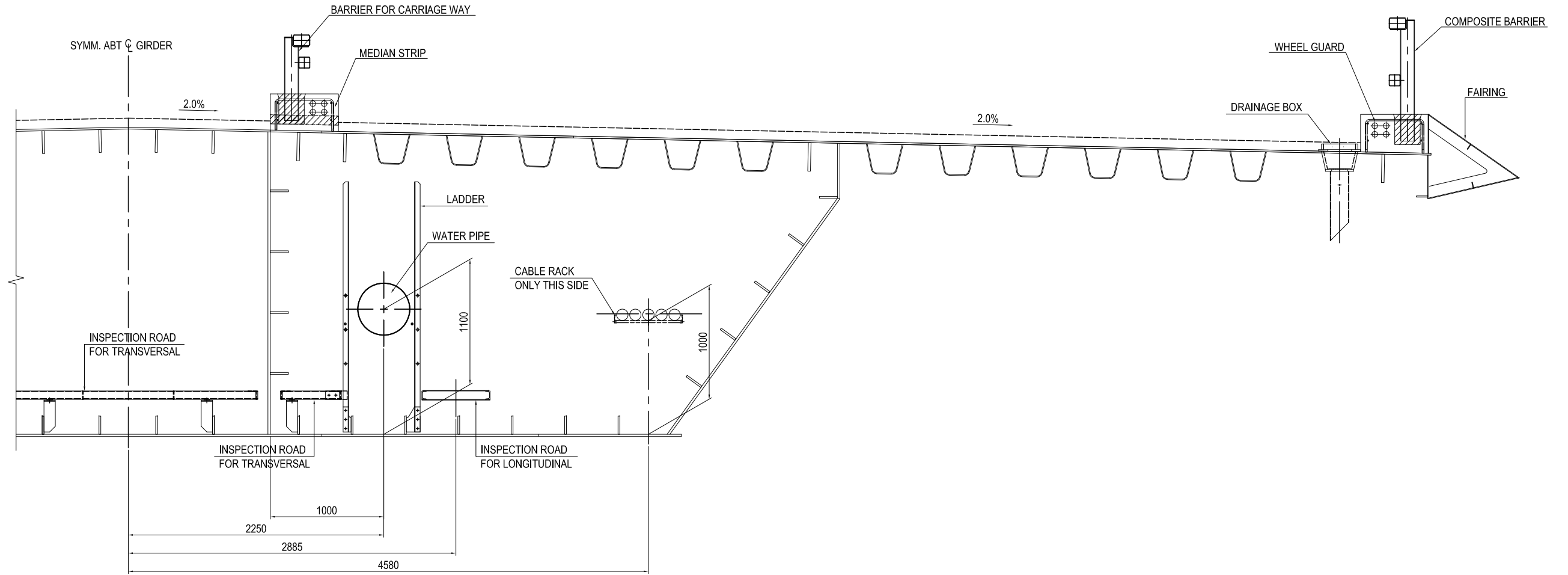


MAIN GIRDER ANCILLARY WORKS LAYOUT (1)

S=1:40

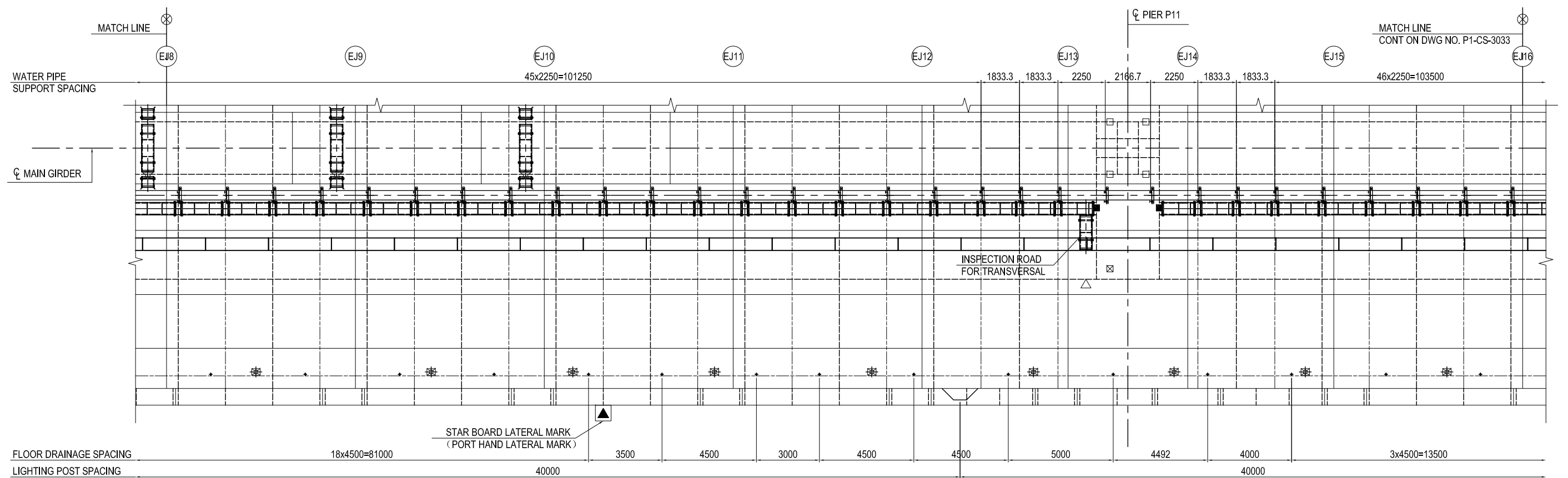
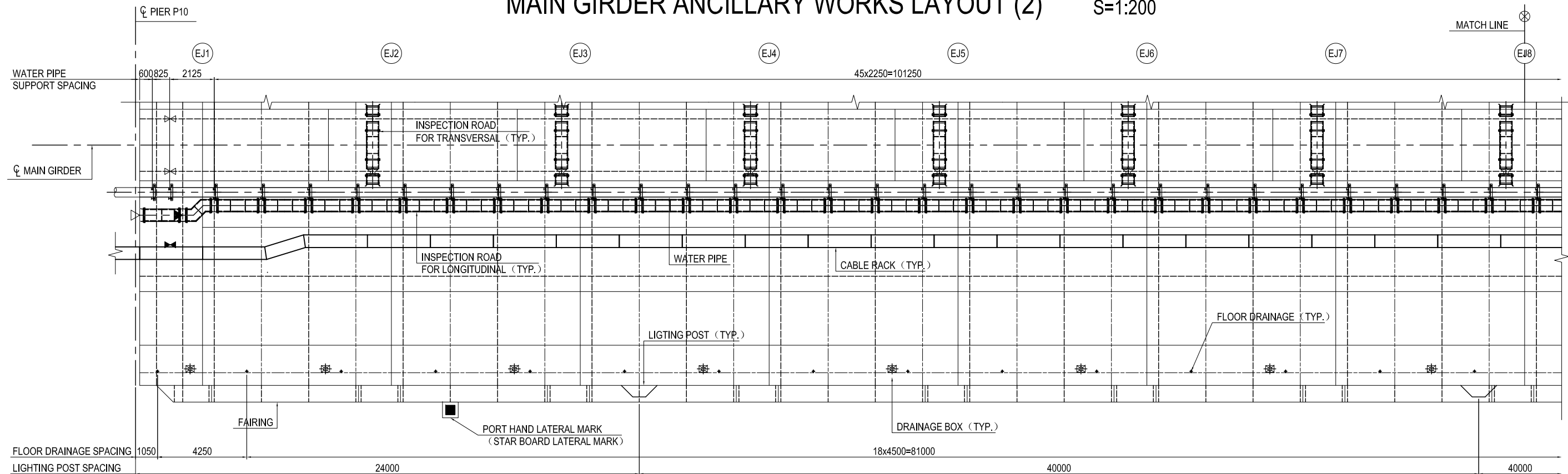
TYPICAL SECTION



PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA 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.	T. TOMODA	<i>友田 智雄</i>	27. Nov. 2017	MAIN GIRDER ANCILLARY WORKS LAYOUT (1)	1
				T. HAYAKAWA	<i>平川 知平</i>	28. Nov. 2017		DWG No.
				Y. SANO	<i>佐野 祐一</i>	29. Nov. 2017		P1-CS-3031

MAIN GIRDER ANCILLARY WORKS LAYOUT (2)

S=1:200



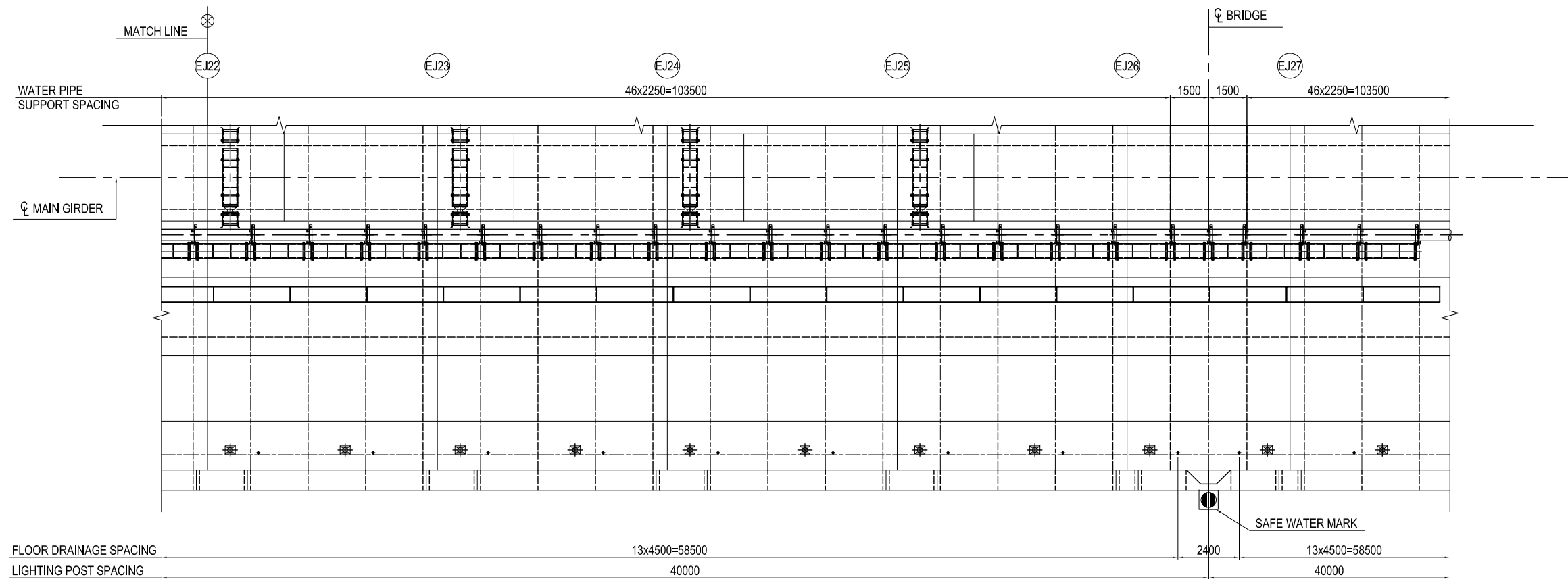
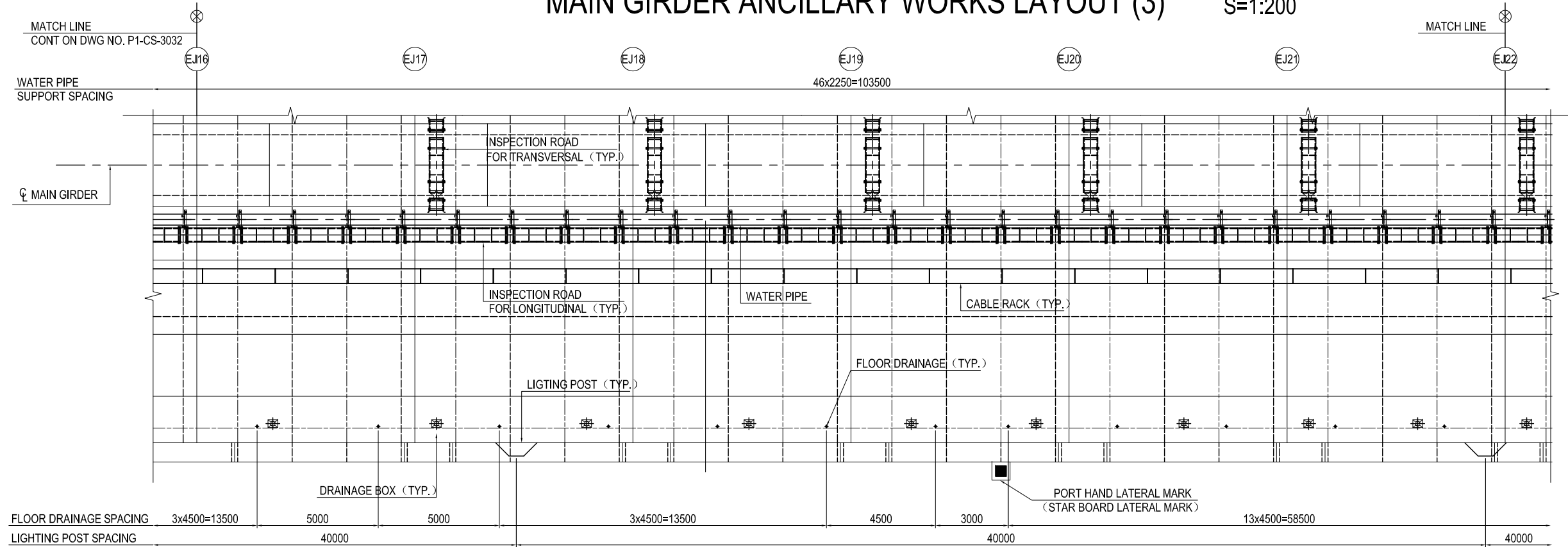
NOTES:

- 1 - FROM CL BRIDGE TO PIER P13 READ IN BRACKETS.
- 2 - THE LOCATION OF THE NAVIGATION LIGHTINGS WILL BE INSTRUCTED BY THE ENGINEER DURING CONSTRUCTION.
- 3 - AS FOR THE ERECTION JOINT AND THE NAVIGATION LIGHTINGS THAT INTERFERES WITH THE WIDENING PART, BE SURE TO MAKE ADJUSTMENTS ACCORDINGLY SO THAT LIGHTING INTERVALS DO NOT EXCEED 40m.

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	T.TOMODA				27. Nov.2017
				CHECKED BY	T. HAYAKAWA				28. Nov.2017
				APPROVED BY	Y. SANO				29. Nov.2017
							MAIN GIRDER ANCILLARY WORKS LAYOUT (2)	1	
								DWG No.	
								P1-CS-3032	

MAIN GIRDER ANCILLARY WORKS LAYOUT (3)

S=1:200



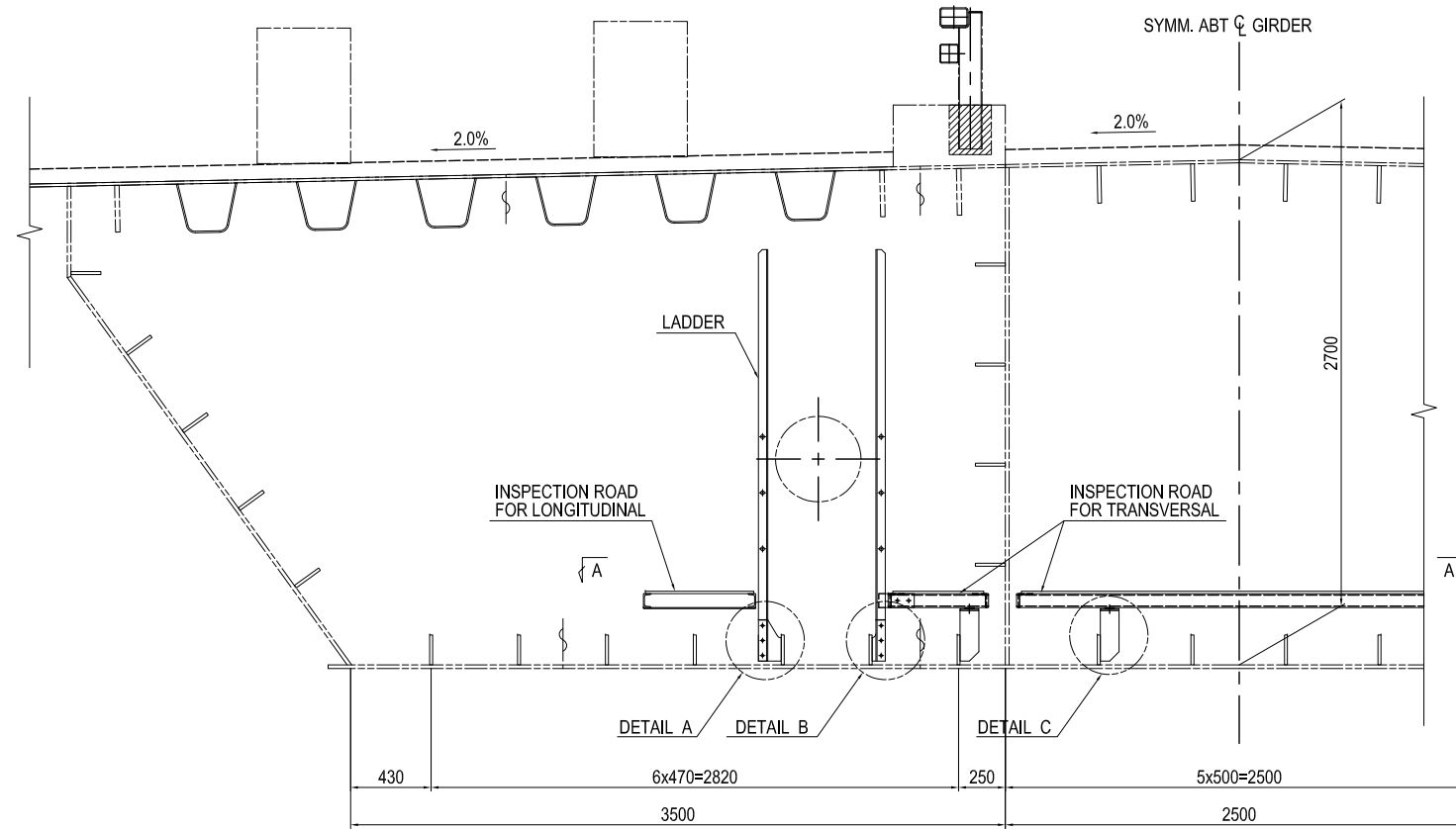
NOTES:

- 1 - FROM CL BRIDGE TO PIER P13 READ IN BRACKETS.
- 2 - THE LOCATION OF THE NAVIGATION LIGHTINGS WILL BE INSTRUCTED BY THE ENGINEER DURING CONSTRUCTION.
- 3 - AS FOR THE ERECTION JOINT AND THE NAVIGATION LIGHTINGS THAT INTERFERES WITH THE WIDENING PART, BE SURE TO MAKE ADJUSTMENTS ACCORDINGLY SO THAT LIGHTING INTERVALS DO NOT EXCEED 40m.

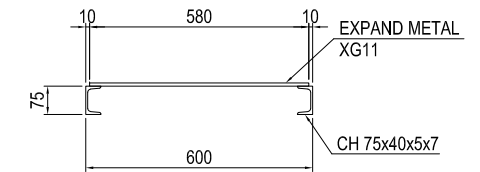
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	T.TOMODA				27. Nov.2017
				CHECKED BY	T. HAYAKAWA				28. Nov.2017
				APPROVED BY	Y. SANO				29. Nov.2017
MAIN GIRDER ANCILLARY WORKS LAYOUT (3)							1	DWG No.	P1-CS-3033

INSPECTION ROAD (1) S=1:40

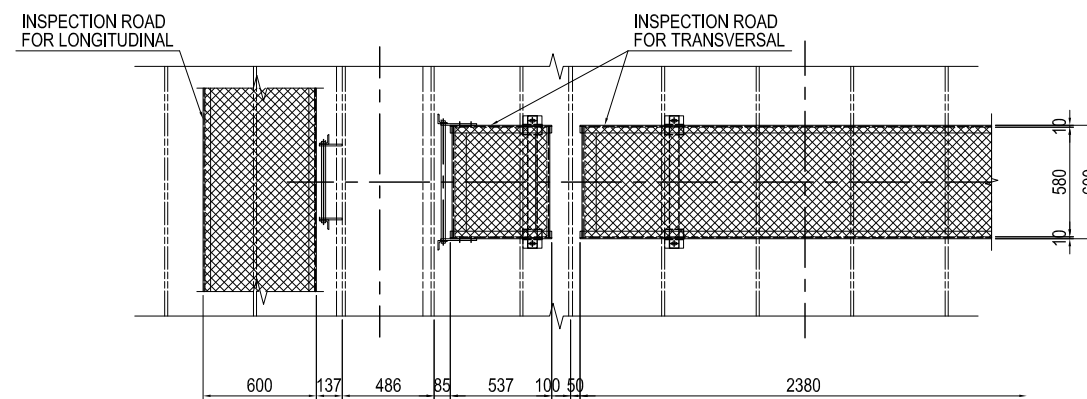
TYPICAL SECTION



TYPICAL SECTION DETAIL S=1:20



SECTION A-A



NOTES:

- 1 - HOT-DIP GALVANIZED COATING OVER 550g/m², 350g/m² (FOR BOLT, WASHER & NUT AND MEMBERS WITH A THICKNESS OF LESS THAN 3.2mm)
- 2 - A STEEL MEMBER WHICH IS WELDED TO GIRDER OR TOWER SHALL BE PAINTED (NOT GALVANISED COATING).

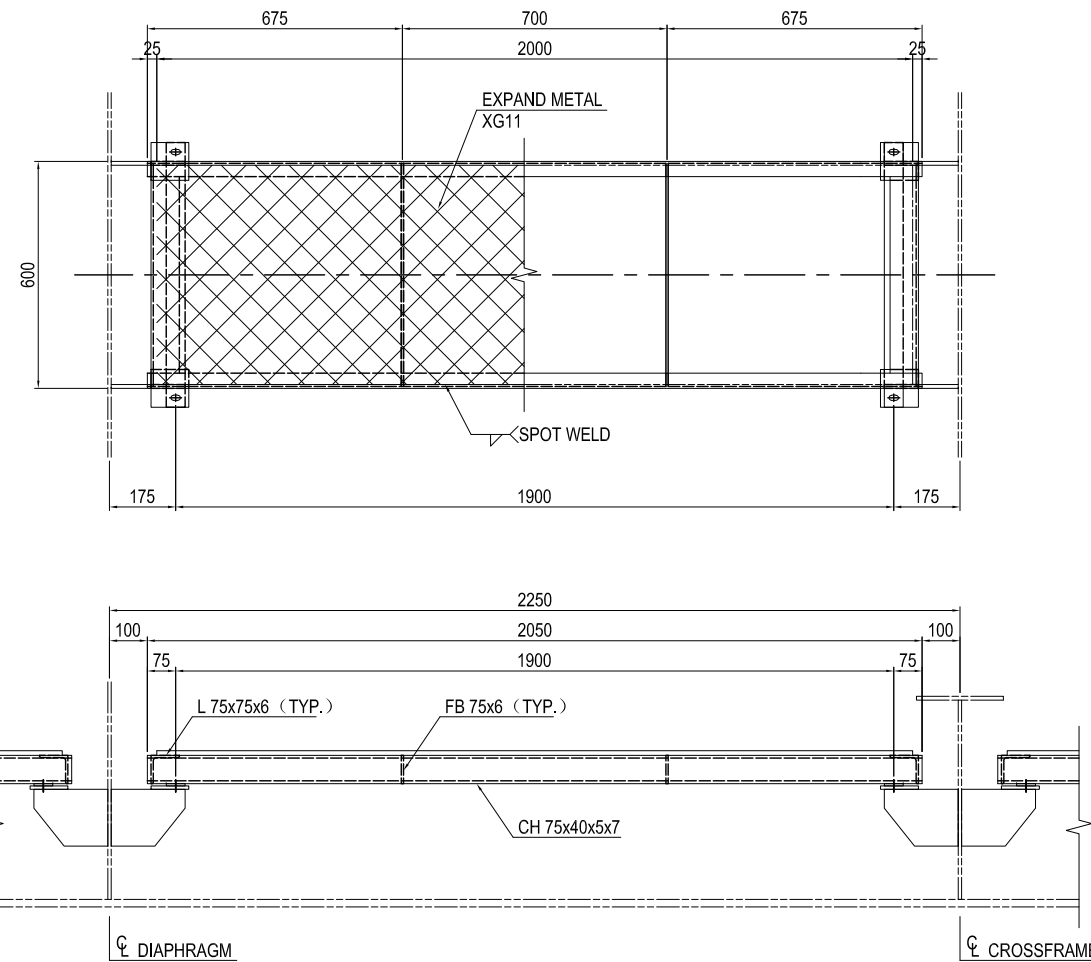
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE INSPECTION ROAD (1)	PACKAGE 1 DWG No. P1-CS-3034	
				PREPARED BY	T.TOMODA				27. Nov.2017
				CHECKED BY	T. HAYAKAWA				28. Nov.2017
				APPROVED BY	Y. SANO				29. Nov.2017

INSPECTION ROAD (2)

S=1:20

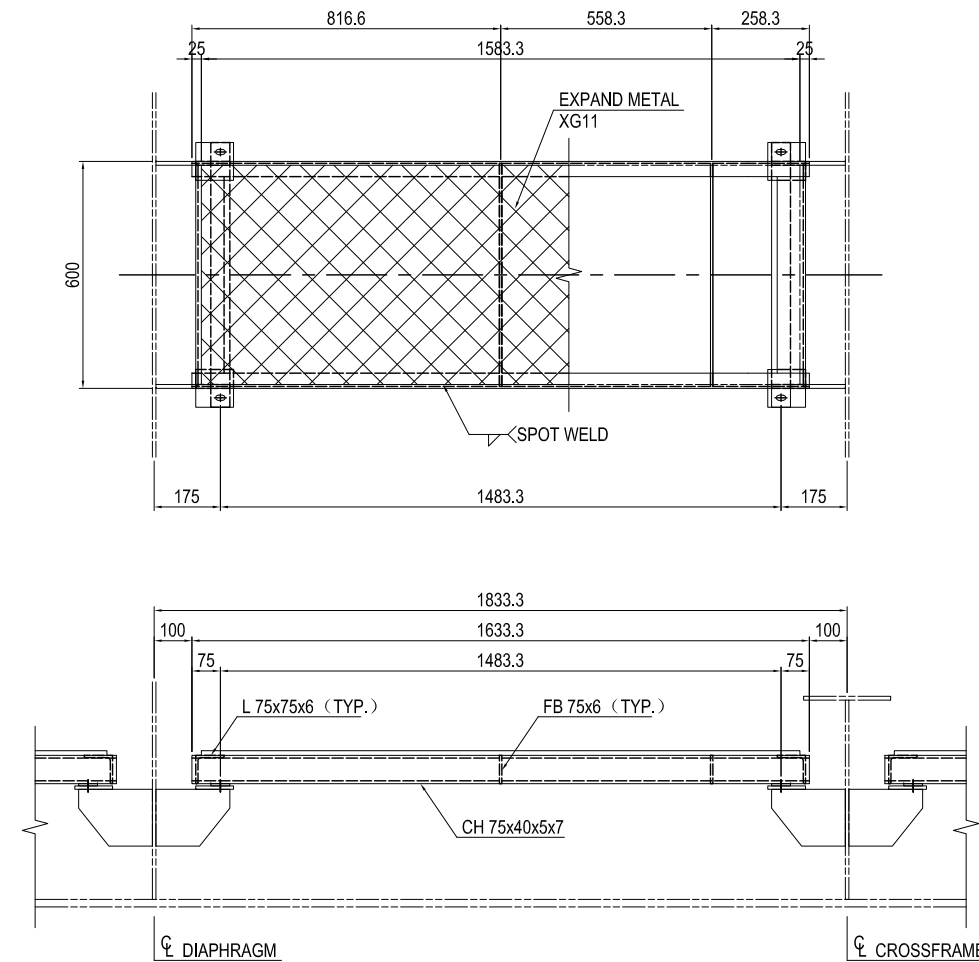
FOR LONGITUDINAL

TYPICAL DETAIL
(Qty = 360)



- 2 - [75x40x5x7x2050(SS400)
- 2 - L 75x75x6x590(SS400)
- 2 - FB 75x6x590(SS400)
- 2 - FB 50x6x700(SS400)
- 1 - XG11 580x2000(SS400)
- 4 - PL 150x 9x 196(SM400A)
- 4 - PL 100x 9x 100(SM400A)
- 4 - B.N M12x 40(1-W,1-UNut)(SS400)

AROUND INTERMEDIATE BEARING LINE
(Qty = 16)



- 2 - [75x40x5x7x1633(SS400)
- 2 - L 75x75x6x590(SS400)
- 1 - FB 75x6x590(SS400)
- 2 - FB 50x6x700(SS400)
- 1 - XG11 580x1583(SS400)
- 4 - PL 150x 9x 196(SM400A)
- 4 - PL 100x 9x 100(SM400A)
- 4 - B.N M12x 40(1-W,1-UNut)(SS400)

NOTES:

- 1 - HOT-DIP GALVANIZED COATING OVER 550g/m², 350g/m² (FOR BOLT, WASHER & NUT AND MEMBERS WITH A THICKNESS OF LESS THAN 3.2mm)
- 2 - A STEEL MEMBER WHICH IS WELDED TO GIRDER OR TOWER SHALL BE PAINTED (NOT GALVANIZED COATING).

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 INSPECTION ROAD (2)	PACKAGE 1 DWG No. P1-CS-3035	
				PREPARED BY	T.TOMODA				27. Nov.2017
				CHECKED BY	T. HAYAKAWA				28. Nov.2017
				APPROVED BY	Y. SANO				29. Nov.2017

INSPECTION ROAD (3)

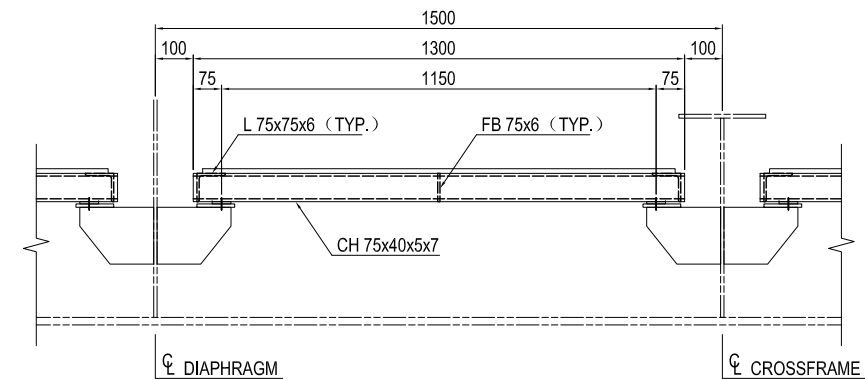
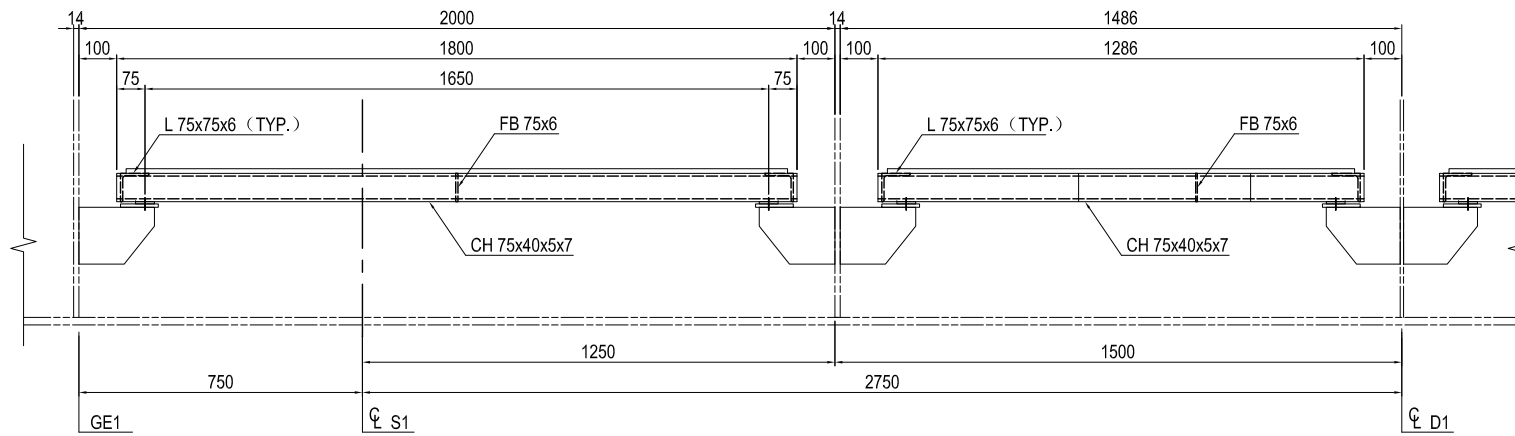
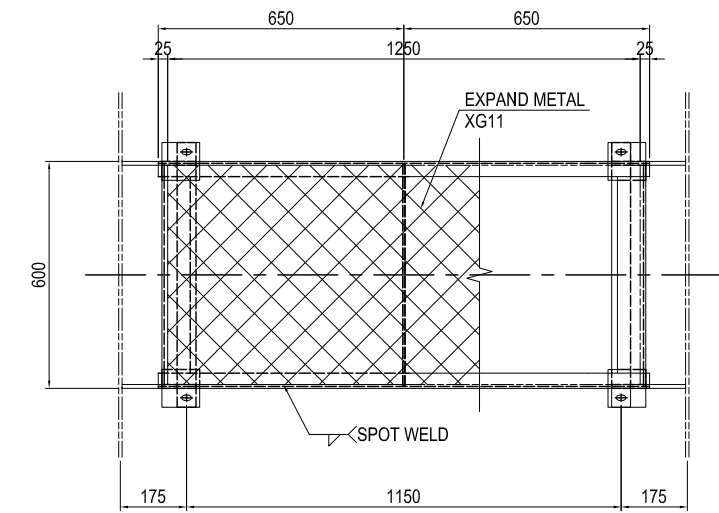
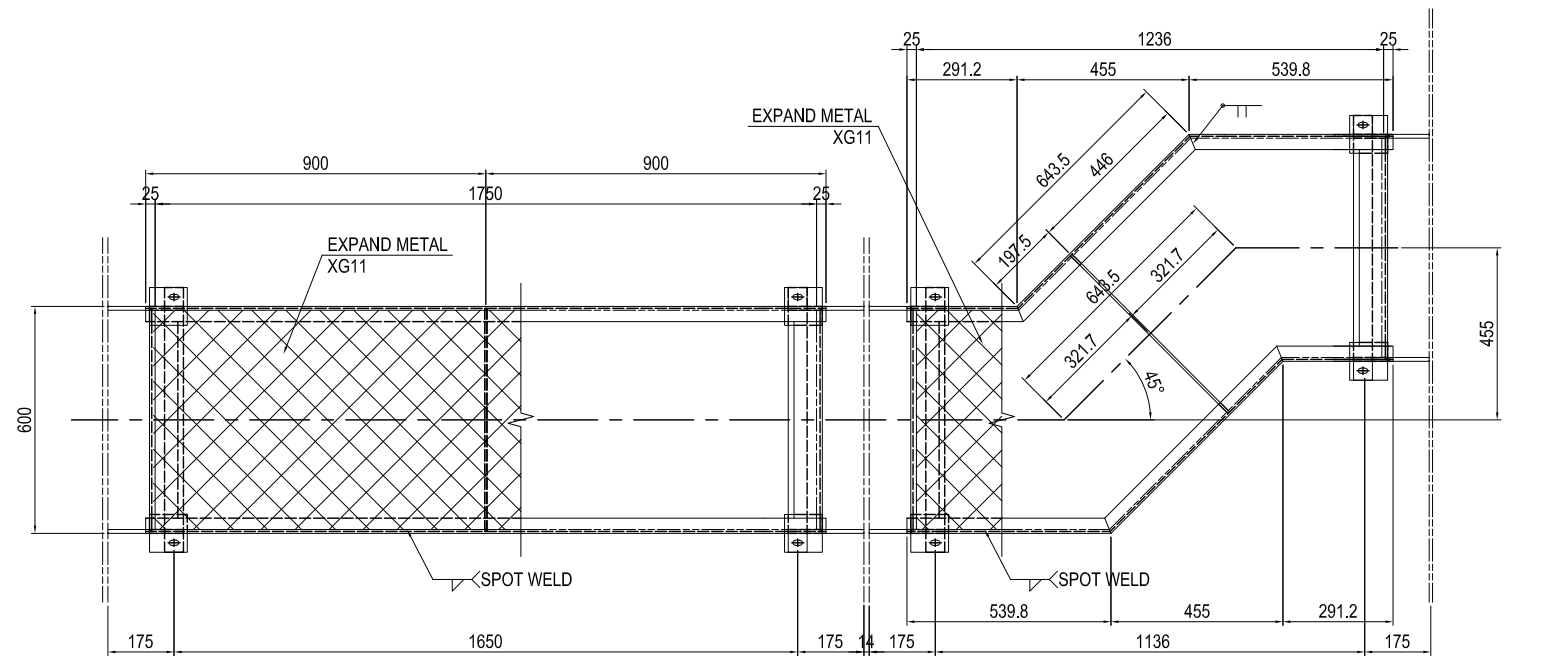
S=1:20

FOR LONGITUDINAL

IN END CROSS BEAM
(Q'ty = 4)

NEAR END CROSS BEAM
(Q'ty = 4)

AROUND ϕ BRIDGE
(Q'ty = 4)



- 2 - [75x40x5x7x1800(SS400)
- 2 - L 75x75x6x590(SS400)
- 1 - FB 75x6x590(SS400)
- 2 - FB 50x6x700(SS400)
- 1 - XG11 580x1750(SS400)
- 4 - PL 150x 9x 200(SM400A)
- 4 - PL 100x 9x 100(SM400A)
- 4 - B.N M12x 40(1-W,1-UNut)(SS400)

- 2 - [75x40x5x7x 308(SS400)
- 2 - [75x40x5x7x 660(SS400)
- 2 - [75x40x5x7x 540(SS400)
- 2 - L 75x75x6x590(SS400)
- 1 - FB 75x6x590(SS400)
- 2 - FB 50x6x700(SS400)
- 1 - XG11 1035x1236(SS400)
- 2 - PL 150x 9x 200(SM400A)
- 2 - PL 150x 9x 196(SM400A)
- 4 - PL 100x 9x 100(SM400A)
- 4 - B.N M12x 40(1-W,1-UNut)(SS400)

- 2 - [75x40x5x7x1300(SS400)
- 2 - L 75x75x6x590(SS400)
- 1 - FB 75x6x590(SS400)
- 2 - FB 50x6x700(SS400)
- 1 - XG11 580x1250(SS400)
- 4 - PL 150x 9x 196(SM400A)
- 4 - PL 100x 9x 100(SM400A)
- 4 - B.N M12x 40(1-W,1-UNut)(SS400)

NOTES:

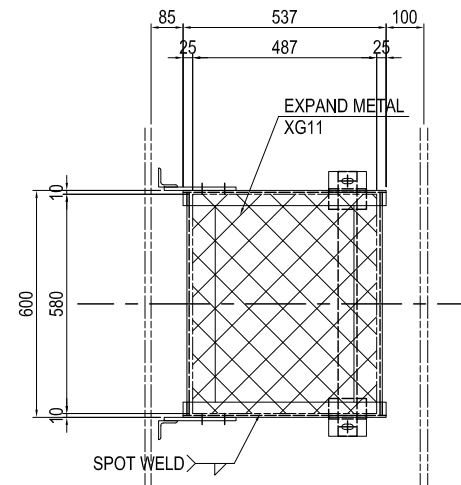
- 1 - HOT-DIP GALVANIZED COATING OVER 550g/m², 350g/m² (FOR BOLT, WASHER & NUT AND MEMBERS WITH A THICKNESS OF LESS THAN 3.2mm)
- 2 - A STEEL MEMBER WHICH IS WELDED TO GIRDER OR TOWER SHALL BE PAINTED (NOT GALVANIZED COATING).

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY jica 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 PREPARED BY T.TOMODA CHECKED BY T. HAYAKAWA APPROVED BY Y. SANO	SIGNATURE 友田 隆雄 平川 知平 佐藤 祐一	DATE 27. Nov.2017 28. Nov.2017 29. Nov.2017	DRAWING TITLE INSPECTION ROAD (3)	PACKAGE 1 DWG No. P1-CS-3036
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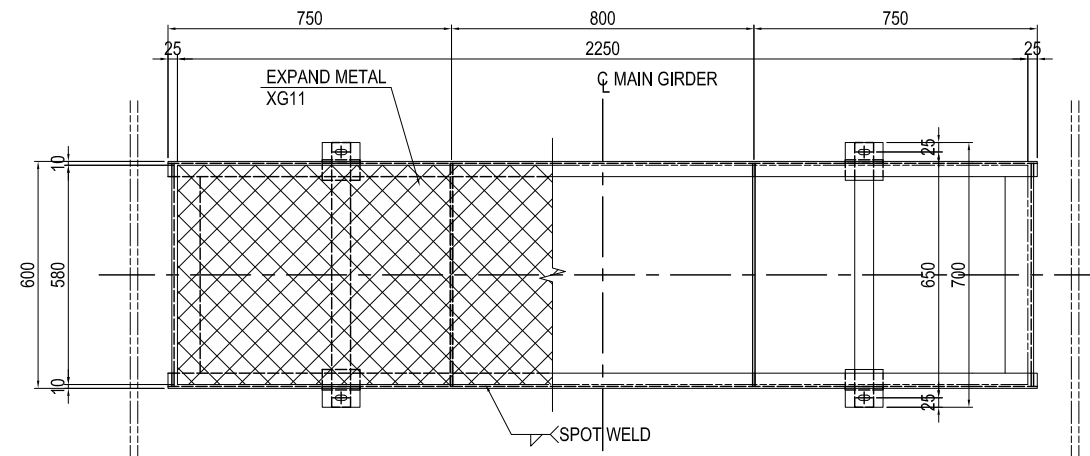
INSPECTION ROAD (4) S=1:20

FOR TRANSVERSAL

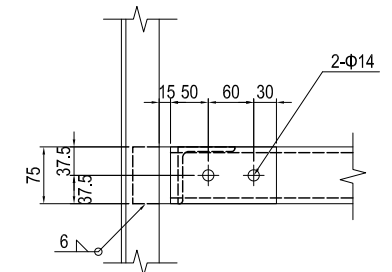
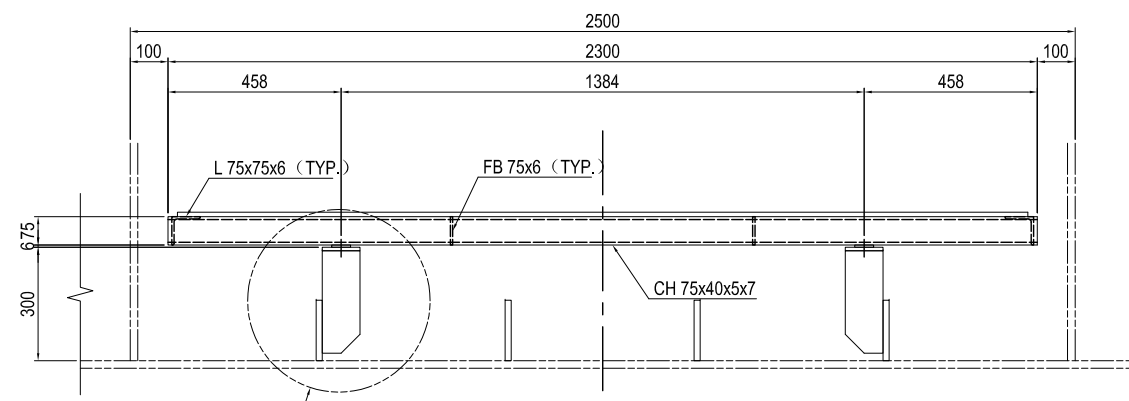
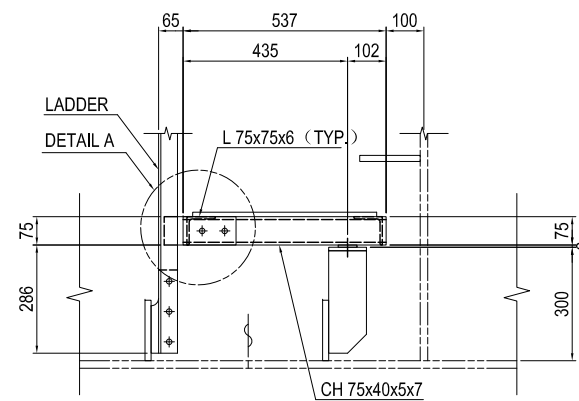
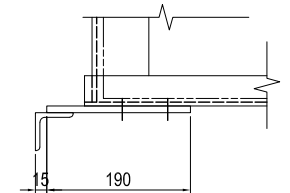
OUTSIDE MIDDLE BOX GIRDER
(Q'ty = 80)



INSIDE MIDDLE BOX GIRDER
(Q'ty = 40)



DETAIL A S=1:10



- 2 - [75x40x5x7x 537(SS400)
- 2 - L 75x75x6x590(SS400)
- 1 - FB 50x6x700(SS400)
- 1 - XG11 580x 487(SS400)
- 2 - PL 100x 9x 271(SM400A)
- 2 - PL 100x 9x 100(SM400A)
- 2 - B.N M12x 40(1-W,UNut)(SS400)
- 2 - PL 75x 9x 190(SM400A)
- 4 - B.N M12x 35(1-W,UNut)(SS400)

SEE DWG NO. P1-CS-3038
FOR DETAIL B

- 2 - [75x40x5x7x2280(SS400)
- 2 - L 75x75x6x590(SS400)
- 2 - FB 75x6x590(SS400)
- 2 - FB 50x6x700(SS400)
- 1 - XG11 580x2230(SS400)
- 4 - PL 100x 9x 271(SM400A)
- 4 - PL 100x 9x 100(SM400A)
- 4 - B.N M12x 40(1-W,1-UNut)(SS400)

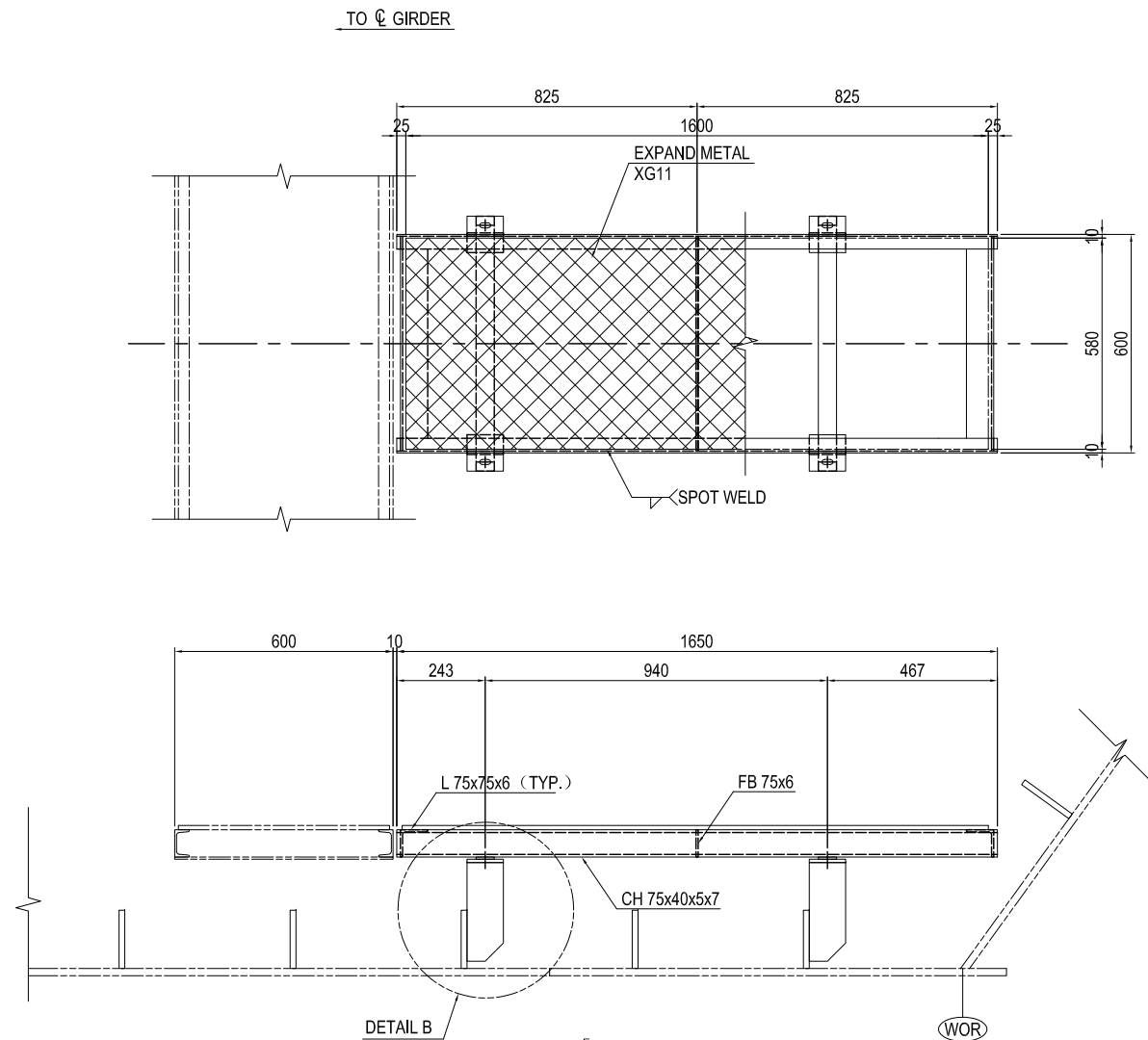
NOTES:

- 1 - HOT-DIP GALVANIZED COATING OVER 550g/m² 350g/m² (FOR BOLT, WASHER & NUT AND MEMBERS WITH A THICKNESS OF LESS THAN 3.2mm)
- 2 - A STEEL MEMBER WHICH IS WELDED TO GIRDER OR TOWER SHALL BE PAINTED (NOT GALVANIZED COATING).

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY jica 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 INSPECTION ROAD (4)	PACKAGE 1 DWG No. P1-CS-3037	
				PREPARED BY	T.TOMODA	友田 智准			27. Nov.2017
				CHECKED BY	T. HAYAKAWA	平川 知平			28. Nov.2017
				APPROVED BY	Y. SANO	佐野 祐一			29. Nov.2017

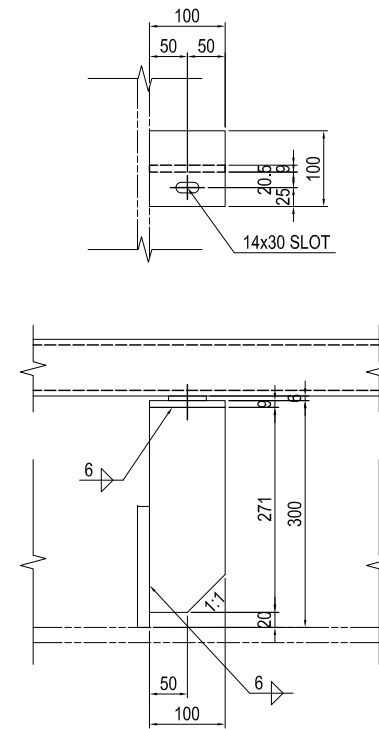
INSPECTION ROAD (5) S=1:20

FOR TRANSVERSAL (Q'ty = 2)

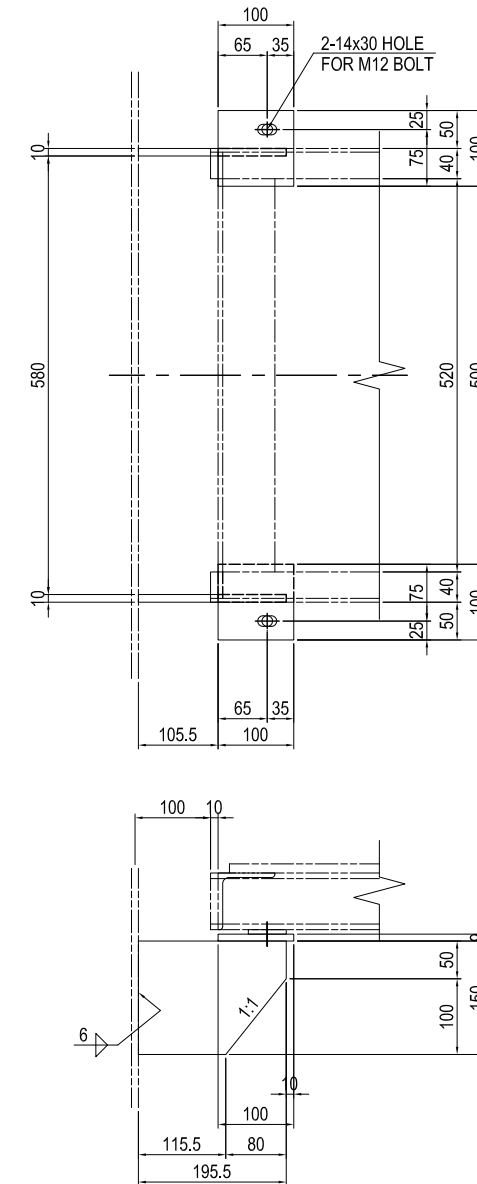


- 2 - [75x40x5x7x1650(SS400)
- 2 - L 75x75x6x590(SS400)
- 1 - FB 75x6x590(SS400)
- 2 - FB 50x6x700(SS400)
- 1 - XG11 580x1600(SS400)
- 4 - PL 100x 9x 271(SM400A)
- 4 - PL 100x 9x 100(SM400A)
- 4 - B.N M12x 40(1-W,1-UNut)(SS400)

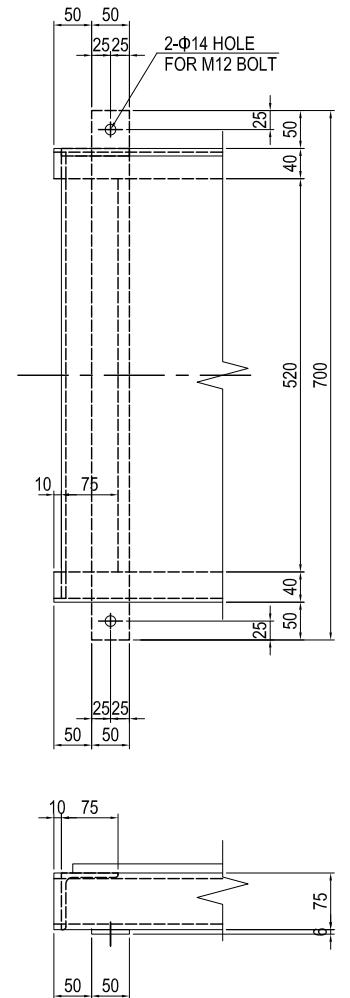
DETAIL B S=1:10



CRADLE DETAIL S=1:10



SUPPORT PL DETAIL S=1:10



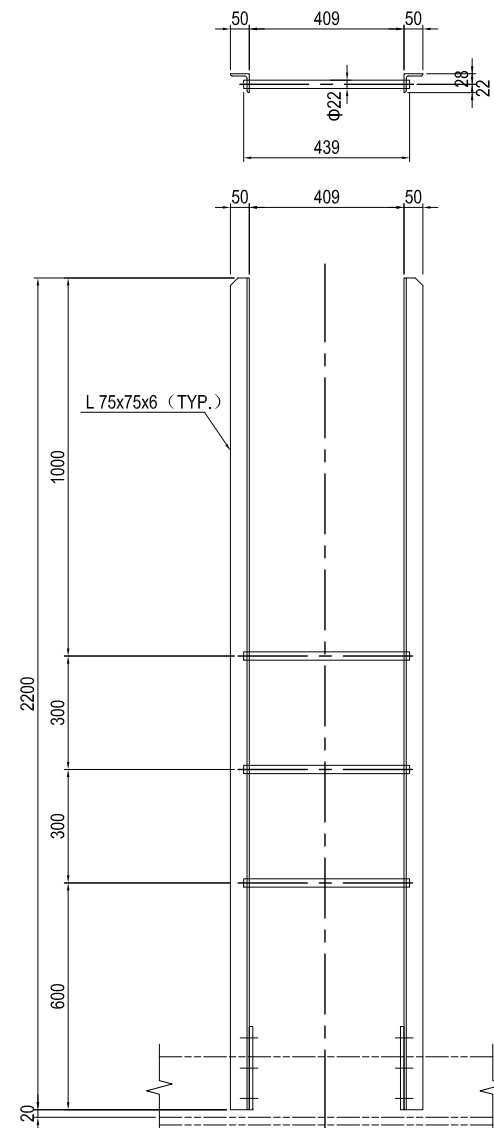
NOTES:

- 1 - HOT-DIP GALVANIZED COATING OVER 550g/m² 350g/m² (FOR BOLT, WASHER & NUT AND MEMBERS WITH A THICKNESS OF LESS THAN 3.2mm)
- 2 - A STEEL MEMBER WHICH IS WELDED TO GIRDER OR TOWER SHALL BE PAINTED (NOT GALVANIZED COATING).

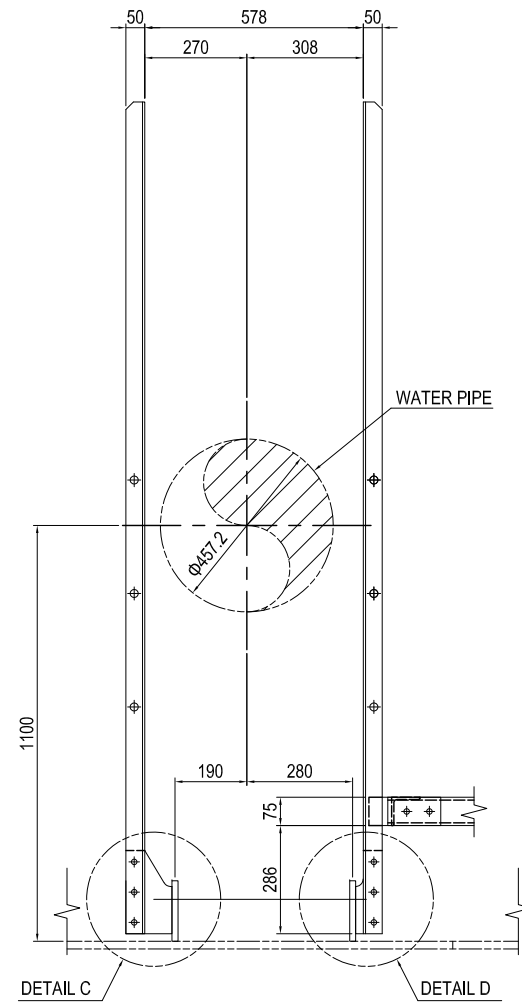
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	NAME PREPARED BY CHECKED BY APPROVED BY	SIGNATURE 	DATE 27. Nov.2017 28. Nov.2017 29. Nov.2017	DRAWING TITLE <h2 style="text-align: center;">INSPECTION ROAD (5)</h2>	PACKAGE 1 DWG No. P1-CS-3038
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INSPECTION ROAD (6) S=1:20

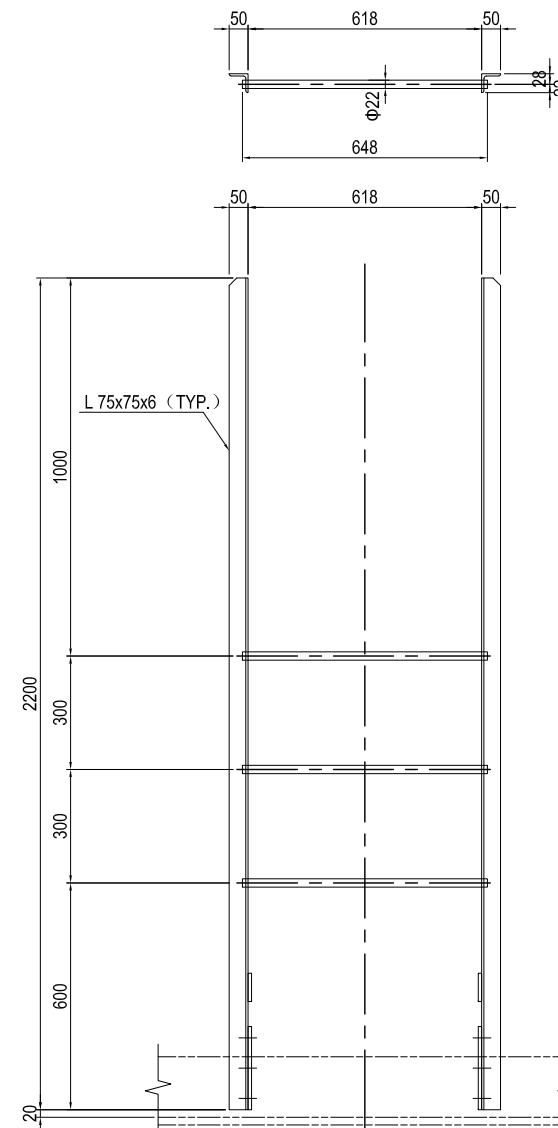
LADDER DETAIL (Qty = 80)



- 2 - L 50x50x6x2200(SS400)
- 3 - RB $\Phi 22 \times 439$ (SS400)
- 2 - PL 122 x 9x 220(SM400A)
- 6 - B.N M12x 40(1-W,1-UNut)(SS400)

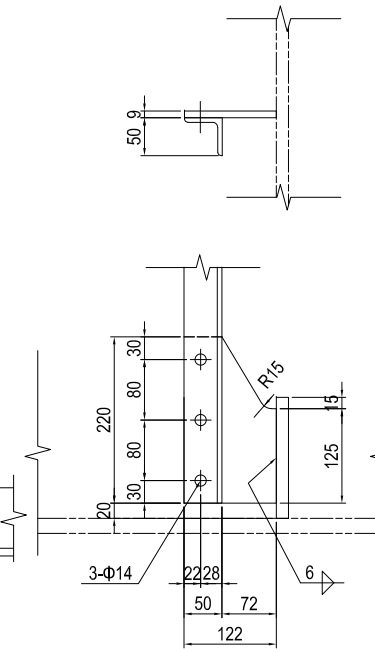


DETAIL C DETAIL D

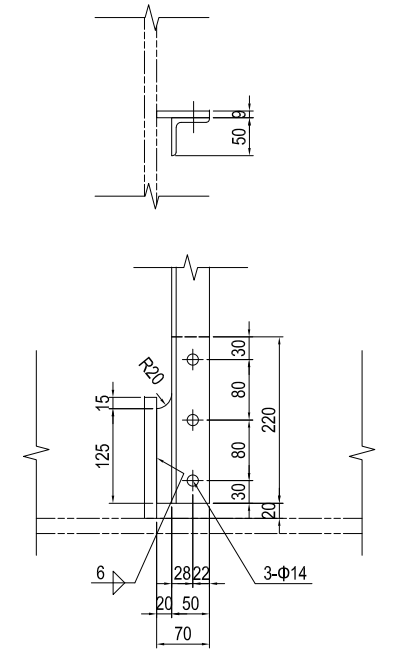


- 2 - L 50x50x6x2200(SS400)
- 3 - RB $\Phi 22 \times 648$ (SS400)
- 2 - PL 70x 9x 220(SM400A)
- 6 - B.N M12x 40(1-W,1-UNut)(SS400)

DETAIL C S=1:10



DETAIL D S=1:10



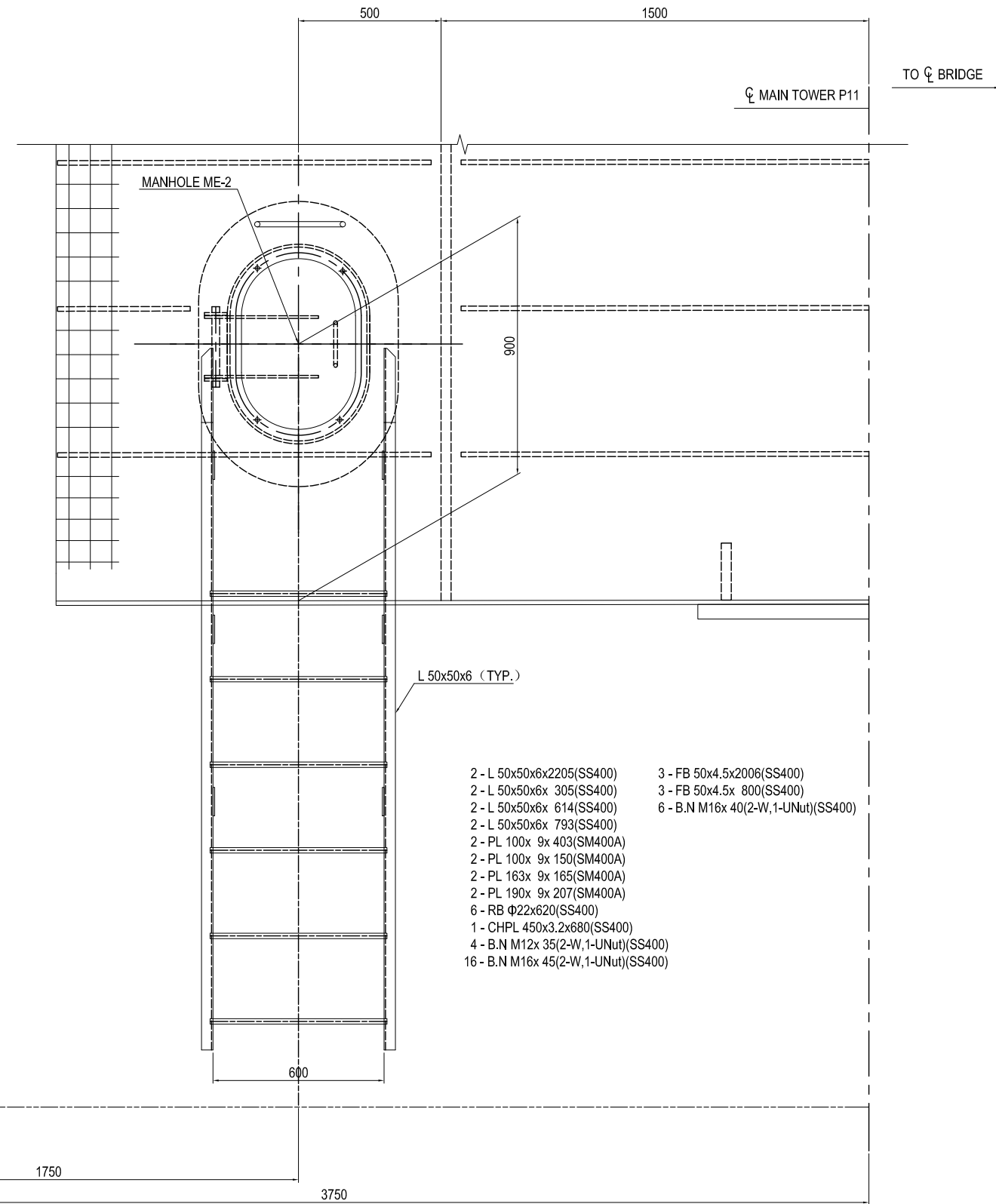
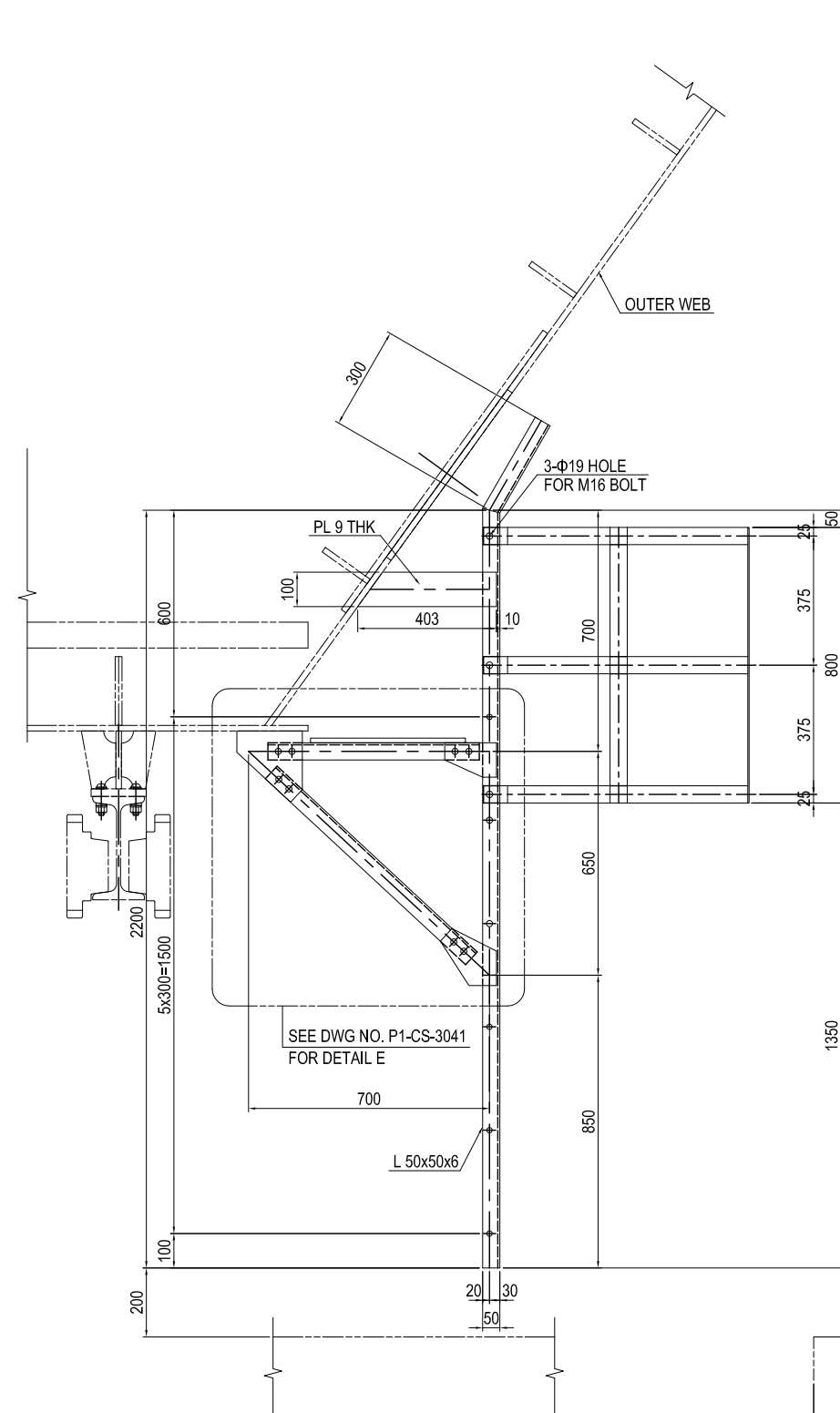
NOTES:

- 1 - HOT-DIP GALVANIZED COATING OVER 550g/m², 350g/m² (FOR BOLT, WASHER & NUT AND MEMBERS WITH A THICKNESS OF LESS THAN 3.2mm)
- 2 - A STEEL MEMBER WHICH IS WELDED TO GIRDER OR TOWER SHALL BE PAINTED (NOT GALVANIZED COATING).

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA 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 T.TOMODA	友田 隆雄	27. Nov.2017	INSPECTION ROAD (6)	1
				CHECKED BY T. HAYAKAWA	平川 知平	28. Nov.2017		DWG No.
				APPROVED BY Y. SANO	佐野 祐一	29. Nov.2017		P1-CS-3039

INSPECTION ROAD (7) S=1:20

STAGE & LADDER DETAIL (Qty = 2)

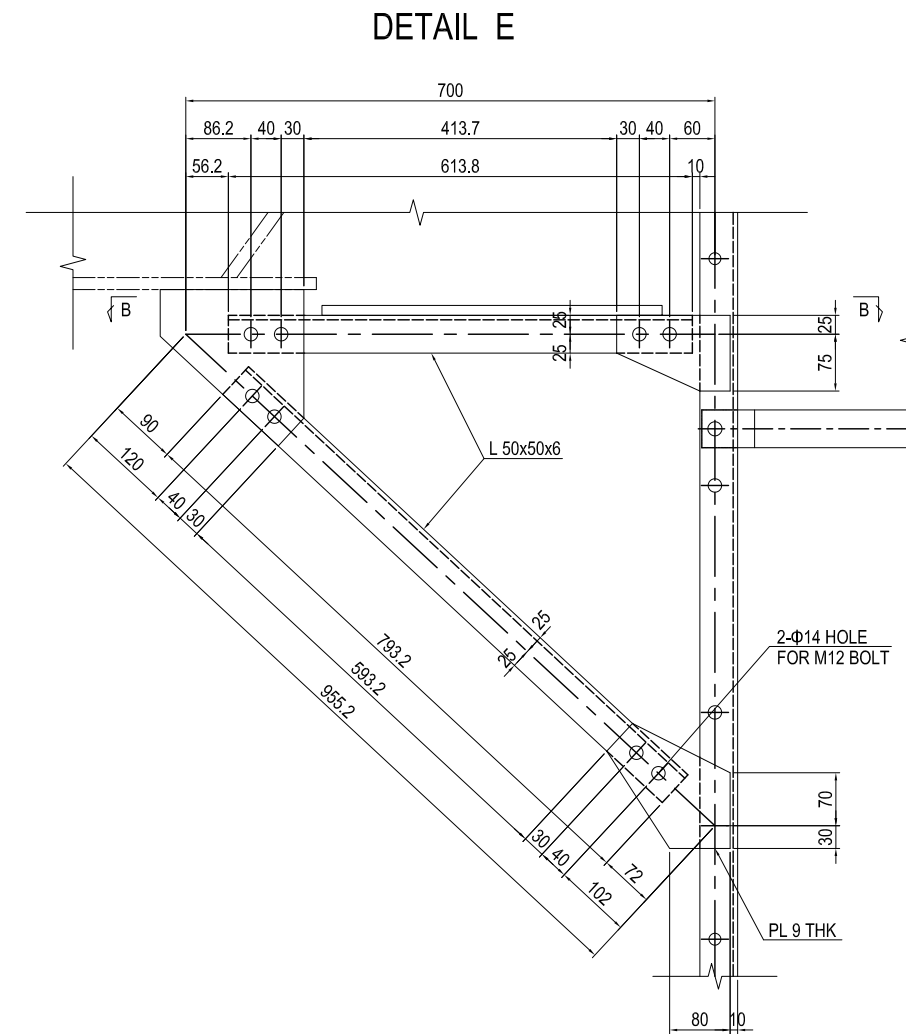
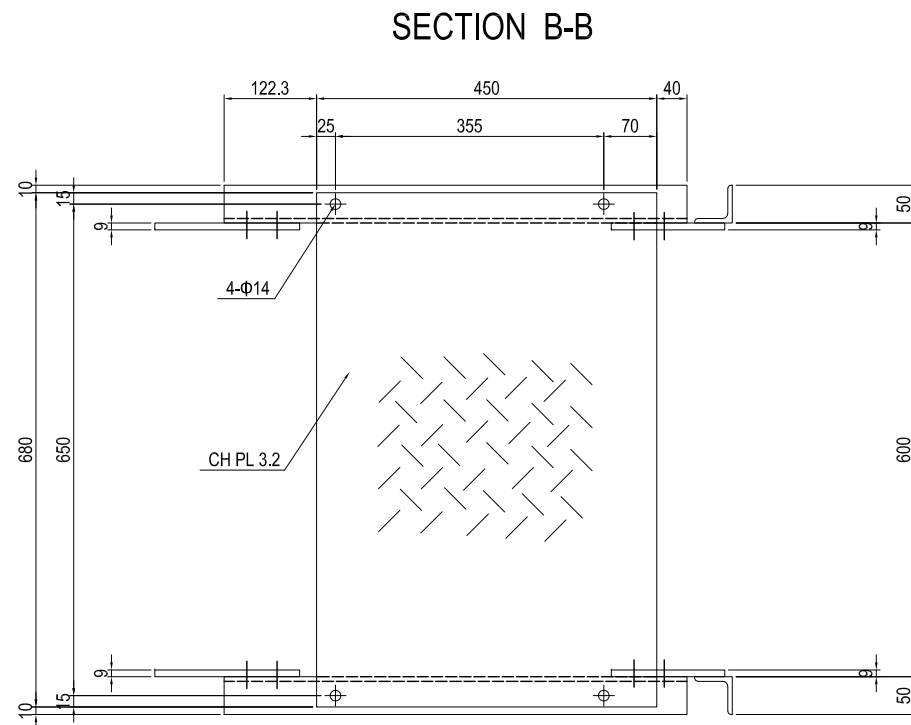


NOTES:

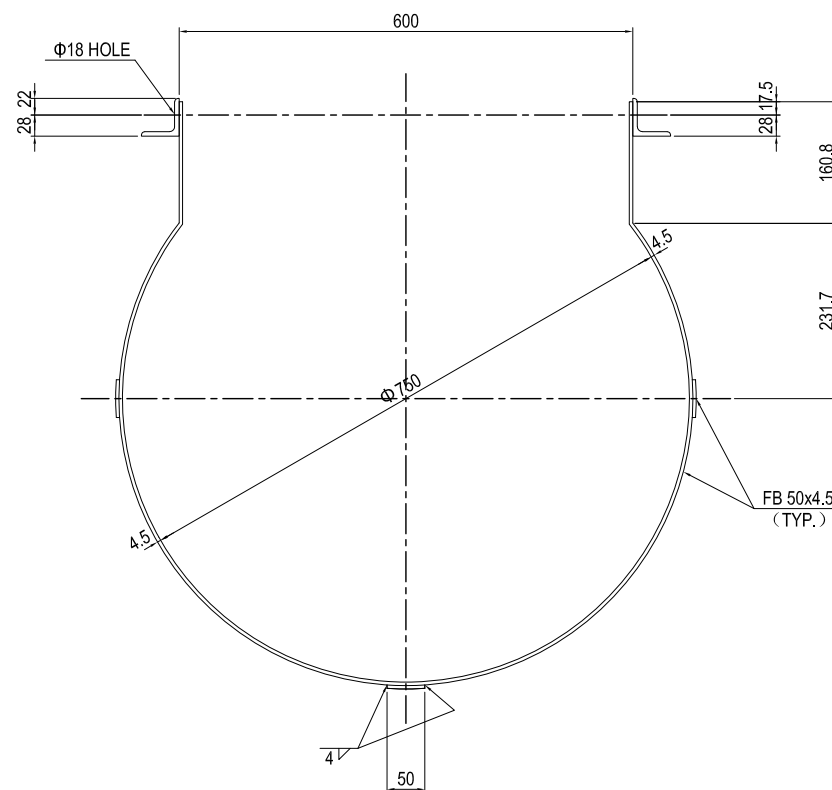
- 1 - HOT-DIP GALVANIZED COATING OVER 550g/m², 350g/m² (FOR BOLT, WASHER & NUT AND MEMBERS WITH A THICKNESS OF LESS THAN 3.2mm)
- 2 - A STEEL MEMBER WHICH IS WELDED TO GIRDER OR TOWER SHALL BE PAINTED (NOT GALVANIZED COATING).

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	T.TOMODA				27. Nov.2017
				CHECKED BY	T. HAYAKAWA				28. Nov.2017
				APPROVED BY	Y. SANO				29. Nov.2017
INSPECTION ROAD (7)							1	P1-CS-3040	

INSPECTION ROAD (8) S=1:10



FALL PREVENTION CAGE DETAIL



NOTES:

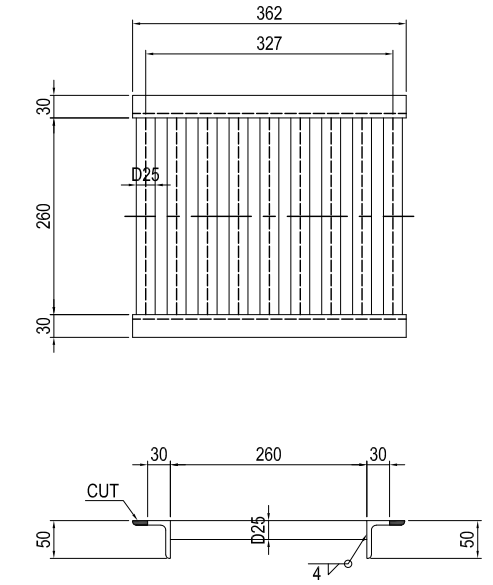
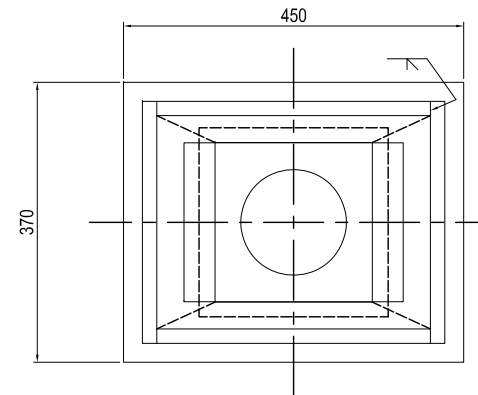
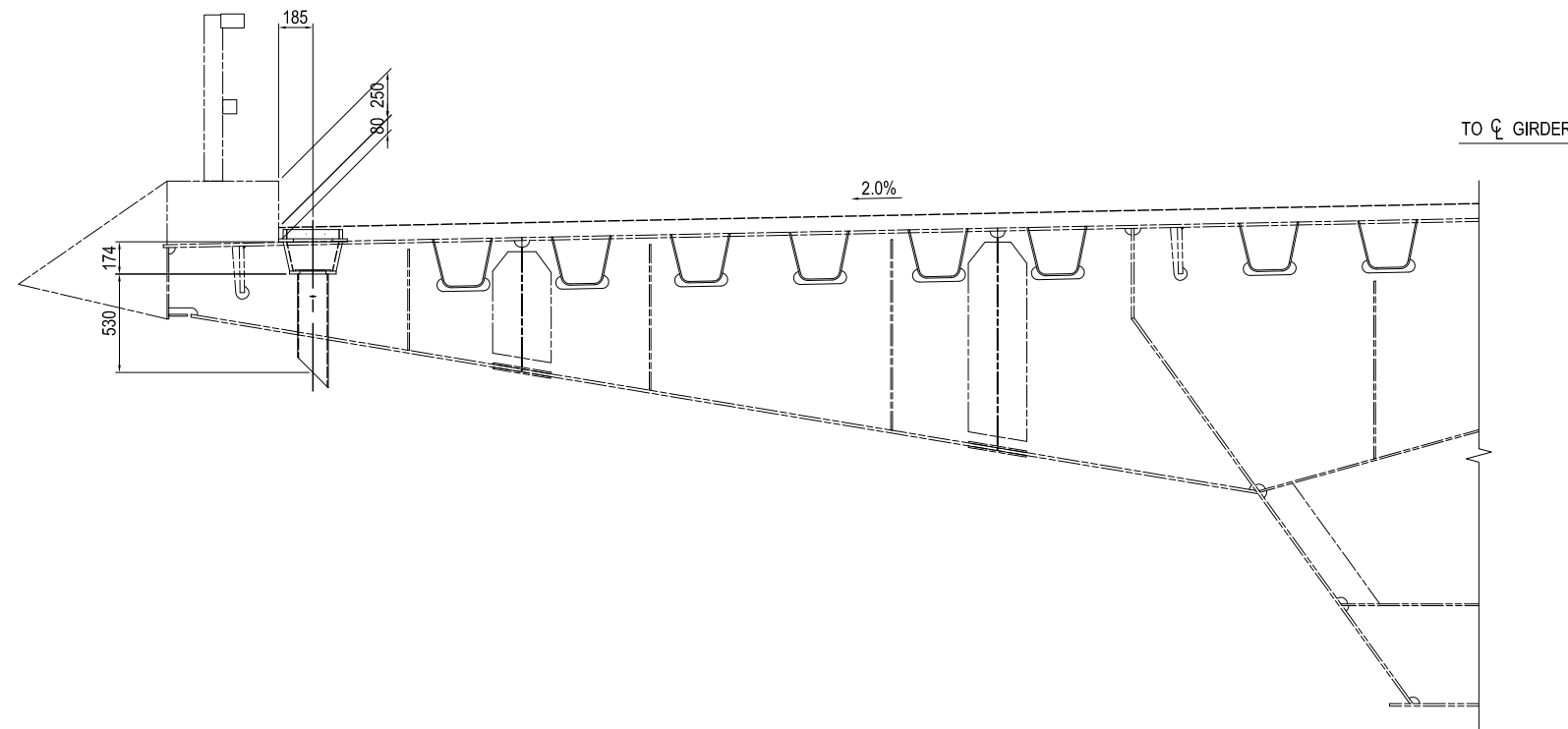
- 1 - HOT-DIP GALVANIZED COATING OVER 550g/m², 350g/m² (FOR BOLT, WASHER & NUT AND MEMBERS WITH A THICKNESS OF LESS THAN 3.2mm)
- 2 - A STEEL MEMBER WHICH IS WELDED TO GIRDER OR TOWER SHALL BE PAINTED (NOT GALVANIZED COATING).

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 CHECKED BY APPROVED BY	T.TOMODA T. HAYAKAWA Y. SANO	 	27. Nov.2017 28. Nov.2017 29. Nov.2017	INSPECTION ROAD (8)	1 DWG No. P1-CS-3041

DRAINAGE (1)

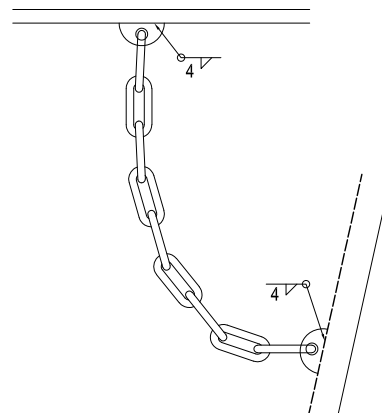
S=1:40

DETAIL S=1:10
(Qty = 140)

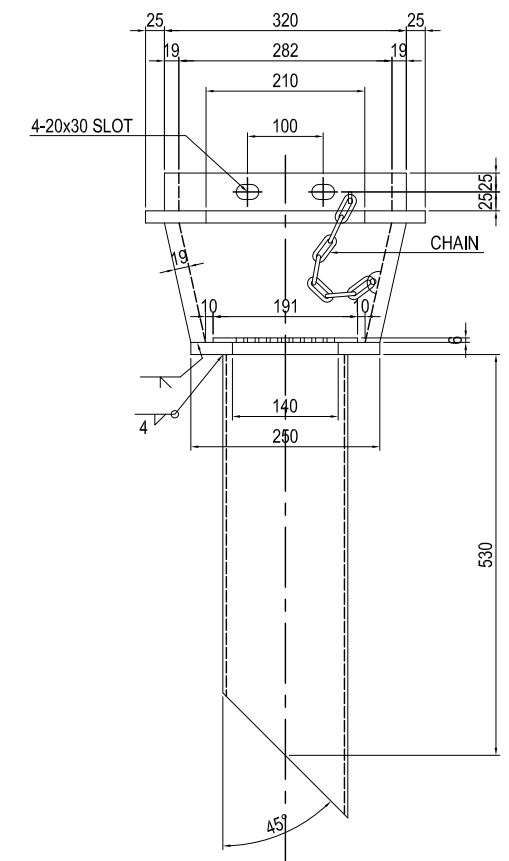
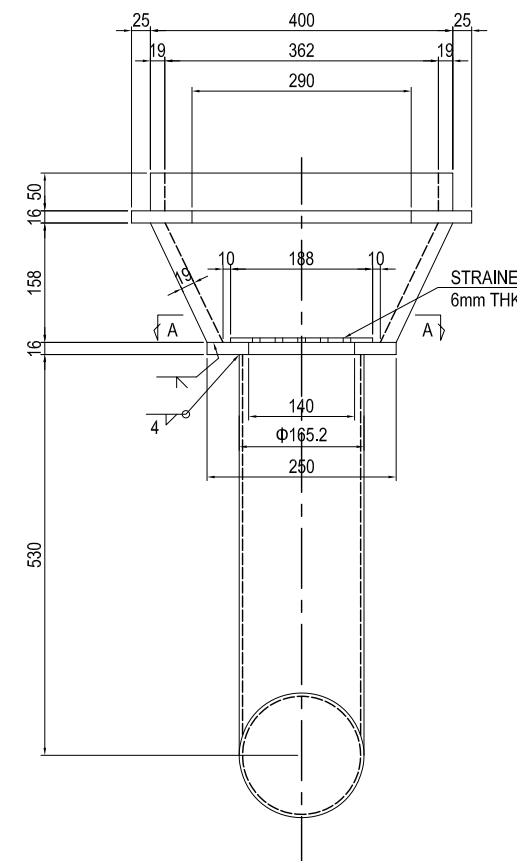
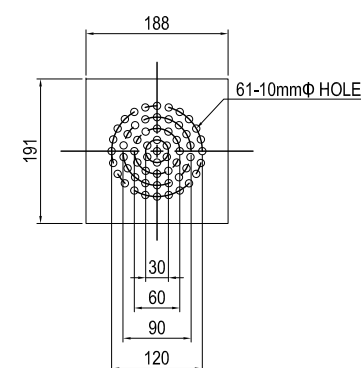


- 2-PL 50x19x362(SM400A)
- 2-PL 50x19x320(SM400A)
- 1-PL 370x16x450(SM400A)
- 2-PL 184x19x320(SM400A)
- 2-PL 166x19x358(SM400A)
- 1-PL 250x16x250(SM400A)
- 1-PL 188x6x191(SM400A)
- 1-PIPE Φ 165.2x4.5x530(STK400)
- 1-Chain Φ 5x250(SUS304)
- 2-L 50x50x6x362(SS400)
- 9-RB Φ 25x260(SD295)

DETAIL OF CHAIN



SECTION A-A



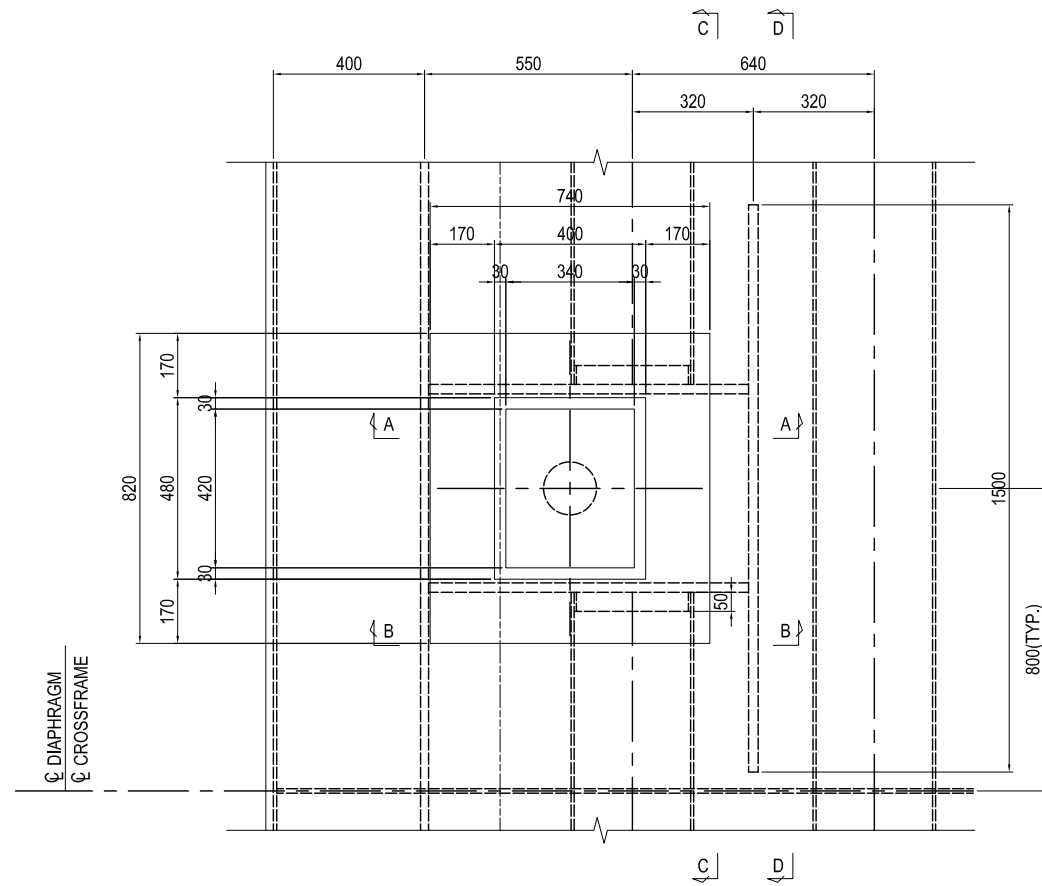
NOTES:

1 - HOT-DIP GALVANIZED COATING OVER 550g/m², 350g/m² (FOR BOLT, WASHER & NUT AND MEMBER WITH A THICKNESS OF LESS THAN 3.2mm)

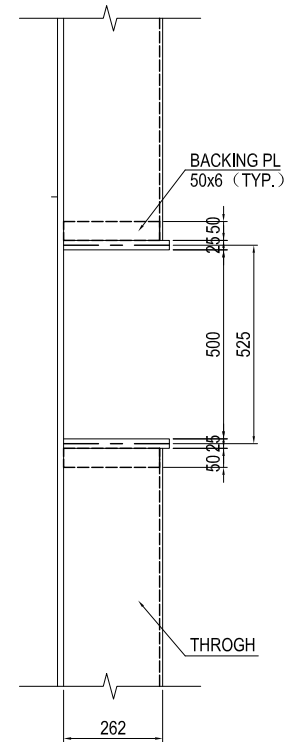
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE DRAINAGE (1)	PACKAGE 1 DWG No. P1-CS-3042	
				PREPARED BY	T.TOMODA				27. Nov.2017
				CHECKED BY	T. HAYAKAWA				28. Nov.2017
				APPROVED BY	Y. SANO				29. Nov.2017

DRAINAGE (2) S=1:20

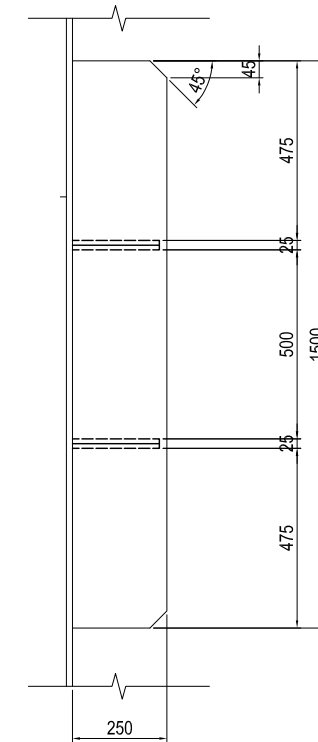
DRAINAGE COVER PL DETAIL



SECTION C-C

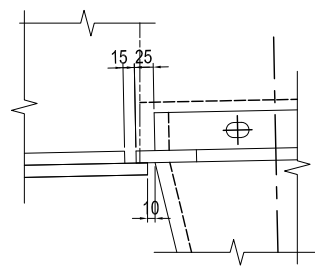


SECTION D-D

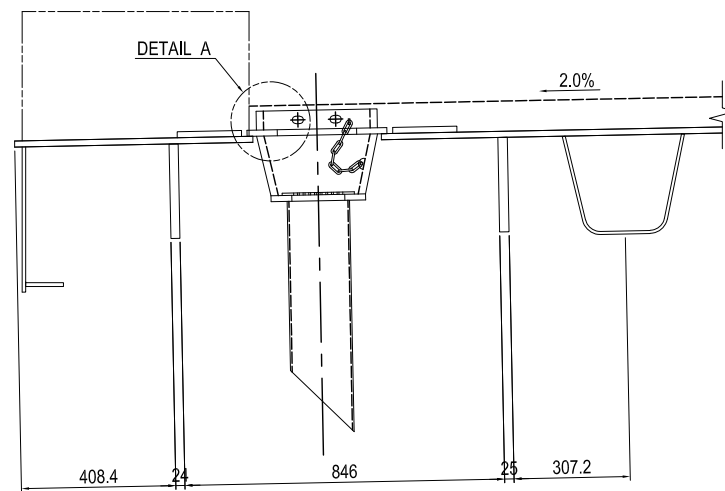


- 1-PL 820x16x740(SM400A)
- 2-RIB 280x25x848(SM400A)
- 1-RIB 250x25x1500(SM400A)
- 2-FB 50x6x684(SS400)

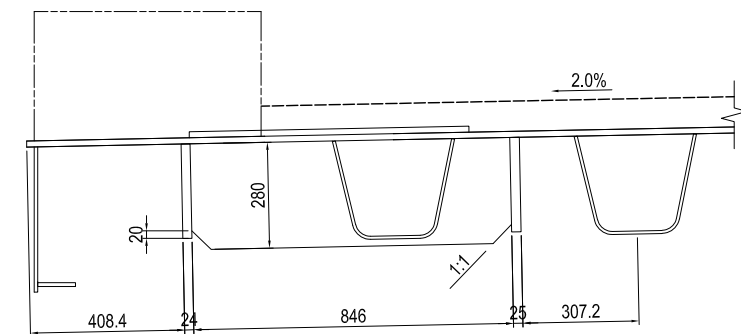
DETAIL A S=1:10



SECTION A-A



SECTION B-B



NOTES:

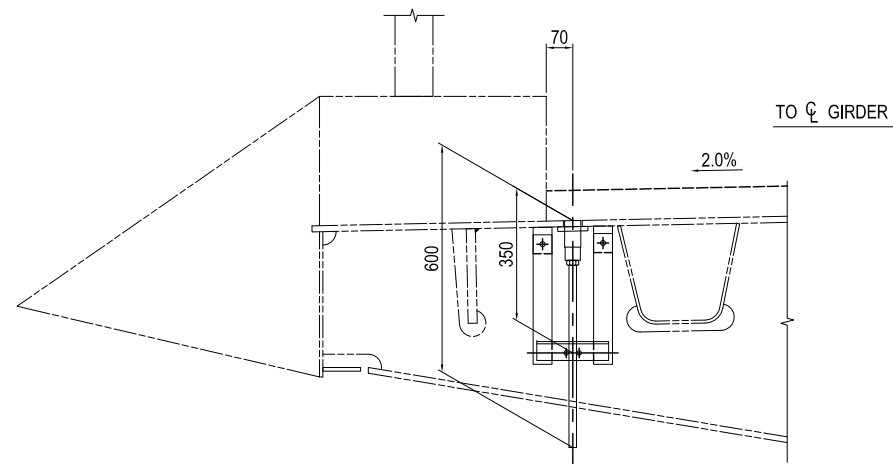
1 - HOT-DIP GALVANIZED COATING OVER 550g/m², 350g/m² (FOR BOLT, WASHER & NUT AND MEMBER WITH A THICKNESS OF LESS THAN 3.2mm)

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 DRAINAGE (2)	PACKAGE	
				PREPARED BY	T.TOMODA			27. Nov.2017	1
				CHECKED BY	T. HAYAKAWA			28. Nov.2017	DWG No.
				APPROVED BY	Y. SANO			29. Nov.2017	P1-CS-3043

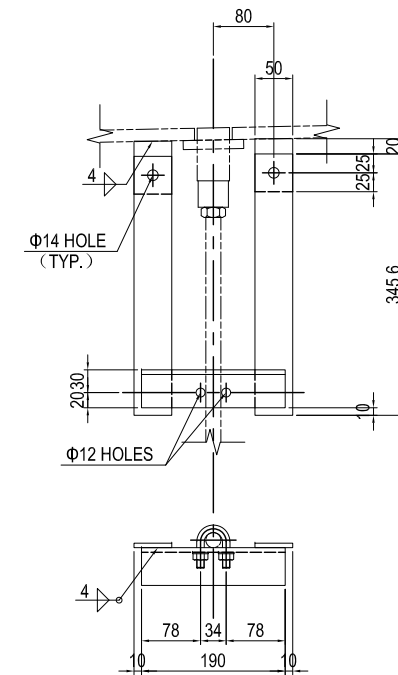
DRAINAGE (3)

S=1:20

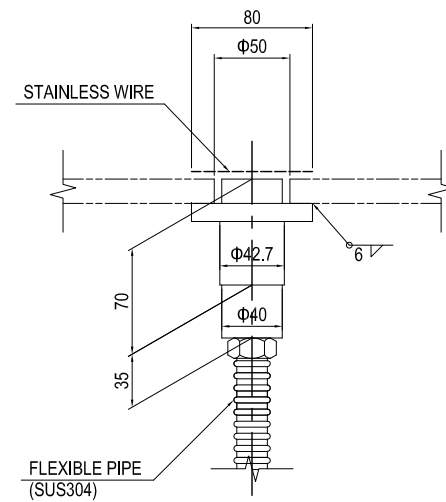
DETAIL OF FLOOR DRAINAGE



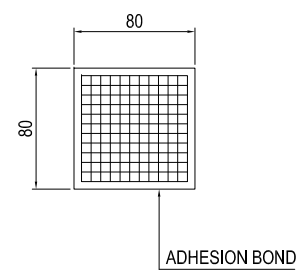
STEADY PIECE DETAIL S=1:10



FLEXIBLE PIPE DETAIL S=1:5



STAINLESS WIRE DETAIL S=1:5



- 2-PL 50x6x70(SM400A)
- 2-PL 50x6x346(SS400)
- 1-L 50x50x6x190(SS400)
- 2-BN M12x35(1-W,1-UNut)(SS400)
- 1-U.BOLT M10(15C)(2-W)(SS400)
- 2-WASHER M10(SS400)

NOTES:

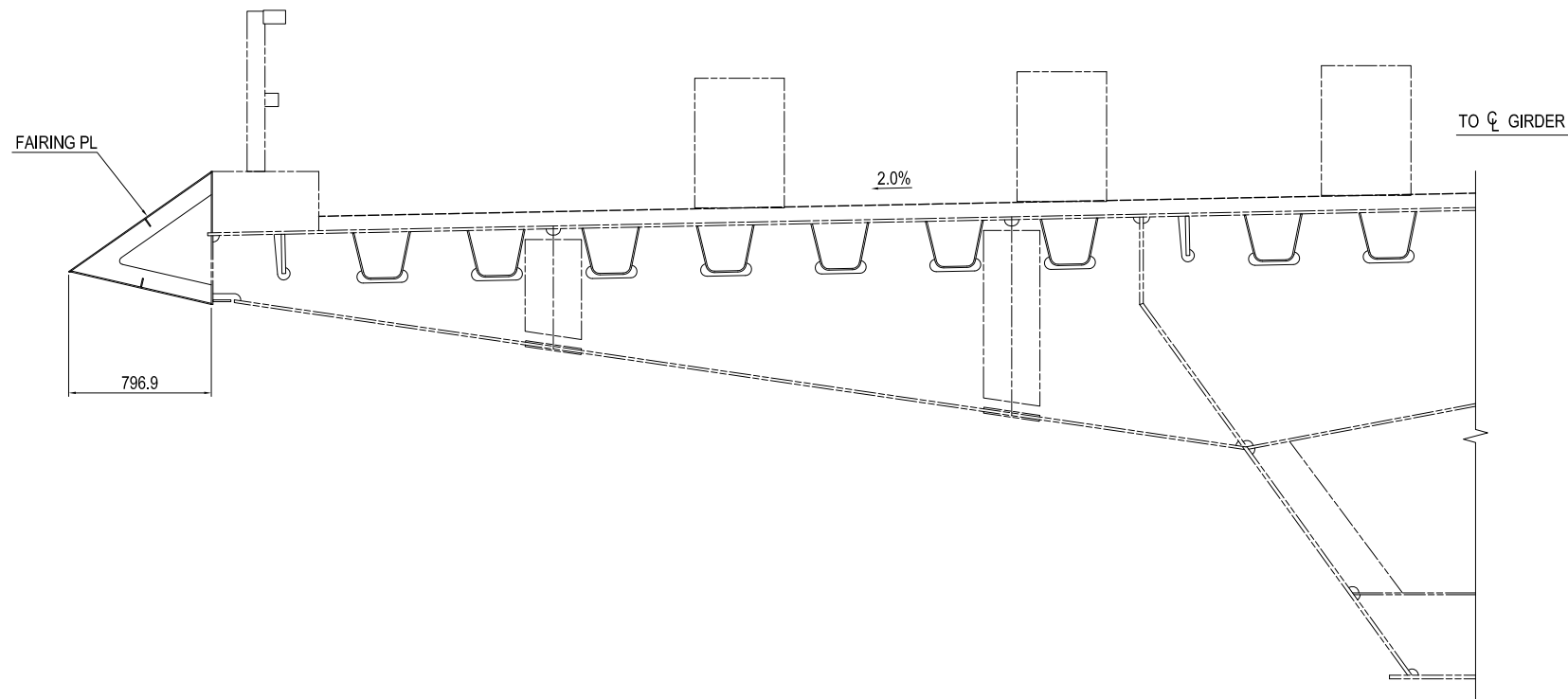
1 - HOT-DIP GALVANIZED COATING OVER 550g/m² , 350g/m² (FOR BOLT, WASHER & NUT AND MEMBER WITH A THICKNESS OF LESS THAN 3.2mm)

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	T.TOMODA				27. Nov.2017
				CHECKED BY	T. HAYAKAWA				28. Nov.2017
				APPROVED BY	Y. SANO				29. Nov.2017
							DRAINAGE (3)	1	
								DWG No.	
								P1-CS-3044	

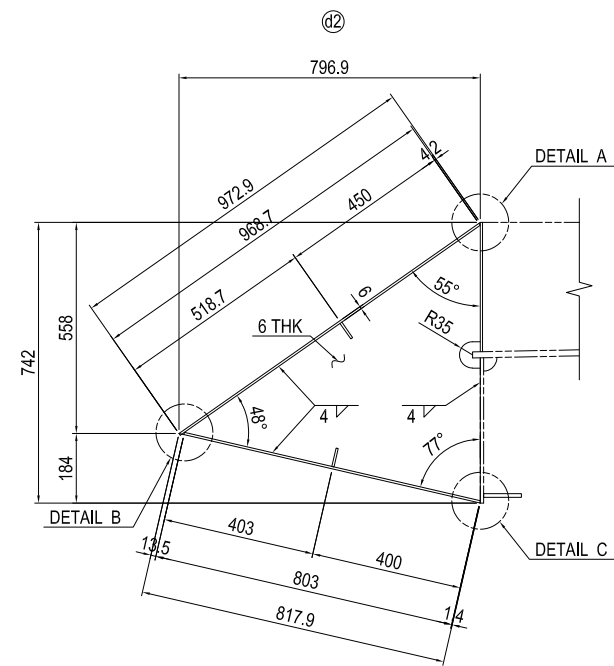
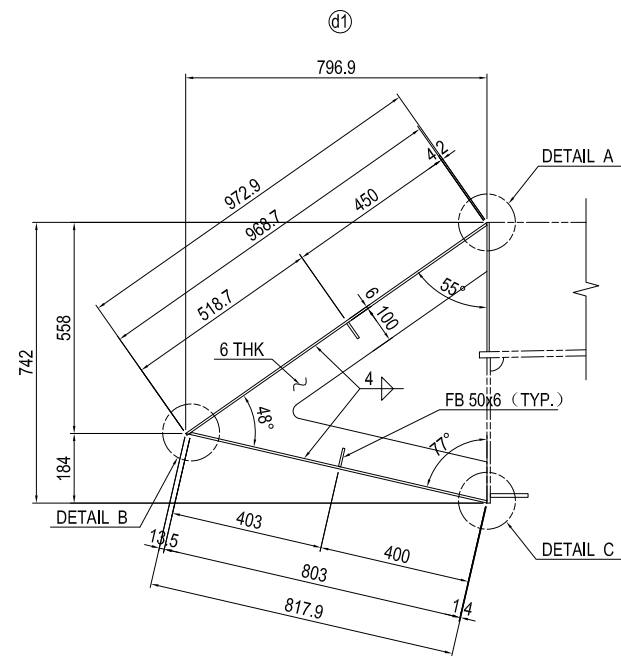
FAIRING (1)

S=1:40

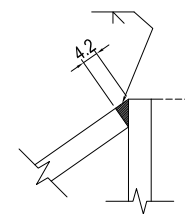
TYPICAL SECTION



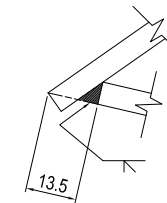
DIAPHRAGM DETAIL S=1:20



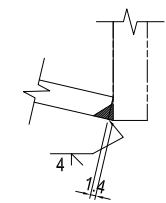
DETAIL A S=1:2



DETAIL B S=1:2



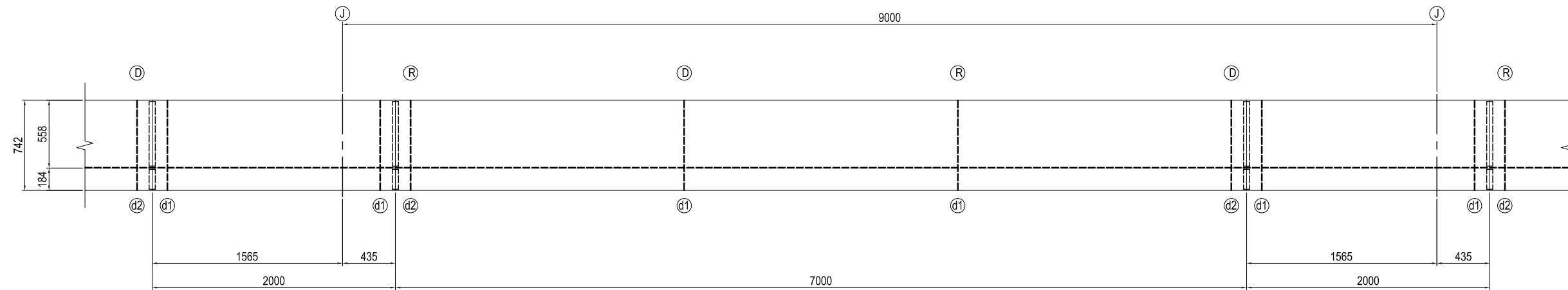
DETAIL C S=1:2



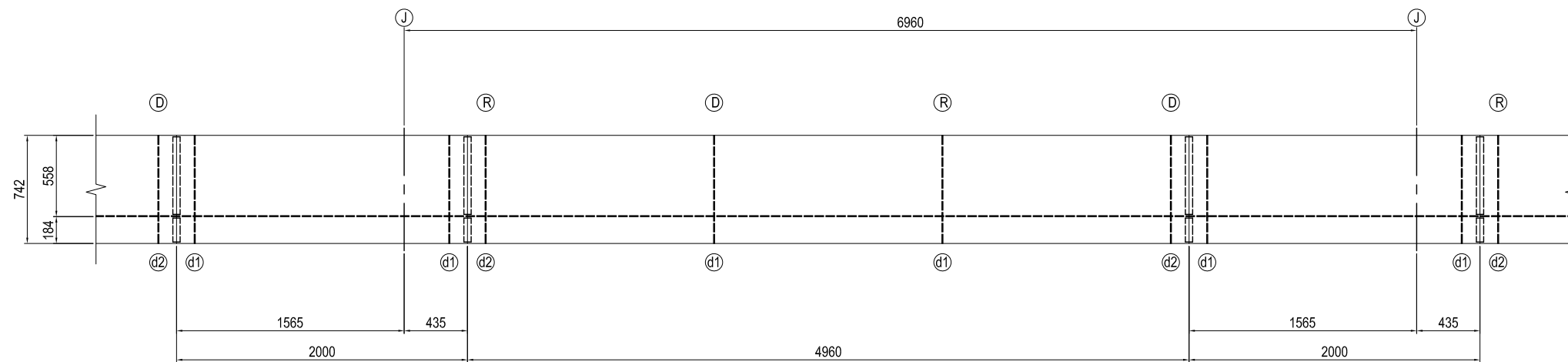
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	T.TOMODA				27. Nov.2017
				CHECKED BY	T. HAYAKAWA				28. Nov.2017
				APPROVED BY	Y. SANO				29. Nov.2017
							FAIRING (1)	1	
								DWG No.	
								P1-CS-3045	

FAIRING (2) S=1:40

TYPICAL ARRANGEMENT



SEGMENT NO.13 & 15

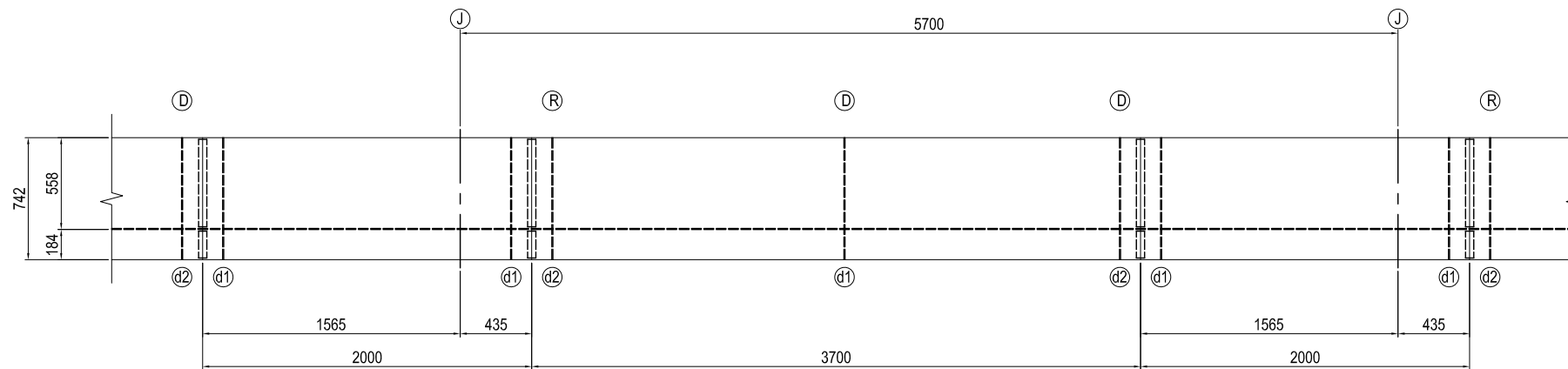


- 1-PL 969x6x7000(SM400A)
- 1-PL 803x6x7000(SM400A)
- 2-PL 50x6x7000(SM400A)
- 2-PL 955x6x597(SM400A)
- 2-PL 955x6x597(SM400A)
- 2-FB 50x6x953(SS400)
- 2-FB 50x6x798(SS400)

- 1-PL 969x6x2000(SM400A)
- 1-PL 803x6x2000(SM400A)
- 2-PL 50x6x2000(SM400A)
- 2-PL 955x6x597(SM400A)

- 1-PL 969x6x4960(SM400A)
- 1-PL 803x6x4960(SM400A)
- 2-PL 50x6x4960(SM400A)
- 2-PL 955x6x597(SM400A)
- 2-PL 955x6x597(SM400A)
- 2-FB 50x6x953(SS400)
- 2-FB 50x6x798(SS400)

SEGMENT NO.14



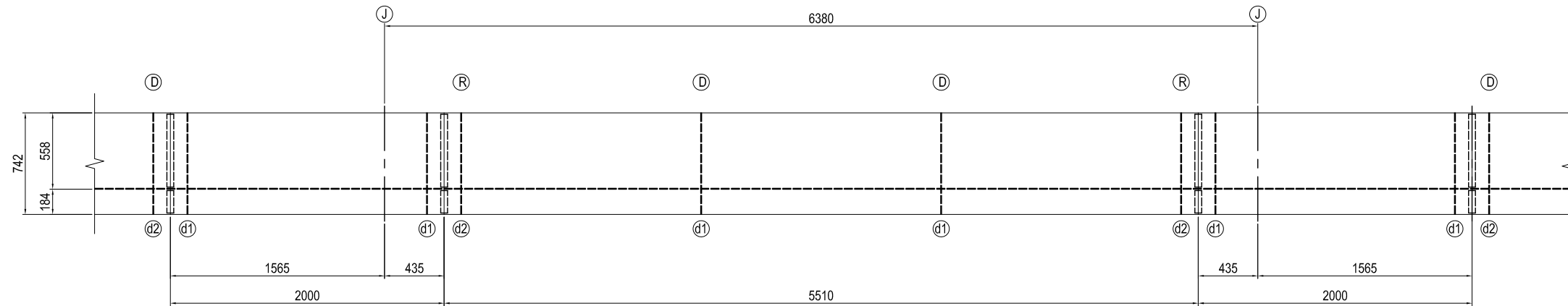
- 1-PL 969x6x3700(SM400A)
- 1-PL 803x6x3700(SM400A)
- 2-PL 50x6x3700(SM400A)
- 1-PL 955x6x597(SM400A)
- 2-PL 955x6x597(SM400A)
- 2-FB 50x6x953(SS400)
- 2-FB 50x6x798(SS400)

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 FAIRING (2)	PACKAGE	
				PREPARED BY	T.TOMODA			27. Nov.2017	1
				CHECKED BY	T. HAYAKAWA			28. Nov.2017	DWG No.
				APPROVED BY	Y. SANO			29. Nov.2017	P1-CS-3046

FAIRING (3)

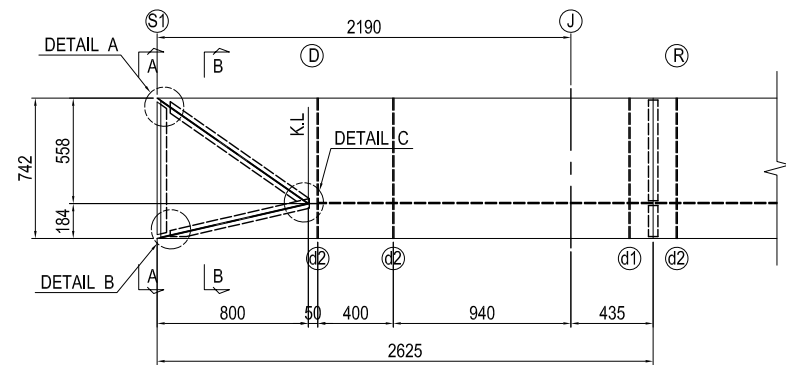
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SEGMENT NO.27

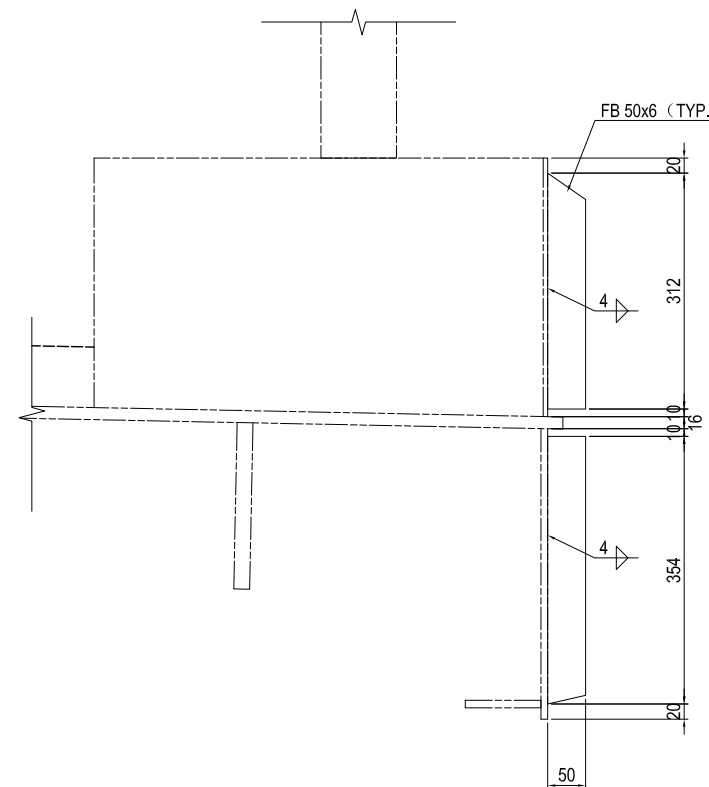


- 1-PL 969x6x5510(SM400A)
- 1-PL 803x6x5510(SM400A)
- 2-PL 50x6x5510(SM400A)
- 2-PL 955x6x597(SM400A)
- 2-PL 955x6x597(SM400A)
- 2-FB 50x6x953(SS400)
- 2-FB 50x6x798(SS400)

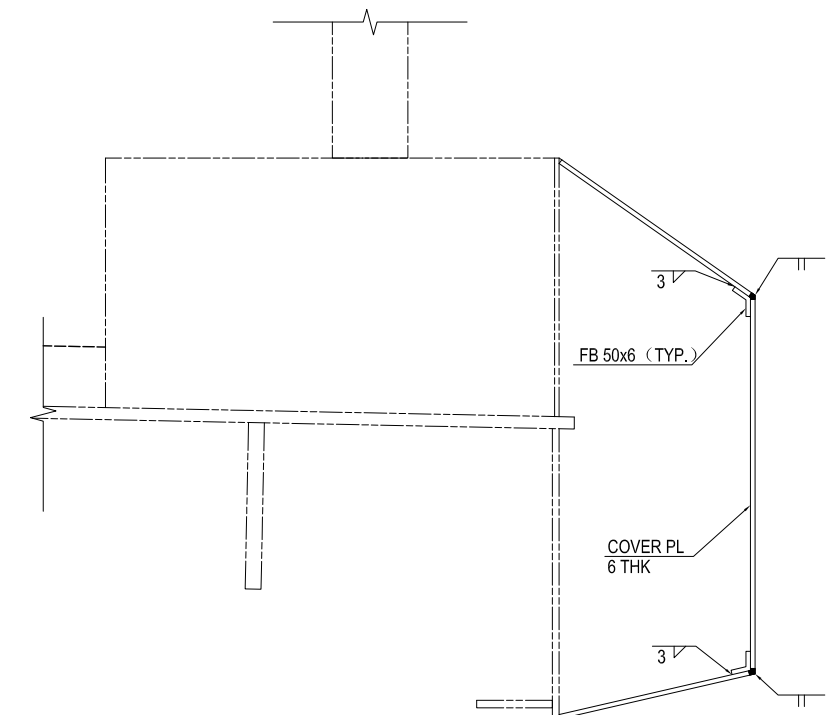
SEGMENT NO.1



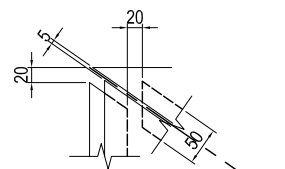
DEV. SECTION A-A S=1:10



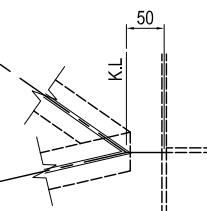
SECTION B-B S=1:10



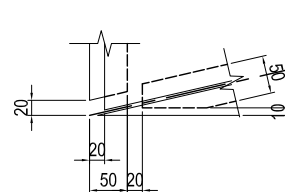
DETAIL A S=1:10



DETAIL C S=1:10



DETAIL B S=1:10



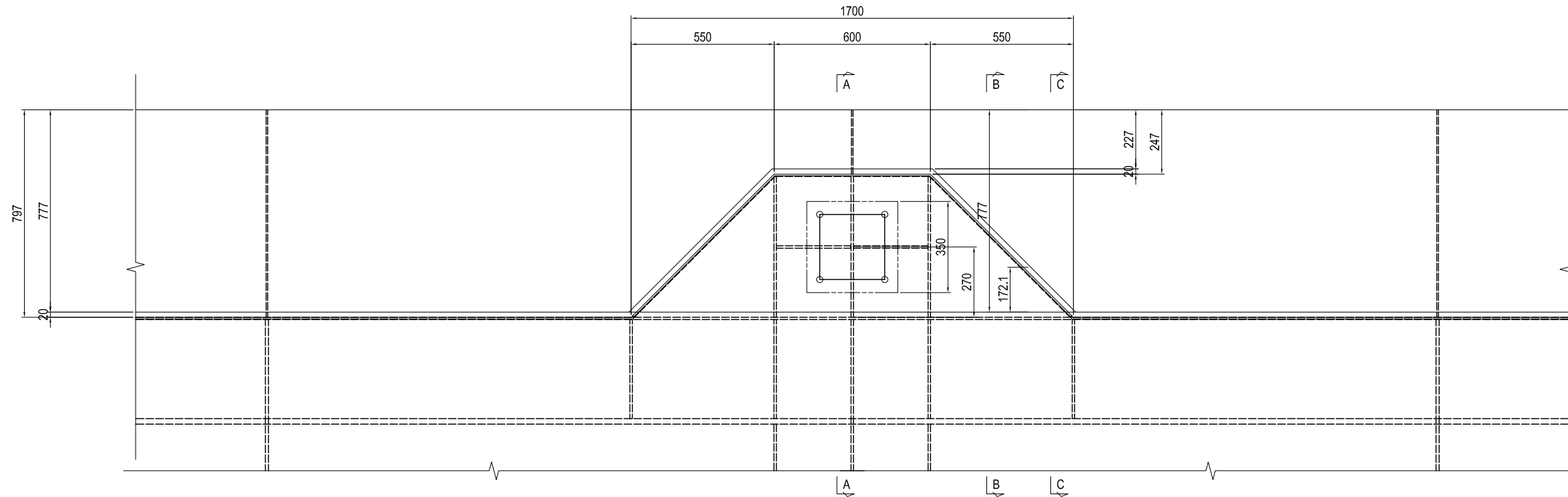
- 1-PL 969x6x2605(SM400A)
- 1-PL 803x6x2605(SM400A)
- 2-PL 50x6x1772(SM400A)
- 3-PL 955x6x597(SM400A)
- 1-FB 50x6x953(SS400)
- 1-FB 50x6x798(SS400)
- 1-PL 718x6x1092(SM400A)
- 1-FB 50x6x896(SS400)
- 1-FB 50x6x762(SS400)
- 1-FB 50x6x312(SS400)
- 1-FB 50x6x354(SS400)

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 FAIRING (3)	PACKAGE	
				PREPARED BY	T.TOMODA			27. Nov.2017	1
				CHECKED BY	T. HAYAKAWA			28. Nov.2017	DWG No.
				APPROVED BY	Y. SANO			29. Nov.2017	P1-CS-3047

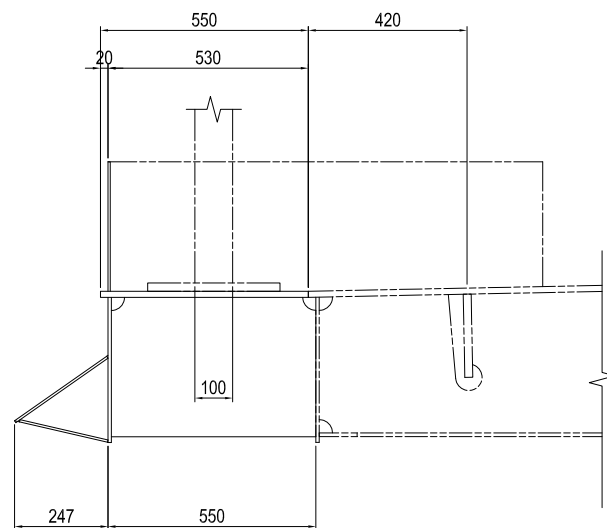
FAIRING (4)

S=1:20

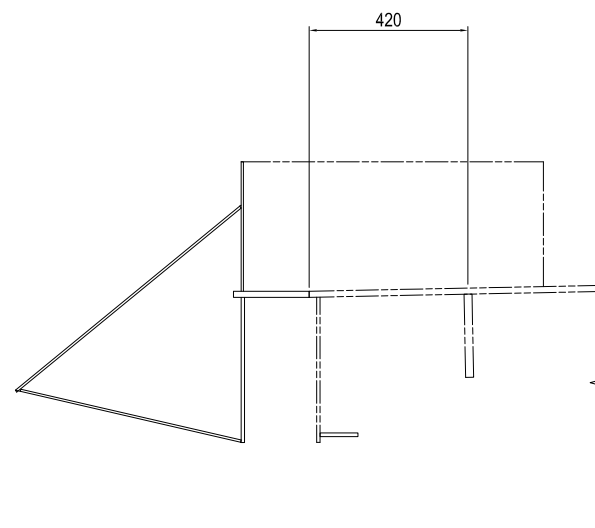
LIGHTING POST BASE DETAIL



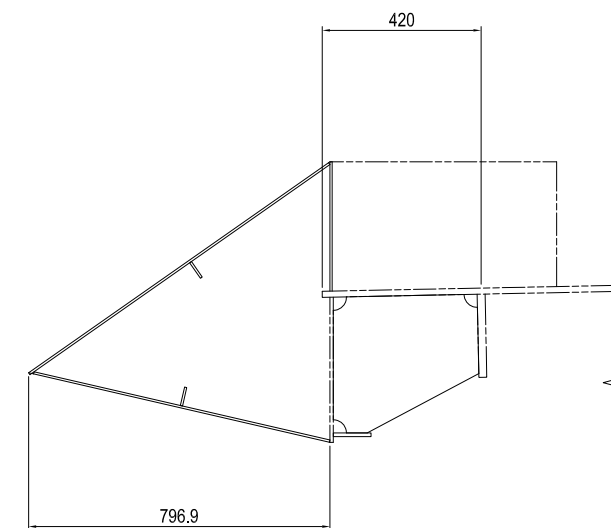
SECTION A-A



SECTION B-B



SECTION C-C



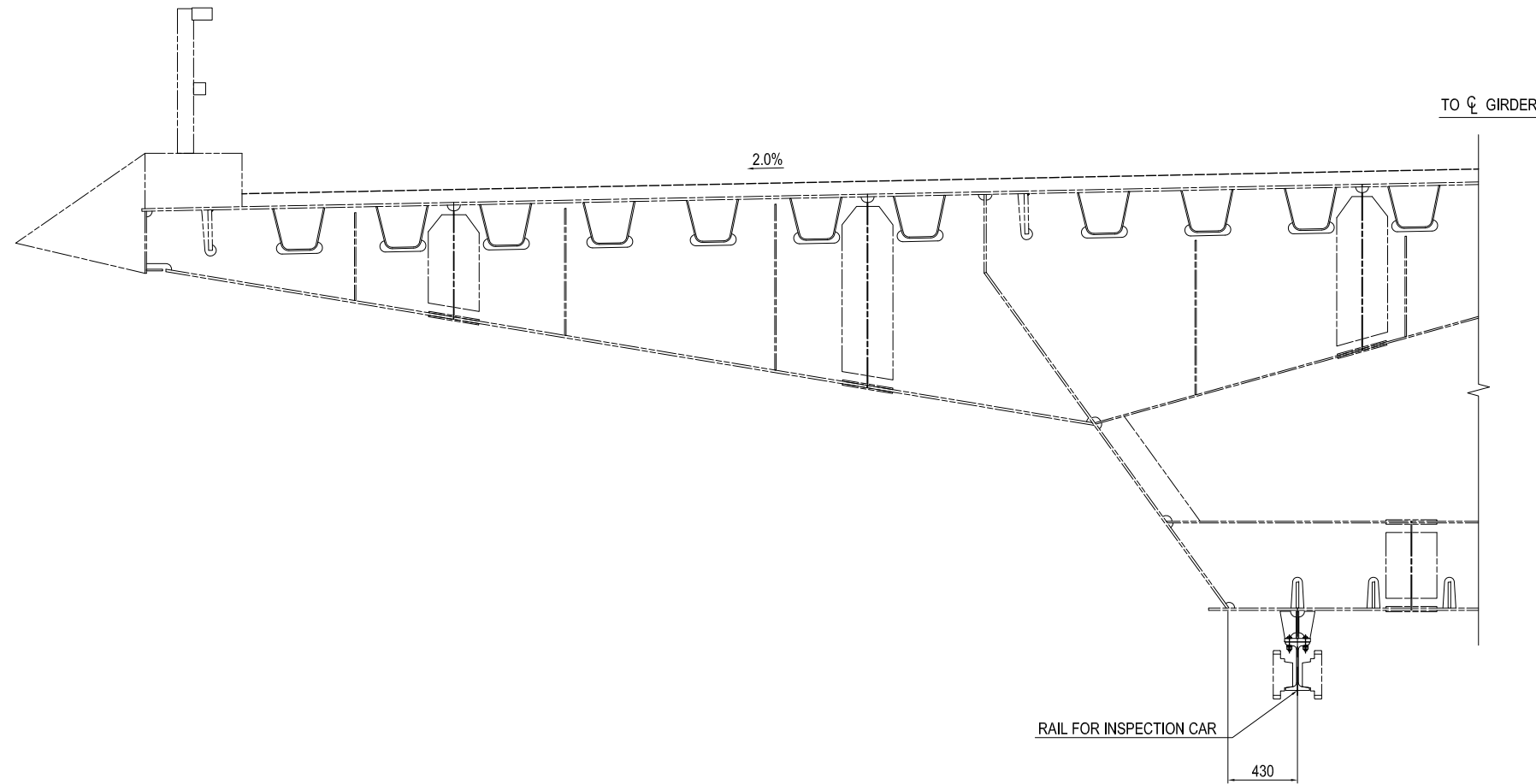
NOTES:

1 - SEE THE NAVIGATION SIGN & LIGHT DRAWING FOR DETAILS ON FAIRING AT THE WIDENING PART.

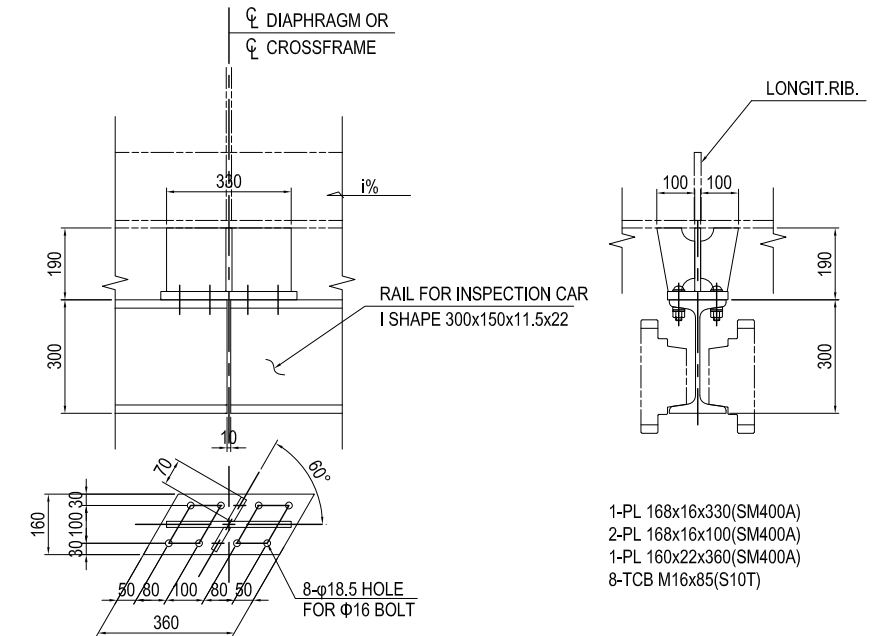
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	T.TOMODA				27. Nov.2017
				CHECKED BY	T. HAYAKAWA				28. Nov.2017
				APPROVED BY	Y. SANO				29. Nov.2017
							FAIRING (4)	1	
								DWG No.	
								P1-CS-3048	

RAIL FOR INSPECTION VEHICLE (1)

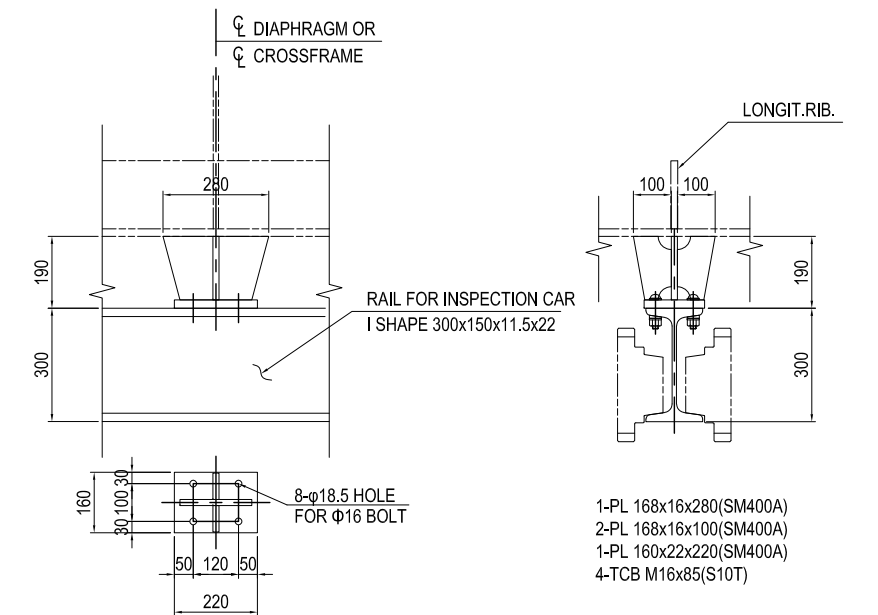
S=1:40



END OF RAIL S=1:20



INTERMEDIATE OF RAIL S=1:20

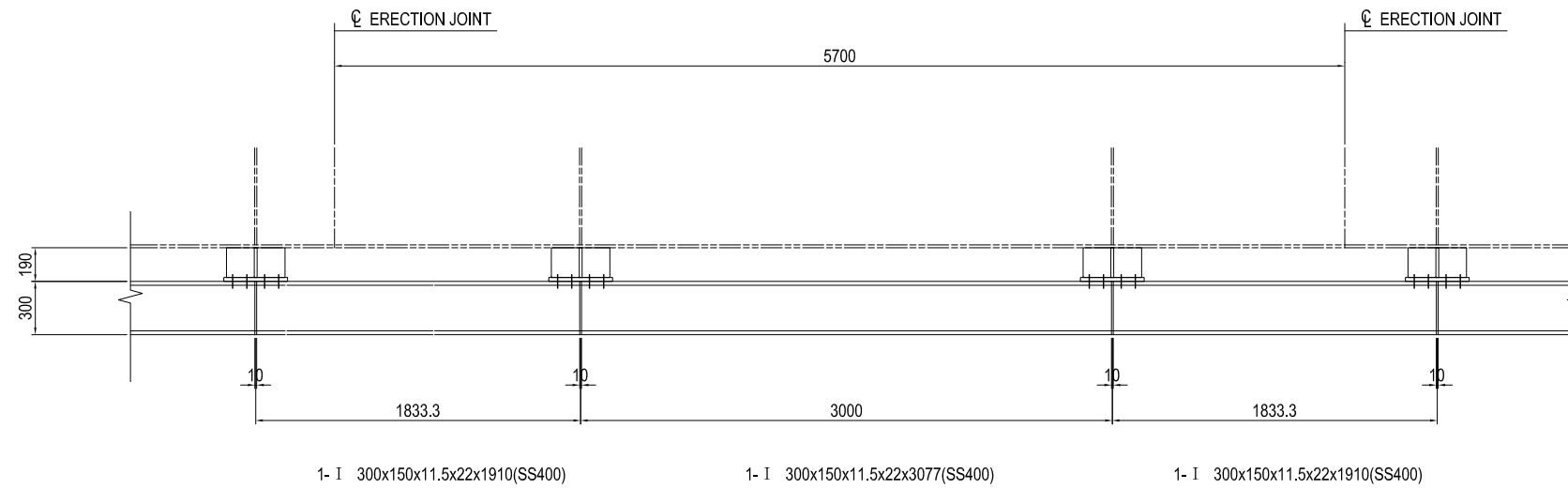


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	PREPARED BY T.TOMODA	友田 隆雄	27. Nov.2017	RAIL FOR INSPECTION VEHICLE (1)	1
				CHECKED BY T. HAYAKAWA	平川 知那	28. Nov.2017		DWG No.
				APPROVED BY Y. SANO	佐野 祐一	29. Nov.2017		P1-CS-3049

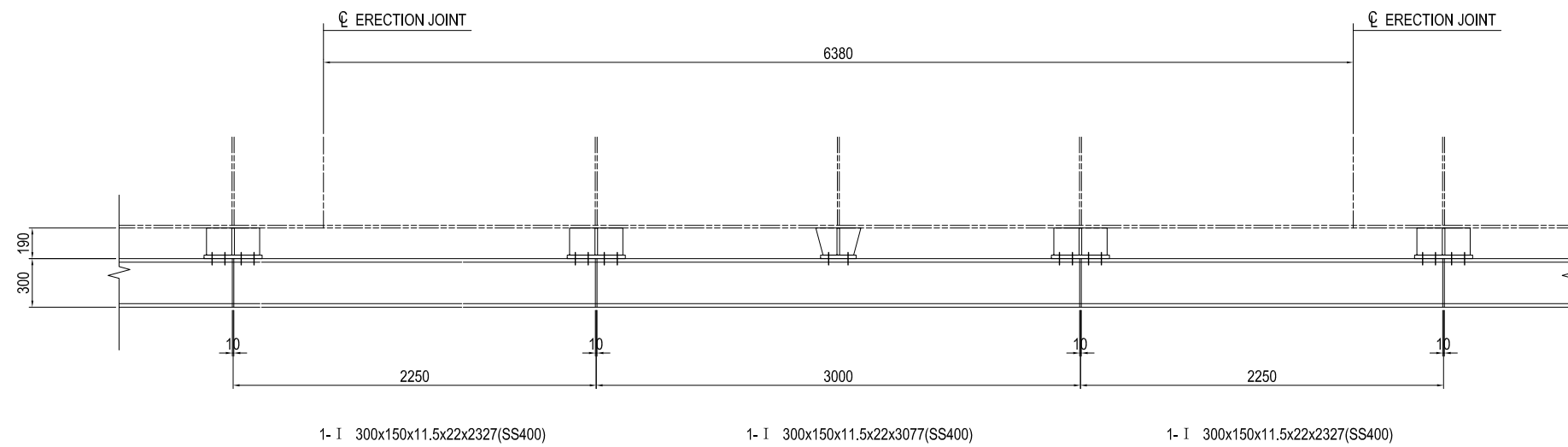
RAIL FOR INSPECTION VEHICLE (3)

S=1:40

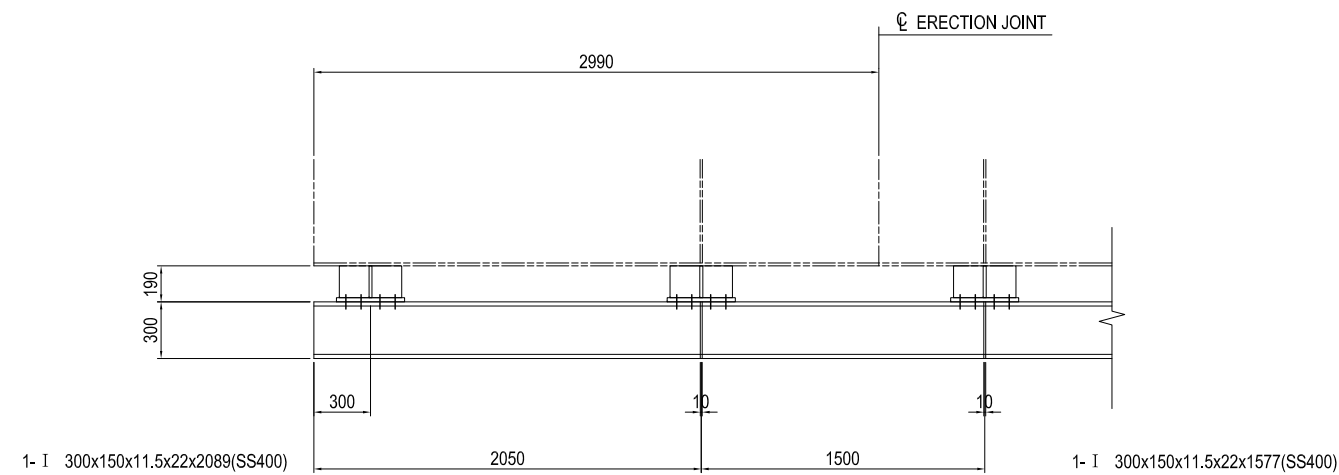
SEGMENT NO.14



SEGMENT NO.27



SEGMENT NO.1



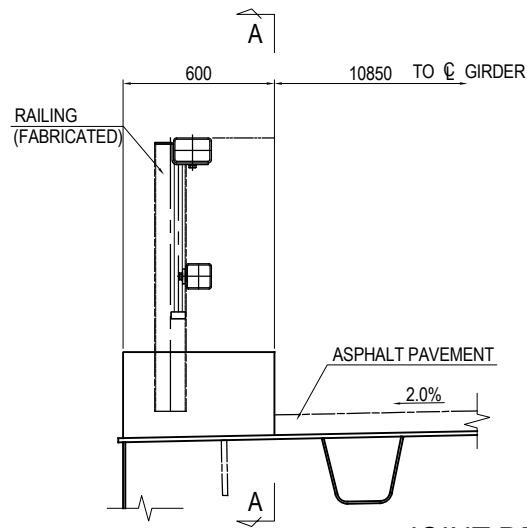
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE RAIL FOR INSPECTION VEHICLE (3)	PACKAGE	
				PREPARED BY	T.TOMODA			27. Nov.2017	1
				CHECKED BY	T. HAYAKAWA			28. Nov.2017	DWG No.
				APPROVED BY	Y. SANO			29. Nov.2017	P1-CS-3051

DETAIL OF RAILING (1)

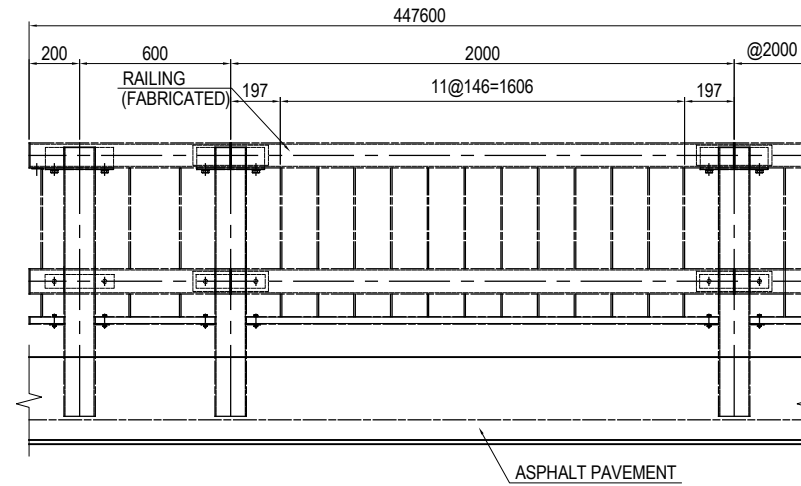
S=1:20

COMPOSITE BARRIER

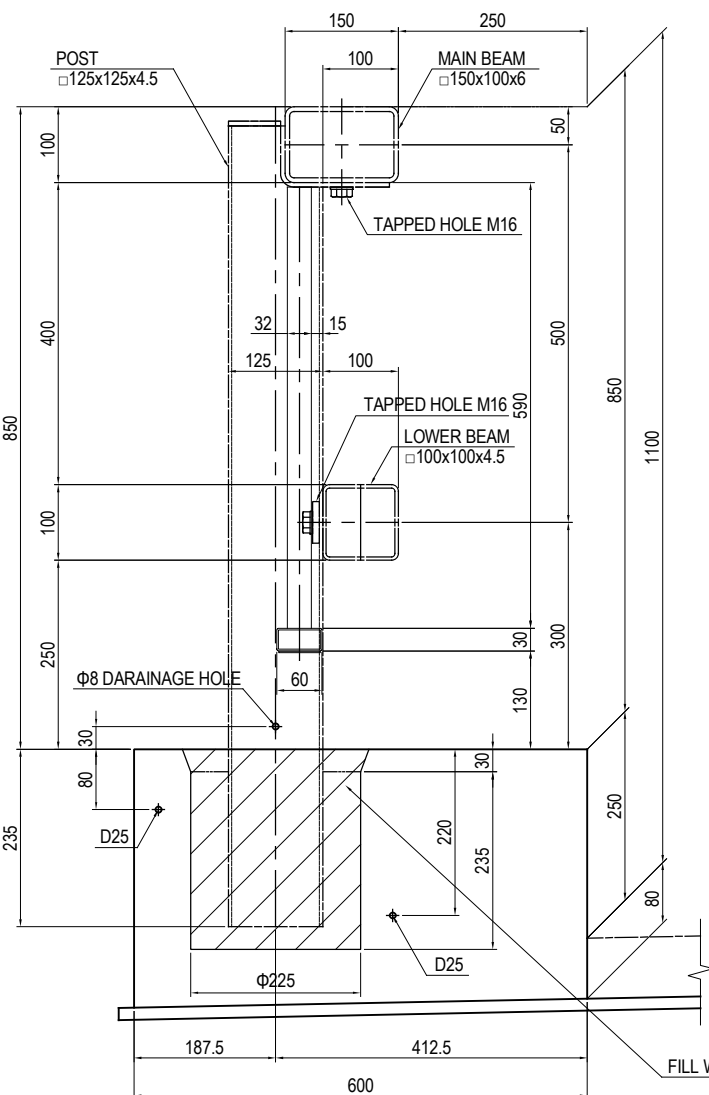
TYPICAL CROSS SECTION S=1:30



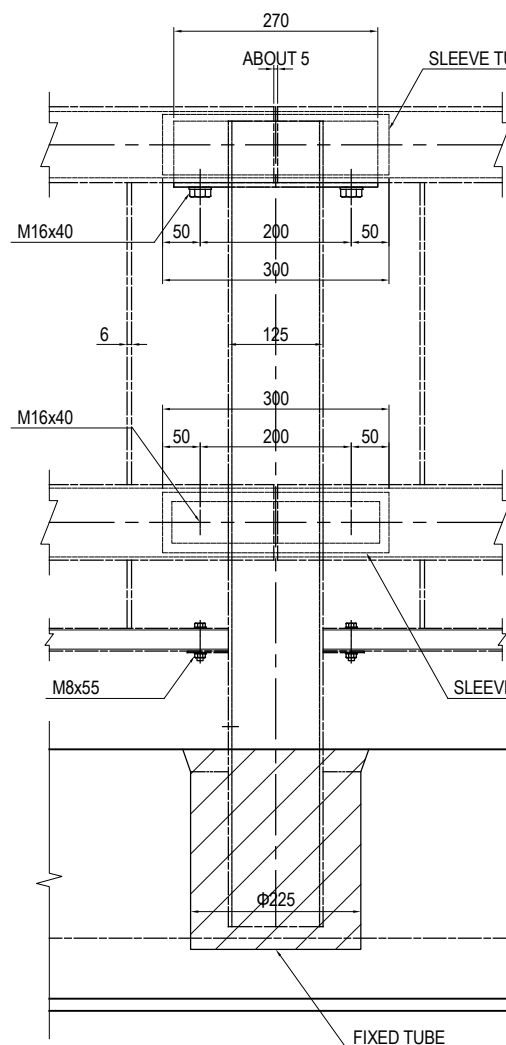
SECTION A-A S=1:30



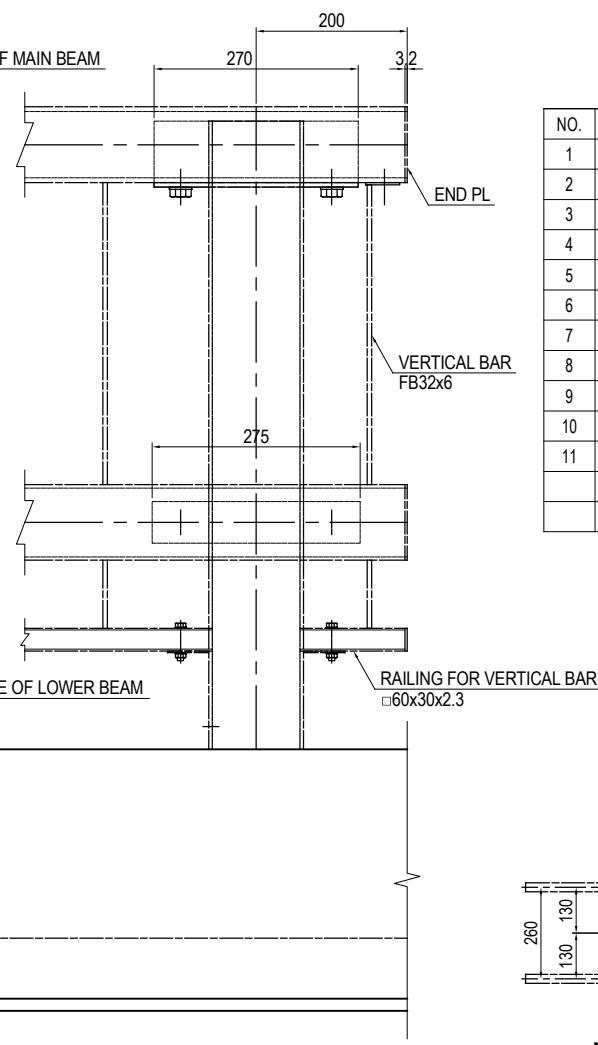
COMPOSITE BARRIER DETAIL S=1:10



JOINT DETAIL S=1:10



END POST DETAIL S=1:10



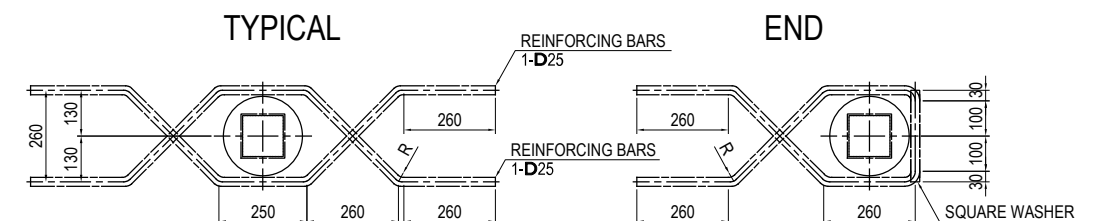
SUMMARY OF MEMBERS

NO.	MEMBER	SIZE DIMENSIONS	Q'TY	UNIT WEIGHT	WEIGHT PER UNIT	GROSS WEIGHT	MATERIAL	PAINTED AREA
1	POST	□125x125x4.5	5		20.69	103.5	STKR 400	2.7m ²
2	MAIN BEAM	□150x100x6.0	5	21.70	43.29	216.5	STKR 400	5.0m ²
3	LOWER BEAM	□100x100x4.5	5	13.10	26.13	130.7	STKR 400	4.0m ²
4	SLEEVE TUBE OF MAIN BEAM	L=300	5		6.51	32.6	SS400	
5	SLEEVE TUBE OF LOWER BEAM	L=300	5		3.71	18.6	SS400	
6	RAILING FOR VERTICAL BAR	□60x30x2.3	5	2.98	5.55	27.8	STKR 400	1.7m ²
7	VERTICAL BAR	FB32x6	10		0.89	53.4	SS400	2.6m ²
8	HEXAGON BOLT	M16x40	10		0.12	1.2	GRADE 8.8	
9	HEXAGON BOLT	M16x40	10		0.12	1.2	GRADE 6.8	
10	HEXAGON BOLT	M8x55	10		0.04	0.4	GRADE 4.6	
11	FIXED TUBE	Φ225	5		-	-	SPCC	
TOTAL						585.9		18.0m ²

PER 10m
MASS PER 1m 58.6kg/m
(EXCLUDING END SPAN)

MEMBER	SIZE DIMENSIONS	Q'TY	REMARKS
REINFORCING BAR (TYPICAL)	D25x1550	5528kg	SD345
REINFORCING BAR (END)	D25x1200	38kg	SD345

REINFORCING BARS DETAIL



NOTES:

1 - INSTALLATION OF REINFORCING BAR SHALL BE ADJUSTED IN ACCORDANCE WITH REINFORCING BAR ARRANGEMENT OF THE CONCRETE CURB.

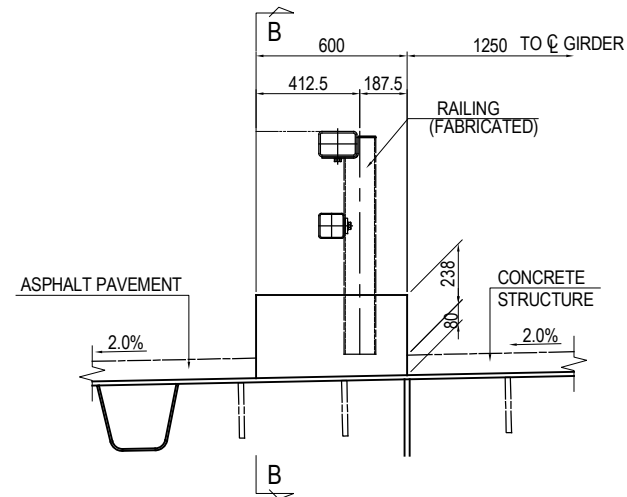
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	T.TOMODA	友田 智雄			27. Nov.2017
				CHECKED BY	T. HAYAKAWA	平川 知平			28. Nov.2017
				APPROVED BY	Y. SANO	佐野 祐一			29. Nov.2017
							DETAIL OF RAILING (1)	1	
								DWG No.	
								P1-CS-3052	

DETAIL OF RAILING (2)

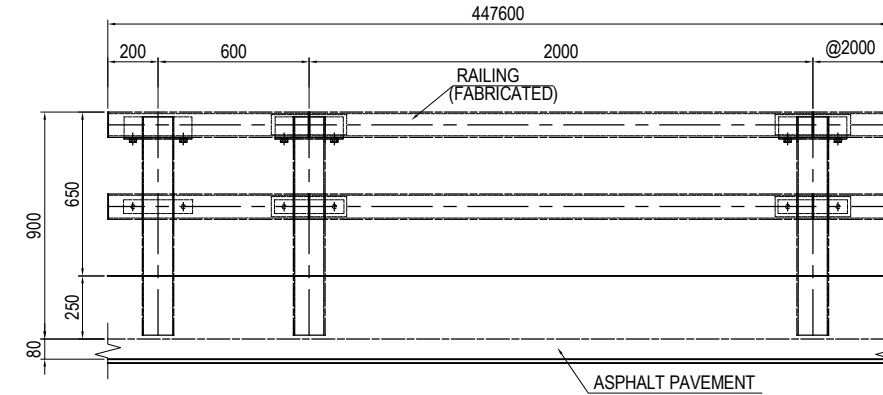
S=1:20

BARRIER FOR CARRIAGE WAY

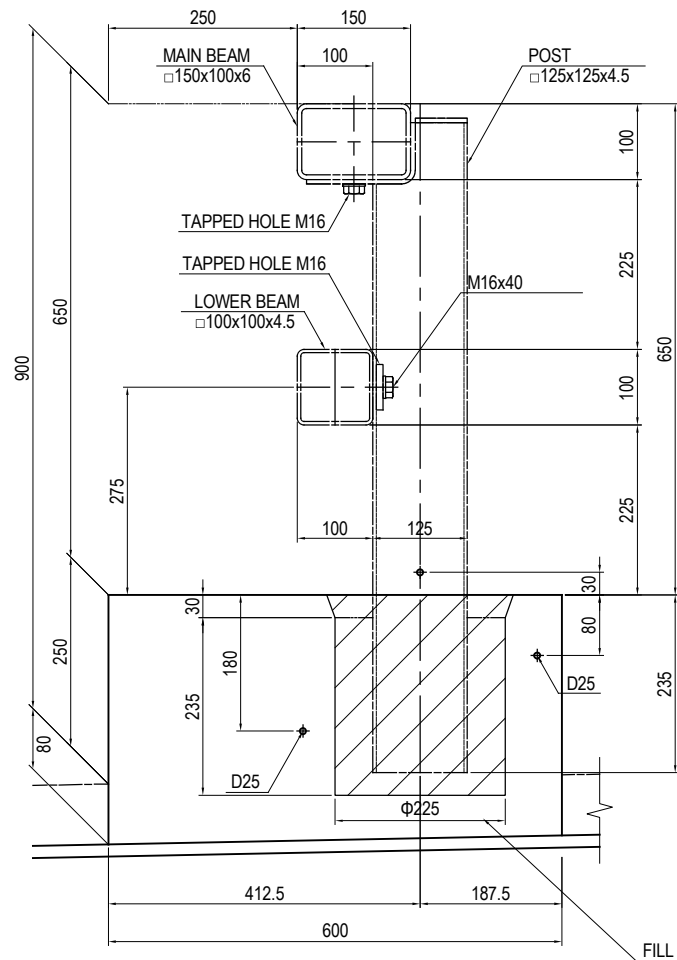
TYPICAL CROSS SECTION S=1:30



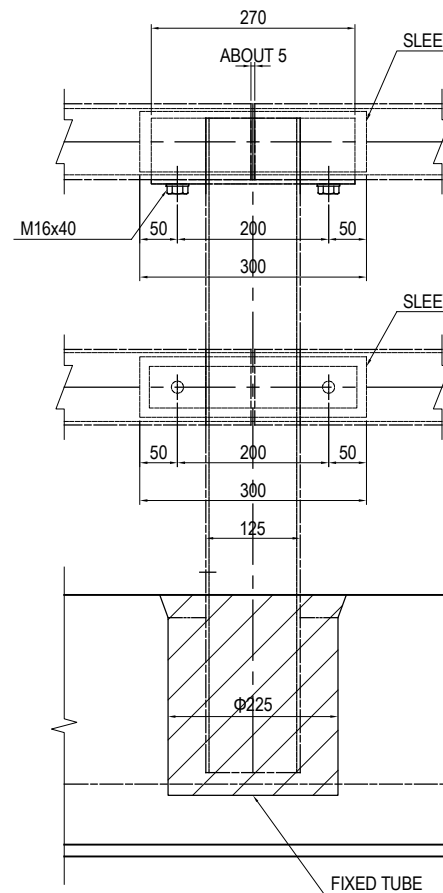
SECTION B-B S=1:30



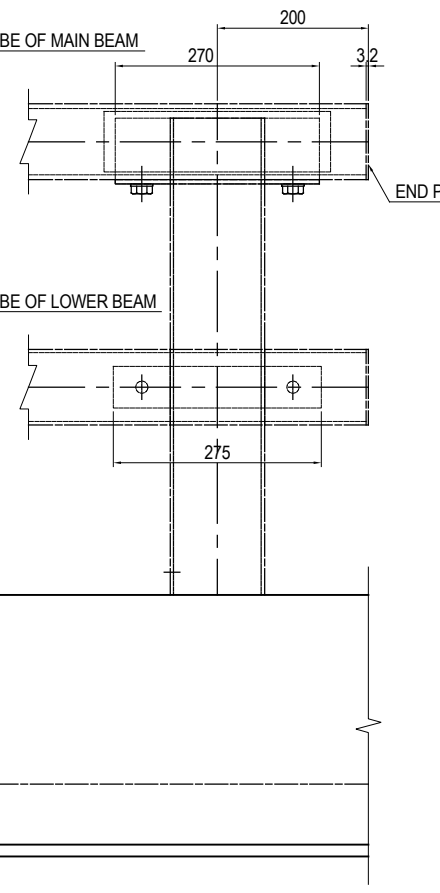
BARRIER FOR CARRIAGE WAY DETAIL S=1:10



JOINT DETAIL S=1:10



END POST DETAIL S=1:10



SUMMARY OF MEMBERS

NO.	MEMBER	SIZE DIMENSIONS	Q'TY	UNIT WEIGHT	WEIGHT PER UNIT	GROSS WEIGHT	MATERIAL	PAINTED AREA
1	POST	□125x125x4.5	5		17.40	67.0	STKR 400	2.2m ²
2	MAIN BEAM	□150x100x6.0	5	21.70	43.29	216.5	STKR 400	5.0m ²
3	LOWER BEAM	□100x100x4.5	5	13.10	26.13	130.7	STKR 400	4.0m ²
4	SLEEVE TUBE OF MAIN BEAM	L=300	5		6.51	32.6	SS400	
5	SLEEVE TUBE OF LOWER BEAM	L=300	5		3.71	18.6	SS400	
6	HEXAGON BOLT	M16x40	10		0.12	1.2	GRADE 8.8	
7	HEXAGON BOLT	M16x40	10		0.12	1.2	GRADE 6.8	
8	FIXED TUBE	Φ225	5		-	-	SPCC	
TOTAL						487.8		11.2m ²

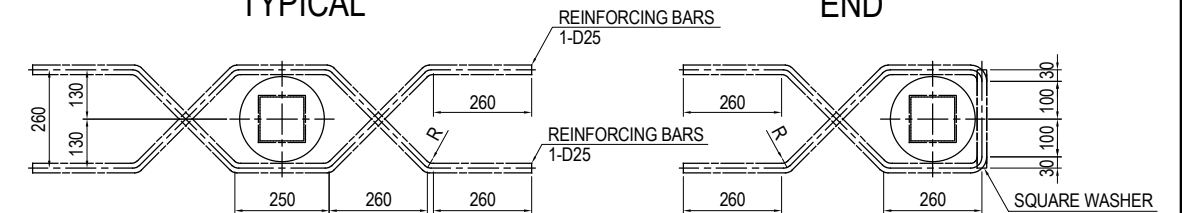
MASS PER 1m 48.8kg/m
(EXCLUDING END SPAN)

MEMBER	SIZE DIMENSIONS	Q'TY	REMARKS
REINFORCING BAR (TYPICAL)	D25x1550	5528kg	SD345
REINFORCING BAR (END)	D25x1200	38kg	SD345

REINFORCING BARS DETAIL

TYPICAL

END



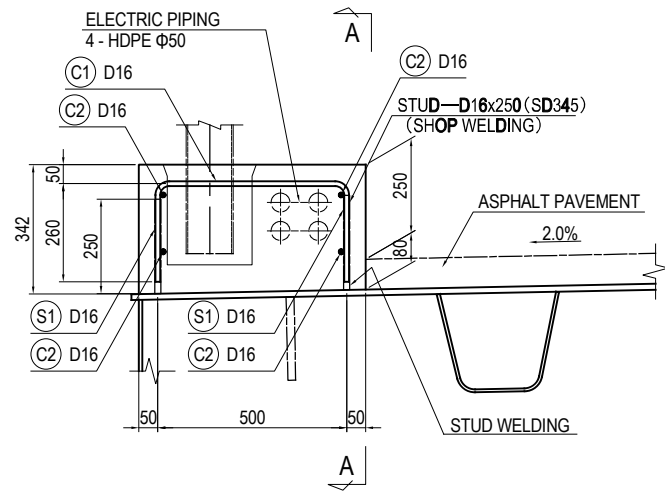
NOTES:

1 - INSTALLATION OF REINFORCING BAR SHALL BE ADJUSTED IN ACCORDANCE WITH REINFORCING BAR ARRANGEMENT OF THE CONCRETE CURB.

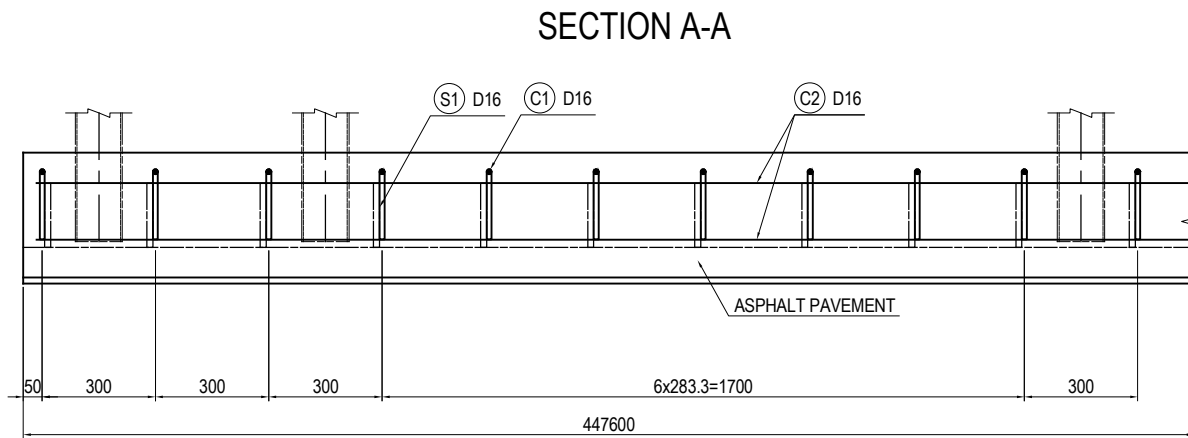
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	T. TOMODA	友田 隆雄	27. Nov. 2017	DETAIL OF RAILING (2)	1
				T. HAYAKAWA	平川 知平	28. Nov. 2017		DWG No.
				Y. SANO	佐野 祐一	29. Nov. 2017		P1-CS-3053

BRIDGE SURFACE WORK (1) S=1:20

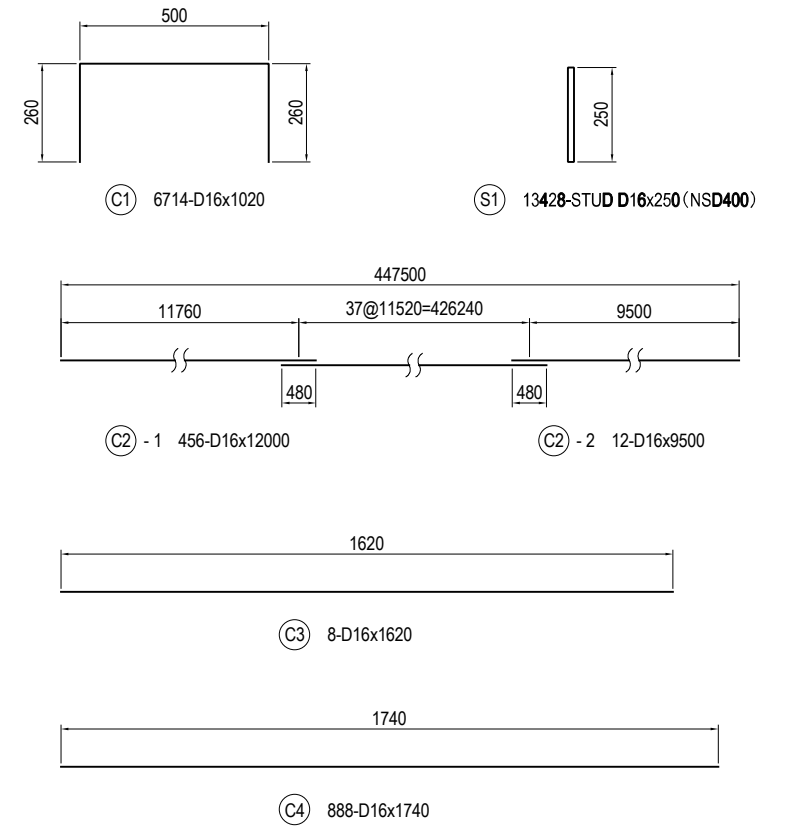
CROSS SECTION OF WHEEL GUARD



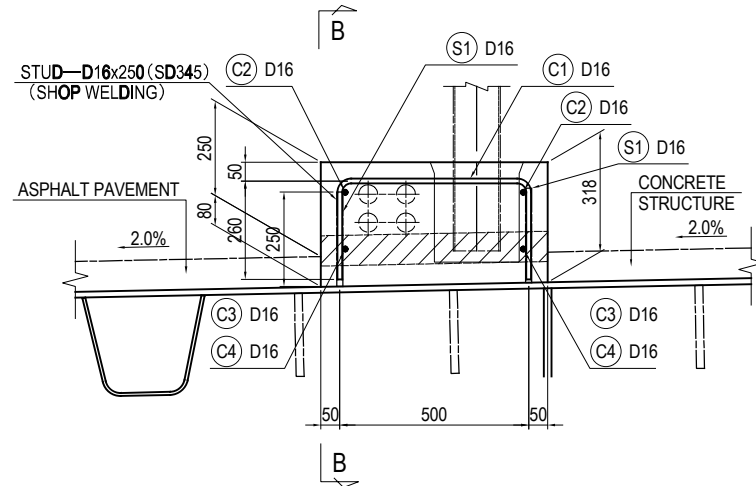
WHEEL GUARD DETAIL



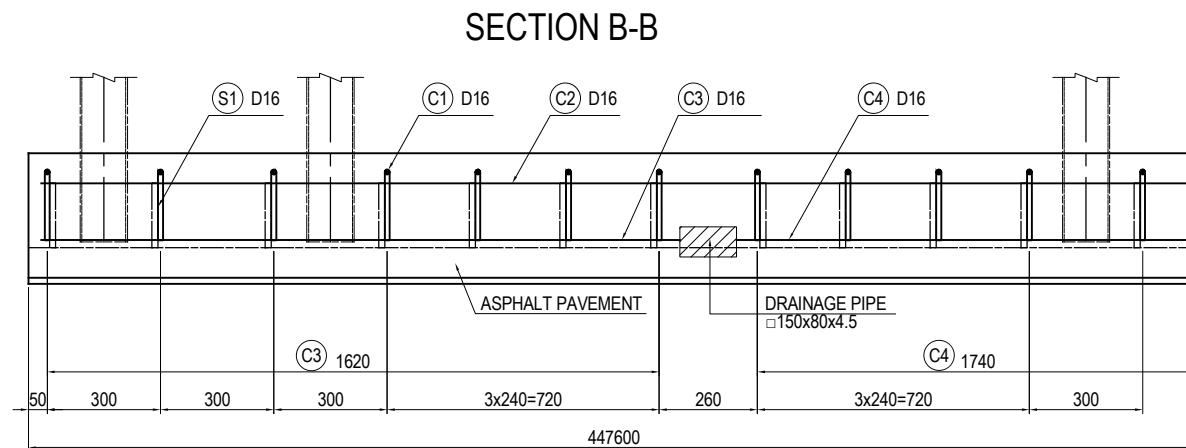
REINFORCING BAR BENDING SCHEDULE



CROSS SECTION OF MEDIAN STRIP



MEDIAN STRIP DETAIL



SUMMARY OF MEMBERS

MEMBER	Q'TY	REMARKS
REINFORCING BAR	21815kg	SD345
STUD	5237kg	SD345 FOR STUD WELDING
CONCRETE	354.5m ³	σ _{ck} =24N /mm ²
DRAINAGE PIPE	4068kg	□ 150x80x4.5x600(STKR400)

NOTES:

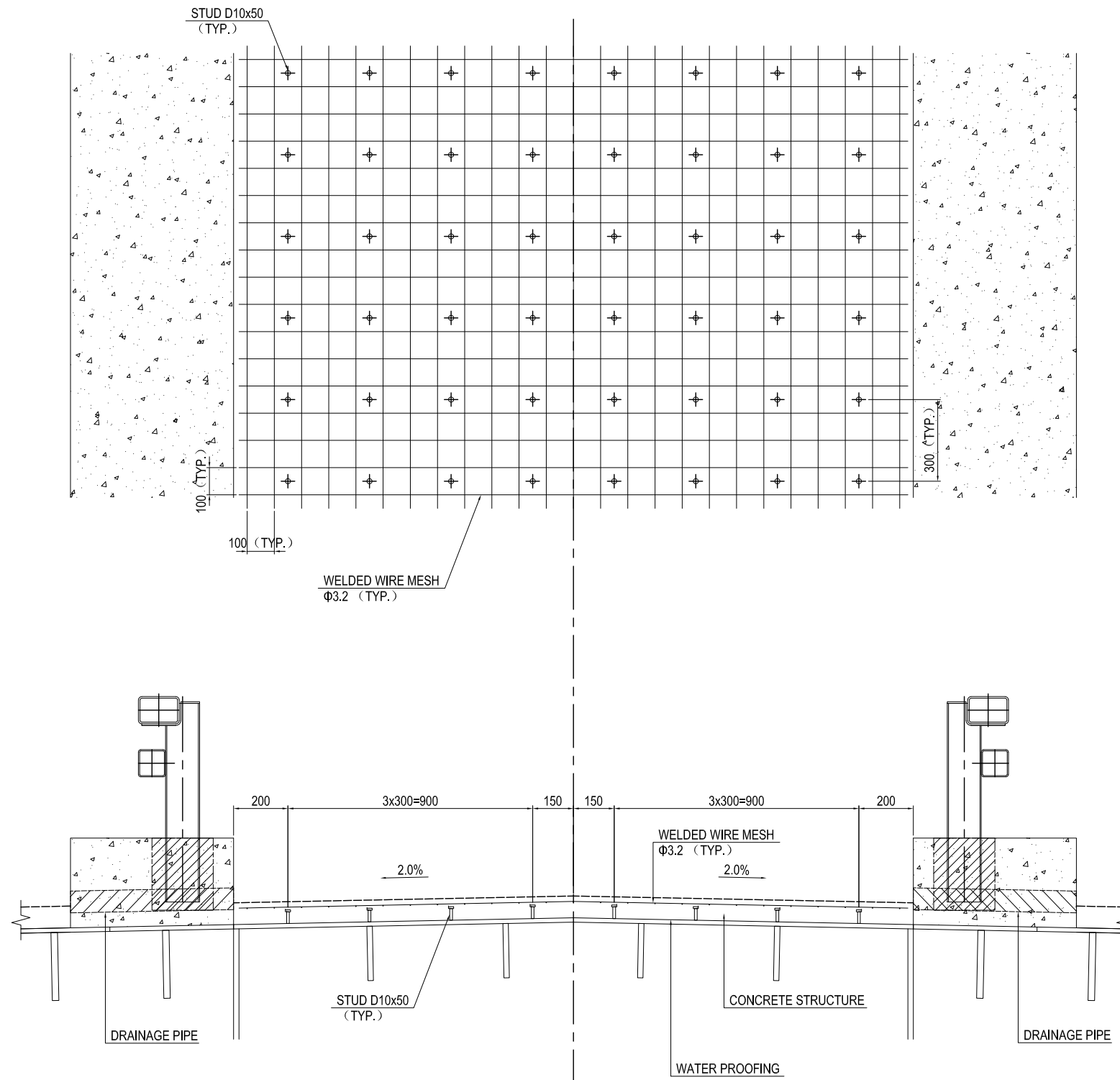
1 - STUD SHALL BE INSTALLED AND INCLUDED IN THE SCOPE OF FABRICATION OF STEEL GIRDER.

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 BRIDGE SURFACE WORK (1)	PACKAGE	
				PREPARED BY	T.TOMODA	友田 智雄		27. Nov.2017	1
				CHECKED BY	T. HAYAKAWA	平川 知平		28. Nov.2017	DWG No.
				APPROVED BY	Y. SANO	佐野 祐一		29. Nov.2017	P1-CS-3054

BRIDGE SURFACE WORK (2) S=1:20

CONCRETE STRUCTURE

SYMM. ABT ϕ GIRDER



SUMMARY OF MEMBERS

MEMBER	Q'TY	REMARKS
CONCRETE	89.2m3	$\sigma_{ck}=24N/mm^2$
STUD	334kg	SD345 FOR STUD WELDING
WELDED WIRE MESH	1115 m2	$\Phi 3.2$
WATER PROOFING AT MEDIAN	1115 m2	

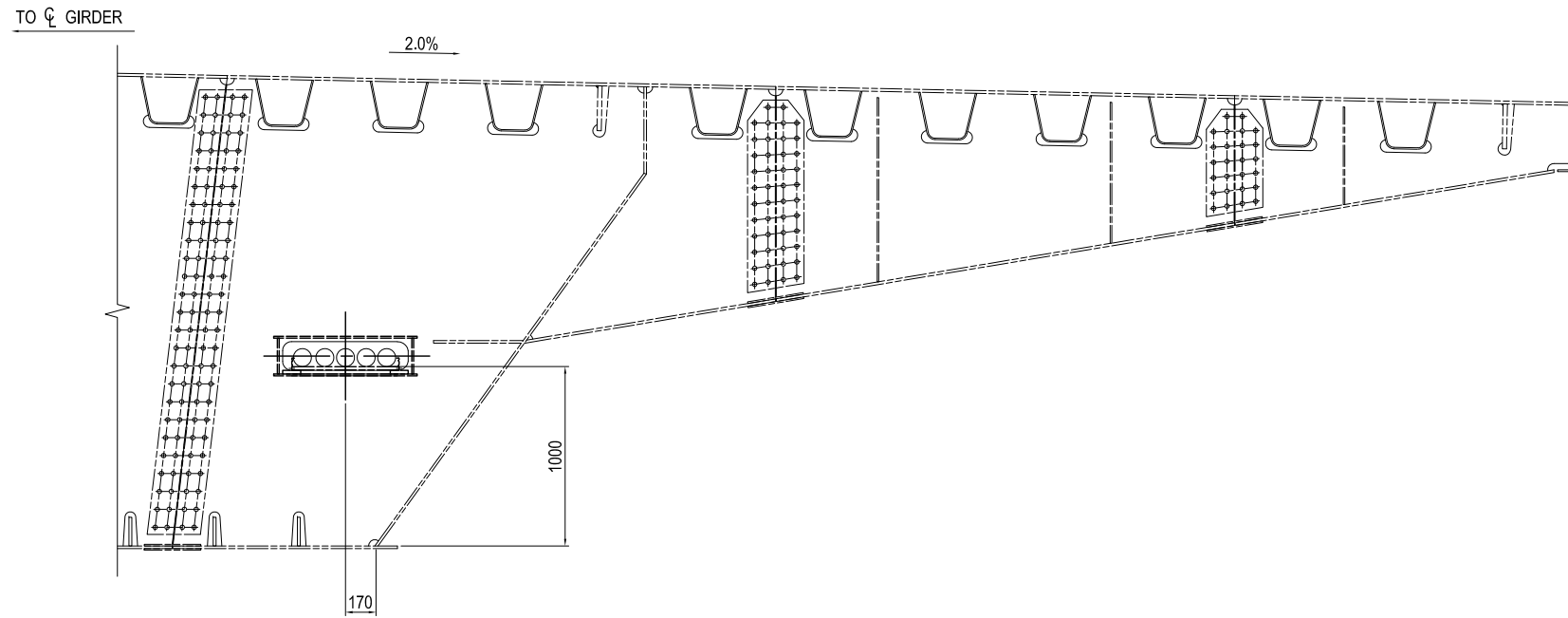
NOTES:

- 1 - DRAINAGE PIPE SHALL BE INSTALLED WHEN CONSTRUCTING CONCRETE CURB.
- 2 - STUD SHALL BE INSTALLED AND INCLUDED IN THE SCOPE OF FABRICATION OF STEEL GIRDER.

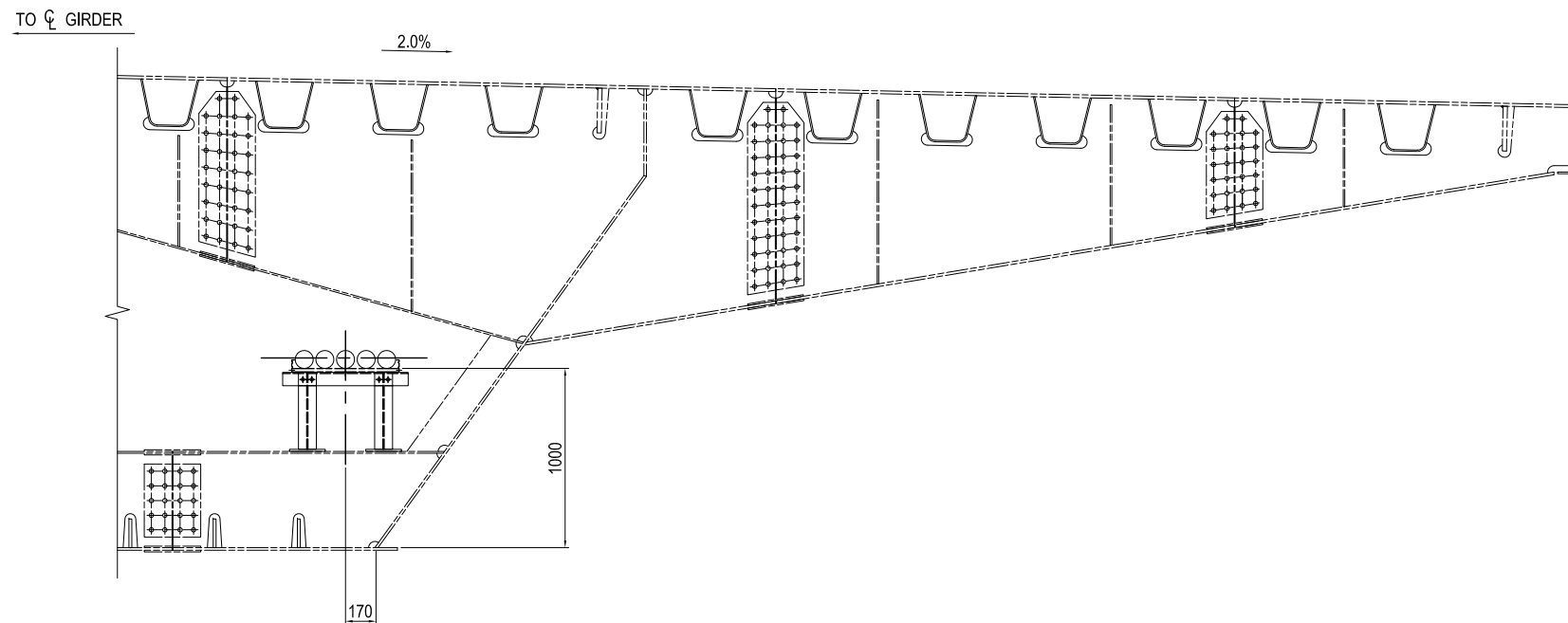
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	T.TOMODA				27. Nov.2017
				CHECKED BY	T. HAYAKAWA				28. Nov.2017
				APPROVED BY	Y. SANO				29. Nov.2017
							BRIDGE SURFACE WORK (2)	1	
								DWG No.	
								P1-CS-3055	

CABLE RACK SUPPORT S=1:40

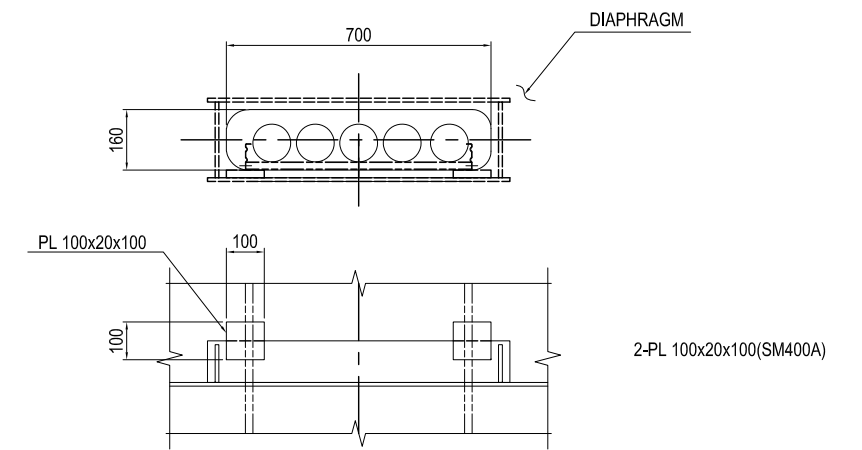
DIAPHRAGM & CROSS BEAM TYPICAL SECTION



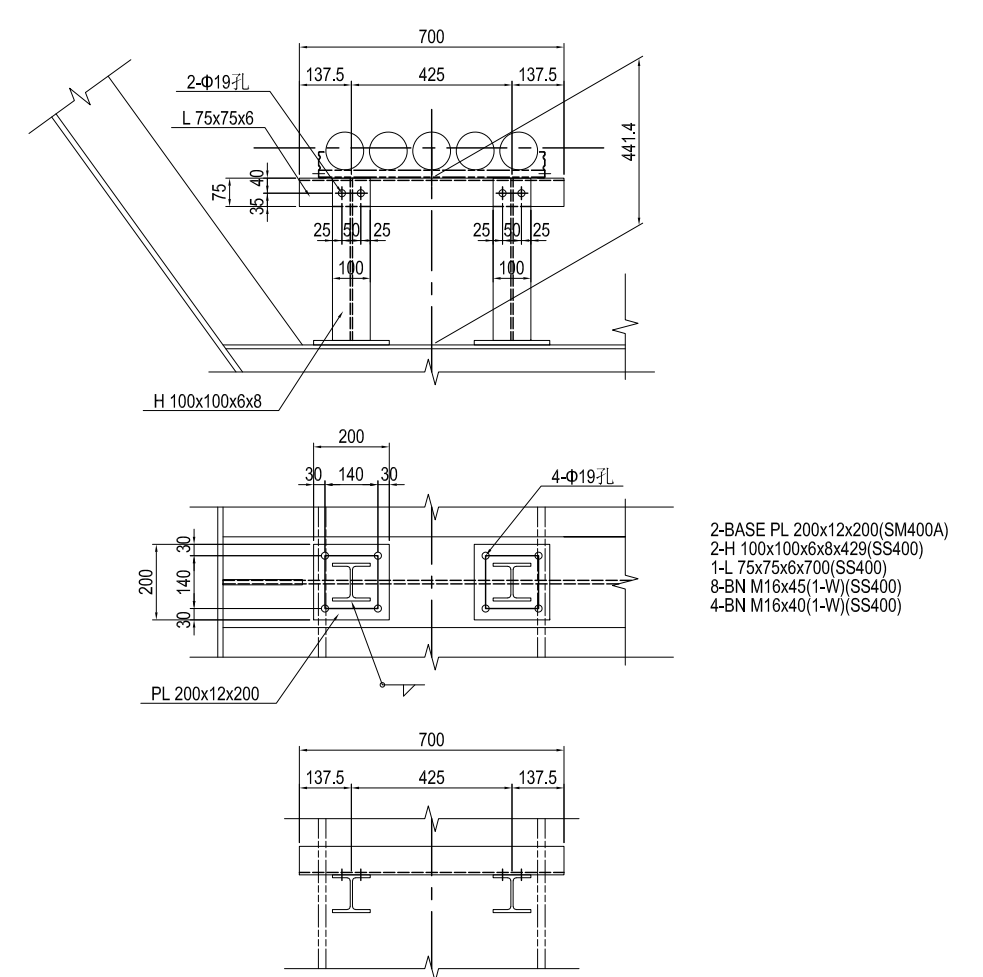
CROSSFRAME TYPICAL SECTION



DIAPHRAGM & CROSS BEAM S=1:20 (Qty = 106)



CROSSFRAME S=1:20 (Qty = 97)



NOTES:

- 1 - HOT-DIP GALVANIZED COATING OVER 550g/m², 350g/m² (FOR BOLT, WASHER & NUT AND MEMBERS WITH A THICKNESS OF LESS THAN 3.2mm)
- 2 - A STEEL MEMBER WHICH IS WELDED TO GIRDER OR TOWER SHALL BE PAINTED (NOT GALVANIZED COATING).

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA 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.	T.TOMODA	友田 隆雄	27. Nov.2017	CABLE RACK SUPPORT	1
				T. HAYAKAWA	平川 知那	28. Nov.2017		DWG No.
				Y. SANO	佐野 祐一	29. Nov.2017		P1-CS-3056

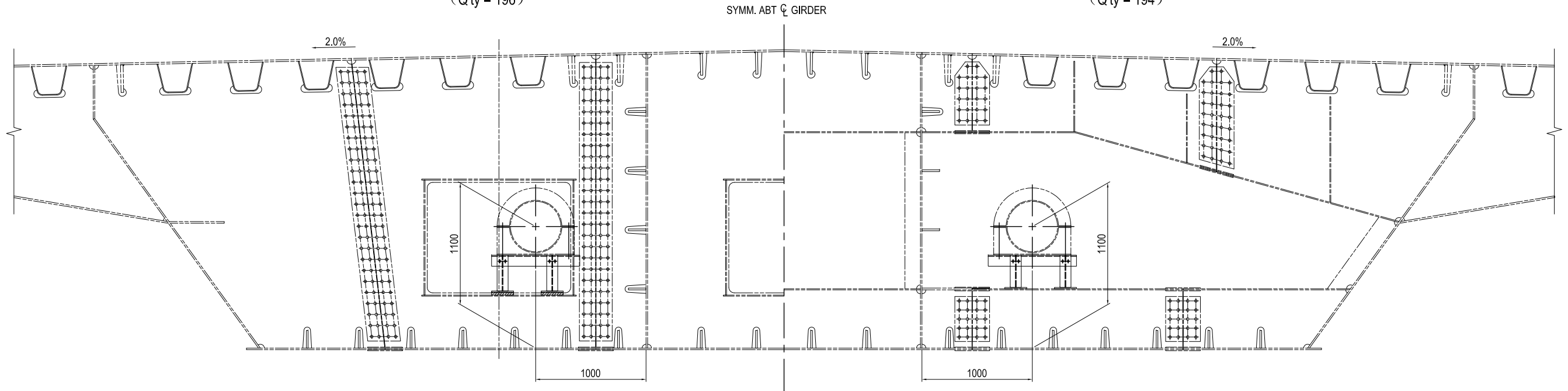
WATER PIPE SUPPORT (1) S=1:40

DIAPHRAGM HALF SECTION

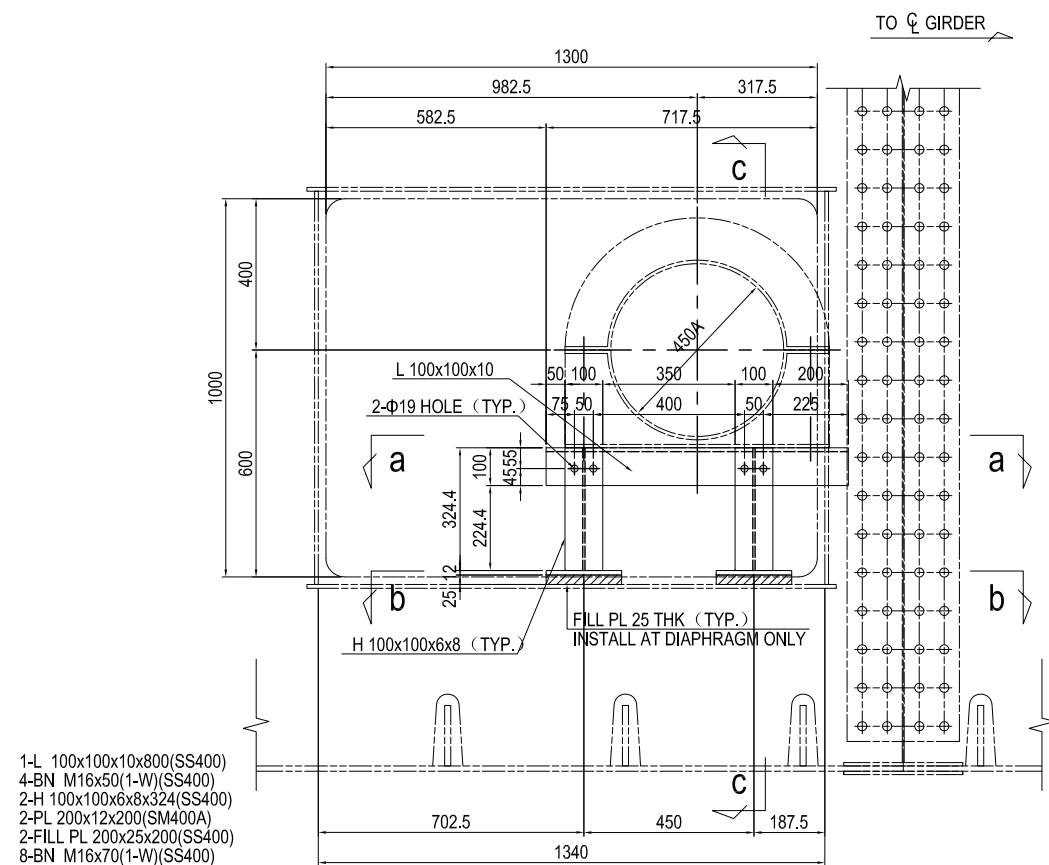
TYPICAL SECTION
(Q'ty = 196)

CROSSFRAME HALF SECTION

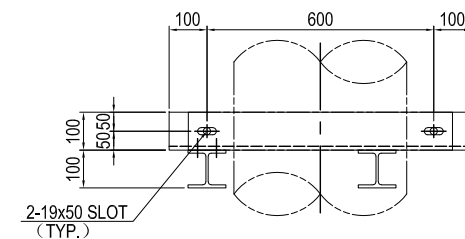
TYPICAL SECTION
(Q'ty = 194)



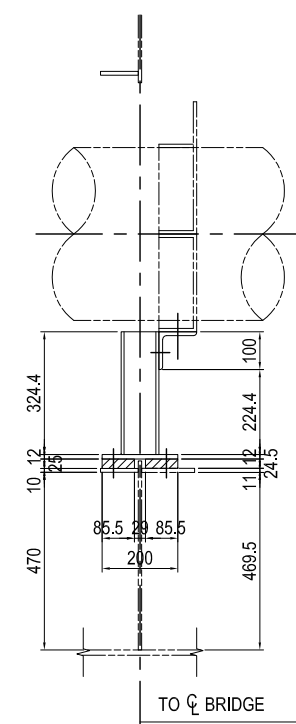
WATER PIPE SUPPORT DETAIL S=1:20



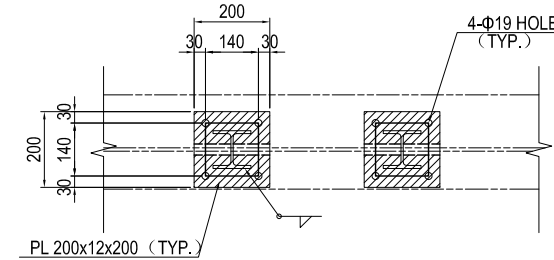
SECTION a-a S=1:20



SECTION c-c S=1:20



SECTION b-b S=1:20



NOTES:

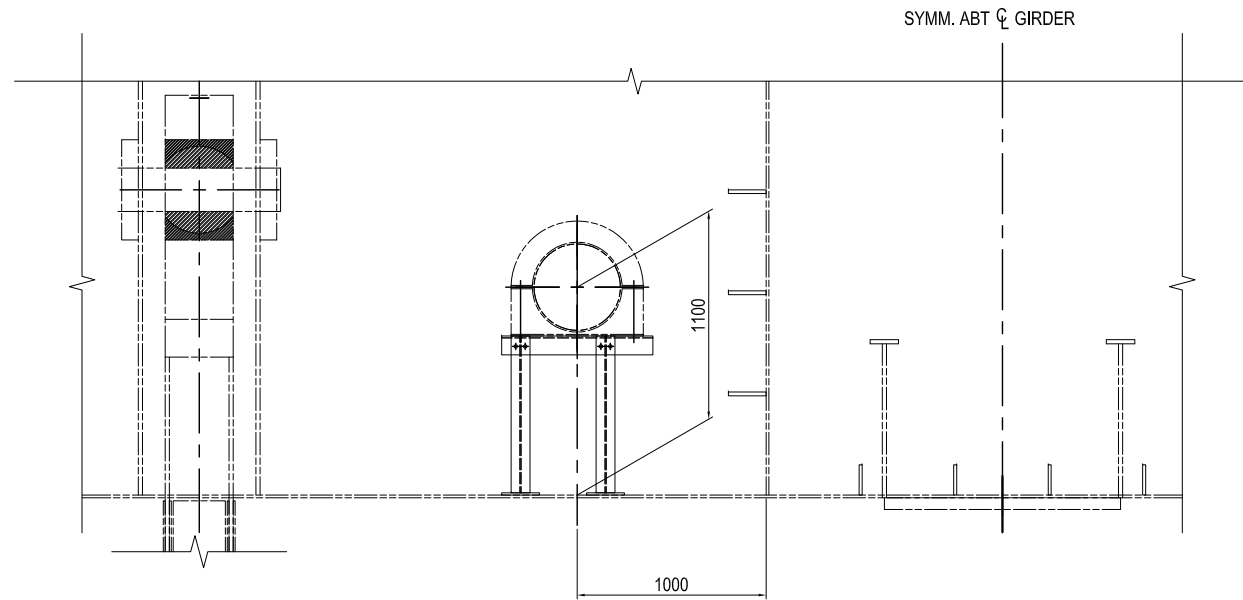
- 1 - FOR LOCATION SEE DWG NO. P1-CS-3031 TO 3033.
- 2 - HOT-DIP GALVANIZED COATING OVER 550g/m², 350g/m² (FOR BOLT, WASHER & NUT AND MEMBERS WITH A THICKNESS OF LESS THAN 3.2mm)
- 3 - A STEEL MEMBER WHICH IS WELDED TO GIRDER OR TOWER SHALL BE PAINTED (NOT GALVANIZED COATING).

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.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">NAME</th> <th style="width: 10%;">SIGNATURE</th> <th style="width: 10%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY</td> <td>T.TOMODA</td> <td>27. Nov.2017</td> </tr> <tr> <td>CHECKED BY</td> <td>T. HAYAKAWA</td> <td>28. Nov.2017</td> </tr> <tr> <td>APPROVED BY</td> <td>Y. SANO</td> <td>29. Nov.2017</td> </tr> </tbody> </table>	NAME	SIGNATURE	DATE	PREPARED BY	T.TOMODA	27. Nov.2017	CHECKED BY	T. HAYAKAWA	28. Nov.2017	APPROVED BY	Y. SANO	29. Nov.2017	DRAWING TITLE <h2 style="text-align: center;">WATER PIPE SUPPORT (1)</h2>	PACKAGE 1 DWG No. P1-CS-3057
NAME	SIGNATURE	DATE																
PREPARED BY	T.TOMODA	27. Nov.2017																
CHECKED BY	T. HAYAKAWA	28. Nov.2017																
APPROVED BY	Y. SANO	29. Nov.2017																

WATER PIPE SUPPORT (2) S=1:40

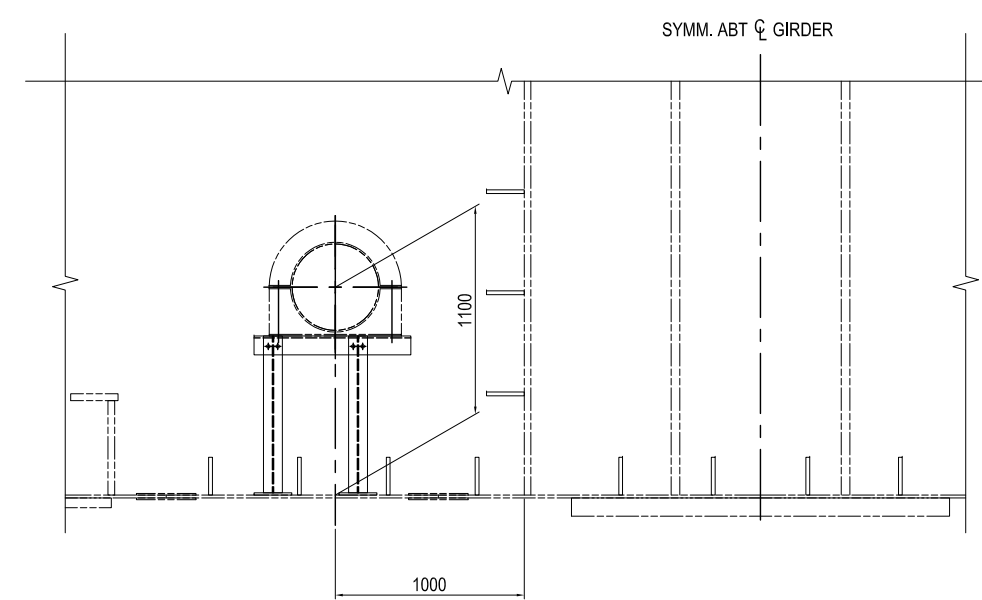
END CROSS BEAM SECTION

(Q'ty = 8)



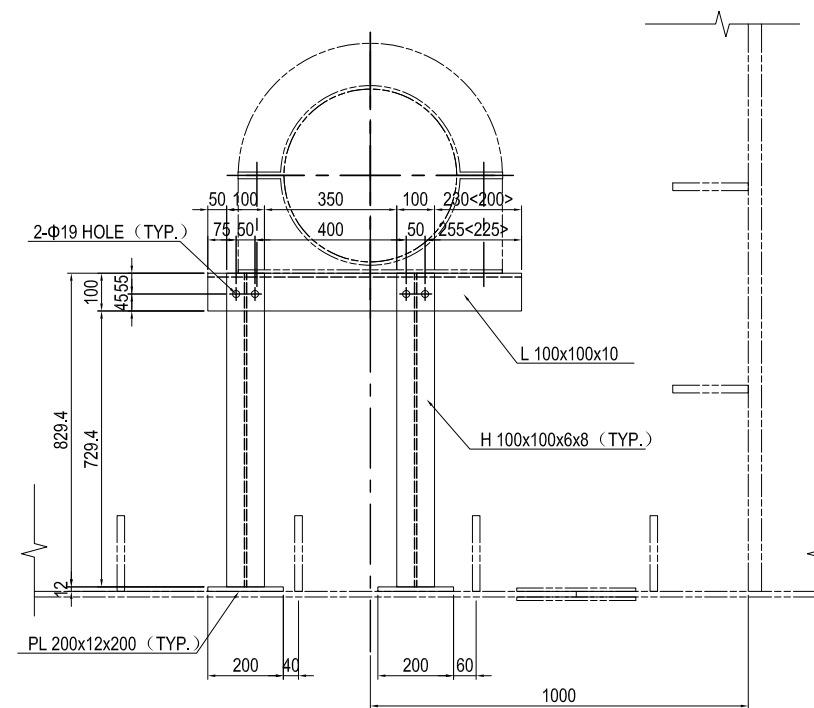
MIDDLE CROSS BEAM SECTION

(Q'ty = 8)



WATER PIPE SUPPORT DETAIL S=1:20

END CROSS BEAM <MIDDLE CROSS BEAM>



- 1-L 100x100x10x800<830>(SS400)
- 4-BN M16x50(1-W)(SS400)
- 2-H 100x100x6x8x829(SS400)
- 2-PL 200x12x200(SM400A)
- 8-BN M16x50(1-W)(SS400)

NOTES:

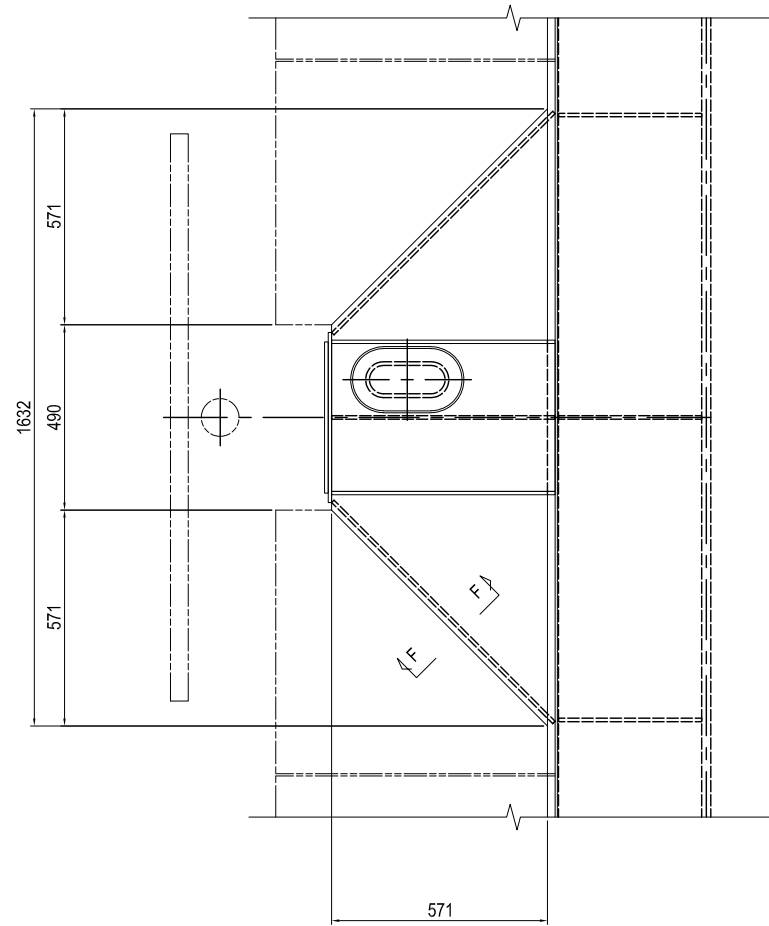
- 1 - UNLESS NOTED OTHERWISE, SEE DWG NO. P1-CS-3057.
- 2 - HOT-DIP GALVANIZED COATING OVER 550g/m², 350g/m² (FOR BOLT, WASHER & NUT AND MEMBERS WITH A THICKNESS OF LESS THAN 3.2mm)
- 3 - A STEEL MEMBER WHICH IS WELDED TO GIRDER OR TOWER SHALL BE PAINTED (NOT GALVANIZED COATING).

<small>PROJECT NAME</small> DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	<small>FINANCED BY</small> JAPAN INTERNATIONAL COOPERATION AGENCY	<small>COUNTERPART</small> REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	<small>JICA STUDY TEAM</small> NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 15%;">NAME</th> <th style="width: 15%;">SIGNATURE</th> <th style="width: 15%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY</td> <td>T.TOMODA</td> <td></td> <td>27. Nov.2017</td> </tr> <tr> <td>CHECKED BY</td> <td>T. HAYAKAWA</td> <td></td> <td>28. Nov.2017</td> </tr> <tr> <td>APPROVED BY</td> <td>Y. SANO</td> <td></td> <td>29. Nov.2017</td> </tr> </tbody> </table>		NAME	SIGNATURE	DATE	PREPARED BY	T.TOMODA		27. Nov.2017	CHECKED BY	T. HAYAKAWA		28. Nov.2017	APPROVED BY	Y. SANO		29. Nov.2017	<small>DRAWING TITLE</small> WATER PIPE SUPPORT (2)	<small>PACKAGE</small> 1 <small>DWG No.</small> P1-CS-3058
	NAME	SIGNATURE	DATE																			
PREPARED BY	T.TOMODA		27. Nov.2017																			
CHECKED BY	T. HAYAKAWA		28. Nov.2017																			
APPROVED BY	Y. SANO		29. Nov.2017																			

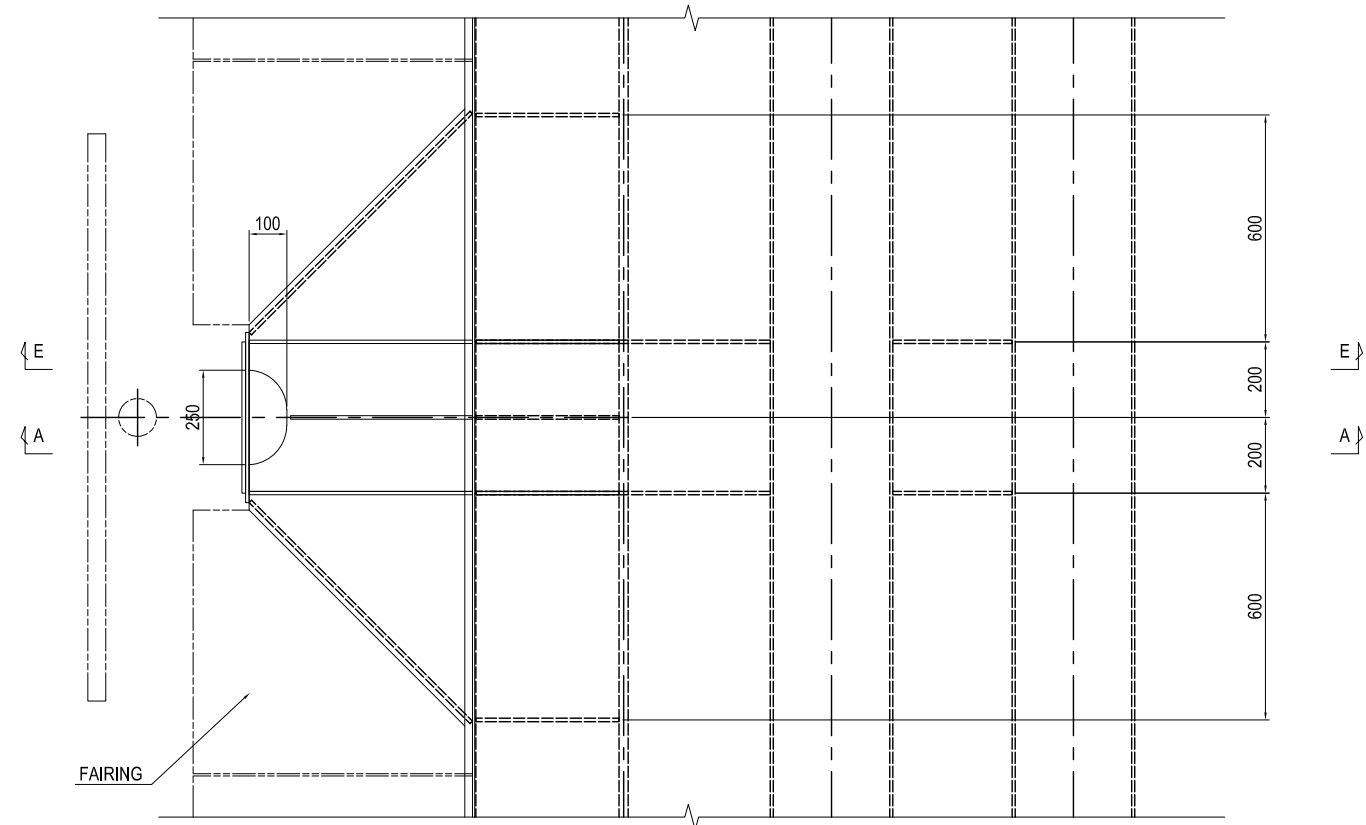
NAVIGATION SIGN & LIGHT (1)

S=1:20

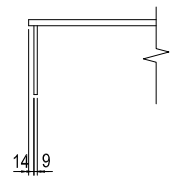
SECTION C-C



SECTION D-D



SECTION F-F



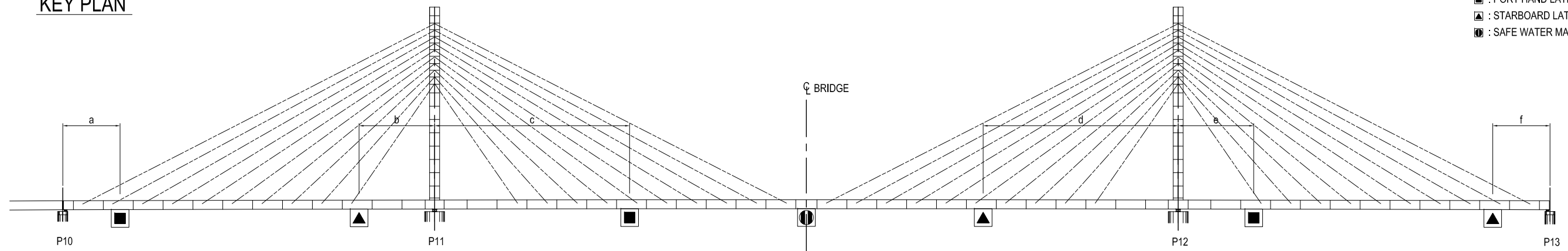
NOTES:

- 1 - SEE THE ELECTRICAL DRAWING FOR DETAILS ON NAVIGATION LIGHTS.

LEGENDS:

- : PORT HAND LATERAL MARK
- ▲ : STARBOARD LATERAL MARK
- ◻ : SAFE WATER MARK

KEY PLAN

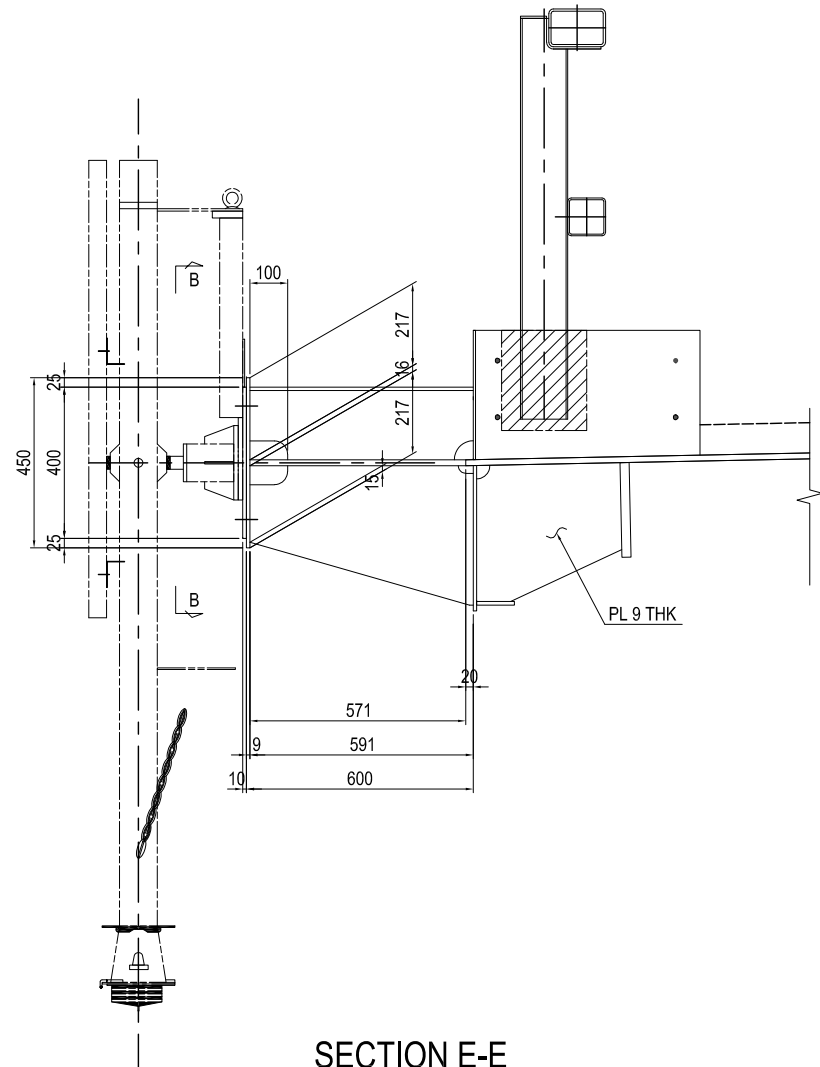


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	T.TOMODA				27. Nov.2017
				CHECKED BY	T. HAYAKAWA				28. Nov.2017
				APPROVED BY	Y. SANO				29. Nov.2017
NAVIGATION SIGN & LIGHT (1)							1	DWG No. P1-CS-3059	

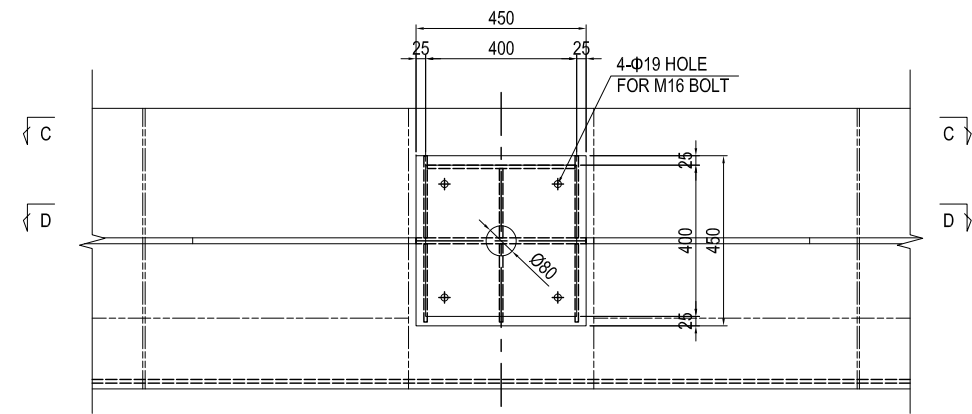
NAVIGATION SIGN & LIGHT (2)

S=1:20

SECTION A-A

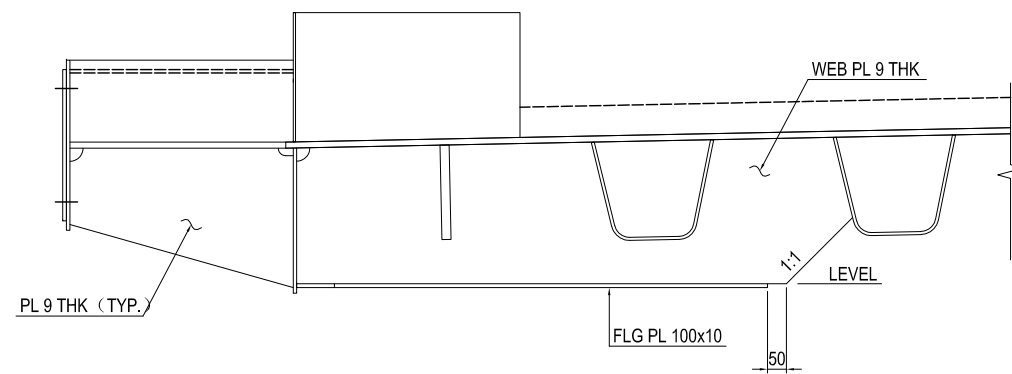


SECTION B-B



- 1-DECK PL 571x16x1632(SM400A)
- 1-TOP PL 391x9x591(SM400A)
- 1-RIB PL 183x9x591(SM400A)
- 2-RIB PL 217x9x591(SM400A)
- 3-RIB PL 369x9x591(SM400A)
- 1-RIB PL 367x9x384(SM400A)
- 2-WEB PL 388x9x1471(SM400A)
- 2-FLG PL 100x10x1146(SM400A)
- 2-RIB PL 182x9x827(SM400A)
- 1-BASE PL 450x9x450(SM400A)
- 1-BASE PL 400x10x400(SM400A)

SECTION E-E

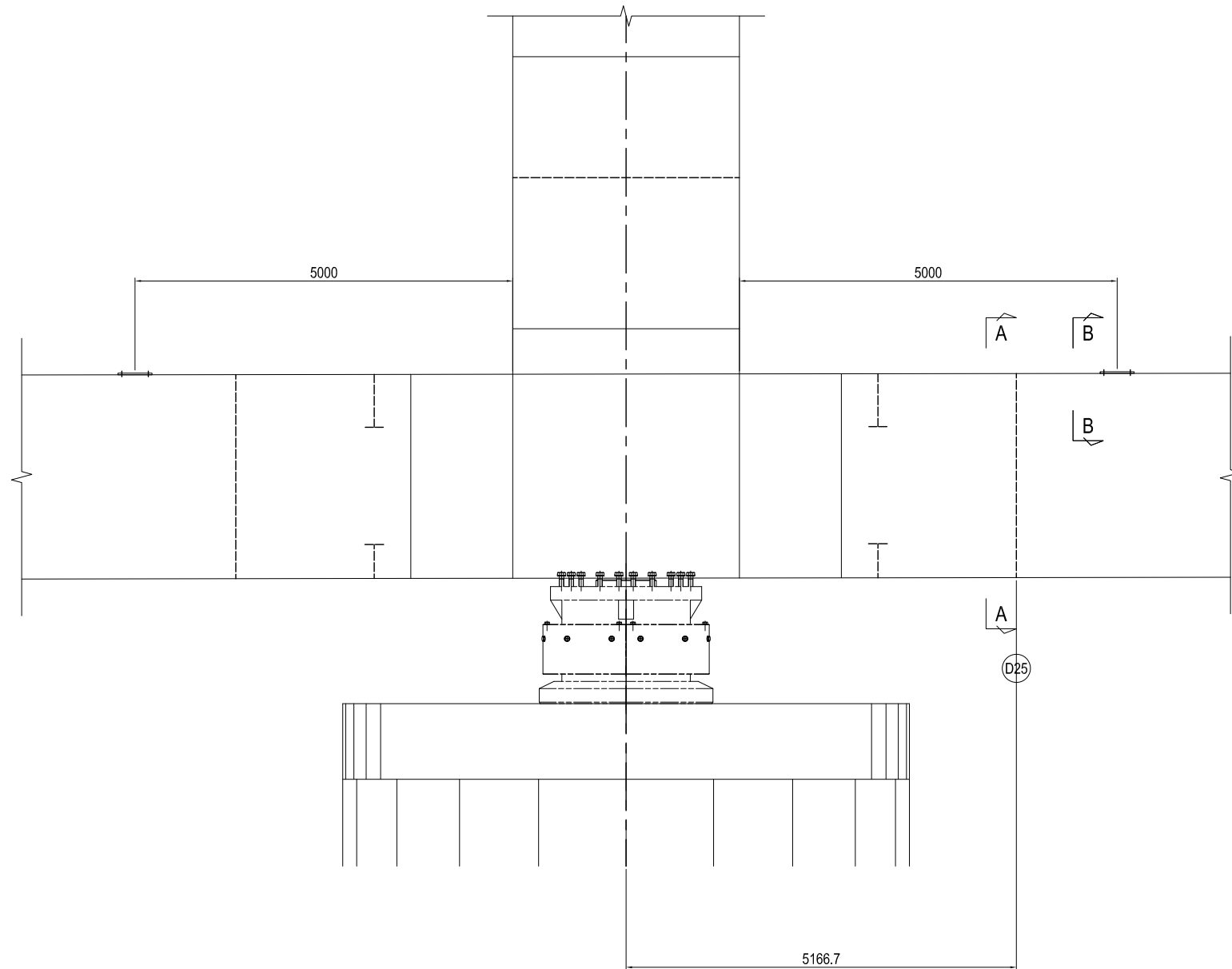


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	PREPARED BY	T.TOMODA	友田 智雄 27. Nov.2017	NAVIGATION SIGN & LIGHT (2)	1
				CHECKED BY	T. HAYAKAWA	平川 知那 28. Nov.2017		DWG No.
				APPROVED BY	Y. SANO	佐野 祐一 29. Nov.2017		P1-CS-3060

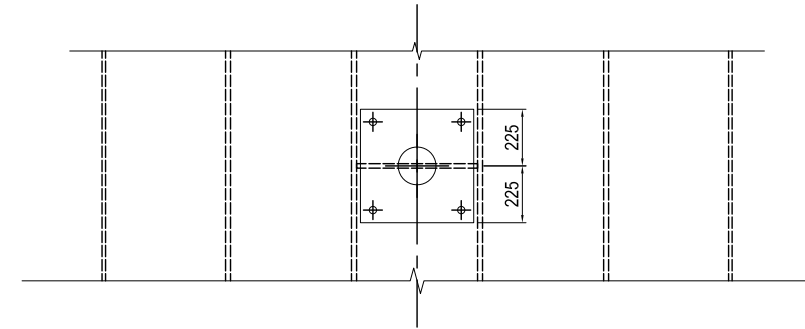
LIGHT-UP SYSTEM (1)

S=1:80

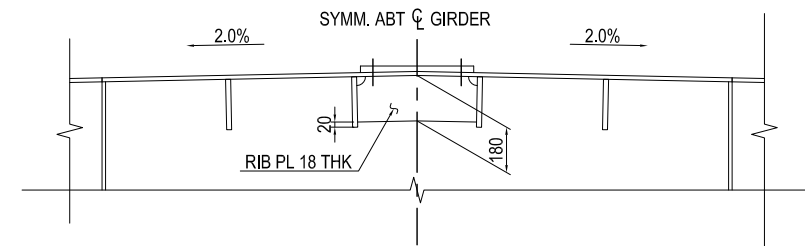
FOR MAIN TOWER



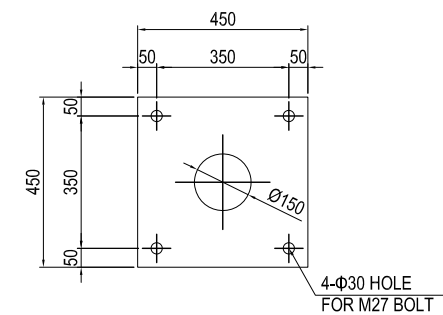
PLAN VIEW FOR TOP OF DECK PL S=1:30



SECTION B-B S=1:30

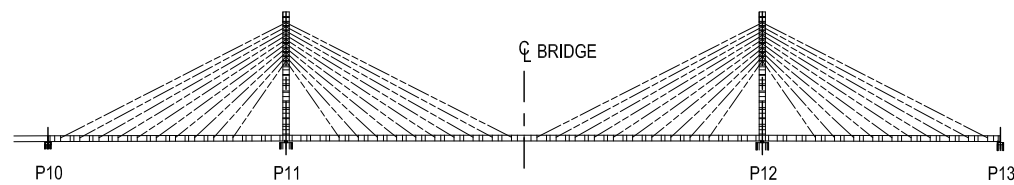


BASE PL S=1:20



1-BASE PL 450x27x450(SM400A)
1-RIB PL 180x18x480(SM400A)

KEY PLAN



NOTES:

- 1 - SEE THE ELECTRICAL DRAWING FOR DETAILS ON LIGHT-UP SYSTEM.
- 2 - ADJUST VARIOUS FORMS OF THE BASE PL ACCORDING TO THE ELECTRICAL EQUIPMENT INSTALLED.

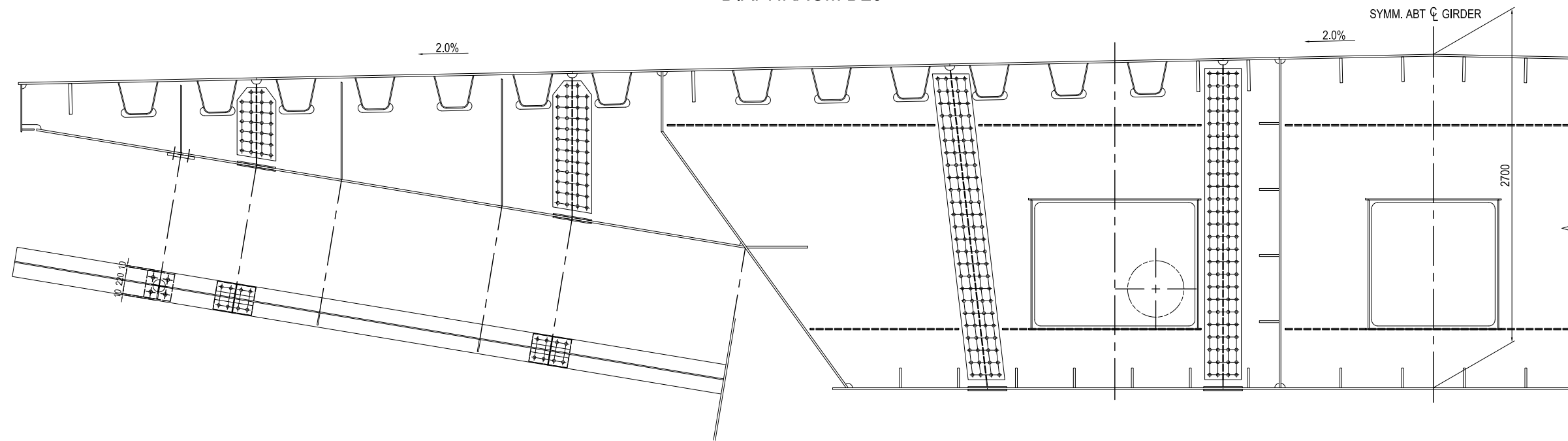
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	T. TOMODA	友田 隆雄	27. Nov. 2017	LIGHT-UP SYSTEM (1)	1
				T. HAYAKAWA	平川 知平	28. Nov. 2017		DWG No.
				Y. SANO	佐野 祐一	29. Nov. 2017		P1-CS-3061

LIGHT-UP SYSTEM (2)

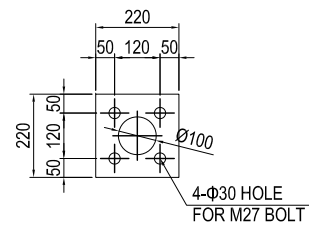
S=1:40

FOR PIER

SECTION A-A DIAPHRAGM D25



BASE PL S=1:20



1-BASE PL 220x22x220(SM400A)

NOTES:

- 1 - SEE THE ELECTRICAL DRAWING FOR DETAILS ON LIGHT-UP SYSTEM.
- 2 - ADJUST VARIOUS FORMS OF THE BASE PL ACCORDING TO THE ELECTRICAL EQUIPMENT INSTALLED.

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	T.TOMODA				27. Nov.2017
				CHECKED BY	T. HAYAKAWA				28. Nov.2017
				APPROVED BY	Y. SANO				29. Nov.2017
							LIGHT-UP SYSTEM (2)	1	
								DWG No.	
								P1-CS-3062	

MAIN TOWER ANCILLARY WORKS LAYOUT S=1:300

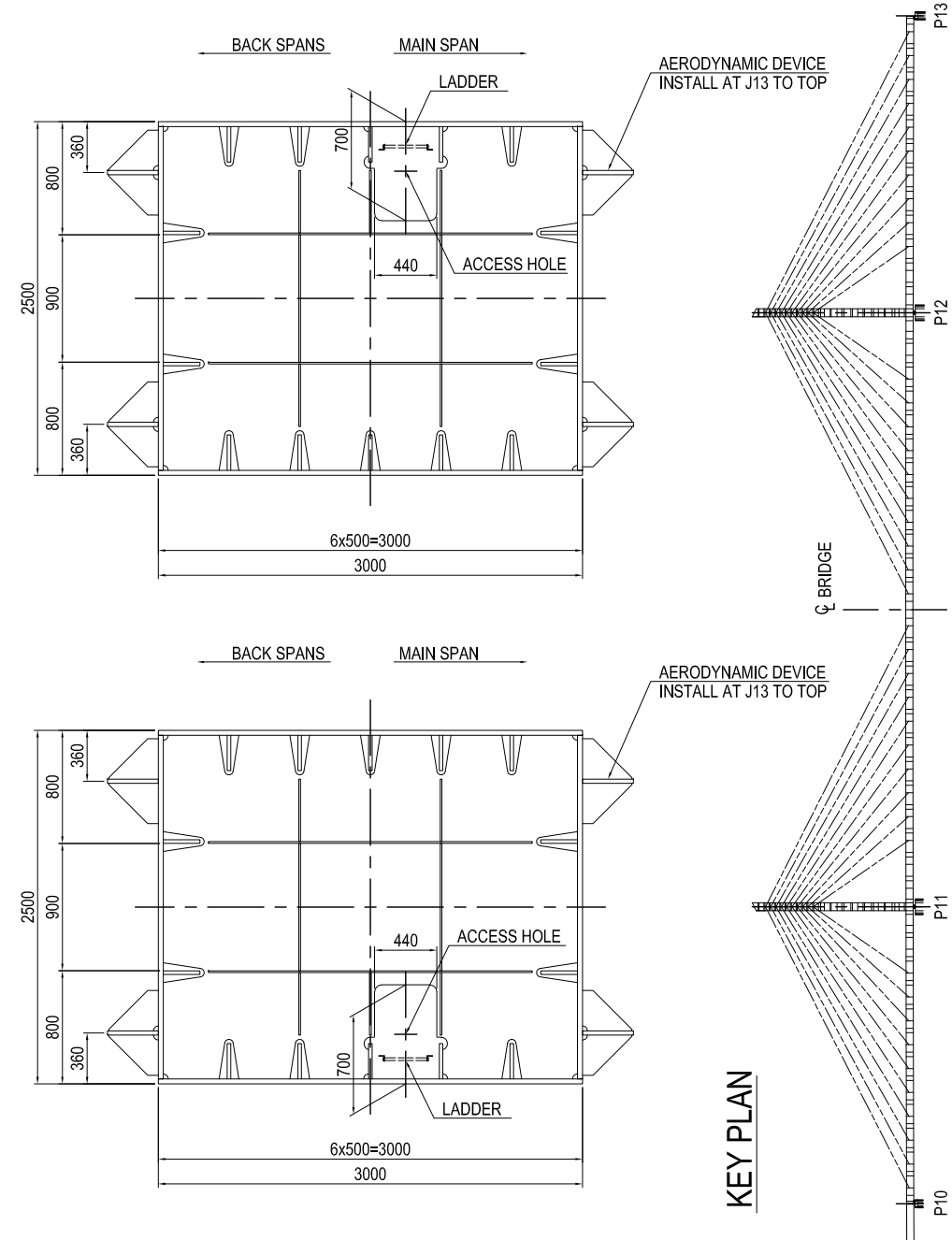
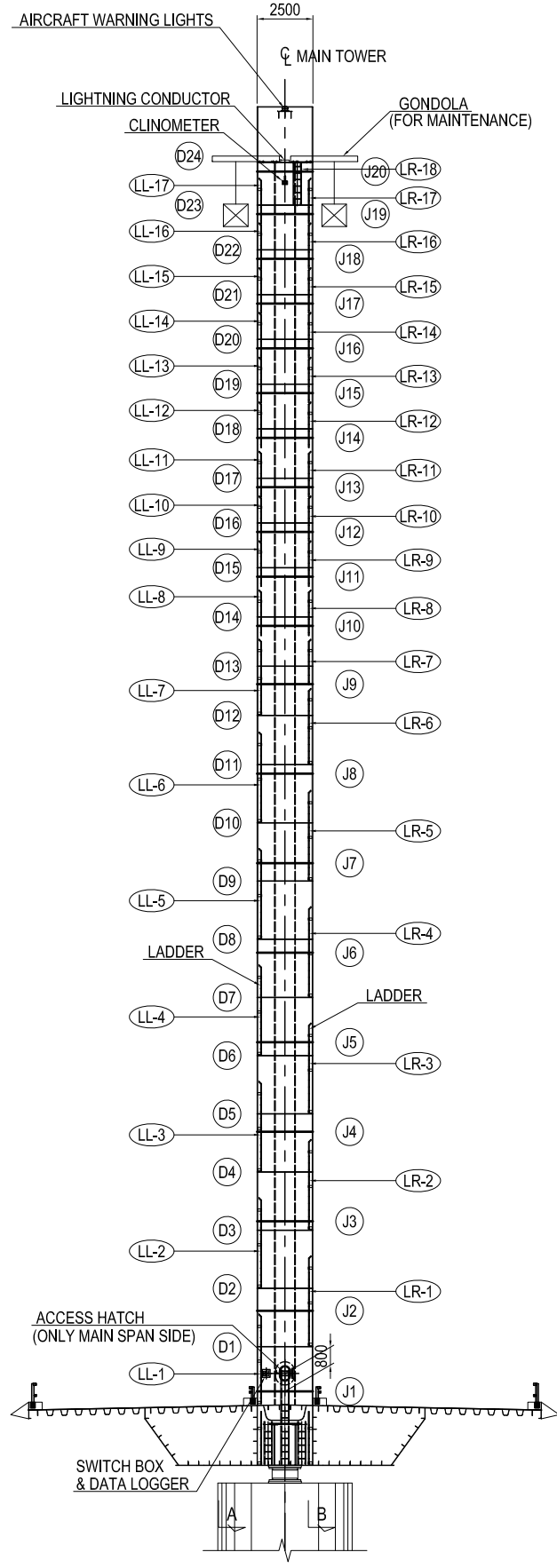
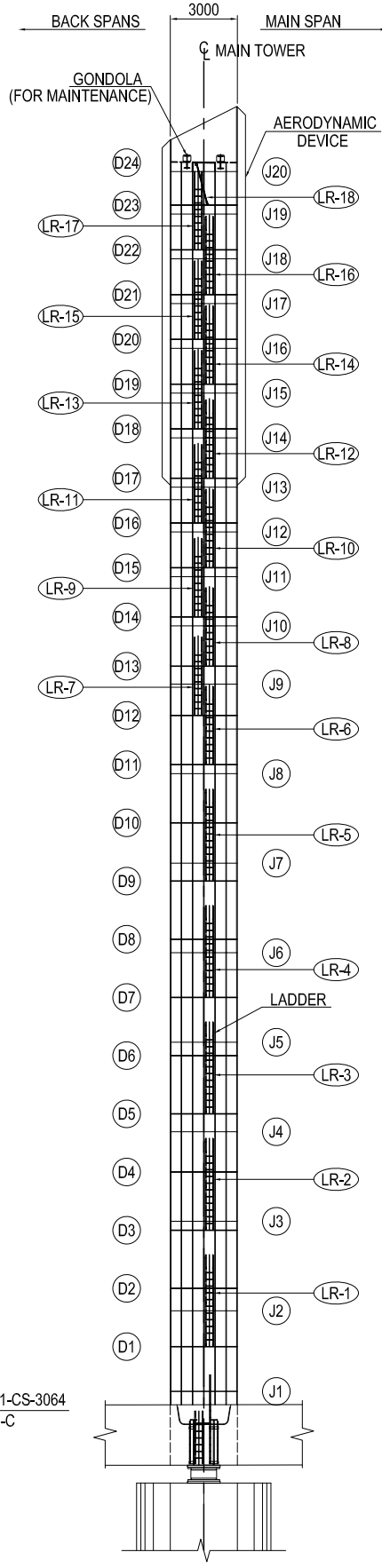
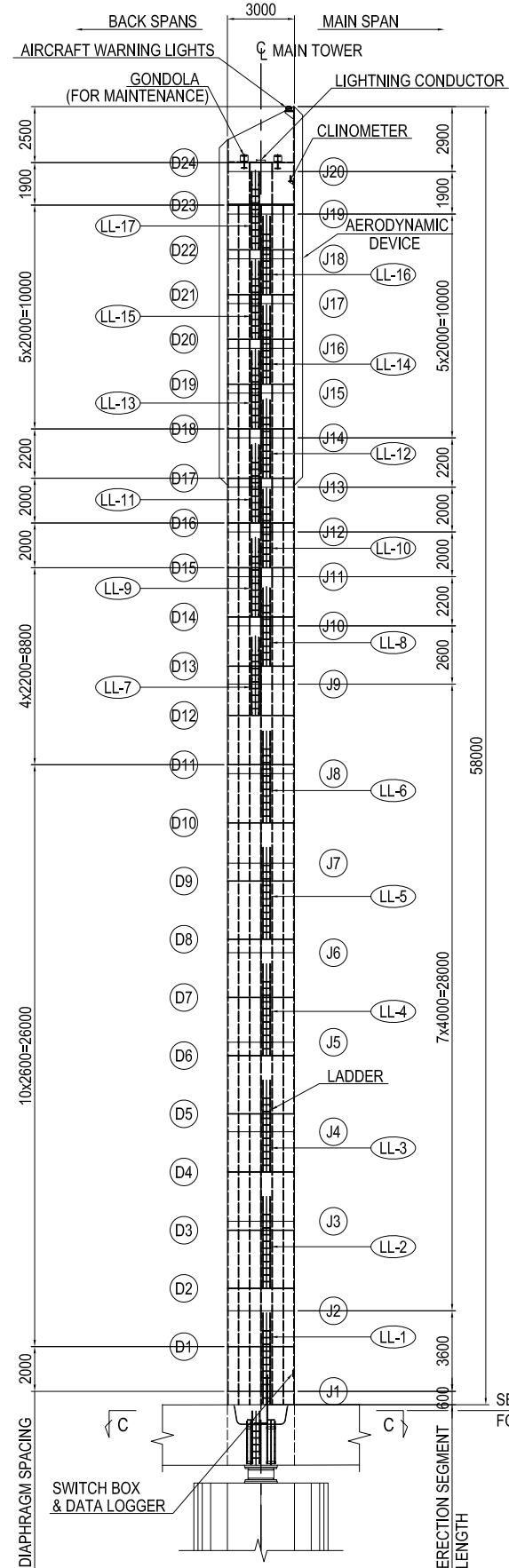
SIDE ELEVATION

FRONT ELEVATION

SECTION A-A

SECTION B-B

TYPICAL DIAPHRAGM S=1:50



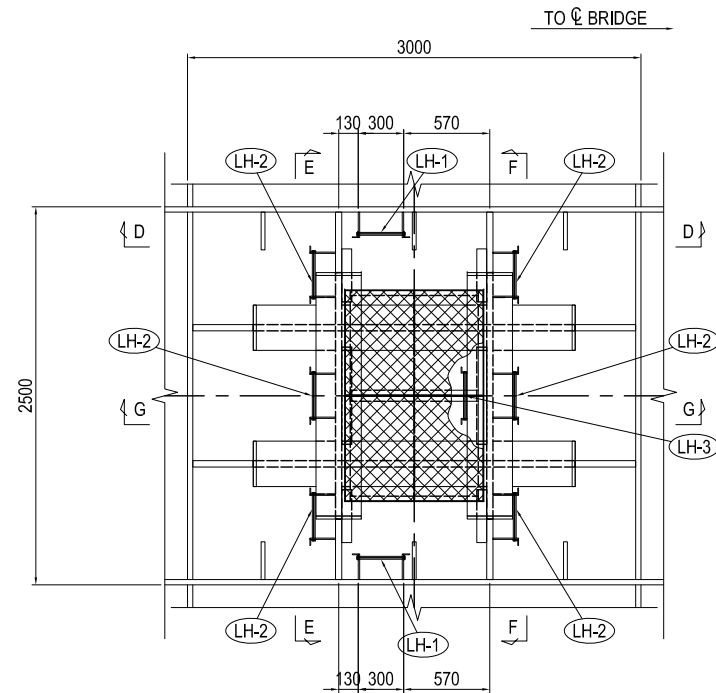
- NOTES:**
- 1 - MAIN TOWER P11 SHOWN, MAIN TOWER P12 SIMILAR OPPOSITE HAND.
 - 2 - INSTALL A DATA LOGGER AT THE BASE OF MAIN TOWER.
 - 3 - ANCILLARIES SHOWN ON SECTION A-A.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY jica 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 PREPARED BY S. TOKUMARU CHECKED BY T. HAYAKAWA APPROVED BY Y. SANO	SIGNATURE DATE 27. Nov.2017 28. Nov.2017 29. Nov.2017	DATE	DRAWING TITLE MAIN TOWER ANCILLARY WORKS LAYOUT	PACKAGE 1 DWG No. P1-CS-3063
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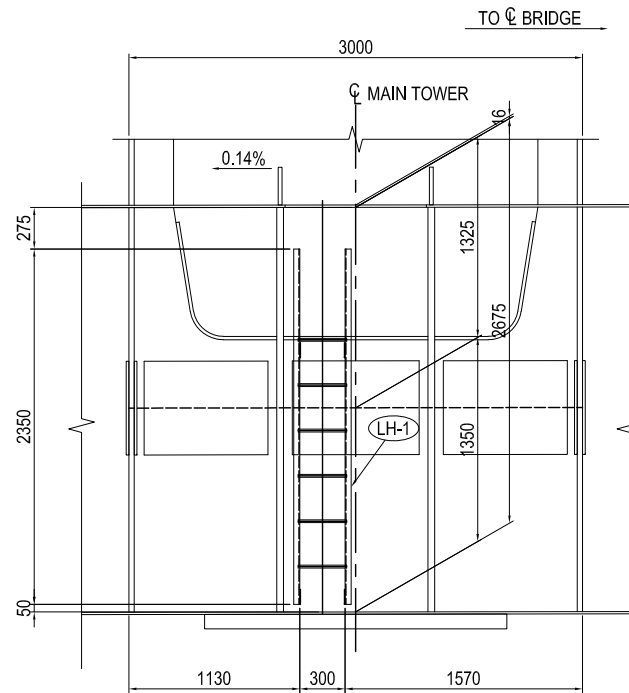
LADDER (1)

S=1:50

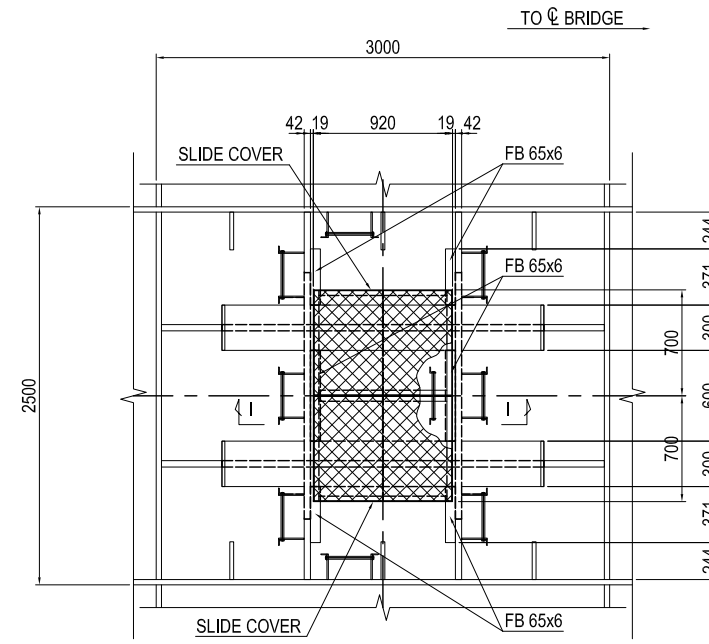
SECTION C-C



SECTION D-D

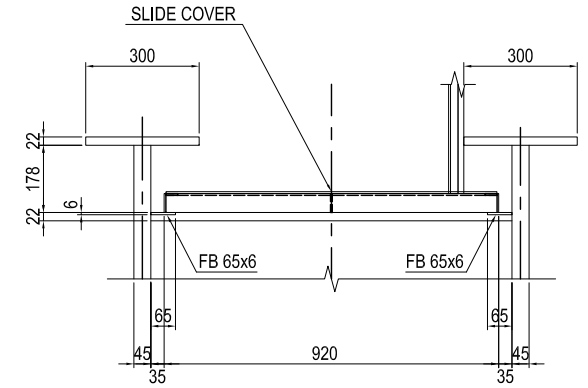


SECTION H-H

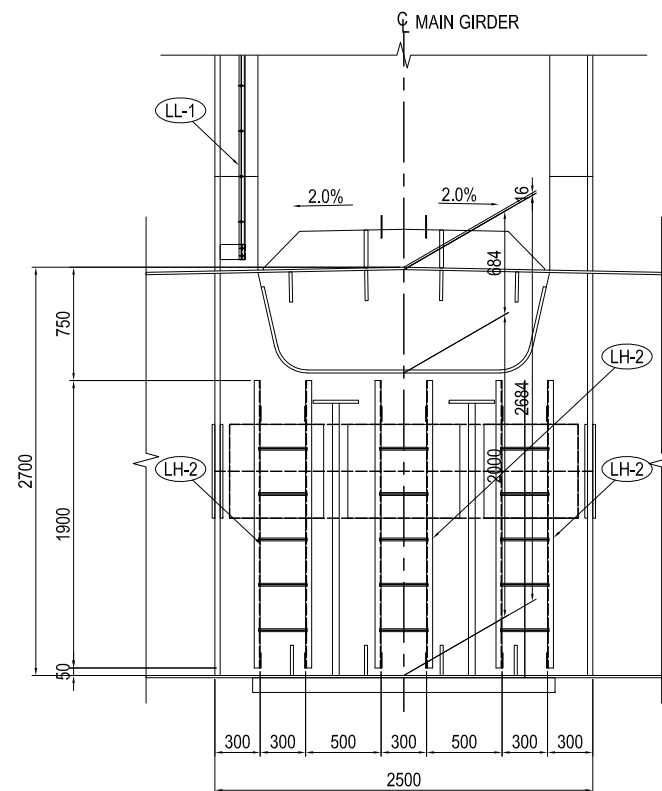


2-FB 65x6x600(SS400)
4-FB 65x6x371(SS400)

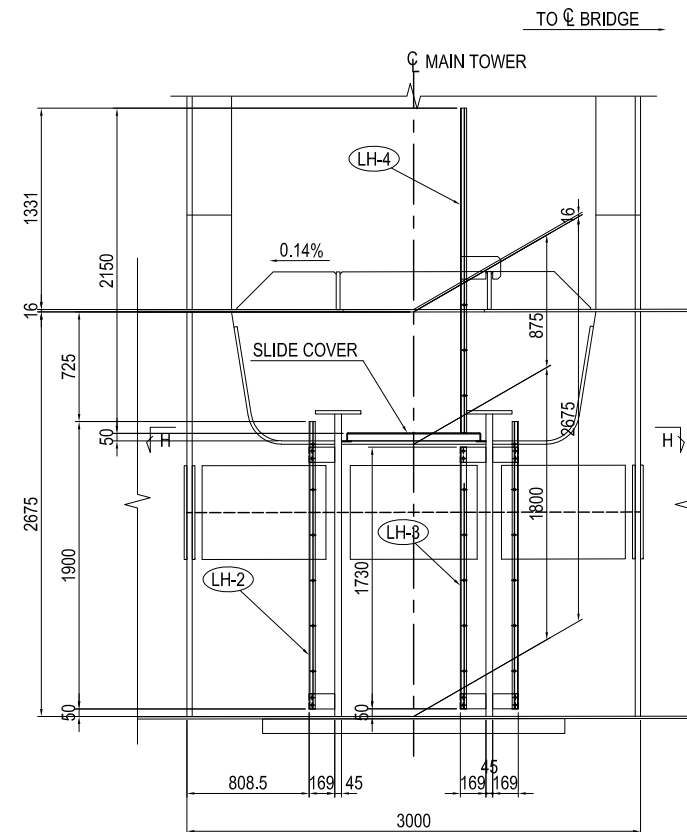
SECTION I-I S=1:20



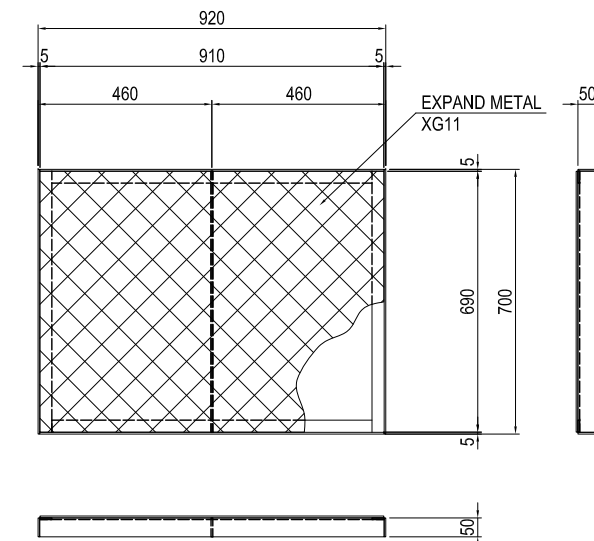
SECTION E-E(F-F)



SECTION G-G



SLIDE COVER DETAIL S=1:20



1-EX 690x910(XG11)
2-FB 50x4.5x911(SS400)
2-FB 50x4.5x700(SS400)
1-FB 50x4.5x691(SS400)
2-FB 32x4.5x847(SS400)
2-FB 32x4.5x691(SS400)

NOTES:

- 1 - THIS DWG WORKS WITH DWG NO. P1-CS-3063.
- 2 - HOT-DIP GALVANIZED COATING OVER 550g/m², 350g/m² (FOR BOLT, WASHER & NUT AND MEMBERS WITH A THICKNESS OF LESS THAN 3.2mm)
- 3 - A STEEL MEMBER WHICH IS WELDED TO GIRDER OR TOWER SHALL BE PAINTED (NOT GALVANIZED COATING).

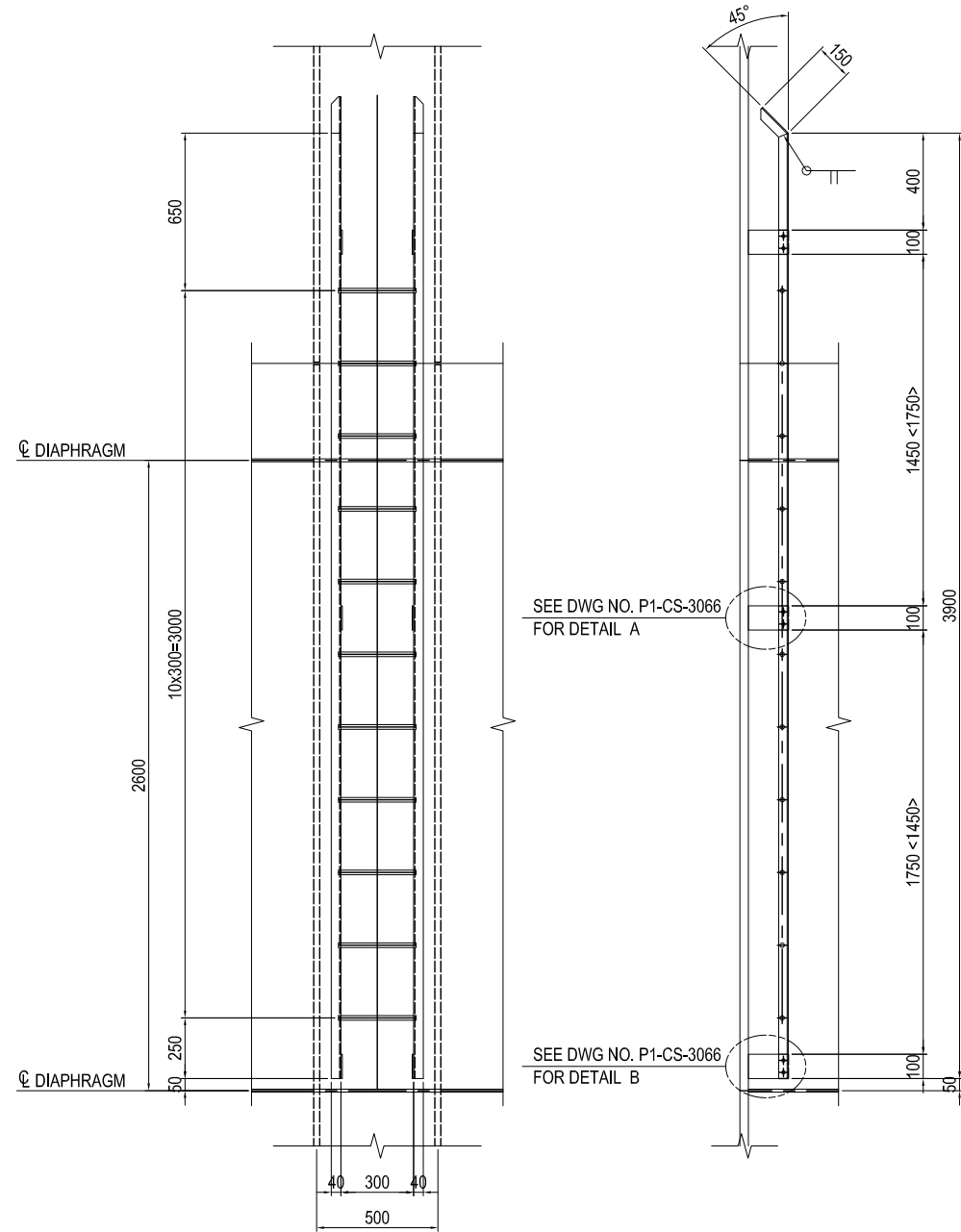
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE LADDER (1)	PACKAGE 1 DWG No. P1-CS-3064	
				PREPARED BY	T.TOMODA				27. Nov.2017
				CHECKED BY	T. HAYAKAWA				28. Nov.2017
				APPROVED BY	Y. SANO				29. Nov.2017

LADDER (2)

S=1:30

LADDER DETAIL

LL-1 - LL-6
LR-1 - LR-3, LR-5 & LR-4 >



LL-1 - LL-6
LR-1 - LR-3, LR-5 >

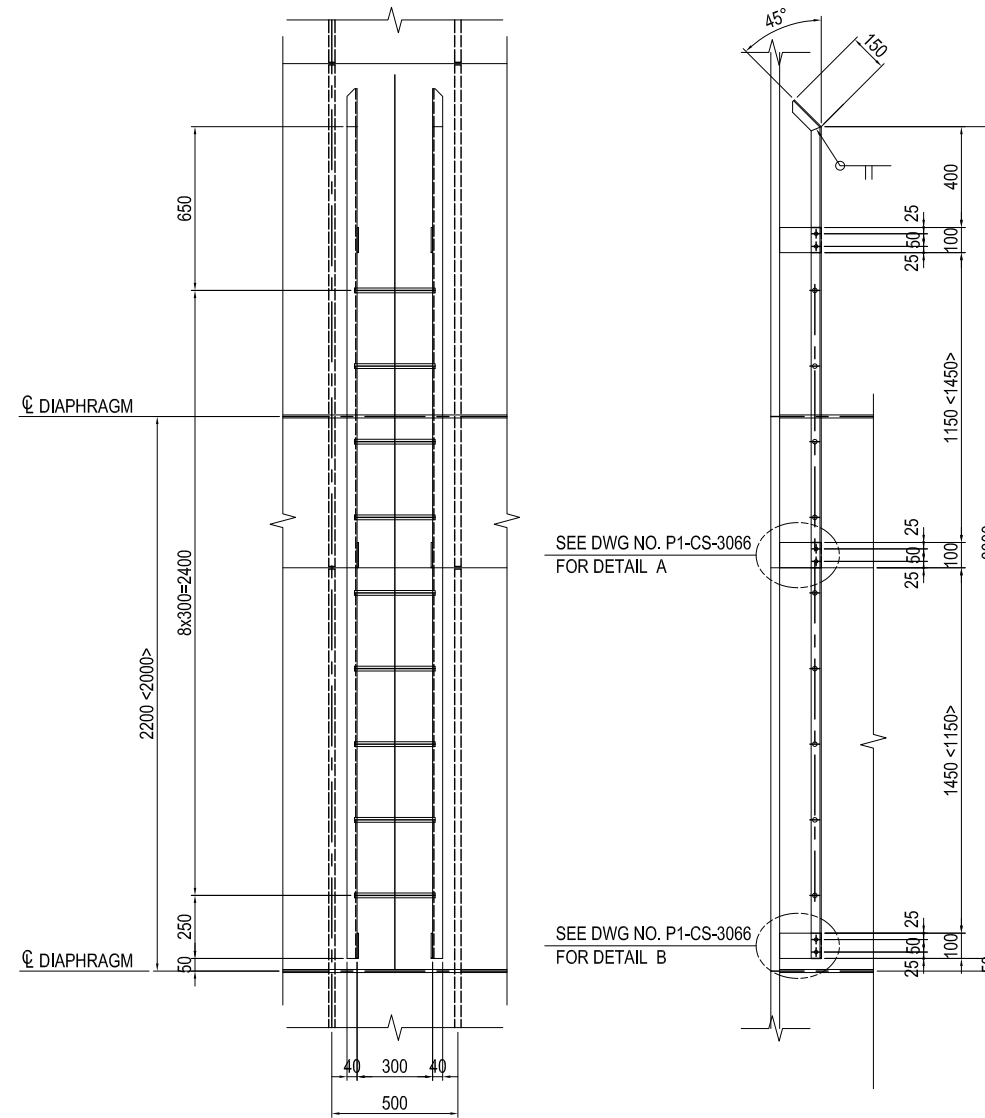
(Q'ty=10)
2-L 40x40x5x3900(SS400)
2-L 40x40x5x150(SS400)
11-RB Φ 19x320(SS400)
6-PL 100x9x165(SS400)
12-B.N M12x35(1-W,1-Unut)(SS400)

< LR-4 >

(Q'ty=1)
2-L 40x40x5x3900(SS400)
2-L 40x40x5x150(SS400)
11-RB Φ 19x320(SS400)
4-PL 100x9x165(SS400)
2-PL 100x9x160(SS400)
12-B.N M12x35(1-W)(SS400)

LADDER DETAIL

LL-7 - LL-9 & LL-12
LR-6 - LR-9 & LR-12
< LL-10, LL-11 & LL-13 - LL-17 >
< LR-10, LR-11 & LR-13 - LR-17 >



(Q'ty=9 <14 >)
2-L 40x40x5x3300(SS400)
2-L 40x40x5x150(SS400)
9-RB Φ 19x320(SS400)
6-PL 100x9x165(SS400)
12-B.N M12x35(1-W,1-Unut)(SS400)

NOTES:

- 1 - THIS DWG WORKS WITH DWG NO. P1-CS-3063.
- 2 - HOT-DIP GALVANIZED COATING OVER 550g/m², 350g/m² (FOR BOLT, WASHER & NUT AND MEMBERS WITH A THICKNESS OF LESS THAN 3.2mm)
- 3 - A STEEL MEMBER WHICH IS WELDED TO GIRDER OR TOWER SHALL BE PAINTED (NOT GALVANIZED COATING).

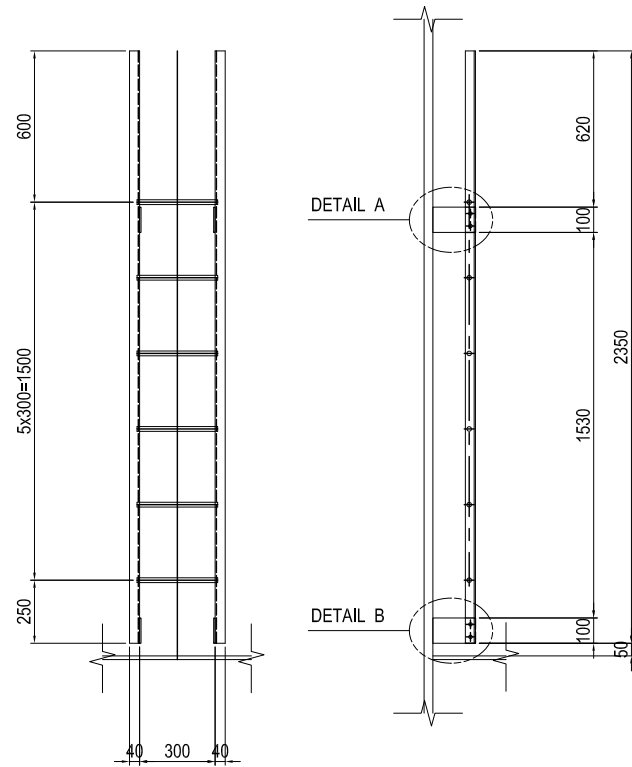
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE LADDER (2)	PACKAGE 1 DWG No. P1-CS-3065	
				PREPARED BY	T.TOMODA				27. Nov.2017
				CHECKED BY	T. HAYAKAWA				28. Nov.2017
				APPROVED BY	Y. SANO				29. Nov.2017

LADDER (3)

S=1:30

LADDER DETAIL

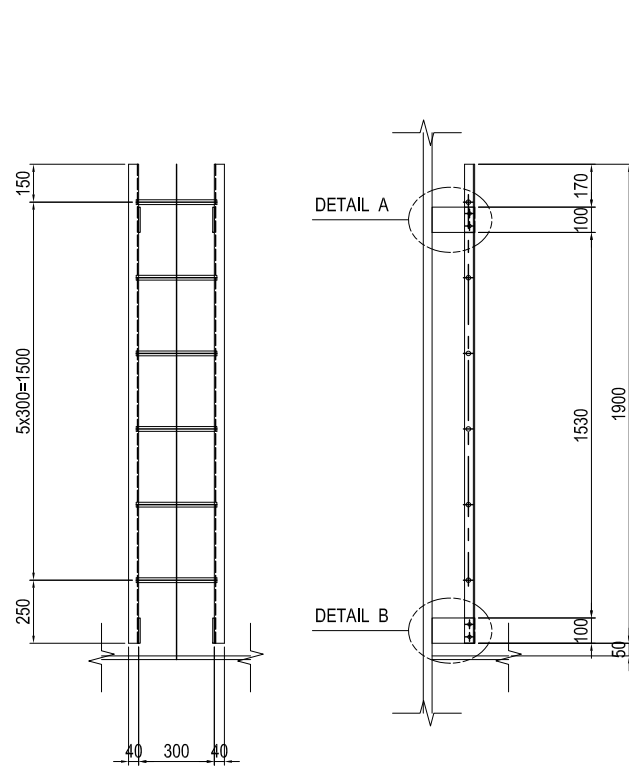
(LH-1)



- (Qty=2)
 2-L 40x40x5x2350(SS400)
 6-RB Φ 19x320(SS400)
 4-PL 100x9x165(SS400)
 8-B.N M12x35(1-W,1-UNut)(SS400)

LADDER DETAIL

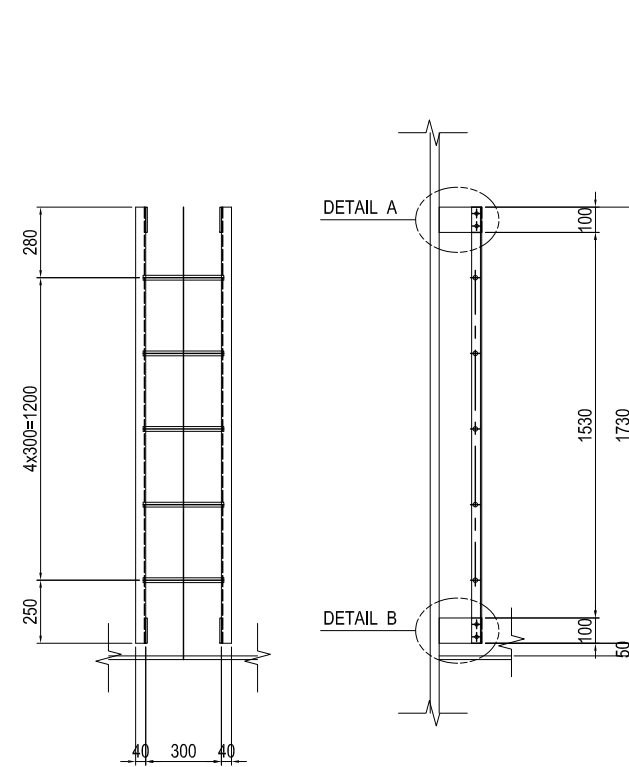
(LH-2)



- (Qty=6)
 2-L 40x40x5x1900(SS400)
 6-RB Φ 19x320(SS400)
 4-PL 100x9x165(SS400)
 8-B.N M12x35(1-W,1-UNut)(SS400)

LADDER DETAIL

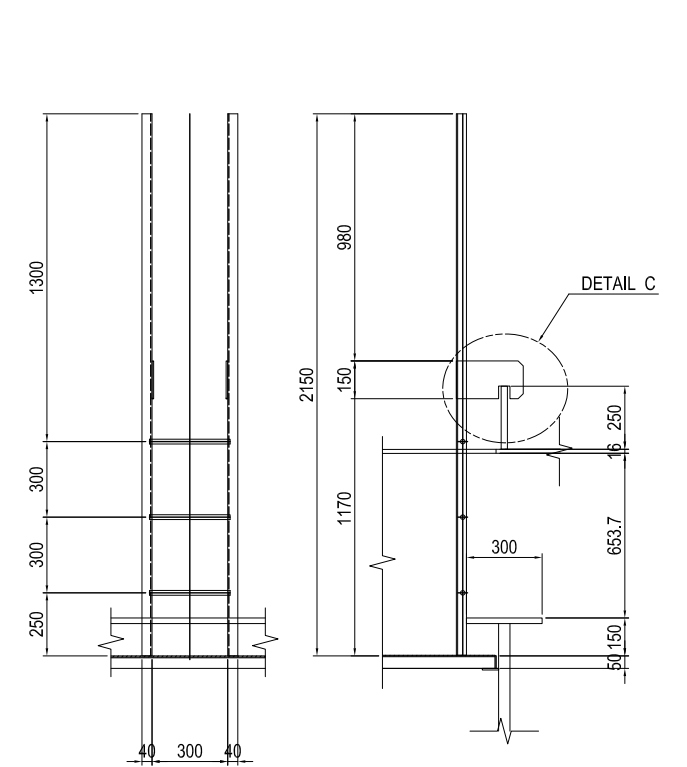
(LH-3)



- (Qty=1)
 2-L 40x40x5x1730(SS400)
 5-RB Φ 19x320(SS400)
 4-PL 100x9x165(SS400)
 8-B.N M12x35(1-W,1-UNut)(SS400)

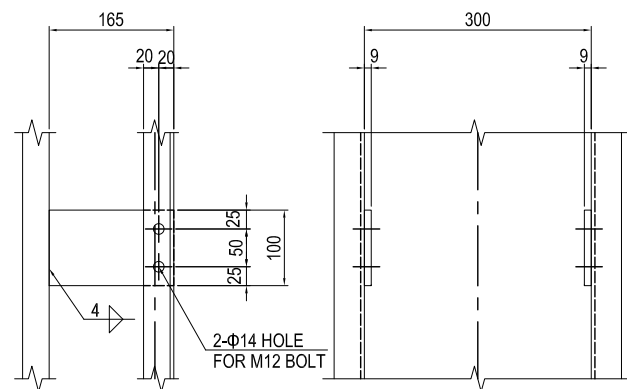
LADDER DETAIL

(LH-4)

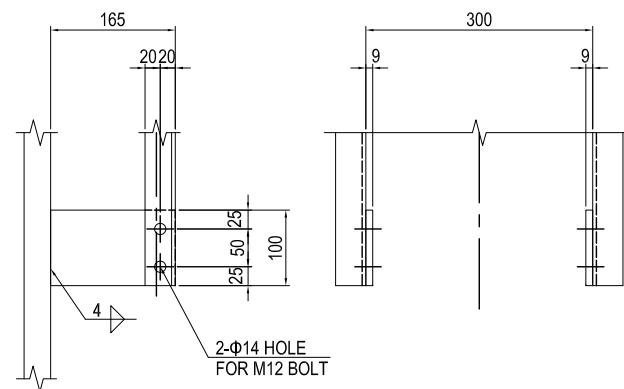


- (Qty=1)
 2-L 40x40x5x2150(SS400)
 3-RB Φ 19x320(SS400)
 2-PL 150x6x265(SS400)

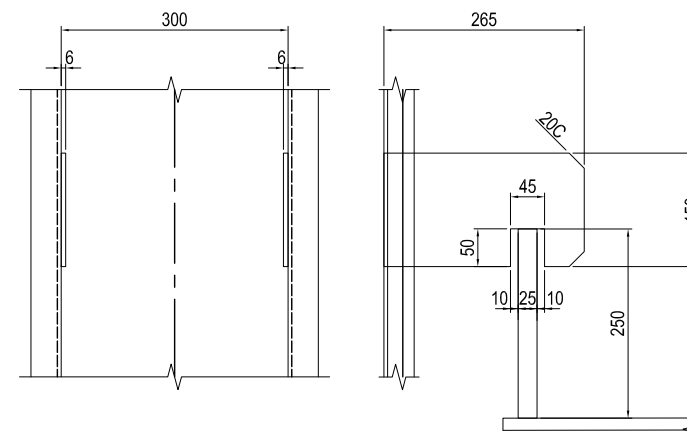
DETAIL A S=1:10



DETAIL B S=1:10



DETAIL C S=1:10



NOTES:

- THIS DWG WORKS WITH DWG NO. P1-CS-3063.
- HOT-DIP GALVANIZED COATING OVER 550g/m², 350g/m² (FOR BOLT, WASHER & NUT AND MEMBERS WITH A THICKNESS OF LESS THAN 3.2mm)
- A STEEL MEMBER WHICH IS WELDED TO GIRDER OR TOWER SHALL BE PAINTED (NOT GALVANIZED COATING).

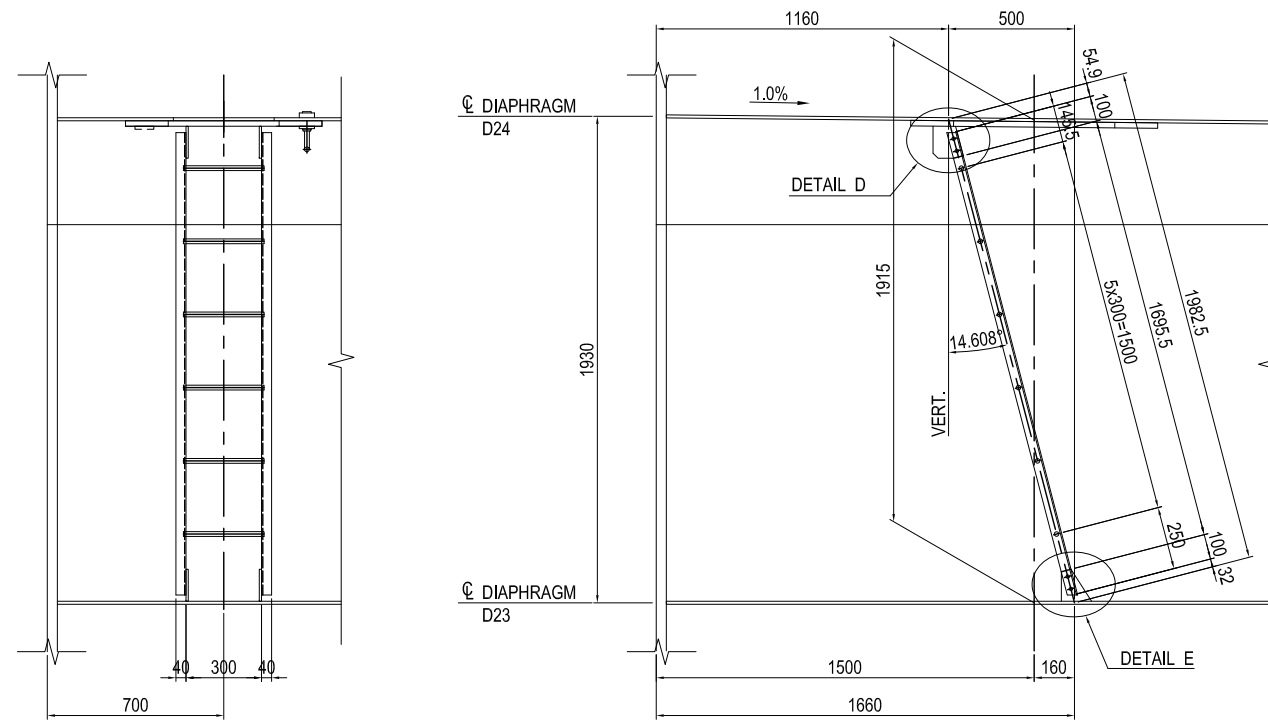
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE LADDER (3)	PACKAGE 1 DWG No. P1-CS-3066	
				PREPARED BY	T.TOMODA				27. Nov.2017
				CHECKED BY	T. HAYAKAWA				28. Nov.2017
				APPROVED BY	Y. SANO				29. Nov.2017

LADDER (4)

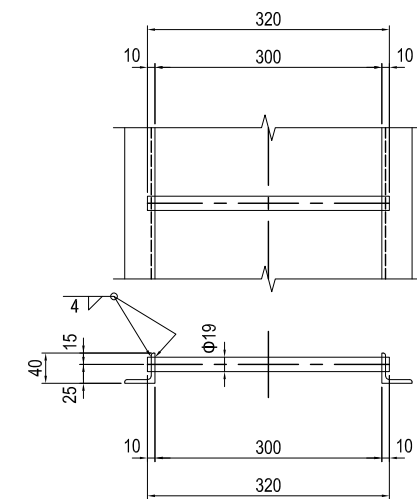
S=1:30

LADDER DETAIL

LR-18

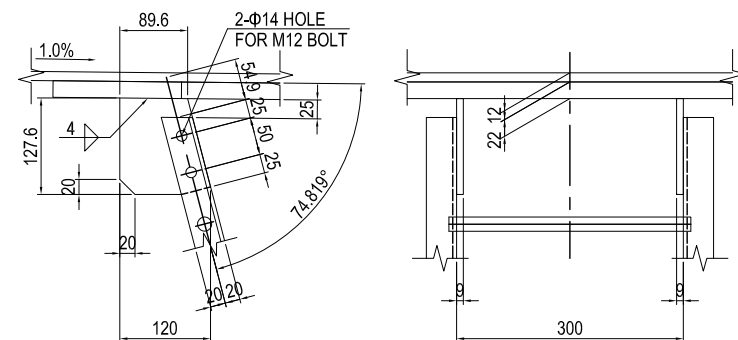


LADDER STEP DETAIL S=1:10

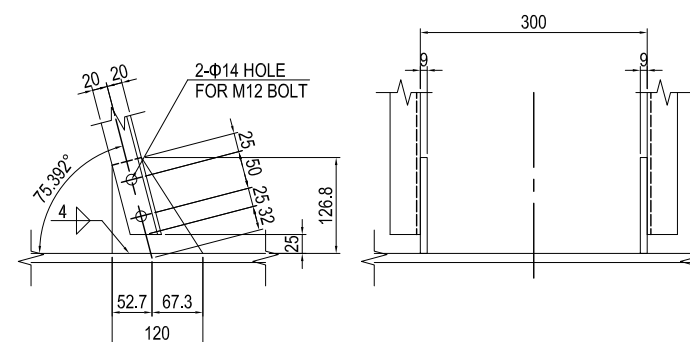


- (Q'ty=1)
 2-L 40x40x5x1906(SS400)
 6-RB $\Phi 19 \times 320$ (SS400)
 2-PL 120x9x128(SS400)
 2-PL 120x9x127(SS400)
 8-B,N M12x35(1-W,1-UNut)(SS400)

DETAIL D S=1:10



DETAIL E S=1:10

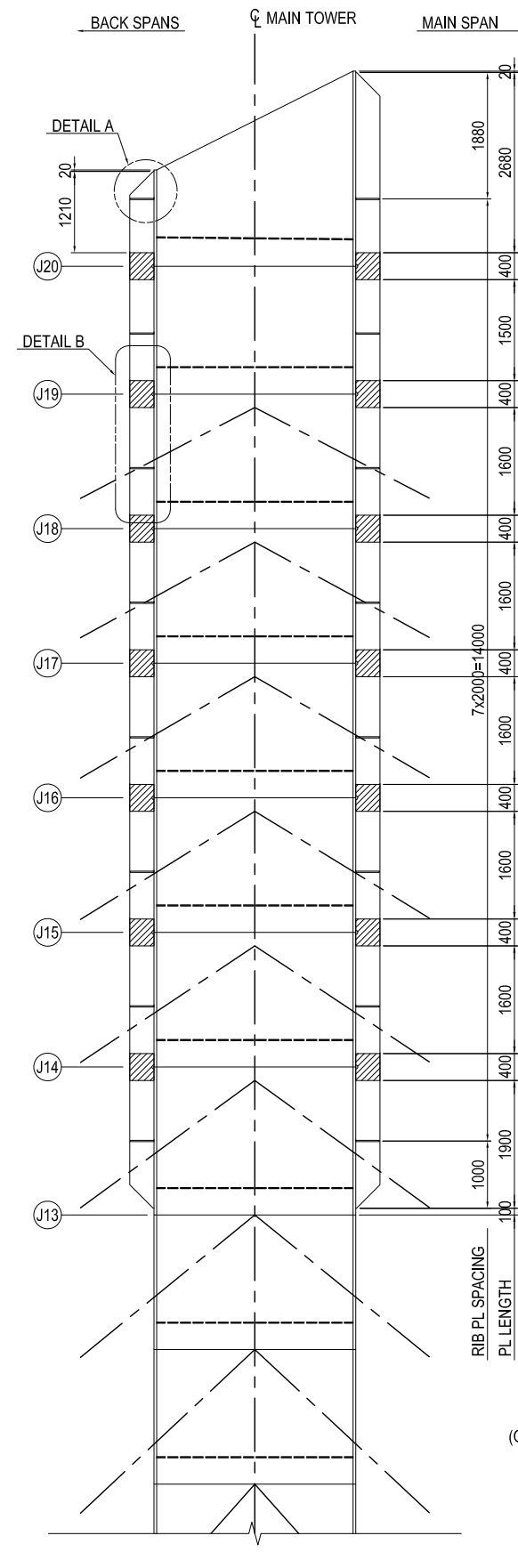


NOTES:

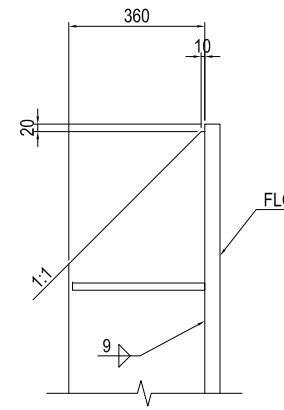
- 1 - THIS DWG WORKS WITH DWG NO. P1-CS-3063.
- 2 - HOT-DIP GALVANIZED COATING OVER 550g/m², 350g/m² (FOR BOLT, WASHER & NUT AND MEMBERS WITH A THICKNESS OF LESS THAN 3.2mm)
- 3 - A STEEL MEMBER WHICH IS WELDED TO GIRDER OR TOWER SHALL BE PAINTED (NOT GALVANIZED COATING).

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA 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.	T. TOMODA	友田 隆雄	27. Nov. 2017	LADDER (4)	1
				T. HAYAKAWA	平川 知邦	28. Nov. 2017		DWG No.
				Y. SANO	佐野 祐一	29. Nov. 2017		P1-CS-3067

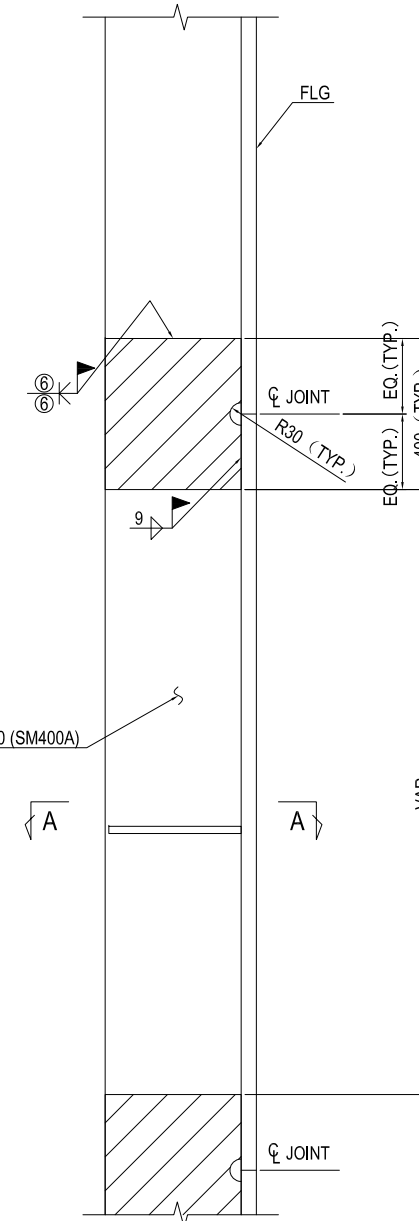
AERODYNAMIC DEVICE S=1:100



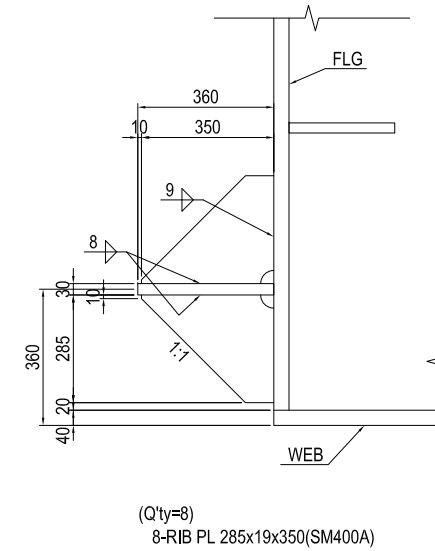
DETAIL A S=1:20



DETAIL B S=1:20



SECTION A-A S=1:20



NOTES:

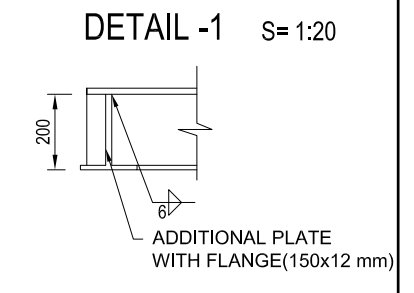
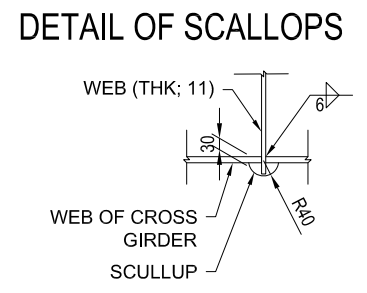
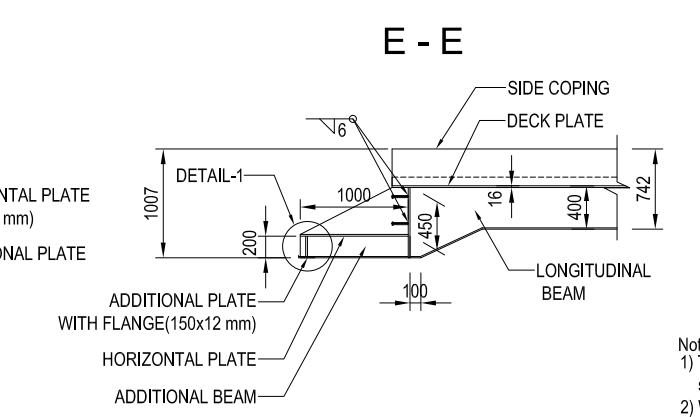
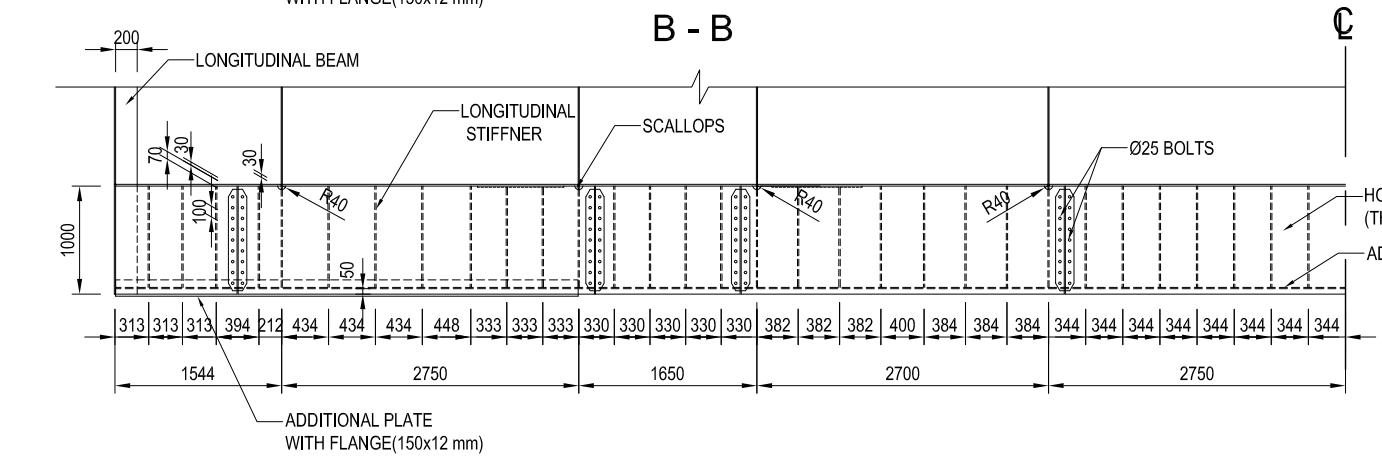
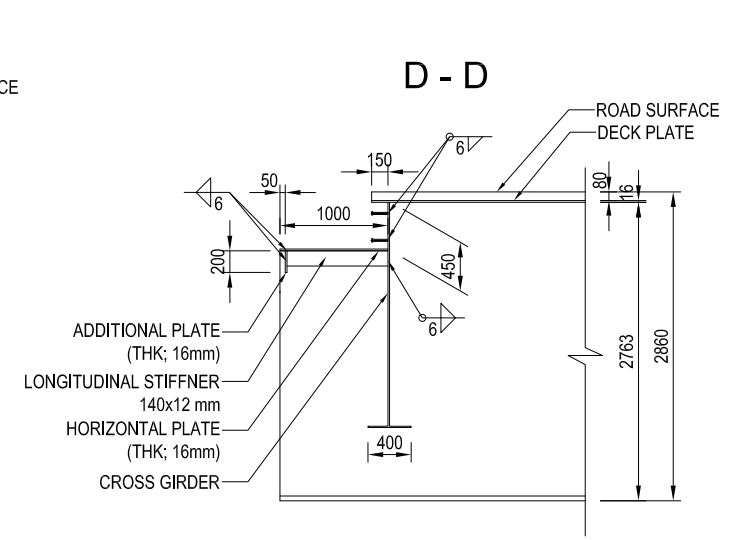
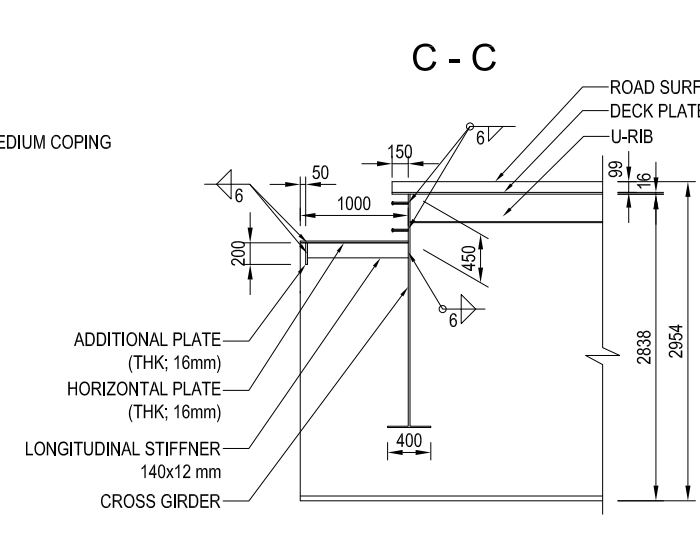
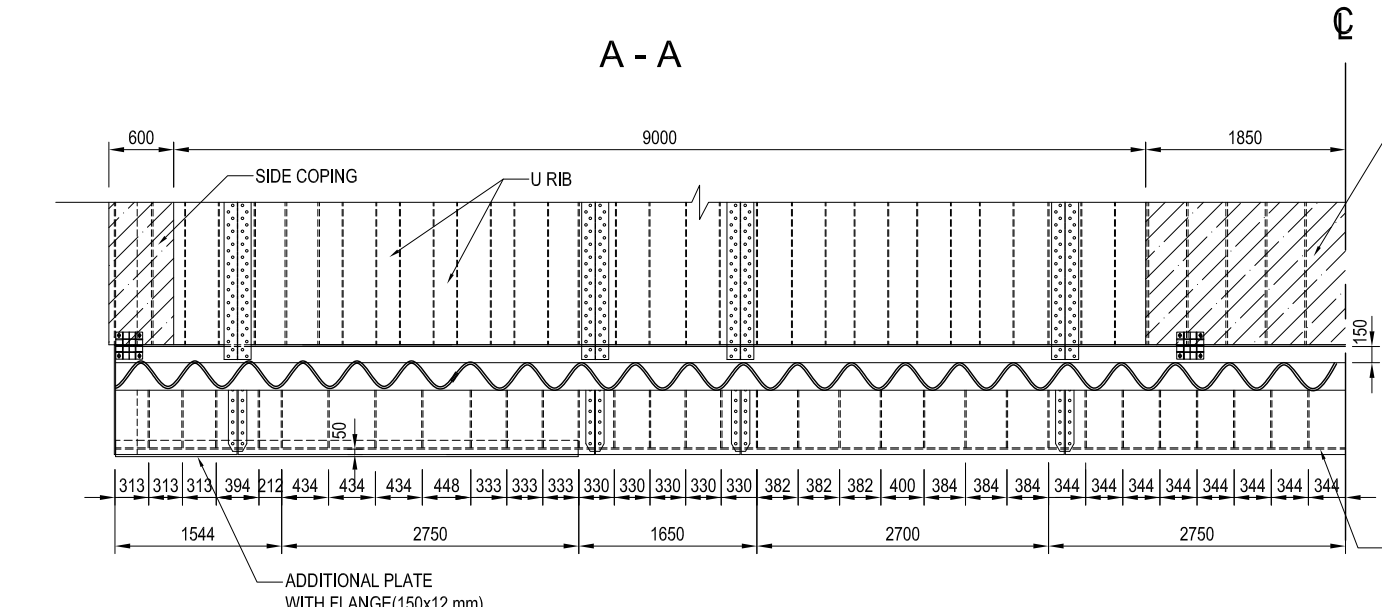
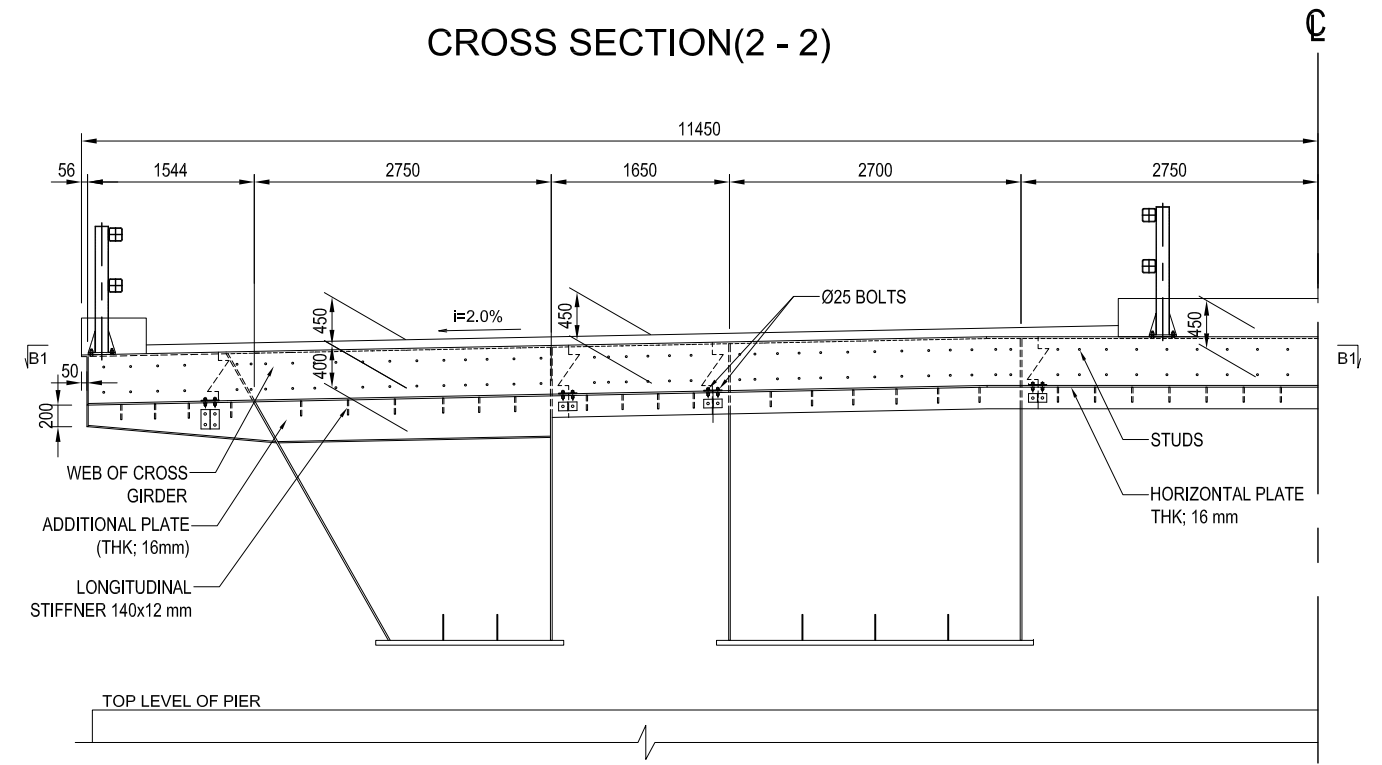
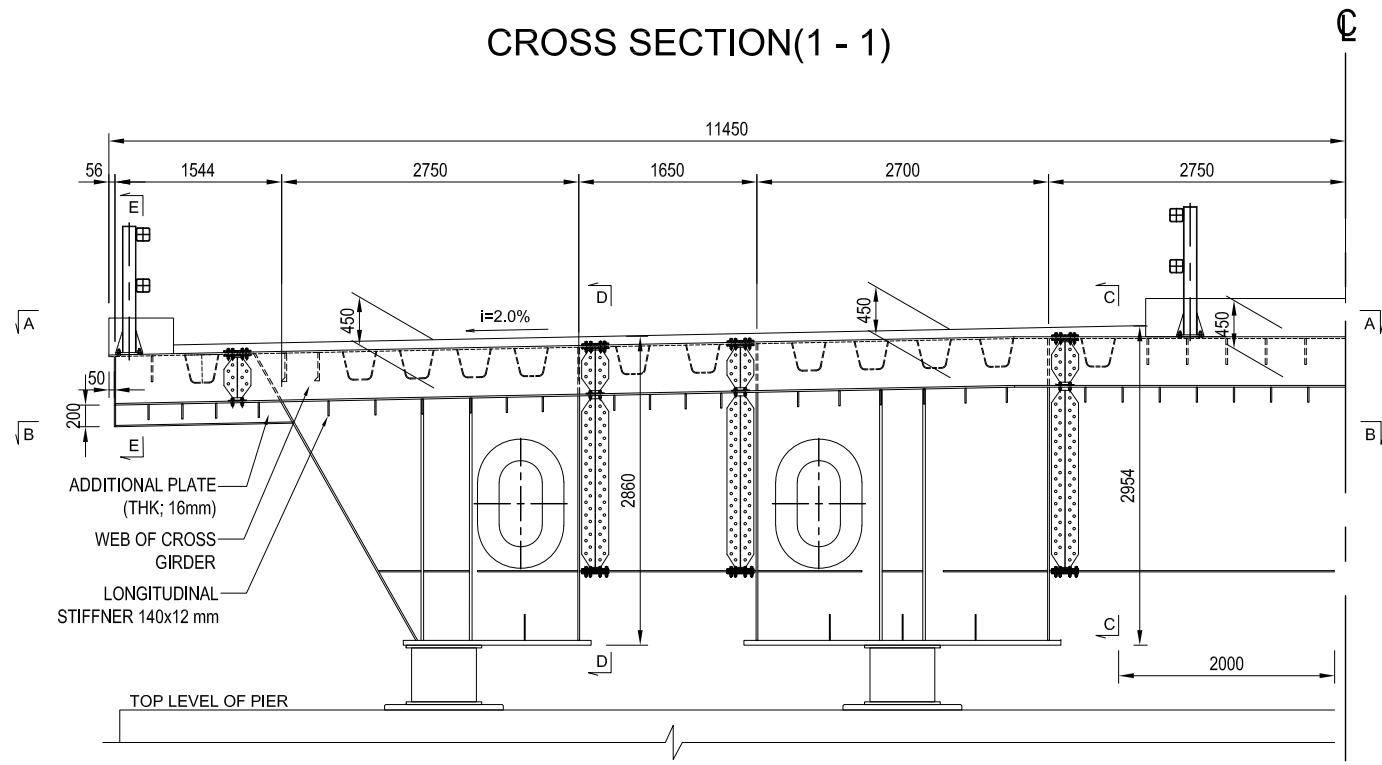
1- LENGTH OF THE ERECTION WELD PLATE () SHALL BE ADJUSTED DEPEND ON THE TOWER WELDING.

LEGENDS:

: ERECTION WELD

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.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NAME</th> <th>SIGNATURE</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY</td> <td>S.TOKUMARU</td> <td>27. Nov.2017</td> </tr> <tr> <td>CHECKED BY</td> <td>T. HAYAKAWA</td> <td>28. Nov.2017</td> </tr> <tr> <td>APPROVED BY</td> <td>Y. SANO</td> <td>29. Nov.2017</td> </tr> </tbody> </table>	NAME	SIGNATURE	DATE	PREPARED BY	S.TOKUMARU	27. Nov.2017	CHECKED BY	T. HAYAKAWA	28. Nov.2017	APPROVED BY	Y. SANO	29. Nov.2017	DRAWING TITLE <h2 style="text-align: center;">AERODYNAMIC DEVICE</h2>	PACKAGE 1 DWG No. P1-CS-3068
NAME	SIGNATURE	DATE																
PREPARED BY	S.TOKUMARU	27. Nov.2017																
CHECKED BY	T. HAYAKAWA	28. Nov.2017																
APPROVED BY	Y. SANO	29. Nov.2017																

(REFERENCE) DETAIL OF STEEL GIRDER END FOR EXPANSION JOINT(P13) (1) S= 1:70

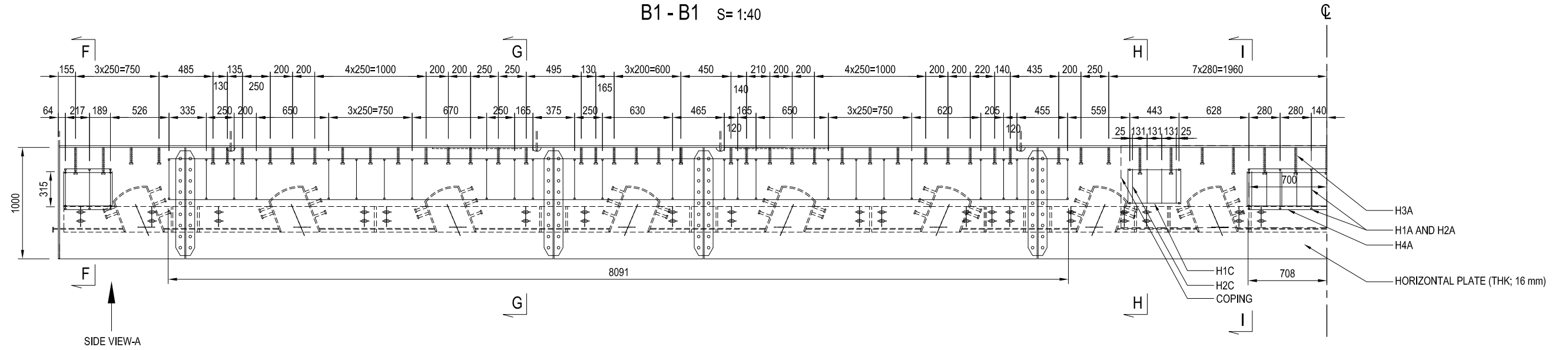


Notes:
 1) This Drawing of detail of steel girder end for expansion joint P13 is prepared based on the type of expansion joint specified in Package-1 Drawings.
 2) Work demarcation between Package-1 and Package-2 shall be referred to the table in DWG.No.P2-SB-3020.
 3) Design of the end girder shall be modified accordingly if the type of expansion joint of P13 might be changed.

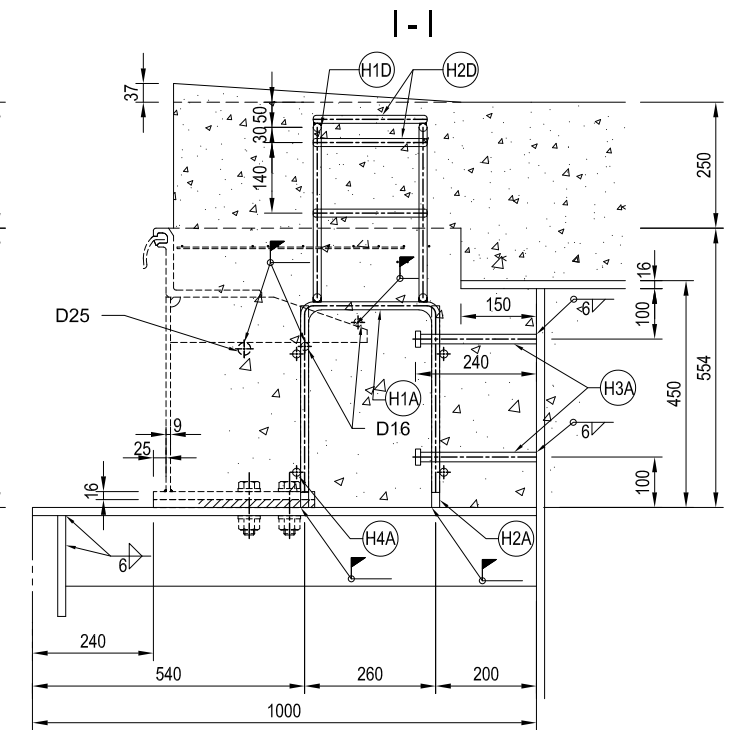
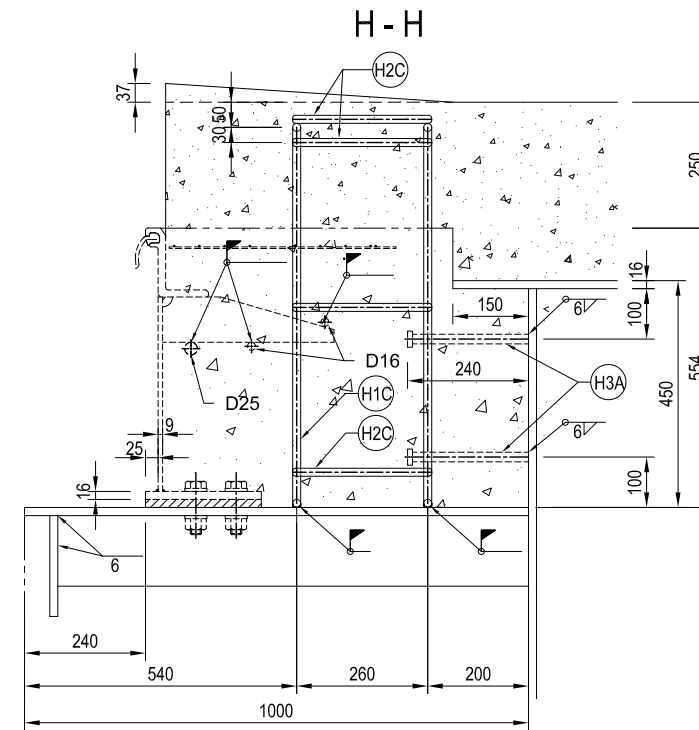
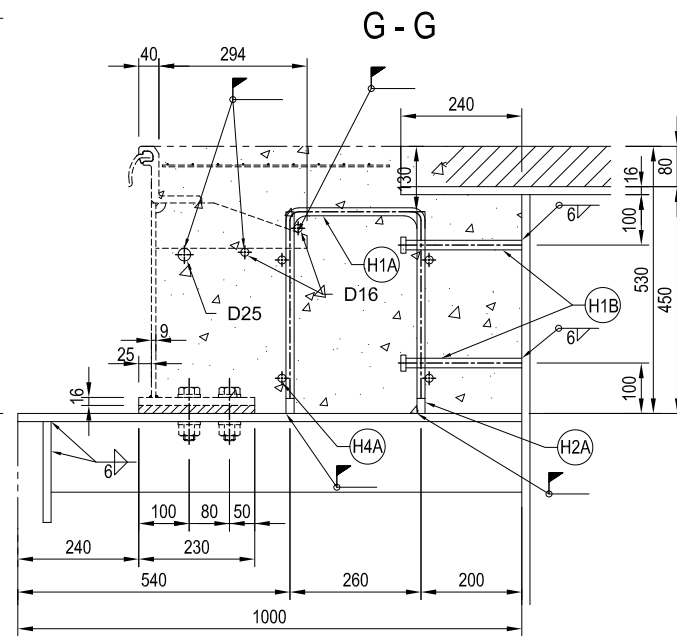
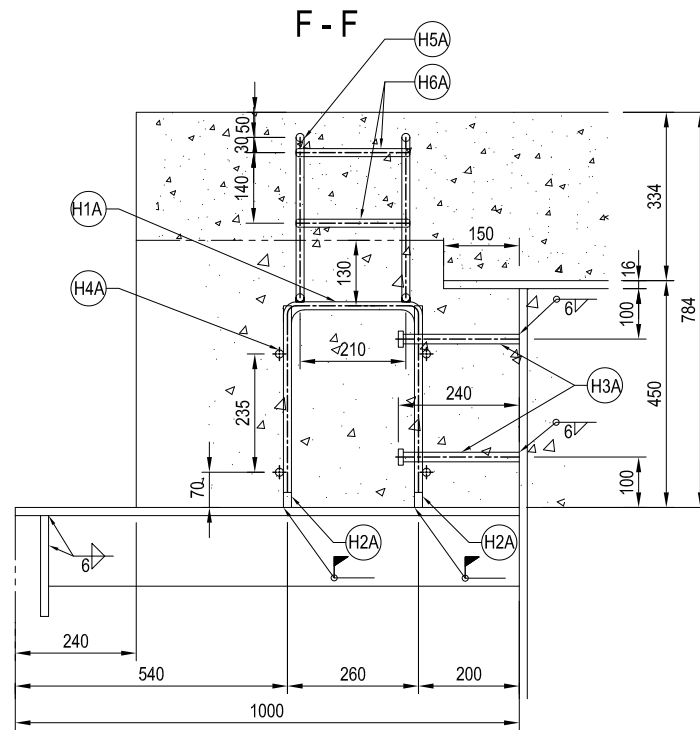
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE (REFERENCE) DETAIL OF STEEL GIRDER END FOR EXPANSION JOINT (P13) (1)	PACKAGE	
				PREPARED BY	S. IMADA			27. Nov.2017	1
				CHECKED BY	T. HAYAKAWA			28. Nov.2017	DWG No.
				APPROVED BY	Y. SANO			29. Nov.2017	P1-CS-3069

(REFERENCE) DETAIL OF STEEL GIRDER END FOR EXPANSION JOINT(P13) (2) S= 1:15

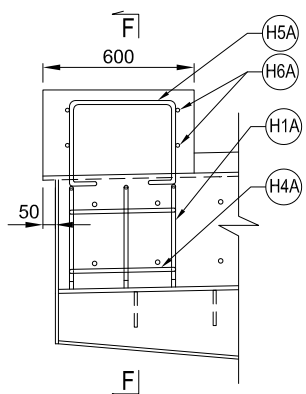
B1 - B1 S= 1:40



SIDE VIEW-A



SIDE VIEW-A S= 1:30

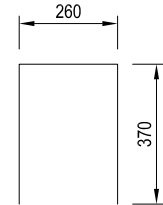


- Notes:
- 1) This Drawing of detail of steel girder end for expansion joint P13 is prepared based on the type of expansion joint specified in Package-1 Drawings.
 - 2) Work demarcation between Package-1 and Package-2 shall be referred to the table in DWG.No.P2-SB-3020.
 - 3) Design of the end girder shall be modified accordingly if the type of expansion joint of P13 might be changed.

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA 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.	S. IMADA		27. Nov.2017	(REFERENCE) DETAIL OF STEEL GIRDER END FOR EXPANSION JOINT (P13) (2)	1
				T. HAYAKAWA		28. Nov.2017		DWG No.
				Y. SANO		29. Nov.2017		P1-CS-3070

(REFERENCE) DETAIL OF STEEL GIRDER END FOR EXPANSION JOINT(P13) (3) S= 1:20

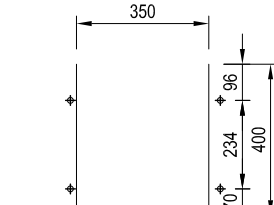
H1A 62-D16x1000L



NUMBER: 62

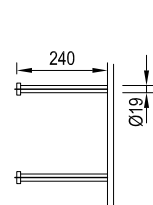
H2A 124-D16x400L

H4A 8-D16x420L, 8090L, 1415L



NUMBER: 124 (H2A)
NUMBER: 8 (H4A)

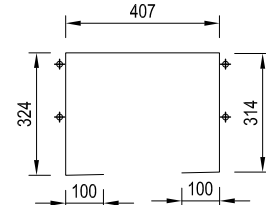
H3A 30-Ø19x240L



NUMBER: 30

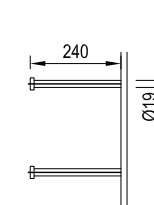
H5A 4-D16x1245L

H6A 8-D16x315L



NUMBER: 4 (H5A)
NUMBER: 8 (H6A)

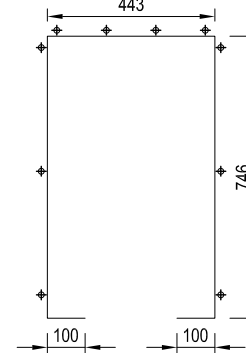
H1B 156-Ø19x240L



NUMBER: 156

H1C 4-D16x2135L

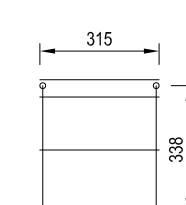
H2C 20-D16x315L



NUMBER: 4 (H1C)
NUMBER: 20 (H2C)

H1D 2-D16x2275L

H2D 11-D16x315L



NUMBER: 2 (H1D)
NUMBER: 11 (H2D)

	Length	Diameter	NO.
H1A	1000	D16	62
H2A	400	D16	124
H3A	240	Ø19	30
H4A	420	D16	8
	8090	D16	8
	1415	D16	8
H5A	1245	D16	4
H6A	315	D16	8
H1B	240	Ø19	156
H1C	2135	D16	4
H2C	315	D16	20
H1D	2275	D16	2
H2D	315	D16	11

MATERIAL LIST

No.	Item	Size	Material	Width (mm)	Length (mm)	Thickness (mm)	Unit Weight (kg/m ³)	Weight (kg/pce)	Number	Weight(kg)	Remarks
1.	Horizontal Plate	1000x22779.32x16 mm	SM400	1000	22779.32	16	7850	2861.08	1	2861.08	*
2.	Additional Plate	200x22779.32x16 mm	SM400	200	22779.32	16	7850	572.22	1	572.22	*
	Sub-Total									3433.30	
3.	Longitudinal Stiffener(140x12)mm	140x934x12 mm	SM400	140	934	12	7850	12.32	63	776.01	*
4.	Flange of Additional Plate	150x4282.5x12 mm	SM400	150	4282.5	12	7850	60.51	2	121.02	*
	Sub-Total									897.03	
5.	Base Plate for Bolt	170x940x8 mm	SM400	170	940	8	7850	10.04	8	80.28	*
6.	25Ø Bolt	M25x80 mm	S10T	-	-	-	-	0.785	144	113.04	
7.	H1A	Ø16 mm	SD345	-	1000	-	1.58(kg/m)	1.58	62	97.96	
8.	H2A	Ø16 mm	SD345	-	400	-	1.58(kg/m)	0.63	124	78.24	
9.	H4A	Ø16 mm	SD345	-	420	-	1.58(kg/m)	0.66	8	5.30	
		Ø16 mm	SD345	-	1415	-	1.58(kg/m)	2.23	8	17.86	
		Ø16 mm	SD345	-	8090	-	1.58(kg/m)	12.76	8	102.10	
10.	H5A	Ø16 mm	SD345	-	1245	-	1.58(kg/m)	1.96	4	7.86	
11.	H6A	Ø16 mm	SD345	-	315	-	1.58(kg/m)	0.50	8	3.98	
12.	H1C	Ø16 mm	SD345	-	2135	-	1.58(kg/m)	3.37	4	13.47	
13.	H2C	Ø16 mm	SD345	-	315	-	1.58(kg/m)	0.50	20	9.94	
14.	H1D	Ø16 mm	SD345	-	2275	-	1.58(kg/m)	3.59	2	7.18	
15.	H2D	Ø16 mm	SD345	-	315	-	1.58(kg/m)	0.50	11	5.47	
	Sub-Total									349.34	
16.	H3A(Stud Bolt)	Ø19 mm	JIS B 1198	-	240	-	-	0.092	30	2.76	*
17.	H1B(Stud Bolt)	Ø19 mm	JIS B 1198	-	240	-	-	0.092	156	14.35	*
18.	Nut for Stud Bolt	Ø19 mm - Nut	JIS B 1181	-	-	-	-	0.092	186	17.11	
19.	Concrete@(F-F)	-	24MPa	600	570	334	2400	274.15	2	548.29	
		-	24MPa	600	720	500	2400	518.40	2	1036.80	
	Concrete@(G-G)	-	24MPa	8950	735	530	2400	8367.53	2	16735.07	
	Concrete@(H-H)	-	24MPa	1850	570	250, 287	2400	679.52	2	1359.04	
		-	24MPa	1850	735	555	2400	1811.19	2	3622.37	
	Sub-Total									23301.58	
	Total									28061.53	

Note: The designation "*" in remarks shows that those materials shall be included in the scope of fabrication of steel box girder in Package-2. Other items shall be scope of Package-1.

Notes:

- 1) This Drawing of detail of steel girder end for expansion joint P13 is prepared based on the type of expansion joint specified in Package-1 Drawings.
- 2) Work demarcation between Package-1 and Package-2 shall be referred to the table in DWG.No.P2-SB-3020.
- 3) Design of the end girder shall be modified accordingly if the type of expansion joint of P13 might be changed.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY jica 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 (REFERENCE) DETAIL OF STEEL GIRDER END FOR EXPANSION JOINT (P13) (3)	PACKAGE
				PREPARED BY	S. IMADA	27. Nov.2017		1
				CHECKED BY	T. HAYAKAWA	28. Nov.2017		DWG No.
				APPROVED BY	Y. SANO	29. Nov.2017		P1-CS-3071

(REFERENCE) QUANTITY TABLE OF SUBSTRUCTURE P10-P13

NOT TO SCALE

QUANTITY TABLE OF RC PIER COLUMN AND BEAM STRUCTURE

Structure Component	Type of Works	Specification	Classification	Unit	Quantities
					Total of P10-P13
Pier Column and Beam (Reinforced Concrete Structure)	Concrete	σck=30N/mm2		m3	7,799.0
	Re-bar	SD345	D 13	kg	—
			D16 ~ D25	"	332,159
			D29 ~ D32	"	146,077
			D 35	"	—
			D 38	"	—
			D 51	"	176,674
			Total	"	654,910
	Mechanical Splice	SD345	D 35	Point	—
			D 38	"	—
			D 51	"	824
			Total	"	824

QUANTITY TABLE OF STEEL PILE SHEET PILE FOUNDATION

Structure Component	Item	Classification	Unit	Quantities	Note			
				Total of P10-P13				
Steel Pipe Sheet Pile Foundation	Steel Sheet Pile Well and Bulkhead Steel Sheet Pile Well	Pile Number		Nos.	152	Outside Steel Pipe Well		
		Total		"	32	Diaphragm Steel Sheet Pipe Wall		
		Total Pile Length		m	184			
		Total Number	Weight of Steel Pipe Section	φ1200	t=14mm	t	3,506.108	SKY400
					t=14mm	"	677.304	SKY490
					t=16mm	"	1,083.440	SKY490
				φ165.2	t=11mm	"	1,040.328	STK400
					Tip Reinforcing Band	PL t=9mm	t	14.720
			Weight of Attachments	Member for Site Circumference Welding (Backing Ring · Stopper)	PL t=14mm	"	2.208	SS400
					PL t=16mm	"	—	SS400
				Sling	PL t=22mm	"	9.568	SM490A
				Interlocking Toe	PL t=12mm	Piece	376	SS400
				Combined Splice Pipe		Point	376	STK400
		Pre-cut		"	376			
Steel Pipe Sheet Pile Foundation	Excavation inside	Pile		m3	2,004.0			
		Pile Head		m3	309.9			
	Concrete Filling	Infilling Concrete		σck=18N/mm2	m3	1,618.4		
		Pile Head			m3	52.6		
	Cleaning inside Joint Pipe			m	10,359.0			
	Mortar filling inside Joint Pipe	σck=21N/mm2	Injected Length of Splice Mortar		m	9,868.9		
			Used Amount of Splice Mortar		m3	259.2		
	Sealing inside Joint Pipe	σck=0.2N/mm2	Length of Splice Water Stop Material		m	2,082.4		
			Used Amount of Splice Water Stop Material		m3	59.2		
			Water Stop Bag		m	4,164.8		
	Excavation inside Well			m3	7,967.7			
	Backfill Inside Well			m3	1,879.5			
	Footing Concrete		σck=24N/mm2	m3	3,697.2			
	Bottom Slab Concrete		σck=21N/mm2	m3	1,926.6			
	Spread Sand			m3	389.0			
	Pile Head Combination	Shear Connector	PL-32×16×3597		kg	924		
		Stopper	PL-25×9×50		"	16		
	Pile Head Re-bar	Weight	SD345	D 13	kg	1,884		
				D16 ~ D25	kg	2,786		
				D29 ~ D32	"	3,720		
				Total	"	8,390		
				Re-bar for Top Slab	Weight	SD345	D 13	kg
	D16 ~ D25	"	39,258					
	D29 ~ D32	"	17,344					
	D 35	"	28,528					
	D 38	"	62,904					
	D 51	"	276,724					
	Total	"	424,758					
	Mechanical Splice	SD345	D 35		Point	220		
			D 38		"	348		
D 51			"		1,072			
Connector (Welding of Dowel)	Block Number of Welding of Dowel		Stage	5,200				
	Mass of Welding of Dowel		kg	49,836				

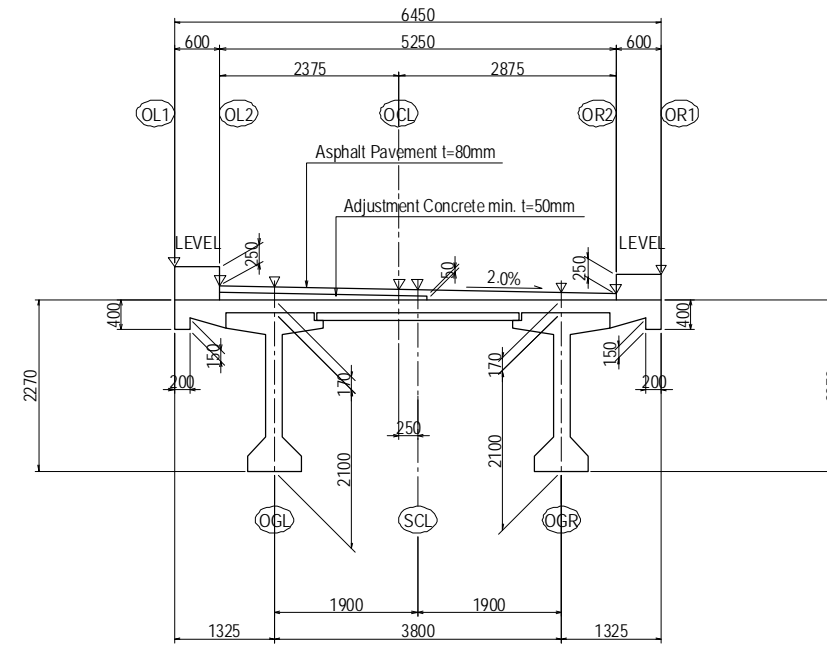
F. ON-RAMP BRIDGE

COORDINATES OF SUPERSTRUCTURE (2)

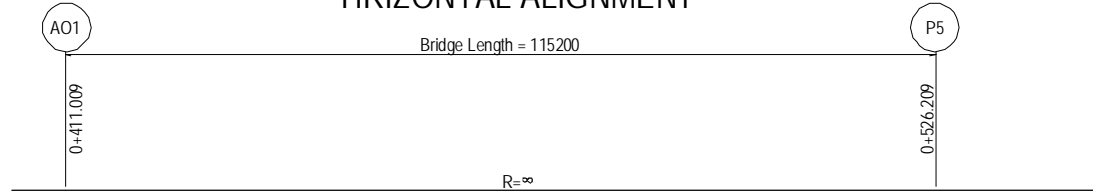
COORDINATE LIST (UNIT:m)

	S6	GE6	PO3	GE7	S7	C16	C17	C18	C19	C20	S8	GE8	P5	
OL1	X	85.9500	86.3000	86.4000	86.5000	86.8500	91.5000	96.1500	100.8000	105.4500	110.1000	114.8946	115.2446	115.3446
	Y	2.9750	2.9750	2.9750	2.9750	2.9750	2.9750	2.9750	2.9750	2.9750	2.9750	2.9750	2.9750	2.9750
OL2	X	85.9500	86.3000	86.4000	86.5000	86.8500	91.5000	96.1500	100.8000	105.4500	110.1000	114.8654	115.2154	115.3154
	Y	2.3750	2.3750	2.3750	2.3750	2.3750	2.3750	2.3750	2.3750	2.3750	2.3750	2.3750	2.3750	2.3750
OGL	X	85.9500	86.3000	86.4000	86.5000	86.8500	91.5000	96.1500	100.8000	105.4500	110.1000	114.8302	115.1802	115.2802
	Y	1.6500	1.6500	1.6500	1.6500	1.6500	1.6500	1.6500	1.6500	1.6500	1.6500	1.6500	1.6500	1.6500
OCL	X	85.9500	86.3000	86.4000	86.5000	86.8500	91.5000	96.1500	100.8000	105.4500	110.1000	114.7500	115.1000	115.2000
	Y	-0.0000	0.0000	0.0000	-0.0000	0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000
SCL	X	85.9500	86.3000	86.4000	86.5000	86.8500	91.5000	96.1500	100.8000	105.4500	110.1000	114.7378	115.0878	115.1878
	Y	-0.2500	-0.2500	-0.2500	-0.2500	-0.2500	-0.2500	-0.2500	-0.2500	-0.2500	-0.2500	-0.2500	-0.2500	-0.2500
OGR	X	85.9500	86.3000	86.4000	86.5000	86.8500	91.5000	96.1500	100.8000	105.4500	110.1000	114.6455	114.9955	115.0955
	Y	-2.1500	-2.1500	-2.1500	-2.1500	-2.1500	-2.1500	-2.1500	-2.1500	-2.1500	-2.1500	-2.1500	-2.1500	-2.1500
OR2	X	85.9500	86.3000	86.4000	86.5000	86.8500	91.5000	96.1500	100.8000	105.4500	110.1000	114.6103	114.9603	115.0603
	Y	-2.8750	-2.8750	-2.8750	-2.8750	-2.8750	-2.8750	-2.8750	-2.8750	-2.8750	-2.8750	-2.8750	-2.8750	-2.8750
OR1	X	85.9500	86.3000	86.4000	86.5000	86.8500	91.5000	96.1500	100.8000	105.4500	110.1000	114.5811	114.9311	115.0311
	Y	-3.4750	-3.4750	-3.4750	-3.4750	-3.4750	-3.4750	-3.4750	-3.4750	-3.4750	-3.4750	-3.4750	-3.4750	-3.4750
	X	13.9798	13.9919	13.9953	13.9988	14.0107	14.1633	14.3040	14.4329	14.5500	14.6562	14.7570	14.7647	14.7669
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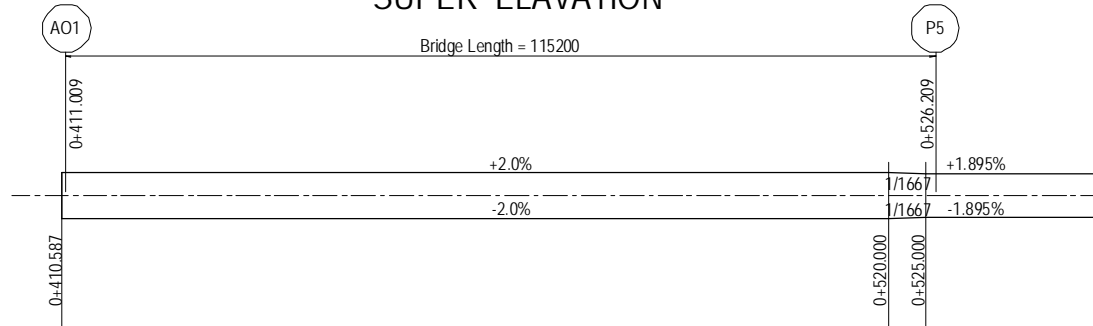
CROSS SECTIONS S=1:100



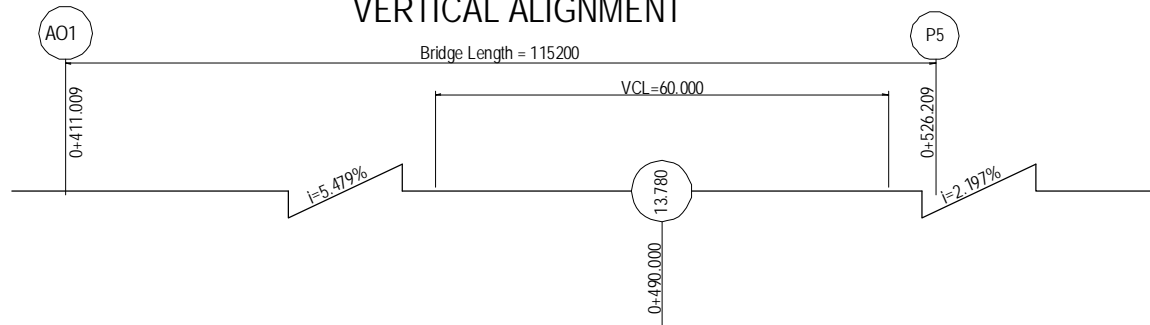
HORIZONTAL ALIGNMENT



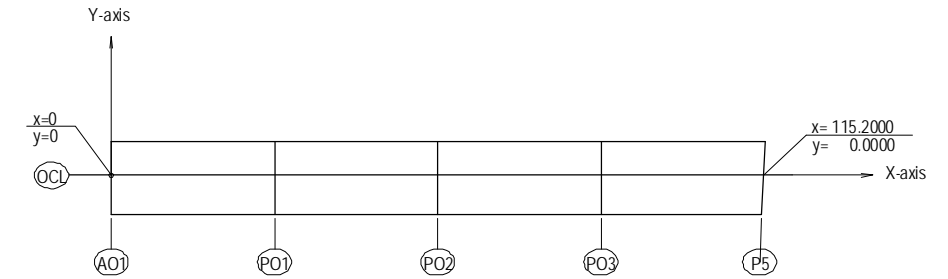
SUPER ELEVATION



VERTICAL ALIGNMENT



COORDINATE SYSTEM

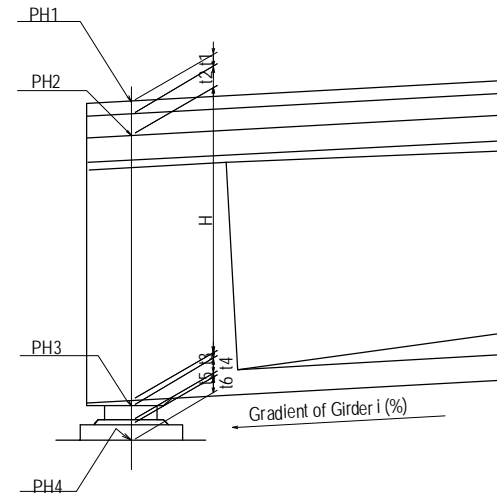


- A line connecting the intersection of road center line OCL and AO1 and P5 in X-axis.
- Intersection Point of AO1 and X-axis(0.000,0.000).
- Y-axis is perpendicular to X-axis through(0.000,0.000).

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA 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 M. OHYAMA T. HAYAKAWA Y. SANO	SIGNATURE 大山 満弘 平川 知邦 佐藤 祐一	DATE 15 Jun.2017 20 Jun.2017 21 Jun.2017	DRAWING TITLE COORDINATES OF SUPERSTRUCTURE (2)	PACKAGE 1 DWG No. P1-OR-002
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COORDINATES OF SUPERSTRUCTURE (3)

STRUCTURE ELEVATION



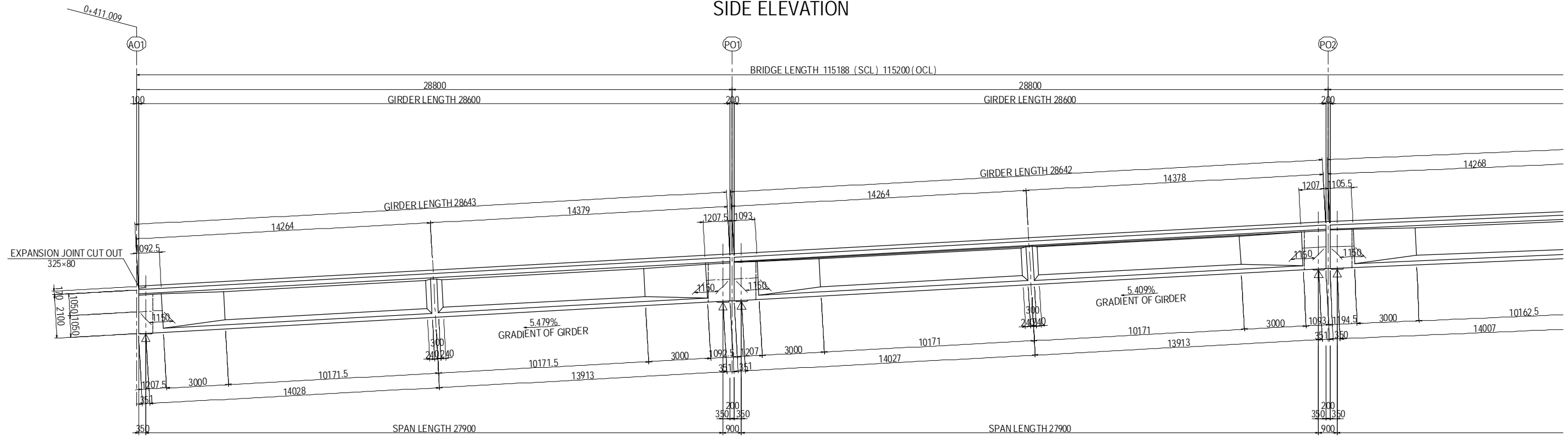
LIST OF STRUCTURE HEIGHT

			AO1		PO1				PO2				PO3				P5	
			S1		S2		S3		S4		S5		S6		S7		S8	
			G1	G2	G1	G2	G1	G2	G1	G2	G1	G2	G1	G2	G1	G2	G1	G2
			5.479		5.409		4.220		2.694									
Gradient of Girder	i	%	5.479		5.409		4.220		2.694									
Road Plan Elevation	PH1	m	9.5093	9.4333	11.0380	10.9620	11.0873	11.0113	12.5978	12.5218	12.6428	12.5668	13.8203	13.7443	13.8512	13.7752	14.5982	14.5221
Pavement Thickness	t1	m	0.1705	0.0945	0.1705	0.0945	0.1708	0.0948	0.1722	0.0962	0.1740	0.0980	0.1740	0.0980	0.1738	0.0978	0.1669	0.0958
RC-Slab Thickness	t2	m	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700
Top of Girder Elevation	PH2	m	9.1688	9.1688	10.6975	10.6975	10.7465	10.7465	12.2556	12.2556	12.2988	12.2988	13.4763	13.4763	13.5074	13.5074	14.2613	14.2563
Girder Height	H	m	2.1031	2.1031	2.1031	2.1031	2.1031	2.1031	2.1031	2.1031	2.1019	2.1019	2.1019	2.1019	2.1008	2.1008	2.1008	2.1008
Adjustment Layer	t3	m	0.0450	0.0450	0.0450	0.0450	0.0450	0.0450	0.0450	0.0450	0.0450	0.0450	0.0450	0.0450	0.0400	0.0400	0.0400	0.0400
Top of Bearing Support	PH3	m	7.0207	7.0207	8.5494	8.5494	8.5984	8.5984	10.1075	10.1075	10.1519	10.1519	11.3294	11.3294	11.3666	11.3666	12.1205	12.1155
Bearing Thickness	t4	m	0.1116	0.1116	0.0884	0.0884	0.0884	0.0884	0.0884	0.0884	0.0884	0.0884	0.0884	0.0884	0.0884	0.0884	0.1348	0.1348
Leveling Thickness	t5	m	0.0340	0.0340	0.0380	0.0380	0.0490	0.0490	0.0370	0.0370	0.0440	0.0440	0.0390	0.0390	0.0380	0.0380	0.0370	0.0320
Base Concrete Thickness	t6	m	0.0000	0.0000	0.1000	0.1000	0.1200	0.1200	0.1000	0.1000	0.1200	0.1200	0.1000	0.1000	0.1200	0.1200	0.0000	0.0000
Top of Substructure Elevation	PH4	m	6.8751	6.8751	8.3230	8.3230	8.3410	8.3410	9.8821	9.8821	9.8995	9.8995	11.1020	11.1020	11.1202	11.1202	11.9487	11.9487

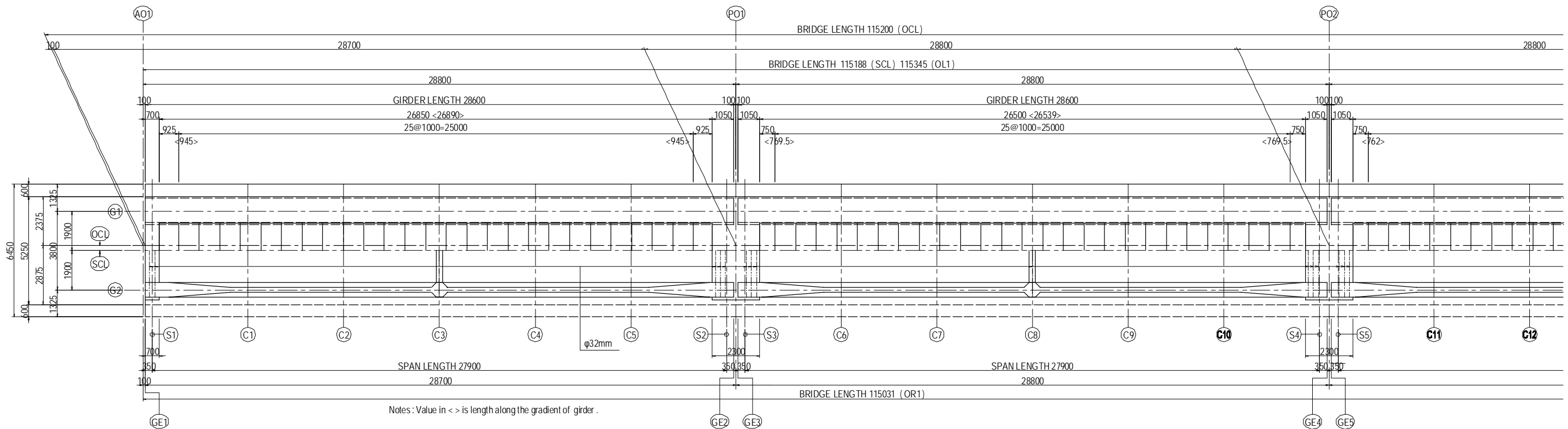
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE COORDINATES OF SUPERSTRUCTURE (3)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-0003

GENERAL VIEW OF SUPERSTRUCTRE FOR ON-RAMP (1) S=1:200

SIDE ELEVATION



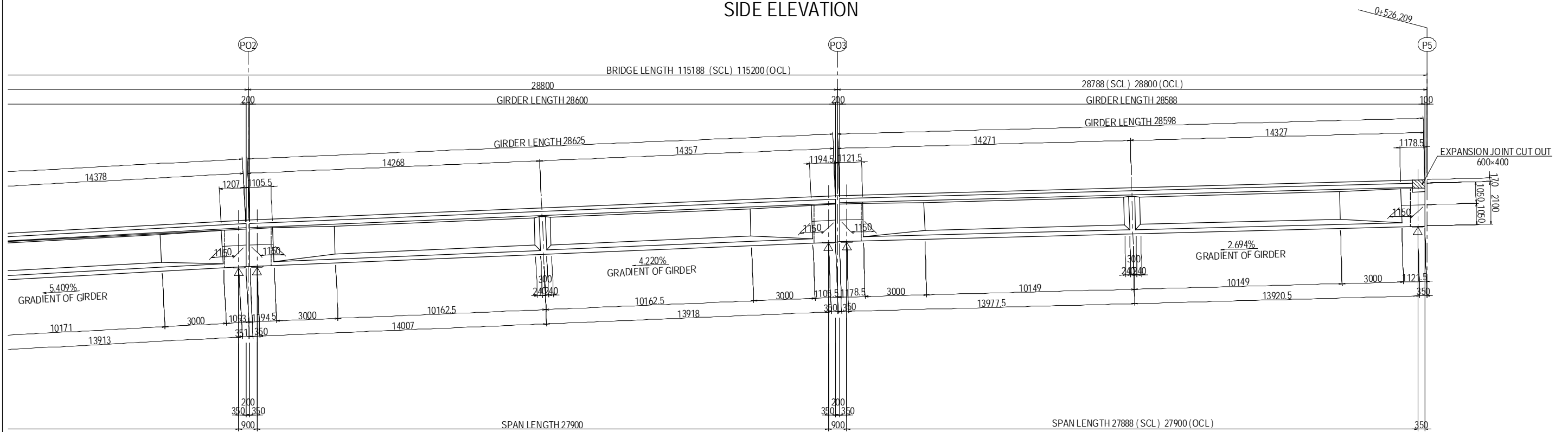
PLAN VIEW



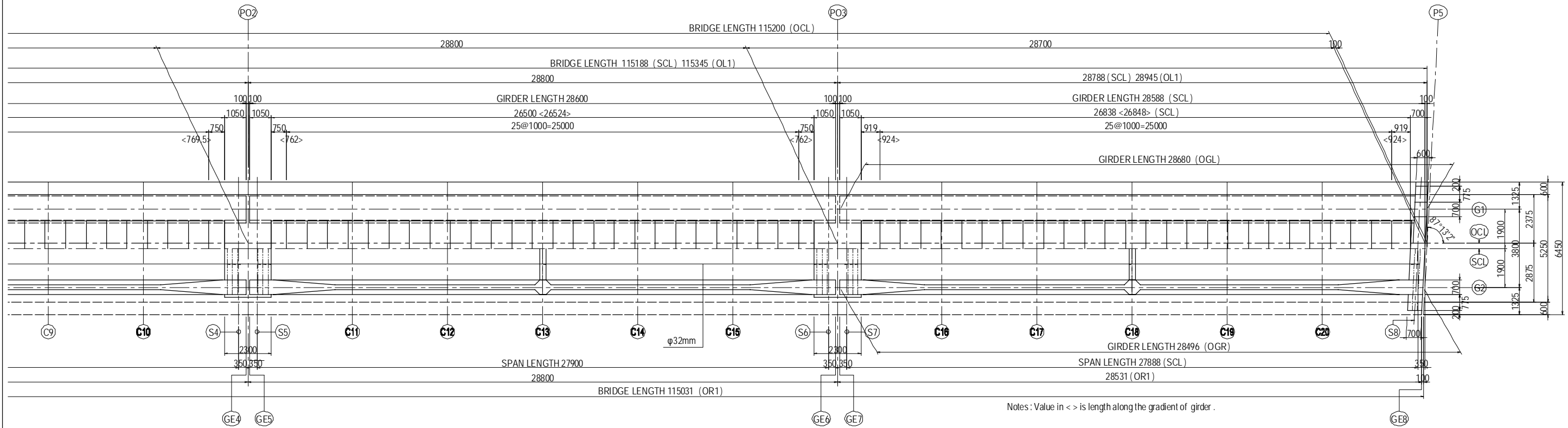
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE GENERAL VIEW OF SUPERSTRUCTURE FOR ON-RAMP (1)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO		21 Jun.2017	P1-OR-1001	

GENERAL VIEW OF SUPERSTRUCTRE FOR ON-RAMP (2) S=1:200

SIDE ELEVATION



PLAN VIEW



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	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

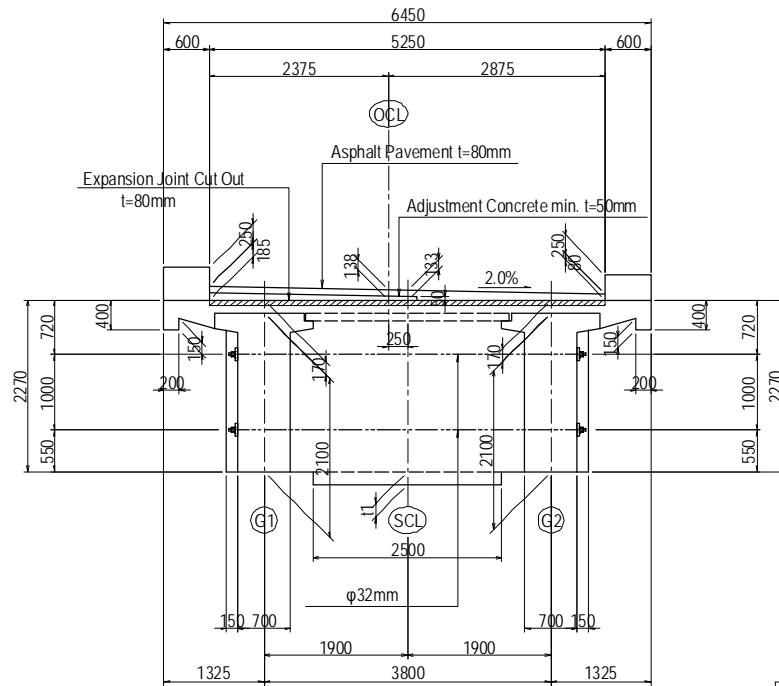
DRAWING TITLE
 GENERAL VIEW OF SUPERSTRUCTURE
 FOR ON-RAMP (2)

PACKAGE
 1
 DWG No.
 P1-OR-1002

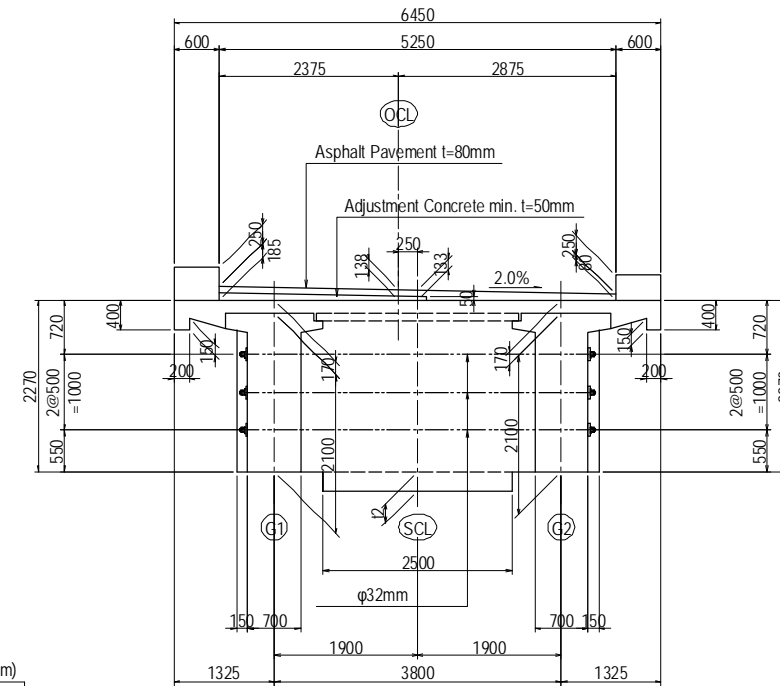
GENERAL VIEW OF SUPERSTRUCTURE FOR ON-RAMP (3)

CROSS SECTIONS S=1:100

AT AO1 (GE1)



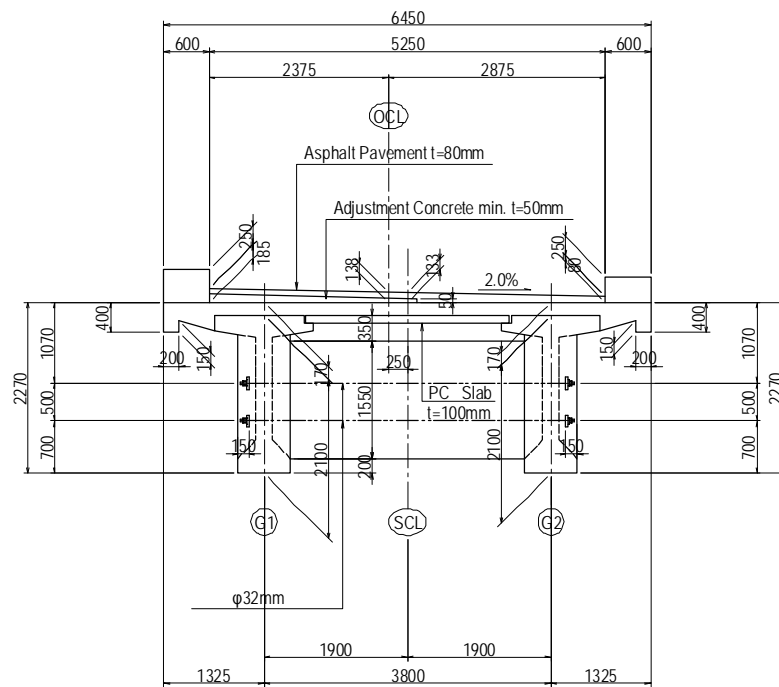
AT CROSS BEAM SECTION (PO1)



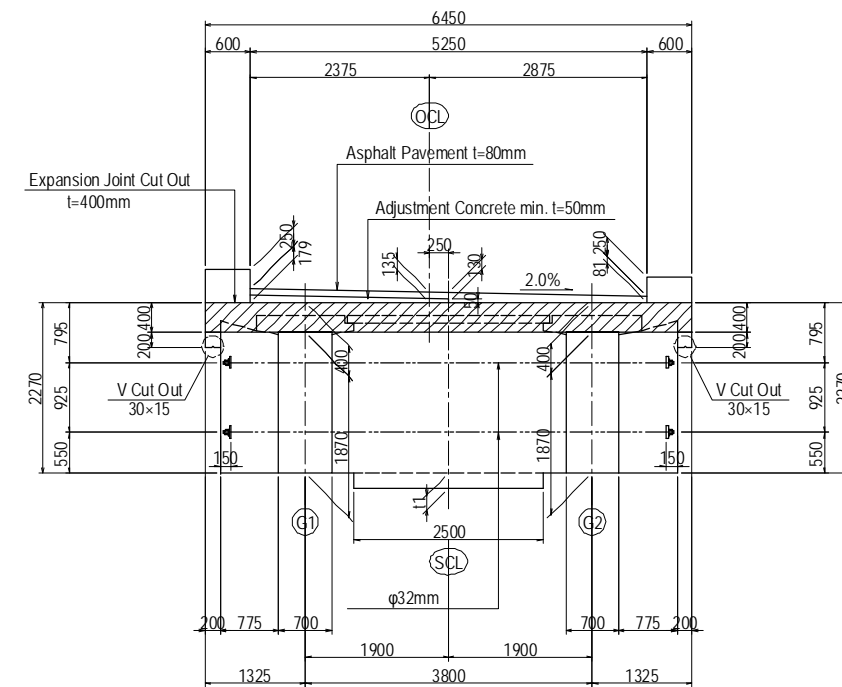
MEMBER DIMENSIONS

	AO1	P01	P02	P03	P5	(mm)
t1	171	—	—	—	189	on bearing support line
t2	—	267	263	259	—	on center of pier

AT INTERMEDIATE CROSS BEAM SECTION (C3)



AT P5 (GE8)



Notes:

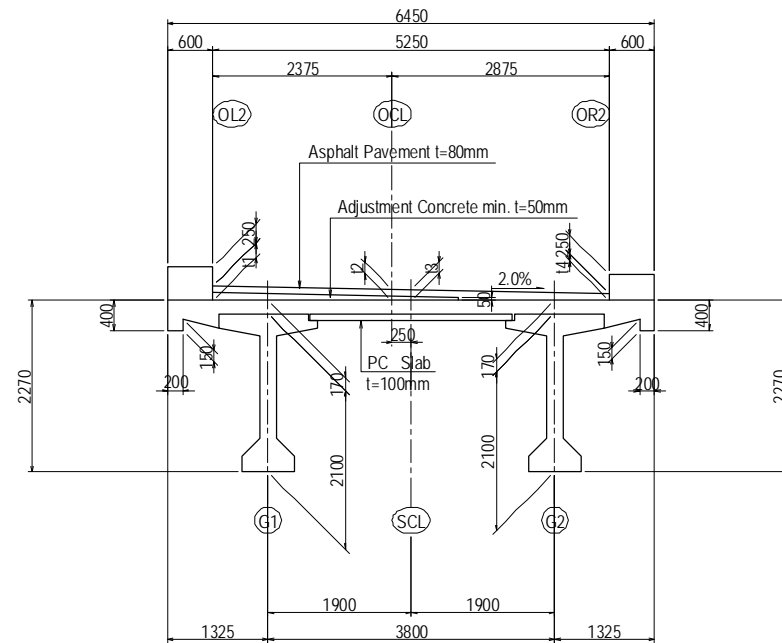
- Unless otherwise indicated in drawing, transverse PC bars shall be tensioned from one side alternately.
- Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
- 800 N/mm² is assumed as jacking force of φ32mm in design stage. Jacking force considering jacking sequence shall be indicated on shop drawings and shall be approved by 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.	NAME	SIGNATURE	DATE	DRAWING TITLE GENERAL VIEW OF SUPERSTRUCTURE FOR ON-RAMP(3)	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘		15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA	平川 知寿		20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO	佐野 祐一		21 Jun.2017	P1-OR-1003

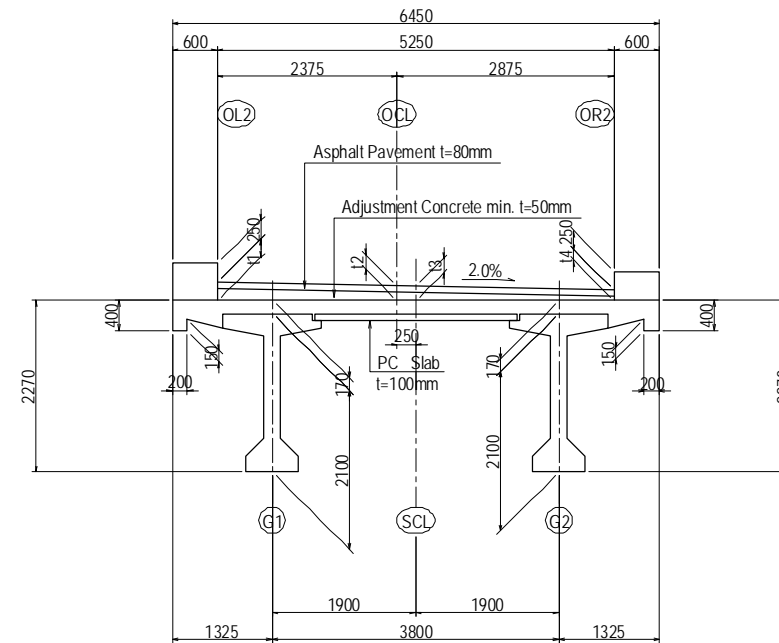
GENERAL VIEW OF SUPERSTRUCTURE FOR ON-RAMP (4)

CROSS SECTIONS S=1:100
STANDARD SECTION

AT (C8)



AT (C13)

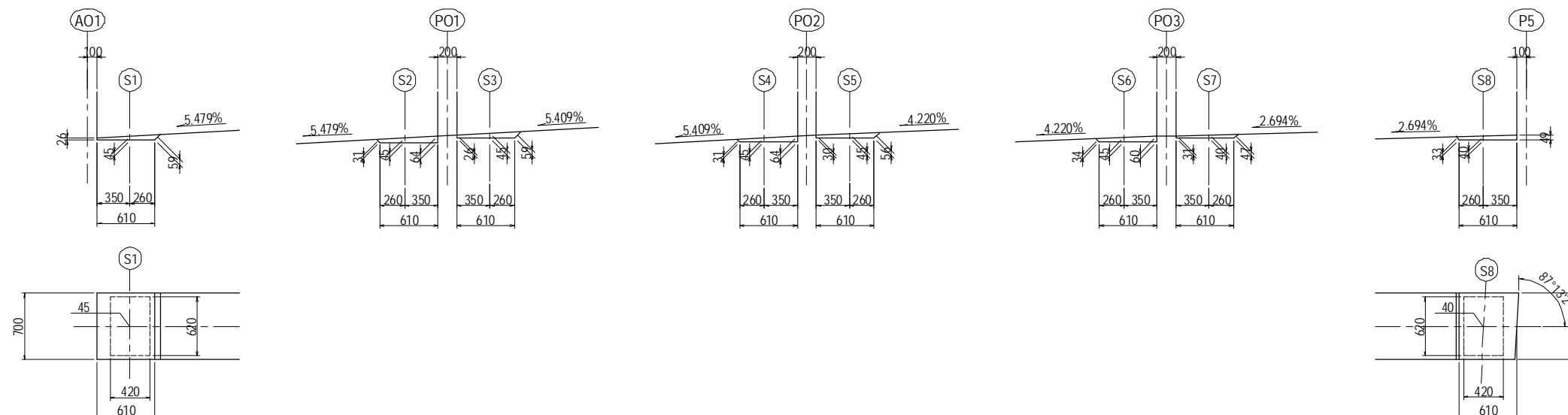


MEMBER DIMENSIONS

		(UNIT: mm)																													
		A01	GE1	S1	C1	C2	C3	C4	C5	S2	GE2	PO1	GE3	S3	C6	C7	C8	C9	C10	S4	GE4	PO2	GE5	S5	C11	C12	C13	C14	C15	S6	GE6
OL2	t1	185	185	185	185	185	185	185	185	185	185	185	185	185	189	192	195	198	198	187	185	185	186	189	218	236	242	236	218	189	186
OCL	t2	138	138	138	138	138	138	138	138	138	138	138	138	138	141	144	148	151	151	139	138	138	138	141	171	188	194	188	171	141	138
SCL	t3	133	133	133	133	133	133	133	133	133	133	133	133	133	136	139	143	146	146	134	133	133	133	136	166	183	189	183	166	136	133
OR2	t4	80	80	80	80	80	80	80	80	80	80	80	80	80	84	87	90	93	93	82	80	80	81	84	113	131	137	131	113	84	81

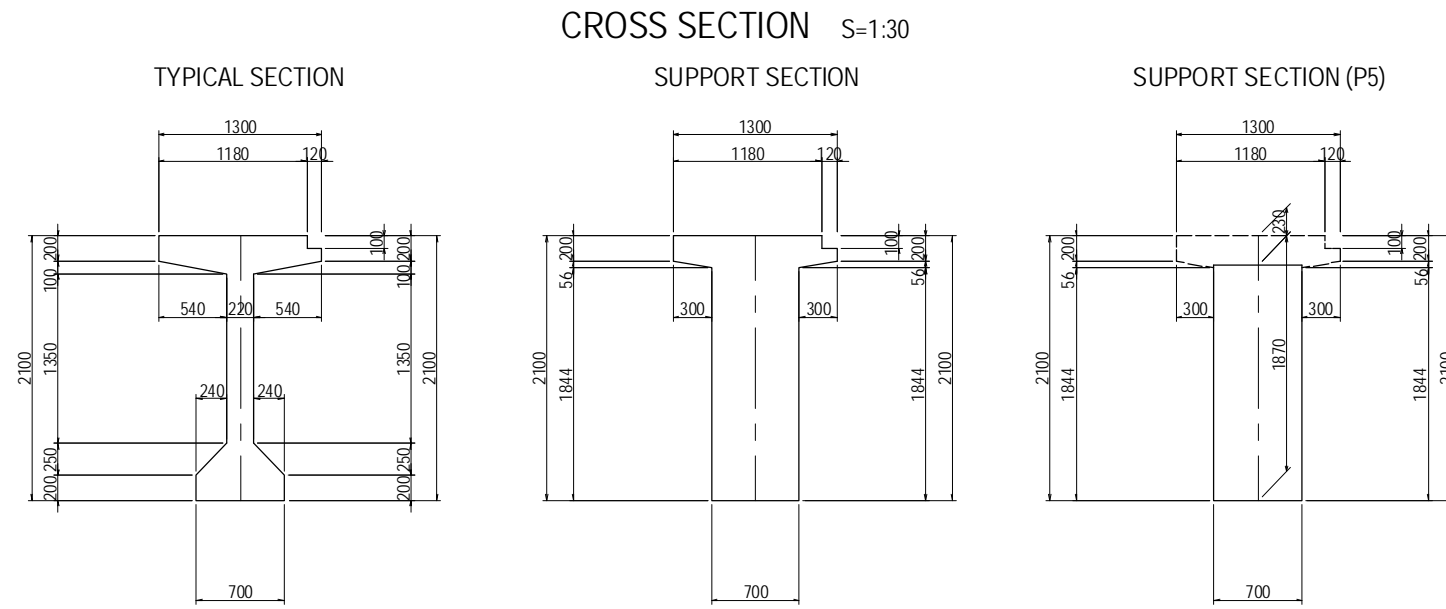
		(UNIT: mm)										
		PO3	GE7	S7	C16	C17	C18	C19	C20	S8	GE8	P5
OL2	t1	185	186	188	216	231	235	226	206	181	179	178
OCL	t2	138	138	141	168	184	187	179	159	136	134	134
SCL	t3	133	133	136	163	179	182	174	154	131	130	129
OR2	t4	80	81	83	111	126	130	121	102	82	81	80

DETAIL OF ADJUSTMENT LAYER S=1:30



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 GENERAL VIEW OF SUPERSTRUCTURE FOR ON-RAMP (4)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-1004

GENERAL VIEW OF SUPERSTRUCTURE FOR ON-RAMP (5)

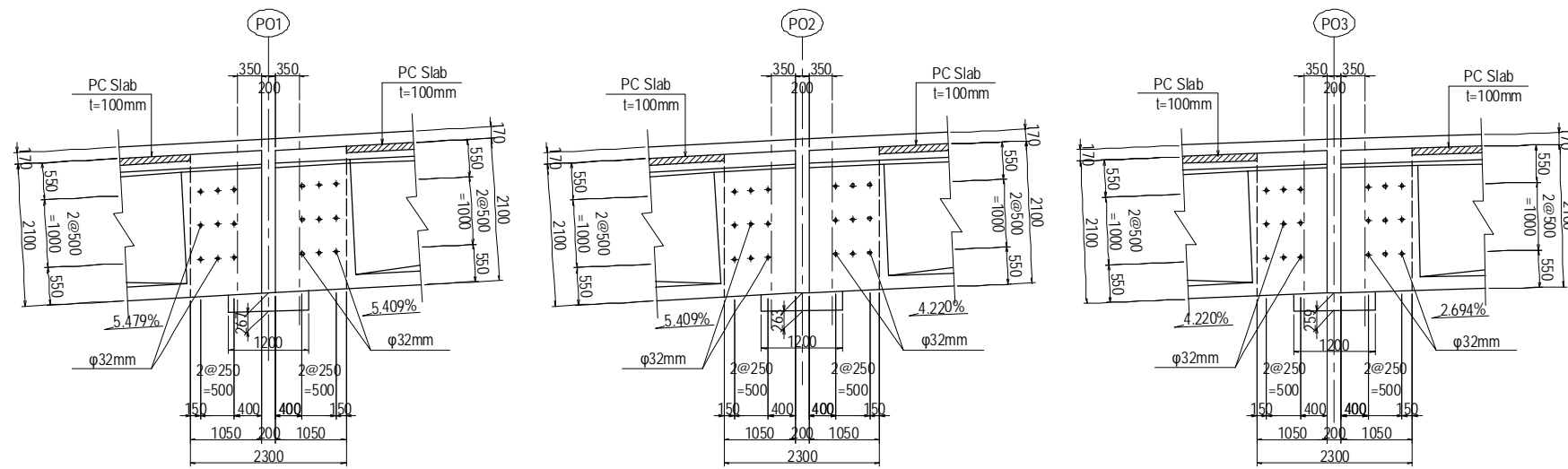


DESIGN DONDITION

ROAD GARDE	Equivalent to CLASS C
BRIDGE TYPE	4 span continuous PC-I girder bridge with composite deck(PC board and RC deck)
BRIDGE LENGTH	L = 115.200m
SPAN LENGTH	L = 27.900 + 27.900 + 27.900 + 27.900m
WIDTH OF THE ROAD	TOTAL : 6.450m L = 0.600 + 0.750 + 3.250 + 1.250 + 0.600m
HORIZONTAL ALIGNMENT	R = ∞
LONGITUDINAL SLOPE	5.479% ↙ ~ 2.197% ↘
SUPERELEVATION	2.00% ↘
ANGLE OF SKEW	AO1, PO1, PO2, PO3 : 90°00'00" , P5 : 87°13'02"
PAVEMENT	ASPHALT PAVEMENT t = 80 mm
SLAB	REINFORCED CONCRETE t = 170 mm
PLATE	PRESTRESS CONCRETE BOARD t = 100 mm
LIVE ROAD	AASHTO HL-93
DESIGN STANDARD	AASHTO LRFD BRIDGE DESIGN 2014(LIVE LOAD) Specifications for highway bridges (Japan Road Association) Part I Common, Part III Concrete Bridges, Part V Seismic Design (April 2012)

DETAIL OF CROSS BEAM S=1:50

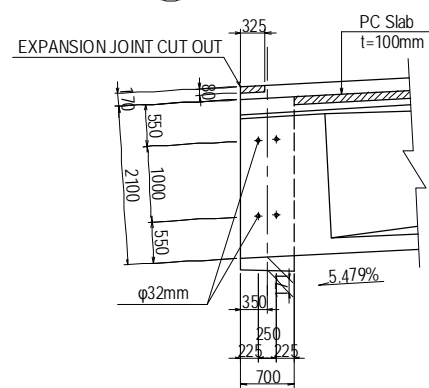
CONNECTION PART



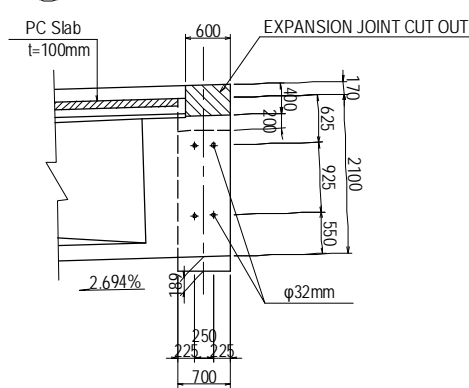
MATERIALS LIST

		(N/mm ²)				
CONCRETE		MAIN GIRDER	CROSS BEAM	PC BOARD	RC SLAB	COUPLING CONCRETE
DESIGN STRENGTH OF CONCRETE		40.0	30.0	40.0	30.0	30.0
ALLOWABLE FLEXURAL COMPRESSIVE STRESS	IMMEDIATELY AFTER PRESTRESSING	19.0	15.0	19.0	—	—
	OTHERS	14.0	11.0	14.0	10.0	10.0
ALLOWABLE FLEXURAL 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 DIAGONAL TENSILE STRESS (DEAD LOAD)	IN CASE WHERE ONLY SHEAR FORCES	-1.0	-0.8	—	—	—
ALLOWABLE DIAGONAL TENSILE STRESS (DESIGN LOAD)	IN CASE WHERE ONLY SHEAR FORCES	-2.0	-1.7	—	—	—

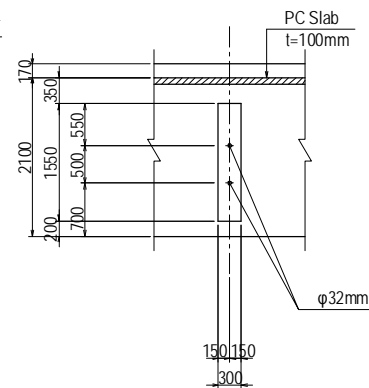
AO1 END CROSS BEAM



P5 END CROSS BEAM



INTERMEDIATE CROSS BEAM

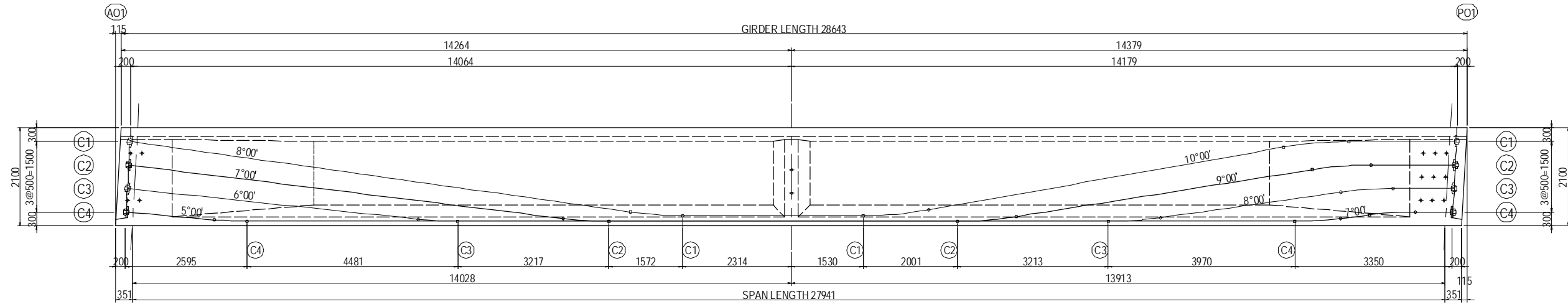


		(N/mm ²)		
PC STRAND		SWPR7BL 12S12.7mm	SBPR930/1080 32mm	SWPR7 1S9.3mm
TENSILE STRENGTH		1850	1080	1700
YIELD POINT		1600	980	1450
ALLOWABLE TENSILE STRESS	DURING PRESTRESSING	1440	837	1305
	IMMEDIATELY AFTER PRESTRESSING	1295	756	1190
	UNDER DESIGN LOAD	1110	648	1020

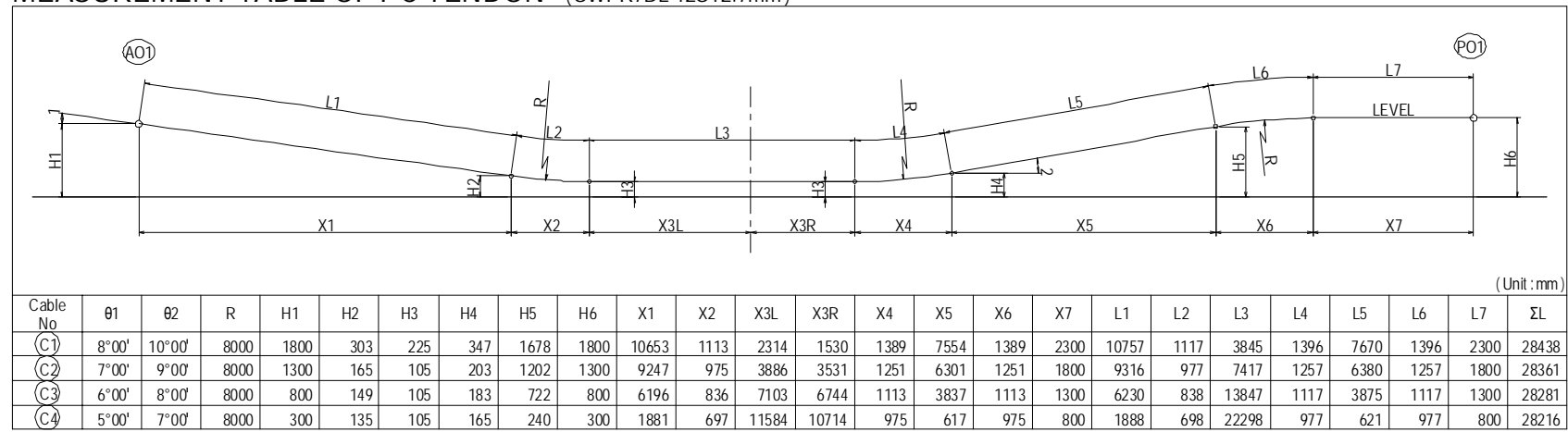
		(N/mm ²)			
REINFORCING STEEL		MAIN GIRDER	CROSS BEAM	RC SLAB	COUPLING CONCRETE
STEEL TYPE		SD345	SD345	SD345	SD345
YIELD POINT		345	345	345	345
ALLOWABLE TENSILE STRESS	DEAD LOAD	—	—	100	100
	DESIGN LOAD	180	180	140	160

TENDON ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (1)

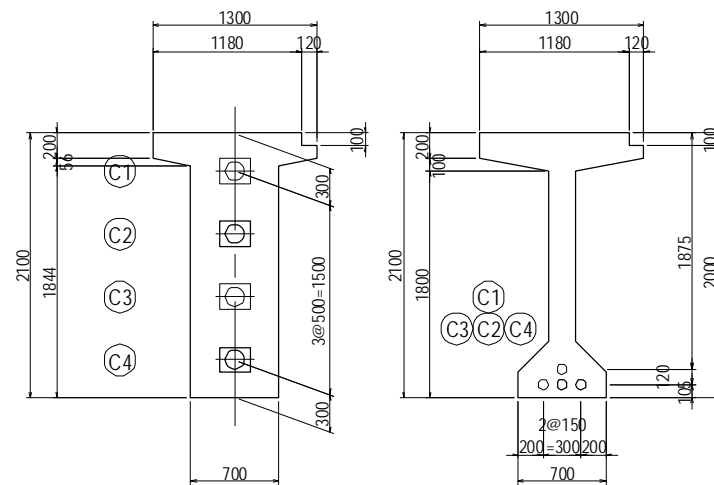
SIDE ELEVATION S=1:100



MEASUREMENT TABLE OF PC TENDON (SWPR7BL 12S12.7mm)



CROSS SECTION S=1:60



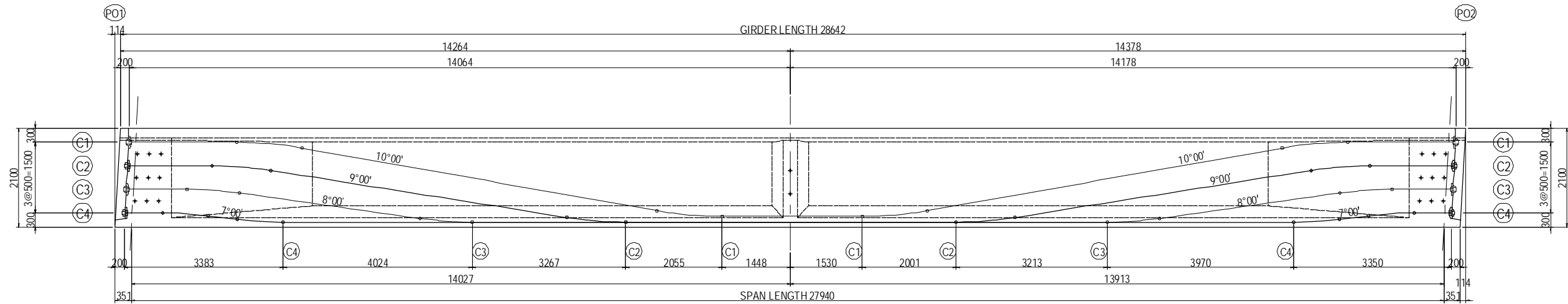
Notes:

- Unless otherwise indicated in drawing, longitudinal PC tendons shall be tensioned from both ends simultaneously.
- Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
- 1340 N/mm² is assumed as jacking force of 12S12.7mm tendons in design stage. Jacking force considering jacking sequence shall be indicated on shop drawings and shall be approved by Engineer.

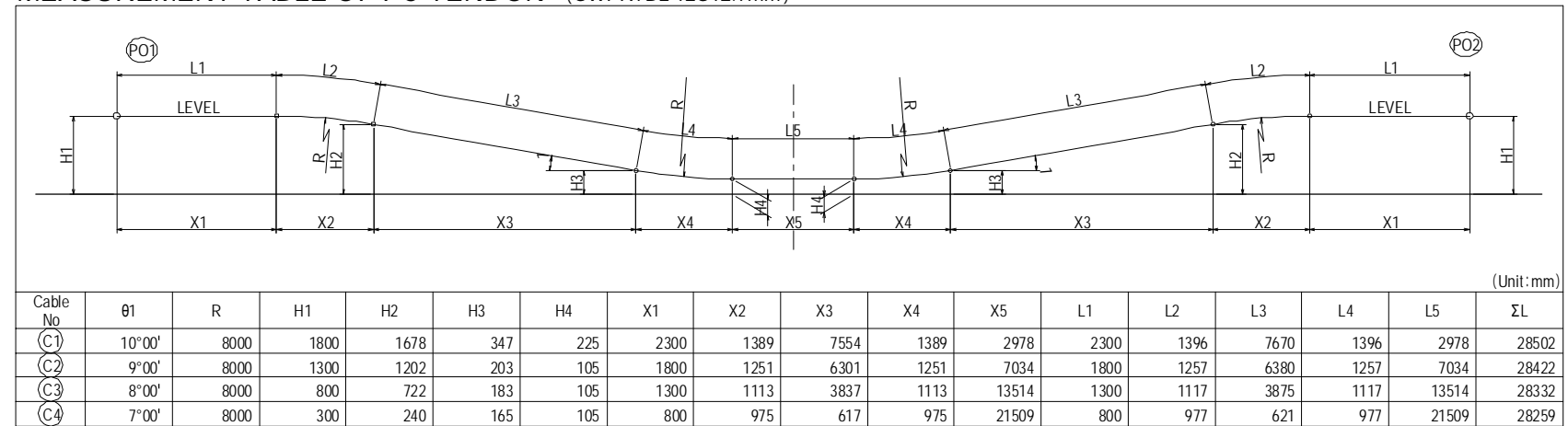
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE TENDON ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (1)	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘		15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA	平川 知邦		20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO	佐野 祐一		21 Jun.2017	P1-OR-1101

TENDON ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (2)

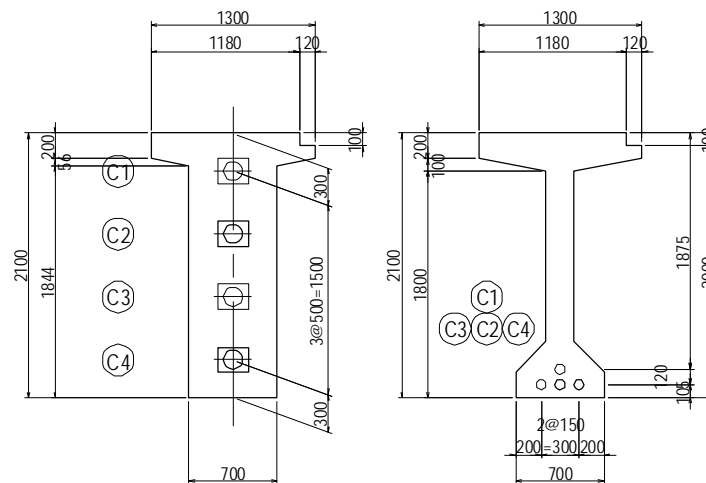
SIDE ELEVATION S=1:100



MEASUREMENT TABLE OF PC TENDON (SWPR7BL 12S12.7mm)



CROSS SECTION S=1:60



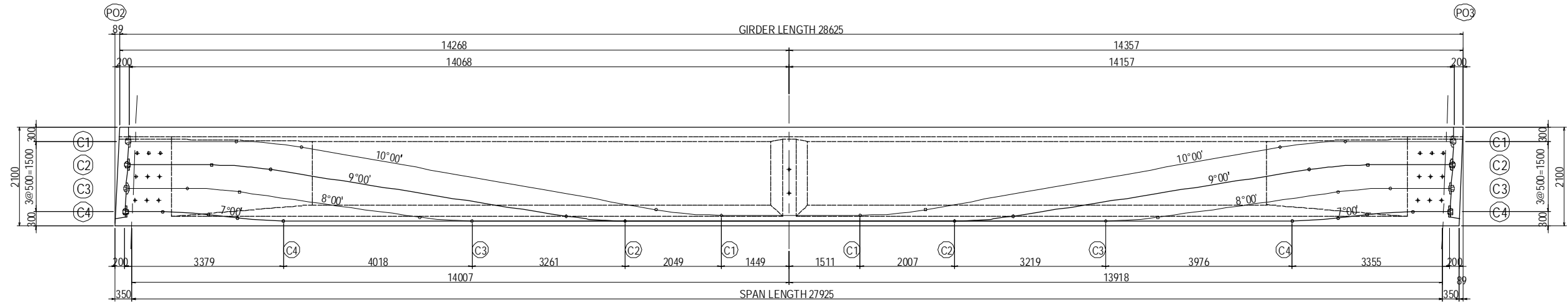
Notes:

- Unless otherwise indicated in drawing, longitudinal PC tendons shall be tensioned from both ends simultaneously.
- Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
- 1340 N/mm² is assumed as jacking force of 12S12.7mm tendons in design stage. Jacking force considering jacking sequence shall be indicated on shop drawings and shall be approved by Engineer.

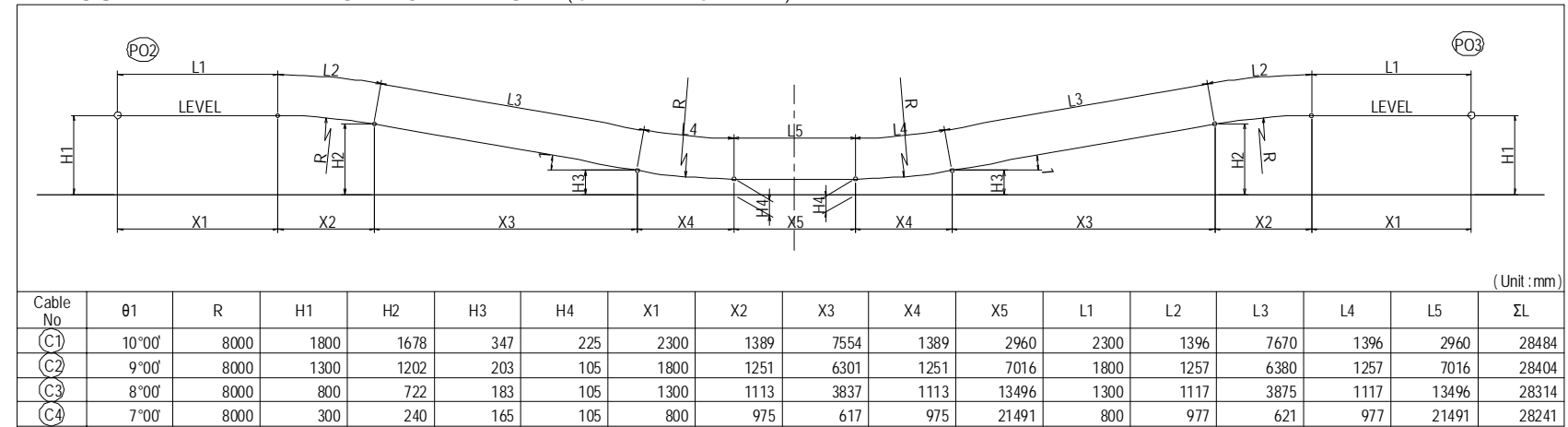
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE TENDON ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (2)	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘		15 Jun. 2017	1
				CHECKED BY	T. HAYAKAWA	平川 知邦		20 Jun. 2017	DWG No.
				APPROVED BY	Y. SANO	佐野 祐一		21 Jun. 2017	P1-OR-1102

TENDON ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (3)

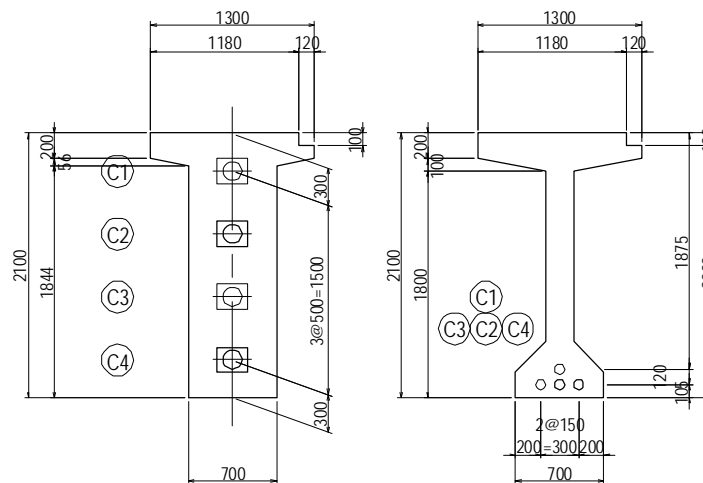
SIDE ELEVATION S=1:100



MEASUREMENT TABLE OF PC TENDON (SWPR7BL 12S12.7mm)



CROSS SECTION S=1:60



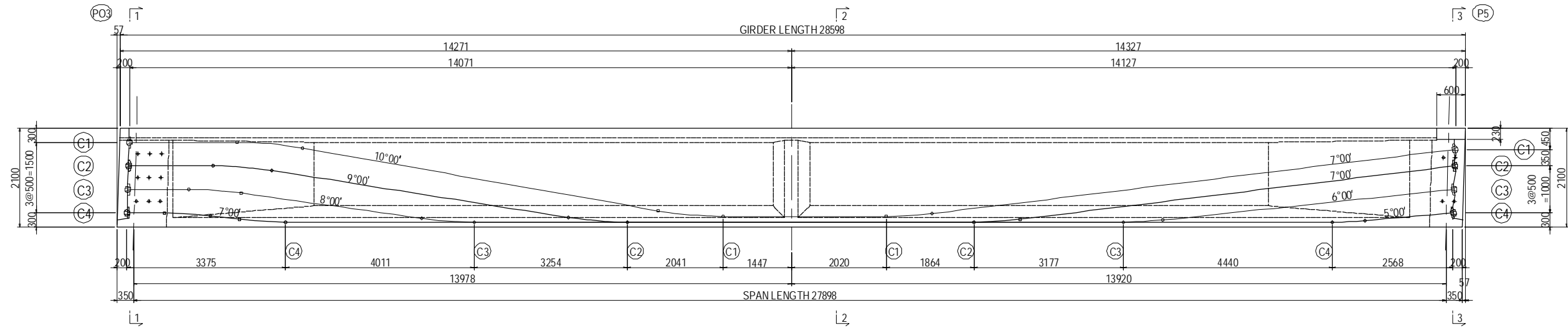
Notes:

- Unless otherwise indicated in drawing, longitudinal PC tendons shall be tensioned from both ends simultaneously.
- Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
- 1340 N/mm² is assumed as jacking force of 12S12.7mm tendons in design stage. Jacking force considering jacking sequence shall be indicated on shop drawings and shall be approved by Engineer.

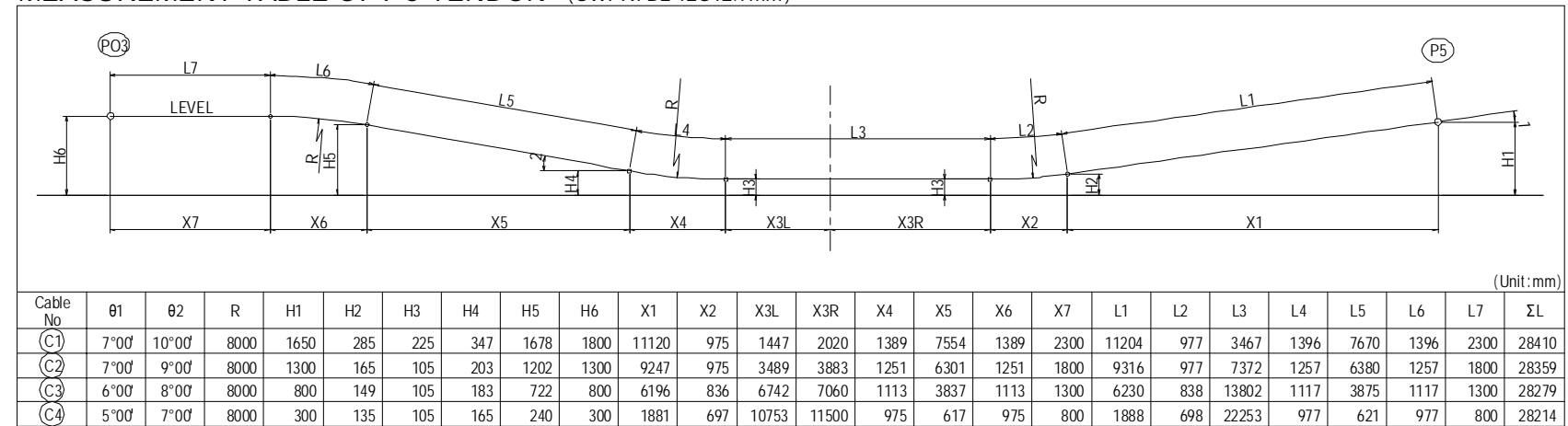
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE TENDON ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (3)	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘		15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA	平川 知寿		20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO	佐野 祐一		21 Jun.2017	P1-OR-1103

TENDON ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (4)

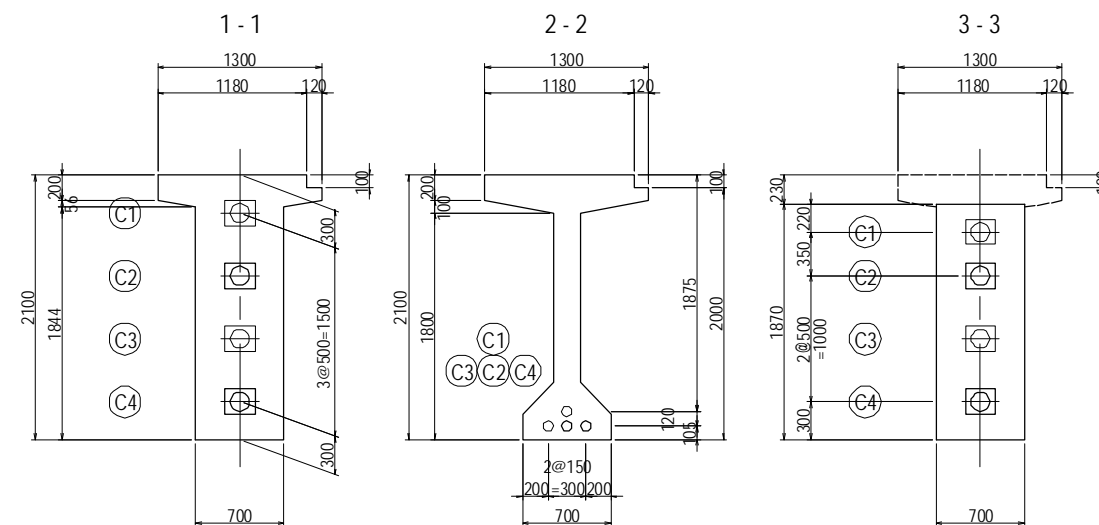
SIDE ELEVATION S=1:100



MEASUREMENT TABLE OF PC TENDON (SWPR7BL 12S12.7mm)



CROSS SECTION S=1:60



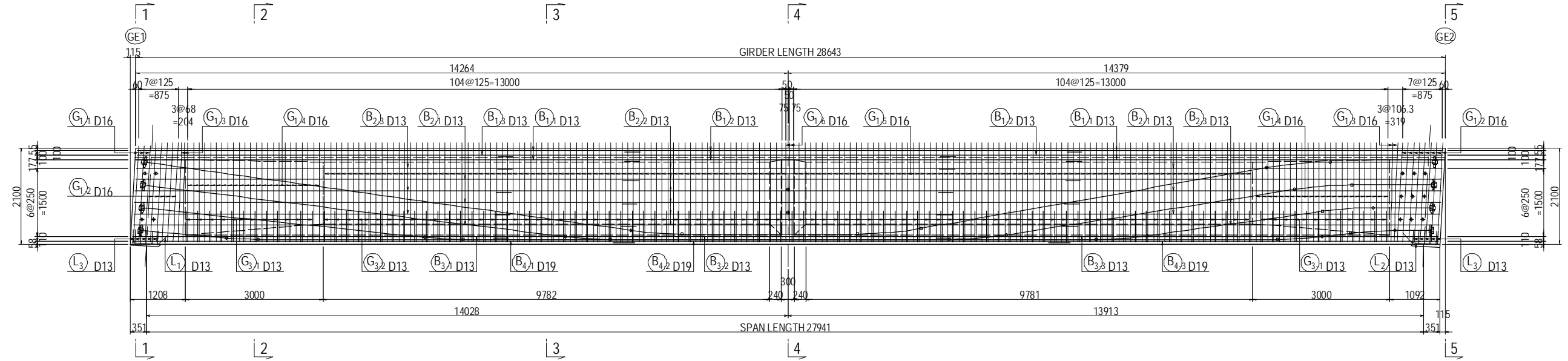
Notes:

- Unless otherwise indicated in drawing, longitudinal PC tendons shall be tensioned from both ends simultaneously.
- Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
- 1340 N/mm² is assumed as jacking force of 12S12.7mm tendons in design stage. Jacking force considering jacking sequence shall be indicated on shop drawings and shall be approved by Engineer.

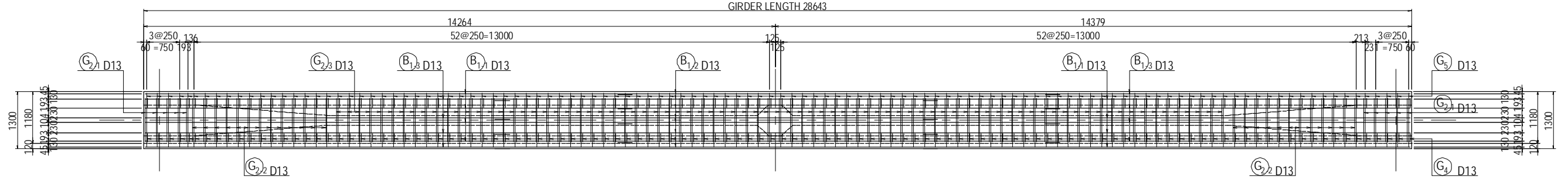
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE TENDON ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (4)	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘		15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA	平川 知寿		20 Jun.2017	DWG No.
APPROVED BY	Y. SANO	佐野 祐一	21 Jun.2017	P1-OR-1104					

BAR ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (1)

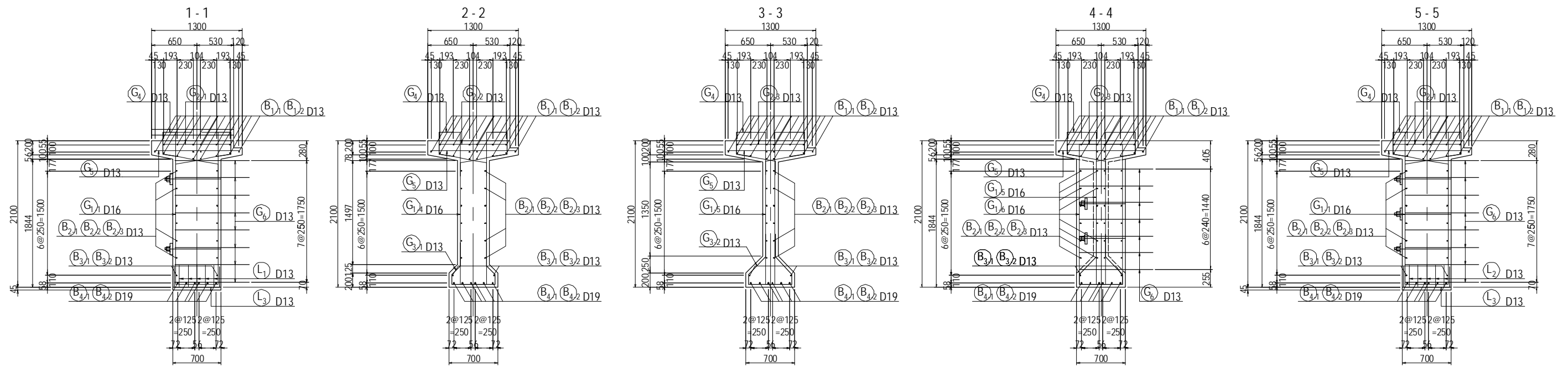
SIDE ELEVATION S=1:100



PLAN VIEW S=1:100



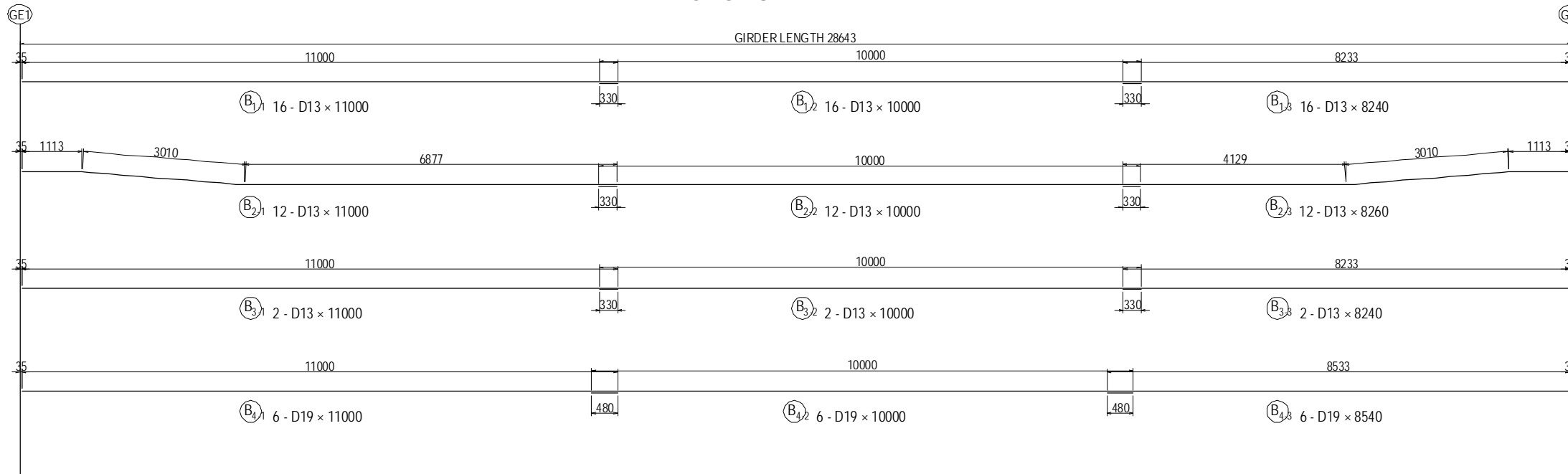
CROSS SECTION S=1:60



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 BAR ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP(1)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-1201

BAR ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (2)

LONGITUDINAL REBAR S=1:100

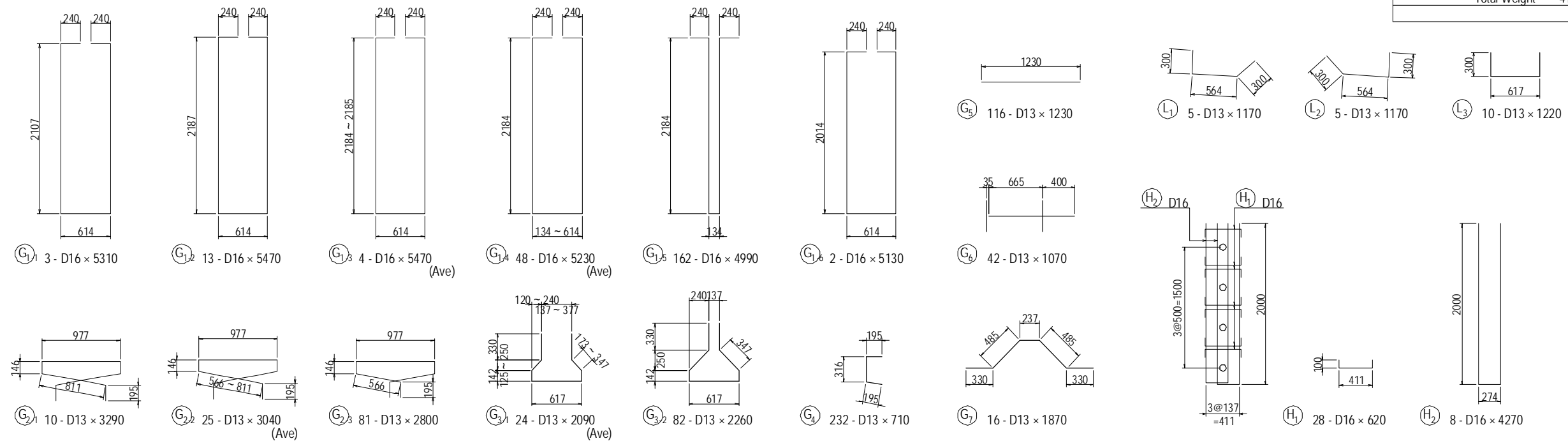


BAR STATISTICS TABLE

(For 1 Girder)

Mark	Size	Length (mm)	No. (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
B 1-1	D13	11000	16	0.995	10.95	175	—
1-2	D13	10000	16	0.995	9.95	159	—
1-3	D13	8240	16	0.995	8.20	131	—
2-1	D13	11000	12	0.995	10.95	131	—
2-2	D13	10000	12	0.995	9.95	119	—
2-3	D13	8260	12	0.995	8.22	99	—
3-1	D13	11000	2	0.995	10.95	22	—
3-2	D13	10000	2	0.995	9.95	20	—
3-3	D13	8240	2	0.995	8.20	16	—
4-1	D19	11000	6	2.25	24.75	149	—
4-2	D19	10000	6	2.25	22.50	135	—
4-3	D19	8540	6	2.25	19.22	115	—
G 1-1	D16	5310	3	1.56	8.28	25	□
1-2	D16	5470	13	1.56	8.53	111	□
1-3	D16	5470	4	1.56	8.53	34	□ (Ave)
1-4	D16	5230	48	1.56	8.16	392	□ (Ave)
1-5	D16	4990	162	1.56	7.78	1260	□
1-6	D16	5130	2	1.56	8.00	16	□
2-1	D13	3290	10	0.995	3.27	33	□
2-2	D13	3040	25	0.995	3.02	76	□ (Ave)
2-3	D13	2800	81	0.995	2.79	226	□ (Ave)
3-1	D13	2090	24	0.995	2.08	50	□ (Ave)
3-2	D13	2260	82	0.995	2.25	185	□
4	D13	710	232	0.995	0.71	165	□
5	D13	1230	116	0.995	1.22	142	□
6	D13	1070	42	0.995	1.06	45	□
7	D13	1870	16	0.995	1.86	30	□
L 1	D13	1170	5	0.995	1.16	6	□
2	D13	1170	5	0.995	1.16	6	□
3	D13	1220	10	0.995	1.21	12	□
H 1	D16	620	28	1.56	0.97	27	□
2	D16	4270	8	1.56	6.66	53	□
				D13	1848 kg		
				D16	1918 kg		
				D19	399 kg		
				Total Weight	4165 kg		

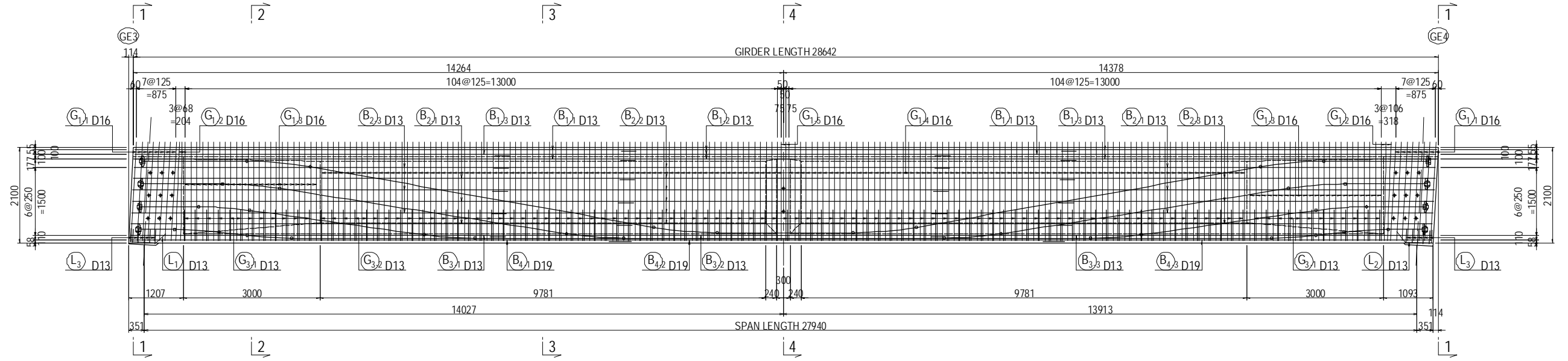
TRANSVERSE REBAR S=1:60



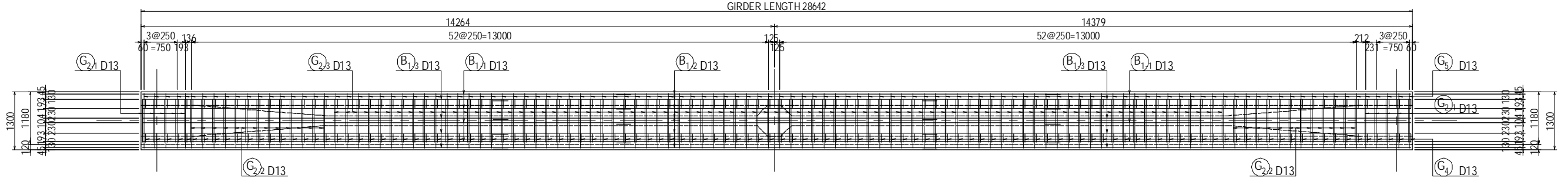
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (2)	PACKAGE 1 DWG No. P1-OR-1202	
				PREPARED BY	M. OHYAMA	大山 満弘			15 Jun.2017
				CHECKED BY	T. HAYAKAWA	平川 知邦			20 Jun.2017
				APPROVED BY	Y. SANO	佐野 祐一			21 Jun.2017

BAR ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (3)

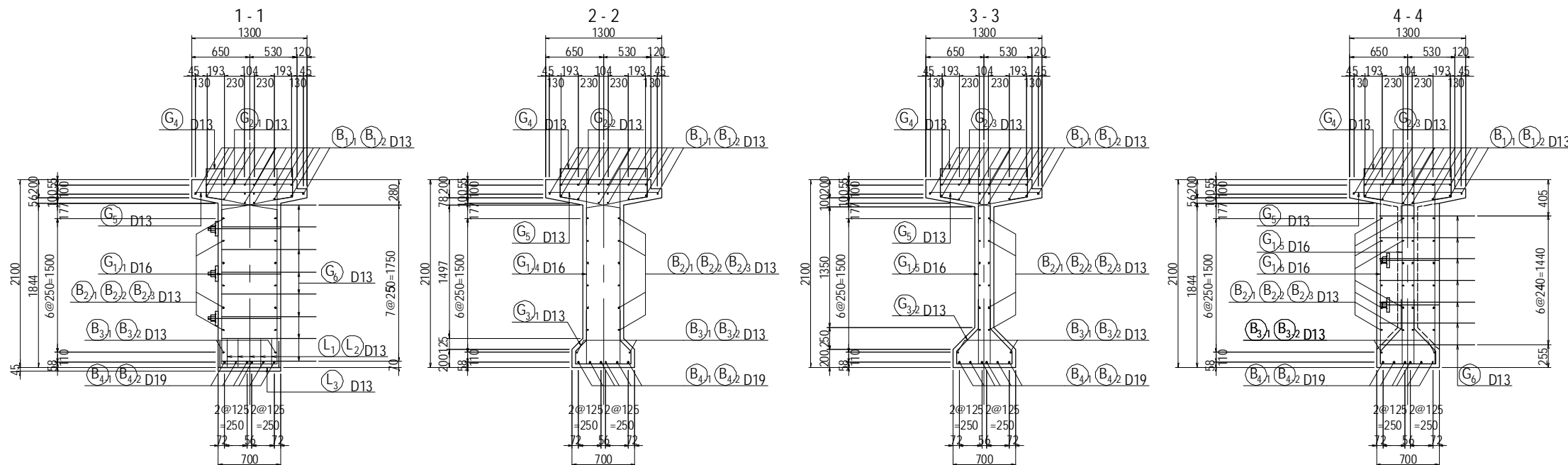
SIDE ELEVATION S=1:100



PLAN VIEW S=1:100



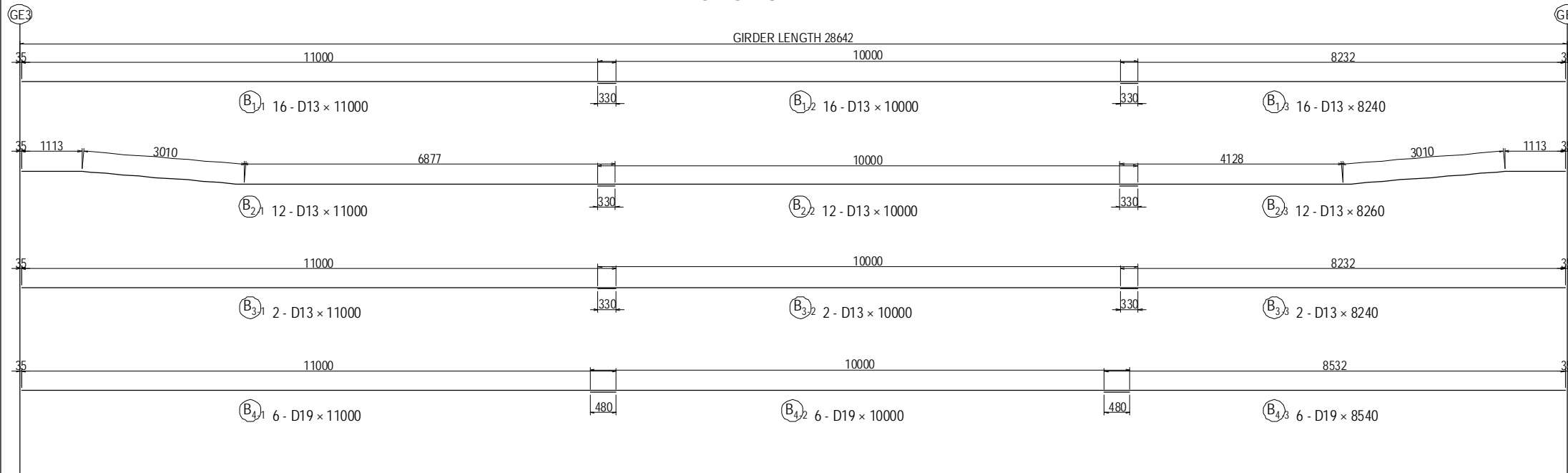
CROSS SECTION S=1:60



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 BAR ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (3)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-1203

BAR ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (4)

LONGITUDINAL REBAR S=1:100

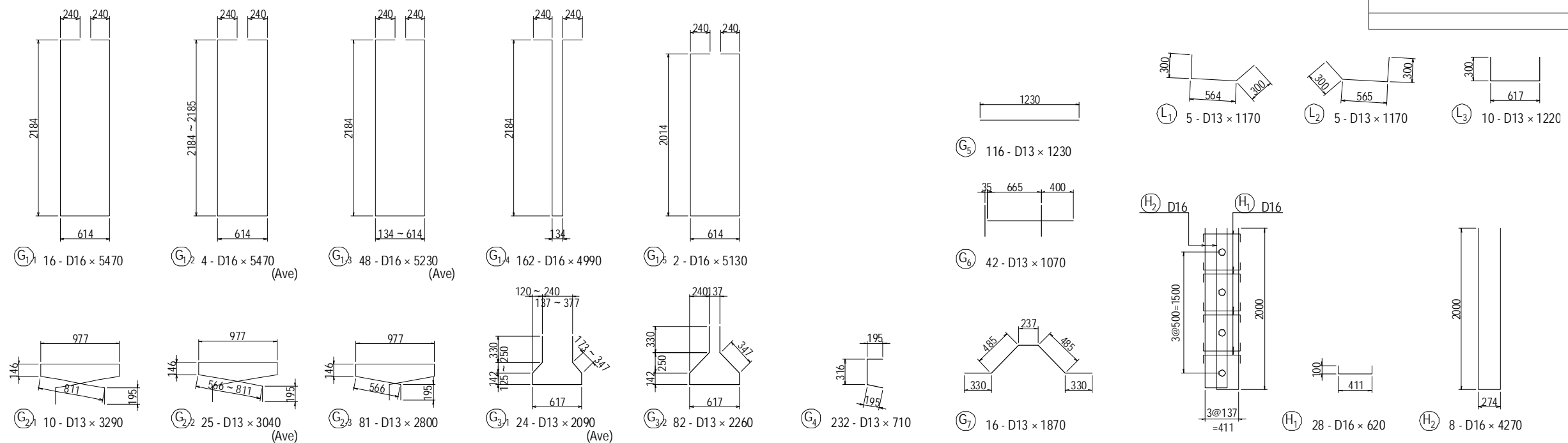


BAR STATISTICS TABLE

(For 1 Girder)

Mark	Size	Length (mm)	No. (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
B 1-1	D13	11000	16	0.995	10.95	175	—
1-2	D13	10000	16	0.995	9.95	159	—
1-3	D13	8240	16	0.995	8.20	131	—
2-1	D13	11000	12	0.995	10.95	131	—
2-2	D13	10000	12	0.995	9.95	119	—
2-3	D13	8260	12	0.995	8.22	99	—
3-1	D13	11000	2	0.995	10.95	22	—
3-2	D13	10000	2	0.995	9.95	20	—
3-3	D13	8240	2	0.995	8.20	16	—
4-1	D19	11000	6	2.25	24.75	149	—
4-2	D19	10000	6	2.25	22.50	135	—
4-3	D19	8540	6	2.25	19.22	115	—
G 1-1	D16	5470	16	1.56	8.53	136	□
1-2	D16	5470	4	1.56	8.53	34	□ (Ave)
1-3	D16	5230	48	1.56	8.16	392	□ (Ave)
1-4	D16	4990	162	1.56	7.78	1260	□
1-5	D16	5130	2	1.56	8.00	16	□
2-1	D13	3290	10	0.995	3.27	33	□
2-2	D13	3040	25	0.995	3.02	76	□ (Ave)
2-3	D13	2800	81	0.995	2.79	226	□
3-2	D13	2260	82	0.995	2.25	185	□
4	D13	710	232	0.995	0.71	165	□
5	D13	1230	116	0.995	1.22	142	—
6	D13	1070	42	0.995	1.06	45	—
7	D13	1870	16	0.995	1.86	30	—
L 1	D13	1170	5	0.995	1.16	6	□
2	D13	1170	5	0.995	1.16	6	□
3	D13	1220	10	0.995	1.21	12	□
H 1	D16	620	28	1.56	0.97	27	□
2	D16	4270	8	1.56	6.66	53	□
				D13	1848 kg		
				D16	1918 kg		
				D19	399 kg		
				Total Weight	4165 kg		

TRANSVERSE REBAR S=1:60



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
JICA
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.

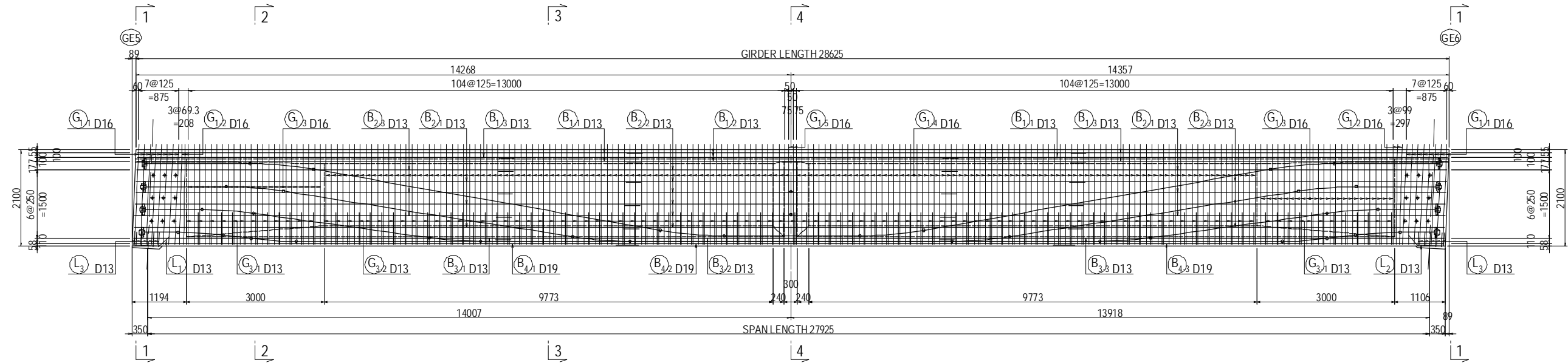
	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA	大山 満弘	15 Jun.2017
CHECKED BY	T. HAYAKAWA	平川 知邦	20 Jun.2017
APPROVED BY	Y. SANO	佐野 祐一	21 Jun.2017

DRAWING TITLE
BAR ARRANGEMENT OF
PRECAST BEAM FOR ON-RAMP (4)

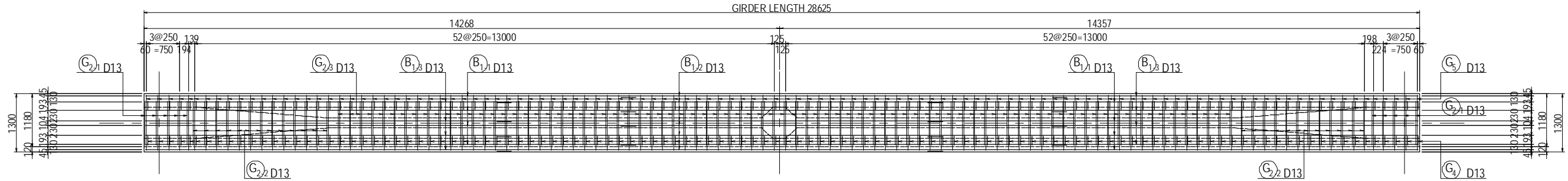
PACKAGE
1
DWG No.
P1-OR-1204

BAR ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (5)

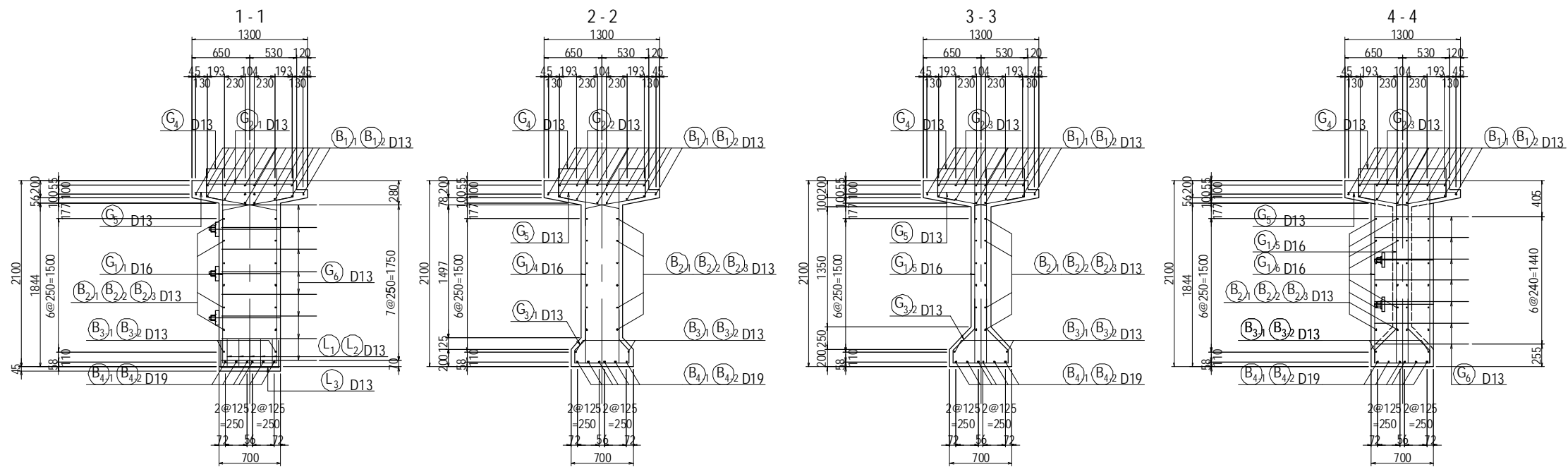
SIDE ELEVATION S=1:100



PLAN VIEW S=1:100



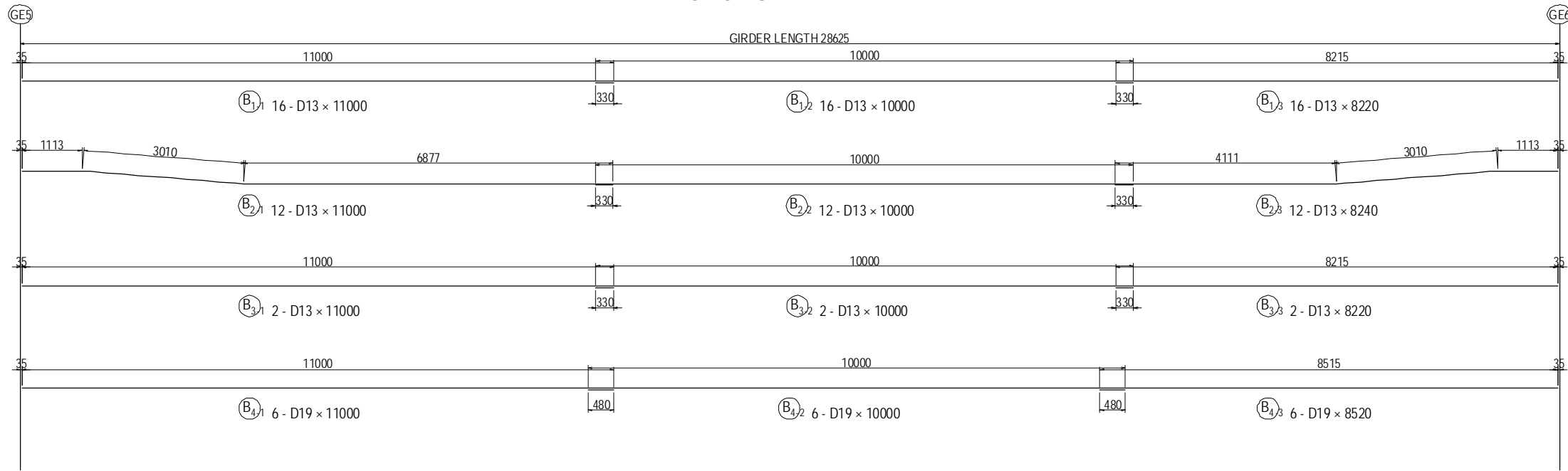
CROSS SECTION S=1:60



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 BAR ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (5)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-1205

BAR ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (6)

LONGITUDINAL REBAR S=1:100

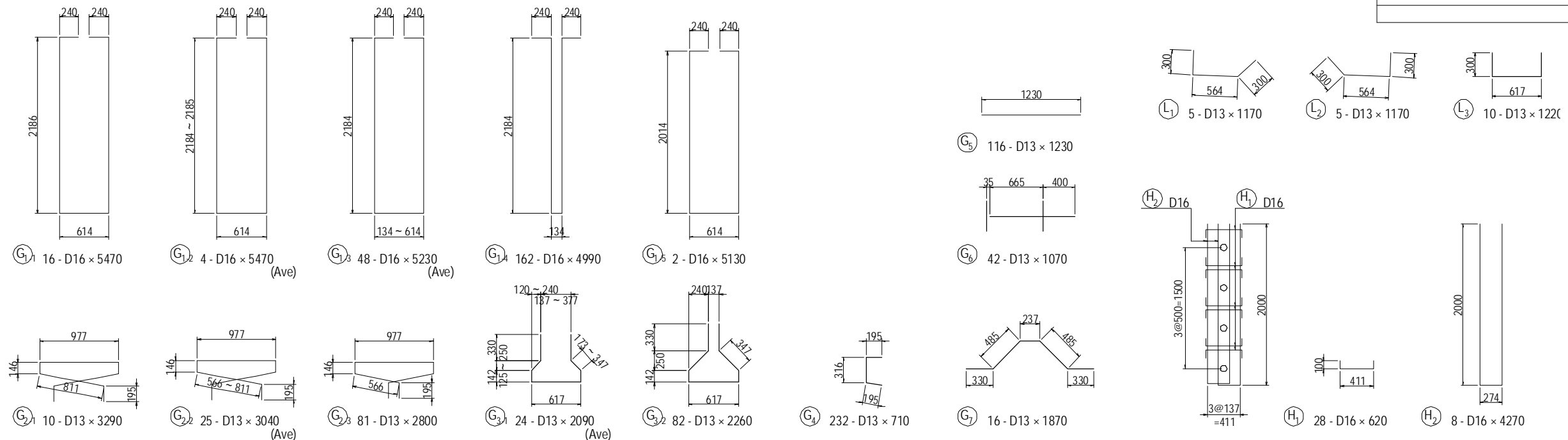


BAR STATISTICS TABLE

(For 1 Girder)

Mark	Size	Length (mm)	No. (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
B 1-1	D13	11000	16	0.995	10.95	175	—
1-2	D13	10000	16	0.995	9.95	159	—
1-3	D13	8220	16	0.995	8.18	131	—
2-1	D13	11000	12	0.995	10.95	131	—
2-2	D13	10000	12	0.995	9.95	119	—
2-3	D13	8240	12	0.995	8.20	98	—
3-1	D13	11000	2	0.995	10.95	22	—
3-2	D13	10000	2	0.995	9.95	20	—
3-3	D13	8220	2	0.995	8.18	16	—
4-1	D19	11000	6	2.25	24.75	149	—
4-2	D19	10000	6	2.25	22.50	135	—
4-3	D19	8520	6	2.25	19.17	115	—
G 1-1	D16	5470	16	1.56	8.53	136	□
1-2	D16	5470	4	1.56	8.53	34	□ (Ave)
1-3	D16	5230	48	1.56	8.16	392	□ (Ave)
1-4	D16	4990	162	1.56	7.78	1260	□
1-5	D16	5130	2	1.56	8.00	16	□
2-1	D13	3290	10	0.995	3.27	33	□
2-2	D13	3040	25	0.995	3.02	76	□ (Ave)
2-3	D13	2800	81	0.995	2.79	226	□
3-1	D13	2090	24	0.995	2.08	50	□ (Ave)
3-2	D13	2260	82	0.995	2.25	185	□
4	D13	710	232	0.995	0.71	165	□
5	D13	1230	116	0.995	1.22	142	—
6	D13	1070	42	0.995	1.06	45	—
7	D13	1870	16	0.995	1.86	30	—
L 1	D13	1170	5	0.995	1.16	6	□
2	D13	1170	5	0.995	1.16	6	□
3	D13	1220	10	0.995	1.21	12	□
H 1	D16	620	28	1.56	0.97	27	□
2	D16	4270	8	1.56	6.66	53	□
				D13	1847 kg		
				D16	1918 kg		
				D19	399 kg		
				Total Weight	4164 kg		

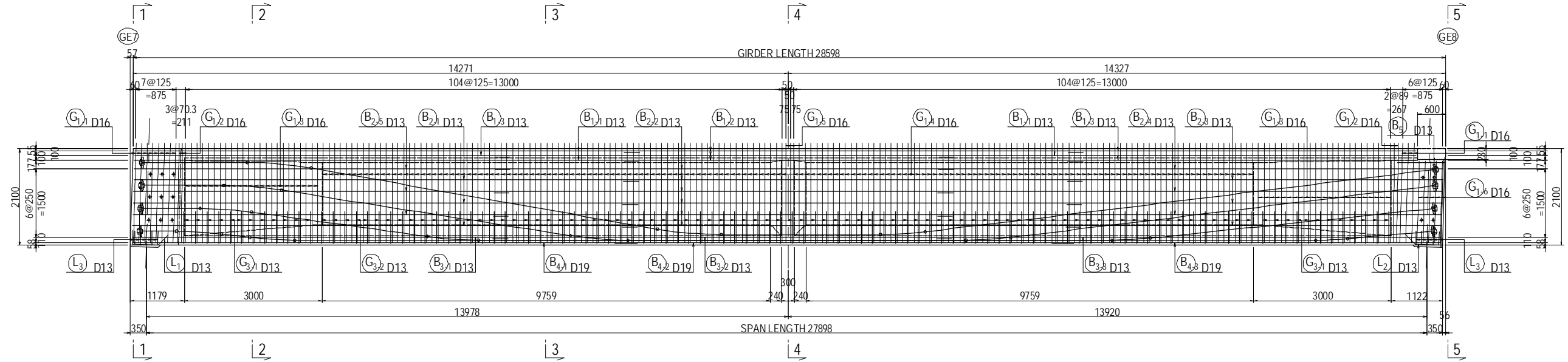
TRANSVERSE REBAR S=1:60



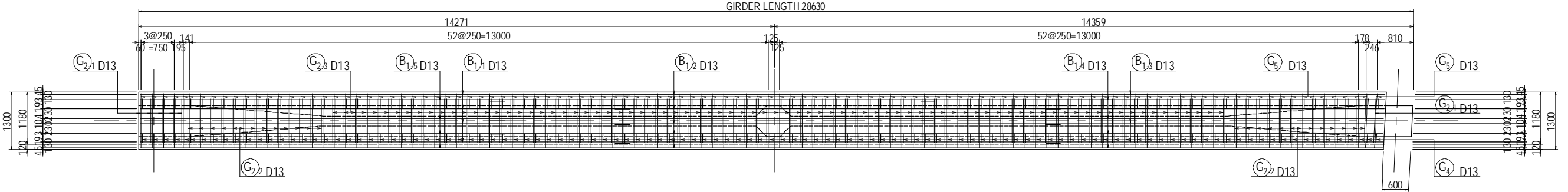
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (6)	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘		15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA	平川 知邦		20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO	佐野 祐一		21 Jun.2017	P1-OR-1206

BAR ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (7)

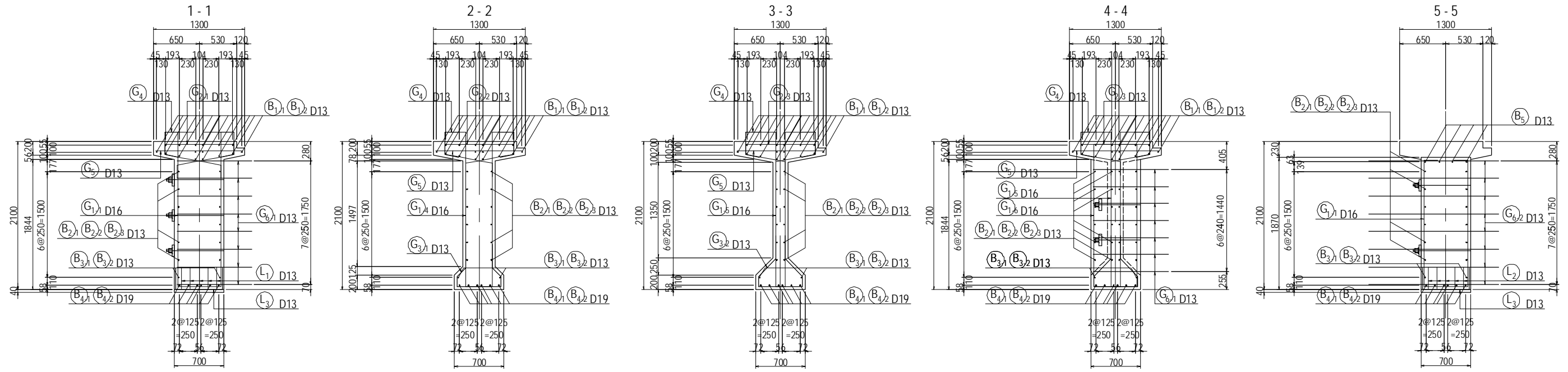
SIDE ELEVATION S=1:100



PLAN VIEW S=1:100



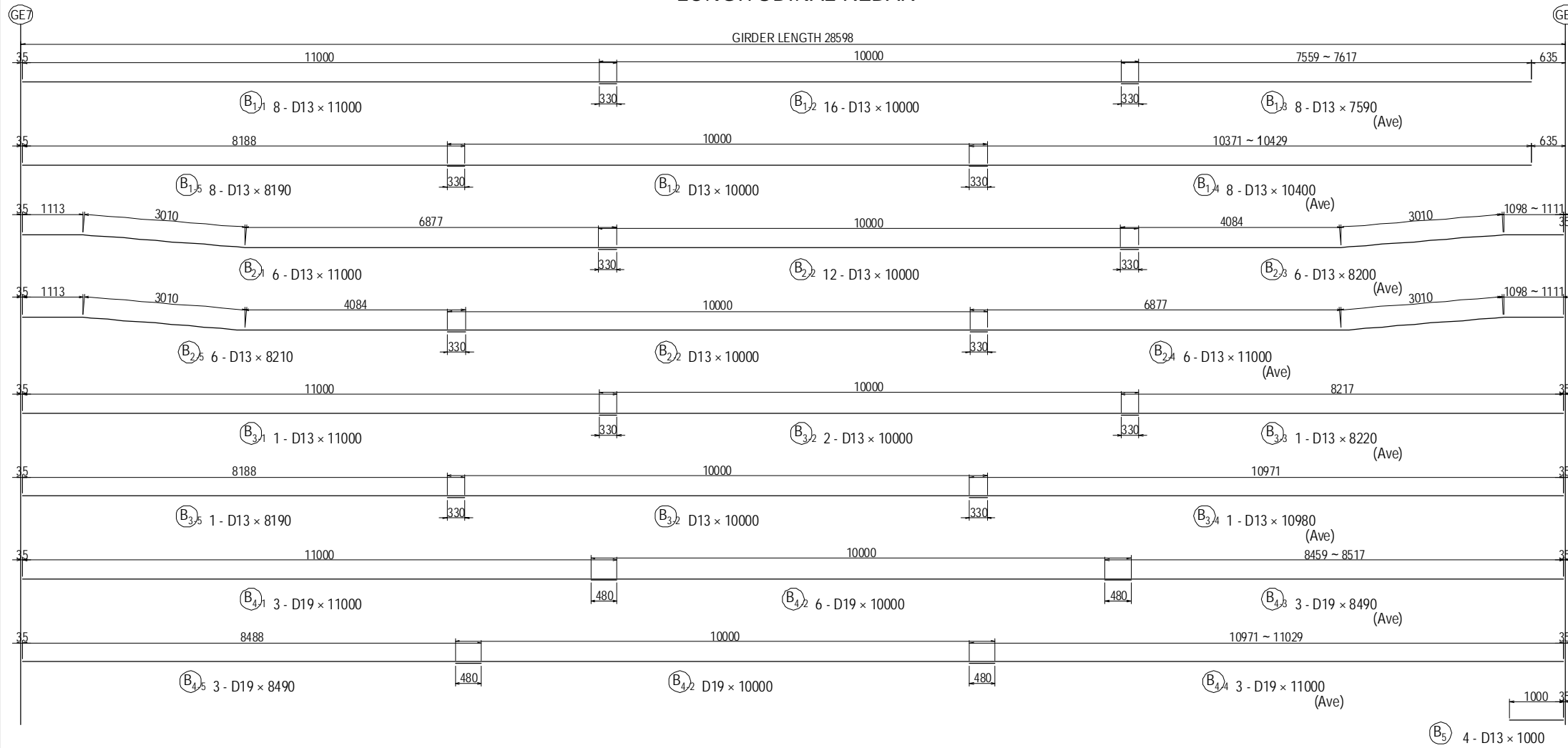
CROSS SECTION S=1:60



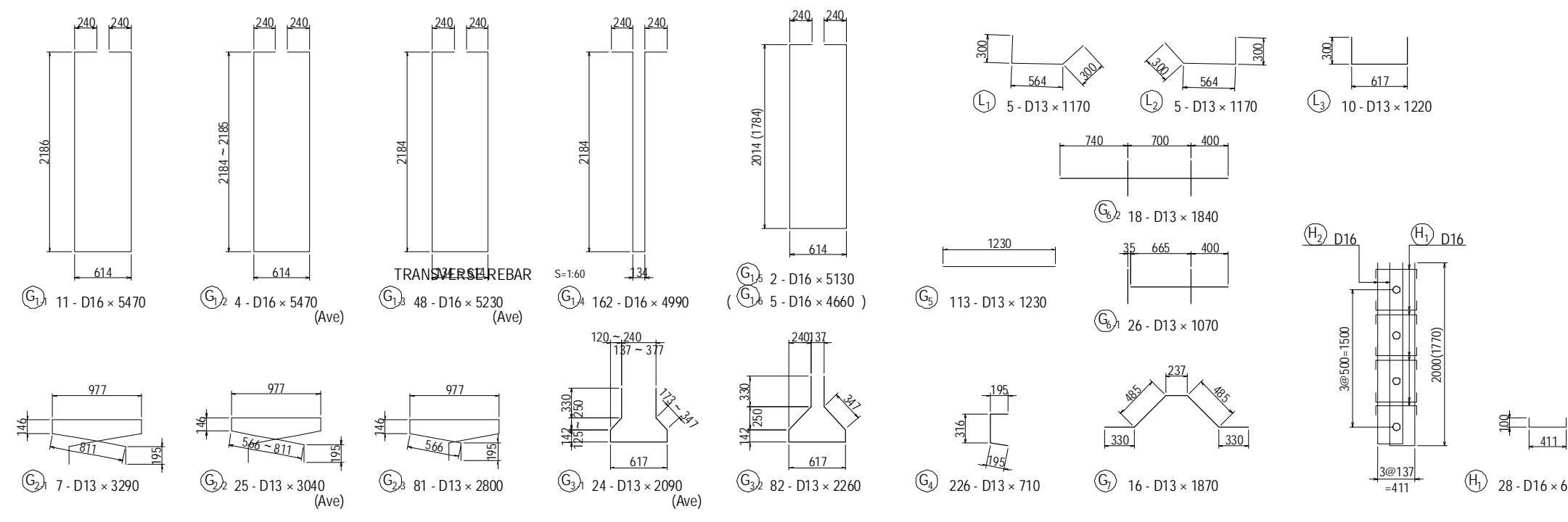
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (7)	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘		15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA	平川 知寿		20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO	佐藤 祐一	21 Jun.2017	P1-OR-1207	

BAR ARRANGEMENT OF PRECAST BEAM FOR ON-RAMP (8)

LONGITUDINAL REBAR S=1:100



TRANSVERSE REBAR S=1:60

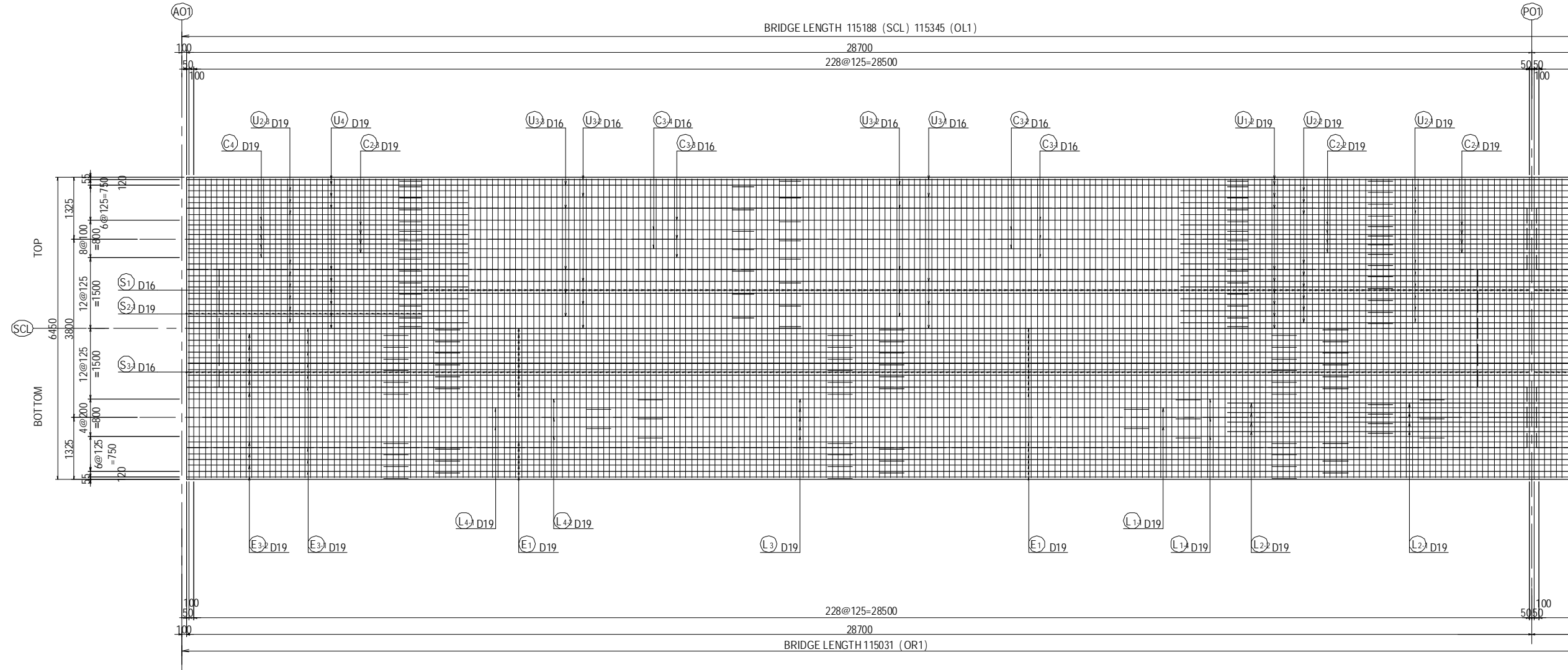


BAR STATISTICS TABLE (For 1 Girder)

Mark	Size	Length (mm)	No. (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
B 1-1	D13	11000	8	0.995	10.95	88	—
1-2	D13	10000	16	0.995	9.95	159	—
1-3	D13	7590	8	0.995	7.55	60	—
1-4	D13	10400	8	0.995	10.35	83	—
1-5	D13	8190	8	0.995	8.15	65	—
2-1	D13	11000	6	0.995	10.95	66	—
2-2	D13	10000	12	0.995	9.95	119	—
2-3	D13	8200	6	0.995	8.16	49	—
2-4	D13	11000	6	0.995	10.95	66	—
2-5	D13	8210	6	0.995	8.17	49	—
3-1	D13	11000	1	0.995	10.95	11	—
3-2	D13	10000	2	0.995	9.95	20	—
3-3	D13	8220	1	0.995	8.18	8	—
3-4	D13	10980	1	0.995	10.93	11	—
3-5	D13	8190	1	0.995	8.15	8	—
4-1	D19	11000	3	2.25	24.75	74	—
4-2	D19	10000	6	2.25	22.50	135	—
4-3	D19	8490	3	2.25	19.10	57	—
4-4	D19	11000	3	2.25	24.75	74	—
4-5	D19	8490	3	2.25	19.10	57	—
5	D13	1000	4	0.995	1.00	4	—
G 1-1	D16	5470	11	1.56	8.53	94	□
1-2	D16	5470	4	1.56	8.53	34	□ (Ave)
1-3	D16	5230	48	1.56	8.16	392	□ (Ave)
1-4	D16	4990	162	1.56	7.78	1260	□
1-5	D16	5130	2	1.56	8.00	16	□
1-6	D16	4660	5	1.56	7.27	36	□
2-1	D13	3290	7	0.995	3.27	23	□
2-2	D13	3040	25	0.995	3.02	76	□ (Ave)
2-3	D13	2800	81	0.995	2.79	226	□ (Ave)
3-1	D13	2090	24	0.995	2.08	50	△ (Ave)
3-2	D13	2260	82	0.995	2.25	185	△ (Ave)
4	D13	710	226	0.995	0.71	160	□
5	D13	1230	113	0.995	1.22	138	—
6-1	D13	1070	26	0.995	1.06	28	—
6-2	D13	1840	18	0.995	1.83	33	—
7	D13	1870	16	0.995	1.86	30	—
L 1	D13	1170	5	0.995	1.16	6	□
2	D13	1170	4	0.995	1.16	5	□
3	D13	1220	4	0.995	1.21	5	□
H 1	D16	620	28	1.56	0.97	27	□
2-1	D16	4270	4	1.56	6.66	27	□
2-2	D16	3810	4	1.56	5.94	24	□
				D13	1831	kg	
				D16	1910	kg	
				D19	397	kg	
				Total Weight	4138	kg	

BAR ARRANGEMENT OF SLAB FOR ON-RAMP (1) S=1:100

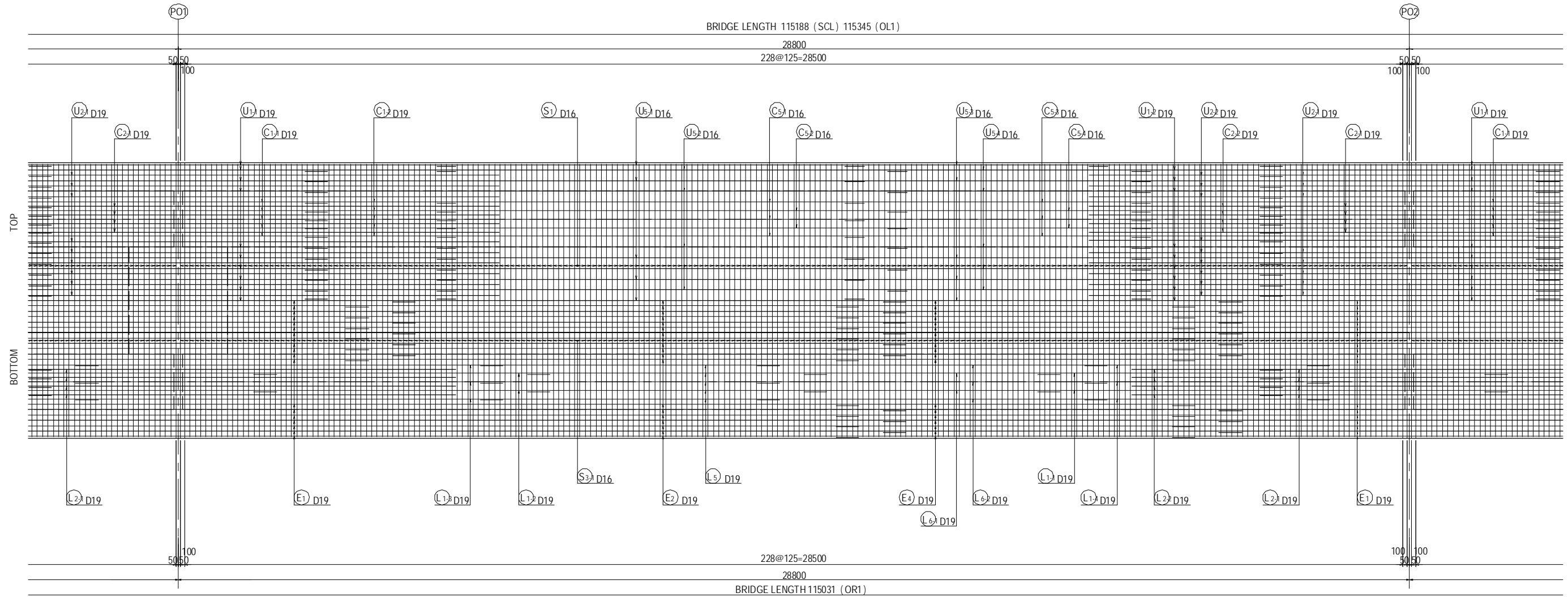
PLAN VIEW



<small>PROJECT NAME</small> DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	<small>FINANCED BY</small> JAPAN INTERNATIONAL COOPERATION AGENCY	<small>COUNTERPART</small> REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	<small>JICA STUDY TEAM</small> NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;"></th> <th style="width: 15%;">NAME</th> <th style="width: 15%;">SIGNATURE</th> <th style="width: 15%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY</td> <td>M. OHYAMA</td> <td></td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY</td> <td>T. HAYAKAWA</td> <td></td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY</td> <td>Y. SANO</td> <td></td> <td>21 Jun.2017</td> </tr> </tbody> </table>		NAME	SIGNATURE	DATE	PREPARED BY	M. OHYAMA		15 Jun.2017	CHECKED BY	T. HAYAKAWA		20 Jun.2017	APPROVED BY	Y. SANO		21 Jun.2017	DRAWING TITLE BAR ARRANGEMENT OF SLAB FOR ON-RAMP (1)	PACKAGE 1 DWG No. P1-OR-1301
	NAME	SIGNATURE	DATE																				
PREPARED BY	M. OHYAMA		15 Jun.2017																				
CHECKED BY	T. HAYAKAWA		20 Jun.2017																				
APPROVED BY	Y. SANO		21 Jun.2017																				

BAR ARRANGEMENT OF SLAB FOR ON-RAMP (2) S=1:100

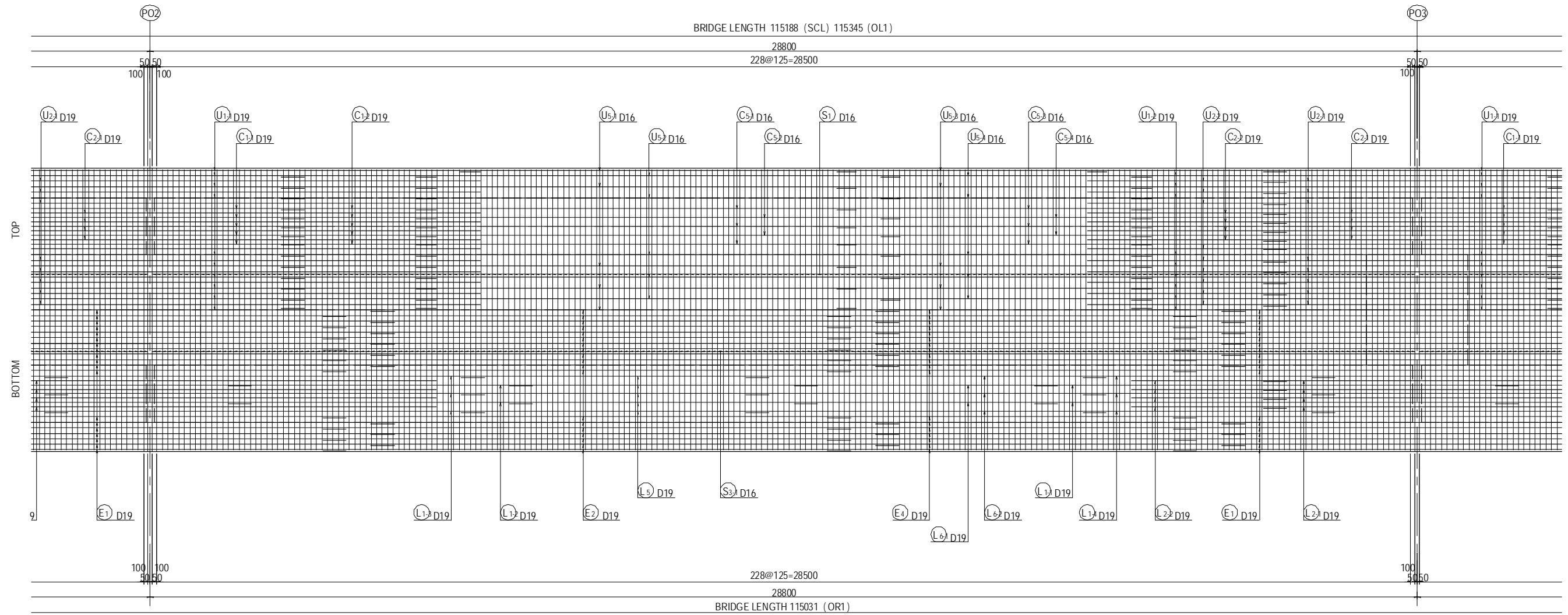
PLAN VIEW



<small>PROJECT NAME</small> DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	<small>FINANCED BY</small> JAPAN INTERNATIONAL COOPERATION AGENCY	<small>COUNTERPART</small> REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	<small>JICA STUDY TEAM</small> NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 20%;">NAME</th> <th style="width: 20%;">SIGNATURE</th> <th style="width: 10%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY</td> <td>M. OHYAMA</td> <td></td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY</td> <td>T. HAYAKAWA</td> <td></td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY</td> <td>Y. SANO</td> <td></td> <td>21 Jun.2017</td> </tr> </tbody> </table>		NAME	SIGNATURE	DATE	PREPARED BY	M. OHYAMA		15 Jun.2017	CHECKED BY	T. HAYAKAWA		20 Jun.2017	APPROVED BY	Y. SANO		21 Jun.2017	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 100%;">DRAWING TITLE</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">BAR ARRANGEMENT OF SLAB FOR ON-RAMP (2)</td> </tr> </tbody> </table>	DRAWING TITLE	BAR ARRANGEMENT OF SLAB FOR ON-RAMP (2)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 100%;">PACKAGE</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> </tr> <tr> <td style="text-align: center;">DWG No.</td> </tr> <tr> <td style="text-align: center;">P1-OR-1302</td> </tr> </tbody> </table>	PACKAGE	1	DWG No.	P1-OR-1302
	NAME	SIGNATURE	DATE																									
PREPARED BY	M. OHYAMA		15 Jun.2017																									
CHECKED BY	T. HAYAKAWA		20 Jun.2017																									
APPROVED BY	Y. SANO		21 Jun.2017																									
DRAWING TITLE																												
BAR ARRANGEMENT OF SLAB FOR ON-RAMP (2)																												
PACKAGE																												
1																												
DWG No.																												
P1-OR-1302																												

BAR ARRANGEMENT OF SLAB FOR ON-RAMP (3) S=1:60

PLAN VIEW



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.

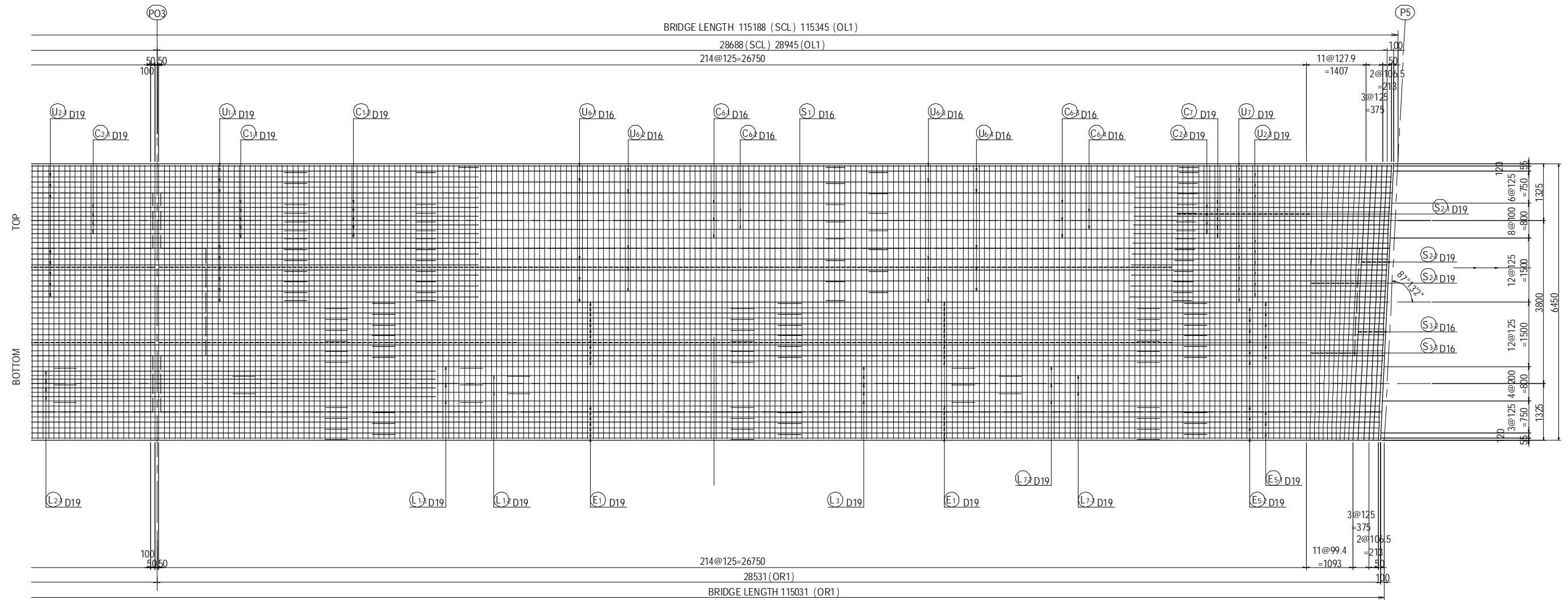
	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

DRAWING TITLE
BAR ARRANGEMENT OF SLAB FOR ON-RAMP (3)

PACKAGE
 1
 DWG No.
 P1-OR-1303

BAR ARRANGEMENT OF SLAB FOR ON-RAMP (4) S=1:100

PLAN VIEW

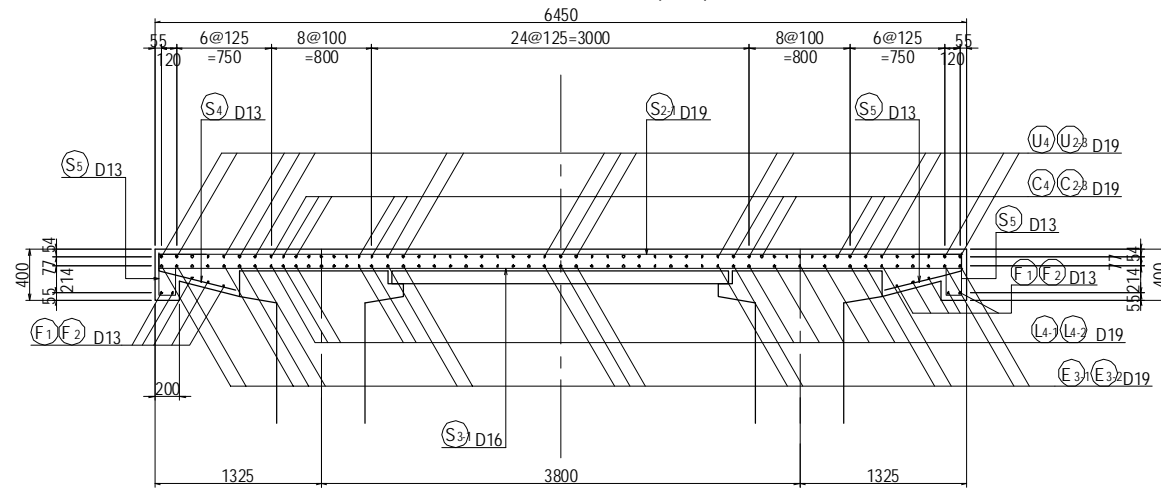


<small>PROJECT NAME</small> DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	<small>FINANCED BY</small> JAPAN INTERNATIONAL COOPERATION AGENCY	<small>COUNTERPART</small> REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	<small>JICA STUDY TEAM</small> NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">NAME</th> <th style="width: 25%;">SIGNATURE</th> <th style="width: 15%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY M. OHYAMA</td> <td></td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY T. HAYAKAWA</td> <td></td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY Y. SANO</td> <td></td> <td>21 Jun.2017</td> </tr> </tbody> </table>	NAME	SIGNATURE	DATE	PREPARED BY M. OHYAMA		15 Jun.2017	CHECKED BY T. HAYAKAWA		20 Jun.2017	APPROVED BY Y. SANO		21 Jun.2017	<small>DRAWING TITLE</small> BAR ARRANGEMENT OF SLAB FOR ON-RAMP (4)	<small>PACKAGE</small> 1 <small>DWG No.</small> P1-OR-1304
NAME	SIGNATURE	DATE																	
PREPARED BY M. OHYAMA		15 Jun.2017																	
CHECKED BY T. HAYAKAWA		20 Jun.2017																	
APPROVED BY Y. SANO		21 Jun.2017																	

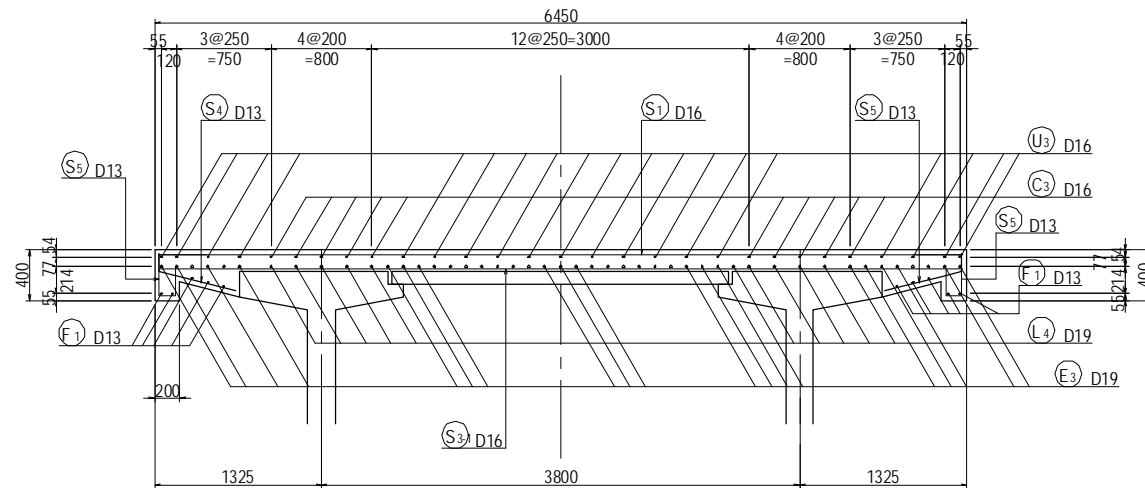
BAR ARRANGEMENT OF SLAB FOR ON-RAMP (5) S=1:60

CROSS SECTION

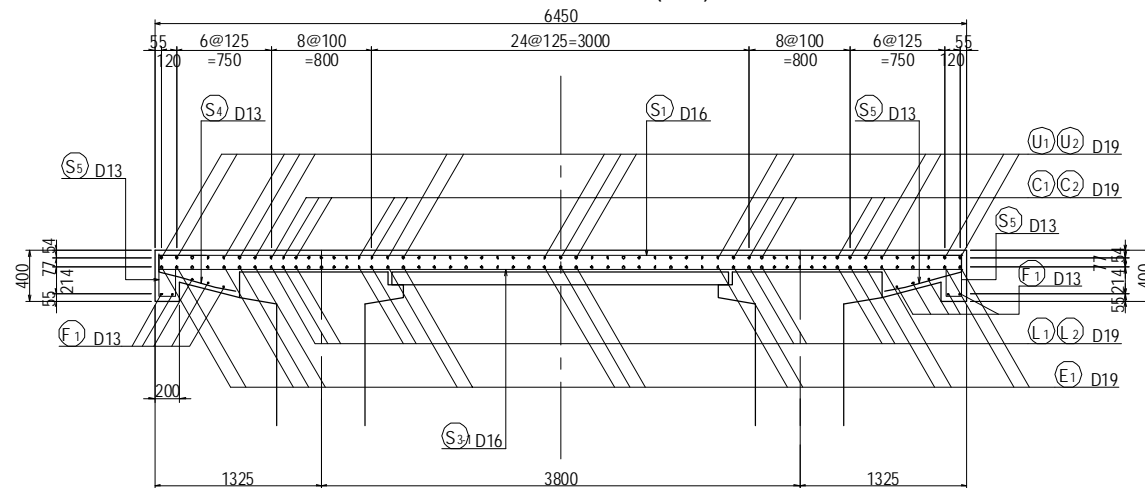
SUPPORT SECTION (A01)



TYPICAL SECTION



SUPPORT SECTION (P01)



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

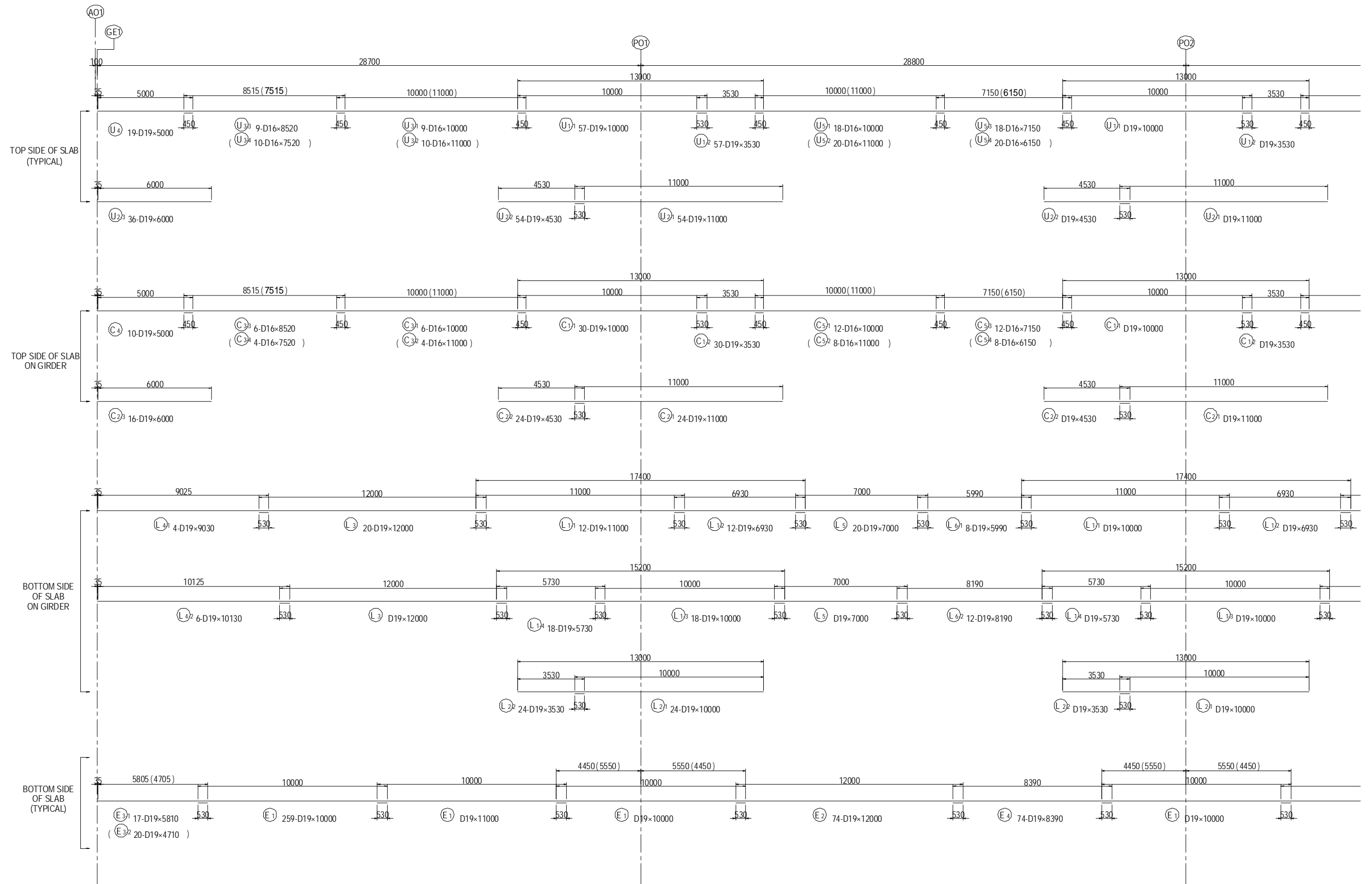
JICA STUDY TEAM
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 ORIENTAL CONSULTANTS GLOBAL CO., LTD.
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 NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

DRAWING TITLE
BAR ARRANGEMENT OF SLAB FOR ON-RAMP (5)

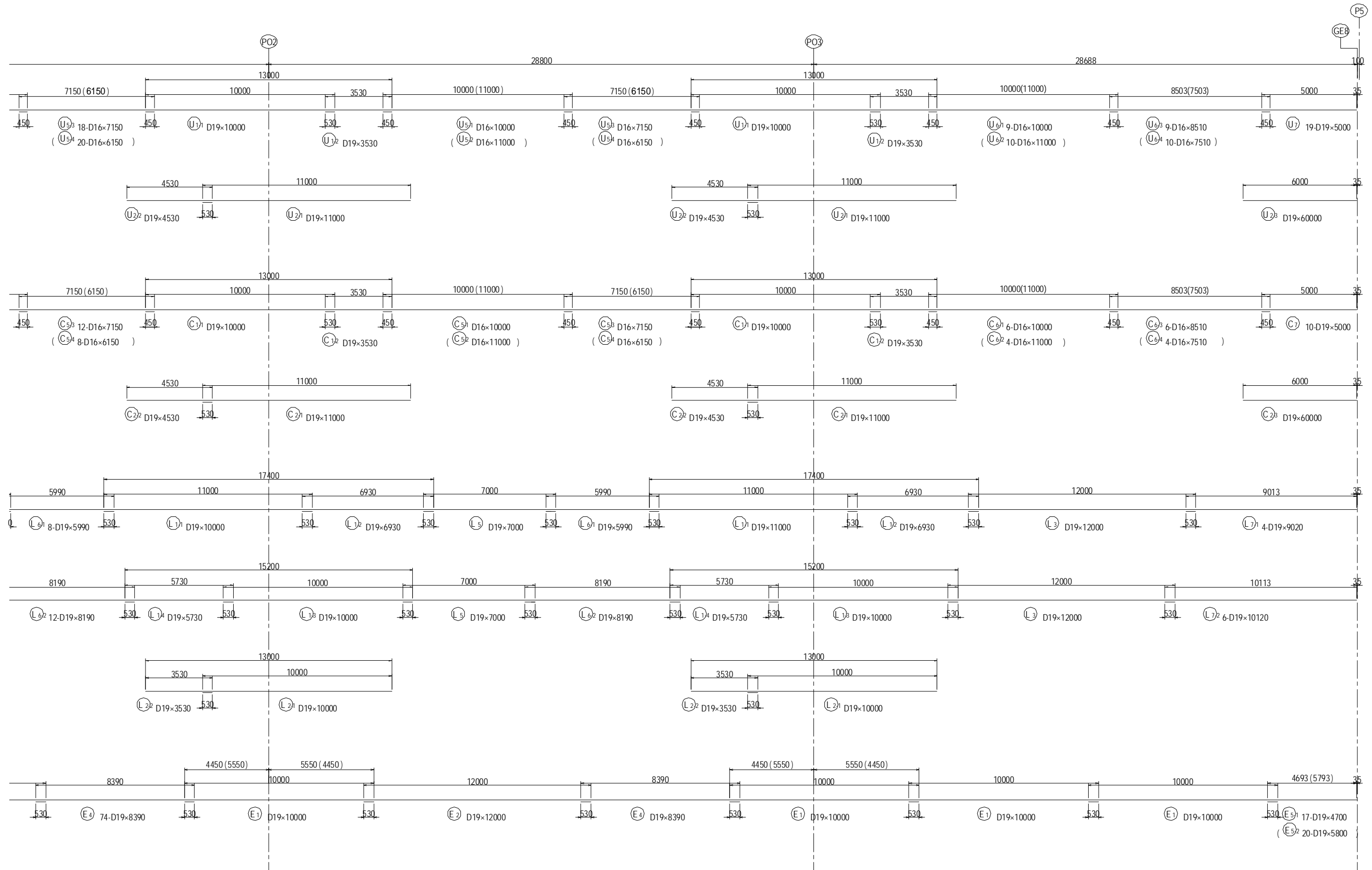
PACKAGE
1
DWG No.
P1-OR-1305

BAR ARRANGEMENT OF SLAB FOR ON-RAMP (6) 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 M. OHYAMA T. HAYAKAWA Y. SANO	SIGNATURE 	DATE 15 Jun.2017 20 Jun.2017 21 Jun.2017	DRAWING TITLE BAR ARRANGEMENT OF SLAB FOR ON-RAMP(6)	PACKAGE 1 DWG No. P1-OR-1306
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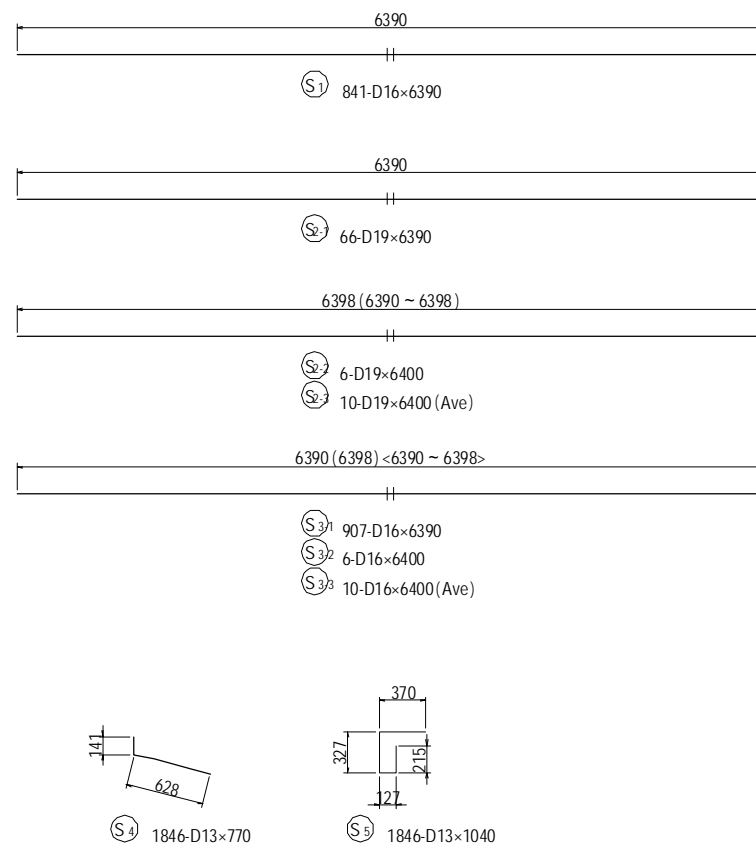
BAR ARRANGEMENT OF SLAB FOR ON RAMP (7) S=1:200



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 M. OHYAMA T. HAYAKAWA Y. SANO	SIGNATURE 	DATE 15 Jun. 2017 20 Jun. 2017 21 Jun. 2017	DRAWING TITLE BAR ARRANGEMENT OF SLAB FOR ON-RAMP (7)	PACKAGE 1 DWG No. P1-OR-1307
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BAR ARRANGEMENT OF SLAB FOR ON-RAMP (8) S=1:60

TRANSVERSE REINFORCEMENT S=1:60

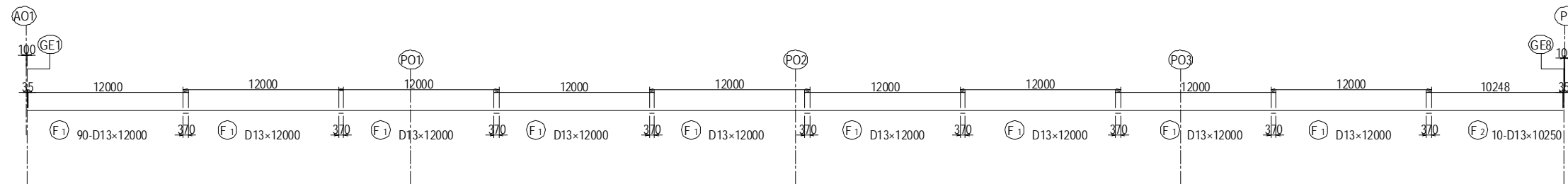


BAR STATISTICS TABLE (For 1 Bridge)

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
U 1-1	D19	10000	57	2.25	22.50	1 283	—
1-2	"	3530	57	"	7.94	453	—
2-1	"	11000	54	"	24.75	1 337	—
2-2	"	4530	54	"	10.19	550	—
2-3	"	6000	36	"	13.50	486	—
3-1	D16	10000	9	1.56	15.60	140	—
3-2	"	11000	10	"	17.16	172	—
3-3	"	8250	9	"	12.87	116	—
3-4	"	7520	10	"	11.73	117	—
4	D19	5000	19	2.25	11.25	214	—
5-1	D16	10000	18	1.56	15.60	281	—
5-2	"	11000	20	"	17.16	343	—
5-3	"	7150	18	"	11.15	201	—
5-4	"	6150	20	"	9.59	192	—
6-1	"	10000	9	"	15.60	140	—
6-2	"	11000	10	"	17.16	172	—
6-3	"	8510	9	"	13.28	120	—
6-4	"	7510	10	"	11.72	117	—
7	D19	5000	19	2.25	11.25	214	—
C 1-1	D19	10000	30	2.25	22.50	675	—
1-2	"	3530	30	"	7.94	238	—
2-1	"	11000	24	"	24.75	594	—
2-2	"	4530	24	"	10.19	245	—
2-3	"	6000	16	"	13.50	216	—
3-1	D16	10000	6	1.56	15.60	94	—
3-2	"	11000	4	"	17.16	69	—
3-3	"	8250	6	"	12.87	77	—
3-4	"	7520	4	"	11.73	47	—
4	D19	5000	10	2.25	11.25	113	—
5-1	D16	10000	12	1.56	15.60	187	—
5-2	"	11000	8	"	17.16	137	—
5-3	"	7150	12	"	11.15	134	—
5-4	"	6150	8	"	9.59	77	—
6-1	"	10000	6	"	15.60	94	—
6-2	"	11000	4	"	17.16	69	—
6-3	"	8510	6	"	13.28	80	—
6-4	"	7510	4	"	11.72	47	—
7	D19	5000	10	2.25	11.25	113	—
L 1-1	D19	11000	12	2.25	24.75	297	—
1-2	"	6930	12	2.25	15.59	187	—
1-3	"	10000	18	2.25	22.50	405	—
1-4	"	5730	18	2.25	12.89	232	—
2-1	"	10000	24	2.25	22.50	540	—
2-2	"	3530	24	2.25	7.94	191	—

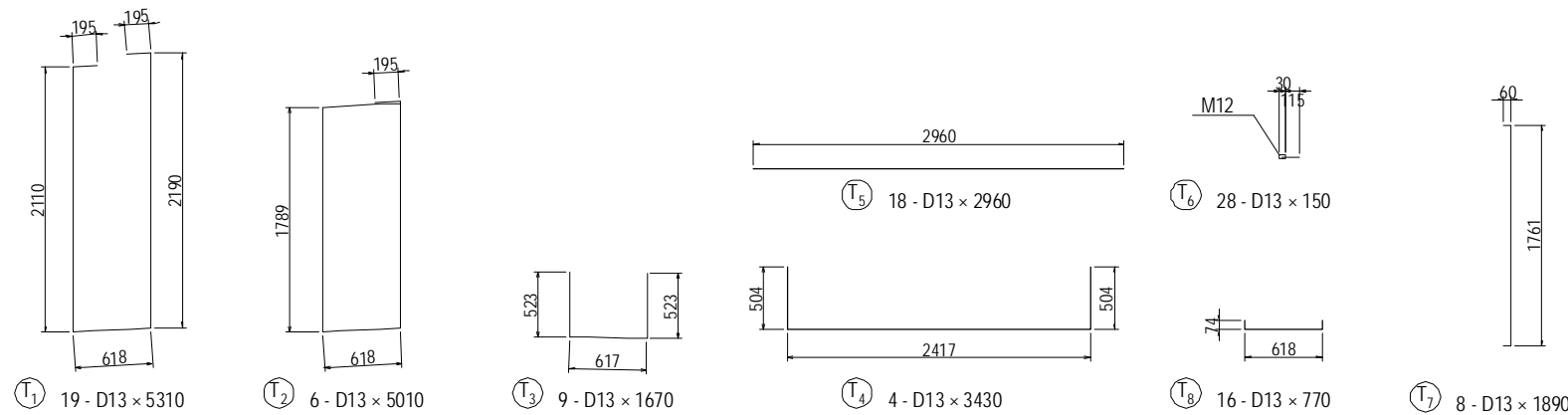
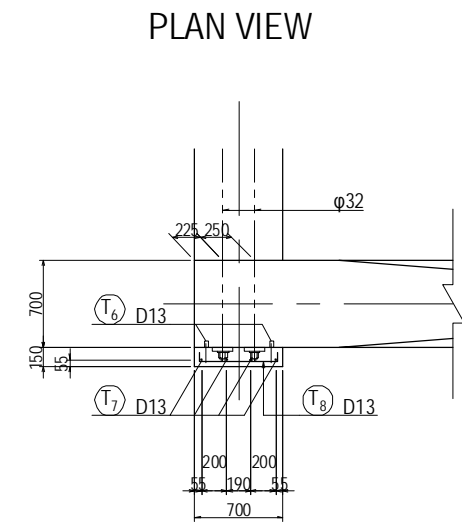
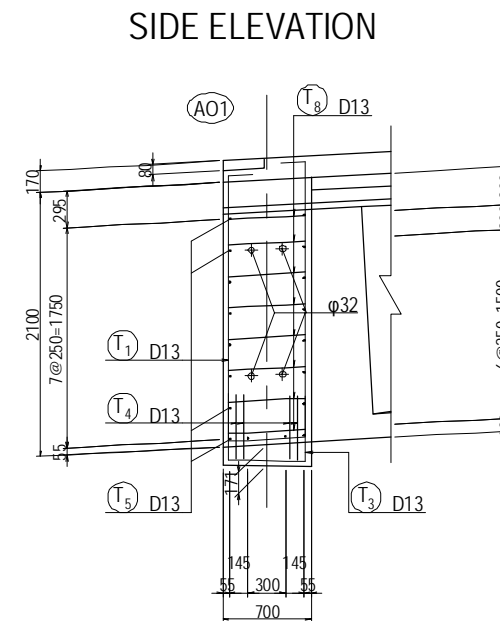
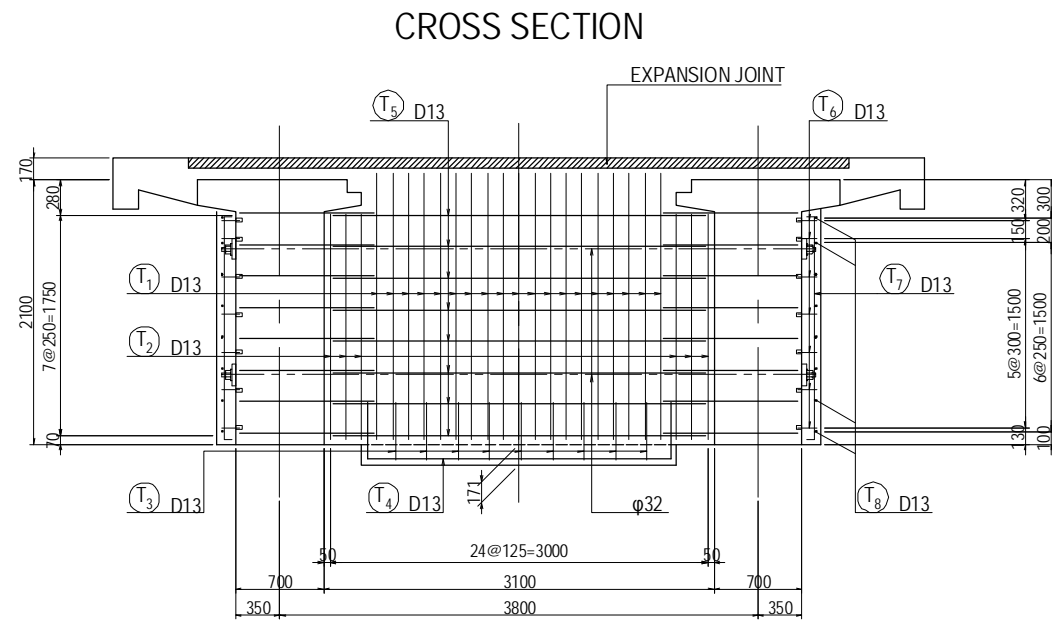
BAR STATISTICS TABLE (For 1 Bridge)

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
L 3	D19	12000	20	2.25	27.00	540	—
4-1	"	9030	4	"	20.32	81	—
4-2	D19	10130	6	2.25	22.79	137	—
5	D19	7000	20	2.25	15.75	315	—
6-1	D19	5990	8	2.25	13.48	108	—
6-2	D19	8190	12	2.25	18.43	221	—
7-1	"	9020	4	"	20.30	81	—
7-2	D19	10120	6	2.25	22.77	137	—
E 1	D19	10000	259	2.25	22.50	5 828	—
2	D19	12000	74	2.25	27.00	1 998	—
3-1	D19	5810	17	2.25	13.07	222	—
3-2	D19	4710	20	2.25	10.60	212	—
4	D19	8390	74	2.25	18.88	1 397	—
5-1	D19	4700	17	2.25	10.58	180	—
5-2	D19	5800	20	2.25	13.05	261	—
S 1	D16	6390	841	1.56	9.97	8 385	—
2-1	D19	6390	66	2.25	14.38	949	—
2-2	"	6400	6	"	14.40	86	—
2-3	"	6400	10	"	14.40	144	(Ave)
3-1	D16	6390	907	1.56	9.97	9 043	—
3-2	"	6400	6	"	9.98	60	(Ave)
3-3	"	6400	10	"	9.98	100	—
4	D13	770	1846	0.995	0.77	1 421	—
5	"	1040	1846	"	1.03	1 901	—
F 1	D13	12000	90	0.995	11.94	1 075	—
2	D13	10250	10	0.995	10.20	102	—
				D13	4499	kg	
				D16	20811	kg	
				D19	21480	kg	
				Total Weight	46790	kg	



BAR ARRANGEMENT OF CROSS BEAM FOR ON-RAMP (1)

S=1:60



BAR STATISTICS TABLE

(For 1 Cross beam)

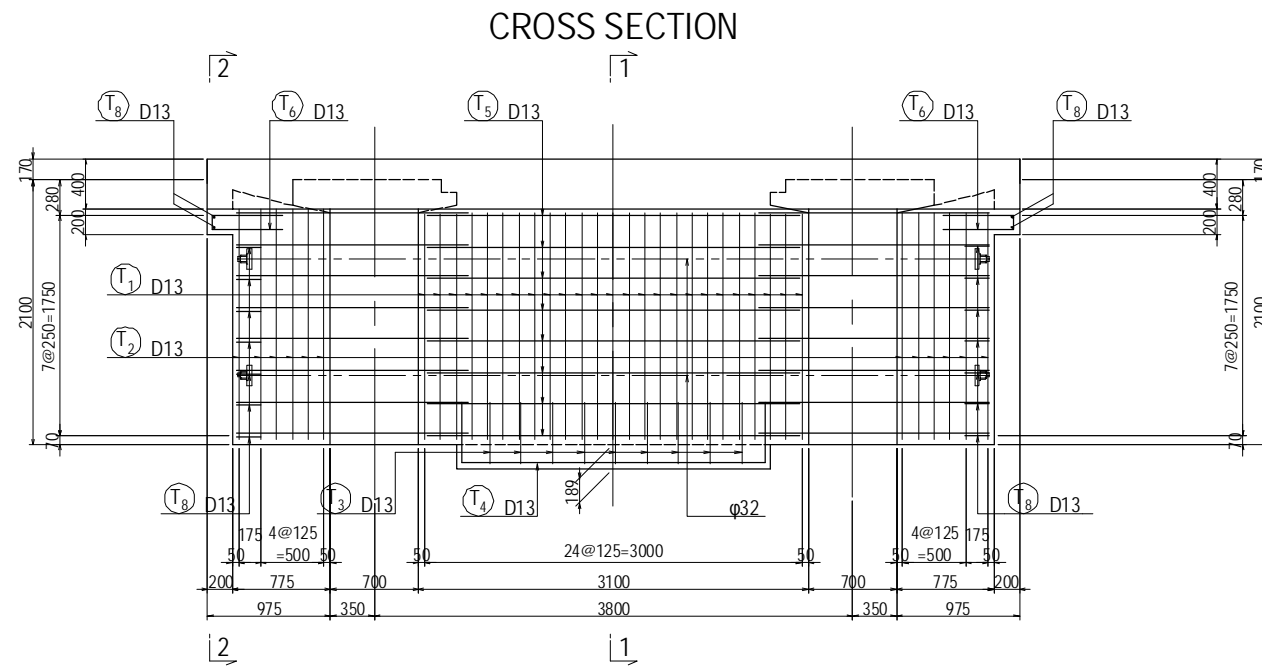
Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
T 1	D13	5310	19	0.995	5.28	100	┌┐
2	D13	5010	6	0.995	4.98	30	┌┐
3	D13	1670	9	0.995	1.66	15	└┘
4	D13	3430	4	0.995	3.41	14	└┘
5	D13	2960	18	0.995	2.95	53	—
6	D13	150	28	0.995	0.15	4	—
7	D13	1890	8	0.995	1.88	15	└┘
8	D13	770	16	0.995	0.77	12	└┘
Total Weight					243 kg		

Notes:

- Unless otherwise indicated in drawing, transverse PC bars shall be tensioned from one side alternately.
- Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
- 800 N/mm² is assumed as jacking force of ϕ 32mm in design stage. Jacking force considering jacking sequence shall be indicated on shop drawings and shall be approved by Engineer.

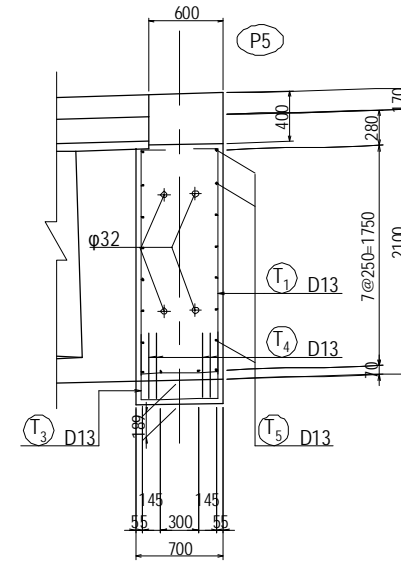
BAR ARRANGEMENT OF CROSS BEAM FOR ON-RAMP (2)

S=1:60

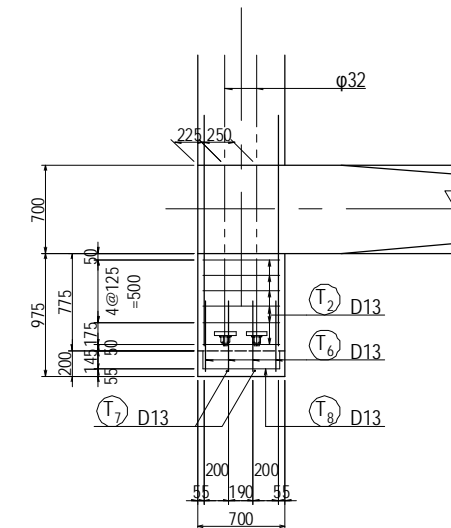


SIDE ELEVATION

1 - 1

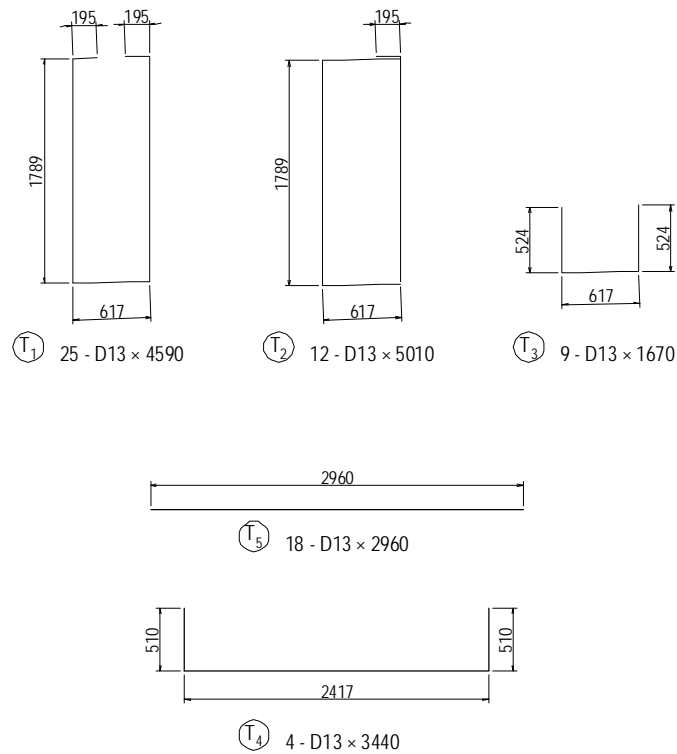
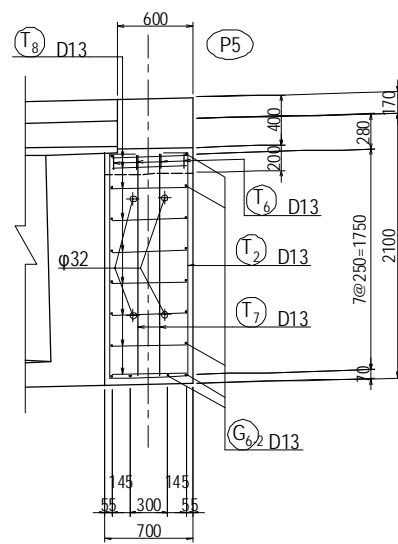


PLAN VIEW



SIDE ELEVATION

2 - 2



BAR STATISTICS TABLE

(For 1 Cross beam)

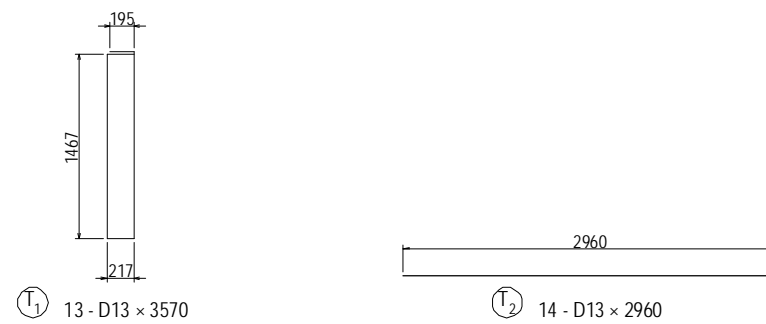
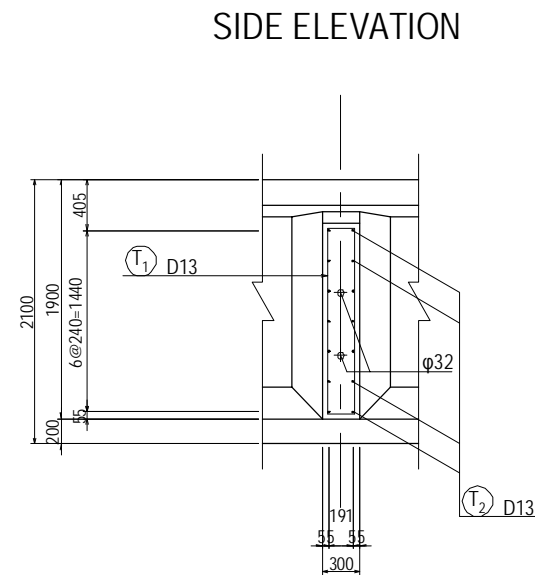
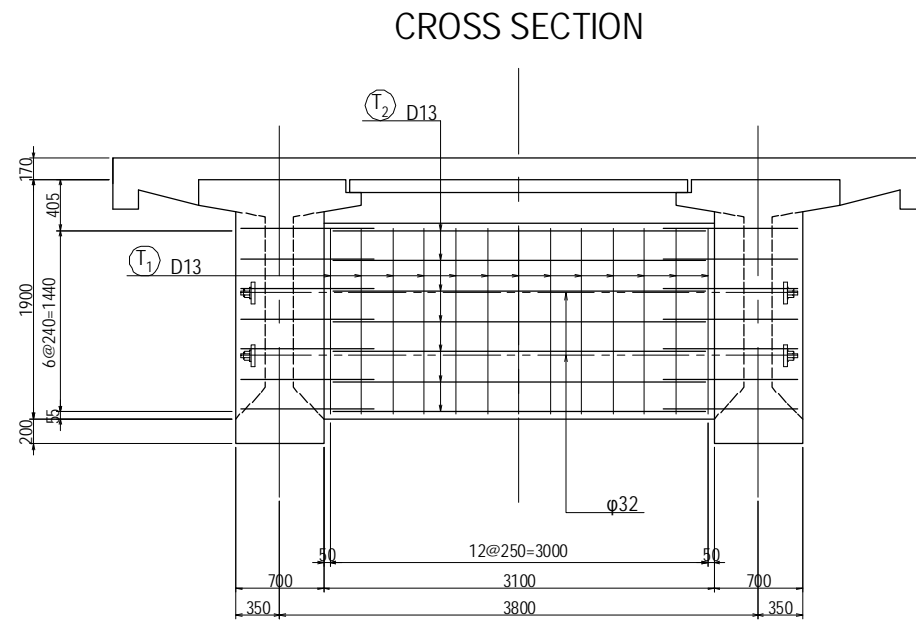
Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
T 1	D13	4590	25	0.995	4.57	114	□
2	D13	5010	12	0.995	4.98	60	□
3	D13	1670	9	0.995	1.66	15	└
4	D13	3430	4	0.995	3.41	14	└
5	D13	2960	18	0.995	2.95	53	—
6	D13	1240	8	0.995	1.23	10	▬
7	D13	2140	4	0.995	2.13	9	┌
8	D13	980	18	0.995	0.98	18	└
Total Weight				293 kg			

Notes:

- Unless otherwise indicated in drawing, transverse PC bars shall be tensioned from one side alternately.
- Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
- 800 N/mm² is assumed as jacking force of $\phi 32$ mm in design stage. Jacking force considering jacking sequence shall be indicated on shop drawings and shall be approved by 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.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA				15 Jun. 2017
				CHECKED BY	T. HAYAKAWA				20 Jun. 2017
				APPROVED BY	Y. SANO				21 Jun. 2017
BAR ARRANGEMENT OF CROSS BEAM FOR ON-RAMP (2)							DWG No.	P1-OR-1402	

BAR ARRANGEMENT OF CROSS BEAM FOR ON-RAMP (3) S=1:60



BAR STATISTICS TABLE (For 1 Cross beam)

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
T 1	D13	3570	13	0.995	3.55	46	□
2	D13	2960	14	0.995	2.95	41	—
Total Weight				87	kg		

Notes:

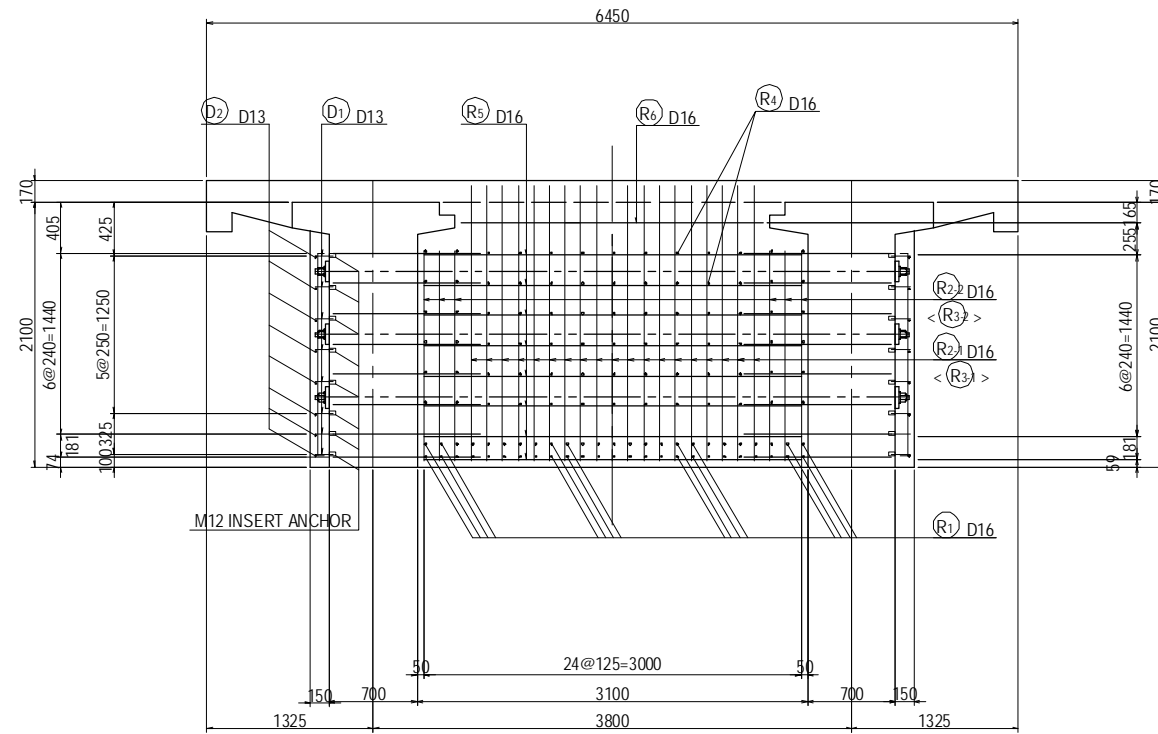
- Unless otherwise indicated in drawing, transverse PC bars shall be tensioned from one side alternately.
- Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
- 800 N/mm² is assumed as jacking force of φ32mm in design stage. Jacking force considering jacking sequence shall be indicated on shop drawings and shall be approved by Engineer.

<small>PROJECT NAME</small> DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	<small>FINANCED BY</small> JAPAN INTERNATIONAL COOPERATION AGENCY	<small>COUNTERPART</small> REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	<small>JICA STUDY TEAM</small> NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">NAME</th> <th style="text-align: left;">SIGNATURE</th> <th style="text-align: left;">DATE</th> </tr> <tr> <td>PREPARED BY</td> <td>M. OHYAMA </td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY</td> <td>T. HAYAKAWA </td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY</td> <td>Y. SANO </td> <td>21 Jun.2017</td> </tr> </table>	NAME	SIGNATURE	DATE	PREPARED BY	M. OHYAMA	15 Jun.2017	CHECKED BY	T. HAYAKAWA	20 Jun.2017	APPROVED BY	Y. SANO	21 Jun.2017	DRAWING TITLE BAR ARRANGEMENT OF CROSS BEAM FOR ON-RAMP (3)	PACKAGE 1 DWG No. P1-OR-1403
NAME	SIGNATURE	DATE																
PREPARED BY	M. OHYAMA	15 Jun.2017																
CHECKED BY	T. HAYAKAWA	20 Jun.2017																
APPROVED BY	Y. SANO	21 Jun.2017																

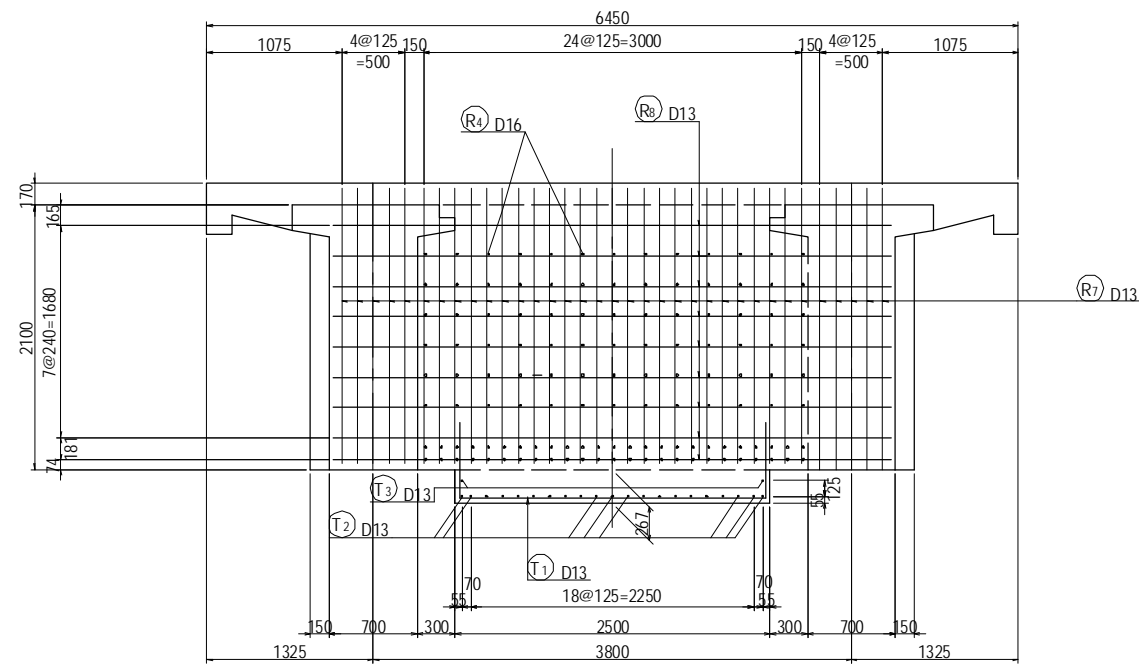
BAR ARRANGEMENT OF CROSS BEAM FOR ON-RAMP (4) S=1:60

CROSS SECTION S=1:60

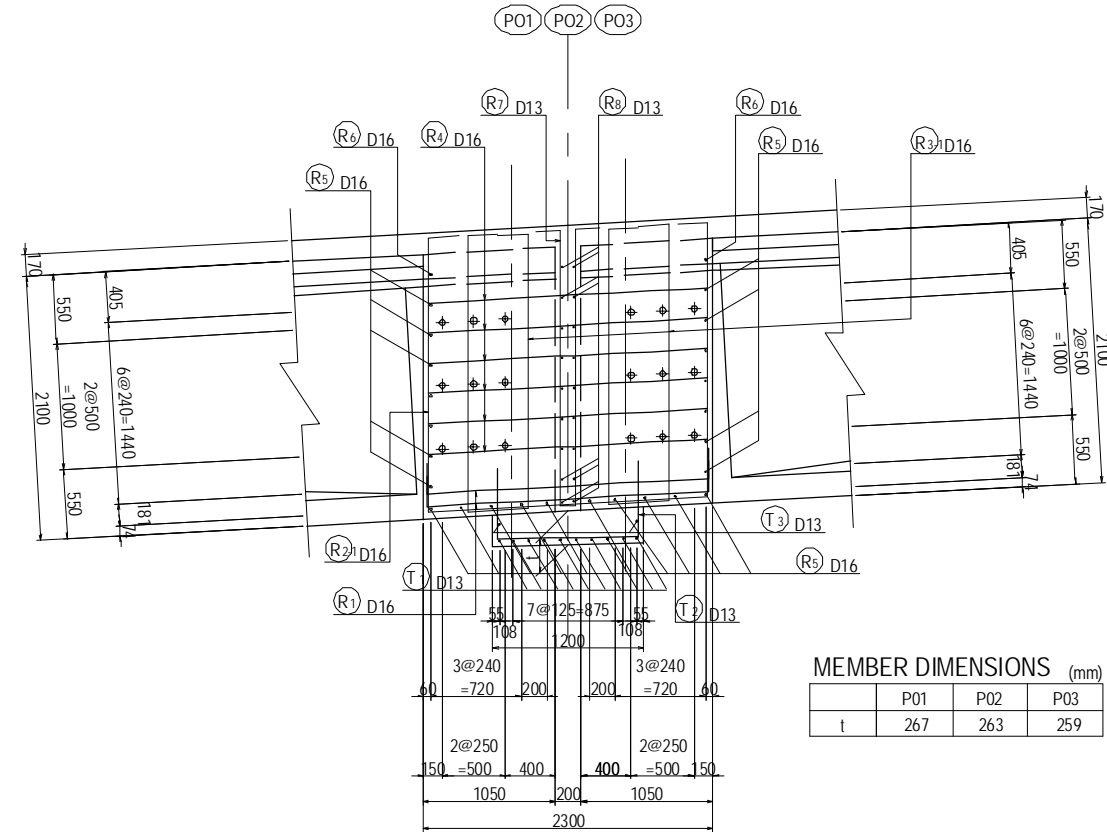
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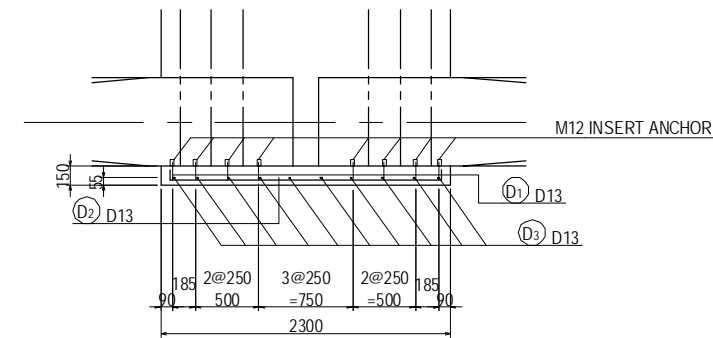
2-2



1 2



1 2



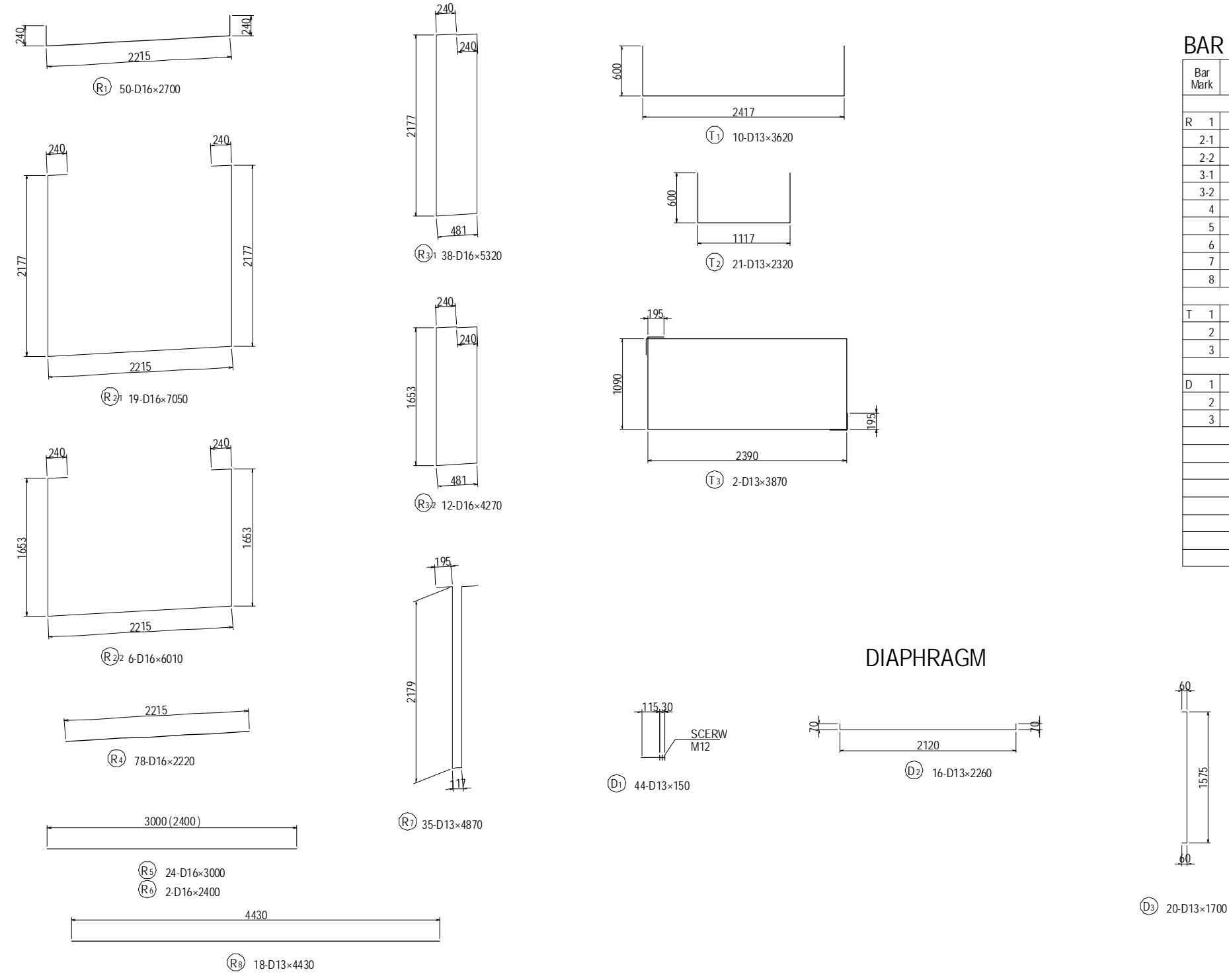
Notes:

- Unless otherwise indicated in drawing, transverse PC bars shall be tensioned from one side alternately.
- Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
- 800 N/mm² is assumed as jacking force of ϕ 32mm in design stage. Jacking force considering jacking sequence shall be indicated on shop drawings and shall be approved by Engineer.

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA 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.	M. OHYAMA	大山 満弘	15 Jun.2017	BAR ARRANGEMENT OF CROSS BEAM FOR ON-RAMP (4)	1
				T. HAYAKAWA	平川 知邦	20 Jun.2017		DWG No.
				Y. SANO	佐野 祐一	21 Jun.2017		P1-OR-1404

BAR ARRANGEMENT OF CROSS BEAM FOR ON-RAMP (5)

S=1:60



BAR STATISTICS TABLE

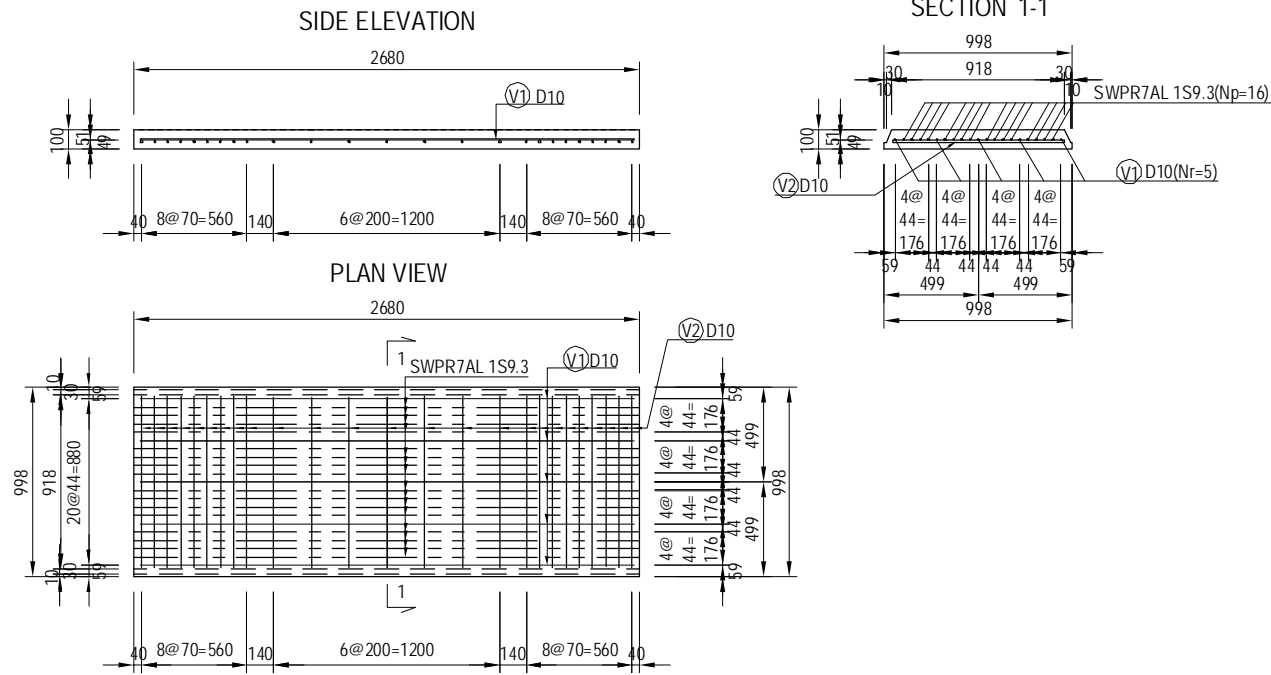
(For 1 Cross Beam)

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
R 1	D16	2700	50	1.56	4.21	211	└─┘
2-1	"	7050	19	"	11.00	209	┌─┐
2-2	"	6010	6	"	9.38	56	┌─┐
3-1	"	5320	38	"	8.30	315	┌─┐
3-2	"	4270	12	"	6.66	80	┌─┐
4	"	2220	78	"	3.46	270	─┬─
5	"	3000	24	"	4.68	112	─┬─
6	"	2400	2	"	3.74	7	─┬─
7	D13	4870	35	0.995	4.85	170	┌─┐
8	"	4430	18	"	4.41	79	─┬─
T 1	D13	3620	10	0.995	3.60	36	└─┘
2	"	2320	21	"	2.31	49	└─┘
3	"	3870	2	"	3.85	8	└─┘
D 1	D13	150	44	0.995	0.15	7	└─┘
2	"	2260	16	"	2.25	36	└─┘
3	"	1700	20	"	1.69	34	└─┘
				D13	419	kg	
				D16	1260	kg	
				Total Weight	1679	kg	

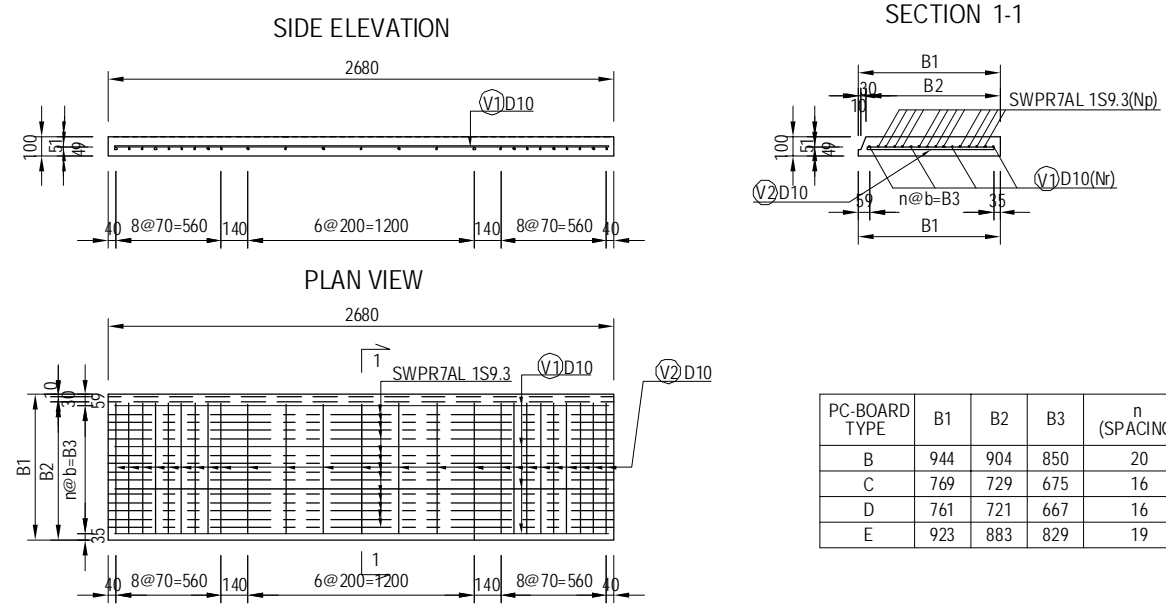
DIAPHRAGM

BAR ARRANGEMENT OF PC-BOARD FOR ON-RAMP

PC-BOARD (TYPE-A) N=100 S=1:40

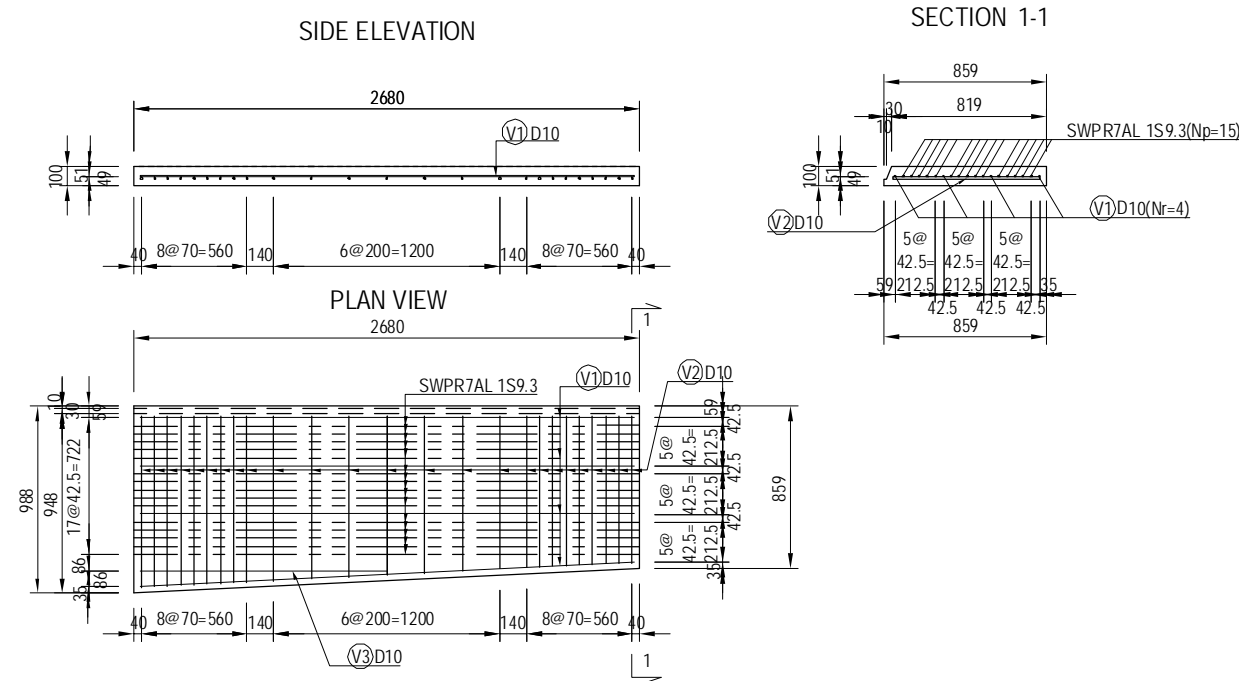


PC-BOARD (TYPE-B,C,D&E) S=1:40



PC-BOARD TYPE	B1	B2	B3	n (SPACING)	Np (PC-TENDON)	Nr (REBAR)	b	N
B	944	904	850	20	16	5	42.50	2
C	769	729	675	16	13	4	42.19	2
D	761	721	667	16	13	4	41.69	2
E	923	883	829	19	15	5	43.63	1

PC-BOARD (TYPE-F) N=1 S=1:40



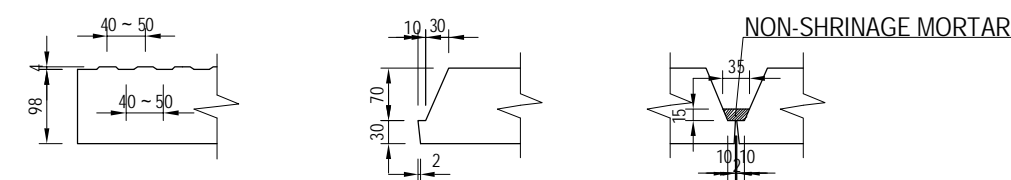
BAR STATISTICS TABLE

PC-BOARD TYPE	REBAR NAME	DIA (mm)	LENGTH (mm)	NO.	UNIT WEIGHT (kg/m)	WEIGHT PER UNIT (kg)	WEIGHT (kg)	REMARKS
TYPE-A	V1 D 10	2 620	5	0.560	1.467	7.3		
	V2 D 10	906	25	0.560	0.507	12.7		
							TOTAL	20.0
TYPE-B	V1 D 10	2 620	5	0.560	1.467	7.3		
	V2 D 10	868	25	0.560	0.486	12.2		
							TOTAL	19.5
TYPE-C	V1 D 10	2 620	4	0.560	1.467	5.9		
	V2 D 10	693	25	0.560	0.388	9.7		
							TOTAL	15.6
TYPE-D	V1 D 10	2 620	4	0.560	1.467	5.9		
	V2 D 10	685	25	0.560	0.384	9.6		
							TOTAL	15.5
TYPE-E	V1 D 10	2 620	5	0.560	1.467	7.3		
	V2 D 10	847	25	0.560	0.474	11.9		
							TOTAL	19.2
TYPE-F	V1 D 10	2 620	4	0.560	1.467	5.9		
	V2 D 10	847	25	0.560	0.474	11.9		
	V3 D 10	1 310	1	0.560	0.734	0.7		
							TOTAL	18.5
							TOTAL	2 138.9

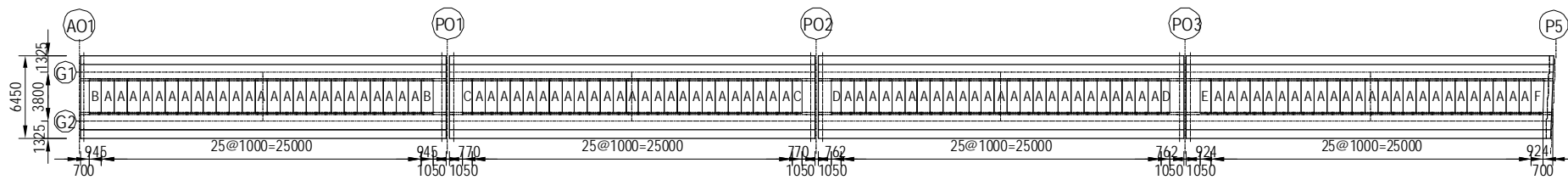
PC TENDON QUANTITY

PC-BOARD TYPE	STRAND TYPE	LENGTH (mm)	NO.	UNIT WEIGHT (kg/m)	WEIGHT PER UNIT (kg)	WEIGHT (kg)	REMARKS	
TYPE-A	SWPR7AL 1S9.3	2 680	16	0.405	1.085	17.4		
							TOTAL	17.4
TYPE-B	SWPR7AL 1S9.3	2 680	16	0.405	1.085	17.4		
							TOTAL	17.4
TYPE-C	SWPR7AL 1S9.3	2 680	13	0.405	1.085	14.1		
							TOTAL	14.1
TYPE-D	SWPR7AL 1S9.3	2 680	13	0.405	1.085	14.1		
							TOTAL	14.1
TYPE-E	SWPR7AL 1S9.3	2 680	15	0.405	1.085	16.3		
							TOTAL	16.3
TYPE-F	SWPR7AL 1S9.3	2 680	15	0.405	1.085	16.3		
							TOTAL	16.3
							TOTAL	1863.8

PC-BOARD DETAILS S=1:10



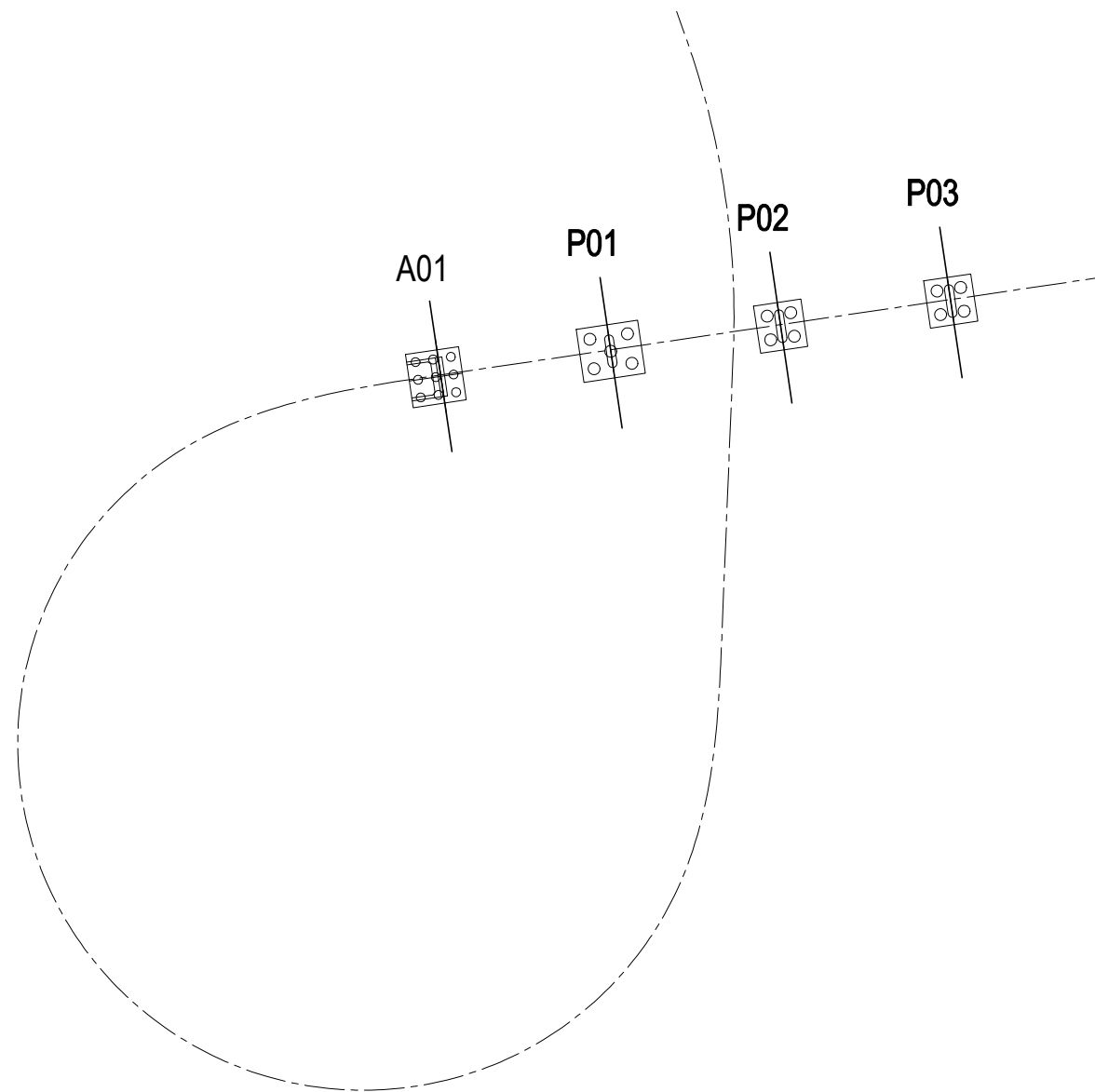
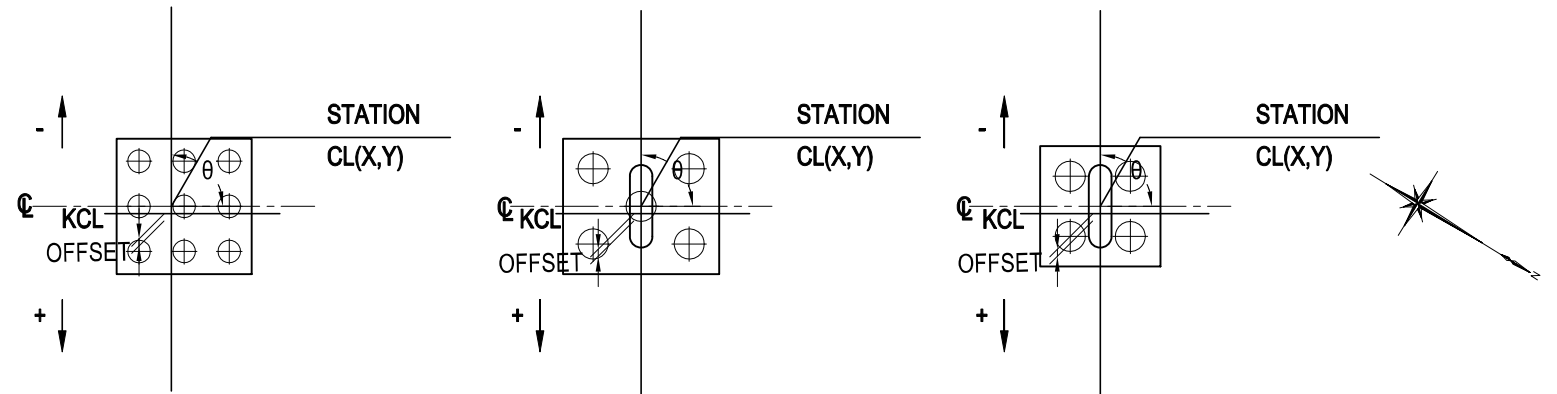
PC-BOARD ARRANGEMENT S=1:500



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA 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 BAR ARRANGEMENT OF PC-BOARD FOR ON-RAMP	PACKAGE 1 DWG No. P1-OR-1501	
				PREPARED BY	M. OHYAMA	大山 満弘			15 Jun.2017
				CHECKED BY	T. HAYAKAWA	平川 知寿			20 Jun.2017
				APPROVED BY	Y. SANO	佐野 祐一			21 Jun.2017

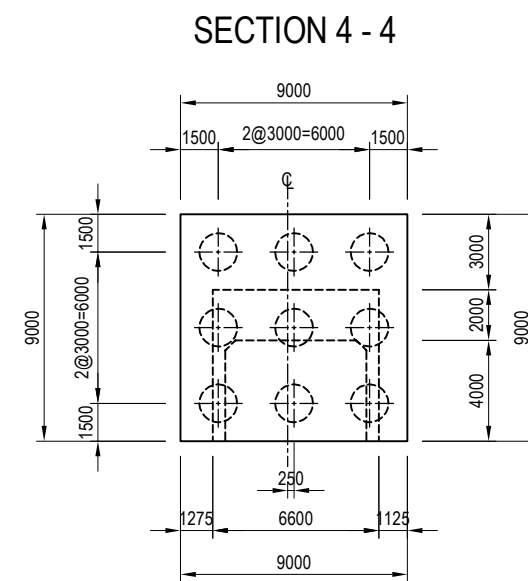
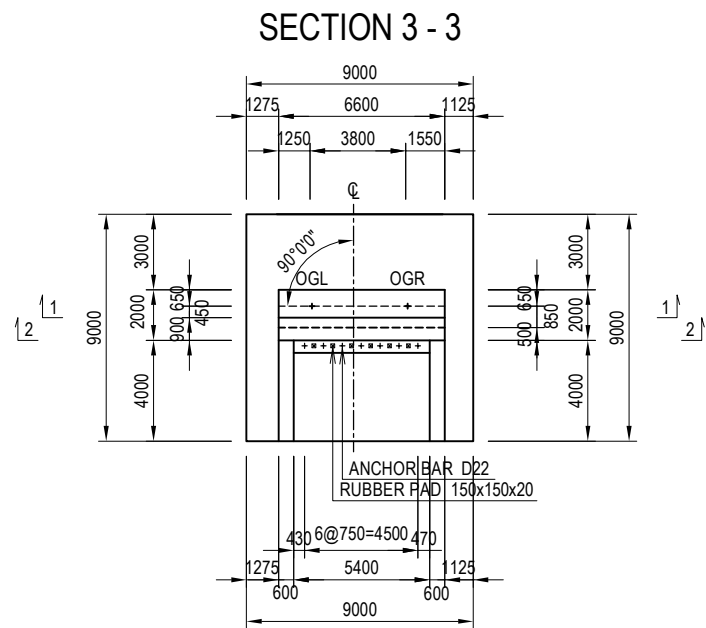
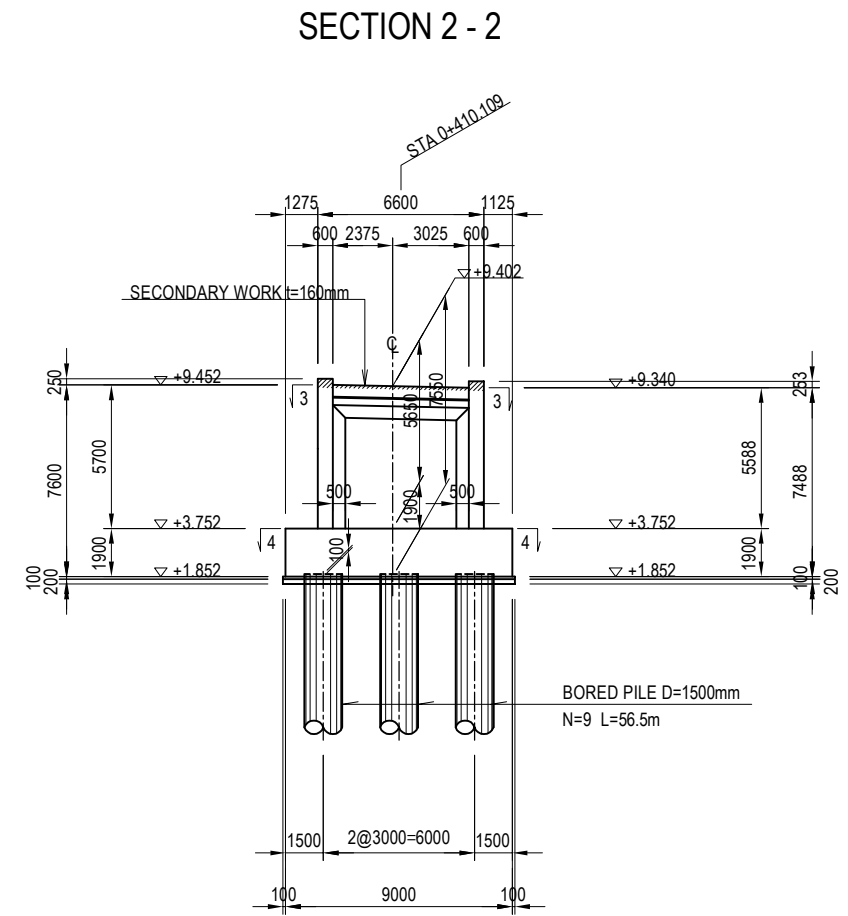
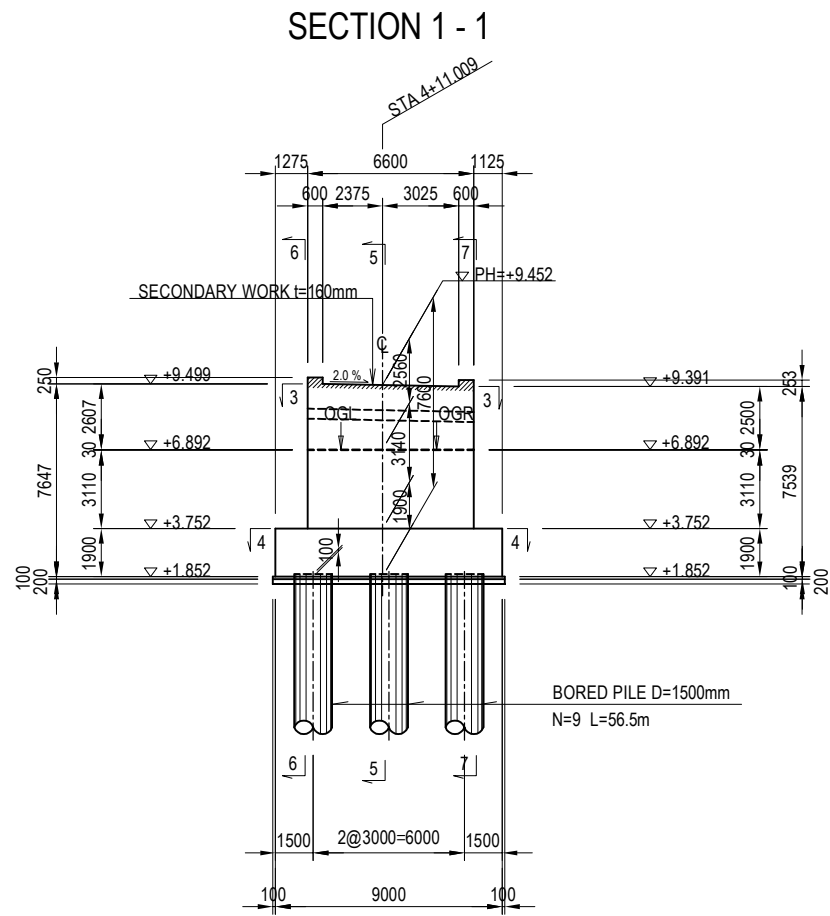
COORDINATES OF SUBSTRUCTURE (A01-P03)

NAME		A01	P01	P02	P03
STATION		0+411.009	0+439.809	0+468.609	0+497.409
CL	X	1857584.6389	1857606.7042	1857628.7694	1857650.8347
	Y	205466.0971	205447.5886	205429.0801	205410.5716
AZIMUTH		230d 00' 35.4"	230d 00' 35.4"	230d 00' 35.4"	230d 00' 35.4"
SKEW ANGLE (θ)		90d 00' 00"	90d 00' 00"	90d 00' 00"	90d 00' 00"
OFFSET (m)		+0.250	+0.250	+0.250	+0.250



<small>PROJECT NAME</small> DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	<small>FINANCED BY</small> JAPAN INTERNATIONAL COOPERATION AGENCY	<small>COUNTERPART</small> REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	<small>JICA STUDY TEAM</small> NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>NAME</th> <th>SIGNATURE</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY</td> <td>M. OHYAMA</td> <td></td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY</td> <td>T. HAYAKAWA</td> <td></td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY</td> <td>Y. SANO</td> <td></td> <td>21 Jun.2017</td> </tr> </tbody> </table>		NAME	SIGNATURE	DATE	PREPARED BY	M. OHYAMA		15 Jun.2017	CHECKED BY	T. HAYAKAWA		20 Jun.2017	APPROVED BY	Y. SANO		21 Jun.2017	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DRAWING TITLE</th> <th>PACKAGE</th> </tr> </thead> <tbody> <tr> <td rowspan="3" style="text-align: center;">COORDINATES OF SUBSTRUCTURE (A01-P03)</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="text-align: center;">DWG No.</td> </tr> <tr> <td style="text-align: center;">P1-OR-2000</td> </tr> </tbody> </table>	DRAWING TITLE	PACKAGE	COORDINATES OF SUBSTRUCTURE (A01-P03)	1	DWG No.	P1-OR-2000
	NAME	SIGNATURE	DATE																								
PREPARED BY	M. OHYAMA		15 Jun.2017																								
CHECKED BY	T. HAYAKAWA		20 Jun.2017																								
APPROVED BY	Y. SANO		21 Jun.2017																								
DRAWING TITLE	PACKAGE																										
COORDINATES OF SUBSTRUCTURE (A01-P03)	1																										
	DWG No.																										
	P1-OR-2000																										

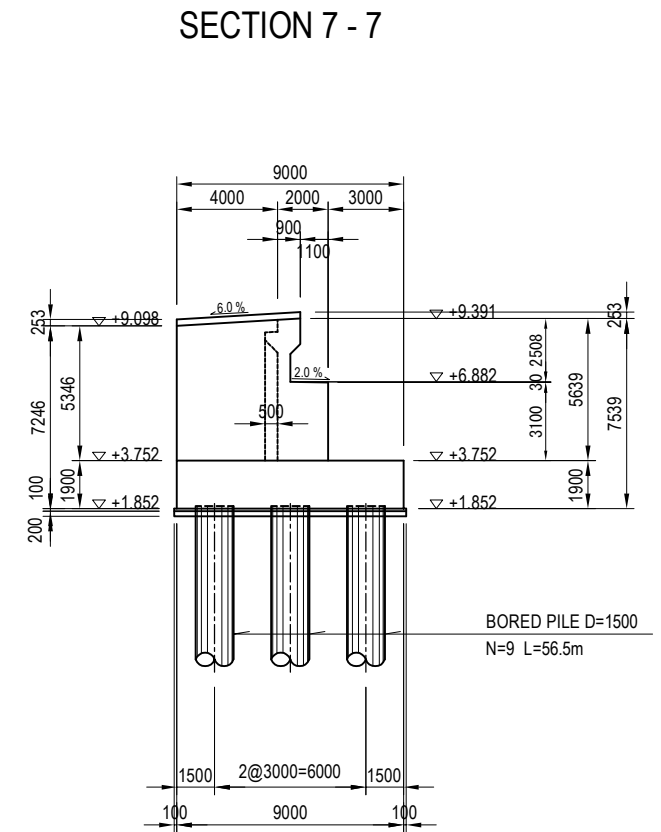
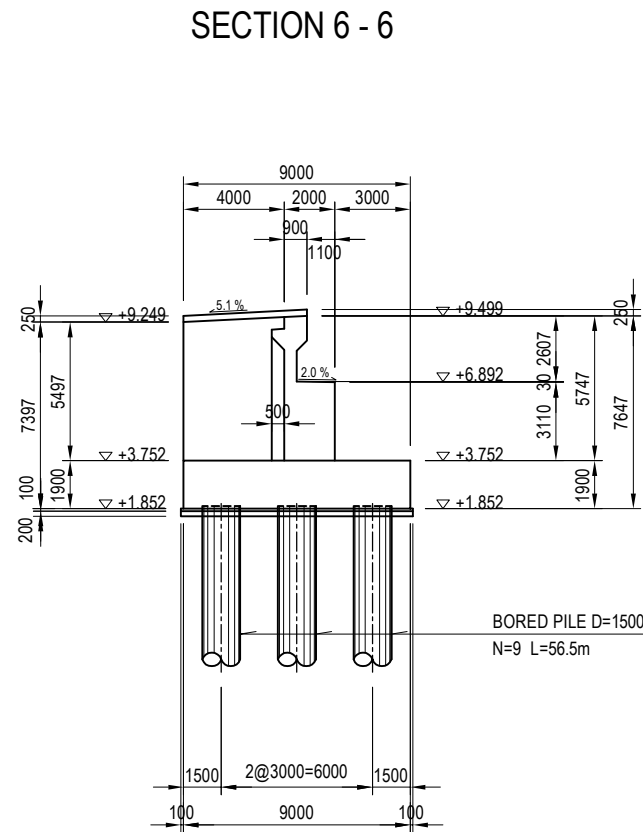
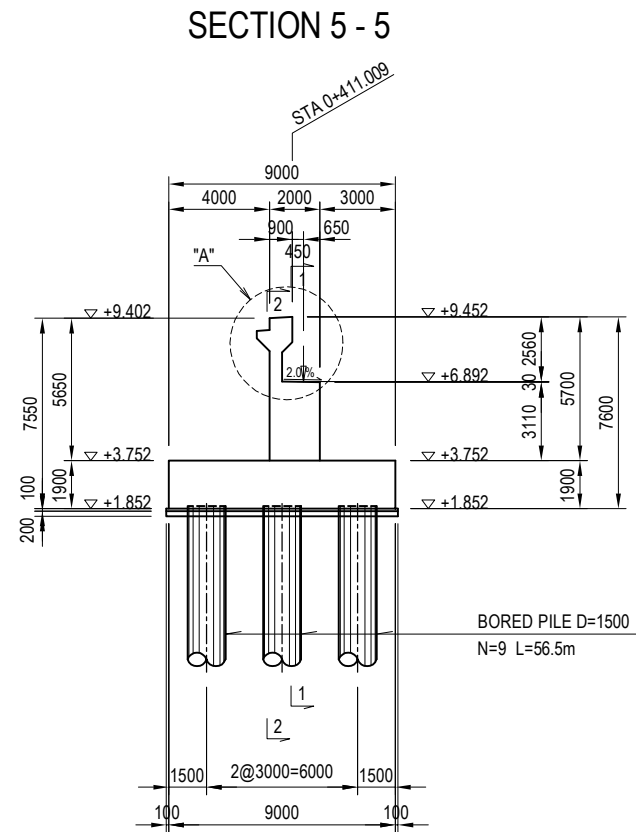
GENERAL VIEW OF AO1 ABUTMENT(1) S=1:300



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 GENERAL VIEW OF AO1 ABUTMENT(1)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-2001

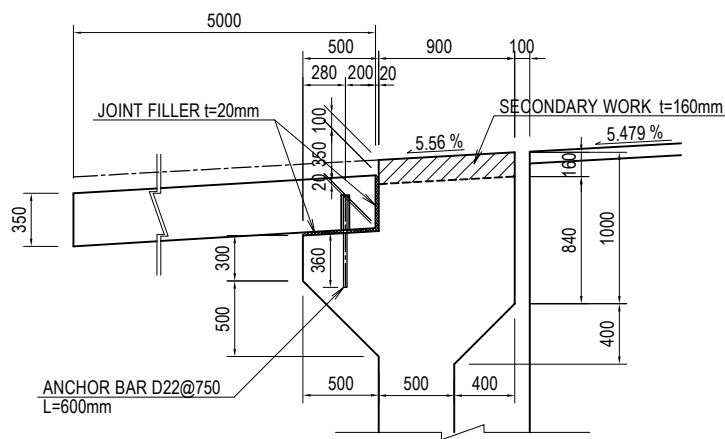
GENERAL VIEW OF AO1 ABUTMENT(2)

S = 1:300

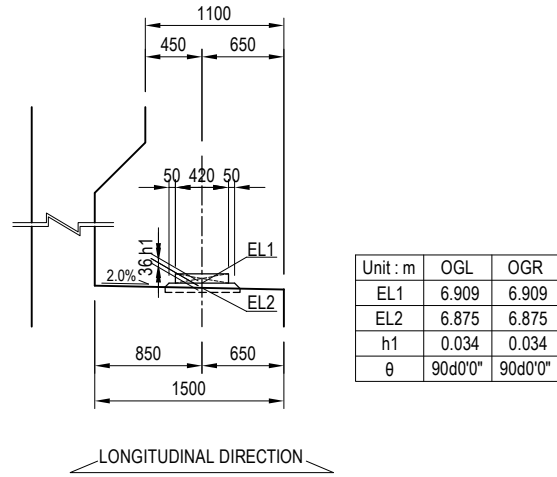


H.H.W.L. +4.990(100Yr)
DESIGN GL +4.300
EXISTING GL +3.281
MSL +0.000

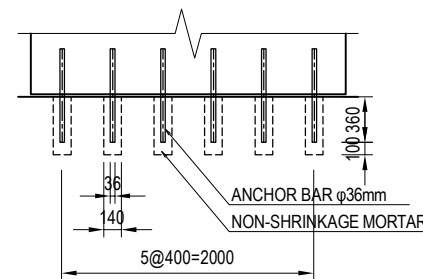
DETAIL "A" S=1:50



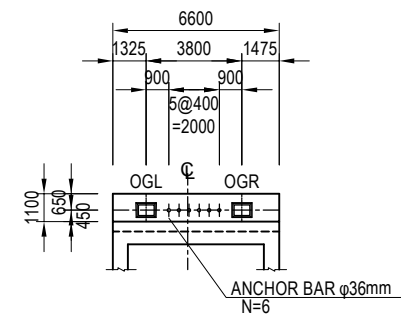
DETAIL OF BEARING S=1:60



DETAIL OF ANCHOR BAR S=1:60



ARRANGEMENT OF BRIDGE SEAT



- NOTES : 1. Weep holes shall be installed in abutment wall by 3 meter interval for discharge of water from backfilled soil.
2. The Contractor shall adjust gradients of top surface of a parapet wall to retain continuity in road profile.
3. Regardless of existences of indications on the Drawings, baseplates of bridge bearings shall be embedded into leveling mortar by 10 mm and the leveling mortar shall be embedded into concrete pedestal or top surface of substructures by 30 mm.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA 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 PREPARED BY M. OHYAMA CHECKED BY T. HAYAKAWA APPROVED BY Y. SANO	SIGNATURE DATE 15 Jun.2017 20 Jun.2017 21 Jun.2017	DATE	DRAWING TITLE GENERAL VIEW OF AO1 ABUTMENT(2)	PACKAGE 1 DWG No. P1-OR-2002
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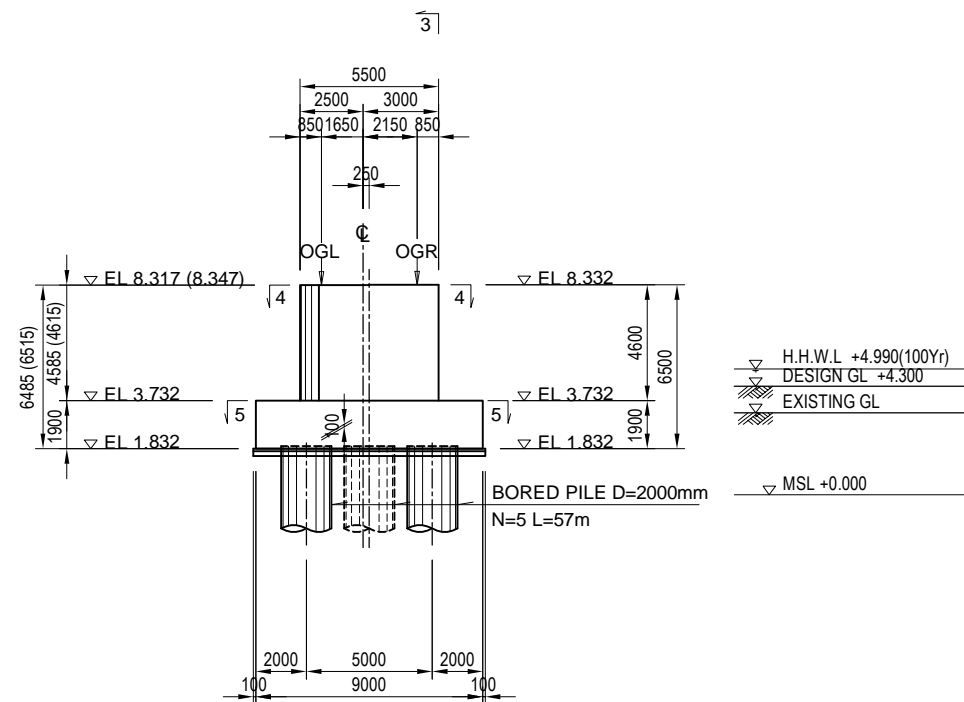
GENERAL VIEW OF PO1 PIER

S = 1:300

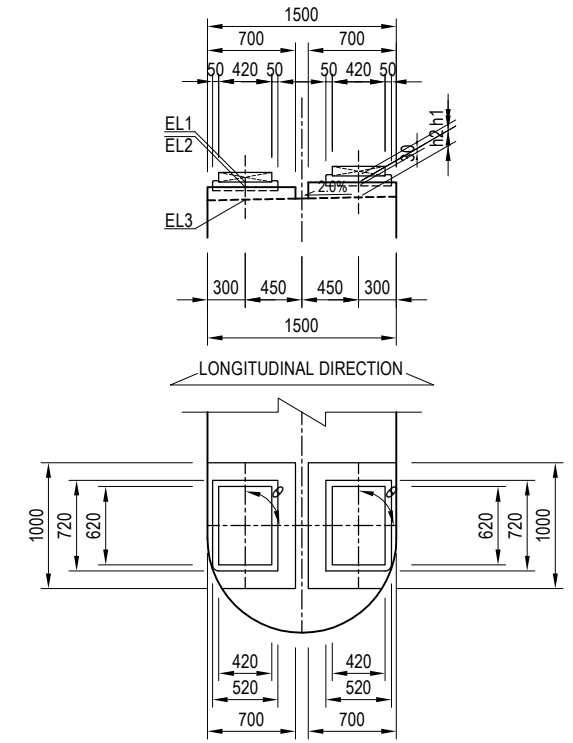
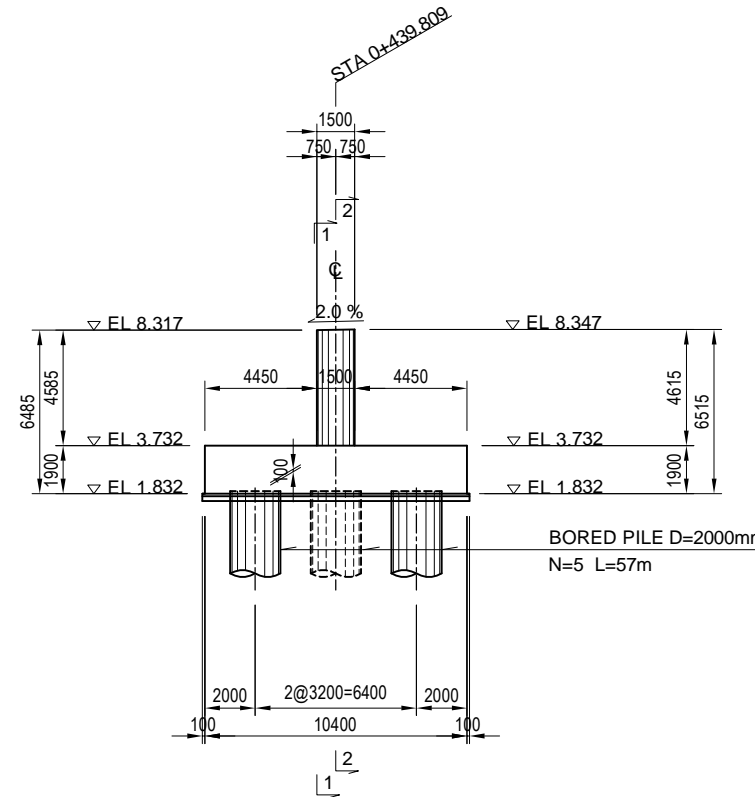
DETAIL OF BEARING

S = 1:60

FRONT VIEW
1 - 1 2 - 2

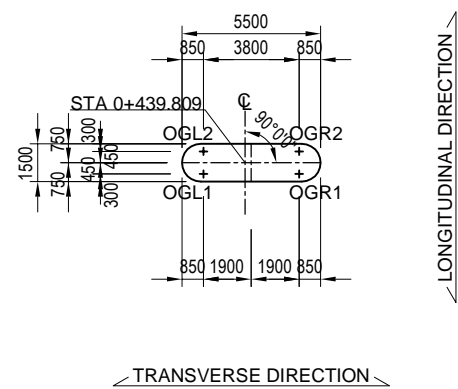


SIDE VIEW
3 - 3

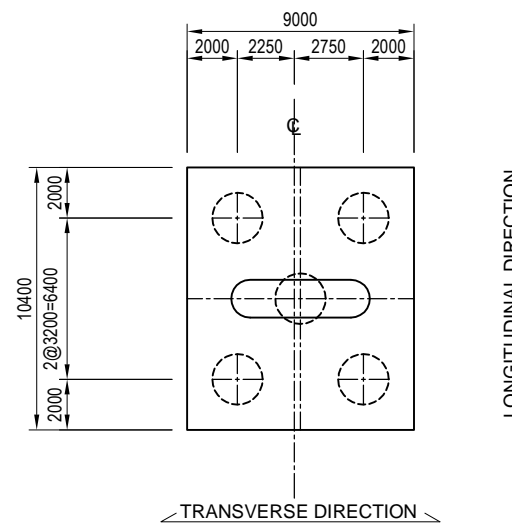


Unit : m	OGL1	OGR1	OGL2	OGR2
EL1	8.461	8.461	8.510	8.510
EL2	8.423	8.423	8.461	8.461
EL3	8.323	8.323	8.341	8.341
h1	0.038	0.038	0.049	0.049
h2	0.100	0.100	0.120	0.120
θ	90d0'0"	90d0'0"	90d0'0"	90d0'0"

PLAN VIEW
4 - 4

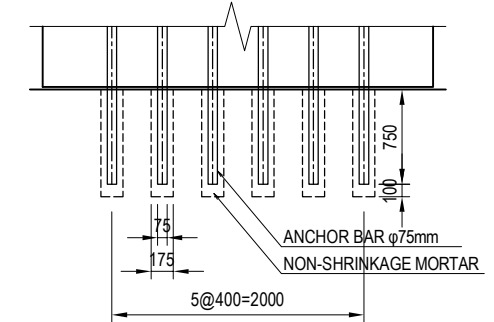


PILE ARRANGEMENT
5 - 5

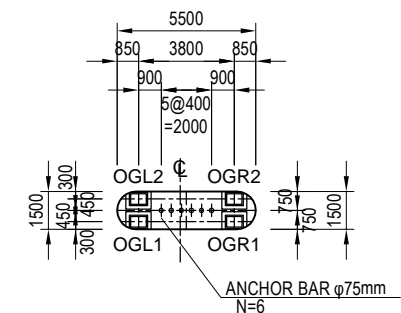


DETAIL OF ANCHOR BAR

S = 1:60



ARRANGEMENT OF BRIDGE SEAT



Notes : Regardless of existences of indications on the Drawings, baseplates of bridge bearings shall be embedded into leveling mortar by 10 mm and the leveling mortar shall be embedded into concrete pedestal or top surface of substructures by 30 mm.

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA 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.	M. OHYAMA	大山 満弘	15 Jun.2017	GENERAL VIEW OF PO1 PIER	1
				T. HAYAKAWA	平川 知寿	20 Jun.2017		DWG No.
				Y. SANO	佐野 祐一	21 Jun.2017		P1-OR-2011

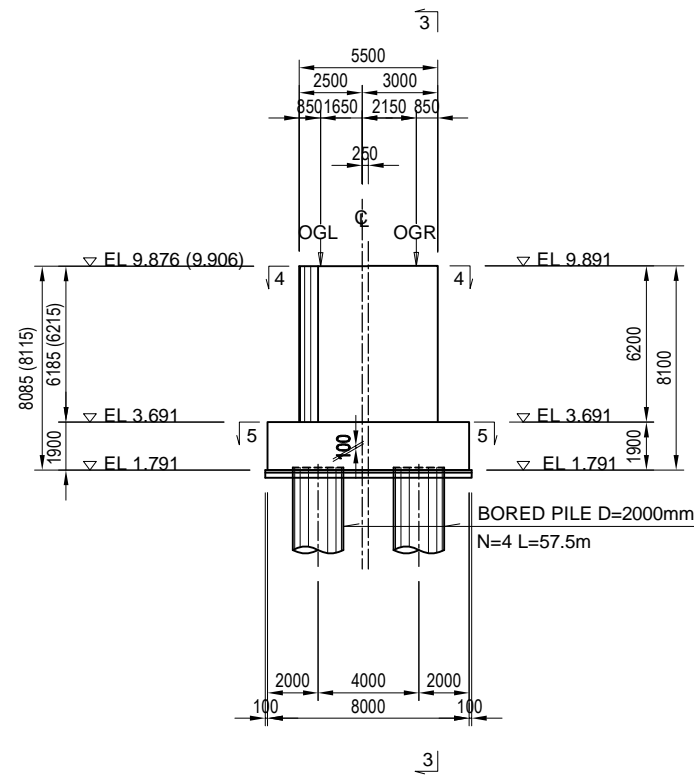
GENERAL VIEW OF PO2 PIER

S = 1:300

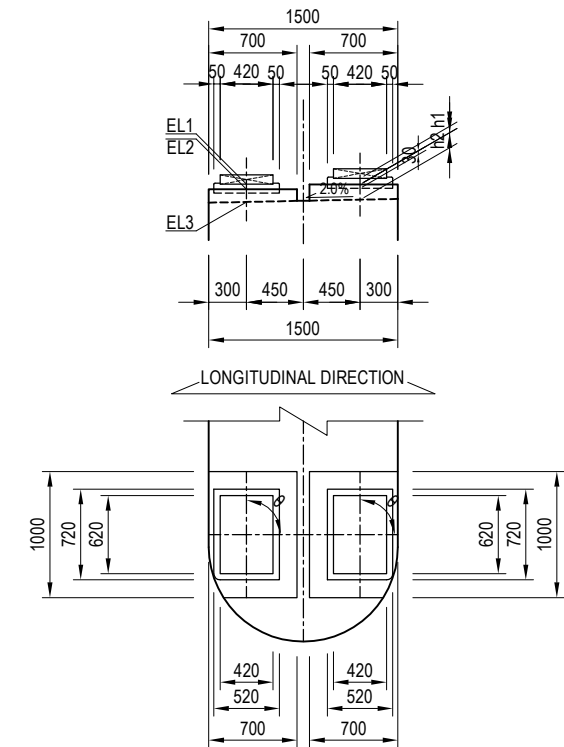
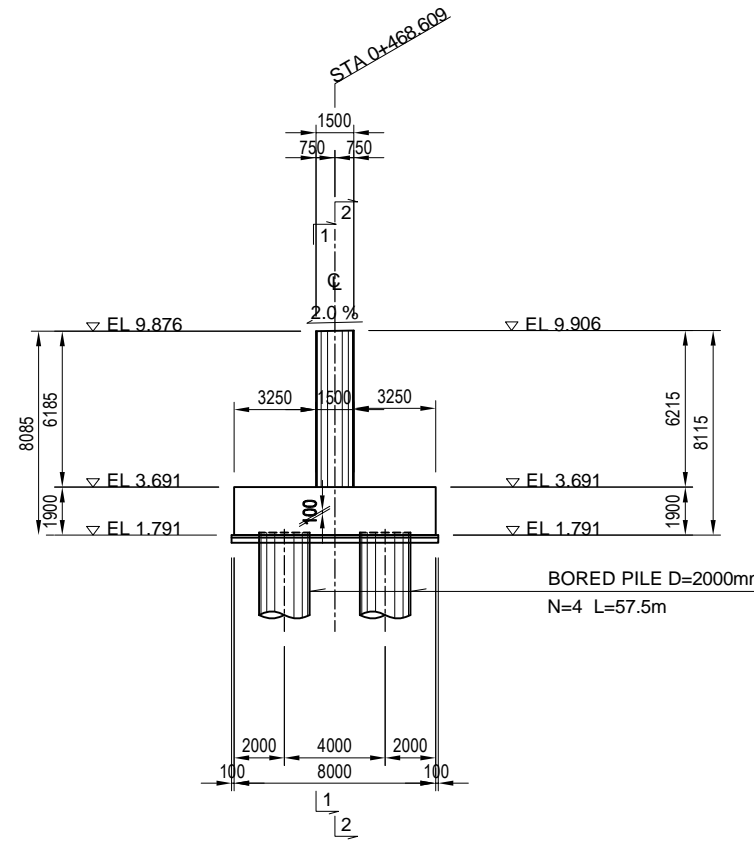
DETAIL OF BEARING

S = 1:60

FRONT VIEW
1 - 1 2 - 2

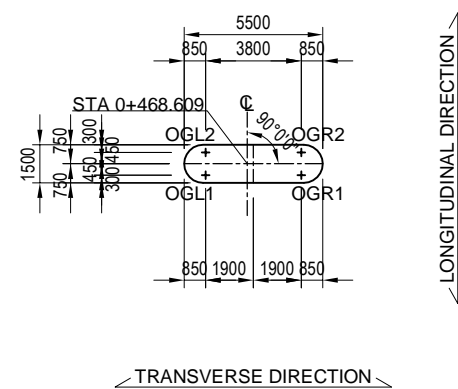


SIDE VIEW
3 - 3

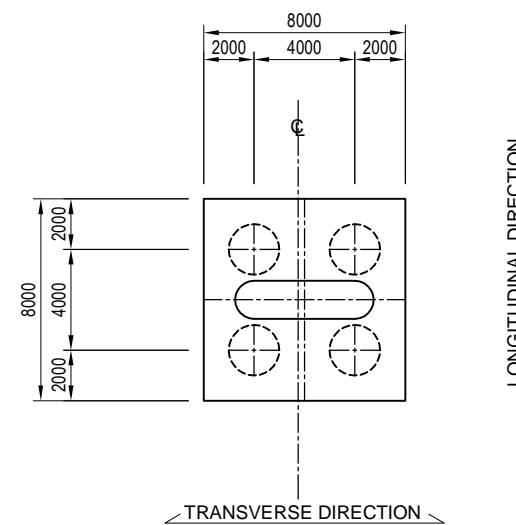


Unit : m	OGL1	OGR1	OGL2	OGL2
EL1	10.019	10.019	10.064	10.064
EL2	9.982	9.982	10.020	10.020
EL3	9.882	9.882	9.900	9.900
h1	0.037	0.037	0.044	0.044
h2	0.100	0.100	0.120	0.120
θ	90d0'0"	90d0'0"	90d0'0"	90d0'0"

PLAN VIEW
4 - 4

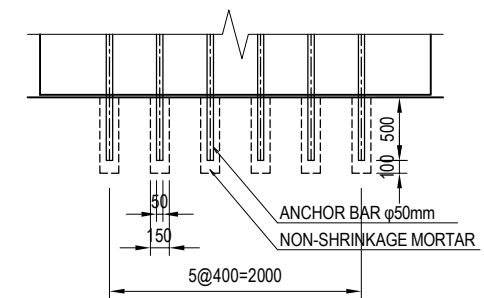


PILE ARRANGEMENT
5 - 5

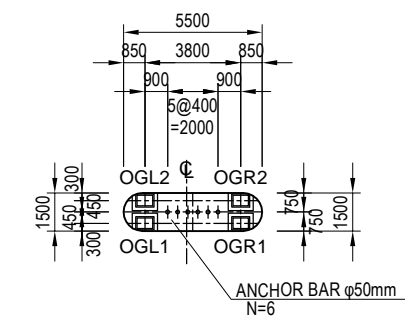


DETAIL OF ANCHOR BAR

S = 1:60



ARRANGEMENT OF BRIDGE SEAT



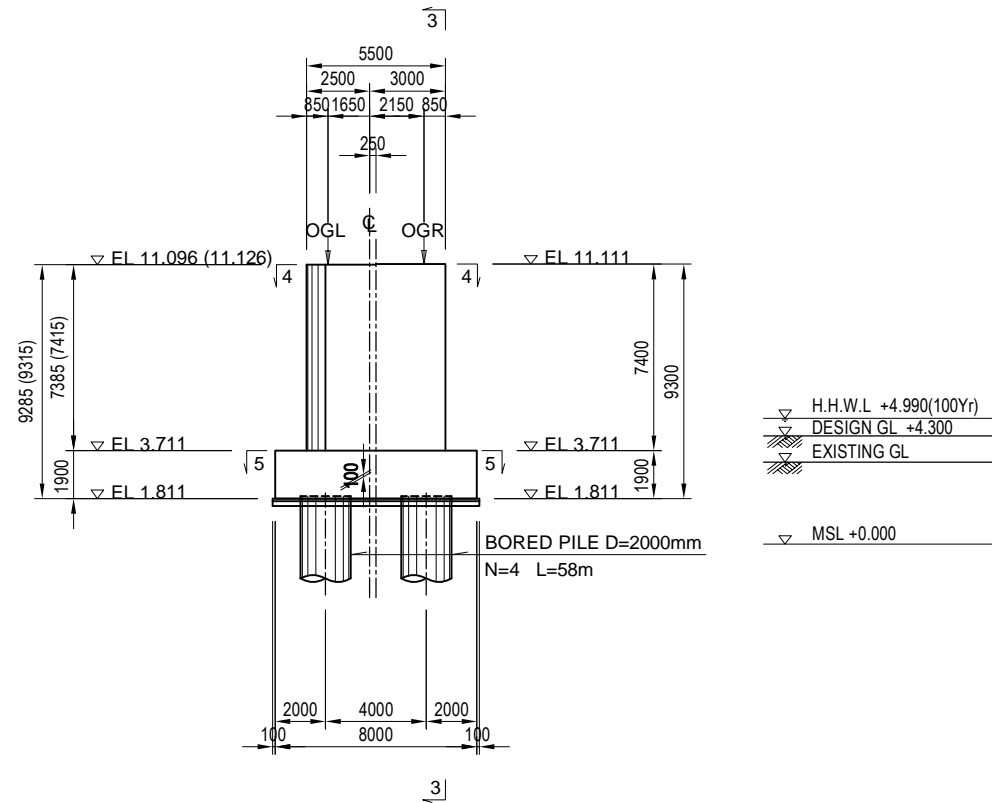
Notes : Regardless of existences of indications on the Drawings, baseplates of bridge bearings shall be embedded into leveling mortar by 10 mm and the leveling mortar shall be embedded into concrete pedestal or top surface of substructures by 30 mm.

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA 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.	M. OHYAMA	大山 満弘	15 Jun.2017	GENERAL VIEW OF PO2 PIER	1
				T. HAYAKAWA	平川 知寿	20 Jun.2017		DWG No.
				Y. SANO	佐野 祐一	21 Jun.2017		P1-OR-2021

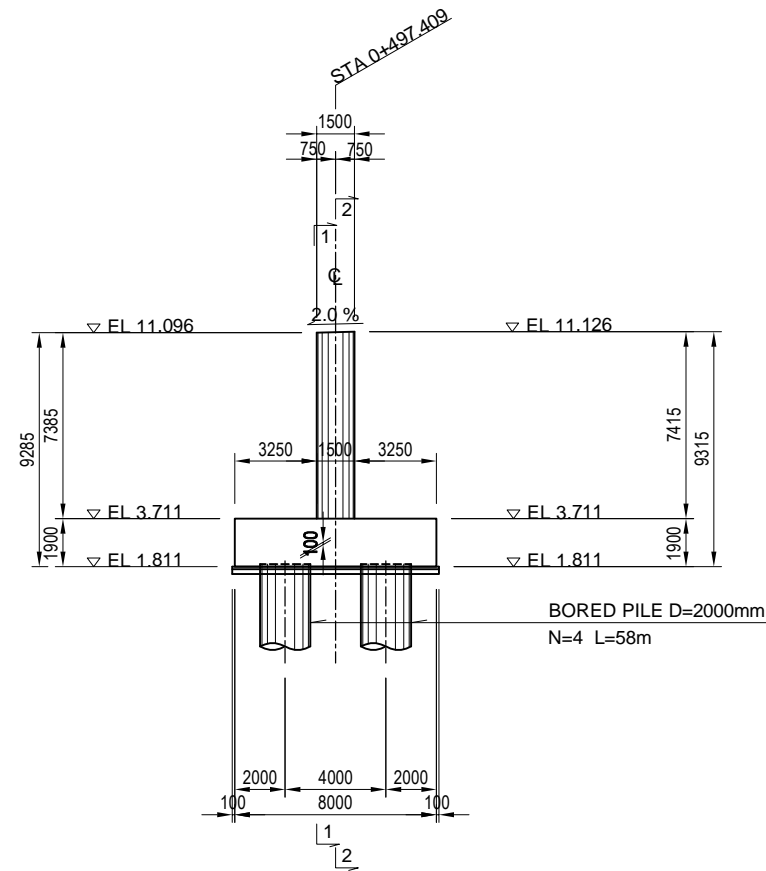
GENERAL VIEW OF PO3 PIER

S = 1:300

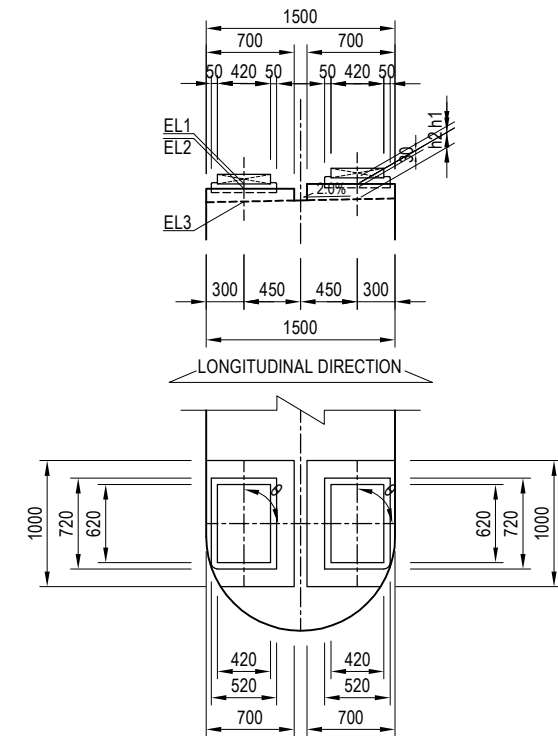
FRONT VIEW
1 - 1 2 - 2



SIDE VIEW
3 - 3

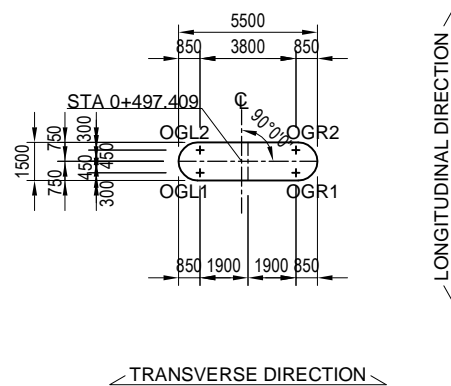


DETAIL OF BEARING S = 1:60

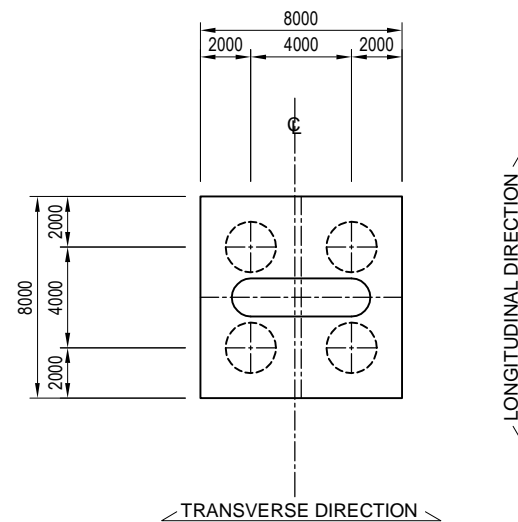


Unit : m	OGL1	OGR1	OGL2	OGL2
EL1	11.241	11.241	11.278	11.278
EL2	11.202	11.202	11.240	11.240
EL3	11.102	11.102	11.120	11.120
h1	0.039	0.039	0.038	0.038
h2	0.100	0.100	0.120	0.120
θ	90d0'0"	90d0'0"	90d0'0"	90d0'0"

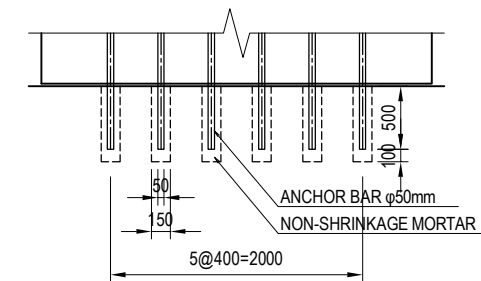
PLAN VIEW
4 - 4



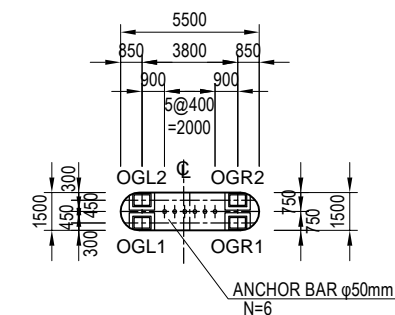
PILE ARRANGEMENT
5 - 5



DETAIL OF ANCHOR BAR S = 1:60

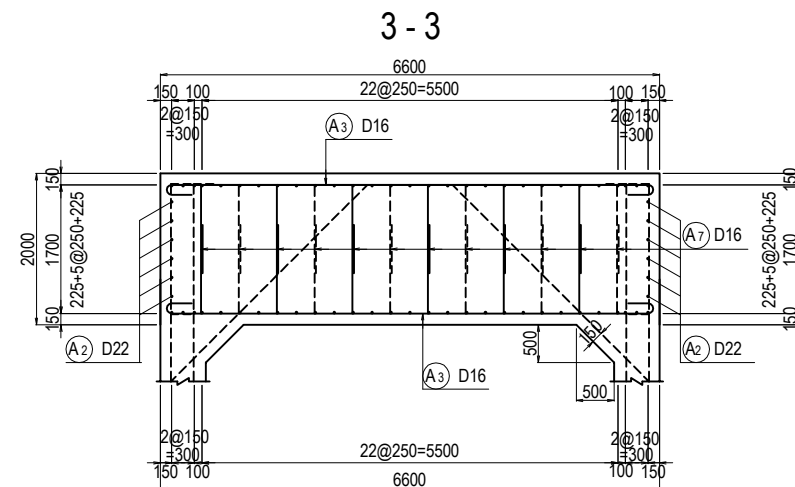
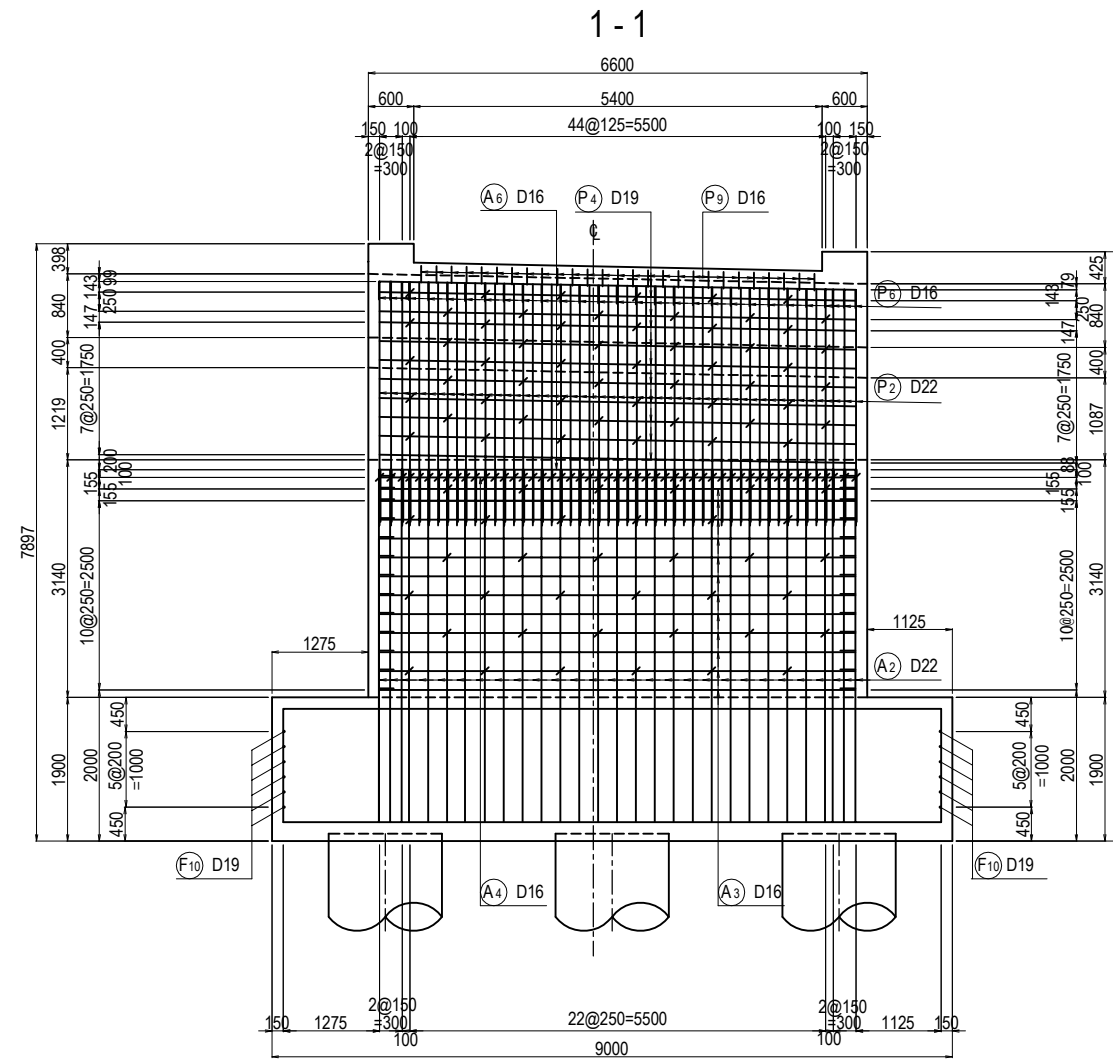


ARRANGEMENT OF BRIDGE SEAT

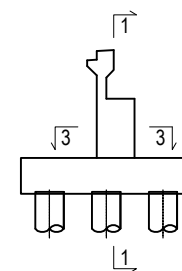


Notes : Regardless of existences of indications on the Drawings, baseplates of bridge bearings shall be embedded into leveling mortar by 10 mm and the leveling mortar shall be embedded into concrete pedestal or top surface of substructures by 30 mm.

BAR ARRANGEMENT OF AO1 ABUTMENT(1) S=1:100



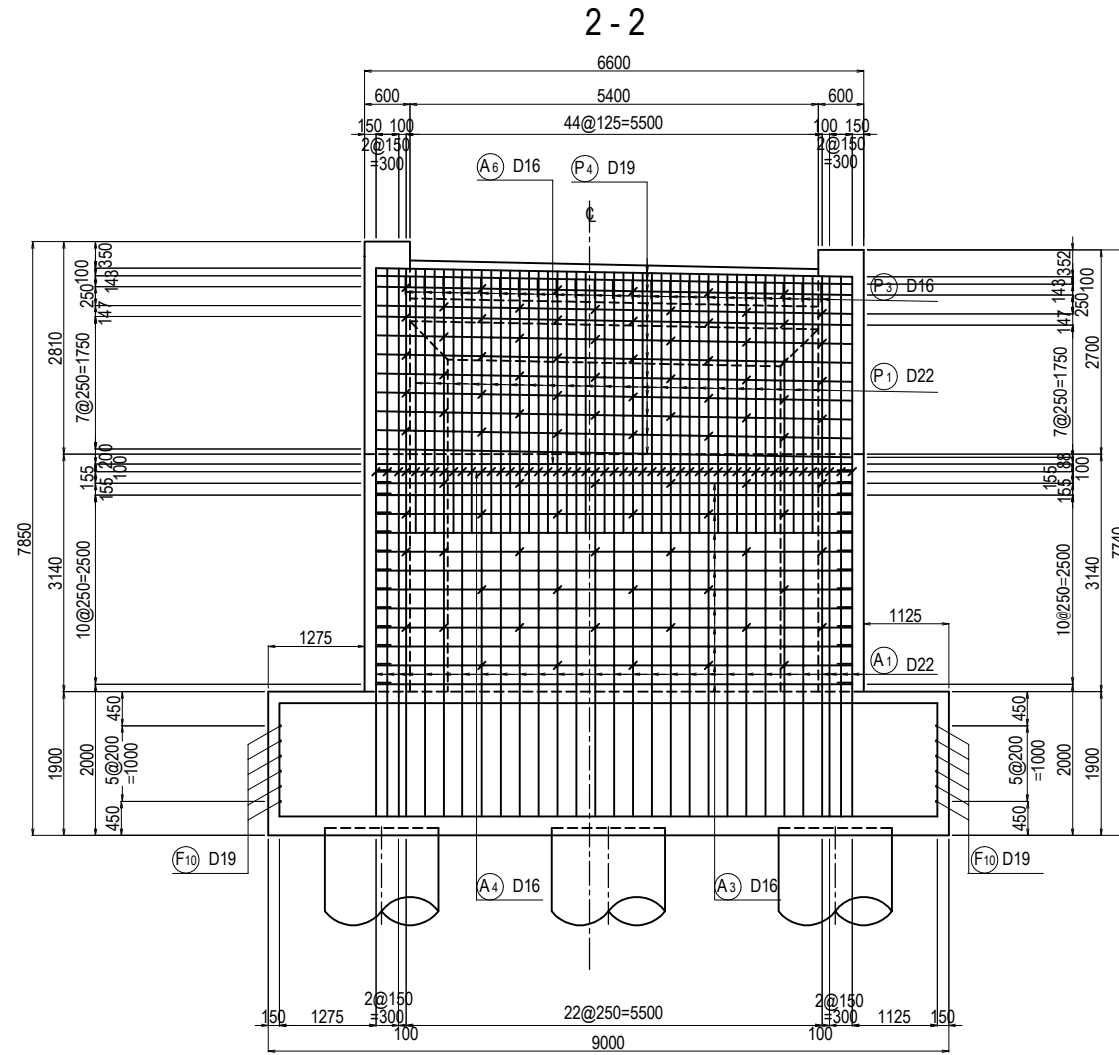
KEY PLAN



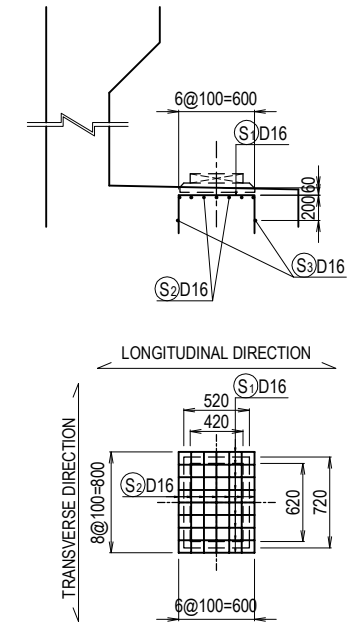
NOTES : Steel bars for fixing bridge expansion joints are reference only.
The contractor shall propose such steel bar considering specifications of expansion joints actually used.

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA 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 M. OHYAMA	大山 満弘	15 Jun.2017	BAR ARRANGEMENT OF AO1 ABUTMENT(1)	1
				CHECKED BY T. HAYAKAWA	平川 知寿	20 Jun.2017		DWG No.
				APPROVED BY Y. SANO	佐野 祐一	21 Jun.2017		P1-OR-2101

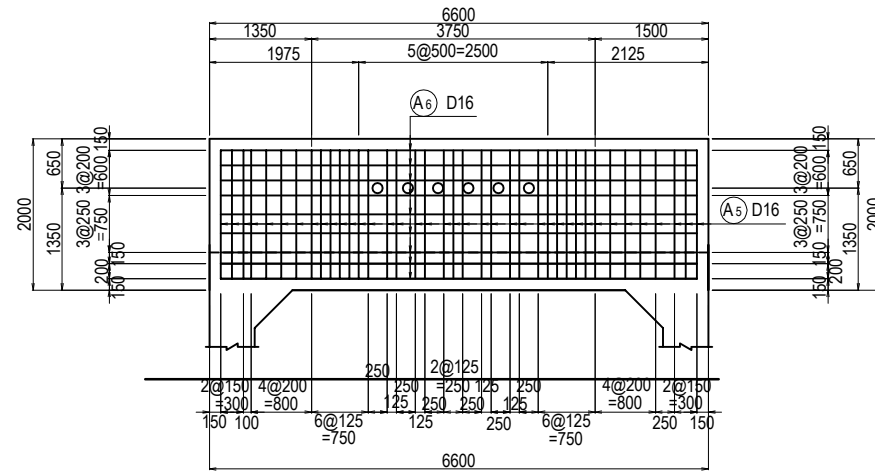
BAR ARRANGEMENT OF AO1 ABUTMENT(2) S=1:100



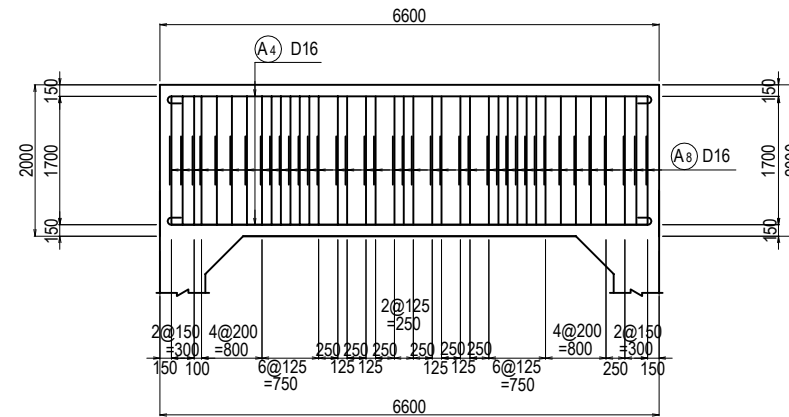
BEARING BASE S=1:60



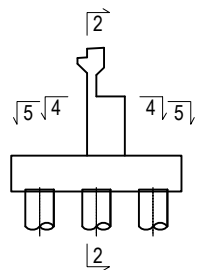
4 - 4



5 - 5



KEY PLAN

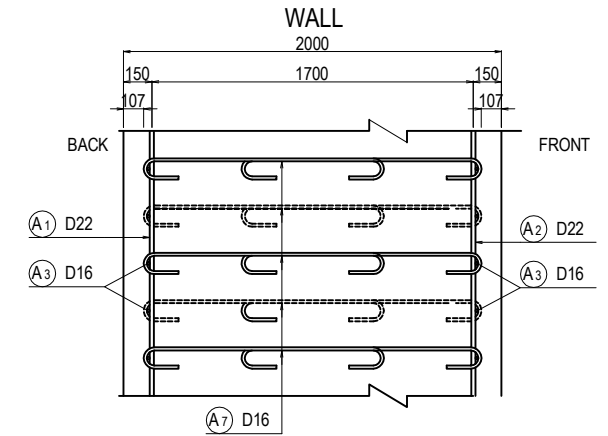
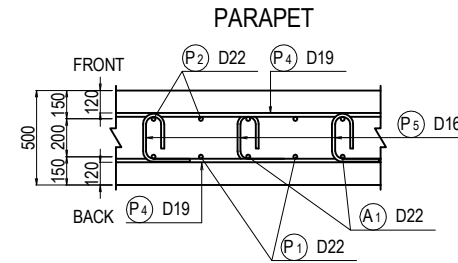
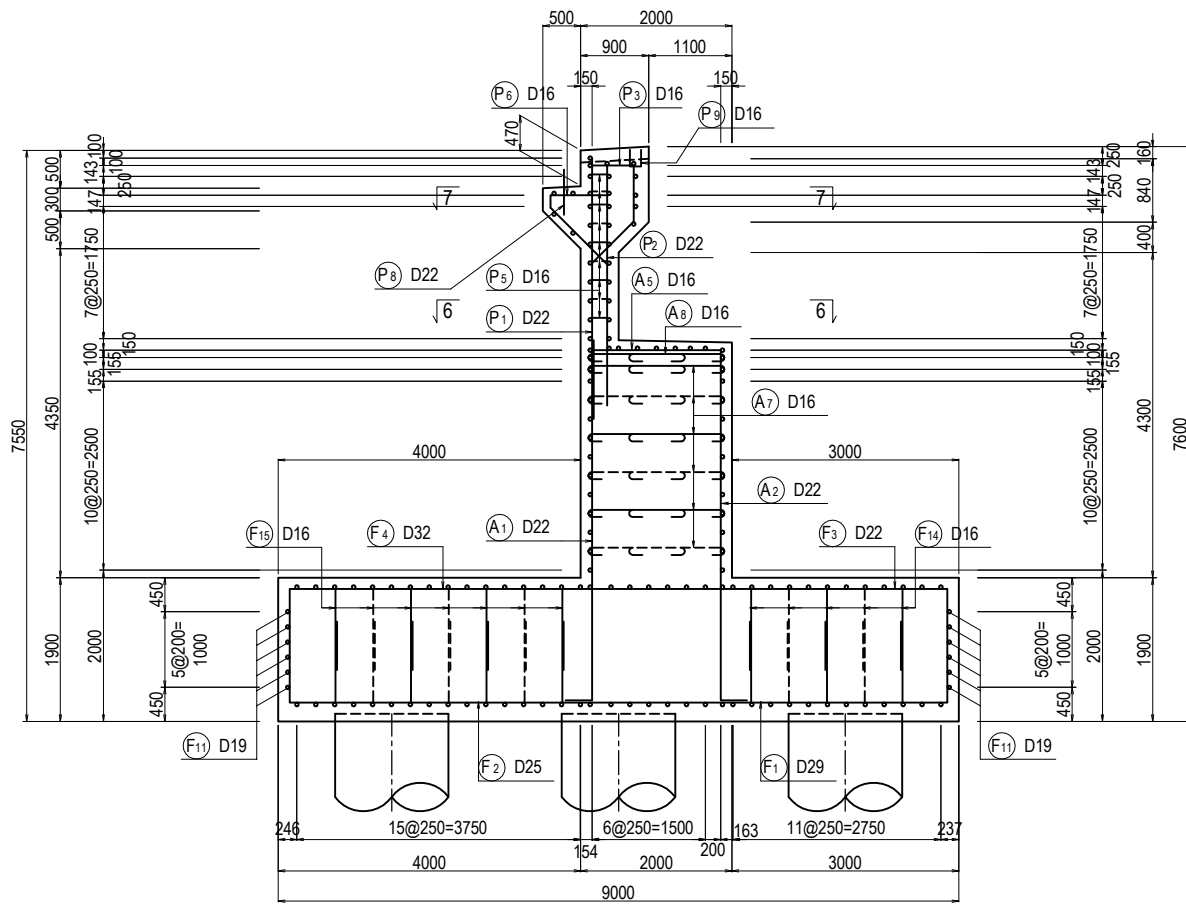


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NAME</th> <th>SIGNATURE</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY</td> <td>M. OHYAMA</td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY</td> <td>T. HAYAKAWA</td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY</td> <td>Y. SANO</td> <td>21 Jun.2017</td> </tr> </tbody> </table>	NAME	SIGNATURE	DATE	PREPARED BY	M. OHYAMA	15 Jun.2017	CHECKED BY	T. HAYAKAWA	20 Jun.2017	APPROVED BY	Y. SANO	21 Jun.2017	DRAWING TITLE <p style="text-align: center; font-weight: bold;">BAR ARRANGEMENT OF AO1 ABUTMENT(2)</p>	PACKAGE 1 DWG No. P1-OR-2102
NAME	SIGNATURE	DATE																
PREPARED BY	M. OHYAMA	15 Jun.2017																
CHECKED BY	T. HAYAKAWA	20 Jun.2017																
APPROVED BY	Y. SANO	21 Jun.2017																

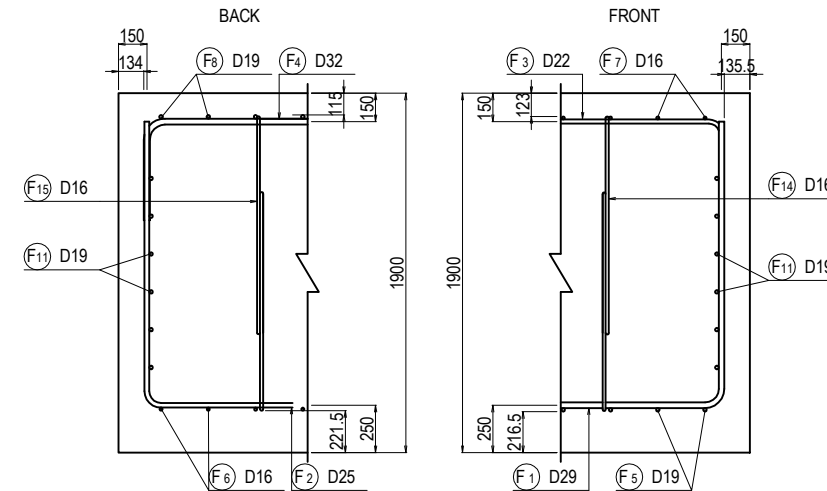
BAR ARRANGEMENT OF AO1 ABUTMENT(3) S=1:100

DETAIL S=1:40

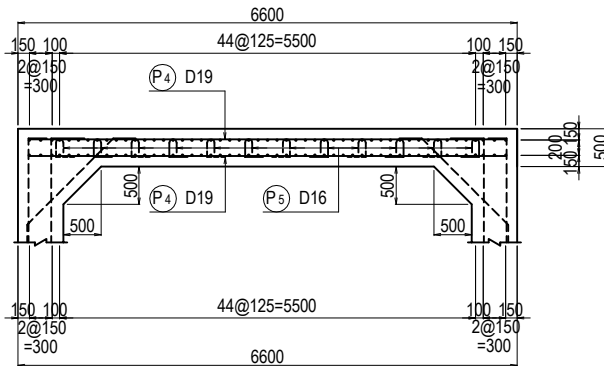
8-8



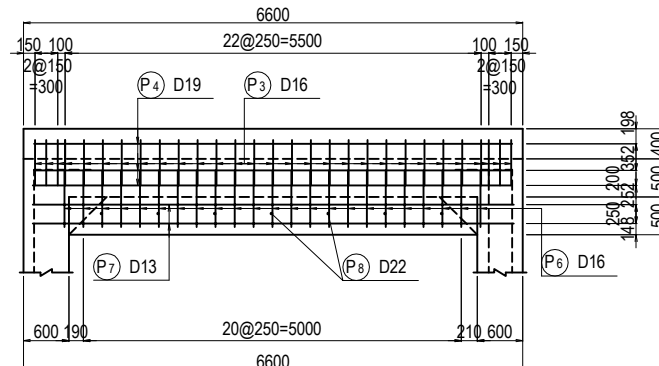
PILE CAP



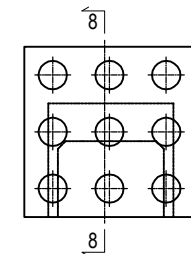
6-6



7-7

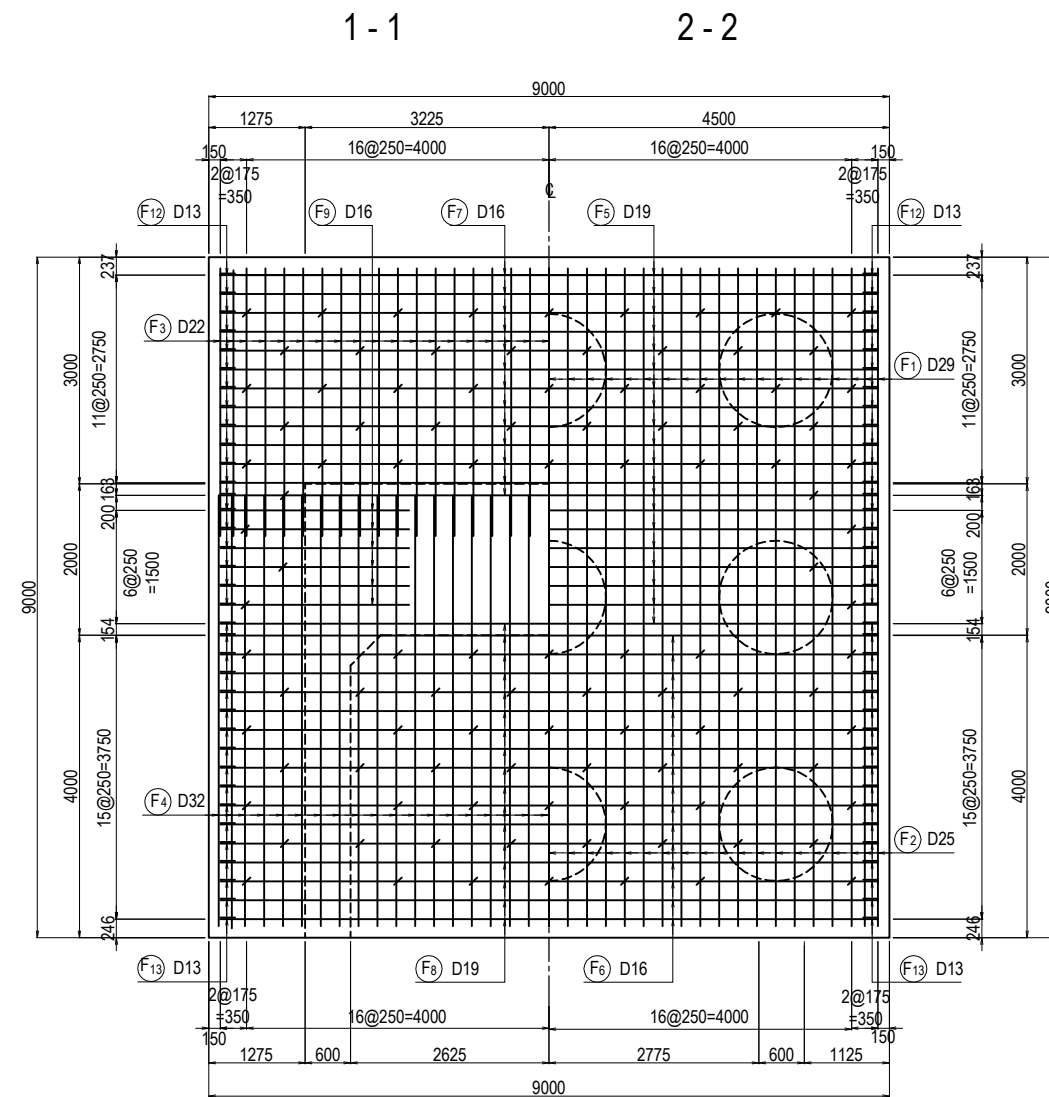


KEY PLAN

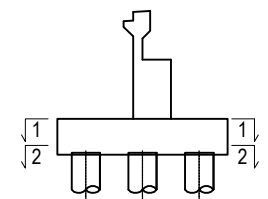


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF AO1 ABUTMENT(3)	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘		15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA	平川 知寿		20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO	佐野 祐一		21 Jun.2017	P1-OR-2103

BAR ARRANGEMENT OF AO1 ABUTMENT(4) S=1:100

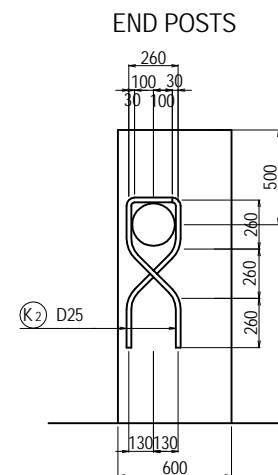
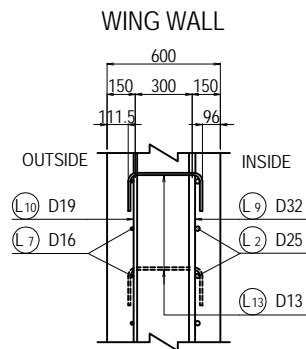
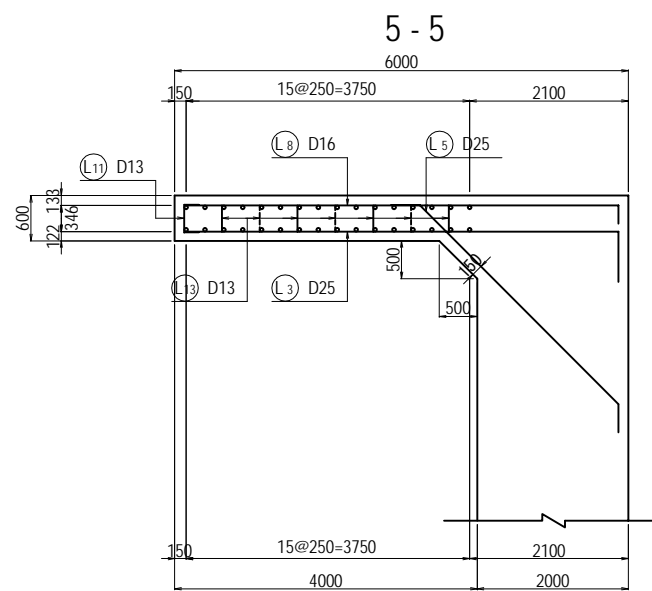
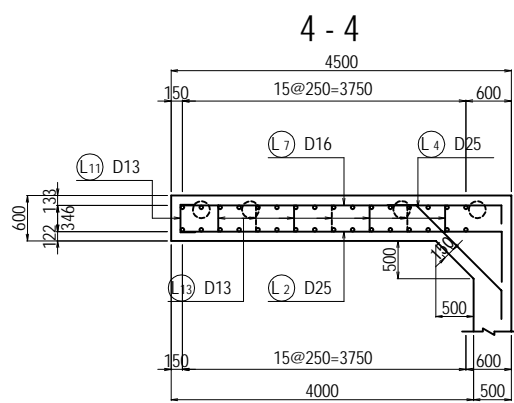
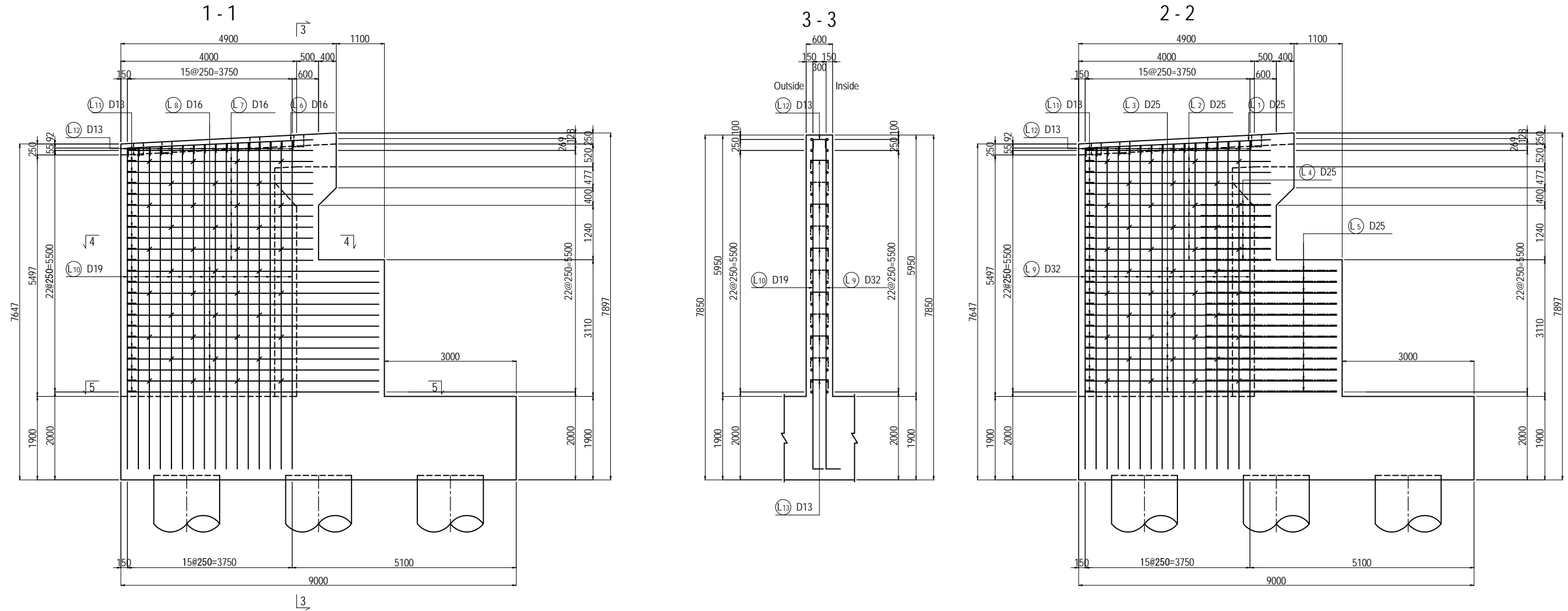


KEY PLAN

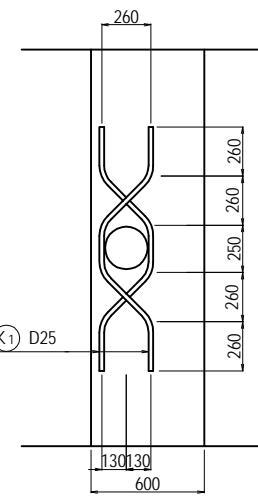


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	PREPARED BY M. OHYAMA	大山 満弘	15 Jun.2017	BAR ARRANGEMENT OF AO1 ABUTMENT(4)	1
				CHECKED BY T. HAYAKAWA	平川 知寿	20 Jun.2017		DWG No.
				APPROVED BY Y. SANO	佐野 祐一	21 Jun.2017		P1-OR-2104

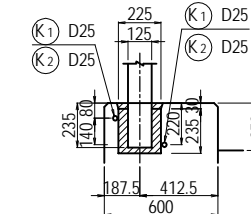
BAR ARRANGEMENT OF AO1 ABUTMENT(5) S=1:100



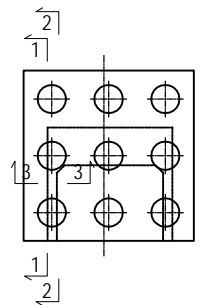
INTERMEDIATE POSTS



DETAIL OF REBAR FOR RAILING POST

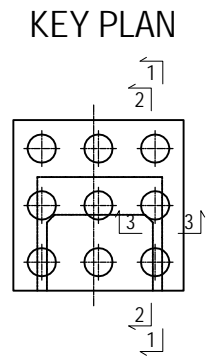
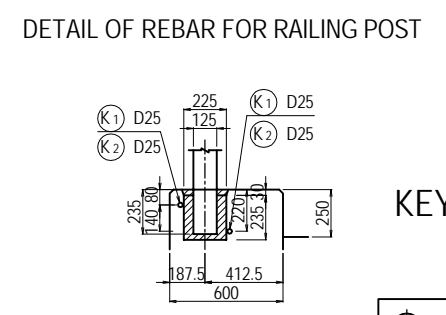
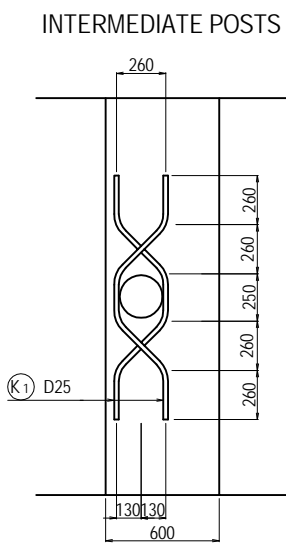
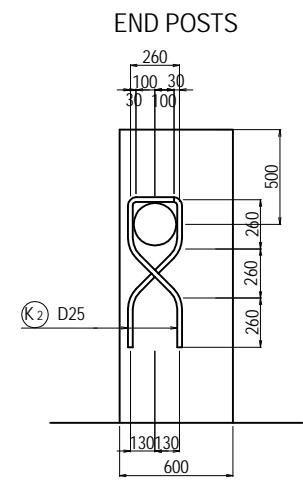
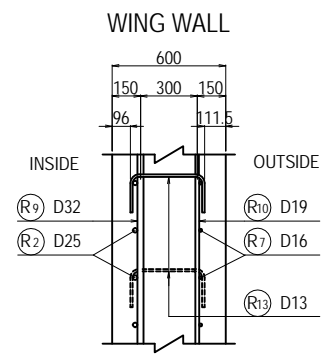
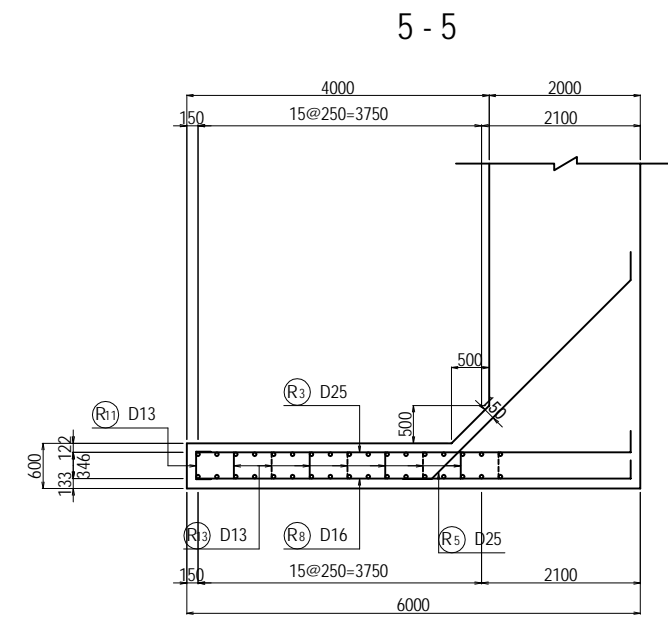
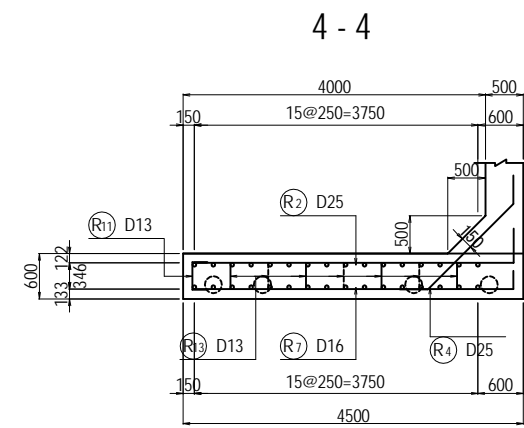
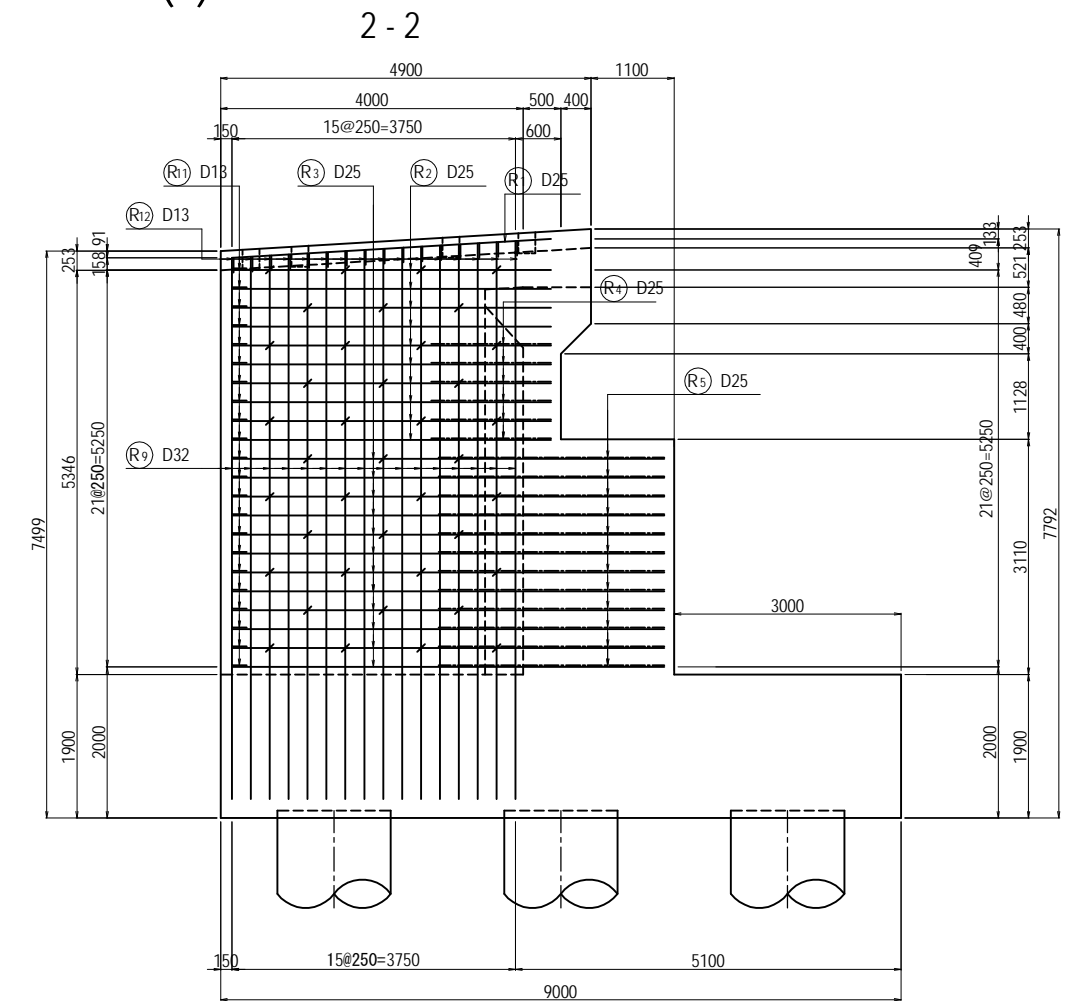
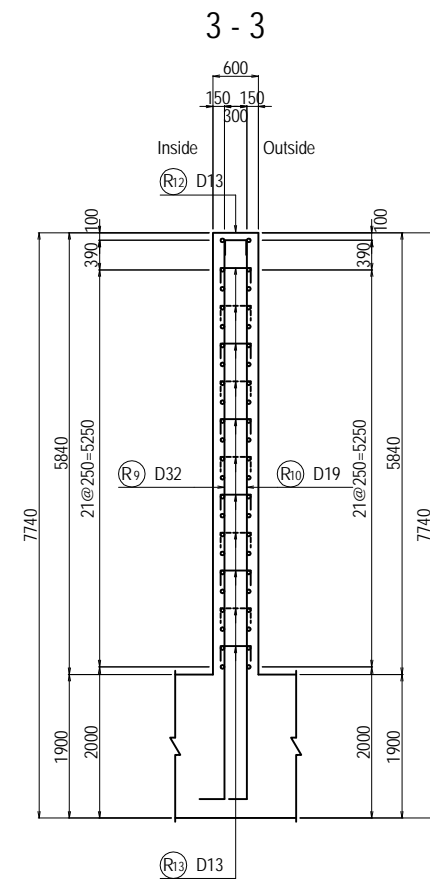
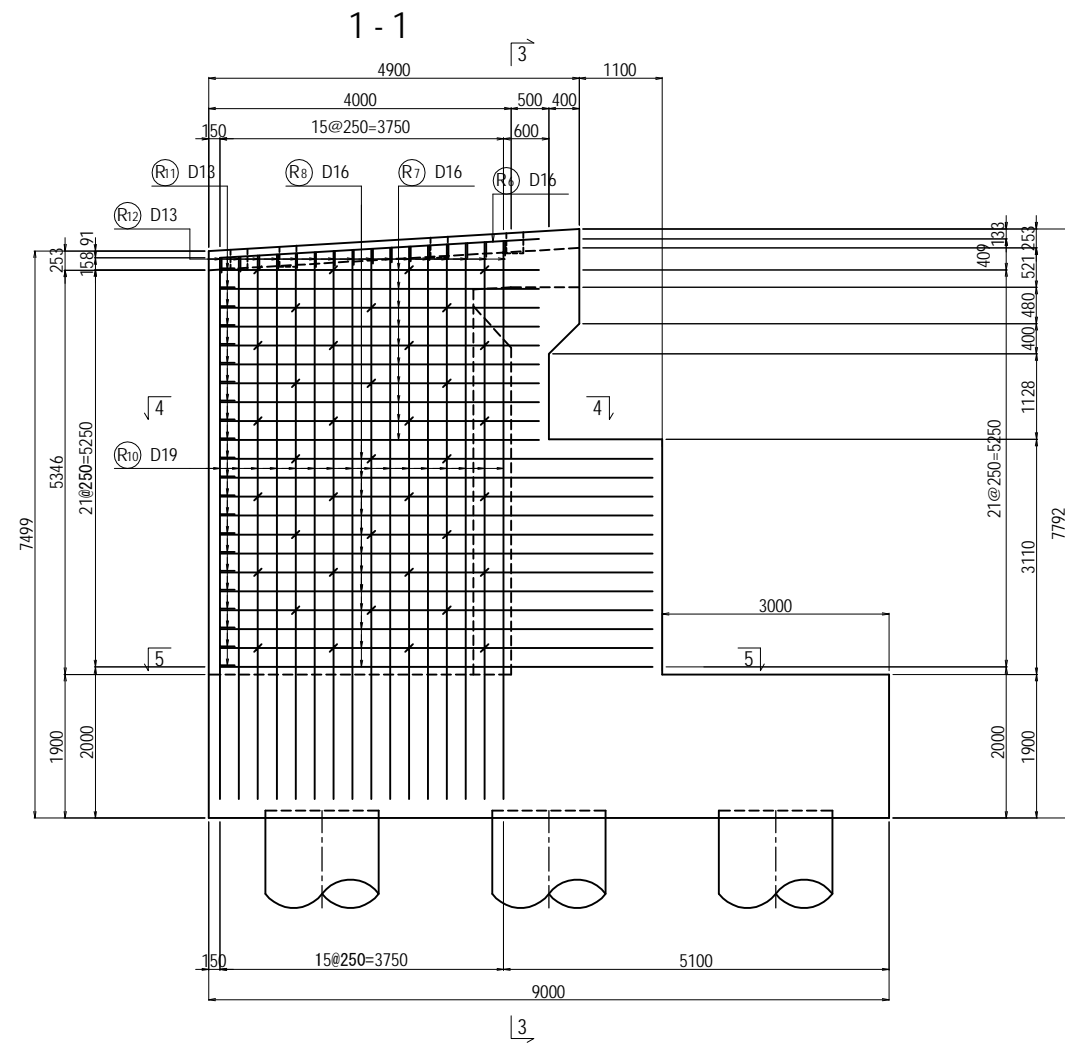


KEY PLAN



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	M. OHYAMA	大山 満弘			15 Jun.2017
				CHECKED BY	T. HAYAKAWA	平川 知寿			20 Jun.2017
				APPROVED BY	Y. SANO	佐野 祐一			21 Jun.2017
BAR ARRANGEMENT OF AO1 ABUTMENT(5)							DWG No.	1	
							P1-OR-2105		

BAR ARRANGEMENT OF AO1 ABUTMENT(6) 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 BAR ARRANGEMENT OF AO1 ABUTMENT(6)	PACKAGE 1 DWG No. P1-OR-2106	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017

BAR ARRANGEMENT OF AO1 ABUTMENT (7)

BAR QUANTITY

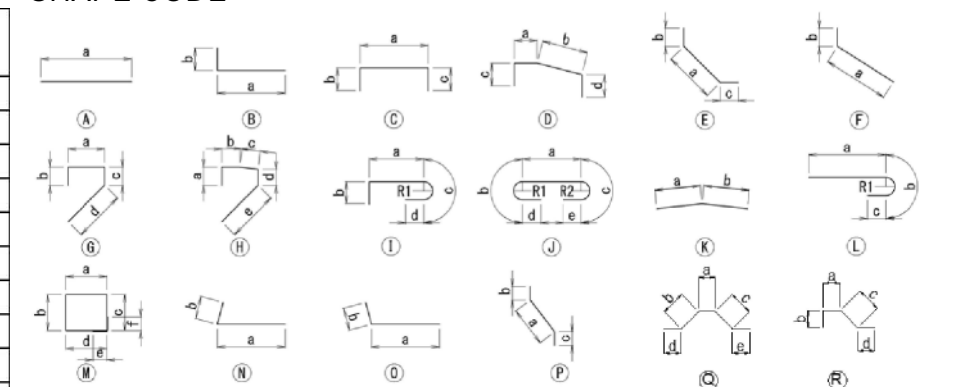
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P1	A	D22	22	3450	3444								231	AVERAGE
P2	A	D22	51	3170	3169								492	AVERAGE
P3	G	D16	29	2190	500	240	740	707					99	
P4	A	D19	26	6310	6301								369	
P5	I	D16	54	710	190	240	151	128			48		60	
P6	H	D16	23	2220	240	350	400	161	1061				80	
P7	A	D13	4	6310	6301								25	
P8	A	D22	7	600	600								13	
A1	B	D22	29	7530	7194	330							664	AVERAGE
A2	B	D22	41	4990	4660	330							622	
A3	J	D16	24	6860	6300	151	151	128	128		48	48	257	
A4	J	D16	2	6860	6300	151	151	128	128		48	48	21	
A5	C	D16	39	2350	1700	240	410						143	
A6	C	D16	9	7320	6300	510	510						103	
A7	J	D16	72	1720	1157	151	151	128	128		48	48	193	
A8	J	D16	78	1720	1157	151	151	128	128		48	48	209	
F1	B	D29	37	6200	4700	1500							1156	
F2	B	D25	37	6140	4640	1500							904	
F3	B	D22	37	3870	3540	330							435	
F4	B	D32	37	6180	5700	480							1425	
F5	A	D19	20	8700	8700								392	
F6	A	D16	16	8700	8700								217	
F7	A	D16	13	8700	8700								176	
F8	A	D19	17	8700	8700								333	
F9	A	D16	12	2500	2500								47	
F10	C	D19	12	9230	8654	285	285						249	
F11	A	D19	12	8660	8652								234	
F12	C	D13	38	1930	1539	195	195						73	
F13	C	D13	34	1940	1542	195	195						66	
F14	J	D16	102	1610	1043	151	151	128	128		48	48	256	
F15	J	D16	104	1610	1045	151	151	128	128		48	48	261	
S1	C	D16	18	1200	600	300	300						34	
S2	C	D16	14	1400	800	300	300						31	
S3	M	D16	2	3510	632	832	880	680	240	240			11	

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
L1	B	D25	1	4900	4229	665							20	
L2	B	D25	11	4890	4224	665							214	
L3	B	D25	12	6100	5724	375							291	
L4	E	D25	6	2350	1600	375	375						56	
L5	E	D25	12	4470	3720	375	375						213	
L6	B	D16	1	4470	4225	240							7	
L7	B	D16	11	4460	4219	240							77	
L8	B	D16	12	5960	5719	240							112	
L9	B	D32	16	7890	7401	480							786	AVERAGE
L10	B	D19	16	7690	7401	285							277	AVERAGE
L11	C	D13	23	740	346	195	195						17	
L12	C	D13	16	740	346	195	195						12	
L13	C	D13	39	770	380	195	195						30	
R1	B	D25	1	4900	4229	665							20	
R2	B	D25	10	4890	4224	665							195	
R3	B	D25	12	6100	5724	375							291	
R4	E	D25	6	2350	1600	375	375						56	
R5	E	D25	12	4470	3720	375	375						213	
R6	B	D16	1	4470	4225	240							7	
R7	B	D16	10	4460	4219	240							70	
R8	B	D16	12	5960	5719	240							112	
R9	B	D32	16	7750	7270	480							772	AVERAGE
R10	B	D19	16	7560	7270	285							272	AVERAGE
R11	C	D13	22	740	346	195	195						16	
R12	C	D13	16	740	346	195	195						12	
R13	C	D13	39	770	380	195	195						30	
K1	Q	D25	8	1510	250	368	368	260	260				48	
K2	R	D25	8	1150	260	260	368	260					37	

SUMMARY

DIAMETER	WEIGHT (kg)	MECHANICAL SPLICE (NOS)
D13	281	0
D16	2583	0
D19	2126	0
D22	2457	0
D25	2558	0
D29	1156	0
D32	2983	0
D35	0	0
D38	0	0
D41	0	0
D51	0	0
TOTAL	14144	0

SHAPE CODE

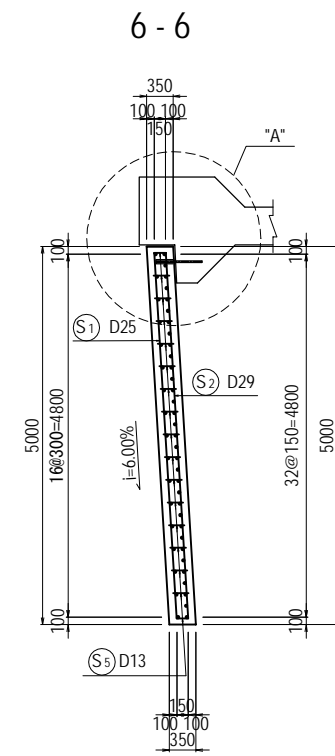
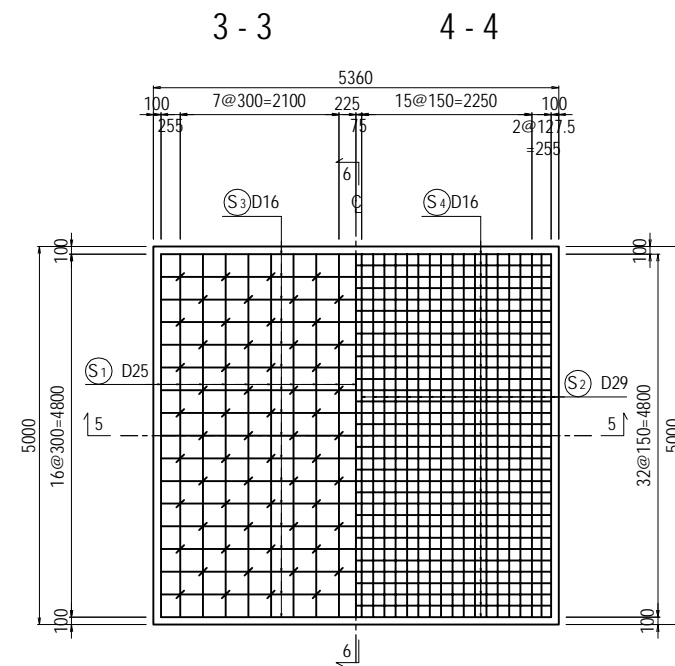
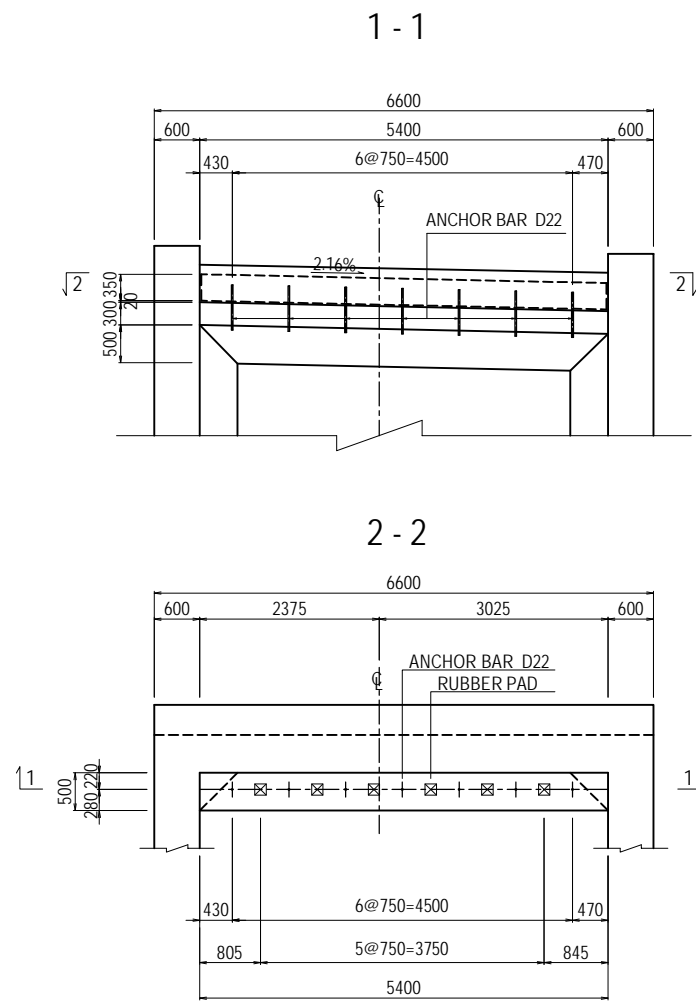


- NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.
2. A figure in italic font indicate average length of rebar.

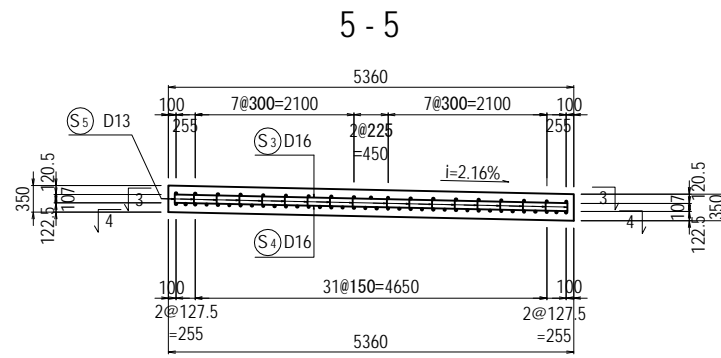
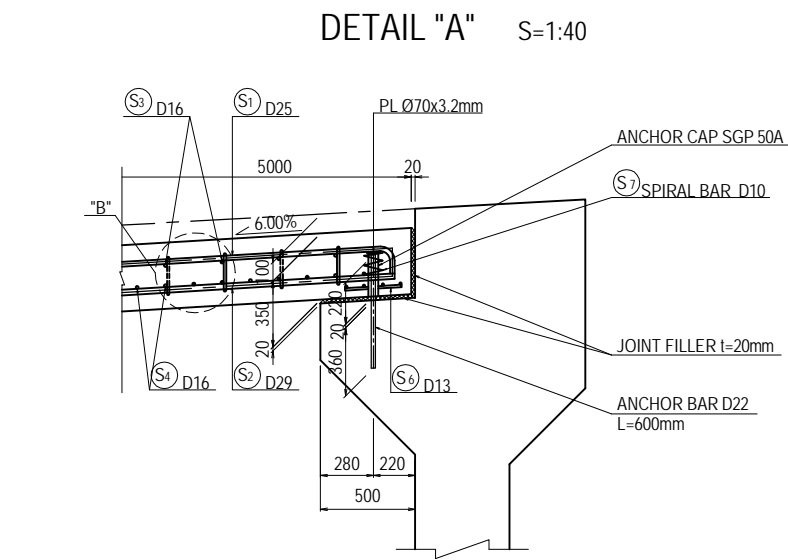
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF AO1 ABUTMENT (7)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-2107

BAR ARRANGEMENT OF AO1 ABUTMENT (8)

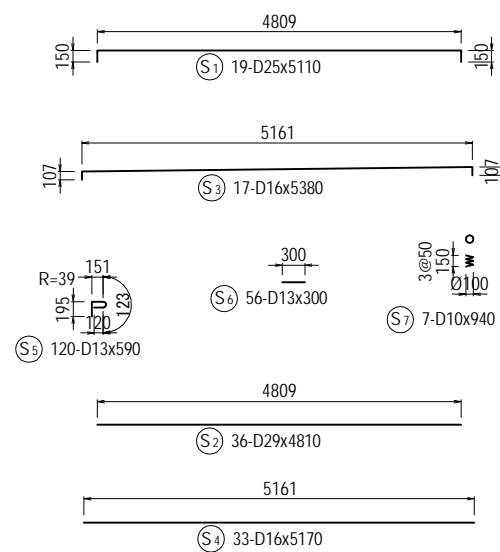
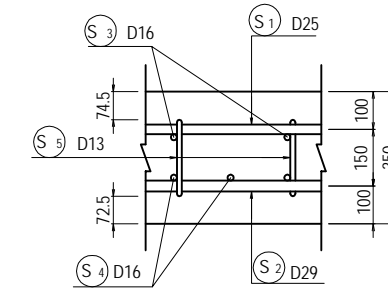
S=1:100



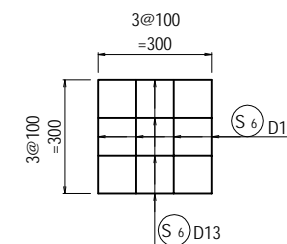
SYMBOL	DIAMETER	LENGTH (mm)	NUMBER	WEIGHT	SHAPE
S1	D25	5110	19	386	□
S2	D29	4810	36	873	—
S3	D16	5380	17	143	□
S4	D16	5170	33	266	—
S5	D13	590	120	70	□
S6	D13	300	56	17	—
			D29	873kg	
			D25	386kg	
			D16	409kg	
			D13	87kg	
			Total	1755kg	
S7	D10	940	7	4	■
ANCHOR CAP	50A	230	7	9	SGP
PL	Ø70x3.2		7	1	
			Total	14kg	



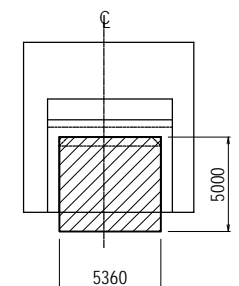
DETAIL "B" S=1:20



DETAIL "C" S=1:20

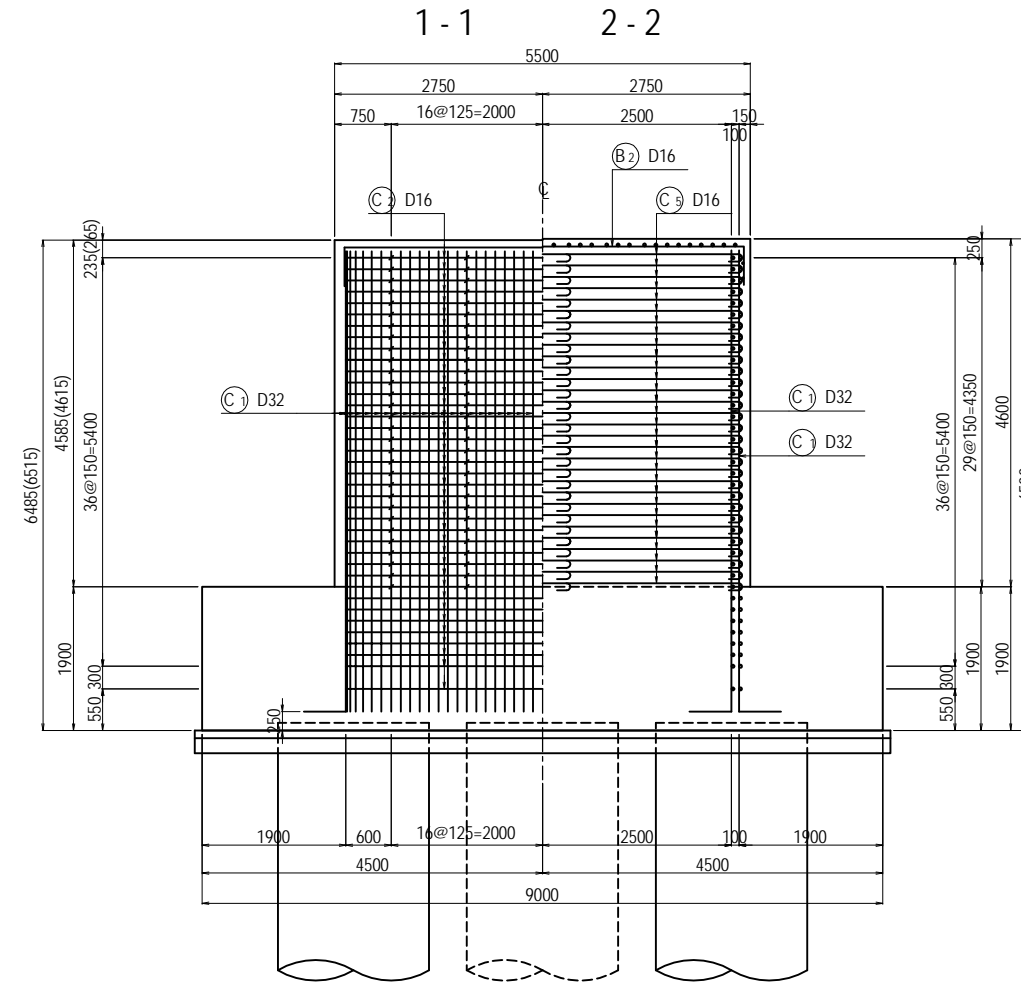


KEY PLAN

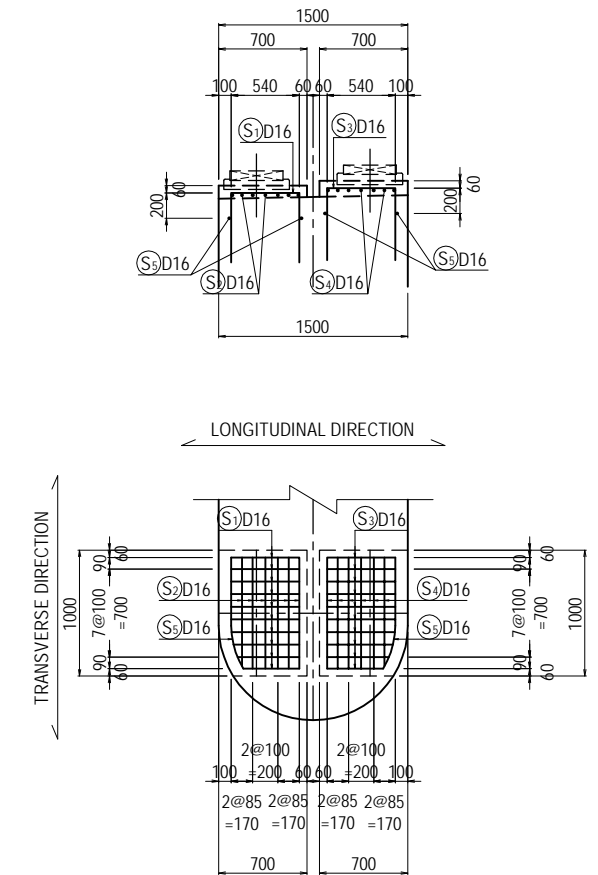


BAR ARRANGEMENT OF PO1 PIER (1)

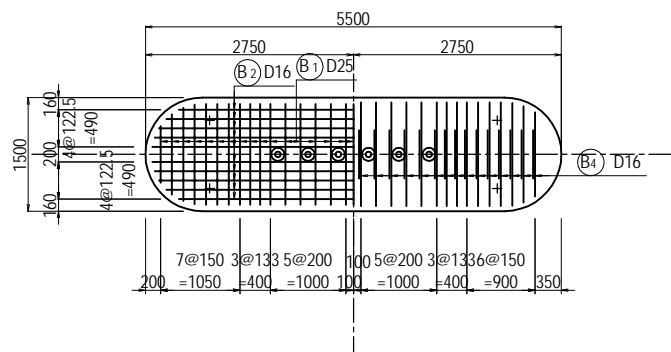
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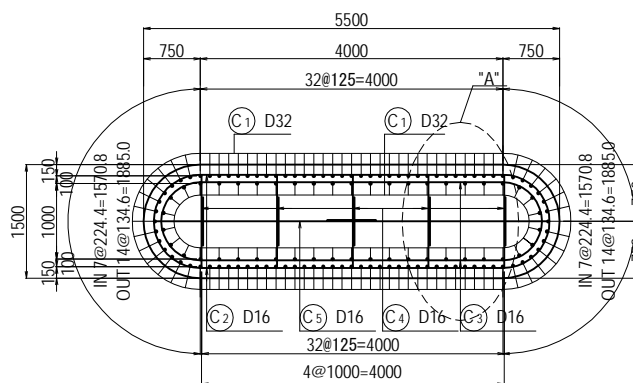
DETAIL OF BEARING BASE S=1:60



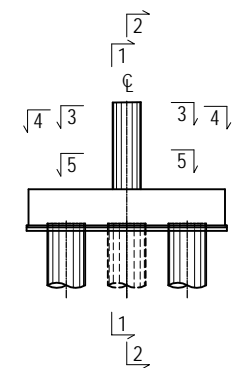
3-3 4-4



5-5



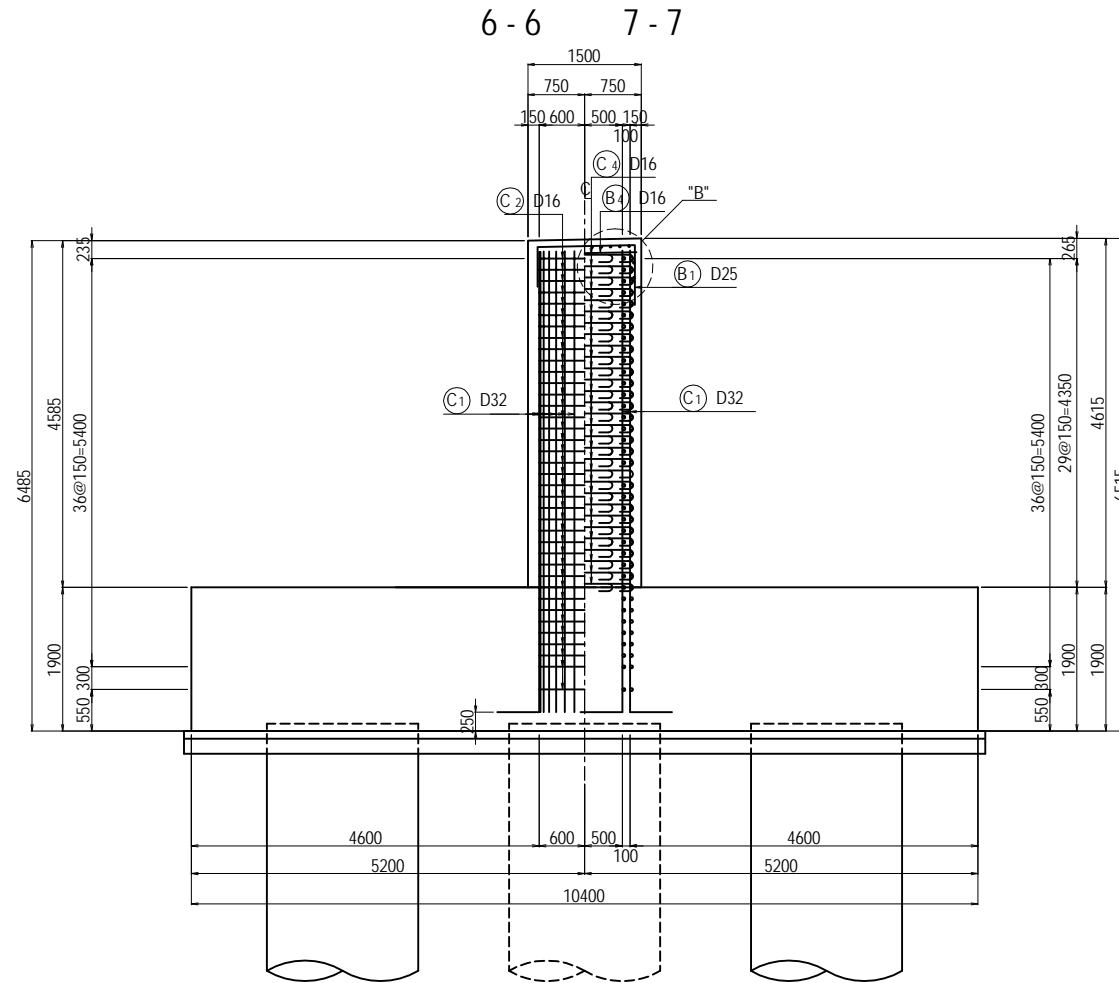
KEY PLAN



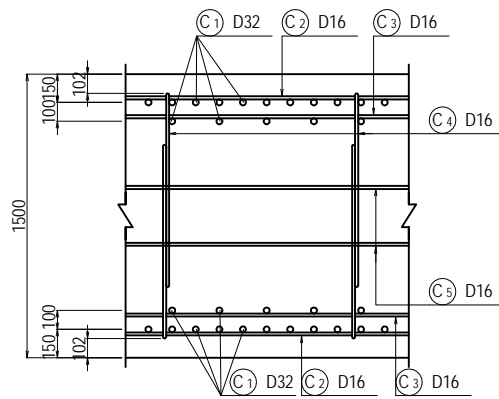
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	M. OHYAMA	大山 満弘	15 Jun.2017	BAR ARRANGEMENT OF PO1 PIER (1)	1
				T. HAYAKAWA	平川 知寿	20 Jun.2017		DWG No.
				Y. SANO	佐野 祐一	21 Jun.2017		P1-OR-2111

BAR ARRANGEMENT OF PO1 PIER (2)

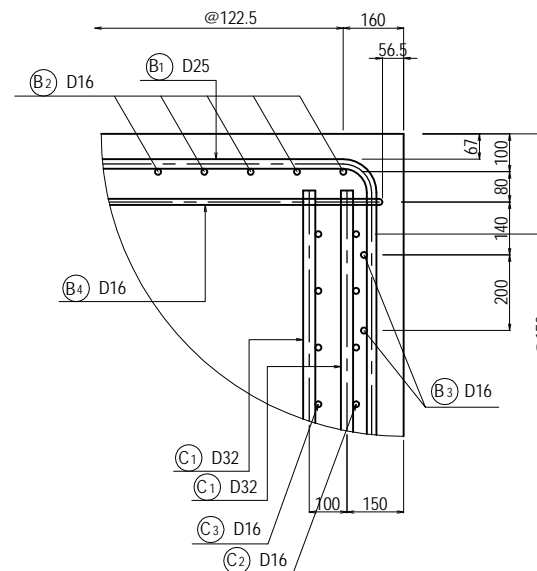
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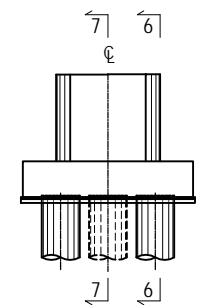
DETAIL "A" S=1:40



DETAIL "B" S=1:20



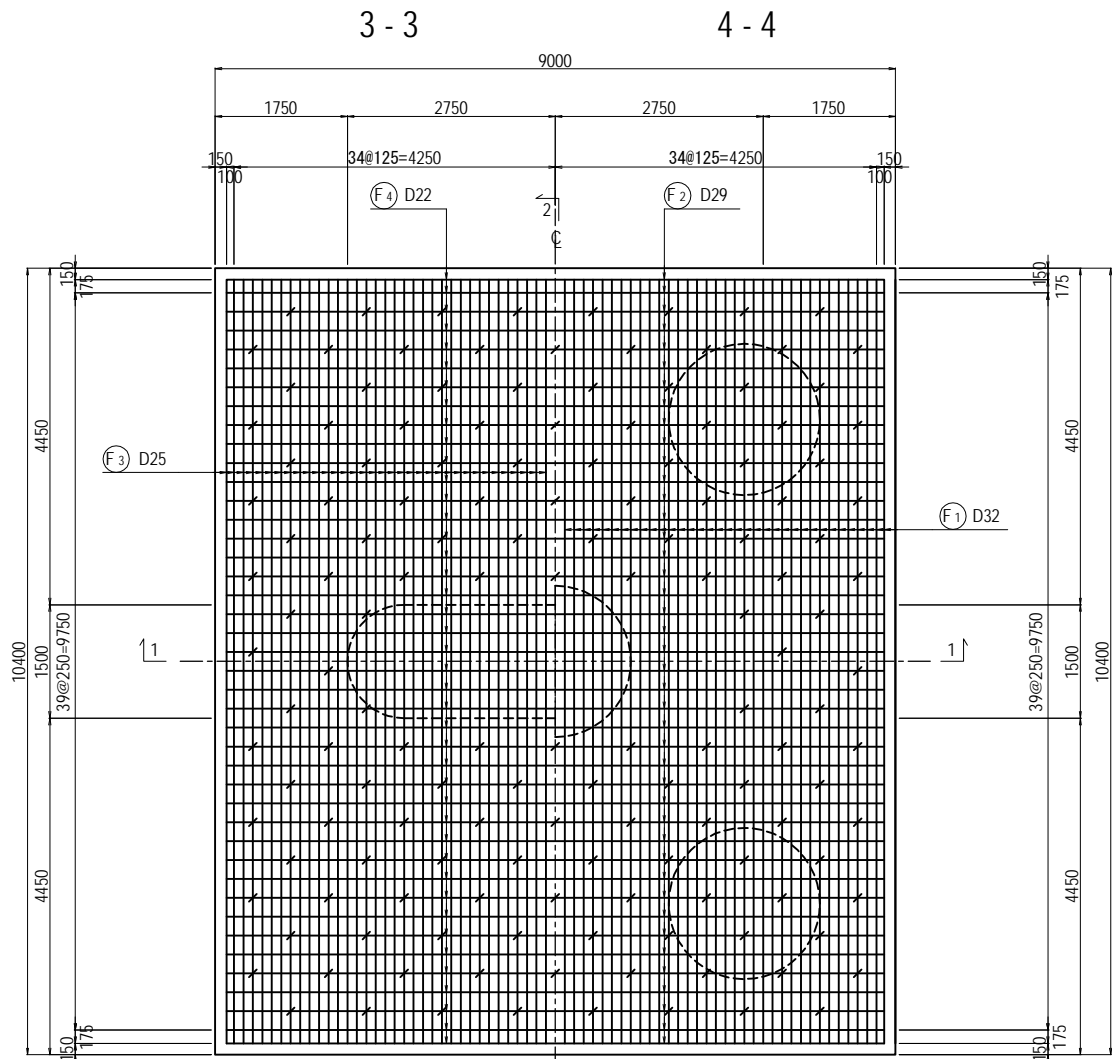
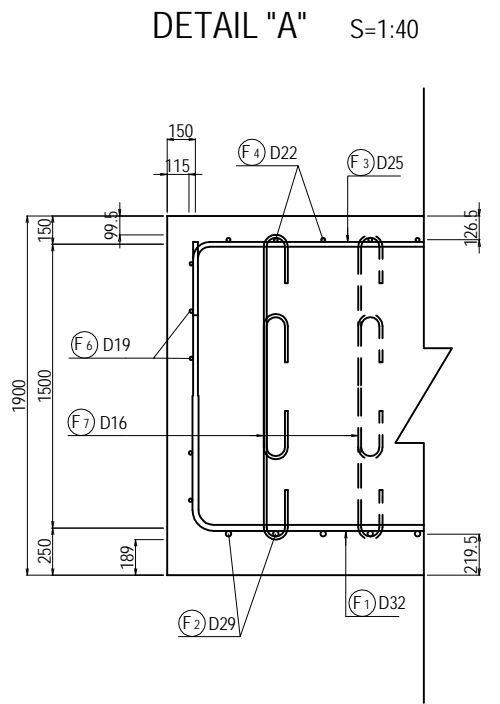
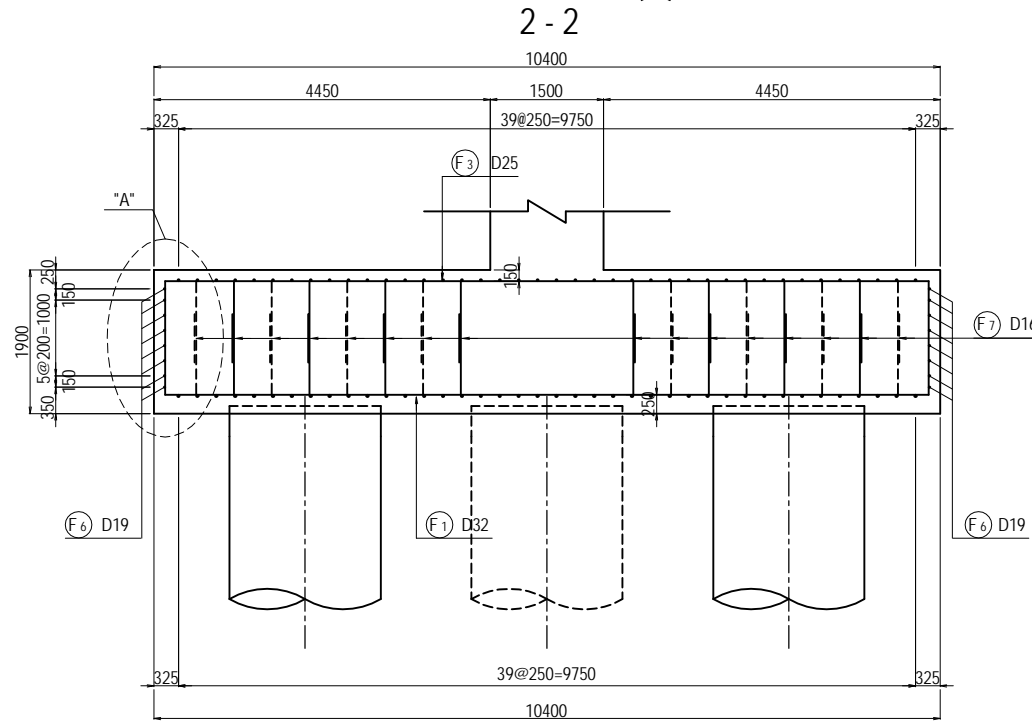
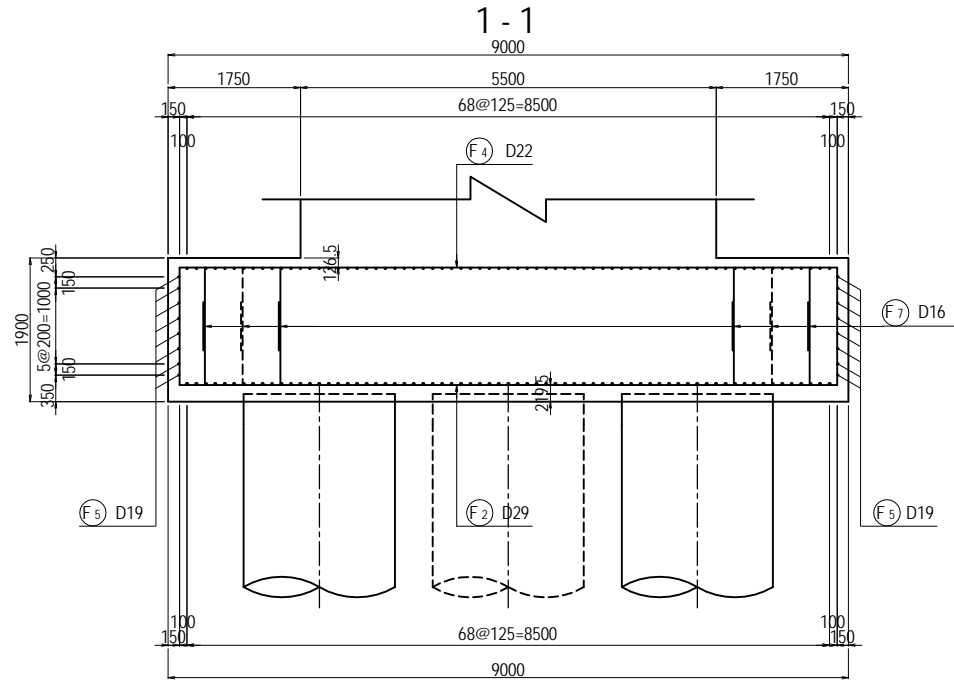
KEY PLAN



PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA 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 M. OHYAMA	大山 満弘	15 Jun.2017	BAR ARRANGEMENT OF PO1 PIER (2)	1
				CHECKED BY T. HAYAKAWA	平川 知寿	20 Jun.2017		DWG No.
				APPROVED BY Y. SANO	佐野 祐一	21 Jun.2017		P1-OR-2112

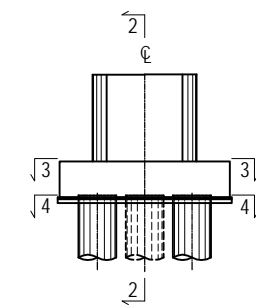
BAR ARRANGEMENT OF PO1 PIER (3)

S = 1:100



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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	M. OHYAMA				15 Jun.2017	BAR ARRANGEMENT OF PO1 PIER (3)	1
				CHECKED BY	T. HAYAKAWA				20 Jun.2017		DWG No.
				APPROVED BY	Y. SANO				21 Jun.2017		P1-OR-2113

BAR ARRANGEMENT OF PO1 PIER (4)

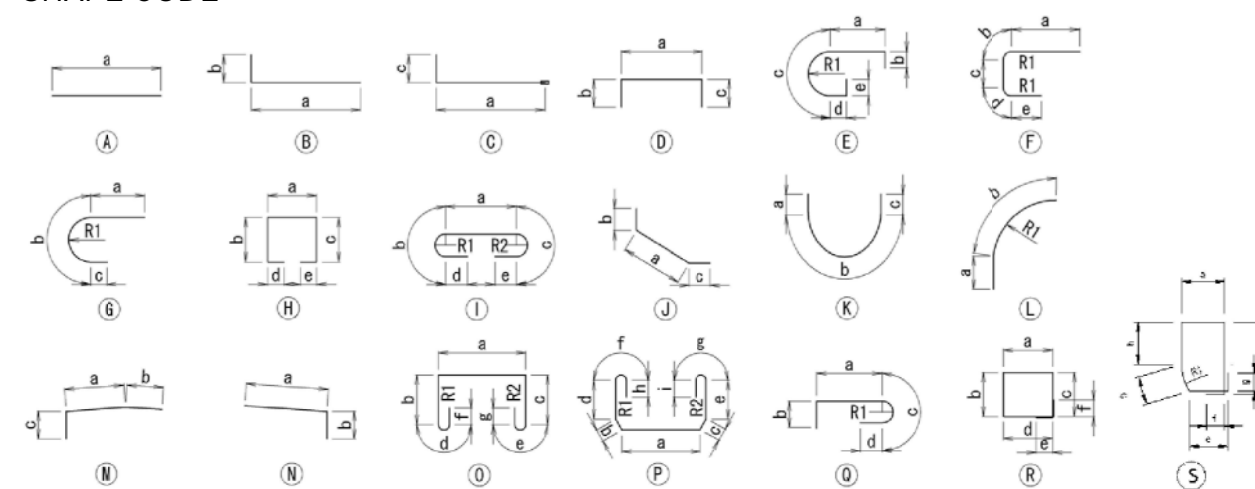
BAR QUANTITY

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	h (mm)	i (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
B1	D	D25	33	2860	1272	790	790									376	AVERAGE
B2	D	D16	10	6080	5053	510	510									95	AVERAGE
B3	E	D16	4	7360	1423	240	2025	3423	240					645		46	
B4	I	D16	62	1570	1006	151	151	128	128					48	48	152	
S1	D	D16	20	1640	540	550	550									51	
S2	D	D16	14	1980	880	550	550									43	
S3	D	D16	20	1680	540	570	570									52	
S4	D	D16	14	2020	880	570	570									44	
S5	S	D16	4	3470	572	556	376	960	517	240	240			666		22	
C1	B	D32	138	6660	6100	555										5726	AVERAGE
C2	E	D16	76	7290	1423	240	1960	3423	240					624		864	
C3	E	D16	76	6980	1423	240	1646	3423	240					524		828	
C4	I	D16	300	1470	912	151	151	128	128					48	48	687	
C5	I	D16	60	3470	2912	151	151	128	128					48	48	325	
F1-1	B	D32	71	8000	6500	1500										3539	
F1-2	B	D32	71	6110	4610	1500										2703	
F2	D	D29	40	11810	8700	1554	1554									2381	
F3	D	D25	71	10850	10100	375	375									3066	
F4	D	D22	40	9360	8700	330	330									1138	
F5	A	D19	16	10160	10151											366	
F6	A	D19	16	8750	8748											315	
F7	I	D16	296	1630	1070	151	151	128	128					48	48	752	

SUMMARY

DIAMETER	WEIGHT (kg)	MECHANICAL SPLICE (NOS)
D13	0	0
D16	3961	0
D19	681	0
D22	1138	0
D25	3442	0
D29	2381	0
D32	11968	0
D35	0	0
D38	0	0
D41	0	0
D51	0	0
TOTAL	23571	0

SHAPE CODE

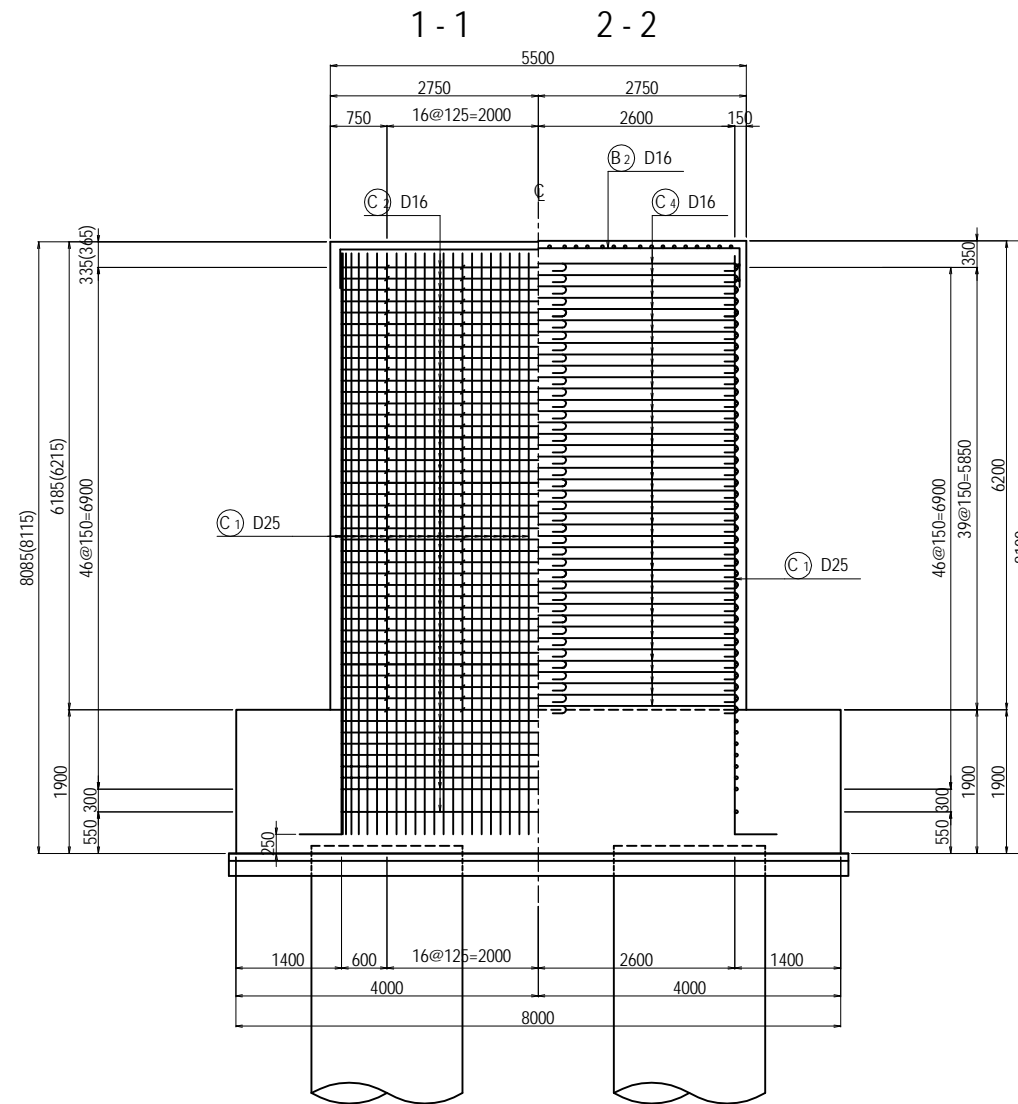


NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.
2. A figure in italic font indicate average length of rebar.

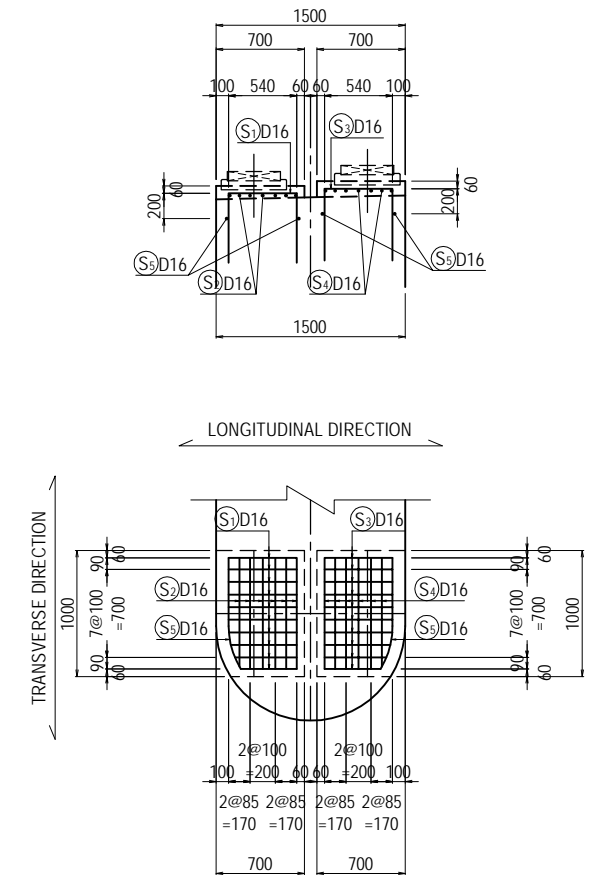
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF PO1 PIER (4)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-2114

BAR ARRANGEMENT OF PO2 PIER (1)

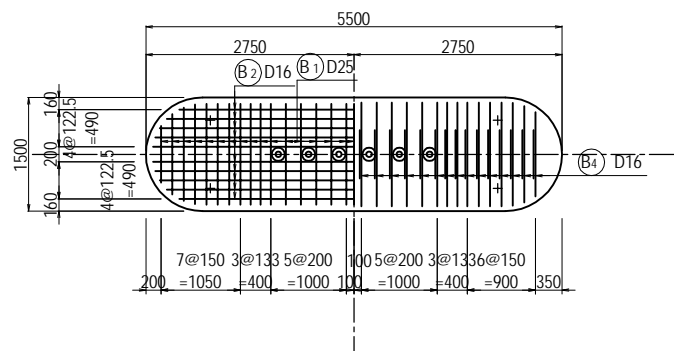
S = 1:100



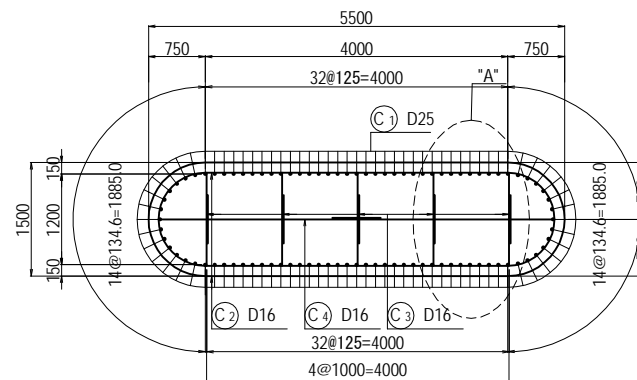
DETAIL OF BEARING BASE S=1:60



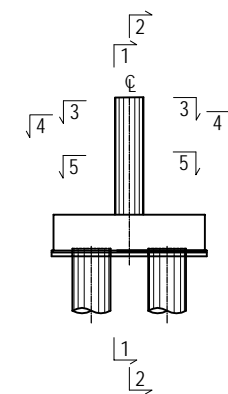
3-3 4-4



5-5



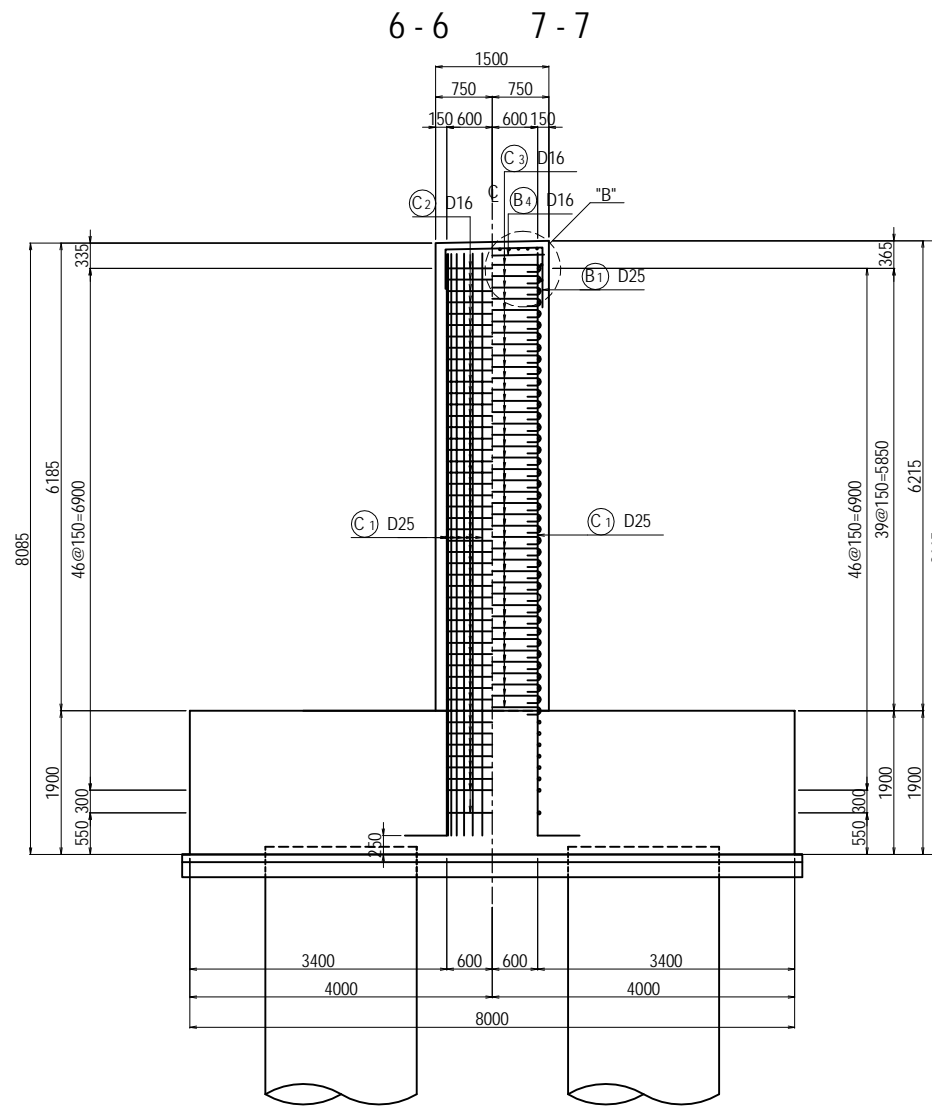
KEY PLAN



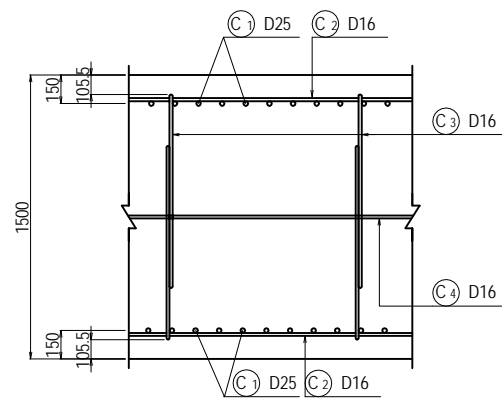
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	M. OHYAMA	大山 満弘	15 Jun.2017	BAR ARRANGEMENT OF PO2 PIER (1)	1
				T. HAYAKAWA	平川 知寿	20 Jun.2017		DWG No.
				Y. SANO	佐野 祐一	21 Jun.2017		P1-OR-2121

BAR ARRANGEMENT OF PO2 PIER (2)

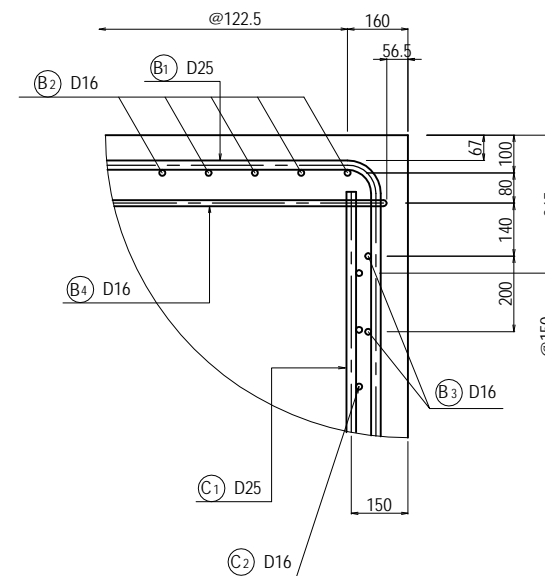
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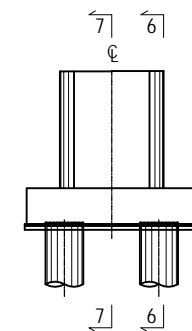
DETAIL "A" S=1:40



DETAIL "B" S=1:20



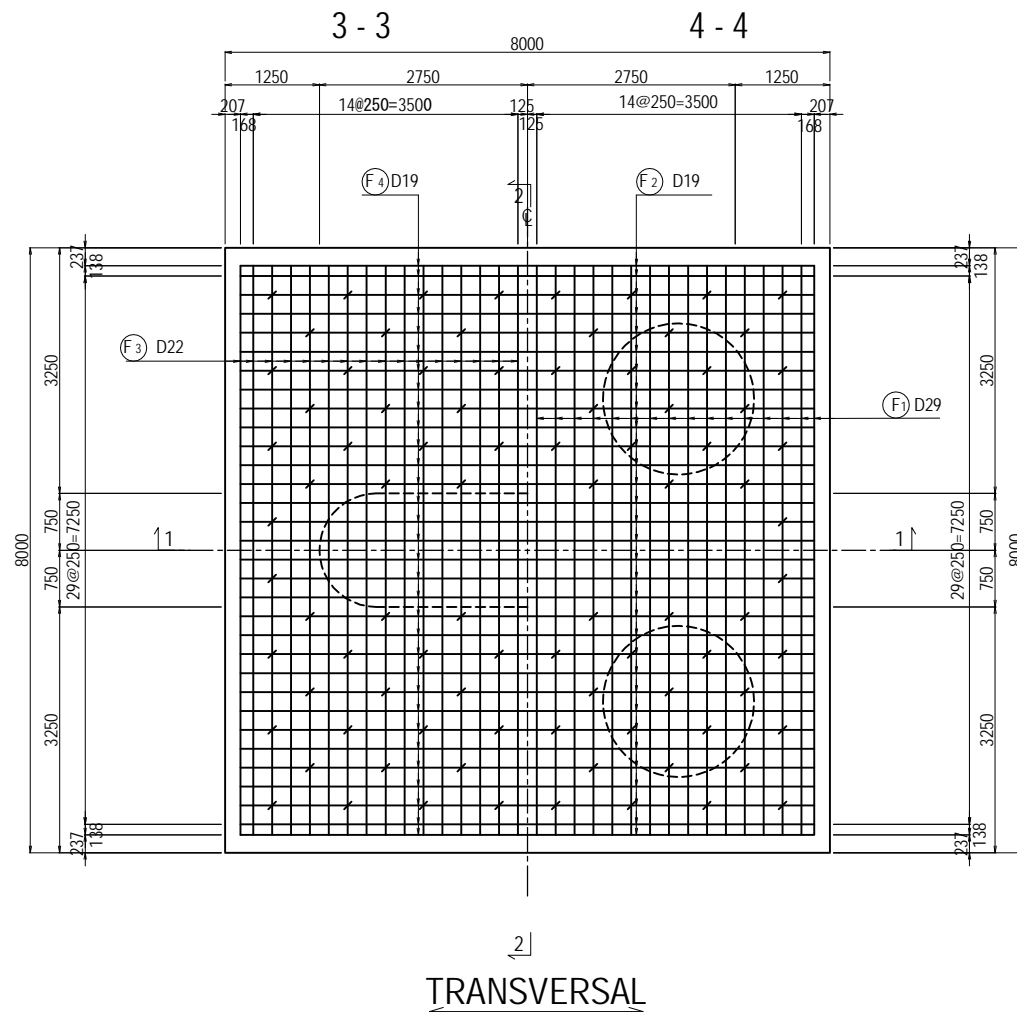
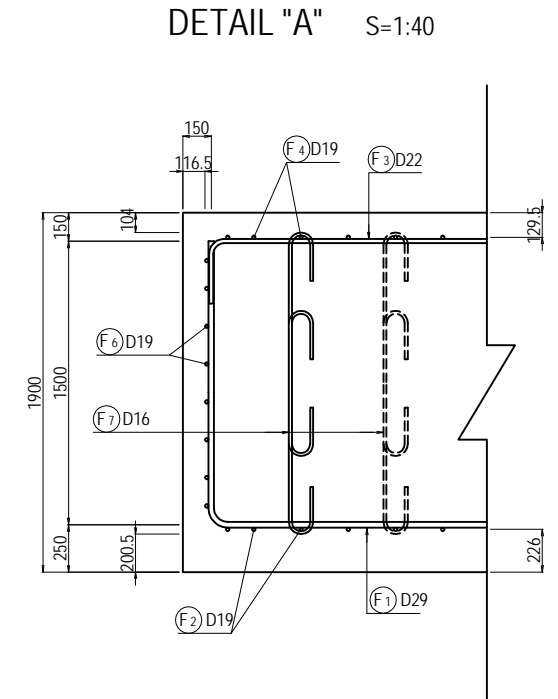
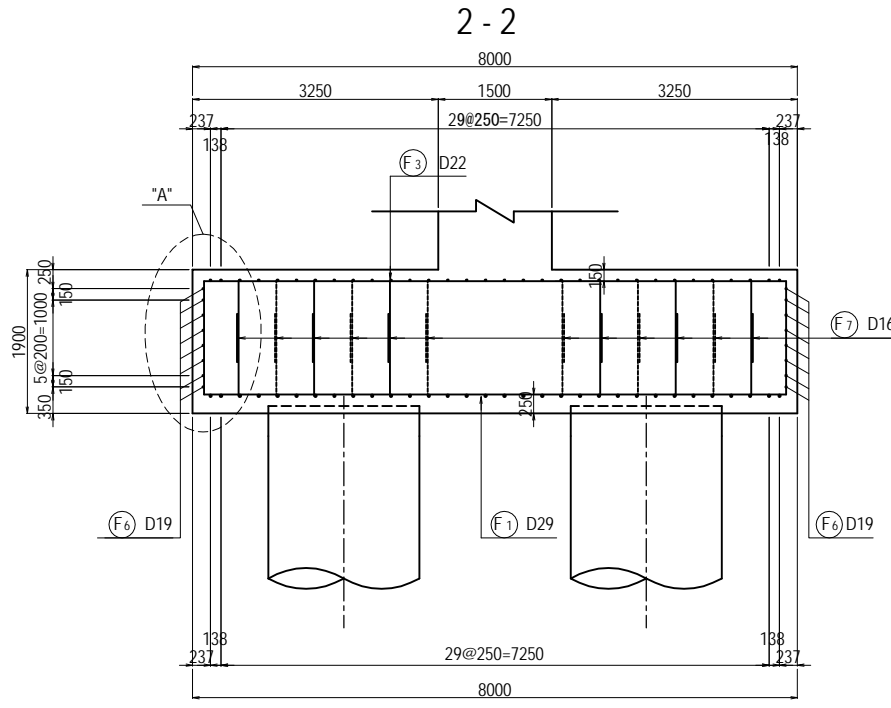
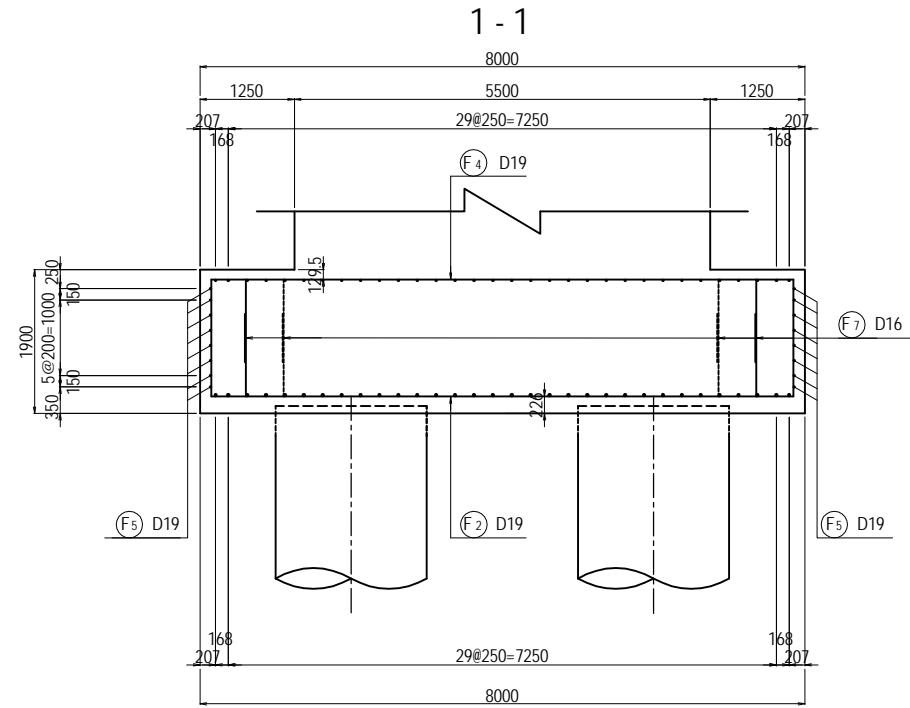
KEY PLAN



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	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
							BAR ARRANGEMENT OF PO2 PIER (2)	1	
								DWG No.	
								P1-OR-2122	

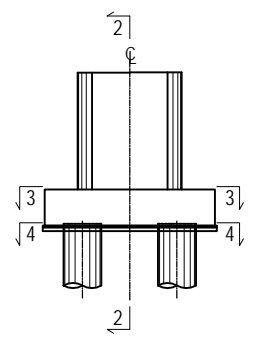
BAR ARRANGEMENT OF PO2 PIER (3)

S = 1:100



2] TRANSVERSAL

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 BAR ARRANGEMENT OF PO2 PIER (3)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-2123

BAR ARRANGEMENT OF PO2 PIER (4)

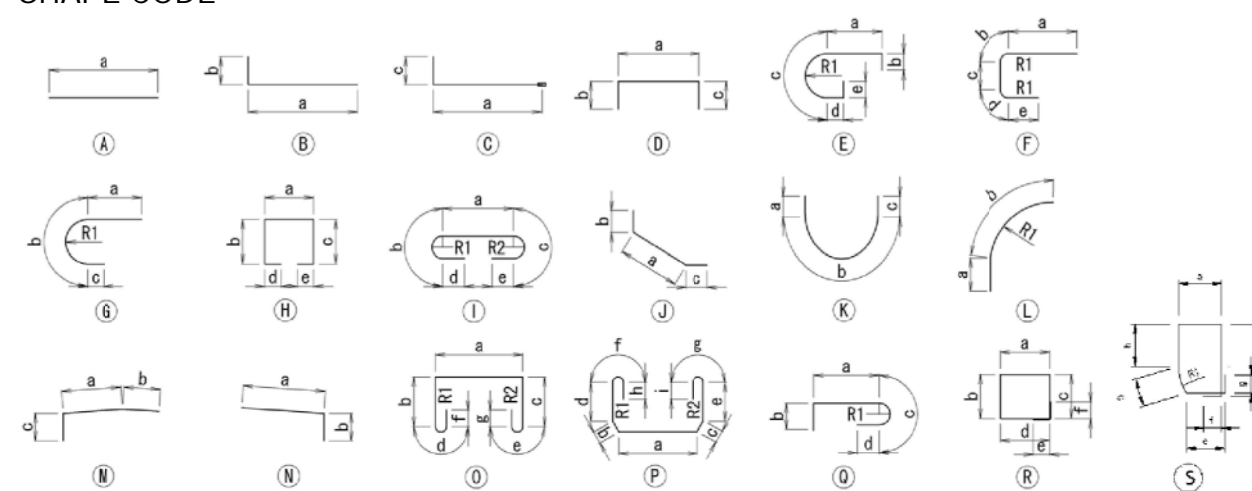
BAR QUANTITY

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	h (mm)	i (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
B1	D	D25	33	2860	1272	790	790									376	AVERAGE
B2	D	D16	10	6080	5053	510	510									95	AVERAGE
B3	E	D16	4	7360	1423	240	2025	3423	240					645		46	
B4	I	D16	62	1570	1006	151	151	128	128					48	48	152	
S1	D	D16	20	1640	540	550	550									51	
S2	D	D16	14	1980	880	550	550									43	
S3	D	D16	20	1680	540	570	570									52	
S4	D	D16	14	2020	880	570	570									44	
S5	S	D16	4	3470	572	556	376	960	517	240	240			666		22	
C1	B	D25	92	8260	7700	555										3024	AVERAGE
C2	E	D16	96	7280	3423	240	1949	1423	240					621		1091	
C3	I	D16	400	1470	909	151	151	128	128					48	48	916	
C4	I	D16	80	3470	2909	151	151	128	128					48	48	433	
F1	D	D29	32	10700	7700	1500	1500									1726	
F2	D	D19	32	10790	7700	1545	1545									777	
F3	D	D22	32	8360	7700	330	330									813	
F4	D	D19	32	8270	7700	285	285									596	
F5	A	D19	16	7750	7748											279	
F6	A	D19	16	7740	7738											279	
F7	I	D16	176	1620	1062	151	151	128	128					48	48	445	

SUMMARY

DIAMETER	WEIGHT (kg)	MECHANICAL SPLICE (NOS)
D13	0	0
D16	3390	0
D19	1931	0
D22	813	0
D25	3400	0
D29	1726	0
D32	0	0
D35	0	0
D38	0	0
D41	0	0
D51	0	0
TOTAL	11260	0

SHAPE CODE



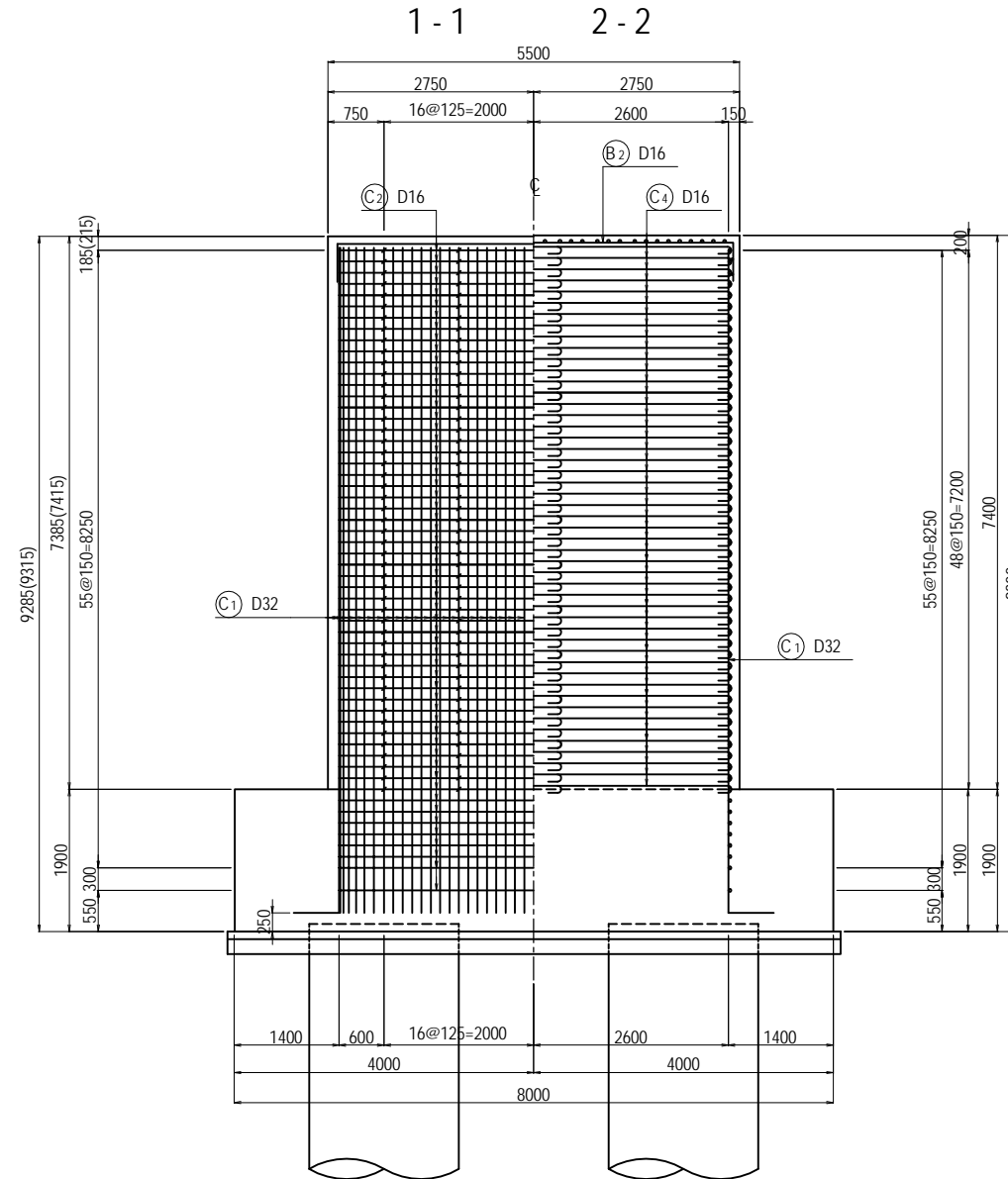
NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.

2. A figure in italic font indicate average length of rebar.

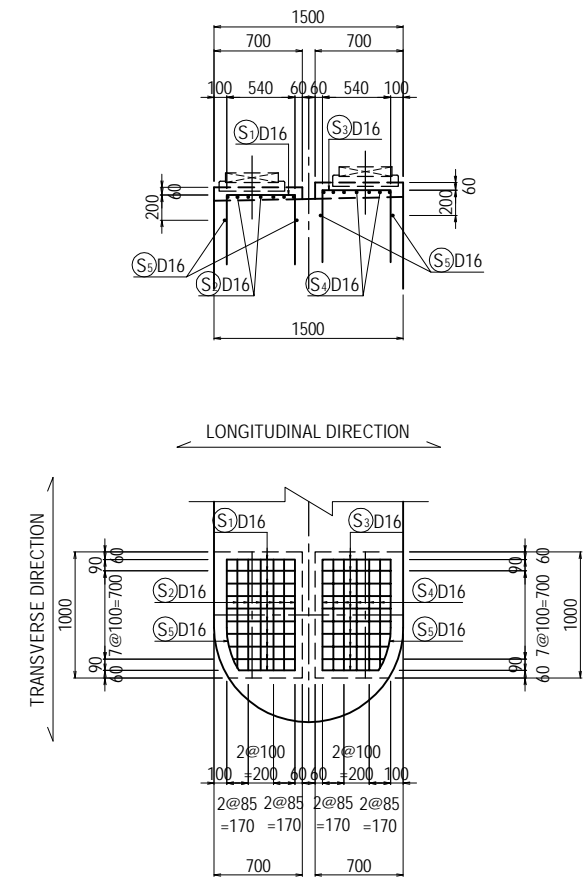
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF PO2 PIER (4)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-2124

BAR ARRANGEMENT OF PO3 PIER (1)

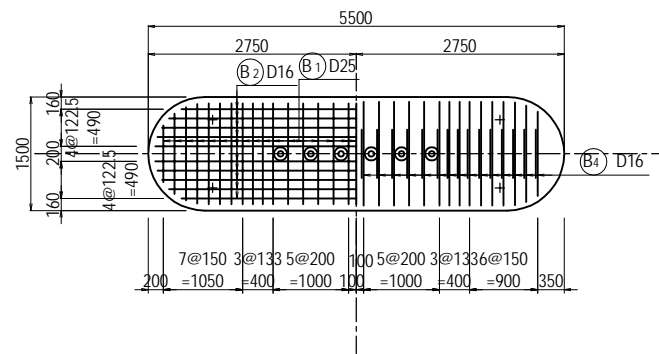
S = 1:100



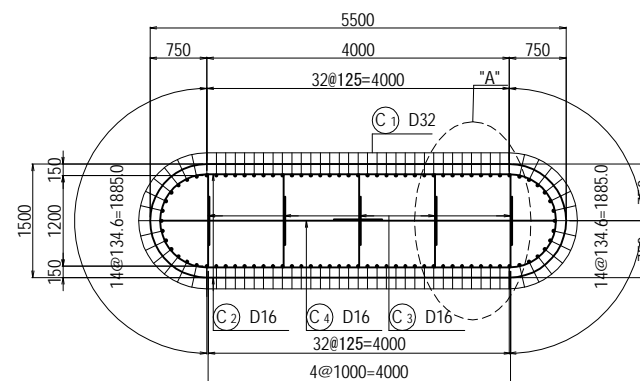
DETAIL OF BEARING BASE S=1:60



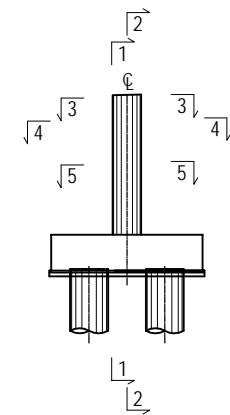
3 - 3 4 - 4



5 - 5



KEY PLAN

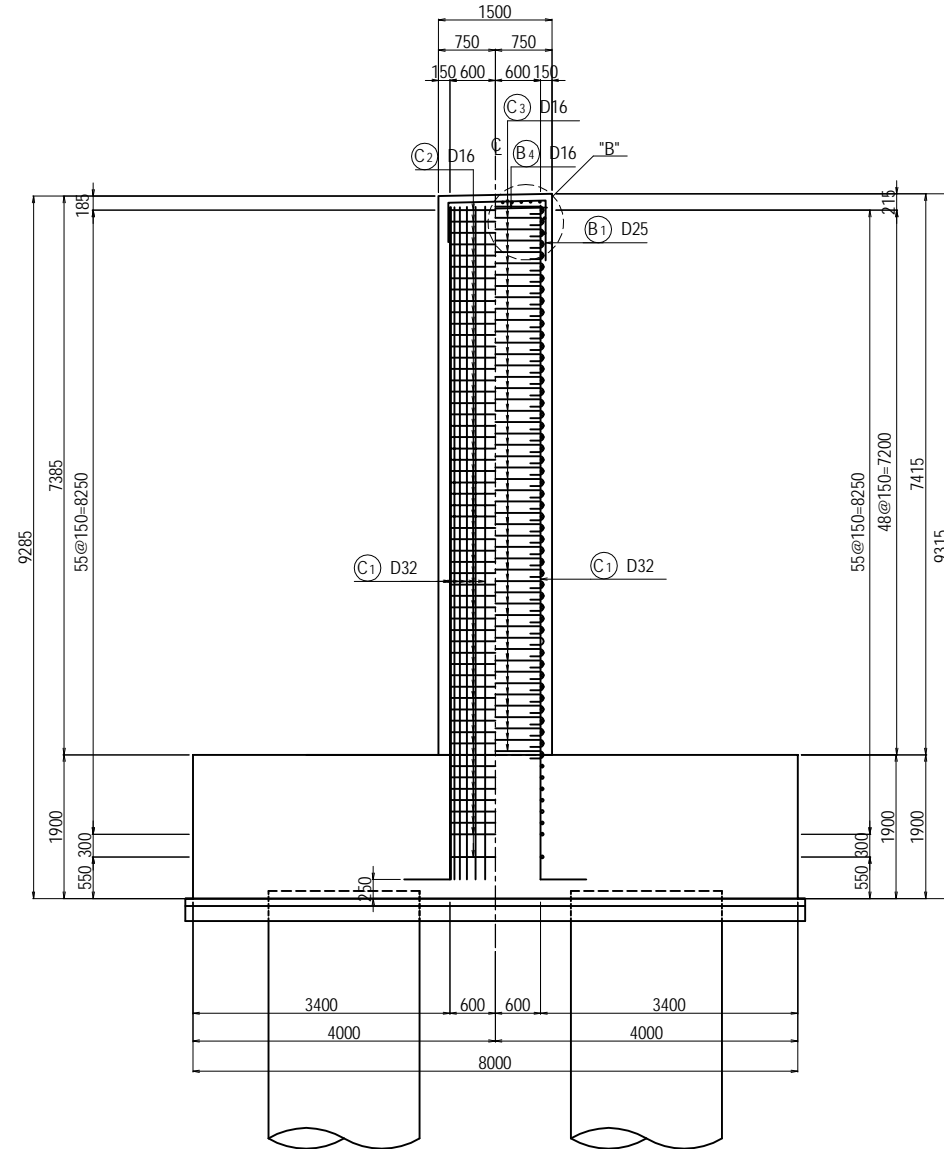


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	M. OHYAMA	大山 満弘	15 Jun.2017	BAR ARRANGEMENT OF PO3 PIER (1)	1
				T. HAYAKAWA	平川 知寿	20 Jun.2017		DWG No.
				Y. SANO	佐野 祐一	21 Jun.2017		P1-OR-2131

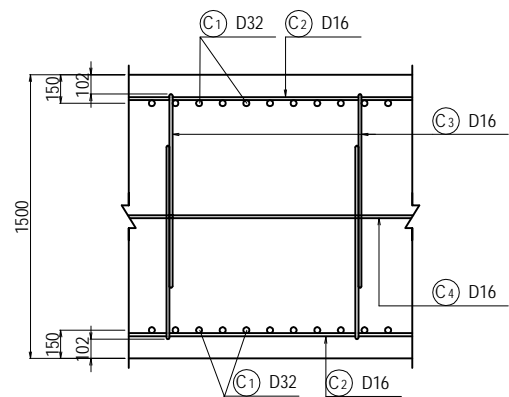
BAR ARRANGEMENT OF PO3 PIER (2)

S = 1:100

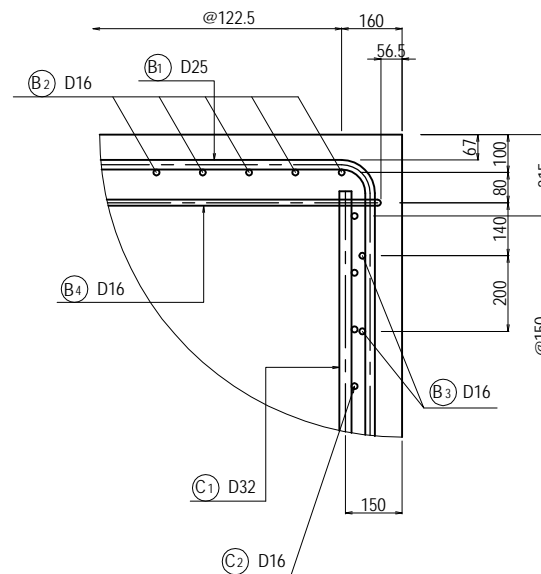
6-6 7-7



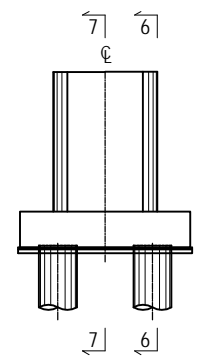
DETAIL "A" S=1:40



DETAIL "B" S=1:20



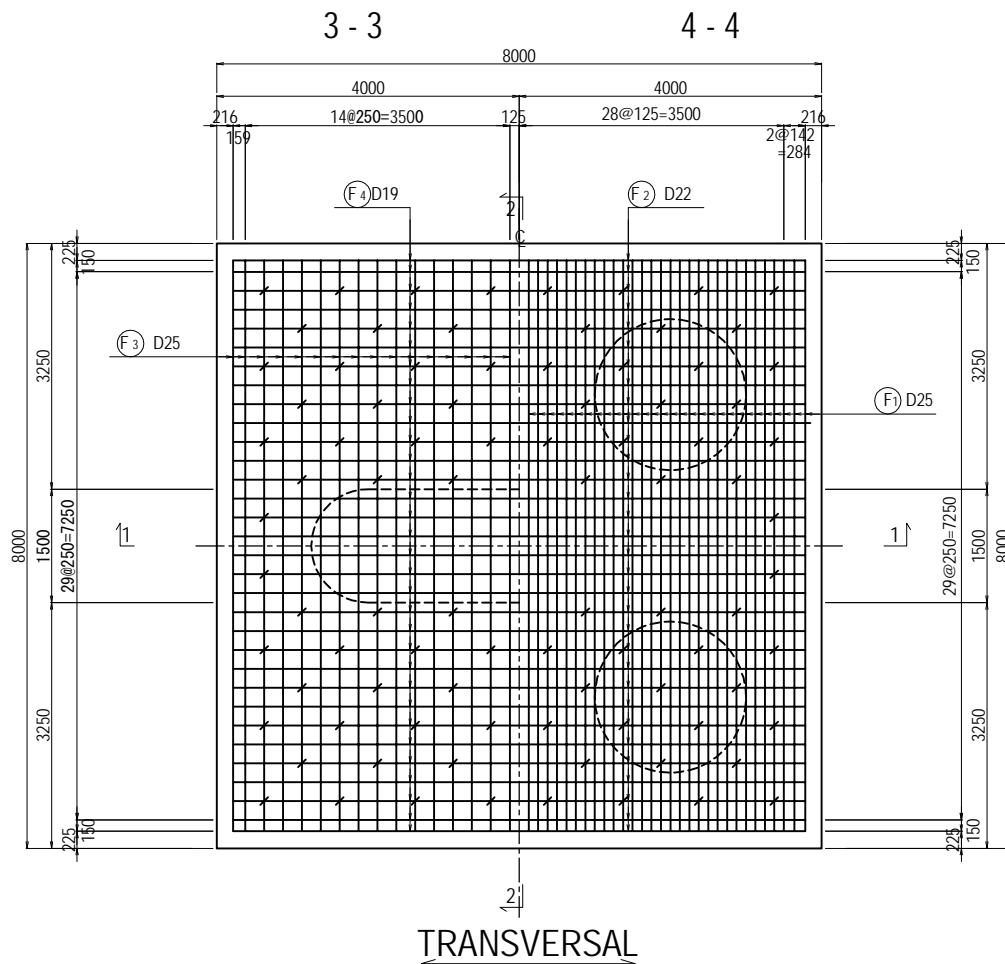
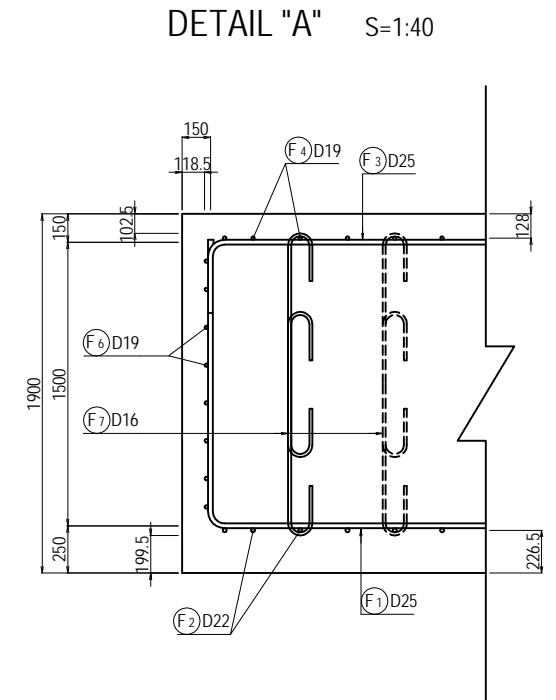
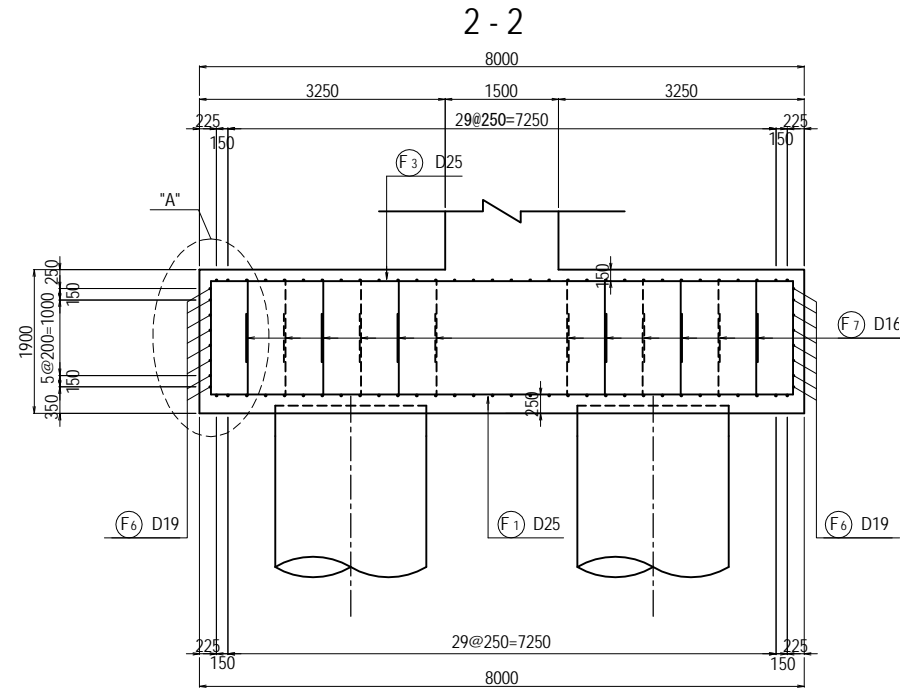
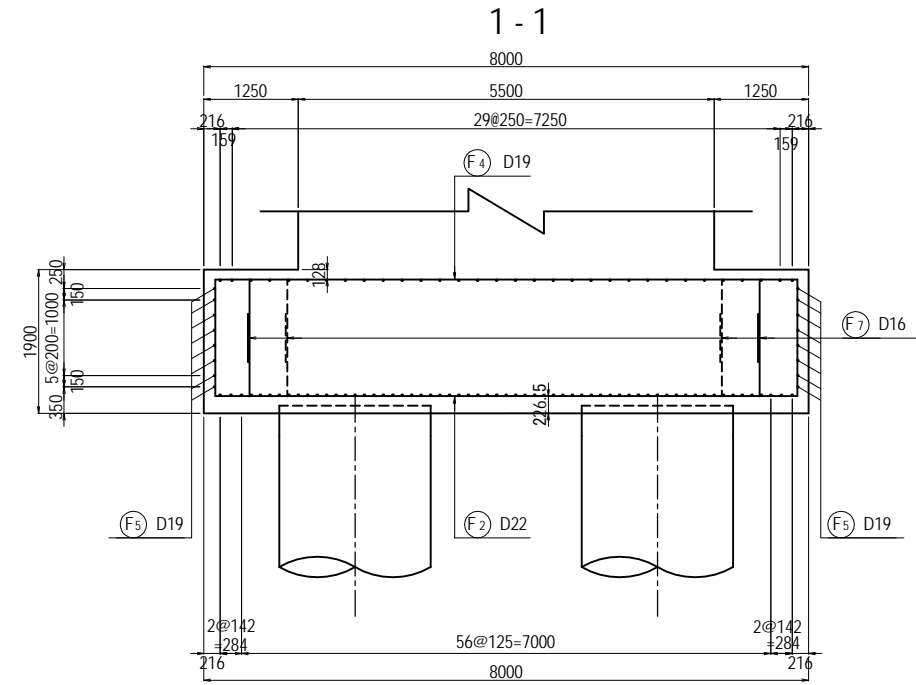
KEY PLAN



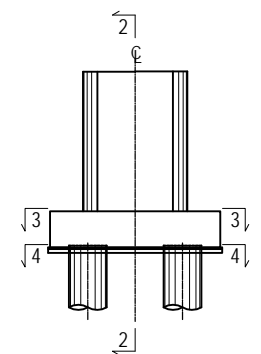
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	M. OHYAMA	大山 満弘	15 Jun.2017	BAR ARRANGEMENT OF PO3 PIER (2)	1
				T. HAYAKAWA	平川 知寿	20 Jun.2017		DWG No.
				Y. SANO	佐野 祐一	21 Jun.2017		P1-OR-2132

BAR ARRANGEMENT OF PO3 PIER (3)

S = 1:100



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	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
							BAR ARRANGEMENT OF PO3 PIER (3)	1	
								DWG No.	
								P1-OR-2133	

BAR ARRANGEMENT OF PO3 PIER (4)

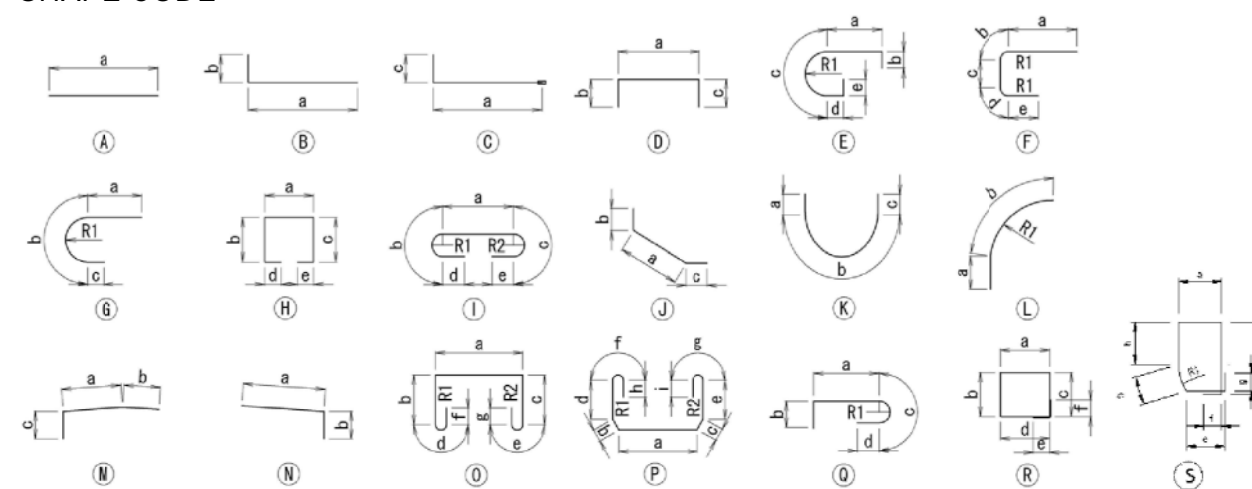
BAR QUANTITY

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	h (mm)	i (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
B1	D	D25	33	2860	1272	790	790									376	AVERAGE
B2	D	D16	10	6080	5053	510	510									95	AVERAGE
B3	E	D16	4	7360	1423	240	2025	3423	240					645		46	
B4	I	D16	62	1570	1006	151	151	128	128					48	48	152	
S1	D	D16	20	1640	540	550	550									51	
S2	D	D16	14	1980	880	550	550									43	
S3	D	D16	20	1680	540	570	570									52	
S4	D	D16	14	2020	880	570	570									44	
S5	S	D16	4	3470	572	556	376	960	517	240	240			666		22	
C1	B	D32	92	9510	8900	605										5451	AVERAGE
C2	E	D16	114	7290	3423	240	1960	1423	240					624		1296	
C3	I	D16	490	1470	912	151	151	128	128					48	48	1122	
C4	I	D16	98	3470	2912	151	151	128	128					48	48	530	
F1	D	D25	61	10700	7700	1500	1500									2598	
F2	D	D22	32	10800	7700	1546	1546									1051	
F3	D	D25	32	8450	7700	375	375									1076	
F4	D	D19	32	8270	7700	285	285									596	
F5	A	D19	16	7750	7744											279	
F6	A	D19	16	7750	7741											279	
F7	I	D16	176	1630	1063	151	151	128	128					48	48	447	

SUMMARY

DIAMETER	WEIGHT (kg)	MECHANICAL SPLIOE (NOS)
D13	0	0
D16	3900	0
D19	1154	0
D22	1051	0
D25	4050	0
D29	0	0
D32	5451	0
D35	0	0
D38	0	0
D41	0	0
D51	0	0
TOTAL	15606	0

SHAPE CODE

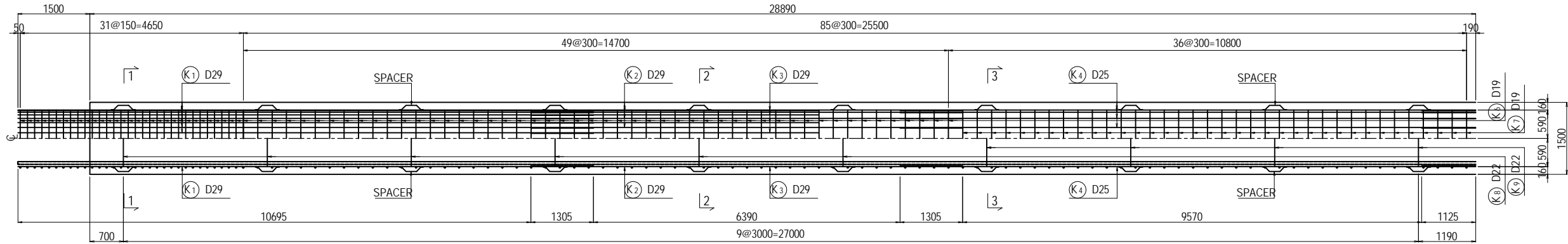


NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.
2. A figure in italic font indicate average length of rebar.

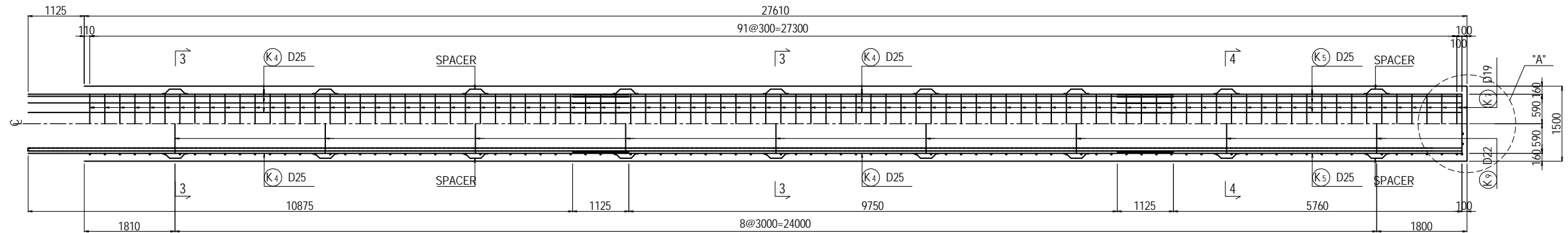
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF PO3 PIER (4)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-2134

BAR ARRANGEMENT OF CAST IN PLACE PILE FOR AO1 (1) S = 1:100

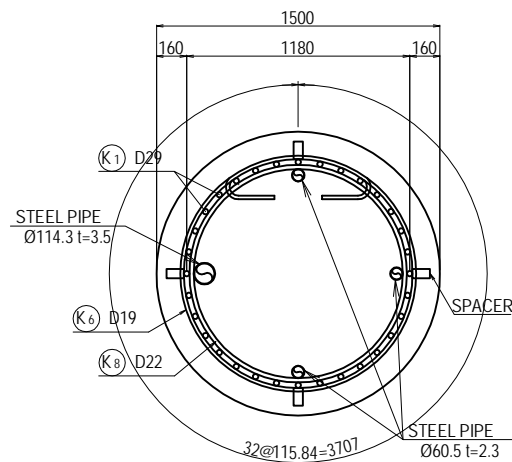
SEGMENT 1



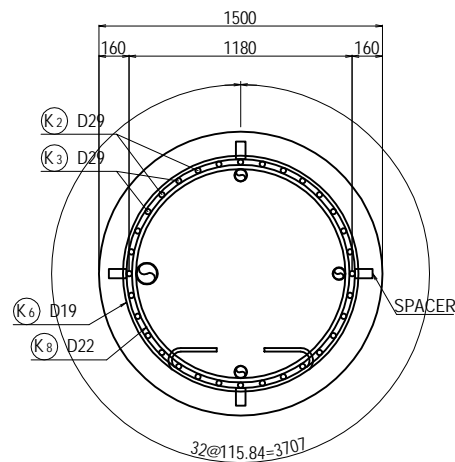
SEGMENT 2



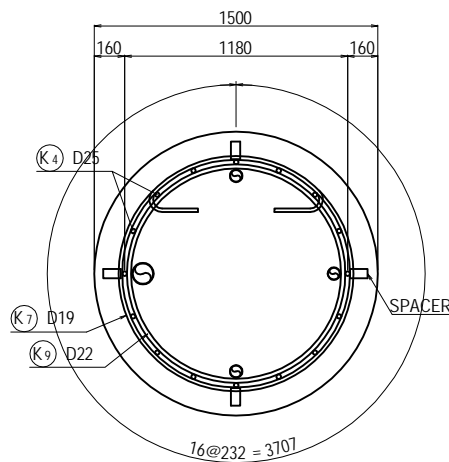
SECTION 1-1 S=1:40



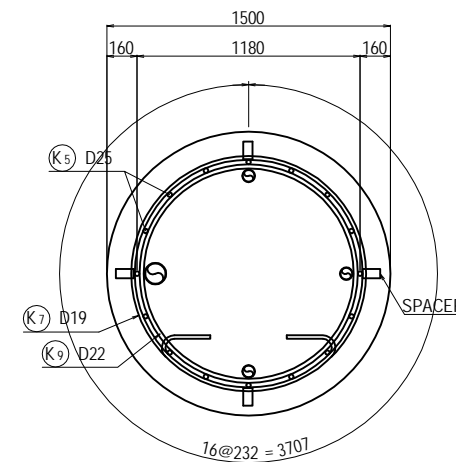
SECTION 2-2 S=1:40



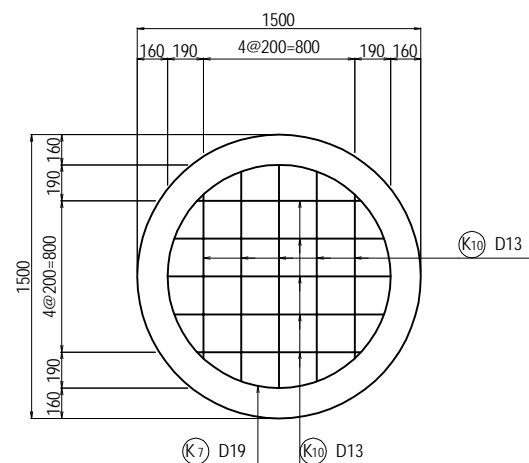
SECTION 3-3 S=1:40



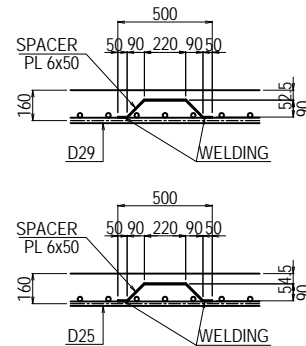
SECTION 4-4 S=1:40



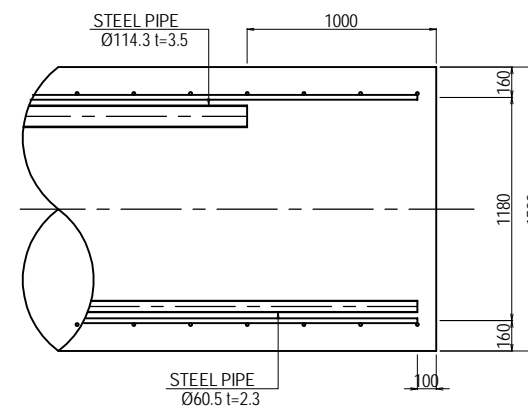
DETAIL OF PILE TOE S=1:40



DETAIL OF SPACER S=1:40



DETAIL "A" S=1:40



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	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

DRAWING TITLE
BAR ARRANGEMENT OF CAST IN PLACE PILE FOR AO1(1)

PACKAGE
1
DWG No.
P1-OR-2201

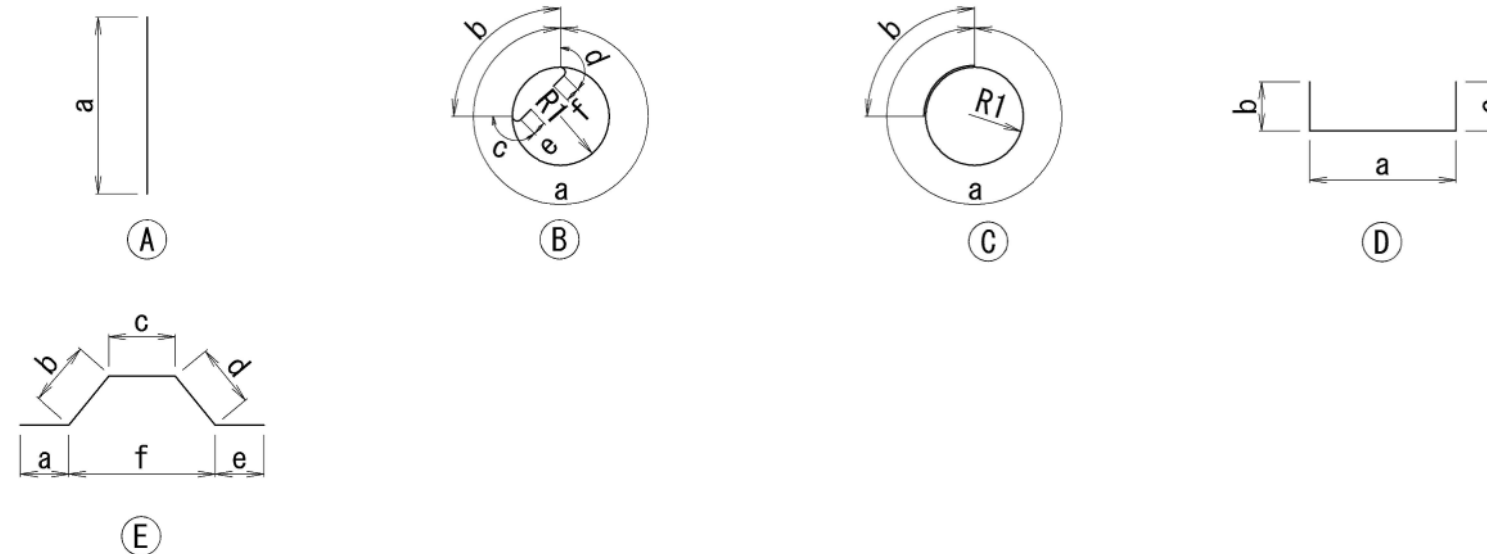
BAR ARRANGEMENT OF CAST IN PLACE PILE FOR AO1 (2)

BAR QUANTITY

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
K1	A	D29	32	12000	12000								1935	
K2	A	D29	16	9000	9000								726	
K3	A	D29	16	6000	6000								484	
K4	A	D25	48	12000	12000								2292	
K5	A	D25	16	6890	6885								439	
K6	B	D19	81	5270	3858	760	134	134	190	190	614		961	
K7	B	D19	129	5260	3845	760	134	134	190	190	614		1527	
K8	C	D22	6	4310	3547	760					564.5		79	
K9	C	D22	13	4320	3559	760					566.5		171	
K10	D	D13	10	1440	1050	195	195						14	AVERAGE
K11	E	PL	76	580	50	127	220	127	50				104	

REBAR QUANTITY (1NOS)	
DIAMETER	WEIGHT
D13	14 kg
D16	0 kg
D19	2488 kg
D22	250 kg
D25	2731 kg
D29	3145 kg
D32	0 kg
D35	0 kg
D38	0 kg
D41	0 kg
D51	0 kg
PL	104 kg
TOTAL	8732 kg

SHAPE CODE

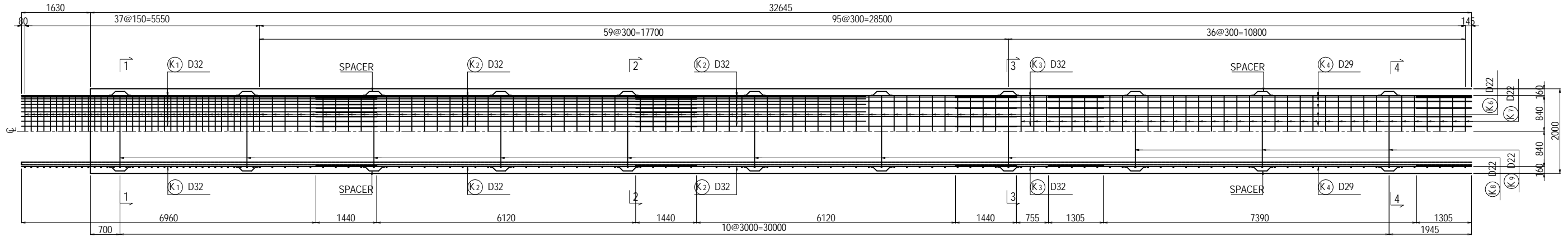


- NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.
 2. A figure in italic font indicate average length of rebar.

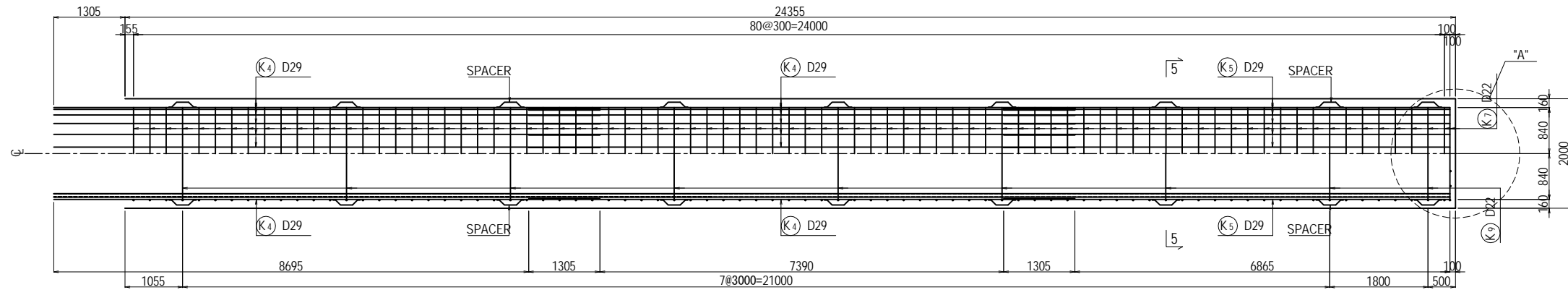
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
BAR ARRANGEMENT OF CAST IN PLACE PILE FOR AO1(2)							1	DWG No.	
								P1-OR-2202	

BAR ARRANGEMENT OF CAST IN PLACE PILE FOR PO1 PIER(1) S=1:100

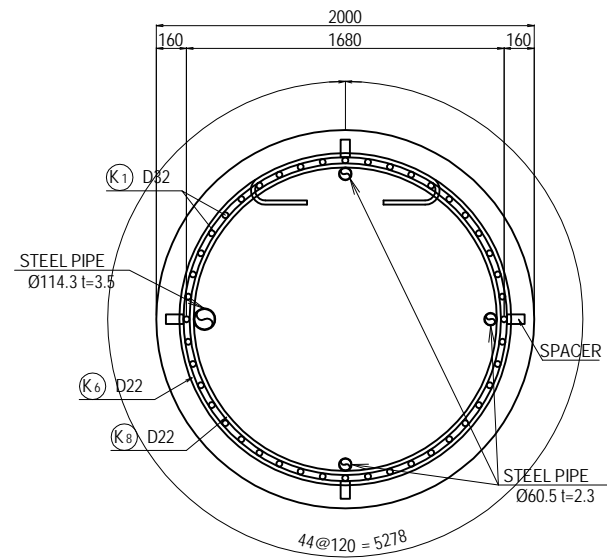
SEGMENT 1



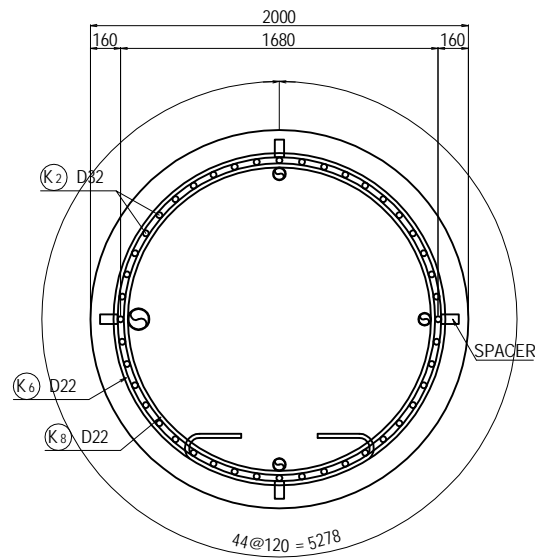
SEGMENT 2



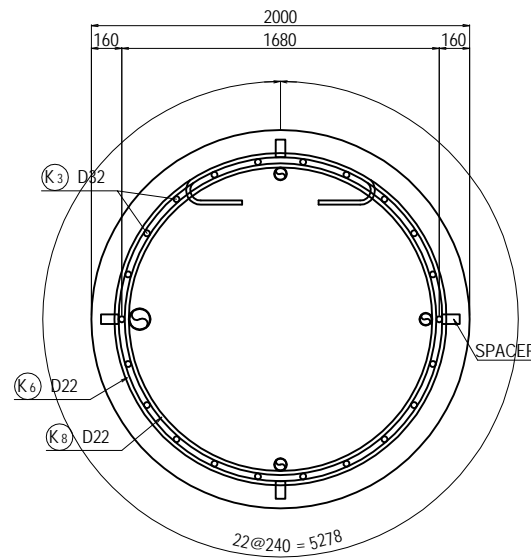
SECTION 1-1 S=1:40



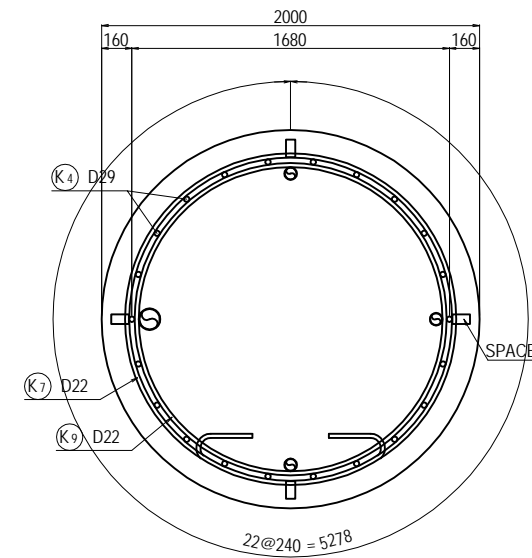
SECTION 2-2 S=1:40



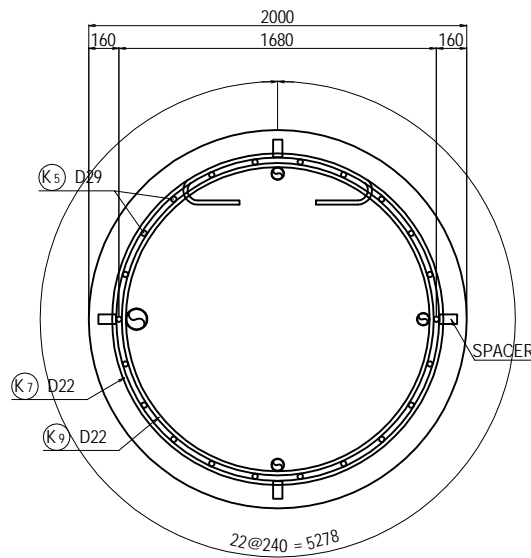
SECTION 3-3 S=1:40



SECTION 4-4 S=1:40



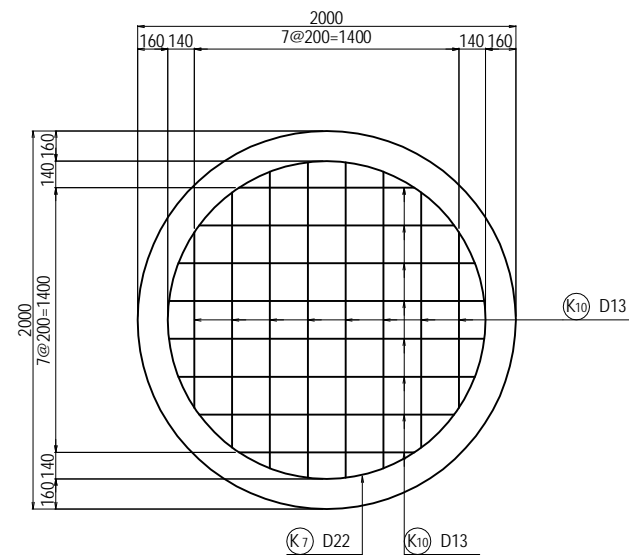
SECTION 5-5 S=1:40



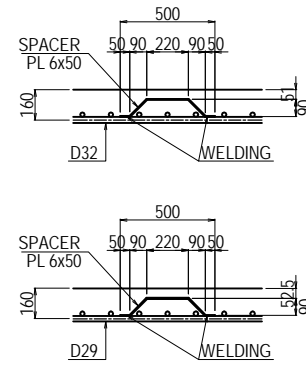
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">NAME</th> <th style="width: 10%;">SIGNATURE</th> <th style="width: 10%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY M. OHYAMA</td> <td></td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY T. HAYAKAWA</td> <td></td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY Y. SANO</td> <td></td> <td>21 Jun.2017</td> </tr> </tbody> </table>	NAME	SIGNATURE	DATE	PREPARED BY M. OHYAMA		15 Jun.2017	CHECKED BY T. HAYAKAWA		20 Jun.2017	APPROVED BY Y. SANO		21 Jun.2017	DRAWING TITLE BAR ARRANGEMENT OF CAST IN PLACE PILE FOR PO1 PIER(1)	PACKAGE 1 DWG No. P1-OR-2211
NAME	SIGNATURE	DATE																
PREPARED BY M. OHYAMA		15 Jun.2017																
CHECKED BY T. HAYAKAWA		20 Jun.2017																
APPROVED BY Y. SANO		21 Jun.2017																

BAR ARRANGEMENT OF CAST IN PLACE PILE FOR PO1 PIER(2) S=1:100

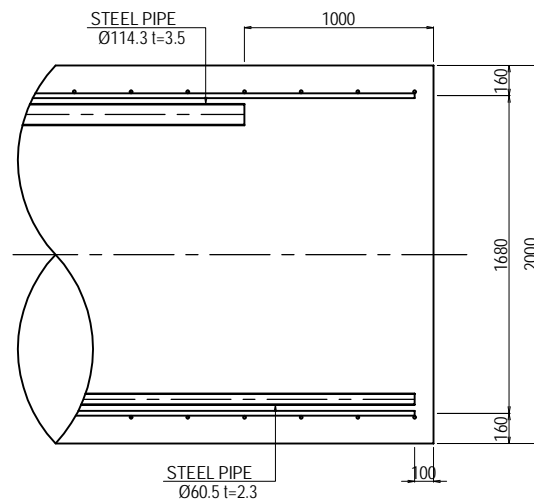
DETAIL OF PILE TOE S=1:40



DETAIL OF SPACER S=1:40



DETAIL "A" S=1:40



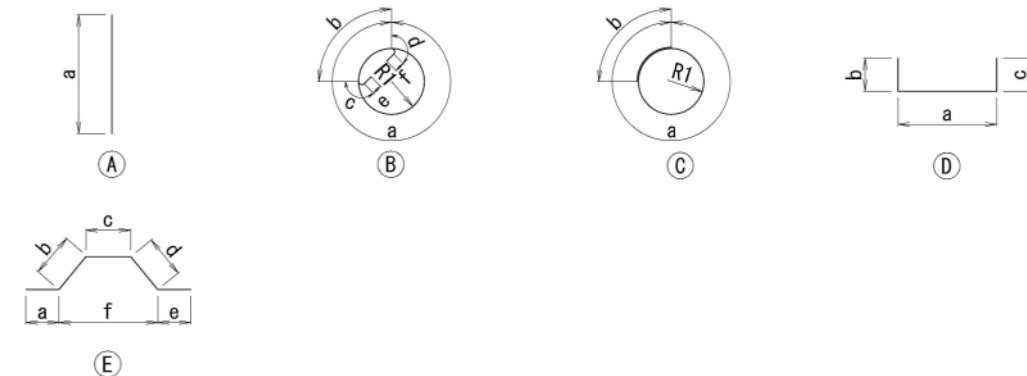
BAR QUANTITY

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
K1	A	D32	44	8400	8400								2303	
K2	A	D32	88	9000	9000								4934	
K3	A	D32	22	3500	3500								480	
K4	A	D29	66	10000	10000								3326	
K5	A	D29	22	8170	8170								906	
K6	B	D22	97	7190	5448	990	156	156	220	220			2120	
K7	B	D22	118	7180	5438	990	156	156	220	220			2576	
K8	C	D22	8	6100	5108	990							148	
K9	C	D22	12	6110	5118	990							223	
K10	D	D13	16	1770	1380	195	195						28	AVERAGE
K11	E	PL	76	580	50	127	220	127	50				104	

REBAR QUANTITY (INOS)

DIAMETER	WEIGHT
D13	28 kg
D16	0 kg
D19	0 kg
D22	5067 kg
D25	0 kg
D29	4232 kg
D32	7717 kg
D35	0 kg
D38	0 kg
D41	0 kg
D51	0 kg
PL	104 kg
TOTAL	17148 kg

SHAPE CODE



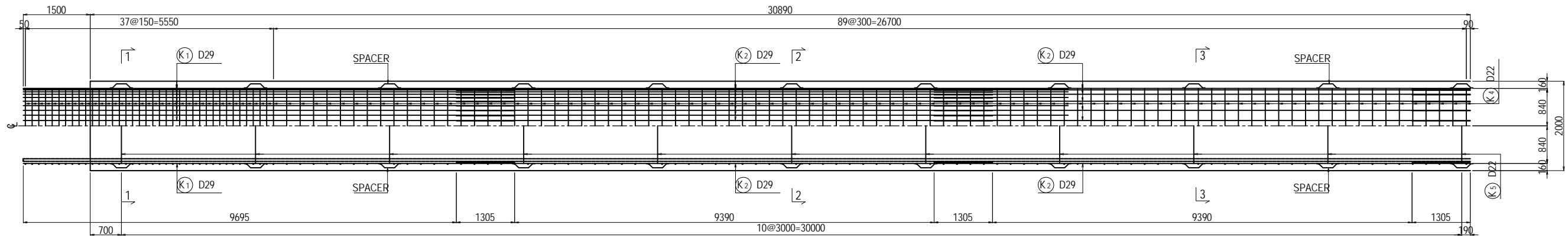
NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.

2. A figure in italic font indicate average length of rebar.

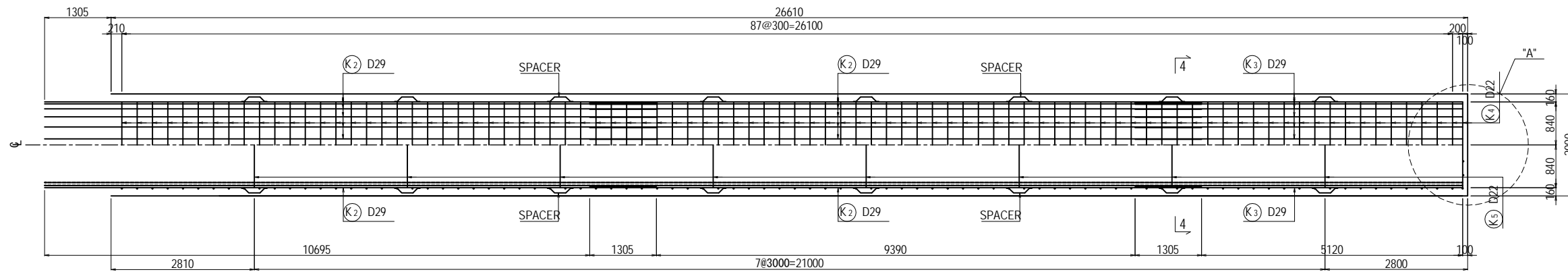
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF CAST IN PLACE PILE FOR PO1 PIER(2)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-2212

BAR ARRANGEMENT OF CAST IN PLACE PILE FOR PO2 PIER(1) S=1:100

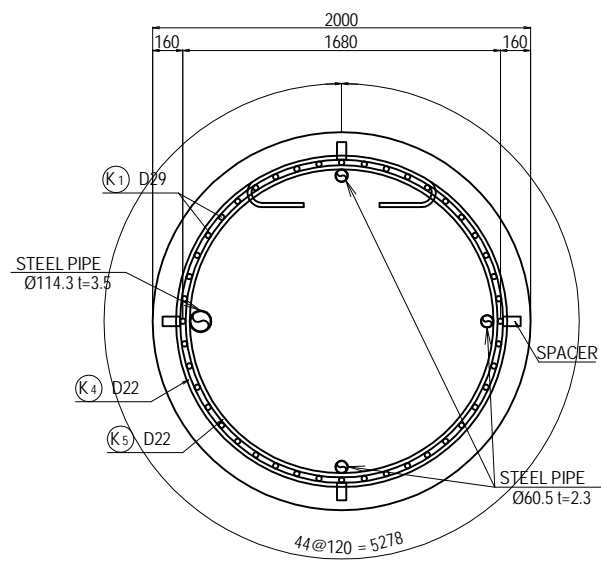
SEGMENT 1



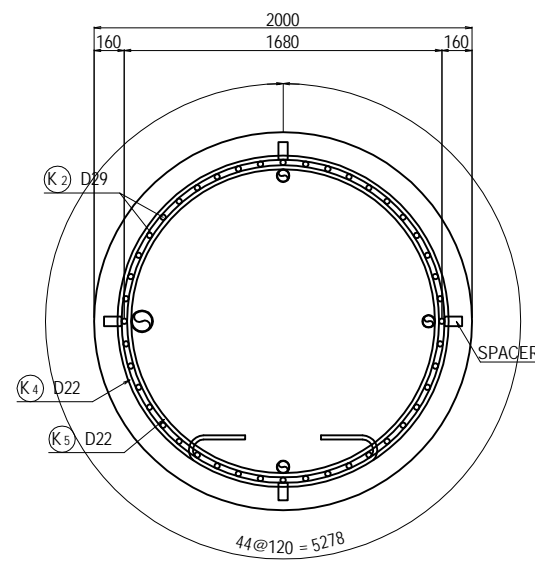
SEGMENT 2



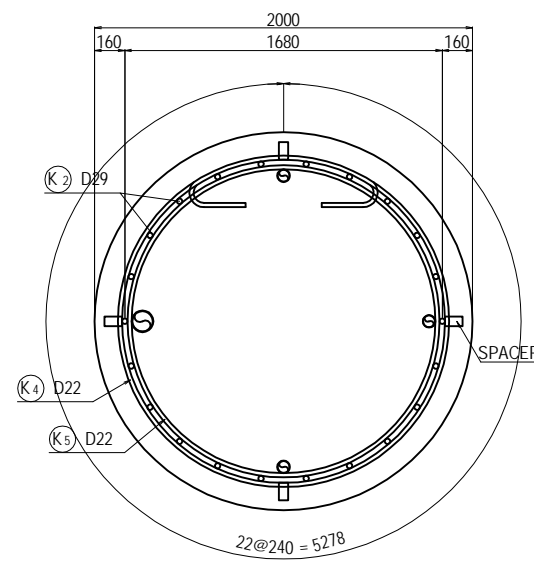
SECTION 1-1 S=1:40



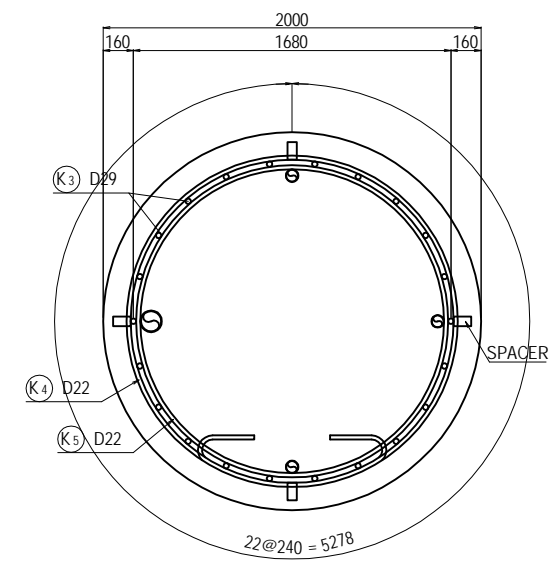
SECTION 2-2 S=1:40



SECTION 3-3 S=1:40



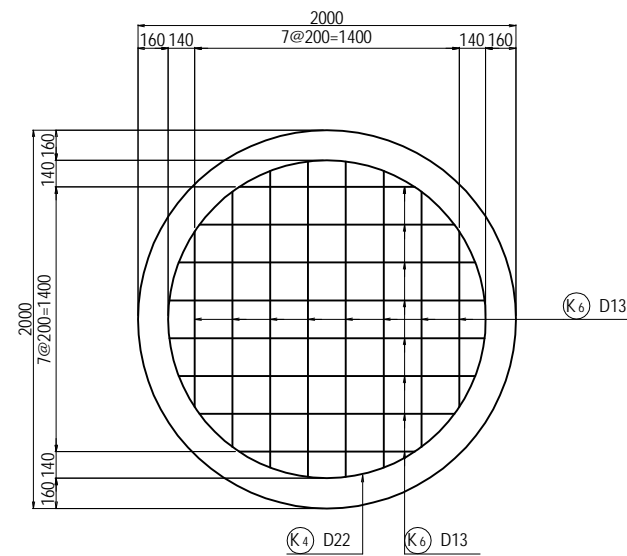
SECTION 4-4 S=1:40



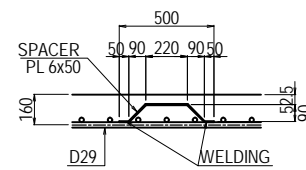
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF CAST IN PLACE PILE FOR PO2 PIER(1)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-2221

BAR ARRANGEMENT OF CAST IN PLACE PILE FOR PO2 PIER(2) S=1:100

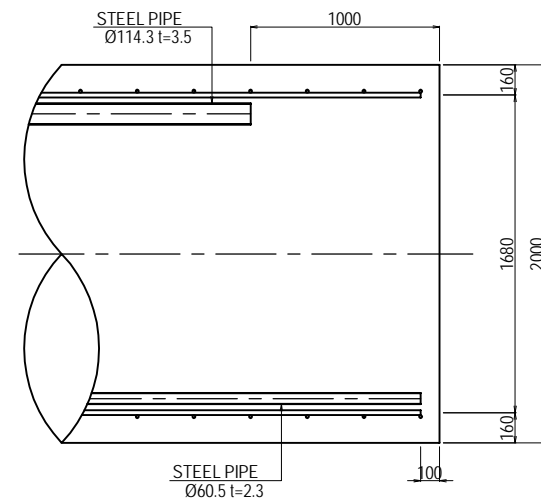
DETAIL OF PILE TOE S=1:40



DETAIL OF SPACER S=1:40



DETAIL "A" S=1:40



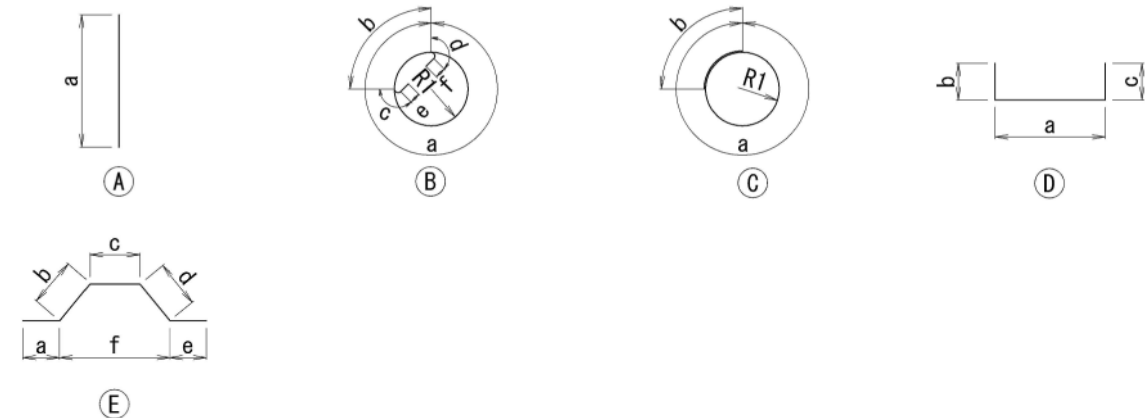
BAR QUANTITY

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
K1	A	D29	44	11000	11000								2439	
K2	A	D29	110	12000	12000								6653	
K3	A	D29	22	6430	6425								713	
K4	B	D22	216	7180	5438	990	156	156	220	220	865.5		4715	
K5	C	D22	19	6110	5118	990					814.5		353	
K6	D	D13	16	1770	1380	195	195						28	AVERAGE
K7	E	PL	76	580	50	127	220	127	50				104	
				0									0	
				0									0	
				0									0	
				0									0	

REBAR QUANTITY (1NOS)

DIAMETER	WEIGHT
D13	28 kg
D16	0 kg
D19	0 kg
D22	5068 kg
D25	0 kg
D29	9805 kg
D32	0 kg
D35	0 kg
D38	0 kg
D41	0 kg
D51	0 kg
PL	104 kg
TOTAL	15005 kg

SHAPE CODE



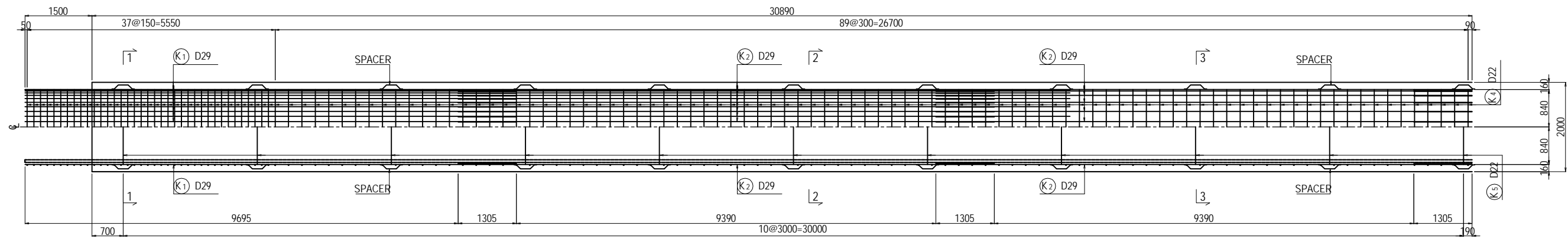
NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.

2. A figure in italic font indicate average length of rebar.

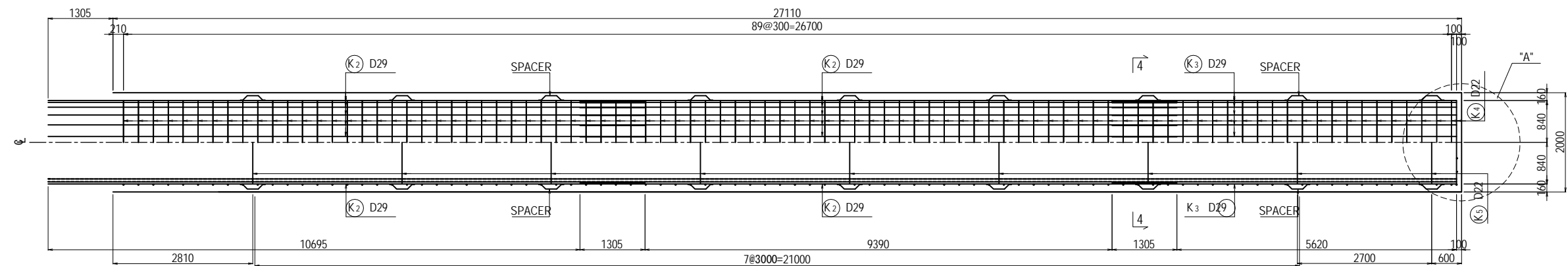
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF CAST IN PLACE PILE FOR PO2 PIER(2)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-2222

BAR ARRANGEMENT OF CAST IN PLACE PILE FOR PO3 PIER(1) S=1:100

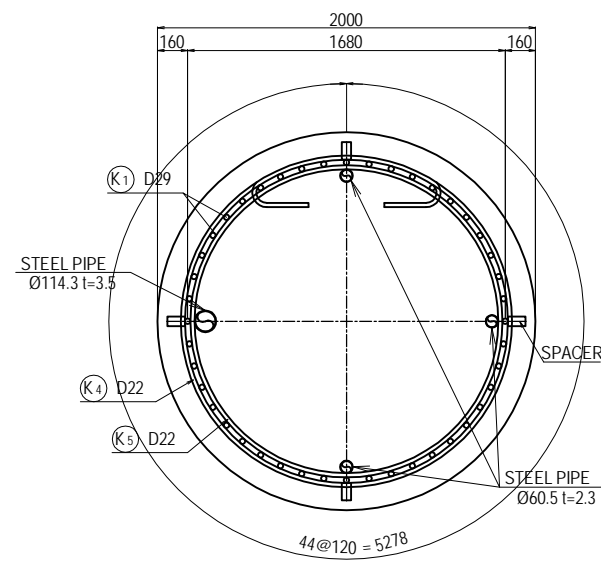
SEGMENT 1



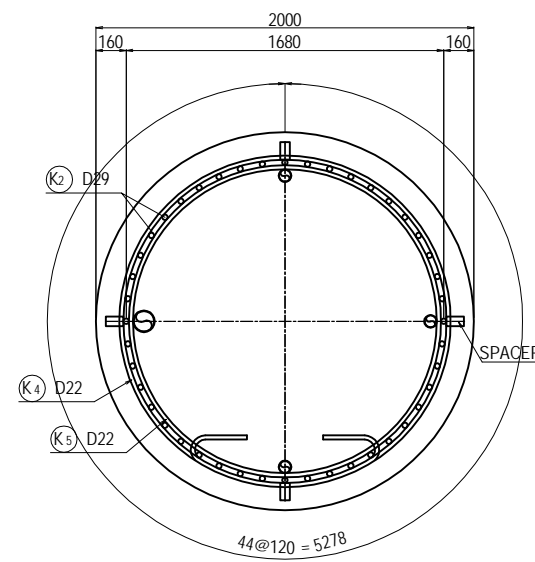
SEGMENT 2



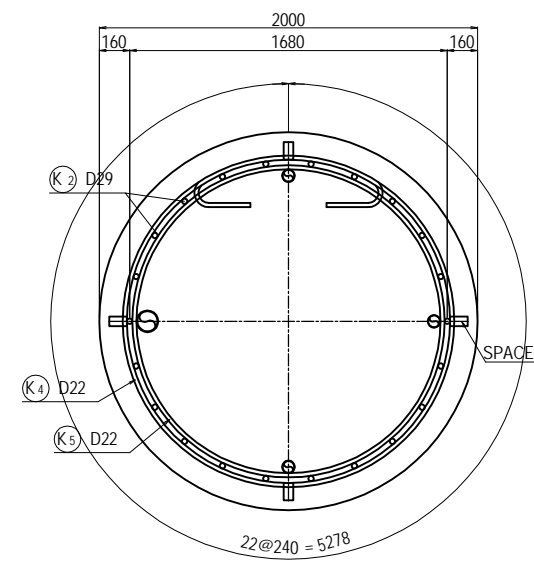
SECTION 1-1 S=1:40



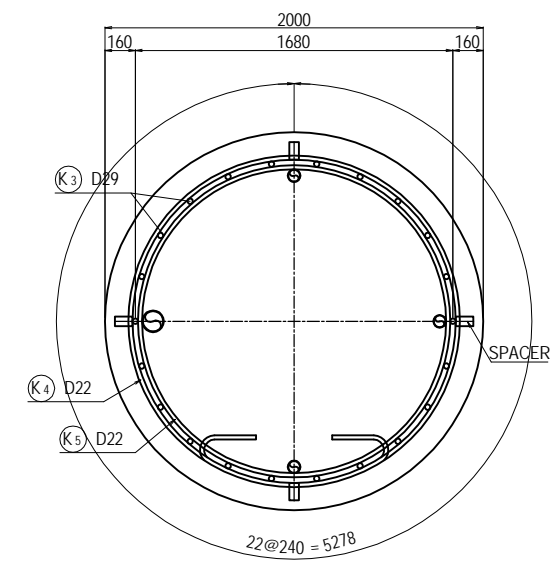
SECTION 2-2 S=1:40



SECTION 3-3 S=1:40



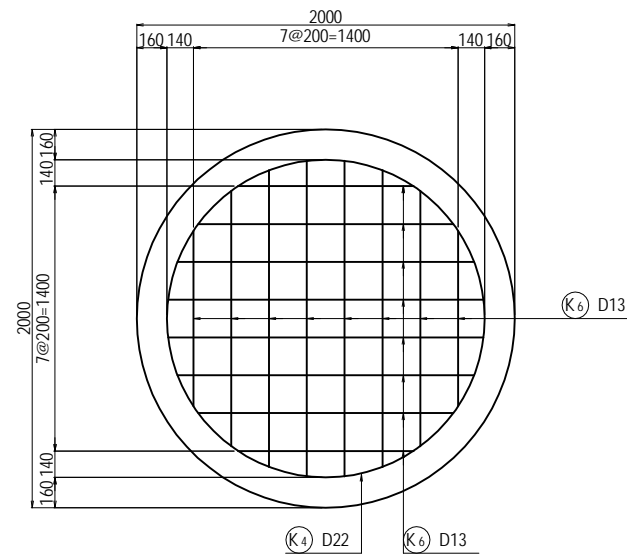
SECTION 4-4 S=1:40



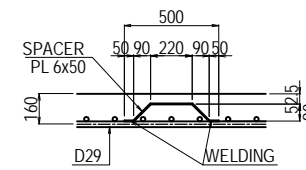
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF CAST IN PLACE PILE FOR PO3 PIER(1)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-2231

BAR ARRANGEMENT OF CAST IN PLACE PILE FOR PO3 PIER(2) S=1:100

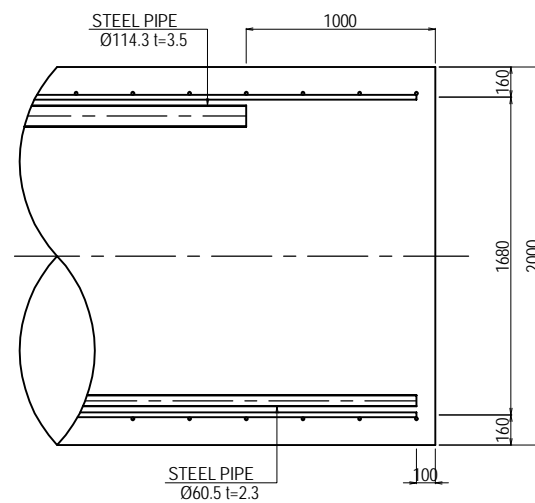
DETAIL OF PILE TOE S=1:40



DETAIL OF SPACER S=1:40



DETAIL "A" S=1:40



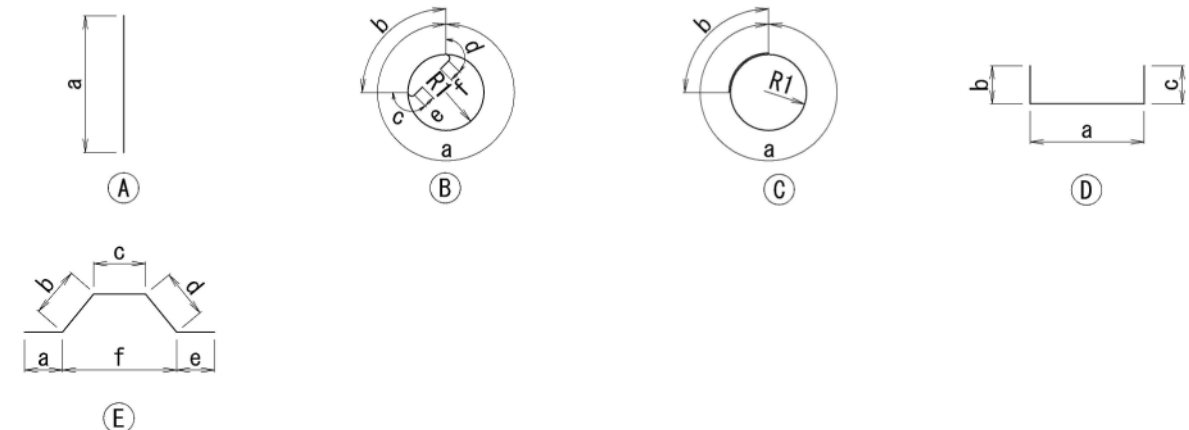
BAR QUANTITY

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
K1	A	D29	44	11000	11000								2439	
K2	A	D29	110	12000	12000								6653	
K3	A	D29	22	6930	6925								768	
K4	B	D22	218	7180	5438	990	156	156	220	220	865.5		4759	
K5	C	D22	20	6110	5118	990							371	
K6	D	D13	16	1770	1380	195	195						28	AVERAGE
K7	E	PL	80	580	50	127	220	127	50				109	

REBAR QUANTITY (1NOS)

DIAMETER	WEIGHT
D13	28 kg
D16	0 kg
D19	0 kg
D22	5130 kg
D25	0 kg
D29	9860 kg
D32	0 kg
D35	0 kg
D38	0 kg
D41	0 kg
D51	0 kg
PL	109 kg
TOTAL	15127 kg

SHAPE CODE



NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.

2. A figure in italic font indicate average length of rebar.

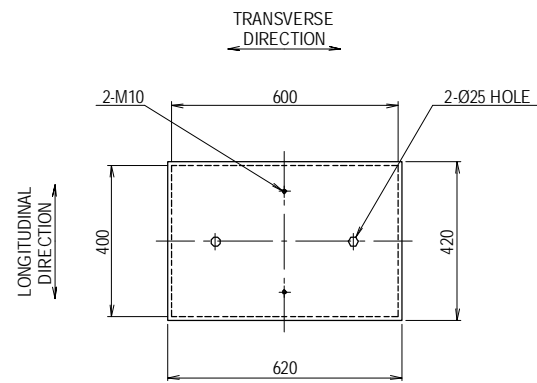
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF CAST IN PLACE PILE FOR PO3 PIER(2)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-2232

DETAIL OF BEARINGS FOR ON-RAMP(1)

S=1:20

A01 RUBBER BEARING

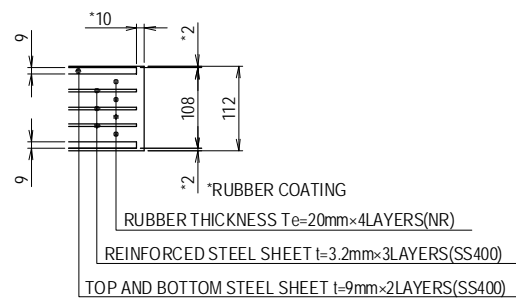
PLAN VIEW



SIDE VIEW

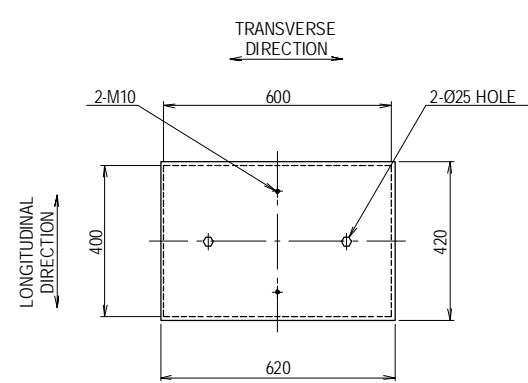


DETAIL OF A S=1:5

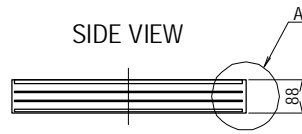


P01-P03 RUBBER BEARING

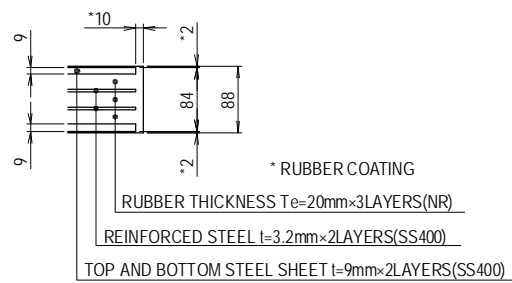
PLAN VIEW



SIDE VIEW

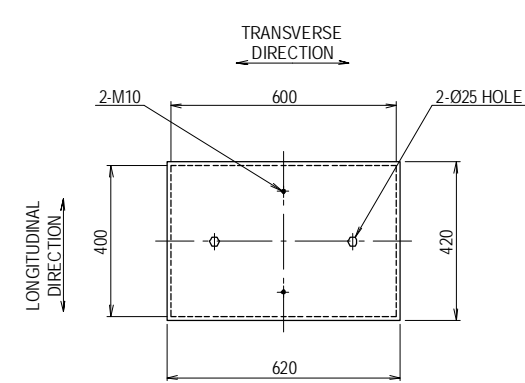


DETAIL OF A S=1:5

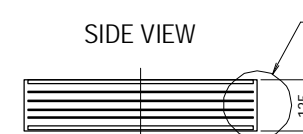


P5 RUBBER BEARING

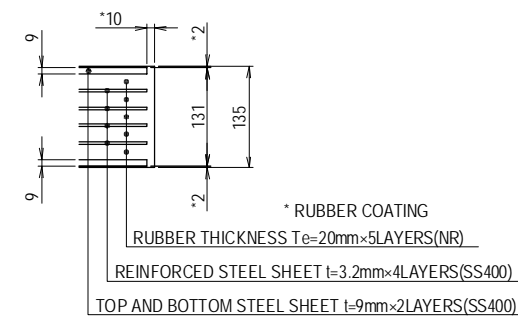
PLAN VIEW



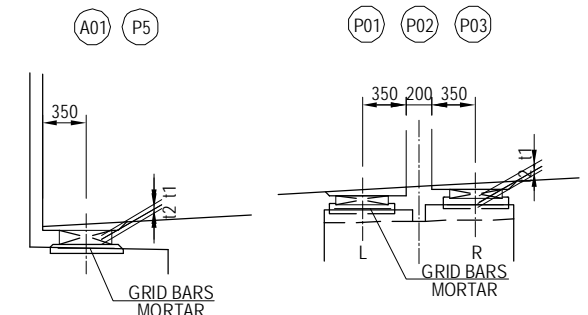
SIDE VIEW



DETAIL OF A S=1:5



PROFILE S=1:60

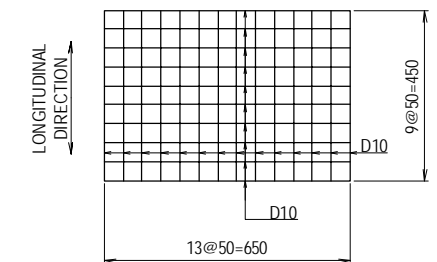


MORTAR THICKNESS (t1, t2) (mm)

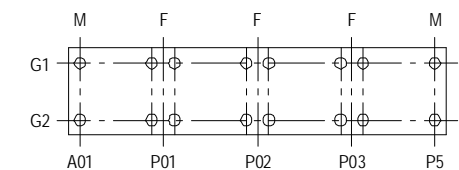
		G1		G2	
		t1	t2	t1	t2
A01		34	36	34	36
P01	L	38	30	38	30
	R	49	30	49	30
P02	L	37	30	37	30
	R	44	30	44	30
P03	L	39	30	39	30
	R	38	30	38	30
P5		33	30	33	30

GRID BARS

A01 P01 P02 P03 P5



LOCATION



DESIGN CONDITION

DESIGN REACTION		
MAX/MIN REACTION	R	1500 kN
REACTION DUE TO DEAD LOAD	Rd	970 kN
DEFORMATION		
SERVICE	ΔL	± 42 mm
RUBBER BEARING		
SHEAR COEFFICIENT	Ge	1.0 N/mm ²

A01 MATERIAL (PER 1 ABUTMENT)				
ITEM	MATERIAL	Nos.	WEIGHT(kg)	NOTE
RUBBER BEARING	NR+SS400	2	155.8	
GRID BARS	SD345	-	14.4	

DESIGN CONDITION

DESIGN REACTION		
MAX/MIN REACTION	R	1720 kN
REACTION DUE TO DEAD LOAD	Rd	1090 kN
RUBBER BEARING		
SHEAR EFFICIENT	Ge	1.0 N/mm ²

P01 - P03 MATERIAL (PER 1 PIER)				
ITEM	MATERIAL	Nos.	WEIGHT(kg)	NOTE
RUBBER BEARING	NR+SS400	4	262.4	
GRID BARS	SD345	-	28.7	

DESIGN CONDITION

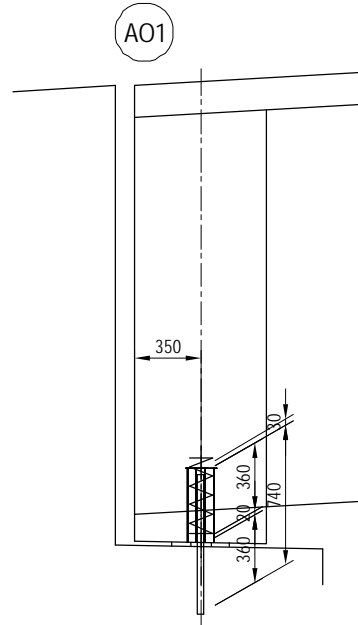
DESIGN REACTION		
MAX/MIN REACTION	R	1510 kN
REACTION DUE TO DEAD LOAD	Rd	1010 kN
DEFORMATION		
SERVICE	ΔL	± 57 mm
RUBBER BEARING		
SHEAR COEFFICIENT	Ge	1.0 N/mm ²

P5 MATERIAL (PER 1 PIER)				
ITEM	MATERIAL	Nos.	WEIGHT(kg)	NOTE
RUBBER BEARING	NR+SS400	2	179.9	
GRID BARS	SD345	-	14.4	

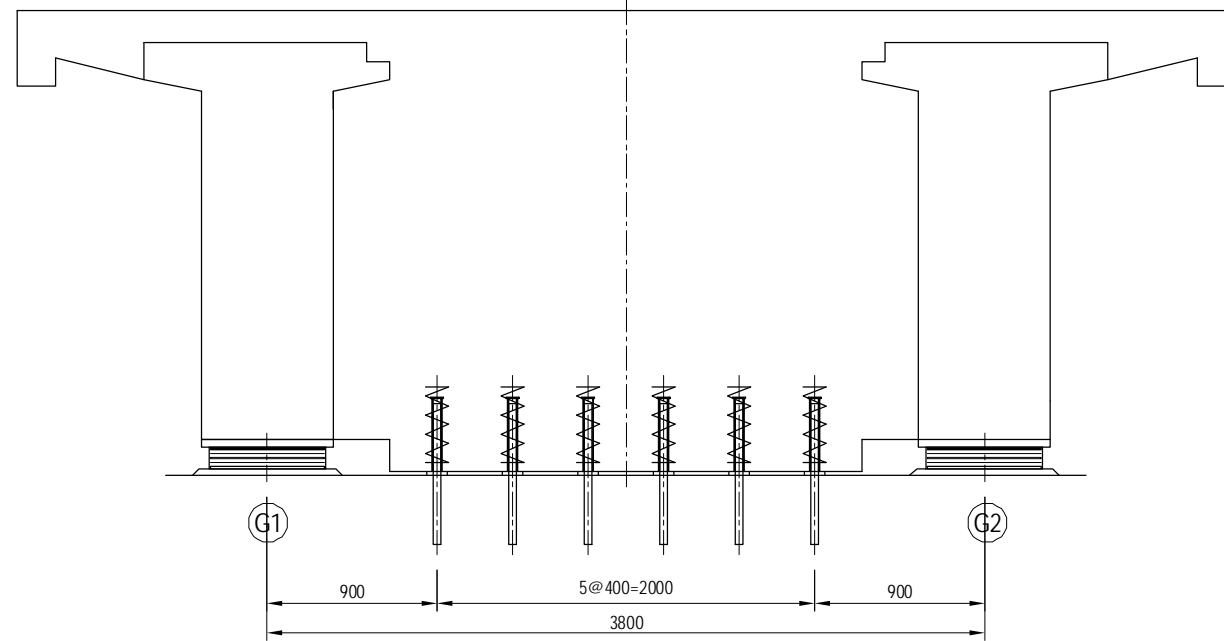
- NOTES:
- 1) All the dimensions and materials of this drawing are shown as reference.
 - 2) Details of the girder and substructure are designed based on this reference drawing.
 - 3) All details and function of the bearing may alter by the proposal of the Contractor and shall be approved by the Engineer.

DETAIL OF BEARINGS FOR ON-RAMP (2) ANCHOR BAR (A01)

PROFILE S=1:40

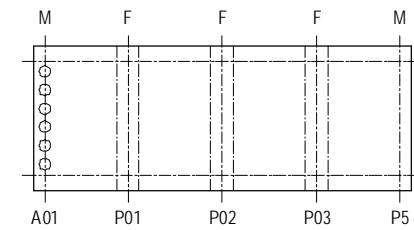


CROSS SECTION S=1:40

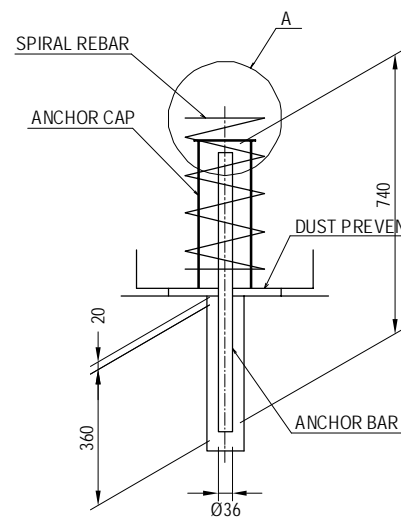


A01 MATERIALS (PER 1 ABUTMENT)					
NAME OF PART	SIZE	MATERIAL	QUANTITY	WEIGHT	NOTE
ANCHOR BAR	Ø36×740	S35CN	6	35.5	ZINC GALVANIZE
ANCHOR CAP	46×136×390	SS400	6	21.3	ZINC GALVANIZE
SPIRAL REBAR	Ø9×3200	SS400	6	9.6	—
DUST PREVENTING MATERIAL	110×20×300	RUBBER	6	—	—
HEX HEAD BOLT	M6×60	—	6	—	—

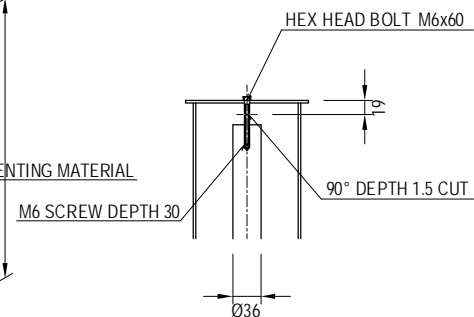
PLAN



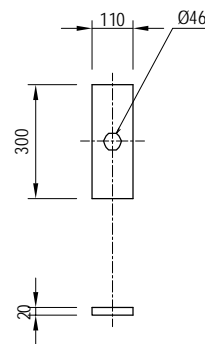
ANCHOR CAP S=1:20



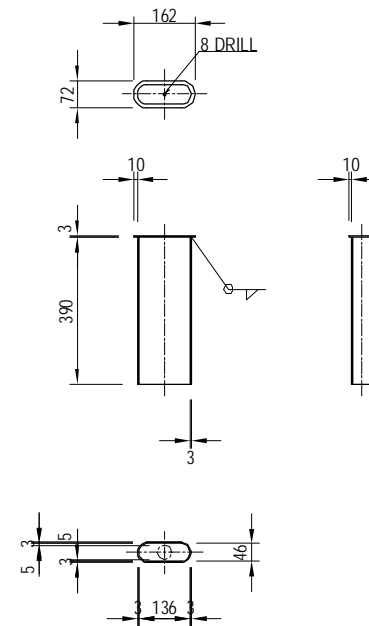
PART-A DETAIL S=1:10



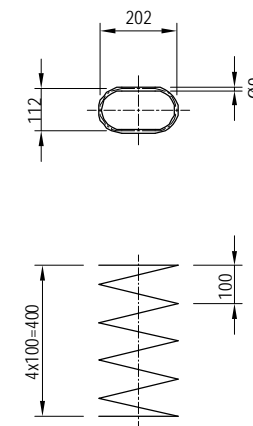
DUST PREVENTING MATERIAL S=1:20



ANCHOR CAP S=1:20

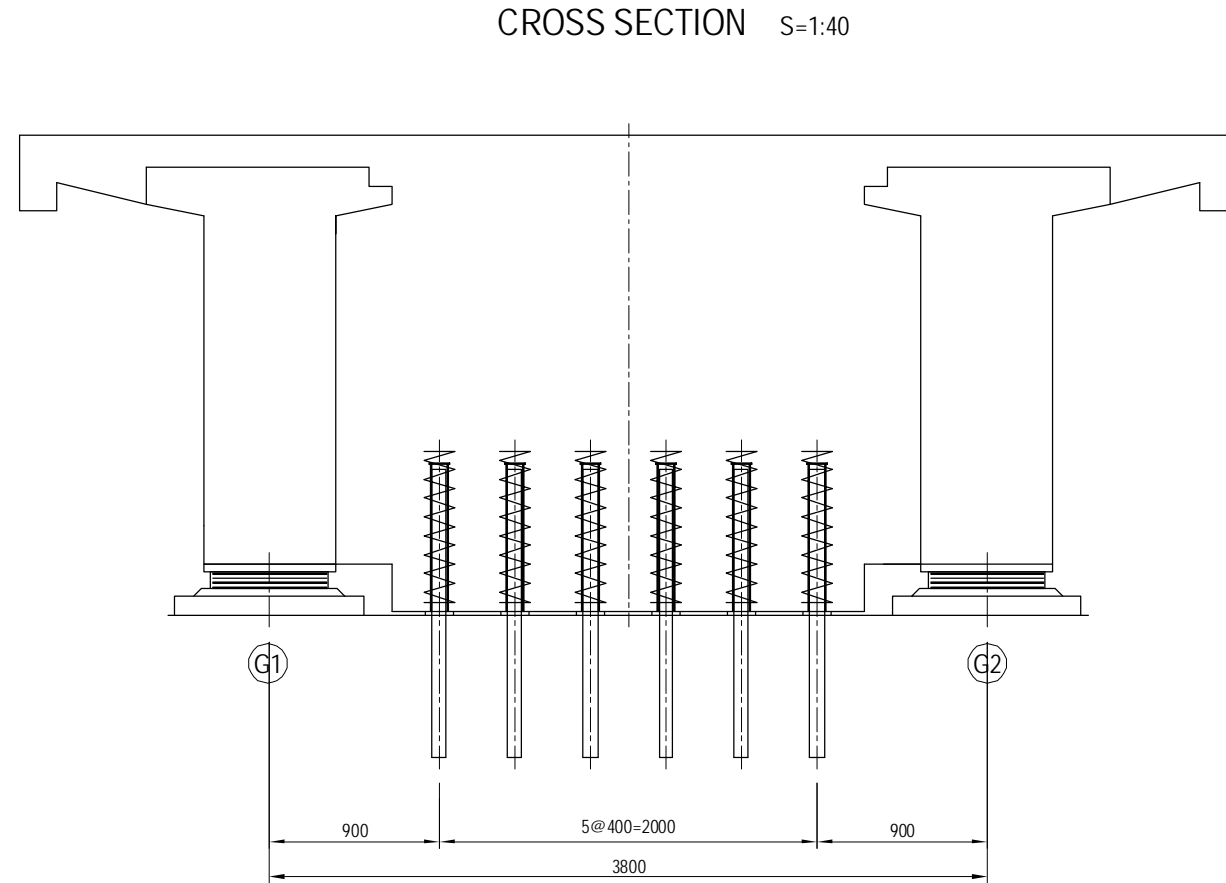
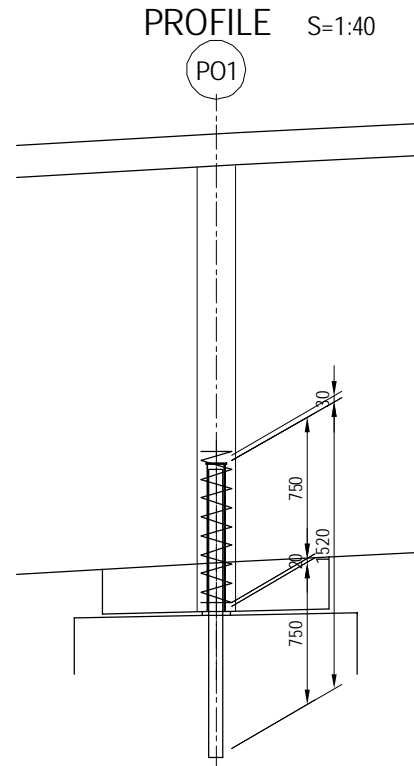


SPIRAL REBAR S=1:20

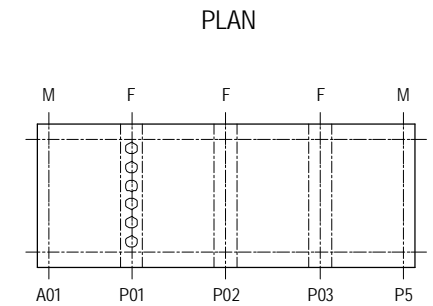


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	M. OHYAMA	大山 満弘	15 Jun.2017	DETAIL OF BEARINGS FOR ON-RAMP (2)	1
				T. HAYAKAWA	平川 知和	20 Jun.2017		DWG No.
				Y. SANO	佐野 祐一	21 Jun.2017		P1-OR-3002

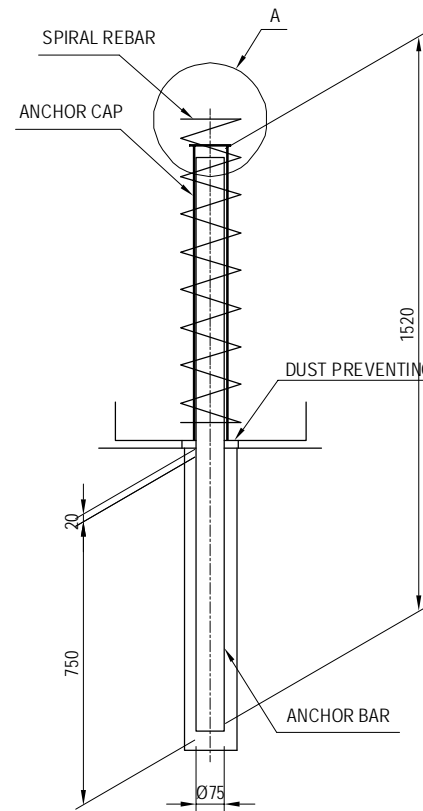
DETAIL OF BEARINGS FOR ON-RAMP (3) ANCHOR BAR (PO1)



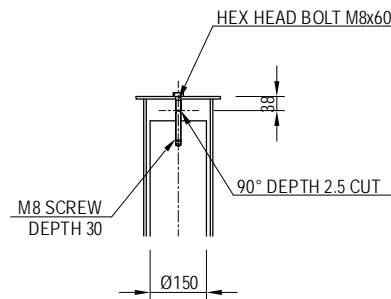
PO1 MATERIALS (PER 1 PIER)					
NAME OF PART	SIZE	MATERIAL	QUANTITY	WEIGHT	NOTE
ANCHOR BAR	Ø75×1520	S35CN	6	316.3	ZINC GALVANIZE
ANCHOR CAP	Ø85×780	SS400	6	34.0	ZINC GALVANIZE
SPIRAL REBAR	Ø9×4760	SS400	6	14.3	—
DUST PREVENTING MATERIAL	150×20×150	RUBBER	6	—	—
HEX HEAD BOLT	M8×60	—	6	—	—



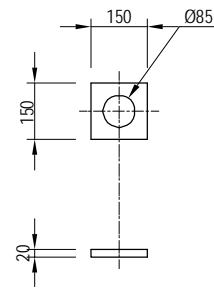
ANCHOR CAP S=1:20



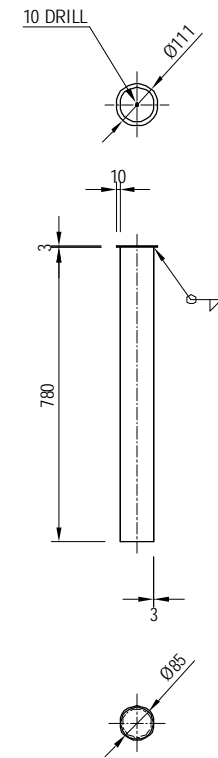
PART-A DETAIL S=1:10



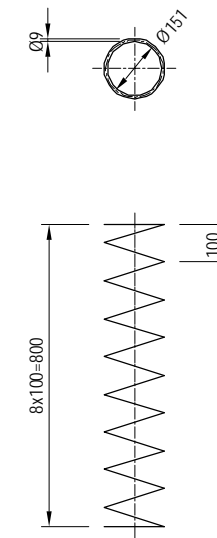
DUST PREVENTING MATERIAL S=1:20



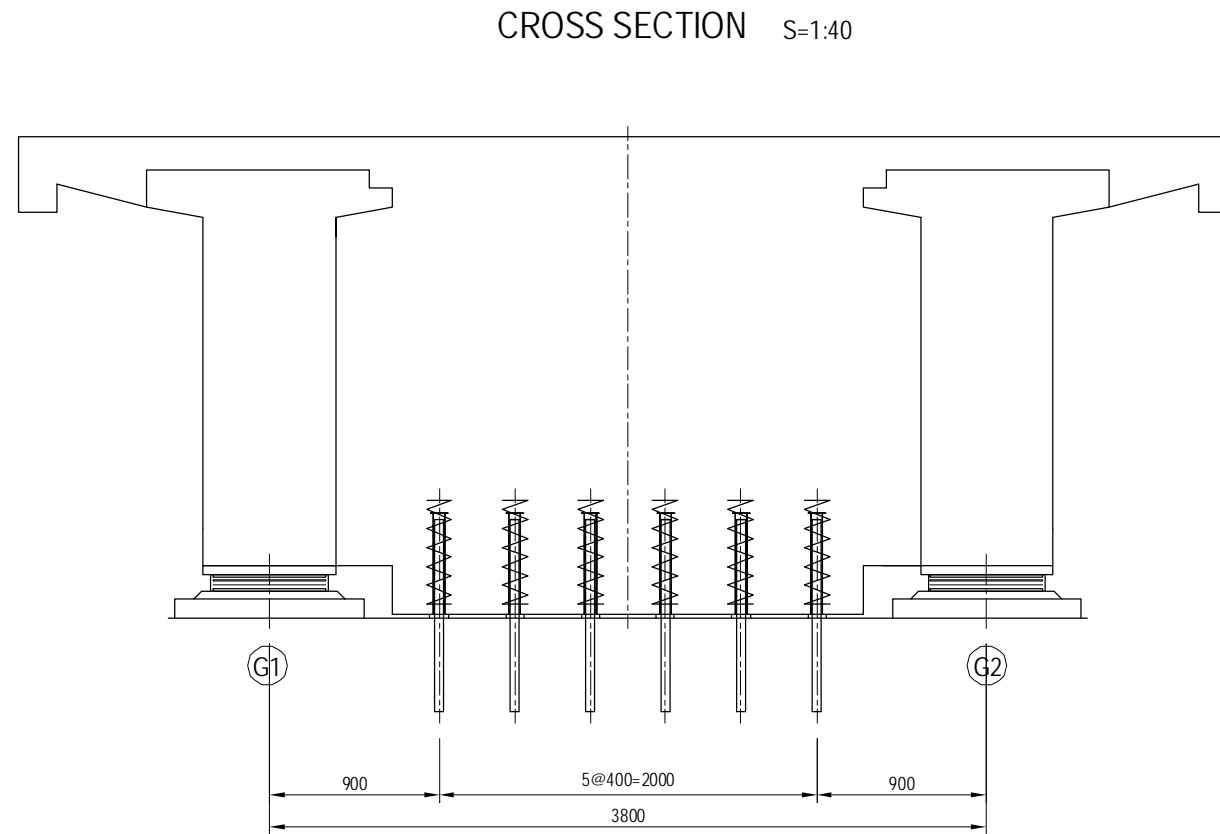
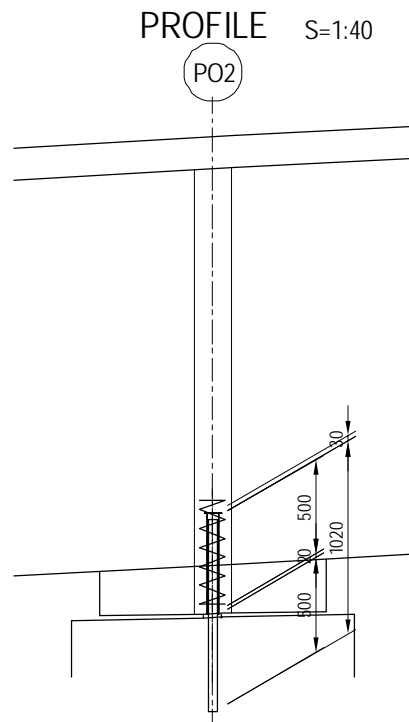
ANCHOR CAP S=1:20



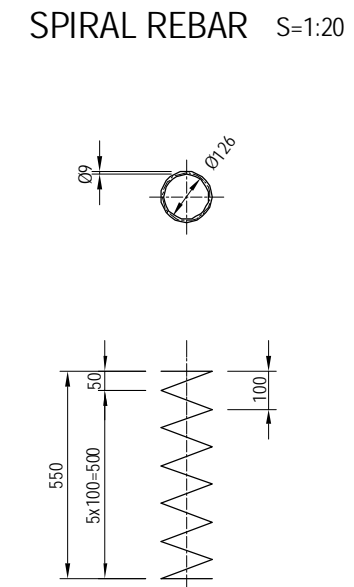
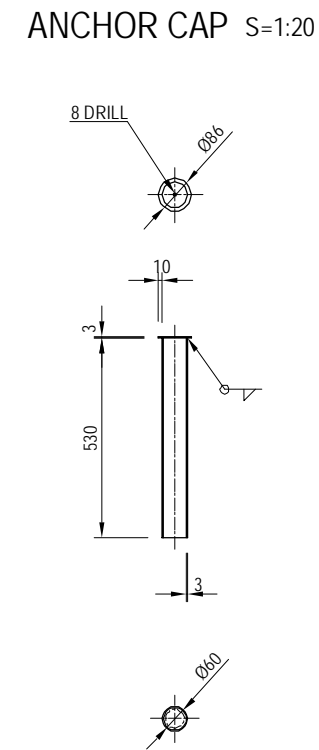
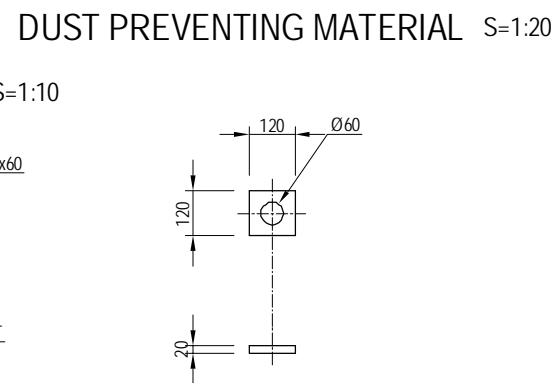
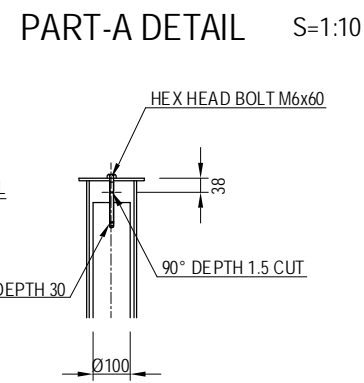
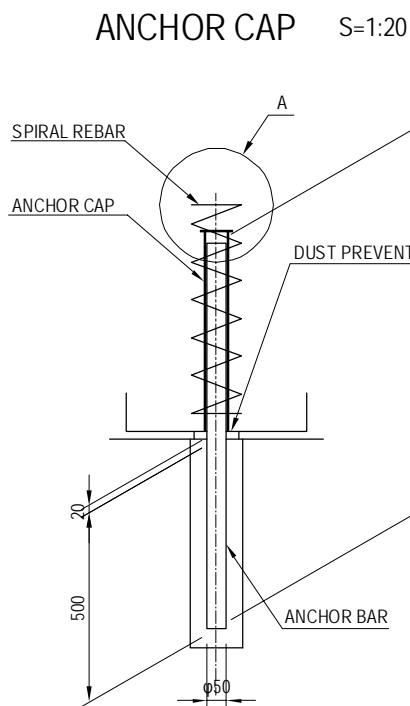
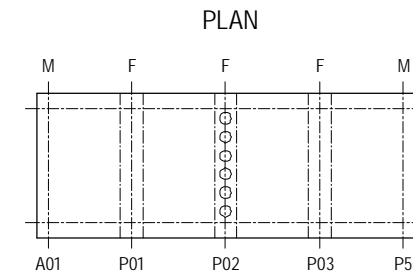
SPIRAL REBAR S=1:20



DETAIL OF BEARINGS FOR ON-RAMP (4) ANCHOR BAR (PO2)

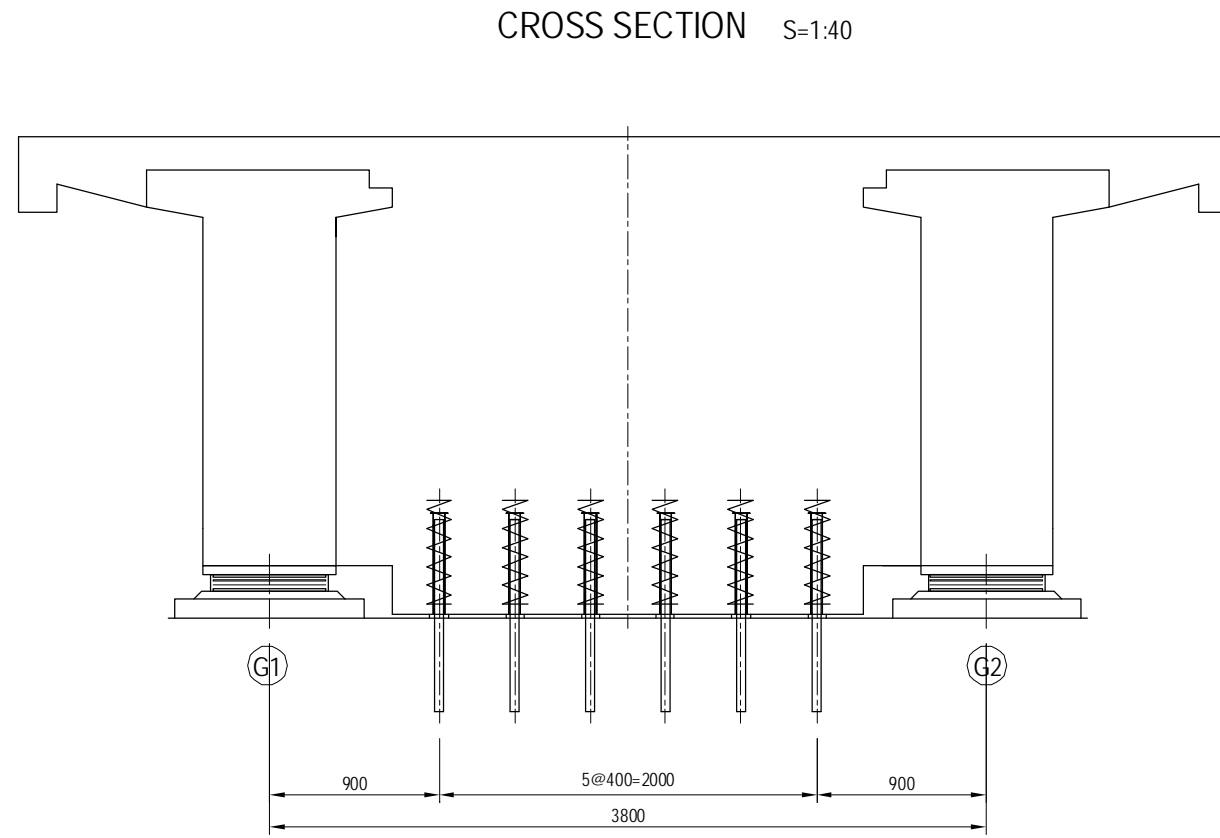
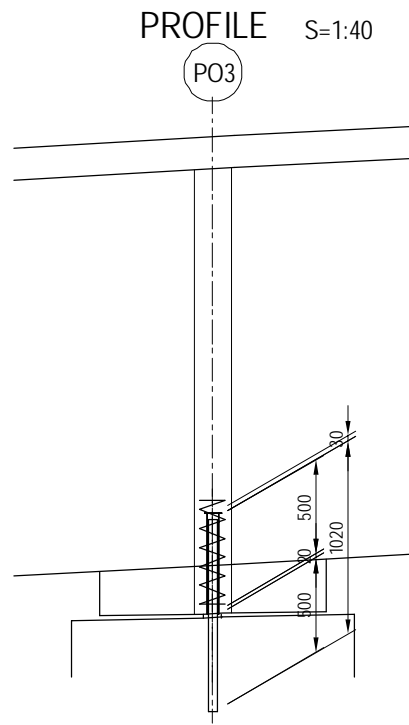


PO2 MATERIALS (PER 1 PIER)					
NAME OF PART	SIZE	MATERIAL	QUANTITY	WEIGHT	NOTE
ANCHOR BAR	Ø50×1020	S35CN	6	94.3	ZINC GALVANIZE
ANCHOR CAP	Ø60×530	SS400	6	16.7	ZINC GALVANIZE
SPIRAL REBAR	Ø9×2980	SS400	6	8.9	—
DUST PREVENTING MATERIAL	120×20×120	RUBBER	6	—	—
HEX HEAD BOLT	M6×60	—	6	—	—

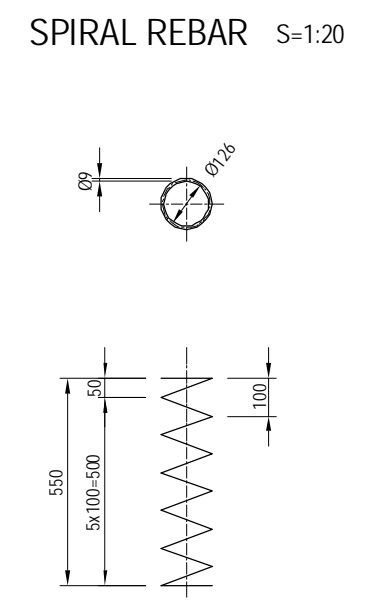
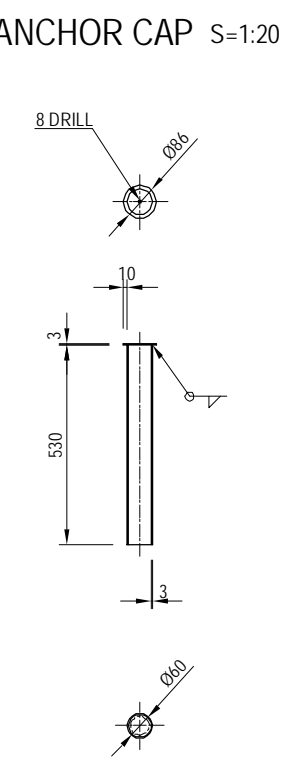
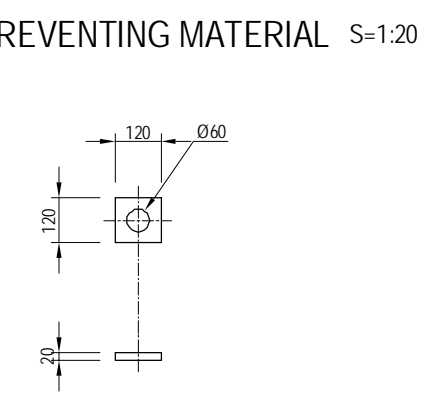
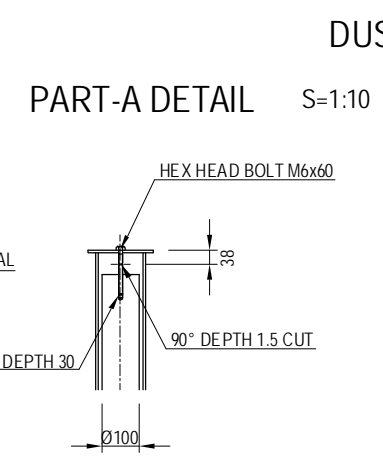
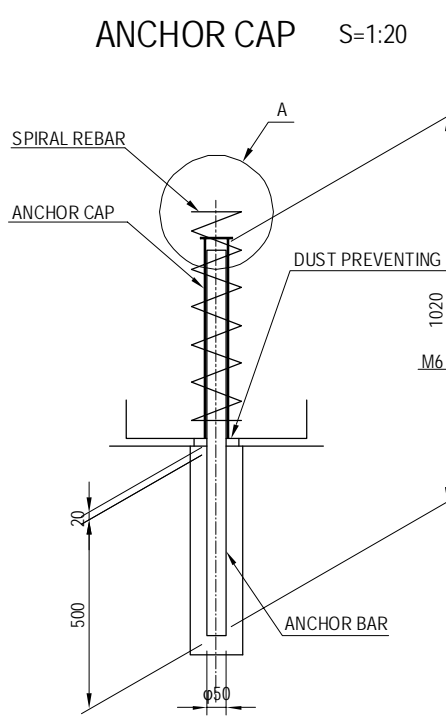
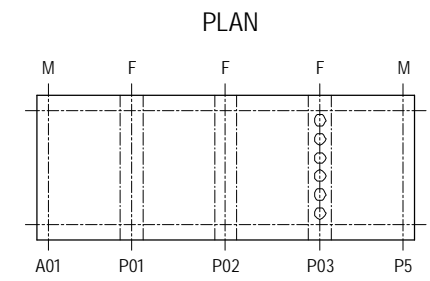


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICASTUDYTEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE DETAIL OF BEARINGS FOR ON-RAMP (4)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-3004

DETAIL OF BEARINGS FOR ON-RAMP (5) ANCHOR BAR (PO3)

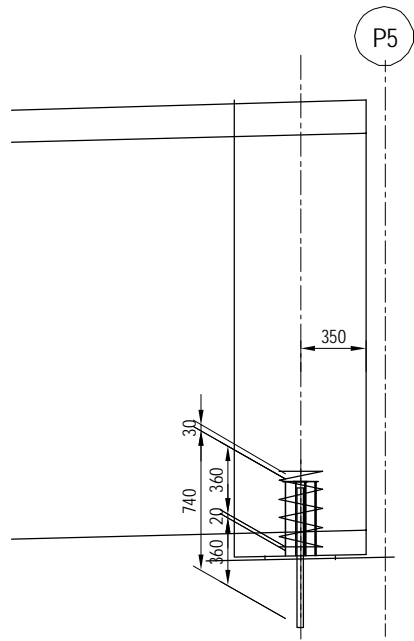


PO3 MATERIALS (PER 1 PIER)					
NAME OF PART	SIZE	MATERIAL	QUANTITY	WEIGHT	NOTE
ANCHOR BAR	Ø50×1020	S35CN	6	94.3	ZINC GALVANIZE
ANCHOR CAP	Ø60×530	SS400	6	16.7	ZINC GALVANIZE
SPIRAL REBAR	Ø9×2980	SS400	6	8.9	—
DUST PREVENTING MATERIAL	120×20×120	RUBBER	6	—	—
HEX HEAD BOLT	M6×60	—	6	—	—

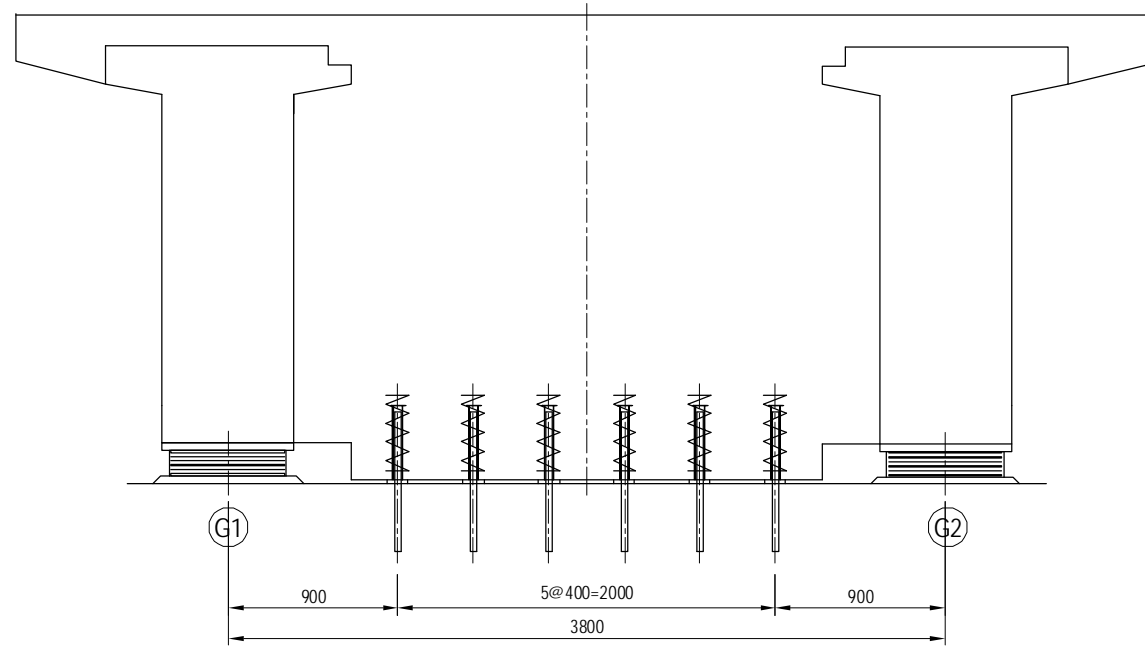


DETAIL OF BEARINGS FOR ON-RAMP (6) ANCHOR BAR (P5)

PROFILE S=1:40

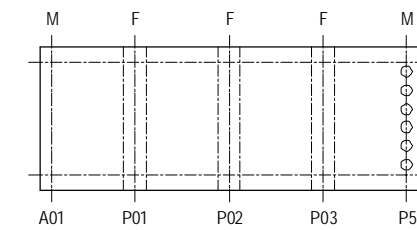


CROSS SECTION S=1:40

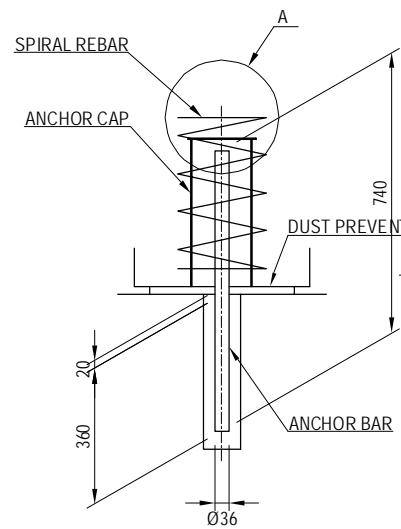


P5 MATERIALS (PER 1 PIER)					
NAME OF PART	SIZE	MATERIAL	QUANTITY	WEIGHT	NOTE
ANCHOR BAR	Ø36×740	S35CN	6	35.5	ZINC GALVANIZE
ANCHOR CAP	46×156×390	SS400	6	23.8	ZINC GALVANIZE
SPIRAL REBAR	Ø9×3440	SS400	6	10.3	—
DUST PREVENTING MATERIAL	110×20×380	RUBBER	6	—	—
HEX HEAD BOLT	M6×60	—	6	—	—

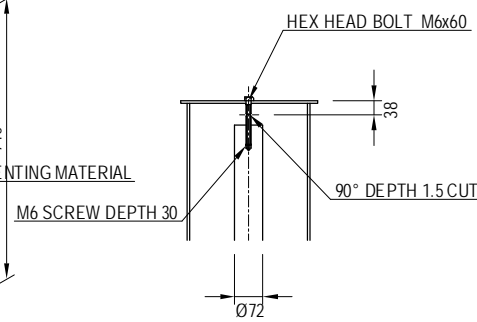
PLAN



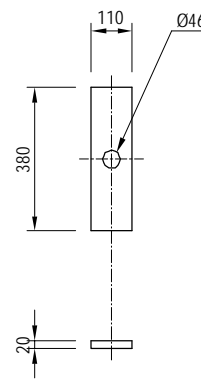
ANCHOR CAP S=1:20



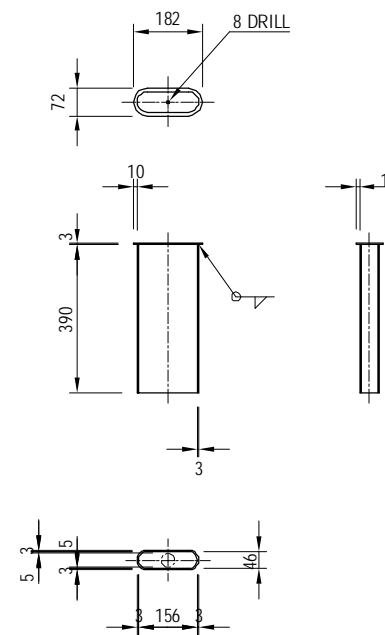
PART-A DETAIL S=1:10



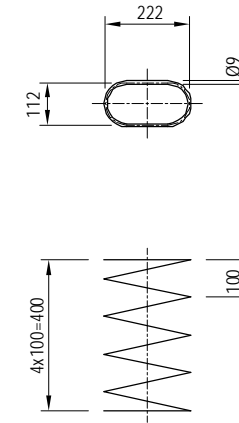
DUST PREVENTING MATERIAL S=1:20



ANCHOR CAP S=1:20

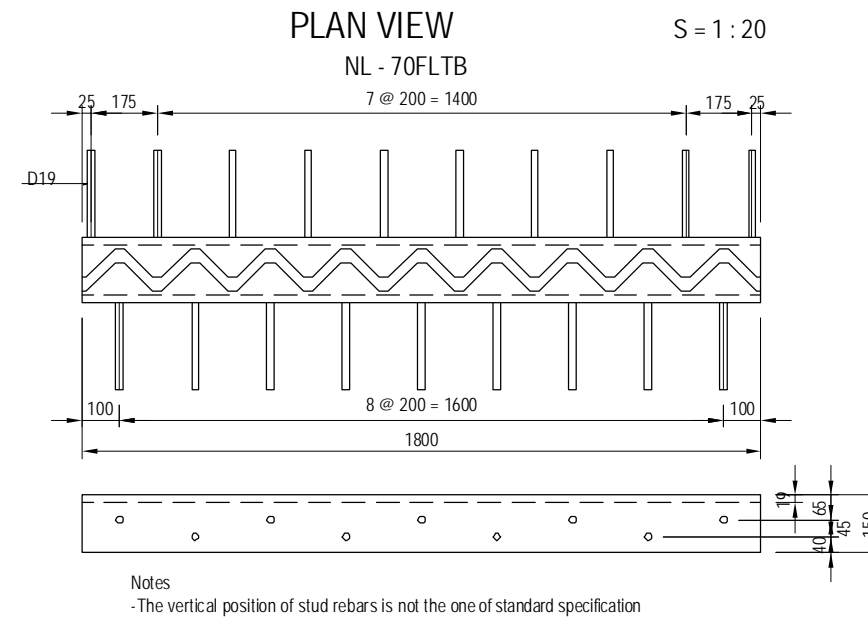
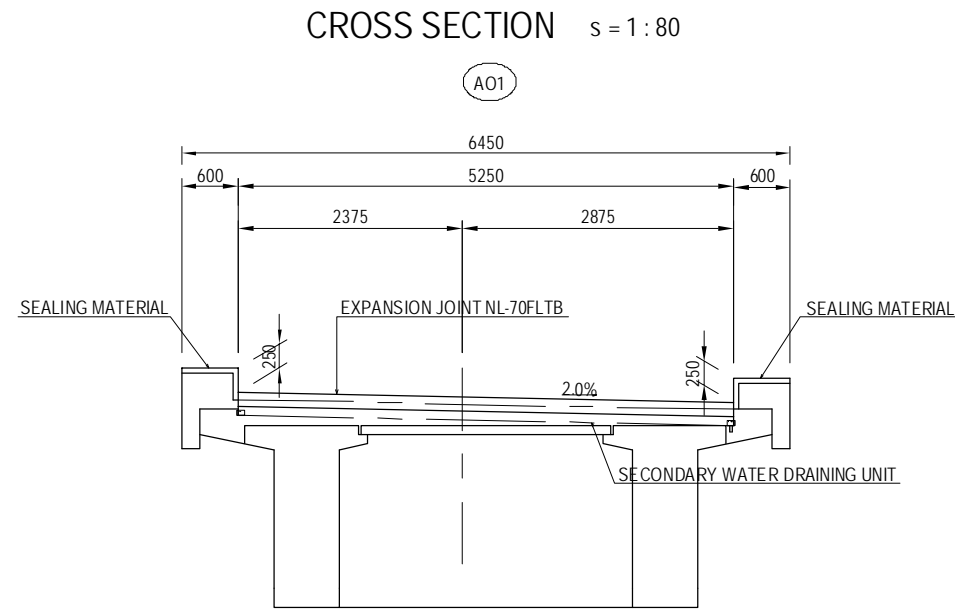


SPIRAL REBAR S=1:20



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICASTUDY 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 DETAIL OF BEARINGS FOR ON-RAMP (6)	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘		15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA	平川 知那		20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO	佐野 祐一		21 Jun.2017	P1-OR-3006

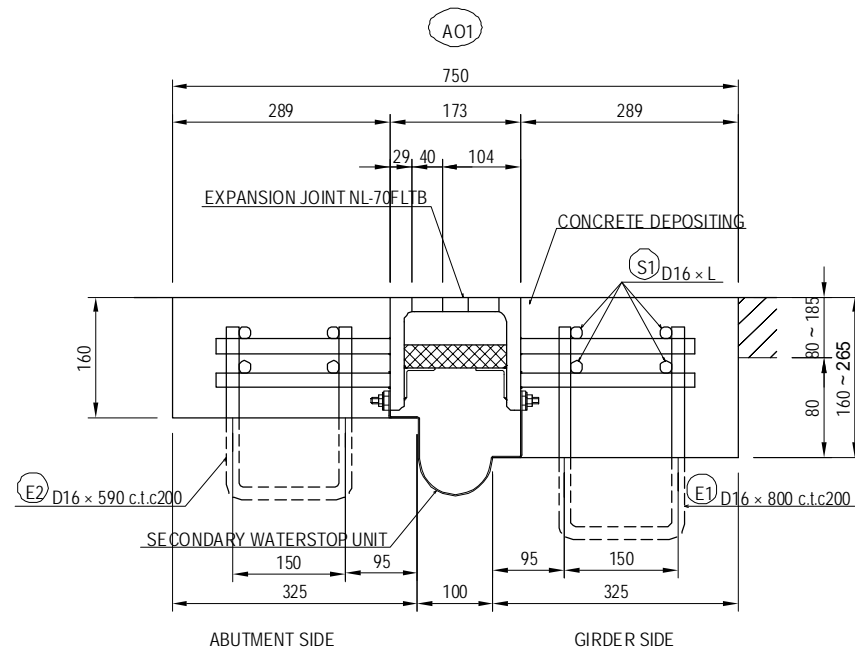
DETAIL OF EXPANSION JOINT FOR ON-RAMP AO1



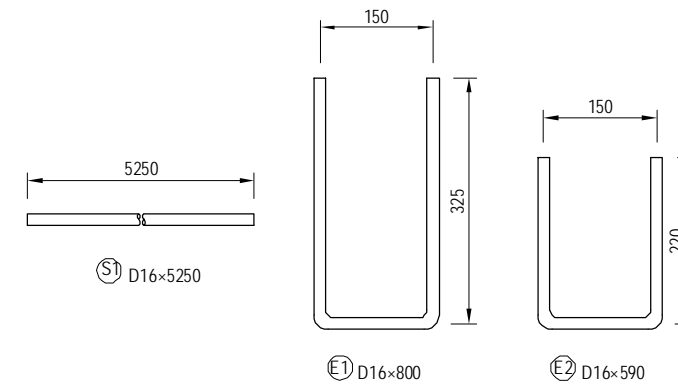
DESIGN MOVEMENT OF EXPANSION JOINT

		A01	GIRDER $\Delta L (+)$	GIRDER $\Delta L (-)$	GIRDER ΔL
SERVICE STATE	TEMPERATURE		10 mm	10 mm	20 mm
	CREEP		-	8 mm	8 mm
	SHRINKAGE		-	7 mm	7 mm
	ALLOWANCE		5 mm	5 mm	10 mm
TOTAL			15 mm	30 mm	45 mm
SEISMIC STATE	EARTHQUAKE		16 mm	16 mm	32 mm
	ALLOWANCE		15 mm	15 mm	30 mm
	TOTAL		31 mm	31 mm	62 mm
DESIGN MOVEMENT			62 mm		

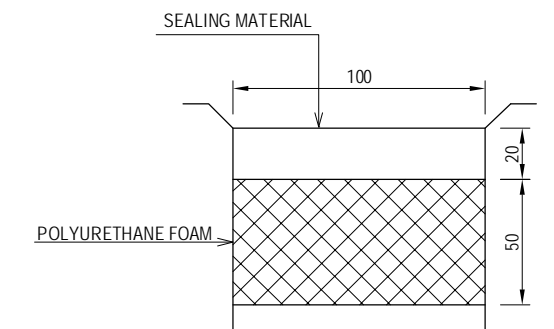
SECTION OF EXPANSION JOINT $S = 1 : 10$



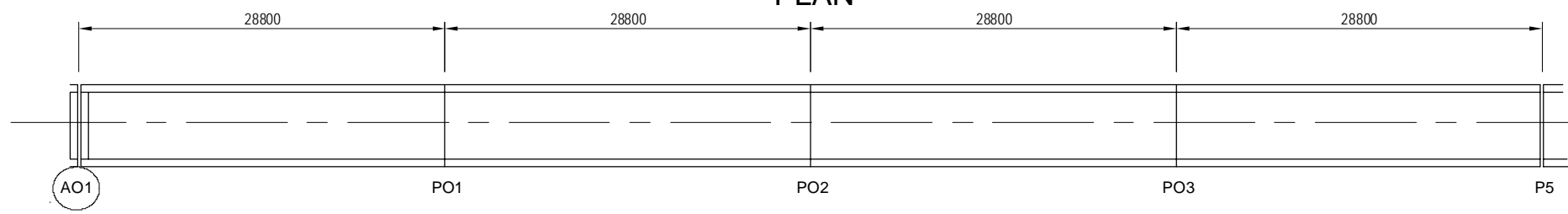
DETAIL OF REBAR $S = 1 : 10$



DETAIL OF SEALING MATERIAL $S = 1 : 3$



PLAN

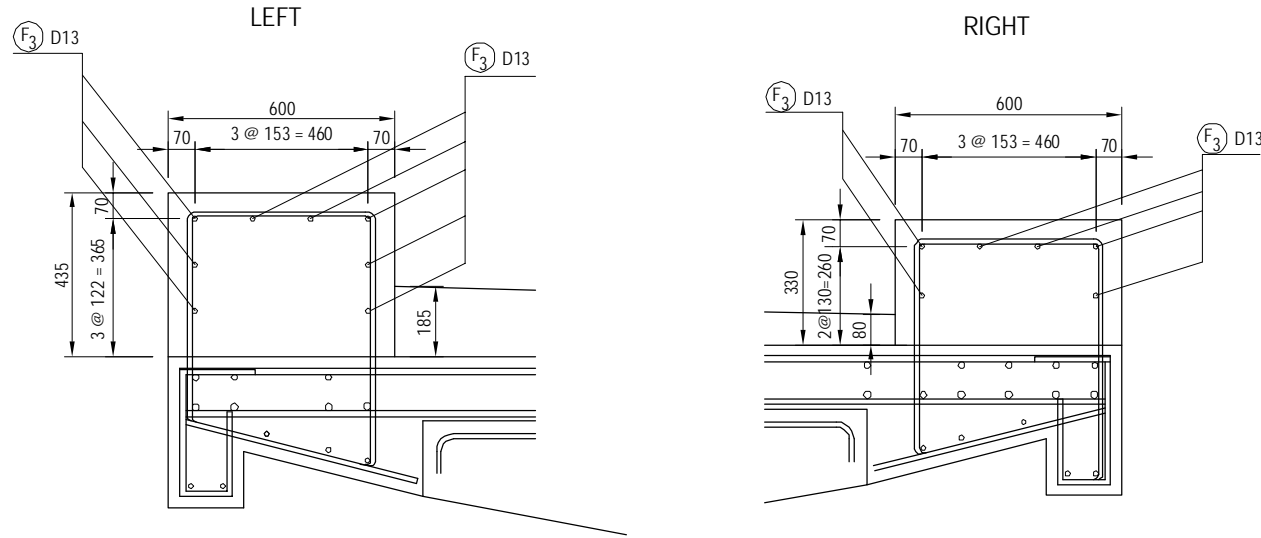


ITEM	UNIT	A01	NOTE
NL-70FLT B	m	5.25.0	
CONCRETE	m ³	0.56	
SEALING MATERIAL	L	3.4	
S1 D16x5250 (SD345)	kg	6.5.5	
E1 D16x800 (SD345)	kg	3.2.4	2.6 UNIT
E2 D16x590 (SD345)	kg	2.3.9	2.6 UNIT
SUM	kg	56.3	

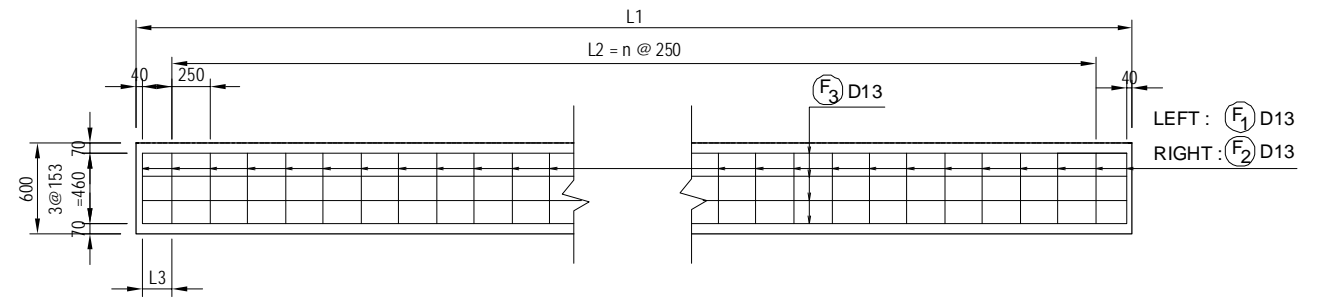
- NOTES:
- 1) All the dimensions and materials of this drawing are shown as reference.
 - 2) Details of the slab and girder are designed based on this reference drawing.
 - 3) All details and function of the expansion joint may alter by the proposal of the Contractor and shall be approved by the Engineer.
 - 4) The expansion joint shall be set just before the start of service in consideration of thermal expansion, creep and shrinkage of concrete girder.

DETAIL OF CURB FOR ON-RAMP

CROSS SECTION S = 1 : 20



PLAN S = 1 : 50

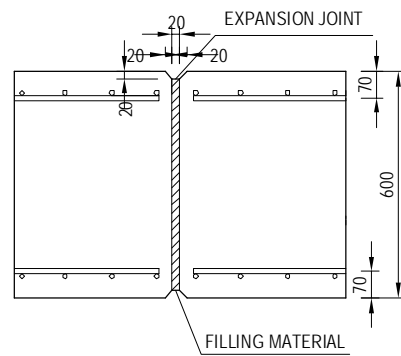


TYPE	L1	L2	n	L3	L4
A	28700	28250	113	185	5400
B	28800	28250	113	235	5500
C	28845	28500	114	133	5550
D	28531	28000	112	226	5231

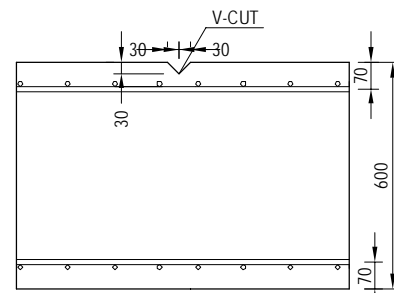
S = 1 : 20

S = 1 : 20

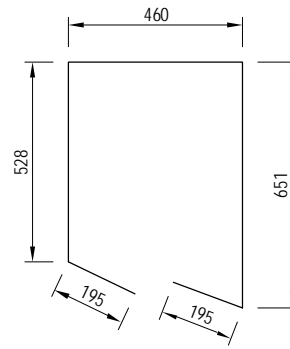
EXPANSION JOINT



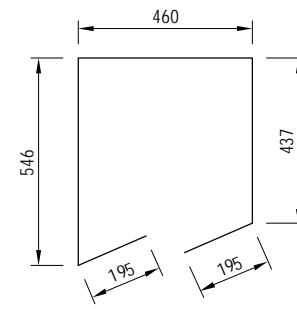
V-CUT



Notes
- Install V-cut approximately about every 10m.



F1 465 - D13 x 2030

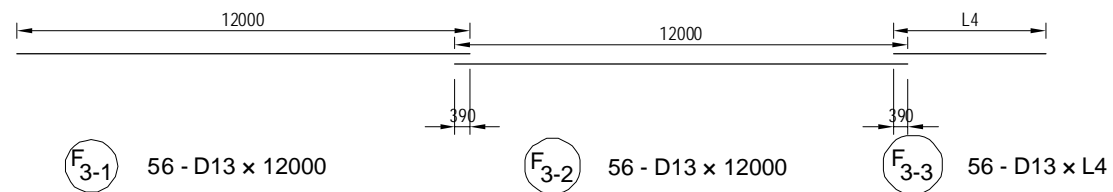


F2 463 - D13 x 1840

BAR STATISTICS TABLE (SD345)

Bar Mark	Bar Size	Length (mm)	No. of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
F1	D13	2030	465	0.995	2.020	939.3	□
F2	"	1840	463	0.995	1.831	847.8	□
F3	"	29460 (average)	56	0.995	29.313	1642.5	—
						TOTAL	3429.6 kg

S = 1 : 500

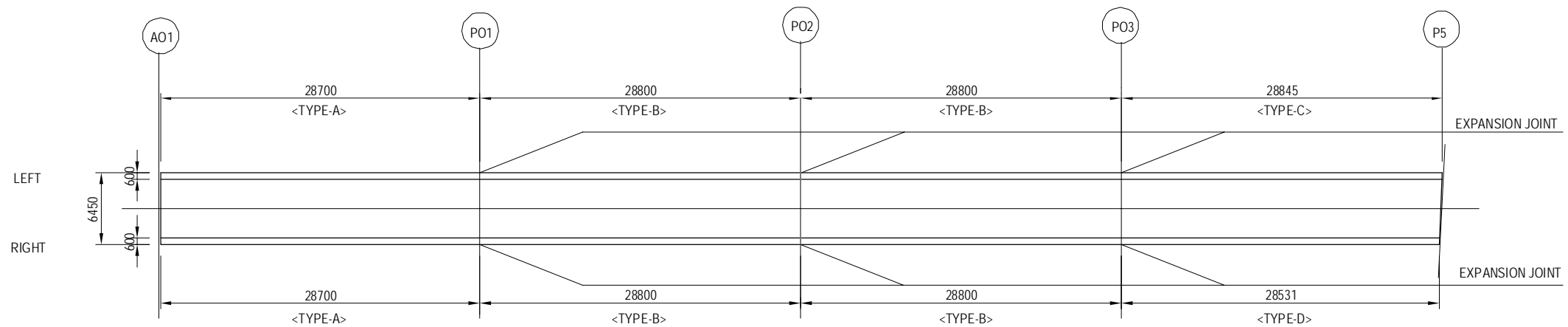


F3-1 56 - D13 x 12000

F3-2 56 - D13 x 12000

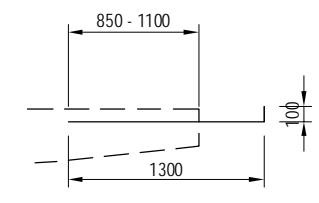
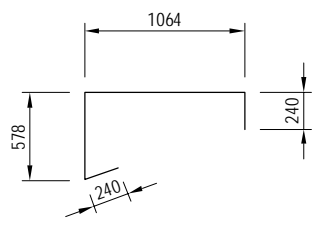
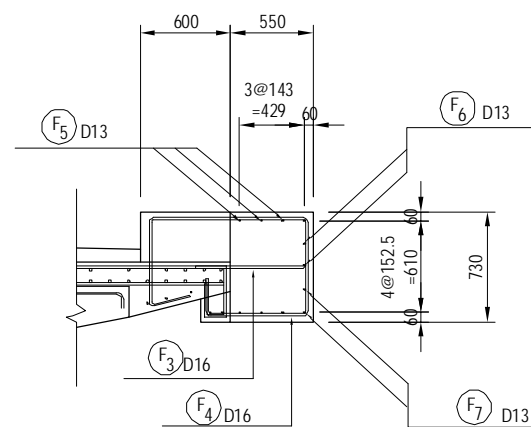
F3-3 56 - D13 x L4

PLAN S = 1 : 500



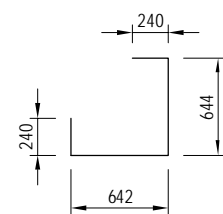
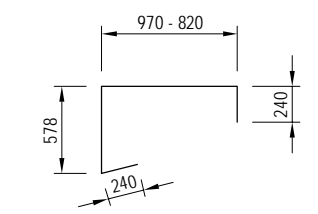
DETAIL OF LIGHTING BASE FOR ON-RAMP

S=1:50



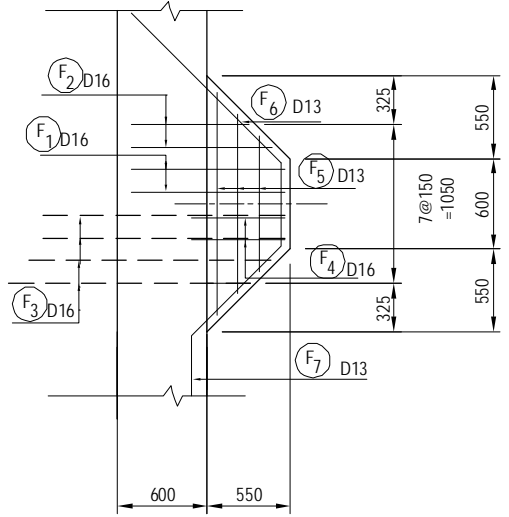
F1 4 - D16 x 2130

F3 8 - D16 x 1400

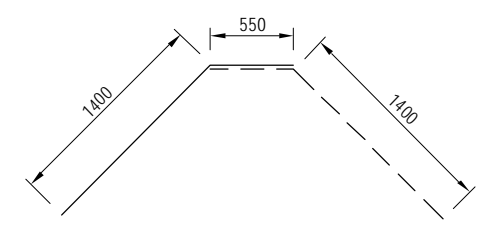
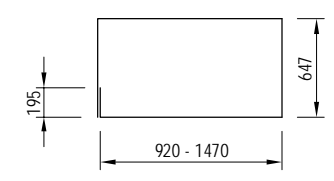


F2 4 - D16 x 1960 (AVERAGE LENGTH)

F4 4 - D16 x 1770

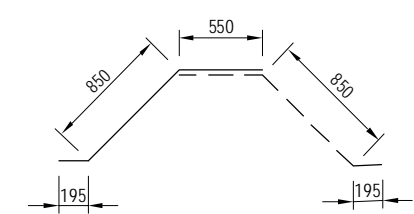


UPPER SURFACE
LOWER SURFACE



F5 3 - D13 x 3880 (AVERAGE LENGTH)

F6 4 - D13 x 1950



F7 4 - D13 x 1600

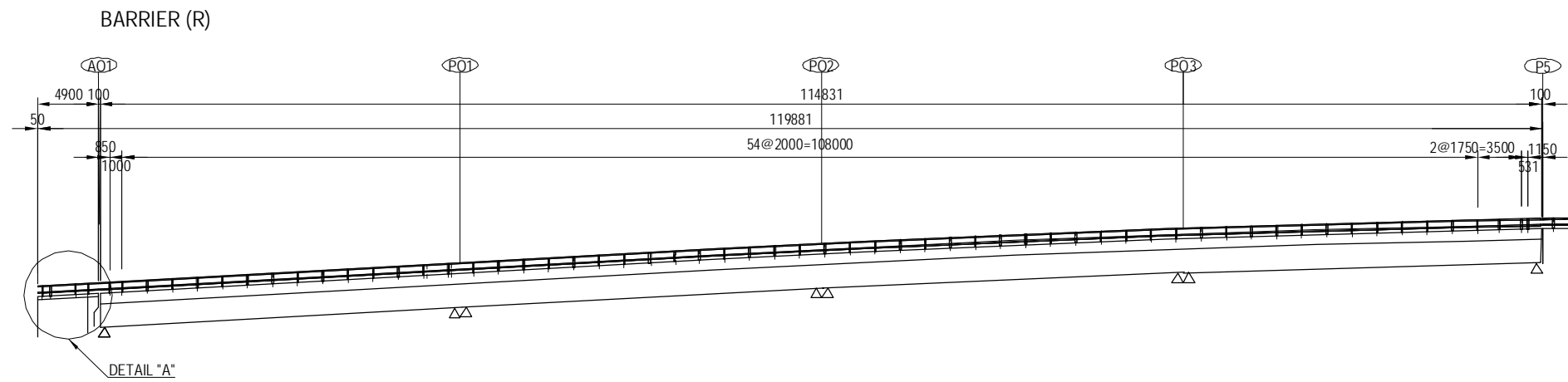
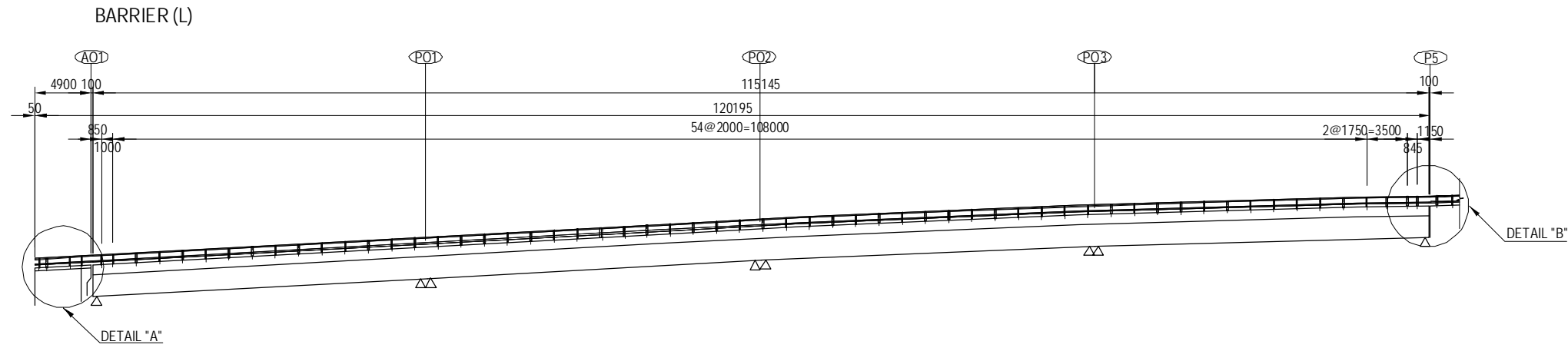
BAR STATISTICS TABLE (SD345 PER LIGHTING BASE)

Bar Mark	Bar Size	Length (mm)	No. of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
F1	D16	2130	4	1.560	3.323	13.3	□
F2	"	1960	4	"	3.058	12.2	□
F3	"	1400	8	"	2.184	17.5	□
F4	"	1770	4	"	2.761	11.0	□
F5	D13	3880	3	0.995	3.861	11.6	□
F6	"	1950	4	"	1.940	7.8	□
F7	"	1600	4	"	1.592	6.4	□
					D16	54.0 kg	
					D13	25.8 kg	
					Total Weight	79.8 kg	

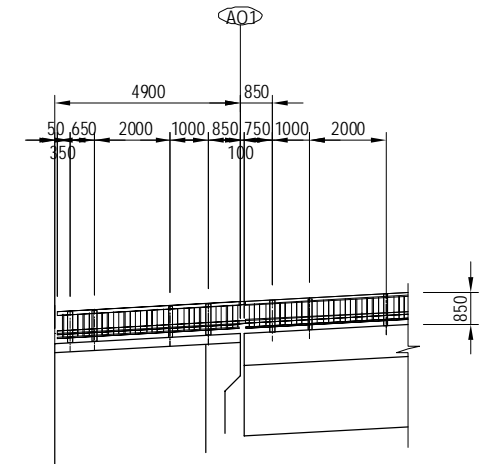
NOTES:
Number and location of lighting base shall be referred to the drawing of "F. Lighting" series P1-EL.

DETAIL OF RAILINGS FOR ON-RAMP (1)

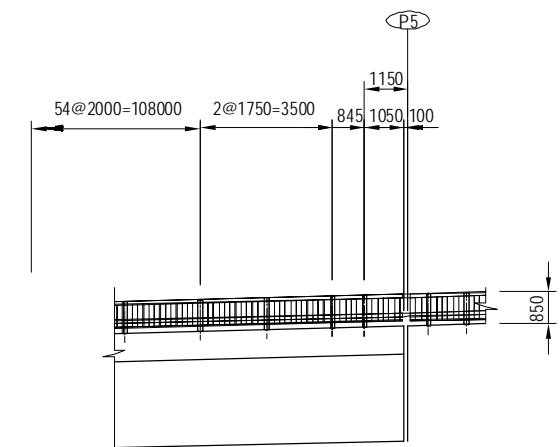
PROFILE S=1:500



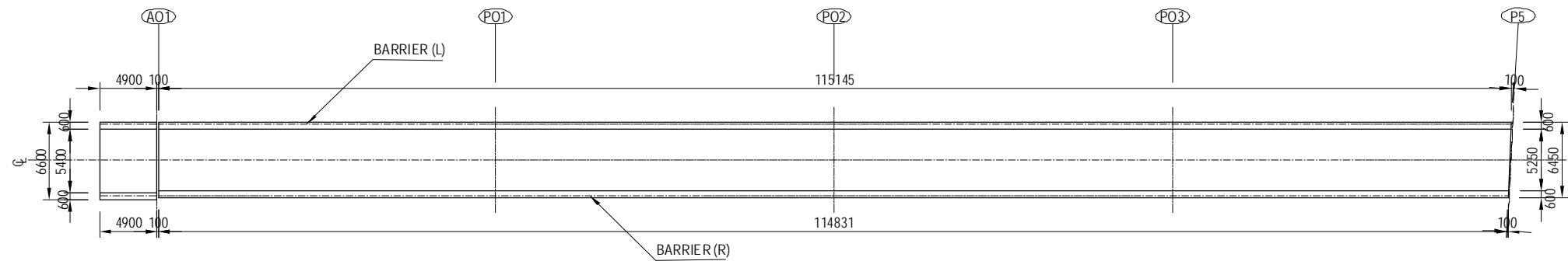
DETAIL OF "A" S=1:200



DETAIL OF "B" S=1:200



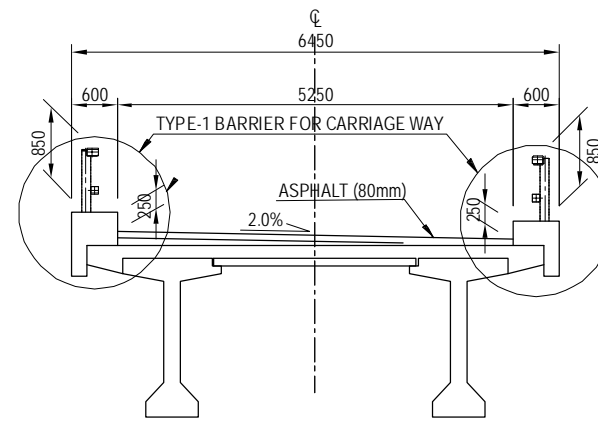
PLAN VIEW S=1:500



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 DETAIL OF RAILINGS FOR ON-RAMP (1)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-3401

DETAIL OF RAILINGS FOR ON-RAMP (2)

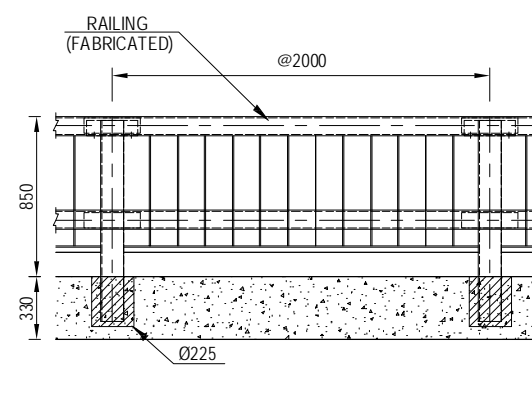
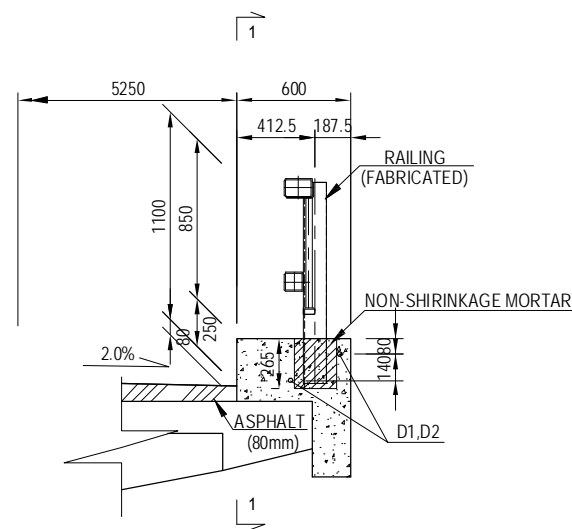
TYPICAL CROSS SECTION S=1:100



TYPE-1 BARRIER FOR CARRIAGE WAY S=1:40

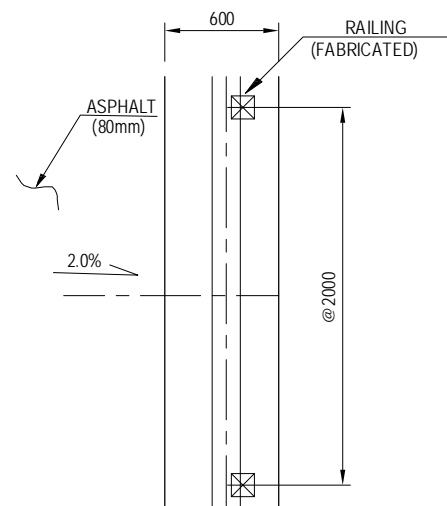
CROSS SECTIONAL VIEW

1 - 1



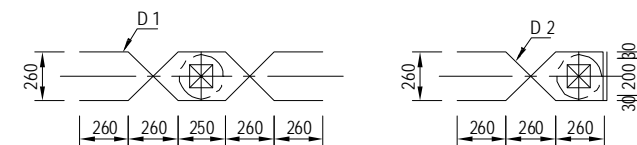
PLAN VIEW

REINFORCEMENT FOR RAILING ANCHORAGE



INTERMEDIATE POSTS

END POSTS



BAR STATISTICS TABLE

REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBERS	UNIT WEIGHT (kg/m)	WEIGHT PER UNIT (kg)	WEIGHT (kg)	SHAPE
D 1	25	1 510	236	3.980	6.01	1418	
D 2	25	1 150	16	3.980	4.58	73	
TOTAL						1491 kg	

PROJECT NAME
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 REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

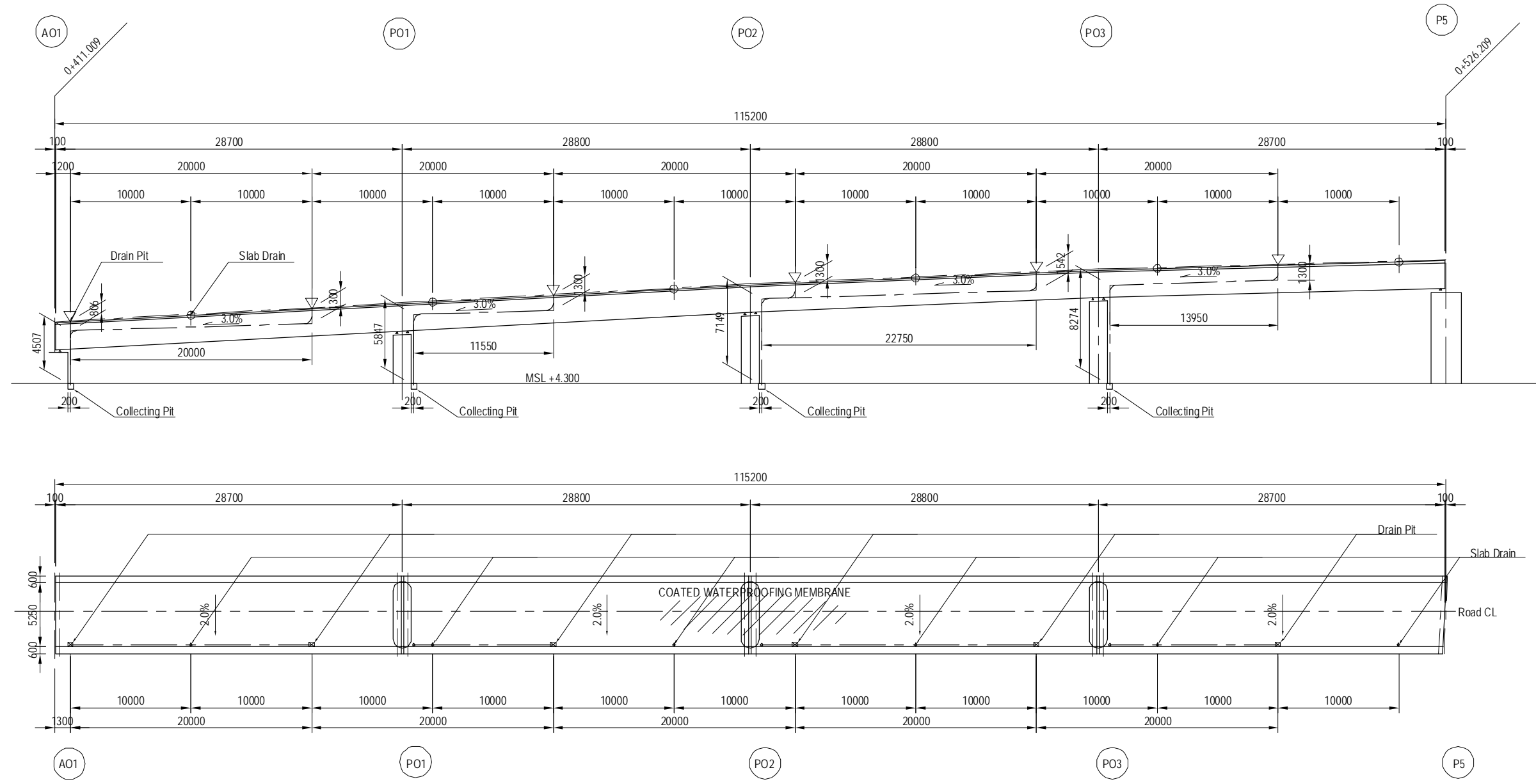
JICA STUDY TEAM
 NIPPON KOEI CO., LTD.
 ORIENTAL CONSULTANTS GLOBAL CO., LTD.
 METROPOLITAN EXPRESSWAY COMPANY LIMITED
 CHODAI CO., LTD.
 NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

DRAWING TITLE
DETAIL OF RAILINGS FOR ON-RAMP (2)

PACKAGE
1
DWG No.
P1-OR-3402

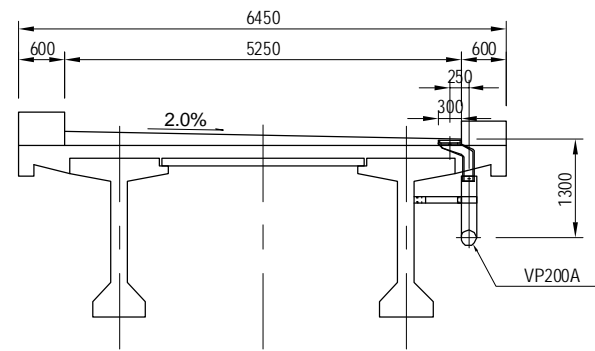
DETAIL OF DRAINAGE FOR ON-RAMP (1) S = 1 : 400



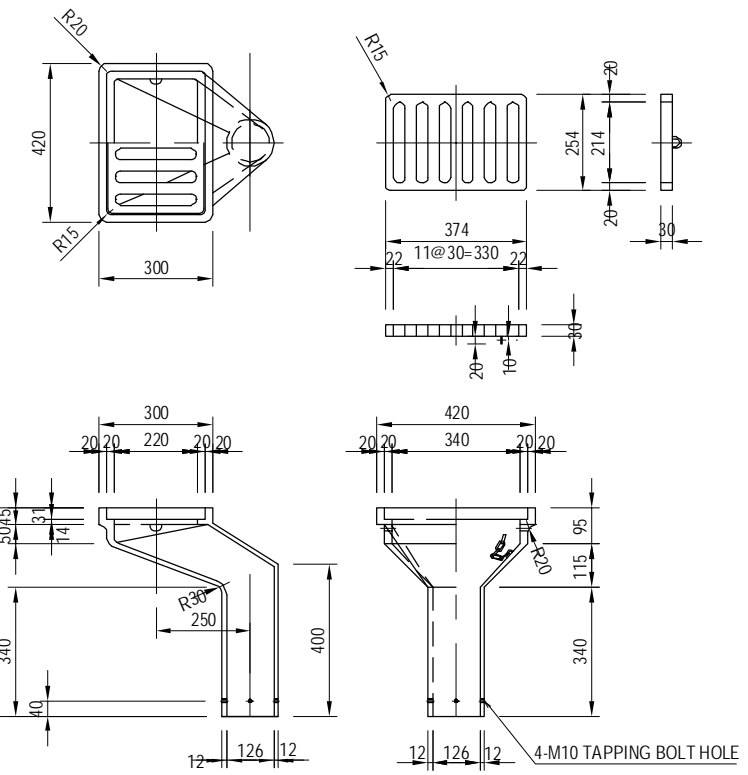
<small>PROJECT NAME</small> DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	<small>FINANCED BY</small> JAPAN INTERNATIONAL COOPERATION AGENCY	<small>COUNTERPART</small> REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	<small>JICA STUDY TEAM</small> NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;"></th> <th style="width: 15%;">NAME</th> <th style="width: 15%;">SIGNATURE</th> <th style="width: 15%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY</td> <td>M. OHYAMA</td> <td></td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY</td> <td>T. HAYAKAWA</td> <td></td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY</td> <td>Y. SANO</td> <td></td> <td>21 Jun.2017</td> </tr> </tbody> </table>		NAME	SIGNATURE	DATE	PREPARED BY	M. OHYAMA		15 Jun.2017	CHECKED BY	T. HAYAKAWA		20 Jun.2017	APPROVED BY	Y. SANO		21 Jun.2017	<small>DRAWING TITLE</small> DETAIL OF DRAINAGE FOR ON-RAMP (1)	<small>PACKAGE</small> 1 DWG No. P1-OR-3501
	NAME	SIGNATURE	DATE																				
PREPARED BY	M. OHYAMA		15 Jun.2017																				
CHECKED BY	T. HAYAKAWA		20 Jun.2017																				
APPROVED BY	Y. SANO		21 Jun.2017																				

DETAIL OF DRAINAGE FOR ON-RAMP (2) S=1:100

CATCH PIT SECTION

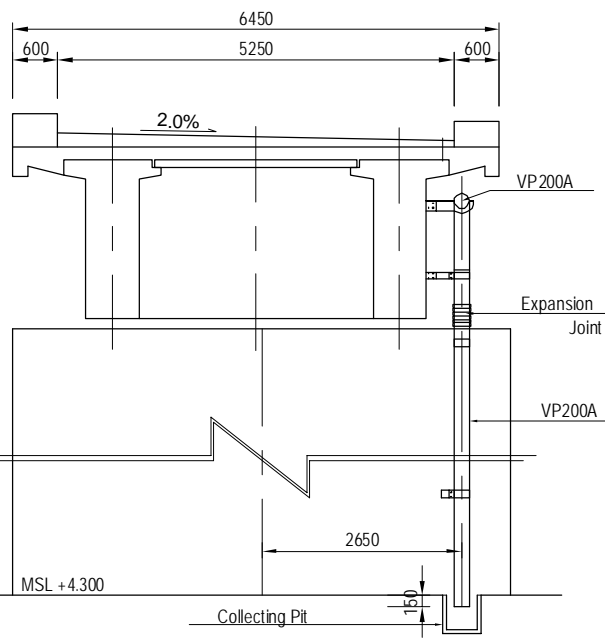


DETAIL OF CATCH BASIN S=1:20



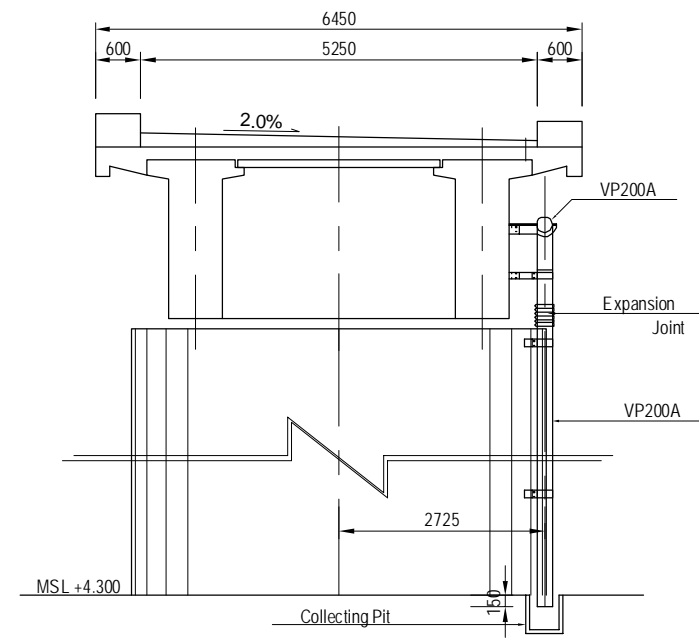
SUPPORT SECTION (ABUTMENT)

CROSS SECTION

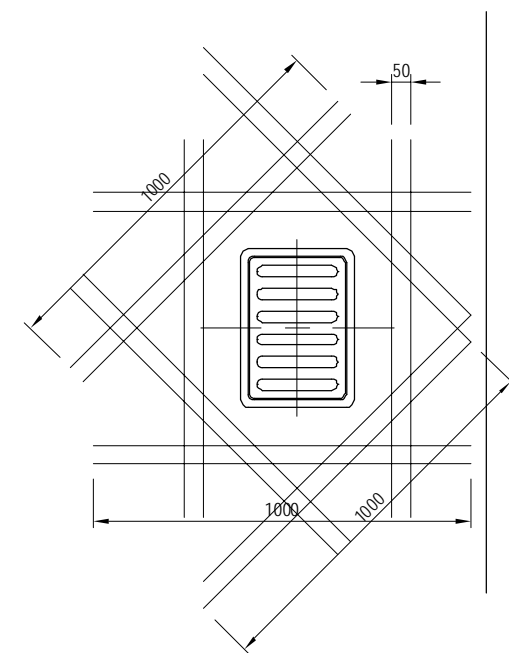


SUPPORT SECTION (PIER)

CROSS SECTION



REBAR ARRANGEMENT S=1:20



BAR STATISTICS TABLE

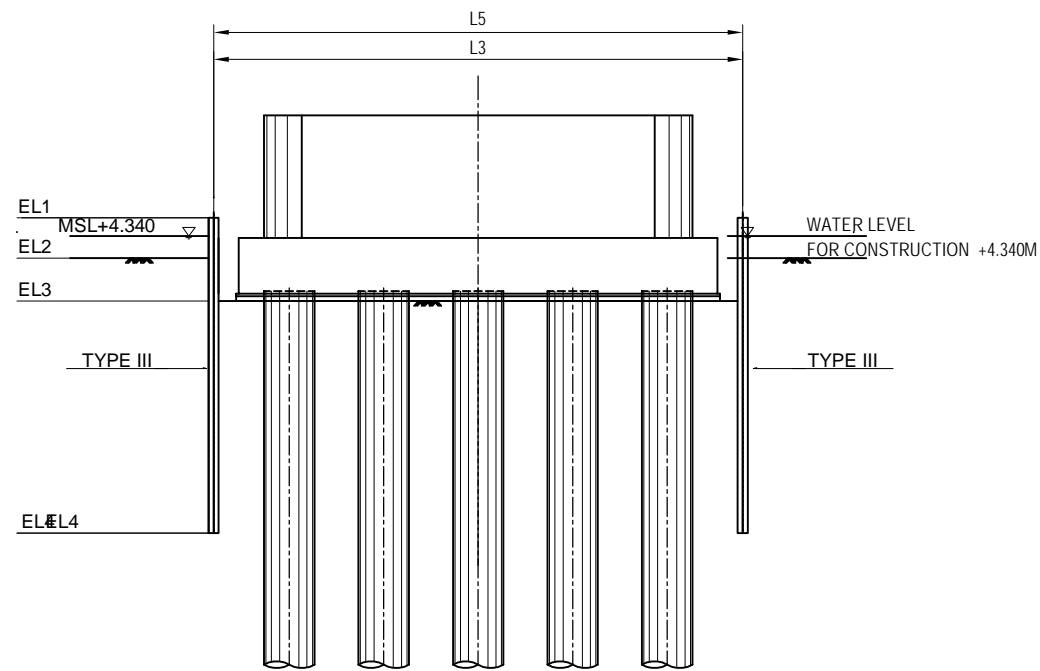
REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBERS	UNIT WEIGHT (kg/m)	WEIGHT PER UNIT (kg)	WEIGHT (kg)	REMARKS	
D 1	16	1 000	32	1.560	1.56	50		
TOTAL							50	
					CATCH PITS	UNIT QTY	TOTAL (kg)	
					6	50	300	

Notes : Contractor should install expansion joint into vertical drainage pipe between superstructure and substructure.
The expansion joint should have a capability to relative displacement between superstructure and substructure in service state.

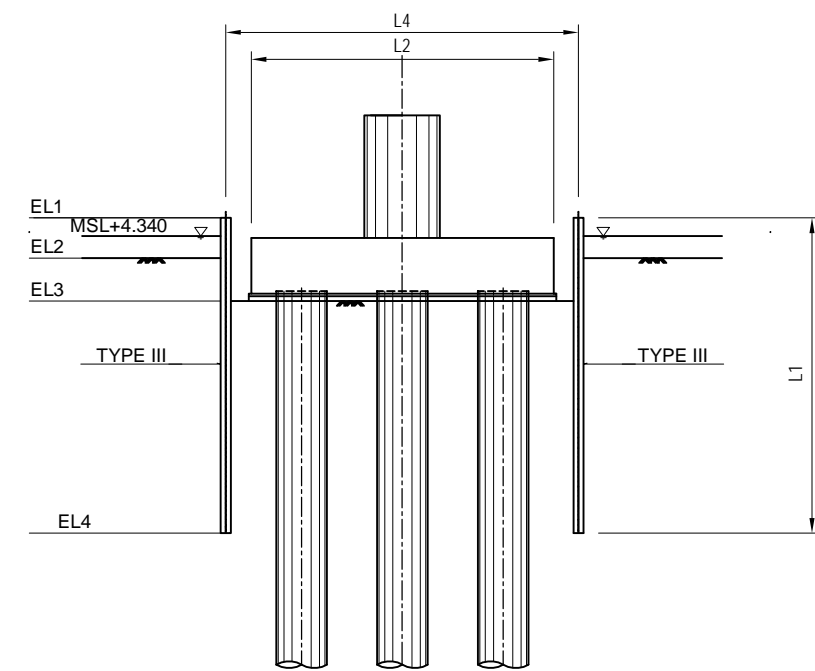
TEMPORARY COFFERDAM (REFERENCE DRAWING)

S=1:300

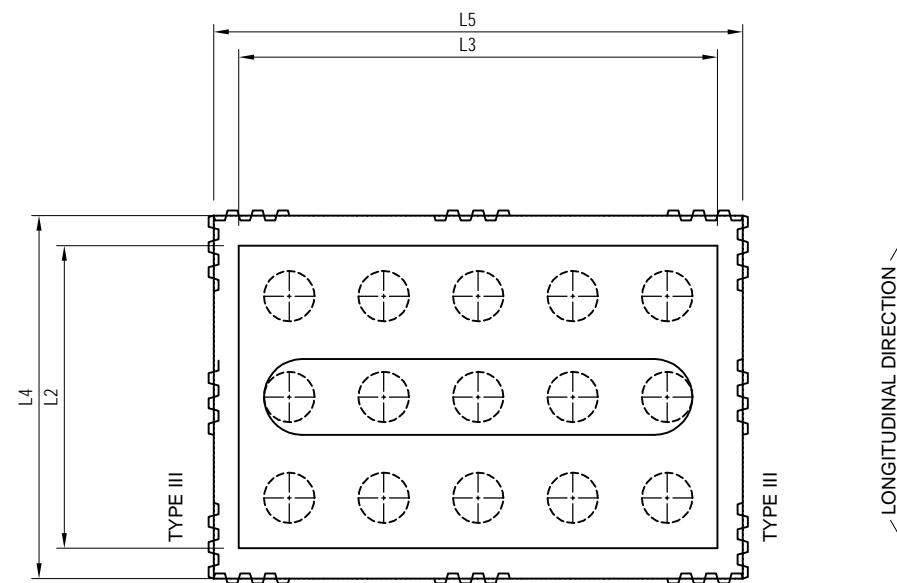
FRONT VIEW



SIDE VIEW



PLAN



QUANTITIES

ITEM	UNIT	SYMBOL	PO1	PO2	PO3	
COFFERDAM TYPE	-	-	FS	FS	FS	
SHEET PILE LENGTH	M	L1	12.5	12.5	12.5	
SHEET PILE WIDTH	M	W	0.40	0.40	0.40	
SHEET PILE SHAPE	-	-	III	III	III	
SHEET PILE MATERIAL	-	-	SY295	SY295	SY295	
UNIT WEIGHT	KG/M	-	60.0	60.0	60.0	
ASSUMED GROUND ELEVATION BEFORE EXCAVATION	MSL+ M	EL2	3.300	3.300	3.300	
APPROXIMATE DESIGN FLOOR HEIGHT AFTER EXCAVATION	MSL+ M	EL3	1.500	1.500	1.600	
TOP ELEVATION OF SHEET PILE	MSL+ M	EL1	4.900	4.900	4.900	
TIP ELEVATION OF SHEET PILE	MSL+ M	EL4	-7.600	-7.600	-7.600	
PILE CAP DIMENSIONS	LONGITUDINAL	M	L2	10.400	8.000	8.000
PILE CAP DIMENSIONS	TRANSVERSAL	M	L3	9.000	8.000	8.000
SPACE BETWEEN PILE CAP AND COFFERDAM	M	-	1.0	1.0	1.0	
PLANAR DIMENSION OF COFFERDAM	LONGITUDINAL	M	L4	12.400	10.000	10.000
PLANAR DIMENSION OF COFFERDAM	TRANSVERSAL	M	L5	11.000	10.000	10.000
TOTAL LENGTH IN PLAN	M	-	46.800	40.000	40.000	
NUMBER OF SHEET PILE	NOS	-	117	100	100	
TOTAL WEIGHT OF SHEET PILE	KG	-	87,750	75,000	75,000	

TRANSVERSE DIRECTION

PROJECT NAME
DETAILED DESIGN ON
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CONSTRUCTION PROJECT

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JICA
JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
REPUBLIC OF THE UNION OF MYANMAR
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CHODAI CO., LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA	大山 満弘	15 Jun.2017
CHECKED BY	T. HAYAKAWA	平川 知寿	20 Jun.2017
APPROVED BY	Y. SANO	佐野 祐一	21 Jun.2017

DRAWING TITLE
TEMPORARY COFFERDAM
(REFERENCE DRAWING)

PACKAGE
1
DWG No.
P1-OR-4011

QUANTITY TABLE OF SUPERSTRUCTURE AO1-PO3 (REFERENCE DRAWING)

Structure Component	Work Item	Specification	Unit	Quantity	Remark
Fabrication of PC girder	Concrete	40Mpa	m3	234.2	PC-I Girder, H=2.1m, Girder Length 28.6m, 73.3#/Girder, n=8
	Metal form	Side & End Form	m2	1209.6	
		Bottom Form	m2	160.3	
	PC strands	12S12.7	kg	8424.5	Longitudinal Tendon
	Steel re-bar	SD345, D13	ton	14.8	
SD345, D16-D25		ton	18.6		
PC pannel	PC pannel	40MPa, t=100mm, L=2.680m	nos	108	
Crossbeam	Concrete	30Mpa	m3	69.4	
	Form		m2	184.3	
	PC bar	φ32	kg	2004.2	Transverse PC bar for Crossbeam
	Steel re-bar	SD345, D13	ton	2.2	
		SD345, D16-D25	ton	3.8	
Slab	Concrete	30Mpa	m3	152.9	
	Form		m2	288.4	
	Steel re-bar	SD345, D13	ton	4.5	
		SD345, D16-D25	ton	42.3	
Bearing	Elastomeric Bearing (Pad type)	G10	nos	2	600mm x 400mm x 80mm(Σte) [A1]
		G10	nos	12	600mm x 400mm x 60mm(Σte) [PO1~PO3]
		G10	nos	2	600mm x 400mm x 100mm(Σte) [P5]
Anchor bar		S35CN	kg	576	at AC1, PO1~PO3, P5
Expansion joint	NL-70FL	70mm	m	5.25	Expansion Joint for AO1
Wheel guard	Concrete	24Mpa	m3	55.4	
	Form		m2	184.6	
	Steel re-bar	SD345, D13	ton	3.5	
Adjustment concrete			m3	43.1	
Waterproof			m2	601.3	Spray T type
Drain pit			nos	6	
Drainage pipe	superstructure	VP200A	m	75.8	
	substructure	VP200A	m	25.8	

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				PREPARED BY	M. OHYAMA			15 Jun.2017	1
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P1-OR-4101

QUANTITY TABLE OF SUBSTRUCTURE AO1-PO3 (REFERENCE DRAWING)

QUANTITY OF RC STRUCTURES AO1-PO3 (ABUTMENT AND PIERS)

Structure Component	Work Item	Specification		Unit	Quantity	Remark
					Total of AO1-PO3	
Pier Column, Beam and Pile Cap(Reinforced Concrete Structure)	Concrete	$\sigma_{ck}=30N/mm^2$		m ³	-	
		$\sigma_{ck}=24N/mm^2$		m ³	614.4	
	Re-bar	SD345	D 13	kg	281.0	
			D16 ~ D25	kg	38,635.0	
			D29 ~ D32	kg	25,665.0	
			D 35	kg	-	
			D 38	kg	-	
			D 51	kg	-	
			Total	kg	64,581.0	
	SD390	D29 ~ D32	kg	-		
		D 38	kg	-		
	Mechanical splice	SD345	D 35	Point	-	
			D 38	Point	-	
			D 51	Point	-	
Total			Point	-		
SD390	D 38	Point	-			

QUANTITY OF CAST-IN-PLACE PILES AO1-PO3

Structure Component	Work Item	Specification		Division	Unit	Package 1	Remark
						Total of AO1-PO3	
Foundation Pile	Pile Diameter	CIP Pile			m	7.5	
	Pile Number	Number			nos.	22.0	
	Pile Length	Liner Meter			m	229.0	
	Concrete	$\sigma_{ck}=30N/mm^2$			m ³	3,245.6	
	Re-bar	SD345	D 13	kg	490.0		
			D16 ~ D25	kg	115,348.0		
			D29 ~ D32	kg	166,710.0		
			D 35	kg	-		
			D 38	kg	-		
			D 51	kg	-		
			PL	kg	421.0		
Total	kg	282,969.0					
Miscellaneous Steels	Steel Pipe (STK400), Plate (SS400)			kg	17,705.0		