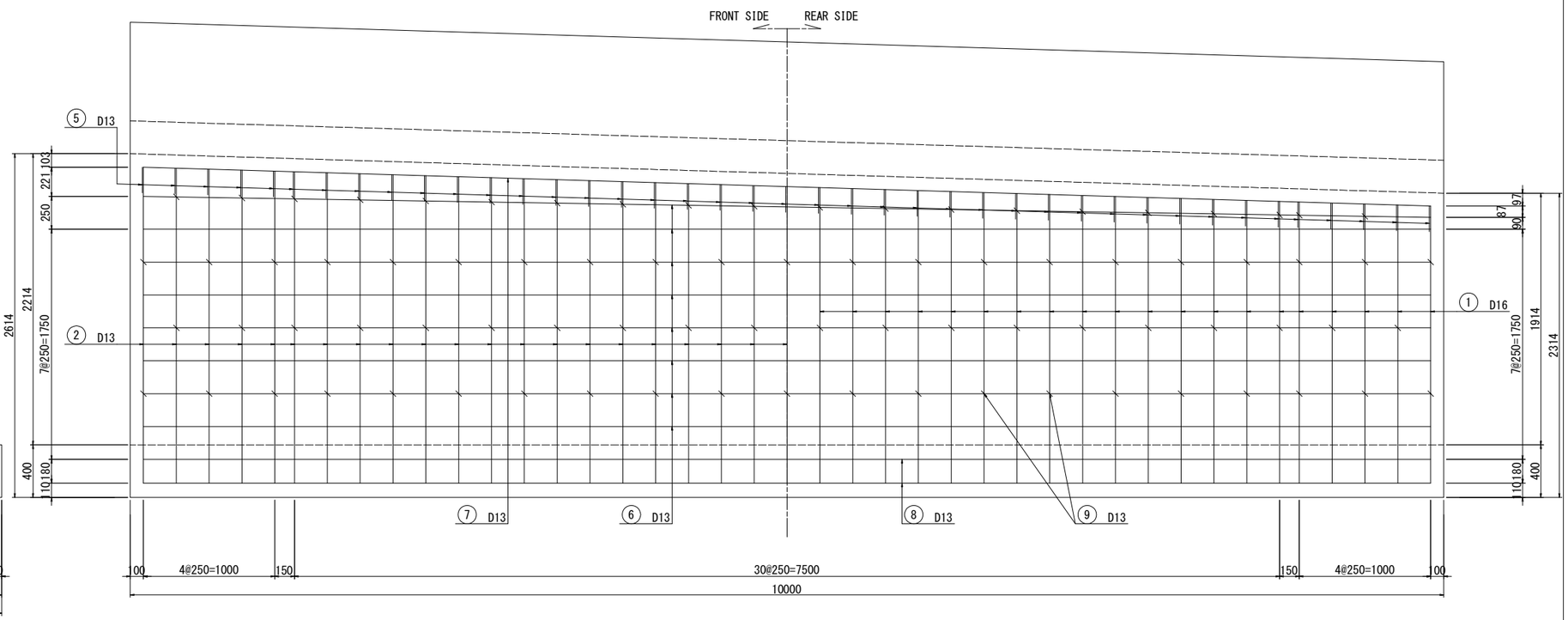
BAR ARRANGEMENT OF L TYPE RETAINING WALL(7) S=1:40

WALL(4) L-4・R-4

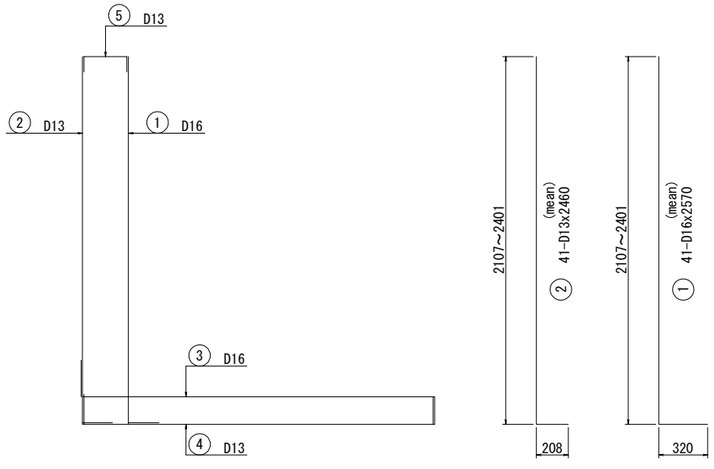
SECTION

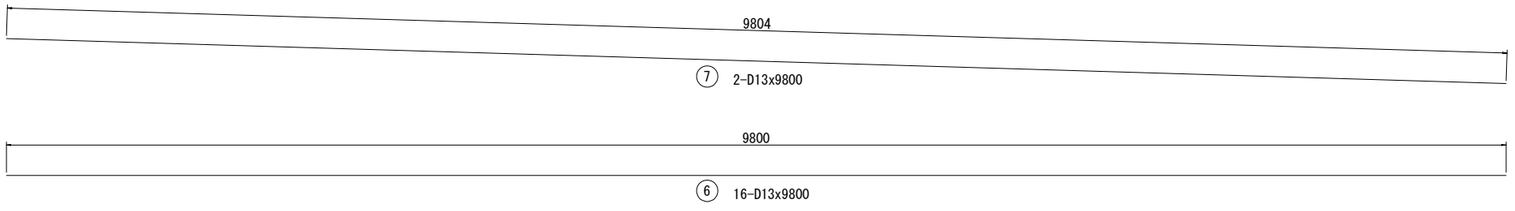


BREST WALL



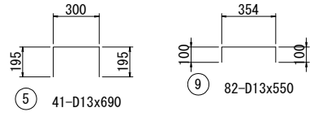
BAR ASSEMDLING



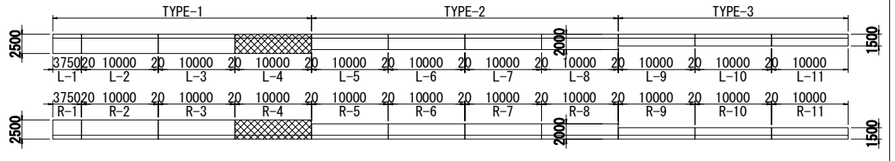


LIST OF REINFORCEMENT

NAME	PIANETER	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/BAR (kg)	WEIGHT (kg)	REMARKS
1	D16	2570	41	1.56	4.01	164	(mean)
2	D13	2460	41	0.995	2.45	100	(mean)
3	D16	2720	41	1.56	4.24	174	
4	D13	2680	41	0.995	2.67	109	
5	D13	690	41	0.995	0.69	28	
6	D13	9800	16	0.995	9.75	156	
7	D13	9800	2	0.995	9.75	20	
8	D13	9800	20	0.995	9.75	195	
9	D13	550	82	0.995	0.55	45	
10	D13	1150	30	0.995	1.14	34	
						1025	
					D13	687 kg	
					D16	338 kg	
					total	1025 kg	



KEY PLAN



PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

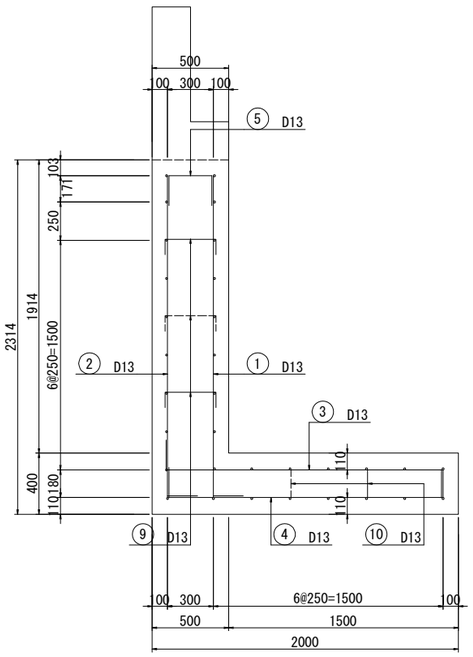
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	BAR ARRANGEMENT OF L TYPE RETAINING WALL(7)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4280

BAR ARRANGEMENT OF L TYPE RETAINING WALL(8)

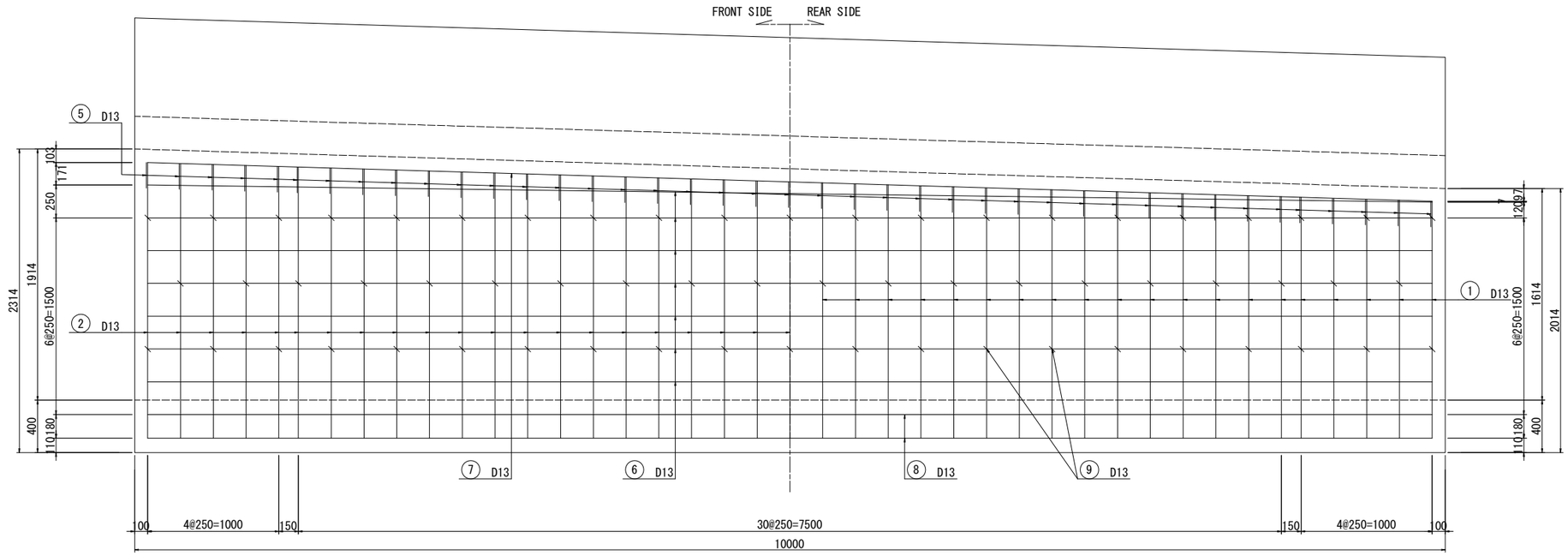
S=1:40

WALL(5) L-5・R-5

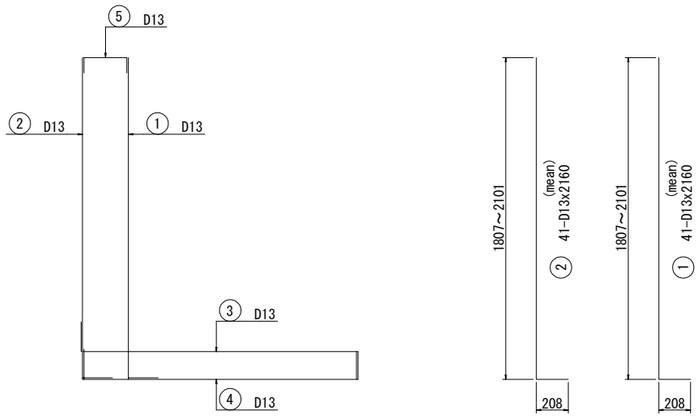
SECTION

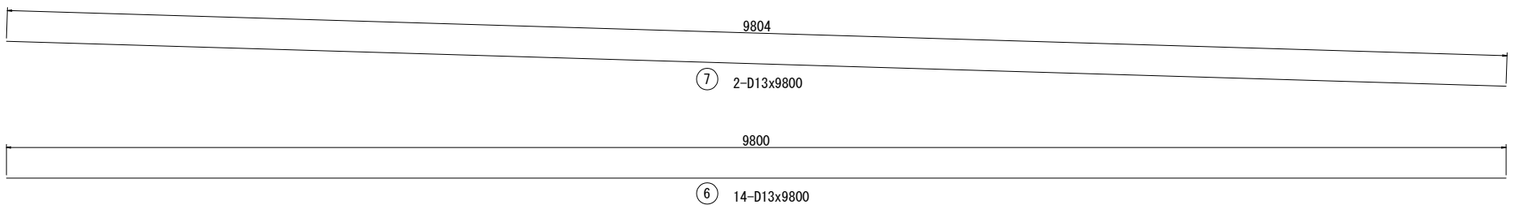


BREST WALL



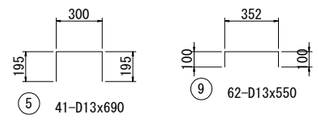
BAR ASSEMDLING



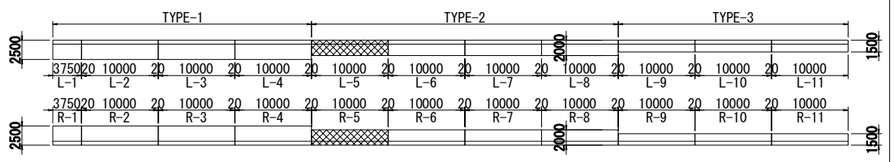


LIST OF REINFORCEMENT

NAME	DIANETER	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/BAR (kg)	WEIGHT (kg)	REMARKS
1	D13	2160	41	0.995	2.15	88	(mean)
2	D13	2160	41	0.995	2.15	88	(mean)
3	D13	2180	41	0.995	2.17	89	
4	D13	2180	41	0.995	2.17	89	
5	D13	690	41	0.995	0.69	28	
6	D13	9800	14	0.995	9.75	137	
7	D13	9800	2	0.995	9.75	20	
8	D13	9800	16	0.995	9.75	156	
9	D13	550	62	0.995	0.55	34	
10	D13	1140	20	0.995	1.13	23	
						752	
					D13	752 kg	
					total	752 kg	



KEY PLAN



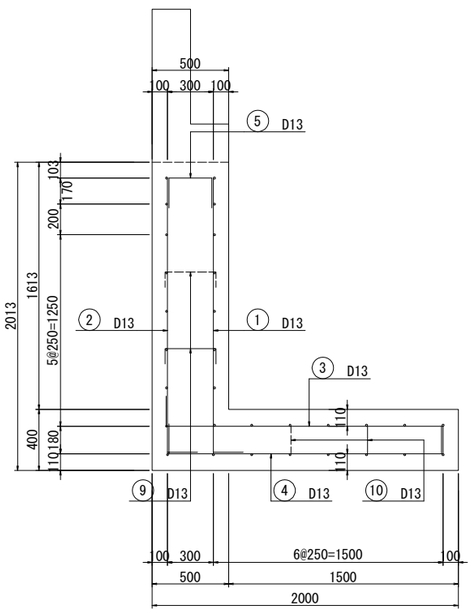
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		NAME	SIGNATURE	DATE
				PREPARED BY	K. TACHIBANA		29 Sep.2017
				CHECKED BY	T. HAYAKAWA		3 Oct.2017
				APPROVED BY	Y. SANO		6 Oct.2017

DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF L TYPE RETAINING WALL(8)	3
	DWG No.
	P3-RD-4290

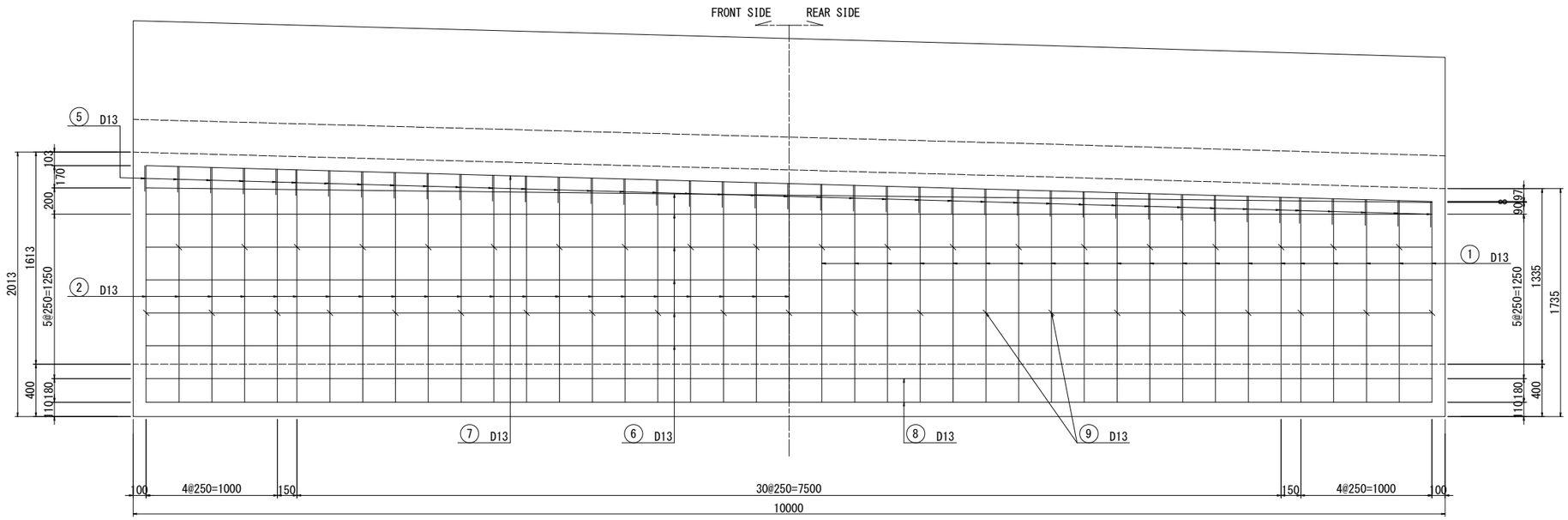
BAR ARRANGEMENT OF L TYPE RETAINING WALL(9) S=1:40

WALL(6) L-6・R-6

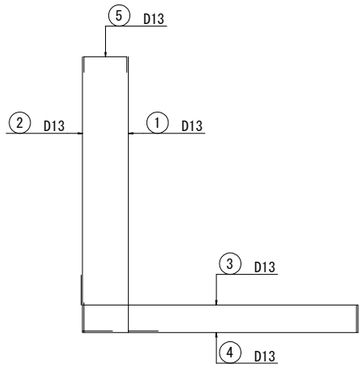
SECTION

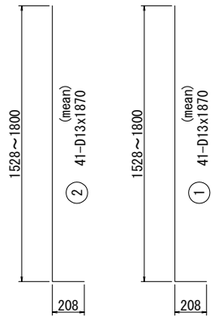


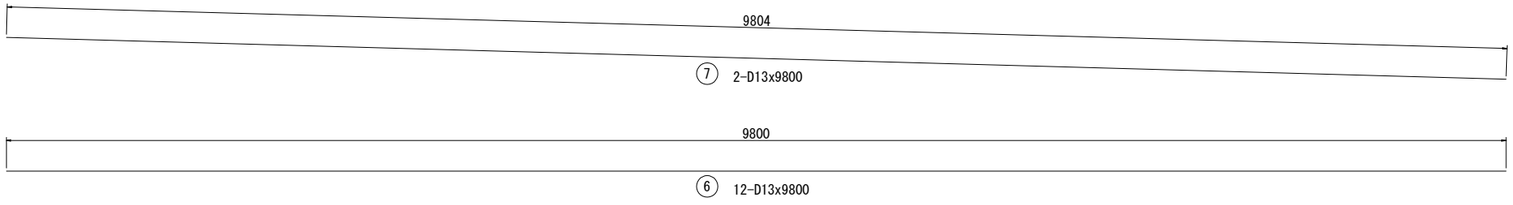
BREST WALL

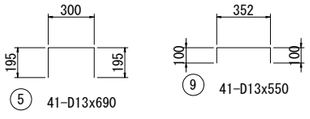


BAR ASSEMDLING





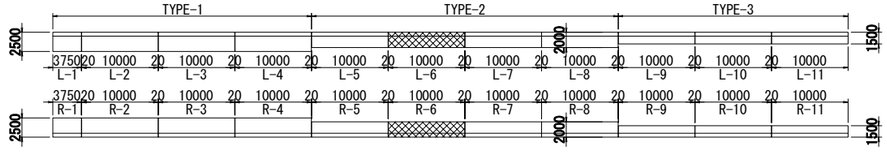




LIST OF REINFORCEMENT

NAME	PIANETER	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/BAR (kg)	WEIGHT (kg)	REMARKS
1	D13	1870	41	0.995	1.86	76	(mean)
2	D13	1870	41	0.995	1.86	76	(mean)
3	D13	2180	41	0.995	2.17	89	
4	D13	2180	41	0.995	2.17	89	
5	D13	690	41	0.995	0.69	28	
6	D13	9800	12	0.995	9.75	117	
7	D13	9800	2	0.995	9.75	20	
8	D13	9800	16	0.995	9.75	156	
9	D13	550	41	0.995	0.55	23	
10	D13	1140	20	0.995	1.13	23	
						697	
					D13	697 kg	
					total	697 kg	

KEY PLAN



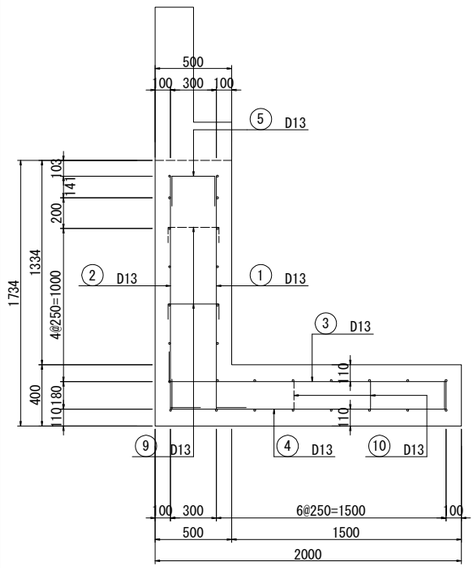
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	BAR ARRANGEMENT OF L TYPE RETAINING WALL(9)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4300

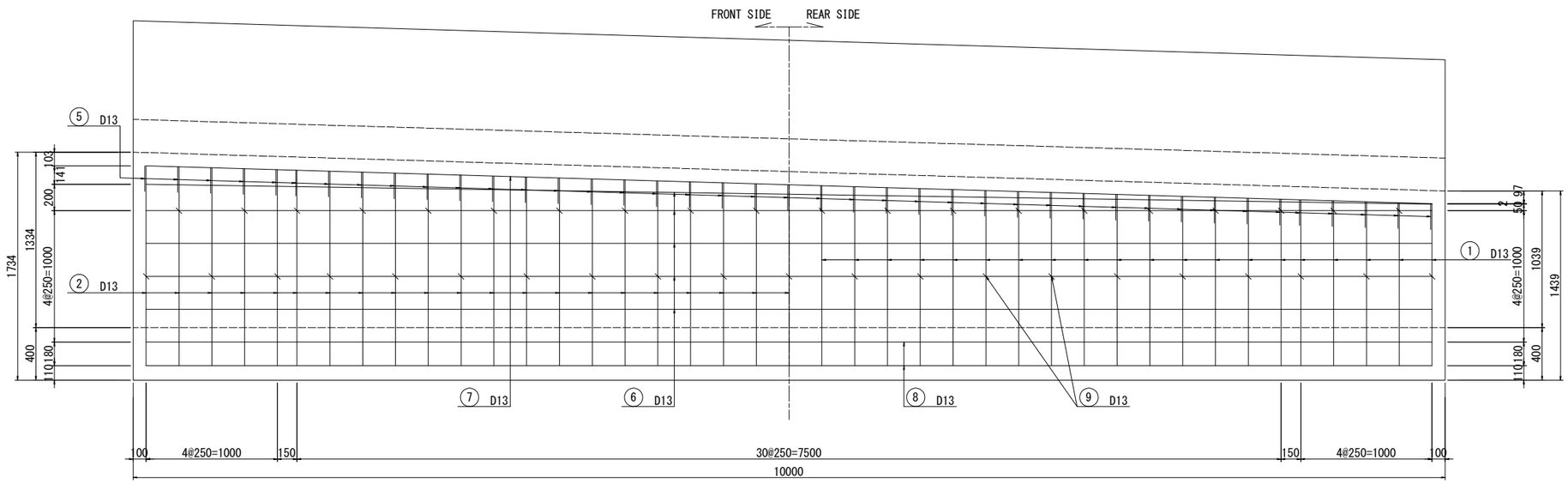
BAR ARRANGEMENT OF L TYPE RETAINING WALL(10) S=1:40

WALL(7) L-7・R-7

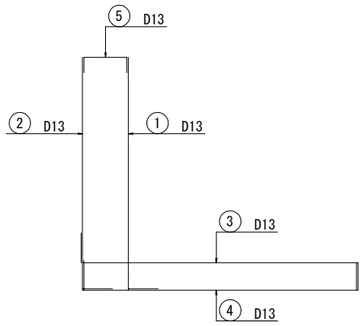
SECTION

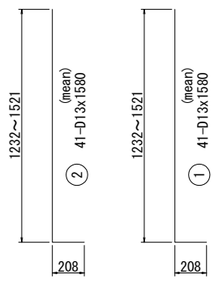


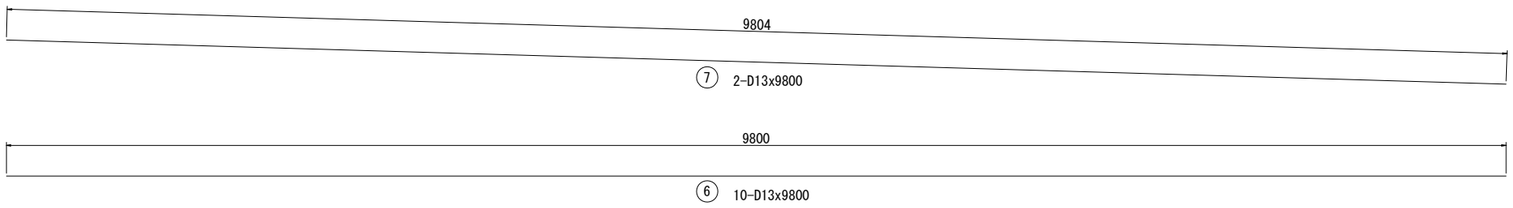
BREST WALL

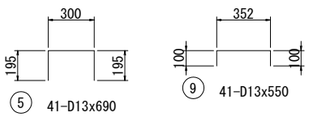


BAR ASSEMDLING





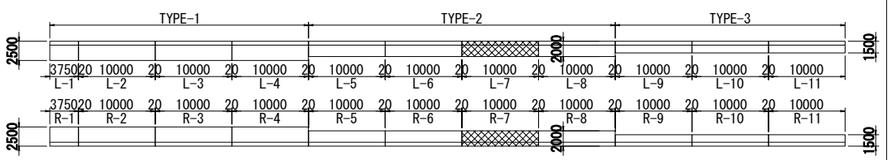




LIST OF REINFORCEMENT

NAME	PIANETER	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/BAR (kg)	WEIGHT (kg)	REMARKS
1	D13	1580	41	0.995	1.57	64	(mean)
2	D13	1580	41	0.995	1.57	64	(mean)
3	D13	2180	41	0.995	2.17	89	
4	D13	2180	41	0.995	2.17	89	
5	D13	690	41	0.995	0.69	28	
6	D13	9800	10	0.995	9.75	98	
7	D13	9800	2	0.995	9.75	20	
8	D13	9800	16	0.995	9.75	156	
9	D13	550	41	0.995	0.55	23	
10	D13	1140	20	0.995	1.13	23	
						654	
					D13	654 kg	
					total	654 kg	

KEY PLAN



PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

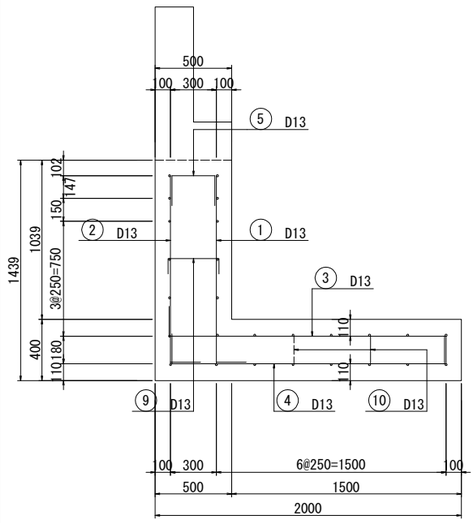
	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF L TYPE RETAINING WALL(10)	3
	DWG No.
	P3-RD-4310

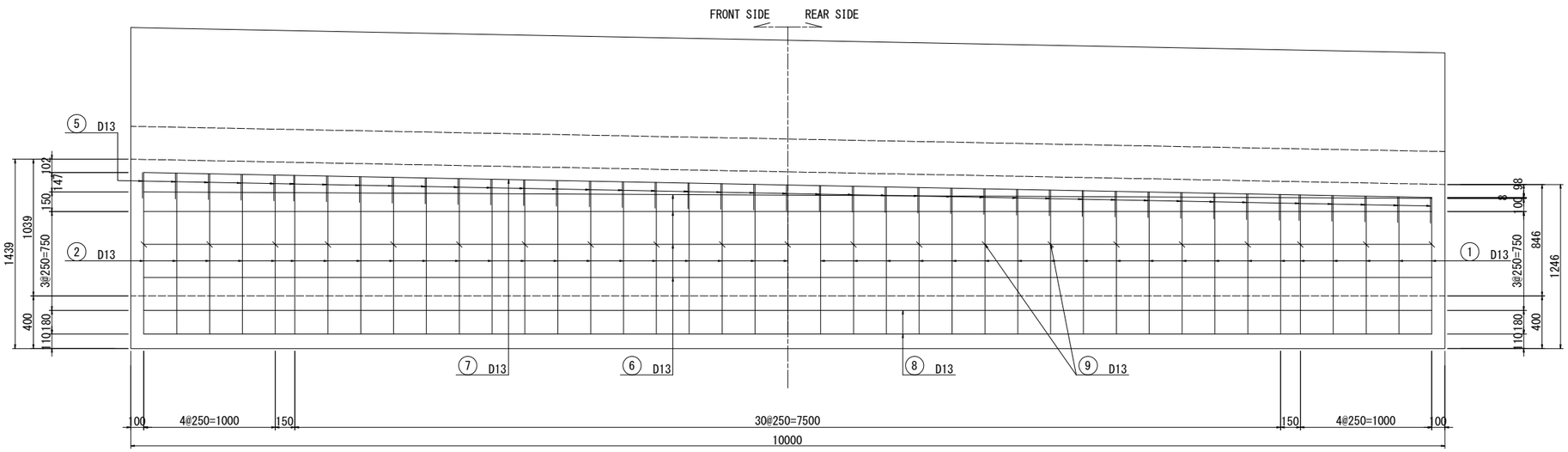
BAR ARRANGEMENT OF L TYPE RETAINING WALL(11) S=1:40

WALL(8) L-8・R-8

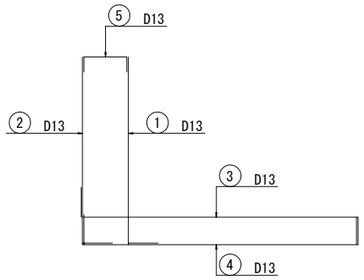
SECTION

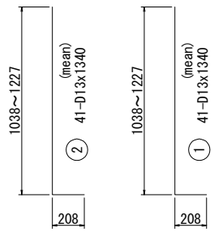


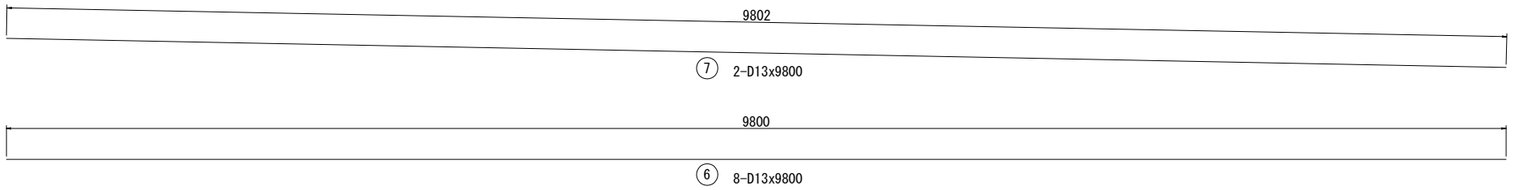
BREST WALL

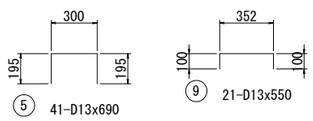


BAR ASSEMDLING





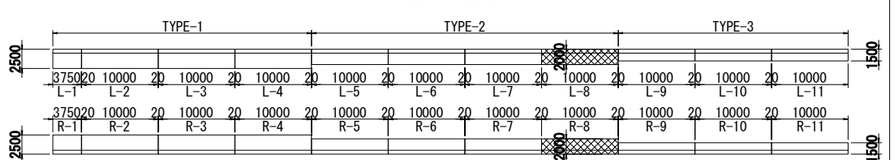




LIST OF REINFORCEMENT

NAME	PIANETER	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/BAR (kg)	WEIGHT (kg)	REMARKS
1	D13	1340	41	0.995	1.33	55	(mean)
2	D13	1340	41	0.995	1.33	55	(mean)
3	D13	2180	41	0.995	2.17	89	
4	D13	2180	41	0.995	2.17	89	
5	D13	690	41	0.995	0.69	28	
6	D13	9800	8	0.995	9.75	78	
7	D13	9800	2	0.995	9.75	20	
8	D13	9800	16	0.995	9.75	156	
9	D13	550	21	0.995	0.55	12	
10	D13	1140	20	0.995	1.13	23	
						605	
					D13	605 kg	
					total	605 kg	

KEY PLAN



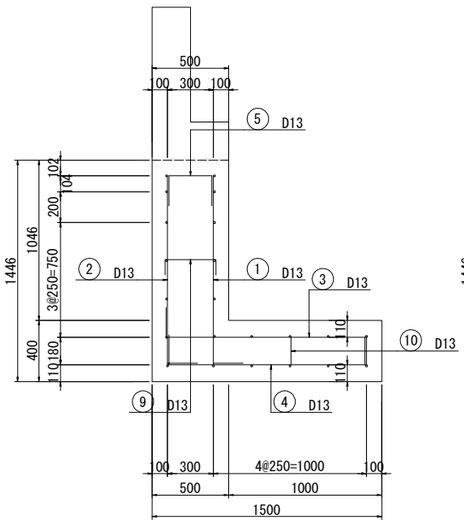
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	BAR ARRANGEMENT OF L TYPE RETAINING WALL(11)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4320

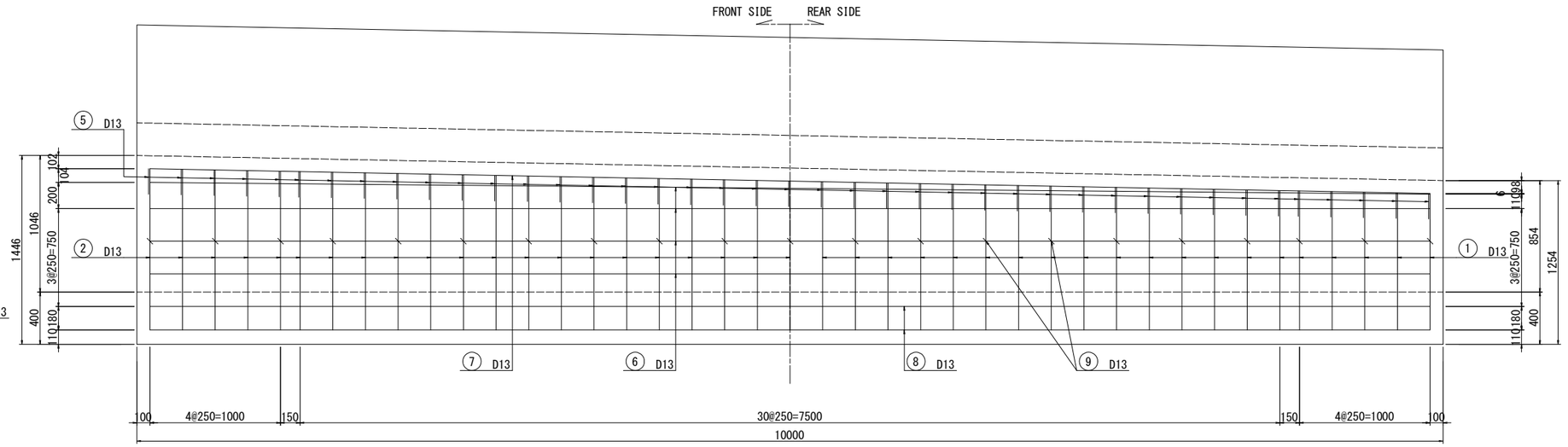
BAR ARRANGEMENT OF L TYPE RETAINING WALL(12) S=1:40

WALL(9) L-9・R-9

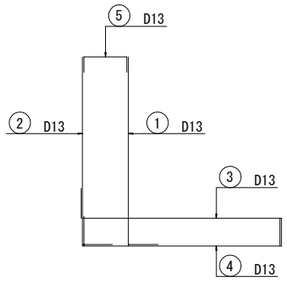
SECTION

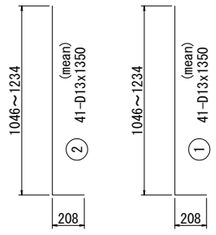


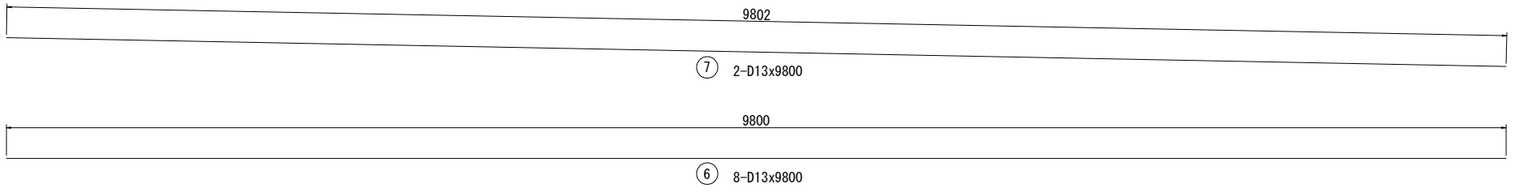
BREST WALL

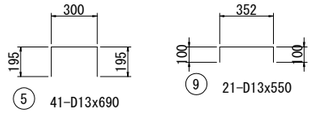


BAR ASSEMDLING





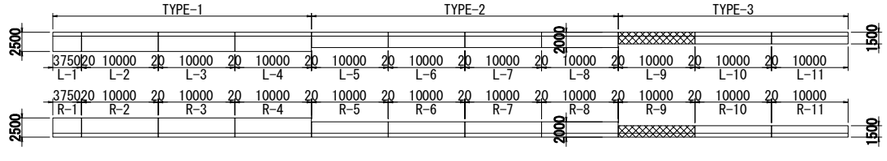




LIST OF REINFORCEMENT

NAME	PIANETER	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/BAR (kg)	WEIGHT (kg)	REMARKS
1	D13	1350	41	0.995	1.34	55	(mean)
2	D13	1350	41	0.995	1.34	55	(mean)
3	D13	1680	41	0.995	1.67	68	
4	D13	1680	41	0.995	1.67	68	
5	D13	690	41	0.995	0.69	28	
6	D13	9800	8	0.995	9.75	78	
7	D13	9800	2	0.995	9.75	20	
8	D13	8800	12	0.995	8.76	105	
9	D13	550	21	0.995	0.55	12	
10	D13	1140	10	0.995	1.13	11	
						500	
					D13	500 kg	
					total	500 kg	

KEY PLAN



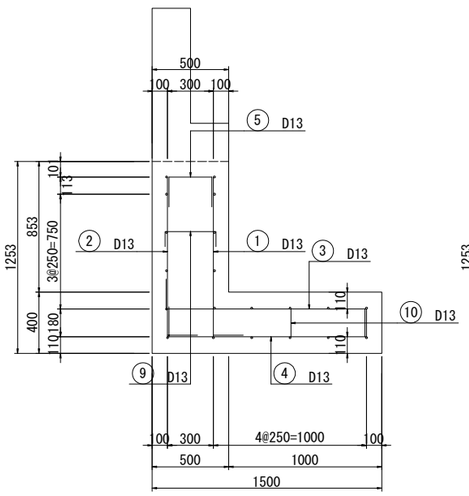
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	BAR ARRANGEMENT OF L TYPE RETAINING WALL(12)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4330

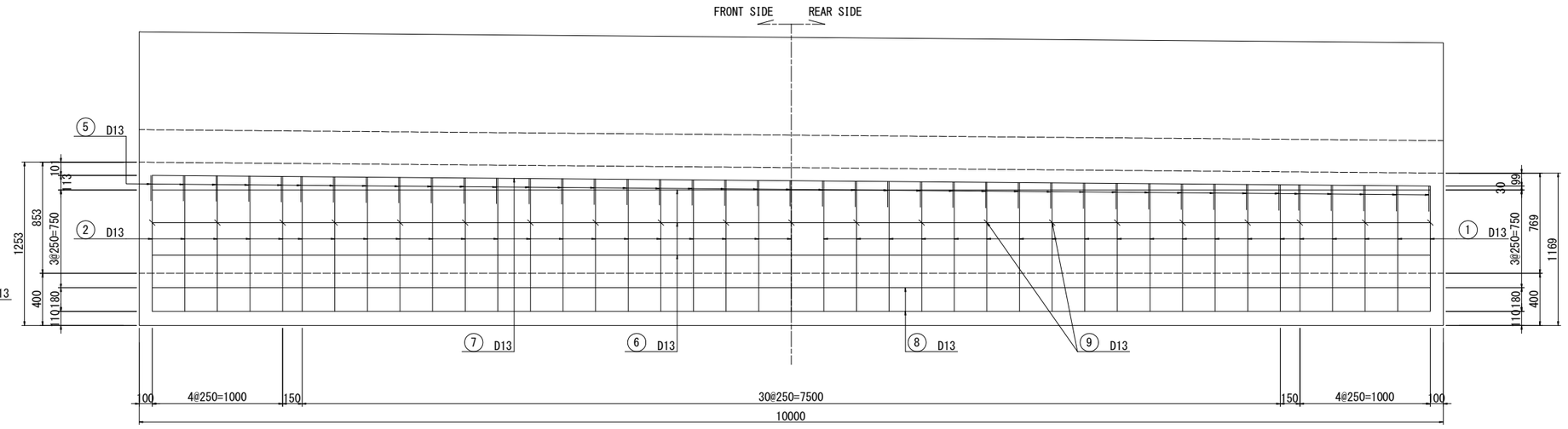
BAR ARRANGEMENT OF L TYPE RETAINING WALL(13) S=1:40

WALL(10) L-10・R-10

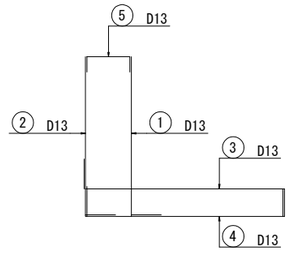
SECTION

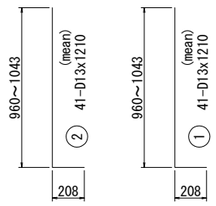


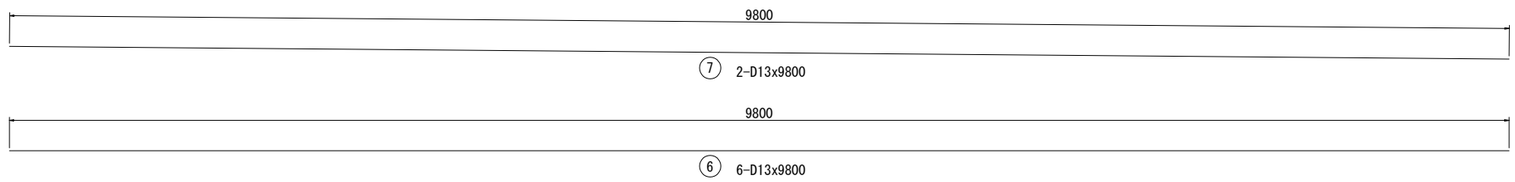
BREST WALL

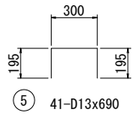


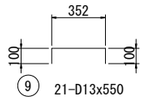
BAR ASSEMDLING







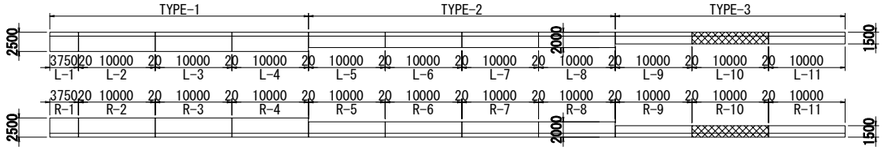




LIST OF REINFORCEMENT

NAME	PIANETER	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/BAR (kg)	WEIGHT (kg)	REMARKS
1	D13	1210	41	0.995	1.20	49	(mean)
2	D13	1210	41	0.995	1.20	49	(mean)
3	D13	1680	41	0.995	1.67	68	
4	D13	1680	41	0.995	1.67	68	
5	D13	690	41	0.995	0.69	28	
6	D13	9800	6	0.995	9.75	59	
7	D13	9800	2	0.995	9.75	20	
8	D13	8800	12	0.995	8.76	105	
9	D13	550	21	0.995	0.55	12	
10	D13	1140	10	0.995	1.13	11	
						469	
					D13	469 kg	
					total	469 kg	

KEY PLAN



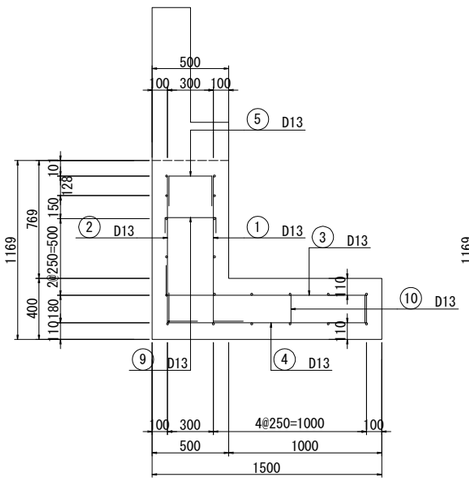
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	BAR ARRANGEMENT OF L TYPE RETAINING WALL(13)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4340

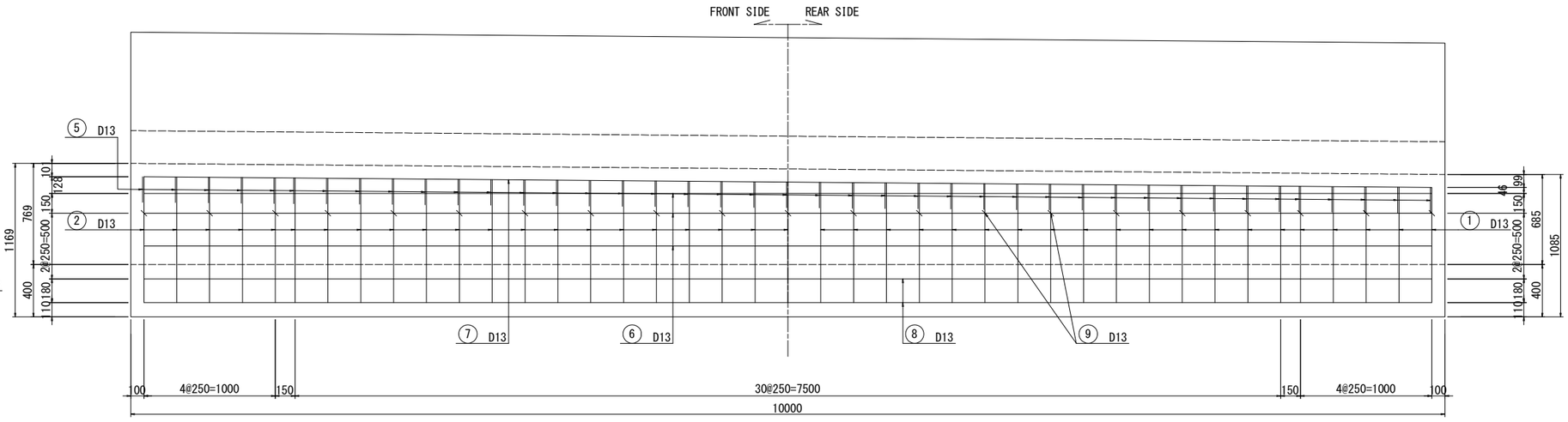
BAR ARRANGEMENT OF L TYPE RETAINING WALL(14) S=1:40

WALL(11) L-11・R-11

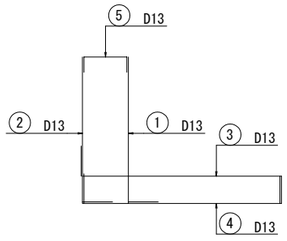
SECTION

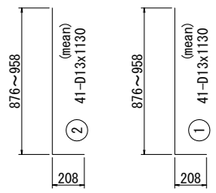


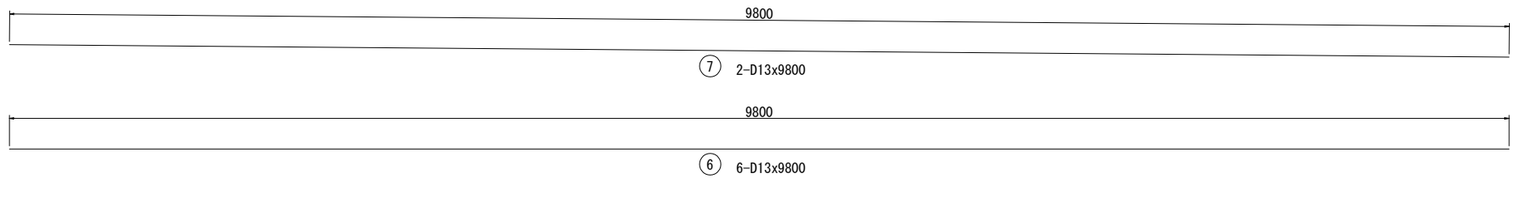
BREST WALL

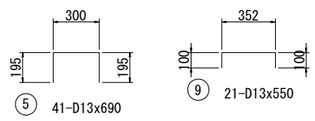


BAR ASSEMDLING





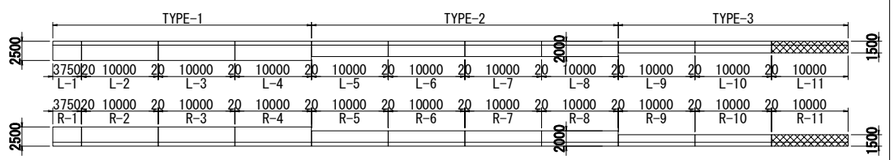




LIST OF REINFORCEMENT

NAME	PIANETER	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/BAR (kg)	WEIGHT (kg)	REMARKS
1	D13	1130	41	0.995	1.12	46	(mean)
2	D13	1130	41	0.995	1.12	46	(mean)
3	D13	1680	41	0.995	1.67	68	
4	D13	1680	41	0.995	1.67	68	
5	D13	690	41	0.995	0.69	28	
6	D13	9800	6	0.995	9.75	59	
7	D13	9800	2	0.995	9.75	20	
8	D13	8800	12	0.995	8.76	105	
9	D13	550	21	0.995	0.55	12	
10	D13	1140	10	0.995	1.13	11	
						463	
					D13	463 kg	
					total	463 kg	

KEY PLAN



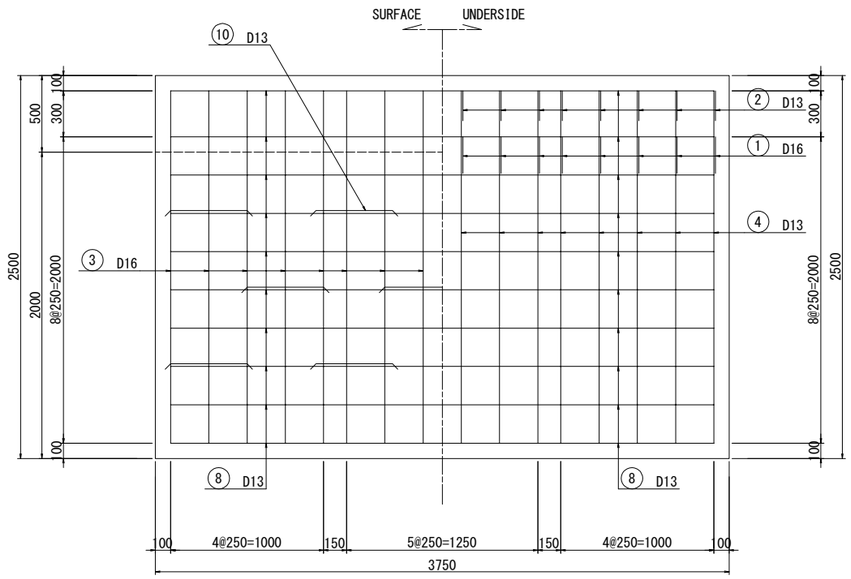
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	BAR ARRANGEMENT OF L TYPE RETAINING WALL(14)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4350

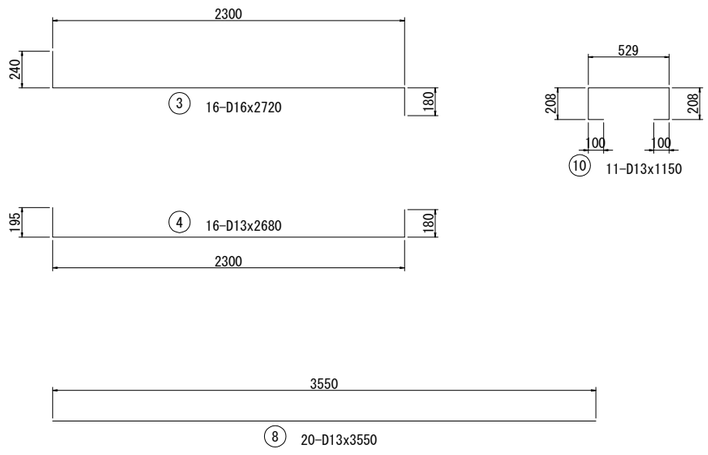
BAR ARRANGEMENT OF L TYPE RETAINING WALL(15) S=1:40

BOTTOM SLAB(1) L-1・R-1

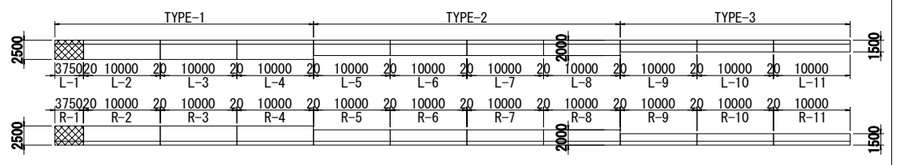
BOTTOM SLAB



BAR SCHEDULING



KEY PLAN



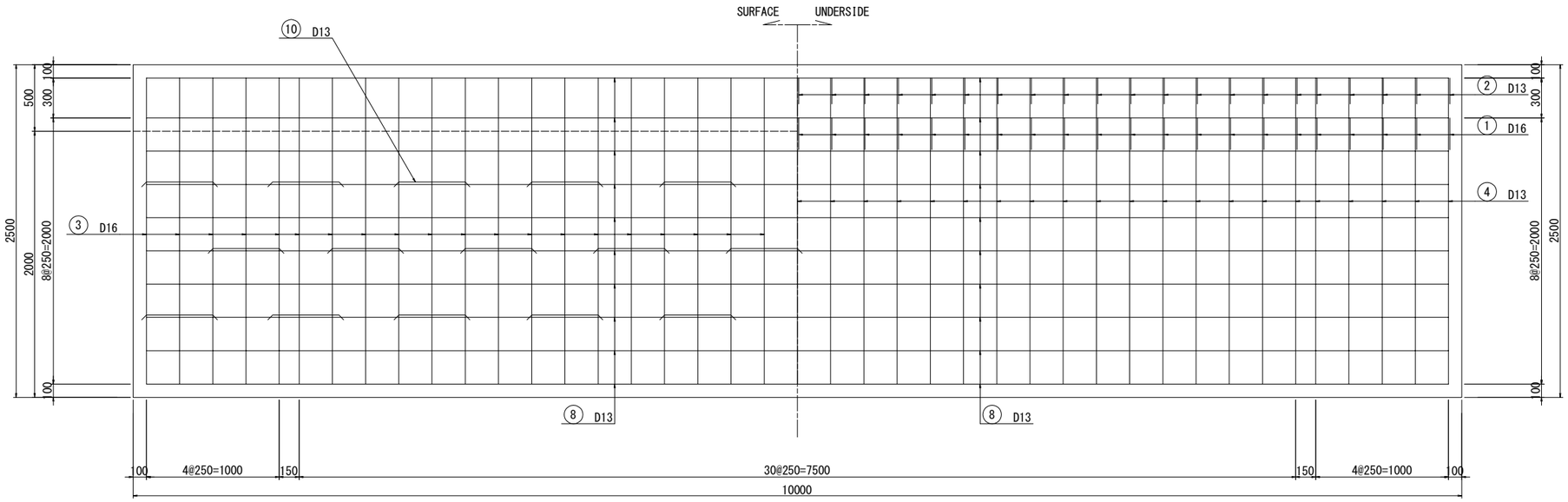
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	DRAWING TITLE: BAR ARRANGEMENT OF L TYPE RETAINING WALL(15)	PACKAGE: 3
					DWG No.: P3-RD-4360

	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

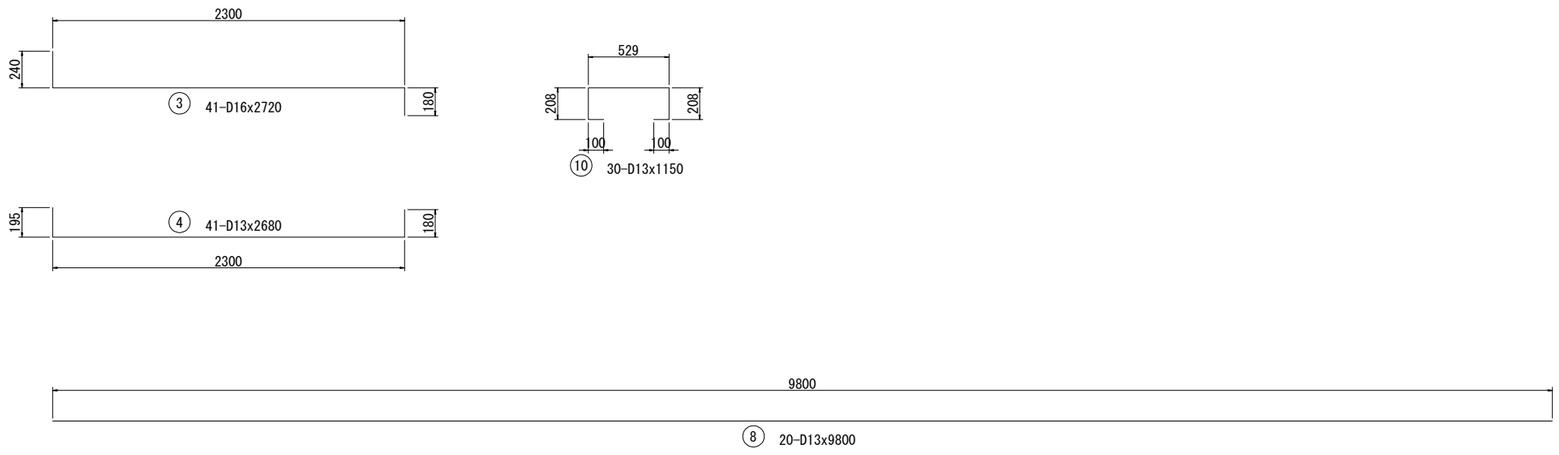
BAR ARRANGEMENT OF L TYPE RETAINING WALL(16) S=1:40

BOTTOM SLAB(2) L-2～4・R-2～4

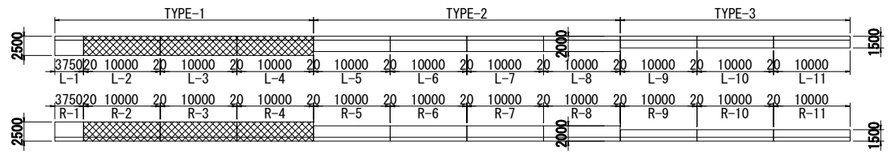
BOTTOM SLAB



BAR SCHEDULING



KEY PLAN



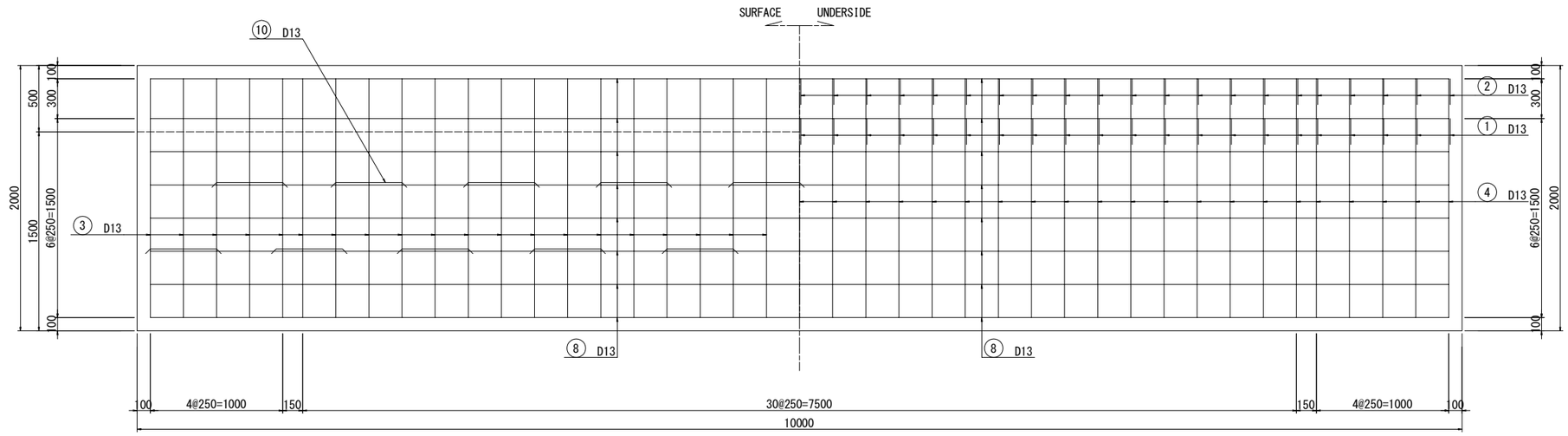
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	DRAWING TITLE: BAR ARRANGEMENT OF L TYPE RETAINING WALL(16)	PACKAGE: 3
					DWG No.: P3-RD-4370

	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

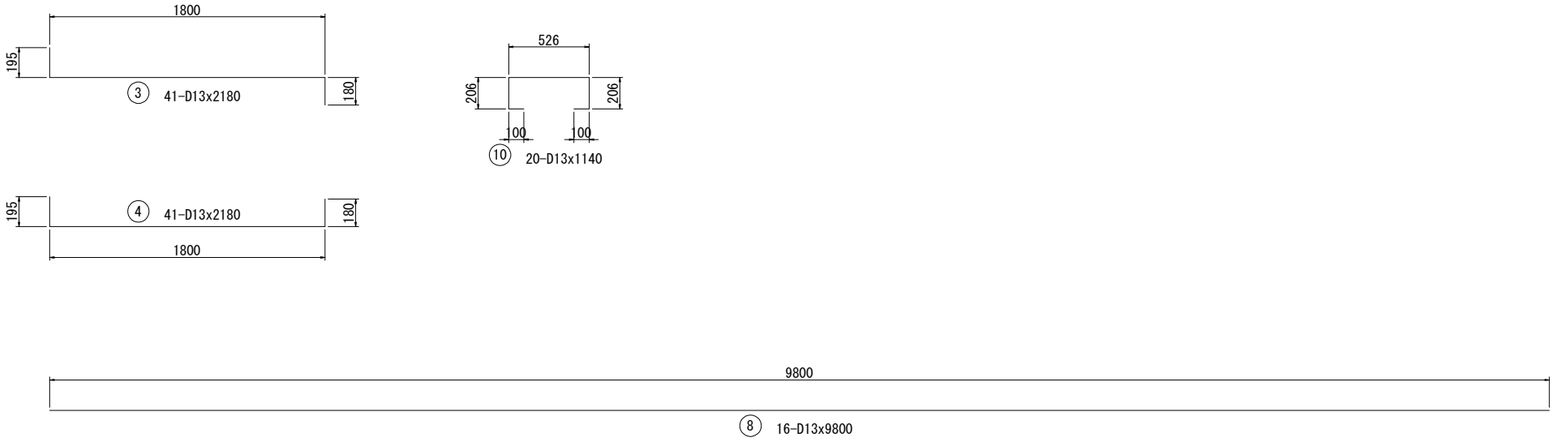
BAR ARRANGEMENT OF L TYPE RETAINING WALL(17) S=1:40

BOTTOM SLAB(3) L-5～8・R-5～8

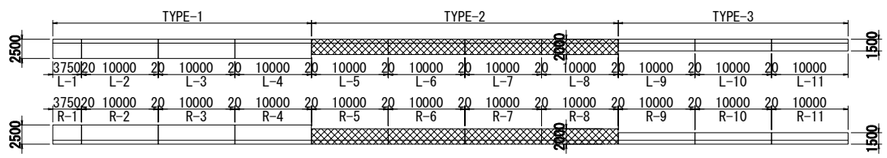
BOTTOM SLAB



BAR SCHEDULING



KEY PLAN



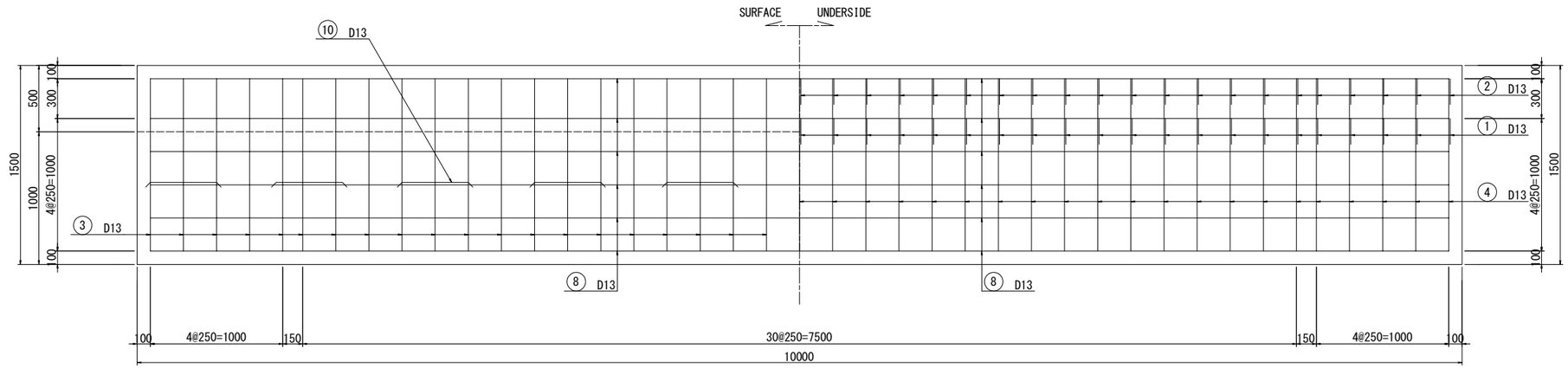
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	BAR ARRANGEMENT OF L TYPE RETAINING WALL(17)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4380

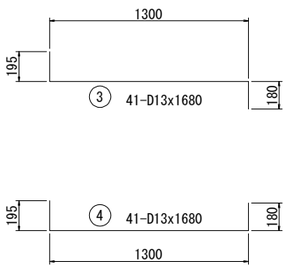
BAR ARRANGEMENT OF L TYPE RETAINING WALL(18) S=1:40

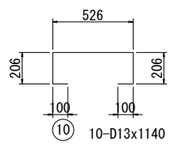
BOTTOM SLAB(4) L-9～11・R-9～11

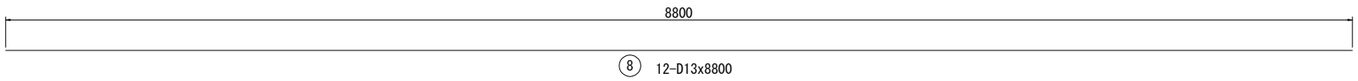
BOTTOM SLAB



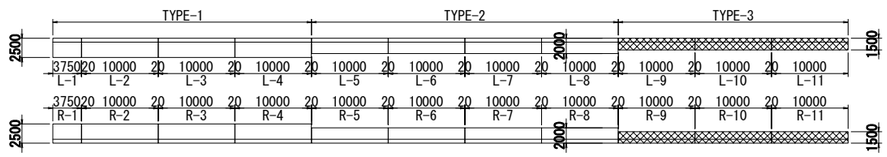
BAR SCHEDULING







KEY PLAN

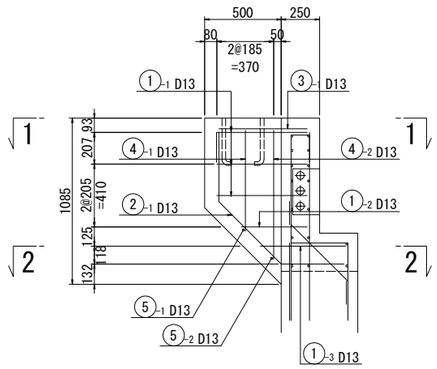


PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	BAR ARRANGEMENT OF L TYPE RETAINING WALL(18)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-4390

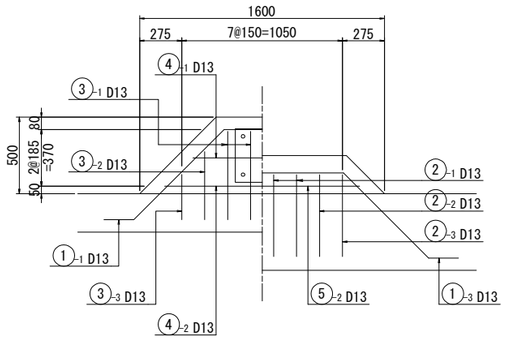
DETAIL OF LIGHTING FOUNDATION S=1:40

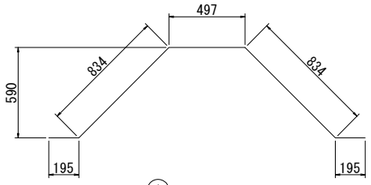
CROSS SECTION



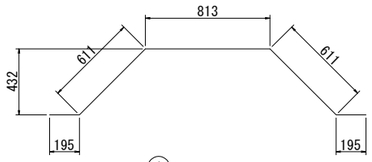
PLAN

1-1 2-2

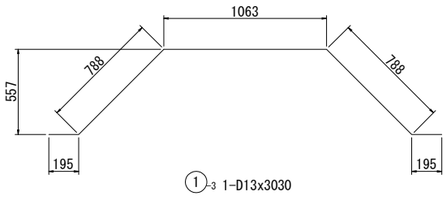




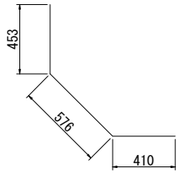
①-1 3-D13x2560



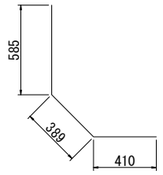
①-2 1-D13x2430



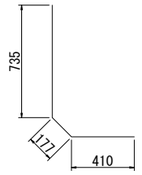
①-3 1-D13x3030



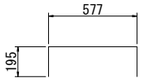
②-1 4-D13x1440



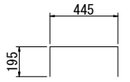
②-2 2-D13x1380



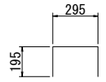
②-3 2-D13x1320



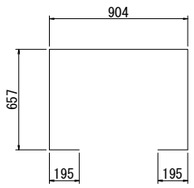
③-1 4-D13x970



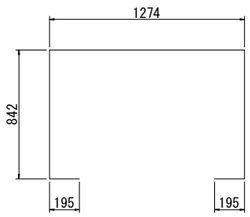
③-2 2-D13x840



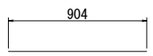
③-3 2-D13x690



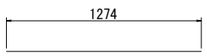
④-1 1-D13x2610



④-2 1-D13x3350



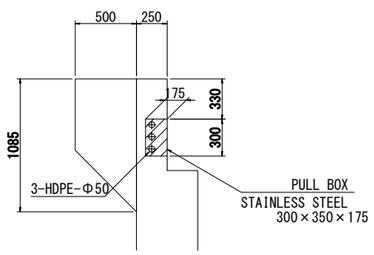
⑤-1 1-D13x900



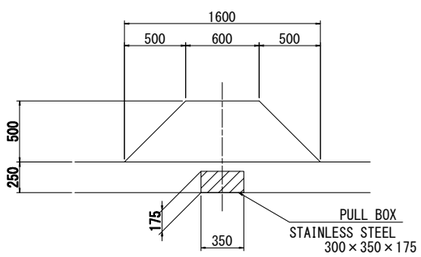
⑤-2 1-D13x1270

PULLBOX DETAIL S=1:25

CROSS SECTION



PLAN



LIST OF REINFORCEMENT

NAME	PIANETER	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/BAR (kg)	WEIGHT (kg)	REMARKS
1 -1	D13	2560	3	0.995	2.55	8	
1 -2	D13	2430	1	0.995	2.42	2	
1 -3	D13	3030	1	0.995	3.01	3	
2 -1	D13	1440	4	0.995	1.43	6	
2 -2	D13	1380	2	0.995	1.37	3	
2 -3	D13	1320	2	0.995	1.31	3	
3 -1	D13	970	4	0.995	0.97	4	
3 -2	D13	840	2	0.995	0.84	2	
3 -3	D13	690	2	0.995	0.69	1	
4 -1	D13	2610	1	0.995	2.60	3	
4 -2	D13	3350	1	0.995	3.33	3	
5 -1	D13	900	1	0.995	0.90	1	
5 -2	D13	1270	1	0.995	1.26	1	
						40	
					D13	40 kg	
					total	40 kg	

PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO.,LTD.
NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

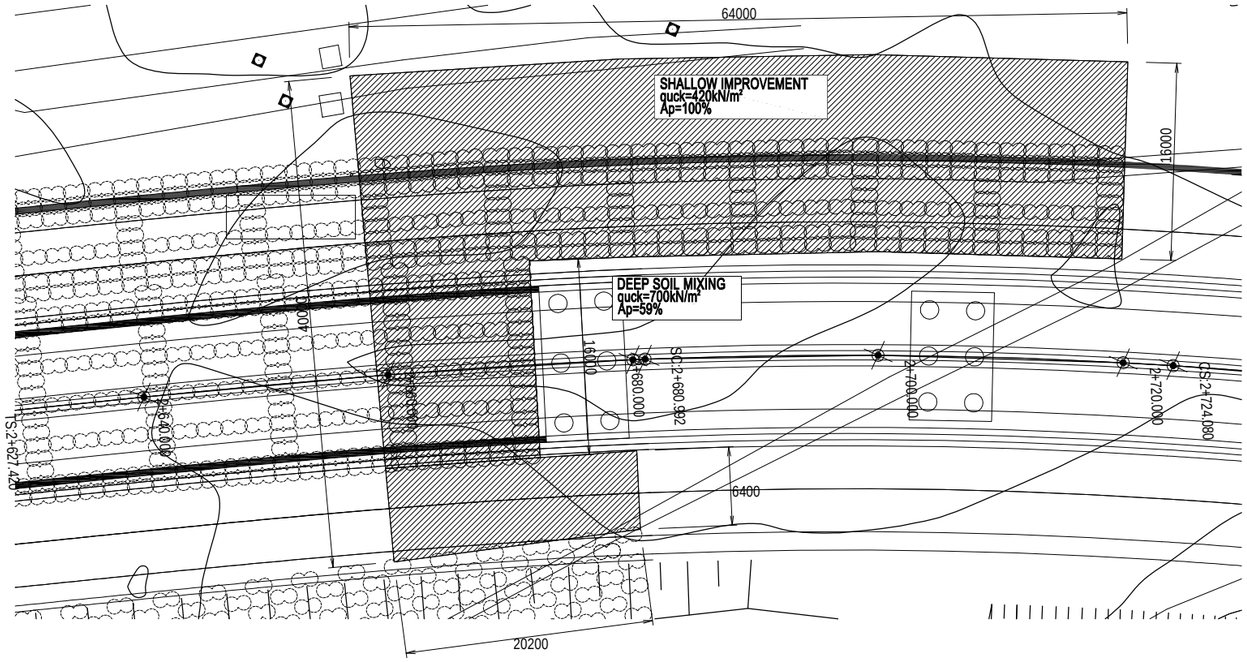
DRAWING TITLE: DETAIL OF LIGHTING FOUNDATION

PACKAGE: 3

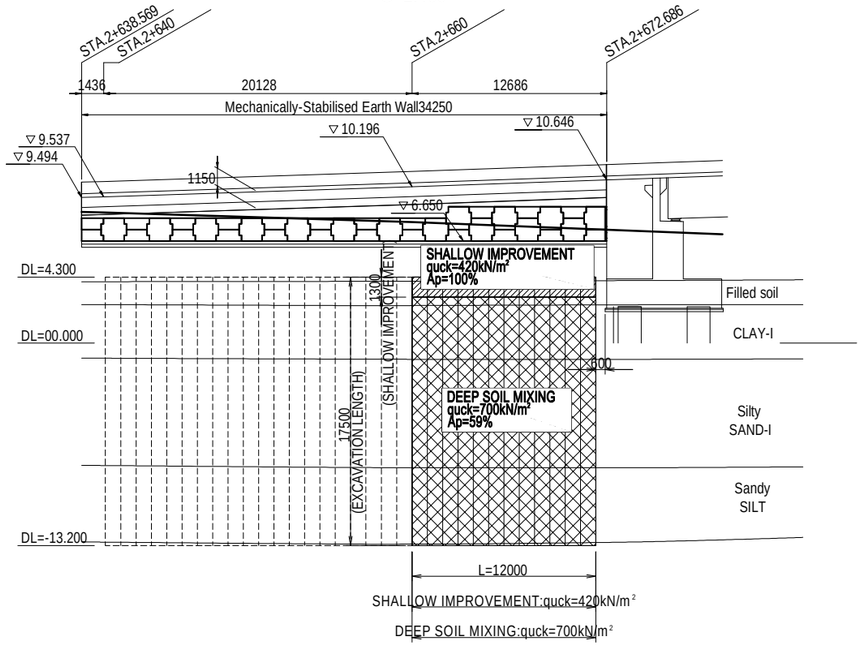
DWG No. P3-RD-4400

SOFT SOIL IMPROVEMENT MEASURES(1)

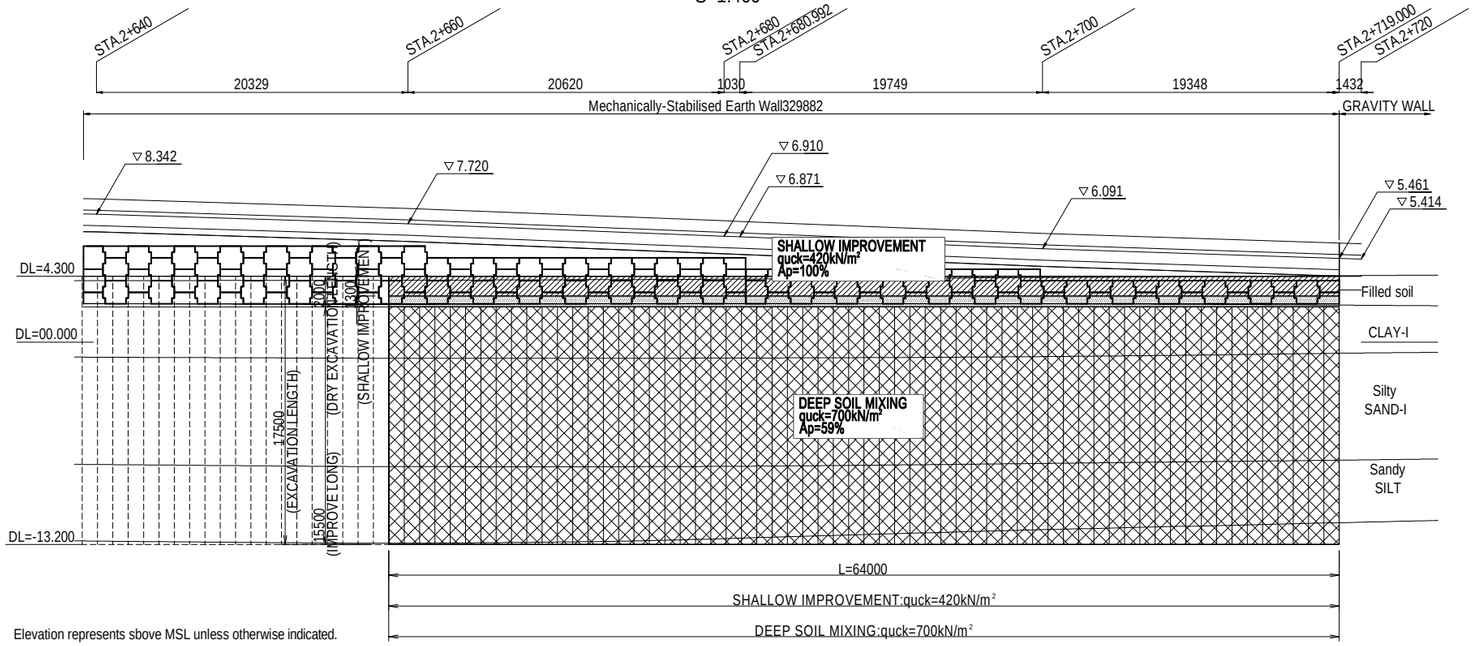
PLAN S=1:500



PROFILE
LEFT SIDE(DEVELOP FROM BACK SIDE)
MAIN LOAD(STA.2+660~2+672.686)
S=1:400

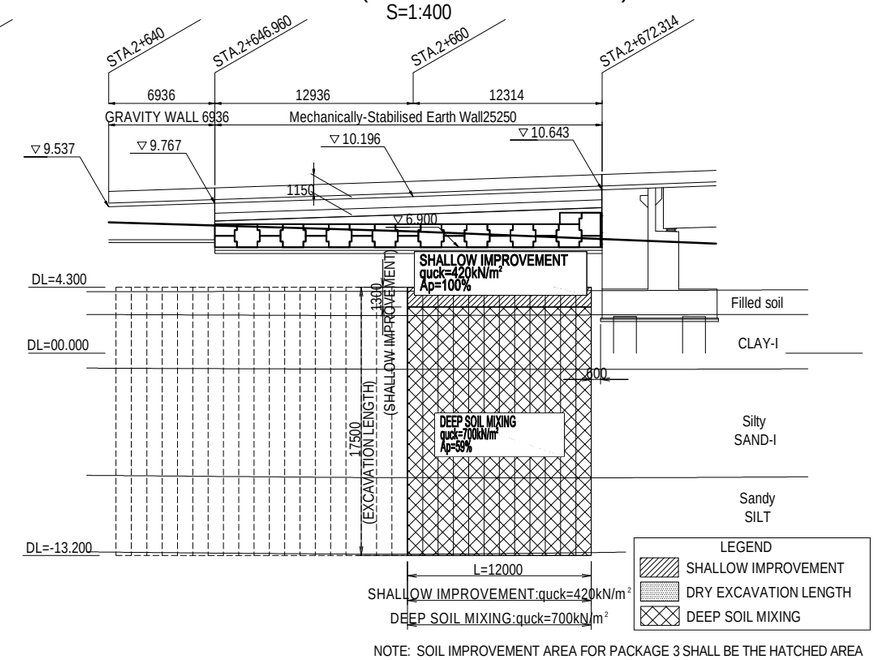


LEFT SIDE(DEVELOP FROM BACK SIDE)
APPOROACH ROAD(STA.2+600~2+710)
S=1:400



Elevation represents sbove MSL unless otherwise indicated.

RIGHT SIDE
MAIN ROAD(STA.2+660~2+672.314)
S=1:400



LEGEND
- SHALLOW IMPROVEMENT
- DRY EXCAVATION LENGTH
- DEEP SOIL MIXING

NOTE: SOIL IMPROVEMENT AREA FOR PACKAGE 3 SHALL BE THE HATCHED AREA IN THE DRAWING ONLY, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

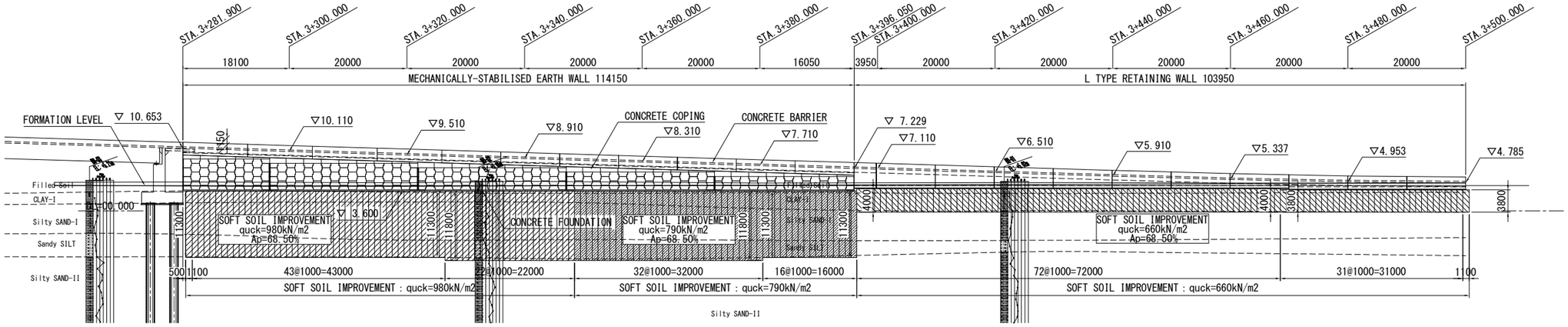
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	DRAWING TITLE: SOFT SOIL IMPROVEMENT MEASURES(1)	PACKAGE: 3

	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

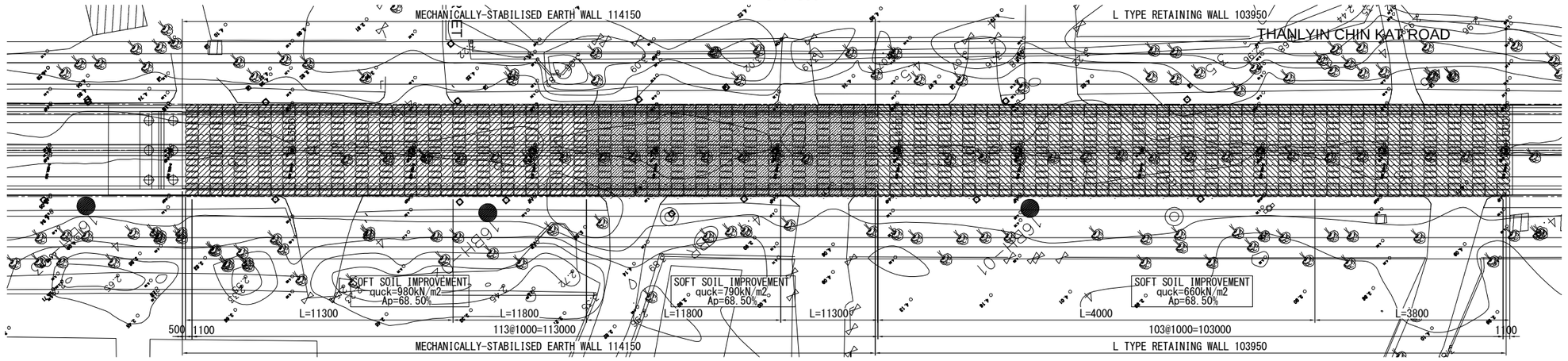
DWG No. P3-RD-5000

SOFT SOIL IMPROVEMENT MEASURES(2)

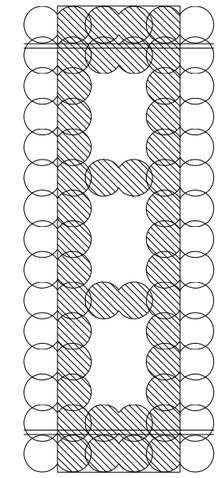
PROFILE S=1:800

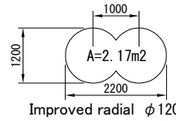


PLAN S=1:800



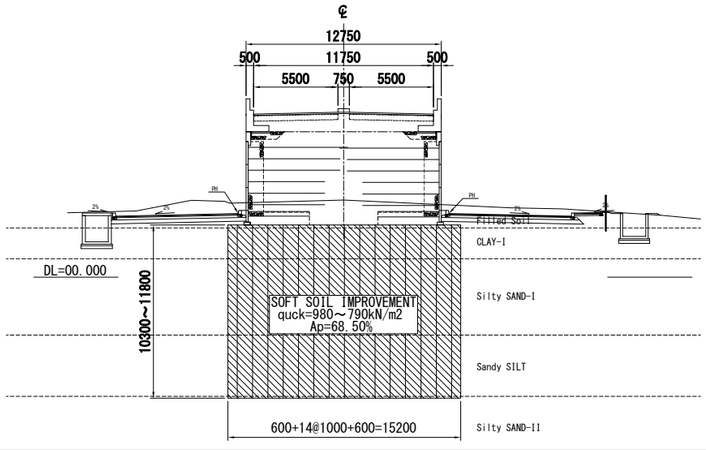
as=41.64m2/60.8m2×100=68.50%

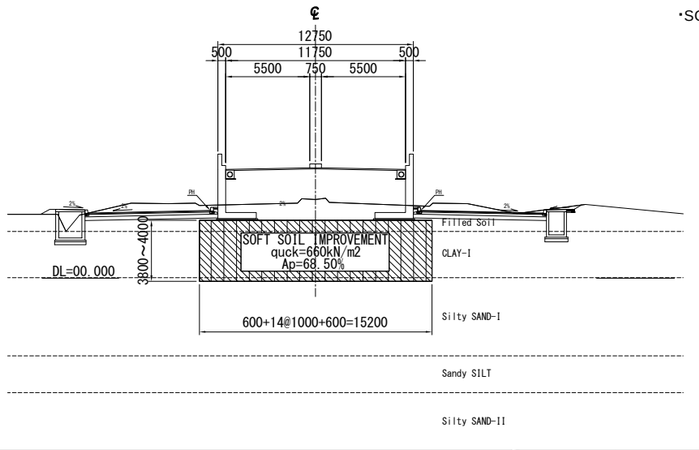




Improved radial φ1200mm
Axis between:1000mm(lap:200mm)

CROSS SECTION S=1:400





・SOFT SOIL IMPROVEMENT

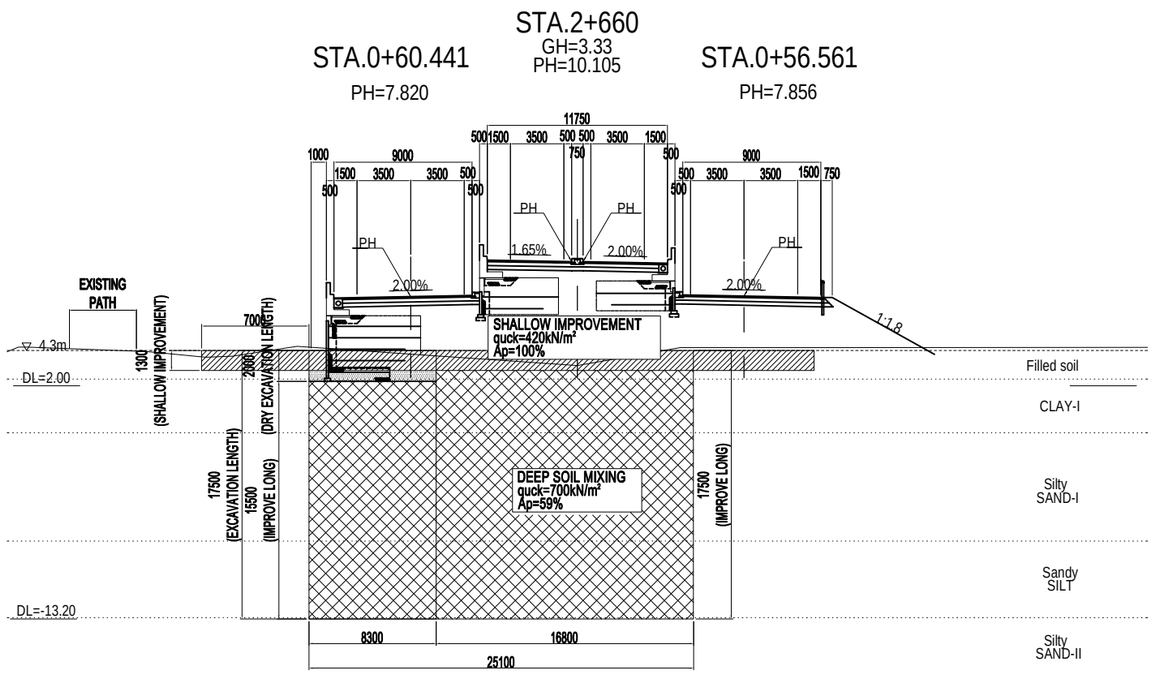
Quck (kN/m2)	AREA	Improved radial	Section(m2)	Excavation length(m)	Dry excavation length(m)	Improve long(m)	sets	Total excavation long(m)	Total dry excavation length(m)	Total improve long(m)	Total improve area(m3)
MECHANICALLY-STABILISED EARTH WALL AREA(quck=980kN/m2,790kN/m2)											
980	A(L=11800)	1200mm@1000 2-axis	2.17	12.50	0.70	11.80	231	2887.50	161.70	2725.80	5914.99
	B(L=11300)	1200mm@1000 2-axis	2.17	12.00	0.70	11.30	120	1440.00	84.00	1356.00	2942.52
Subtotal						351	4327.50	245.70	4081.80	8857.51	
790	C(L=11800)	1200mm@1000 2-axis	2.17	12.50	0.70	11.80	168	2100.00	117.60	1982.40	4301.81
	D(L=11300)	1200mm@1000 2-axis	2.17	12.00	0.70	11.30	111	1332.00	77.70	1254.30	2721.83
Subtotal							252	3108.00	176.40	2931.60	6361.57
L TYPE RETAINING WALL AREA(quck=660kN/m2)											
660	E(L=4000)	1200mm@1000 2-axis	2.17	4.60	0.60	4.00	378	1738.80	226.80	1512.00	3281.04
	F(L=3800)	1200mm@1000 2-axis	2.17	4.40	0.60	3.80	168	739.20	100.80	638.40	1385.33
Subtotal						546	2478.00	327.60	2150.40	4666.37	
Total						1149	9913.50	749.70	9163.80	19885.45	

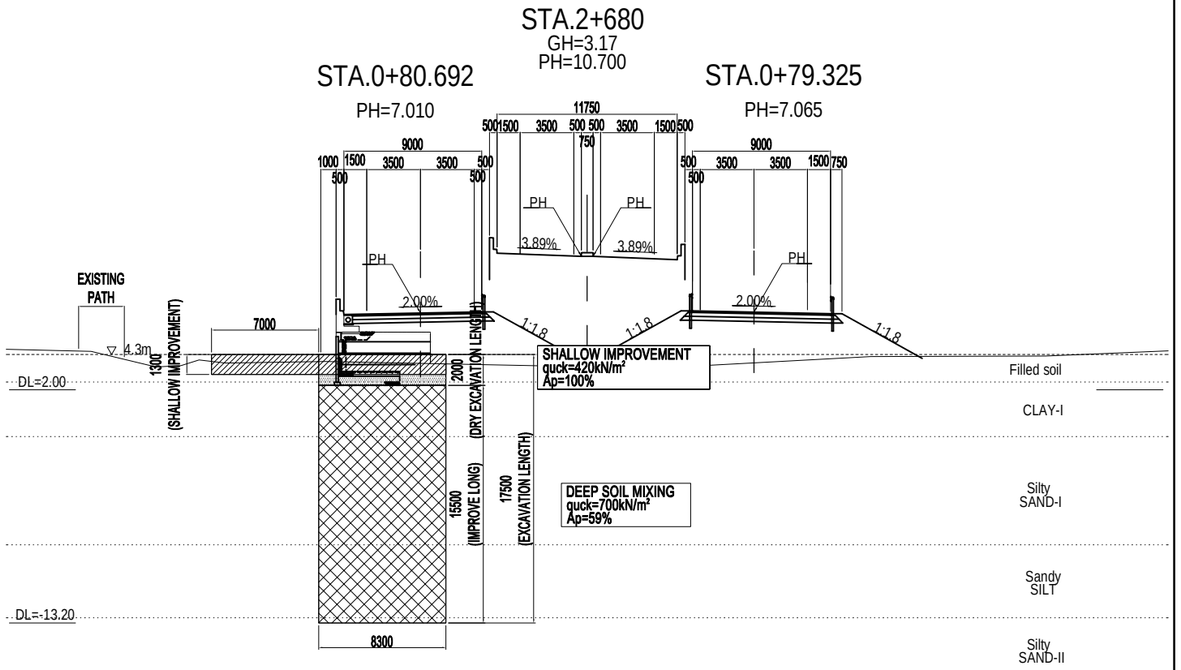
PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

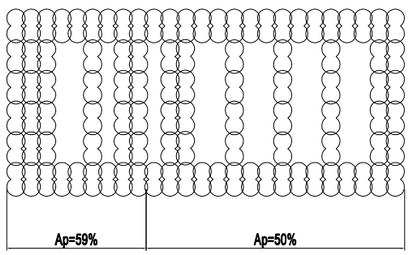
	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

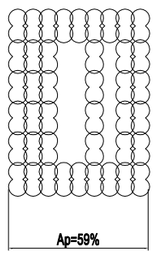
DRAWING TITLE	PACKAGE
SOFT SOIL IMPROVEMENT MEASURES(2)	3
	DWG No.
	P3-RD-5010

CROSS SECTION OF DEEP MIXING METHOD(1) S=1:400









LEGEND
SHALLOW IMPROVEMENT
DRY EXCAVATION LENGTH
DEEP SOIL MIXING

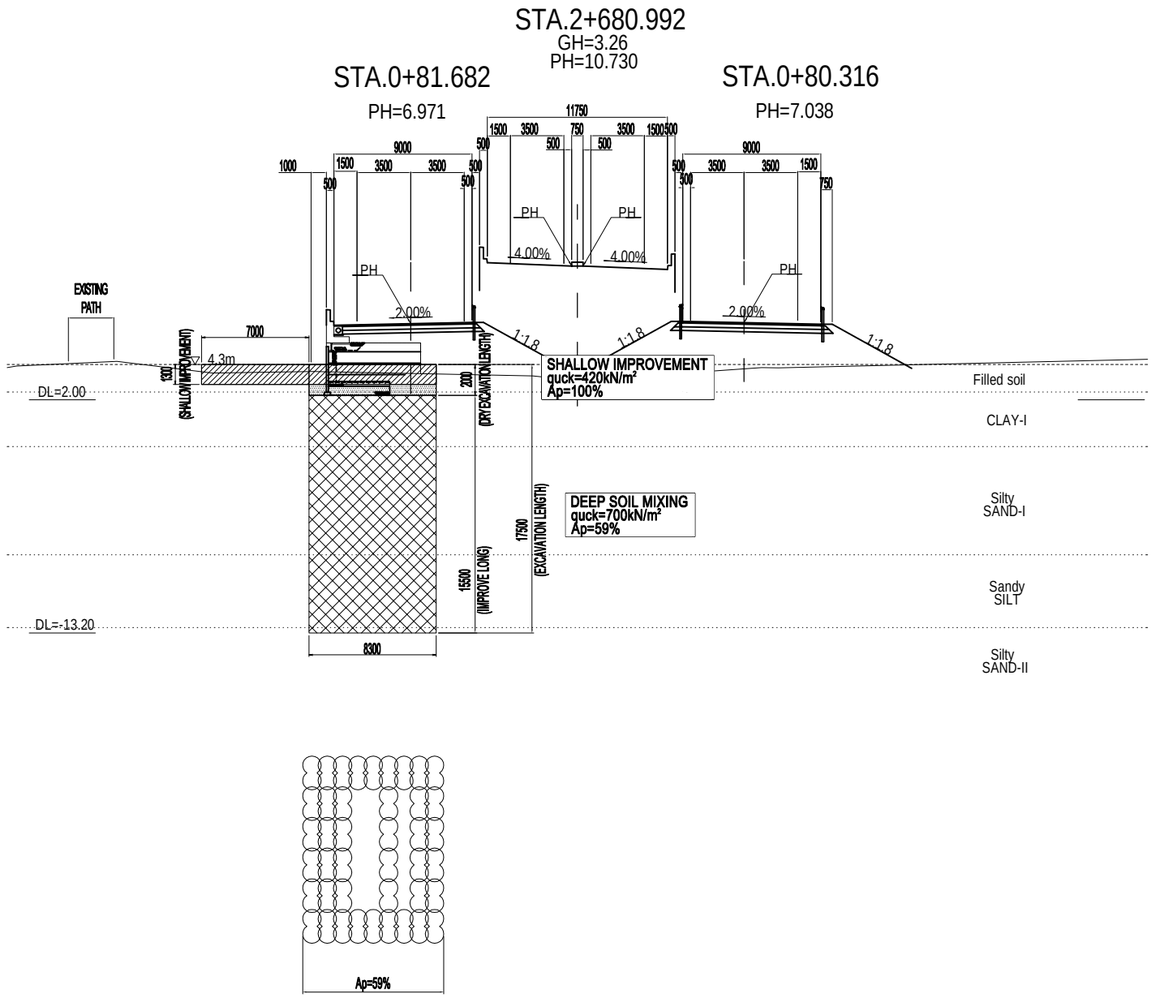
Elevation represents sbove MSL unless otherwise indicated.

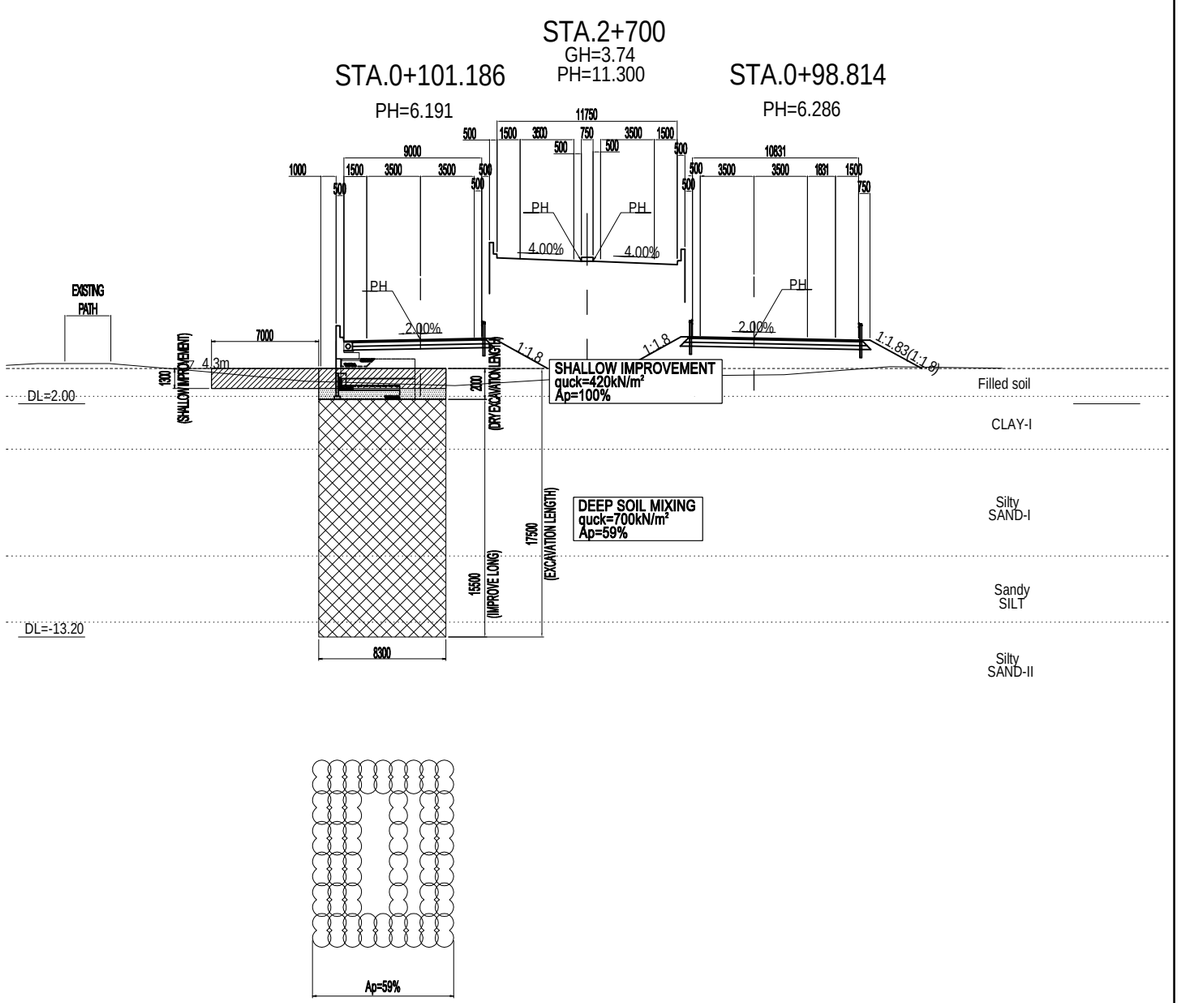
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

DRAWING TITLE	PACKAGE
CROSS SECTION OF DEEP MIXING METHOD(1)	3
	DWG No.
	P3-RD-5020

CROSS SECTION OF DEEP MIXING METHOD(2) S=1:400





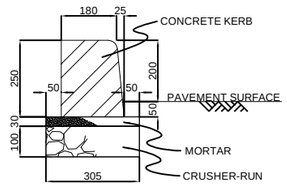
LEGEND
- SHALLOW IMPROVEMENT
- DRY EXCAVATION LENGTH
- DEEP SOIL MIXING

Elevation represents sbove MSL unless otherwise indicated.

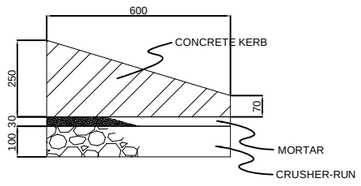
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	CROSS SECTION OF DEEP MIXING METHOD(2)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-5030

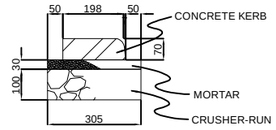
DETAILS OF KERB SCALE = 1:20



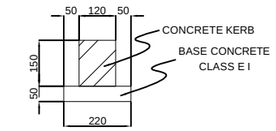
CONCRETE KERB TYPE A-1



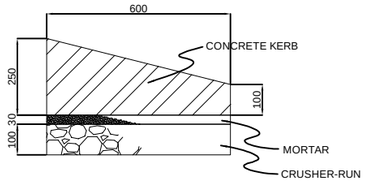
CONCRETE KERB TYPE A-2
TRANSITION BLOCK BETWEEN
TYPE A-1 AND TYPE A-3



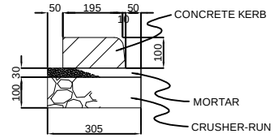
CONCRETE KERB TYPE A-3



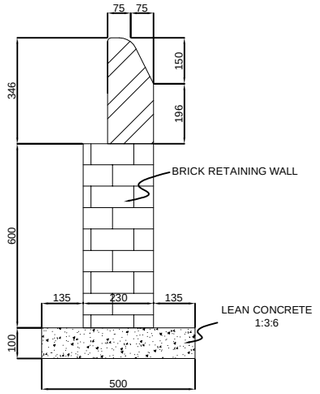
CONCRETE KERB TYPE C



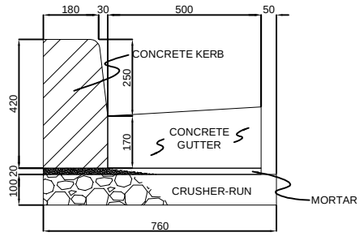
CONCRETE KERB TYPE A-4
TRANSITION BLOCK BETWEEN
TYPE A-1 AND TYPE A-5



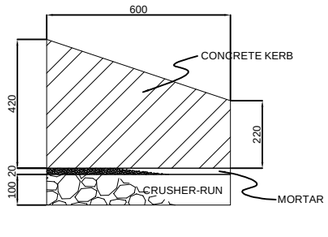
CONCRETE KERB TYPE A-5



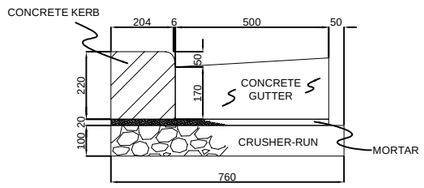
CONCRETE KERB TYPE D



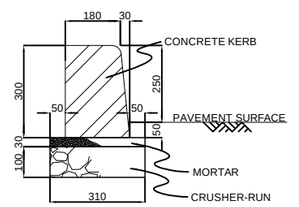
CONCRETE KERB TYPE B-1



CONCRETE KERB TYPE B-2
TRANSITION BLOCK BETWEEN
TYPE B-1 AND TYPE B-3



CONCRETE KERB TYPE B-3



CONCRETE KERB TYPE E

MATERIAL LIST (QUANTITIES PER 10 M)

TYPE	A-1	A-2	A-3	A-4	A-5	B-1	B-2	B-3
DIMENSION	180/205×H250×L600	180/205×H250 198/205×H70 ×L600	198/205×H70×L600	180/205×H250 195/205×H100 ×L600	195/205×H100×L600	180/210×H420×L600	180/210×H420 204/210×H220 ×L600	204/210×H220×L600
CONCRETE	CLASS E I	CLASS E I	CLASS E I	CLASS E I	CLASS E I	CLASS E I	CLASS E I	CLASS E I
MORTAR (1:3)	0.0915 m^3	0.0915 m^3	0.0915 m^3	0.0915 m^3	0.0915 m^3	0.142 m^3	0.142 m^3	0.142 m^3
CRUSHER-RUN	0.305 m^3	0.305 m^3	0.305 m^3	0.305 m^3	0.305 m^3	0.760 m^3	0.760 m^3	0.760 m^3
GUTTER CONCRETE	-	-	-	-	-	0.925 m^3	0.925 m^3	0.925 m^3

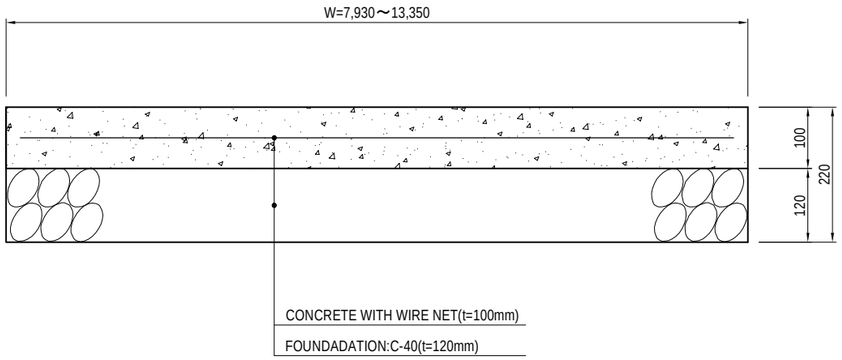
MATERIAL LIST (QUANTITIES PER 10 M)

TYPE	C	D	E
DIMENSION	120×H150×L600	75/150×H346×L600	180/210×H300×L600
CONCRETE	CLASS E I	CLASS E I	CLASS E I
MORTAR (1:3)	-	-	-
CRUSHER-RUN	-	-	0.093 m^3
BASE CONCRETE	0.110 m^3	-	0.310 m^3
LEAN CONCRETE	-	0.500 m^3	-
BRICK	-	1.380 m^3	-

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	DETAILS OF KERB	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-6000

DETAILS OF CONCRETE SEAL S=1:10

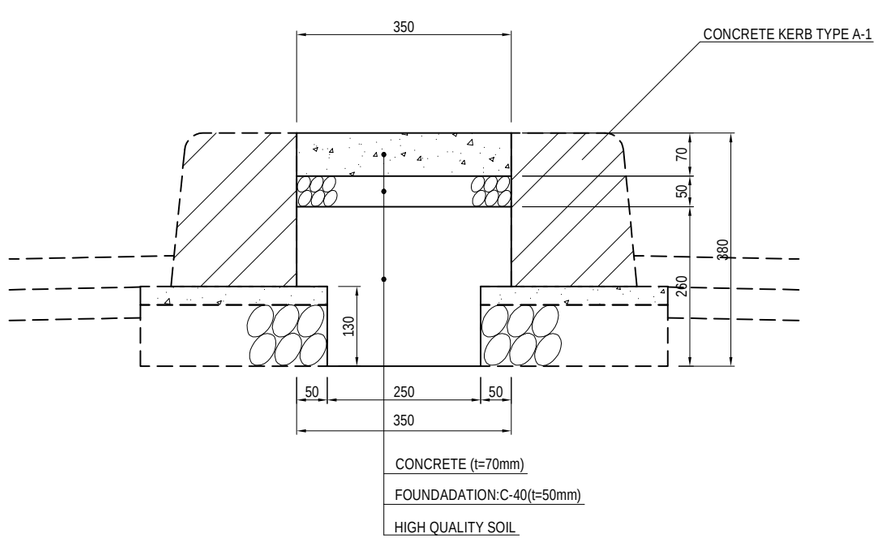
Note
1. Specification of Plain Concrete should be CLASS EI



CONCRETE SEAL (t=100mm)
("UNDER FLYOVER" SECTION)

QUANTITY Per 100 m2

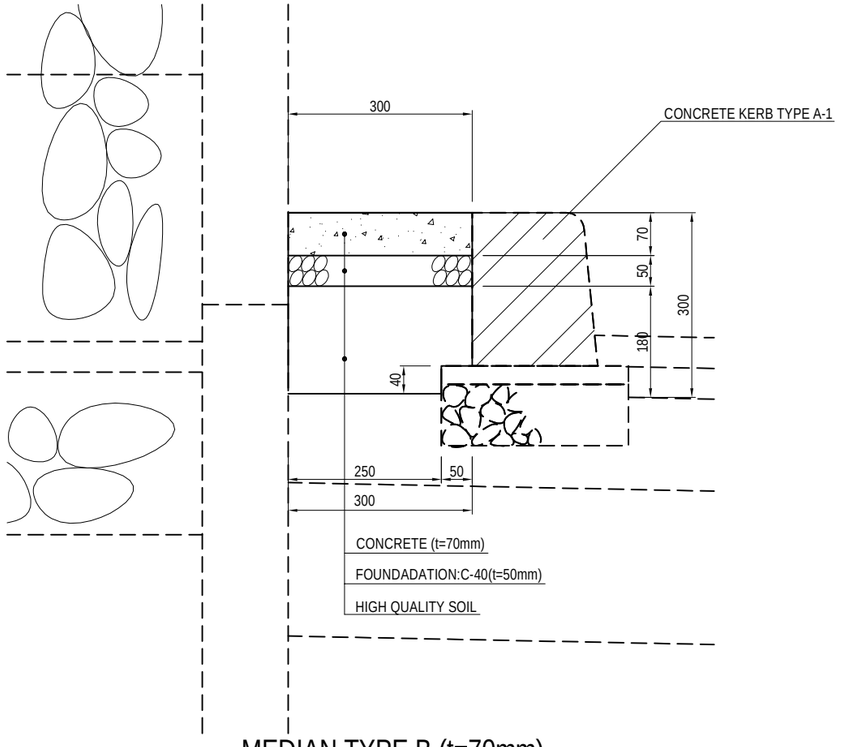
Title	Specification	Quantity	
Concrete	18N/mm2, t=100	100.00	m2
Wire net		100.00	m2
Foundation	t=120	100.00	m2



MEDIAN TYPE A (t=70mm)
("MECHANICALLY STABILISED EARTH WALL" SECTION)

QUANTITY Per 100 m

Title	Specification	Quantity	
Concrete	18N/mm2, t=70	2.45	m3
Foundation	t=50	35.00	m2
High Quality Soil		7.80	m3



MEDIAN TYPE B (t=70mm)
("MECHANICALLY STABILISED EARTH WALL" SECTION)

QUANTITY Per 100 m

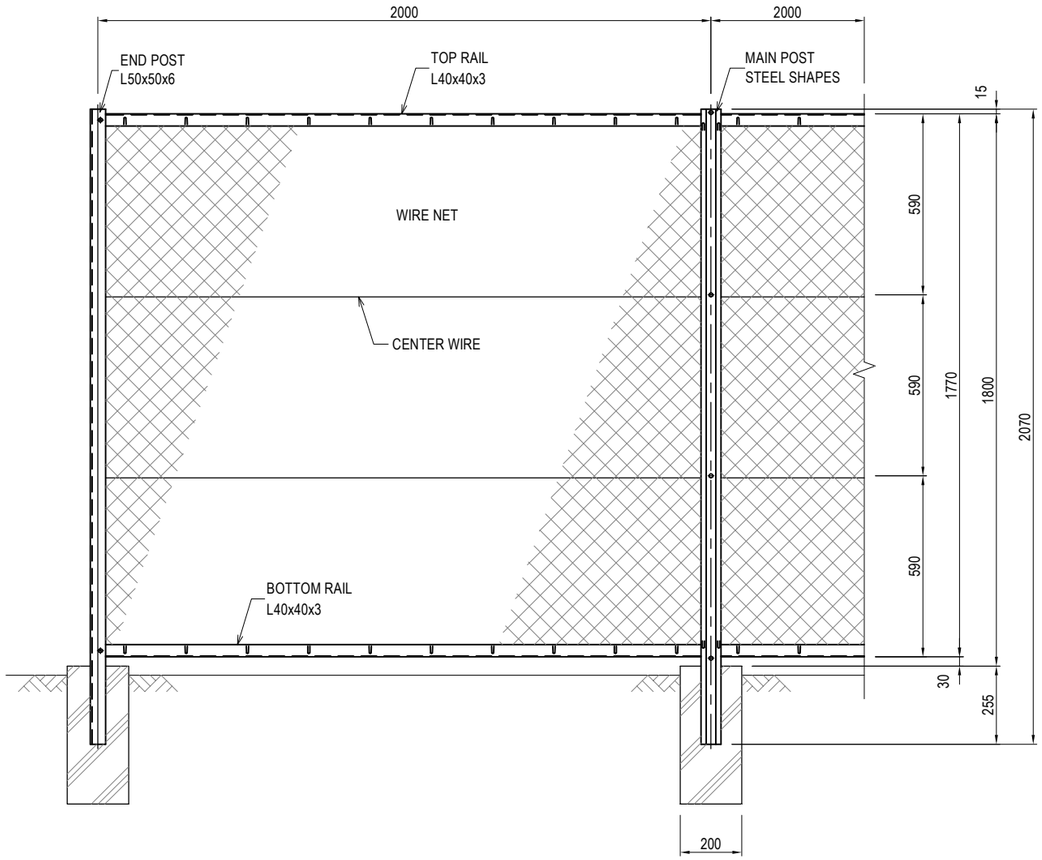
Title	Specification	Quantity	
Concrete	18N/mm2, t=70	2.10	m3
Foundation	t=50	30.00	m2
High Quality Soil		5.20	m3

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

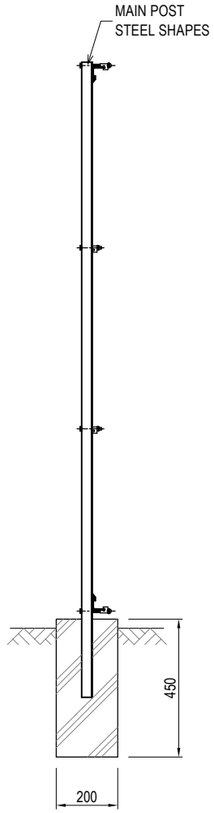
	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

DRAWING TITLE	PACKAGE
DETAILS OF CONCRETE SEAL S=1:10	3
	DWG No.
	P3-RD-6010

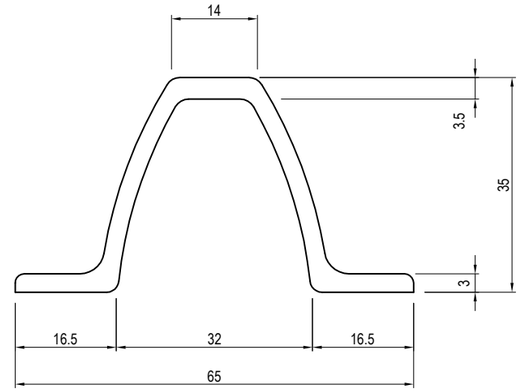
DETAIL OF BOUNDARY FENCE (1)



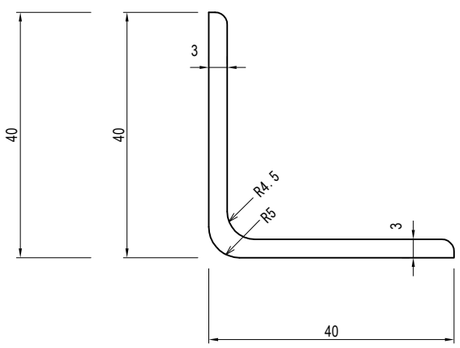
FRONT VIEW
S=1:20



SIDE VIEW
S=1:20



MAIN POST DETAIL
S=1:1



RAIL SECTION(L40x40x3)
S=1:1

QUANTITY PER 10m

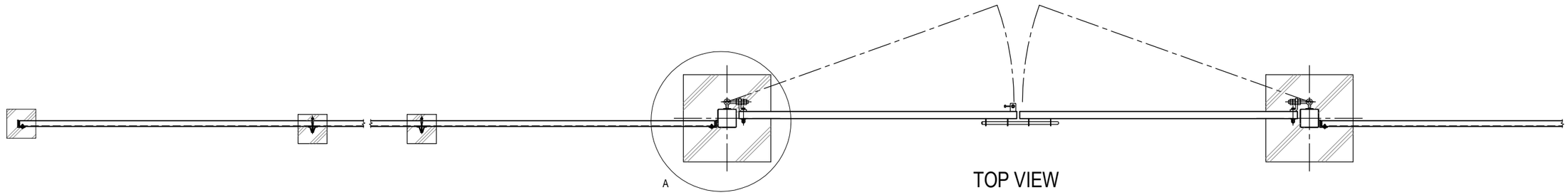
Title	Specification	Quantity	Description
Main Post	t=3,L=2070	4 each	Coating specification
End Post	L-50x50x6,L=2070	(2) each	Coating specification
Rail	L-40x40x3,L=10m	2 each	Coating specification
Wire Net	φ3.2-50×50,L=1800	10 m	
Concrete	E I	0.09 m3	
Form		1.8 m2	

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

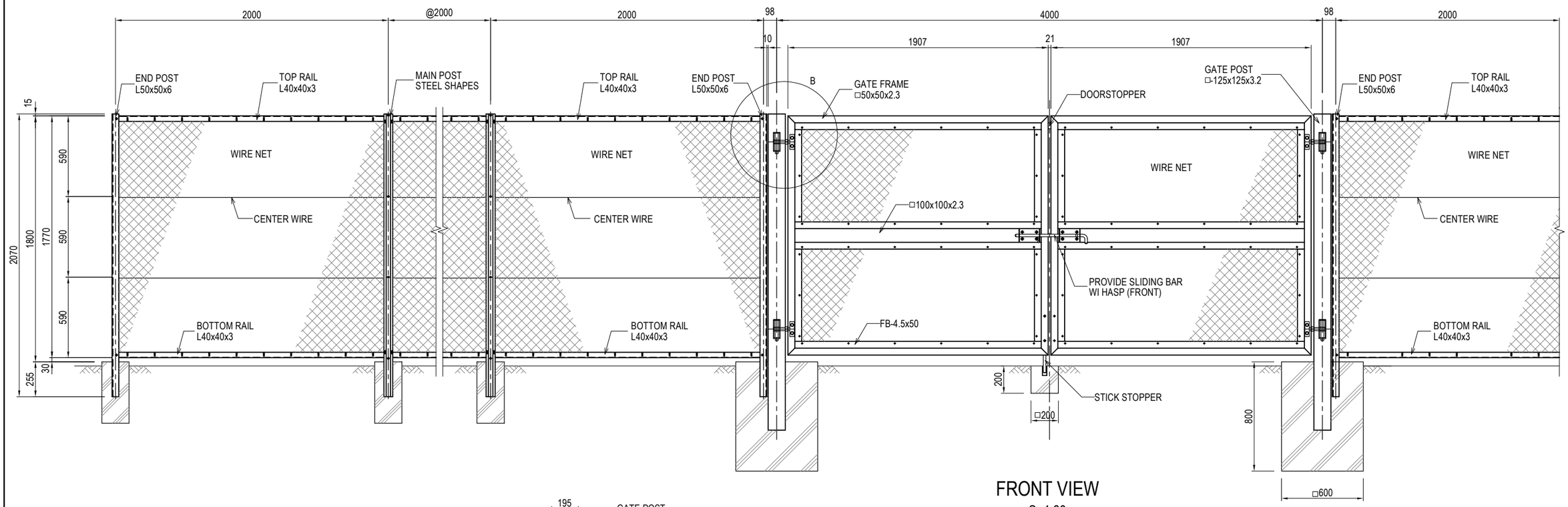
	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

DRAWING TITLE	PACKAGE
DETAIL OF BOUNDARY FENCE (1)	3
	DWG No.
	P3-RD-6020

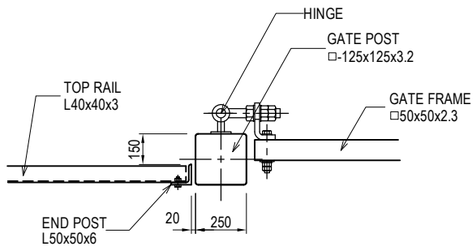
DETAIL OF BOUNDARY FENCE (2)



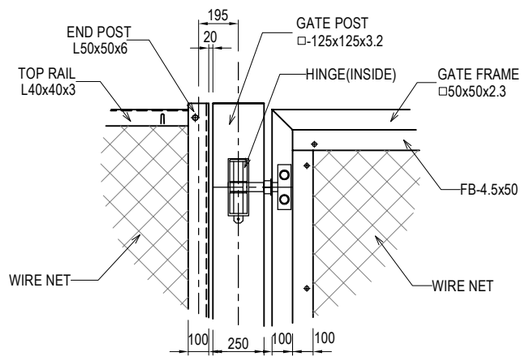
TOP VIEW
S=1:30



FRONT VIEW
S=1:30



DETAIL OF "A"



DETAIL OF "B"

QUANTITY PER 1each

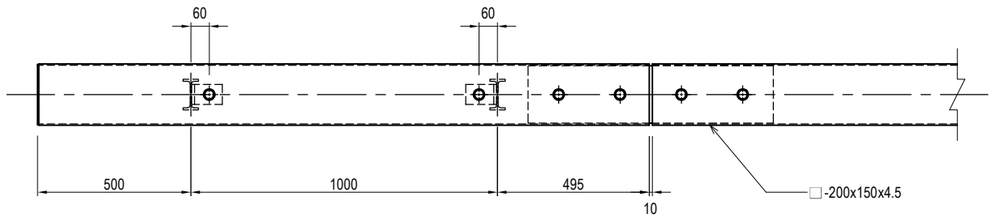
Title	Specification	Quantity	Description
Gate	W=4.0m,H=1.8m	1 set	Coating specification
Concrete	E I	0.58 m3	
Form		4.0 m2	

PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

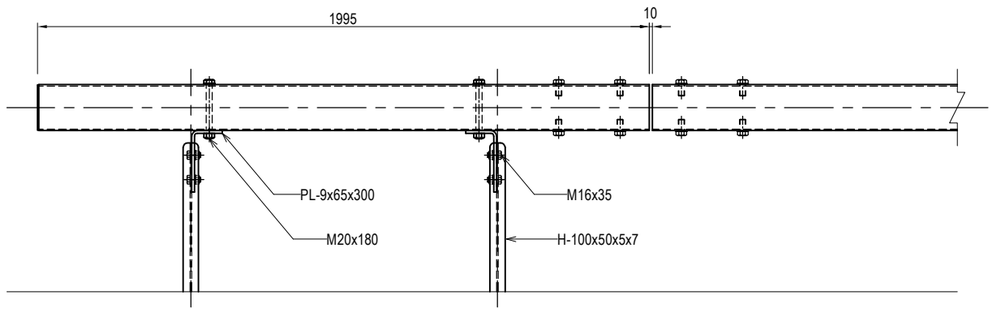
	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

DRAWING TITLE	PACKAGE
DETAIL OF BOUNDARY FENCE (2)	3
	DWG No.
	P3-RD-6030

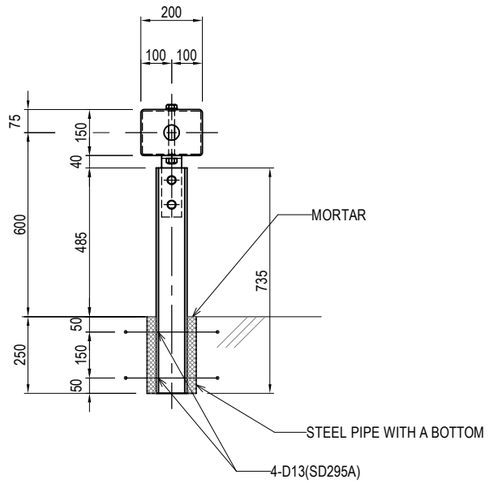
DETAIL OF BOX BEAM (1)



PLAN
S=1:20

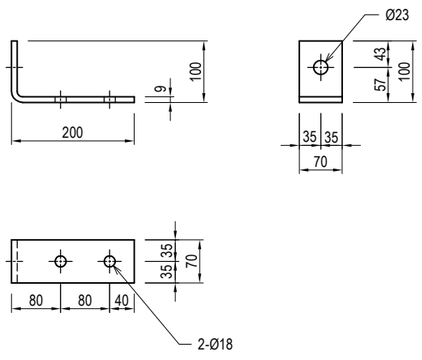


FRONT VIEW
S=1:20

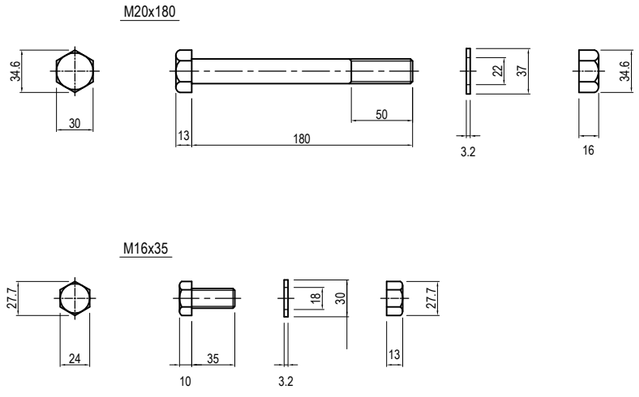


SECTION
S=1:20

DETAIL OF BRACKET
S=1:10



DETAIL OF CONNECTION BOLT
S=1:5



QUANTITY PER 1each

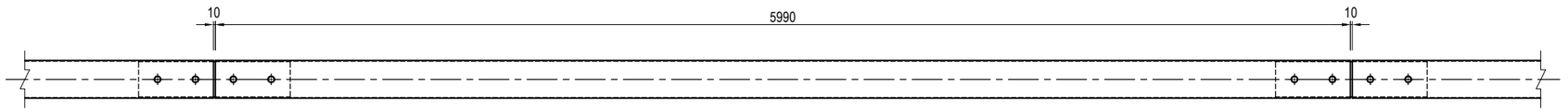
Title	Specification	Quantity	Description
Post	H-100 x 50 x 5 x 7 L=735	2 each	HDZ 55
Box beam (Edge)	□-200 x 150 x 4.5 L=1995	1 each	HDZ 55

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

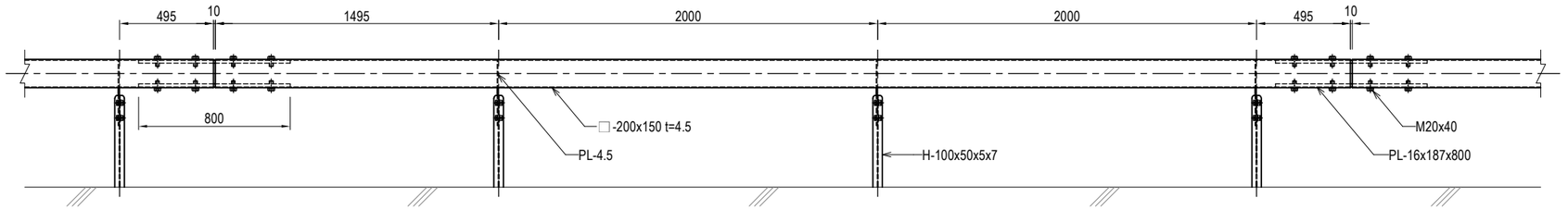
	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

DRAWING TITLE	PACKAGE
DETAIL OF BOX BEAM (1)	3
	DWG No.
	P3-RD-6040

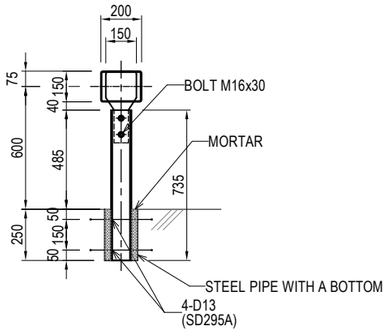
DETAIL OF BOX BEAM (2)



PLAN
S=1:30

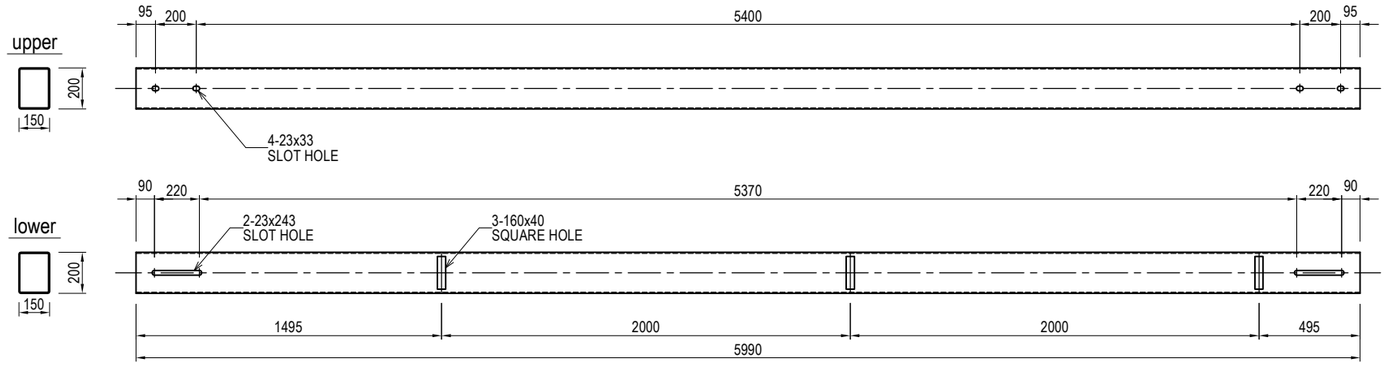


FRONT VIEW
S=1:30

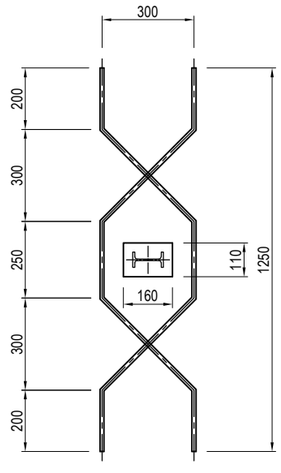


SECTION
S=1:30

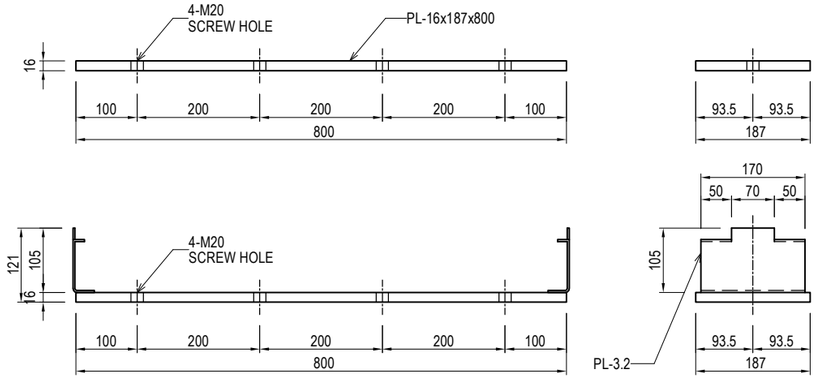
DETAIL OF BEAM
S=1:30



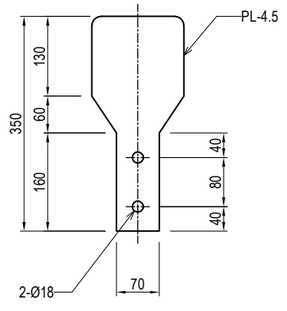
DETAIL OF REINFORCING BAR
S=1:20



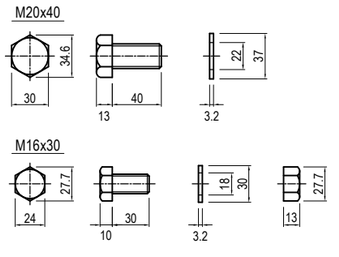
DETAIL OF BEAM
S=1:10



DETAIL OF PADDLE
S=1:10



DETAIL OF CONNECTION BOLT
S=1:5

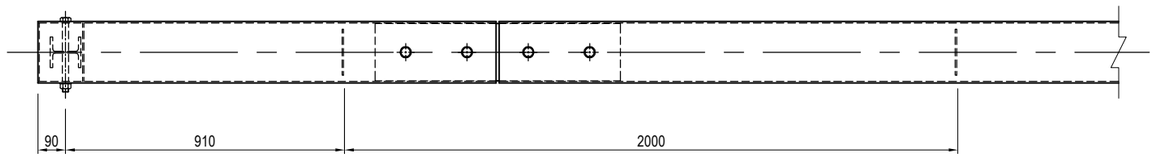


QUANTITY PER 10m

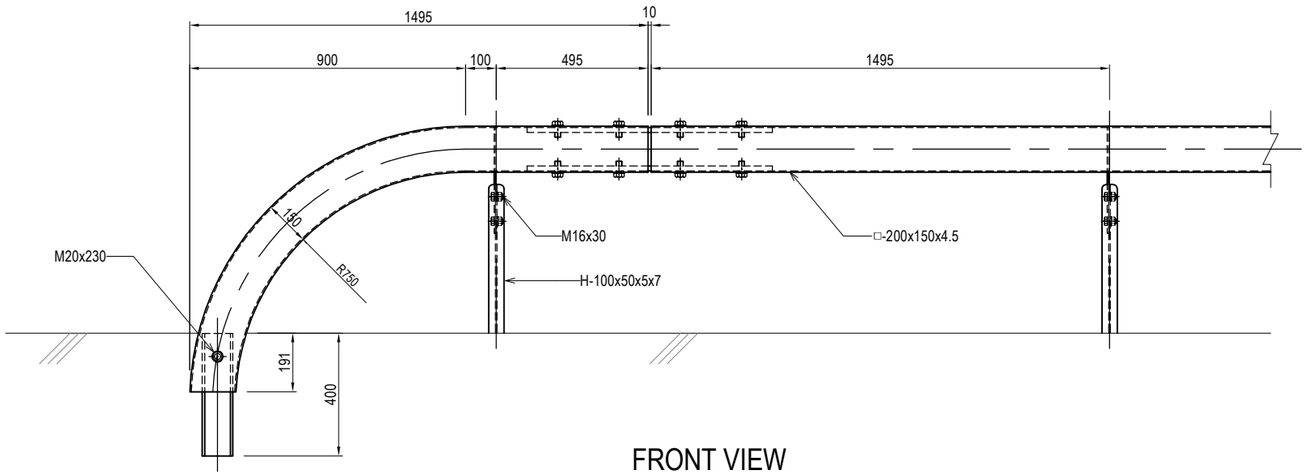
Title	Specification	Quantity	Description
Post	H-100 x 50 x 5 x 7 L=735	5 each	HDZ 55
Box beam	□-200 x 150 x 4.5 L=2000	5 each	HDZ 55

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	DETAIL OF BOX BEAM (2)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-6050

DETAIL OF BOX BEAM (3)

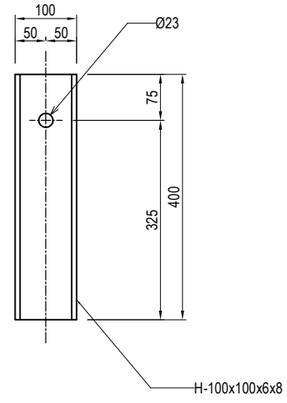


PLAN
S=1:20

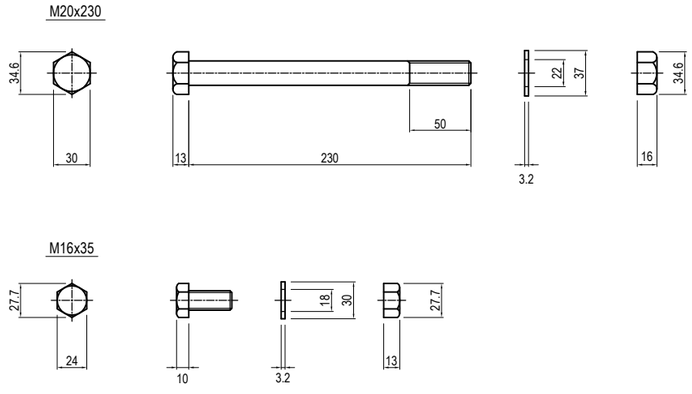


FRONT VIEW
S=1:20

DETAIL OF ANCHOR POST
S=1:10



DETAIL OF CONNECTION BOLT
S=1:5



QUANTITY PER 1each

Title	Specification	Quantity	Description
Post	H-100 x 50 x 5 x 7 L=735	2 each	HDZ 55
Anchor post	H-100 x 100 x 6 x 8 L=400	1 each	HDZ 55
Box beam (Edge)	□-200 x 150 x 4.5 L=1495	1 each	HDZ 55
Box beam (Edge)	□-200 x 150 x 4.5 R=750	1 each	HDZ 55

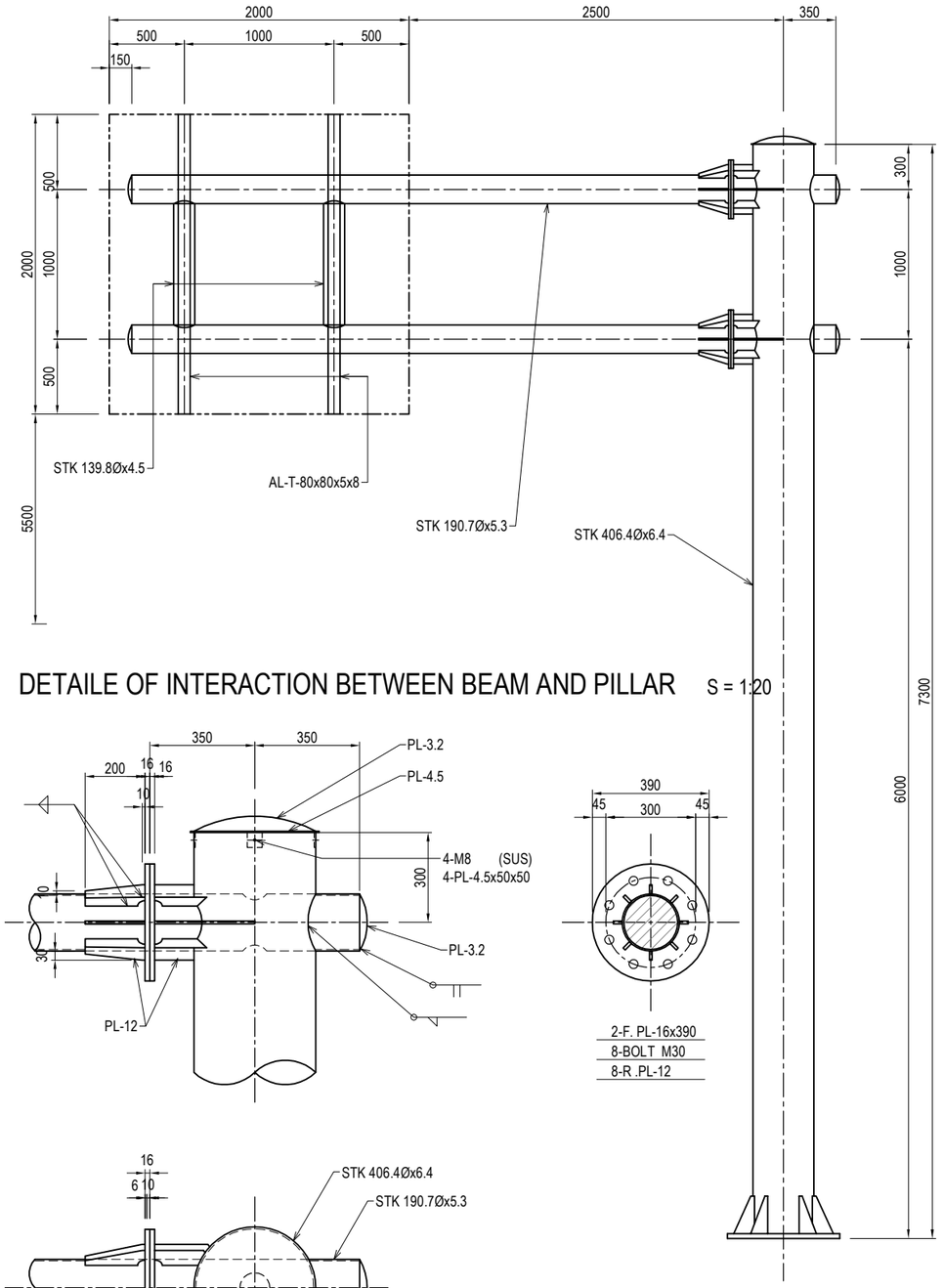
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

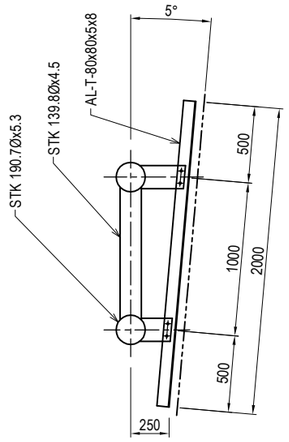
DRAWING TITLE	PACKAGE
DETAIL OF BOX BEAM (3)	3
	DWG No.
	P3-RD-6060

DETAIL OF INFORMATORY SIGNBOARD-TYPE A FOUNDATION AND POST (1)

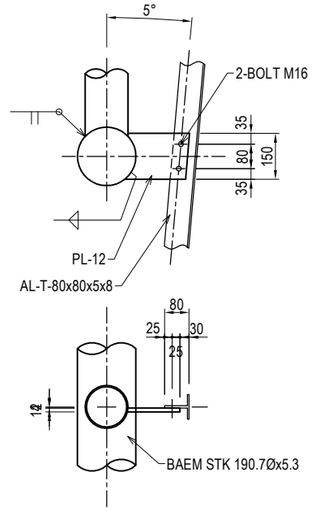
GENERAL VIEW S = 1:40



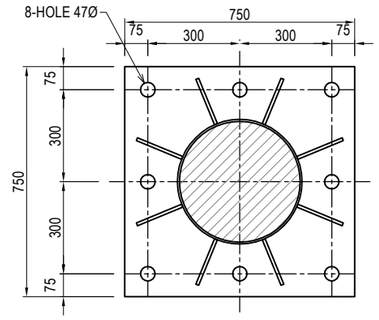
SECTION OF PANEL S = 1:40



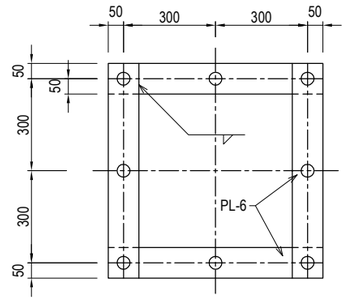
DETAIL OF MOUNTING BRACKET



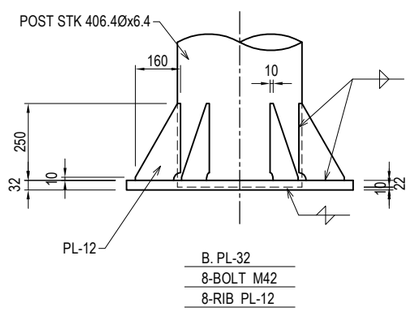
DETAILE OF COLUMN BASE S = 1:20

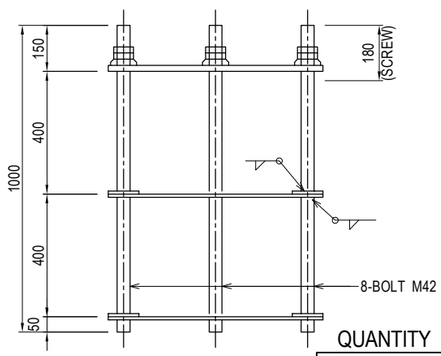


DETAIL OF ANCHOR BOLT S = 1:20



DETAILE OF INTERACTION BETWEEN BEAM AND PILLAR S = 1:20





QUANTITY PER 1each

Title	Specification	Quantity	Description
Signboard	alminium:t=2.0	1 each	Encapsulated lens type
Post	φ406.4 x 7300 x 6.4	460.63 kg	HDZ 55
Beam	φ190.7 x 4700 x 5.3	227.48 kg	HDZ 55
Post jointing	φ139.8 x 1000 x 4.5	30.00 kg	HDZ 55
Stiffener		333.58 kg	
Anchor bolt	M42 x 1000	99.12 kg	HDZ 55
Anchor bolt fixed frame	PL-100 x 700 x 6	28.40 kg	HDZ 55

PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO.,LTD.
NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

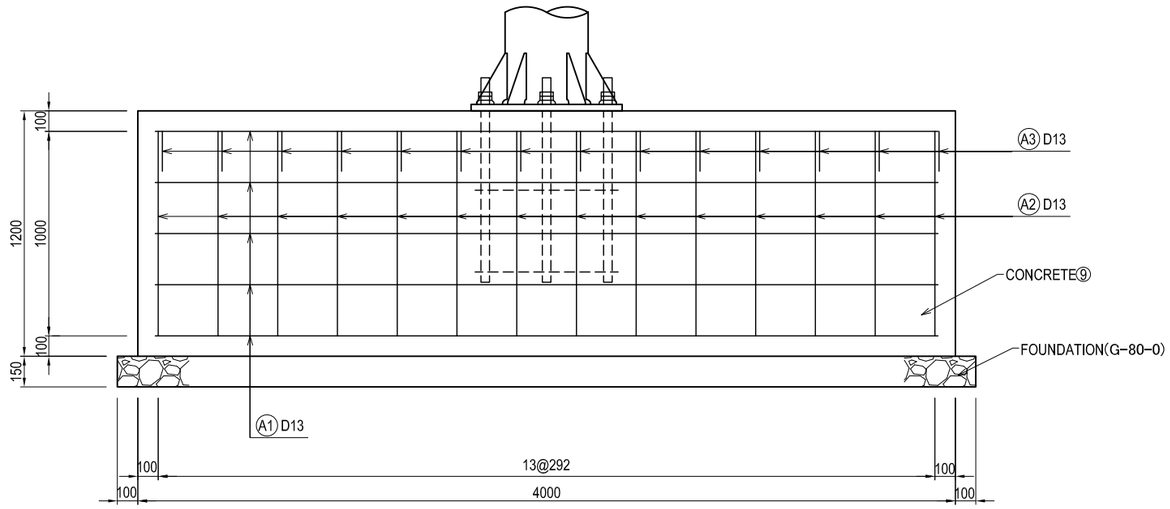
DRAWING TITLE
DETAIL OF INFORMATORY SIGNBOARD-TYPE A FOUNDATION AND POST (1)

PACKAGE 3
DWG No. P3-RD-6070

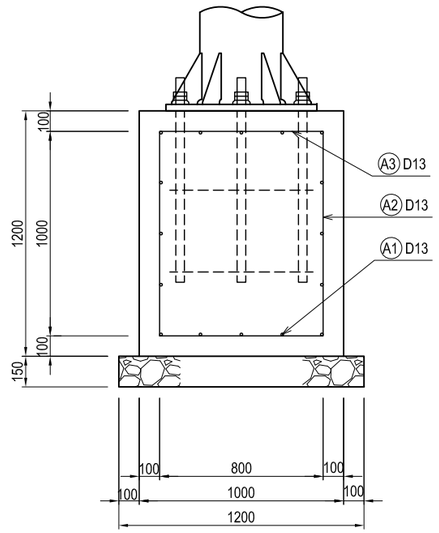
DETAIL OF INFORMATORY SIGNBOARD-TYPE A FOUNDATION AND POST (2) S=1:30

Note
1. Specification of Reinforced Concrete should be CLASS DII
2. Specification of Steel reinforcement bar should be SD345

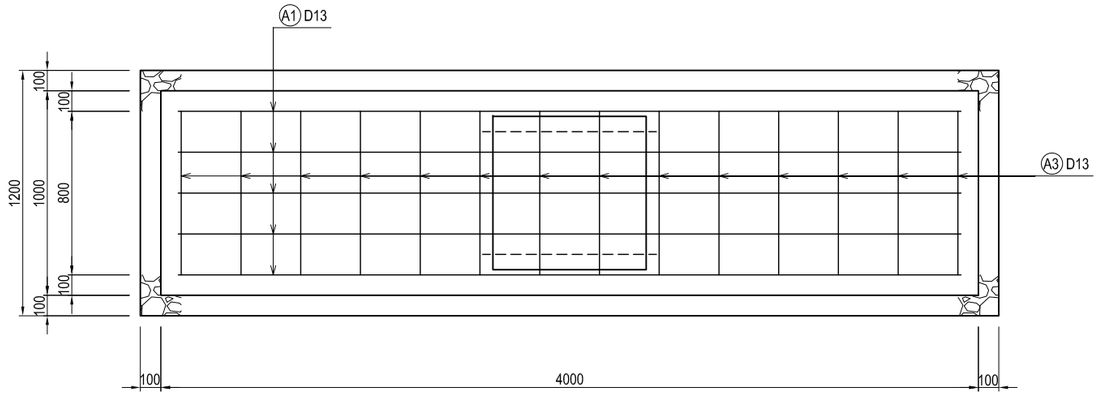
FRONT VIEW OF BASEMENT



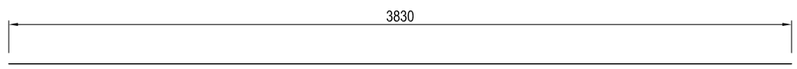
SIDE VIEW OF BASEMENT



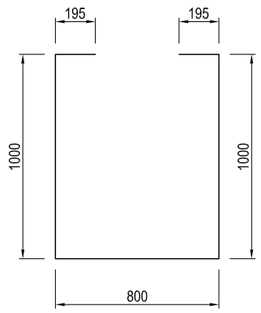
PLAN VIEW OF BASEMENT



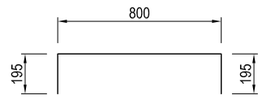
REBAR PROCESSING DRAWING



A1 16-D13x3830



A2 14-D13x3190



A3 14-D13x1190

QUANTITY

PER 1each

Title	Specification	Quantity	Description
Concrete	D II	4.80 m3	
Reinforcing bar	D 13	121.99 kg	
Foundation	t=150	5.04 m2	
Form		12.00 m2	

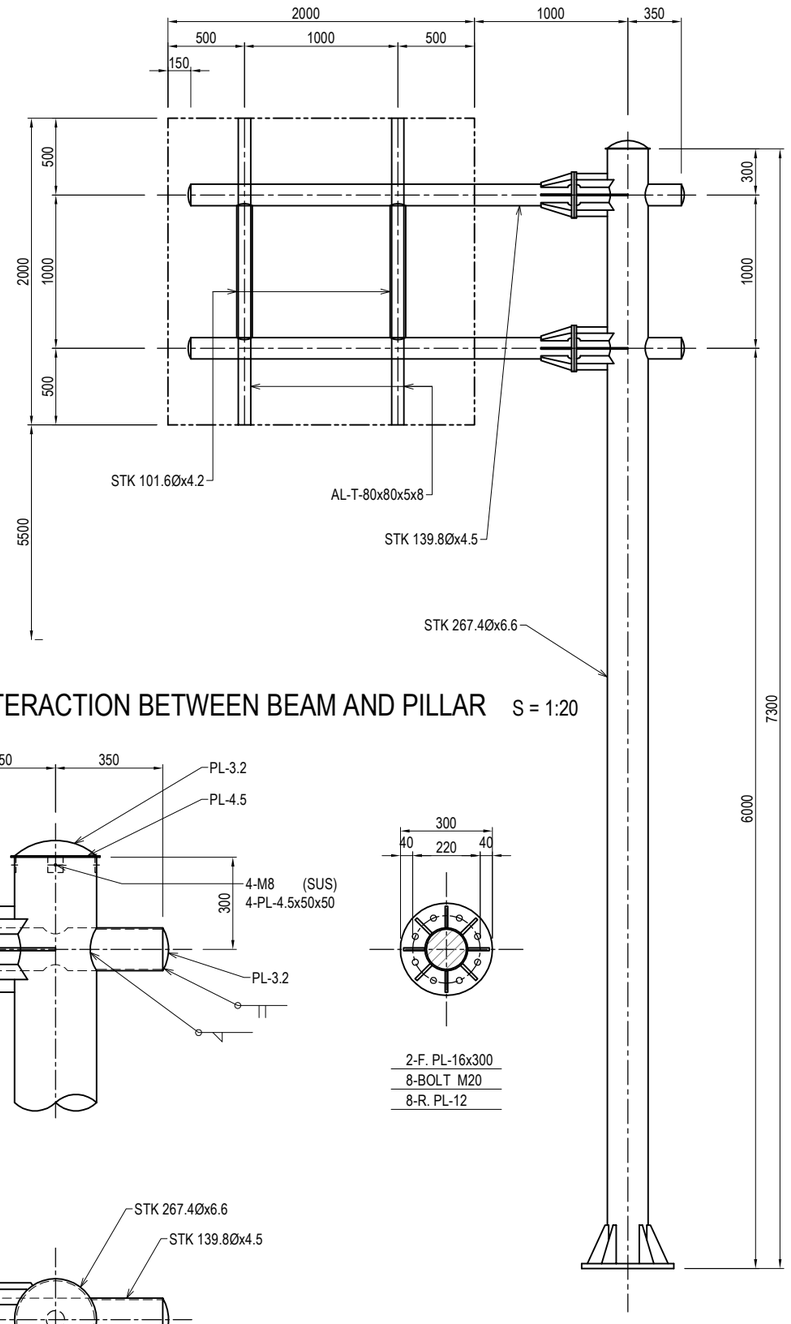
PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep. 2017
CHECKED BY	T. HAYAKAWA		3 Oct. 2017
APPROVED BY	Y. SANO		6 Oct. 2017

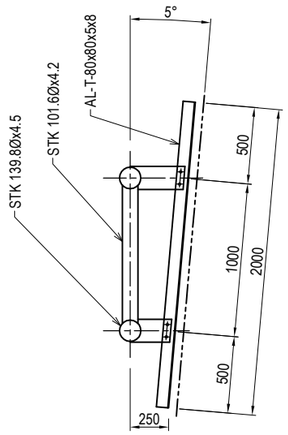
DRAWING TITLE	PACKAGE
DETAIL OF INFORMATORY SIGNBOARD-TYPE A FOUNDATION AND POST (2) S=1:30	3
	DWG No.
	P3-RD-6080

DETAIL OF INFORMATORY SIGNBOARD-TYPE B FOUNDATION AND POST (1)

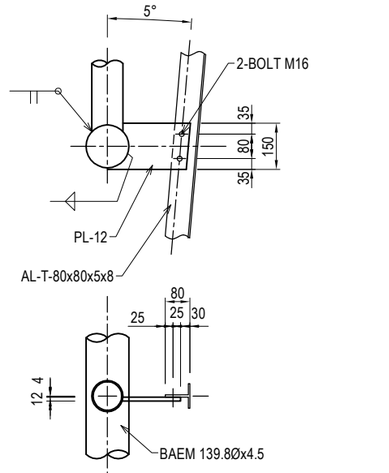
GENERAL VIEW S = 1:40



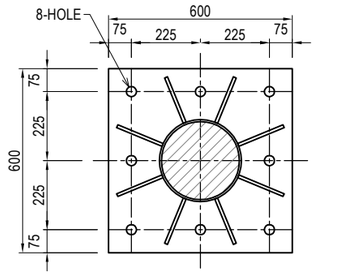
SECTION OF PANEL S = 1:40

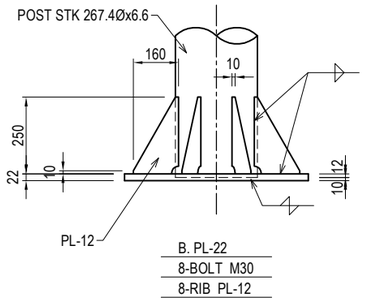


DETAIL OF MOUNTING BRACKET S = 1:20

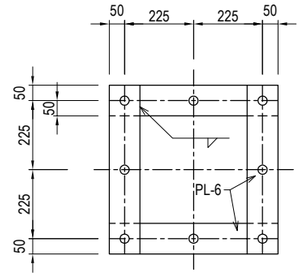


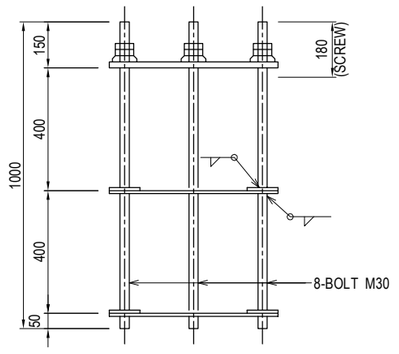
DETAILE OF COLUMN BASE S = 1:20



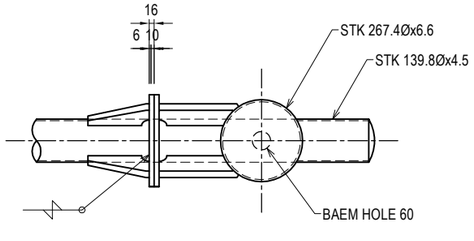


DETAIL OF ANCHOR BOLT S = 1:20





DETAILE OF INTERACTION BETWEEN BEAM AND PILLAR S = 1:20



QUANTITY PER 1each

Title	Specification	Quantity	Description
Signboard	alminium:t=2.0	1 each	Encapsulated lens typ
Post	φ406.4 x 7300 x 6.4	309.52 kg	HDZ 55
Beam	φ190.7 x 4700 x 5.3	96.00 kg	HDZ 55
Post jointing	φ139.8 x 1000 x 4.5	20.20 kg	HDZ 55
Stiffener		209.92 kg	
Anchor bolt	M42 x 1000	48.40 kg	HDZ 55
Anchor bolt fixed frame	PL-100 x 700 x 6	20.72 kg	HDZ 55

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

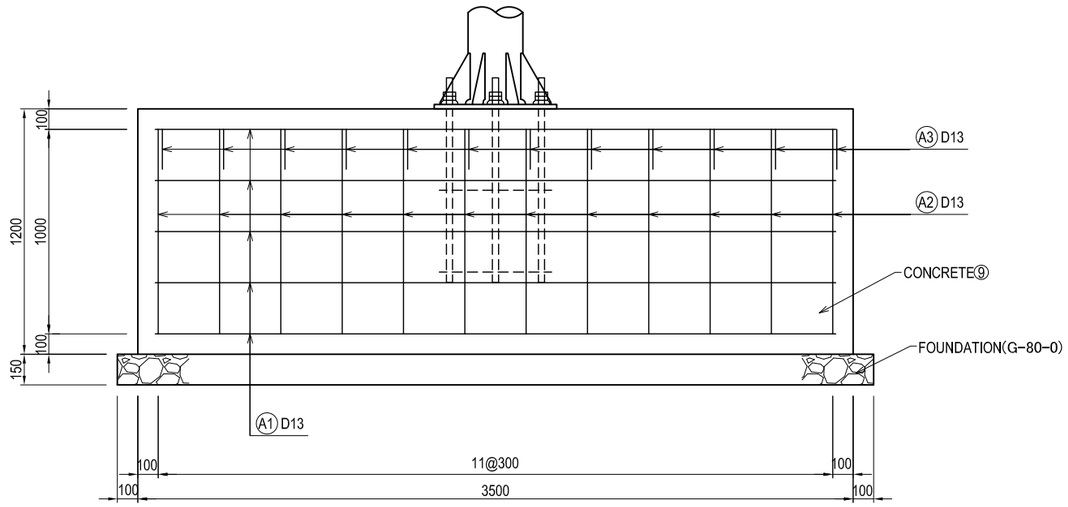
	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

DRAWING TITLE	PACKAGE
DETAIL OF INFORMATORY SIGNBOARD-TYPE B FOUNDATION AND POST (1)	3
	DWG No.
	P3-RD-6090

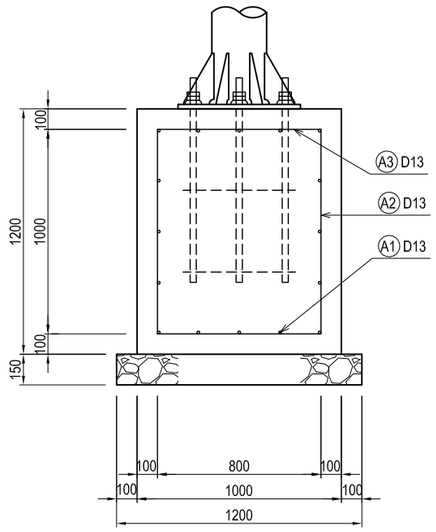
DETAIL OF INFORMATORY SIGNBOARD-TYPE B FOUNDATION AND POST (2) S=1:30

Note
1. Specification of Reinforced Concrete should be CLASS DII
2. Specification of Steel reinforcement bar should be SD345

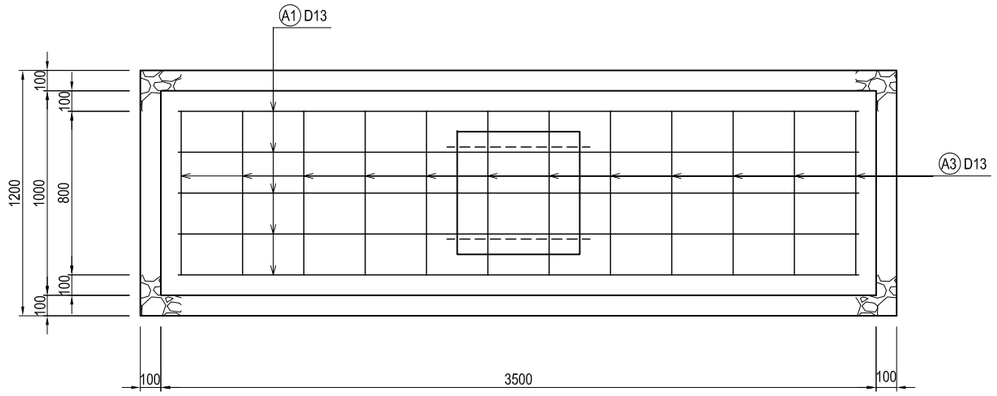
FRONT VIEW OF BASEMENT



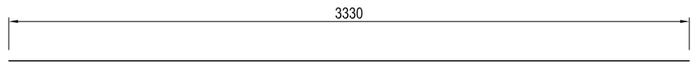
SIDE VIEW OF BASEMENT



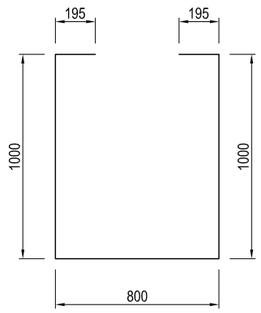
PLAN VIEW OF BASEMENT



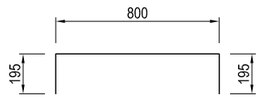
REBAR PROCESSING DRAWING



A1 16-D13x3330



A2 12-D13x3190



A3 12-D13x1190

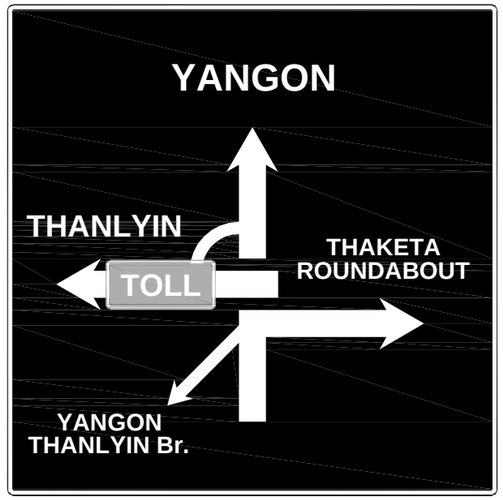
QUANTITY PER 1each

Title	Specification	Quantity	Description
Concrete	D II	4.20 m3	
Reinforcing bar	D 13	105.31 kg	
Foundation	t=150	4.44 m2	
Form		10.80 m2	

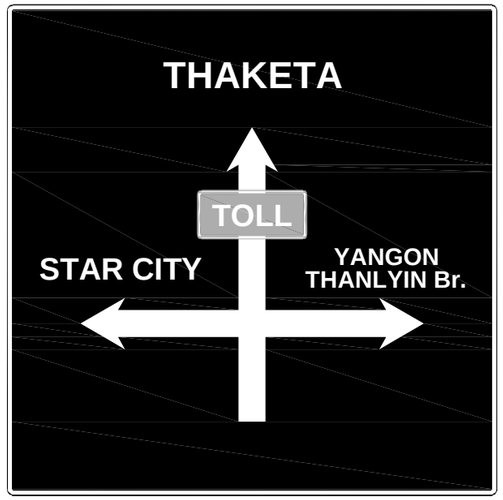
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
				NAME	SIGNATURE / DATE
				PREPARED BY	K. TACHIBANA — 29 Sep. 2017
				CHECKED BY	T. HAYAKAWA — 3 Oct. 2017
				APPROVED BY	Y. SANO — 6 Oct. 2017
				DRAWING TITLE	DETAIL OF INFORMATORY SIGNBOARD-TYPE B FOUNDATION AND POST (2) S=1:30
				PACKAGE	3
				DWG No.	P3-RD-6100

DETAIL OF INFORMATORY SIGNBOARD

TYPE GS-5



TYPE GS-6



TYPE GS-7

TYPE GS-8

TYPE GS-1

TYPE GS-2

TYPE GS-3

TYPE GS-4

COLORS: WHITE BLUE GREEN

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	DETAIL OF INFORMATORY SIGNBOARD	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-6110

SCHEDULE OF INFORMATORY SIGNBOARD

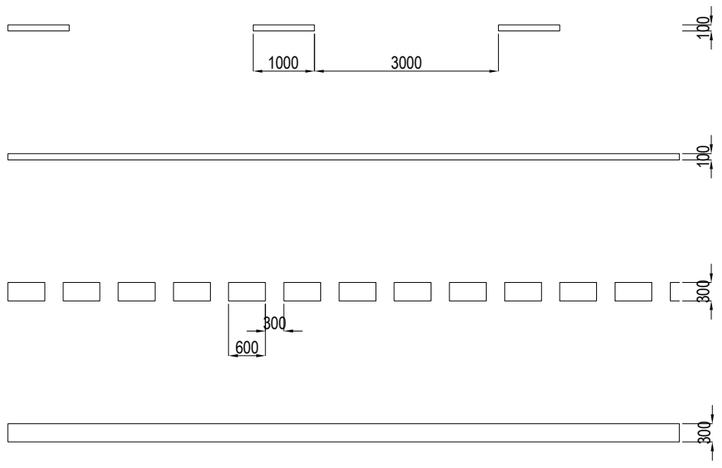
ROAD SIGN			1		2		3		4		5		6		TOTAL QUANTITY OF SAME ITEM	FOUNDATION AND POST
			0+000 to -0+080		0+000 to 0+060		2+860 to 2+900		0+000 to -0+060		0+000 to 0+060		3+500 to 3+575			
			L	R	L	R	L	R	L	R	L	R	L	R		
ROAD			SHUKHINTHAR MAYO PAT ROAD		NAWARAT St		MAIN ROAD		YADANAR ROAD				MAIN ROAD			
SIGN		TYPE GS-1												1	1	TYPE A
		TYPE GS-2										1			1	TYPE B
		TYPE GS-3								1					1	TYPE B
		TYPE GS-4					1								1	TYPE A
		TYPE GS-5		1											1	TYPE B
		TYPE GS-6				1									1	TYPE B

PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

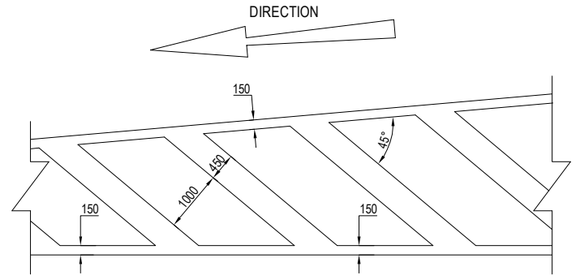
	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

DRAWING TITLE	PACKAGE
SCHEDULE OF INFORMATORY SIGNBOARD	3
	DWG No.
	P3-RD-6120

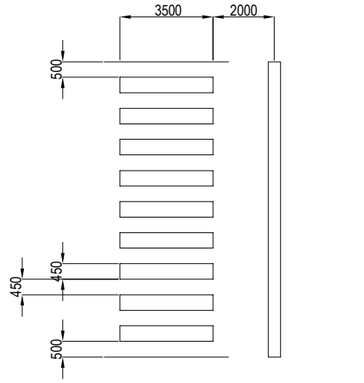
ROAD MARKINGS DETAILS(1)



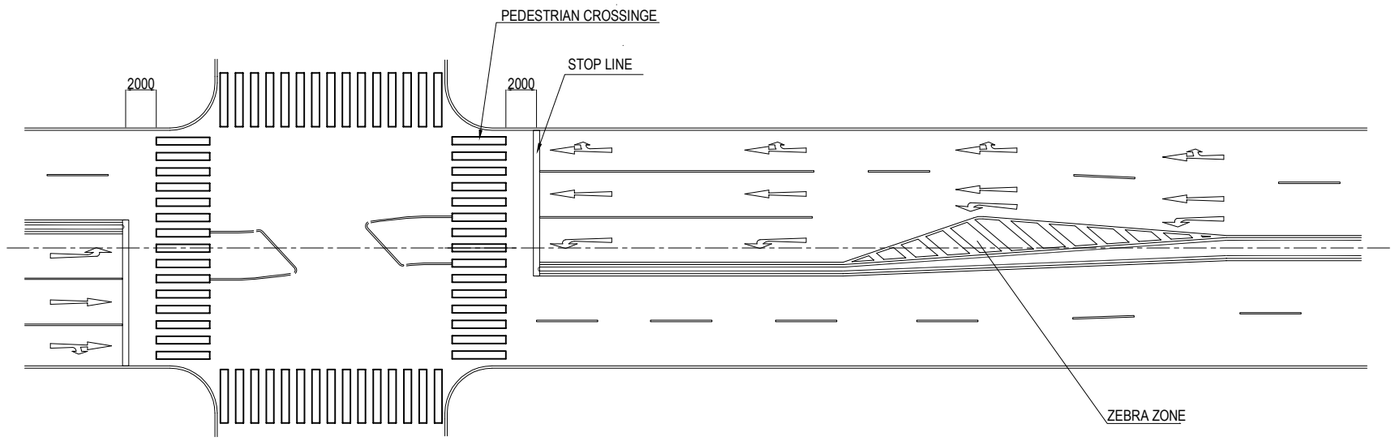
LINE MARKINGS SCALE = 1:100



ZEBRA LINE SCALE = 1:100



DETAILED ARRANGEMENT OF
PEDESTRIAN CROSSING AND STOP LINE SCALE = 1:200



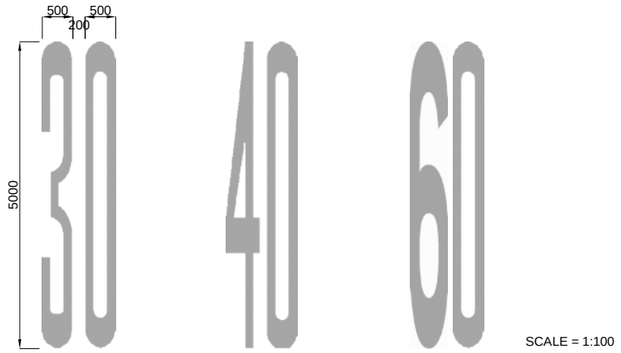
PAVEMENT MARKINGS AT CROSS ROAD NO SCALE

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	DRAWING TITLE: ROAD MARKINGS DETAILS(1)

	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep.2017
CHECKED BY	T. HAYAKAWA		3 Oct.2017
APPROVED BY	Y. SANO		6 Oct.2017

PACKAGE	
3	
DWG No.	
P0-RD-6130	

ROAD MARKINGS DETAILS(2)

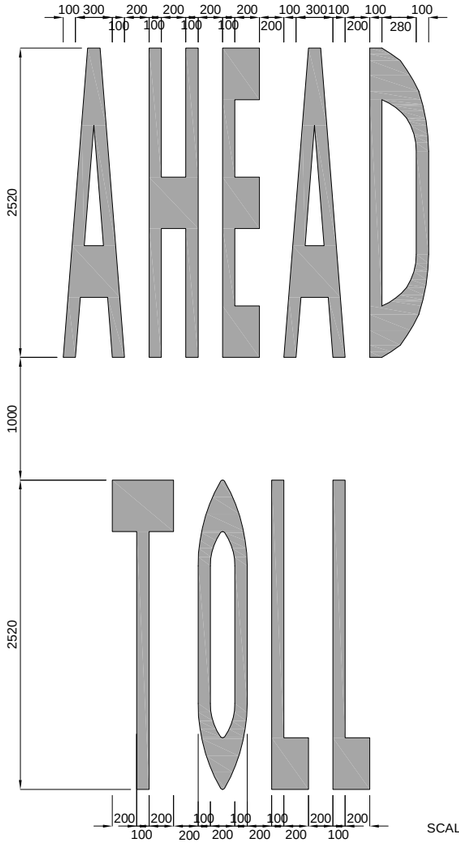


SCALE = 1:100

PM-1
SPEED LIMIT 30 KM/H

PM-2
SPEED LIMIT 40 KM/H

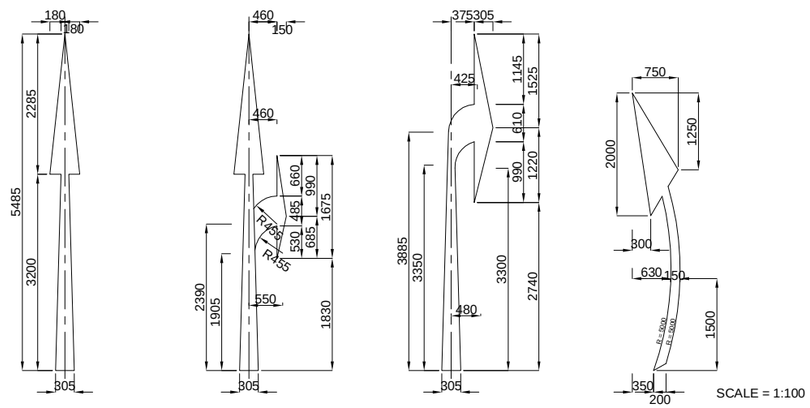
PM-3
SPEED LIMIT 60 KM/H



SCALE = 1:50

PM-4
TOLL AHEAD

REFERENCE SHALL BE MADE TO
DRAWING NO. PWD(RD)/SD91/20-1,
ROAD AND TRANSPORTATION DIVISION,
PUBLIC WORKS DEPARTMENT



SCALE = 1:100

PM-AR1 PM-AR2 PM-AR3 PM-AR4

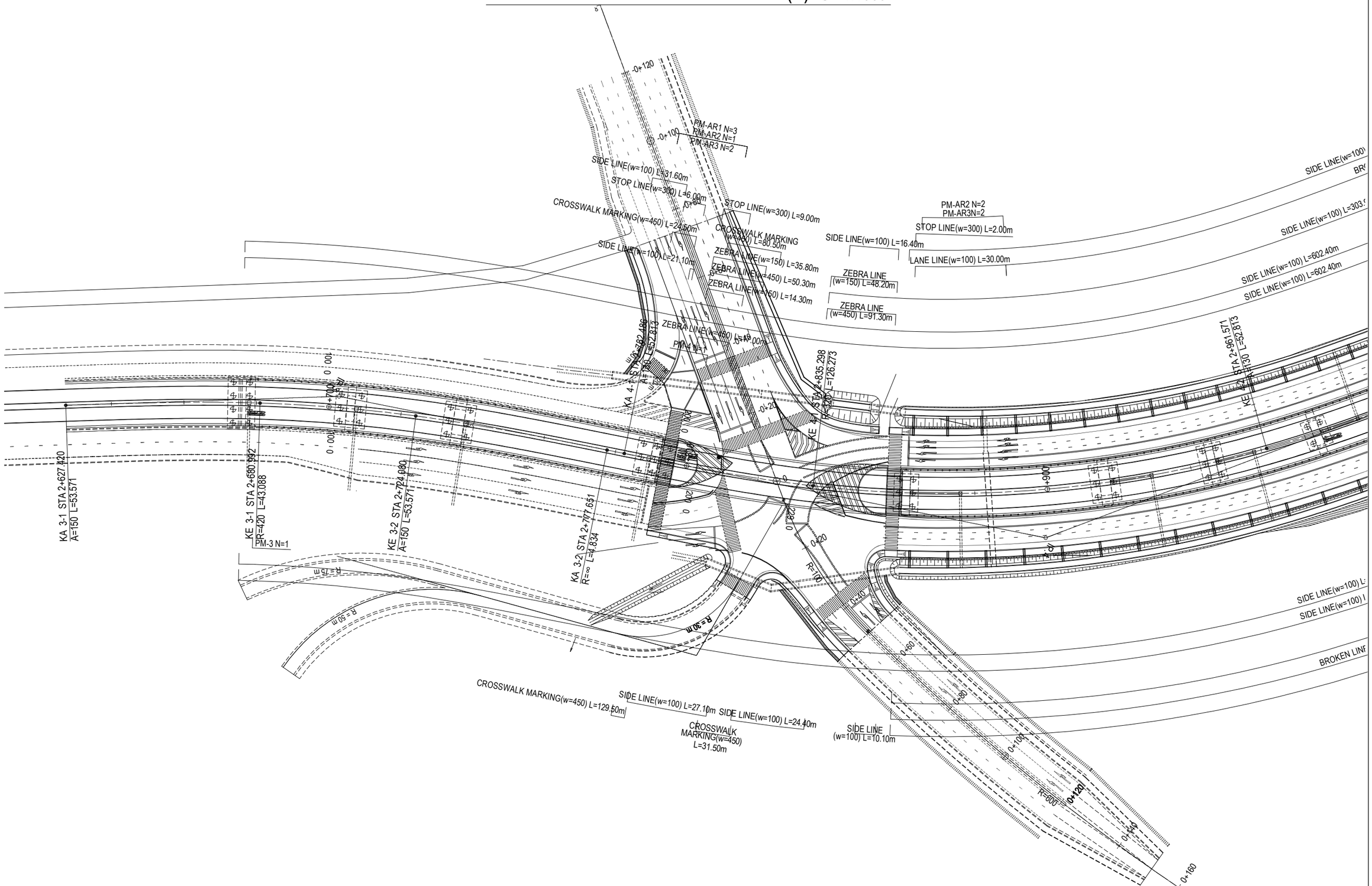
ARROW MARKS

REFERENCE SHALL BE MADE TO
DRAWING NO. PWD(RD)/SD91/8-2
ROAD AND TRANSPORTATION DIVISION,
PUBLIC WORKS DEPARTMENT

COLORS: WHITE ORANGE

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	ROAD MARKING DETAILS (2)	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P0-RD-6140

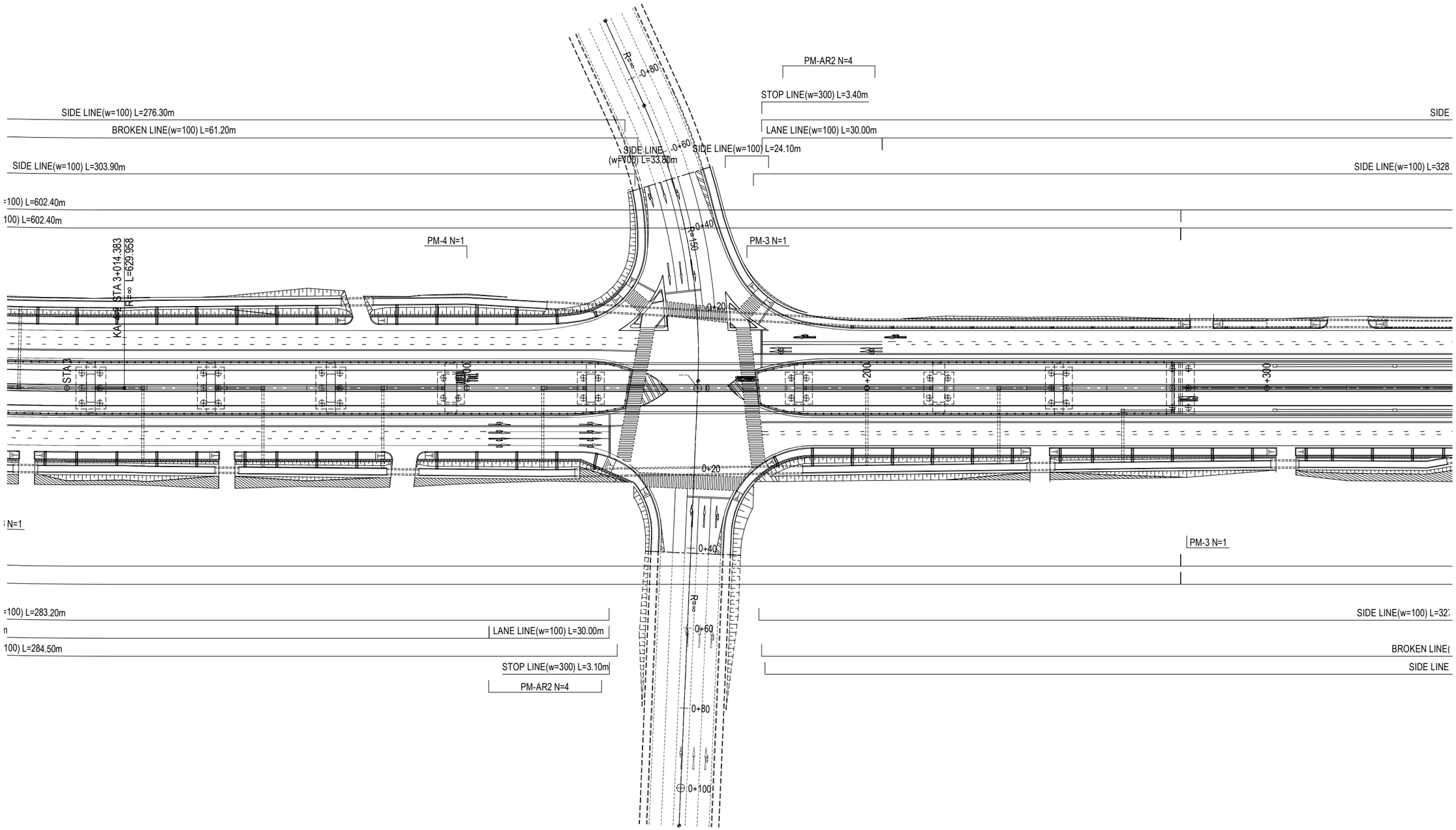
PLAN FOR ROAD MARKINGS(1) S= 1:1000



PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	PLAN FOR ROAD MARKINGS(1) S=1:1000	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-6150

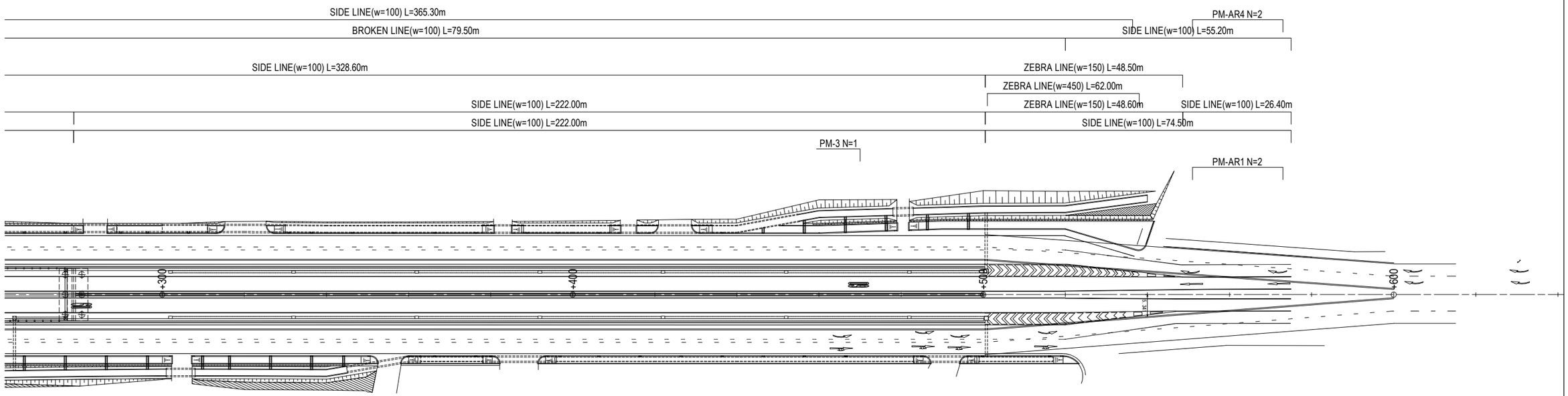
PLAN FOR ROAD MARKINGS(2) S= 1:1000

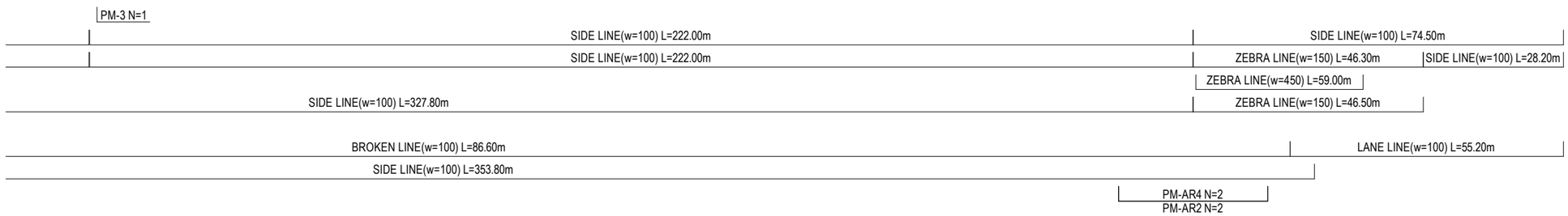


PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	PLAN FOR ROAD MARKINGS(2) S=1:1000	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-6160

PLAN FOR ROAD MARKINGS(3) S= 1:1000





PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	K. TACHIBANA		29 Sep.2017	PLAN FOR ROAD MARKINGS(3) S=1:1000	3
CHECKED BY	T. HAYAKAWA		3 Oct.2017		DWG No.
APPROVED BY	Y. SANO		6 Oct.2017		P3-RD-6170

QUANTITY TABLE OF ROAD (REFERENCE DRAWING)

Construction type	Classification	standard	UNIT	Quantity				Remark
				BREAK DOWN			Total	
DIVISION 02 SITE WORKS				Side Road	Approach Road	Fly Over		
	Demolition of Existing Concrete Structure (Unreinfoced concrete)		m3	218			218	
	Demolition of Existing Concrete Structure Asphalt Pavement		m3	1,068			1,068	
	Clearing and Grubbing		m2	427			427	
DIVISION 03 EARTH WORKS								
	ROAD EARTH WORK							
	Excavation - Type 1 (Open Cut for Road)		m3	3,604			3,604	
	Backfill for Filled-up ground		m3	34			34	
	Gravel Removal		m3	396			396	
	Excavation - Type 1 (Open Cut for Road Structure)		m3		3,893		3,893	
	Backfill		m3		6,180		6,180	
DIVISION 04 WATERWAY WORKS								
	SIDE DITCH TYPE U-500x850 with Cover		m	37			37	
	SIDE DITCH TYPE U-300x300		m			81	81	
	SIDE DITCH TYPE U-300x300 TYPE V		m			82	82	
	CATCH PIT 500x500x500		each			14	14	
	CATCH PIT (C-DITCH) TYPE A		each		14		14	
	CONCRETE PIPE CULVERT φ300 (CON. 360°) TYPE B		m		385		385	
DIVISION 05 PAVEMENTS								
	Prime Coat		m2	3,951	2,383		6,334	
	Tack Coat		m2	3,951	2,220		6,171	
	Normal A/C Surface Course, thickness 5cm		m2	3,951	2,383		6,334	
	Normal A/C Subbase Course , thickness 5cm		m2	3,951	2,220		6,171	
	Aggregate Base thickness 15cm		m2	3,051			3,051	
	Aggregate Base thickness 25cm		m2		2,220		2,220	
	Aggregate Subbase thickness 25cm		m2	3,051	2,220		5,271	
	Aggregate Subbase thickness 30cm		m2	900			900	
	Concrete Plate for Sidewalk		m2	140			140	
	Sand(Side walk)		m2	140			140	
	Aggregate Base thickness 10cm(Sidewalk)		m2	140			140	
	Concrete Seal		m2	5,015			5,015	
	Median type A		m		221		221	
	Median type B		m	448			448	

Construction type	Classification	standard	UNIT	Quantity				Remark
				BREAK DOWN			Total	
				Side Road	Approach Road	Fly Over		
DIVISION 08 MISCELLANEOUS								
	CONCRETE KERB TYPE A-1		m	1,929			1,929	
	CONCRETE KERB TYPE A-2		each	4			4	
	CONCRETE KERB TYPE A-3		m	44			44	
	CONCRETE KERB TYPE C		m	62			62	
	INFORMATORY SIGN BOARD -TypeA(Arm2.5m)		each	2			2	
	INFORMATORY SIGN BOARD -TypeB(Arm1.0m)		each	4			4	
	Boundary Fence		m			744	744	
	Fence Gate		each			11	11	
	Box Beam		m		25		25	
	LANE LINE(w=100)		m	145			145	
	SIDE LINE(w=100)		m	2,970	888	2,410	6,268	
	BROKEN LINE(w=100)		m	290			290	
	STOP LINE(w=300)		m	24			24	
	CROSSWALK ARKING(w=450)		m	266			266	
	ZEBRA LINE(w=150)		m	288			288	
	ZEBRA LINE(w=450)		m	280			280	
	ARROW		each	26			26	
			each		2	3	6	Dltto 3.501m2/each
			m2		7	11	18	
			each			2	2	Dltto 4.614m2/each
			m2			9	9	

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

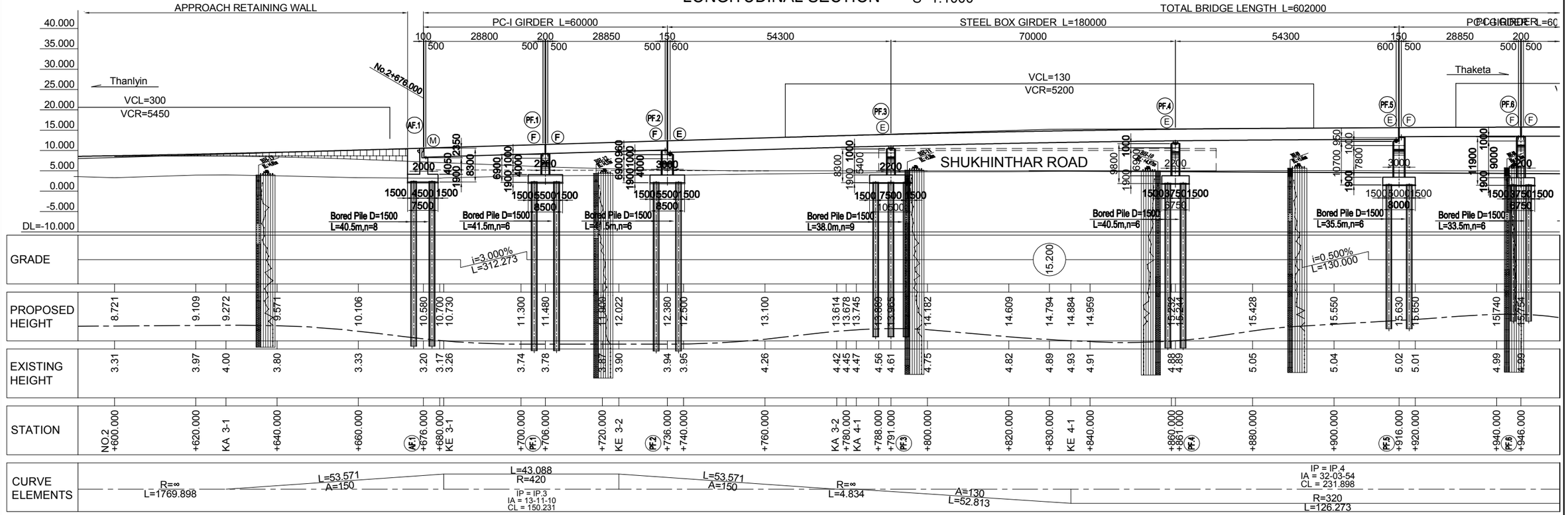
	NAME	SIGNATURE	DATE
PREPARED BY	K. TACHIBANA		29 Sep. 2017
CHECKED BY	T. HAYAKAWA		3 Oct. 2017
APPROVED BY	Y. SANO		6 Oct. 2017

DRAWING TITLE	PACKAGE
QUANTITY TABLE OF ROAD (REFERENCE DRAWING)	3
	DWG No.
	P3-RD-7000

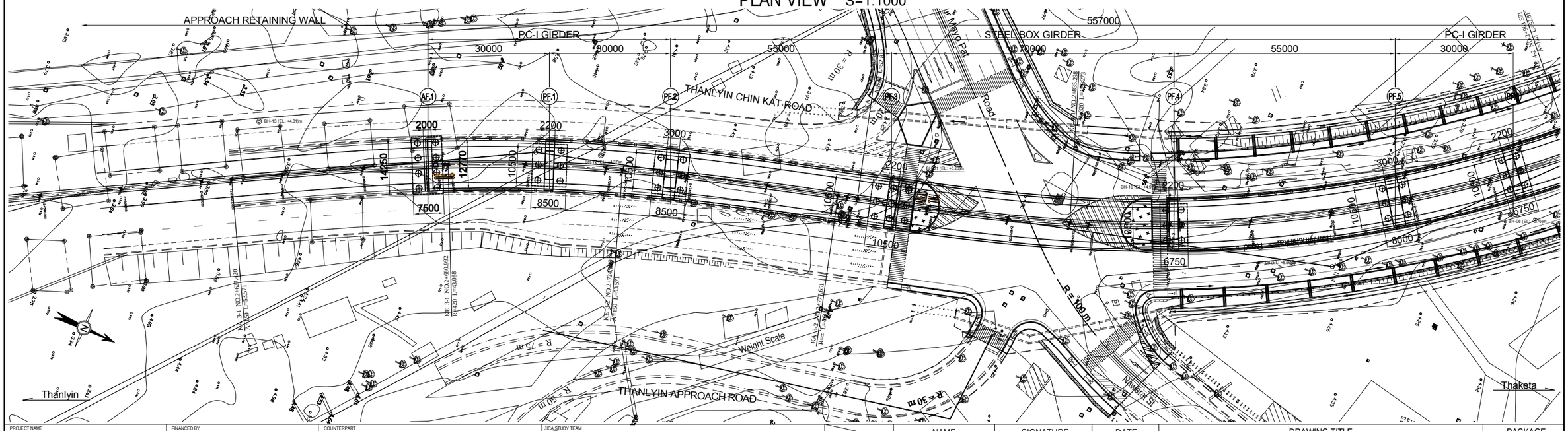
C. FLYOVER BRIDGE

GENERAL VIEW OF FLYOVER BRIDGE (1)

LONGITUDINAL SECTION S=1:1000



PLAN VIEW S=1:1000

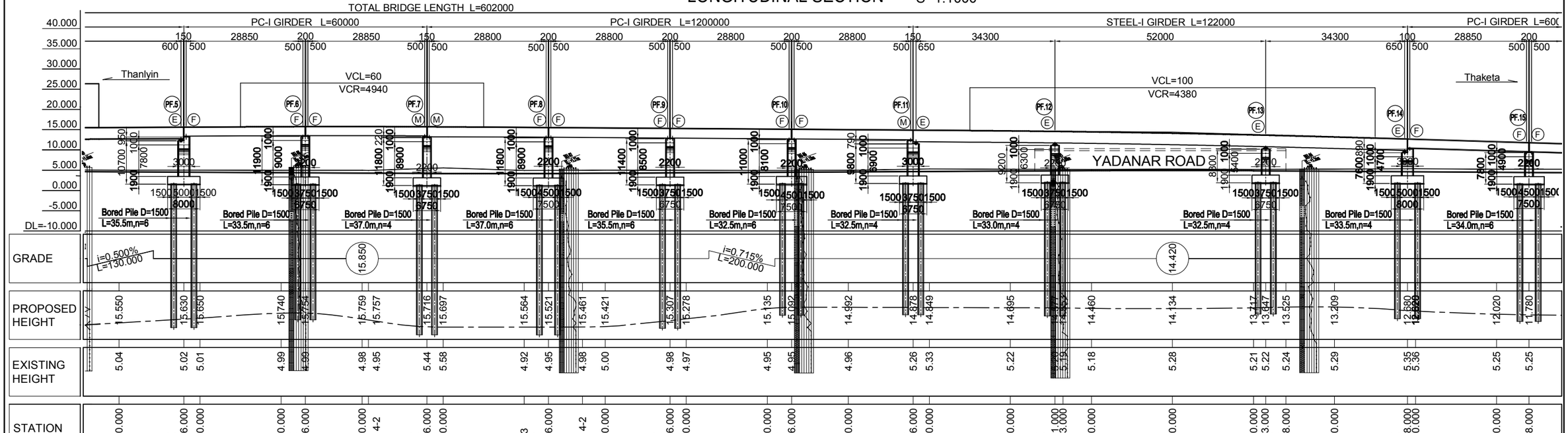


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

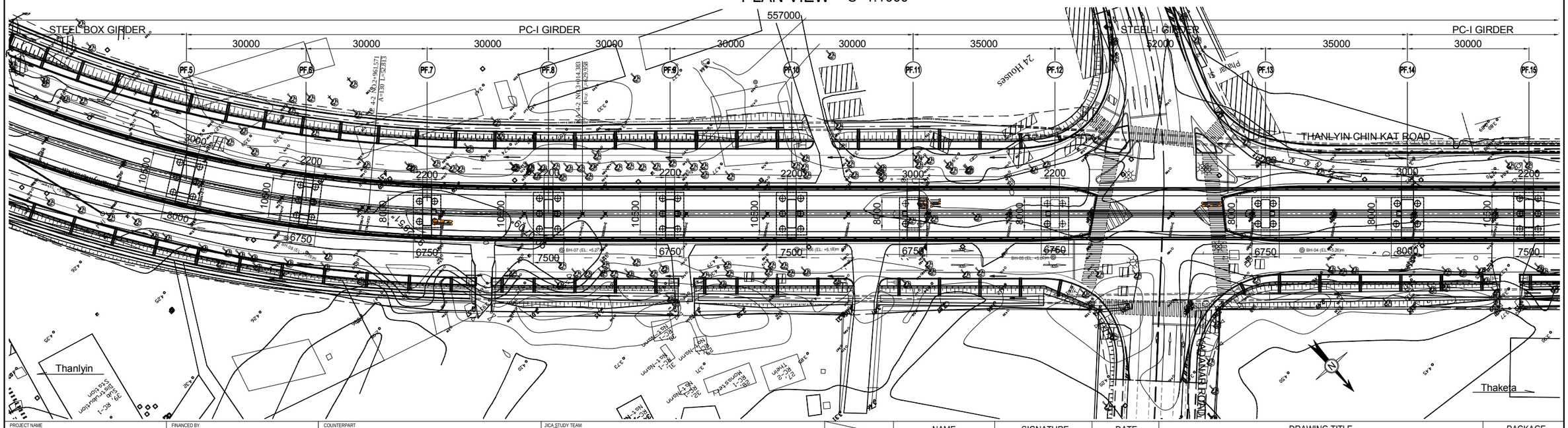
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		29 Sep. 2017	GENERAL VIEW OF FLYOVER BRIDGE (1)	3
CHECKED BY	T. HAYAKAWA		3 Oct. 2017		DWG No.
APPROVED BY	Y. SANO		6 Oct. 2017		P3-FO- 0001

GENERAL VIEW OF FLYOVER BRIDGE (2)

LONGITUDINAL SECTION S=1:1000



PLAN VIEW S=1:1000

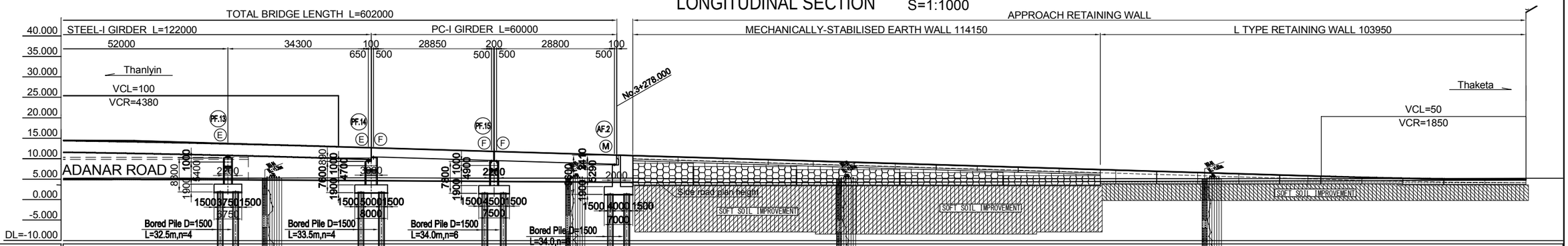


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

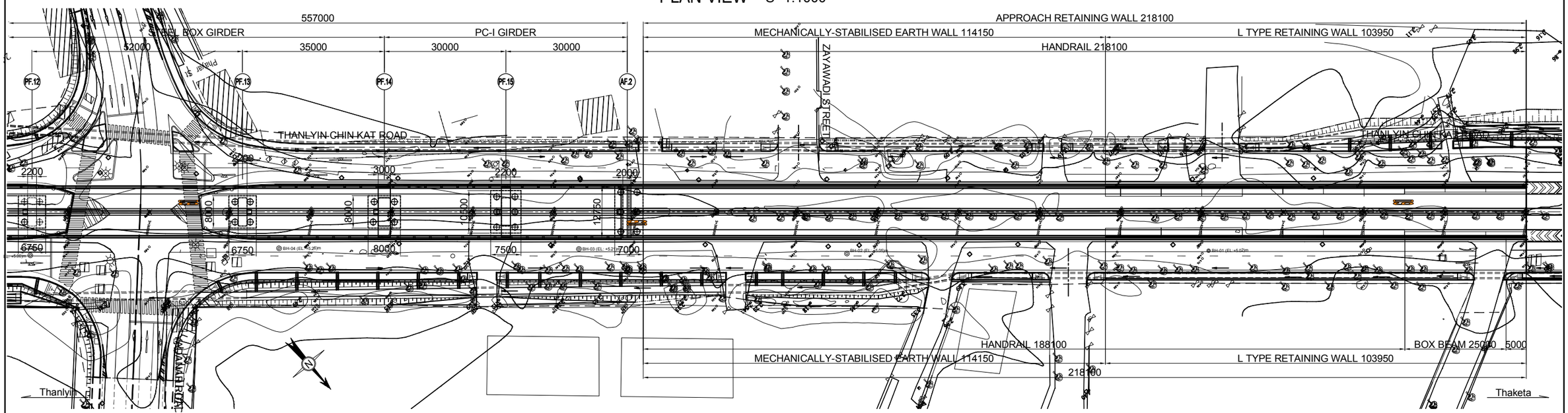
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		29 Sep. 2017	GENERAL VIEW OF FLYOVER BRIDGE (2)	3
CHECKED BY	T. HAYAKAWA		3 Oct. 2017		DWG No.
APPROVED BY	Y. SANO		6 Oct. 2017		P3-FO- 0002

GENERAL VIEW OF FLYOVER BRIDGE (3)

LONGITUDINAL SECTION S=1:1000



PLAN VIEW S=1:1000



PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

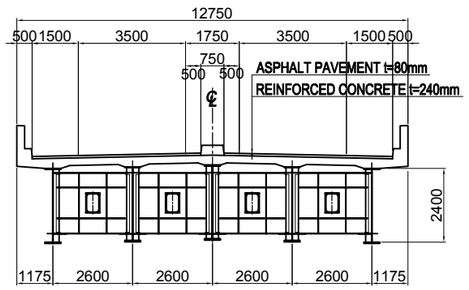
	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		29 Sep. 2017
CHECKED BY	T. HAYAKAWA		3 Oct. 2017
APPROVED BY	Y. SANO		6 Oct. 2017

DRAWING TITLE	PACKAGE
GENERAL VIEW OF FLYOVER BRIDGE (3)	3
	DWG No.
	P3-FO-0003

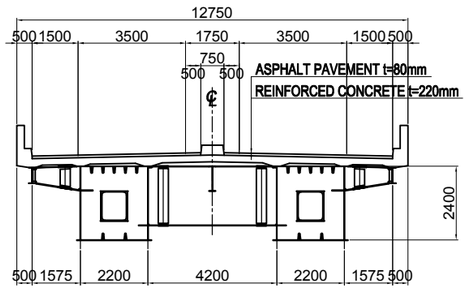
GENERAL VIEW OF FLYOVER BRIDGE (4)

CROSS SECTION FOR SUPERSTRUCTURE S=1:200

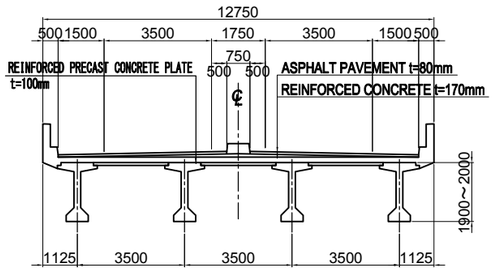
STEEL-I GIRDER



STEEL-BOX GIRDER

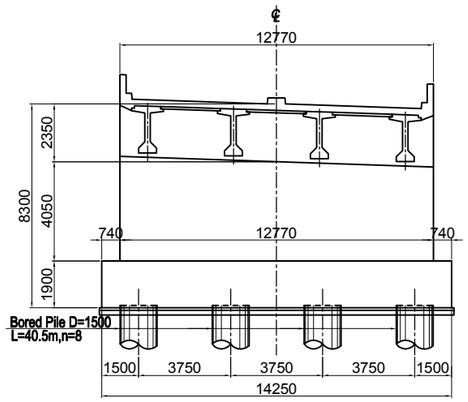


PC-I GIRDER

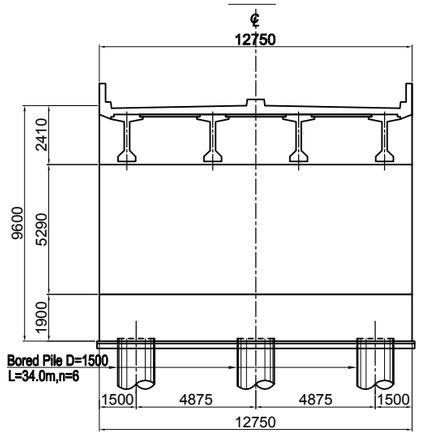


CROSS SECTION FOR SUBSTRUCTURE S=1:250

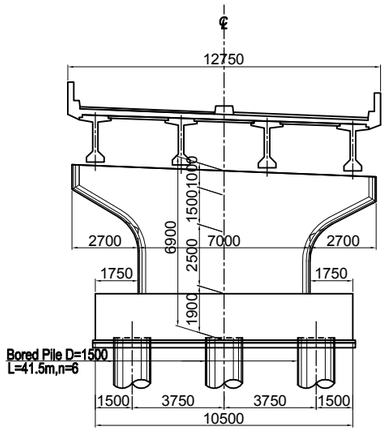
AF1



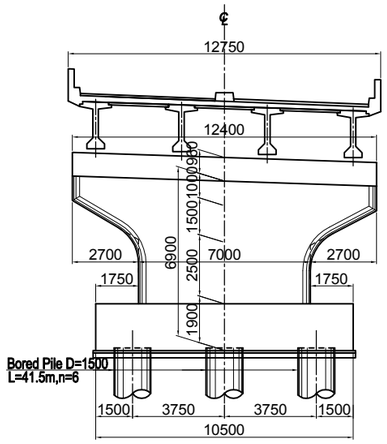
AF2



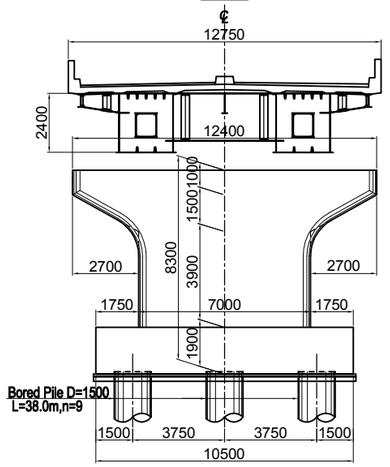
PF1



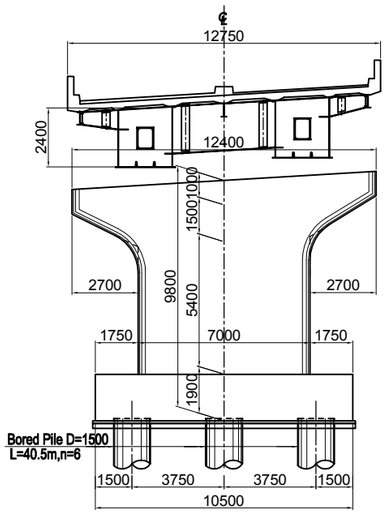
PF2



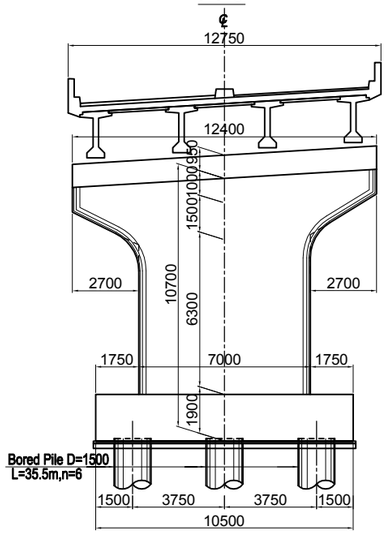
PF3



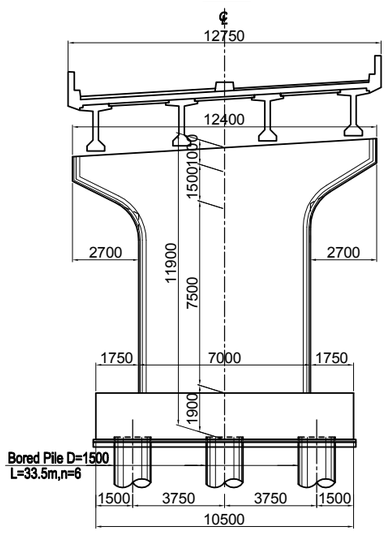
PF4



PF5



PF6



PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

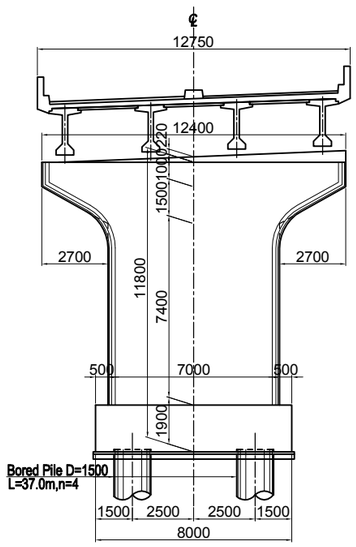
	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		29 Sep. 2017
CHECKED BY	T. HAYAKAWA		3 Oct. 2017
APPROVED BY	Y. SANO		6 Oct. 2017

DRAWING TITLE	PACKAGE
GENERAL VIEW OF FLYOVER BRIDGE (4)	3
	DWG No.
	P3-FO-0004

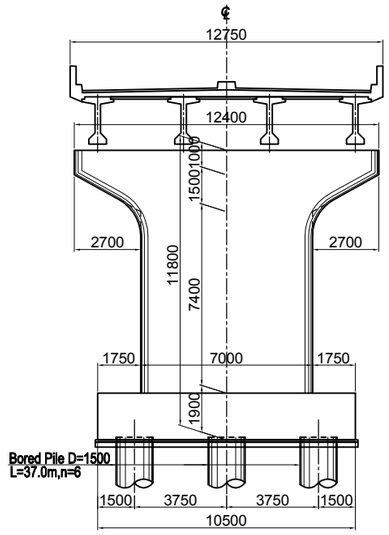
GENERAL VIEW OF FLYOVER BRIDGE (5)

CROSS SECTION FOR SUBSTRUCTURE S=1:250

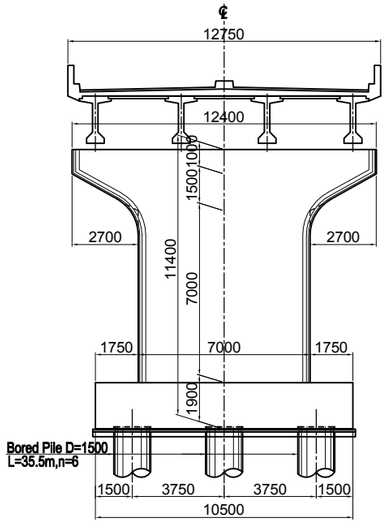
PF7



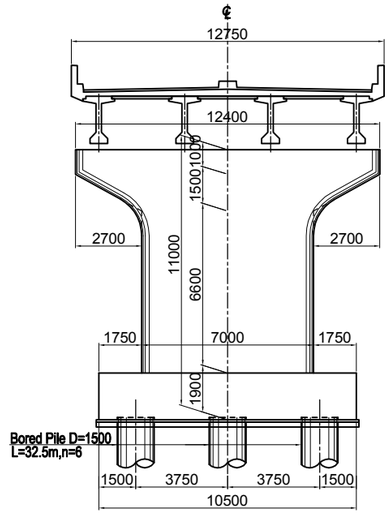
PF8



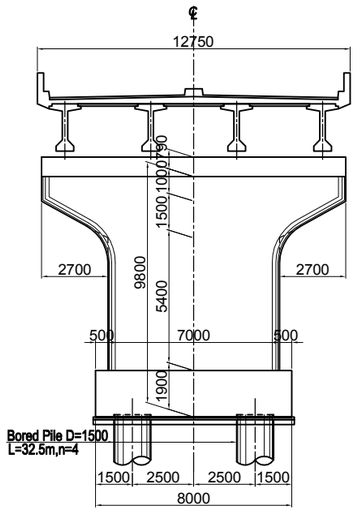
PF9



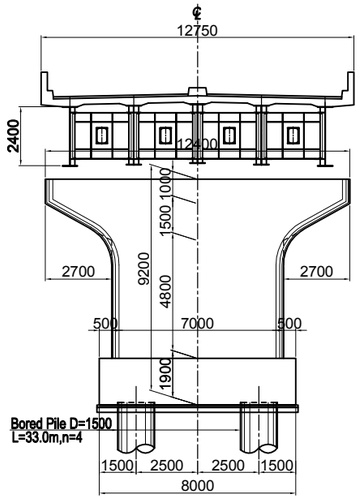
PF10



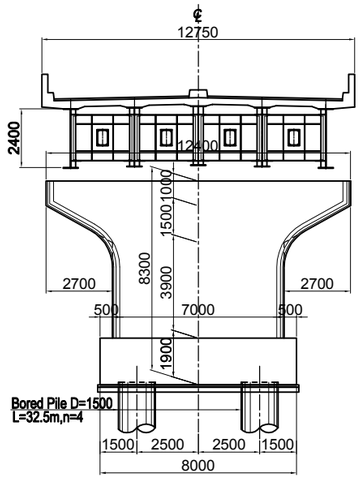
PF11



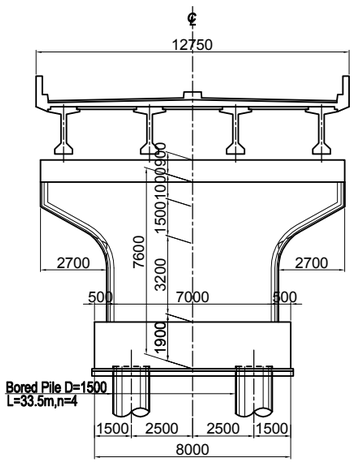
PF12



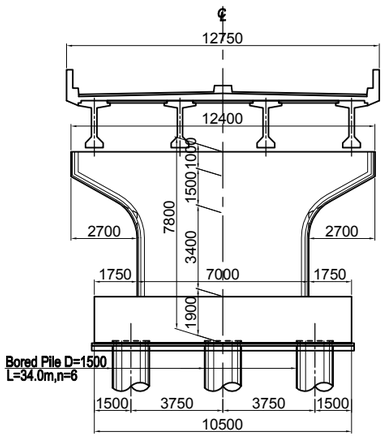
PF13



PF14



PF15



DESIGN CRITERIA

TOTAL BRIDGE LENGTH	L=602.000m
WIDTH	TOTAL 12.750 m
BRIDGE TYPE	(1) 2 SPAN CONTINUOUS PC-I GIRDER BRIDGE (2) 3 SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE (3) 2 SPAN CONTINUOUS PC-I GIRDER BRIDGE (4) 4 SPAN CONTINUOUS PC-I GIRDER BRIDGE (5) 3 SPAN CONTINUOUS STEEL-I GIRDER BRIDGE (6) 2 SPAN CONTINUOUS PC-I GIRDER BRIDGE
BRIDGE LENGTH	(1) L=60.00m(30.00m+30.00m) (2) L=180.00m(55.00m+70.00m+55.00m) (3) L=60.00m(30.00m+30.00m) (4) L=120.00m(4×30.00m) (5) L=122.00m(35.00m+52.00m+35.00m) (6) L=60.00m(30.00m+30.00m)
GIDER LENGTH	(1) L=29.80m+29.85m (2) L=54.90m+70.00m+54.90m (3) L=29.85m+29.85m (4) L=4×29.80m (5) L=34.95m+52.00m+34.95m (6) L=29.85m+29.80m
LIVE-LOAD	AASHTO HL-93
SUBSTRUCTURE	INVERTED T-SHAPED ABUTMENT T-SHAPED PIER
FOUNDATION	BORED PILE FOUNDATION(P=1500mm)
ANGLE OF SKEW	PF7: 92°29'51" PF8: 90°07'09" ANOTHER: 90°00'00"
RADIUS OF CURVATUPE	R=420m~A=150m , A=130m~R=320m~A=130
SECTION SLOPE	LEFT : +4.000% ~ -6.000% RIGHT: -4.000% ~ +6.000%
LONGITUDINAL SLOPE	i=3.000%~0.500% i=0.715%~3.000%

MATERIALS

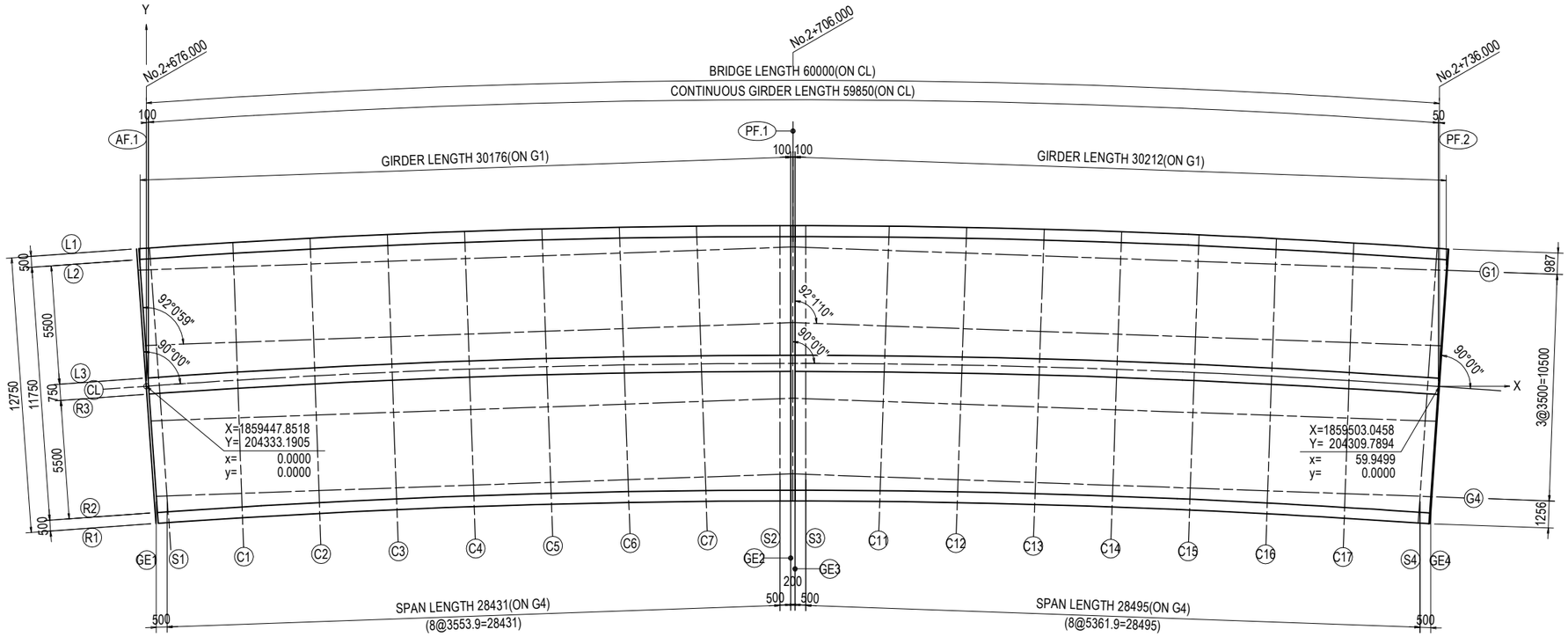
CONCRETE	PC I GIRDER	σck=40.0 N/mm²
	PC PLATE	σck=40.0 N/mm²
	RC DECK SLAB	σck=30.0 N/mm²
	SUBSTRUCTURE	σck=24.0 N/mm²
	PILE	σck=24.0 N/mm² (nominal strength30.0N/mm²)
PC CABLE	PC I GIRDER	SWPR7BL 7S15.2
	CROSS BEAM	SWPR7BL 4S15.2
	PC PLATE	SWPR7AL 1S9.3
STEEL	STEEL GIRDER	SS400, SM400,SM490,SM570,S10T
DEFORMED BAR	SUPERSTRUCTURE	SD345
	SUBSTRUCTURE	SD345

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.			
				NAME	SIGNATURE	DATE
			PREPARED BY	Y. SUZUKI		29 Sep. 2017
			CHECKED BY	T. HAYAKAWA		3 Oct. 2017
			APPROVED BY	Y. SANO		6 Oct. 2017

DRAWING TITLE	PACKAGE
GENERAL VIEW OF FLYOVER BRIDGE (5)	3
	DWG No.
	P3-FO-0005

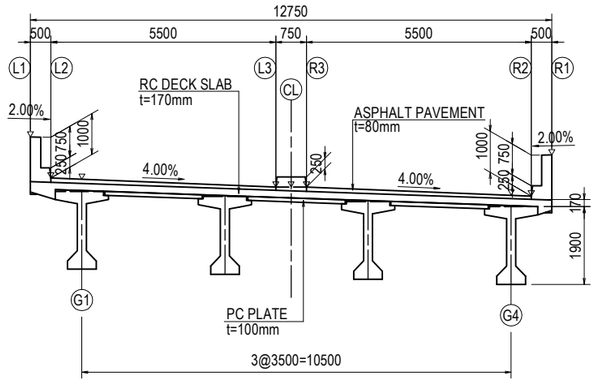
SUPERSTRUCTURE COORDINATES (AF1-PF2) (1)

PLAN S=1:250

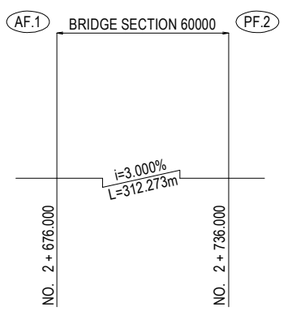


How to set the small coordinates
- X coordinate : Starting point is intersection of AF1 and CL
  Ending point is intersection of PF2 and CL
- Y coordinate : Perpendicular to X line

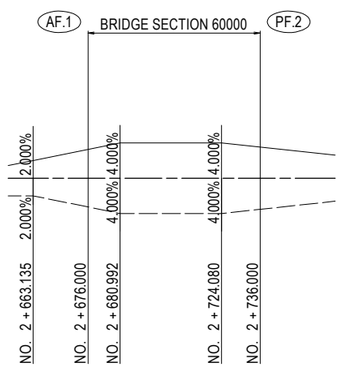
TYPICAL CROSS SECTION S=1:150



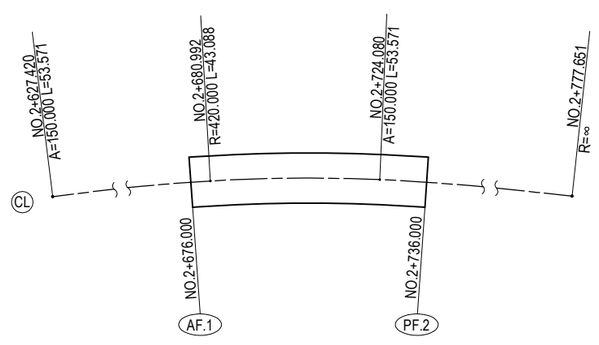
GRADE FOR LONGITUDINAL



SUPER ELEVATION



CURB ELEMENTS



CHANGING POINT	STATION POINT	X COORDINATE	Y COORDINATE	ELEMENT
	2+627.420	1859405.3802	204356.7608	A= 150.000
	2+680.992	1859452.3111	204330.9470	R= 420.000
	2+724.080	1859491.8268	204313.8165	A= 150.000
	2+777.651	1859542.7491	204297.2096	

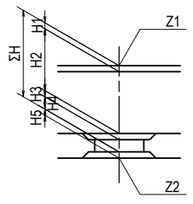
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	SUPERSTRUCTURE COORDINATES (AF1-PF2) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1001

SUPERSTRUCTURE COORDINATES (AF1-PF2) (2)

		AF1	GE1	S1	C1	C2	C3	C4	C5	C6	C7	S2	GE2	PF1	GE3	S3	C11	C12	C13	C14	C15	C16	C17	S4	GE4	PF2
L1	X	-0.4502	-0.3505	0.1479	3.9673	7.5616	11.1569	14.7533	18.3508	21.9493	25.5490	29.3764	29.8761	29.9760	30.0759	30.5756	34.4008	38.0066	41.6114	45.2151	48.8177	52.4193	56.0200	59.8375	60.3361	60.3860
	Y	6.3591	6.3661	6.4010	6.6503	6.8540	7.0274	7.1704	7.2830	7.3652	7.4171	7.4389	7.4393	7.4393	7.4392	7.4387	7.4154	7.3621	7.2782	7.1639	7.0191	6.8443	6.6413	6.3974	6.3635	6.3601
	Z	11.7692	11.7728	11.7906	11.9271	12.0373	12.1437	12.2501	12.3564	12.4628	12.5692	12.6823	12.6970	12.7000	12.7030	12.7177	12.8308	12.9373	13.0439	13.1504	13.2555	13.3512	13.4471	13.5489	13.5622	13.5635
L2	X	-0.4149	-0.3152	0.1833	3.9850	7.5792	11.1745	14.7710	18.3684	21.9670	25.5666	29.3763	29.8760	29.9759	30.0758	30.5755	34.3837	37.9895	41.5942	45.1979	48.8006	52.4022	56.0028	59.8033	60.3019	60.3518
	Y	5.8603	5.8674	5.9023	6.1504	6.3543	6.5277	6.6707	6.7833	6.8655	6.9173	6.9389	6.9393	6.9393	6.9392	6.9387	6.9156	6.8623	6.7785	6.6642	6.5194	6.3445	6.1414	5.8986	5.8647	5.8612
	Z	10.7692	10.7728	10.7907	10.9266	11.0371	11.1436	11.2500	11.3565	11.4630	11.5695	11.6823	11.6970	11.7000	11.7030	11.7177	11.8304	11.9371	12.0438	12.1505	12.2556	12.3515	12.4474	12.5488	12.5622	12.5635
G1	X	-0.3806	-0.2806	0.2190	4.0068	7.6037	11.2007	14.7976	18.3946	21.9915	25.5884	29.3762	29.8759	29.9758	30.0757	30.5754	34.3625	37.9657	41.5689	45.1721	48.7754	52.3786	55.9818	59.7688	60.2685	60.3185
	Y	5.3756	5.3791	5.3969	5.5314	5.6591	5.7868	5.9145	6.0422	6.1699	6.2976	6.4321	6.4498	6.4534	6.4498	6.4321	6.2976	6.1697	6.0418	5.9138	5.7859	5.6580	5.5301	5.3956	5.3779	5.3761
	Z	10.7525	10.7559	10.7729	10.9017	11.0089	11.1137	11.2198	11.3271	11.4355	11.5452	11.6620	11.6775	11.6806	11.6834	11.6975	11.8052	11.9091	12.0141	12.1205	12.2267	12.3259	12.4260	12.5319	12.5459	12.5473
G2	X	-0.1333	-0.0333	0.4664	4.1301	7.7271	11.3240	14.9209	18.5179	22.1148	25.7118	29.3755	29.8752	29.9751	30.0751	30.5748	34.2423	37.8456	41.4488	45.0520	48.6552	52.2585	55.8617	59.5293	60.0290	60.0789
	Y	1.8822	1.8857	1.9034	2.0335	2.1612	2.2889	2.4167	2.5444	2.6721	2.7998	2.9299	2.9476	2.9512	2.9476	2.9299	2.7996	2.6717	2.5438	2.4159	2.2879	2.1600	2.0321	1.9018	1.8841	1.8823
	Z	10.6320	10.6351	10.6502	10.7615	10.8671	10.9728	11.0797	11.1879	11.2973	11.4079	11.5217	11.5373	11.5405	11.5433	11.5576	11.6628	11.7675	11.8734	11.9806	12.0887	12.1957	12.3035	12.4139	12.4289	12.4304
L3	X	-0.0265	0.0732	0.5717	4.1788	7.7730	11.3684	14.9648	18.5622	22.1608	25.7604	29.3752	29.8749	29.9748	30.0748	30.5745	34.1949	37.8007	41.4054	45.0091	48.6118	52.2134	55.8140	59.4271	59.9257	59.9755
	Y	0.3741	0.3811	0.4160	0.6520	0.8569	1.0309	1.1741	1.2865	1.3681	1.4189	1.4389	1.4393	1.4393	1.4392	1.4387	1.4173	1.3649	1.2816	1.1674	1.0223	0.8468	0.6428	0.4114	0.3775	0.3741
	Z	10.5800	10.5830	10.5980	10.7063	10.8142	10.9221	11.0300	11.1379	11.2458	11.3537	11.4620	11.4770	11.4800	11.4830	11.4980	11.6065	11.7146	11.8227	11.9307	12.0388	12.1469	12.2550	12.3635	12.3785	12.3800
CL	X	0.0000	0.0997	0.5982	4.1920	7.7863	11.3816	14.9780	18.5754	22.1740	25.7737	29.3751	29.8748	29.9748	30.0747	30.5744	34.1820	37.7878	41.3926	44.9963	48.5989	52.2005	55.8011	59.4014	59.9000	59.9499
	Y	0.0000	0.0070	0.0420	0.2771	0.4820	0.6561	0.7993	0.9117	0.9933	1.0441	1.0639	1.0643	1.0643	1.0642	1.0637	1.0424	0.9901	0.9068	0.7926	0.6475	0.4720	0.2679	0.0373	0.0034	0.0000
	Z	10.5800	10.5830	10.5980	10.7060	10.8140	10.9220	11.0300	11.1380	11.2460	11.3540	11.4620	11.4770	11.4800	11.4830	11.4980	11.6062	11.7144	11.8226	11.9307	12.0389	12.1471	12.2553	12.3635	12.3785	12.3800
R3	X	0.0265	0.1262	0.6246	4.2053	7.7995	11.3948	14.9912	18.5887	22.1872	25.7869	29.3751	29.8748	29.9747	30.0746	30.5743	34.1691	37.7749	41.3797	44.9834	48.5860	52.1876	55.7882	59.3758	59.8743	59.9242
	Y	-0.3741	-0.3670	-0.3321	-0.0978	0.1072	0.2813	0.4246	0.5370	0.6185	0.6692	0.6889	0.6893	0.6893	0.6892	0.6887	0.6675	0.6152	0.5320	0.4179	0.2727	0.0971	-0.1070	-0.3368	-0.3707	-0.3741
	Z	10.5800	10.5830	10.5980	10.7057	10.8138	10.9219	11.0300	11.1381	11.2462	11.3542	11.4620	11.4770	11.4800	11.4830	11.4980	11.6059	11.7142	11.8225	11.9308	12.0390	12.1473	12.2556	12.3635	12.3785	12.3800
G3	X	0.1141	0.2140	0.7137	4.2534	7.8504	11.4473	15.0443	18.6412	22.2381	25.8351	29.3748	29.8745	29.9745	30.0744	30.5741	34.1222	37.7254	41.3287	44.9319	48.5351	52.1383	55.7416	59.2897	59.7894	59.8394
	Y	-1.6113	-1.6077	-1.5900	-1.4643	-1.3366	-1.2089	-1.0812	-0.9535	-0.8258	-0.6980	-0.5724	-0.5546	-0.5511	-0.5546	-0.5724	-0.6983	-0.8263	-0.9542	-1.0821	-1.2101	-1.3380	-1.4659	-1.5919	-1.6096	-1.6114
	Z	10.5373	10.5401	10.5538	10.6513	10.7553	10.8619	10.9697	11.0788	11.1891	11.3006	11.4115	11.4272	11.4304	11.4333	11.4476	11.5503	11.6559	11.7627	11.8708	11.9806	12.0940	12.2082	12.3211	12.3370	12.3386
G4	X	0.3614	0.4613	0.9610	4.3768	7.9737	11.5707	15.1676	18.7645	22.3615	25.9584	29.3742	29.8738	29.9738	30.0737	30.5734	34.0021	37.6053	41.2085	44.8118	48.4150	52.0182	55.6214	59.0501	59.5498	59.5998
	Y	-5.1047	-5.1011	-5.0834	-4.9621	-4.8344	-4.7067	-4.5790	-4.4513	-4.3236	-4.1959	-4.0746	-4.0569	-4.0533	-4.0569	-4.0746	-4.1963	-4.3243	-4.4522	-4.5801	-4.7081	-4.8360	-4.9639	-5.0856	-5.1034	-5.1052
	Z	10.4168	10.4192	10.4311	10.5123	10.6135	10.7209	10.8297	10.9397	11.0509	11.1634	11.2712	11.2871	11.2903	11.2932	11.3077	11.4078	11.5142	11.6220	11.7310	11.8429	11.9643	12.0865	12.2031	12.2201	12.2218
R2	X	0.4149	0.5146	1.0131	4.3991	7.9933	11.5886	15.1850	18.7825	22.3811	25.9807	29.3740	29.8737	29.9736	30.0736	30.5733	33.9803	37.5862	41.1909	44.7946	48.3973	51.9988	55.5994	58.9995	59.4981	59.5479
	Y	-5.8603	-5.8533	-5.8184	-5.5962	-5.3902	-5.2155	-5.0720	-4.9598	-4.8789	-4.8292	-4.8111	-4.8107	-4.8107	-4.8108	-4.8113	-4.8309	-4.8822	-4.9649	-5.0789	-5.2243	-5.4006	-5.6056	-5.8239	-5.8578	-5.8612
	Z	10.3907	10.3932	10.4052	10.4872	10.5909	10.7004	10.8100	10.9195	11.0290	11.1385	11.2418	11.2570	11.2600	11.2630	11.2782	11.3819	11.4916	11.6013	11.7110	11.8226	11.9434	12.0642	12.1781	12.1948	12.1965
R1	X	0.4502	0.5499	1.0484	4.4168	8.0109	11.6062	15.2026	18.8001	22.3987	25.9984	29.3739	29.8736	29.9735	30.0735	30.5732	33.9631	37.5690	41.1738	44.7775	48.3801	51.9817	55.5822	58.9653	59.4639	59.5137
	Y	-6.3591	-6.3520	-6.3171	-6.0961	-5.8900	-5.7152	-5.5717	-5.4595	-5.3786	-5.3291	-5.3111	-5.3107	-5.3107	-5.3108	-5.3113	-5.3308	-5.3820	-5.4646	-5.5786	-5.7241	-5.9004	-6.1055	-6.3227	-6.3566	-6.3601
	Z	11.3907	11.3932	11.4052	11.4869	11.5907	11.7003	11.8099	11.9196	12.0292	12.1389	12.2417	12.2570	12.2600	12.2630	12.2783	12.3815	12.4914	12.6012	12.7111	12.8228	12.9438	13.0646	13.1781	13.1948	13.1965

STRUCTURE HEIGHT TABLE

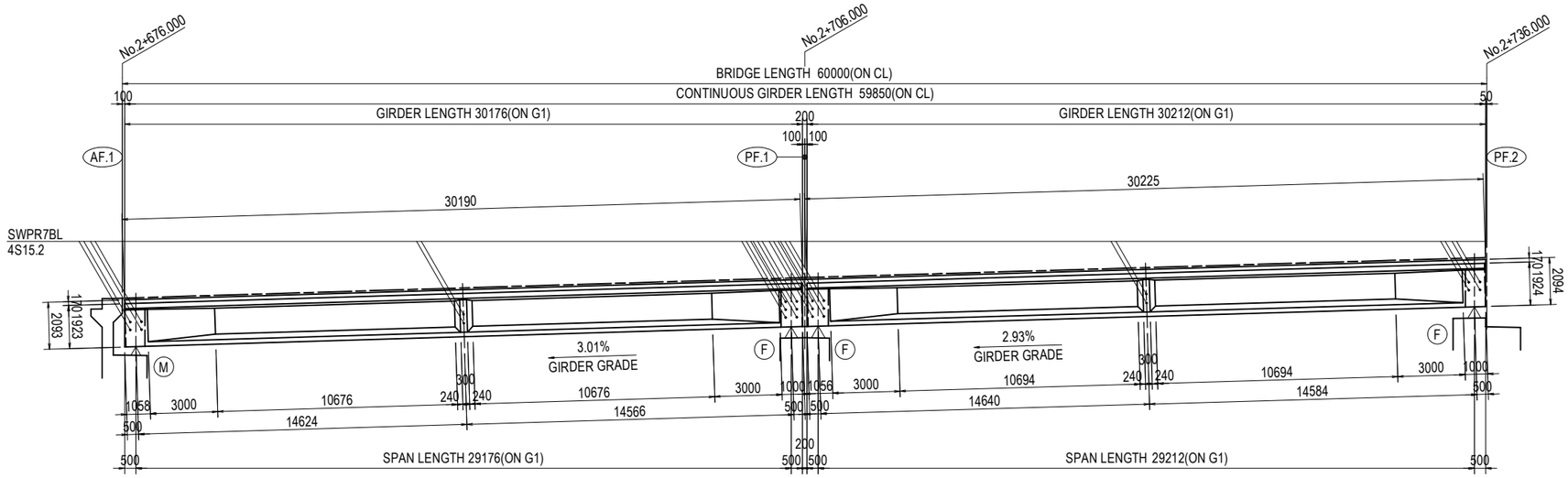


		S1(AF1)				S2(PF1L)				S3(PF1R)				S4(PF2L)			
		G1	G2	G3	G4	G1	G2	G3	G4	G1	G2	G3	G4	G1	G2	G3	G4
ROAD PLAN HEIGHT	Z1	10.773	10.650	10.554	10.431	11.662	11.522	11.411	11.271	11.698	11.558	11.448	11.308	12.532	12.414	12.321	12.203
PAVEMENT THICKNESS(mm)	H1	95	92	115	113	105	92	109	96	105	92	110	97	83	99	141	157
MAIN GIRDER HEIGHT(mm)	H2	2093	2093	2093	2093	2093	2093	2093	2093	2094	2094	2094	2094	2094	2094	2094	2094
LAYER HEIGHT(mm)	H3	30	30	30	30	30	30	30	30	60	60	60	60	30	30	30	30
BEARING HEIGHT(mm)	H4	112	112	112	112	92	92	92	92	92	92	92	92	92	92	92	92
BEARING MORTAR(mm)	H5	49	49	49	49	50	50	50	50	55	55	55	55	54	54	54	54
TOTAL STRUCTURE HEIGHT(mm)	ΣH	2379	2376	2399	2397	2370	2357	2374	2361	2406	2393	2411	2398	2353	2369	2411	2427
TOP OF PIER/ABUTMENT HEIGHT	Z2	8.394	8.274	8.155	8.034	9.292	9.165	9.037	8.910	9.292	9.165	9.037	8.910	10.179	10.045	9.910	9.776

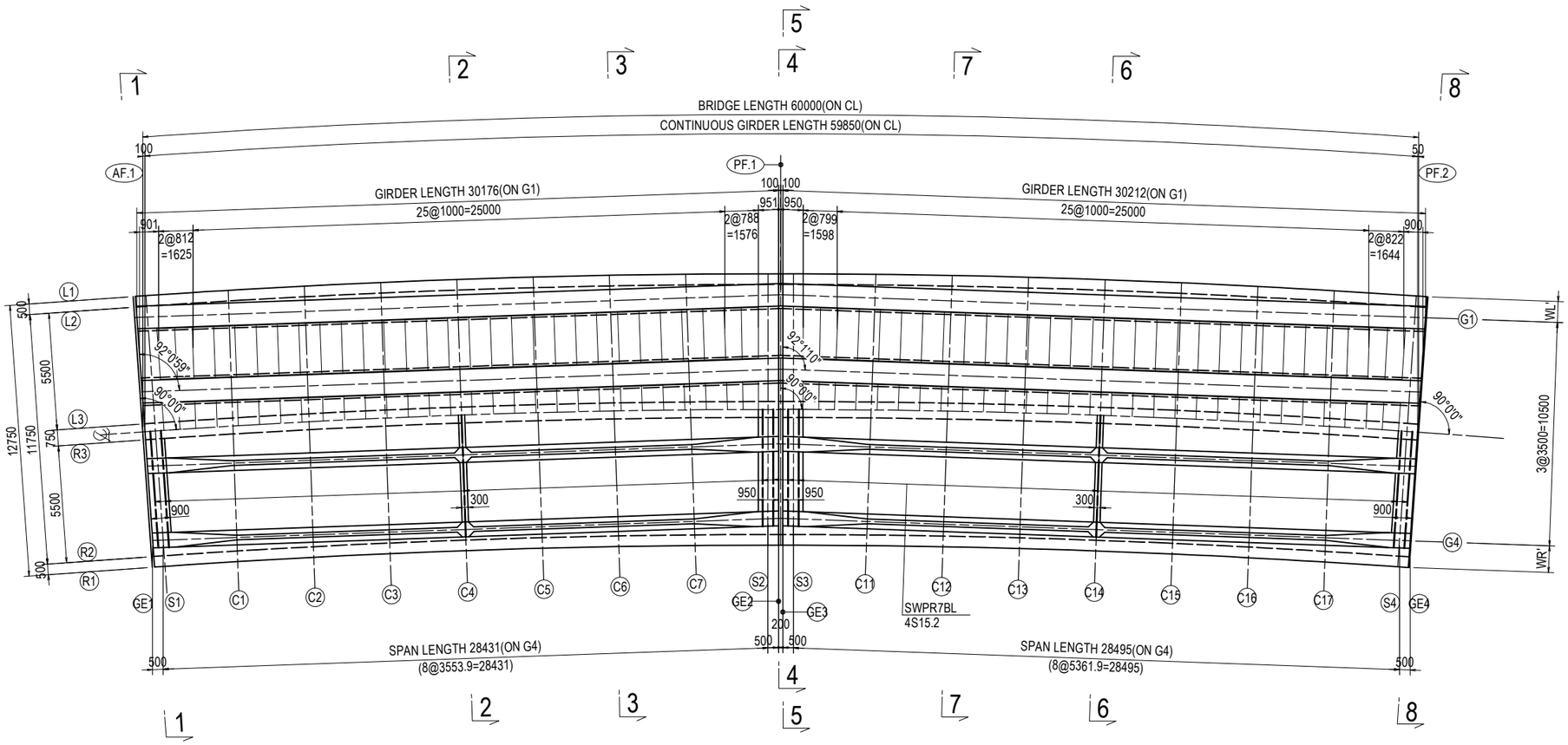
PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT			
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY			
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE			
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.			
	NAME	SIGNATURE	DATE	DRAWING TITLE / PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	SUPERSTRUCTURE COORDINATES (AF1-PF2) (2) / 3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017	DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017	P3-FO-1002

GENERAL VIEW OF SUPERSTRUCTURE (AF1-PF2) (1)

SIDE VIEW S=1:250



PLAN S=1:250



PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

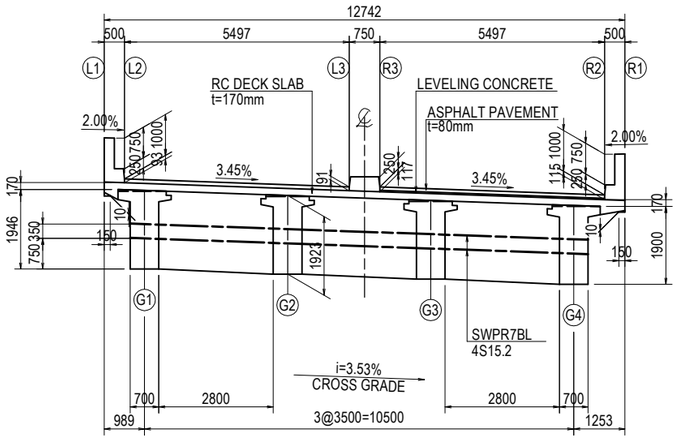
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	GENERAL VIEW OF SUPERSTRUCTURE (AF1-PF2) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1003

GENERAL VIEW OF SUPERSTRUCTURE (AF1-PF2) (2)

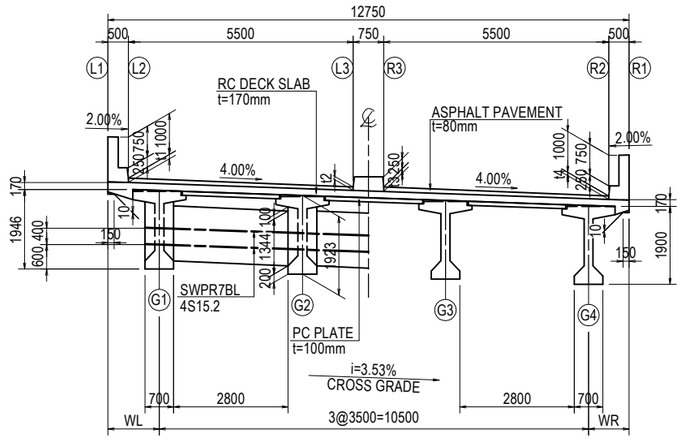
CROSS SECTION S=1:150

AF1-PF1

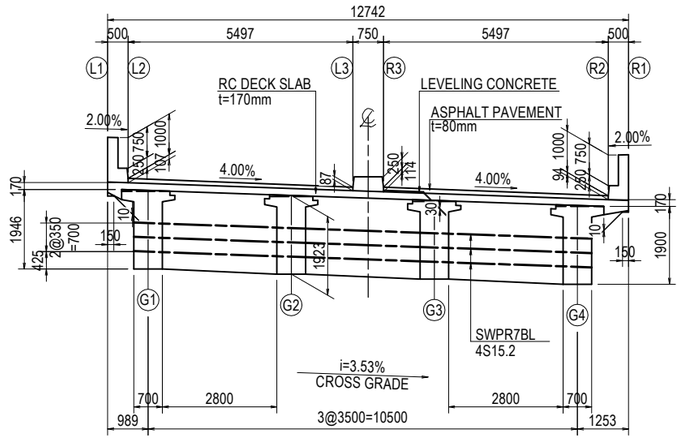
1-1



2-2 3-3

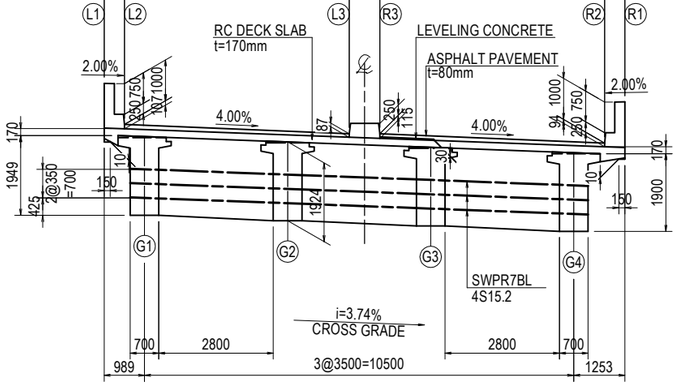


4-4

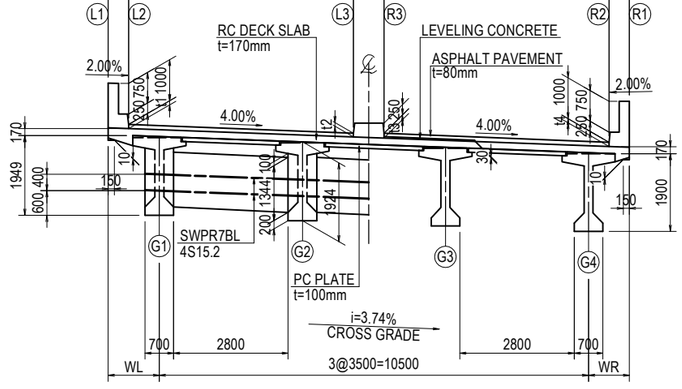


PF1-PF2

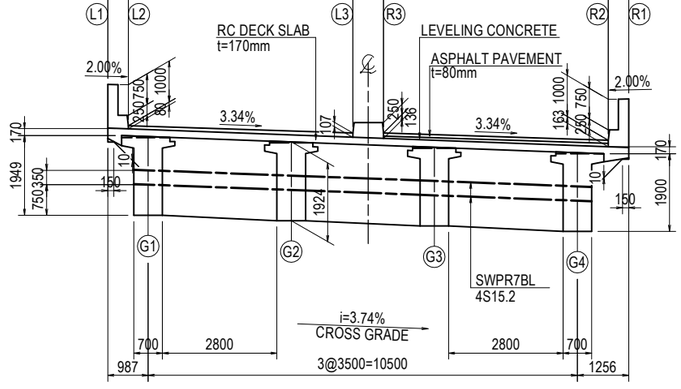
5-5



6-6 7-7



8-8



Note: Dimension of crosssection at end of girder is based on the actual angle of girder end.

LIST OF PAVEMENT THICKNESS

(mm)

	GE1	S1	C1	C2	C3	C4	C5	C6	C7	S2	GE2	PF1
t1	93	95	113	112	108	106	105	104	105	107	107	107
t2	91	91	86	83	81	80	80	81	83	87	87	87
t3	117	117	112	109	107	107	107	108	110	114	114	115
t4	115	112	88	81	80	81	82	85	89	94	94	94

	PF1	GE3	S3	C11	C12	C13	C14	C15	C16	C17	S4	GE4
t1	107	107	107	104	102	101	102	102	94	87	81	80
t2	87	87	87	85	85	86	88	91	95	100	106	107
t3	115	115	114	113	113	114	116	119	123	129	135	136
t4	94	94	94	94	96	98	101	108	125	143	161	163

LIST OF WL/WR LENGTH

(mm)

	GE1	S1	C1	C2	C3	C4	C5	C6	C7	S2	GE2	PF1
WL	989	1006	1121	1196	1242	1257	1242	1197	1121	1006	989	985
WR	1253	1236	1134	1056	1009	993	1009	1055	1133	1236	1253	1257

	PF1	GE3	S3	C11	C12	C13	C14	C15	C16	C17	S4	GE4
WL	985	989	1006	1120	1194	1237	1251	1234	1188	1113	1004	987
WR	1257	1253	1236	1134	1058	1013	999	1017	1065	1141	1239	1256

PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

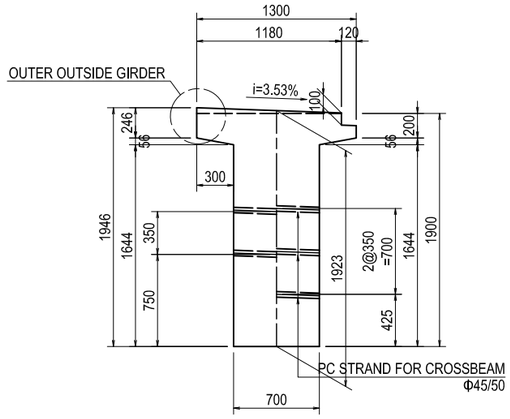
DRAWING TITLE	PACKAGE
GENERAL VIEW OF SUPERSTRUCTURE (AF1-PF2) (2)	3
	DWG No. P3-FO-1004

GENERAL VIEW OF SUPERSTRUCTURE (AF1-PF2) (3)

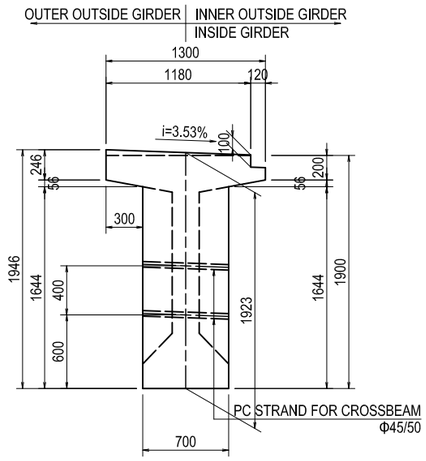
CROSS SECTION OF MAIN GIRDER S=1:50

AF1-PF1

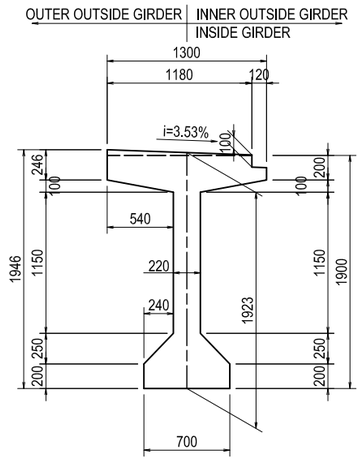
END SECTION CONNECTION SECTION



INTERMEDIATE CROSSBEAM

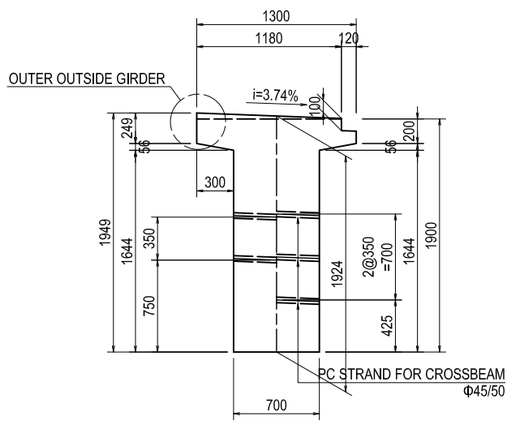


STANDARD SECTION

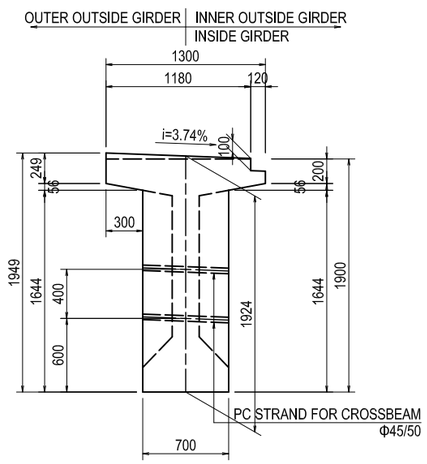


PF1-PF2

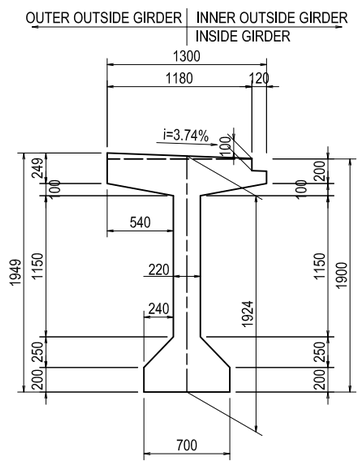
END SECTION CONNECTION SECTION



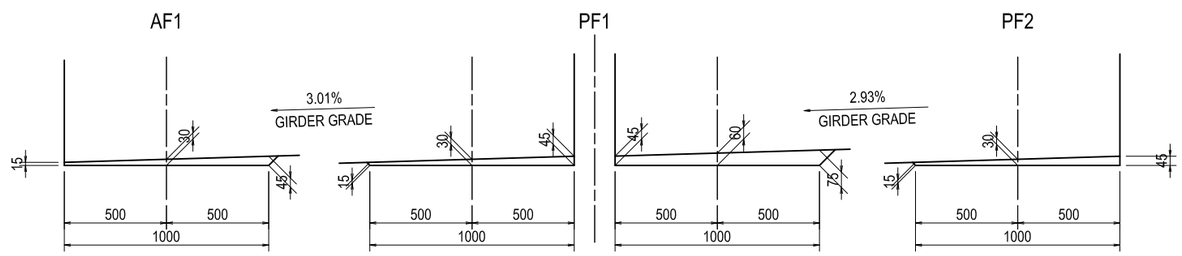
INTERMEDIATE CROSSBEAM



STANDARD SECTION



LAYER S=1:30



DESIGN CONDITION

ROAD GRADE	Equivalent to CLASS 4-1
BRIDGE TYPE	2 span continuous PC-I girder bridge with composite deck(PC plate and RC deck)
BRIDGE LENGTH	L = 60.000 m
SPAN LENGTH	L = 28.801 + 28.851 m
WIDTH OF THE ROAD	TOTAL : 12.750 m L = 0.500 + 5.500 + 0.750 + 5.500 +0.500 m
HORIZONTAL ALIGNMENT	A=150~R=420~A=150
LONGITUDINAL SLOPE	3.000% ↙
SECTION SLOPE	LEFT : 3.45%~4.00%~3.34% RIGHT : 3.45%~4.00%~3.34%
ANGLE OF SKEW	AF.1,PF.1,PF.2 : 90°00'00"
PAVEMENT	ASPHALT PAVEMENT t = 80 mm
SLAB	RC DECK SLAB t = 170 mm
PLATE	PC PLATE t = 100 mm
LIVE ROAD	AASHTO HL-93
DESIGN STANDARD	AASHTO LRFD BRIDGE DESIGN 2014(LIVE ROAD) Specifications for highway bridges(Japan Road Association) 1 Common matters,3 Concrete bridges,5 seismic design (April 2012)

MATERIALS STRENGTH

(N/mm²)

CONCRETE		MAIN GIRDER	CROSS BEAM	PC PLATE	RC SLAB	COUPLING CONCRETE
DESIGN STANDARD STRENGTH OF CONCRETE		40.0	30.0	40.0	30.0	30.0
BENDING COMPRESSIVE STRESS	IMMEDIATELY AFTER PRESTRESSING	19.0	14.0	19.0	——	——
	OTHERS	14.0	11.0	15.0	10.0	10.0
BENDING TENSILE STRESS	IMMEDIATELY AFTER PRESTRESSING	-1.5	-1.2	-1.5	——	——
	DEAD LOAD	0.0	0.0	——	——	——
	OTHERS	-1.5	-1.2	0.0	——	——
MEAN SHEAR STRESS CONCRETE CAN CARRY		0.55	0.45	——	——	——
MAXIMUM MEAN CONCRETE SHEAR STRESS	IN CASE WHERE ONLY SHEAR FORCES	5.3	4.0	——	——	——
ALLOWABLE DIAGONEL TENSILE STRESS (DEAD LOAD)	IN CASE WHERE ONLY SHEAR FORCES	-1.0	-0.8	——	——	——
ALLOWABLE DIAGONEL TENSILE STRESS (LIVE LOAD)	IN CASE WHERE ONLY SHEAR FORCES	-2.0	-1.7	——	——	——

(N/mm²)

PC STRAND		SWPR7BL 7S15.2mm	SWPR7BL 4S15.2mm	SWPR7AL 1S9.3mm
TENSILE STRENGTH		1850	1850	1700
YIELD POINT		1600	1600	1450
ALLOWABLE TENSILE STRESS	DURING PRESTRESSING	1440	1440	1305
	IMMEDIATELY AFTER PRESTRESSING	1295	1295	1190
	UNDER DESIGN LOAD	1110	1110	1020

(N/mm²)

REINFORCING STEEL		MAIN GIRDER	CROSS BEAM	RC SLAB	COUPLING CONCRETE
STEEL TYPE		SD345	SD345	SD345	SD345
YIELD POINT		345	345	345	345
ALLOWABLE TENSILE STRESS	DEAD LOAD	——	——	100	100
	DESIGN LOAD	180	180	140	160
	EARTHQUAKE LOAD	——	200	——	——

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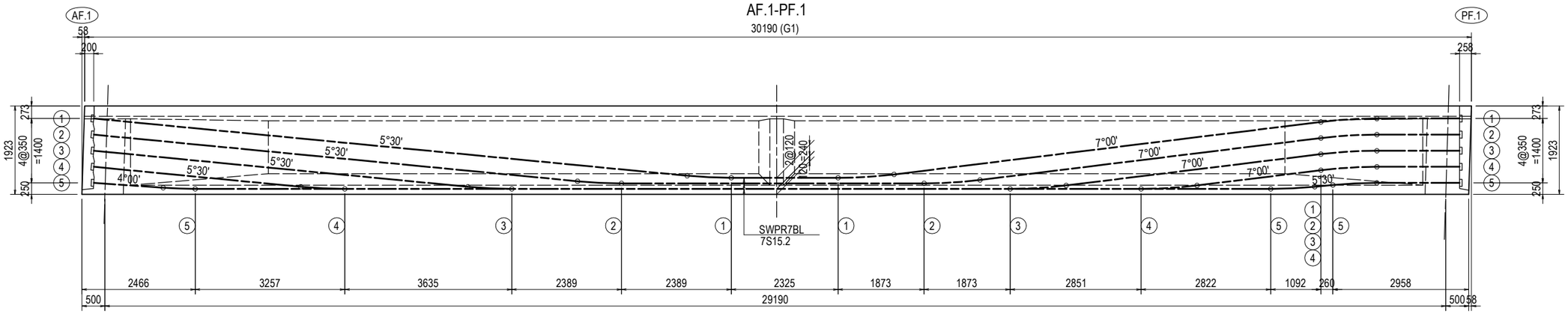
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

DRAWING TITLE	PACKAGE
GENERAL VIEW OF SUPERSTRUCTURE (AF1-PF2) (3)	3
	DWG No.
	P3-FO-1005

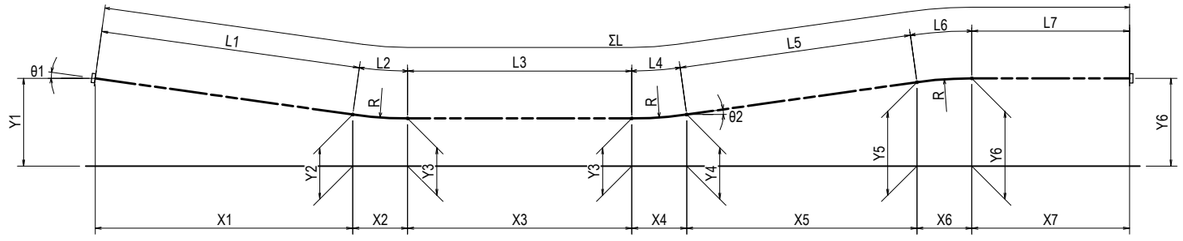
PC STRAND ARRANGEMENT OF MAIN GIRDER (AF1-PF2) (1)

SIDE VIEW S=1:100



PC STRAND LENGTH & ELEVATION

7S15.2
w=7.707 kg/m
R=10.000m



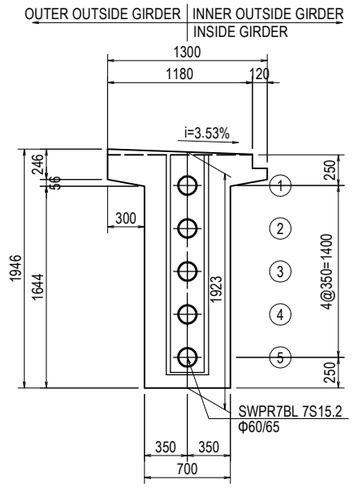
AF.1-PF.1

PC STRAND No	θ1	θ2	Y1	Y2	Y3	Y4	Y5	Y6	X1	X2	X3				X4	X5	X6	X7
											G1	G2	G3	G4				
1	5°30'	7°00'	1650	406	360	435	1576	1650	12919	959	2325	2076	1828	1580	1218	9292	1219	1800
2	5°30'	7°00'	1300	286	240	315	1226	1300	10530	959	6587	6338	6090	5842	1218	7419	1219	1800
3	5°30'	7°00'	950	166	120	195	876	950	8142	958	10848	10599	10353	10103	1219	5545	1219	1800
4	5°30'	7°00'	600	166	120	195	526	600	4507	958	17334	17085	16837	16589	1218	2695	1219	1800
5	4°00'	5°30'	250	144	120	166	204	250	1511	697	23413	23164	22916	22668	959	394	958	1800

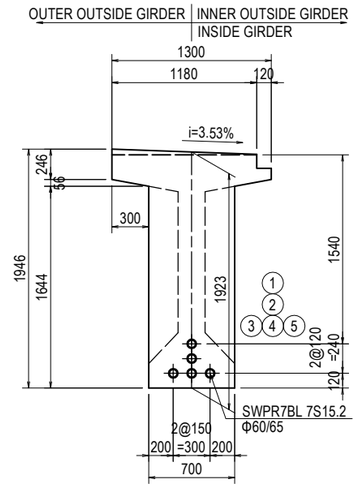
PC STRAND No	L1	L2	L3				L4	L5	L6	L7	∑L (UNIT:mm)				WEIGHT (UNIT:kg)			
			G1	G2	G3	G4					G1	G2	G3	G4	G1	G2	G3	G4
1	12979	960	2325	2076	1828	1580	1222	9362	1222	1800	29870	29621	29373	29125	230.20	228.29	226.38	224.47
2	10579	960	6587	6338	6090	5842	1222	7475	1222	1800	29845	29596	29348	29100	230.02	228.10	226.19	224.27
3	8179	960	10848	10599	10353	10103	1222	5587	1222	1800	29818	29569	29323	29073	229.81	227.89	225.99	224.07
4	4528	960	17334	17085	16837	16589	1222	2715	1222	1800	29781	29532	29284	29036	229.52	227.60	225.69	223.78
5	1514	698	23413	23164	22916	22668	960	396	960	1800	29741	29492	29244	28996	229.21	227.29	225.38	223.47
										TOTAL	149055	147810	146572	145330	1148.8	1139.2	1129.6	1120.1

CROSS SECTION OF MAIN GIRDER S=1:50

END SECTION



INTERMEDIATE CROSSBEAM

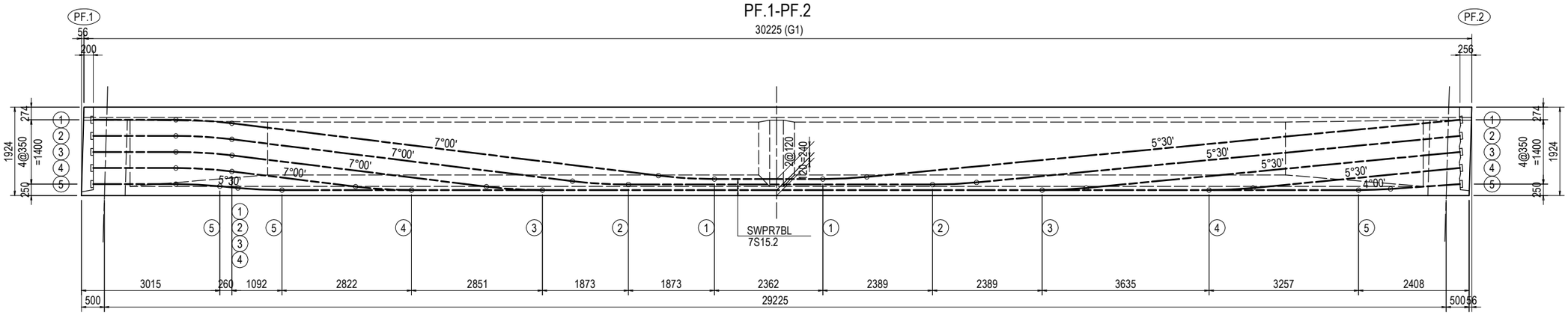


PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

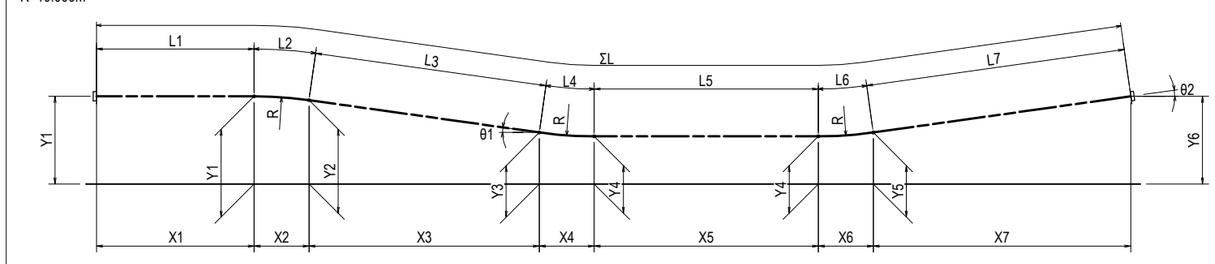
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	PC STRAND ARRANGEMENT OF MAIN GIRDER (AF1-PF2) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1006

PC STRAND ARRANGEMENT OF MAIN GIRDER (AF1-PF2) (2)

SIDE VIEW S=1:100



PC STRAND LENGTH & ELEVATION



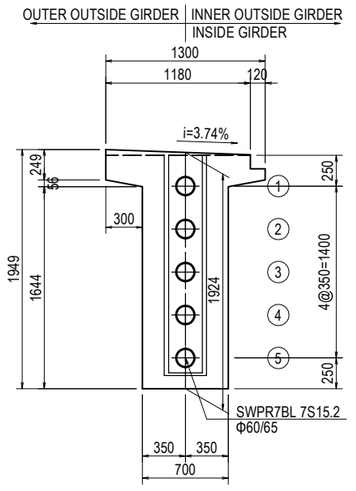
PF.1-PF.2

PC STRAND No	θ1	θ2	Y1	Y2	Y3	Y4	Y5	Y6	X1	X2	X3	X4	X5				X6	X7
													G1	G2	G3	G4		
1	7°00'	5°30'	1650	1576	435	360	406	1650	1800	1219	9292	1219	2361	2122	1883	1644	958	12919
2	7°00'	5°30'	1300	1226	315	240	286	1300	1800	1219	7419	1218	6623	6384	6145	5906	959	10530
3	7°00'	5°30'	950	876	195	120	166	950	1800	1219	5545	1219	10885	10646	10407	10168	958	8142
4	7°00'	5°30'	600	526	195	120	166	600	1800	1219	2695	1219	17371	17132	16893	16654	958	4507
5	5°30'	4°00'	250	204	166	120	144	250	1800	959	393	959	23450	23211	22972	22733	697	1511

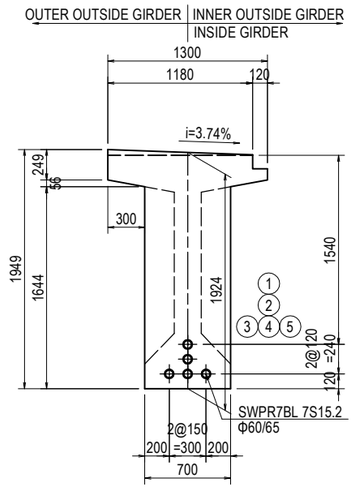
PC STRAND No	L1	L2	L3	L4	L5				L6	L7	∑L (UNIT:mm)				WEIGHT (UNIT:kg)			
					G1	G2	G3	G4			G1	G2	G3	G4	G1	G2	G3	G4
1	1800	1222	9362	1222	2361	2122	1883	1644	960	12979	29906	29667	29428	29189	230.49	228.64	226.80	224.96
2	1800	1222	7475	1222	6623	6384	6145	5906	960	10579	29881	29642	29403	29164	230.29	228.45	226.61	224.77
3	1800	1222	5587	1222	10885	10646	10407	10168	960	8179	29855	29616	29377	29138	230.09	228.25	226.41	224.57
4	1800	1222	2715	1222	17371	17132	16893	16654	960	4528	29818	29579	29340	29101	229.81	227.97	226.12	224.28
5	1800	960	396	960	23450	23211	22972	22733	698	1514	29778	29539	29300	29061	229.50	227.66	225.82	223.97
										TOTAL	149238	148043	146848	145653	1150.2	1141.0	1131.8	1122.6

CROSS SECTION OF MAIN GIRDER S=1:50

END SECTION



INTERMEDIATE CROSSBEAM



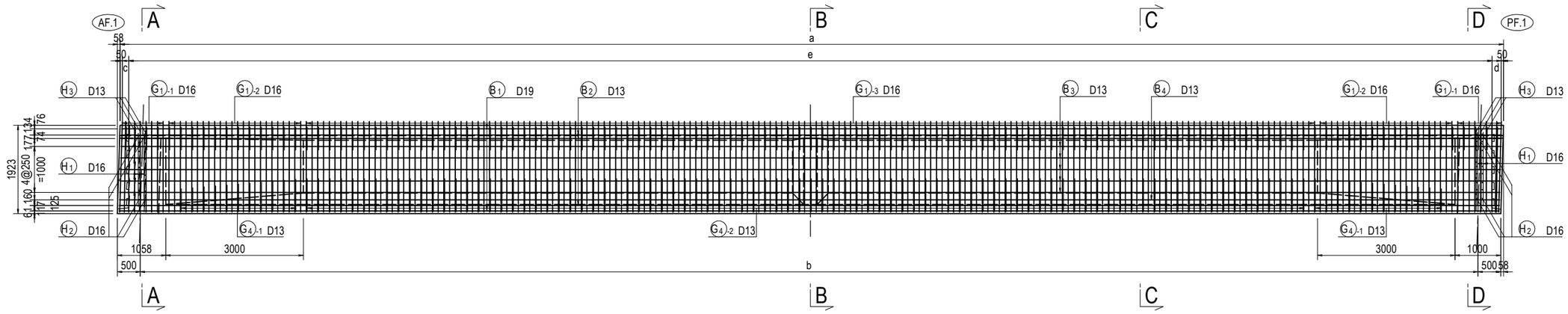
PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	PC STRAND ARRANGEMENT OF MAIN GIRDER (AF1-PF2) (2)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1007

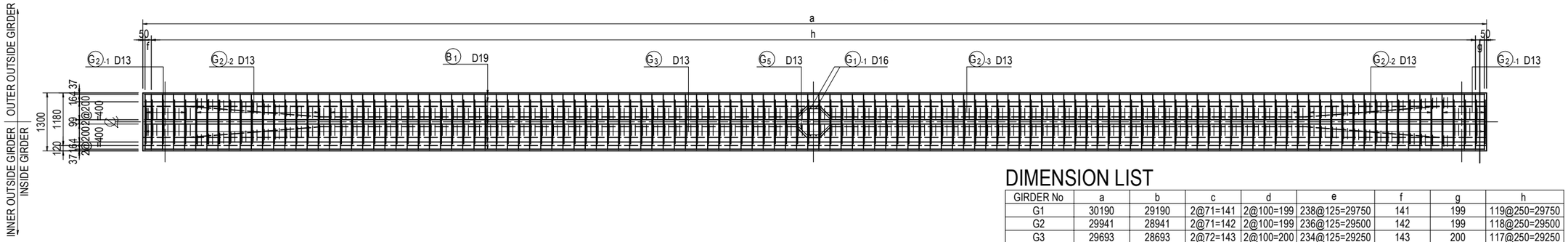
BAR ARRANGEMENT OF MAIN GIRDER (AF1-PF2) (1)

SIDE VIEW S=1:100

AF.1-PF.1



PLAN S=1:100

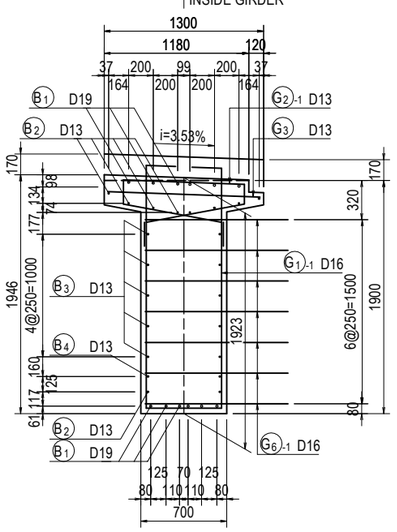


DIMENSION LIST

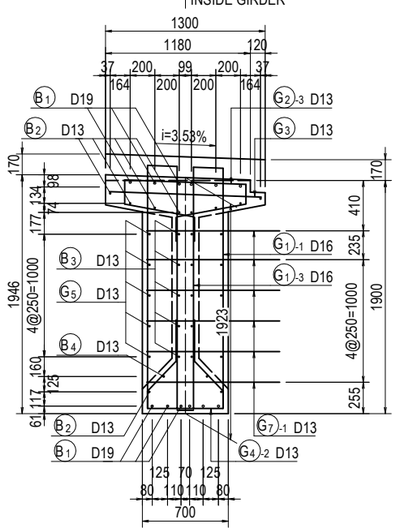
GIRDER No	a	b	c	d	e	f	g	h
G1	30190	29190	2@71=141	2@100=199	238@125=29750	141	199	119@250=29750
G2	29941	28941	2@71=142	2@100=199	236@125=29500	142	199	118@250=29500
G3	29693	28693	2@72=143	2@100=200	234@125=29250	143	200	117@250=29250
G4	29444	28444	2@72=143	2@101=201	232@125=29000	143	201	116@250=29000

CROSS SECTION OF MAIN GIRDER S=1:50

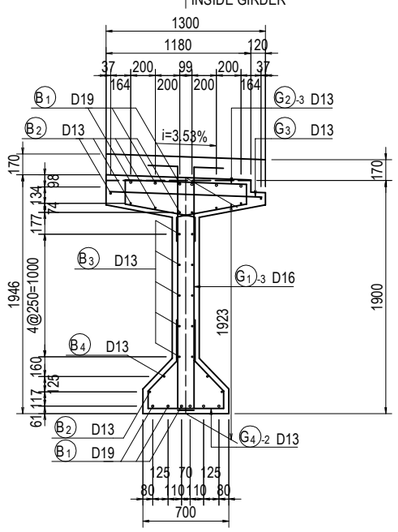
A-A



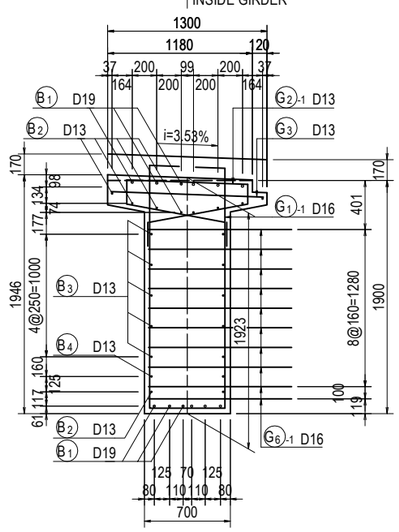
B-B



C-C



D-D



PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
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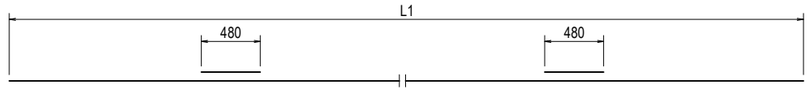
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF MAIN GIRDER (AF1-PF2) (1)	3
	DWG No.
	P3-FO-1008

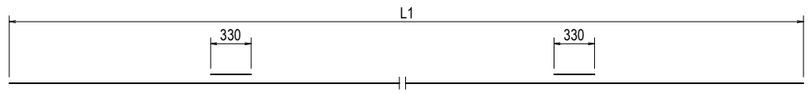
BAR ARRANGEMENT OF MAIN GIRDER (AF1-PF2) (2)



B1 12-D19xL

L(mm)

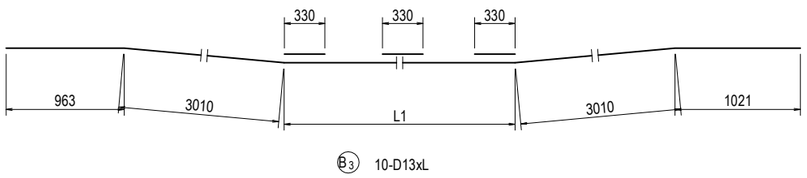
	B1	
	L1	L
G1	30120	31080
G2	29871	30840
G3	29623	30590
G4	29374	30340



B2 10-D13xL

L(mm)

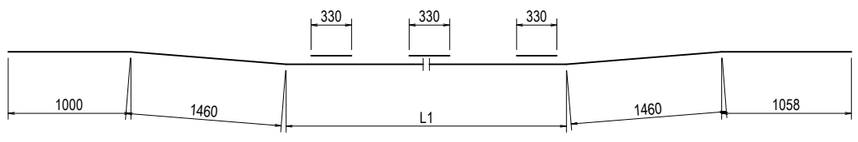
	B2	
	L1	L
G1	30120	30780
G2	29871	30540
G3	29623	30290
G4	29374	30040



B3 10-D13xL

L(mm)

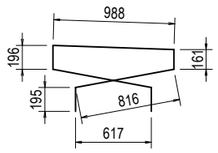
	B3	
	L1	L
G1	22136	31130
G2	21888	30890
G3	21640	30640
G4	21391	30390



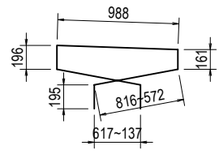
B4 2-D13xL

L(mm)

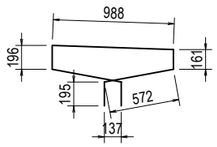
	B4	
	L1	L
G1	25150	31120
G2	24901	30870
G3	24653	30630
G4	24404	30380



G2-1 10-D13x3370



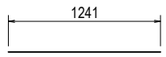
(AVE)
G2-2 24-D13x3130



G2-3 N-D13x2880

N(number)

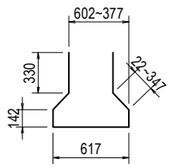
	G2-3
	N
G1	88
G2	87
G3	86
G4	85



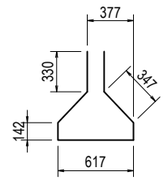
G3 N-D13x1250

N(number)

	G3
	N
G1	122
G2	121
G3	120
G4	119



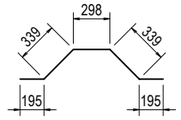
(AVE)
G4-1 22-D13x1930



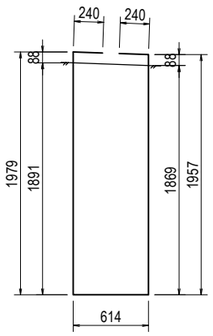
G4-2 N-D13x2260

N(number)

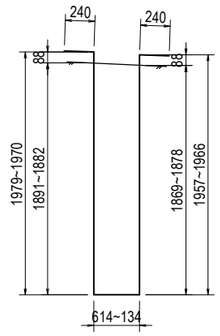
	G4-2
	N
G1	88
G2	87
G3	86
G4	85



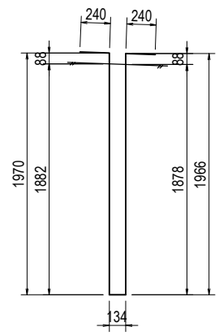
G5 10-D13x1370



G1-1 20-D16x5030



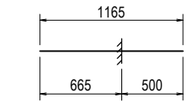
(AVE)
G1-2 48-D16x4800



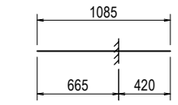
G1-3 N-D16x4550

N(number)

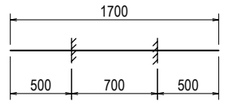
	G1-3
	N
G1	177
G2	175
G3	173
G4	171



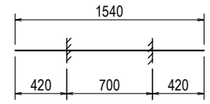
G6-1 54-D16x1170
(OUTSIDE GIRDER)



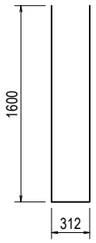
G7-1 12-D13x1090
(OUTSIDE GIRDER)



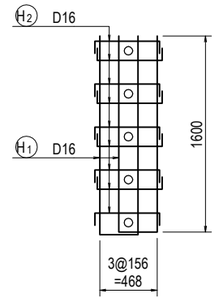
G6-2 54-D16x1700
(INSIDE GIRDER)

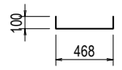


G7-2 12-D13x1540
(INSIDE GIRDER)

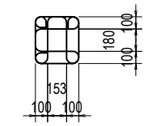


H1 8-D16x3520





H2 36-D16x670



H3 30-D13x4020

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	BAR ARRANGEMENT OF MAIN GIRDER (AF1-PF2) (2)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1009

BAR ARRANGEMENT OF MAIN GIRDER (AF1-PF2) (3)

(G1)BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	31080	12	2.25	69.93	839	
B 2	D13	30780	10	0.995	30.63	306	
B 3	D13	31130	10	0.995	30.97	310	
B 4	D13	31120	2	0.995	30.96	62	
G 1 -1	D16	5030	20	1.56	7.85	157	
G 1 -2	D16	4800	48	1.56	7.49	360	AVERAGE
G 1 -3	D16	4550	177	1.56	7.10	1257	
G 2 -1	D13	3370	10	0.995	3.35	34	
G 2 -2	D13	3130	24	0.995	3.11	75	AVERAGE
G 2 -3	D13	2880	88	0.995	2.87	253	
G 3	D13	1250	122	0.995	1.24	151	
G 4 -1	D13	1930	22	0.995	1.92	42	AVERAGE
G 4 -2	D13	2260	88	0.995	2.25	198	
G 5	D13	1370	10	0.995	1.36	14	
G 6 -1	D16	1170	54	1.56	1.83	99	OUTSIDE GIRDER
G 7 -1	D13	1090	12	0.995	1.08	13	OUTSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
					D19	839 kg	
					D16	1955 kg	
					D13	1578 kg	
					TOTAL	4372 kg	

(G3)BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	30590	12	2.25	68.83	826	
B 2	D13	30290	10	0.995	30.14	301	
B 3	D13	30640	10	0.995	30.49	305	
B 4	D13	30630	2	0.995	30.48	61	
G 1 -1	D16	5030	20	1.56	7.85	157	
G 1 -2	D16	4800	48	1.56	7.49	360	AVERAGE
G 1 -3	D16	4550	173	1.56	7.10	1228	
G 2 -1	D13	3370	10	0.995	3.35	34	
G 2 -2	D13	3130	24	0.995	3.11	75	AVERAGE
G 2 -3	D13	2880	86	0.995	2.87	247	
G 3	D13	1250	120	0.995	1.24	149	
G 4 -1	D13	1930	22	0.995	1.92	42	AVERAGE
G 4 -2	D13	2260	86	0.995	2.25	194	
G 5	D13	1370	10	0.995	1.36	14	
G 6 -2	D16	1700	54	1.56	2.65	143	INSIDE GIRDER
G 7 -2	D13	1540	12	0.995	1.53	18	INSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
					D19	826 kg	
					D16	1970 kg	
					D13	1560 kg	
					TOTAL	4356 kg	

(G2)BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	30840	12	2.25	69.39	833	
B 2	D13	30540	10	0.995	30.39	304	
B 3	D13	30890	10	0.995	30.74	307	
B 4	D13	30870	2	0.995	30.72	61	
G 1 -1	D16	5030	20	1.56	7.85	157	
G 1 -2	D16	4800	48	1.56	7.49	360	AVERAGE
G 1 -3	D16	4550	175	1.56	7.10	1243	
G 2 -1	D13	3370	10	0.995	3.35	34	
G 2 -2	D13	3130	24	0.995	3.11	75	AVERAGE
G 2 -3	D13	2880	87	0.995	2.87	250	
G 3	D13	1250	121	0.995	1.24	150	
G 4 -1	D13	1930	22	0.995	1.92	42	AVERAGE
G 4 -2	D13	2260	87	0.995	2.25	196	
G 5	D13	1370	10	0.995	1.36	14	
G 6 -2	D16	1700	54	1.56	2.65	143	INSIDE GIRDER
G 7 -2	D13	1540	12	0.995	1.53	18	INSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
					D19	833 kg	
					D16	1985 kg	
					D13	1571 kg	
					TOTAL	4389 kg	

(G4)BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	30340	12	2.25	68.27	819	
B 2	D13	30040	10	0.995	29.89	299	
B 3	D13	30390	10	0.995	30.24	302	
B 4	D13	30380	2	0.995	30.23	60	
G 1 -1	D16	5030	20	1.56	7.85	157	
G 1 -2	D16	4800	48	1.56	7.49	360	AVERAGE
G 1 -3	D16	4550	171	1.56	7.10	1214	
G 2 -1	D13	3370	10	0.995	3.35	34	
G 2 -2	D13	3130	24	0.995	3.11	75	AVERAGE
G 2 -3	D13	2880	85	0.995	2.87	244	
G 3	D13	1250	119	0.995	1.24	148	
G 4 -1	D13	1930	22	0.995	1.92	42	AVERAGE
G 4 -2	D13	2260	85	0.995	2.25	191	
G 5	D13	1370	10	0.995	1.36	14	
G 6 -1	D16	1170	54	1.56	1.83	99	OUTSIDE GIRDER
G 7 -1	D13	1090	12	0.995	1.08	13	OUTSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
					D19	819 kg	
					D16	1912 kg	
					D13	1542 kg	
					TOTAL	4273 kg	

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

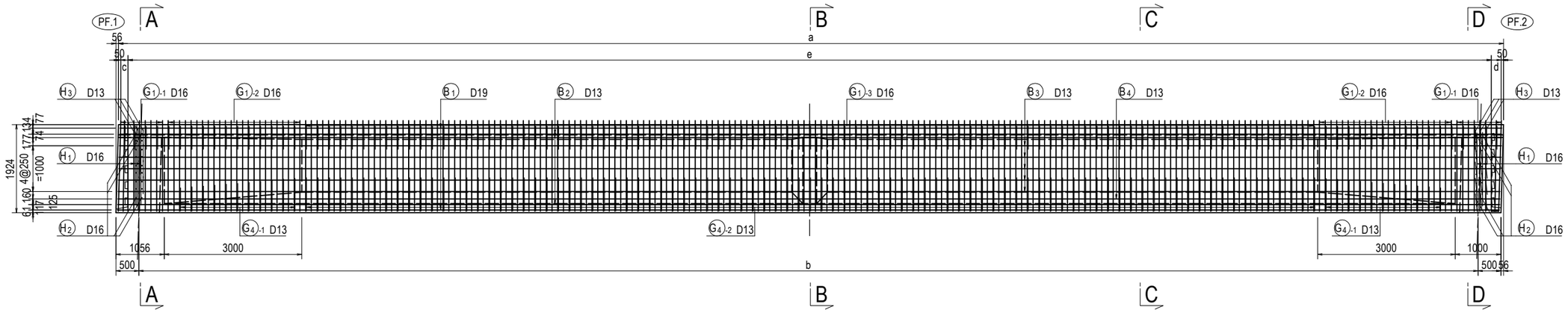
	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF MAIN GIRDER (AF1-PF2) (3)	3
	DWG No.
	P3-FO-1010

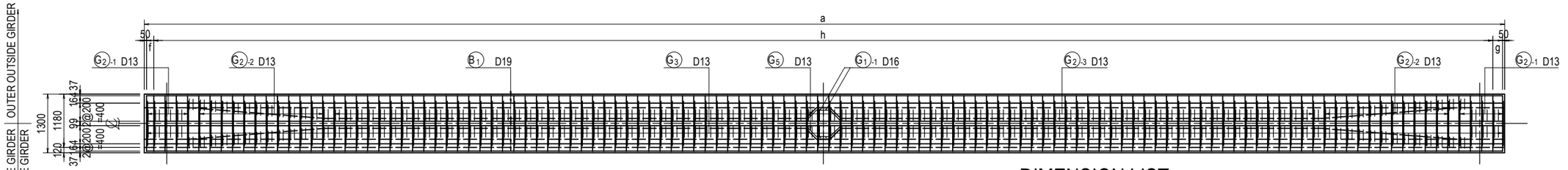
BAR ARRANGEMENT OF MAIN GIRDER (AF1-PF2) (4)

SIDE VIEW S=1:100

PF.1-PF.2



PLAN S=1:100

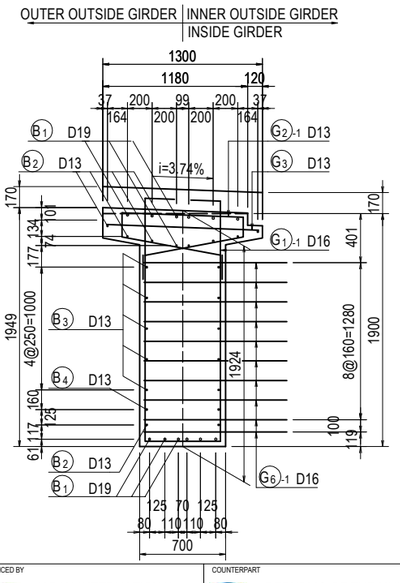


DIMENSION LIST

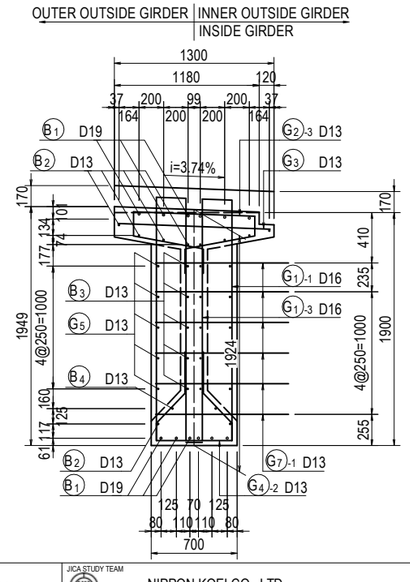
GIRDER No	a	b	c	d	e	f	g	h
G1	30225	29225	2@80=159	2@108=216	238@125=29750	159	216	119@250=29750
G2	29986	28986	2@83=165	2@111=221	236@125=29500	165	221	118@250=29500
G3	29746	28746	2@85=170	2@113=226	234@125=29250	170	226	117@250=29250
G4	29507	28507	2@88=175	2@116=232	232@125=29000	175	232	116@250=29000

CROSS SECTION OF MAIN GIRDER S=1:50

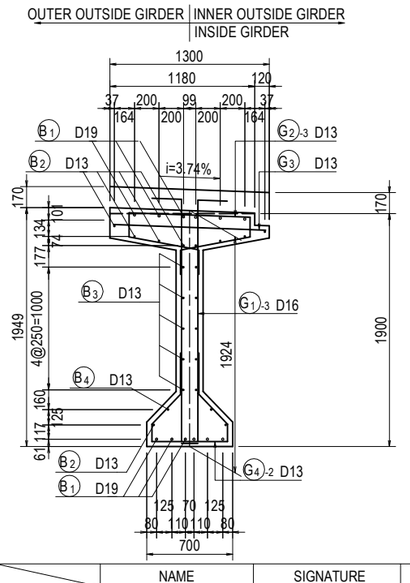
A-A



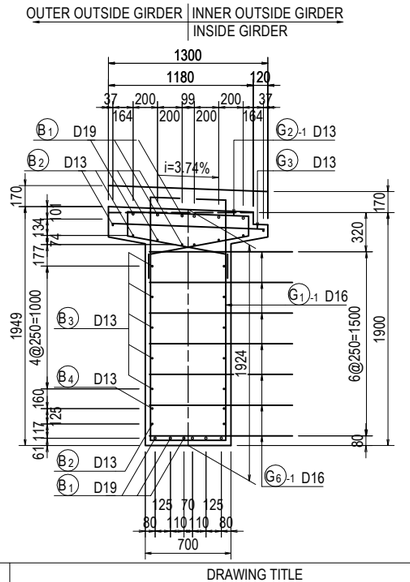
B-B



C-C



D-D

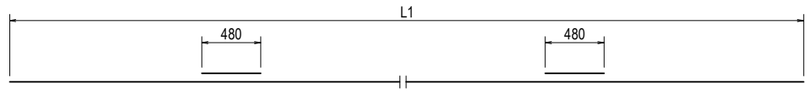


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF MAIN GIRDER (AF1-PF2) (4)	3
	DWG No.
	P3-FO-1011

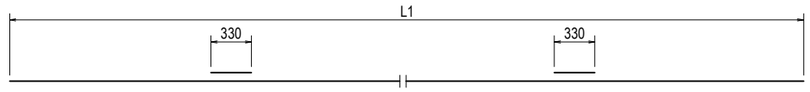
BAR ARRANGEMENT OF MAIN GIRDER (AF1-PF2) (5)



B1 12-D19xL

L(mm)

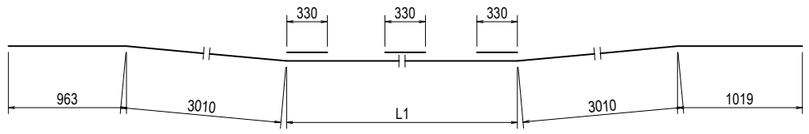
	B1	
	L1	L
G1	30155	31120
G2	29916	30880
G3	29676	30640
G4	29437	30400



B2 10-D13xL

L(mm)

	B2	
	L1	L
G1	30155	30820
G2	29916	30580
G3	29676	30340
G4	29437	30100



B3 10-D13xL

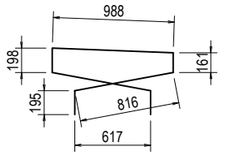
L(mm)

	B3	
	L1	L
G1	22173	31170
G2	21934	30930
G3	21694	30690
G4	21455	30450

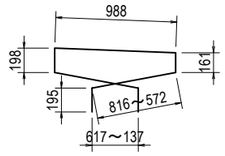
B4 2-D13xL

L(mm)

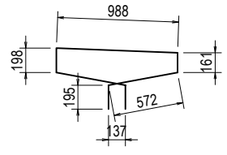
	B4	
	L1	L
G1	25153	31160
G2	24914	30920
G3	24674	30680
G4	24435	30440



G2-1 10-D13x3370



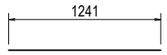
(AVE)
G2-2 24-D13x3130



G2-3 N-D13x2890

N(number)

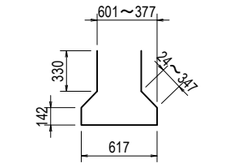
	G2-3
	N
G1	88
G2	87
G3	86
G4	85



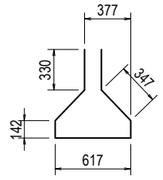
G3 N-D13x1250

N(number)

	G3
	N
G1	122
G2	121
G3	120
G4	119



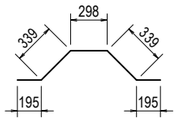
(AVE)
G4-1 22-D13x1940



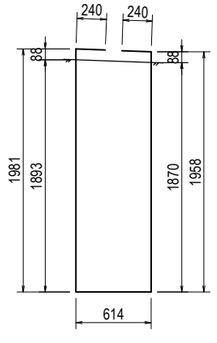
G4-2 N-D13x2260

N(number)

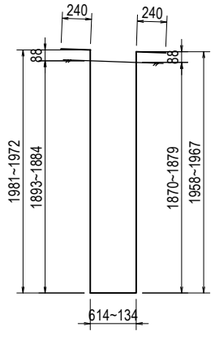
	G4-2
	N
G1	88
G2	87
G3	86
G4	85



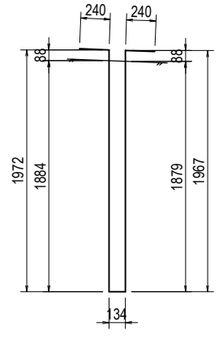
G5 10-D13x1370



G1-1 20-D16x5040



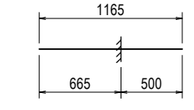
(AVE)
G1-2 48-D16x4800



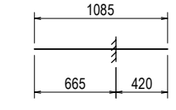
G1-3 N-D16x4560

N(number)

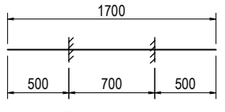
	G1-3
	N
G1	177
G2	175
G3	173
G4	171



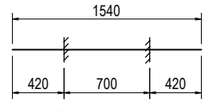
G6-1 54-D16x1170
(OUTSIDE GIRDER)



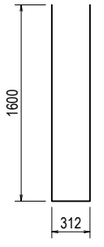
G7-1 12-D13x1090
(OUTSIDE GIRDER)



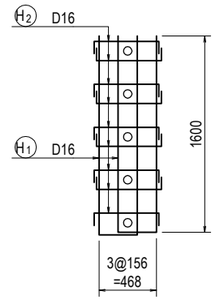
G6-2 54-D16x1700
(INSIDE GIRDER)

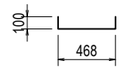


G7-2 12-D13x1540
(INSIDE GIRDER)

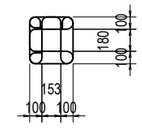


H1 8-D16x3520





H2 36-D16x670



PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	BAR ARRANGEMENT OF MAIN GIRDER (AF1-PF2) (5)
CHECKED BY	T. HAYAKAWA		20 Jul. 2017	
APPROVED BY	Y. SANO		25 Jul. 2017	

PACKAGE
3
DWG No.
P3-FO-1012

BAR ARRANGEMENT OF MAIN GIRDER (AF1-PF2) (6)

(G1)BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	31120	12	2.25	70.02	840	
B 2	D13	30820	10	0.995	30.67	307	
B 3	D13	31170	10	0.995	31.01	310	
B 4	D13	31160	2	0.995	31.00	62	
G 1 -1	D16	5040	20	1.56	7.86	157	
G 1 -2	D16	4800	48	1.56	7.49	360	AVERAGE
G 1 -3	D16	4560	177	1.56	7.11	1258	
G 2 -1	D13	3370	10	0.995	3.35	34	
G 2 -2	D13	3130	24	0.995	3.11	75	AVERAGE
G 2 -3	D13	2890	88	0.995	2.88	253	
G 3	D13	1250	122	0.995	1.24	151	
G 4 -1	D13	1940	22	0.995	1.93	42	AVERAGE
G 4 -2	D13	2260	88	0.995	2.25	198	
G 5	D13	1370	10	0.995	1.36	14	
G 6 -1	D16	1170	54	1.56	1.83	99	OUTSIDE GIRDER
G 7 -1	D13	1090	12	0.995	1.08	13	OUTSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
					D19	840 kg	
					D16	1956 kg	
					D13	1579 kg	
					TOTAL	4375 kg	

(G3)BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	30640	12	2.25	68.94	827	
B 2	D13	30340	10	0.995	30.19	302	
B 3	D13	30690	10	0.995	30.54	305	
B 4	D13	30680	2	0.995	30.53	61	
G 1 -1	D16	5040	20	1.56	7.86	157	
G 1 -2	D16	4800	48	1.56	7.49	360	AVERAGE
G 1 -3	D16	4560	173	1.56	7.11	1230	
G 2 -1	D13	3370	10	0.995	3.35	34	
G 2 -2	D13	3130	24	0.995	3.11	75	AVERAGE
G 2 -3	D13	2890	86	0.995	2.88	248	
G 3	D13	1250	120	0.995	1.24	149	
G 4 -1	D13	1940	22	0.995	1.93	42	AVERAGE
G 4 -2	D13	2260	86	0.995	2.25	194	
G 5	D13	1370	10	0.995	1.36	14	
G 6 -2	D16	1700	54	1.56	2.65	143	INSIDE GIRDER
G 7 -2	D13	1540	12	0.995	1.53	18	INSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
					D19	827 kg	
					D16	1972 kg	
					D13	1562 kg	
					TOTAL	4361 kg	

(G2)BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	30880	12	2.25	69.48	834	
B 2	D13	30580	10	0.995	30.43	304	
B 3	D13	30930	10	0.995	30.78	308	
B 4	D13	30920	2	0.995	30.77	62	
G 1 -1	D16	5040	20	1.56	7.86	157	
G 1 -2	D16	4800	48	1.56	7.49	360	AVERAGE
G 1 -3	D16	4560	175	1.56	7.11	1244	
G 2 -1	D13	3370	10	0.995	3.35	34	
G 2 -2	D13	3130	24	0.995	3.11	75	AVERAGE
G 2 -3	D13	2890	87	0.995	2.88	251	
G 3	D13	1250	121	0.995	1.24	150	
G 4 -1	D13	1940	22	0.995	1.93	42	AVERAGE
G 4 -2	D13	2260	87	0.995	2.25	196	
G 5	D13	1370	10	0.995	1.36	14	
G 6 -2	D16	1700	54	1.56	2.65	143	INSIDE GIRDER
G 7 -2	D13	1540	12	0.995	1.53	18	INSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
					D19	834 kg	
					D16	1986 kg	
					D13	1574 kg	
					TOTAL	4394 kg	

(G4)BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	30400	12	2.25	68.40	821	
B 2	D13	30100	10	0.995	29.95	300	
B 3	D13	30450	10	0.995	30.30	303	
B 4	D13	30440	2	0.995	30.29	61	
G 1 -1	D16	5040	20	1.56	7.86	157	
G 1 -2	D16	4800	48	1.56	7.49	360	AVERAGE
G 1 -3	D16	4560	171	1.56	7.11	1216	
G 2 -1	D13	3370	10	0.995	3.35	34	
G 2 -2	D13	3130	24	0.995	3.11	75	AVERAGE
G 2 -3	D13	2890	85	0.995	2.88	245	
G 3	D13	1250	119	0.995	1.24	148	
G 4 -1	D13	1940	22	0.995	1.93	42	AVERAGE
G 4 -2	D13	2260	85	0.995	2.25	191	
G 5	D13	1370	10	0.995	1.36	14	
G 6 -1	D16	1170	54	1.56	1.83	99	OUTSIDE GIRDER
G 7 -1	D13	1090	12	0.995	1.08	13	OUTSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
					D19	821 kg	
					D16	1914 kg	
					D13	1546 kg	
					TOTAL	4281 kg	

PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO.,LTD.
NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

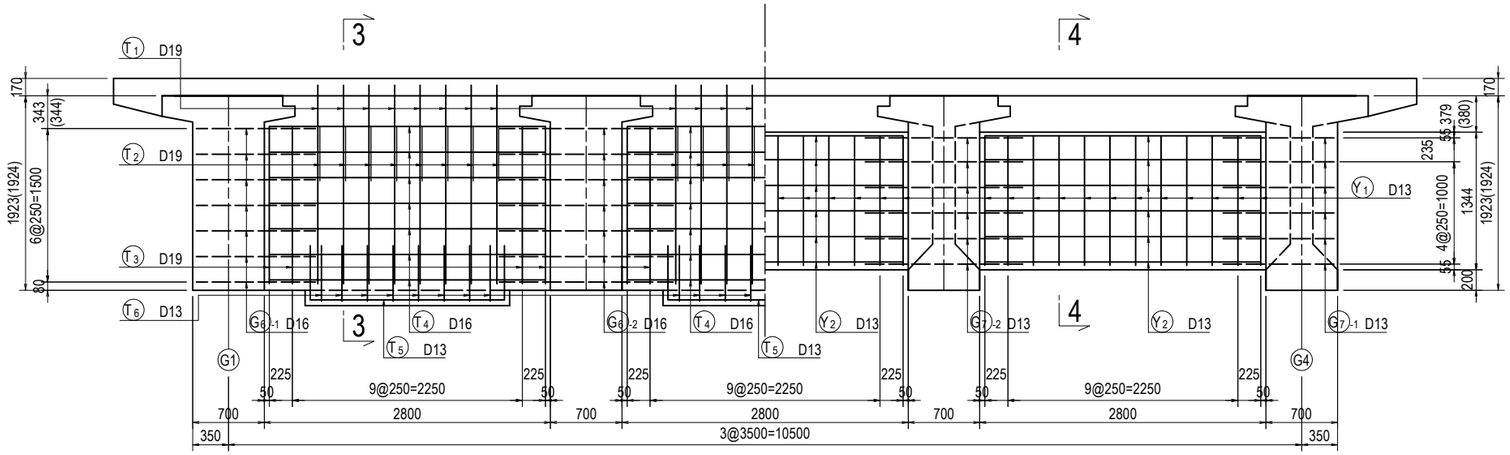
DRAWING TITLE: BAR ARRANGEMENT OF MAIN GIRDER (AF1-PF2) (6)

PACKAGE: 3
DWG No.: P3-FO-1013

BAR ARRANGEMENT OF CROSSBEAM (AF1-PF2) (1)

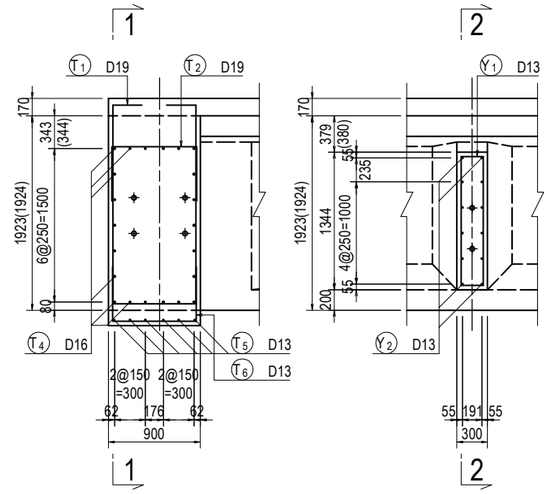
CROSS SECTION S=1:60

1-1 AF1-PF1 (PF1-PF2) 2-2



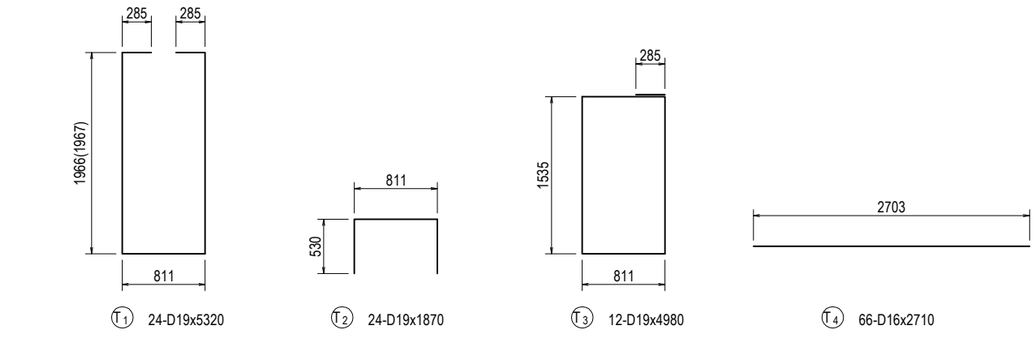
SIDE VIEW S=1:60

3-3 4-4



PC STRAND LIST

	TYPE	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
CROSSBEAM AT END OF MAIN GIRDER(AF1)	SWPR7BL 4S15.2	11207	4	4.404	49.356	197.4	
CROSSBEAM AT END OF MAIN GIRDER(PF2)	SWPR7BL 4S15.2	11206	4	4.404	49.351	197.4	
INERMEDIATE CROSSBEAM	SWPR7BL 4S15.2	11200	4	4.404	49.325	197.3	
				TOTAL LENGTH	ΣL=	134.452	m
				TOTAL WEIGHT	ΣW=	592.1	kg



BAR LIST

REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
T 1	D19	5320	24	2.25	11.97	287	
T 2	D19	1870	24	2.25	4.21	101	
T 3	D19	4980	12	2.25	11.21	135	
T 4	D16	2710	66	1.56	4.23	279	
T 5	D13	2960	18	0.995	2.95	53	
T 6	D13	1880	24	0.995	1.87	45	
Y 1	D13	3150	36	0.995	3.13	113	
Y 2	D13	2710	36	0.995	2.70	97	
				D19	523 kg ×2 =	1046 kg	
				D16	279 kg ×2 =	558 kg	
				D13	308 kg ×2 =	616 kg	
				TOTAL	1110 kg ×2 =	2220 kg	

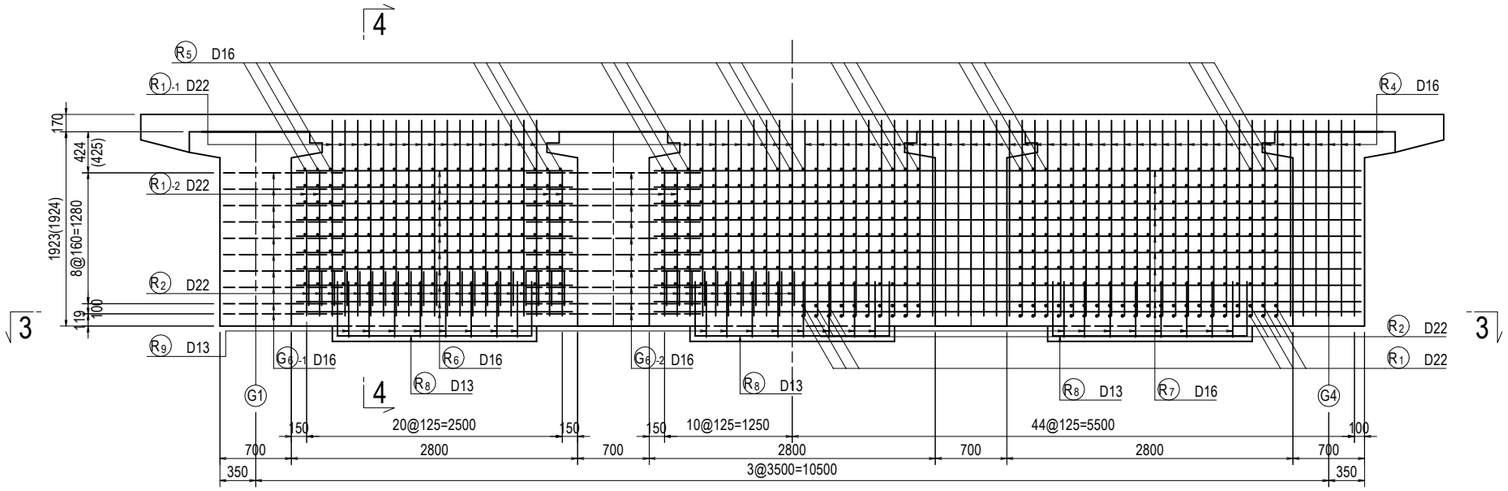
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	BAR ARRANGEMENT OF CROSSBEAM (AF1-PF2) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1014

BAR ARRANGEMENT OF CROSSBEAM (AF1-PF2) (2)

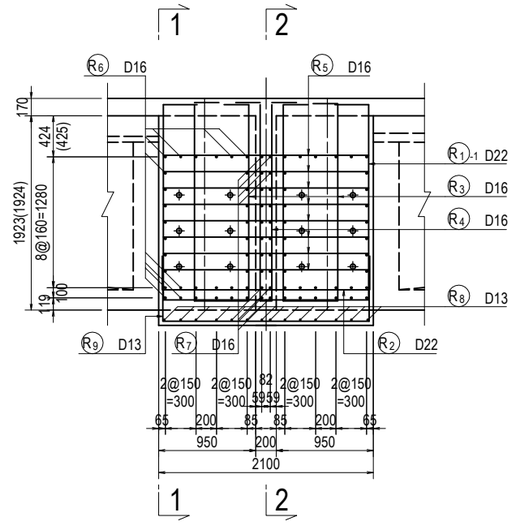
CROSS SECTION S=1:60

1-1 2-2



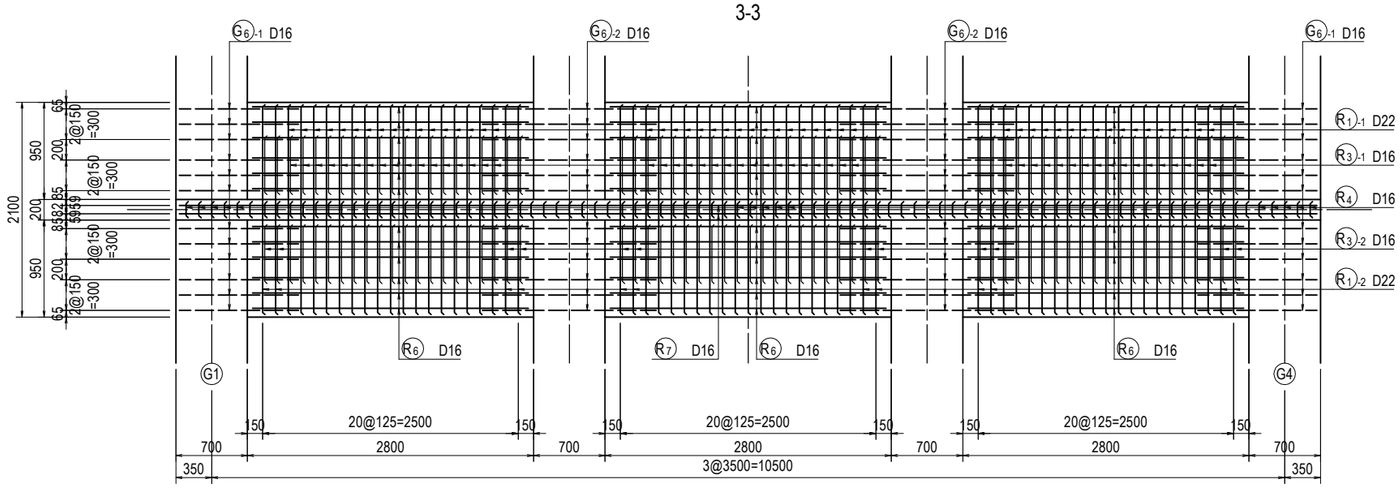
SIDE VIEW S=1:60

4-4



PLAN S=1:60

3-3

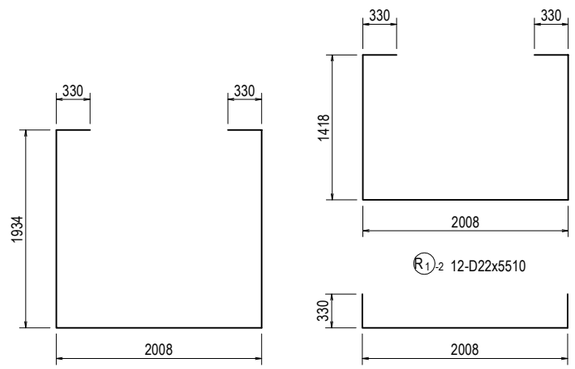


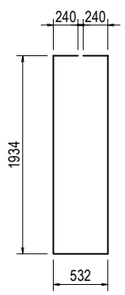
PC STRAND LIST

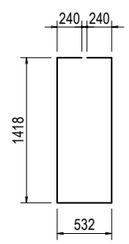
	TYPE	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
CONNECTING CROSSBEAM	SWPR7BL 4S15.2	11207	12	4.404	49.356	592.3	
				TOTAL LENGTH	ΣL=	134.484	m
				TOTAL WEIGHT	ΣW=	592.3	kg

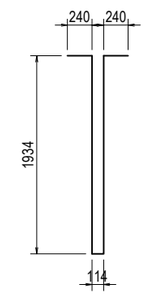
BAR LIST

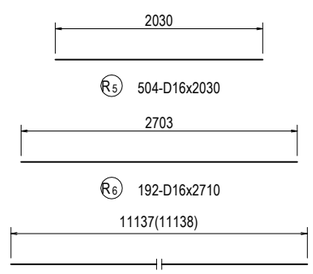
REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
R 1 -1	D22	6540	51	3.04	19.88	1014	
R 1 -2	D22	5510	12	3.04	16.75	201	
R 2	D22	2670	63	3.04	8.12	512	
R 3 -1	D16	4880	102	1.56	7.61	776	
R 3 -2	D16	3850	24	1.56	6.01	144	
R 4	D16	4470	89	1.56	6.97	620	
R 5	D16	2030	504	1.56	3.17	1598	
R 6	D16	2710	192	1.56	4.23	812	
R 7	D16	11140	20	1.56	17.38	348	
R 8	D13	2960	42	0.995	2.95	124	
R 9	D13	3080	24	0.995	3.06	73	
				D22	1727	kg	
				D16	4298	kg	
				D13	197	kg	
				TOTAL	6222	kg	

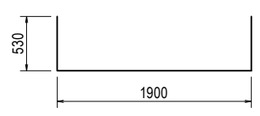


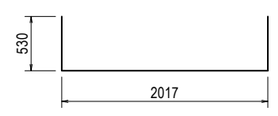












PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

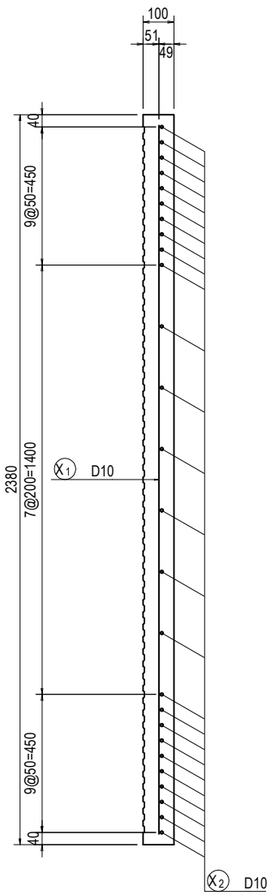
	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF CROSSBEAM (AF1-PF2) (2)	3
	DWG No.
	P3-FO-1015

DETAIL OF PC PLATE FOR DECK SLAB (AF1-PF2)

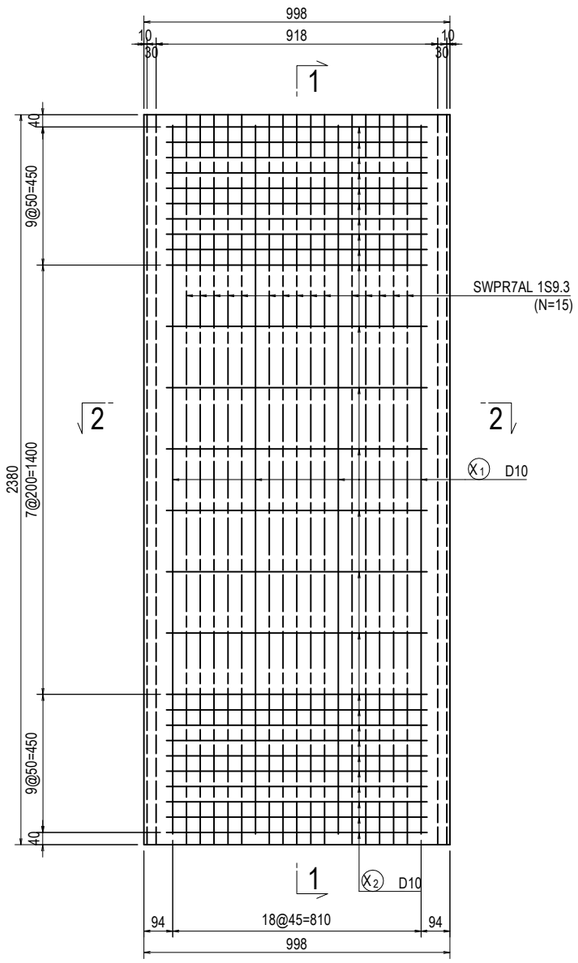
SIDE VIEW S=1:20

1-1

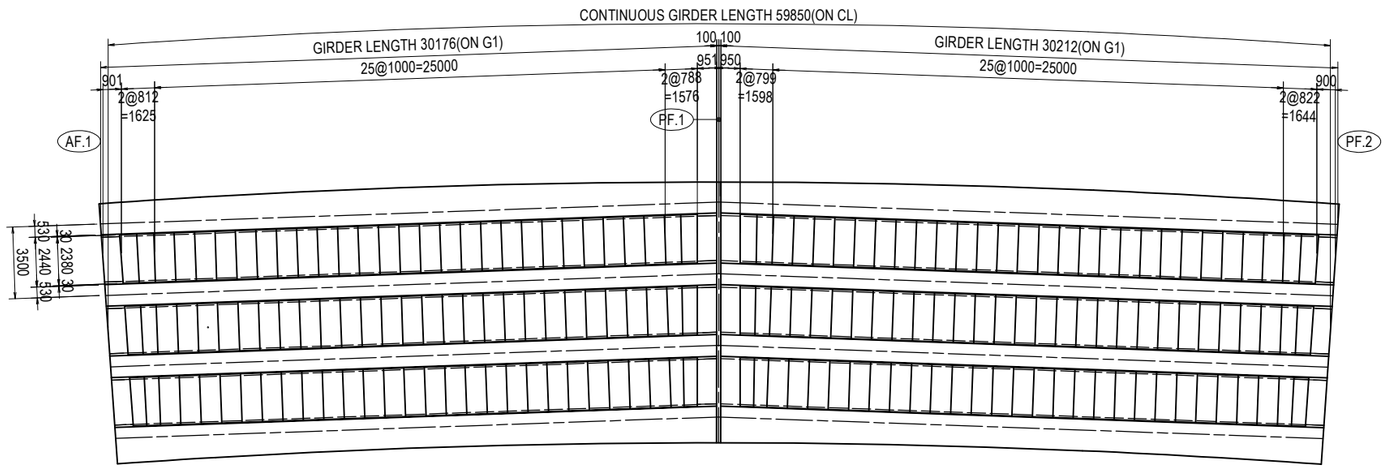


PLAN S=1:20

STANDARD

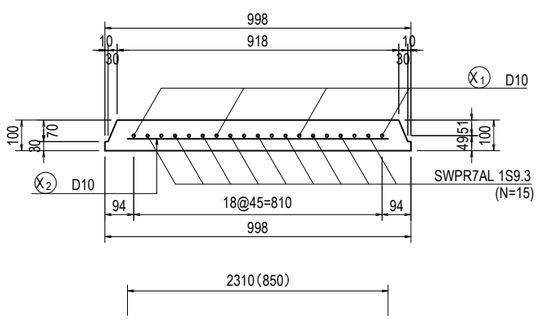


KEY PLAN S=1:300



CROSS SECTION S=1:20

2-2



X1 4-D10x2310

(X2 26-D10x850)

BAR LIST

REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
X 1	D10	2310	4	0.56	1.29	5.2	
X 2	D10	850	26	0.56	0.48	12.5	
						17.7 kg	
				TOTAL	17.7 kg	×174 = 3079.8 kg	

PC STRAND LIST

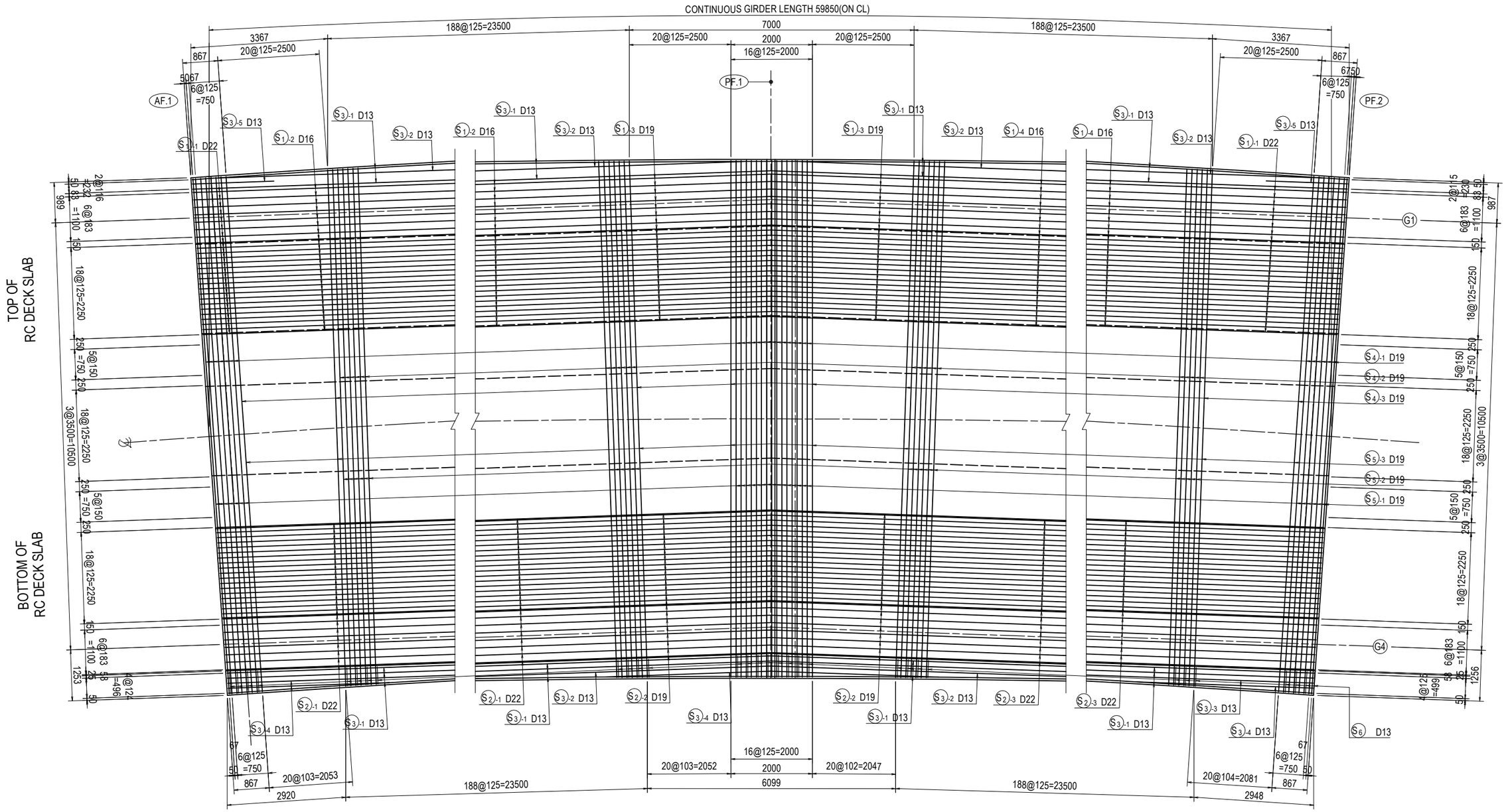
TYPE	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
SWPR7AL 1S9.3	2380	15	0.405	0.96	14.4	
			TOTAL	14.4 kg	×174= 2505.6 kg	

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF PC PLATE FOR DECK SLAB (AF1-PF2)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1016

BAR ARRANGEMENT OF DECK SLAB (AF1-PF2) (1)

PLAN S=1:100



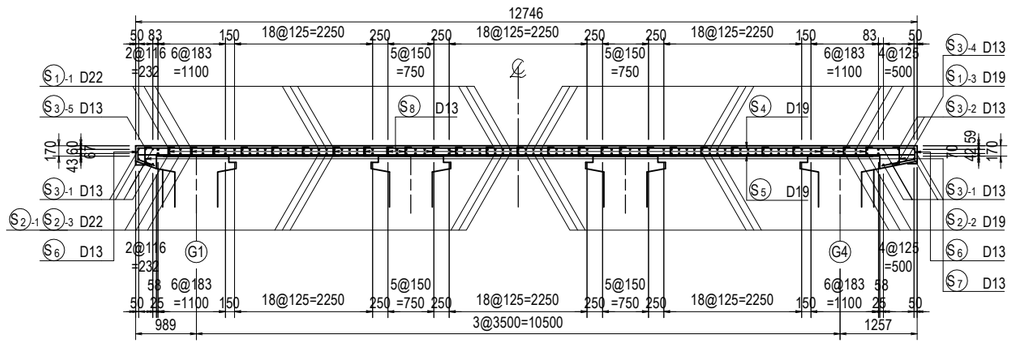
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	BAR ARRANGEMENT OF DECK SLAB (AF1-PF2) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1017

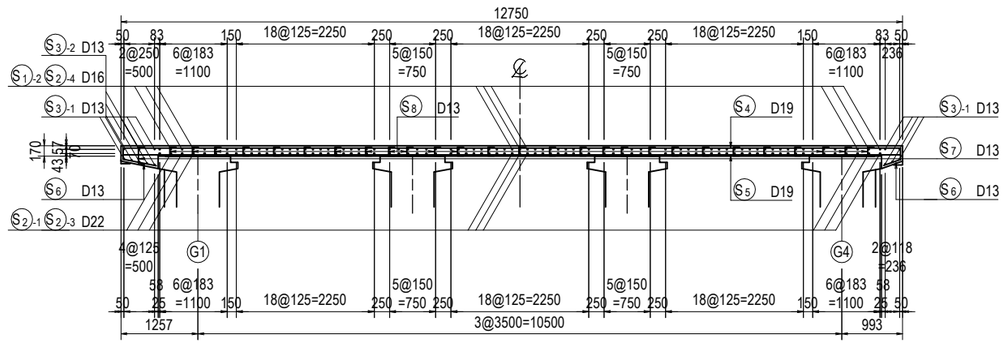
BAR ARRANGEMENT OF DECK SLAB (AF1-PF2) (2)

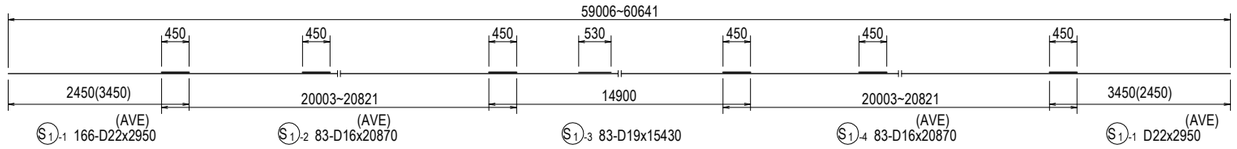
CROSS SECTION S=1:100

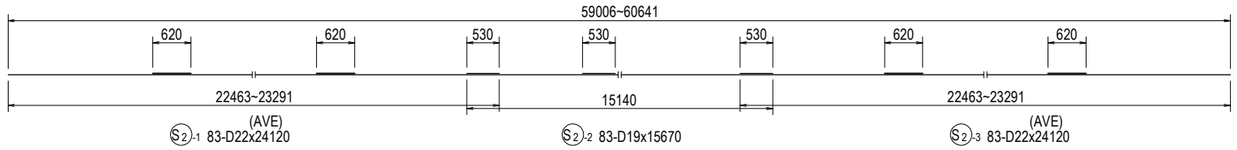
END SECTION　　CONNECTION SECTION

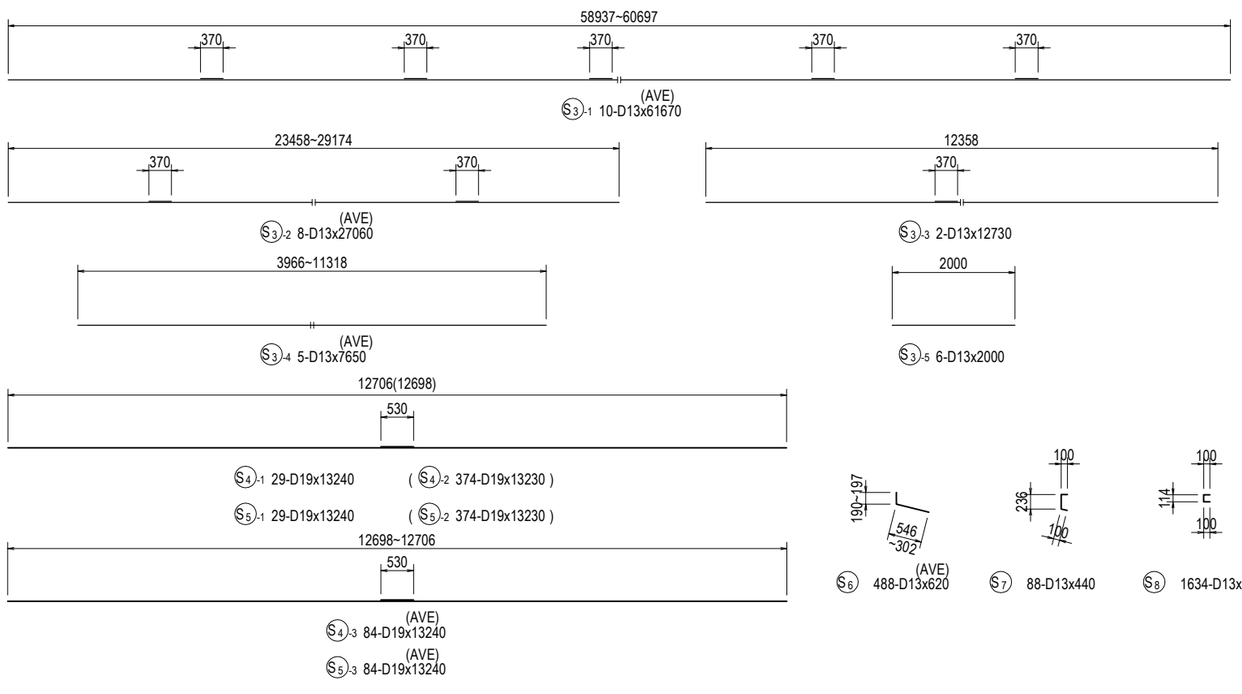


STANDARD SECTION









BAR LIST

REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
S 1 -1	D22	2950	166	3.04	8.97	1489	AVERAGE
S 1 -2	D16	20870	83	1.56	32.56	2702	AVERAGE
S 1 -3	D19	15430	83	2.25	34.72	2882	
S 1 -4	D16	20870	83	1.56	32.56	2702	AVERAGE
S 2 -1	D22	24120	83	3.04	73.32	6086	AVERAGE
S 2 -2	D19	15670	83	2.25	35.26	2927	
S 2 -3	D22	24120	83	3.04	73.32	6086	AVERAGE
S 3 -1	D13	61670	10	0.995	61.36	614	AVERAGE
S 3 -2	D13	27060	8	0.995	26.92	215	AVERAGE
S 3 -3	D13	12730	2	0.995	12.67	25	
S 3 -4	D13	7650	5	0.995	7.61	38	AVERAGE
S 3 -5	D13	2000	6	0.995	1.99	12	
S 4 -1	D19	13240	29	2.25	29.79	864	
S 4 -2	D19	13230	374	2.25	29.77	11134	
S 4 -3	D19	13240	84	2.25	29.79	2502	AVERAGE
S 5 -1	D19	13240	29	2.25	29.79	864	
S 5 -2	D19	13230	374	2.25	29.77	11134	
S 5 -3	D19	13240	84	2.25	29.79	2502	AVERAGE
S 6	D13	620	488	0.995	0.62	303	AVERAGE
S 7	D13	440	88	0.995	0.44	39	
S 8	D13	320	1634	0.995	0.32	523	

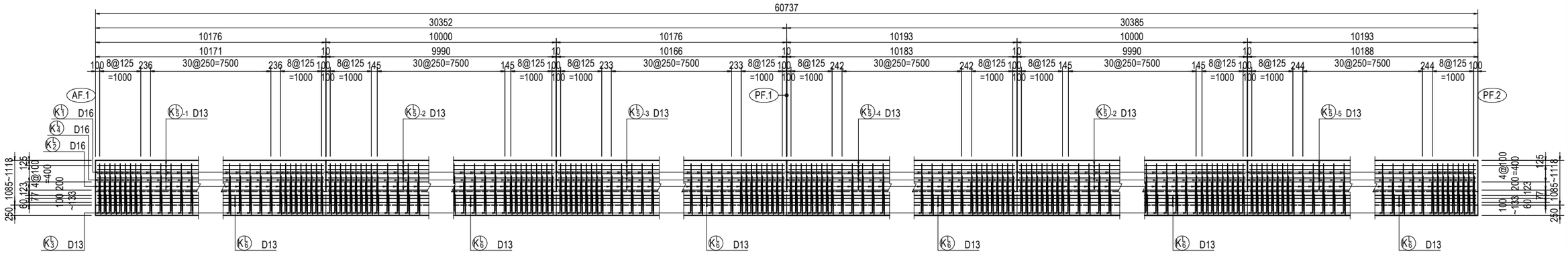
D22	13661	kg
D19	34809	kg
D16	5404	kg
D13	1769	kg
TOTAL	55643	kg

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	BAR ARRANGEMENT OF DECK SLAB (AF1-PF2) (2)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1018

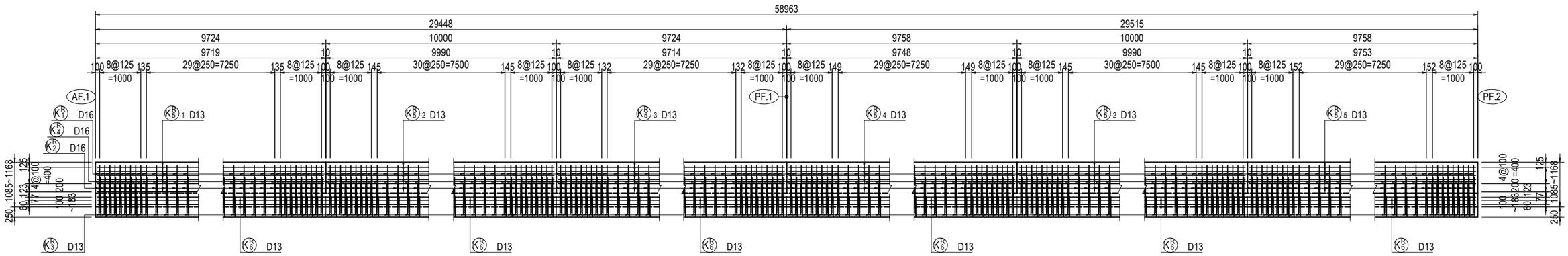
DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (AF1-PF2) (1)

SIDE VIEW S=1:100

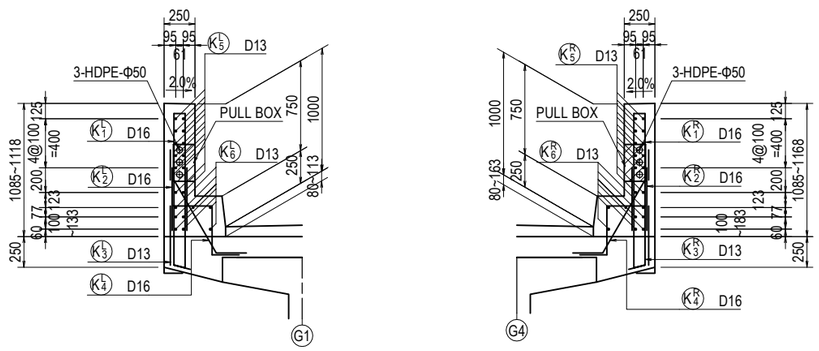
(L)



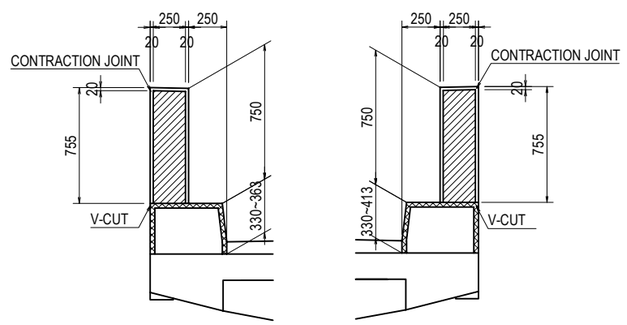
(R)



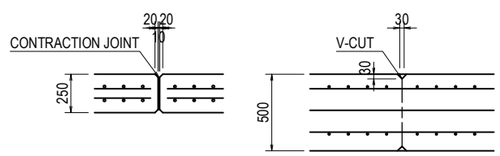
CROSS SECTION S=1:50



CROSS SECTION S=1:40



DETAIL OF CONSTRUCTION JOINT

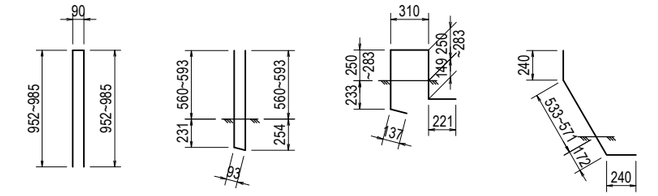


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (AF1-PF2) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1019

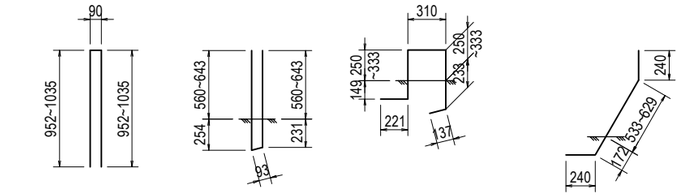
DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (AF1-PF2) (2)

(L)

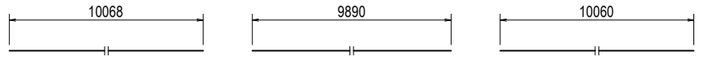


(AVE) K^{L}_{1} 294-D16x2030 (AVE) K^{L}_{2} 294-D16x1740 (AVE) K^{L}_{3} 294-D13x1590 (AVE) K^{L}_{4} 294-D16x1210

(R)



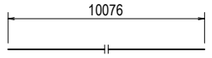
(AVE) K^{R}_{1} 290-D16x2080 (AVE) K^{R}_{2} 290-D16x1790 (AVE) K^{R}_{3} 290-D13x1640 (AVE) K^{R}_{4} 290-D16x1240



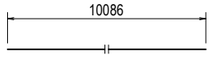
(AVE) K^{L}_{5}-1 12-D13x10070

(AVE) K^{L}_{5}-2 24-D13x9890

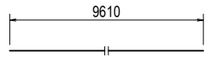
(AVE) K^{L}_{5}-3 12-D13x10060



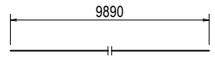
(AVE) K^{L}_{5}-4 12-D13x10080



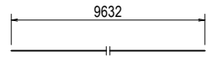
(AVE) K^{L}_{5}-5 12-D13x10090



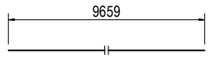
(AVE) K^{R}_{5}-1 12-D13x9610



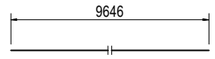
(AVE) K^{R}_{5}-2 24-D13x9890



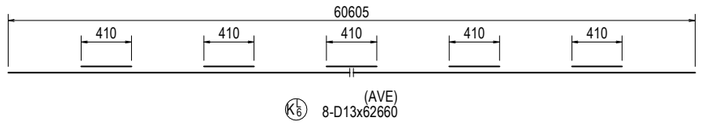
(AVE) K^{R}_{5}-3 12-D13x9640



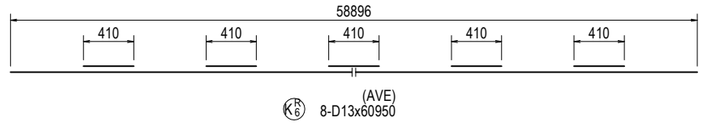
(AVE) K^{R}_{5}-4 12-D13x9660



(AVE) K^{R}_{5}-5 12-D13x9650



(AVE) K^{L}_{6} 8-D13x62660

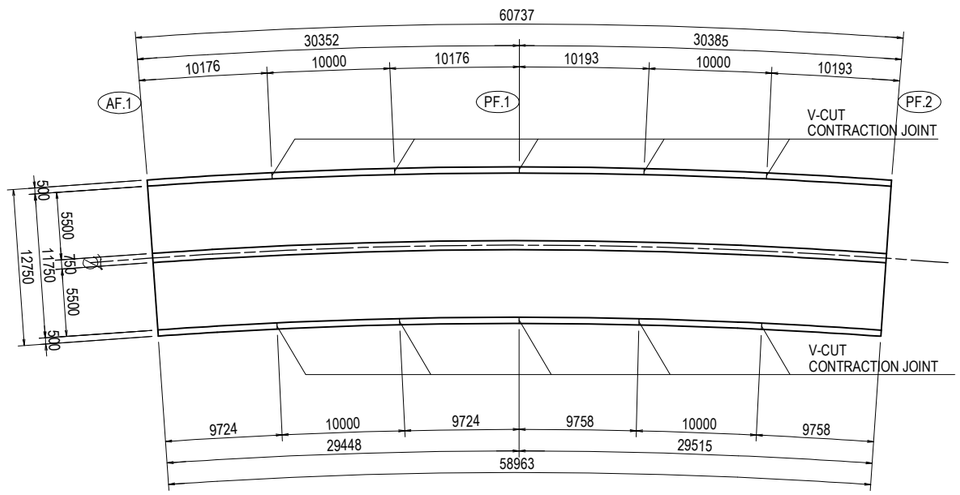


(AVE) K^{R}_{6} 8-D13x60950

BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
K^{L}_{1}	D16	2030	294	1.56	3.17	932	AVERAGE
K^{L}_{2}	D16	1740	294	1.56	2.71	797	AVERAGE
K^{L}_{3}	D13	1590	294	0.995	1.58	465	AVERAGE
K^{L}_{4}	D16	1210	294	1.56	1.89	556	AVERAGE
K^{L}_{5}-1	D13	10070	12	0.995	10.02	120	AVERAGE
K^{L}_{5}-2	D13	9890	24	0.995	9.84	236	AVERAGE
K^{L}_{5}-3	D13	10060	12	0.995	10.01	120	AVERAGE
K^{L}_{5}-4	D13	10080	12	0.995	10.03	120	AVERAGE
K^{L}_{5}-5	D13	10090	12	0.995	10.04	120	AVERAGE
K^{L}_{6}	D13	62660	8	0.995	62.35	499	AVERAGE
K^{R}_{1}	D16	2080	290	1.56	3.24	940	AVERAGE
K^{R}_{2}	D16	1790	290	1.56	2.79	809	AVERAGE
K^{R}_{3}	D13	1640	290	0.995	1.63	473	AVERAGE
K^{R}_{4}	D16	1240	290	1.56	1.93	560	AVERAGE
K^{R}_{5}-1	D13	9610	12	0.995	9.56	115	AVERAGE
K^{R}_{5}-2	D13	9890	24	0.995	9.84	236	AVERAGE
K^{R}_{5}-3	D13	9640	12	0.995	9.59	115	AVERAGE
K^{R}_{5}-4	D13	9660	12	0.995	9.61	115	AVERAGE
K^{R}_{5}-5	D13	9650	12	0.995	9.60	115	AVERAGE
K^{R}_{6}	D13	60950	8	0.995	60.65	485	
					D16	4594 kg	
					D13	3334 kg	
					TOTAL	7928 kg	

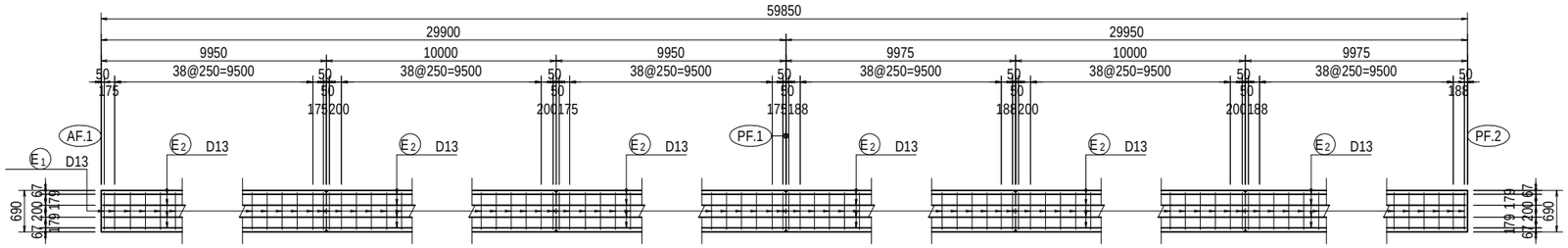
KEY PLAN S=1:500



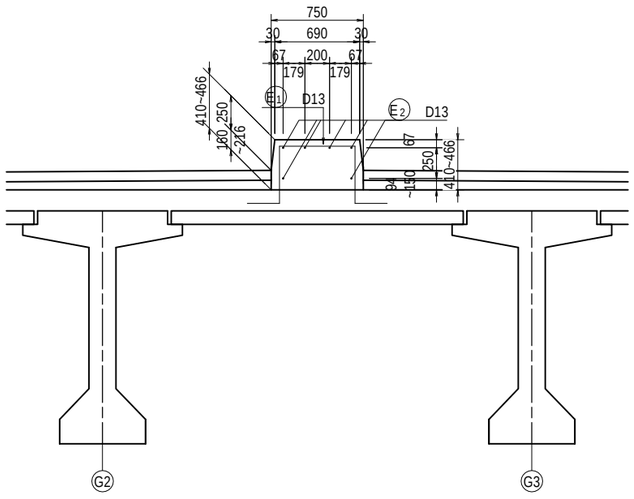
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (AF1-PF2) (2)	3
				CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
				APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1020

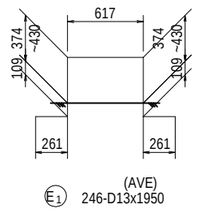
DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (AF1-PF2) (3)

PLAN S=1:100



CROSS SECTION S=1:50

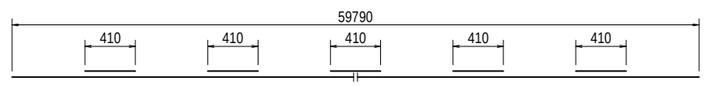




(AVE)
E1 246-D13x1950

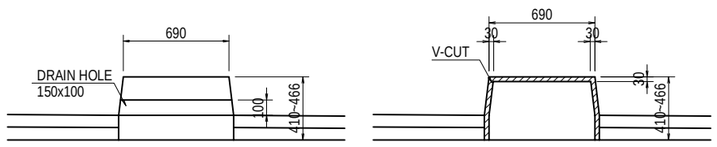
BAR LIST

REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
E 1	D13	1950	246	0.995	1.94	477	AVERAGE
E 2	D13	61840	6	0.995	61.53	369	AVERAGE
						939 kg	
					TOTAL	939 kg	

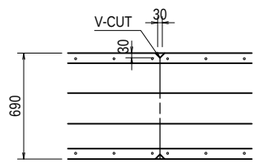


(AVE)
E2 6-D13x61840

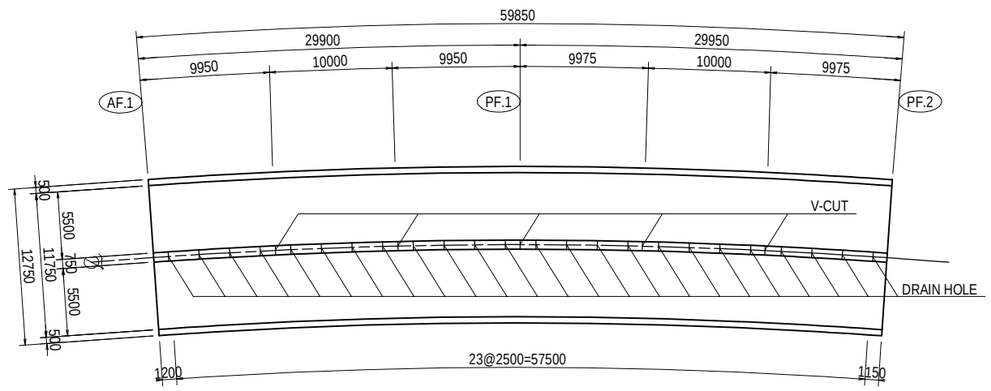
CROSS SECTION S=1:40



DETAIL OF V-CUT



KEY PLAN S=1:500

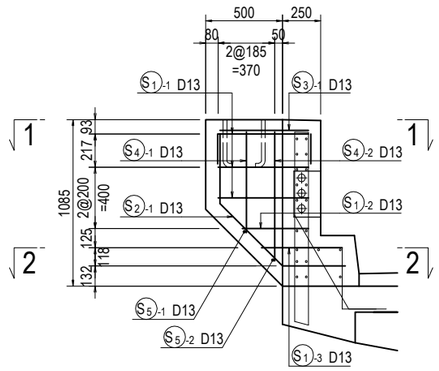


PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (AF1-PF2) (3)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1021

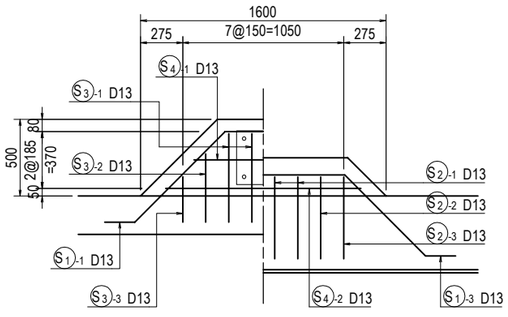
DETAIL OF LIGHTING FOUNDATION (AF1-PF2)

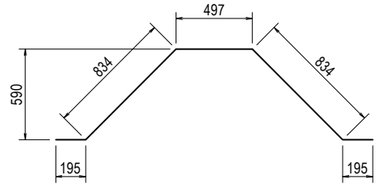
CROSS SECTION S=1:40



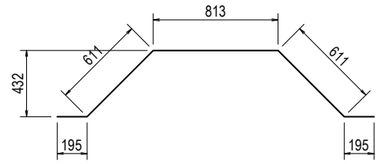
PLAN S=1:40

1-1 2-2

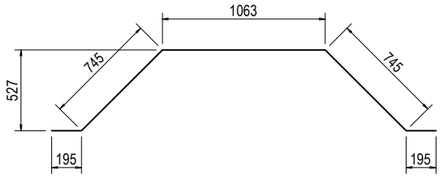




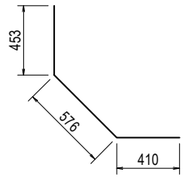
S1-1 3-D13x2560



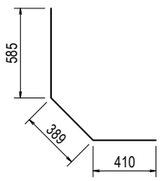
S1-2 1-D13x2430



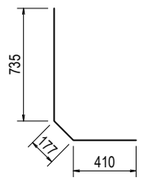
S1-3 1-D13x2950



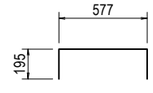
S2-1 4-D13x1440



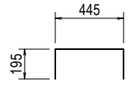
S2-2 2-D13x1390



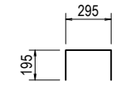
S2-3 2-D13x1330



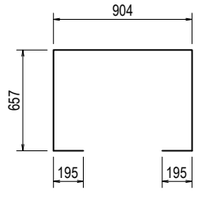
S3-1 4-D13x970



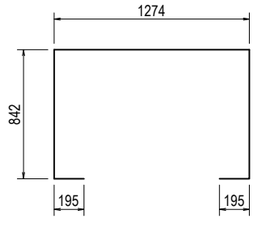
S3-2 2-D13x840



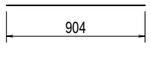
S3-3 2-D13x690



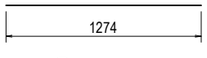
S4-1 1-D13x2610



S4-2 1-D13x3350



S5-1 1-D13x910



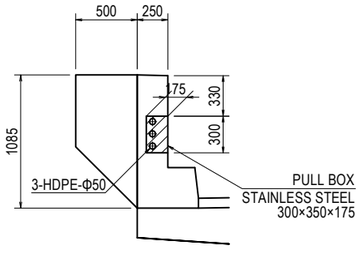
S5-2 1-D13x1280

BAR LIST

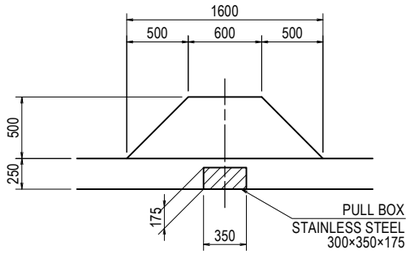
REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
S 1 -1	D13	2560	3	0.995	2.55	8	
S 1 -2	D13	2430	1	0.995	2.42	2	
S 1 -3	D13	2950	1	0.995	2.94	3	
S 2 -1	D13	1440	4	0.995	1.43	6	
S 2 -2	D13	1390	2	0.995	1.38	3	
S 2 -3	D13	1330	2	0.995	1.32	3	
S 3 -1	D13	970	4	0.995	0.97	4	
S 3 -2	D13	840	2	0.995	0.84	2	
S 3 -3	D13	690	2	0.995	0.69	1	
S 4 -1	D13	2610	1	0.995	2.60	3	
S 4 -2	D13	3350	1	0.995	3.33	3	
S 5 -1	D13	910	1	0.995	0.91	1	
S 5 -2	D13	1280	1	0.995	1.27	1	
						40 kg	
					TOTAL	40 kg	

PULLBOX DETAIL S=1:50

CROSS SECTION



PLAN



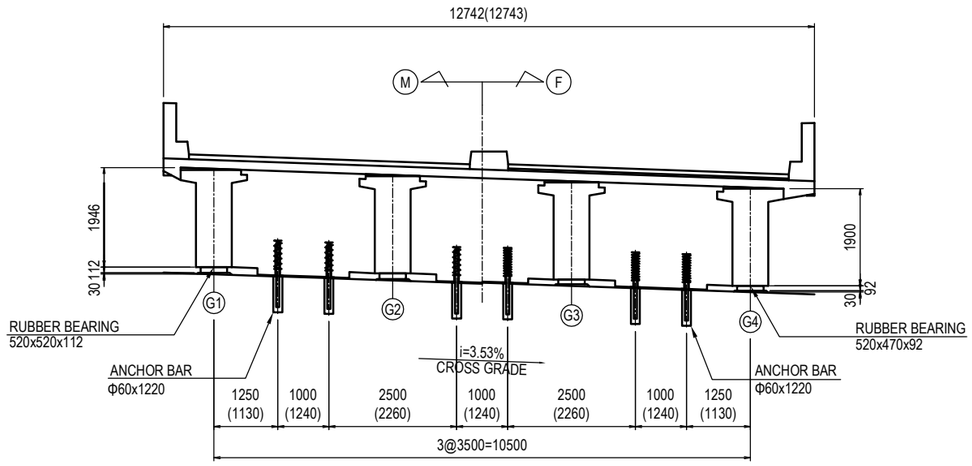
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF LIGHTING FOUNDATION (AF1-PF2)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1022

DETAIL OF RUBBER BEARING (AF1-PF2) (1)

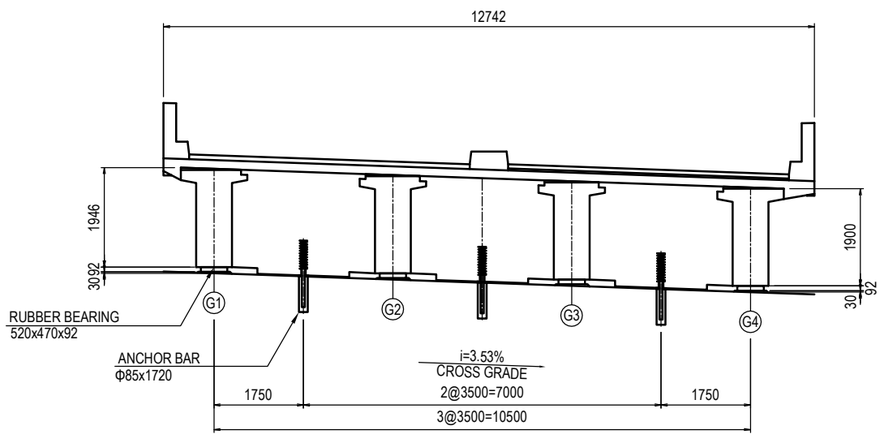
CROSS SECTION S= 1:60

AF1,PF2



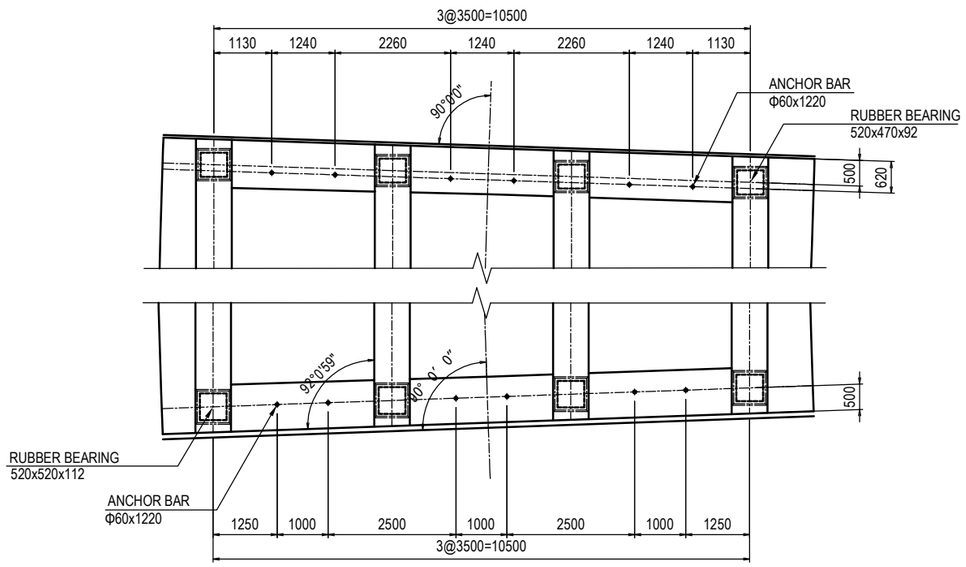
( )indicates PF2

PF1L,PF1R



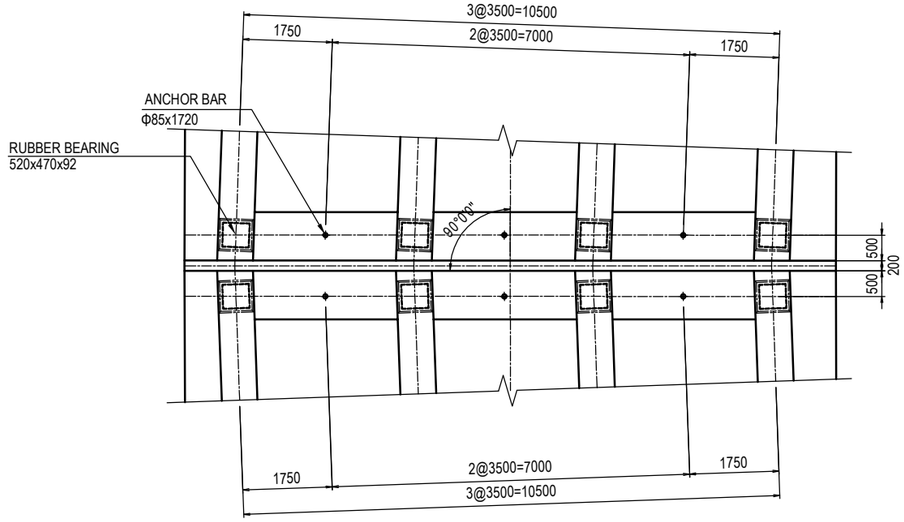
PLAN S= 1:60

PF2



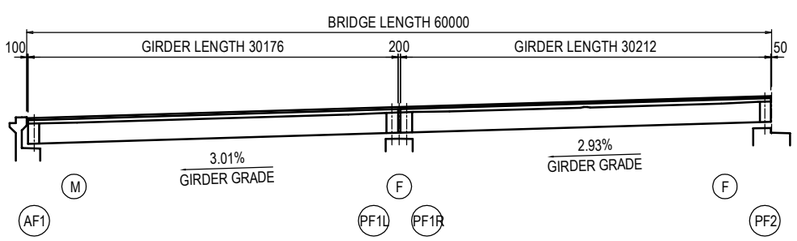
AF1

PF1R



PF1L

ELEVATION S= 1:250



DESIGN CONDITION

REACTION			AF1 (M)	PF1L (F)	PF1R (F)	PF2 (F)
MAXIMUM REACTION		Rmax	1319 kN	1395 kN	1409 kN	1328 kN
MAXIMUM REACTION		Rmax2	1213 kN	1290 kN	1334 kN	1219 kN
DEAD LOAD REACTION		Rd	991 kN	922 kN	944 kN	999 kN
MAXIMUM STRAIN FORCE	LONGITUDIAL	Rhe1	428 kN	464 kN	464 kN	500 kN
	TRANSVERSE	Rhe2	310 kN	242 kN	242 kN	310 kN
STRAIN VOLUME	ORDINARY LONGITUDIAL	ΔL	25.7 mm	– mm	– mm	– mm
	LEVEL1 LONGITUDIAL	ΔLe1	76.1 mm	– mm	– mm	– mm
	LEVEL1 TRANSVERSE	ΔLe2	– mm	– mm	– mm	– mm

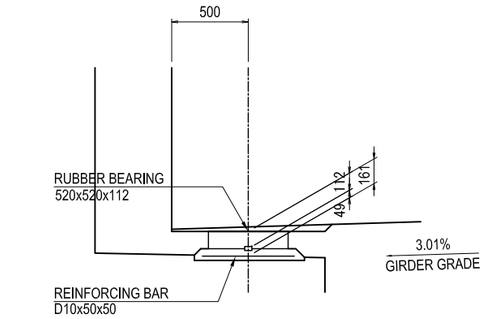
NOTES:
1) Details of the slab and girder are designed based on the product (rubber bearing) shown in this Drawing.
2) The Contractor has option to propose an alternative equivalent to the specified product, which shall be subjected to the Engineer's approval.
3) All the structural steels shall be galvanized to the requirements specified by JIS H8641.

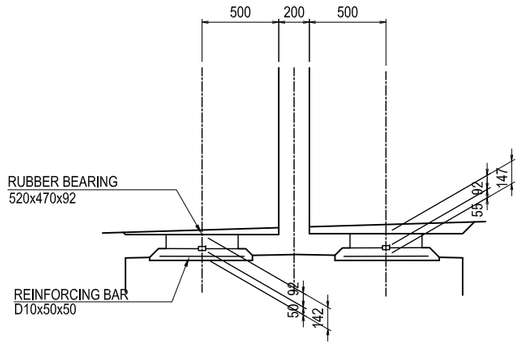
PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

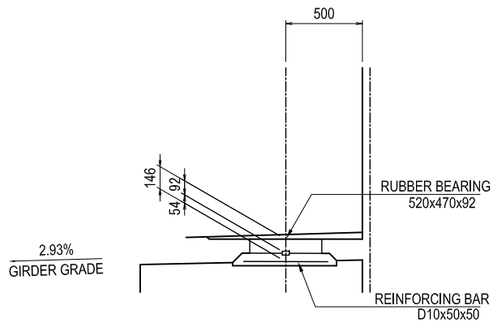
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF RUBBER BEARING (AF1-PF2) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1023

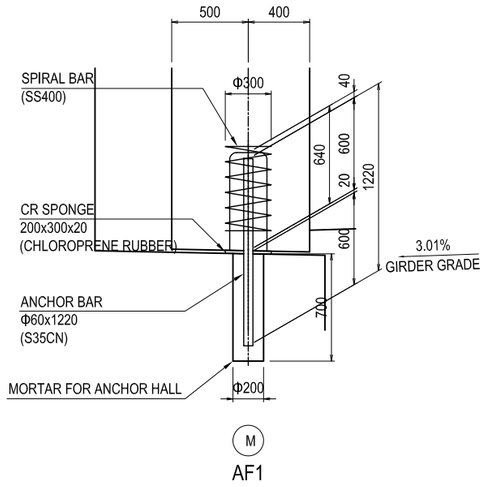
DETAIL OF RUBBER BEARING (AF1-PF2) (2)

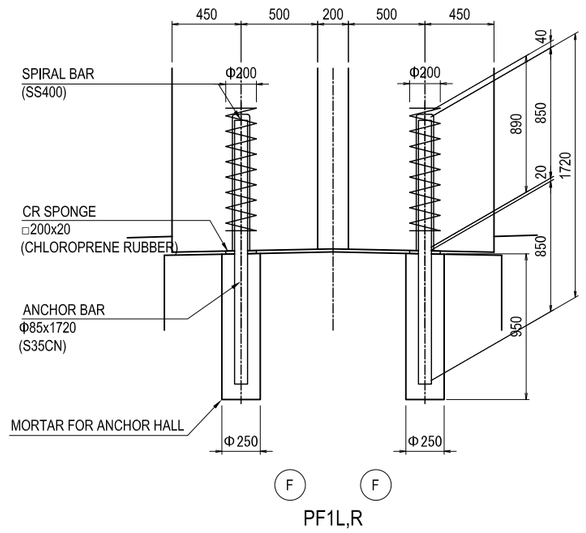
SIDE VIEW S= 1:20

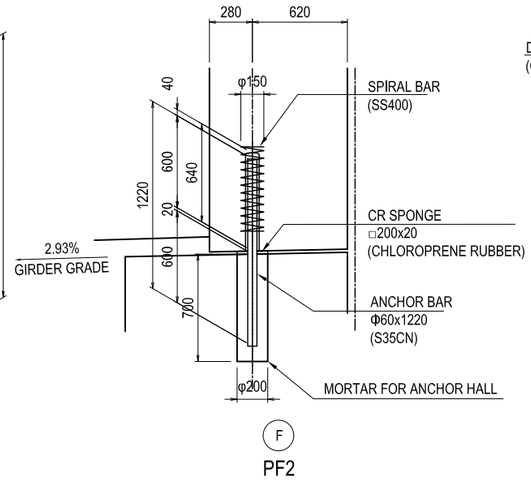




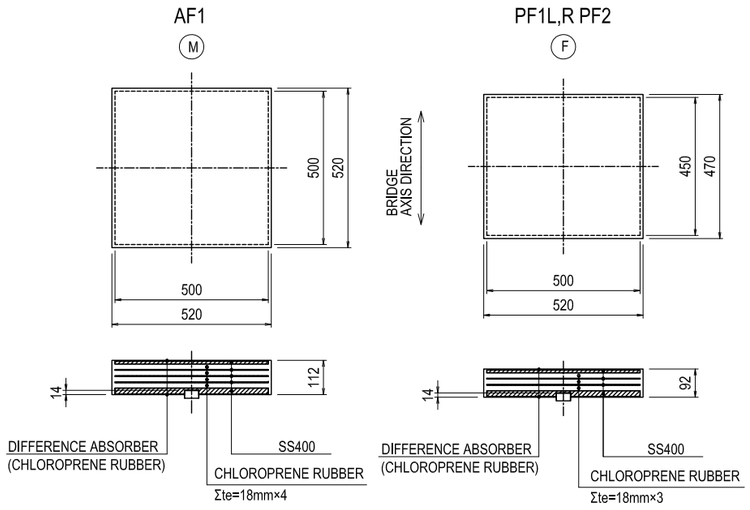




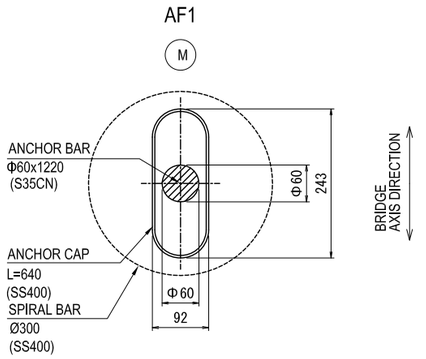




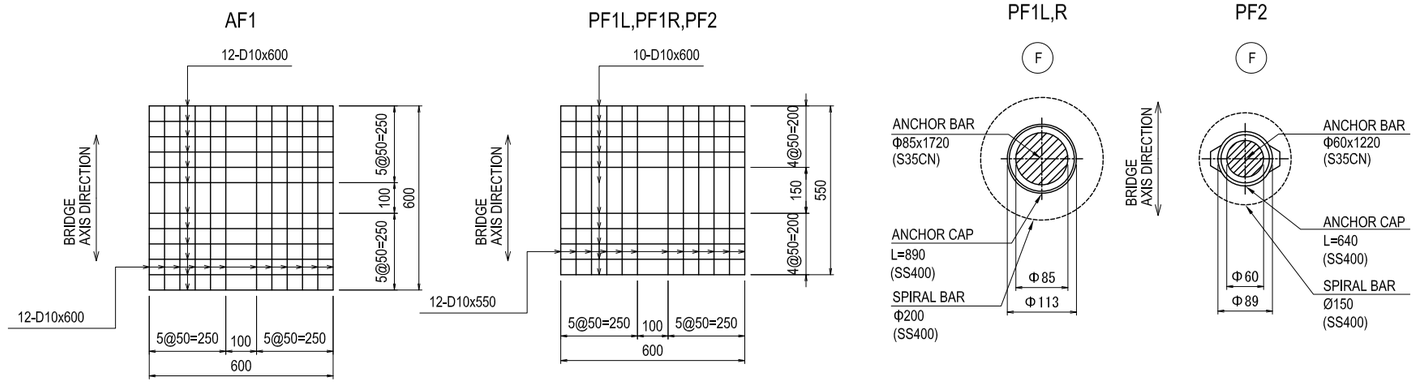
RUBBER BEARING S= 1:10



ANCHOR SYSTEM S= 1:5



REINFORCING BAR S= 1:10



PARTS LIST

ITEM	DIMENSION	MATERIAL	UNIT	QUANTITY					WEIGHT (kg)	REMARKS
				AF1(M)	PF1L(F)	PF1R(F)	PF2(F)	TOTAL		
RUBBER BEARING	520x520x112	AS SHOWN	SHEET	4				4		
〃	520x470x92	〃	〃		4	4	4	12		
ANCHOR SYSTEM	Φ60x1220	S35CN	SET	6				12		
〃	Φ85x1720	〃	〃		3	3		6		
〃	Φ60x1220	〃	〃				6	6		
CR SPONGE	200x300x20	CHLOROPRENE RUBBER	SHEET	6				6		
〃	□200x20	〃	〃		3	3	6	12		
REINFORCING BAR	D10x50x50	SD345	kg	32.26	28.22	28.22	28.22		116.92	
BED MORTAR FOR BEARING		NON SHRINKAGE MORTAR	m3	0.129	0.122	0.133	0.131	0.515		
MORTAR FOR ANCHOR HALLS		NON SHRINKAGE MORTAR	m3	0.122	0.125	0.125	0.122	0.494		

※An Anchor System includes anchor bar,anchor cap and spiral bar.

NOTES:
1) Details of the slab and girder are designed based on the product (rubber bearing) shown in this Drawing.
2) The Contractor has option to propose an alternative equivalent to the specified product, which shall be subjected to the Engineer's approval.
3) All the structural steels shall be galvanized to the requirements specified by JIS H8641.

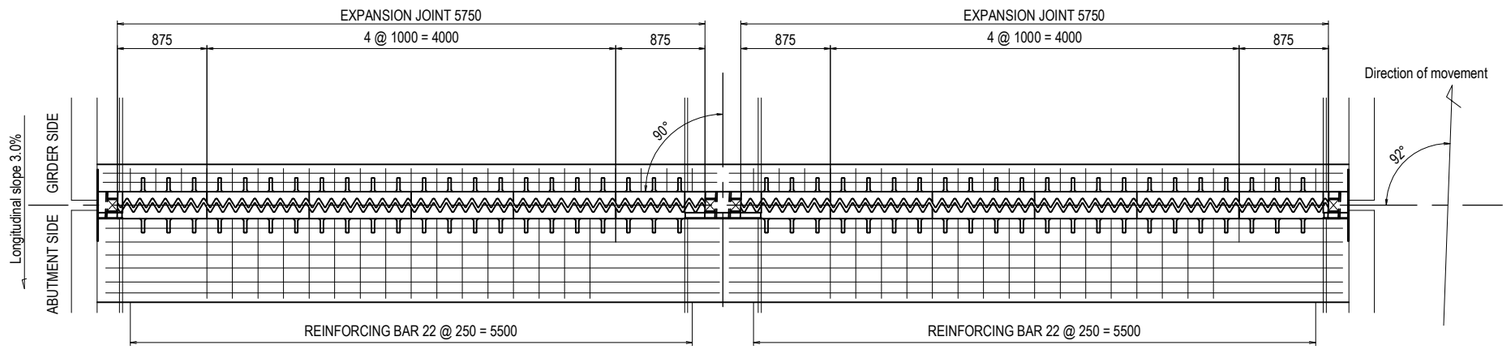
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF RUBBER BEARING (AF1-PF2) (2)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1024

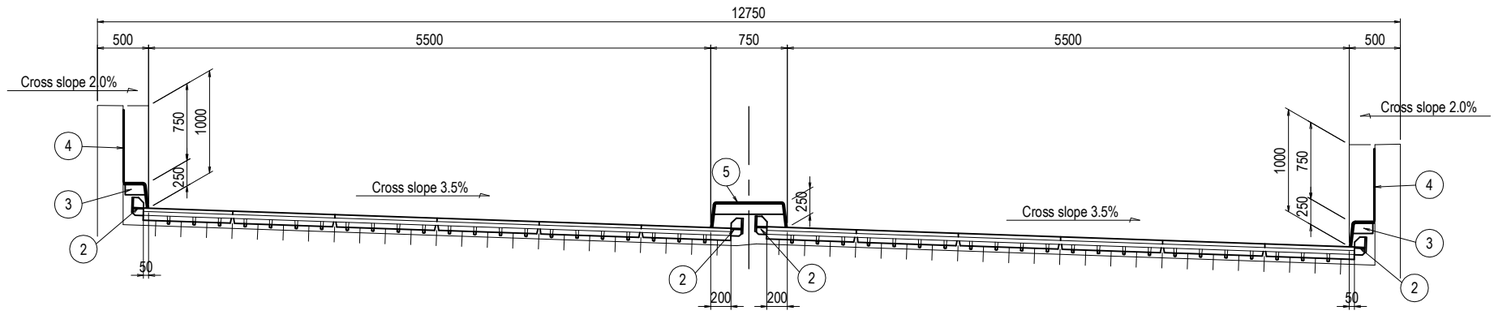
DETAIL OF EXPANSION JOINT (AF1-PF2) (1)

AF1

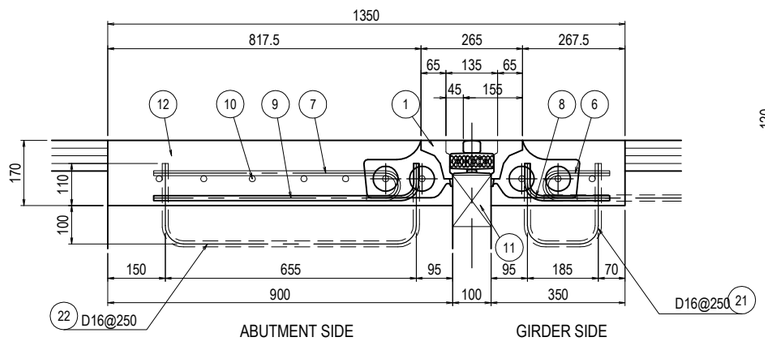
PLAN VIEW S=1:30



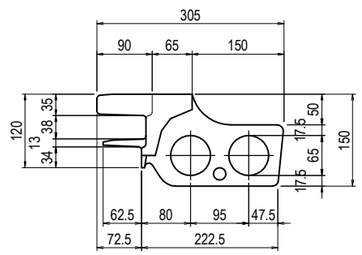
CROSS SECTION S=1:30



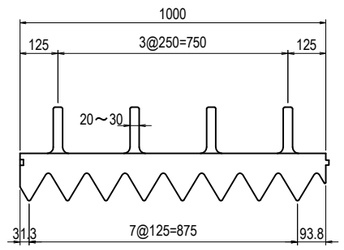
SECTION OF EXPANSION JOINT S=1:8



HARDWARE SECTION S=1:5

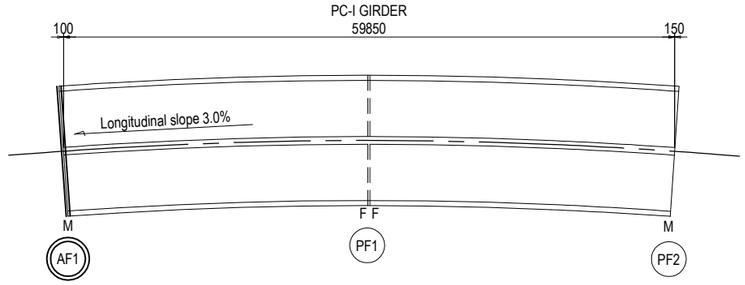


HARDWARE PLAN S=1:10

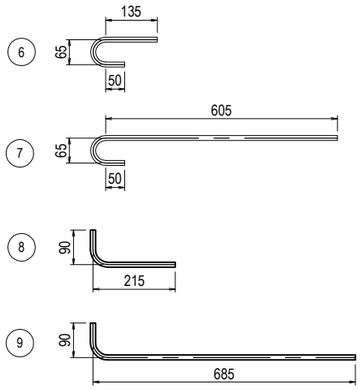


PLAN VIEW

PC-I GIRDER



DETAIL OF REINFORCING BAR S=1:8



MATERIALS LIST (1 par place)

No.	DESCRIPTION	MATERIALS	UNIT	QUANTITY	REMARK
1	EXPANSION JOINT	**ALUMINUM ALLOY CASTING**	m	11.500	80mm
2	UPSTAND		pieces	4	
3	COVER FOR CURB	SS400 or Equivalent	set	2	
4	COVER FOR BARRIER CURB	SUS304	set	2	t=2(include anchor)
5	**COVER FOR MEDIAL DIVIDER**	SS400 or Equivalent	set	1	
6	REINFORCING BAR	SD345	kg	13.27	D13 × 290 × 46 Nos.
7	REINFORCING BAR	SD345	kg	34.79	D13 × 760 × 46 Nos.
8	REINFORCING BAR	SD345	kg	13.96	D13 × 305 × 46 Nos.
9	REINFORCING BAR	SD345	kg	35.47	D13 × 775 × 46 Nos.
10	REINFORCING BAR	SD345	kg	187.20	D16 ×6.0m × 20 Nos.
11	BURIED FORMWORK	Foamed Stylene	m^3	0.19	100 × 150 × 12.7m
12	POST-CAST CONCRETE	High strength concrete	m^3	2.50	σ_{ck} =30N/mm^2

EMBEDDED BAR

21	EMBEDDED BAR	SD345	kg	43.41	D16 × 605 × 46 Nos.
22	EMBEDDED BAR	SD345	kg	77.14	D16 ×1075 × 46 Nos.

DESIGN CONDITION	
Temperature range	+5 ～+45℃
Amount of temperature variation	12mm
Earthquake movement amount	±24mm

Note
1 Re-bar should be consider the developed length.
2 Allocation of the expansion joint is subject to change
3 Expansion joint should be placing to match the transverse gradient.
4 Expansion joint should be installed in consideration of the effect of Creep and Shrinkage.

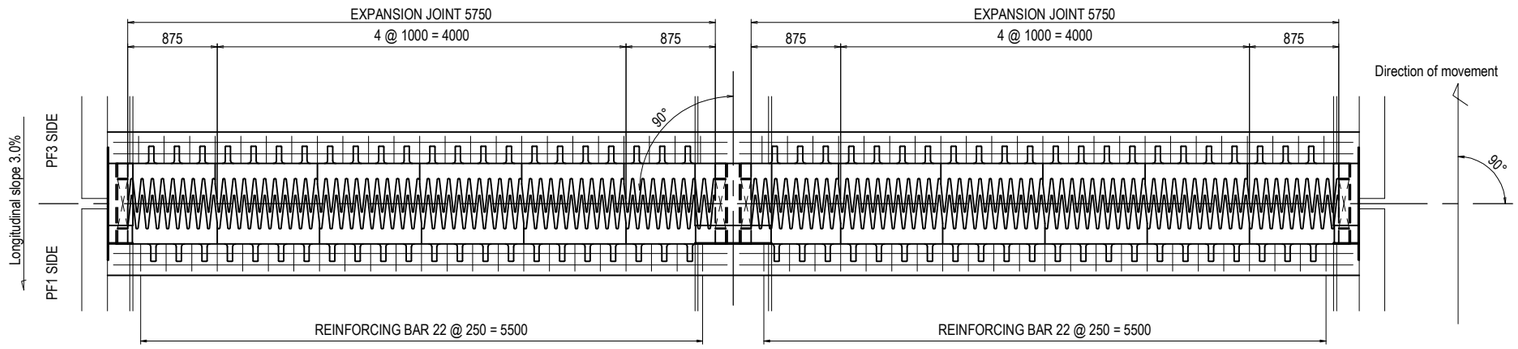
NOTES:
1) Details of the slab and girder are designed based on the product (expansion joint) shown in this Drawing.
2) The Contractor has option to propose an alternative equivalent to the specified product, which shall be subjected to the Engineer's approval.
3) The expansion joint shall be set in consideration of thermal expansion, creep and shrinkage of concrete girder.

PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT				
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY				
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE				
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.				
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF EXPANSION JOINT (AF1-PF2) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1025

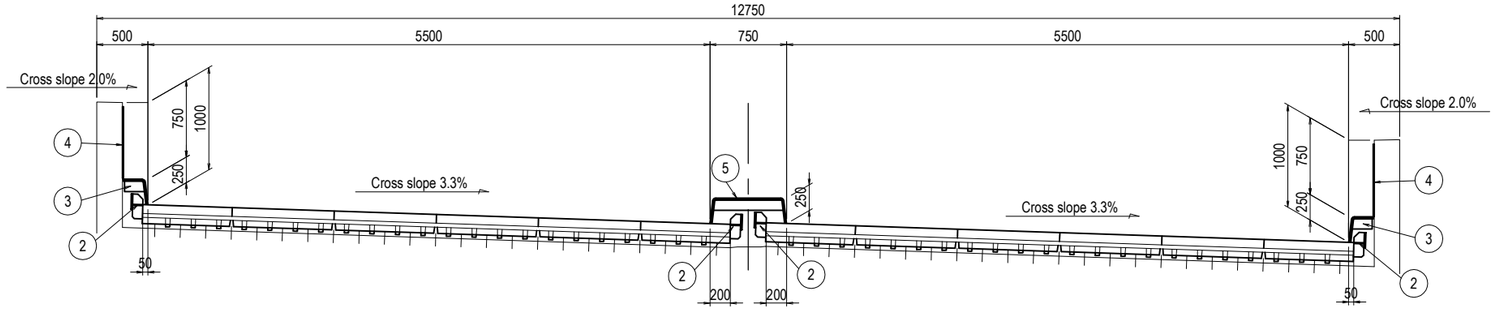
DETAIL OF EXPANSION JOINT (AF1-PF2) (2)

PF2

PLAN VIEW S=1:30



CROSS SECTION S=1:30

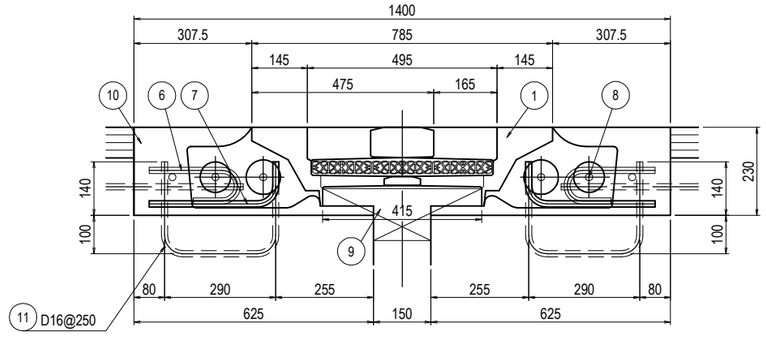


MATERIALS LIST					(1 par place)
No.	DESCRIPTION	MATERIALS	UNIT	QUANTITY	REMARK
1	EXPANSION JOINT	**ALUMINUM ALLOY CASTING**	m	11.500	320mm
2	UPSTAND		pieces	4	
3	COVER FOR CURB	SS400 or Equivalent	set	2	
4	COVER FOR BARRIER CURB	SUS304	set	2	t=2(include anchor)
5	**COVER FOR MEDIAL DIVIDER**	SS400 or Equivalent	set	1	
6	REINFORCING BAR	SD345	kg	55.97	D16 × 390 × 92 Nos.
7	REINFORCING BAR	SD345	kg	63.15	D16 × 440 × 92 Nos.
8	REINFORCING BAR	SD345	kg	162.00	D19 ×6.0m × 12 Nos.
9	BURIED FORMWORK	Foamed Stylene	m^3	0.76	400 × 150 × 12.7m
10	POST-CAST CONCRETE	High strength concrete	m^3	2.66	σ_{ck} =30N/mm^2
EMBEDDED BAR					
11	EMBEDDED BAR	SD345	kg	110.51	D16 × 770 × 92 Nos.

DESIGN CONDITION	
Temperature range	0 ～+50℃
Amount of temperature variation	54mm
Earthquake movement amount	±130mm

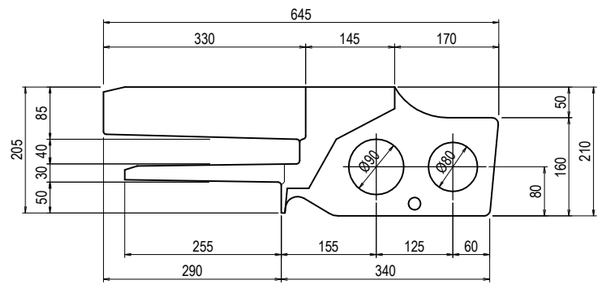
Note
1 Re-bar should be consider the developed length.
2 Allocation of the expansion joint is subject to change
3 Expansion joint should be placing to match the transverse gradient.
4 Expansion joint should be installed in consideration of the effect of Creep and Shrinkage.

SECTION OF EXPANSION JOINT S=1:8

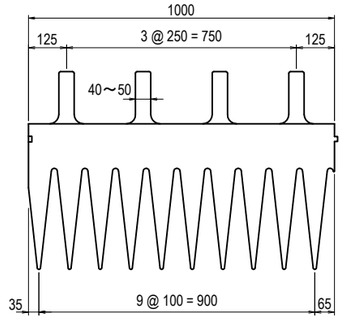


PF1 SIDE PF3 SIDE

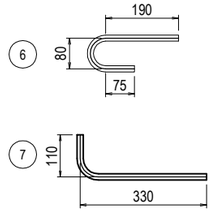
HARDWARE SECTION S=1:5



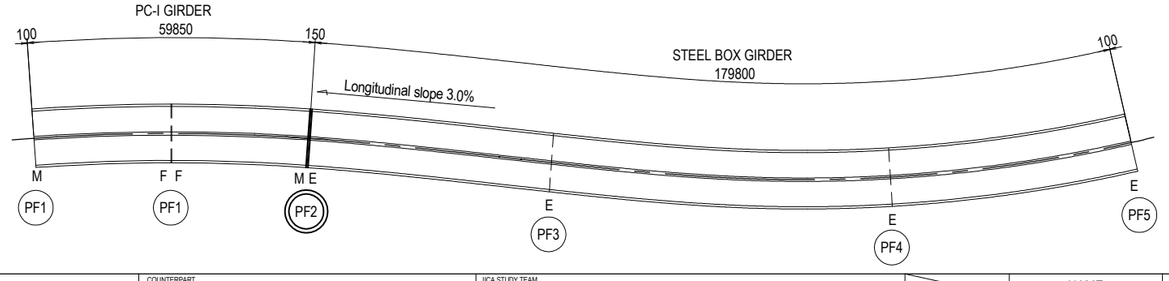
HARDWARE PLAN S=1:10



DETAIL OF REINFORCING BAR S=1:8



PLAN VIEW



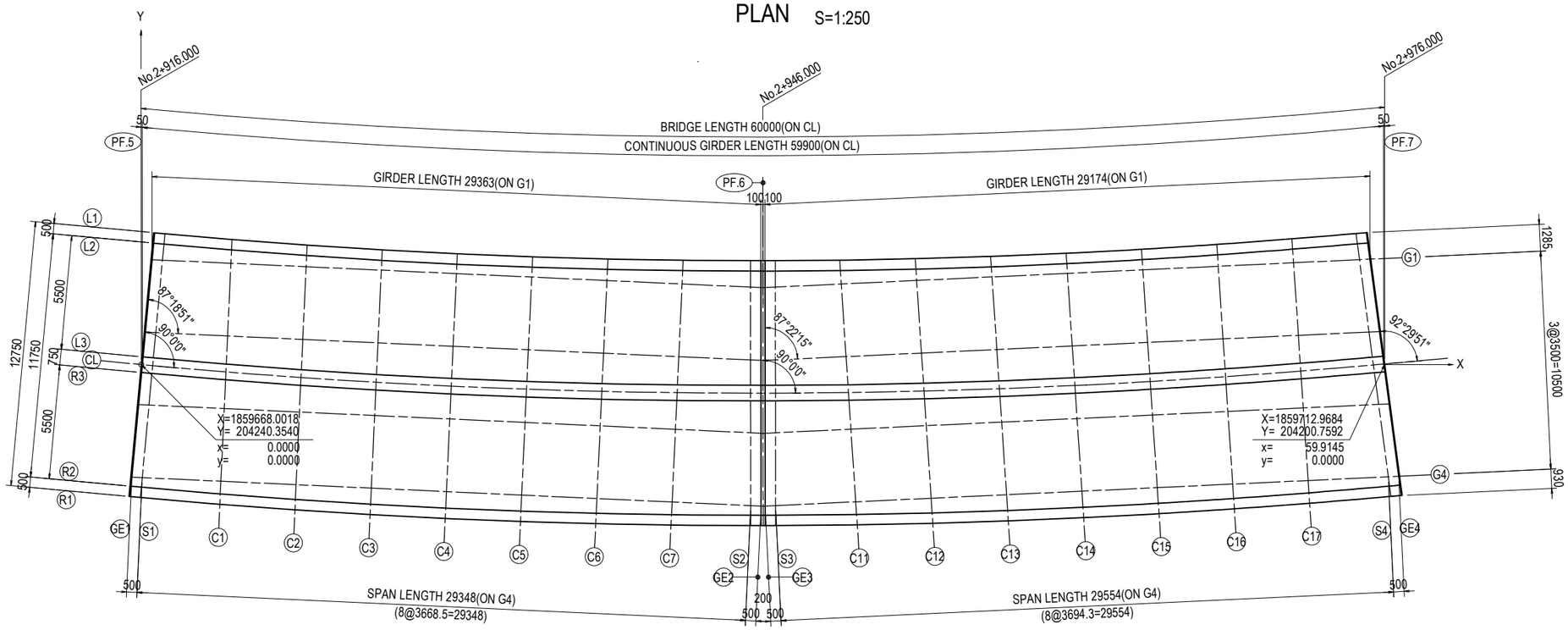
NOTES:
1) Details of the slab and girder are designed based on the product (expansion joint) shown in this Drawing.
2) The Contractor has option to propose an alternative equivalent to the specified product, which shall be subjected to the Engineer's approval.
3) The expansion joint shall be set in consideration of thermal expansion, creep and shrinkage of concrete girder.

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF EXPANSION JOINT (AF1-PF2) (2)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1026

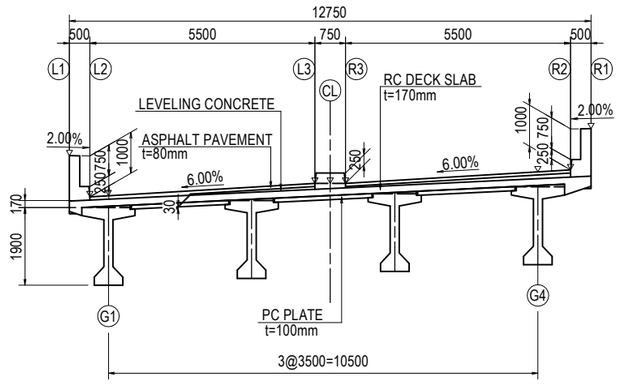
SUPERSTRUCTURE COORDINATES (PF5-PF7) (1)

PLAN S=1:250

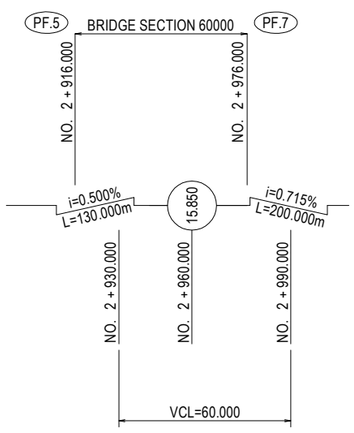


How to set the small coordinates
X coordinate : Starting point is intersection of PF5 and CL
Ending point is intersection of PF7 and CL
Y coordinate : Perpendicular to X line

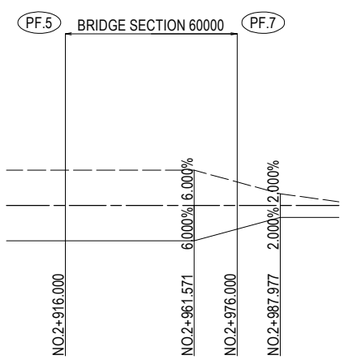
TYPICAL CROSS SECTION S=1:150



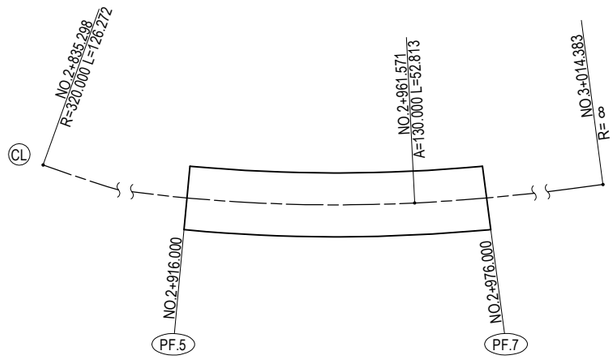
GRADE FOR LONGITUDINAL



SUPER ELEVATION



CURB ELEMENTS



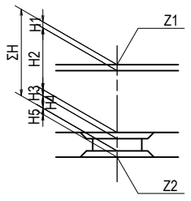
CHANGING POINT	STATION POINT	X COORDINATE	Y COORDINATE	ELEMENT
	2+835.298	1859597.4676	204279.1259	R=-320.000
	2+961.571	1859702.8295	204211.0247	A= 130.000
	3+014.383	1859738.6113	204172.2029	

PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT			
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY			
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE			
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.			
	NAME	SIGNATURE	DATE	DRAWING TITLE / PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	SUPERSTRUCTURE COORDINATES (PF5-PF7) (1) / 3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017	DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017	P3-FO-1101

SUPERSTRUCTURE COORDINATES (PF5-PF7) (2)

		PF5	GE1	S1	C1	C2	C3	C4	C5	C6	C7	S2	GE2	PF6	GE3	S3	C11	C12	C13	C14	C15	C16	C17	S4	GE4	PF7
L1	X	0.5937	0.6434	1.1407	4.4384	8.0346	11.6327	15.2327	18.8346	22.4385	26.0443	29.3543	29.8537	29.9536	30.0535	30.5530	33.7461	37.3539	40.9590	44.5613	48.1609	51.7579	55.3526	58.5303	59.0271	59.0768
	Y	6.3473	6.3427	6.2966	6.0116	5.7406	5.5111	5.3230	5.1762	5.0709	5.0070	4.9848	4.9845	4.9845	4.9846	4.9854	5.0093	5.0755	5.1831	5.3321	5.5222	5.7512	6.0163	6.2784	6.3216	6.3259
	Z	16.3000	16.3003	16.3028	16.3197	16.3381	16.3565	16.3748	16.3911	16.4046	16.4154	16.4230	16.4239	16.4241	16.4243	16.4251	16.4294	16.4316	16.4311	16.4278	16.4469	16.4688	16.4879	16.5025	16.5046	16.5048
L2	X	0.5471	0.5968	1.0941	4.4152	8.0114	11.6095	15.2095	18.8115	22.4153	26.0211	29.3545	29.8540	29.9539	30.0538	30.5532	33.7792	37.3870	40.9921	44.5944	48.1940	51.7910	55.3856	58.5960	59.0928	59.1425
	Y	5.8495	5.8448	5.7988	5.5118	5.2410	5.0116	4.8235	4.6767	4.5713	4.5072	4.4848	4.4845	4.4845	4.4846	4.4854	4.5097	4.5762	4.6840	4.8331	5.0233	5.2523	5.5173	5.7822	5.8254	5.8298
	Z	15.3000	15.3003	15.3028	15.3198	15.3381	15.3565	15.3748	15.3910	15.4046	15.4154	15.4230	15.4239	15.4241	15.4243	15.4251	15.4294	15.4316	15.4311	15.4278	15.4470	15.4688	15.4879	15.5026	15.5047	15.5049
G1	X	0.4727	0.5227	1.0221	4.3855	7.9865	11.5875	15.1885	18.7895	22.3905	25.9915	29.3549	29.8544	29.9543	30.0542	30.5536	33.8219	37.4230	41.0241	44.6253	48.2264	51.8275	55.4287	58.6969	59.1964	59.2463
	Y	5.0543	5.0520	5.0288	4.8727	4.7055	4.5384	4.3713	4.2041	4.0370	3.8698	3.7137	3.6905	3.6859	3.6905	3.7137	3.8654	4.0326	4.1997	4.3668	4.5340	4.7011	4.8683	5.0200	5.0431	5.0455
	Z	15.3479	15.3480	15.3492	15.3583	15.3704	15.3850	15.4019	15.4194	15.4366	15.4536	15.4692	15.4715	15.4720	15.4719	15.4714	15.4681	15.4643	15.4602	15.4558	15.4742	15.4963	15.5167	15.5330	15.5353	15.5355
G2	X	0.1464	0.1964	0.6958	4.2232	7.8242	11.4252	15.0262	18.6272	22.2282	25.8292	29.3566	29.8561	29.9560	30.0559	30.5553	34.0534	37.6545	41.2556	44.8567	48.4579	52.0590	55.6601	59.1581	59.6576	59.7076
	Y	1.5657	1.5634	1.5402	1.3764	1.2093	1.0422	0.8750	0.7079	0.5407	0.3736	0.2099	0.1867	0.1821	0.1867	0.2099	0.3722	0.5394	0.7065	0.8737	1.0408	1.2079	1.3751	1.5374	1.5606	1.5629
	Z	15.5581	15.5583	15.5594	15.5687	15.5807	15.5951	15.6119	15.6292	15.6463	15.6632	15.6795	15.6818	15.6822	15.6821	15.6816	15.6781	15.6742	15.6701	15.6658	15.6682	15.6710	15.6720	15.6706	15.6702	15.6702
L3	X	0.0349	0.0846	0.5820	4.1600	7.7563	11.3545	14.9545	18.5564	22.1602	25.7659	29.3572	29.8567	29.9566	30.0565	30.5559	34.1434	37.7510	41.3559	44.9581	48.5576	52.1547	55.7493	59.3188	59.8156	59.8653
	Y	0.3734	0.3687	0.3227	0.0145	-0.2545	-0.4829	-0.6706	-0.8177	-0.9242	-0.9900	-1.0152	-1.0155	-1.0155	-1.0154	-1.0146	-0.9860	-0.9166	-0.8065	-0.6558	-0.4648	-0.2357	0.0289	0.3242	0.3677	0.3721
	Z	15.6300	15.6302	15.6327	15.6507	15.6688	15.6868	15.7048	15.7208	15.7342	15.7449	15.7530	15.7539	15.7541	15.7543	15.7551	15.7597	15.7616	15.7610	15.7577	15.7517	15.7431	15.7319	15.7182	15.7160	15.7158
CL	X	0.0000	0.0497	0.5471	4.1426	7.7389	11.3371	14.9371	18.5390	22.1429	25.7485	29.3574	29.8569	29.9568	30.0567	30.5561	34.1682	37.7758	41.3807	44.9829	48.5824	52.1794	55.7741	59.3681	59.8649	59.9145
	Y	0.0000	-0.0046	-0.0507	-0.3603	-0.6292	-0.8575	-1.0452	-1.1923	-1.2989	-1.3649	-1.3902	-1.3905	-1.3905	-1.3904	-1.3896	-1.3607	-1.2911	-1.1808	-1.0301	-0.8390	-0.6098	-0.3453	-0.0479	-0.0044	0.0000
	Z	15.6300	15.6302	15.6327	15.6508	15.6688	15.6868	15.7048	15.7208	15.7341	15.7449	15.7530	15.7539	15.7541	15.7543	15.7551	15.7597	15.7617	15.7610	15.7577	15.7517	15.7431	15.7319	15.7181	15.7160	15.7158
R3	X	-0.0349	0.0148	0.5121	4.1252	7.7215	11.3197	14.9197	18.5217	22.1255	25.7312	29.3576	29.8571	29.9569	30.0568	30.5563	34.1930	37.8006	41.4055	45.0077	48.6072	52.2042	55.7989	59.4174	59.9142	59.9638
	Y	-0.3734	-0.3780	-0.4241	-0.7351	-1.0039	-1.2321	-1.4198	-1.5669	-1.6736	-1.7397	-1.7652	-1.7655	-1.7655	-1.7654	-1.7646	-1.7354	-1.6656	-1.5552	-1.4043	-1.2132	-0.9840	-0.7195	-0.4200	-0.3765	-0.3721
	Z	15.6300	15.6302	15.6327	15.6509	15.6689	15.6869	15.7048	15.7208	15.7341	15.7448	15.7530	15.7539	15.7541	15.7543	15.7551	15.7597	15.7617	15.7610	15.7576	15.7517	15.7431	15.7320	15.7180	15.7159	15.7157
G3	X	-0.1799	-0.1299	0.3696	4.0610	7.6620	11.2630	14.8640	18.4650	22.0660	25.6670	29.3584	29.8578	29.9577	30.0576	30.5571	34.2848	37.8860	41.4871	45.0882	48.6893	52.2905	55.8916	59.6194	60.1188	60.1688
	Y	-1.9229	-1.9253	-1.9485	-2.1198	-2.2869	-2.4541	-2.6212	-2.7884	-2.9555	-3.1226	-3.2940	-3.3172	-3.3218	-3.3172	-3.2940	-3.1210	-2.9538	-2.7867	-2.6195	-2.4524	-2.2852	-2.1181	-1.9451	-1.9219	-1.9196
	Z	15.7234	15.7235	15.7246	15.7342	15.7461	15.7603	15.7769	15.7941	15.8110	15.8277	15.8447	15.8470	15.8475	15.8474	15.8469	15.8430	15.8391	15.8350	15.8307	15.8204	15.8082	15.7943	15.7774	15.7749	15.7747
G4	X	-0.5061	-0.4562	0.0433	3.8987	7.4997	11.1007	14.7017	18.3027	21.9037	25.5047	29.3601	29.8595	29.9594	30.0593	30.5588	34.5163	38.1174	41.7186	45.3197	48.9208	52.5219	56.1231	60.0806	60.5800	60.6300
	Y	-5.4116	-5.4139	-5.4371	-5.6160	-5.7832	-5.9503	-6.1174	-6.2846	-6.4517	-6.6189	-6.7978	-6.8210	-6.8256	-6.8210	-6.7978	-6.6141	-6.4470	-6.2799	-6.1127	-5.9456	-5.7784	-5.6113	-5.4276	-5.4044	-5.4021
	Z	15.9336	15.9337	15.9348	15.9447	15.9564	15.9705	15.9869	16.0039	16.0207	16.0373	16.0550	16.0572	16.0577	16.0576	16.0571	16.0529	16.0490	16.0449	16.0406	16.0139	15.9830	15.9505	15.9119	15.9068	15.9063
R2	X	-0.5471	-0.4974	0.0000	3.8701	7.4664	11.0647	14.6647	18.2666	21.8704	25.4760	29.3603	29.8598	29.9597	30.0596	30.5590	34.5572	38.1646	41.7693	45.3714	48.9709	52.5679	56.1626	60.1402	60.6369	60.6866
	Y	-5.8495	-5.8541	-5.9002	-6.2323	-6.4994	-6.7265	-6.9139	-7.0614	-7.1690	-7.2368	-7.2652	-7.2655	-7.2655	-7.2654	-7.2646	-7.2308	-7.1581	-7.0456	-6.8932	-6.7013	-6.4720	-6.2078	-5.8778	-5.8340	-5.8296
	Z	15.9600	15.9602	15.9627	15.9818	15.9995	16.0172	16.0348	16.0505	16.0637	16.0744	16.0830	16.0839	16.0841	16.0843	16.0851	16.0900	16.0917	16.0909	16.0875	16.0557	16.0177	15.9772	15.9292	15.9230	15.9223
R1	X	-0.5937	-0.5439	-0.0466	3.8469	7.4432	11.0415	14.6415	18.2434	21.8472	25.4528	29.3606	29.8600	29.9599	30.0598	30.5593	34.5903	38.1976	41.8024	45.4045	49.0040	52.6010	56.1957	60.2059	60.7026	60.7523
	Y	-6.3473	-6.3519	-6.3980	-6.7320	-6.9989	-7.2260	-7.4133	-7.5609	-7.6686	-7.7366	-7.7652	-7.7655	-7.7655	-7.7654	-7.7646	-7.7303	-7.6574	-7.5447	-7.3922	-7.2003	-6.9709	-6.7068	-6.3740	-6.3302	-6.3257
	Z	16.9600	16.9602	16.9627	16.9819	16.9995	17.0172	17.0348	17.0505	17.0637	17.0743	17.0830	17.0839	17.0841	17.0843	17.0851	17.0900	17.0917	17.0909	17.0875	17.0557	17.0177	16.9772	16.9289	16.9227	16.9221

STRUCTURE HEIGHT TABLE



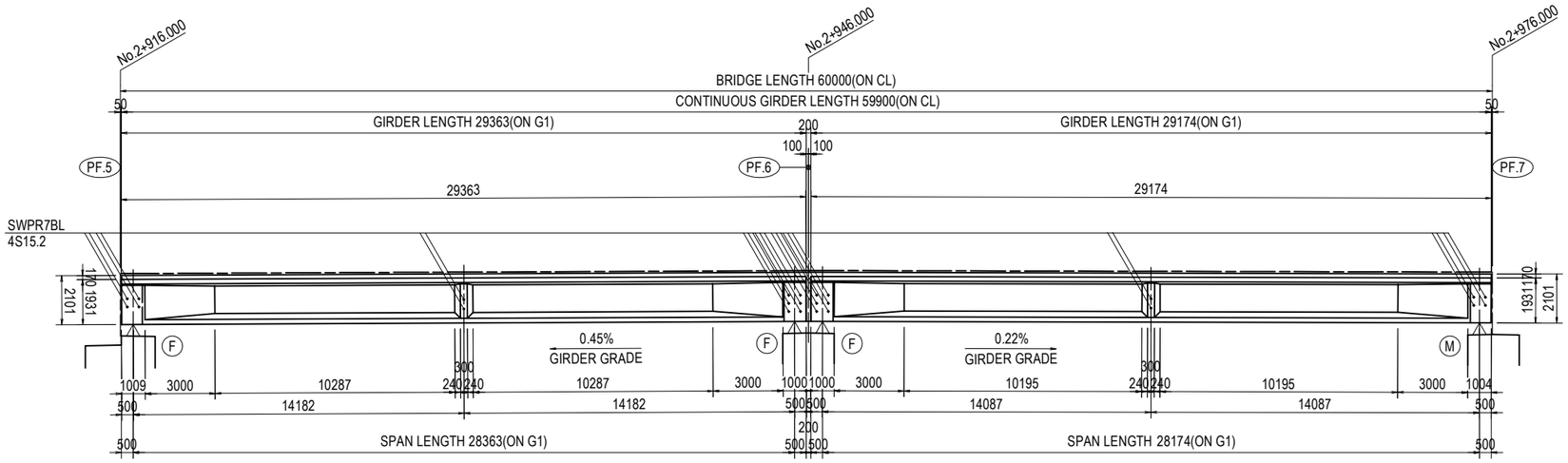
		S1(PF5R)				S2(PF6L)				S3(PF6R)				S4(PF7L)			
		G1	G2	G3	G4	G1	G2	G3	G4	G1	G2	G3	G4	G1	G2	G3	G4
ROAD PLAN HEIGHT	Z1	15.349	15.559	15.725	15.935	15.469	15.679	15.845	16.055	15.471	15.682	15.847	16.057	15.533	15.671	15.777	15.912
PAVEMENT THICKNESS(mm)	H1	98	140	138	180	89	130	126	168	90	131	127	168	214	184	122	89
MAIN GIRDER HEIGHT(mm)	H2	2101	2101	2101	2101	2101	2101	2101	2101	2101	2101	2101	2101	2101	2101	2101	2101
LAYER HEIGHT(mm)	H3	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
BEARING HEIGHT(mm)	H4	92	92	92	92	92	92	92	92	92	92	92	92	112	112	112	112
BEARING MORTAR(mm)	H5	60	60	60	60	55	56	58	58	56	58	59	60	34	60	60	60
TOTAL STRUCTURE HEIGHT(mm)	ΣH	2381	2423	2421	2463	2367	2409	2407	2449	2369	2412	2409	2451	2491	2487	2425	2392
TOP OF PIER/ABUTMENT HEIGHT	Z2	12.968	13.136	13.304	13.472	13.102	13.270	13.438	13.606	13.102	13.270	13.438	13.606	13.042	13.184	13.352	13.520

PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

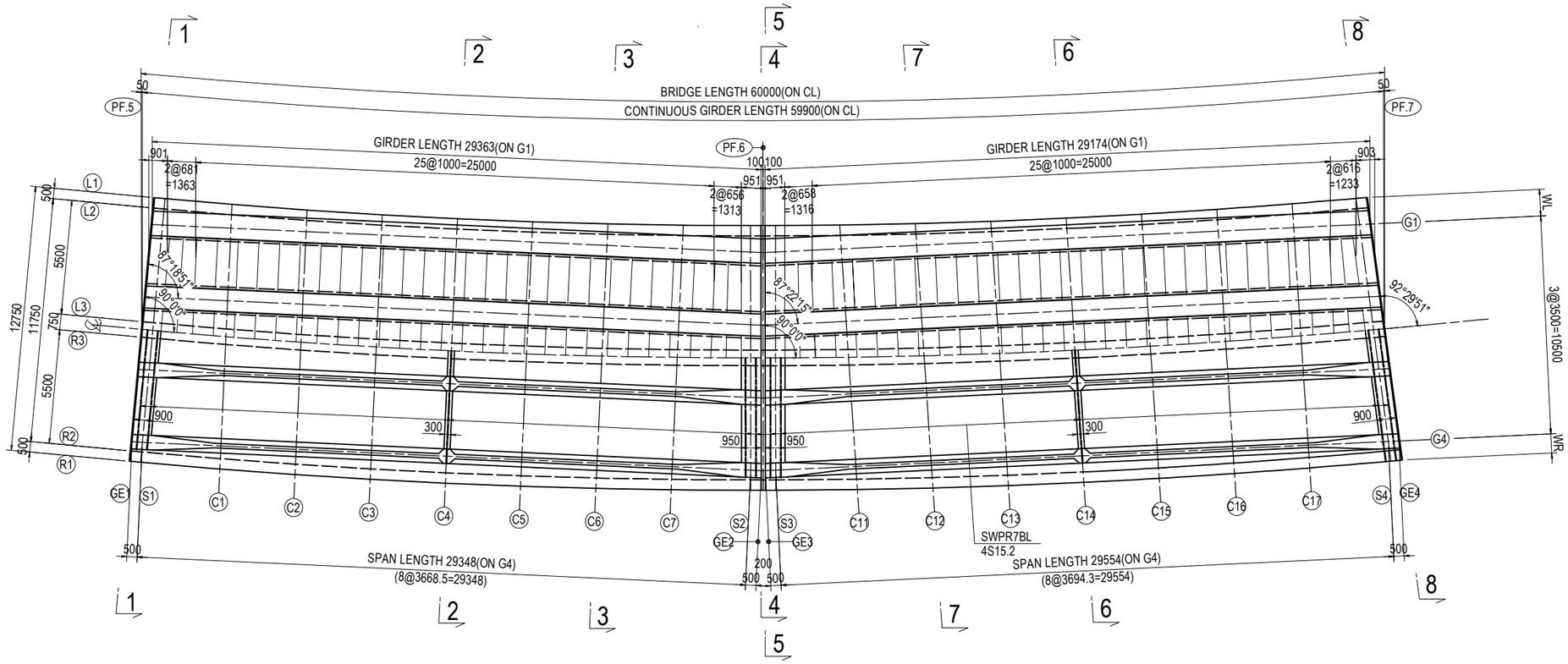
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	SUPERSTRUCTURE COORDINATES (PF5-PF7) (2)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1102

GENERAL VIEW OF SUPERSTRUCTURE (PF5-PF7) (1)

SIDE VIEW S=1:250



PLAN S=1:250



PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR, MINISTRY OF CONSTRUCTION, DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. / ORIENTAL CONSULTANTS GLOBAL CO., LTD. / METROPOLITAN EXPRESSWAY COMPANY LIMITED / CHODAI CO.,LTD. / NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

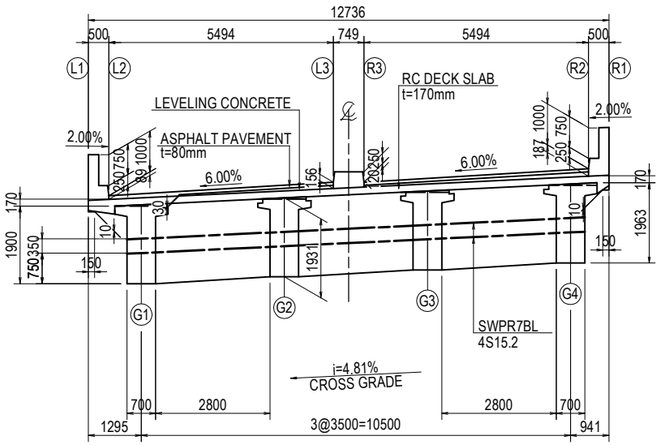
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	GENERAL VIEW OF SUPERSTRUCTURE (PF5-PF7) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1103

GENERAL VIEW OF SUPERSTRUCTURE (PF5-PF7) (2)

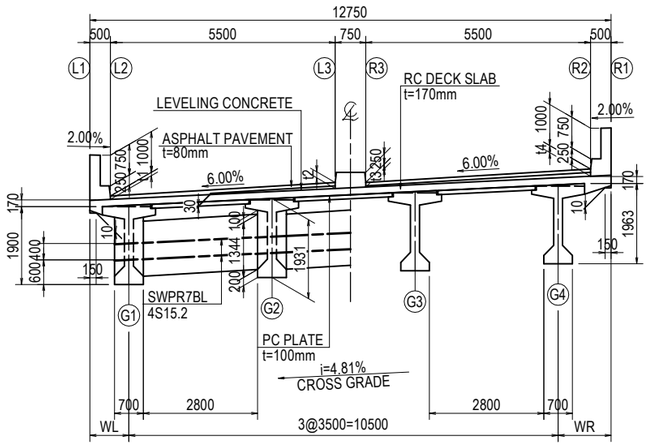
CROSS SECTION S=1:150

PF5-PF6

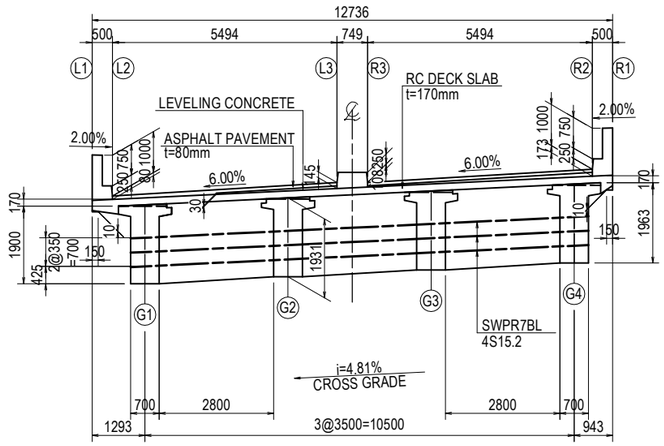
1-1



2-2 3-3

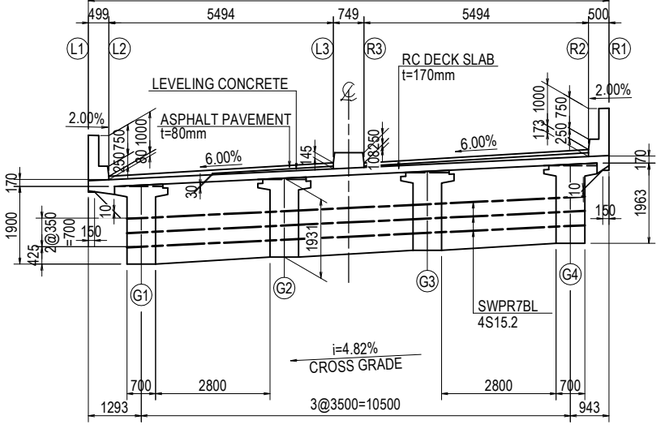


4-4

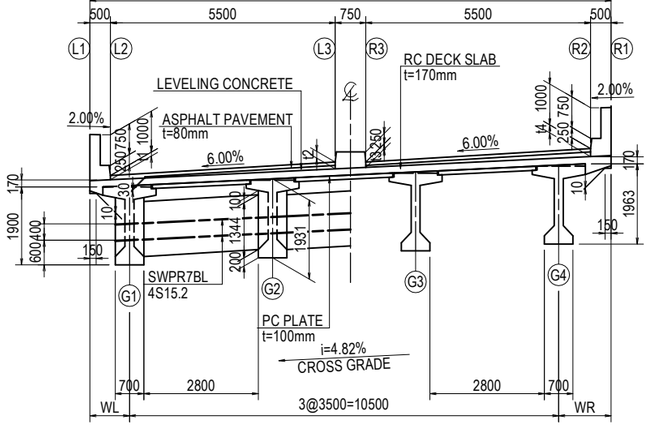


PF6-PF7

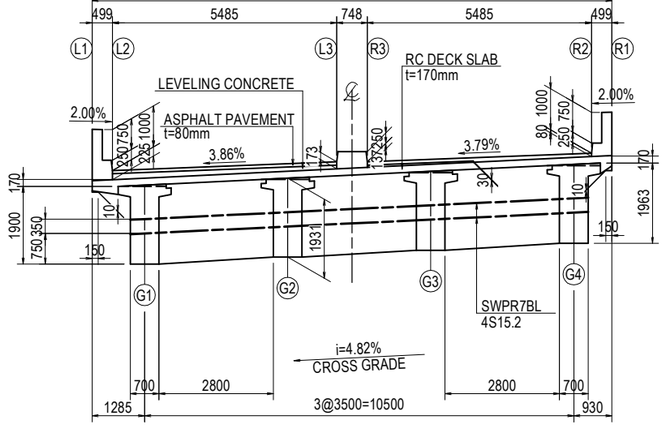
5-5



6-6 7-7



8-8



Note: Dimension of crosssection at end of girder is based on the actual angle of girder end.

LIST OF PAVEMENT THICKNESS

(mm)

	GE1	S1	C1	C2	C3	C4	C5	C6	C7	S2	GE2	PF6
t1	89	88	84	81	80	81	82	82	82	80	80	80
t2	156	155	150	147	146	146	147	147	146	145	145	145
t3	120	119	114	111	110	110	111	111	110	109	108	108
t4	187	186	180	177	175	175	176	176	175	173	173	173

	PF6	GE3	S3	C11	C12	C13	C14	C15	C16	C17	S4	GE4
t1	80	80	81	86	92	96	100	129	162	194	221	225
t2	144	145	146	151	157	161	165	168	171	172	173	173
t3	108	108	109	115	120	125	129	132	135	136	137	137
t4	173	173	174	180	185	190	194	171	144	116	84	80

LIST OF WL/WR LENGTH

(mm)

	GE1	S1	C1	C2	C3	C4	C5	C6	C7	S2	GE2	PF6
WL	1295	1272	1143	1037	974	953	973	1036	1141	1270	1293	1297
WR	941	964	1115	1216	1277	1297	1277	1217	1117	966	943	949

	PF6	GE3	S3	C11	C12	C13	C14	C15	C16	S17	S4	GE4
WL	1297	1293	1270	1149	1047	986	967	991	1054	1153	1265	1285
WR	949	943	966	1115	1212	1267	1282	1257	1193	1095	951	930

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

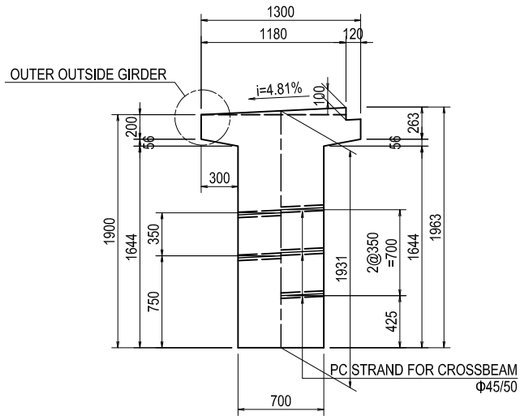
DRAWING TITLE	PACKAGE
GENERAL VIEW OF SUPERSTRUCTURE (PF5-PF7) (2)	3
	DWG No.
	P3-FO-1104

GENERAL VIEW OF SUPERSTRUCTURE (PF5-PF7) (3)

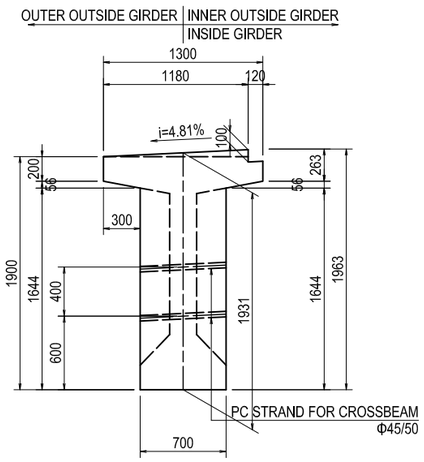
CROSS SECTION OF MAIN GIRDER S=1:50

PF5-PF6

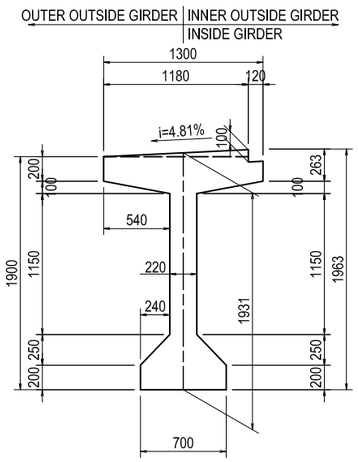
END SECTION CONNECTION SECTION



INTERMEDIATE CROSSBEAM

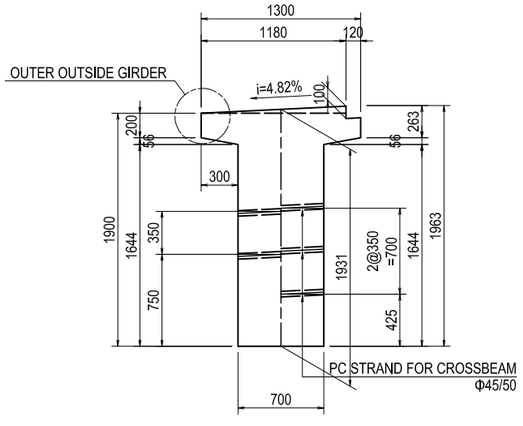


STANDARD SECTION

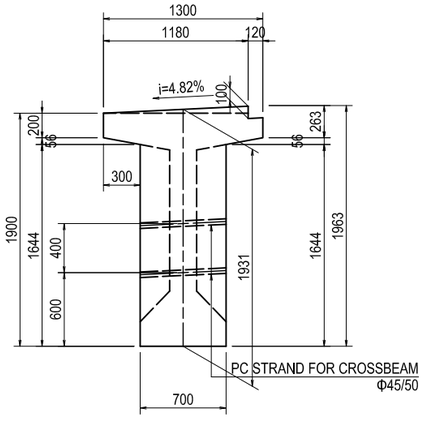


PF6-PF7

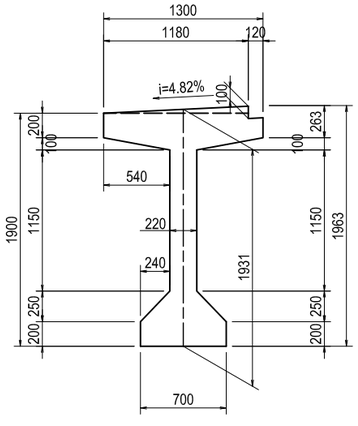
END SECTION CONNECTION SECTION



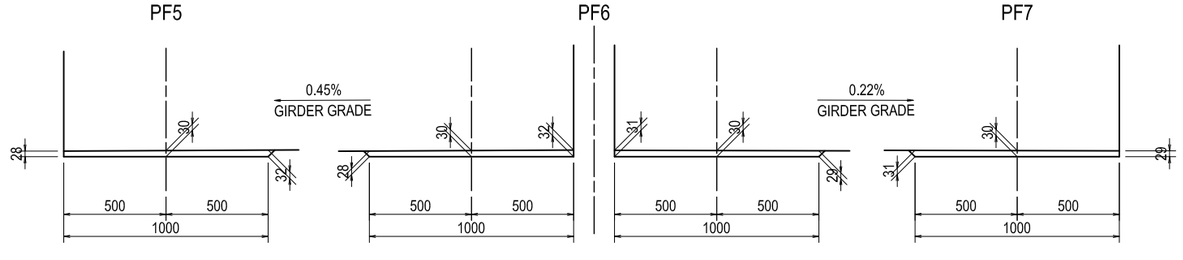
INTERMEDIATE CROSSBEAM



STANDARD SECTION



LAYER S=1:30



DESIGN CONDITION

ROAD GRADE	Equivalent to CLASS 4-1
BRIDGE TYPE	2 span continuous PC-I girder bridge with composite deck(PC plate and RC deck)
BRIDGE LENGTH	L = 60.000 m
SPAN LENGTH	L = 28.851 + 28.852 m
WIDTH OF THE ROAD	TOTAL : 12.750 m L = 0.500 + 5.500 + 0.750 + 5.500 +0.500 m
HORIZONTAL ALIGNMENT	R=320~A=130
LONGITUDINAL SLOPE	0.50% ↙ 0.72% ↘
SECTION SLOPE	LEFT : -6.00%~-2.00% RIGHT : 6.00%~-2.00%
ANGLE OF SKEW	PF.5,PF.6 : 90°00'00" PF.7 : 92°29'51"
PAVEMENT	ASPHALT PAVEMENT t = 80 mm
SLAB	RC DECK SLAB t = 170 mm
PLATE	PRESTRESS CONCRETE PLATE t = 100 mm
LIVE ROAD	AASHTO HL-93
DESIGN STANDARD	AASHTO LRFD BRIDGE DESIGN 2014(LIVE ROAD) Specifications for highway bridges(Japan Road Association) 1 Common matters,3 Concrete bridges,5 seismic design (April 2012)

MATERIALS STRENGTH

(N/mm²)

CONCRETE		MAIN GIRDER	CROSS BEAM	PC PLATE	RC SLAB	COUPLING CONCRETE
DESIGN STANDARD STRENGTH OF CONCRETE		40.0	30.0	40.0	30.0	30.0
BENDING COMPRESSIVE STRESS	IMMEDIATELY AFTER PRESTRESSING	19.0	14.0	19.0	——	——
	OTHERS	14.0	11.0	15.0	10.0	10.0
BENDING TENSILE STRESS	IMMEDIATELY AFTER PRESTRESSING	-1.5	-1.2	-1.5	——	——
	DEAD LOAD	0.0	0.0	——	——	——
	OTHERS	-1.5	-1.2	0.0	——	——
MEAN SHEAR STRESS CONCRETE CAN CARRY		0.55	0.45	——	——	——
MAXIMUM MEAN CONCRETE SHEAR STRESS	IN CASE WHERE ONLY SHEAR FORCES	5.3	4.0	——	——	——
ALLOWABLE DIAGONEL TENSILE STRESS (DEAD LOAD)	IN CASE WHERE ONLY SHEAR FORCES	-1.0	-0.8	——	——	——
ALLOWABLE DIAGONEL TENSILE STRESS (LIVE LOAD)	IN CASE WHERE ONLY SHEAR FORCES	-2.0	-1.7	——	——	——

(N/mm²)

PC STRAND		SWPR7BL 7S15.2mm	SWPR7BL 4S15.2mm	SWPR7AL 1S9.3mm
TENSILE STRENGTH		1850	1850	1700
YIELD POINT		1600	1600	1450
ALLOWABLE TENSILE STRESS	DURING PRESTRESSING	1440	1440	1305
	IMMEDIATELY AFTER PRESTRESSING	1295	1295	1190
	UNDER DESIGN LOAD	1110	1110	1020

(N/mm²)

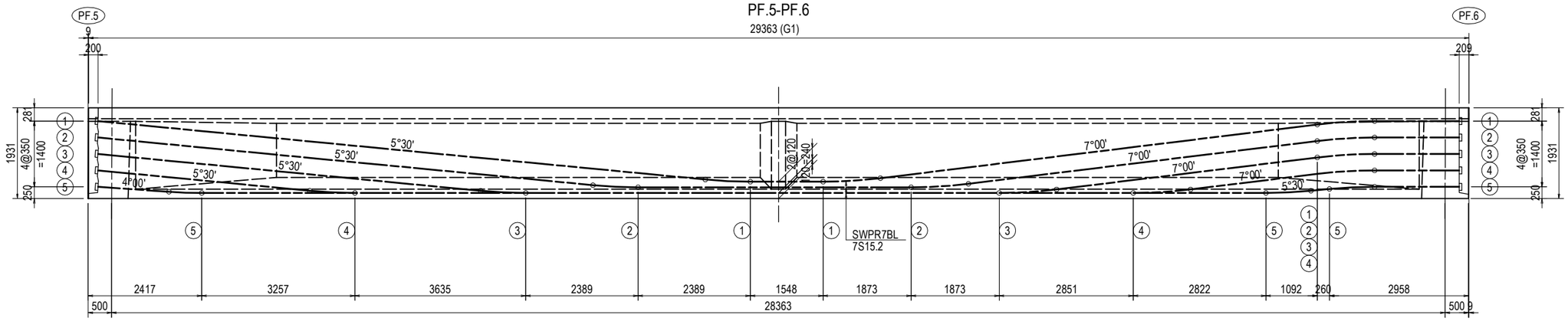
REINFORCING STEEL		MAIN GIRDER	CROSS BEAM	RC SLAB	COUPLING CONCRETE
STEEL TYPE		SD345	SD345	SD345	SD345
YIELD POINT		345	345	345	345
ALLOWABLE TENSILE STRESS	DEAD LOAD	——	——	100	100
	DESIGN LOAD	180	180	140	160
	EARTHQUAKE LOAD	——	200	——	——

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	GENERAL VIEW OF SUPERSTRUCTURE (PF5-PF7) (3)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1105

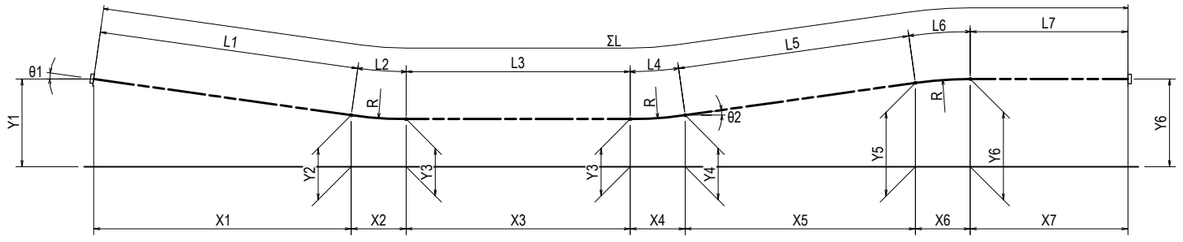
PC STRAND ARRANGEMENT OF MAIN GIRDER (PF5-PF7) (1)

SIDE VIEW S=1:100



PC STRAND LENGTH & ELEVATION

7S15.2
w=7.707 kg/m
R=10.000m



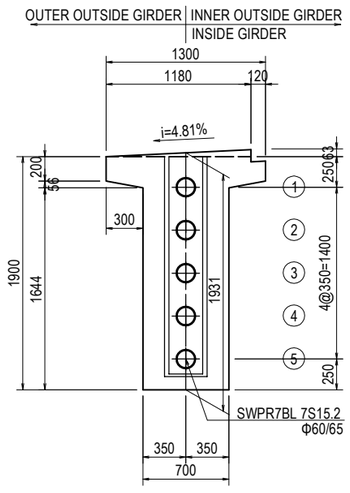
PF.5-PF.6

PC STRAND No	θ1	θ2	Y1	Y2	Y3	Y4	Y5	Y6	X1	X2	X3				X4	X5	X6	X7
											G1	G2	G3	G4				
1	5°30'	7°00'	1650	406	360	435	1576	1650	12919	959	1548	1877	2205	2533	1218	9292	1219	1800
2	5°30'	7°00'	1300	286	240	315	1226	1300	10530	959	5809	6138	6466	6794	1218	7419	1219	1800
3	5°30'	7°00'	950	166	120	195	876	950	8142	958	10071	10400	10728	11056	1219	5545	1219	1800
4	5°30'	7°00'	600	166	120	195	526	600	4507	958	16557	16886	17214	17542	1218	2695	1219	1800
5	4°00'	5°30'	250	144	120	166	204	250	1511	697	22636	22965	23293	23621	959	394	958	1800

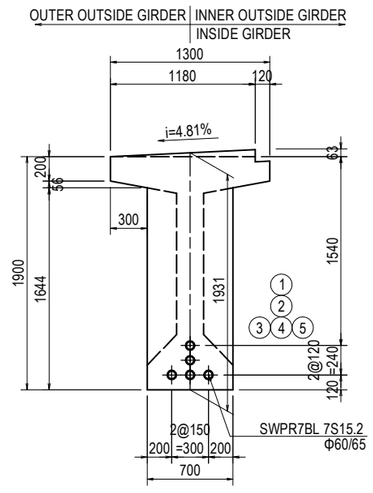
PC STRAND No	L1	L2	L3				L4	L5	L6	L7	∑L (UNIT:mm)				WEIGHT (UNIT:kg)			
			G1	G2	G3	G4					G1	G2	G3	G4	G1	G2	G3	G4
1	12979	960	1548	1877	2205	2533	1222	9362	1222	1800	29093	29422	29750	30078	224.22	226.76	229.28	231.81
2	10579	960	5809	6138	6466	6794	1222	7475	1222	1800	29067	29396	29724	30052	224.02	226.55	229.08	231.61
3	8179	960	10071	10400	10728	11056	1222	5587	1222	1800	29041	29370	29698	30026	223.82	226.35	228.88	231.41
4	4528	960	16557	16886	17214	17542	1222	2715	1222	1800	29004	29333	29661	29989	223.53	226.70	228.60	231.13
5	1514	698	22636	22965	23293	23621	960	396	960	1800	28964	29293	29621	29949	223.23	225.76	228.29	230.82
										TOTAL	145169	146814	148454	150094	1118.8	1132.1	1144.1	1156.8

CROSS SECTION OF MAIN GIRDER S=1:50

END SECTION



INTERMEDIATE CROSSBEAM

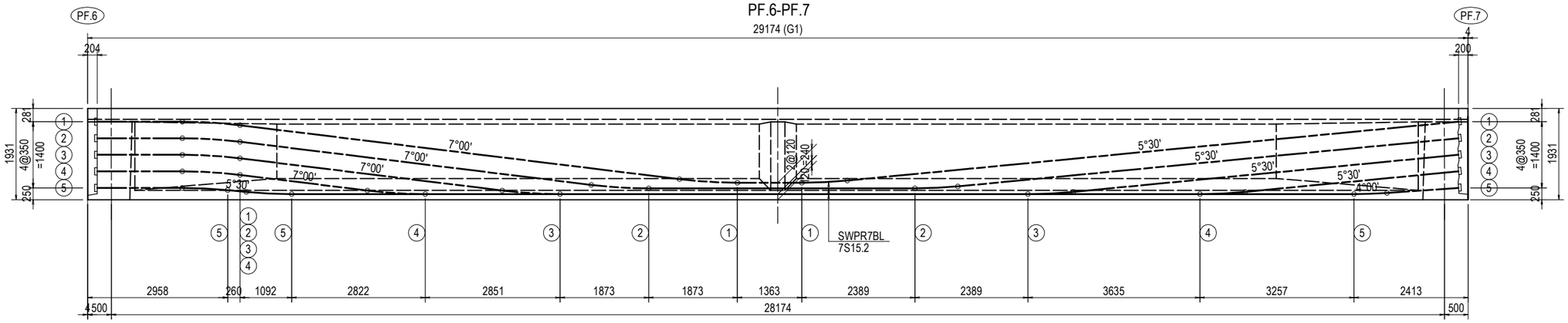


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	PC STRAND ARRANGEMENT OF MAIN GIRDER (PF5-PF7) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1106

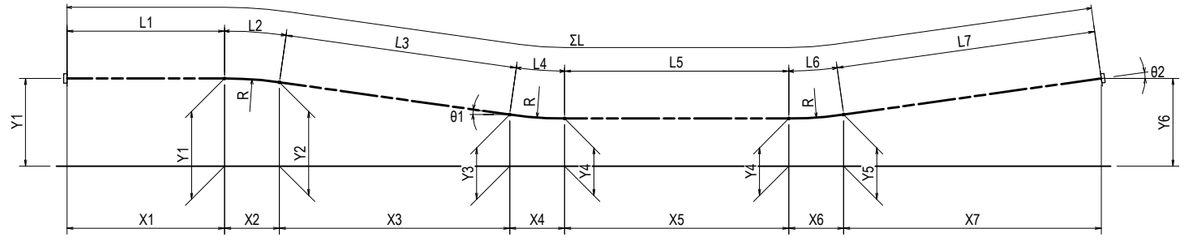
PC STRAND ARRANGEMENT OF MAIN GIRDER (PF5-PF7) (2)

SIDE VIEW S=1:100



PC STRAND LENGTH & ELEVATION

7S15.2
w=7.707 kg/m
R=10.000m



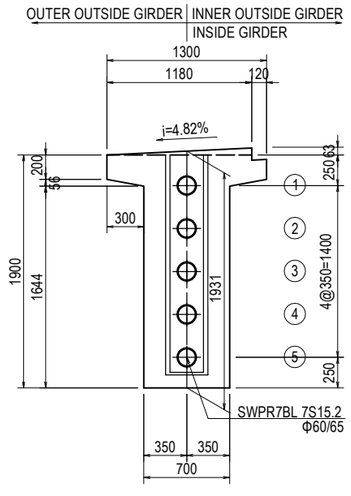
PF.6-PF.7

PC STRAND No	θ1	θ2	Y1	Y2	Y3	Y4	Y5	Y6	X1	X2	X3	X4	X5				X6	X7
													G1	G2	G3	G4		
1	7°00'	5°30'	1650	1576	435	360	406	1650	1800	1219	9292	1219	1363	1823	2283	2743	958	12919
2	7°00'	5°30'	1300	1226	315	240	286	1300	1800	1219	7419	1218	5625	6085	6545	7005	959	10530
3	7°00'	5°30'	950	876	195	120	166	950	1800	1219	5545	1219	9887	10347	10807	11267	958	8142
4	7°00'	5°30'	600	526	195	120	166	600	1800	1219	2695	1219	16372	16832	17292	17752	958	4507
5	5°30'	4°00'	250	204	166	120	144	250	1800	959	393	959	22451	22911	23371	23831	697	1511

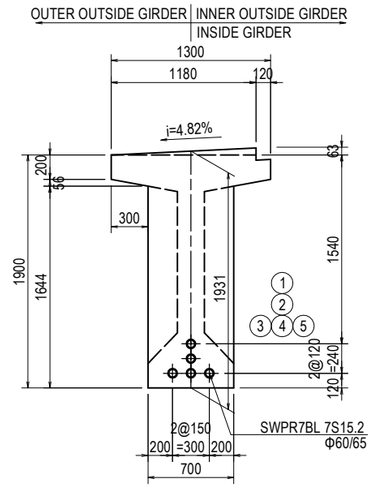
PC STRAND No	L1	L2	L3	L4	L5				L6	L7	∑L (UNIT:mm)				WEIGHT (UNIT:kg)			
					G1	G2	G3	G4			G1	G2	G3	G4	G1	G2	G3	G4
1	1800	1222	9362	1222	1363	1823	2283	2743	960	12979	28908	29368	29828	30288	222.79	226.34	229.88	233.43
2	1800	1222	7475	1222	5625	6085	6545	7005	960	10579	28883	29343	29803	30263	222.60	226.15	229.69	233.24
3	1800	1222	5587	1222	9887	10347	10807	11267	960	8179	28857	29317	29777	30237	222.40	225.95	229.49	233.04
4	1800	1222	2715	1222	16372	16832	17292	17752	960	4528	28819	29279	29739	30199	222.11	225.65	229.20	232.74
5	1800	960	396	960	22451	22911	23371	23831	698	1514	28779	29239	29699	30159	221.80	225.34	228.89	232.44
										TOTAL	144246	146546	148846	151146	1111.7	1129.4	1147.2	1164.9

CROSS SECTION OF MAIN GIRDER S=1:50

END SECTION



INTERMEDIATE CROSSBEAM



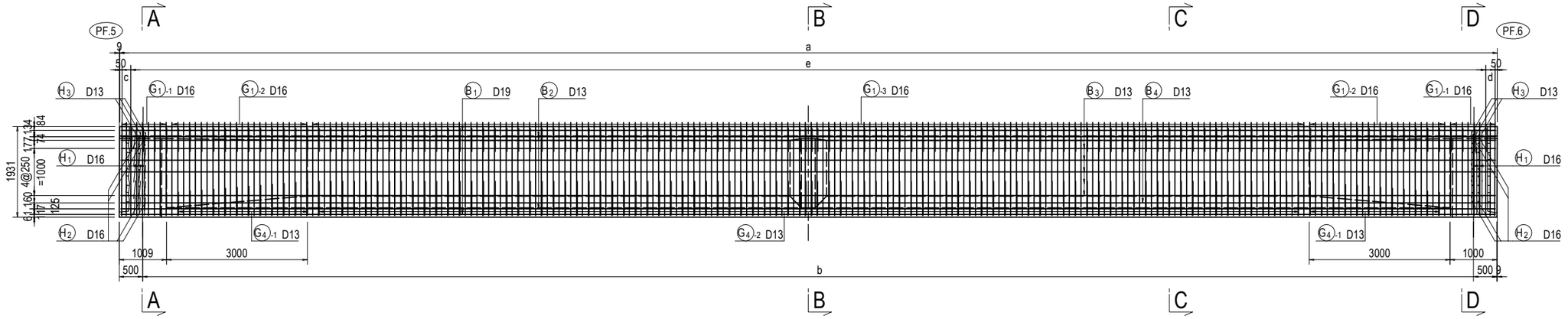
PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	PC STRAND ARRANGEMENT OF MAIN GIRDER (PF5-PF7) (2)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1107

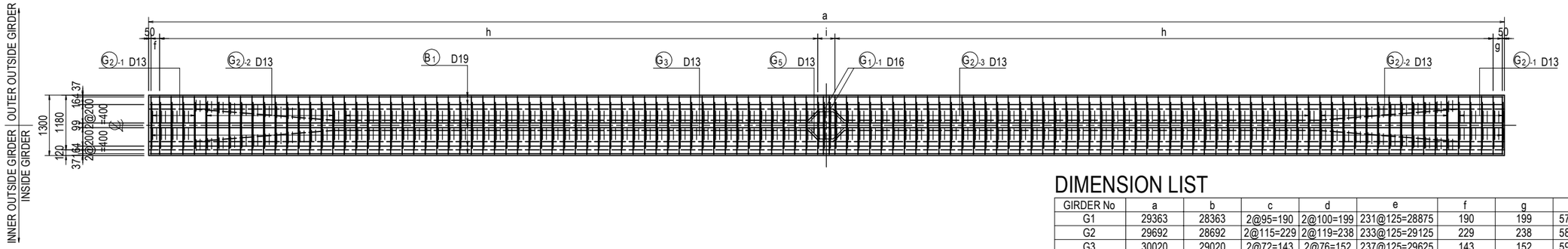
BAR ARRANGEMENT OF MAIN GIRDER (PF5-PF7) (1)

SIDE VIEW S=1:100

PF.5-PF.6



PLAN S=1:100

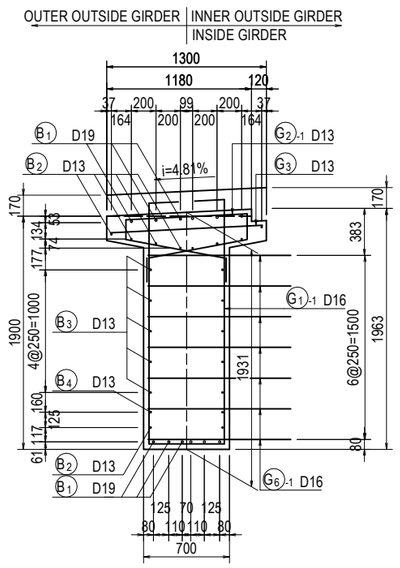


DIMENSION LIST

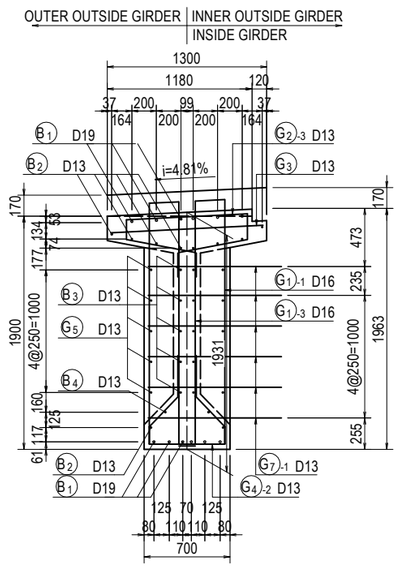
GIRDER No	a	b	c	d	e	f	g	h	i
G1	29363	28363	2@95=190	2@100=199	231@125=28875	190	199	57@250=14250	3@125=375
G2	29692	28692	2@115=229	2@119=238	233@125=29125	229	238	58@250=14500	125
G3	30020	29020	2@72=143	2@76=152	237@125=29625	143	152	59@250=14750	125
G4	30348	29348	2@91=182	2@96=191	239@125=29875	182	191	59@250=14750	3@125=375

CROSS SECTION OF MAIN GIRDER S=1:50

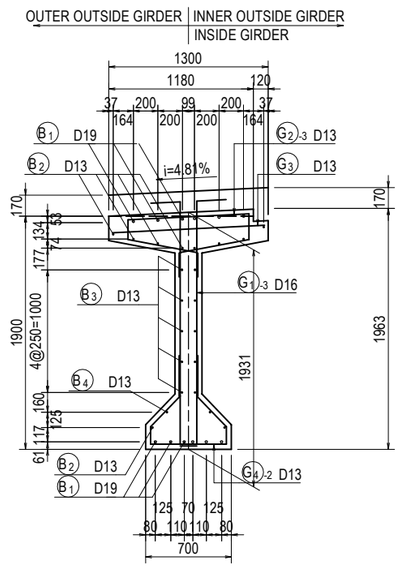
A-A



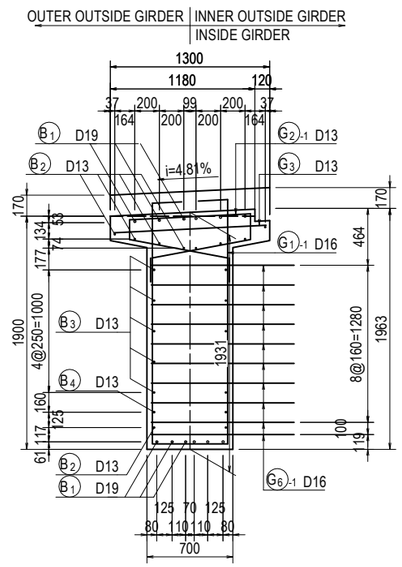
B-B



C-C



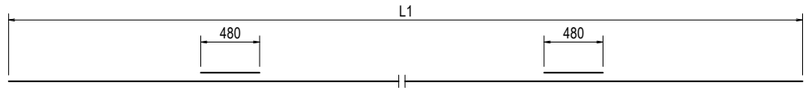
D-D



PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	BAR ARRANGEMENT OF MAIN GIRDER (PF5-PF7) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1108

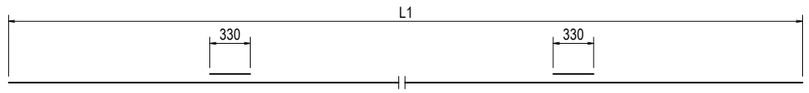
BAR ARRANGEMENT OF MAIN GIRDER (PF5-PF7) (2)



B1 12-D19xL

L(mm)

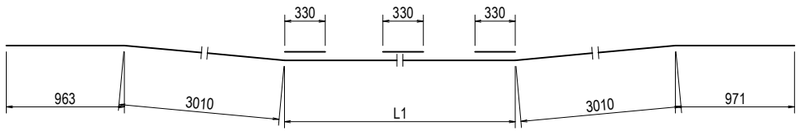
	B1	
	L1	L
G1	29293	30260
G2	29622	30590
G3	29950	30910
G4	30278	31240



B2 10-D13xL

L(mm)

	B2	
	L1	L
G1	29293	29960
G2	29622	30290
G3	29950	30610
G4	30278	30940



B3 10-D13xL

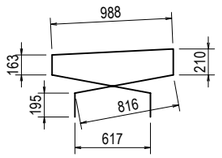
L(mm)

	B3	
	L1	L
G1	21359	30310
G2	21687	30640
G3	22016	30960
G4	22344	31290

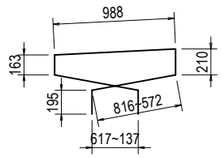
B4 2-D13xL

L(mm)

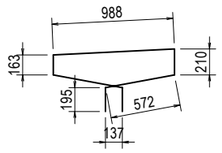
	B4	
	L1	L
G1	24373	30300
G2	24701	30620
G3	25030	30950
G4	25358	31280



G2-1 10-D13x3390



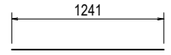
(AVE)
G2-2 24-D13x3140



G2-3 N-D13x2900

N(number)

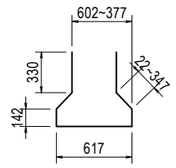
	G2-3
	N
G1	86
G2	86
G3	88
G4	90



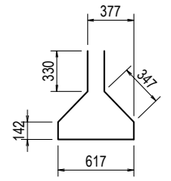
G3 N-D13x1250

N(number)

	G3
	N
G1	120
G2	120
G3	122
G4	124



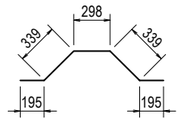
(AVE)
G4-1 22-D13x1930



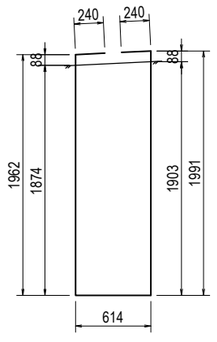
G4-2 N-D13x2260

N(number)

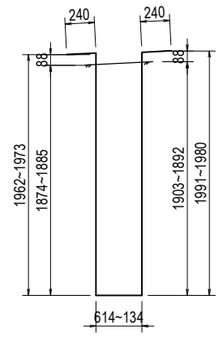
	G4-2
	N
G1	86
G2	86
G3	88
G4	90



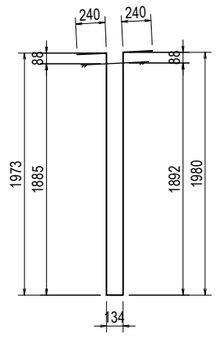
G5 10-D13x1370



G1-1 20-D16x5050



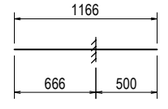
(AVE)
G1-2 48-D16x4810



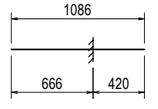
G1-3 N-D16x4570

N(number)

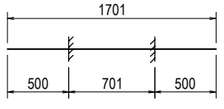
	G1-3
	N
G1	170
G2	172
G3	176
G4	178



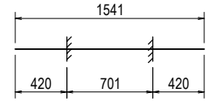
G6-1 54-D16x1170
(OUTSIDE GIRDER)



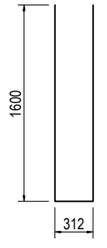
G7-1 12-D13x1090
(OUTSIDE GIRDER)



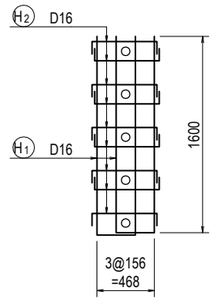
G6-2 54-D16x1710
(INSIDE GIRDER)

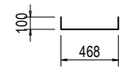


G7-2 12-D13x1550
(INSIDE GIRDER)

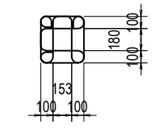


H1 8-D16x3520





H2 36-D16x670



H3 30-D13x4020

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	BAR ARRANGEMENT OF MAIN GIRDER (PF5-PF7) (2)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1109

BAR ARRANGEMENT OF MAIN GIRDER (PF5-PF7) (3)

(G1)BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	30260	12	2.25	68.09	817	
B 2	D13	29960	10	0.995	29.81	298	
B 3	D13	30310	10	0.995	30.16	302	
B 4	D13	30300	2	0.995	30.15	60	
G 1 -1	D16	5050	20	1.56	7.88	158	
G 1 -2	D16	4810	48	1.56	7.50	360	AVERAGE
G 1 -3	D16	4570	170	1.56	7.13	1212	
G 2 -1	D13	3390	10	0.995	3.37	34	
G 2 -2	D13	3140	24	0.995	3.12	75	AVERAGE
G 2 -3	D13	2900	86	0.995	2.89	249	
G 3	D13	1250	120	0.995	1.24	149	
G 4 -1	D13	1930	22	0.995	1.92	42	AVERAGE
G 4 -2	D13	2260	86	0.995	2.25	194	
G 5	D13	1370	10	0.995	1.36	14	
G 6 -1	D16	1170	54	1.56	1.83	99	OUTSIDE GIRDER
G 7 -1	D13	1090	12	0.995	1.08	13	OUTSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
					D19	817 kg	
					D16	1911 kg	
					D13	1550 kg	
					TOTAL	4278 kg	

(G3)BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	30910	12	2.25	69.55	835	
B 2	D13	30610	10	0.995	30.46	305	
B 3	D13	30960	10	0.995	30.81	308	
B 4	D13	30950	2	0.995	30.80	62	
G 1 -1	D16	5050	20	1.56	7.88	158	
G 1 -2	D16	4810	48	1.56	7.50	360	AVERAGE
G 1 -3	D16	4570	176	1.56	7.13	1255	
G 2 -1	D13	3390	10	0.995	3.37	34	
G 2 -2	D13	3140	24	0.995	3.12	75	AVERAGE
G 2 -3	D13	2900	88	0.995	2.89	254	
G 3	D13	1250	122	0.995	1.24	151	
G 4 -1	D13	1930	22	0.995	1.92	42	AVERAGE
G 4 -2	D13	2260	88	0.995	2.25	198	
G 5	D13	1370	10	0.995	1.36	14	
G 6 -2	D16	1710	54	1.56	2.67	144	INSIDE GIRDER
G 7 -2	D13	1550	12	0.995	1.54	18	INSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
					D19	835 kg	
					D16	1999 kg	
					D13	1581 kg	
					TOTAL	4415 kg	

(G2)BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	30590	12	2.25	68.83	826	
B 2	D13	30290	10	0.995	30.14	301	
B 3	D13	30640	10	0.995	30.49	305	
B 4	D13	30620	2	0.995	30.47	61	
G 1 -1	D16	5050	20	1.56	7.88	158	
G 1 -2	D16	4810	48	1.56	7.50	360	AVERAGE
G 1 -3	D16	4570	172	1.56	7.13	1226	
G 2 -1	D13	3390	10	0.995	3.37	34	
G 2 -2	D13	3140	24	0.995	3.12	75	AVERAGE
G 2 -3	D13	2900	86	0.995	2.89	249	
G 3	D13	1250	120	0.995	1.24	149	
G 4 -1	D13	1930	22	0.995	1.92	42	AVERAGE
G 4 -2	D13	2260	86	0.995	2.25	194	
G 5	D13	1370	10	0.995	1.36	14	
G 6 -2	D16	1710	54	1.56	2.67	144	INSIDE GIRDER
G 7 -2	D13	1550	12	0.995	1.54	18	INSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
					D19	826 kg	
					D16	1970 kg	
					D13	1562 kg	
					TOTAL	4358 kg	

(G4)BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	31240	12	2.25	70.29	843	
B 2	D13	30940	10	0.995	30.79	308	
B 3	D13	31290	10	0.995	31.13	311	
B 4	D13	31280	2	0.995	31.12	62	
G 1 -1	D16	5050	20	1.56	7.88	158	
G 1 -2	D16	4810	48	1.56	7.50	360	AVERAGE
G 1 -3	D16	4570	178	1.56	7.13	1269	
G 2 -1	D13	3390	10	0.995	3.37	34	
G 2 -2	D13	3140	24	0.995	3.12	75	AVERAGE
G 2 -3	D13	2900	90	0.995	2.89	260	
G 3	D13	1250	124	0.995	1.24	154	
G 4 -1	D13	1930	22	0.995	1.92	42	AVERAGE
G 4 -2	D13	2260	90	0.995	2.25	203	
G 5	D13	1370	10	0.995	1.36	14	
G 6 -1	D16	1170	54	1.56	1.83	99	OUTSIDE GIRDER
G 7 -1	D13	1090	12	0.995	1.08	13	OUTSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
					D19	843 kg	
					D16	1968 kg	
					D13	1596 kg	
					TOTAL	4407 kg	

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

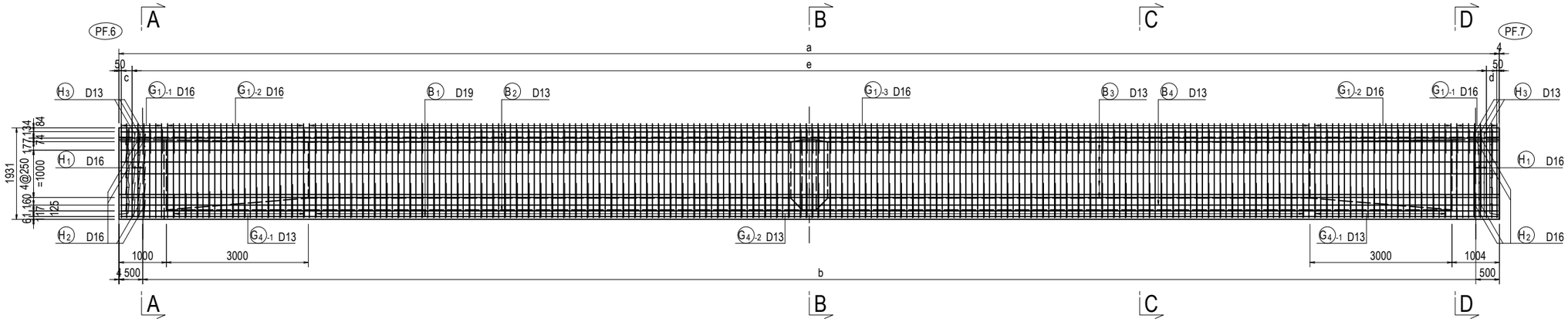
	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF MAIN GIRDER (PF5-PF7) (3)	3
	DWG No.
	P3-FO-1110

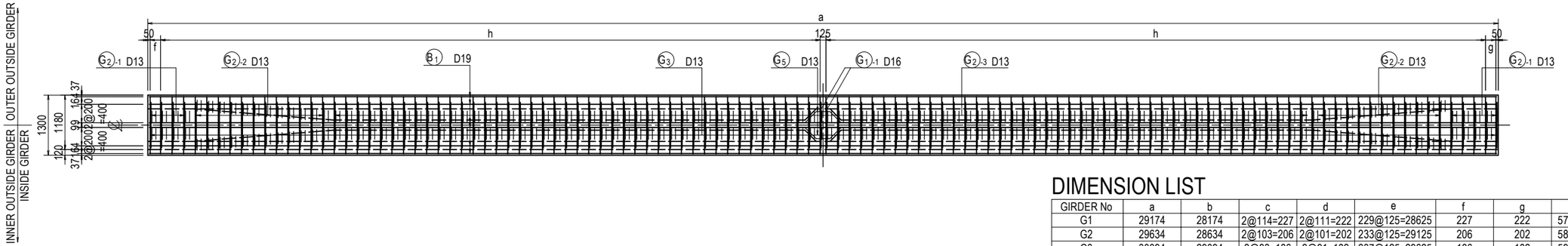
BAR ARRANGEMENT OF MAIN GIRDER (PF5-PF7) (4)

SIDE VIEW S=1:100

PF.6-PF.7



PLAN S=1:100

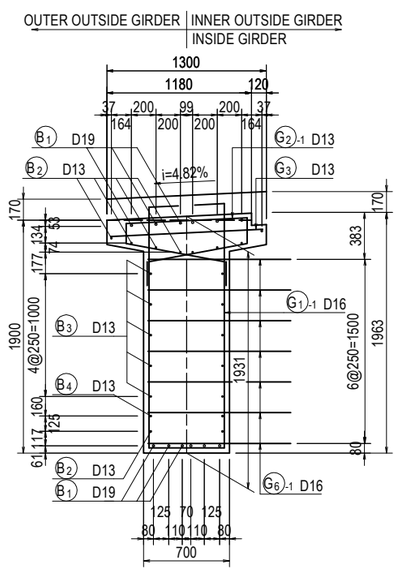


DIMENSION LIST

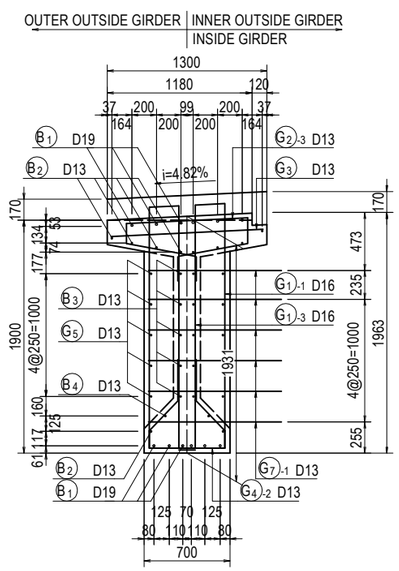
GIRDER No	a	b	c	d	e	f	g	h
G1	29174	28174	2@114=227	2@111=222	229@125=28625	227	222	57@250=14250
G2	29634	28634	2@103=206	2@101=202	233@125=29125	206	202	58@250=14500
G3	30094	29094	2@93=186	2@91=182	237@125=29625	186	182	59@250=14750
G4	30554	29554	2@83=166	2@81=162	241@125=30125	166	162	60@250=15000

CROSS SECTION OF MAIN GIRDER S=1:50

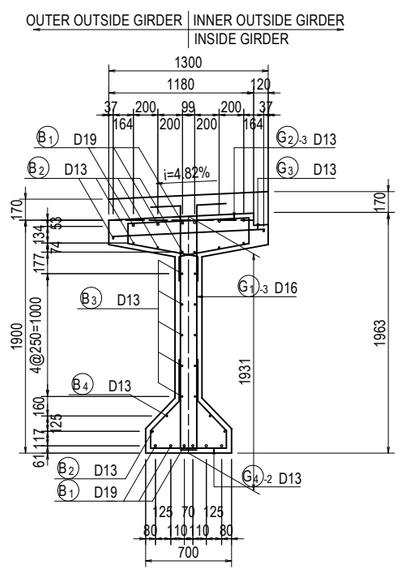
A-A



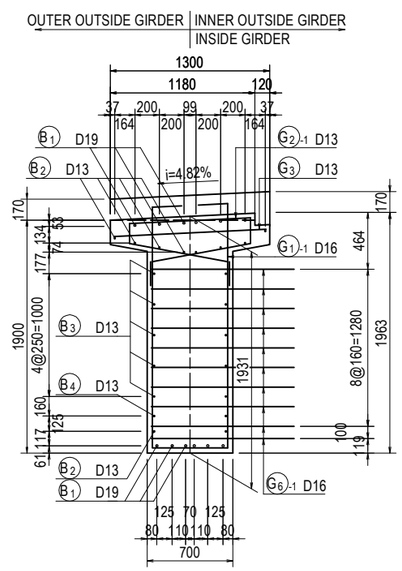
B-B



C-C



D-D

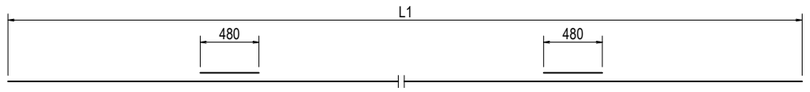


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF MAIN GIRDER (PF5-PF7) (4)	3
	DWG No.
	P3-FO-1111

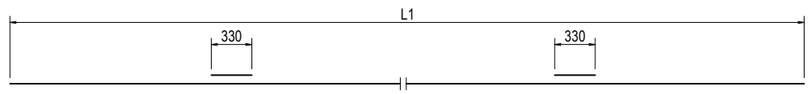
BAR ARRANGEMENT OF MAIN GIRDER (PF5-PF7) (5)



B1 12-D19xL

L(mm)

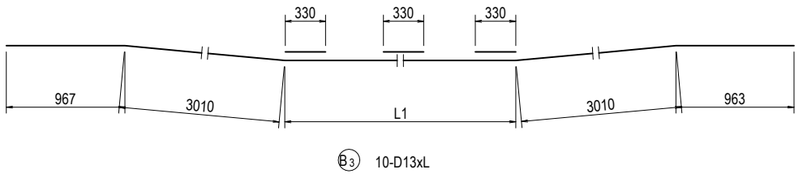
	B1	
	L1	L
G1	29104	30070
G2	29564	30530
G3	30024	30990
G4	30484	31450



B2 10-D13xL

L(mm)

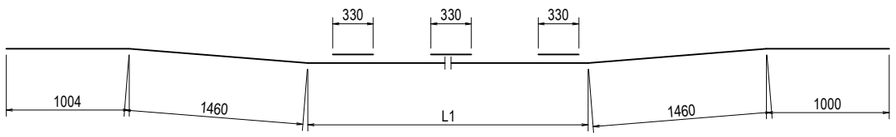
	B2	
	L1	L
G1	29104	29770
G2	29564	30230
G3	30024	30690
G4	30484	31150



B3 10-D13xL

L(mm)

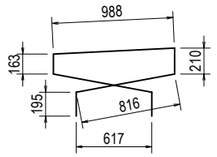
	B3	
	L1	L
G1	21174	30120
G2	21634	30580
G3	22094	31040
G4	22554	31500



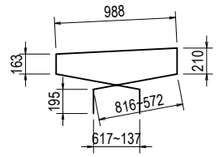
B4 2-D13xL

L(mm)

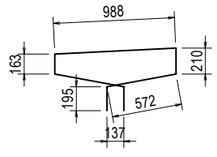
	B4	
	L1	L
G1	24188	30110
G2	24648	30570
G3	25108	31030
G4	25568	31490



G2-1 8-D13x3390



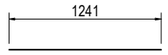
(AVE)
G2-2 24-D13x3140



G2-3 N-D13x2900

N(number)

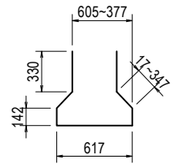
	G2-3
	N
G1	86
G2	88
G3	90
G4	92



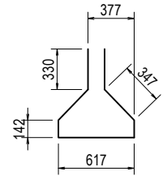
G3 N-D13x1250

N(number)

	G3
	N
G1	118
G2	120
G3	122
G4	124



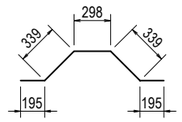
(AVE)
G4-1 22-D13x1930



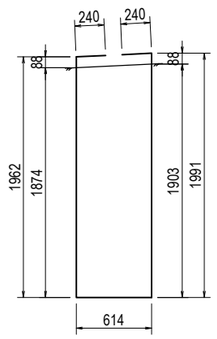
G4-2 N-D13x2260

N(number)

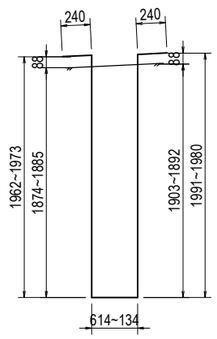
	G4-2
	N
G1	86
G2	88
G3	90
G4	92



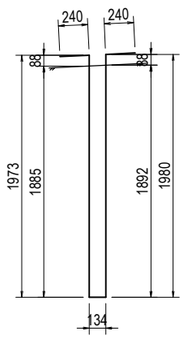
G5 10-D13x1370



G1-1 18-D16x5050



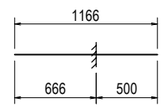
(AVE)
G1-2 48-D16x4810



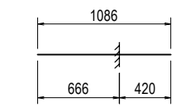
G1-3 N-D16x4570

N(number)

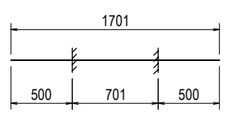
	G1-3
	N
G1	170
G2	174
G3	178
G4	182



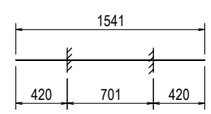
G6-1 54-D16x1170
(OUTSIDE GIRDER)



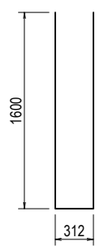
G7-1 12-D13x1090
(OUTSIDE GIRDER)



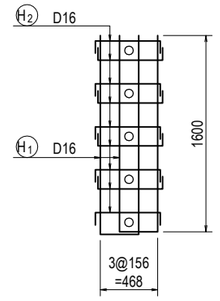
G6-2 54-D16x1710
(INSIDE GIRDER)

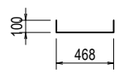


G7-2 12-D13x1550
(INSIDE GIRDER)

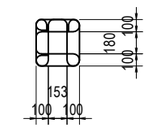


H1 8-D16x3520





H2 36-D16x670



H3 30-D13x4020

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR, MINISTRY OF CONSTRUCTION, DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. / ORIENTAL CONSULTANTS GLOBAL CO., LTD. / METROPOLITAN EXPRESSWAY COMPANY LIMITED / CHODAI CO.,LTD. / NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	BAR ARRANGEMENT OF MAIN GIRDER (PF5-PF7) (5)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1112

BAR ARRANGEMENT OF MAIN GIRDER (PF5-PF7) (6)

(G1)BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	30070	12	2.25	67.66	812	
B 2	D13	29770	10	0.995	29.62	296	
B 3	D13	30120	10	0.995	29.97	300	
B 4	D13	30110	2	0.995	29.96	60	
G 1 -1	D16	5050	18	1.56	7.88	142	
G 1 -2	D16	4810	48	1.56	7.50	360	AVERAGE
G 1 -3	D16	4570	170	1.56	7.13	1212	
G 2 -1	D13	3390	8	0.995	3.37	27	
G 2 -2	D13	3140	24	0.995	3.12	75	AVERAGE
G 2 -3	D13	2900	86	0.995	2.89	249	
G 3	D13	1250	118	0.995	1.24	146	
G 4 -1	D13	1930	22	0.995	1.92	42	AVERAGE
G 4 -2	D13	2260	86	0.995	2.25	194	
G 5	D13	1370	10	0.995	1.36	14	
G 6 -1	D16	1170	54	1.56	1.83	99	OUTSIDE GIRDER
G 7 -1	D13	1090	12	0.995	1.08	13	OUTSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
					D19	812 kg	
					D16	1895 kg	
					D13	1536 kg	
					TOTAL	4243 kg	

(G3)BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	30990	12	2.25	69.73	837	
B 2	D13	30690	10	0.995	30.54	305	
B 3	D13	31040	10	0.995	30.88	309	
B 4	D13	31030	2	0.995	30.87	62	
G 1 -1	D16	5050	18	1.56	7.88	142	
G 1 -2	D16	4810	48	1.56	7.50	360	AVERAGE
G 1 -3	D16	4570	178	1.56	7.13	1269	
G 2 -1	D13	3390	8	0.995	3.37	27	
G 2 -2	D13	3140	24	0.995	3.12	75	AVERAGE
G 2 -3	D13	2900	90	0.995	2.89	260	
G 3	D13	1250	122	0.995	1.24	151	
G 4 -1	D13	1930	22	0.995	1.92	42	AVERAGE
G 4 -2	D13	2260	90	0.995	2.25	203	
G 5	D13	1370	10	0.995	1.36	14	
G 6 -2	D16	1710	54	1.56	2.67	144	INSIDE GIRDER
G 7 -2	D13	1550	12	0.995	1.54	18	INSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
					D19	837 kg	
					D16	1997 kg	
					D13	1586 kg	
					TOTAL	4420 kg	

(G2)BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	30530	12	2.25	68.69	824	
B 2	D13	30230	10	0.995	30.08	301	
B 3	D13	30580	10	0.995	30.43	304	
B 4	D13	30570	2	0.995	30.42	61	
G 1 -1	D16	5050	18	1.56	7.88	142	
G 1 -2	D16	4810	48	1.56	7.50	360	AVERAGE
G 1 -3	D16	4570	174	1.56	7.13	1241	
G 2 -1	D13	3390	8	0.995	3.37	27	
G 2 -2	D13	3140	24	0.995	3.12	75	AVERAGE
G 2 -3	D13	2900	88	0.995	2.89	254	
G 3	D13	1250	120	0.995	1.24	149	
G 4 -1	D13	1930	22	0.995	1.92	42	AVERAGE
G 4 -2	D13	2260	88	0.995	2.25	198	
G 5	D13	1370	10	0.995	1.36	14	
G 6 -2	D16	1710	54	1.56	2.67	144	INSIDE GIRDER
G 7 -2	D13	1550	12	0.995	1.54	18	INSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
					D19	824 kg	
					D16	1969 kg	
					D13	1563 kg	
					TOTAL	4356 kg	

(G4)BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	31450	12	2.25	70.76	849	
B 2	D13	31150	10	0.995	30.99	310	
B 3	D13	31500	10	0.995	31.34	313	
B 4	D13	31490	2	0.995	31.33	63	
G 1 -1	D16	5050	18	1.56	7.88	142	
G 1 -2	D16	4810	48	1.56	7.50	360	AVERAGE
G 1 -3	D16	4570	182	1.56	7.13	1298	
G 2 -1	D13	3390	8	0.995	3.37	27	
G 2 -2	D13	3140	24	0.995	3.12	75	AVERAGE
G 2 -3	D13	2900	92	0.995	2.89	266	
G 3	D13	1250	124	0.995	1.24	154	
G 4 -1	D13	1930	22	0.995	1.92	42	AVERAGE
G 4 -2	D13	2260	92	0.995	2.25	207	
G 5	D13	1370	10	0.995	1.36	14	
G 6 -1	D16	1170	54	1.56	1.83	99	OUTSIDE GIRDER
G 7 -1	D13	1090	12	0.995	1.08	13	OUTSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
					D19	849 kg	
					D16	1981 kg	
					D13	1604 kg	
					TOTAL	4434 kg	

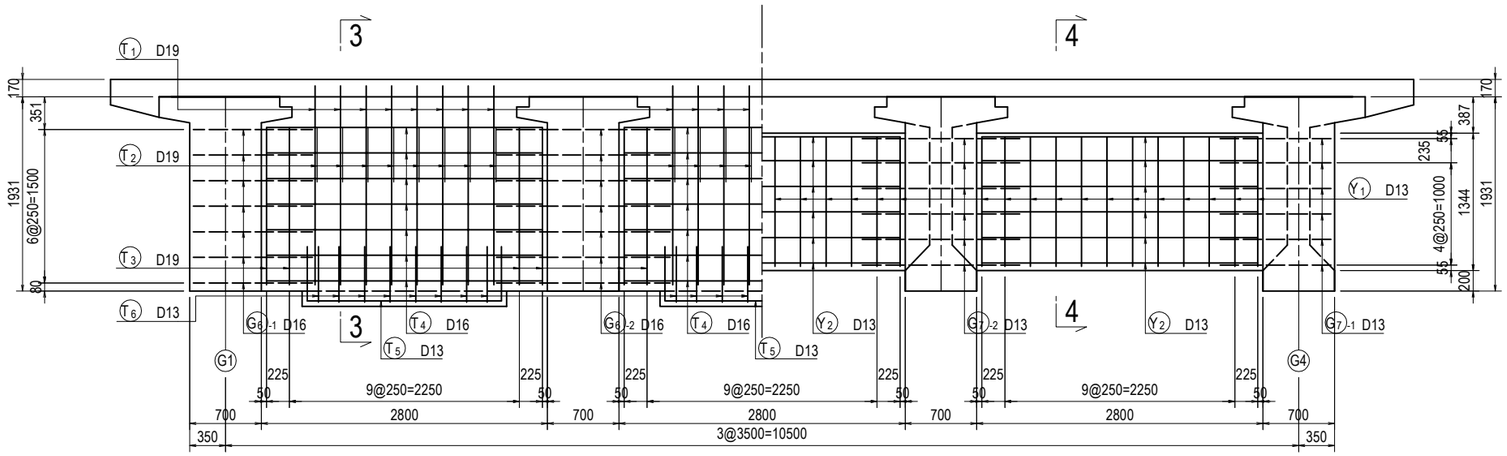
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	BAR ARRANGEMENT OF MAIN GIRDER (PF5-PF7) (6)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1113

BAR ARRANGEMENT OF CROSSBEAM (PF5-PF7) (1)

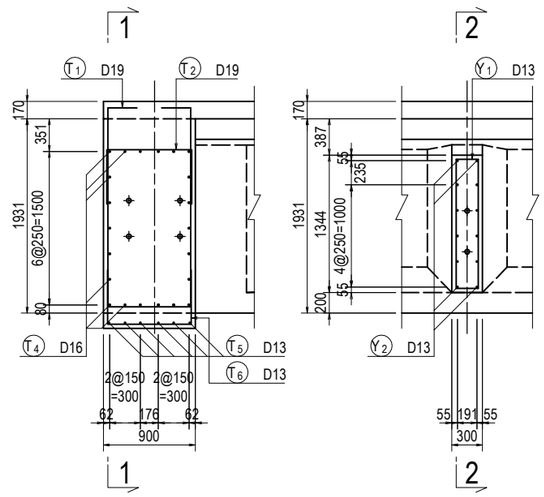
CROSS SECTION S=1:60

1-1 PF5-PF6 (PF6-PF7) 2-2



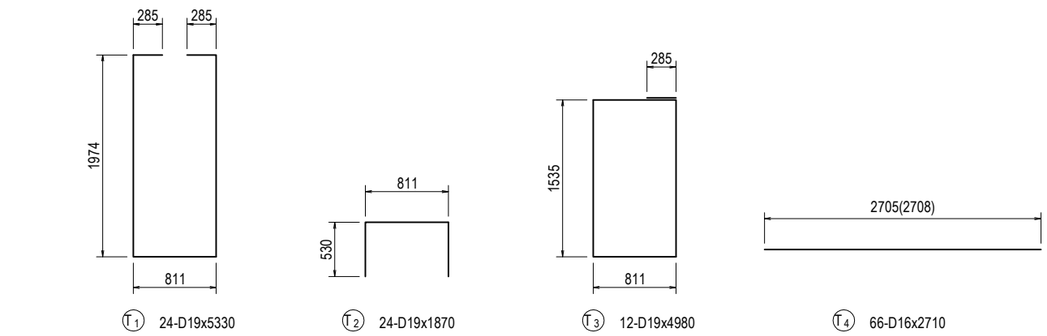
SIDE VIEW S=1:60

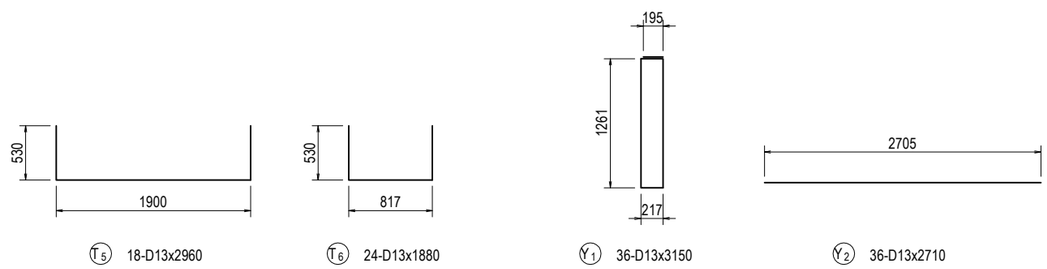
3-3 4-4



PC STRAND LIST

	TYPE	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
CROSSBEAM AT END OF MAIN GIRDER(PF5)	SWPR7BL 4S15.2	11212	4	4.404	49.378	197.5	
CROSSBEAM AT END OF MAIN GIRDER(PF7)	SWPR7BL 4S15.2	11241	4	4.404	49.505	198.0	
INERMEDIATE CROSSBEAM(PF5-PF6)	SWPR7BL 4S15.2	11200	2	4.404	49.325	98.7	
INERMEDIATE CROSSBEAM(PF6-PF7)	SWPR7BL 4S15.2	11202	2	4.404	49.334	98.7	
					TOTAL LENGTH	ΣL= 134.616	m
					TOTAL WEIGHT	ΣW= 592.9	kg





BAR LIST

REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
T 1	D19	5330	24	2.25	11.99	288	
T 2	D19	1870	24	2.25	4.21	101	
T 3	D19	4980	12	2.25	11.21	135	
T 4	D16	2710	66	1.56	4.23	279	
T 5	D13	2960	18	0.995	2.95	53	
T 6	D13	1880	24	0.995	1.87	45	
Y 1	D13	3150	36	0.995	3.13	113	
Y 2	D13	2710	36	0.995	2.70	97	
				D19	524 kg	×2 = 1048	kg
				D16	279 kg	×2 = 558	kg
				D13	308 kg	×2 = 616	kg
				TOTAL	1111 kg	×2 = 2222	kg

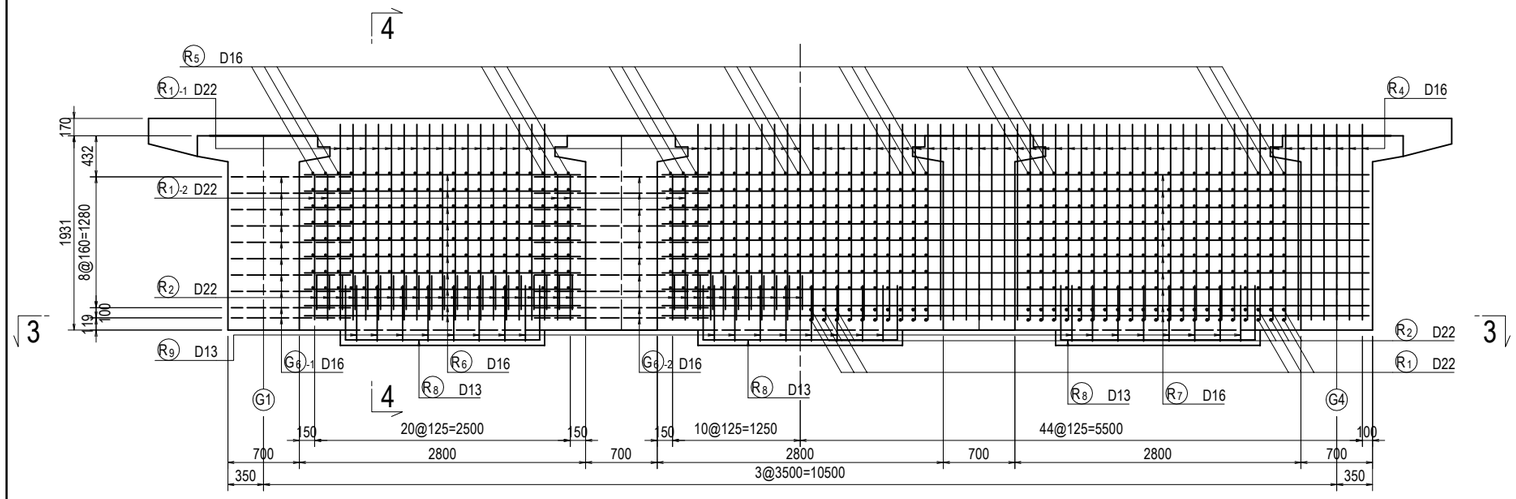
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	DRAWING TITLE: BAR ARRANGEMENT OF CROSSBEAM (PF5-PF7) (1)	PACKAGE: 3

	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

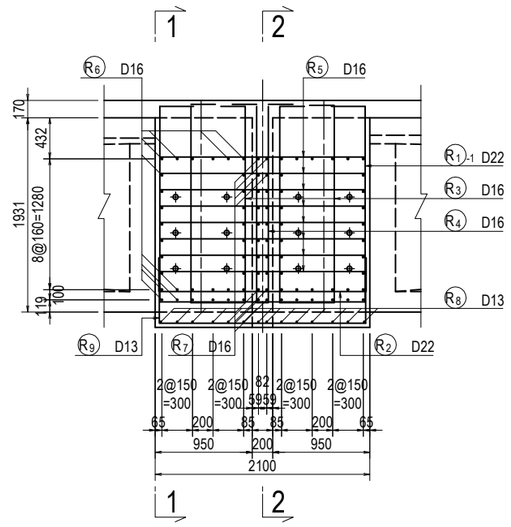
DWG No. P3-FO-1114

BAR ARRANGEMENT OF CROSSBEAM (PF5-PF7) (2)

CROSS SECTION S=1:60

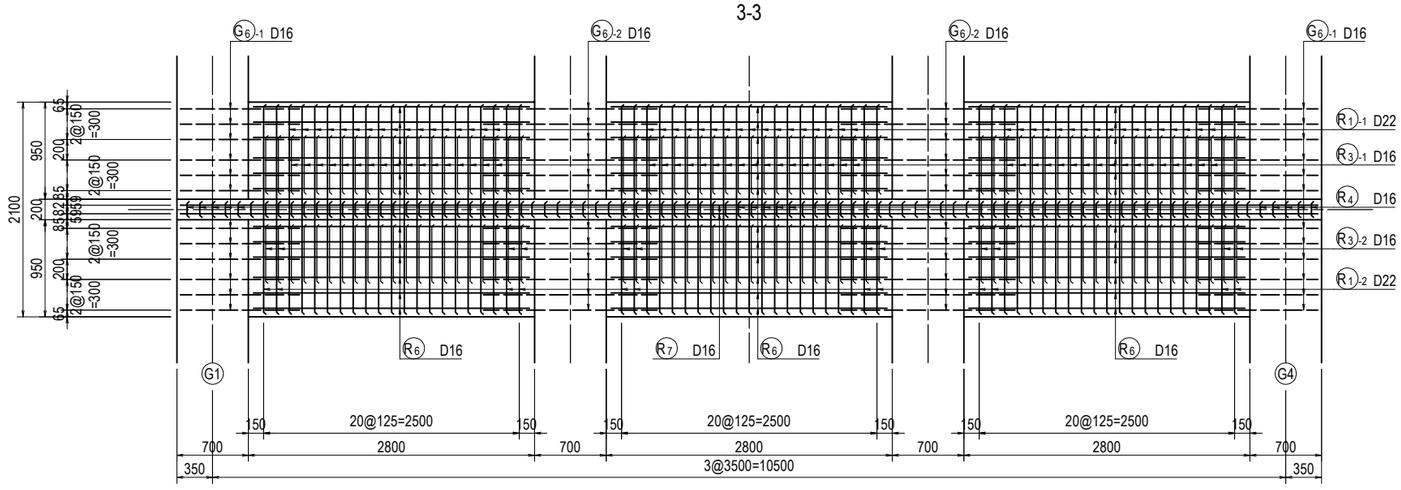


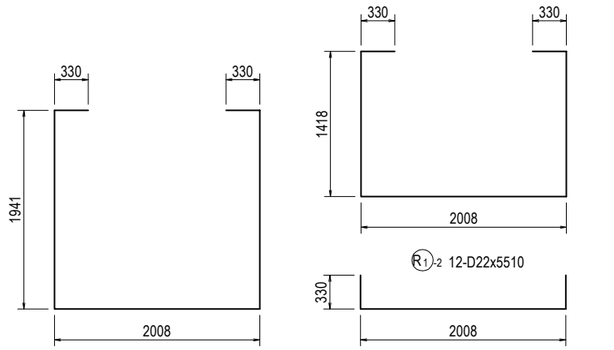
SIDE VIEW S=1:60

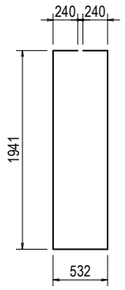


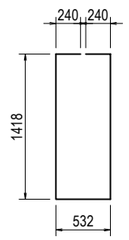
PLAN S=1:60

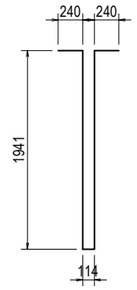
3-3

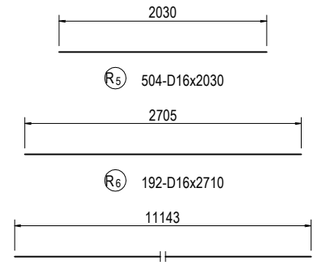


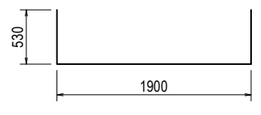


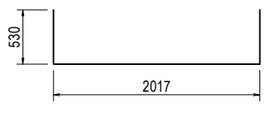












PC STRAND LIST

	TYPE	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
CONNECTING CROSSBEAM	SWPR7BL 4S15.2	11212	12	4.404	49.378	592.5	
				TOTAL LENGTH	ΣL=	134.544	m
				TOTAL WEIGHT	ΣW=	592.5	kg

BAR LIST

REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
R 1 -1	D22	6550	51	3.04	19.91	1015	
R 1 -2	D22	5510	12	3.04	16.75	201	
R 2	D22	2670	63	3.04	8.12	512	
R 3 -1	D16	4900	102	1.56	7.64	779	
R 3 -2	D16	3850	24	1.56	6.01	144	
R 4	D16	4480	89	1.56	6.99	622	
R 5	D16	2030	504	1.56	3.17	1598	
R 6	D16	2710	192	1.56	4.23	812	
R 7	D16	11150	20	1.56	17.39	348	
R 8	D13	2960	42	0.995	2.95	124	
R 9	D13	3080	24	0.995	3.06	73	
				D22	1728	kg	
				D16	4303	kg	
				D13	197	kg	
				TOTAL	6228	kg	

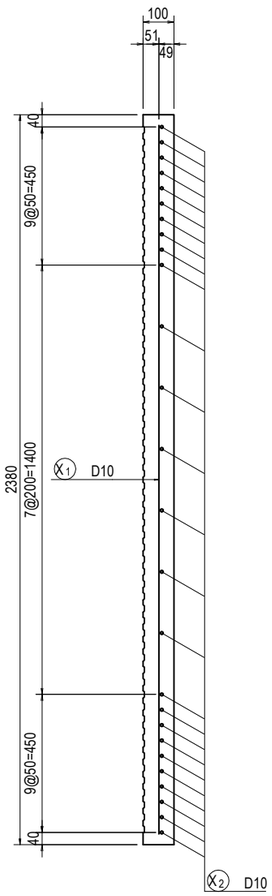
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	BAR ARRANGEMENT OF CROSSBEAM (PF5-PF7) (2)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1115

DETAIL OF PC PLATE FOR DECK SLAB (PF5-PF7)

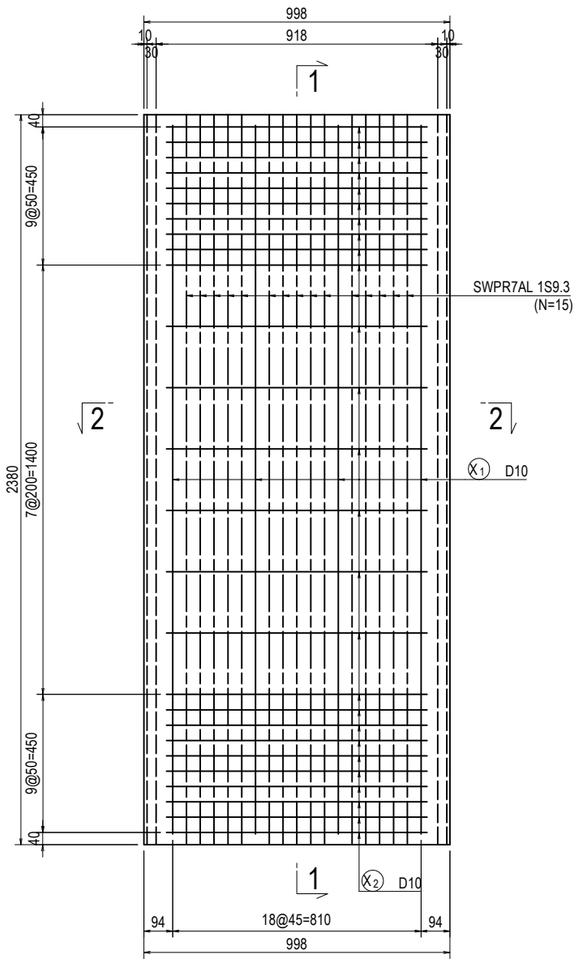
SIDE VIEW S=1:20

1-1

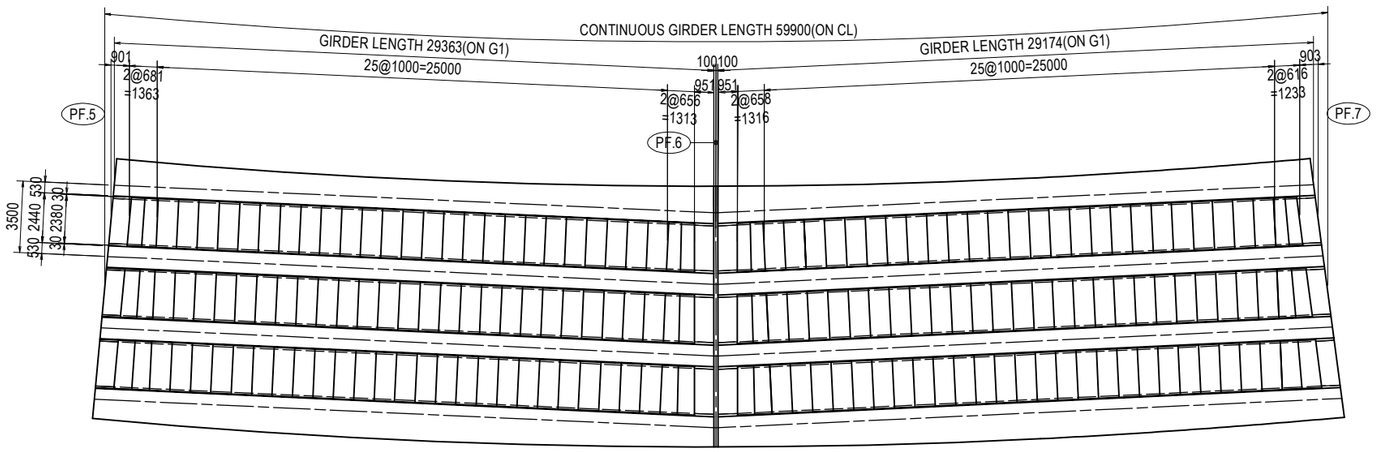


PLAN S=1:20

STANDARD

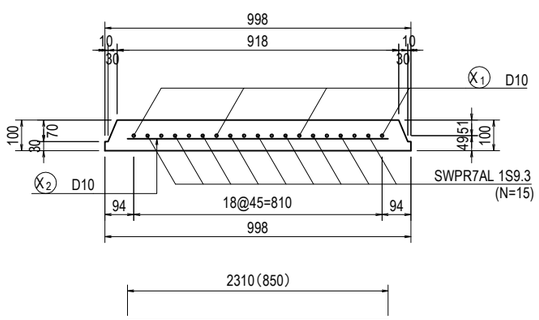


KEY PLAN S=1:300



CROSS SECTION S=1:20

2-2



X1 4-D10x2310

(X2 26-D10x850)

BAR LIST

REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
X 1	D10	2310	4	0.56	1.29	5.2	
X 2	D10	850	26	0.56	0.48	12.5	
						17.7 kg	
				TOTAL	17.7 kg	×174 = 3079.8 kg	

PC STRAND LIST

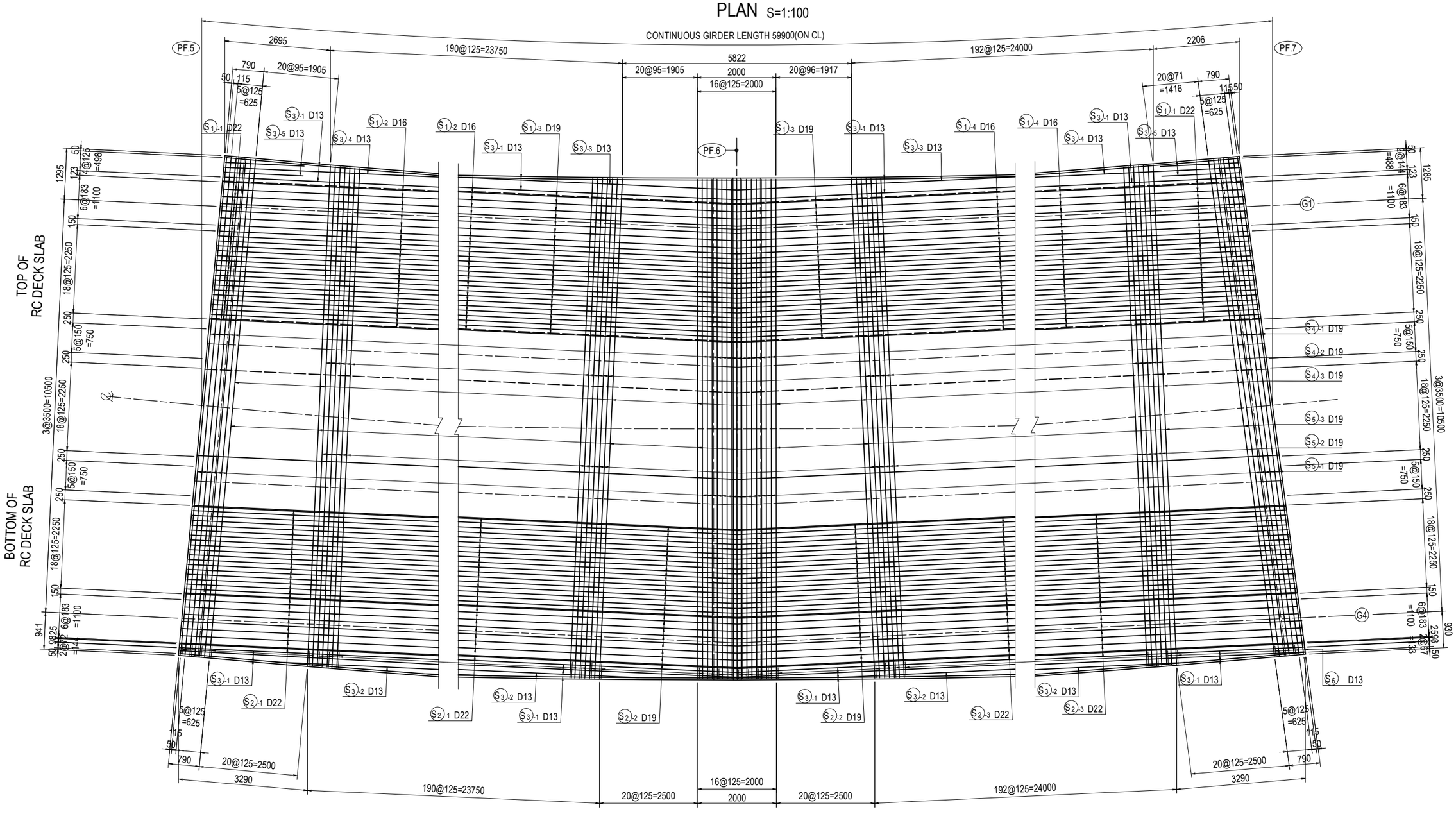
TYPE	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
SWPR7AL 1S9.3	2380	15	0.405	0.96	14.4	
			TOTAL	14.4 kg	×174= 2505.6 kg	

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF PC PLATE FOR DECK SLAB (PF5-PF7)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1116

BAR ARRANGEMENT OF DECK SLAB (PF5-PF7) (1)

PLAN S=1:100



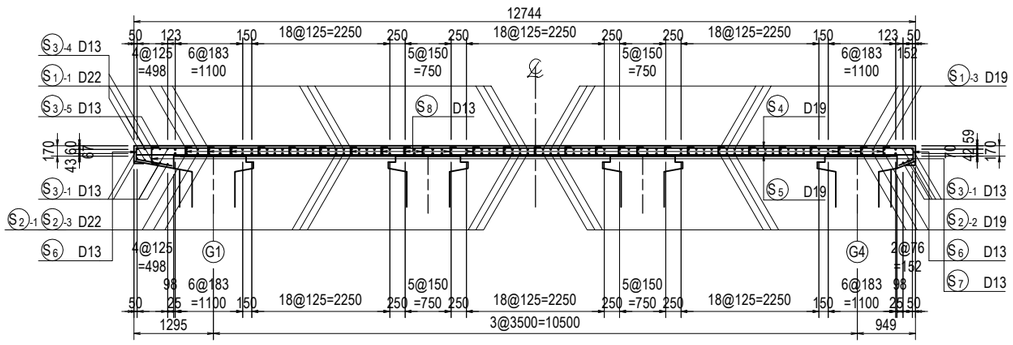
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	BAR ARRANGEMENT OF DECK SLAB (PF5-PF7) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1117

BAR ARRANGEMENT OF DECK SLAB (PF5-PF7) (2)

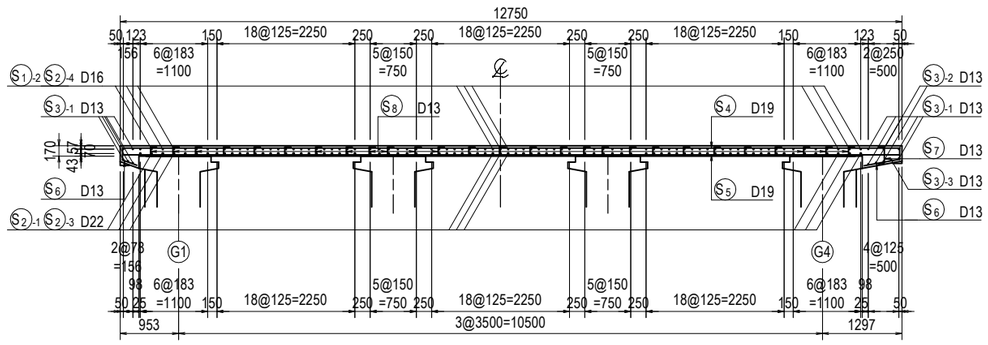
CROSS SECTION S=1:100

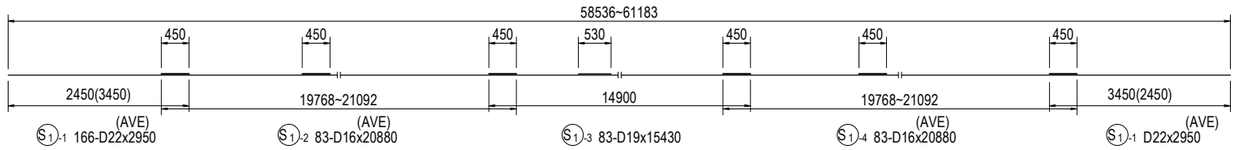
END SECTION

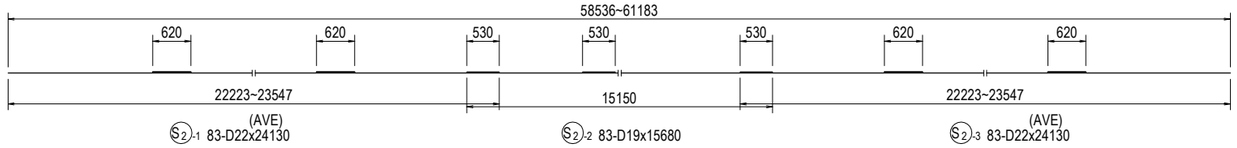


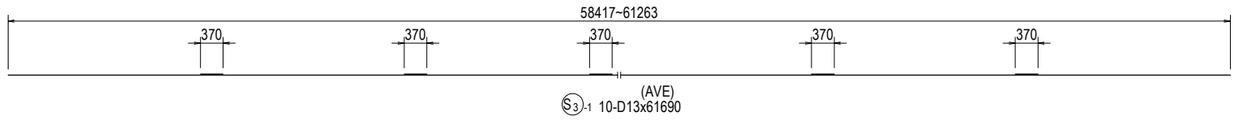
CONNECTION SECTION

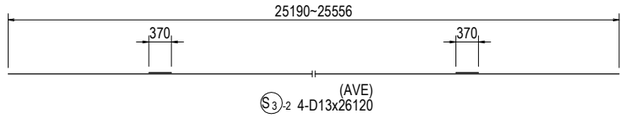
STANDARD SECTION

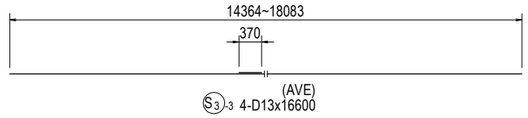


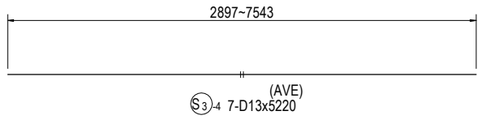


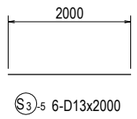


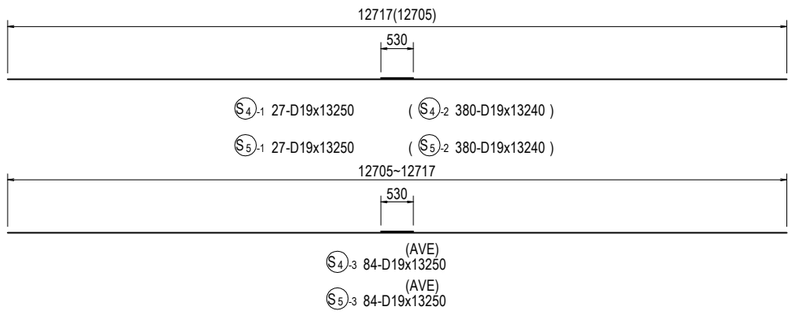


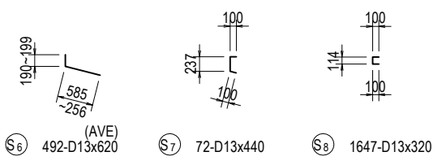












BAR LIST

REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
S 1 -1	D22	2950	166	3.04	8.97	1489	AVERAGE
S 1 -2	D16	20880	83	1.56	32.57	2703	AVERAGE
S 1 -3	D19	15430	83	2.25	34.72	2882	
S 1 -4	D16	20880	83	1.56	32.57	2703	AVERAGE
S 2 -1	D22	24130	83	3.04	73.36	6089	AVERAGE
S 2 -2	D19	15680	83	2.25	35.28	2928	
S 2 -3	D22	24130	83	3.04	73.36	6089	AVERAGE
S 3 -1	D13	61690	10	0.995	61.38	614	AVERAGE
S 3 -2	D13	26120	4	0.995	25.99	104	AVERAGE
S 3 -3	D13	16600	4	0.995	16.52	66	AVERAGE
S 3 -4	D13	5220	7	0.995	5.19	36	AVERAGE
S 3 -5	D13	2000	6	0.995	1.99	12	
S 4 -1	D19	13250	27	2.25	29.81	805	
S 4 -2	D19	13240	380	2.25	29.79	11320	
S 4 -3	D19	13250	84	2.25	29.81	2504	AVERAGE
S 5 -1	D19	13250	27	2.25	29.81	805	
S 5 -2	D19	13240	380	2.25	29.79	11320	
S 5 -3	D19	13250	84	2.25	29.81	2504	AVERAGE
S 6	D13	620	492	0.995	0.62	305	AVERAGE
S 7	D13	440	72	0.995	0.44	32	
S 8	D13	320	1647	0.995	0.32	527	

D22	13667 kg
D19	35068 kg
D16	5406 kg
D13	1696 kg
TOTAL	55837 kg

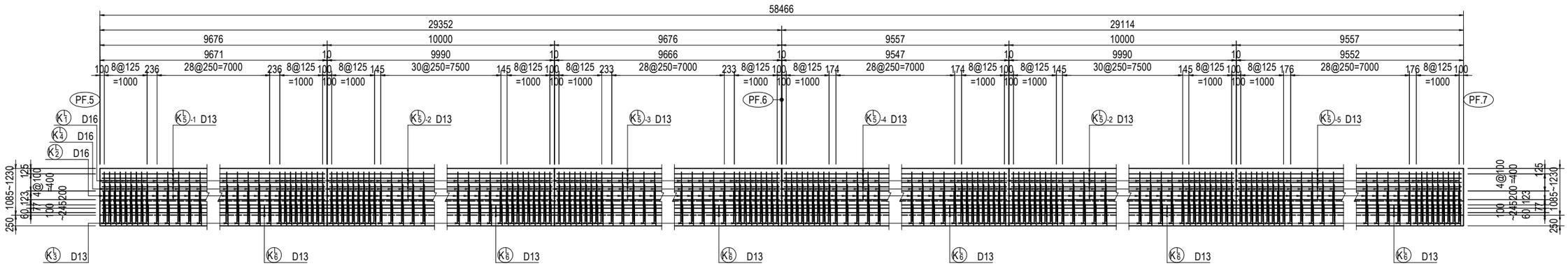
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	BAR ARRANGEMENT OF DECK SLAB (PF5-PF7) (2)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1118

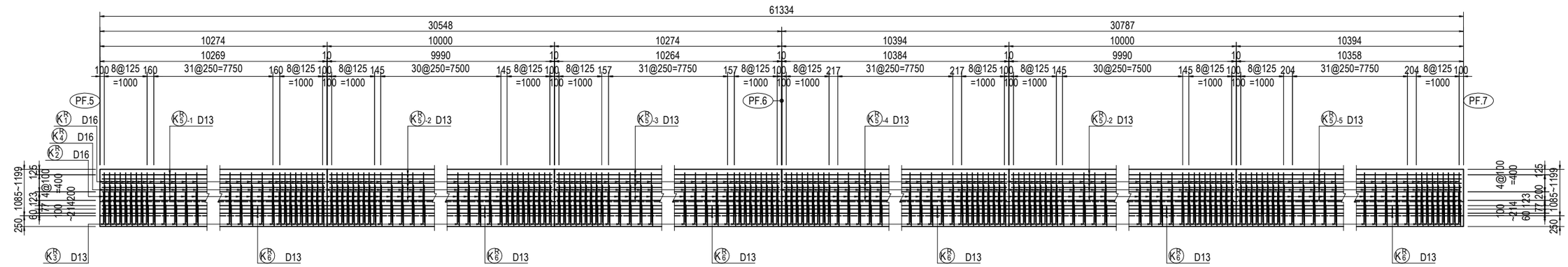
DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (PF5-PF7) (1)

SIDE VIEW S=1:100

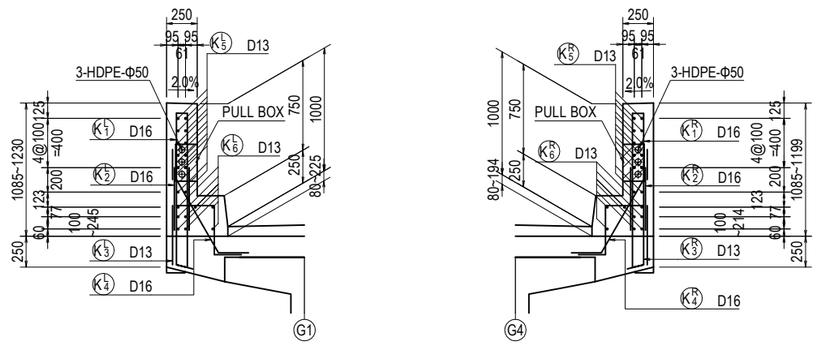
(L)



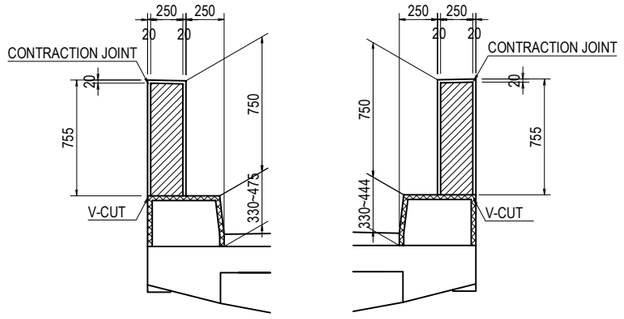
(R)



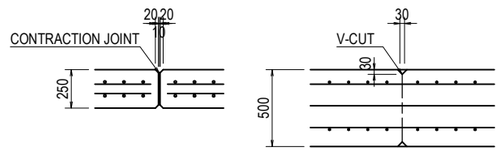
CROSS SECTION S=1:50



CROSS SECTION S=1:40



DETAIL OF CONSTRUCTION JOINT

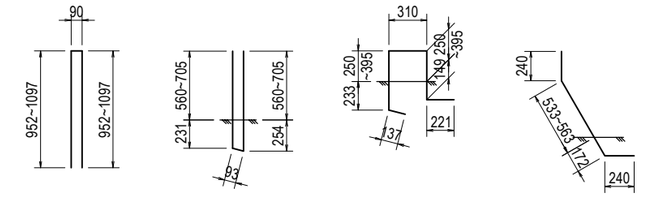


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (PF5-PF7) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1119

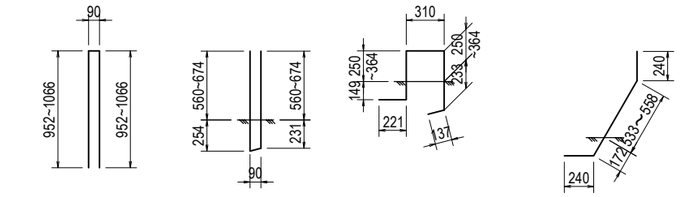
DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (PF5-PF7) (2)

(L)

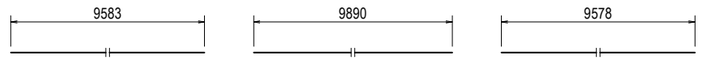


K^{L}_{1} (AVE) 286-D16x2140 K^{L}_{2} (AVE) 286-D16x1850 K^{L}_{3} (AVE) 286-D13x1700 K^{L}_{4} (AVE) 286-D16x1200

(R)



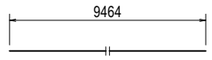
K^{R}_{1} (AVE) 298-D16x2110 K^{R}_{2} (AVE) 298-D16x1820 K^{R}_{3} (AVE) 298-D13x1670 K^{R}_{4} (AVE) 298-D16x1210



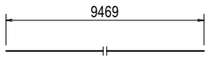
$K^{L}_{5\text{-}1}$ (AVE) 12-D13x9590

$K^{L}_{5\text{-}2}$ (AVE) 24-D13x9890

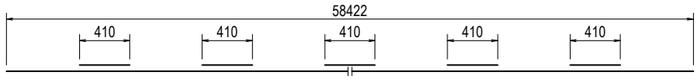
$K^{L}_{5\text{-}3}$ (AVE) 12-D13x9580



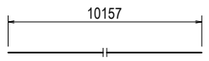
$K^{L}_{5\text{-}4}$ (AVE) 12-D13x9470



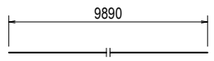
$K^{L}_{5\text{-}5}$ (AVE) 12-D13x9470



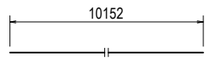
K^{L}_{6} (AVE) 8-D13x60480



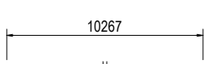
$K^{R}_{5\text{-}1}$ (AVE) 12-D13x10160



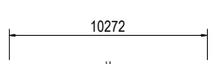
$K^{R}_{5\text{-}2}$ (AVE) 24-D13x9890



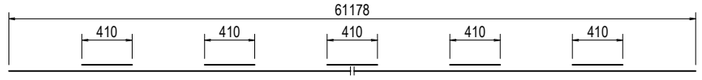
$K^{R}_{5\text{-}3}$ (AVE) 12-D13x10160



$K^{R}_{5\text{-}4}$ (AVE) 12-D13x10270



$K^{R}_{5\text{-}5}$ (AVE) 12-D13x10280

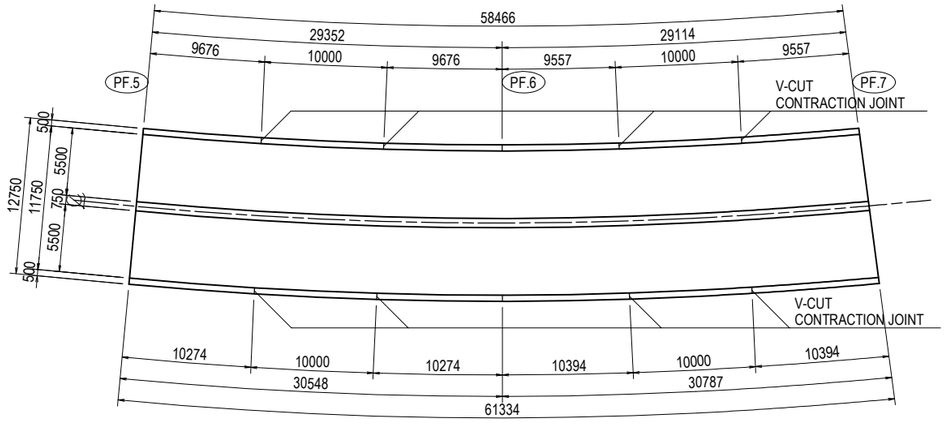


K^{R}_{6} (AVE) 8-D13x63230

BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
K^{L}_{1}	D16	2140	286	1.56	3.34	955	AVERAGE
K^{L}_{2}	D16	1850	286	1.56	2.89	827	AVERAGE
K^{L}_{3}	D13	1700	286	0.995	1.69	483	AVERAGE
K^{L}_{4}	D16	1200	286	1.56	1.87	535	AVERAGE
$K^{L}_{5\text{-}1}$	D13	9590	12	0.995	9.54	114	AVERAGE
$K^{L}_{5\text{-}2}$	D13	9890	24	0.995	9.84	236	AVERAGE
$K^{L}_{5\text{-}3}$	D13	9580	12	0.995	9.53	114	AVERAGE
$K^{L}_{5\text{-}4}$	D13	9470	12	0.995	9.42	113	AVERAGE
$K^{L}_{5\text{-}5}$	D13	9470	12	0.995	9.42	113	AVERAGE
K^{L}_{6}	D13	60480	8	0.995	60.18	481	AVERAGE
K^{R}_{1}	D16	2110	298	1.56	3.29	**980**	AVERAGE
K^{R}_{2}	D16	1820	298	1.56	2.84	846	AVERAGE
K^{R}_{3}	D13	1670	298	0.995	1.66	495	AVERAGE
K^{R}_{4}	D16	1210	298	1.56	1.89	563	AVERAGE
$K^{R}_{5\text{-}1}$	D13	10160	12	0.995	10.11	121	AVERAGE
$K^{R}_{5\text{-}2}$	D13	9890	24	0.995	9.84	236	AVERAGE
$K^{R}_{5\text{-}3}$	D13	10160	12	0.995	10.11	121	AVERAGE
$K^{R}_{5\text{-}4}$	D13	10270	12	0.995	10.22	123	AVERAGE
$K^{R}_{5\text{-}5}$	D13	10280	12	0.995	10.23	123	AVERAGE
K^{R}_{6}	D13	63230	8	0.995	62.91	503	
					D16	4706 kg	
					D13	3376 kg	
					TOTAL	8082 kg	

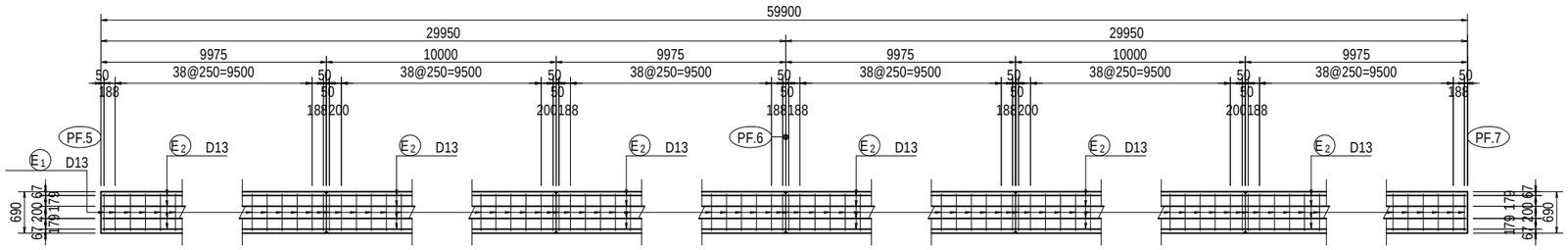
KEY PLAN S=1:500



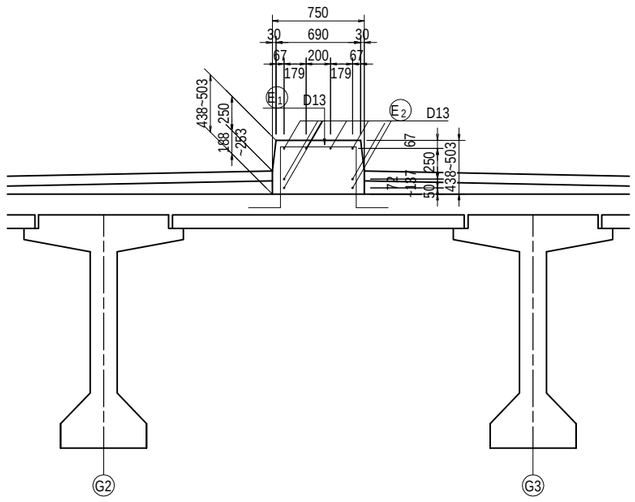
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (PF5-PF7) (2)	3
				CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
				APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1120

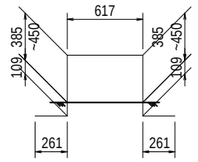
DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (PF5-PF7) (3)

PLAN S=1:100



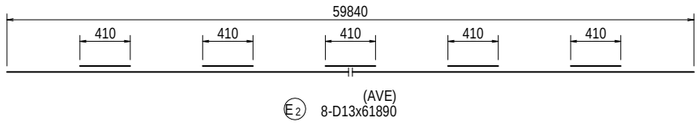
CROSS SECTION S=1:50



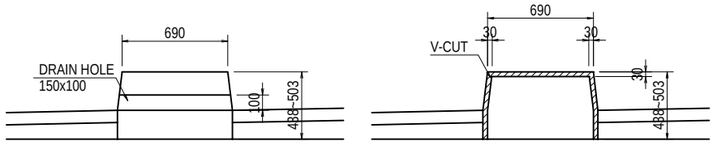


BAR LIST

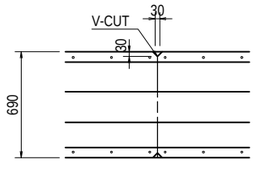
REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
E 1	D13	2200	246	0.995	2.19	539	AVERAGE
E 2	D13	61890	8	0.995	61.58	493	AVERAGE
						1032 kg	
					TOTAL	1032 kg	



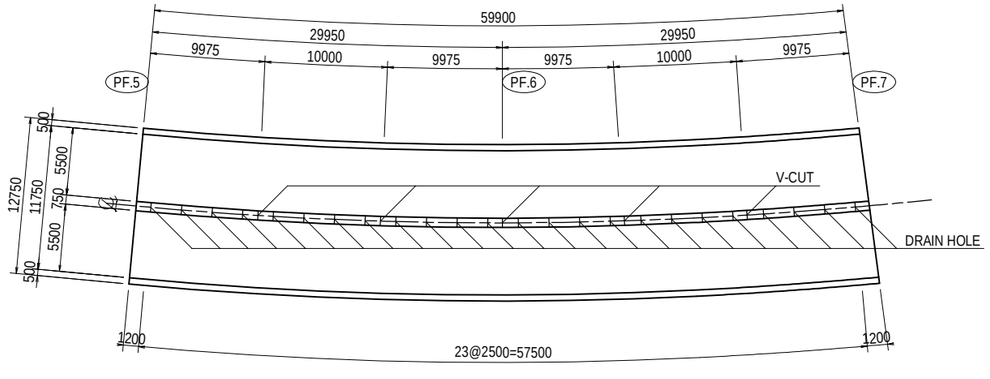
CROSS SECTION S=1:40



DETAIL OF V-CUT



KEY PLAN S=1:500

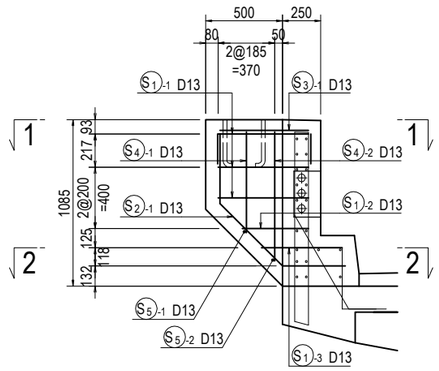


PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (PF5-PF7) (3)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1121

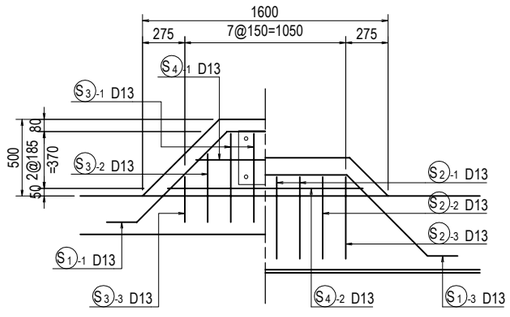
DETAIL OF LIGHTING FOUNDATION (PF5-PF7)

CROSS SECTION S=1:40



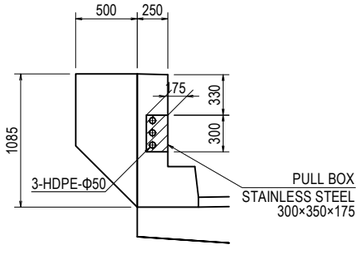
PLAN S=1:40

1-1 2-2

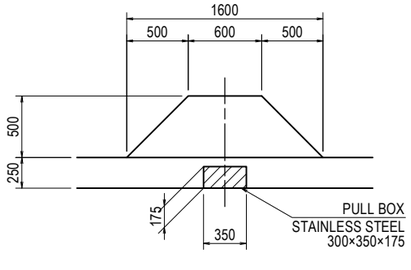


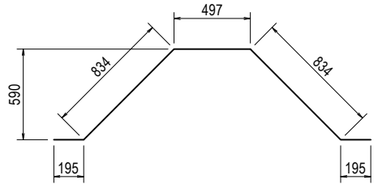
PULLBOX DETAIL S=1:50

CROSS SECTION

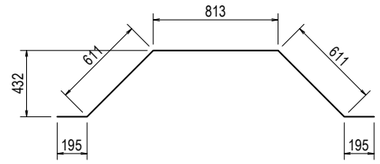


PLAN

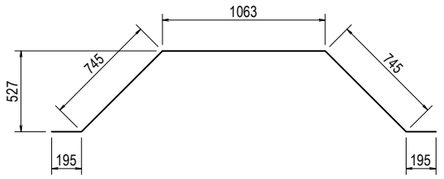




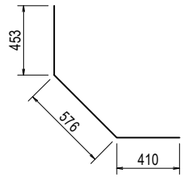
S1-1 3-D13x2560



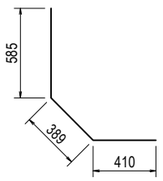
S1-2 1-D13x2430



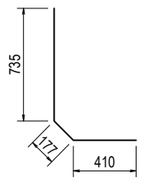
S1-3 1-D13x2950



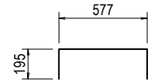
S2-1 4-D13x1440



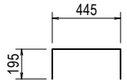
S2-2 2-D13x1390



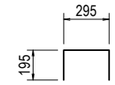
S2-3 2-D13x1330



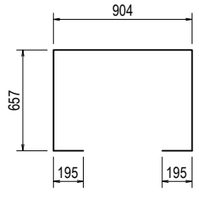
S3-1 4-D13x970



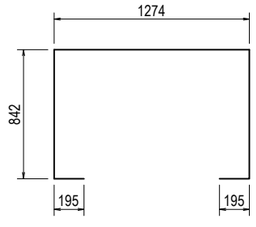
S3-2 2-D13x840



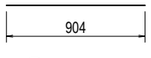
S3-3 2-D13x690



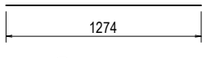
S4-1 1-D13x2610



S4-2 1-D13x3350



S5-1 1-D13x910



S5-2 1-D13x1280

BAR LIST

REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
S 1 -1	D13	2560	3	0.995	2.55	8	
S 1 -2	D13	2430	1	0.995	2.42	2	
S 1 -3	D13	2950	1	0.995	2.94	3	
S 2 -1	D13	1440	4	0.995	1.43	6	
S 2 -2	D13	1390	2	0.995	1.38	3	
S 2 -3	D13	1330	2	0.995	1.32	3	
S 3 -1	D13	970	4	0.995	0.97	4	
S 3 -2	D13	840	2	0.995	0.84	2	
S 3 -3	D13	690	2	0.995	0.69	1	
S 4 -1	D13	2610	1	0.995	2.60	3	
S 4 -2	D13	3350	1	0.995	3.33	3	
S 5 -1	D13	910	1	0.995	0.91	1	
S 5 -2	D13	1280	1	0.995	1.27	1	
						40 kg	
					TOTAL	40 kg	

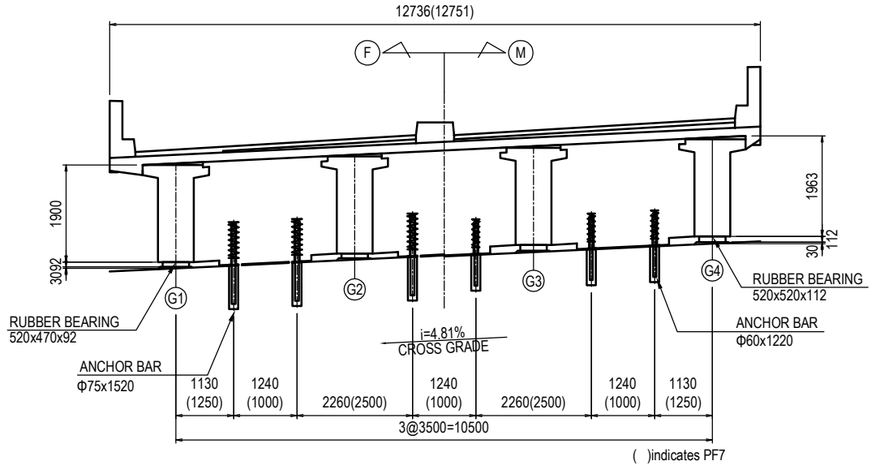
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF LIGHTING FOUNDATION (PF5-PF7)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1122

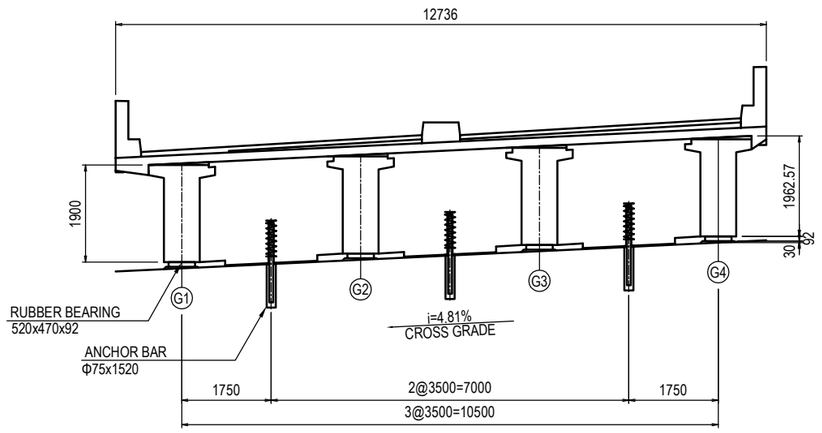
DETAIL OF RUBBER BEARING (PF5-PF7) (1)

CROSS SECTION S= 1:60

PF5,PF7

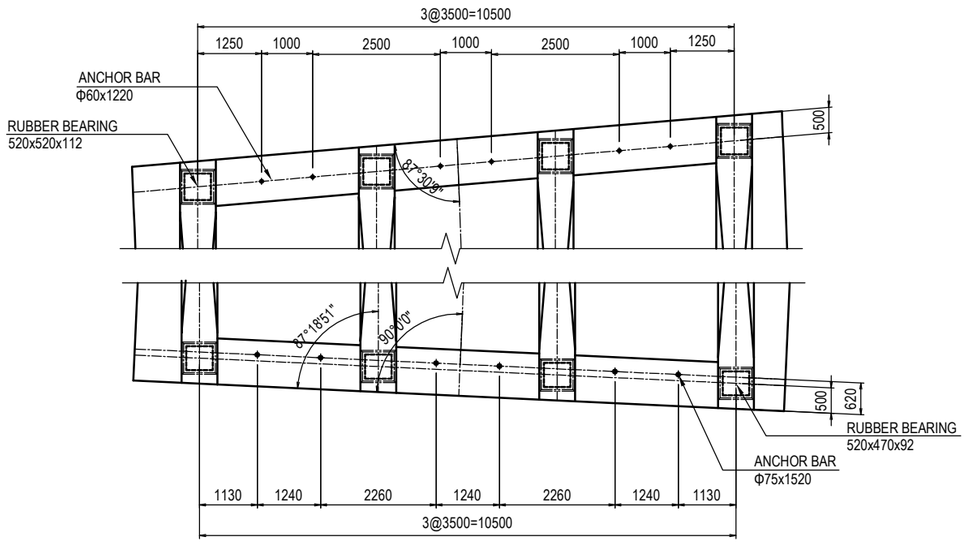


PF6L,PF6R



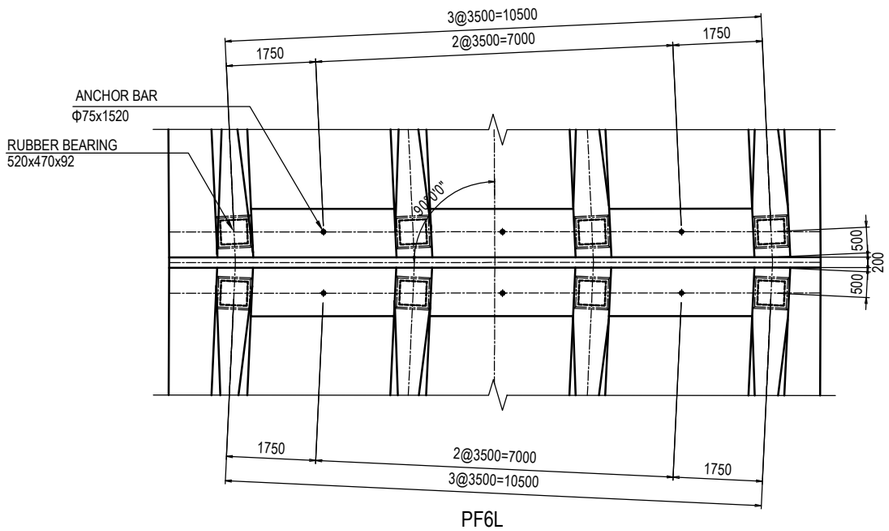
PLAN S= 1:60

PF7



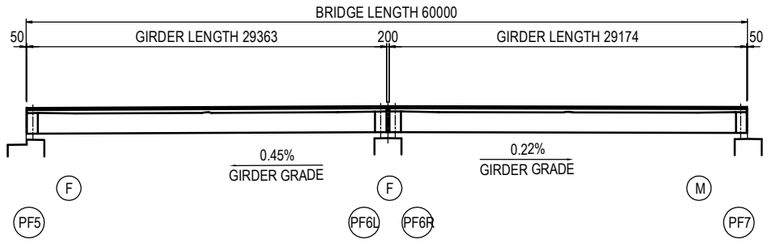
PF5

PF6R



PF6L

ELEVATION S= 1:250



DESIGN CONDITION

REACTION			PF5 (F)	PF6L (F)	PF6R (F)	PF7 (M)
MAXIMUM REACTION		Rmax	1328 kN	1481 kN	1507 kN	1338 kN
MAXIMUM REACTION		Rmax2	1195 kN	1328 kN	1389 kN	1226 kN
DEAD LOAD REACTION		Rd	1001 kN	1004 kN	1029 kN	1012 kN
MAXIMUM STRAIN FORCE	LONGITUDIAL	Rhe1	745 kN	294 kN	294 kN	450 kN
	TRANSVERSE	Rhe2	223 kN	363 kN	363 kN	216 kN
STRAIN VOLUME	ORDINARY	LONGITUDIAL	ΔL	− mm	− mm	− mm	38.9 mm
	LEVEL1	LONGITUDIAL	ΔLe1	− mm	− mm	− mm	26.7 mm
		TRANSVERSE	ΔLe2	− mm	− mm	− mm	− mm

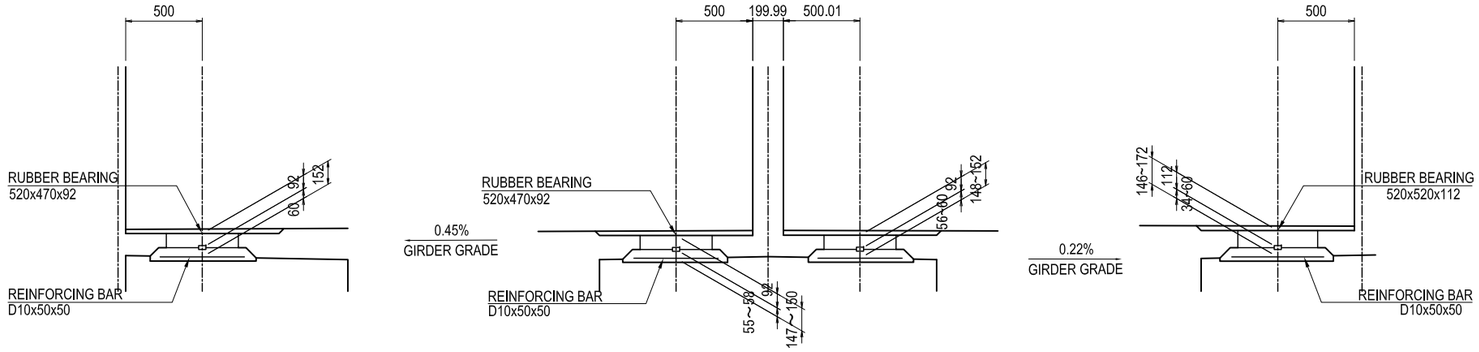
NOTES:
1) Details of the slab and girder are designed based on the product (rubber bearing) shown in this Drawing.
2) The Contractor has option to propose an alternative equivalent to the specified product, which shall be subjected to the Engineer's approval.
3) All the structural steels shall be galvanized to the requirements specified by JIS H8641.

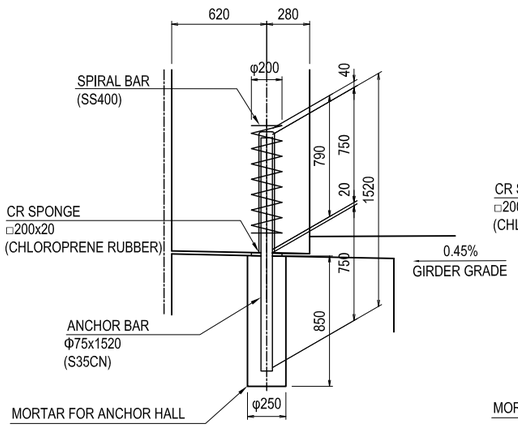
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF RUBBER BEARING (PF5-PF7) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1123

DETAIL OF RUBBER BEARING (PF5-PF7) (2)

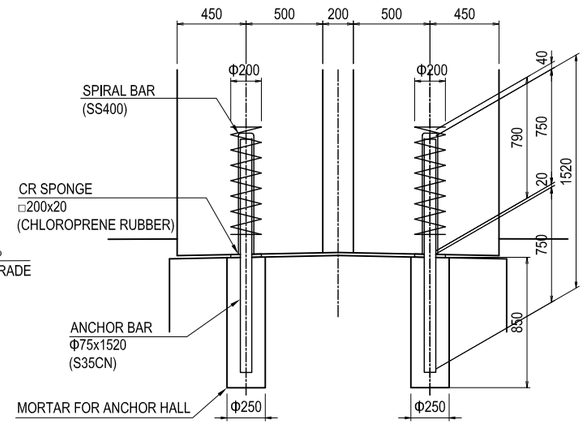
SIDE VIEW S= 1:20





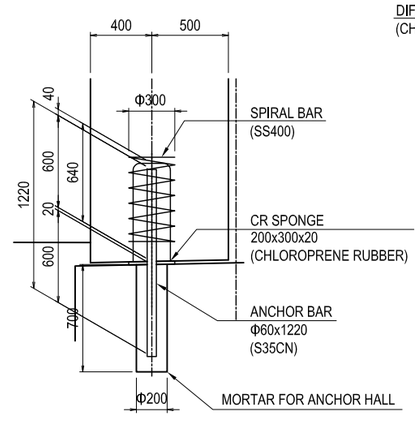
F

PF5



F F

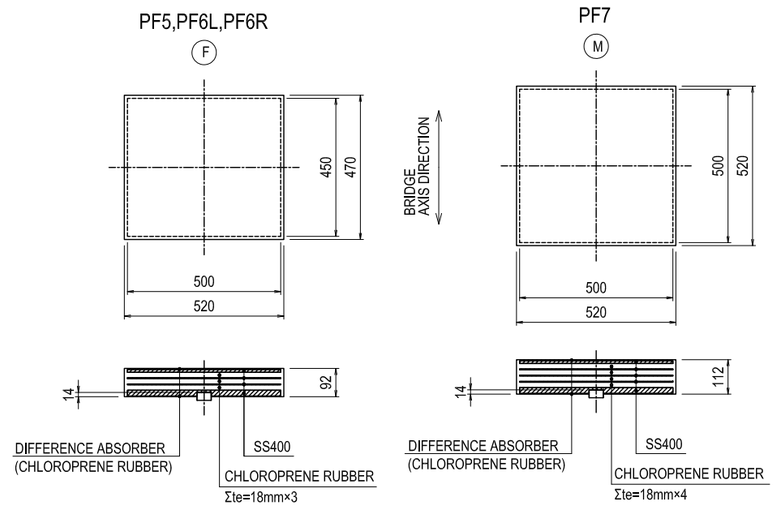
PF6L,PF6R



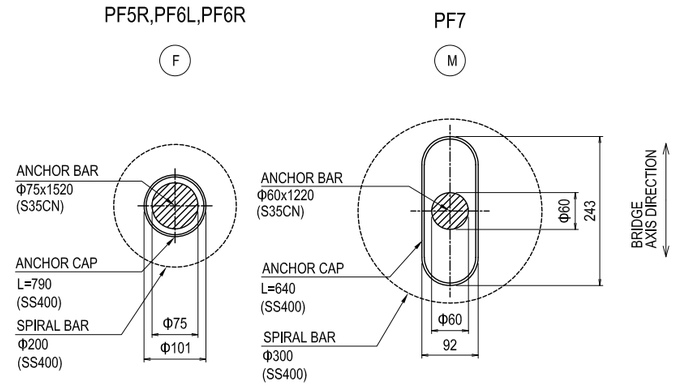
M

PF7

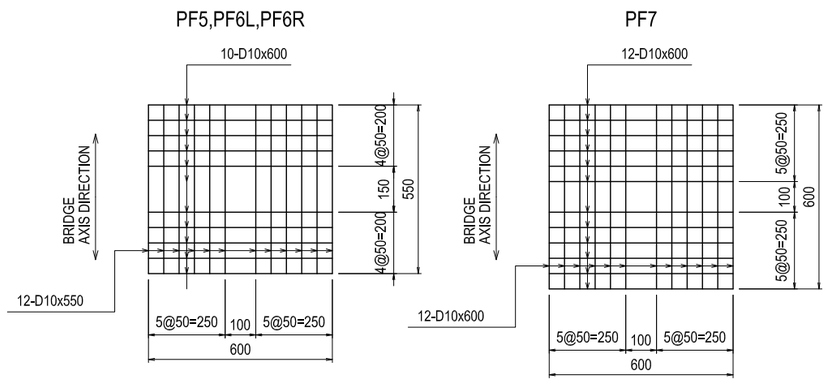
RUBBER BEARING S= 1:10



ANCHOR SYSTEM S= 1:5



REINFORCING BAR S= 1:10



PARTS LIST

ITEM	DIMENSION	MATERIAL	UNIT	QUANTITY					WEIGHT (kg)	REMARKS
				PF5(F)	PF6L(F)	PF6R(F)	PF7(M)	TOTAL		
RUBBER BEARING	520x470x92	AS SHOWN	SHEET	4	4	4		12		
〃	520x520x112	〃	〃				4	4		
ANCHOR SYSTEM	Φ75x1520	S35CN	SET	6	3	3		12		
〃	Φ60x1220	〃	〃				6	6		
CR SPONGE	□200x20	CHLOROPRENE RUBBER	SHEET	6	3	3		12		
〃	200x300x20	〃	〃				6	6		
REINFORCING BAR	D10x50x50	SD345	kg	28.22	28.22	28.22	32.26		116.92	
BED MORTAR FOR BEARING		NON SHRINKAGE MORTAR	m3	0.144	0.136	0.140	0.141	0.561		
MORTAR FOR ANCHOR HALLS		NON SHRINKAGE MORTAR	m3	0.230	0.115	0.115	0.122	0.582		

※An Anchor System includes anchor bar,anchor cap and spiral bar.

NOTES:
1) Details of the slab and girder are designed based on the product (rubber bearing) shown in this Drawing.
2) The Contractor has option to propose an alternative equivalent to the specified product, which shall be subjected to the Engineer's approval.
3) All the structural steels shall be galvanized to the requirements specified by JIS H8641.

PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

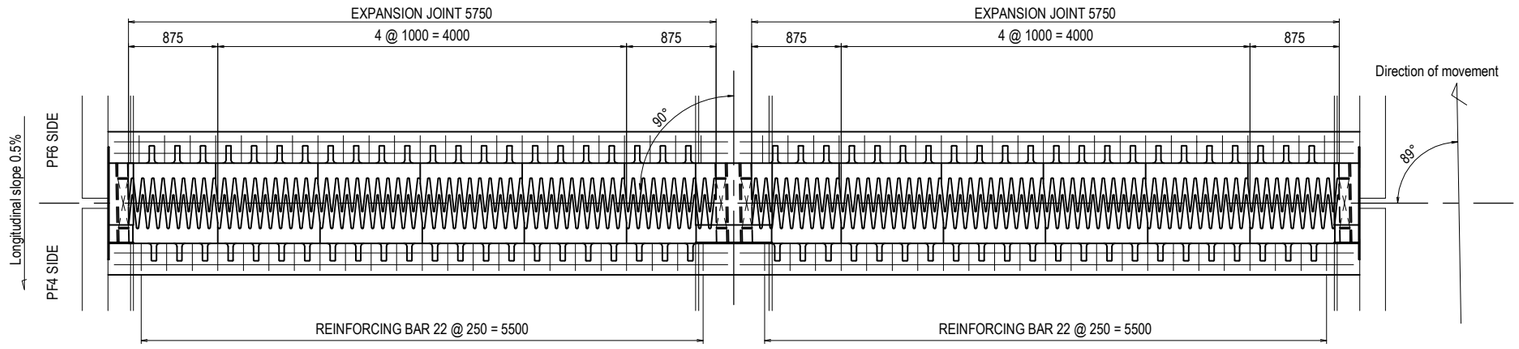
	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

DRAWING TITLE	PACKAGE
DETAIL OF RUBBER BEARING (PF5-PF7) (2)	3
	DWG No.
	P3-FO-1124

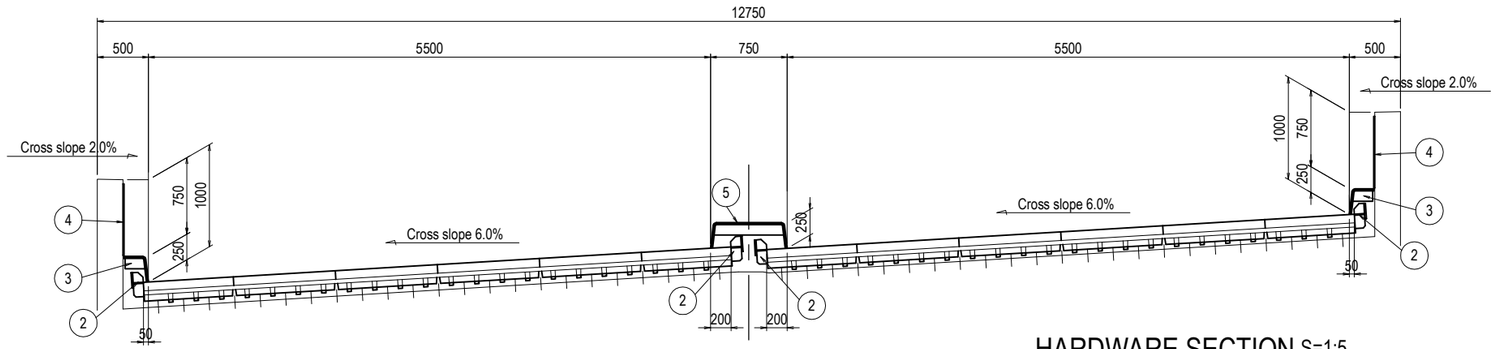
DETAIL OF EXPANSION JOINT (PF5-PF7) (1)

PF5

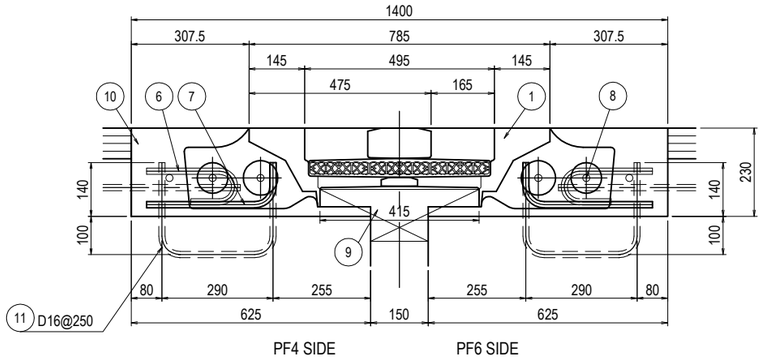
PLAN VIEW S=1:30



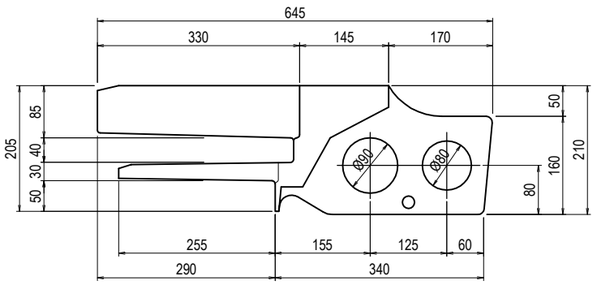
CROSS SECTION S=1:30



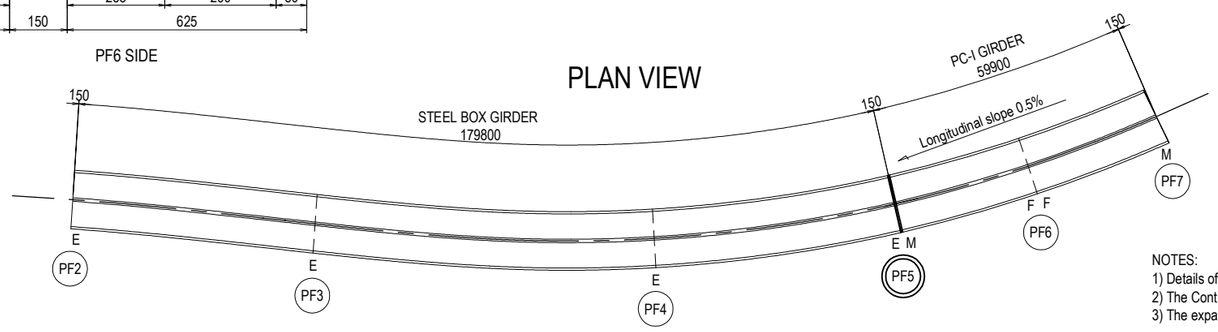
SECTION OF EXPANSION JOINT S=1:8



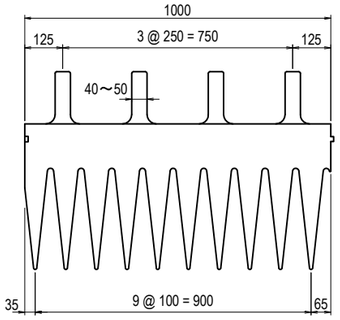
HARDWARE SECTION S=1:5



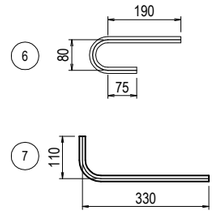
PLAN VIEW



HARDWARE PLAN S=1:10



DETAIL OF REINFORCING BAR S=1:8



MATERIALS LIST					(1 par place)
No.	DESCRIPTION	MATERIALS	UNIT	QUANTITY	REMARK
1	EXPANSION JOINT	**ALUMINUM ALLOY CASTING**	m	11.500	320mm
2	UPSTAND		pieces	4	
3	COVER FOR CURB	SS400 or Equivalent	set	2	
4	COVER FOR BARRIER CURB	SUS304	set	2	t=2(include anchor)
5	**COVER FOR MEDIAL DIVIDER**	SS400 or Equivalent	set	1	
6	REINFORCING BAR	SD345	kg	55.97	D16 × 390 × 92 Nos.
7	REINFORCING BAR	SD345	kg	63.15	D16 × 440 × 92 Nos.
8	REINFORCING BAR	SD345	kg	162.00	D19 × 6.0m × 12 Nos.
9	BURIED FORMWORK	Foamed Stylene	m^3	0.76	400 × 150 × 12.7m
10	POST-CAST CONCRETE	High strength concrete	m^3	2.66	σ_{ck} =30N/mm^2
EMBEDDED BAR					
11	EMBEDDED BAR	SD345	kg	110.51	D16 × 770 × 92 Nos.

DESIGN CONDITION	
Temperature range	0℃～+50℃
Amount of temperature variation	54mm
Earthquake movement amount	±117mm

Note
1 Re-bar should be consider the developed length.
2 Allocation of the expansion joint is subject to change
3 Expansion joint should be placing to match the transverse gradient.
4 Expansion joint should be installed in consideration of the effect of Creep and Shrinkage.

NOTES:
1) Details of the slab and girder are designed based on the product (expansion joint) shown in this Drawing.
2) The Contractor has option to propose an alternative equivalent to the specified product, which shall be subjected to the Engineer's approval.
3) The expansion joint shall be set in consideration of thermal expansion, creep and shrinkage of concrete girder.

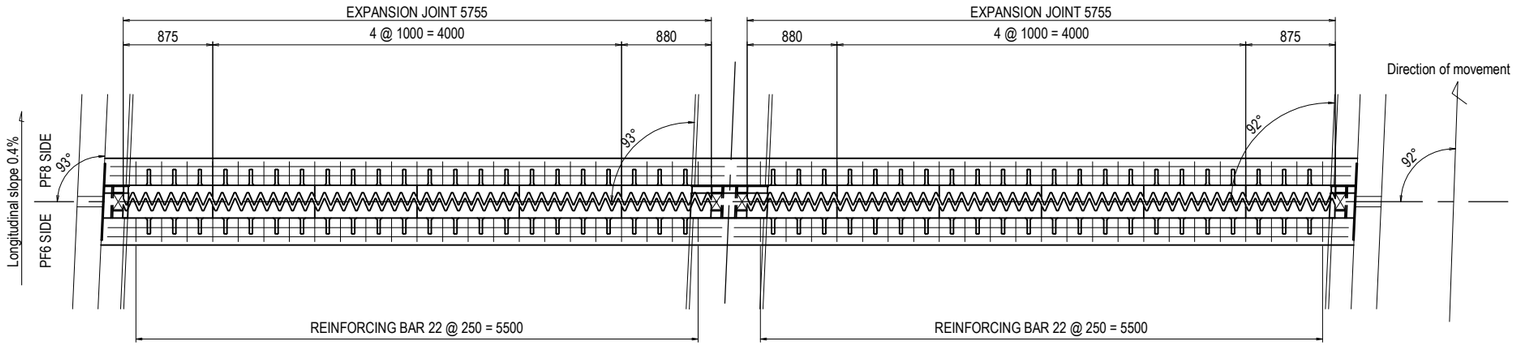
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF EXPANSION JOINT (PF5-PF7) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1125

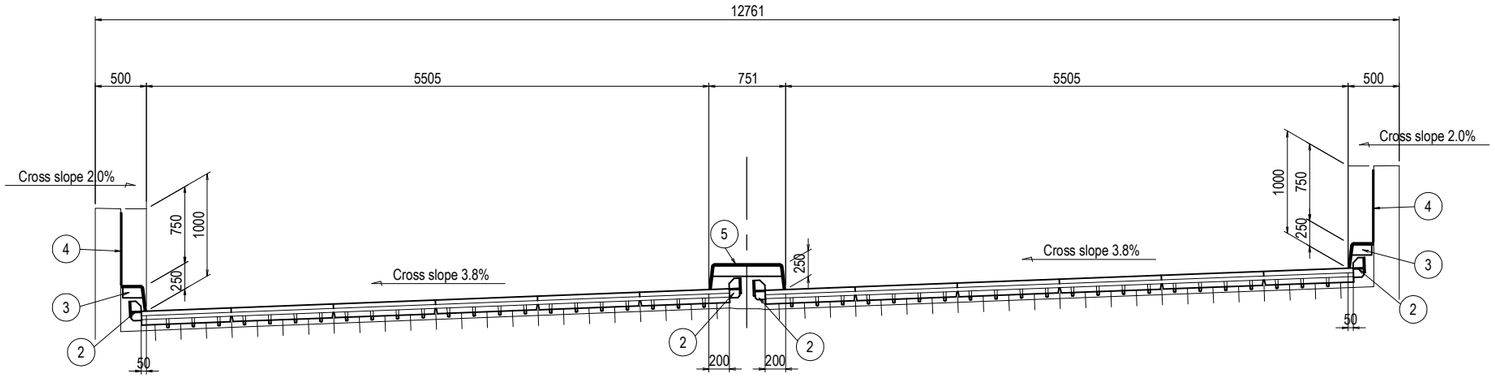
DETAIL OF EXPANSION JOINT (PF5-PF7) (2)

PF7

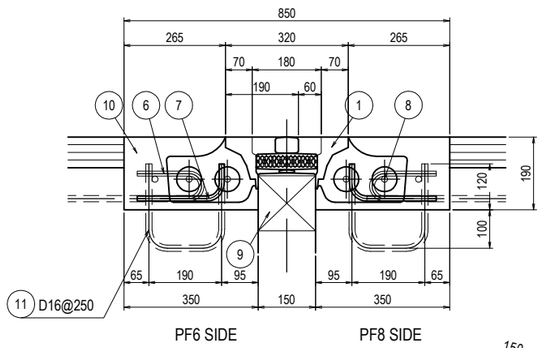
PLAN VIEW S=1:30



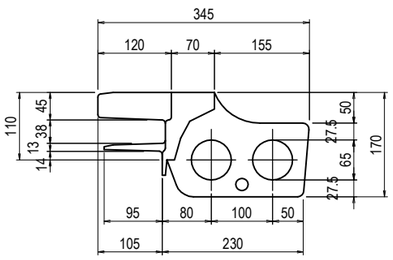
CROSS SECTION S=1:30



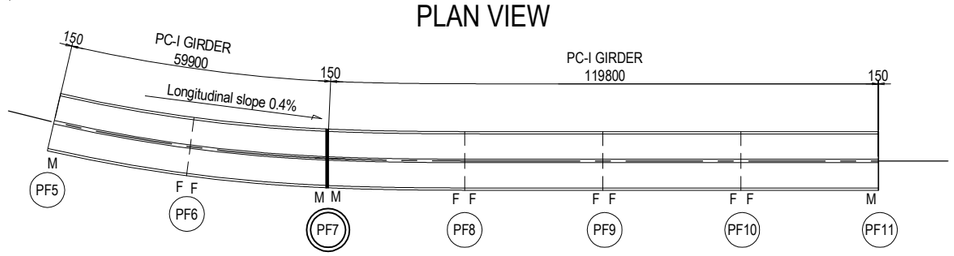
SECTION OF EXPANSION JOINT S=1:8



HARDWARE SECTION S=1:5



PLAN VIEW

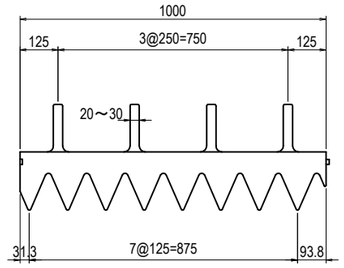


MATERIALS LIST					(1 par place)
No.	DESCRIPTION	MATERIALS	UNIT	QUANTITY	REMARK
1	EXPANSION JOINT	**ALUMINUM ALLOY CASTING**	m	11.510	110mm
2	UPSTAND		pieces	4	
3	COVER FOR CURB	SS400 or Equivalent	set	2	
4	COVER FOR BARRIER CURB	SUS304	set	2	t=2(include anchor)
5	**COVER FOR MEDIAL DIVIDER**	SS400 or Equivalent	set	1	
6	REINFORCING BAR	SD345	kg	26.55	D13 × 290 × 92 Nos.
7	REINFORCING BAR	SD345	kg	28.38	D13 × 310 × 92 Nos.
8	REINFORCING BAR	SD345	kg	112.32	D16 ×6.0m × 12 Nos.
9	BURIED FORMWORK	Foamed Stylene	m^3	0.29	150 × 150 × 12.7m
10	POST-CAST CONCRETE	High strength concrete	m^3	1.56	σ_{ck} =30N/mm^2
EMBEDDED BAR					
11	EMBEDDED BAR	SD345	kg	90.42	D16 × 630 × 92 Nos.

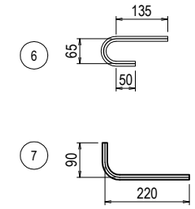
DESIGN CONDITION	
Temperature range	+5℃～+45℃
Amount of temperature variation	36mm
Earthquake movement amount	±55mm

Note
1 Re-bar should be consider the developed length.
2 Allocation of the expansion joint is subject to change
3 Expansion joint should be placing to match the transverse gradient.
4 Expansion joint should be installed in consideration of the effect of Creep and Shrinkage.

HARDWARE PLAN S=1:10



DETAIL OF REINFORCING BAR S=1:8



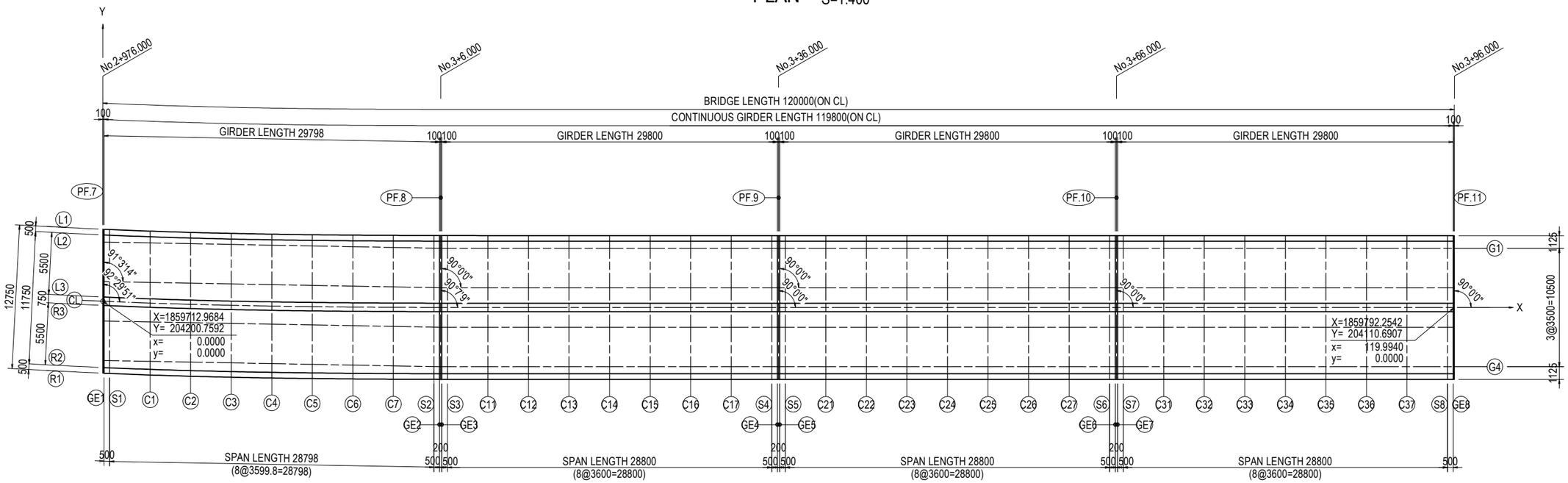
NOTES:
1) Details of the slab and girder are designed based on the product (expansion joint) shown in this Drawing.
2) The Contractor has option to propose an alternative equivalent to the specified product, which shall be subjected to the Engineer's approval.
3) The expansion joint shall be set in consideration of thermal expansion, creep and shrinkage of concrete girder.

PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF EXPANSION JOINT (PF5-PF7) (2)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1126

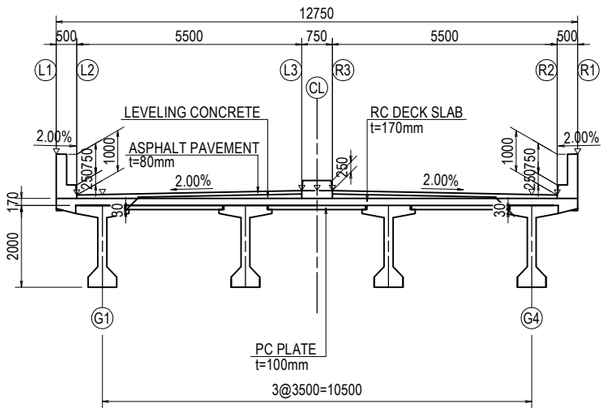
SUPERSTRUCTURE COORDINATES (PF7-PF11) (1)

PLAN S=1:400

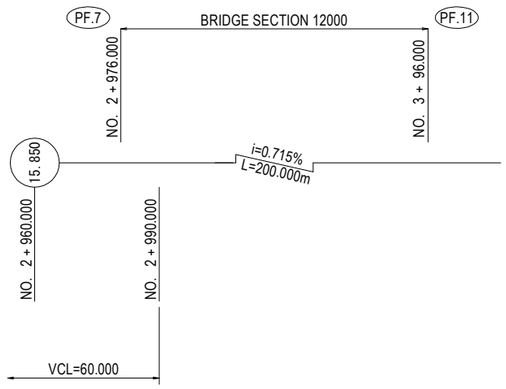


How to set the small coordinates
X coordinate : Starting point is intersection of PF7 and CL
Ending point is intersection of PF11 and CL
Y coordinate : Perpendicular to X line

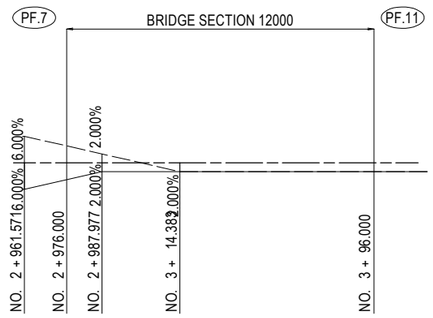
TYPICAL CROSS SECTION S=1:150



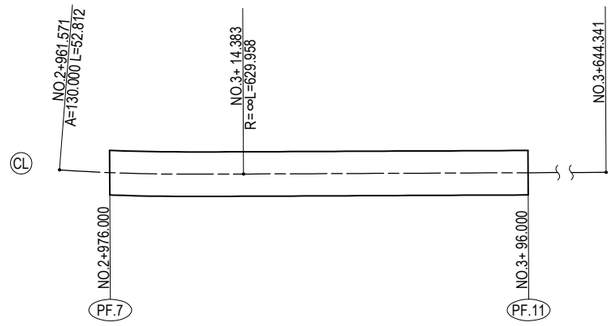
GRADE FOR LONGITUDINAL



SUPER ELEVATION



CURB ELEMENTS



CHANGING POINT	STATION POINT	X COORDINATE	Y COORDINATE	ELEMENT
	2+961.571	1859702.8295	204211.0247	A= 130.000
	3+ 14.383	1859738.6113	204172.2029	R= ∞
	3+644.341	1860152.6530	203697.4219	

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	SUPERSTRUCTURE COORDINATES (PF7-PF11) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1201

SUPERSTRUCTURE COORDINATES (PF7-PF11) (2)

		PF7	GE1	S1	C1	C2	C3	C4	C5	C6	C7	S2	GE2	PF8	GE3	S3	C11	C12	C13	C14	C15	C16	C17	S4	GE4
L1	X	-0.0297	0.0703	0.5704	4.1701	7.7697	11.3692	14.9686	18.5679	22.1671	25.7663	29.3654	29.8653	29.9653	30.0653	30.5653	34.1653	37.7653	41.3652	44.9652	48.5652	52.1651	55.7651	59.3650	59.8650
	Y	6.3811	6.3771	6.3577	6.2345	6.1380	6.0655	6.0139	5.9805	5.9624	5.9569	5.9611	5.9623	5.9625	5.9628	5.9642	5.9769	5.9930	6.0097	6.0264	6.0431	6.0599	6.0766	6.0933	6.0957
	Z	16.5048	16.5052	16.5073	16.5203	16.5307	16.5384	16.5191	16.4931	16.4672	16.4413	16.4155	16.4119	16.4112	16.4105	16.4069	16.3811	16.3553	16.3296	16.3039	16.2781	16.2524	16.2266	16.2009	16.1973
L2	X	-0.0273	0.0727	0.5727	4.1724	7.7720	11.3715	14.9709	18.5702	22.1694	25.7686	29.3678	29.8677	29.9677	30.0677	30.5677	34.1676	37.7676	41.3676	44.9675	48.5675	52.1674	55.7674	59.3674	59.8674
	Y	5.8806	5.8767	5.8573	5.7342	5.6379	5.5653	5.5138	5.4805	5.4624	5.4569	5.4611	5.4623	5.4625	5.4628	5.4642	5.4770	5.4930	5.5097	5.5264	5.5431	5.5599	5.5766	5.5933	5.5957
	Z	15.5049	15.5053	15.5074	15.5204	15.5307	15.5384	15.5190	15.4931	15.4672	15.4413	15.4155	15.4119	15.4112	15.4105	15.4069	15.3811	15.3553	15.3296	15.3039	15.2781	15.2524	15.2266	15.2009	15.1973
G1	X	-0.0244	0.0756	0.5756	4.1750	7.7743	11.3737	14.9731	18.5725	22.1719	25.7713	29.3706	29.8706	29.9706	30.0706	30.5706	34.1705	37.7705	41.3705	44.9704	48.5704	52.1703	55.7703	59.3703	59.8703
	Y	5.2441	5.2428	5.2359	5.1864	5.1369	5.0874	5.0379	4.9884	4.9389	4.8895	4.8400	4.8331	4.8317	4.8322	4.8345	4.8512	4.8680	4.8847	4.9014	4.9182	4.9349	4.9516	4.9683	4.9707
	Z	15.5295	15.5297	15.5308	15.5380	15.5441	15.5485	15.5285	15.5029	15.4776	15.4527	15.4279	15.4245	15.4238	15.4231	15.4195	15.3936	15.3678	15.3421	15.3164	15.2906	15.2649	15.2391	15.2134	15.2098
G2	X	-0.0081	0.0919	0.5918	4.1912	7.7906	11.3900	14.9894	18.5888	22.1881	25.7875	29.3869	29.8869	29.9868	30.0868	30.5868	34.1868	37.7868	41.3867	44.9867	48.5866	52.1866	55.7866	59.3865	59.8865
	Y	1.7442	1.7428	1.7359	1.6864	1.6369	1.5875	1.5380	1.4885	1.4390	1.3895	1.3400	1.3331	1.3318	1.3322	1.3345	1.3513	1.3680	1.3847	1.4015	1.4182	1.4349	1.4516	1.4684	1.4707
	Z	15.6638	15.6634	15.6618	15.6498	15.6366	15.6218	15.5981	15.5726	15.5474	15.5225	15.4978	15.4944	15.4937	15.4930	15.4894	15.4636	15.4378	15.4121	15.3864	15.3606	15.3349	15.3091	15.2834	15.2798
L3	X	-0.0017	0.0983	0.5983	4.1980	7.7976	11.3971	14.9965	18.5958	22.1950	25.7942	29.3933	29.8932	29.9932	30.0932	30.5932	34.1932	37.7932	41.3931	44.9931	48.5930	52.1930	55.7930	59.3929	59.8929
	Y	0.3754	0.3715	0.3524	0.2309	0.1358	0.0641	0.0132	-0.0198	-0.0377	-0.0431	-0.0389	-0.0377	-0.0374	-0.0372	-0.0358	-0.0230	-0.0070	0.0097	0.0265	0.0432	0.0599	0.0767	0.0934	0.0957
	Z	15.7158	15.7154	15.7132	15.6959	15.6760	15.6534	15.6284	15.6026	15.5769	15.5511	15.5254	15.5218	15.5211	15.5204	15.5168	15.4911	15.4653	15.4396	15.4139	15.3881	15.3624	15.3366	15.3109	15.3073
CL	X	0.0000	0.1000	0.6000	4.1997	7.7993	11.3988	14.9982	18.5975	22.1967	25.7959	29.3951	29.8950	29.9950	30.0950	30.5950	34.1949	37.7949	41.3949	44.9948	48.5948	52.1947	55.7947	59.3947	59.8947
	Y	0.0000	-0.0039	-0.0230	-0.1443	-0.2394	-0.3110	-0.3619	-0.3949	-0.4127	-0.4181	-0.4139	-0.4127	-0.4124	-0.4122	-0.4108	-0.3980	-0.3820	-0.3652	-0.3485	-0.3318	-0.3151	-0.2983	-0.2816	-0.2793
	Z	15.7158	15.7153	15.7131	15.6958	15.6759	15.6534	15.6283	15.6026	15.5769	15.5511	15.5254	15.5218	15.5211	15.5204	15.5168	15.4911	15.4653	15.4396	15.4139	15.3881	15.3624	15.3366	15.3109	15.3073
R3	X	0.0017	0.1017	0.6018	4.2015	7.8011	11.4006	14.9999	18.5992	22.1985	25.7977	29.3968	29.8967	29.9967	30.0967	30.5967	34.1967	37.7966	41.3966	44.9966	48.5965	52.1965	55.7964	59.3964	59.8964
	Y	-0.3754	-0.3792	-0.3983	-0.5195	-0.6145	-0.6860	-0.7369	-0.7699	-0.7877	-0.7931	-0.7889	-0.7877	-0.7874	-0.7872	-0.7858	-0.7730	-0.7570	-0.7402	-0.7235	-0.7068	-0.6901	-0.6733	-0.6566	-0.6543
	Z	15.7157	15.7153	15.7131	15.6958	15.6759	15.6533	15.6283	15.6026	15.5768	15.5511	15.5254	15.5218	15.5211	15.5204	15.5168	15.4911	15.4653	15.4396	15.4139	15.3881	15.3624	15.3366	15.3109	15.3073
G3	X	0.0082	0.1081	0.6081	4.2075	7.8069	11.4063	15.0056	18.6050	22.2044	25.8038	29.4032	29.9031	30.0031	30.1031	30.6031	34.2031	37.8030	41.4030	45.0029	48.6029	52.2029	55.8028	59.4028	59.9028
	Y	-1.7558	-1.7572	-1.7640	-1.8135	-1.8630	-1.9125	-1.9620	-2.0115	-2.0610	-2.1105	-2.1600	-2.1668	-2.1682	-2.1677	-2.1654	-2.1487	-2.1320	-2.1152	-2.0985	-2.0818	-2.0650	-2.0483	-2.0316	-2.0293
	Z	15.7679	15.7671	15.7635	15.7365	15.7084	15.6787	15.6470	15.6148	15.5825	15.5498	15.5166	15.5119	15.5110	15.5101	15.5055	15.4723	15.4390	15.4121	15.3864	15.3606	15.3349	15.3091	15.2834	15.2798
G4	X	0.0244	0.1244	0.6244	4.2237	7.8231	11.4225	15.0219	18.6213	22.2207	25.8200	29.4194	29.9194	30.0194	30.1194	30.6194	34.2193	37.8193	41.4193	45.0192	48.6192	52.2191	55.8191	59.4191	59.9190
	Y	-5.2558	-5.2571	-5.2640	-5.3135	-5.3630	-5.4125	-5.4620	-5.5114	-5.5609	-5.6104	-5.6599	-5.6668	-5.6682	-5.6677	-5.6654	-5.6486	-5.6319	-5.6152	-5.5985	-5.5817	-5.5650	-5.5483	-5.5315	-5.5292
	Z	15.8991	15.8978	15.8915	15.8459	15.7990	15.7505	15.7000	15.6490	15.5978	15.5462	15.4941	15.4868	15.4853	15.4839	15.4766	15.4244	15.3721	15.3421	15.3164	15.2906	15.2649	15.2391	15.2134	15.2098
R2	X	0.0273	0.1273	0.6273	4.2270	7.8266	11.4261	15.0255	18.6248	22.2240	25.8232	29.4224	29.9223	30.0223	30.1223	30.6223	34.2222	37.8222	41.4222	45.0221	48.6221	52.2220	55.8220	59.4220	59.9220
	Y	-5.8804	-5.8843	-5.9031	-6.0227	-6.1165	-6.1873	-6.2376	-6.2702	-6.2878	-6.2931	-6.2888	-6.2876	-6.2874	-6.2871	-6.2857	-6.2729	-6.2569	-6.2402	-6.2235	-6.2067	-6.1900	-6.1733	-6.1565	-6.1542
	Z	15.9223	15.9211	15.9148	15.8679	15.8184	15.7663	15.7117	15.6563	15.6010	15.5455	15.4900	15.4823	15.4808	15.4792	15.4715	15.4159	15.3602	15.3296	15.3039	15.2781	15.2524	15.2266	15.2009	15.1973
R1	X	0.0297	0.1297	0.6297	4.2294	7.8290	11.4284	15.0278	18.6271	22.2264	25.8255	29.4247	29.9246	30.0246	30.1246	30.6246	34.2246	37.8245	41.4245	45.0244	48.6244	52.2244	55.8243	59.4243	59.9243
	Y	-6.3809	-6.3847	-6.4035	-6.5230	-6.6167	-6.6874	-6.7376	-6.7702	-6.7878	-6.7931	-6.7888	-6.7876	-6.7874	-6.7871	-6.7857	-6.7729	-6.7569	-6.7402	-6.7235	-6.7067	-6.6900	-6.6733	-6.6565	-6.6542
	Z	16.9221	16.9208	16.9145	16.8677	16.8182	16.7661	16.7115	16.6563	16.6009	16.5455	16.4900	16.4823	16.4807	16.4792	16.4715	16.4159	16.3602	16.3296	16.3039	16.2781	16.2524	16.2266	16.2009	16.1973

		PF9	GE5	S5	C21	C22	C23	C24	C25	C26	C27	S6	GE6	PF10	GE7	S7	C31	C32	C33	C34	C35	C36	C37	S8	GE8	PF11
L1	X	59.9650	60.0650	60.5650	64.1650	67.7649	71.3649	74.9649	78.5648	82.1648	85.7647	89.3647	89.8647	89.9647	90.0647	90.5647	94.1647	97.7646	101.3646	104.9645	108.5645	112.1645	115.7644	119.3644	119.8644	119.9644
	Y	6.0961	6.0966	6.0989	6.1156	6.1324	6.1491	6.1658	6.1825	6.1993	6.2160	6.2327	6.2351	6.2355	6.2360	6.2383	6.2550	6.2718	6.2885	6.3052	6.3220	6.3387	6.3554	6.3721	6.3745	6.3749
	Z	16.1966	16.1959	16.1923	16.1666	16.1408	16.1151	16.0894	16.0636	16.0379	16.0121	15.9864	15.9828	15.9821	15.9814	15.9778	15.9521	15.9263	15.9006	15.8749	15.8491	15.8234	15.7976	15.7719	15.7683	15.7676
L2	X	59.9674	60.0673	60.5673	64.1673	67.7673	71.3672	74.9672	78.5671	82.1671	85.7671	89.3670	89.8670	89.9670	90.0670	90.5670	94.1670	97.7669	101.3669	104.9669	108.5668	112.1668	115.7667	119.3667	119.8667	119.9667
	Y	5.5961	5.5966	5.5989	5.6156	5.6324	5.6491	5.6658	5.6826	5.6993	5.7160	5.7327	5.7351	5.7355	5.7360	5.7383	5.7550	5.7718	5.7885	5.8052	5.8220	5.8387	5.8554	5.8721	5.8745	5.8749
	Z	15.1966	15.1959	15.1923	15.1666	15.1408	15.1151	15.0894	15.0636	15.0379	15.0121	14.9864	14.9828	14.9821	14.9814	14.9778	14.9521	14.9263	14.9006	14.8749	14.8491	14.8234	14.7976	14.7719	14.7683	14.7676
G1	X	59.9703	60.0703	60.5702	64.1702	67.7702	71.3701	74.9701	78.5701	82.1700	85.7700	89.3699	89.8699	89.9699	90.0699	90.5699	94.1699	97.7698	101.3698	104.9698	108.5697	112.1697	115.7697	119.3696	119.8696	119.9696
	Y	4.9711	4.9716	4.9739	4.9906	5.0074	5.0241	5.0408	5.0576	5.0743	5.0910	5.1077	5.1101	5.1105	5.1110	5.1133	5.1301	5.1468	5.1635	5.1802	5.1970	5.2137	5.2304	5.2472	5.2495	5.2499
	Z	15.2091	15.2084	15.2048	15.1791	15.1533	15.1276	15.1019	15.0761	15.0504	15.0246	14.9989	14.9953	14.9946	14.9939	14.9903	14.9646	14.9388	14.9131	14.8874	14.8616	14.8359	14.8101	14.7844	14.7808	14.7801
G2	X	59.9865	60.0865	60.5865	64.1865	67.7864	71.3864	74.9864	78.5863	82.1863	85.7862	89.3862	89.8862	89.9862	90.0862	90.5862	94.1861	97.7861	101.3861	104.9860	108.5860	112.1860	115.7859	119.3859	119.8859	119.9859
	Y	1.4712	1.4716	1.4740	1.4907	1.5074	1.5241	1.5409	1.5576	1.5743	1.5911	1.6078	1.6101	1.6106	1.6110	1.6134	1.6301	1.6468	1.6635	1.6803	1.6970	1.7137	1.7305	1.7472	1.7495	1.7500
	Z	15.2791	15.2784	15.2748	15.2491	15.2233	15.1976	15.1719	15.1461	15.1204	15.0946	15.0689	15.0653	15.0646	15.0639	15.0603	15.0346	15.0088	14.9831	14.9574	14.9316	14.9059	14.8801	14.8544	14.8508	14.8501
L3	X	59.9929	60.0929	60.5929	64.1929	67.7928	71.3928	74.9927	78.5927	82.1927	85.7926	89.3926	89.8926	89.9926	90.0926	90.5926	94.1925	97.7925	101.3925	104.9924	108.5924	112.1923	115.7923	119.3923	119.8923	119.9923
	Y	0.0962	0.0966	0.0990	0.1157	0.1324	0.1492	0.1659	0.1826	0.1993	0.2161	0.2328	0.2351	0.2356	0.2361	0.2384	0.2551	0.2718	0.2886	0.3053	0.3220	0.3387	0.3555	0.3722	0.3745	0.3750
	Z	15.3066	15.3059	15.3023	15.2766	15.2508	15.2251	15.1994	15.1736	15.1479	15.1221	15.0964	15.0928	15.0921	15.0914	15.0878	15.0621	15.0363	15.0106	14.9849	14.9591	14.9334	14.9076	14.8819	14.8783	14.8776
CL	X	59.9947	60.0946	60.5946	64.1946	67.7946	71.3945	74.9945	78.5945	82.1944	85.7944	89.3943	89.8943	89.9943	90.0943	90.5943	94.1943	97.7942	101.3942	104.9942	108.5941	112.1941	115.7940	119.3940	119.8940	119.9940
	Y	-0.2788	-0.2784	-0.2760	-0.2593	-0.2426	-0.2258	-0.2091	-0.1924	-0.1757	-0.1589	-0.1422	-0.1399	-0.1394	-0.1389	-0.1366	-0.1199	-0.1032	-0.0864	-0.0697	-0.0530	-0.0362	-0.0195	-0.0028	-0.0005	0.0000
	Z	15.3066	15.3059	15.3023	15.2766	15.2508	15.2251	15.1994	15.1736	15.1479	15.1221	15.0964	15.0928	15.0921	15.0914	15.0878	15.0621	15.0363	15.0106	14.9849	14.9591	14.9334	14.9076	14.8819	14.8783	14.8776
R3	X	59.9964	60.0964	60.5964	64.1963	67.7963	71.3963	74.9962	78.5962	82.1962	85.7961	89.3961	89.8961	89.9961	90.0961	90.5961	94.1960	97.7960	101.3959	104.9959	108.5959	112.1958	115.7958	119.3958	119.8957	119.9957
	Y	-0.6538	-0.6533	-0.6510	-0.6343	-0.6176	-0.6008	-0.5841	-0.5674	-0.5506	-0.5339	-0.5172	-0.5149	-0.5144	-0.5139	-0.5116	-0.4949	-0.4782	-0.4614	-0.4447	-0.4280	-0.4112	-0.3945	-0.3778	-0.3755	-0.3750
	Z	15.3066	15.3059	15.3023	15.2766	15.2508	15.2251	15.1994	15.1736	15.1479	15.1221	15.0964	15.0928	15.0921	15.0914	15.0878	15.0621	15.0363	15.0106	14.9849	14.9591	14.9334	14.9076	14.8819	14.8783	14.8776
G3	X	60.0028	60.1028	60.6028	64.2027	67.8027	71.4027	75.0026	78.6026	82.2025	85.8025	89.4025	89.9025	90.0025	90.1025	90.6025	94.2024	97.8024	101.4023	105.0023	108.6023	112.2022	115.8022	119.4021	119.9021	120.0021
	Y	-2.0288	-2.0283	-2.0260	-2.0093	-1.9926	-1.9758	-1.9591	-1.9424	-1.9256	-1.9089	-1.8922	-1.8899	-1.8894	-1.8889	-1.8866	-1.8699	-1.8531	-1.8364	-1.8197	-1.8030	-1.7862	-1.7695	-1.7528	-1.7504	-1.7500
	Z	15.2791	15.2784	15.2748	15.2491	15.2233	15.1976	15.1719	15.1461	15.1204	15.0946	15.0689	15.0653	15.0646	15.0639	15.0603	15.0346	15.0088	14.9831	14.9574	14.9316	14.9059	14.8801	14.8544	14.8508	14.8501
G4	X	60.0190	60.1190	60.6190	64.2190	67.8190	71.4189	75.0189	78.6188	82.2188	85.8188	89.4187	89.9187	90.0187	90.1187	90.6187	94.2187	97.8186	101.4186	105.0186	108.6185	112.2185	115.8184	119.4184	119.9184	120.0184
	Y	-5.5288	-5.5283	-5.5260	-5.5092	-5.4925	-5.4758	-5.4591	-5.4423	-5.4256	-5.4089	-5.3921	-5.3898	-5.3894	-5.3889	-5.3866	-5.3698	-5.3531	-5.3364	-5.3196	-5.3029	-5.2862	-5.2695	-5.2527	-5.2504	-5.2499
	Z	15.2091	15.2084	15.2048	15.1791	15.1533	15.1276	15.1019	15.0761	15.0504	15.0246	14.9989	14.9953	14.9946	14.9939	14.9903	14.9646	14.9388	14.9131	14.8874	14.8616	14.8359	14.8101	14.7844	14.7808	14.7801
R2	X	60.0220	60.1220	60.6219	64.2219	67.8219	71.4218	75.0218	78.6218	82.2217	85.8217	89.4216	89.9216	90.0216	90.1216	90.6216	94.2216	97.8215	101.4215	105.0215	108.6214	112.2214	115.8213	119.4213	119.9213	120.0213
	Y	-6.1538	-6.1533	-6.1510	-6.1342	-6.1175	-6.1008	-6.0840	-6.0673	-6.0506	-6.0339	-6.0171	-6.0148	-6.0143	-6.0139	-6.0116	-5.9948	-5.9781	-5.9614	-5.9446	-5.9279	-5.9112	-5.8945	-5.8777	-5.8754	-5.8749
	Z	15.1966	15.1959	15.1923	15.1666	15.1408	15.1151	15.0894	15.0636	15.0379	15.0121	14.9864	14.9828	14.9821	14.9814	14.9778	14.9521	14.9263	14.9006	14.8749	14.8491	14.8234	14.7976	14.7719	14.7683	14.7676
R1	X	60.0243	60.1243	60.6243	64.2242	67.8242	71.4242	75.0241	78.6241	82.2240	85.8240	89.4240	89.9240	90.0240	90.1240	90.6239	94.2239	97.8239	101.4238	105.0238	108.6238	112.2237	115.8237	119.4236	119.9236	120.0236
	Y	-6.6537	-6.6533	-6.6510	-6.6342	-6.6175	-6.6008	-6.5840	-6.5673	-6.5506	-6.5339	-6.5171	-6.5148	-6.5143	-6.5139	-6.5116	-6.4948	-6.4781	-6.4614	-6.4446	-6.4279	-6.4112	-6.3944	-6.3777	-6.3754	-6.3749
	Z	16.1966	16.1959	16.1923	16.1666	16.1408	16.1151	16.0894	16.0636	16.0379	16.0121	15.9864	15.9828	15.9821	15.9814	15.9778	15.9521	15.9263	15.9006	15.8749	15.8491	15.8234	15.7976	15.7719	15.7683	15.7676

PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO.,LTD.
NIPPON ENGINEERING CONSULTANTS CO.,LTD.

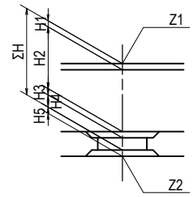
	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

DRAWING TITLE
SUPERSTRUCTURE COORDINATES (PF7-PF11) (2)

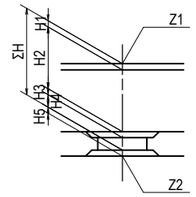
PACKAGE
3
DWG No.
P3-FO-1202

SUPERSTRUCTURE COORDINATES (PF7-PF11) (3)

STRUCTURE HEIGHT TABLE



		S1(PF7R)				S2(PF8L)				S3(PF8R)				S4(PF9L)			
		G1	G2	G3	G4	G1	G2	G3	G4	G1	G2	G3	G4	G1	G2	G3	G4
ROAD PLAN HEIGHT	Z1	15.531	15.662	15.763	15.892	15.428	15.498	15.517	15.494	15.419	15.489	15.505	15.477	15.213	15.283	15.283	15.213
PAVEMENT THICKNESS(mm)	H1	107	238	340	468	95	165	184	161	93	163	179	150	93	163	163	93
MAIN GIRDER HEIGHT(mm)	H2	2170	2170	2170	2170	2170	2170	2170	2170	2170	2170	2170	2170	2170	2170	2170	2170
LAYER HEIGHT(mm)	H3	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
BEARING HEIGHT(mm)	H4	142	142	142	142	92	92	92	92	92	92	92	92	92	92	92	92
BEARING MORTAR(mm)	H5	41	41	40	41	47	47	47	47	40	40	40	41	48	48	48	48
TOTAL STRUCTURE HEIGHT(mm)	ΣH	2490	2621	2722	2851	2434	2504	2523	2500	2425	2495	2511	2483	2433	2503	2503	2433
TOP OF PIER/ABUTMENT HEIGHT	Z2	13.041	13.041	13.041	13.041	12.994	12.994	12.994	12.994	12.994	12.994	12.994	12.994	12.780	12.780	12.780	12.780



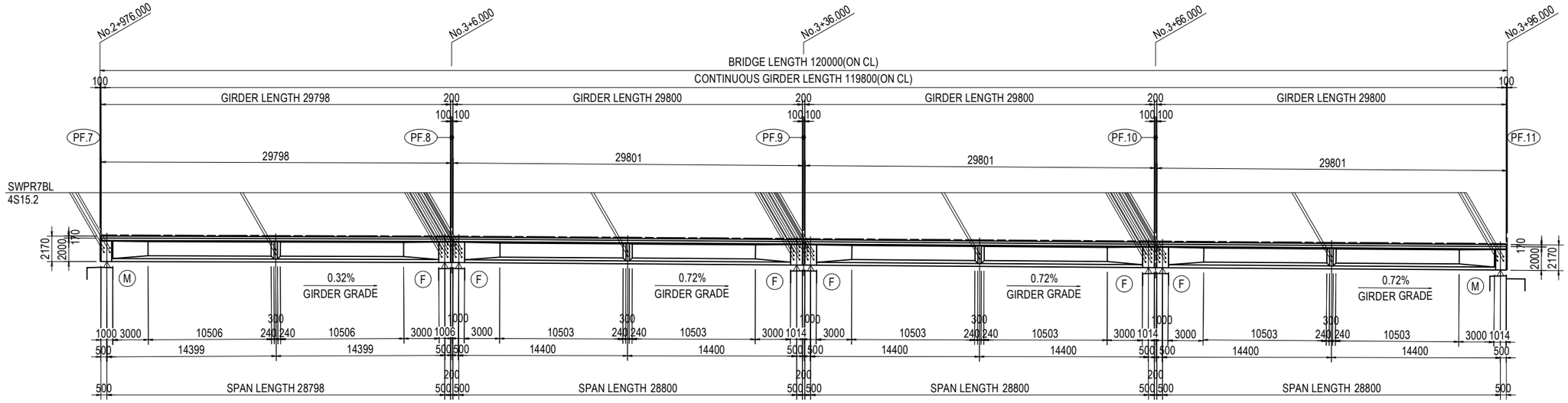
		S5(PF9R)				S6(PF10L)				S7(PF10R)				S8(PF11L)			
		G1	G2	G3	G4	G1	G2	G3	G4	G1	G2	G3	G4	G1	G2	G3	G4
ROAD PLAN HEIGHT	Z1	15.205	15.275	15.275	15.205	14.999	15.069	15.069	14.999	14.990	15.060	15.060	14.990	14.784	14.854	14.854	14.784
PAVEMENT THICKNESS(mm)	H1	93	163	163	93	93	163	163	93	93	163	163	93	93	163	163	93
MAIN GIRDER HEIGHT(mm)	H2	2170	2170	2170	2170	2170	2170	2170	2170	2170	2170	2170	2170	2170	2170	2170	2170
LAYER HEIGHT(mm)	H3	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
BEARING HEIGHT(mm)	H4	92	92	92	92	92	92	92	92	92	92	92	92	142	142	142	142
BEARING MORTAR(mm)	H5	40	40	40	40	49	49	49	49	40	40	40	40	42	42	42	42
TOTAL STRUCTURE HEIGHT(mm)	ΣH	2425	2495	2495	2425	2434	2504	2504	2434	2425	2495	2495	2425	2477	2547	2547	2477
TOP OF PIER/ABUTMENT HEIGHT	Z2	12.780	12.780	12.780	12.780	12.565	12.565	12.565	12.565	12.565	12.565	12.565	12.565	12.307	12.307	12.307	12.307

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

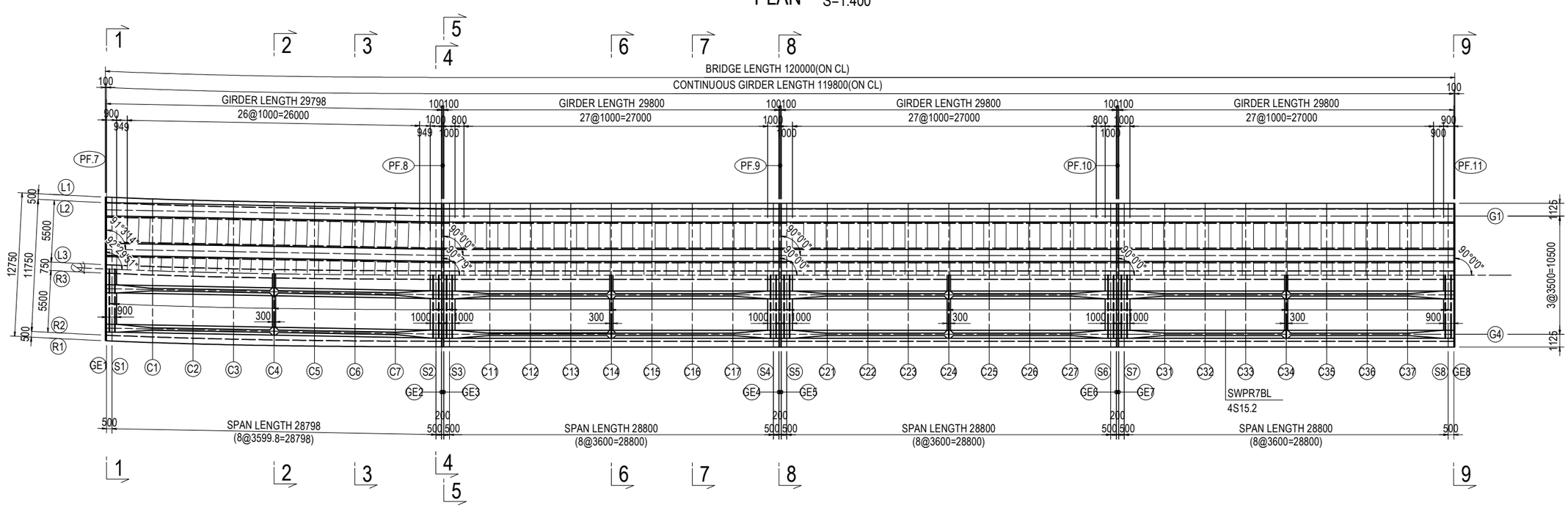
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	SUPERSTRUCTURE COORDINATES (PF7-PF11) (3)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1203

GENERAL VIEW OF SUPERSTRUCTURE (PF7-PF11) (1)

SIDE VIEW S=1:400



PLAN S=1:400



PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR, MINISTRY OF CONSTRUCTION, DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. / ORIENTAL CONSULTANTS GLOBAL CO., LTD. / METROPOLITAN EXPRESSWAY COMPANY LIMITED / CHODAI CO.,LTD. / NIPPON ENGINEERING CONSULTANTS CO.,LTD.	DRAWING TITLE: GENERAL VIEW OF SUPERSTRUCTURE (PF7-PF11) (1)	PACKAGE: 3 / DWG No.: P3-FO-1204

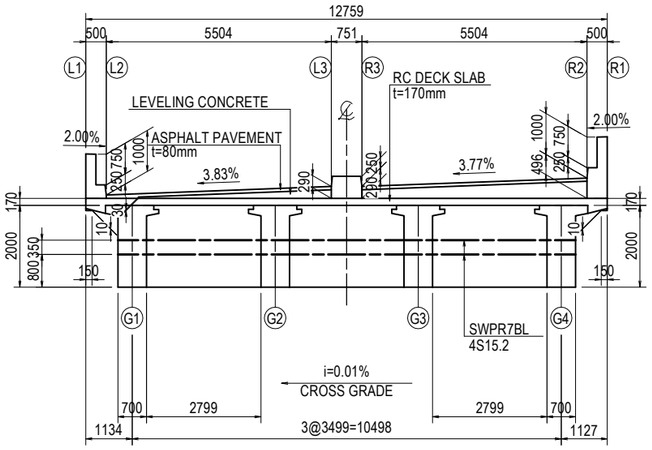
	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

GENERAL VIEW OF SUPERSTRUCTURE (PF7-PF11) (2)

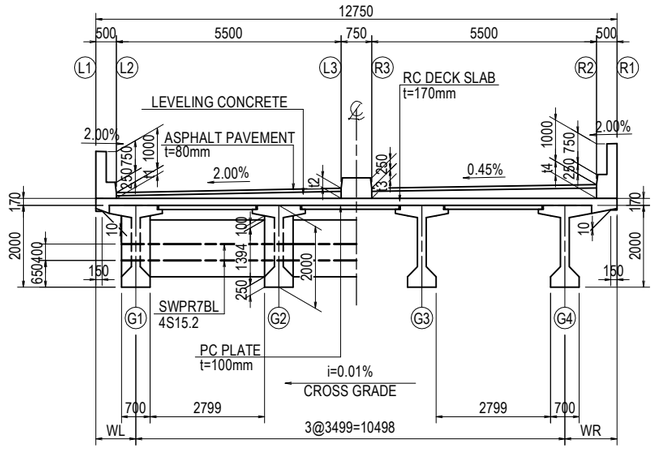
CROSS SECTION S=1:150

PF7-PF8

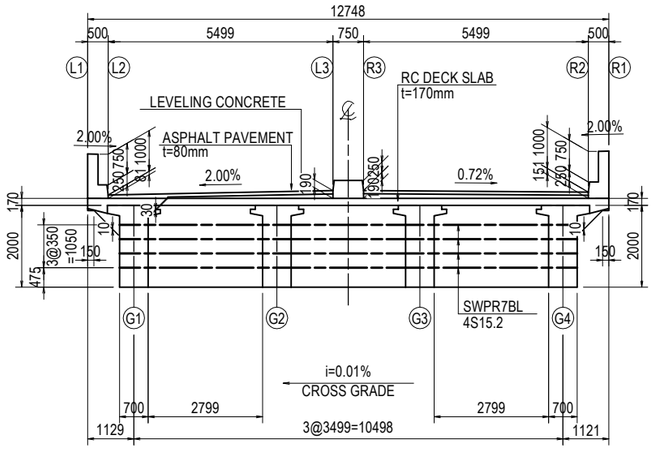
1-1



2-2 3-3

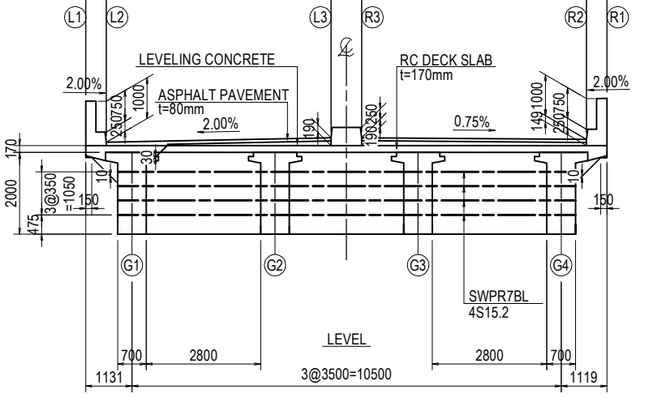


4-4



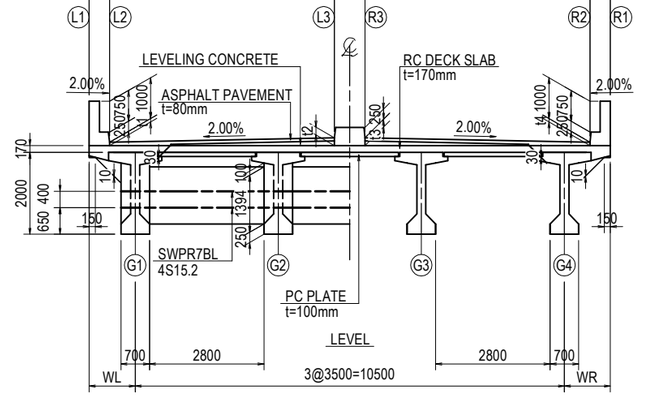
PF8

5-5

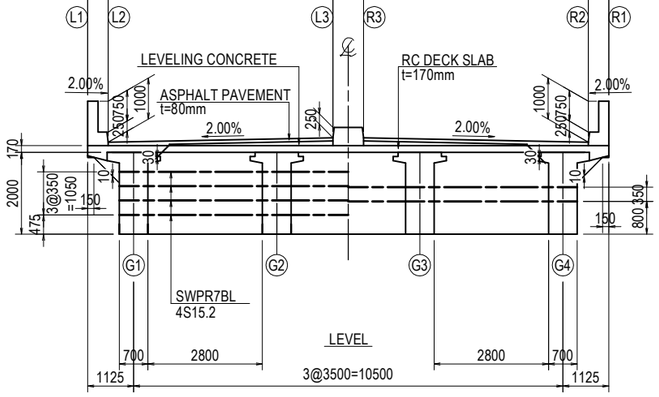


PF8-PF11

6-6 7-7



8-8 9-9



Note: Dimension of crosssection at end of girder is based on the actual angle of girder end.

LIST OF PAVEMENT THICKNESS

(mm)

	GE1	S1	C1	C2	C3	C4	C5	C6	C7	S2	GE2	PF8
t1	80	84	108	130	149	141	126	112	97	83	81	80
t2	290	289	284	275	264	250	236	221	207	192	190	190
t3	290	289	283	275	264	250	236	221	207	192	190	190
t4	496	491	456	417	377	333	289	245	201	157	151	150

	PF8	GE3	S3	C11	C12	C13	C14	C15	C16	C17	S4	GE4
t1	80	80	80	80	80	80	80	80	80	80	80	80
t2	190	190	190	190	190	190	190	190	190	190	190	190
t3	190	190	190	190	190	190	190	190	190	190	190	190
t4	150	149	145	115	85	80	80	80	80	80	80	80

LIST OF WL/WR LENGTH

(mm)

	GE1	S1	C1	C2	C3	C4	C5	C6	C7	S2	GE2	PF8
WL	1134	1122	1048	1001	978	976	992	1023	1067	1121	1129	1131
WR	1127	1139	1209	1254	1275	1276	1259	1227	1183	1129	1121	1119

	PF8	GE3	S3	C11	C12	C13	C14	C15	C16	S17	S4	GE4
WL	1131	1131	1130	1126	1125	1125	1125	1125	1125	1125	1125	1125
WR	1119	1119	1120	1124	1125	1125	1125	1125	1125	1125	1125	1125

PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

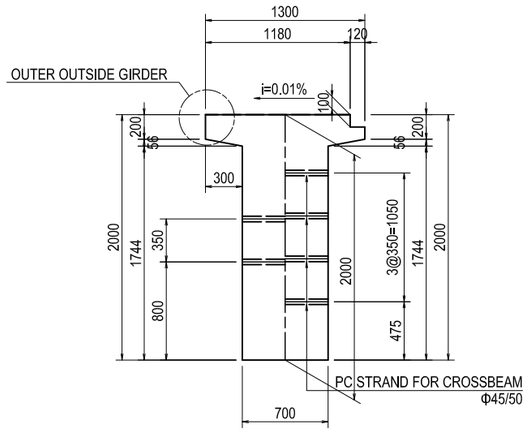
DRAWING TITLE	GENERAL VIEW OF SUPERSTRUCTURE (PF7-PF11) (2)
PACKAGE	3
DWG No.	P3-FO-1205

GENERAL VIEW OF SUPERSTRUCTURE (PF7-PF11) (3)

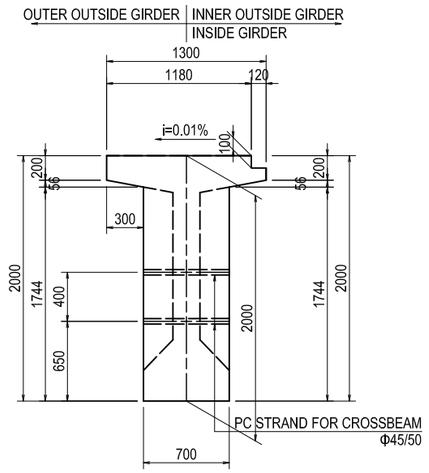
CROSS SECTION OF MAIN GIRDER S=1:50

PF7-PF8

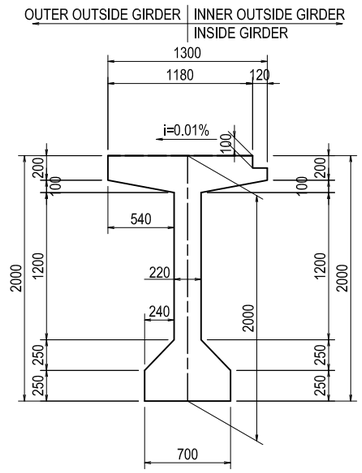
END SECTION CONNECTION SECTION



INTERMEDIATE CROSSBEAM

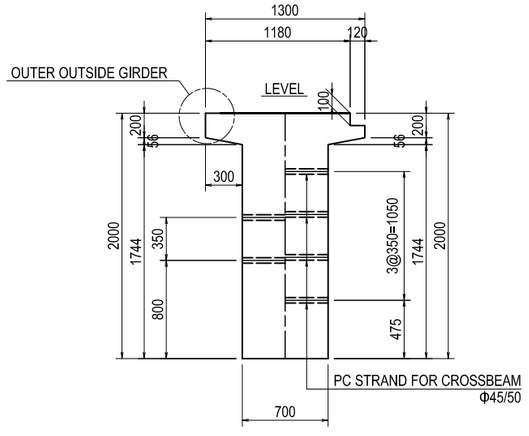


STANDARD SECTION

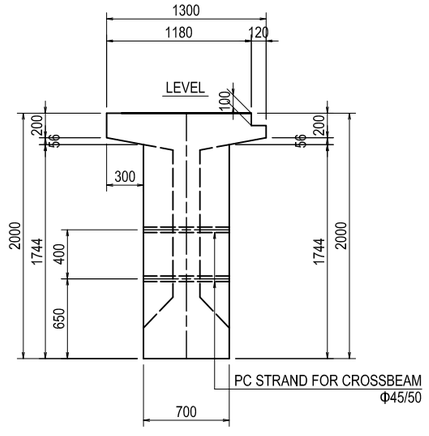


PF8-PF11

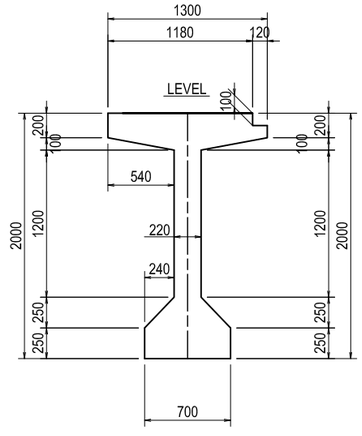
END SECTION CONNECTION SECTION



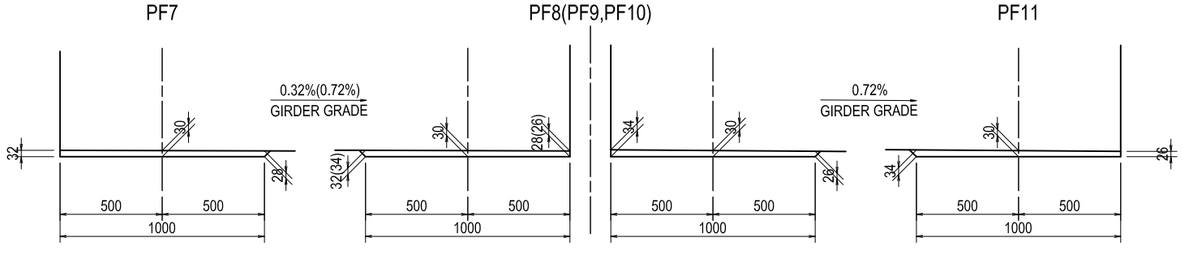
INTERMEDIATE CROSSBEAM



STANDARD SECTION



LAYER S=1:30



DESIGN CONDITION

ROAD GRADE	Equivalent to CLASS 4-1
BRIDGE TYPE	4 span continuous PC-I girder bridge with composite deck(PC plate and RC deck)
BRIDGE LENGTH	L = 120.000 m
SPAN LENGTH	L = 28.798 + 28.800 +28.800 + 28.800 m
WIDTH OF THE ROAD	TOTAL : 12.750 m L = 0.500 + 5.500 + 0.750 + 5.500 +0.500 m
HORIZONTAL ALIGNMENT	A=130~R=∞
LONGITUDINAL SLOPE	0.72% ↘
SECTION SLOPE	LEFT : -6.00%~2.00% RIGHT : 6.00%~2.00%
ANGLE OF SKEW	PF.7 : 92°29'51" PF.8 : 90°07'09" PF.9,PF.10,PF.11 : 90°00'00"
PAVEMENT	ASPHALT PAVEMENT t = 80 mm
SLAB	RC DECK SLAB t = 170 mm
PLATE	PC PLATE t = 100 mm
LIVE ROAD	AASHTO HL-93
DESIGN STANDARD	AASHTO LRFD BRIDGE DESIGN 2014(LIVE ROAD) Specifications for highway bridges(Japan Road Association) 1 Common matters,3 Concrete bridges,5 seismic design (April 2012)

MATERIALS STRENGTH

(N/mm²)

CONCRETE		MAIN GIRDER	CROSS BEAM	PC PLATE	RC SLAB	COUPLING CONCRETE
DESIGN STANDARD STRENGTH OF CONCRETE		40.0	30.0	40.0	30.0	30.0
BENDING COMPRESSIVE STRESS	IMMEDIATELY AFTER PRESTRESSING	19.0	14.0	19.0	——	——
	OTHERS	14.0	11.0	15.0	10.0	10.0
BENDING TENSILE STRESS	IMMEDIATELY AFTER PRESTRESSING	-1.5	-1.2	-1.5	——	——
	DEAD LOAD	0.0	0.0	——	——	——
	OTHERS	-1.5	-1.2	0.0	——	——
MEAN SHEAR STRESS CONCRETE CAN CARRY		0.55	0.45	——	——	——
MAXIMUM MEAN CONCRETE SHEAR STRESS	IN CASE WHERE ONLY SHEAR FORCES	5.3	4.0	——	——	——
ALLOWABLE DIAGONEL TENSILE STRESS (DEAD LOAD)	IN CASE WHERE ONLY SHEAR FORCES	-1.0	-0.8	——	——	——
ALLOWABLE DIAGONEL TENSILE STRESS (LIVE LOAD)	IN CASE WHERE ONLY SHEAR FORCES	-2.0	-1.7	——	——	——

(N/mm²)

PC STRAND		SWPR7BL 7S15.2mm	SWPR7BL 4S15.2mm	SWPR7AL 1S9.3mm
TENSILE STRENGTH		1850	1850	1700
YIELD POINT		1600	1600	1450
ALLOWABLE TENSILE STRESS	DURING PRESTRESSING	1440	1440	1305
	IMMEDIATELY AFTER PRESTRESSING	1295	1295	1190
	UNDER DESIGN LOAD	1110	1110	1020

(N/mm²)

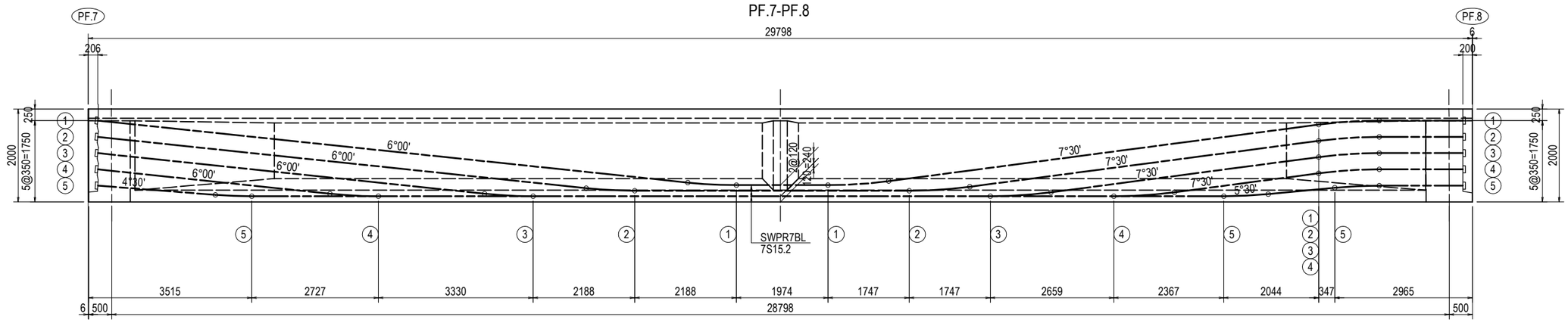
REINFORCING STEEL		MAIN GIRDER	CROSS BEAM	RC SLAB	COUPLING CONCRETE
STEEL TYPE		SD345	SD345	SD345	SD345
YIELD POINT		345	345	345	345
ALLOWABLE TENSILE STRESS	DEAD LOAD	——	——	100	100
	DESIGN LOAD	180	180	140	160
	EARTHQUAKE LOAD	——	200	——	——

PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT			
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY			
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE			
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.			
	NAME	SIGNATURE	DATE	DRAWING TITLE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	GENERAL VIEW OF SUPERSTRUCTURE (PF7-PF11) (3)
CHECKED BY	T. HAYAKAWA		20 Jul. 2017	
APPROVED BY	Y. SANO		25 Jul. 2017	

PACKAGE
3
DWG No.
P3-FO-1206

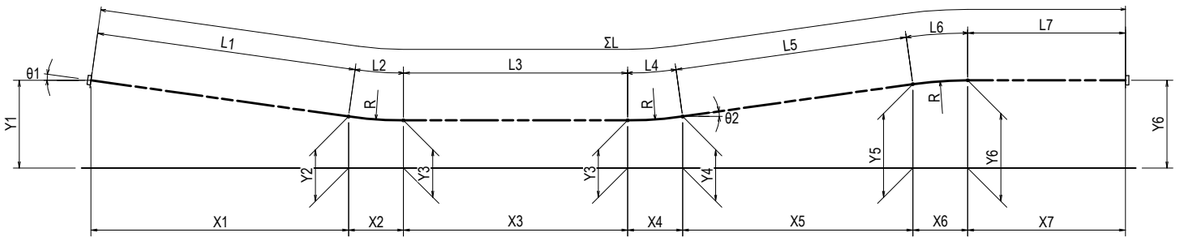
PC STRAND ARRANGEMENT OF MAIN GIRDER (PF7-PF11) (1)

SIDE VIEW S=1:100



PC STRAND LENGTH & ELEVATION

7S15.2
w=7.707 kg/m
R=10.000m

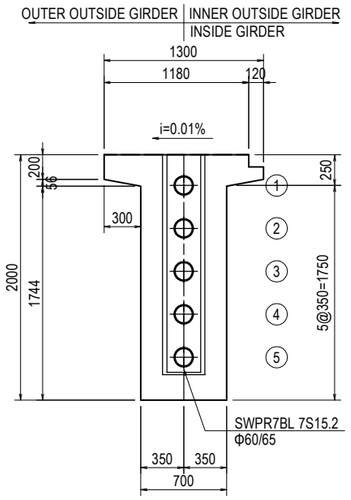


PF.7-PF.8 (UNIT:mm) (UNIT:kg)

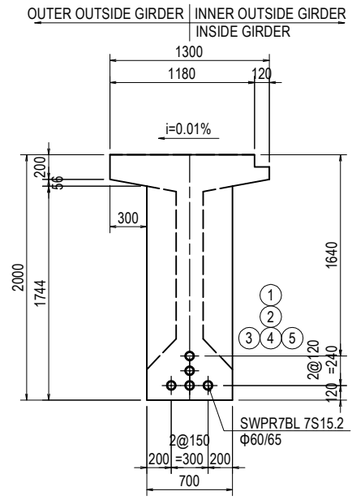
PC STRAND No	θ1	θ2	Y1	Y2	Y3	Y4	Y5	Y6	X1	X2	X3	X4	X5	X6	X7	L1	L2	L3	L4	L5	L6	L7	∑L	WEIGHT
1	6°00'	7°30'	1750	415	360	446	1664	1750	12704	1045	1974	1305	9259	1305	1800	12774	1047	1974	1309	9338	1309	1800	29551	227.75
2	6°00'	7°30'	1400	295	240	326	1314	1400	10516	1045	5909	1305	7512	1305	1800	10573	1047	5909	1309	7576	1309	1800	29523	227.53
3	6°00'	7°30'	1050	175	120	206	964	1050	8327	1045	9844	1305	5765	1305	1800	8373	1047	9844	1309	5814	1309	1800	29496	227.33
4	6°00'	7°30'	700	175	120	206	614	700	4997	1045	15833	1306	3106	1305	1800	5025	1047	15833	1309	3133	1309	1800	29456	227.02
5	4°30'	5°30'	350	151	120	166	304	350	2531	784	20927	958	1432	959	1800	2539	785	20927	960	1439	960	1800	29410	226.66
																						TOTAL	147436	1136.3

CROSS SECTION OF MAIN GIRDER S=1:50

END SECTION



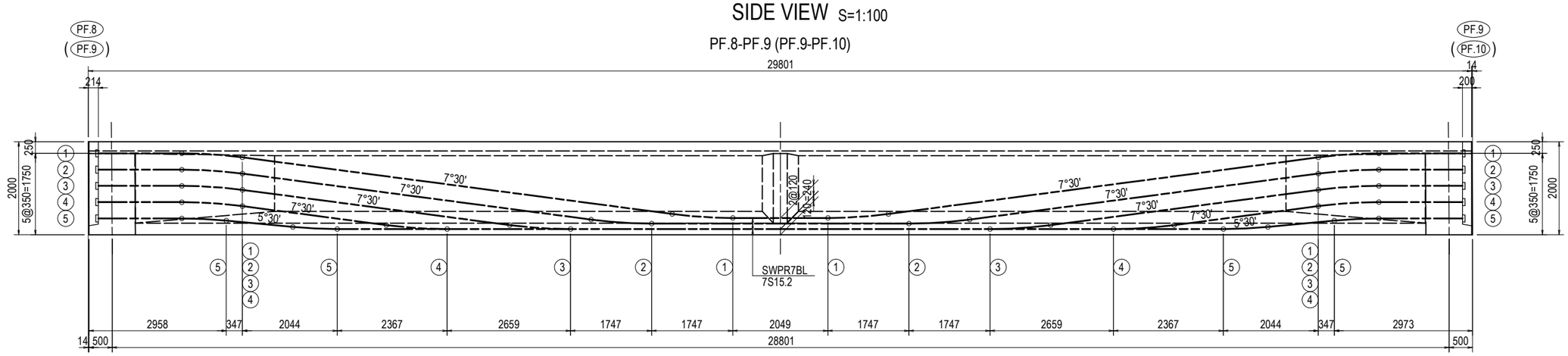
INTERMEDIATE CROSSBEAM



PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT			
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY			
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE			
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.			
	NAME	SIGNATURE	DATE	DRAWING TITLE / PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	PC STRAND ARRANGEMENT OF MAIN GIRDER (PF7-PF11) (1) / 3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017	DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017	P3-FO-1207

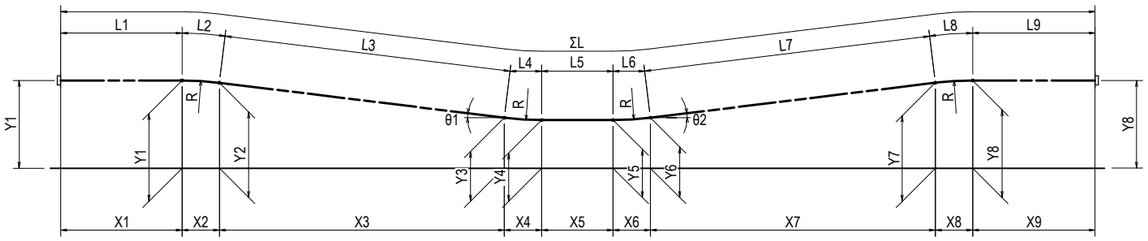
PC STRAND ARRANGEMENT OF MAIN GIRDER (PF7-PF11) (2)

SIDE VIEW S=1:100



PC STRAND LENGTH & ELEVATION

7S15.2
w=7.707 kg/m
R=10.000m



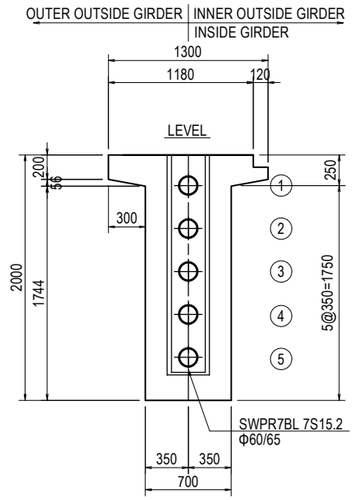
PF.8-PF.9
(PF.9-PF.10)

(UNIT:mm) (UNIT:kg)

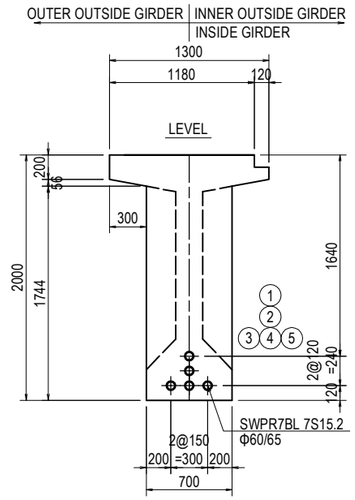
PC STRAND No	θ1	θ2	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	X1	X2	X3	X4	X5	X6	X7	X8	X9	L1	L2	L3	L4	L5	L6	L7	L8	L9	∑L	WEIGHT
1	7°30'	7°30'	1750	1664	446	360	360	446	1664	1750	1800	1305	9259	1305	2049	1305	9259	1305	1800	1800	1309	9338	1309	2049	1309	9338	1309	1800	29561	227.83
2	7°30'	7°30'	1400	1314	326	240	240	326	1314	1400	1800	1305	7512	1305	5543	1305	7512	1305	1800	1800	1309	7576	1309	5543	1309	7576	1309	1800	29531	227.60
3	7°30'	7°30'	1050	964	206	120	120	206	964	1050	1800	1305	5765	1305	9037	1305	5765	1305	1800	1800	1309	5814	1309	9037	1309	5814	1309	1800	29501	227.36
4	7°30'	7°30'	700	614	206	120	120	206	614	700	1800	1305	3106	1305	14354	1305	3106	1305	1800	1800	1309	3133	1309	14354	1309	3133	1309	1800	29456	227.02
5	5°30'	5°30'	350	304	166	120	120	166	304	350	1800	959	1432	958	19088	958	1433	958	1800	1800	960	1439	960	19088	960	1439	960	1800	29406	226.63
																												TOTAL	147455	1136.4

CROSS SECTION OF MAIN GIRDER S=1:50

END SECTION



INTERMEDIATE CROSSBEAM

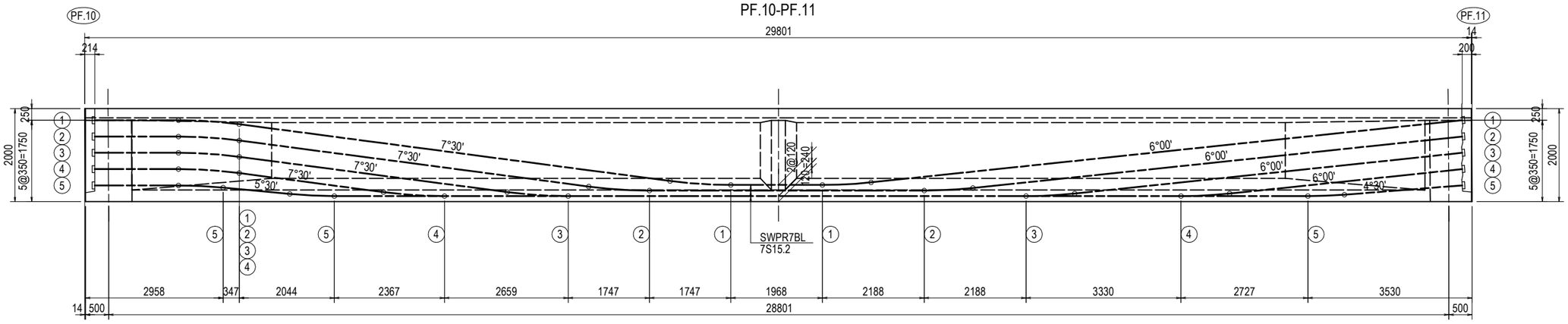


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	PC STRAND ARRANGEMENT OF MAIN GIRDER (PF7-PF11) (2)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1208

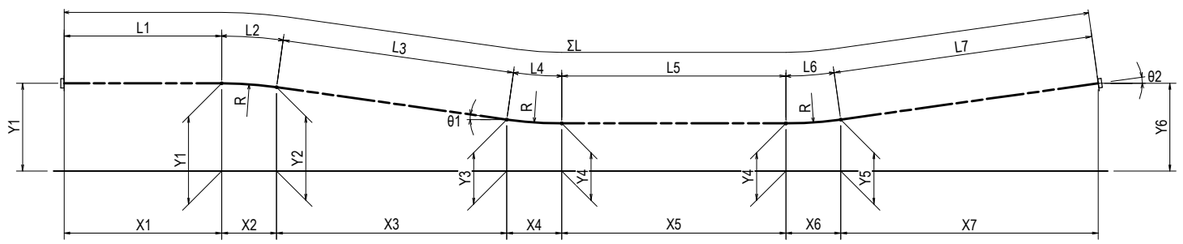
PC STRAND ARRANGEMENT OF MAIN GIRDER (PF7-PF11) (3)

SIDE VIEW S=1:100



PC STRAND LENGTH & ELEVATION

7S15.2
w=7.707 kg/m
R=10.000m

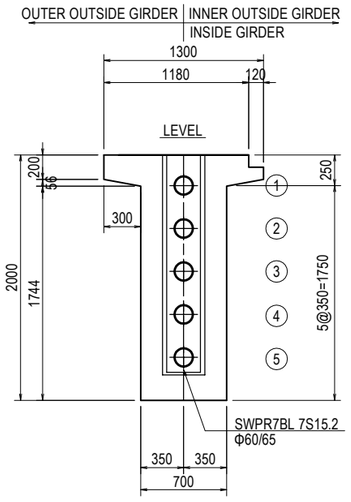


PF.10-PF.11 (UNIT:mm) (UNIT:kg)

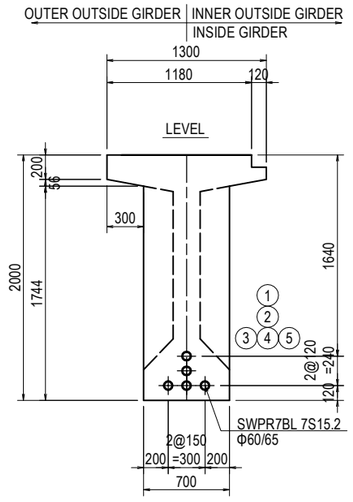
PC STRAND No	θ1	θ2	Y1	Y2	Y3	Y4	Y5	Y6	X1	X2	X3	X4	X5	X6	X7	L1	L2	L3	L4	L5	L6	L7	∑L	WEIGHT
1	7°30'	6°00'	1750	1664	446	360	415	1750	1800	1305	9259	1305	1968	1045	12704	1800	1309	9338	1309	1968	1047	12774	29545	227.70
2	7°30'	6°00'	1400	1314	326	240	295	1400	1800	1305	7512	1305	5904	1046	10515	1800	1309	7576	1309	5904	1047	10573	29518	227.50
3	7°30'	6°00'	1050	964	206	120	175	1050	1800	1305	5765	1305	9839	1045	8327	1800	1309	5814	1309	9839	1047	8373	29491	227.29
4	7°30'	6°00'	700	614	206	120	175	700	1800	1305	3106	1305	15828	1045	4997	1800	1309	3133	1309	15828	1047	5025	29451	226.98
5	5°30'	4°30'	350	304	166	120	151	350	1800	959	1432	958	20922	784	2531	1800	960	1439	960	20922	785	2539	29405	226.62
																						TOTAL	147410	1136.1

CROSS SECTION OF MAIN GIRDER S=1:50

END SECTION



INTERMEDIATE CROSSBEAM

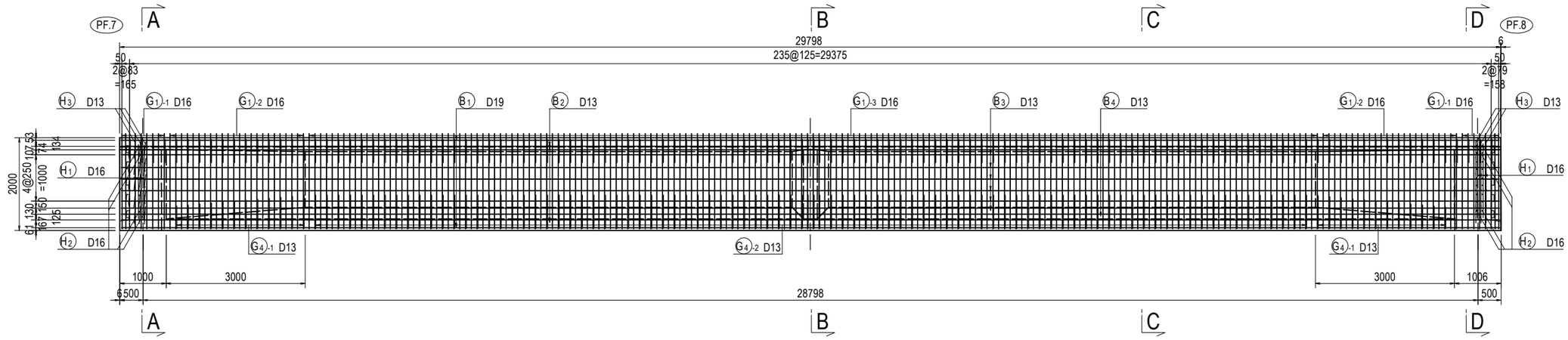


PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT			
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY			
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE			
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.			
	NAME	SIGNATURE	DATE	DRAWING TITLE / PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	PC STRAND ARRANGEMENT OF MAIN GIRDER (PF7-PF11) (3) / 3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017	DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017	P3-FO-1209

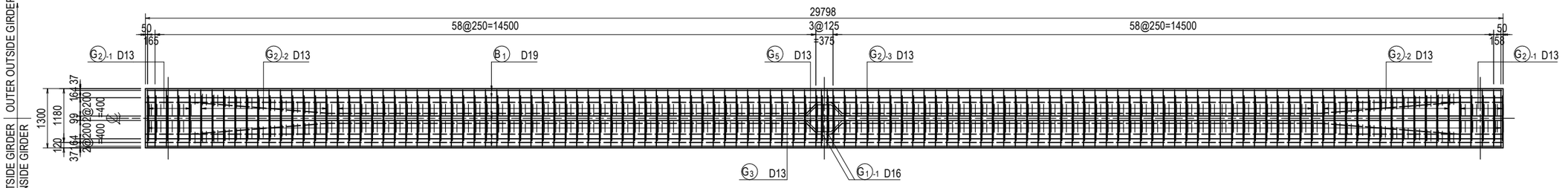
BAR ARRANGEMENT OF MAIN GIRDER (PF7-PF11) (1)

SIDE VIEW S=1:100

PF.7-PF.8

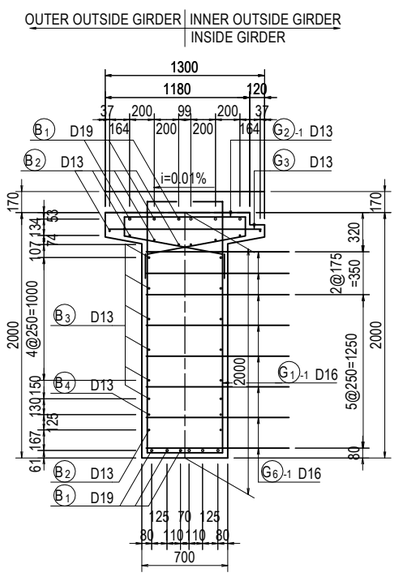


PLAN S=1:100

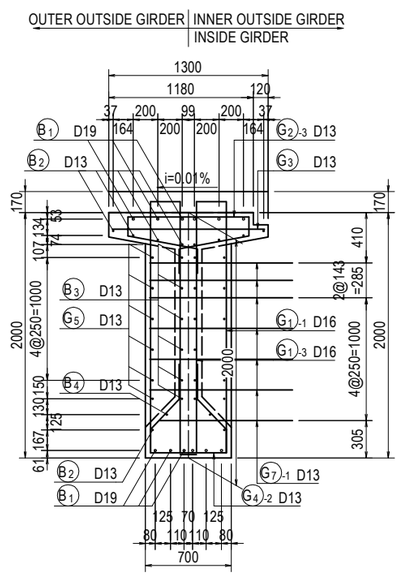


CROSS SECTION OF MAIN GIRDER S=1:50

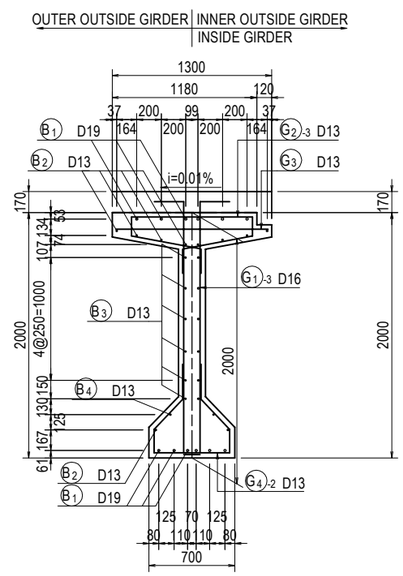
A-A



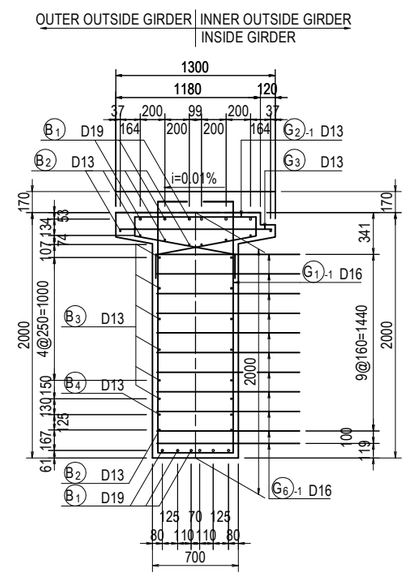
B-B



C-C



D-D



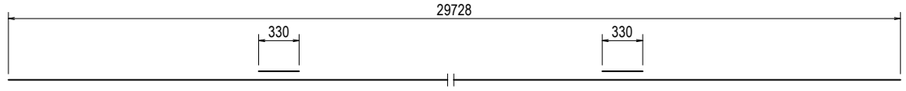
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

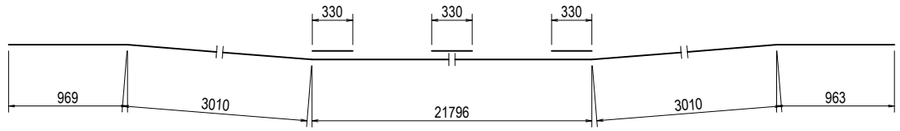
DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF MAIN GIRDER (PF7-PF11) (1)	3
	DWG No.
	P3-FO-1210

BAR ARRANGEMENT OF MAIN GIRDER (PF7-PF11) (2)

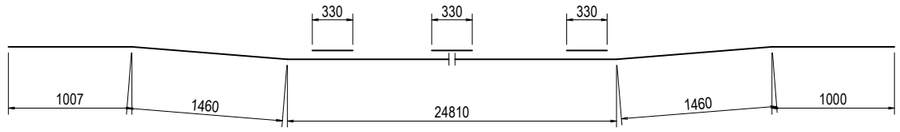
B1 12-D19x30690



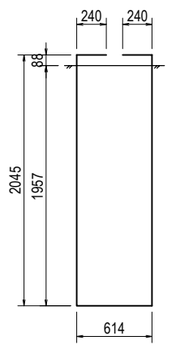
B2 10-D13x30390



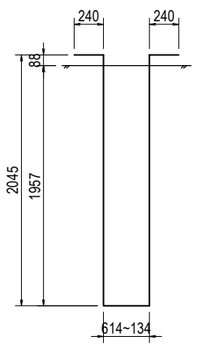
B3 12-D13x30740



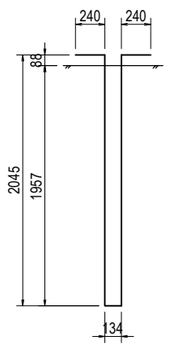
B4 2-D13x30730



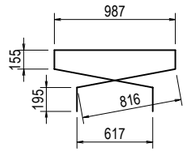
G1-1 20-D16x5190



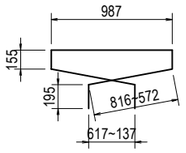
(AVE)
G1-2 48-D16x4950



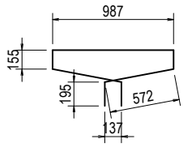
G1-3 174-D16x4710



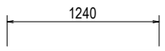
G2-1 10-D13x3320



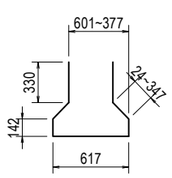
(AVE)
G2-2 24-D13x3080



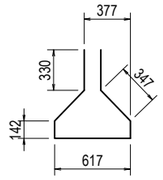
G2-3 88-D13x2840



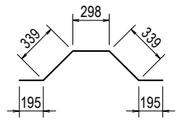
G3 122-D13x1240



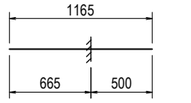
(AVE)
G4-1 24-D13x1940



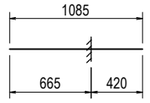
G4-2 88-D13x2260



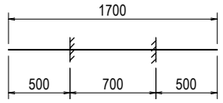
G5 12-D13x1370



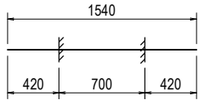
G6-1 58-D16x1170
(OUTSIDE GIRDER)



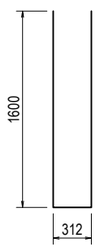
G7-1 14-D13x1090
(OUTSIDE GIRDER)



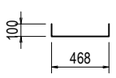
G6-2 58-D16x1700
(INSIDE GIRDER)



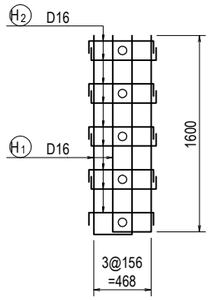
G7-2 14-D13x1540
(INSIDE GIRDER)

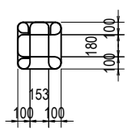


H1 8-D16x3520



H2 36-D16x670





H3 30-D13x4020

BAR LIST

REBAR NO.	DIA (mm)	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	30690	12	2.25	69.05	829	
B 2	D13	30390	10	0.995	30.24	302	
B 3	D13	30740	12	0.995	30.59	367	
B 4	D13	30730	2	0.995	30.58	61	
G 1 -1	D16	5190	20	1.56	8.10	162	
G 1 -2	D16	4950	48	1.56	7.72	371	AVERAGE
G 1 -3	D16	4710	174	1.56	7.35	1279	
G 2 -1	D13	3320	10	0.995	3.30	33	
G 2 -2	D13	3080	24	0.995	3.06	73	AVERAGE
G 2 -3	D13	2840	88	0.995	2.83	249	
G 3	D13	1240	122	0.995	1.23	150	
G 4 -1	D13	1940	24	0.995	1.93	46	AVERAGE
G 4 -2	D13	2260	88	0.995	2.25	198	
G 5	D13	1370	12	0.995	1.36	16	
G 6 -1	D16	1170	58	1.56	1.83	106	OUTSIDE GIRDER
G 6 -2	D16	1700	58	1.56	2.65	154	INSIDE GIRDER
G 7 -1	D13	1090	14	0.995	1.08	15	OUTSIDE GIRDER
G 7 -2	D13	1540	14	0.995	1.53	21	INSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
				D19	829 kg	(829) kg	
				D16	2048 kg	(2000) kg	
				D13	1636 kg	(1630) kg	
				TOTAL	4513 kg	(4459) kg	

Note: The value of inside ( ) are for OUTSIDE GIRDER.

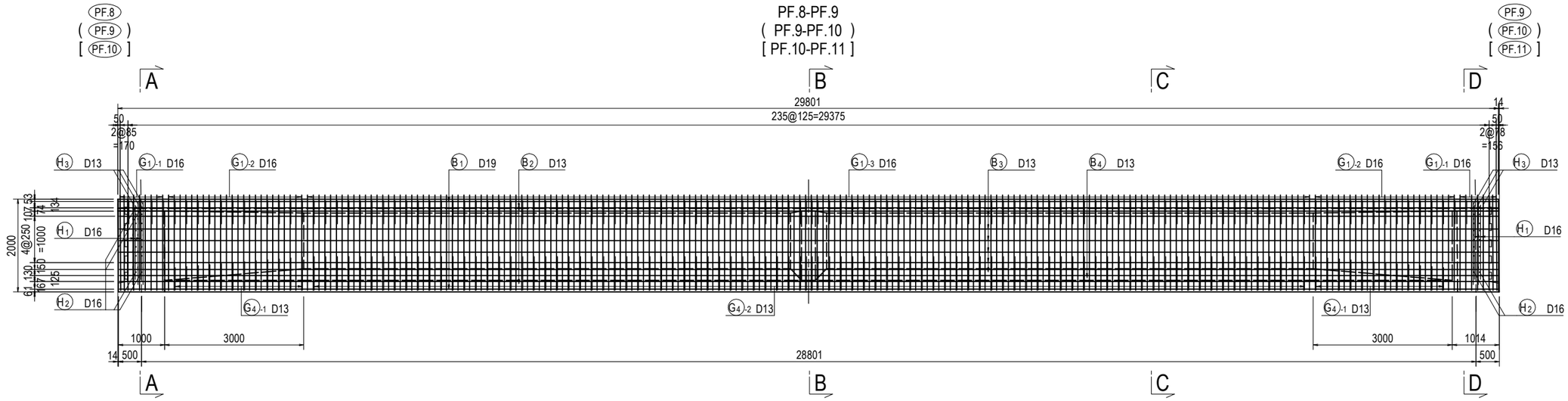
PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

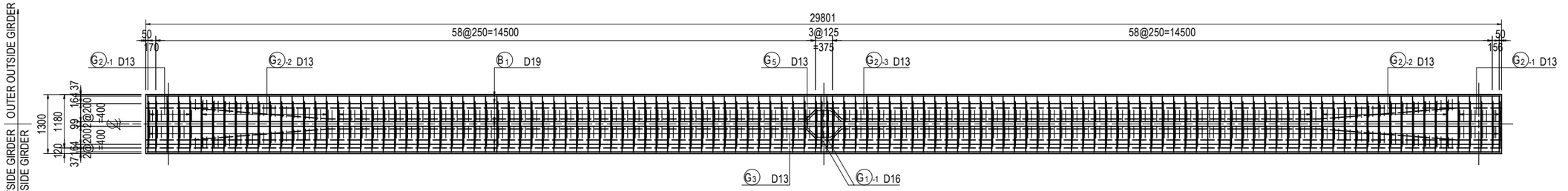
DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF MAIN GIRDER (PF7-PF11) (2)	3
	DWG No.
	P3-FO-1211

BAR ARRANGEMENT OF MAIN GIRDER (PF7-PF11) (3)

SIDE VIEW S=1:100

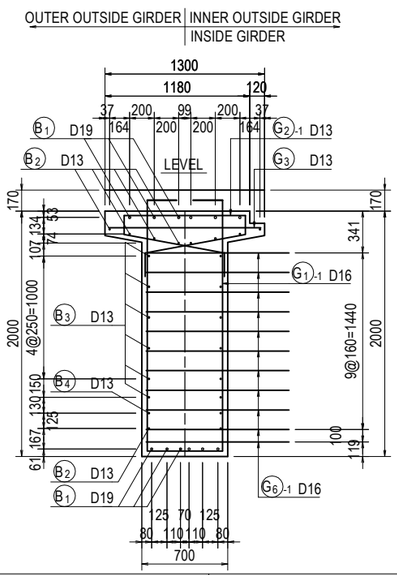


PLAN S=1:100

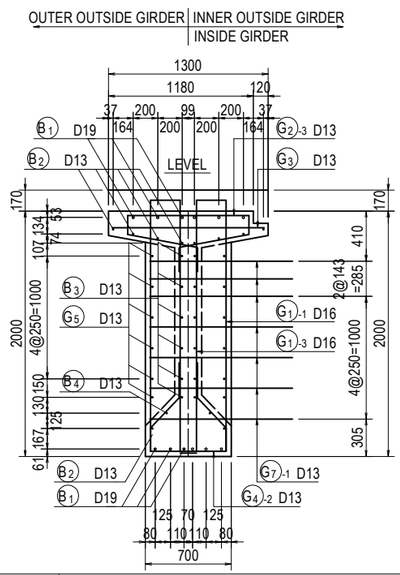


CROSS SECTION OF MAIN GIRDER S=1:50

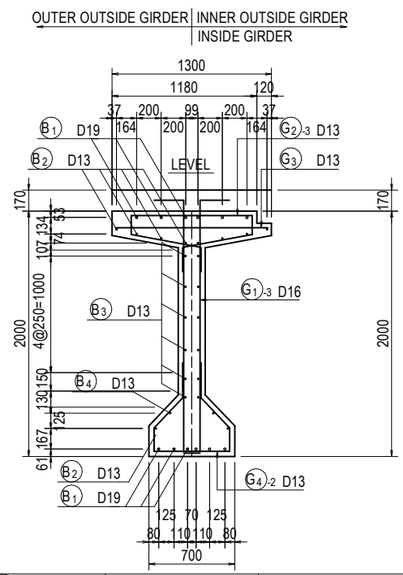
A-A



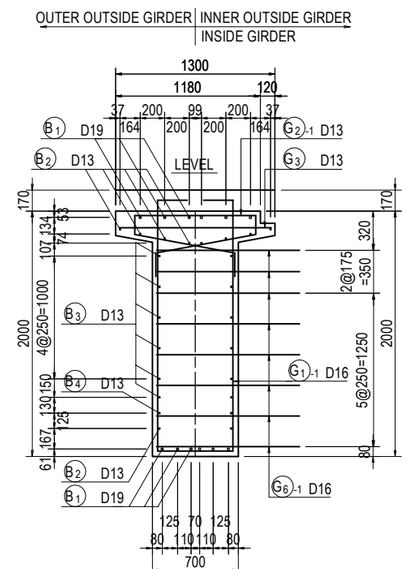
B-B



C-C



D-D

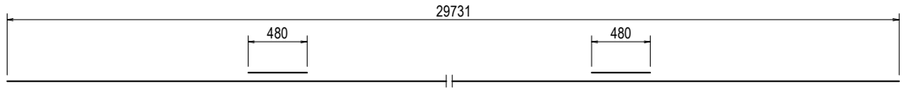


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

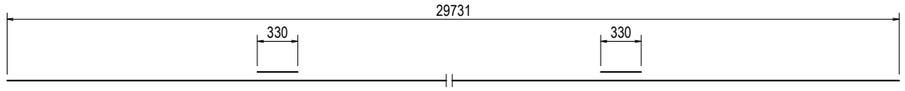
	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF MAIN GIRDER (PF7-PF11) (3)	3
	DWG No.
	P3-FO-1212

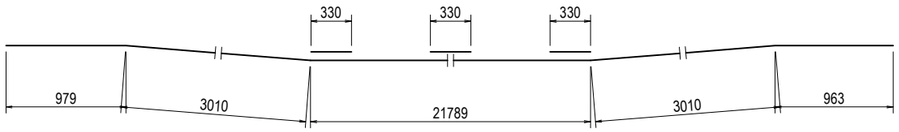
BAR ARRANGEMENT OF MAIN GIRDER (PF7-PF11) (4)



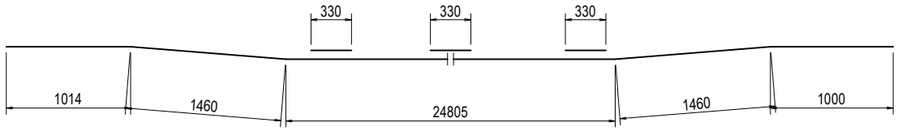
B1 12-D19x30700



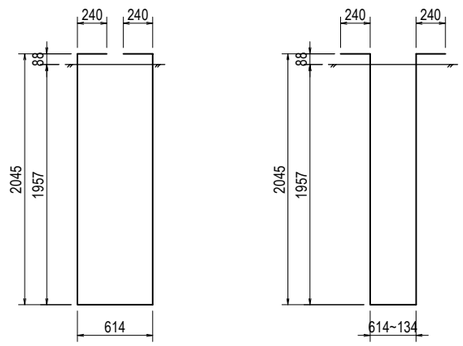
B2 10-D13x30400



B3 12-D13x30750

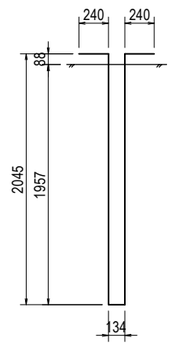


B4 2-D13x30730

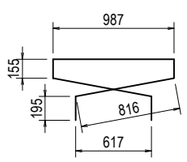


G1-1 20-D16x5190

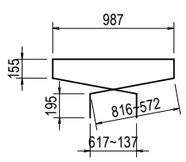
(AVE)
G1-2 48-D16x4950



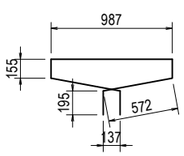
G1-3 174-D16x4710



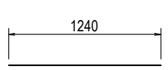
G2-1 10-D13x3320



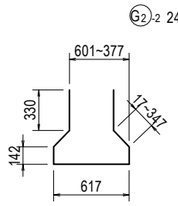
(AVE)
G2-2 24-D13x3080



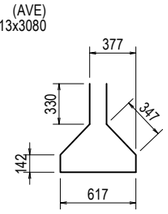
G2-3 88-D13x2840



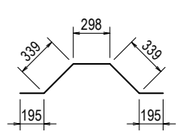
G3 122-D13x1240



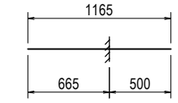
(AVE)
G4-1 24-D13x1940



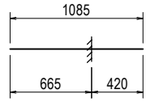
G4-2 88-D13x2260



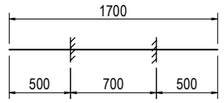
G5 12-D13x1370



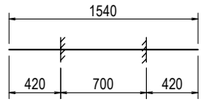
G6-1 58-D16x1170
(OUTSIDE GIRDER)



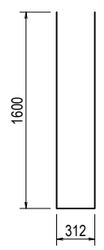
G7-1 14-D13x1090
(OUTSIDE GIRDER)



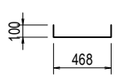
G6-2 58-D16x1700
(INSIDE GIRDER)



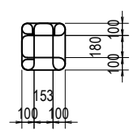
G7-2 14-D13x1540
(INSIDE GIRDER)



H1 8-D16x3520



H2 36-D16x670



H3 30-D13x4020

BAR LIST

REBAR NO.	DIA	LENGHT (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
B 1	D19	30700	12	2.25	69.08	829	
B 2	D13	30400	10	0.995	30.25	303	
B 3	D13	30750	12	0.995	30.60	367	
B 4	D13	30730	2	0.995	30.58	61	
G 1 -1	D16	5190	20	1.56	8.10	162	
G 1 -2	D16	4950	48	1.56	7.72	371	AVERAGE
G 1 -3	D16	4710	174	1.56	7.35	1279	
G 2 -1	D13	3320	10	0.995	3.30	33	
G 2 -2	D13	3080	24	0.995	3.06	73	AVERAGE
G 2 -3	D13	2840	88	0.995	2.83	249	
G 3	D13	1240	122	0.995	1.23	150	
G 4 -1	D13	1940	24	0.995	1.93	46	AVERAGE
G 4 -2	D13	2260	88	0.995	2.25	198	
G 5	D13	1370	12	0.995	1.36	16	
G 6 -1	D16	1170	58	1.56	1.83	106	OUTSIDE GIRDER
G 6 -2	D16	1700	58	1.56	2.65	154	INSIDE GIRDER
G 7 -1	D13	1090	14	0.995	1.08	15	OUTSIDE GIRDER
G 7 -2	D13	1540	14	0.995	1.53	21	INSIDE GIRDER
H 1	D16	3520	8	1.56	5.49	44	
H 2	D16	670	36	1.56	1.05	38	
H 3	D13	4020	30	0.995	4.00	120	
				D19	829 kg	(829) kg	
				D16	2048 kg	(2000) kg	
				D13	1637 kg	(1631) kg	
				TOTAL	4514 kg	(4460) kg	

Note: The value of inside ( ) are for OUTSIDE GIRDER.

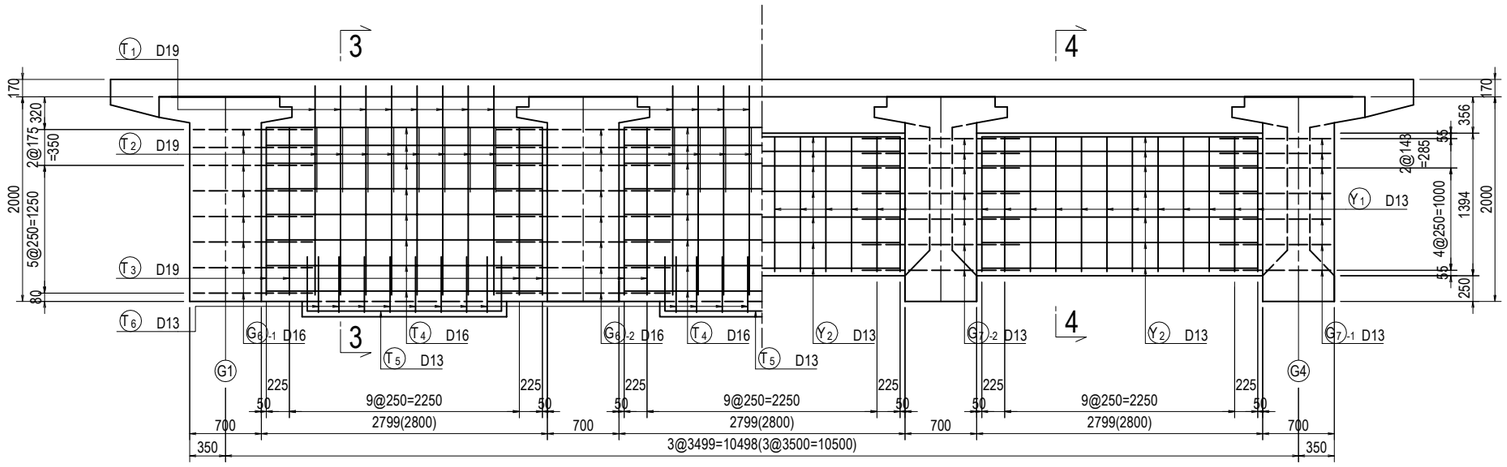
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	BAR ARRANGEMENT OF MAIN GIRDER (PF7-PF11) (4)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1213

BAR ARRANGEMENT OF CROSSBEAM (PF7-PF11) (1)

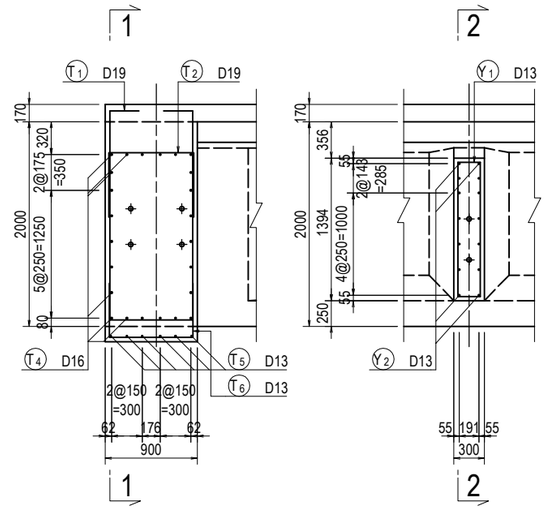
CROSS SECTION S=1:60

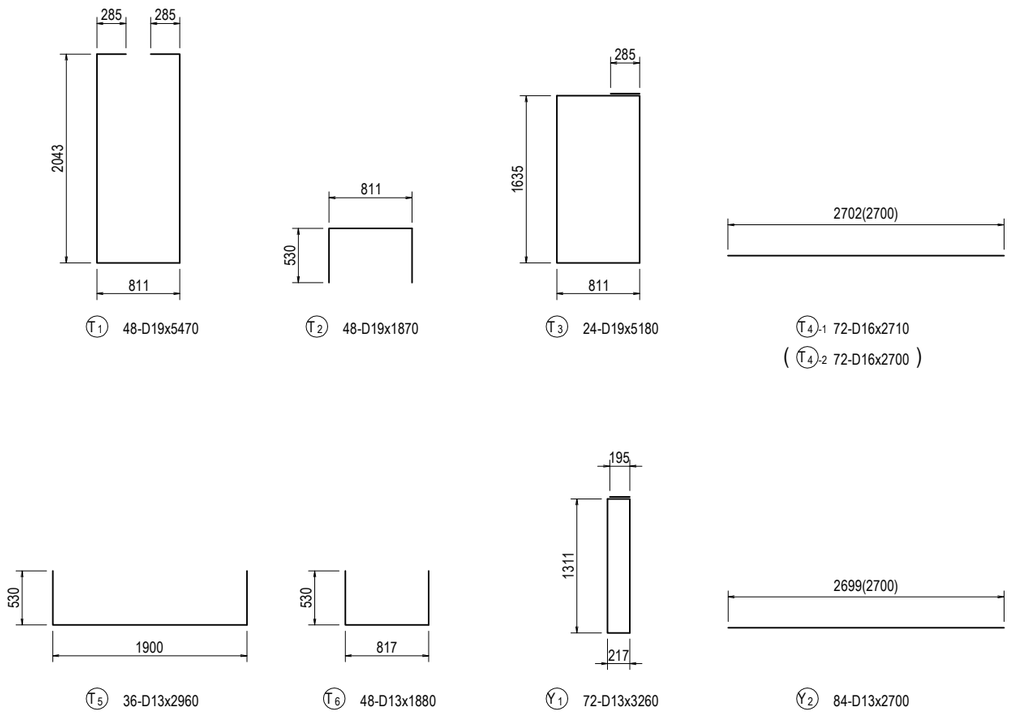
1-1 PF7-PF8 (PF8-PF11) 2-2



SIDE VIEW S=1:60

3-3 4-4





PC STRAND LIST

	TYPE	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
CROSSBEAM AT END OF MAIN GIRDER	SWPR7BL 4S15.2	11200	8	4.404	49.325	394.6	
INERMEDIATE CROSSBEAM	SWPR7BL 4S15.2	11200	8	4.404	49.325	394.6	
				TOTAL LENGTH	ΣL=	179.200	m
				TOTAL WEIGHT	ΣW=	789.2	kg

BAR LIST

REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
T 1	D19	5470	48	2.25	12.31	591	
T 2	D19	1870	48	2.25	4.21	202	
T 3	D19	5180	24	2.25	11.66	280	
T 4 -1	D16	2710	72	1.56	4.23	305	
T 4 -2	D16	2700	72	1.56	4.21	303	
T 5	D13	2960	36	0.995	2.95	106	
T 6	D13	1880	48	0.995	1.87	90	
Y 1	D13	3260	72	0.995	3.24	233	
Y 2	D13	2700	84	0.995	2.69	226	
					D19	1073	kg
					D16	608	kg
					D13	655	kg
					TOTAL	2336	kg

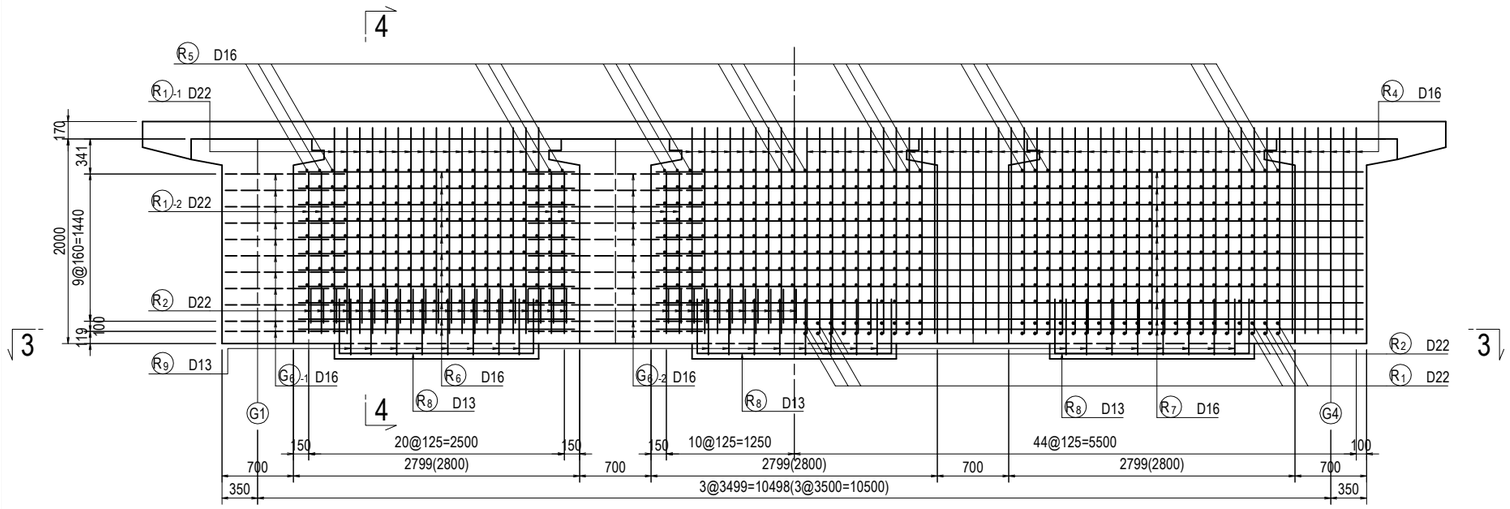
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	BAR ARRANGEMENT OF CROSSBEAM (PF7-PF11) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1214

BAR ARRANGEMENT OF CROSSBEAM (PF7-PF11) (2)

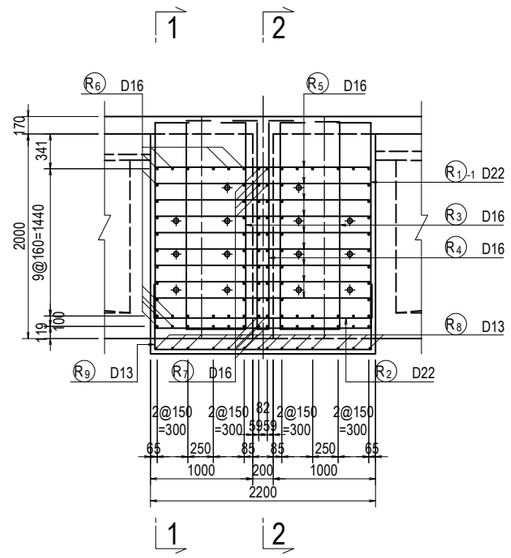
CROSS SECTION S=1:60

1-1 PF7-PF8 (PF8-PF11) 2-2



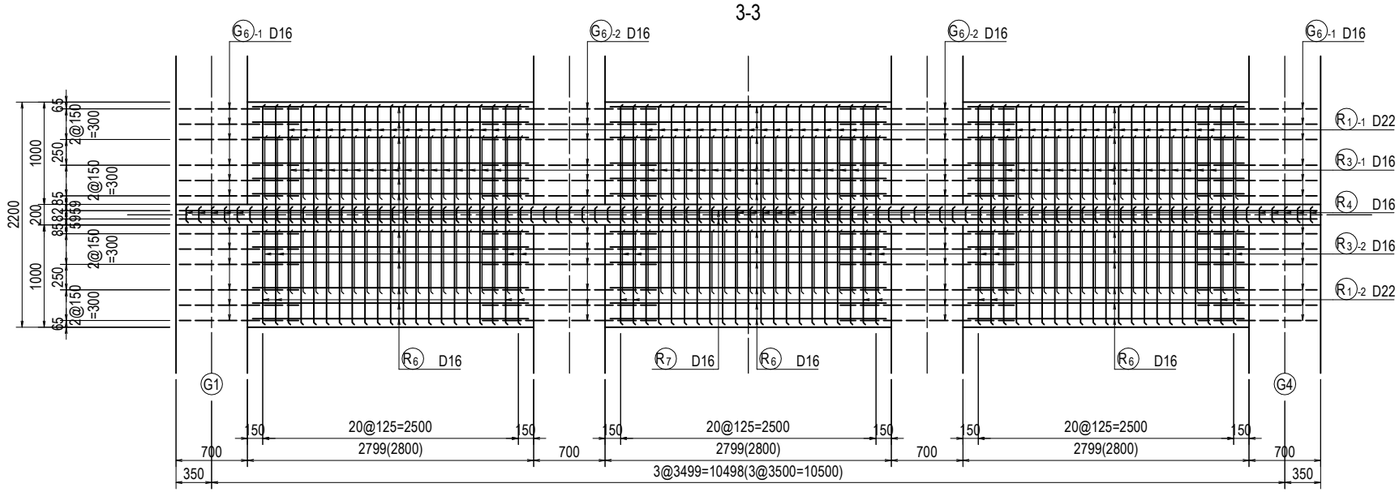
SIDE VIEW S=1:60

4-4



PLAN S=1:60

3-3

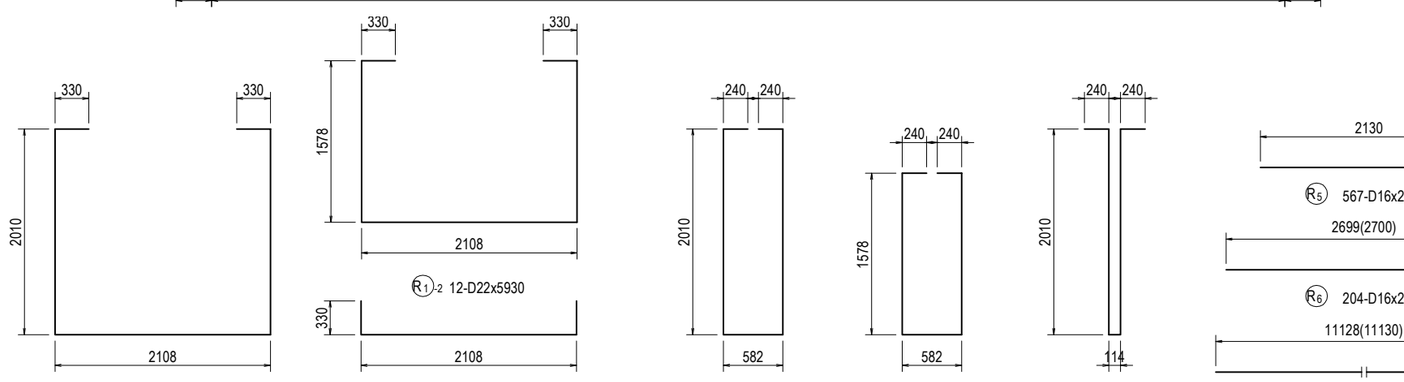


PC STRAND LIST

	TYPE	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
CONNECTING CROSSBEAM	SWPR7BL 4S15.2	11200	42	4.404	49.325	2071.7	
				TOTAL LENGTH	ΣL=	470.400	m
				TOTAL WEIGHT	ΣW=	2071.6	kg

BAR LIST

REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
R 1 -1	D22	6790	51	3.04	20.64	1053	
R 1 -2	D22	5930	12	3.04	18.03	216	
R 2	D22	2770	63	3.04	8.42	530	
R 3 -1	D16	5090	102	1.56	7.94	810	
R 3 -2	D16	4220	24	1.56	6.58	158	
R 4	D16	4620	89	1.56	7.21	642	
R 5	D16	2130	567	1.56	3.32	1882	
R 6	D16	2700	204	1.56	4.21	859	
R 7	D16	11130	22	1.56	17.36	382	
R 8	D13	2960	42	0.995	2.95	124	
R 9	D13	3180	24	0.995	3.16	76	
				D22	1799 kg ×3 =	5397	kg
				D16	4733 kg ×3 =	14199	kg
				D13	200 kg ×3 =	600	kg
				TOTAL	6732 kg ×3 =	20196	kg



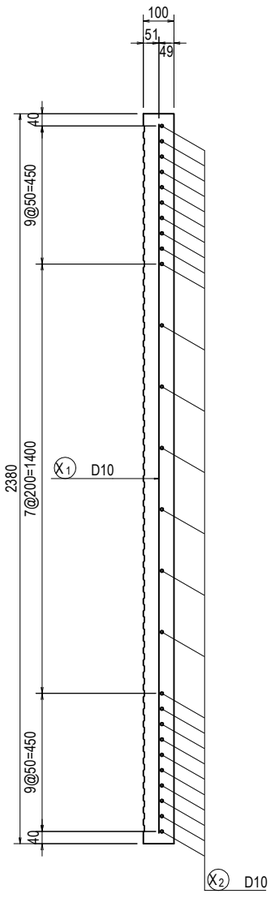
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	BAR ARRANGEMENT OF CROSSBEAM (PF7-PF11) (2)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1215

DETAIL OF PC PLATE FOR DECK SLAB (PF7-PF11)

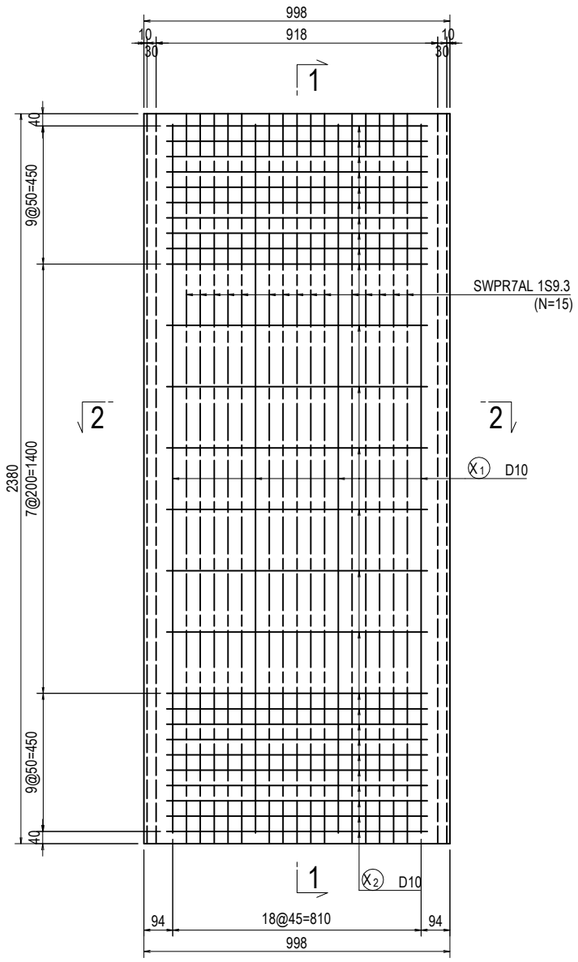
SIDE VIEW S=1:20

1-1

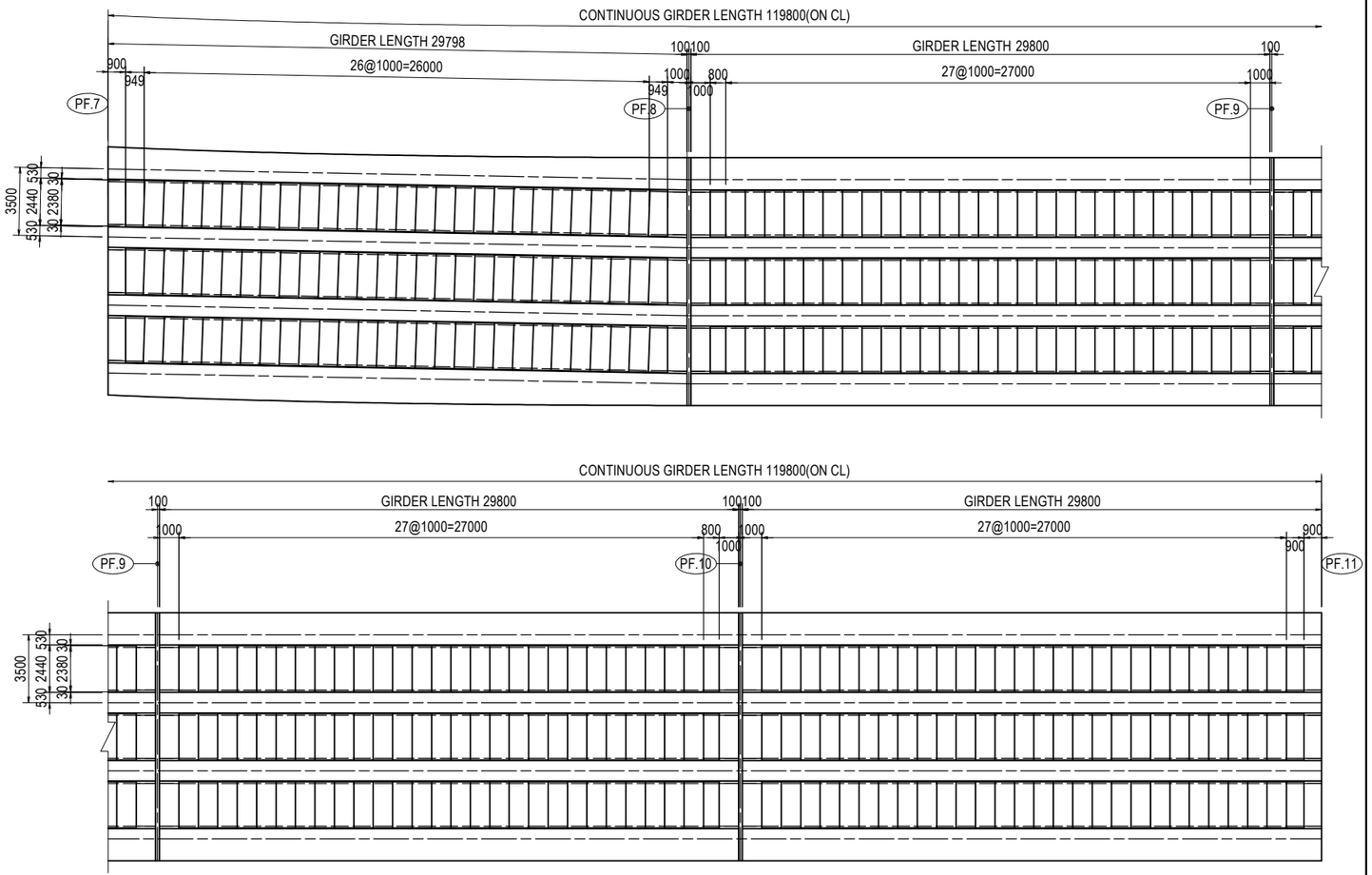


PLAN S=1:20

STANDARD

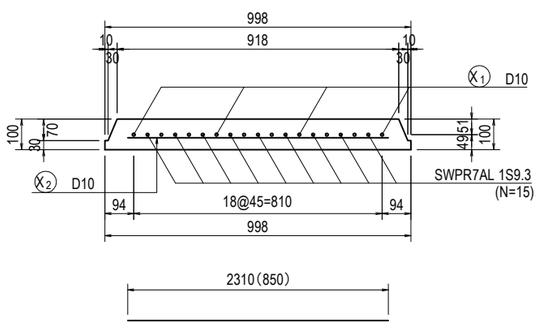


KEY PLAN S=1:300



CROSS SECTION S=1:20

2-2



X1 4-D10x2310

(X2 26-D10x850)

BAR LIST

REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
X 1	D10	2310	4	0.56	1.29	5.2	
X 2	D10	850	26	0.56	0.48	12.5	
						17.7 kg	
				TOTAL	17.7 kg	×336 = 5947.2 kg	

PC STRAND LIST

TYPE	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
SWPR7AL 1S9.3	2380	15	0.405	0.96	14.4	
			TOTAL	14.4 kg	×336= 4838.4 kg	

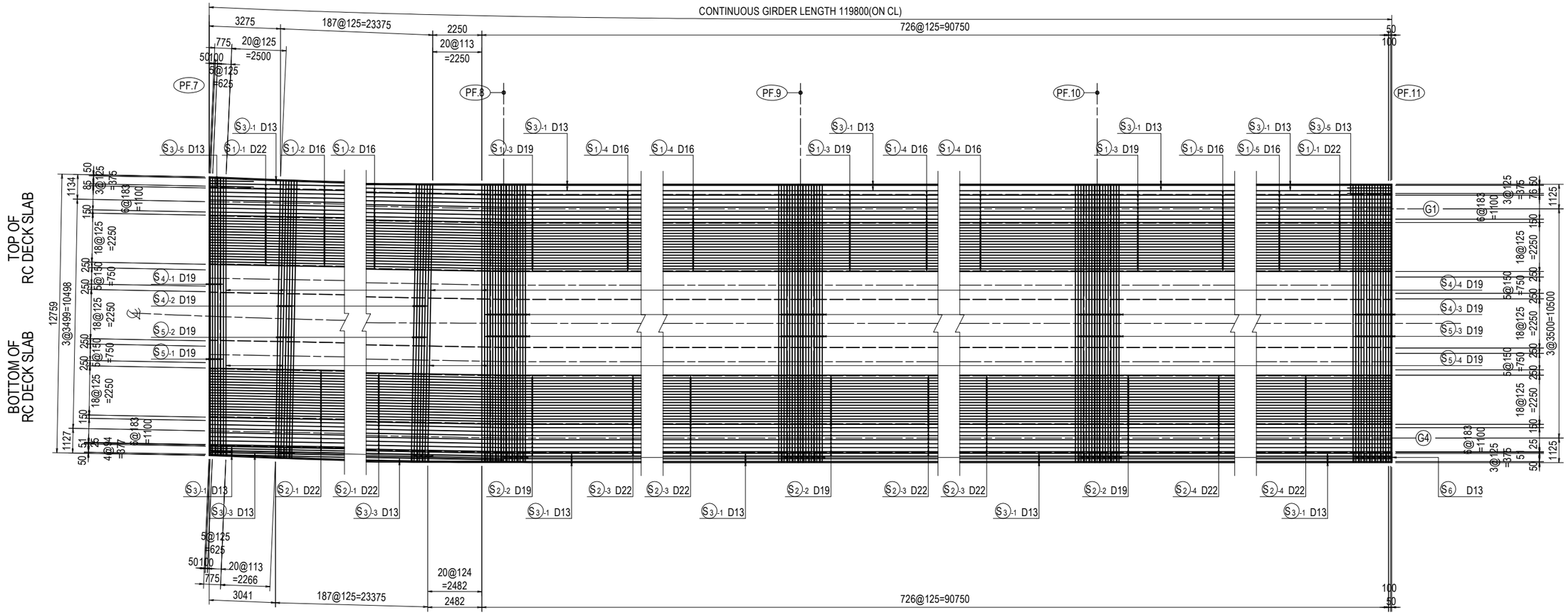
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

DRAWING TITLE	PACKAGE
DETAIL OF PC PLATE FOR DECK SLAB (PF7-PF11)	3
	DWG No.
	P3-FO-1216

BAR ARRANGEMENT OF DECK SLAB (PF7-PF11) (1)

PLAN S=1:200



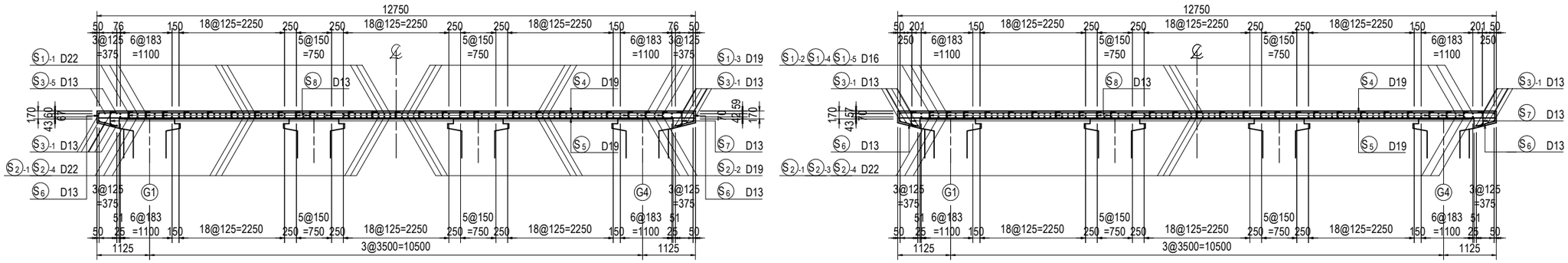
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

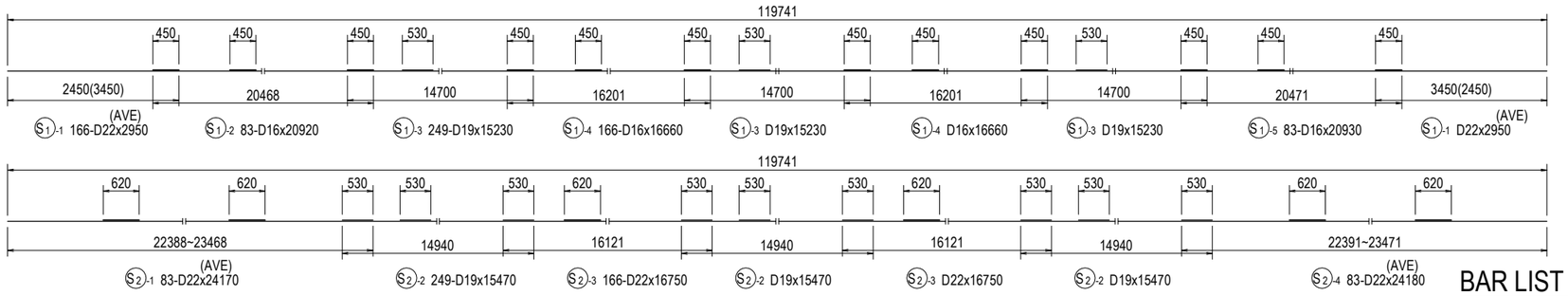
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	BAR ARRANGEMENT OF DECK SLAB (PF7-PF11) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1217

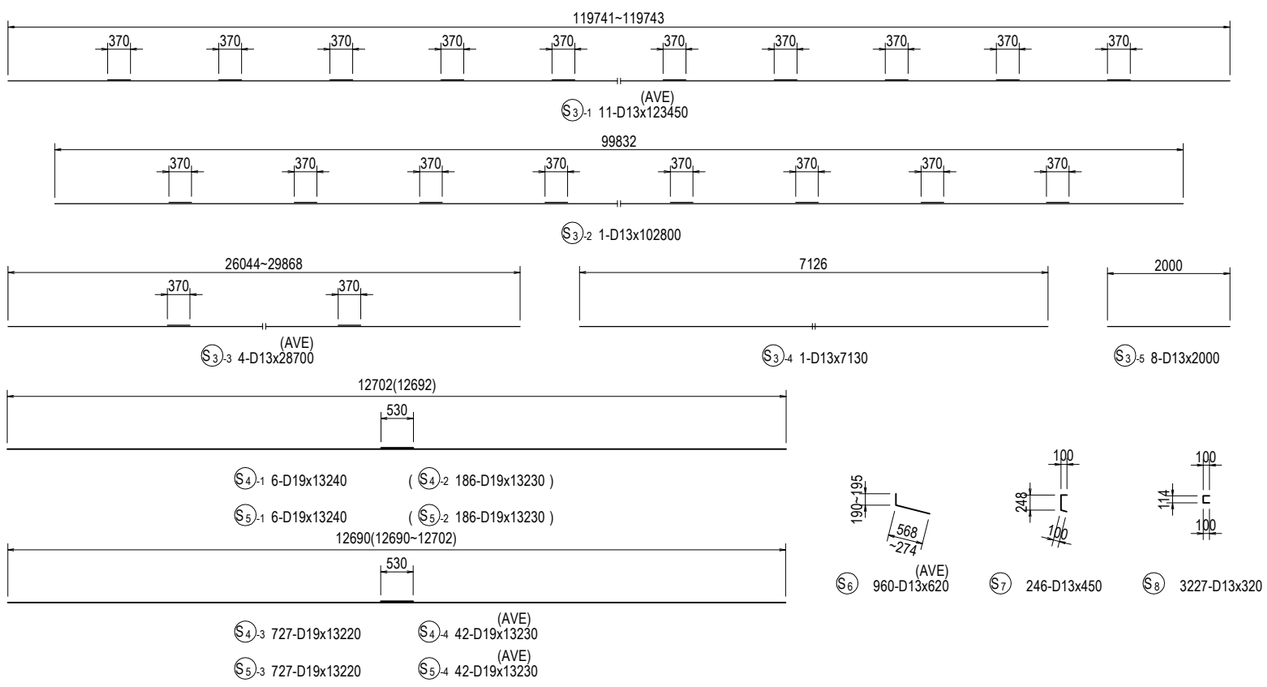
BAR ARRANGEMENT OF DECK SLAB (PF7-PF11) (2)

CROSS SECTION S=1:100

END SECTION　　CONNECTION SECTION　　STANDARD SECTION







BAR LIST

REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
S 1 -1	D22	2950	166	3.04	8.97	1489	AVERAGE
S 1 -2	D16	20920	83	1.56	32.64	2709	
S 1 -3	D19	15230	249	2.25	34.27	8533	
S 1 -4	D16	16660	166	1.56	25.99	4314	
S 1 -5	D16	20930	83	1.56	32.65	2710	
S 2 -1	D22	24170	83	3.04	73.48	6099	AVERAGE
S 2 -2	D19	15470	249	2.25	34.81	8668	
S 2 -3	D22	16750	166	3.04	50.92	8453	
S 2 -4	D22	24180	83	3.04	73.51	6101	AVERAGE
S 3 -1	D13	123450	11	0.995	122.83	1351	AVERAGE
S 3 -2	D13	102800	1	0.995	102.29	102	
S 3 -3	D13	28700	4	0.995	28.56	114	AVERAGE
S 3 -4	D13	7130	1	0.995	7.09	7	
S 3 -5	D13	2000	8	0.995	1.99	16	
S 4 -1	D19	13240	6	2.25	29.79	179	
S 4 -2	D19	13230	186	2.25	29.77	5537	
S 4 -3	D19	13220	727	2.25	29.75	21628	
S 4 -4	D19	13230	42	2.25	29.77	1250	AVERAGE
S 5 -1	D19	13240	6	2.25	29.79	179	
S 5 -2	D19	13230	186	2.25	29.77	5537	
S 5 -3	D19	13220	727	2.25	29.75	21628	
S 5 -4	D19	13230	42	2.25	29.77	1250	AVERAGE
S 6	D13	620	960	0.995	0.62	595	AVERAGE
S 7	D13	450	246	0.995	0.45	111	
S 8	D13	320	3227	0.995	0.32	1033	

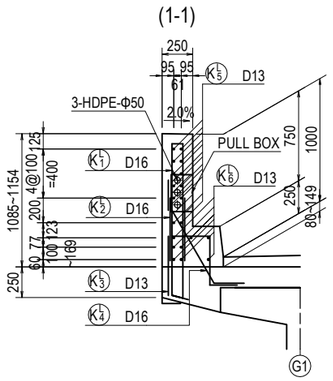
D22	22142	kg
D19	74389	kg
D16	9733	kg
D13	3329	kg
TOTAL	109593	kg

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	BAR ARRANGEMENT OF DECK SLAB (PF7-PF11) (2)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1218

DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (PF7-PF11) (1)

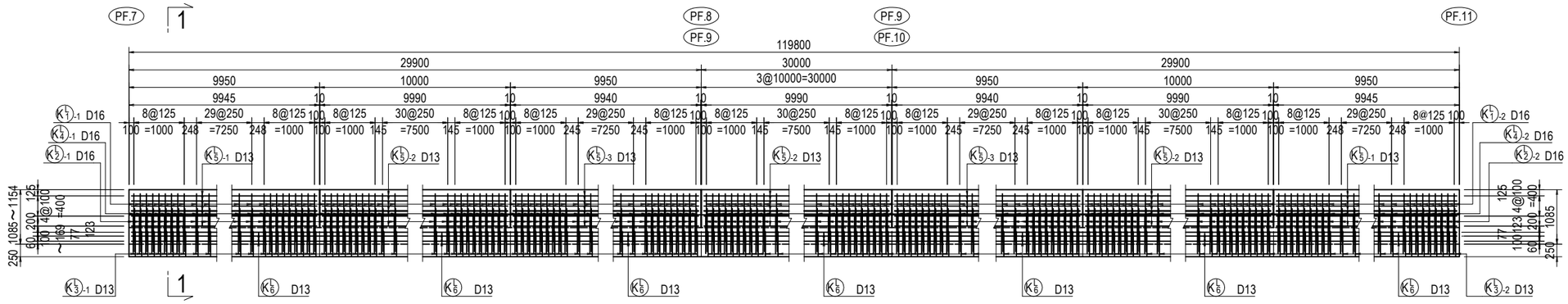
CROSS SECTION S=1:50

(1-1)

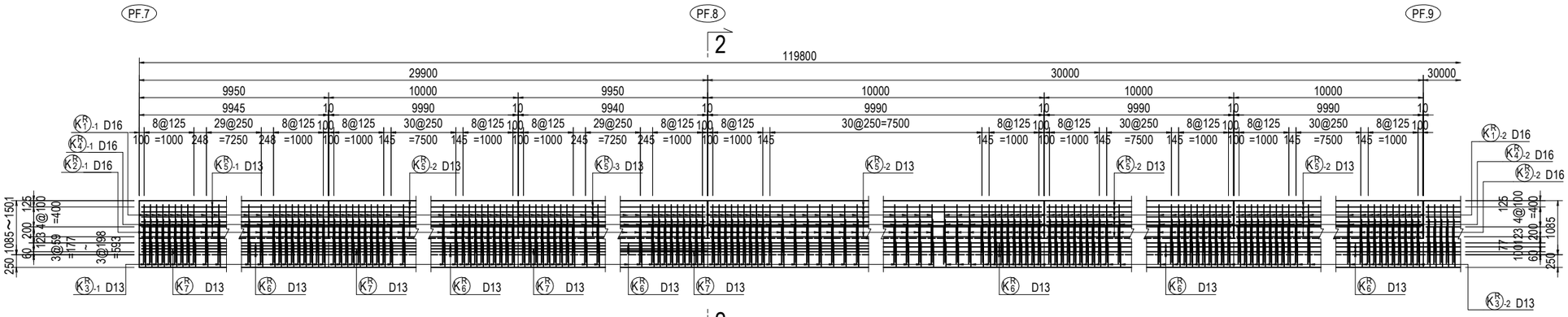


SIDE VIEW S=1:100

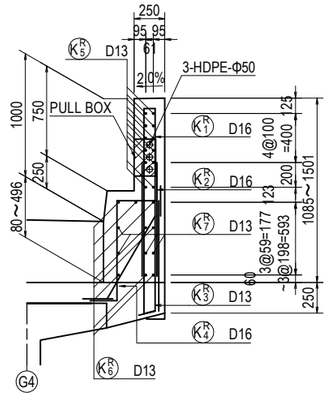
(L)



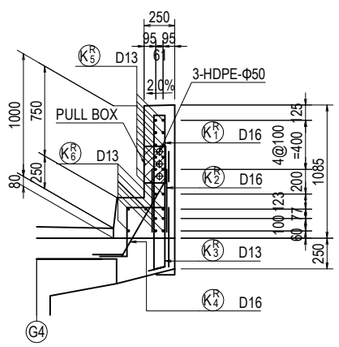
(R)



(2-2)



(3-3)



PF.9 PF.10 PF.11
3
119800
30000 30000 29900
10000 10000 10000 9950 10000 9950
10 9990 10 9990 10 9990 10 9940 10 9990 10 9945
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D16 D13
1085 250

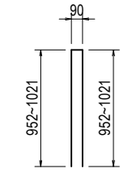
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

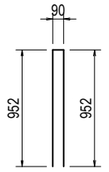
DRAWING TITLE	PACKAGE
DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (PF7-PF11) (1)	3
	DWG No.
	P3-FO-1219

DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (PF7-PF11) (2)

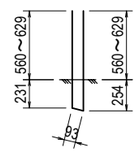
(L)



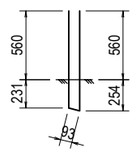
(AVE) K_1^L-1 145-D16x2070



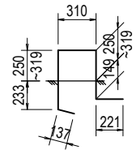
K_1^L-2 439-D16x2000



(AVE) K_2^L-1 145-D16x1770



K_2^L-2 439-D16x1700



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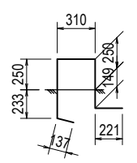
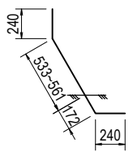
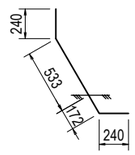


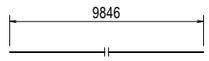
K_3^L-2 439-D13x1550



(AVE) K_4^L-1 145-D16x1200



K_4^L-2 439-D16x1190



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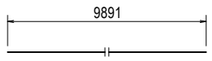
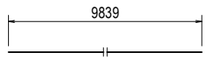
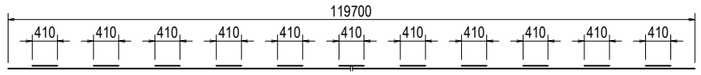


(AVE) K_5^L-2 96-D13x9900

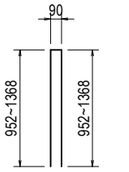


(AVE) K_5^L-3 24-D13x9840

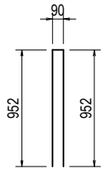


(AVE) K_6^L 8-D13x124210

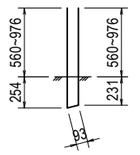
(R)



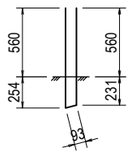
(AVE) K_1^R-1 181-D16x2410



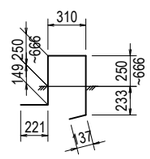
K_1^R-2 403-D16x2000



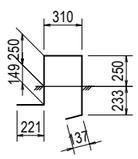
(AVE) K_2^R-1 181-D16x2120



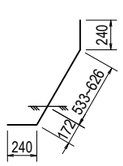
K_2^R-2 403-D16x1700



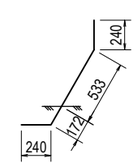
(AVE) K_3^R-1 181-D13x1970



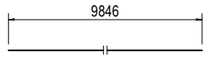
K_3^R-2 403-D13x1550



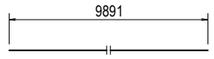
(AVE) K_4^R-1 181-D16x1240



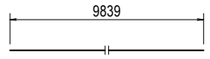
K_4^R-2 403-D16x1190



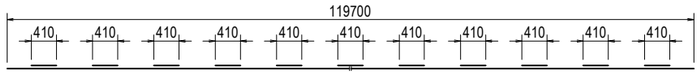
(AVE) K_5^R-1 24-D13x9850



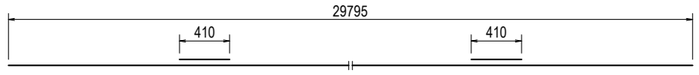
(AVE) K_5^R-2 96-D13x9900



(AVE) K_5^R-3 24-D13x9840



(AVE) K_6^R 8-D13x124210

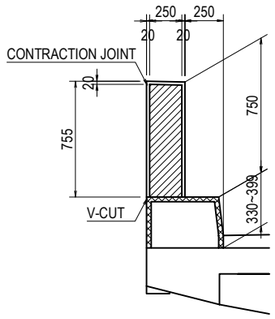


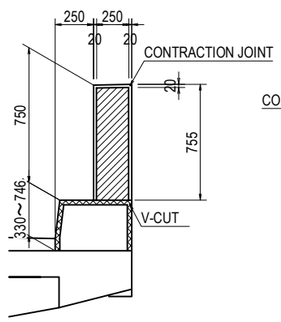
(AVE) K_7^R 4-D13x30620

BAR LIST

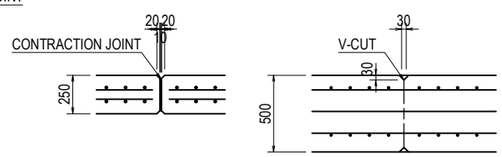
REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
$K_{1\ -1}^{L}$	D16	2070	145	1.56	3.23	468	AVERAGE
$K_{1\ -2}^{L}$	D16	2000	439	1.56	3.12	1370	
$K_{2\ -1}^{L}$	D16	1770	145	1.56	2.76	400	AVERAGE
$K_{2\ -2}^{L}$	D16	1700	439	1.56	2.65	1163	
$K_{3\ -1}^{L}$	D13	1620	145	0.995	1.61	233	AVERAGE
$K_{3\ -2}^{L}$	D13	1550	439	0.995	1.54	676	
$K_{4\ -1}^{L}$	D16	1200	145	1.56	1.87	271	AVERAGE
$K_{4\ -2}^{L}$	D16	1190	439	1.56	1.86	817	
$K_{5\ -1}^{L}$	D13	9850	24	0.995	9.80	235	AVERAGE
$K_{5\ -2}^{L}$	D13	9900	96	0.995	9.85	946	AVERAGE
$K_{5\ -3}^{L}$	D13	9840	24	0.995	9.79	235	AVERAGE
K_{6}^{L}	D13	124210	8	0.995	123.59	989	AVERAGE
$K_{1\ -1}^{R}$	D16	2410	181	1.56	3.76	681	AVERAGE
$K_{1\ -2}^{R}$	D16	2000	403	1.56	3.12	1257	
$K_{2\ -1}^{R}$	D16	2120	181	1.56	3.31	599	AVERAGE
$K_{2\ -2}^{R}$	D16	1700	403	1.56	2.65	1068	
$K_{3\ -1}^{R}$	D13	1970	181	0.995	1.96	355	AVERAGE
$K_{3\ -2}^{R}$	D13	1550	403	0.995	1.54	621	
$K_{4\ -1}^{R}$	D16	1240	181	1.56	1.93	349	AVERAGE
$K_{4\ -2}^{R}$	D16	1190	403	1.56	1.86	750	
$K_{5\ -1}^{R}$	D13	9850	24	0.995	9.80	235	AVERAGE
$K_{5\ -2}^{R}$	D13	9900	96	0.995	9.85	946	AVERAGE
$K_{5\ -3}^{R}$	D13	9840	24	0.995	9.79	235	AVERAGE
K_{6}^{R}	D13	124210	8	0.995	123.59	989	AVERAGE
K_{7}^{R}	D13	30620	4	0.995	30.47	122	AVERAGE
					D16	9193 kg	
					D13	6817 kg	
					TOTAL	16010 kg	

CROSS SECTION S=1:40

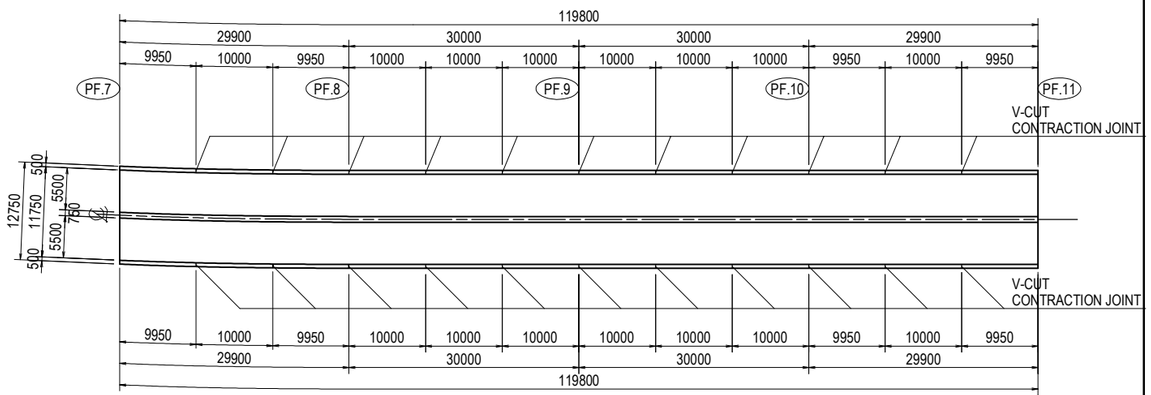




DETAIL OF CONSTRUCTION JOINT



KEY PLAN S=1:800

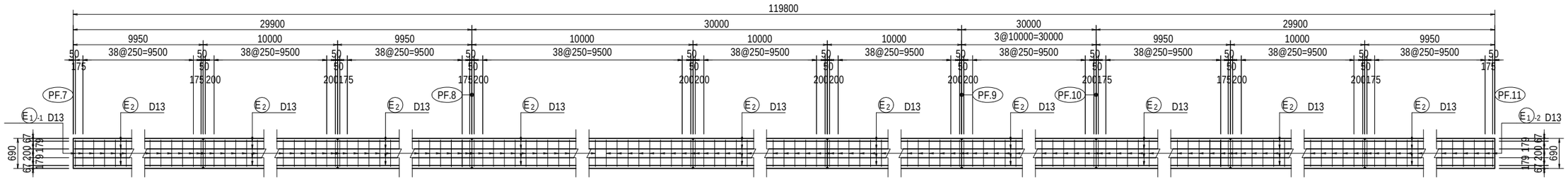


PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT			
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY			
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE			
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.			
	NAME	SIGNATURE	DATE	DRAWING TITLE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (PF7-PF11) (2)
CHECKED BY	T. HAYAKAWA		20 Jul. 2017	
APPROVED BY	Y. SANO		25 Jul. 2017	

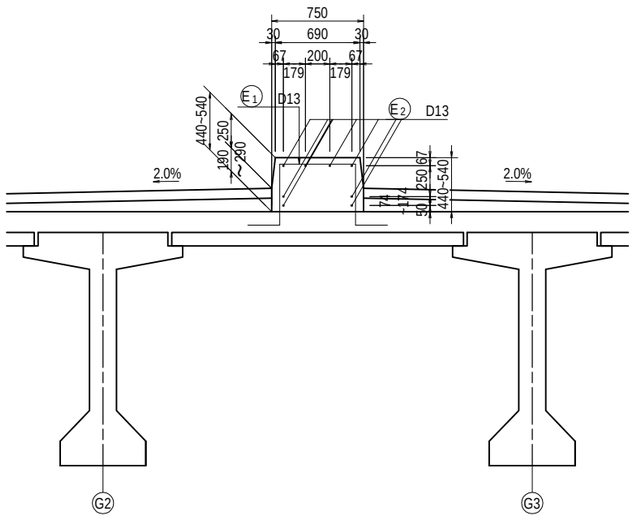
PACKAGE
3
DWG No.
P3-FO-1220

DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (PF7-PF11) (3)

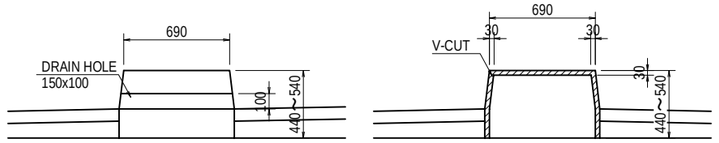
PLAN S=1:100



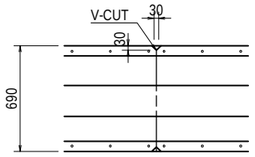
CROSS SECTION S=1:50

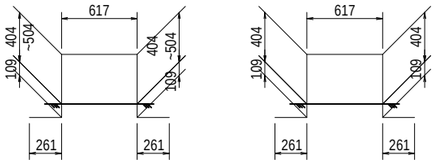


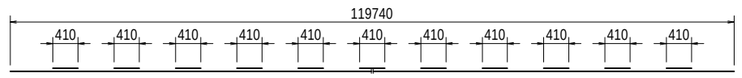
CROSS SECTION S=1:40



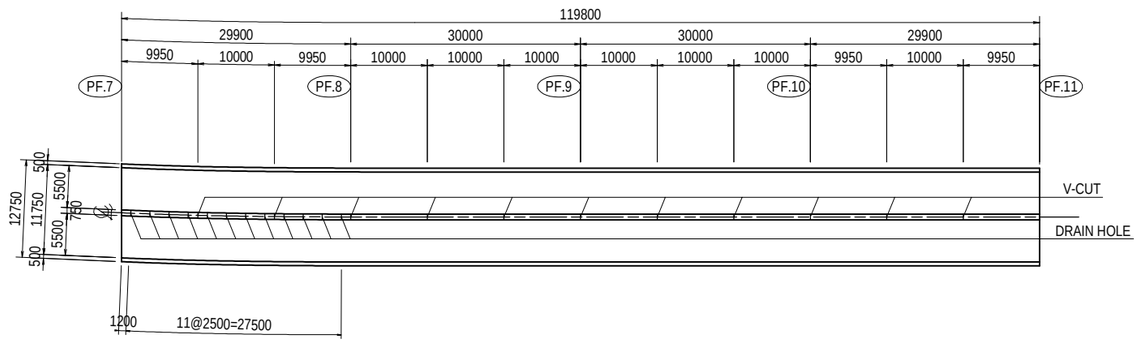
DETAIL OF V-CUT







KEY PLAN S=1:800



BAR LIST

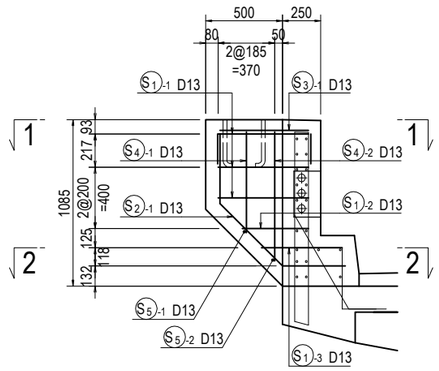
REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
E 1 -1	D13	2270	155	0.995	2.26	350	AVERAGE
E 1 -2	D13	2170	337	0.995	2.16	728	
E 2	D13	124250	8	0.995	123.63	989	AVERAGE
						2067 kg	
					TOTAL	2067 kg	

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR, MINISTRY OF CONSTRUCTION, DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. / ORIENTAL CONSULTANTS GLOBAL CO., LTD. / METROPOLITAN EXPRESSWAY COMPANY LIMITED / CHODAI CO.,LTD. / NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF CONCRETE CURB, BARRIER AND MEDIUM (PF7-PF11) (3)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1221

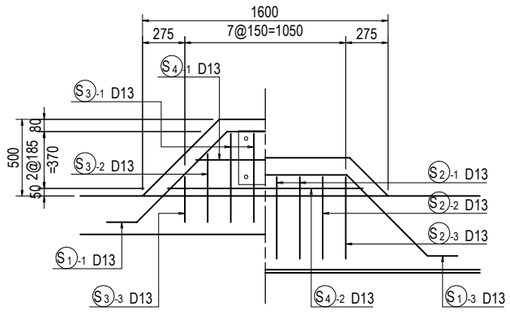
DETAIL OF LIGHTING FOUNDATION (PF7-PF11)

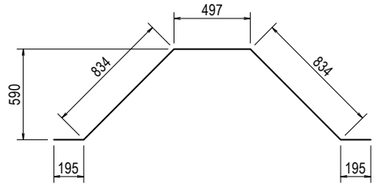
CROSS SECTION S=1:40



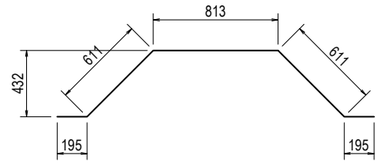
PLAN S=1:40

1-1 2-2

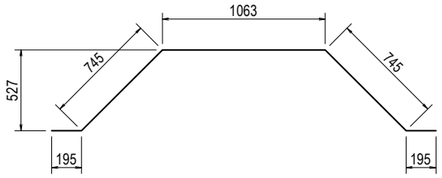




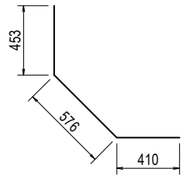
S1-1 3-D13x2560



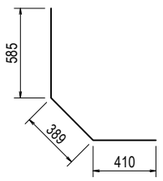
S1-2 1-D13x2430



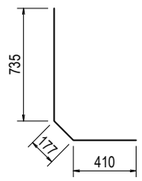
S1-3 1-D13x2950



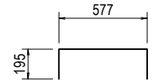
S2-1 4-D13x1440



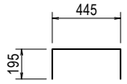
S2-2 2-D13x1390



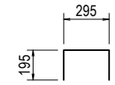
S2-3 2-D13x1330



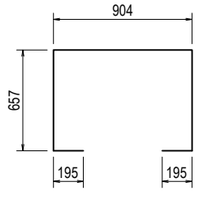
S3-1 4-D13x970



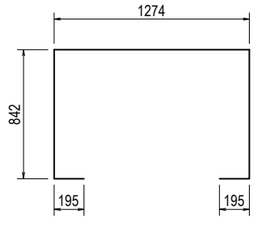
S3-2 2-D13x840



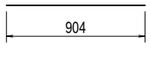
S3-3 2-D13x690



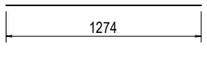
S4-1 1-D13x2610



S4-2 1-D13x3350



S5-1 1-D13x910



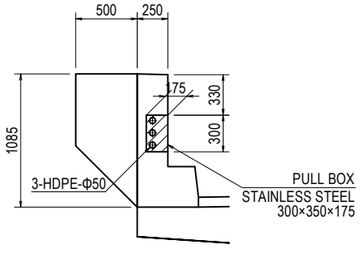
S5-2 1-D13x1280

BAR LIST

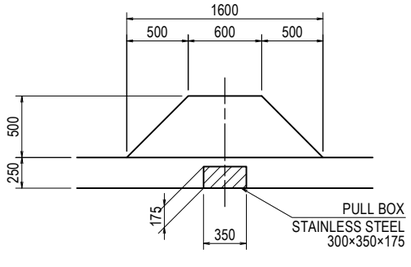
REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT/ONE (kg)	WEIGHT (kg)	REMARKS
S 1 -1	D13	2560	3	0.995	2.55	8	
S 1 -2	D13	2430	1	0.995	2.42	2	
S 1 -3	D13	2950	1	0.995	2.94	3	
S 2 -1	D13	1440	4	0.995	1.43	6	
S 2 -2	D13	1390	2	0.995	1.38	3	
S 2 -3	D13	1330	2	0.995	1.32	3	
S 3 -1	D13	970	4	0.995	0.97	4	
S 3 -2	D13	840	2	0.995	0.84	2	
S 3 -3	D13	690	2	0.995	0.69	1	
S 4 -1	D13	2610	1	0.995	2.60	3	
S 4 -2	D13	3350	1	0.995	3.33	3	
S 5 -1	D13	910	1	0.995	0.91	1	
S 5 -2	D13	1280	1	0.995	1.27	1	
						40 kg	
					TOTAL	40 kg	

PULLBOX DETAIL S=1:50

CROSS SECTION



PLAN



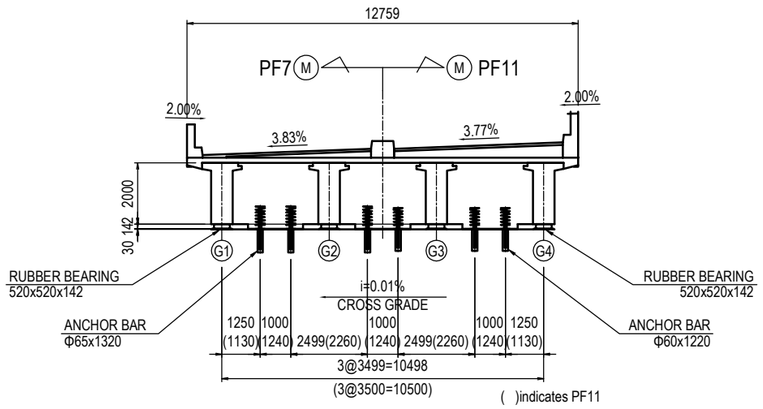
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF LIGHTING FOUNDATION (PF7-PF11)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1222

DETAIL OF RUBBER BEARING (PF7-PF11) (1)

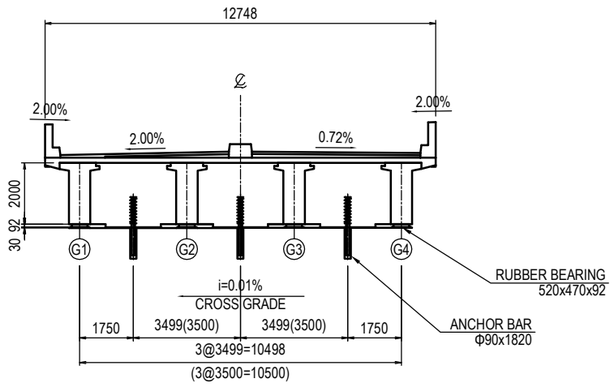
CROSS SECTION S= 1:100

PF7,PF11



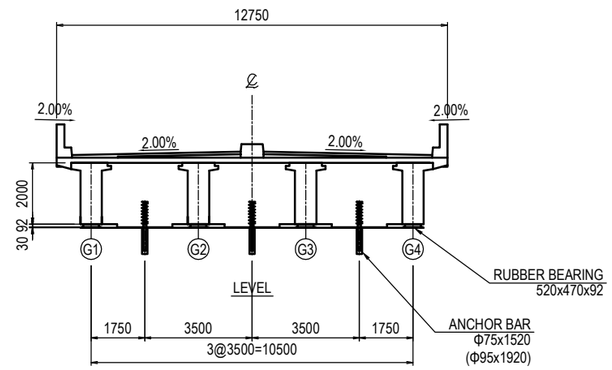
( )indicates PF11

PF8



( )indicates PF8R

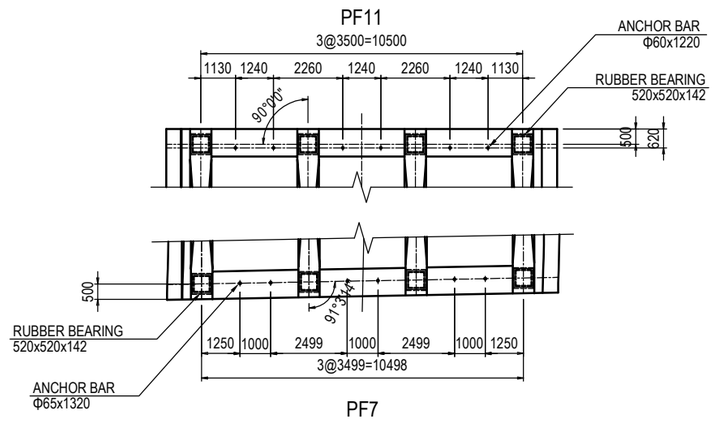
PF9,PF10



( )indicates PF10

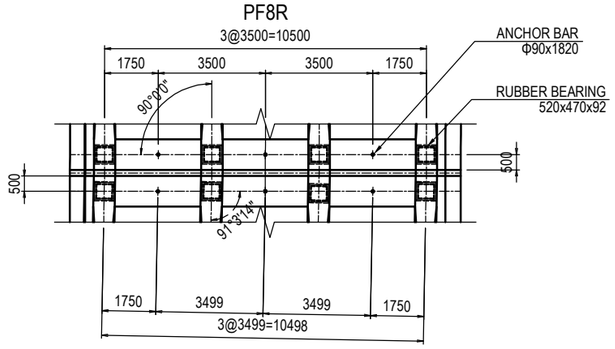
PLAN S= 1:100

PF11



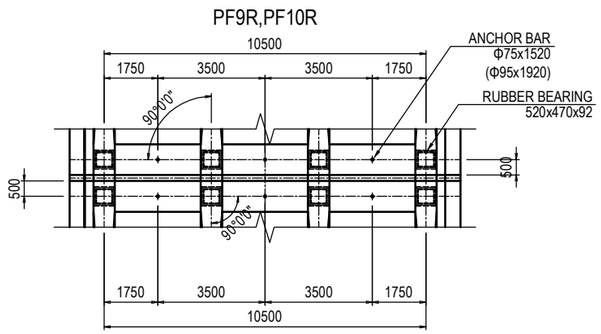
PF7

PF8R



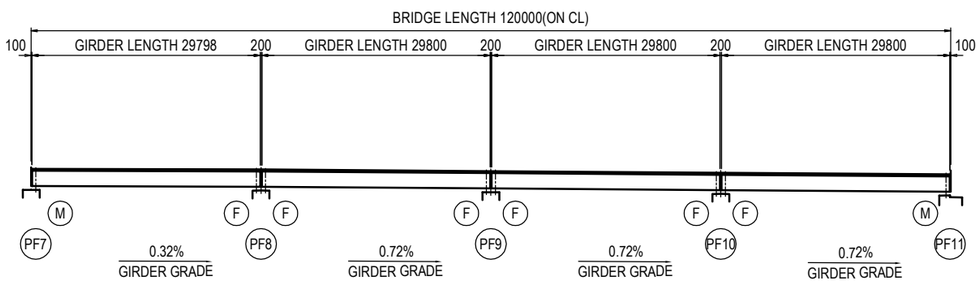
PF8L

PF9R,PF10R



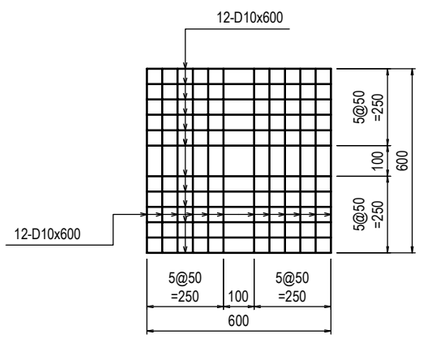
PF9L,PF10L ( )indicates PF10

ELEVATION S= 1:400

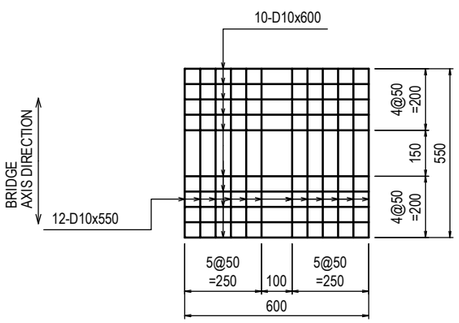


REINFORCING BAR S= 1:10

PF7,PF11



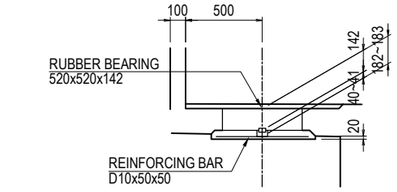
PF8,PF9,PF10



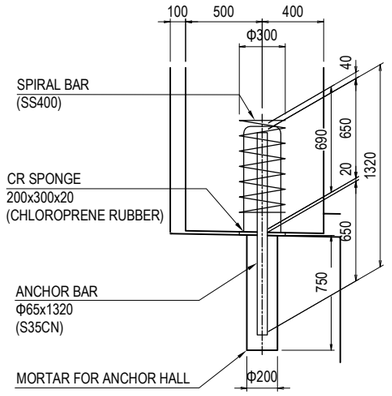
NOTES:
1) Details of the slab and girder are designed based on the product (rubber bearing) shown in this Drawing.
2) The Contractor has option to propose an alternative equivalent to the specified product, which shall be subjected to the Engineer's approval.
3) All the structural steels shall be galvanized to the requirements specified by JIS H8641.

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF RUBBER BEARING (PF7-PF11) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1223

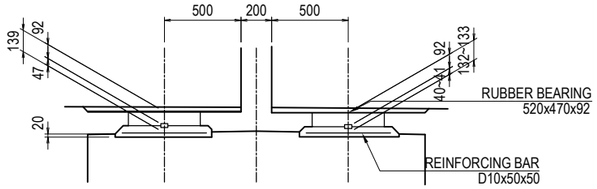
DETAIL OF RUBBER BEARING (PF7-PF11) (2)



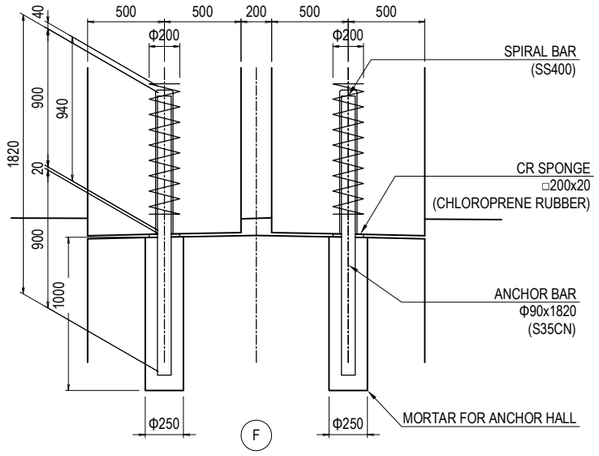
0.32%
GIRDER GRADE



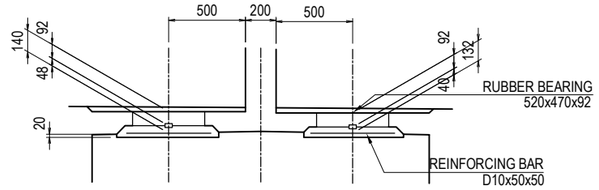
PF7R



0.72%
GIRDER GRADE



PF8L,R



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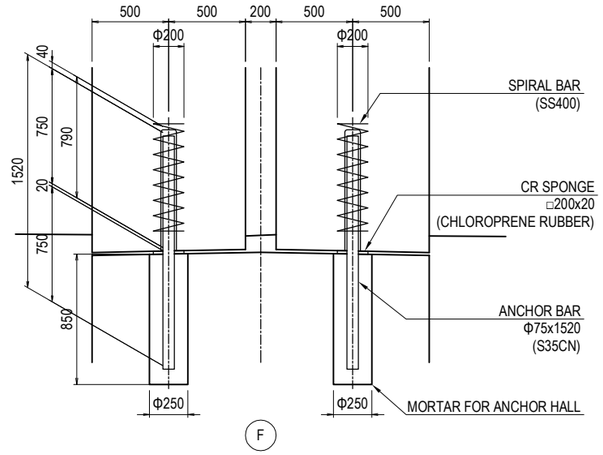
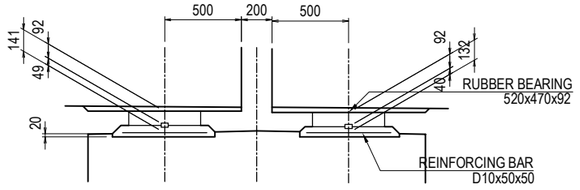


PF9L,R



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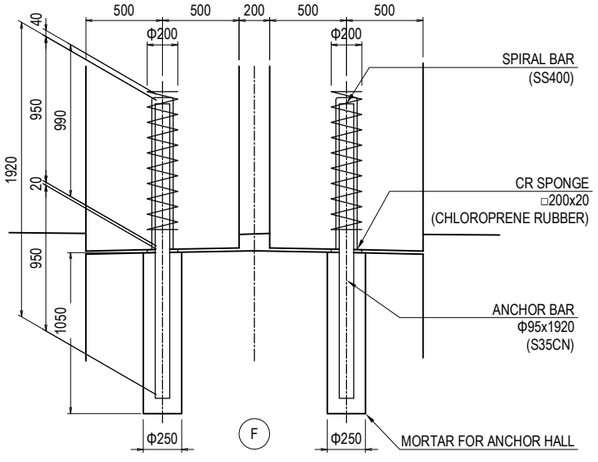
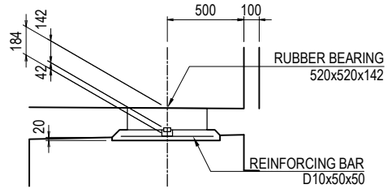
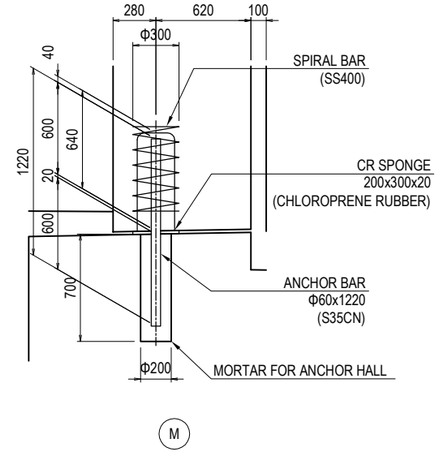
GIRDER GRADE



PF10L,R





PF11L

DESIGN CONDITION

REACTION				PF7(M)	PF8L(F)	PF8R(F)	PF9L(F)	PF9R(F)	PF10L(F)	PF10R(F)	PF11(M)
MAXIMUM REACTION			Rmax	1465 kN	1697 kN	1428 kN	1404 kN	1443 kN	1450 kN	1450 kN	1340 kN
MAXIMUM REACTION			Rmax2	1250 kN	1344 kN	1320 kN	1306 kN	1364 kN	1377 kN	1335 kN	1253 kN
DEAD LOAD REACTION			Rd	1132 kN	1226 kN	1033 kN	1015 kN	1054 kN	1011 kN	1010 kN	992 kN
MAXIMUM STRAIN FORCE		LONGITUDIAL	Rhe1	495 kN	497 kN	497 kN	362 kN	362 kN	579 kN	578 kN	450 kN
		TRANSVERSE	Rhe2	169 kN	360 kN	360 kN	320 kN	320 kN	366 kN	366 kN	162 kN
STRAIN VOLUME	ORDINARY	LONGITUDIAL	ΔL	− mm	− mm	− mm	54.0 mm	− mm	− mm	− mm	54.0 mm
	LEVEL1	LONGITUDIAL	ΔLe1	− mm	− mm	− mm	32.3 mm	− mm	− mm	− mm	32.3 mm
		TRANSVERSE	ΔLe2	− mm	− mm	− mm	− mm	− mm	− mm	− mm	− mm

NOTES:
1) Details of the slab and girder are designed based on the product (rubber bearing) shown in this Drawing.
2) The Contractor has option to propose an alternative equivalent to the specified product, which shall be subjected to the Engineer's approval.
3) All the structural steels shall be galvanized to the requirements specified by JIS H8641.

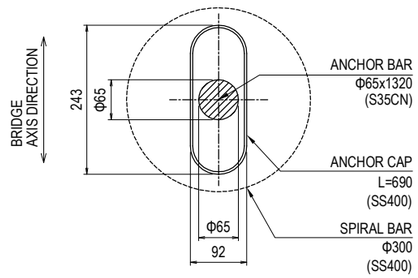
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF RUBBER BEARING (PF7-PF11) (2)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1224

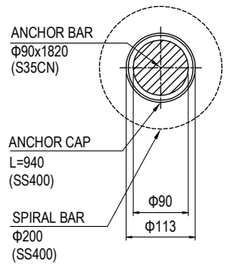
DETAIL OF RUBBER BEARING (PF7-PF11) (3)

ANCHOR SYSTEM S= 1:5

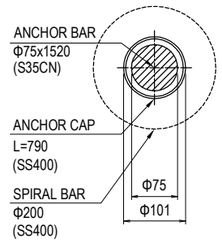
PF7R



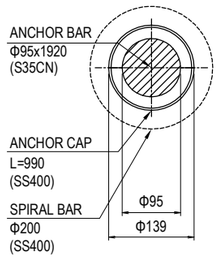
PF8L,R



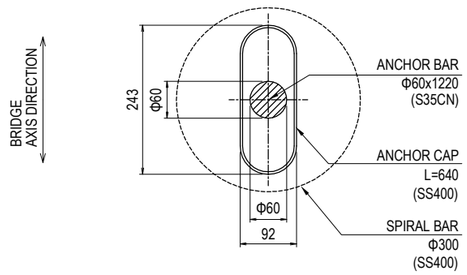
PF9L,R



PF10L,R

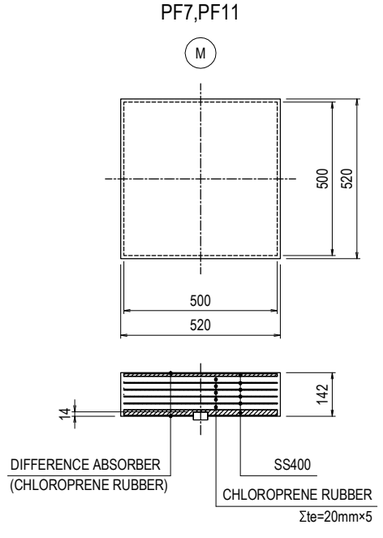


PF11L

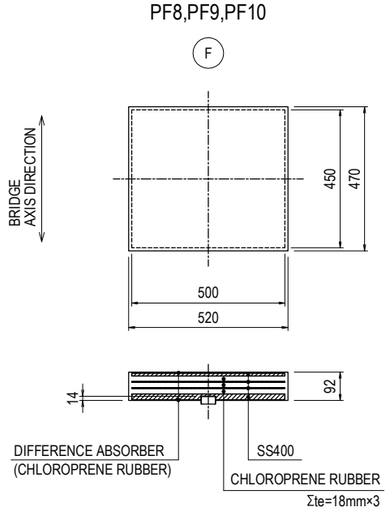


RUBBER BEARING S= 1:10

PF7,PF11



PF8,PF9,PF10



PARTS LIST

ITEM	DIMENSION	MATERIAL	UNIT	QUANTITY									WEIGHT (kg)	REMARKS
				PF7(M)	PF8L(F)	PF8R(F)	PF9L(F)	PF9R(F)	PF10L(F)	PF10R(F)	PF11(M)	合計		
RUBBER BEARING	520x520x142	AS SHOWN	SHEET	4							4	8		
〃	520x470x92	〃	〃		4	4	4	4	4	4		24		
ANCHOR SYSTEM	Φ65x1320	S35CN	SET	6								6		
〃	Φ90x1820	〃	〃		3	3						6		
〃	Φ75x1520	〃	〃				3	3				6		
〃	Φ95x1920	〃	〃						3	3		6		
〃	Φ60x1220	〃	〃								6	6		
CR SPONGE	200x300x20	CHLOROPRENE RUBBER	SHEET	6							6	12		
〃	□200x20	〃	〃		3	3	3	3	3	3		18		
REINFORCING BAR	D10x50x50	SD345	kg	32.26	28.22	28.22	28.22	28.22	28.22	28.22	32.26		233.84	
BED MORTAR FOR BEARING		NON SHRINKAGE MORTAR	m3	0.111	0.114	0.101	0.118	0.101	0.120	0.101	0.112	0.878		
MORTAR FOR ANCHOR HALLS		NON SHRINKAGE MORTAR	m3	0.128	0.130	0.130	0.115	0.115	0.134	0.134	0.122	1.008		

An Anchor System includes anchor bar,anchor cap and spiral bar.

NOTES:
1) Details of the slab and girder are designed based on the product (rubber bearing) shown in this Drawing.
2) The Contractor has option to propose an alternative equivalent to the specified product, which shall be subjected to the Engineer's approval.
3) All the structural steels shall be galvanized to the requirements specified by JIS H8641.

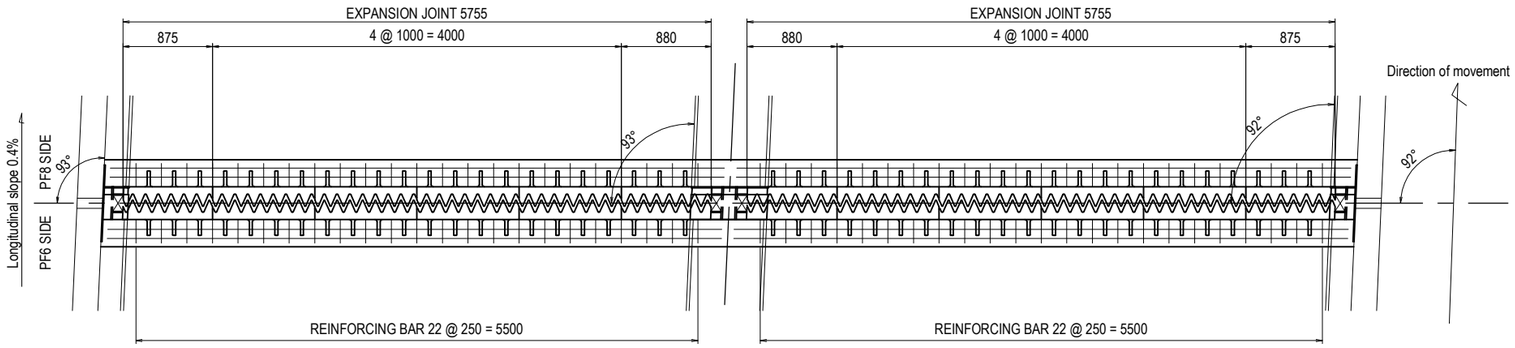
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF RUBBER BEARING (PF7-PF11) (3)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1225

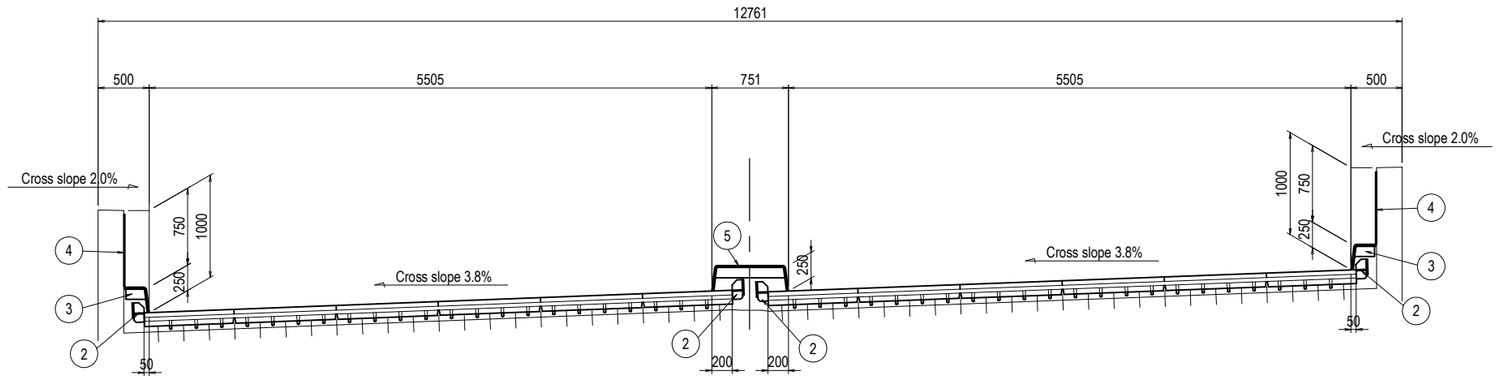
DETAIL OF EXPANSION JOINT (PF7-PF11) (1)

PF7

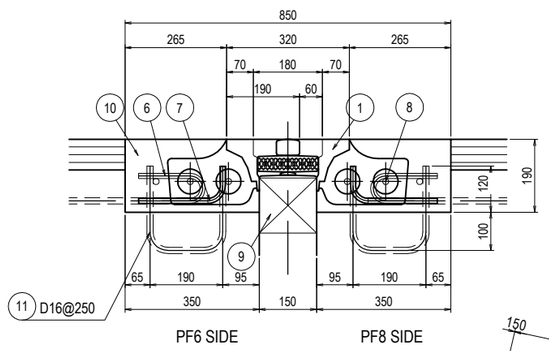
PLAN VIEW S=1:30



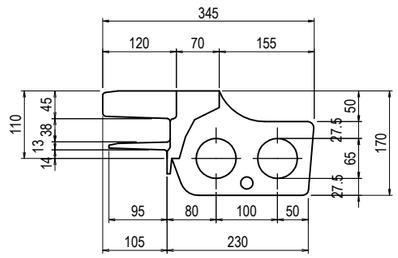
CROSS SECTION S=1:30



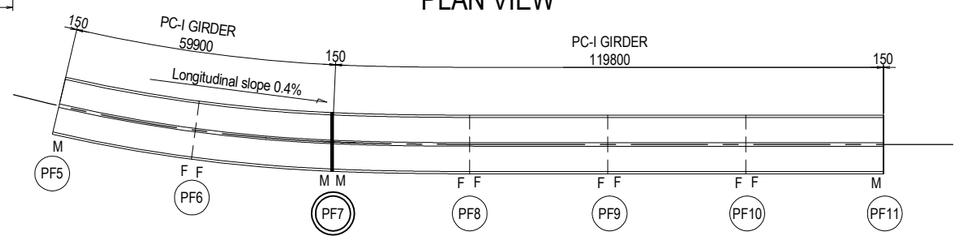
SECTION OF EXPANSION JOINT S=1:8



HARDWARE SECTION S=1:5



PLAN VIEW

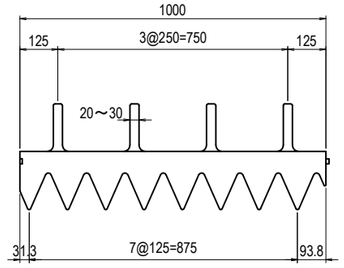


MATERIALS LIST					(1 par place)
No.	DESCRIPTION	MATERIALS	UNIT	QUANTITY	REMARK
1	EXPANSION JOINT	**ALUMINUM ALLOY CASTING**	m	11.510	110mm
2	UPSTAND		pieces	4	
3	COVER FOR CURB	SS400 or Equivalent	set	2	
4	COVER FOR BARRIER CURB	SUS304	set	2	t=2(include anchor)
5	**COVER FOR MEDIAL DIVIDER**	SS400 or Equivalent	set	1	
6	REINFORCING BAR	SD345	kg	26.55	D13 × 290 × 92 Nos.
7	REINFORCING BAR	SD345	kg	28.38	D13 × 310 × 92 Nos.
8	REINFORCING BAR	SD345	kg	112.32	D16 ×6.0m × 12 Nos.
9	BURIED FORMWORK	Foamed Stylene	m^3	0.29	150 × 150 × 12.7m
10	POST-CAST CONCRETE	High strength concrete	m^3	1.56	σ_{ck} =30N/mm^2
EMBEDDED BAR					
11	EMBEDDED BAR	SD345	kg	90.42	D16 × 630 × 92 Nos.

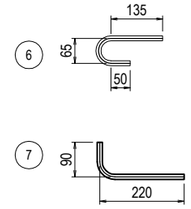
DESIGN CONDITION	
Temperature range	+5℃～+45℃
Amount of temperature variation	36mm
Earthquake movement amount	±55mm

Note
1 Re-bar should be consider the developed length.
2 Allocation of the expansion joint is subject to change
3 Expansion joint should be placing to match the transverse gradient.
4 Expansion joint should be installed in consideration of the effect of Creep and Shrinkage.

HARDWARE PLAN S=1:10



DETAIL OF REINFORCING BAR S=1:8



NOTES:
1) Details of the slab and girder are designed based on the product (expansion joint) shown in this Drawing.
2) The Contractor has option to propose an alternative equivalent to the specified product, which shall be subjected to the Engineer's approval.
3) The expansion joint shall be set in consideration of thermal expansion, creep and shrinkage of concrete girder.

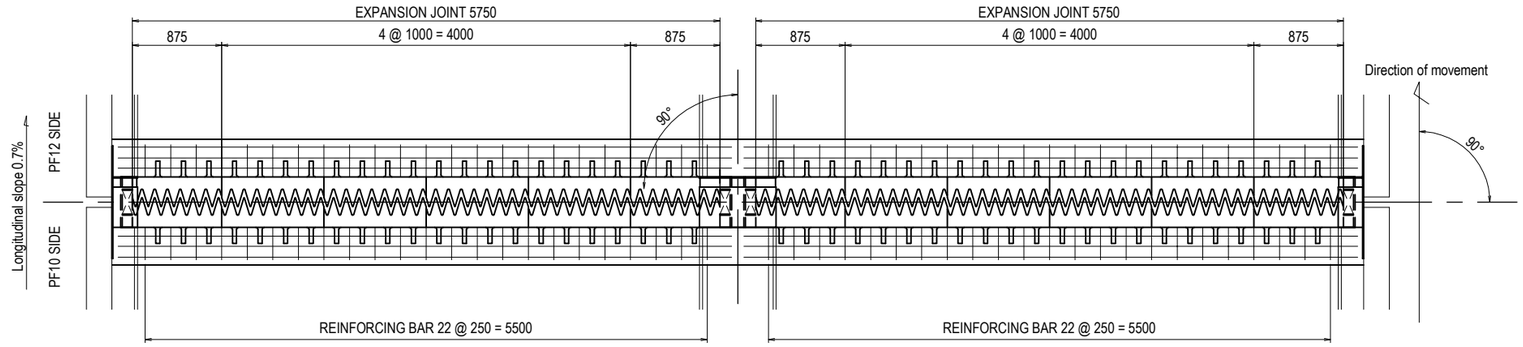
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	Y. SUZUKI		14 Jul. 2017	DETAIL OF EXPANSION JOINT (PF7-PF11) (1)	3
CHECKED BY	T. HAYAKAWA		20 Jul. 2017		DWG No.
APPROVED BY	Y. SANO		25 Jul. 2017		P3-FO-1226

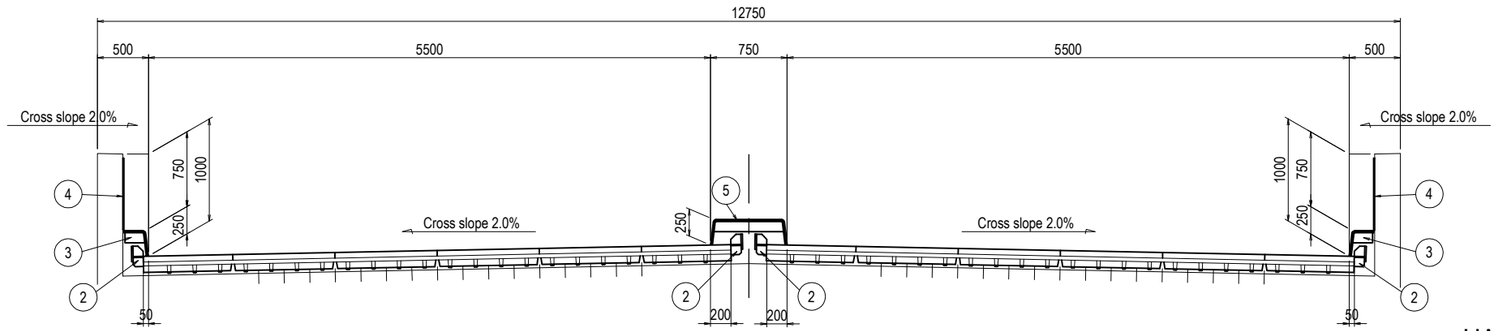
DETAIL OF EXPANSION JOINT (PF7-PF11) (2)

PF11

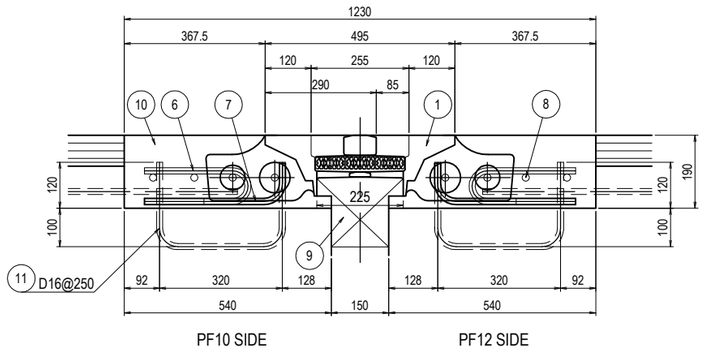
PLAN VIEW S=1:30



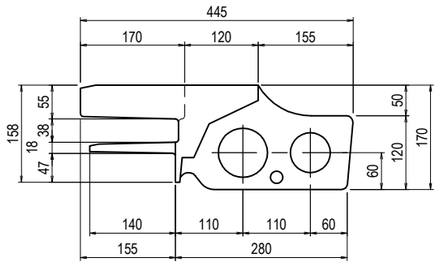
CROSS SECTION S=1:30



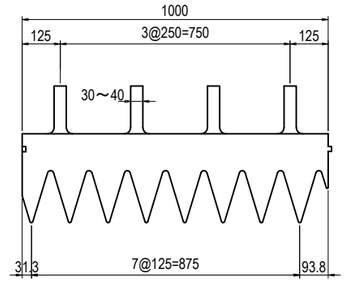
SECTION OF EXPANSION JOINT S=1:8



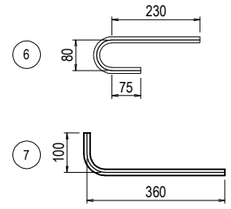
HARDWARE SECTION S=1:5



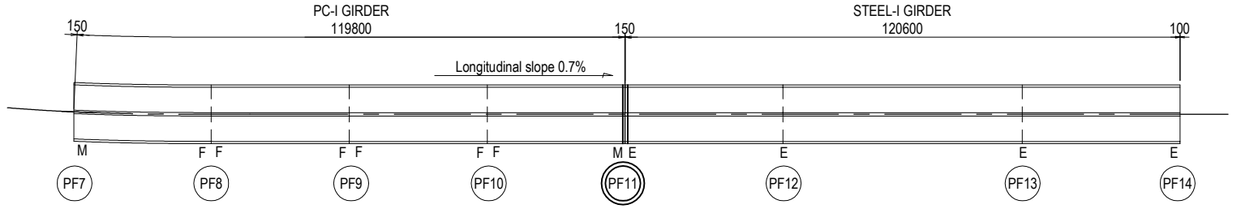
HARDWARE PLAN S=1:10



DETAIL OF REINFORCING BAR S=1:8



PLAN VIEW



MATERIALS LIST					(1 par place)
No.	DESCRIPTION	MATERIALS	UNIT	QUANTITY	REMARK
1	EXPANSION JOINT	**ALUMINUM ALLOY CASTING**	m	11.500	160mm
2	UPSTAND		pieces	4	
3	COVER FOR CURB	SS400 or Equivalent	set	2	
4	COVER FOR BARRIER CURB	SUS304	set	2	t=2(include anchor)
5	**COVER FOR MEDIAL DIVIDER**	SS400 or Equivalent	set	1	
6	REINFORCING BAR	SD345	kg	61.71	D16 × 430 × 92 Nos.
7	REINFORCING BAR	SD345	kg	66.02	D16 × 460 × 92 Nos.
8	REINFORCING BAR	SD345	kg	162.00	D19 × 6.0m × 12 Nos.
9	BURIED FORMWORK	Foamed Stylene	m^3	0.44	230 × 150 × 12.7m
10	POST-CAST CONCRETE	High strength concrete	m^3	2.24	σ_{ck} =30N/mm^2
EMBEDDED BAR					
11	EMBEDDED BAR	SD345	kg	109.08	D16 × 760 × 92 Nos.

DESIGN CONDITION	
Temperature range	+0℃～+50℃
Amount of temperature variation	62mm
Earthquake movement amount	±72mm

Note
1 Re-bar should be consider the developed length.
2 Allocation of the expansion joint is subject to change
3 Expansion joint should be placing to match the transverse gradient.
4 Expansion joint should be installed in consideration of the effect of Creep and Shrinkage.

NOTES:
1) Details of the slab and girder are designed based on the product (expansion joint) shown in this Drawing.
2) The Contractor has option to propose an alternative equivalent to the specified product, which shall be subjected to the Engineer's approval.
3) The expansion joint shall be set in consideration of thermal expansion, creep and shrinkage of concrete girder.

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	Y. SUZUKI		14 Jul. 2017
CHECKED BY	T. HAYAKAWA		20 Jul. 2017
APPROVED BY	Y. SANO		25 Jul. 2017

DRAWING TITLE	PACKAGE
DETAIL OF EXPANSION JOINT (PF7-PF11) (2)	3
	DWG No.
	P3-FO-1227