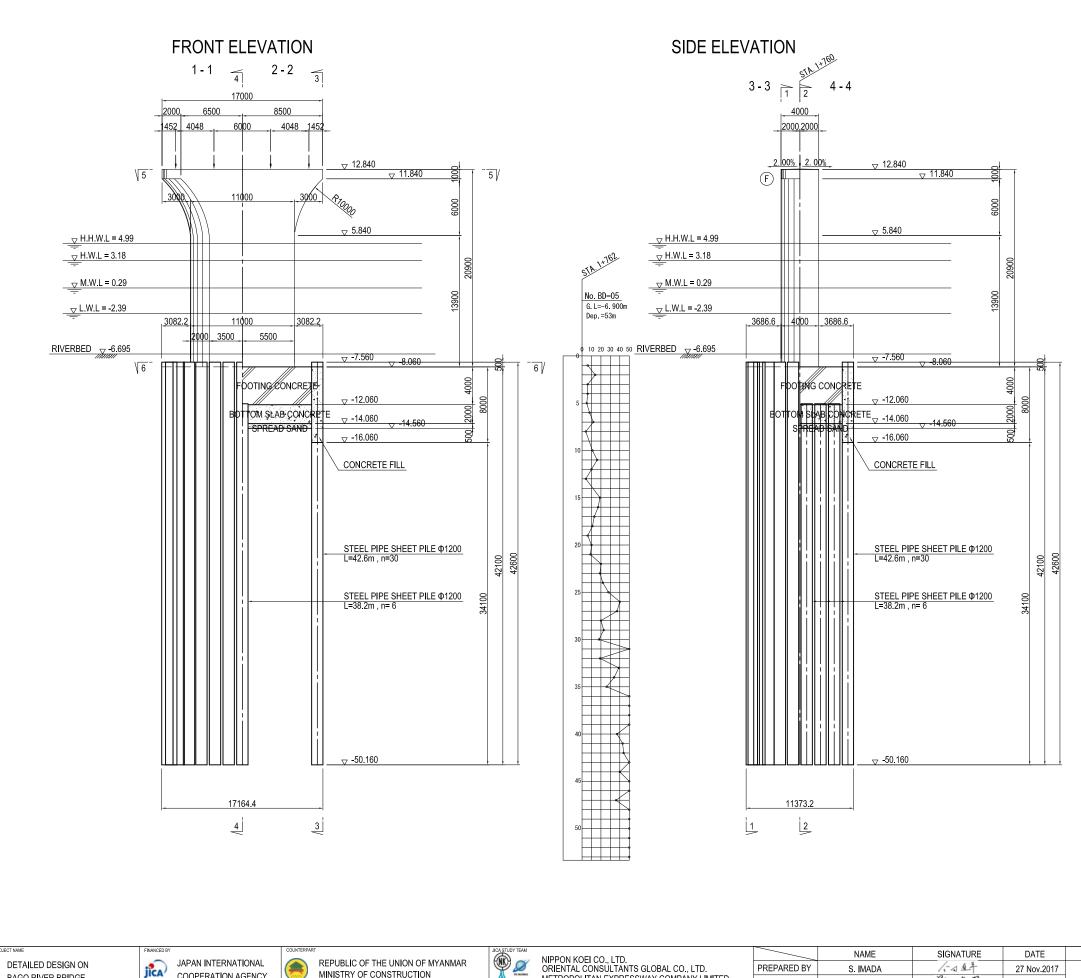
GENERAL VIEW OF P17 PIER (1)

S=1:400



BAGO RIVER BRIDGE CONSTRUCTION PROJECT

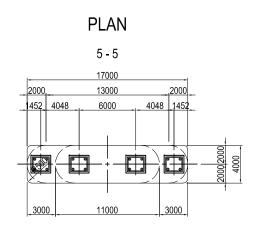


REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE



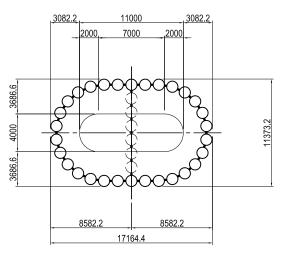
NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	S. IMADA	1-147	27 Nov.2017
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017
APPROVED BY	Y. SANO	牡鸦 肱一,	29 Nov.2017





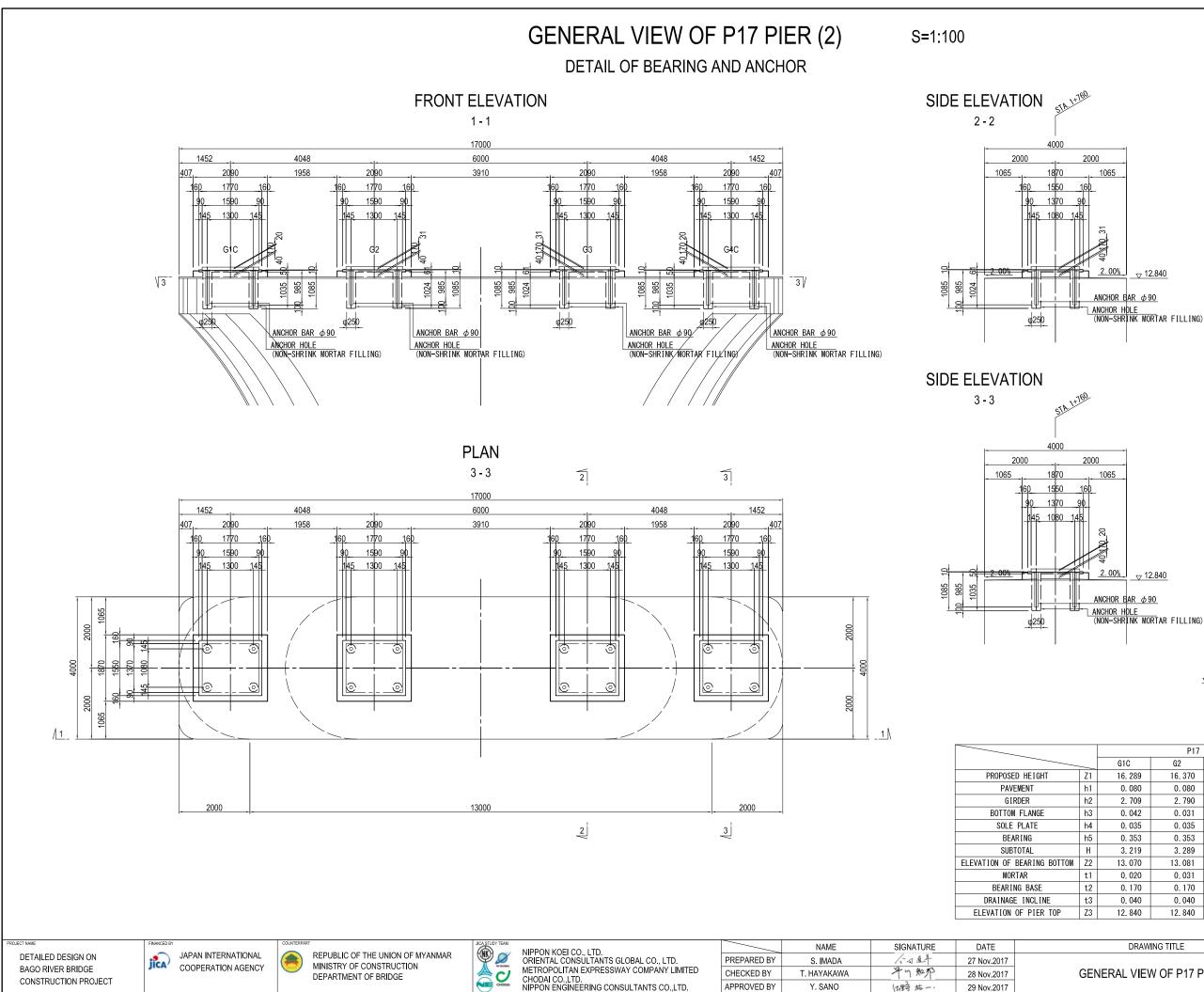




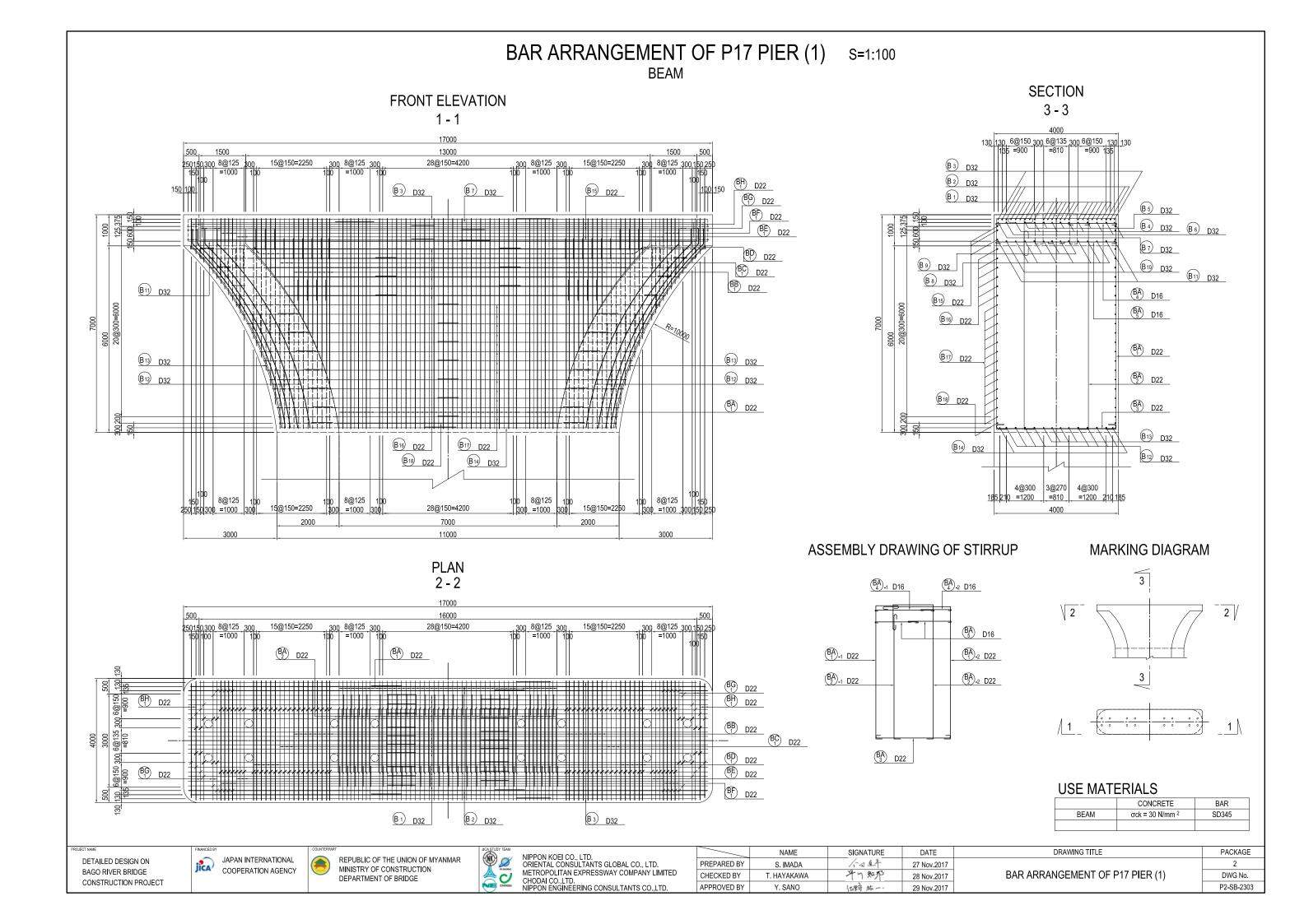
USE MATERIALS

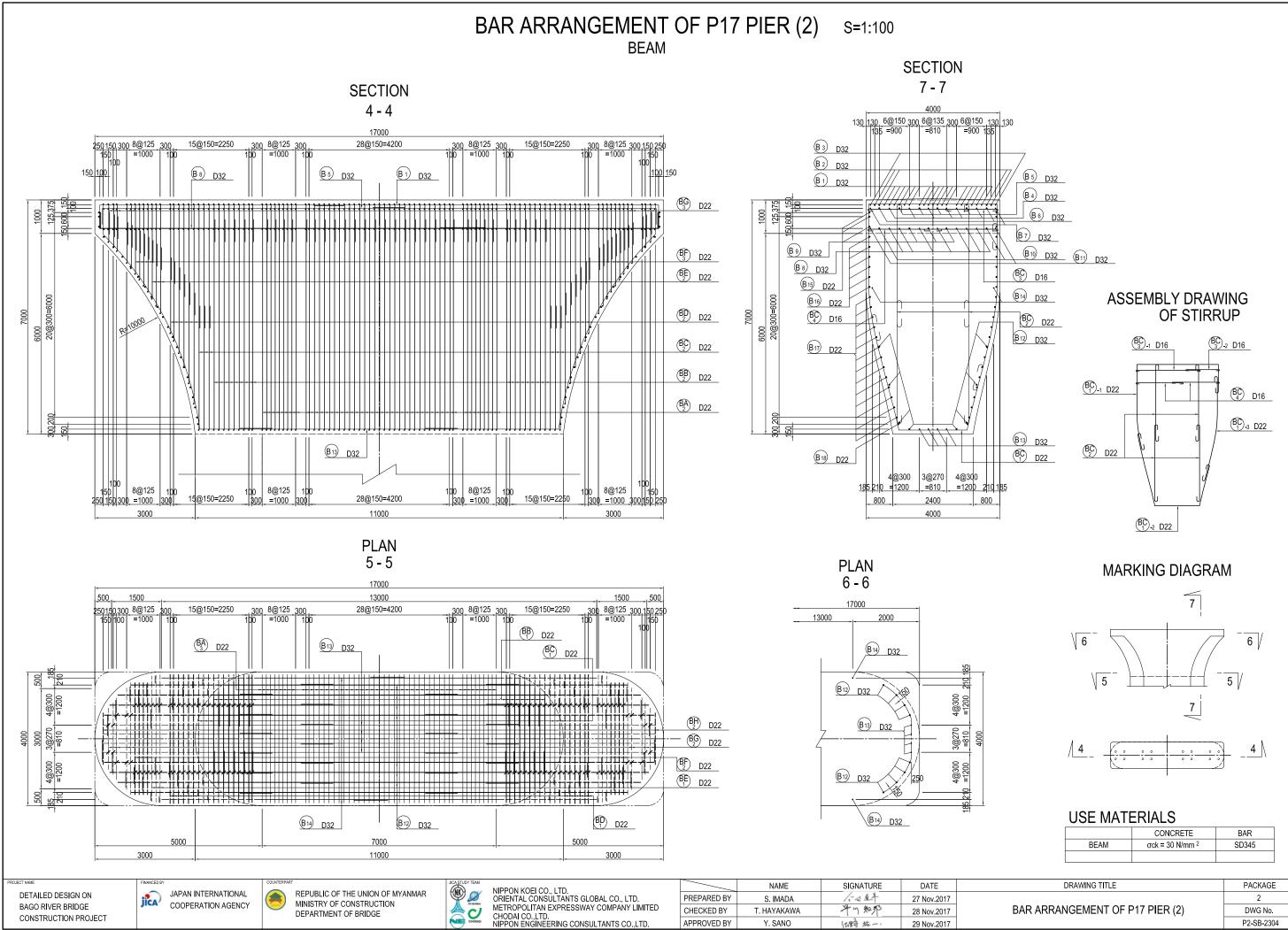
	CONCRETE	BAR
BEAM	σck = 30 N/mm ²	SD345
COLUMN	σck = 30 N/mm ²	SD390 • SD345
FOOTING	σck = 24 N/mm ²	SD345

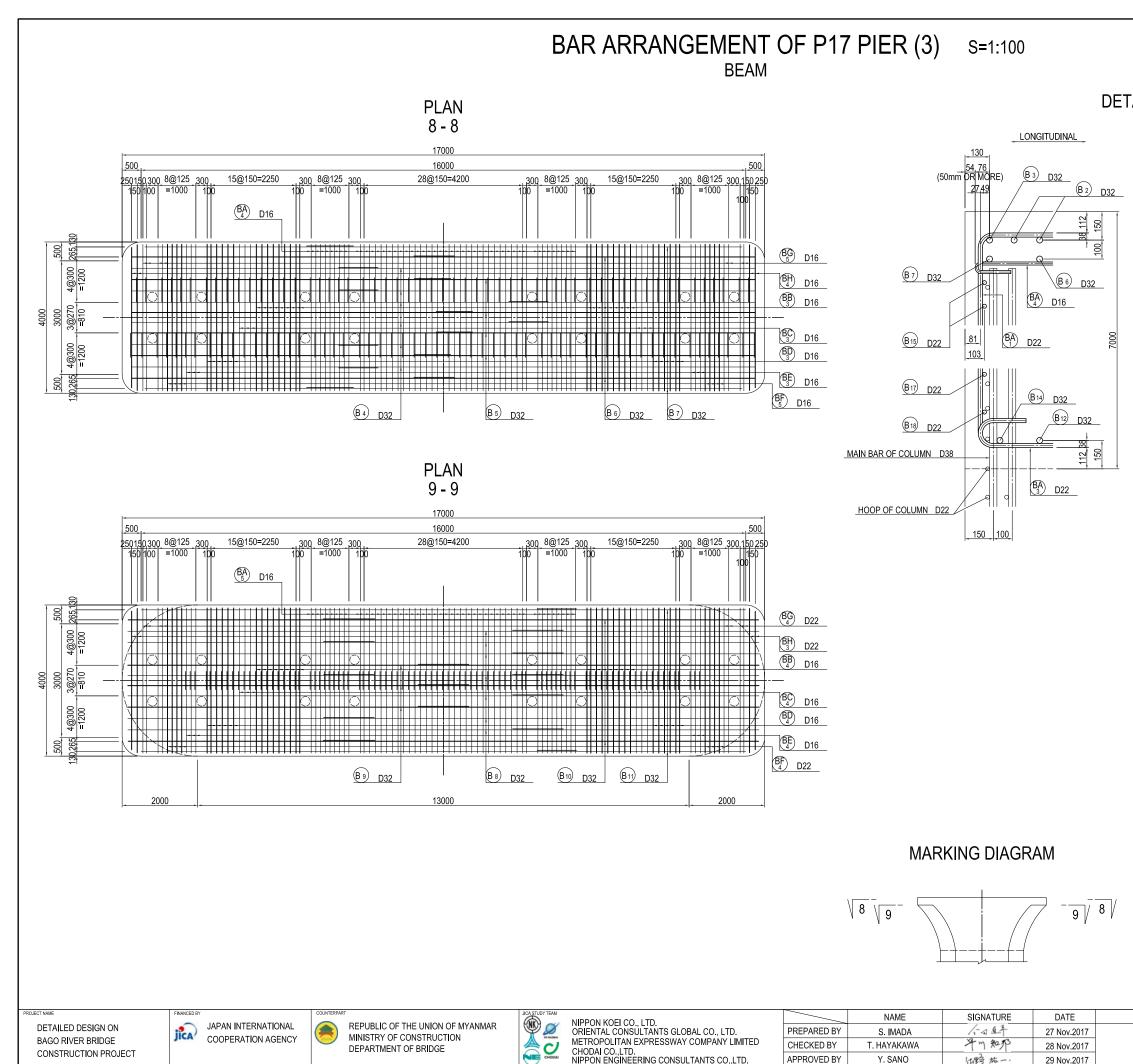
DRAWING TITLE	PACKAGE
	2
GENERAL VIEW OF P17 PIER (1)	DWG No.
	P2-SB-2301



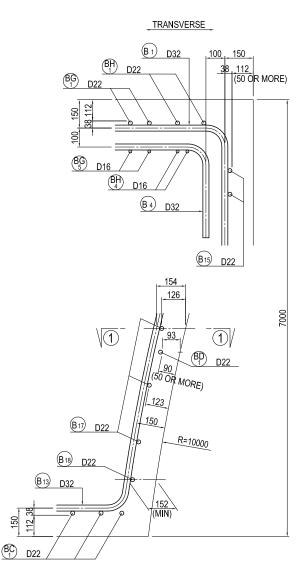
		$\frac{2.00\%}{12}$	00_ RTAR FILLING) -	∑ Z1	2.00%	Handreit H
			P17 P	IER		
	_	G1C	G2	G3	G4C	
	Z1	16. 289	16.370	16.370	16.289)
		0.000	0.080	0. 080	0. 080	
	h1	0.080				
	h1 h2	2. 709	2.790	2.790	2. 709)
			2.790 0.031	2. 790 0. 031	2. 709 0. 042	
	h2	2. 709				!
	h2 h3	2. 709 0. 042	0.031	0. 031	0. 042	
	h2 h3 h4	2. 709 0. 042 0. 035	0.031 0.035	0. 031 0. 035	0. 042 0. 035	
DTTOM	h2 h3 h4 h5	2.709 0.042 0.035 0.353	0.031 0.035 0.353	0. 031 0. 035 0. 353	0. 042 0. 035 0. 353	
DTTOM	h2 h3 h4 h5 H	2.709 0.042 0.035 0.353 3.219	0.031 0.035 0.353 3.289	0. 031 0. 035 0. 353 3. 289	0. 042 0. 035 0. 353 3. 219	
DTTOM	h2 h3 h4 h5 H Z2	2. 709 0. 042 0. 035 0. 353 3. 219 13. 070	0.031 0.035 0.353 3.289 13.081	0. 031 0. 035 0. 353 3. 289 13. 081	0. 042 0. 035 0. 353 3. 219 13. 070	
DTTOM	h2 h3 h4 h5 H Z2 t1	2. 709 0. 042 0. 035 0. 353 3. 219 13. 070 0. 020	0.031 0.035 0.353 3.289 13.081 0.031	0. 031 0. 035 0. 353 3. 289 13. 081 0. 031	0. 042 0. 035 0. 353 3. 219 13. 070 0. 020	
OTTOM	h2 h3 h4 h5 H Z2 t1 t2	2. 709 0. 042 0. 035 0. 353 3. 219 13. 070 0. 020 0. 170	0.031 0.035 0.353 3.289 13.081 0.031 0.170	0. 031 0. 035 0. 353 3. 289 13. 081 0. 031 0. 170	0. 042 0. 035 0. 353 3. 219 13. 070 0. 020 0. 170	

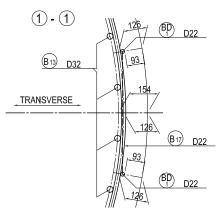






DETAIL OF BEAM S=1:20

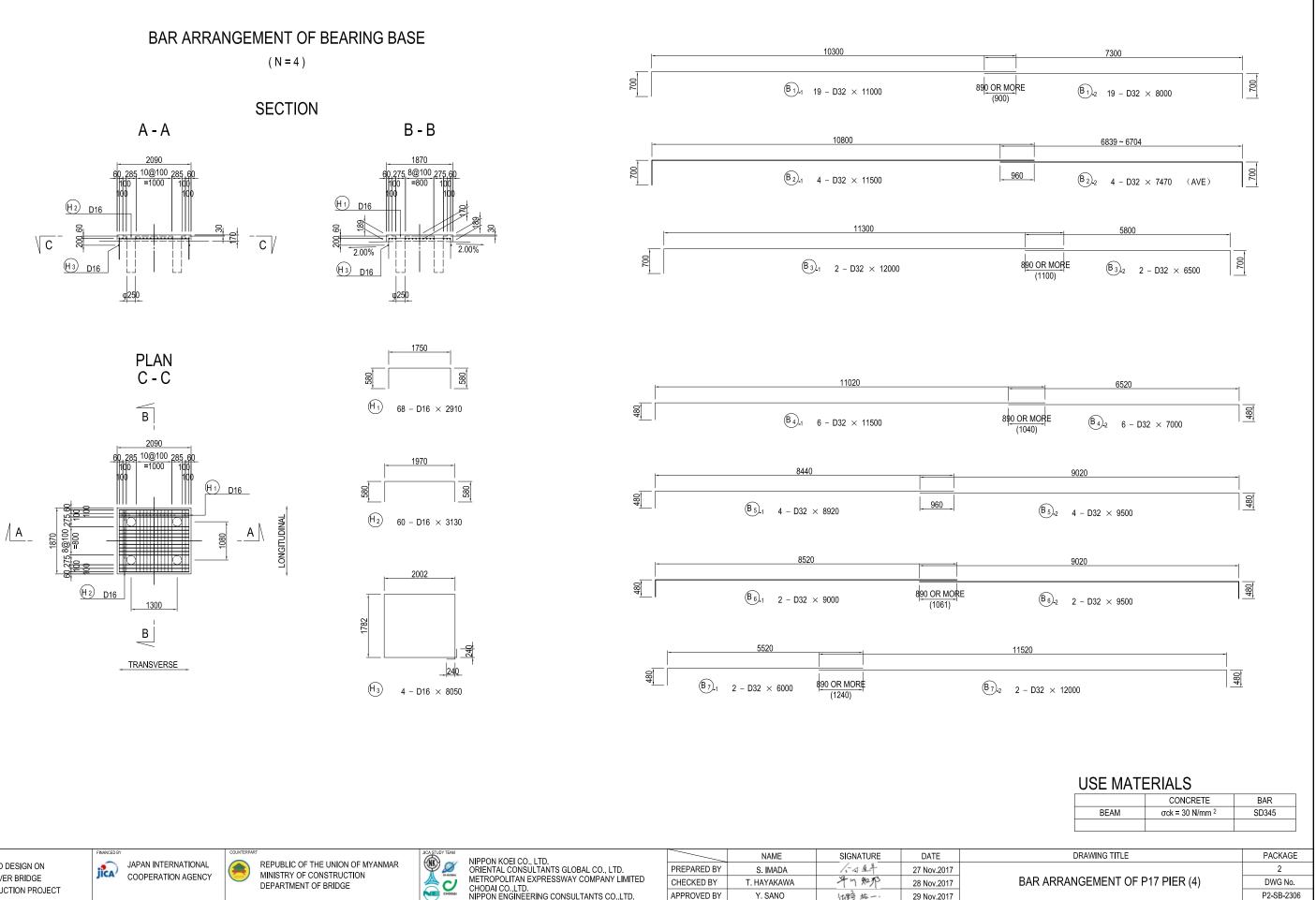




	USE MATI	ERIALS		
		CONCRETE	BAR	
	BEAM	σck = 30 N/mm ²	SD345	
	DRAWING TITLE		PACKAGE	
			2	
BAR ARRAI	NGEMENT OF F	P17 PIER (3)	DWG No.	
				-

P2-SB-2305

BAR ARRANGEMENT OF P17 PIER (4) S=1:100 BEAM



DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT

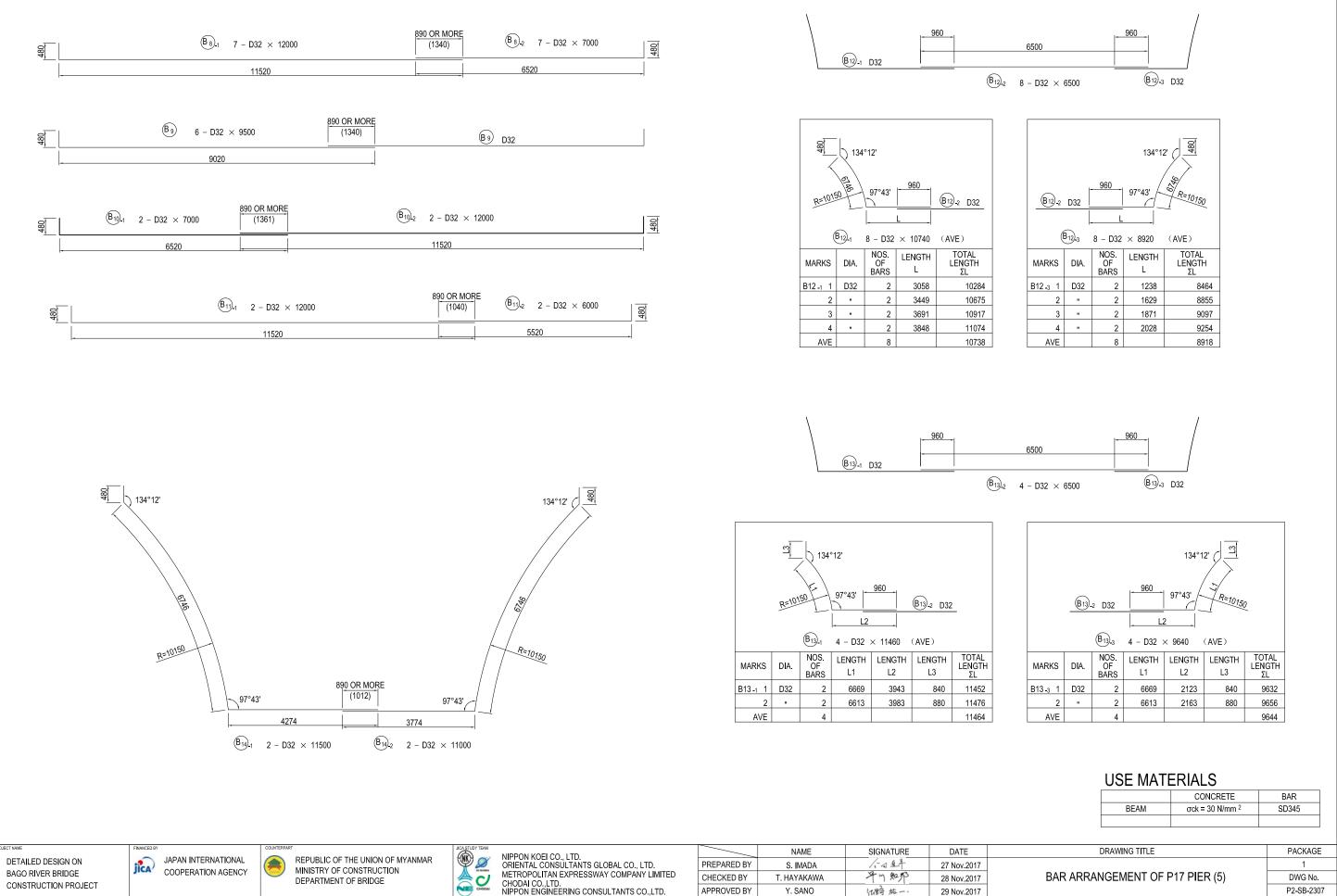




CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.

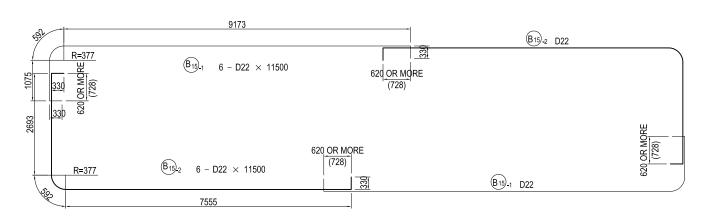
	NAME	SIGNATURE	DATE	
PREPARED BY	S. IMADA	1-147	27 Nov.2017	
CHECKED BY	T. HAYAKAWA	中的知外	28 Nov.2017	
APPROVED BY	Y. SANO	仇野 肱一,	29 Nov.2017	

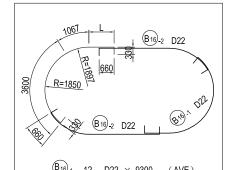
BAR ARRANGEMENT OF P17 PIER (5) S=1:100 BEAM



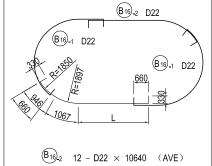
DRAWING TITLE	PACKAGE
	1
BAR ARRANGEMENT OF P17 PIER (5)	DWG No.
	P2-SB-2307

BAR ARRANGEMENT OF P17 PIER (6) S=1:100 BEAM





		019-1	12 – D22	\times 9300	(AVE)
MARKS	6	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
B16-1	1	D22	2	4612	9939
	2	"	2	4328	9655
	3	"	2	4065	9392
	4		2	3823	9150
:	5	"	2	3598	8925
	6	"	2	3391	8718
AVI	=		12		9297



MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
B16_2 1	D22	2	8612	11285
2	"	2	8328	11001
3	"	2	8065	10738
4	"	2	7823	10496
5	"	2	7598	10271
6	"	2	7391	10064
AVE		12		10643

The second secon		D22	(B17)-2 × 10400	D22
		NOS.	LENGTH	TOTAL
MARKS	DIA.	OF BARS	L	LENGTH ΣL
B17 ₋₁ 1	D22	1	9737	11997
2	"	1	9381	11641
3	"	1	9052	11312
4		1	8749	11009

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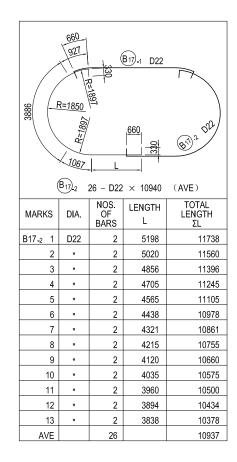
.

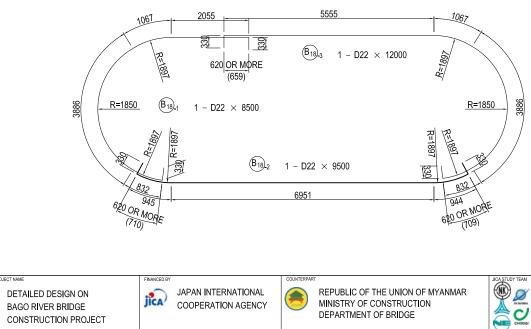
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"

"

AVE







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	S. IMADA	1-147	27 Nov.2017
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017
APPROVED BY	Y. SANO	牡鸦 肱一,	29 Nov.2017

DRAWING TITLE	PACKAGE
	2
BAR ARRANGEMENT OF P17 PIER (6)	DWG No.
	P2-SB-2308

CONCRETE

σck = 30 N/mm 2

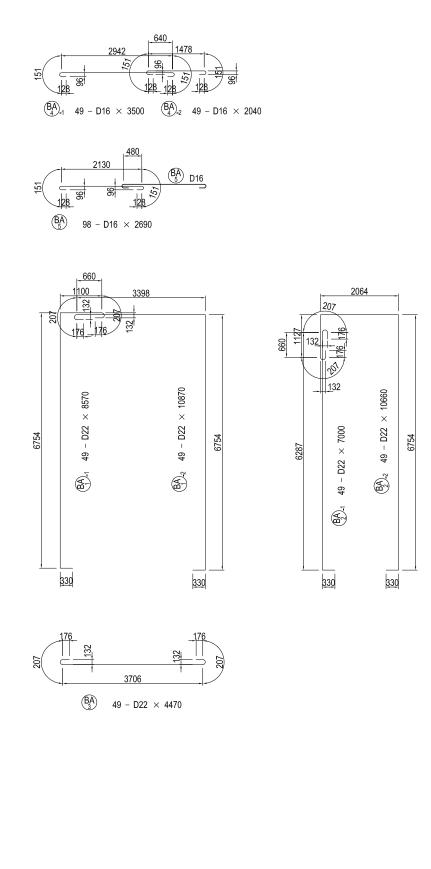
BAR

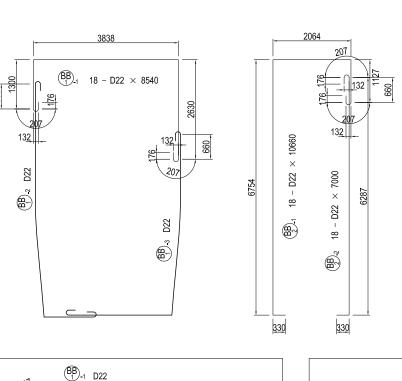
SD345

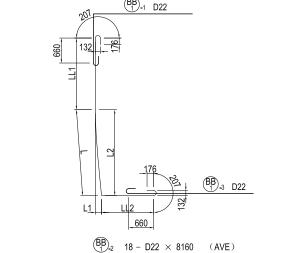
USE MATERIALS

BEAM

BAR ARRANGEMENT OF P17 PIER (7) S=1:100 BEAM







	$(1)_{2}^{\text{DD}} = 18 - D22 \times 8160 \text{ (AVE)}$							
MARKS	DIA.	NOS. OF BARS	LENGTH L	LENGTH L1	LENGTH L2	LENGTH LL1	LENGTH LL2	TOTAL LENGTH ΣL
BB1_2 1	D22	2	1464	33	1464	4650	1511	8391
2		2	1892	54	1891	4223	1490	8371
3	"	2	2282	97	2280	3834	1447	8329
4	"	2	2606	155	2601	3513	1389	8274
5	"	2	3029	227	3020	3094	1317	8206
6	"	2	3241	315	3225	2889	1229	8125
7	"	2	3607	416	3580	2534	1128	8035
8	"	2	3827	541	3785	2329	1003	7925
9	"	2	4115	698	4051	2063	846	7790
AVE		18						8161

₿₿_2 D22

			E
MARKS	DIA.	NOS. OF BARS	LEI
BB1.3 1	D22	2	
2	"	2	
3		2	
4	"	2	
5	"	2	
6		2	
7		2	
8		2	
9	"	2	
AVE		18	

DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT

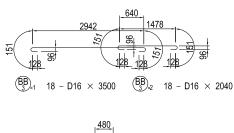


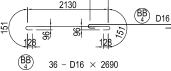
REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE

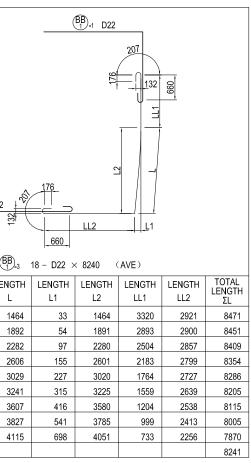


NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	ĺ
PREPARED BY	S. IMADA	1-247	27 Nov.2017	ſ
CHECKED BY	T. HAYAKAWA	中们知知	28 Nov.2017	
APPROVED BY	Y. SANO	批野 肱一,	29 Nov.2017	



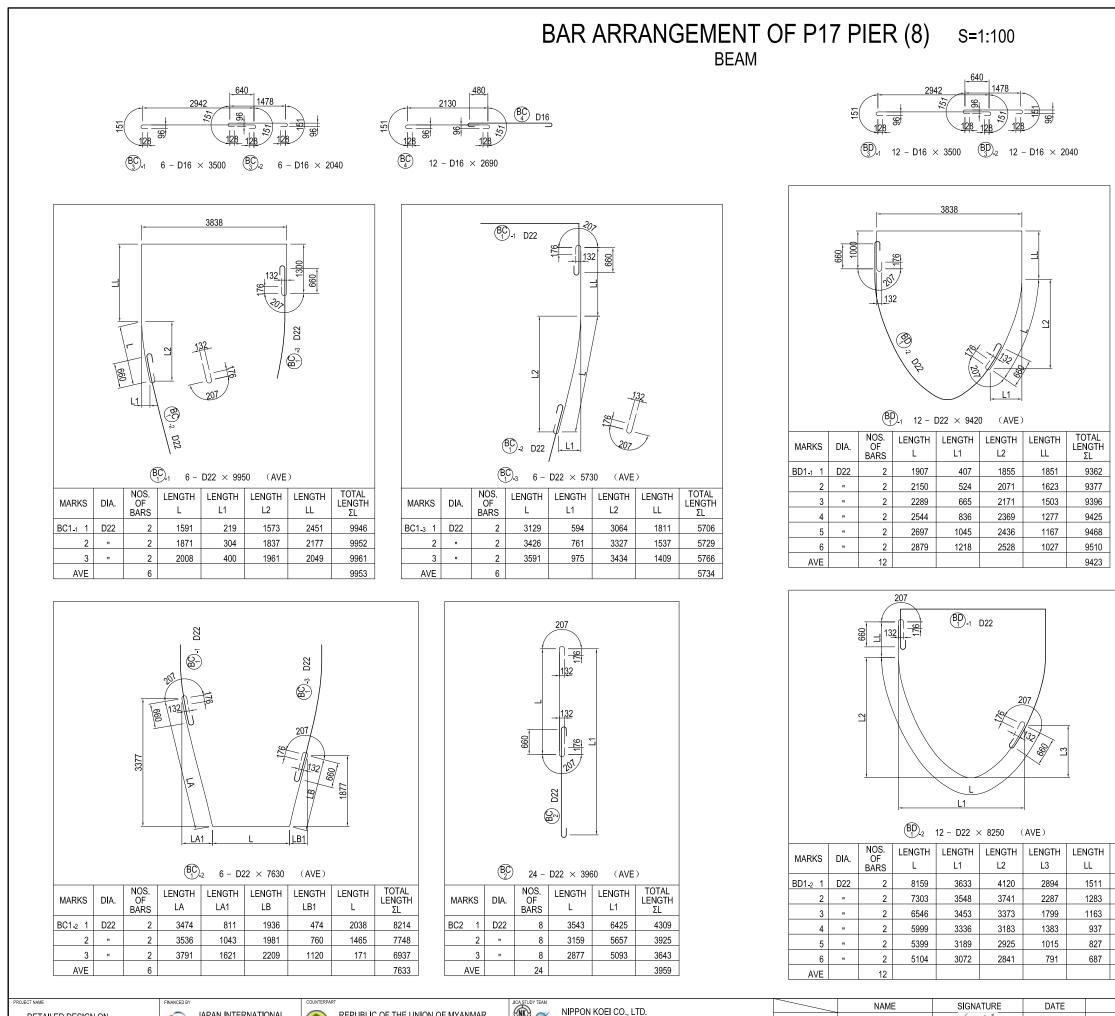




USE MATERIALS

	CONCRETE	BAR
BEAM	σck = 30 N/mm ²	SD345

DRAWING TITLE	PACKAGE
	2
BAR ARRANGEMENT OF P17 PIER (7)	DWG No.
	P2-SB-2309

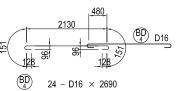


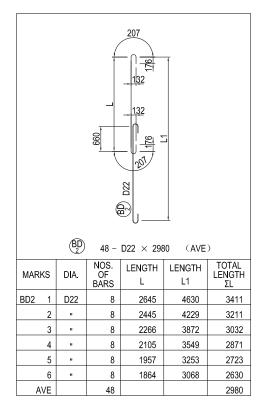
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE

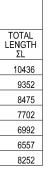


NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	
PREPARED BY	S. IMADA	1-1 1	27 Nov.2017	
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017	
APPROVED BY	Y. SANO	休野 施一,	29 Nov.2017	



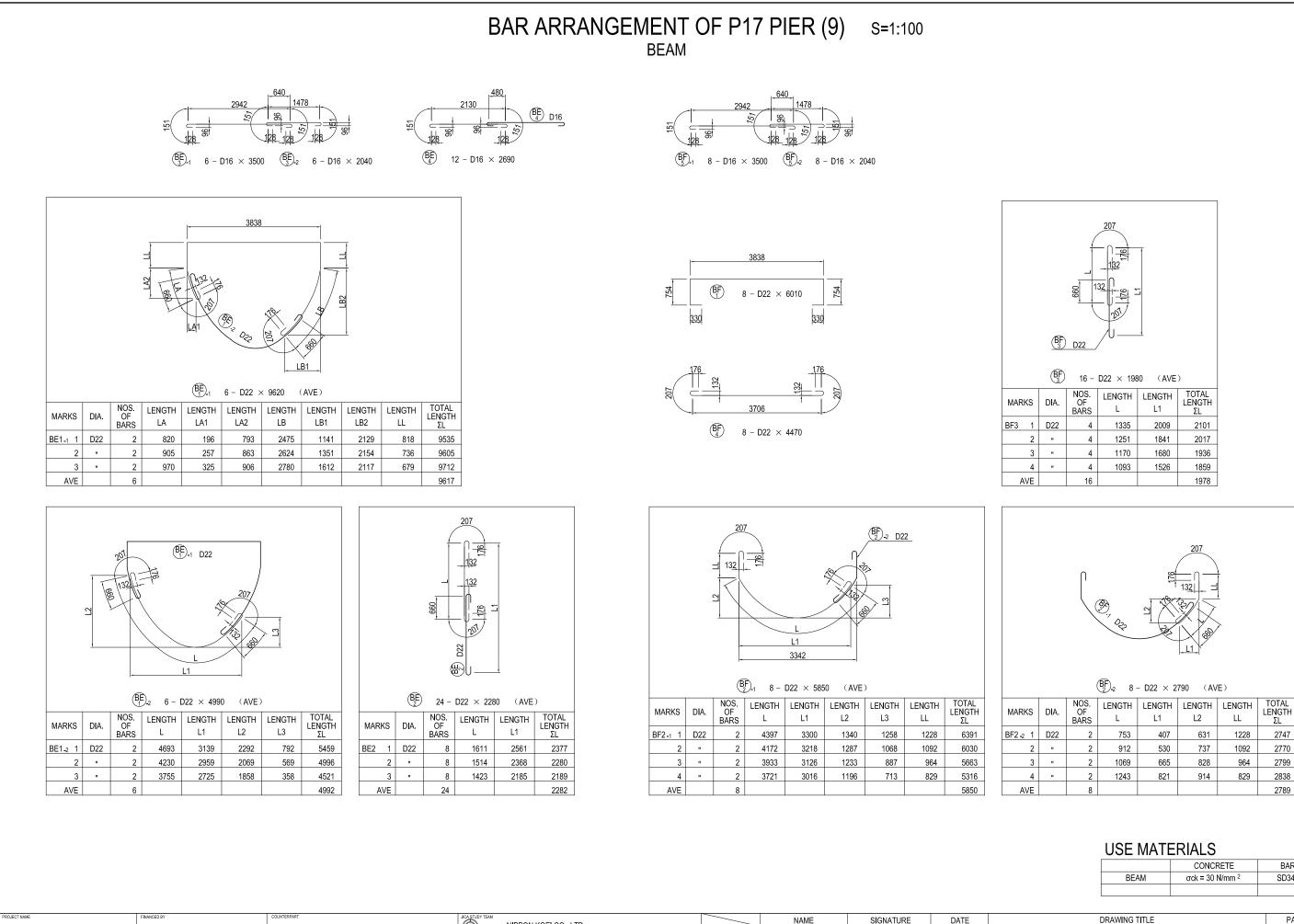




US	SE I	MA	TEF	RIA	LS
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		CONCRETE	BAR
	BEAM	σck = 30 N/mm ²	SD345
[

DRAWING TITLE	PACKAGE
	2
BAR ARRANGEMENT OF P17 PIER (8)	DWG No.
	P2-SB-2310





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



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

	NAME	SIGNATURE	DATE
PREPARED BY	S. IMADA	1-247	27 Nov.2017
CHECKED BY	T. HAYAKAWA	中们知知	28 Nov.2017
APPROVED BY	Y. SANO	批野 肱一,	29 Nov.2017

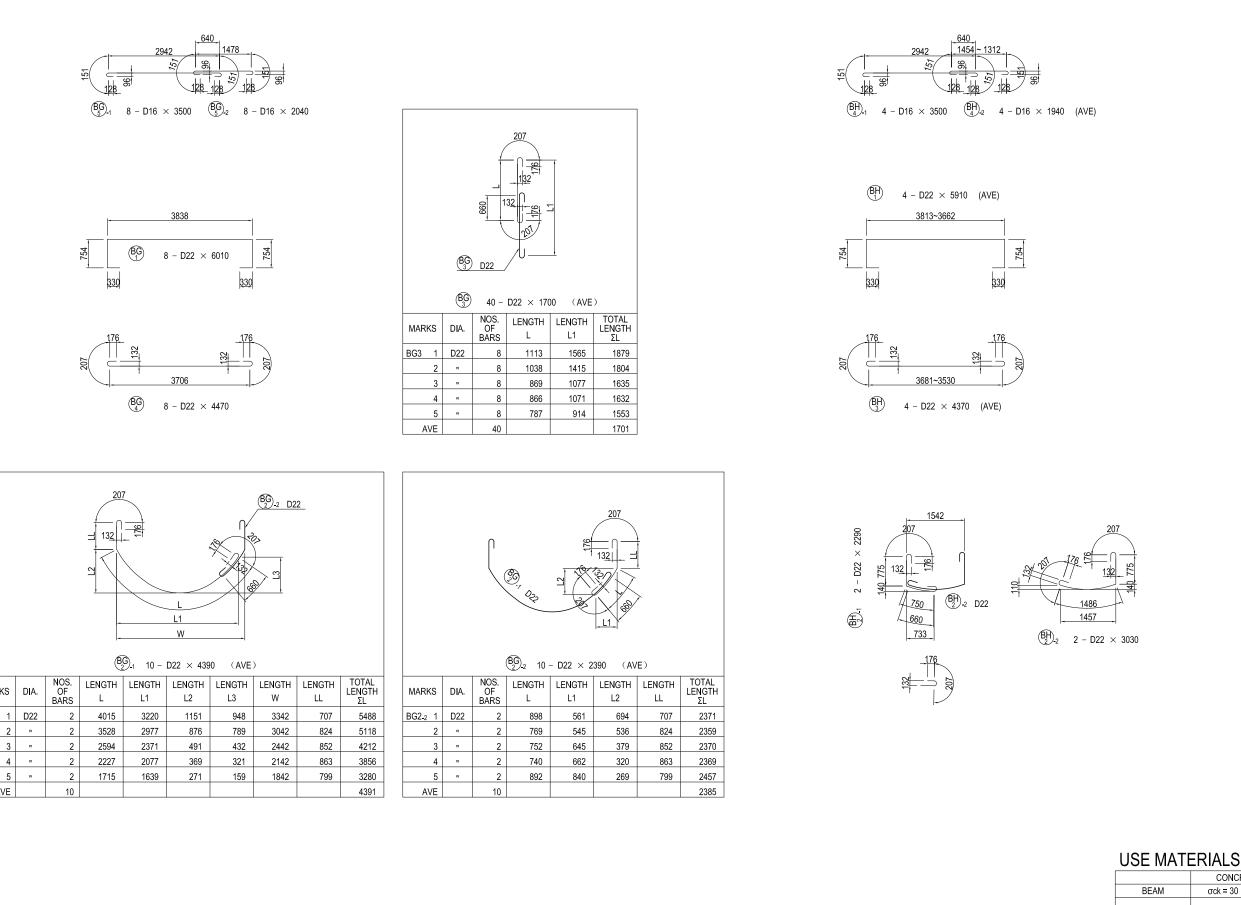
DIA.	OF BARS	L	L1	L2	LL	LENGTH ΣL
D22	2	753	407	631	1228	2747
	2	912	530	737	1092	2770
"	2	1069	665	828	964	2799
"	2	1243	821	914	829	2838
	8					2789
	D22 "	BARS D22 2	BARS L D22 2 753 " 2 912 " 2 1069 " 2 1243	BARS L L1 D22 2 753 407 " 2 912 530 " 2 1069 665 " 2 1243 821	BARS L L1 L2 D22 2 753 407 631 " 2 912 530 737 " 2 1069 665 828 " 2 1243 821 914	BARS L L1 L2 LL D22 2 753 407 631 1228 " 2 912 530 737 1092 " 2 1069 665 828 964 " 2 1243 821 914 829

USE	MATERIAL	.S
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	CONCRETE	BAR	
BEAM	σck = 30 N/mm ²	SD345	

DRAWING TITLE	PACKAGE
	2
BAR ARRANGEMENT OF P17 PIER (9)	DWG No.
	P2-SB-2311

BAR ARRANGEMENT OF P17 PIER (10) S=1:100 BEAM



DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT

MARKS

BG2_1 1

2

AVE

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



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

	NAME	SIGNATURE	DATE	
PREPARED BY	S. IMADA	1-147	27 Nov.2017	
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017	
APPROVED BY	Y. SANO	批野 肱一,	29 Nov.2017	

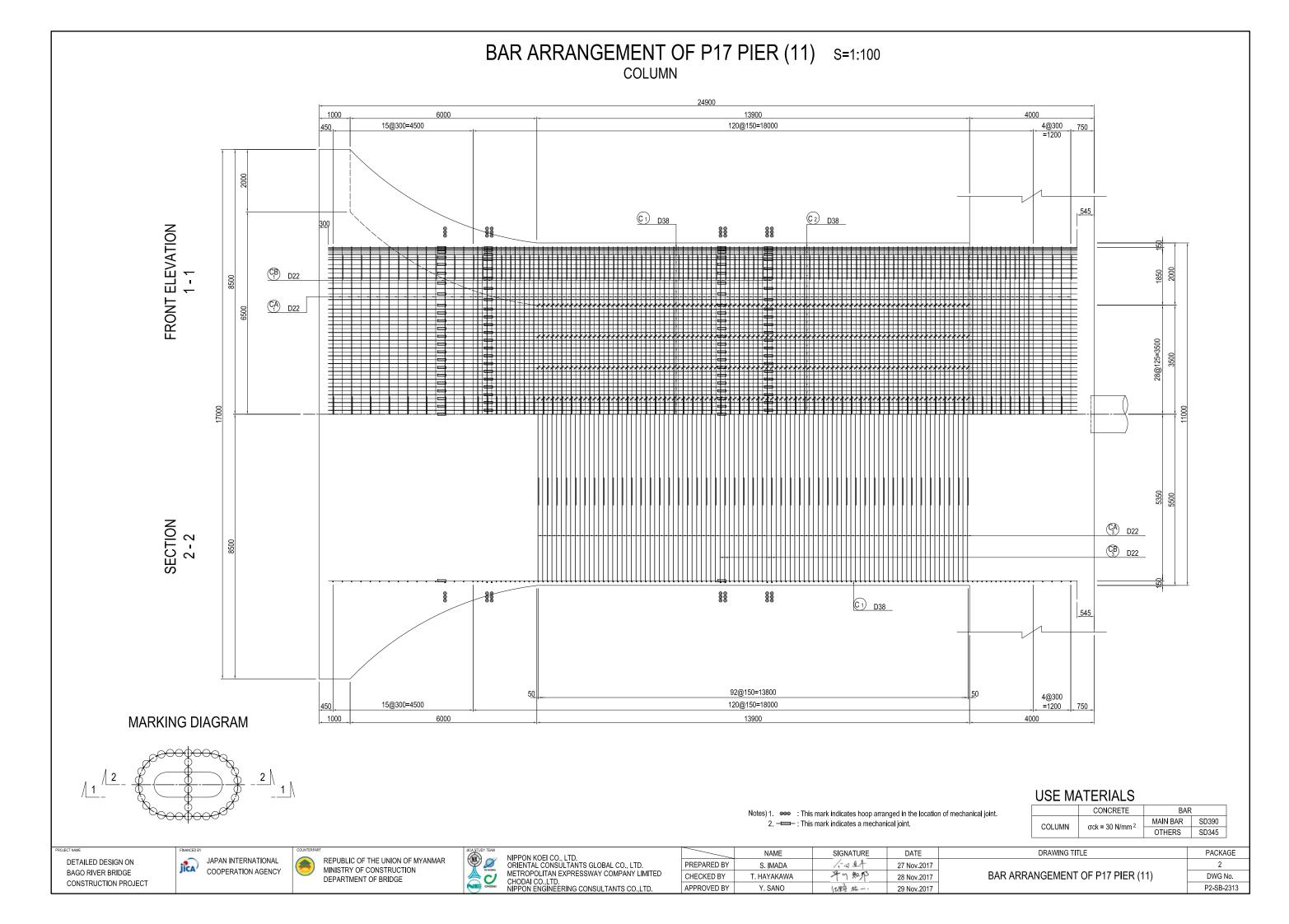
DRAWING TITLE	PACKAGE
	2
BAR ARRANGEMENT OF P17 PIER (10)	DWG No.
	P2-SB-2312

CONCRETE

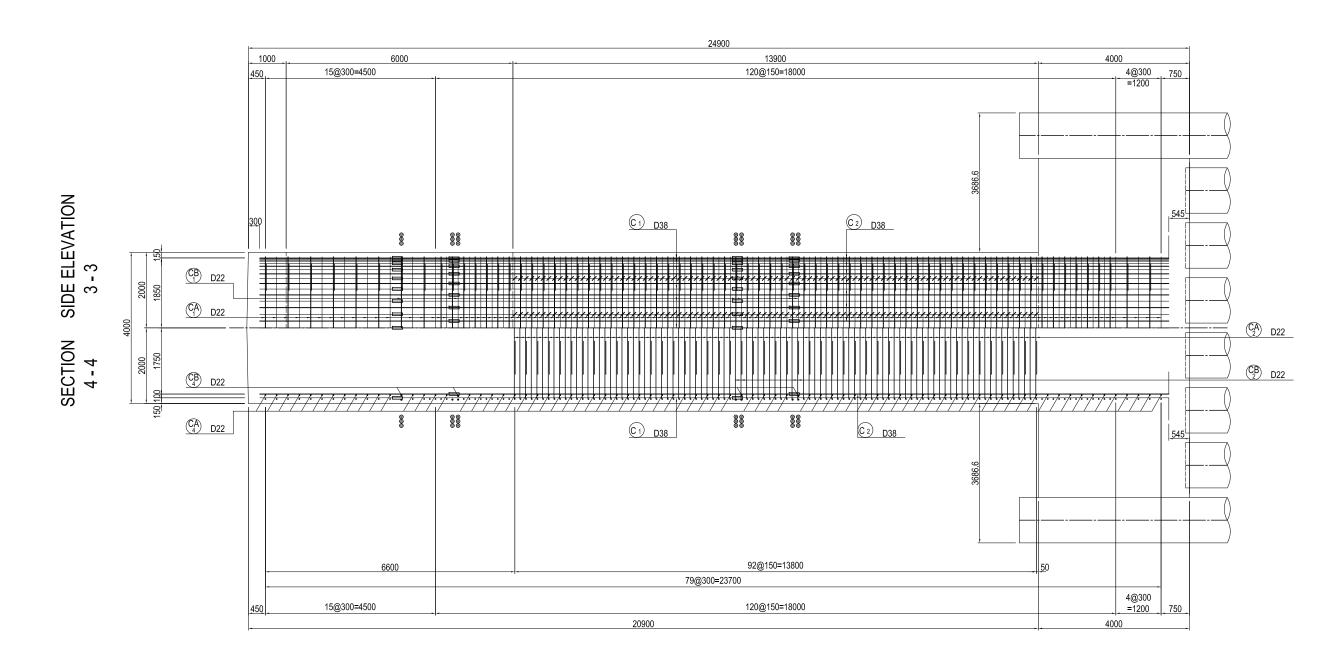
σck = 30 N/mm 2

BAR

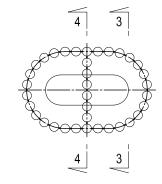
SD345



BAR ARRANGEMENT OF P17 PIER (12) S=1:100 COLUMN



MARKING DIAGRAM



DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT



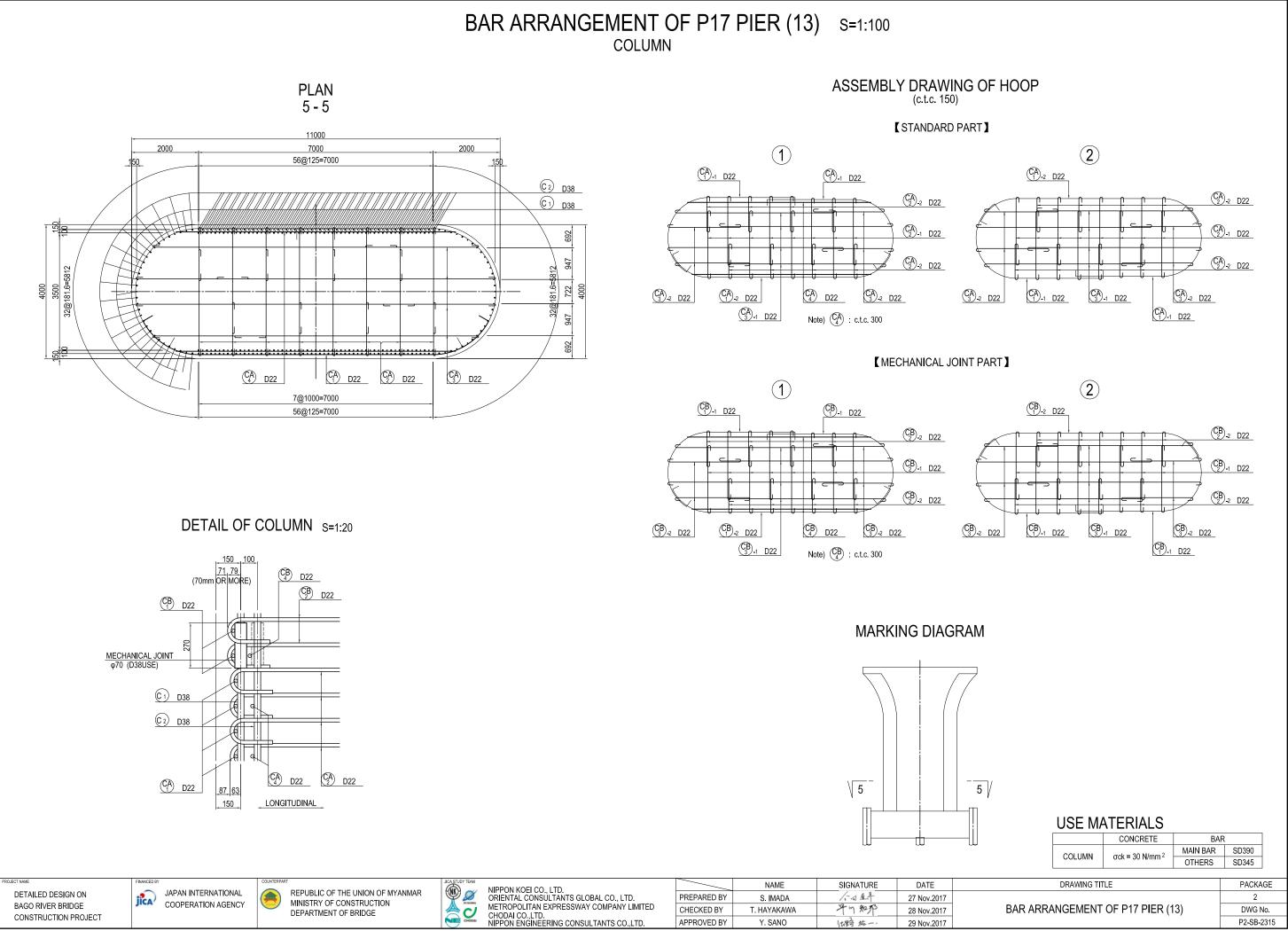


NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

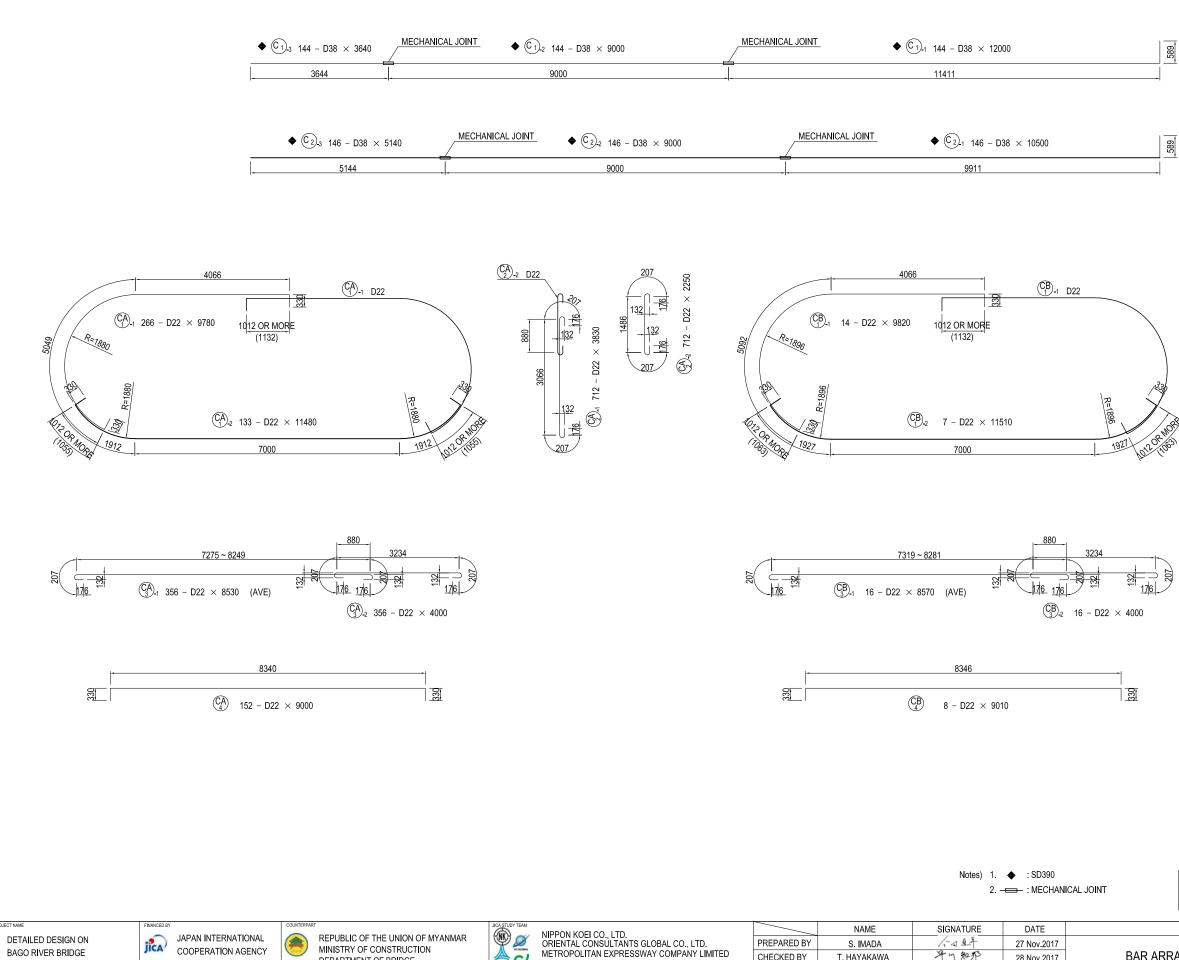
	NAME	SIGNATURE	DATE	
PREPARED BY	S. IMADA	1-147	27 Nov.2017	
CHECKED BY	T. HAYAKAWA	中的知外	28 Nov.2017	
APPROVED BY	Y. SANO	比野 施一,	29 Nov.2017	

Notes) 1. end : This mark indicates hoop arranged in the location of mechanical joint. 2. -==- : This mark indicates a mechanical joint.

USE MATERIALS								
	CONCRETE BAF							
	COLUMN	$\sigma ck = 30 \text{ N/mm}^2$	MAIN BAR	SD390				
	COLOMIN	OCK - 50 N/mm-	OTHERS	SD345				
	DRAWING TH	ΊΕ		PACKAGE				
				2				
BAR ARRA	DF P17 PIER (12) DWG No.							
P2-SB-23								



BAR ARRANGEMENT OF P17 PIER (14) S=1:100 COLUMN



BAGO RIVER BRIDGE CONSTRUCTION PROJECT COOPERATION AGENCY

DEPARTMENT OF BRIDGE



CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	S. IMADA	1-147	27 Nov.2017
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017
APPROVED BY	Y. SANO	牡鸦 肱一,	29 Nov.2017

		USE MA	ATERIALS			
			CONCRETE	BAF	२	
NT		COLUMN	$\sigma ck = 30 \text{ N/mm}^2$	MAIN BAR	SD390	
			00K – 30 N/MM 2	OTHERS	SD345]
		DRAWING TH	ΊLE		PACKAGE	
					2	
	BAR ARRA	ANGEMENT	OF P17 PIER (1	4)	DWG N	No.
			P2-SB-2316			



R R 40φ

R

39

48

57

66

75

87

96

DIA.

D13

D16

D19

D22 D25

D29

D32

LAP LENGTH (40φ)

520

640

760

880

1000

1160

1280

L

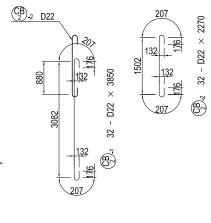
598 736

874 1012

1150

1334

1472



BAR ARRANGEMENT OF P17 PIER (15) NOT TO SCALE

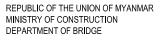
BAR SCHEDULE (SD390)

BAR SCHEDULE (SD345)

MARKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	REMARI
B 1-1	D32	11000	19	6.23	68.53	1302	-
1-2	"	8000	19	н	49.84	947	_
2-1	"	11500	4	н	71.65	287	<u> </u>
2-2	"	7470	4	"	46.54	186	- _{(A})
3-1	"	12000	2		74.76	150	-
3-2		6500	2	н	40.50	81	_
4-1	"	11500	6	"	71.65	430	-
4-2	"	7000	6	"	43.61	262	_
5-1		8920	4	"	55.57	222	<i>_</i>
5-2		9500	4		59.19	237	_
6-1		9000	2		56.07	112	-
6-2	"	9500	2	"	59.19	118	_
7-1		6000	2	"	37.38	75	-
7-2		12000	2		74.76	150	_
		12000	7		74.76	523	
8-1		7000	7		43.61	305	
8-2		9500					
9	"		6	"	59.19	355	
10 - 1	"	7000	2	"	43.61	87	
10-2	"	12000	2	"	74.76	150	
11-1	"	12000	2	"	74.76	150	<u> </u>
11-2	"	6000	2	"	37.38	75	
12 - 1	"	10740	8	"	66.91	535	(A)
12-2	"	6500	8	"	40.50	324	—
12-3	"	8920	8	"	55.57	445	(A'
13-1	"	11460	4	"	71.40	286	(A)
13-2	"	6500	4	"	40.50	162	-
13-3	"	9640	4	"	60.06	240	(A'
14-1	"	11500	2	"	71.65	143	\leq
14-2	"	11000	2	"	68.53	137	1
15-1	D22	11500	6	3.04	34.96	210	ſ
15-2	"	11500	6	н	34.96	210	Ĺ
16-1	"	9300	12	"	28.27	339	(A)
16-2	"	10640	12	"	32.35	388	(A)
17-1		10400	13		31.62	411	(A)
17-2		10940	26	н	33.26	865	(A'
18-1		8500	1		25.84	26	<i>с</i>
18-2	"	9500	1		28.88	29	<u>ب</u>
18-3		12000	1	"	36.48	36	5
				1	SUBTOTAL	10990	kg
BA 1-1	D22	8570	49	3.04	26.05	1276	ſ
1-2	"	10870	49	"	33.04	1619	ر ا
2-1		7000	49		21.28	1013	ſ
		10660	49		32.41	1588	г. Г
2-2	"		49	"			
3		4470			13.59	666	
4-1	D16	3500	49	1.56	5.46	268	
4-2	"	2040	49	"	3.18	156	
5	"	2690	98	"	4.20	412	"
					SUBTOTAL	7028	kg

MAF	₹KS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	REMARKS
С	1-1	D38	12000	144	8.95	107.40	15466	• (144)
	1-2		9000	144	"	80.55	11599	•— ⁽¹⁴⁴⁾
	1-3		3640	144	"	32.58	4692	—
	2-1		10500	146	"	93.98	13721	• (146)
	2-2	"	9000	146		80.55	11760	► ⁽¹⁴⁶⁾
	2-3		5140	146	"	46.00	6716	—
						SUBTOTAL	63954	kg
							/IECHANICAL	. JOINT)
		SI	D390	D38	6	3954 ^{kg}	(580)	
				TOTAL	6	3954 ^{kg}	(580)	

REMARKS	MAF	RKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	RE	MARKS	MA	RKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	REM	IARKS
-	BB	1-1	D22	8540	18	3.04	25.96	467	5		вн	1	D22	5910	4	3.04	17.97	72		(AVE)
_		1-2	"	8160	18	"	24.81	447	L	(AVE)	-	2-1	"	2290	2	"	6.96	14	C,	(//////////////////////////////////////
-		1-3	"	8240	18		25.05	451	J	(AVE)		2.2		3030	2		9.21	18	J	
(AVE)		2-1	"	10660	18		32.41	583		()		3		4370	4		13.28	53	_	(AVE)
(···-)		2-2	"	7000	18		21.28	383	j			4-1	D16	3500	4	1.56	5.46	22	0	(=)
-		3-1	D16	3500	18	1.56	5.46	98	C			4-2		1940	4		3.03	12	"	(AVE)
-		3-2	"	2040	18		3.18	57									SUBTOTAL		kg	. ,
_		4	"	2690	36		4.20	151												
-							SUBTOTAL	2637	kg		н	1	D16	2910	68	1.56	4.54	309		
-												2		3130	60		4.88	293	"	
-	BC	1-1	D22	9950	6	3.04	30.25	182	ſ	(AVE)		3		8050	4		12.56	50	D,	
_		1-2	"	7630	6		23.20	139	Ú	(AVE)							SUBTOTAL	652	kg	
-		1-3	"	5730	6		17.42	105)	(AVE)										
-		2	"	3960	24		12.04	289	C	(AVE)	CA	1-1	D22	9780	266	3.04	29.73	7908	С	
L		3-1	D16	3500	6	1.56	5.46	33	-			1-2	=	11480	133		34.90	4642	J	
		3-2	"	2040	6		3.18	19	"			2-1		3830	712		11.64	8288	C	
<u>ــ</u>		4	"	2690	12		4.20	50	"			2-2		2250	712		6.84	4870	"	
"						•	SUBTOTAL	817	kg			3-1	=	8530	356		25.93	9231	C	(AVE)
												3-2	=	4000	356		12.16	4329	"	
<u> </u>	BD	1-1	D22	9420	12	3.04	28.64	344	5	(AVE)		4		9000	152		27.36	4159		
		1-2	"	8250	12		25.08	301	6	(AVE)							SUBTOTAL	43427	kg	
(AVE)		2	"	2980	48		9.06	435	C	(AVE)										
_		3-1	D16	3500	12	1.56	5.46	66	C		СВ	1-1	D22	9820	14	3.04	29.85	418	С	
(AVE)		3-2	"	2040	12		3.18	38	"			1-2	"	11510	7	"	34.99	245	J	
(AVE)		4	"	2690	24		4.20	101				2-1		3850	32	"	11.70	374	C	
-							SUBTOTAL	1285	kg			2-2		2270	32	н	6.90	221	"	
(AVE)												3-1	=	8570	16		26.05	417	-	(AVE
\mathbf{L}	BE	1-1	D22	9620	6	3.04	29.24	175	5	(AVE)		3-2		4000	16		12.16	195		
		1-2	"	4990	6		15.17	91	6	(AVE)		4		9010	8		27.39	219	-	
C		2	"	2280	24		6.93	166	C	(AVE)							SUBTOTAL	2089	kg	
L		3-1	D16	3500	6	1.56	5.46	33	J											
(AVE)		3-2	"	2040	6		3.18	19	"											
(AVE)		4	"	2690	12		4.20	50	"				SI	D345	D32		8476 ^{kg}			
(AVE)							SUBTOTAL	534	kg						D22	6	60167 -			
(AVE)															D16		2375 "			
C	BF	1	D22	6010	8	3.04	18.27	146												
ں ا		2-1		5850	8	"	17.78	142	C	(AVE)					TOTAL	7	71018 ^{kg}			
C		2-2		2790	8	u	8.48	68	J	(AVE)										
kg		3		1980	16	u	6.02	96	C	(AVE)										
		4	"	4470	8		13.59	109	-											
ſ		5-1	D16	3500	8	1.56	5.46	44	-											
7		5-2	"	2040	8		3.18	25	"											
1							SUBTOTAL	630	kg											
<u>ר</u>																				
	BG	1	D22	6010	8	3.04	18.27	146												
-		2 - 1	"	4390	10		13.35	134	C	(AVE)										
"		2 - 2	"	2390	10		7.27	73)	(AVE)										
u		3	"	1700	40		5.17	207	C	(AVE)										
kg		4	"	4470	8		13.59	109	-											
		5-1	D16	3500	8	1.56	5.46	44	-											
		5-2	"	2040	8		3.18	25	"											
							SUBTOTAL	738	kg						-					
														11	SE M	ATER	S IAP			



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	S. IMADA	1-147	27 Nov.2017
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017
APPROVED BY	Y. SANO	批野 肱一,	29 Nov.2017



CONSTRUCTION PROJECT

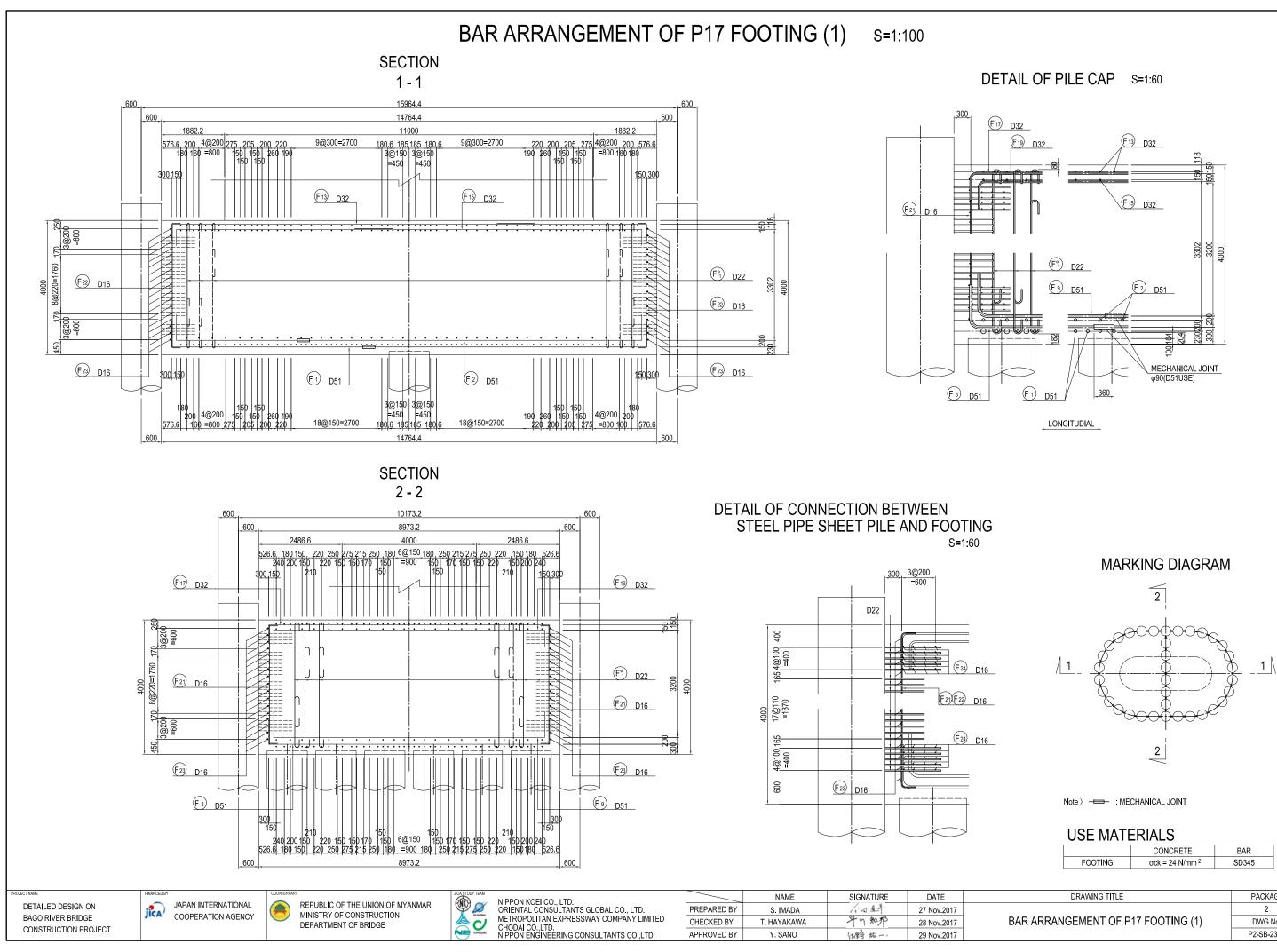
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JAPAN INTERNATIONAL

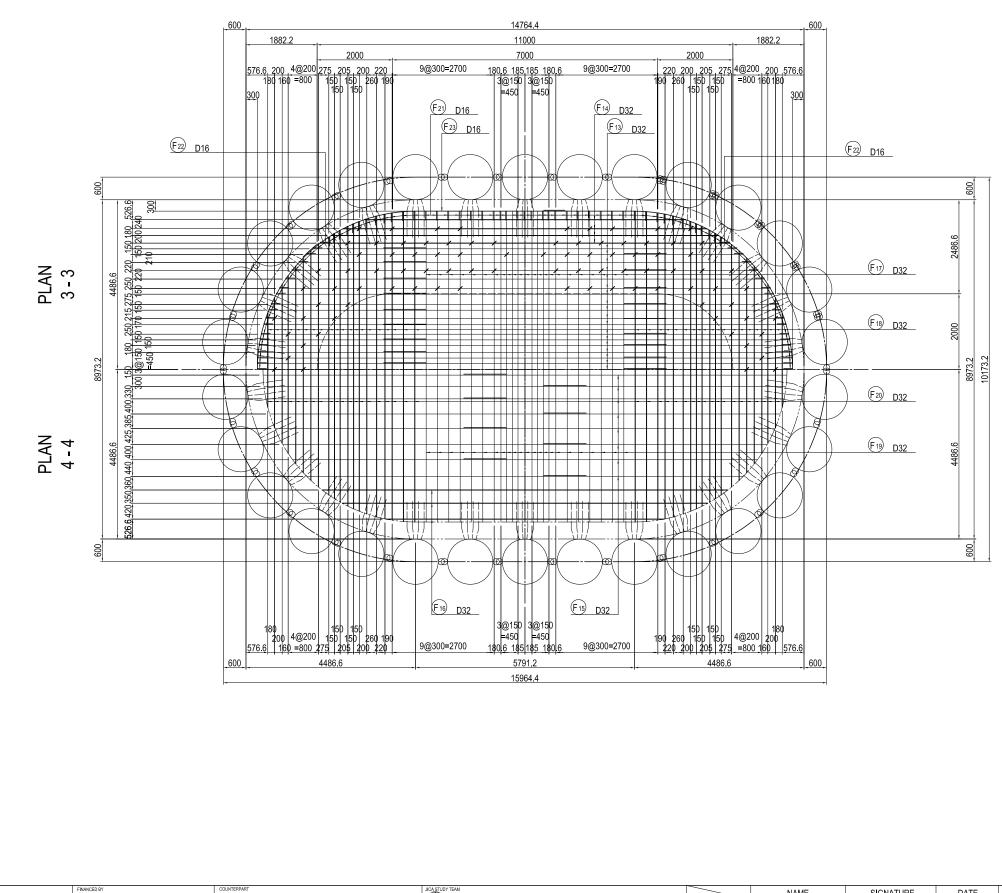
COOPERATION AGENCY

0

USE MATERIALS CONCRETE BAR MAIN BAR SD390 COLUMN σck = 30 N/mm² SD345 OTHERS DRAWING TITLE PACKAGE 2 BAR ARRANGEMENT OF P17 PIER (15) DWG No. P2-SB-2317



PACKAGE DWG No. P2-SB-2318 BAR ARRANGEMENT OF P17 FOOTING (2) S=1:100



DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT



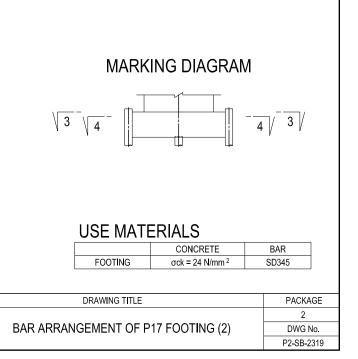
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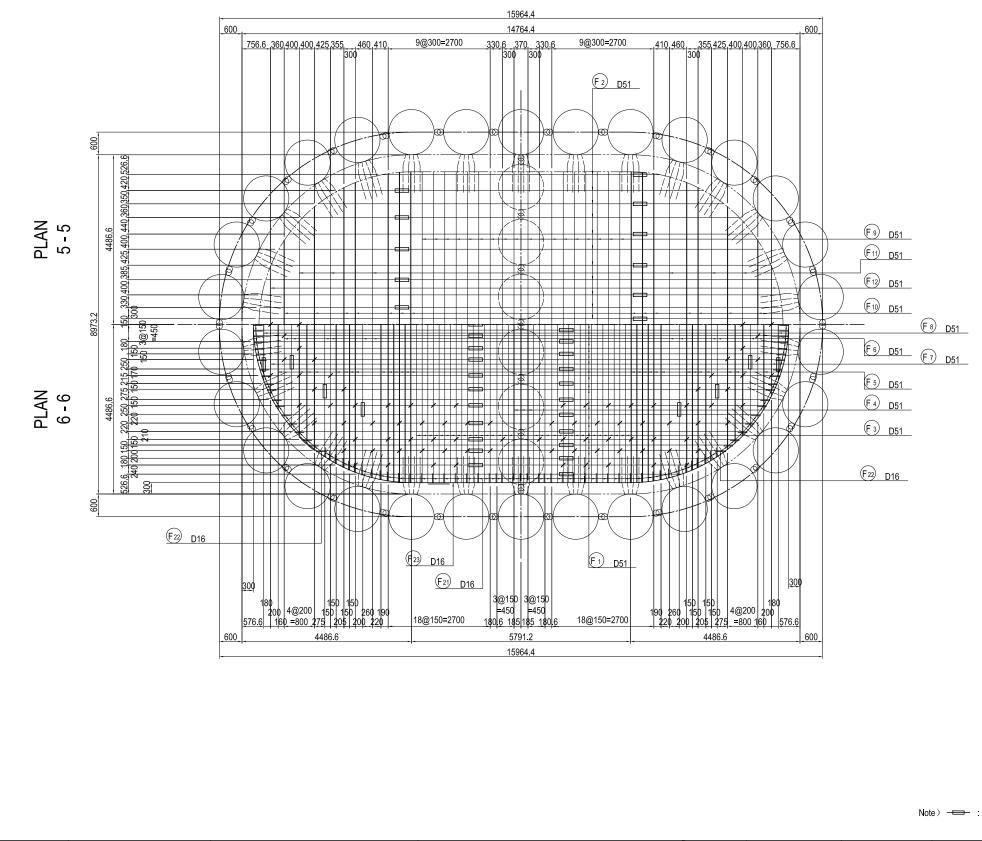
REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE



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APPROVED BY	Y. SANO	牡鸦 肱一,	29 Nov.2017	





DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT •

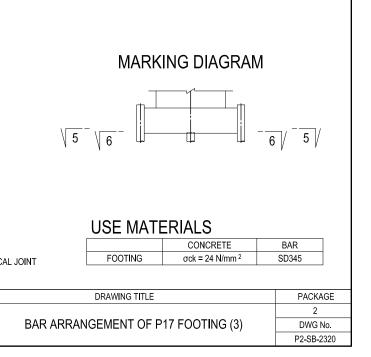
REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE



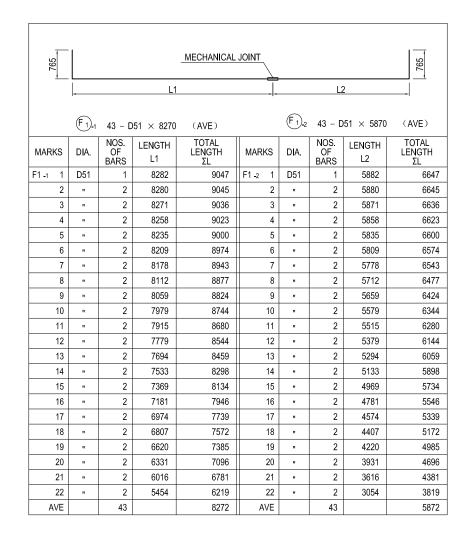
NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

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APPROVED BY	Y. SANO	批野 施一,	29 Nov.2017	

Note) - : MECHANICAL JOINT

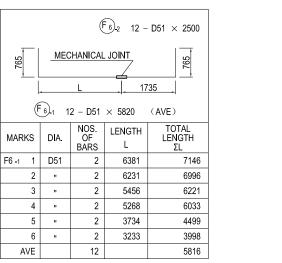




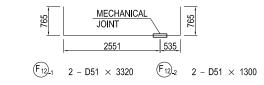


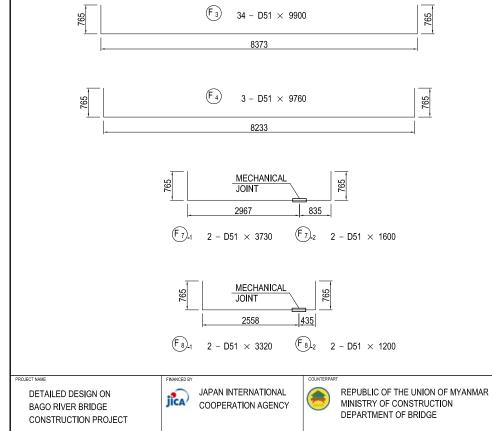
765	-			
	(F 5)	28 – D	51 × 8930	(AVE)
MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
5 1	D51	2	8373	9903
2	"	2	8366	9896
3	u.	2	8349	9879
4	"	2	8320	9850
5	"	2	8281	9811
6	"	2	8215	9745
7	"	2	7825	9355
8	"	2	7704	9234
9	"	2	7569	9099
10	"	2	7361	8891
11	u.	2	6610	8140
12	u	2	6278	7808
13	"	2	5901	7431
14	"	2	4502	6032
AVE		28		8934

765				MECHANICAL				
			L1				Lź	2
	(F ₂) ₁	22 – C	951 × 9940	(AVE)		(F_2)_2	22 – D	951 × 3640
MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2
F2 -1 1	D51	2	10079	10844	F2_2 1	D51	2	3779
2	"	2	10057	10822	2	"	2	3757
3	"	2	10006	10771	3	"	2	3706
4	"	2	9906	10671	4	"	2	3606
5	"	2	9766	10531	5	"	2	3466
6	"	2	9558	10323	6	"	2	3258
7	"	2	9299	10064	7	"	2	2999
8	"	2	8924	9689	8	"	2	2624
9	"	2	8519	9284	9	"	2	2219
10	"	2	7985	8750	10	"	2	1685
11	"	2	6828	7593	11	"	2	528
AVE		22		9940	AVE		22	



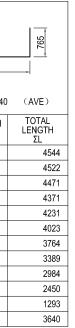


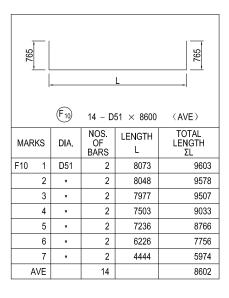


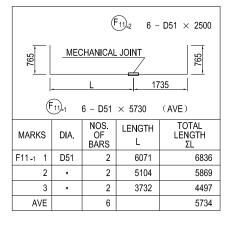


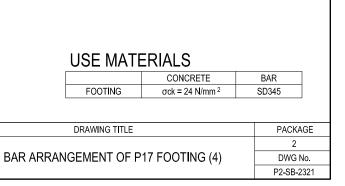
NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO.,LTD.
NIPPON ENGINEERING CONSULTANTS CO. LTD.

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APPROVED BY	Y. SANO	比野 施一,	29 Nov.2017	

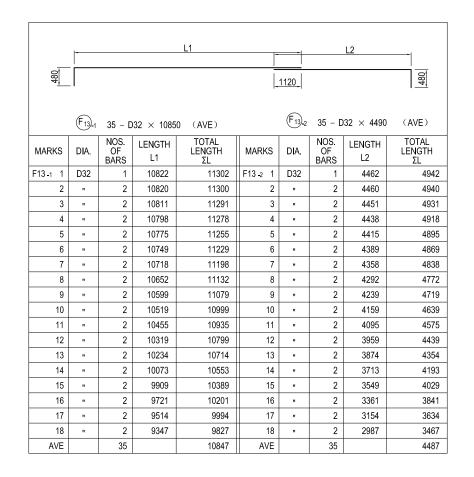








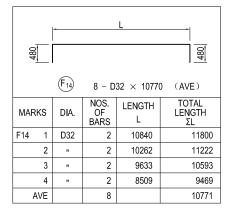
BAR ARRANGEMENT OF P17 FOOTING (5) S=1:100

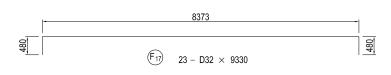


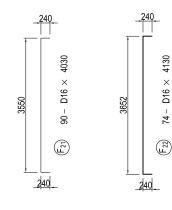
_				L	
480					480
		(F ₁₈)	40 – D	32 × 7680	(AVE)
MAR	KS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F18	1	D32	2	8373	9333
	2	"	2	8349	9309
	3	"	2	8281	9241
	4	"	2	8215	9175
	5	"	2	8116	9076
	6	"	2	7966	8926
	7	"	2	7825	8785
	8	"	2	7704	8664
	9	"	2	7569	8529
	10	"	2	7361	8321
	11	"	2	7191	8151
	12	"	2	7003	7963
	13	"	2	6610	7570
	14	"	2	6278	7238
	15	"	2	5901	6861
	16	"	2	5469	6429
	17	"	2	4968	5928
	18	"	2	4502	5462
	19		2	3802	4762
	20	"	2	2993	3953
A	VE		40		7684

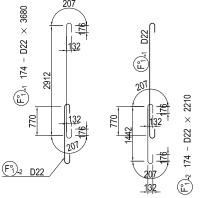
				L1	-			L2
480	_			$\begin{array}{c c c c c c c c c c c c c c c c c c c $				
	(F ₁₅₎₋₁	16 – D	032 × 8650	(AVE)		$(F_{15})_2$	16 – D	032 × 6530
MARKS	DIA.	NOS. OF BARS	LENGTH L1	LENGTH	MARKS	DIA.	OF	
F15 -1 1	D32	2	8549	9029	F15_2 1	D32	2	6429
2	"	2	8527	9007	2	"	2	6407
3	"	2	8476	8956	3	"	2	6356
4	"	2	8376	8856	4	"	2	6256
5	"	2	8236	8716	5	"	2	6116
6	"	2	8028	8508	6	"	2	5908
7	"	2	7769	8249	7	"	2	5649
8	"	2	7394	7874	8	"	2	5274
AVE		16		8649	AVE		16	

480	480			
	(F ₁₆)	6 – D	32 × 1022	0 (AVE)
MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F16 1	D32	2	10738	11698
2		2	9671	10631
3		2	7356	8316
AVE		6		10215







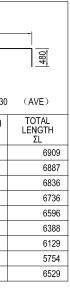


DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE



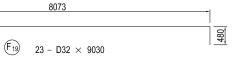
NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

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CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017
APPROVED BY	Y. SANO	比野 肱一,	29 Nov.2017



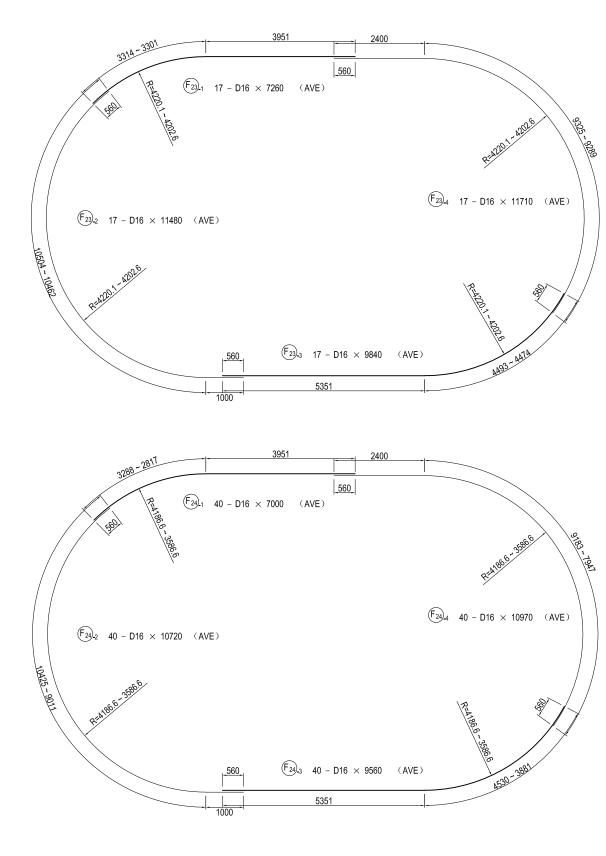
480

	L							
480					480			
		(F ₂₀)	40 – D	32 × 7270	(AVE)			
MAR	KS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL			
F20	1	D32	2	8073	9033			
	2	"	2	8048	9008			
	3	=	2	7977	8937			
	4	"	2	7909	8869			
	5	"	2	7806	8766			
	6		2	7650	8610			
	7	"	2	7503	8463			
	8	=	2	7377	8337			
	9	"	2	7236	8196			
	10		2	7018	7978			
	11		2	6839	7799			
	12	"	2	6641	7601			
	13	"	2	6226	7186			
	14	"	2	5872	6832			
	15	"	2	5467	6427			
	16	=	2	4998	5958			
	17		2	4444	5404			
	18		2	3916	4876			
	19		2	3086	4046			
	20	=	2	2006	2966			
A	٨VE		40		7265			



	USE MATE	ERIALS			
		CONCRETE		BAR	
	FOOTING	σck = 24 N/mm ²		SD345	
DRAWING TITLE				PACKA	.GE
				2	
BAR ARRANGEMENT OF P17 FOOTING (5)			DWG N	√ 0.	
				P2-SB-2	322

BAR ARRANGEMENT OF P17 FOOTING (6) S=1:100



BAR SCHEDULE

MAF	RKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)		GHT/EA. (kg)	WEIGHT (kg)	REN	MARKS
F	1-1	D51	8270	43	15.9		131.49	5654		(43) (AVE)
	1-2		5870	43			93.33	4013		(AVE)
	2-1		9940	22			158.05	3477		(22) (AVE)
	2-2	"	3640	22			57.88	1273	_	(AVE)
	3		9900	34			157.41	5352		((()))
	4		9760	3			155.18	466	"	
	5		8930	28			141.99	3976		(AVE)
	6-1		5820	12	"		92.54	1110		(12) (AVE)
	6-2		2500	12			39.75	477	_	((()=)
	7-1	"	3730	2			59.31	119		(2)
	7-2	"	1600	2			25.44	51		
	8-1	"	3320	2	"		52.79	106		(2)
	8-2	"	1200	2			19.08	38		
	9	"	9600	18			152.64	2748		
	10		8600	14			136.74	1914	"	(AVE)
	11-1		5730	6			91.11	547		(AVE) (6) (AVE)
	11-2		2500	6			39.75	239		(AVL)
	12-1		3320	2			52.79	106		(2)
	12-2		1300	2			20.67	41		
	13-1	D32	10850	35	6.23		67.60	2366	-	(A)/E)
	13-2	"	4490	35	"		27.97	979	-	(AVE)
	13-2		10770	8			67.10	537	_	(AVE)
	15-1		8650	16			53.89	862	_	(AVE)
	15-2		6530	16	"		40.68	651	-	(AVE)
		"	10220	6			63.67	382	_	(AVE)
	16 17	"	9330	23			58.13	1337	"	(AVE)
	17		7680	40			47.85	1914	"	(4)(5)
	10		9030	23			56.26	1294		(AVE)
	20		7270	40			45.29	1812		(4) (5)
	20	D16	4030	90	1.56		6.29	566	[(AVE)
	21	"	4130	74	"		6.44	477	"	
	23-1		7260	17	"		11.33	193	~	(4) (5)
	23-1	"	11480	17			17.91	304	C	(AVE)
	23-2	"	9840	17			15.35	261	5	(AVE)
	23-3		11710	17			18.27	311	5	(AVE)
	23-4		7000	40			10.92	437	~	(AVE)
		"	10720	40			16.72	669	C	(AVE)
	24-2 24-3	"	9560	40			14.91	596		(AVE)
			10970	40			17.11	684	<u>ر</u>	(AVE)
	24-4		10370	40			BTOTAL	48339	kg /	(AVE)
F°		D22	3680	174	3.04	301	11.19	48339	C	
F	1-1	"	2210	174	3.04		6.72	1169	"	
	1-2		2210	1/4				3116	kg	
						301	BTOTAL	3110		
							/1			IT)
				DE4		14707	kg (N	IECHANICAL		11)
				D51		31707 12134		(89)		
				D32		12134 2116				
				D22		3116 4498				
				D16		4490				
							kg	(00)		
				TOTAL		51455	kg	(89)		

Note) The joint position of the reinfocing bar is rotated 180 degrees for each step arranged.

DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT



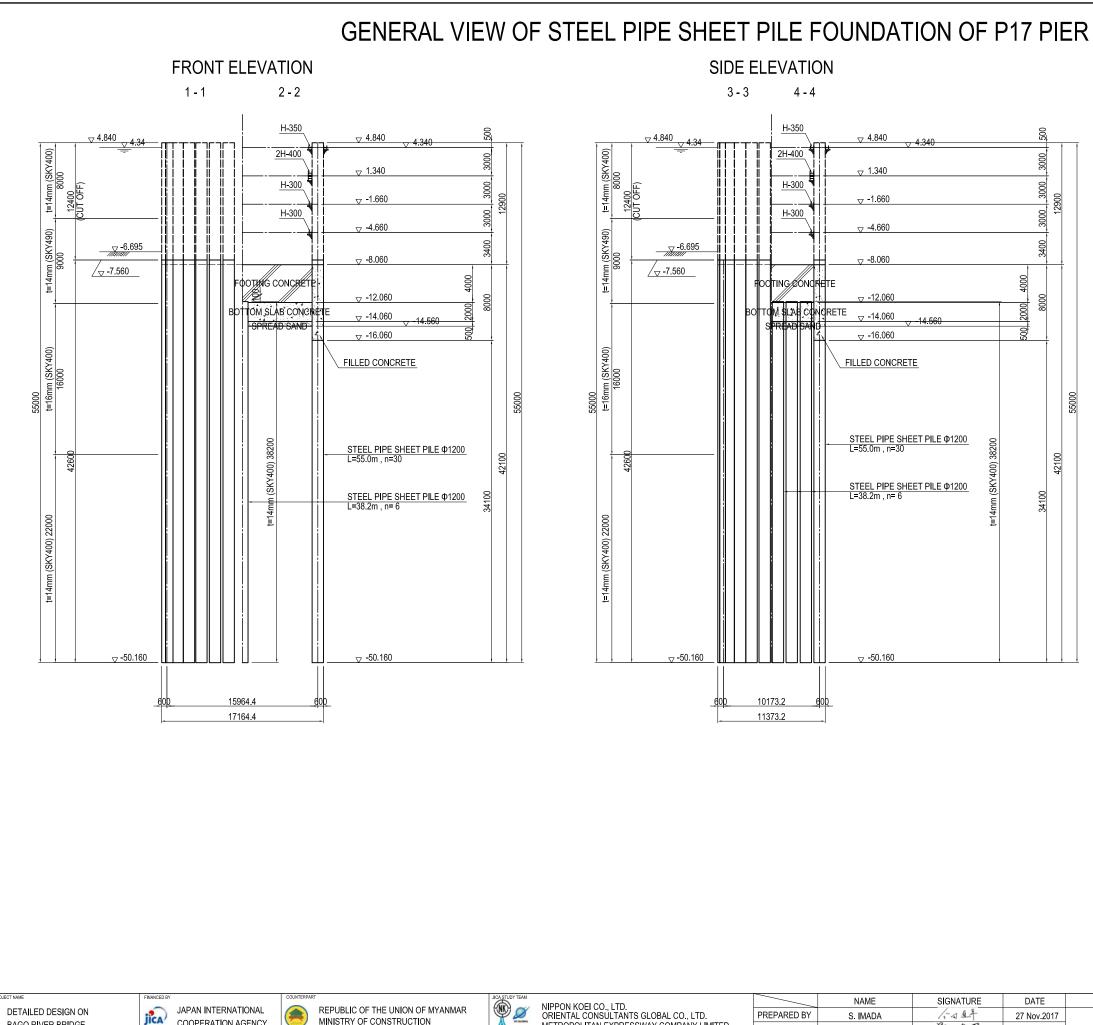
REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE



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

NAME	SIGNATURE	DATE	
S. IMADA	1-147	27 Nov.2017	
T. HAYAKAWA	中的知序	28 Nov.2017	
Y. SANO	仇野 施一,	29 Nov.2017	
	S. IMADA T. HAYAKAWA	S. IMADA / JAF T. HAYAKAWA FM 12/17	S. IMADA イーター手 27 Nov.2017 T. HAYAKAWA イワー物パタ 28 Nov.2017 T. HAYAKAWA イワー物パタ 28 Nov.2017

USE MATERIALS					
	FOOTING	$\sigma ck = 24 \text{ N/mm}^2$		SD345	
	DRAWING TITLE			PACKA	.GE
				2	
BAR ARRAN	IGEMENT OF P	17 FOOTING (6)		DWG N	۱o.
	P2_SB_2	323			



DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT

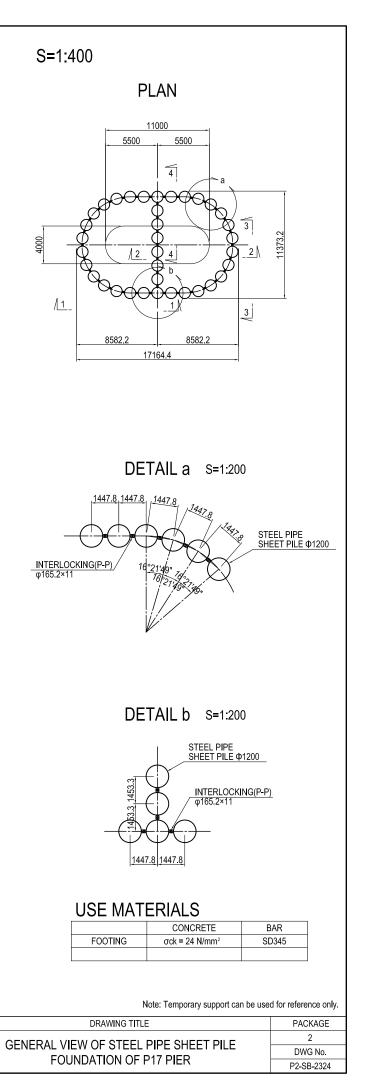


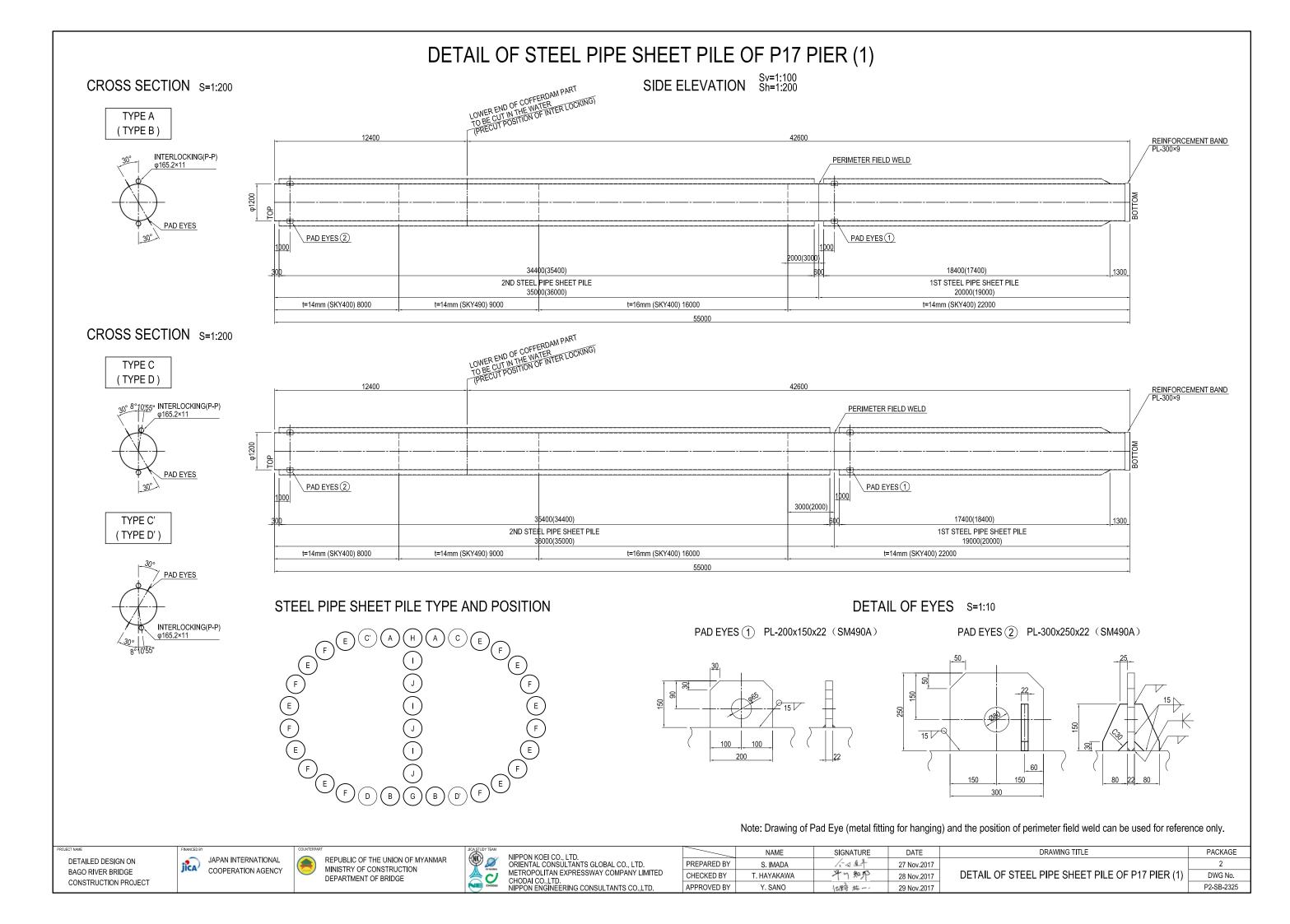
REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE

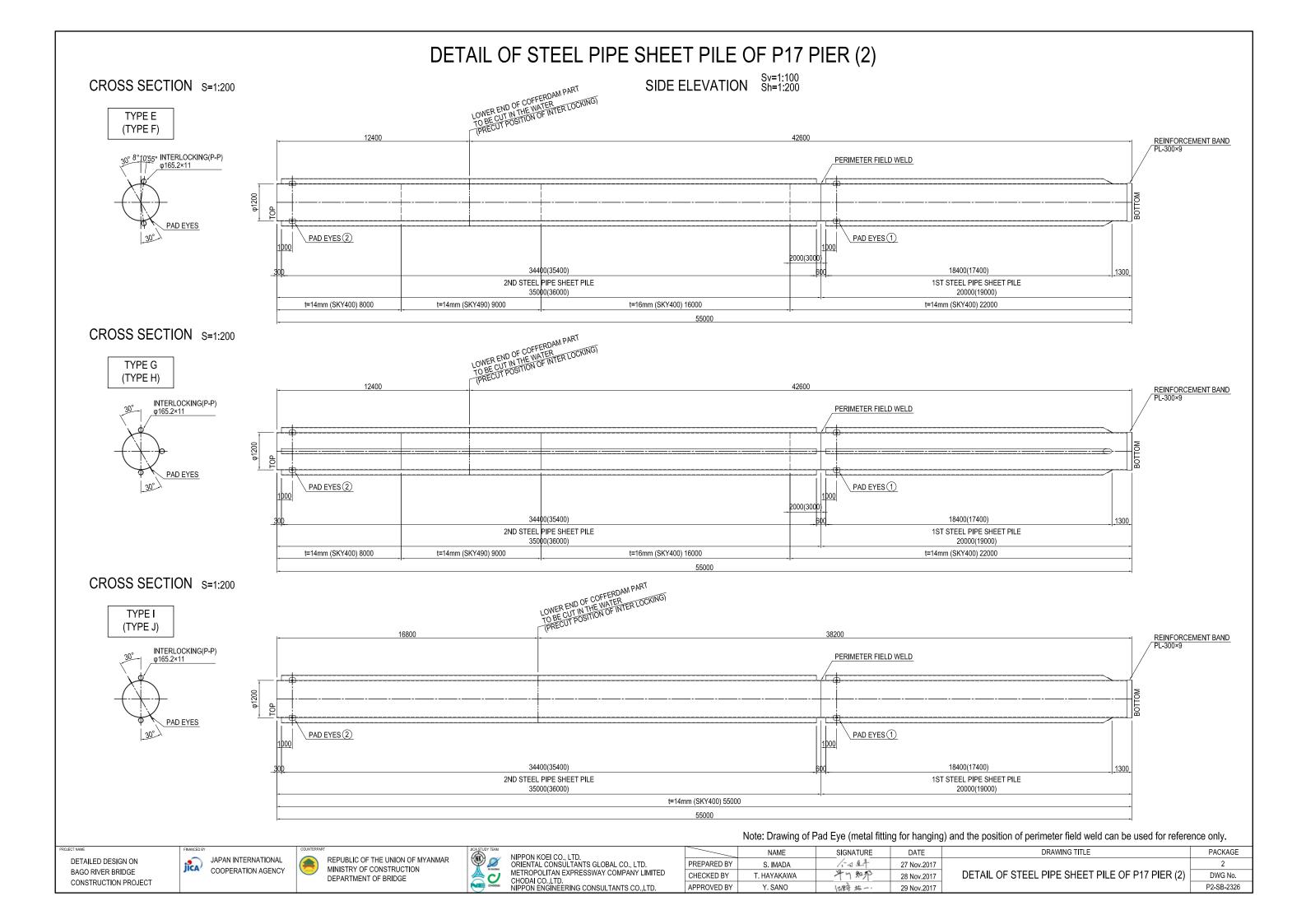


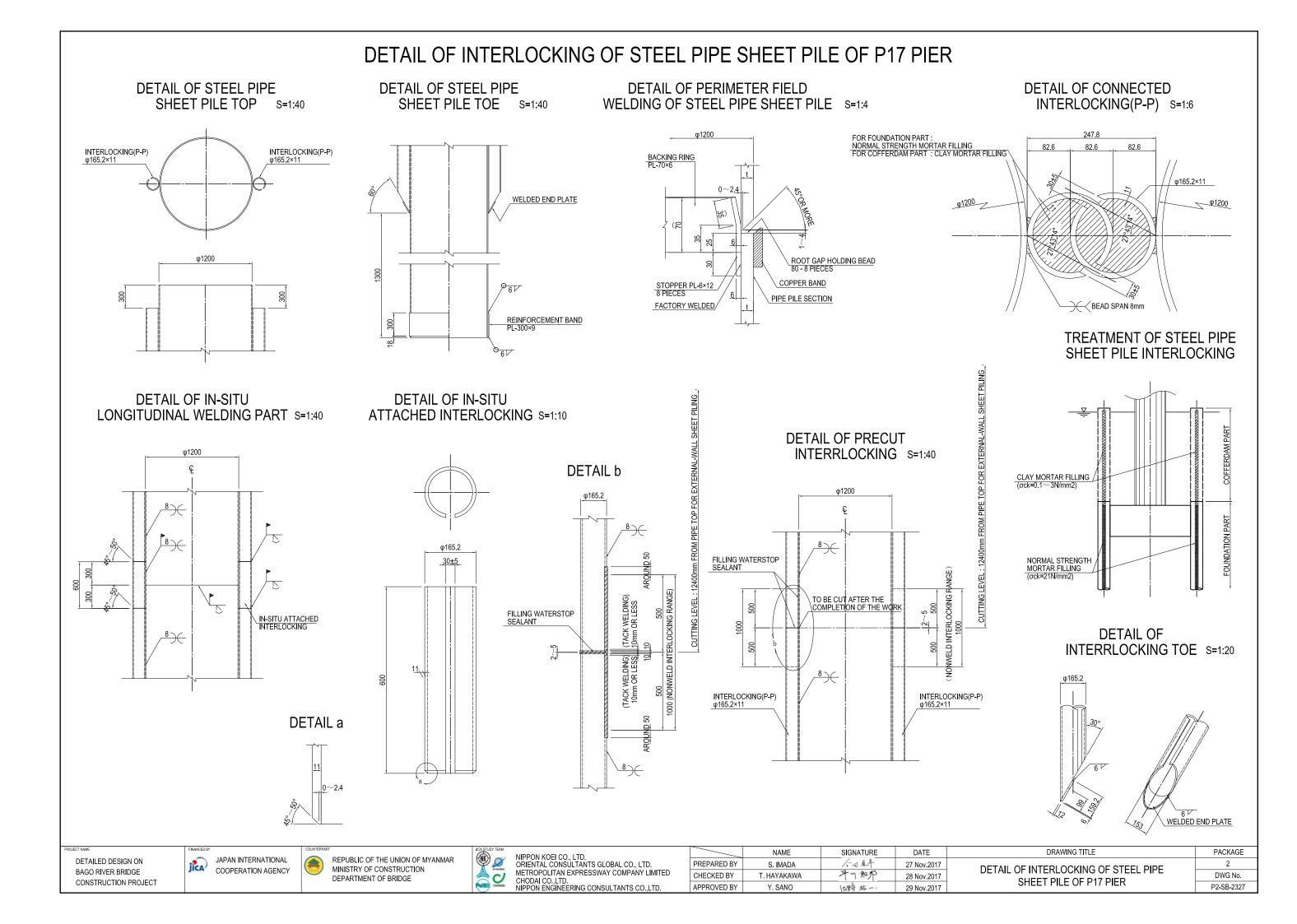
NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.

/	NAME	SIGNATURE	DATE	
PREPARED BY	S. IMADA	1-147	27 Nov.2017	
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017	
APPROVED BY	Y. SANO	批野 肱一,	29 Nov.2017	

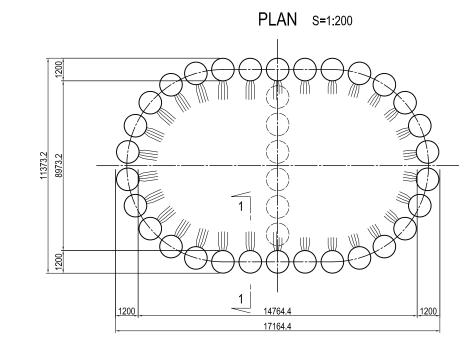






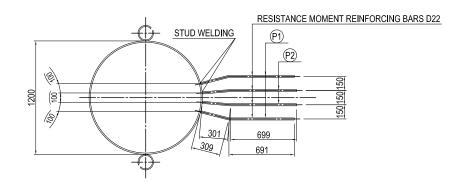


DETAIL OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND FOOTING OF P17 PIER

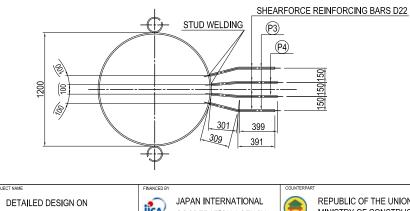


CROSS SECTION OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND REINFORCING BARS S=1:40

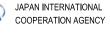
3 - 3 CROSS SECTION (RESISTANCE MOMENT REINFORCING BARS CONNECTION PART)



4 - 4 CROSS SECTION (SHEARFORCE REINFORCING BARS CONNECTION PART)



JICA BAGO RIVER BRIDGE CONSTRUCTION PROJECT



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



69

R110 (INNER DIAMETER)

165°**4**0'34"

(P1) 600-D22×1000

309

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

DIAMETER)

R110 (INNER [

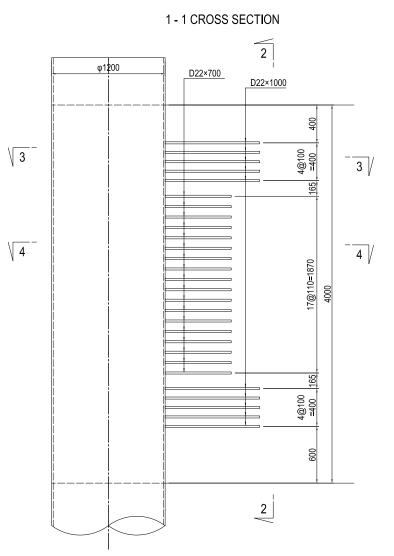
175°13'31"

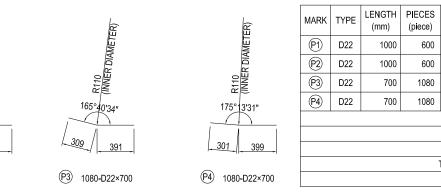
(P2) 600-D22×1000

301

PREP CHEC APPR

/	NAME	SIGNATURE	DATE	
PARED BY	S. IMADA	1-247	27 Nov.2017	
CKED BY	T. HAYAKAWA	中们知知	28 Nov.2017	
ROVED BY	Y. SANO	甜鸭 施一,	29 Nov.2017	





FABRICATION OF REINFORCING BARS S=1:40

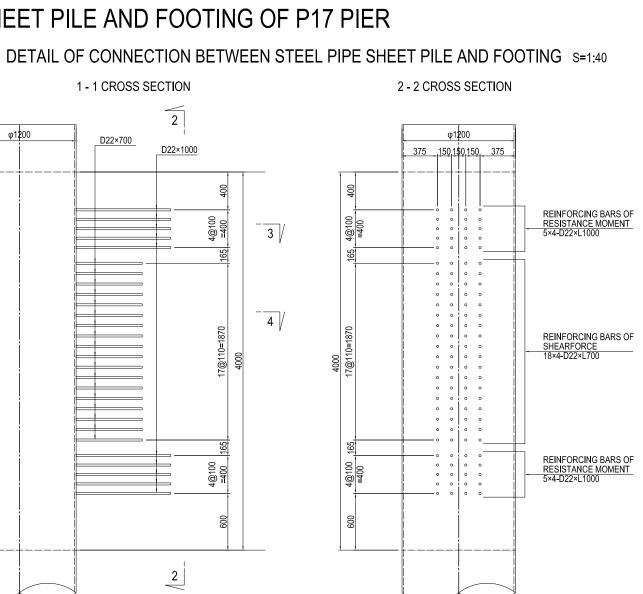


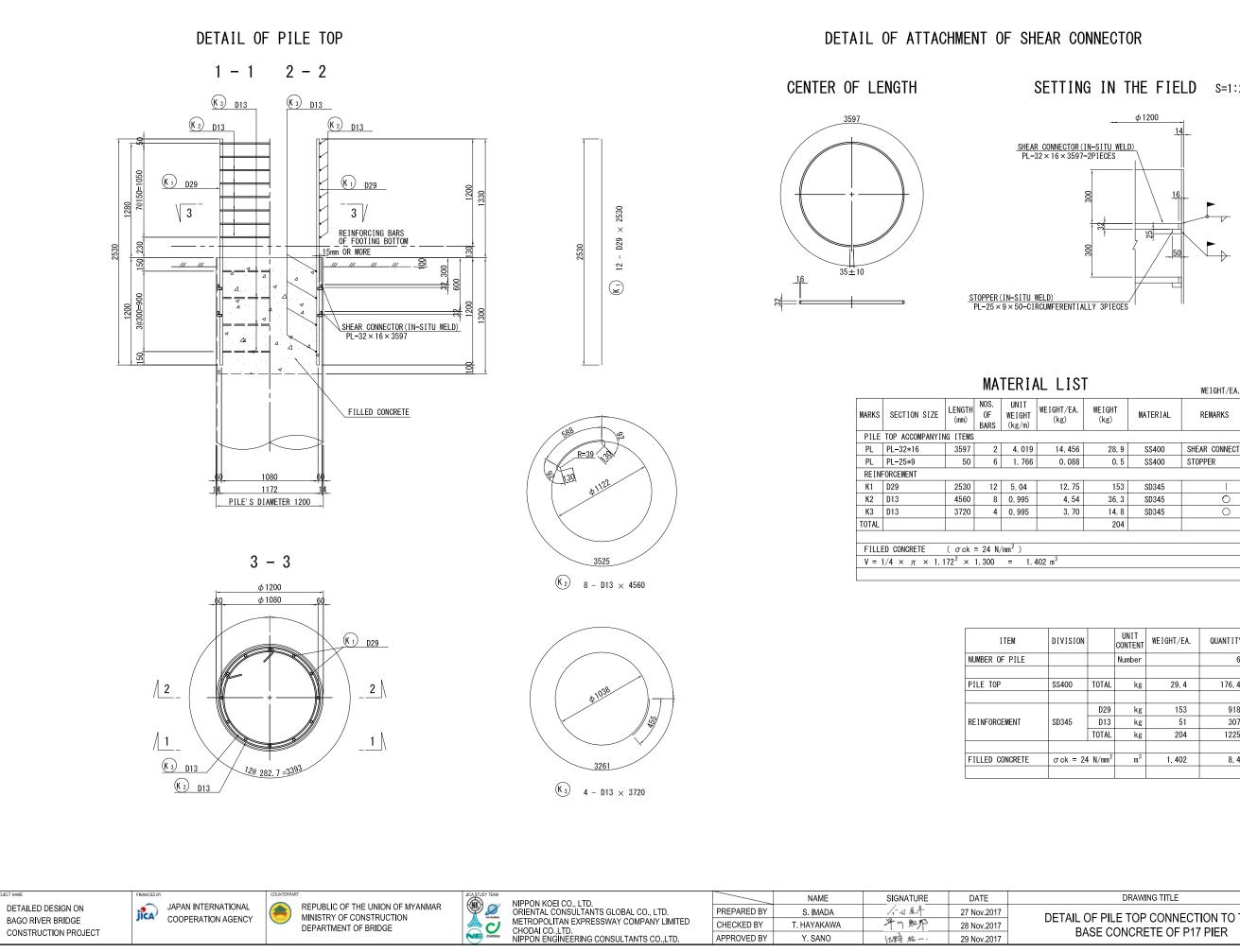
TABLE OF REINFORCING BARS

ECES iece)	UNIT WEIGHT (kg/m)	UNIT WEIGHT (kg/piece)	WEIGHT (kg)	GRADE	МЕМО
600	3.04	3.04	1824.0	SD345 for STUD WELDING	
600	3.04	3.04	1824.0	SD345 for STUD WELDING	
1080	3.04	2.13	2300.4	SD345 for STUD WELDING	<u> </u>
1080	3.04	2.13	2300.4	SD345 for STUD WELDING	
	D22	8248.8	kg		
	TOTAL WEIGHT	8248.8	kg		
	PACKAGE				

DETAIL OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND FOOTING OF P17 PIER

DWG No. P2-SB-2328

DETAIL OF PILE TOP CONNECTION TO THE BASE CONCRETE OF P17 PIER S=1:40



SETTING IN THE FIELD S=1:20

	-		WEIGHI/EA.
VEIGHT/EA. (kg)	WEIGHT (kg)	MATERIAL	REMARKS
			-
14.456	28.9	SS400	SHEAR CONNECTOR
0.088	0.5	SS400	STOPPER
			-1
12. 75	153	SD345	
4. 54	36.3	SD345	0
3. 70	14. 8	SD345	0
	204		
			-
12 m ³			
			•

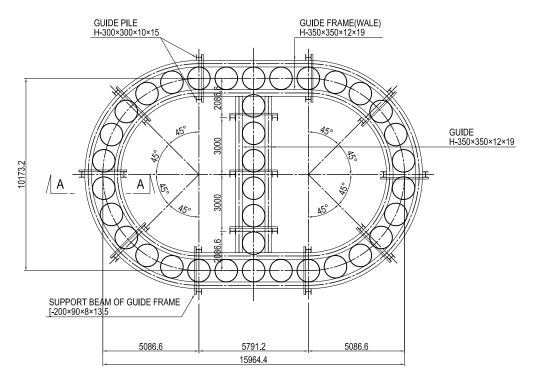
DIVISION		UNIT CONTENT	WEIGHT/EA.	QUANTITY
		Number		6
SS400	TOTAL	kg	29.4	176.4
	D29	kg	153	918
SD345	D13	kg	51	307
	TOTAL	kg	204	1225
σck = 24	↓ N/mm²	m ³	1. 402	8.4

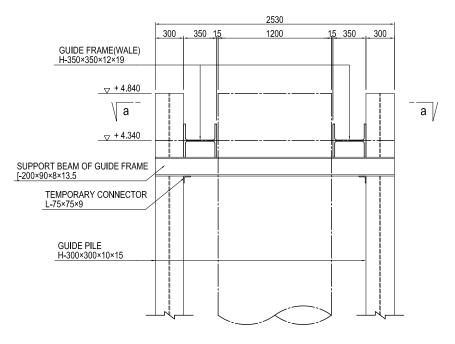
DRAWING TITLE	PACKAGE
DETAIL OF PILE TOP CONNECTION TO THE	2
	DWG No.
BASE CONCRETE OF P17 PIER	P2-SB-2329

(REFERENCE) LAYOUT PLAN OF COFFERDAM PART OF P17 PIER (1)

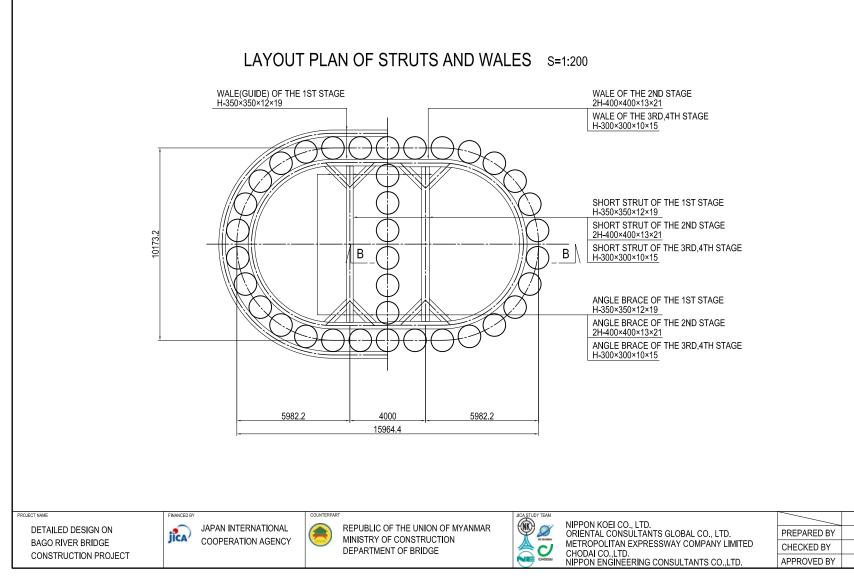
LAYOUT PLAN OF GUIDE FRAMES AND GUIDE PILES S=1:200

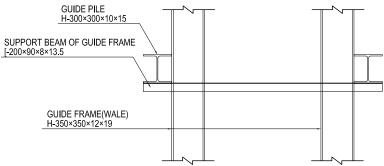
DETAIL OF ATTACHMENT OF GUIDE PILES AND GUIDE FRAMES S=1:40





a - a





29 Nov.2017

DATE

27 Nov.2017

28 Nov.2017

SIGNATURE

1-147

早り知か

批野 肱一

NAME

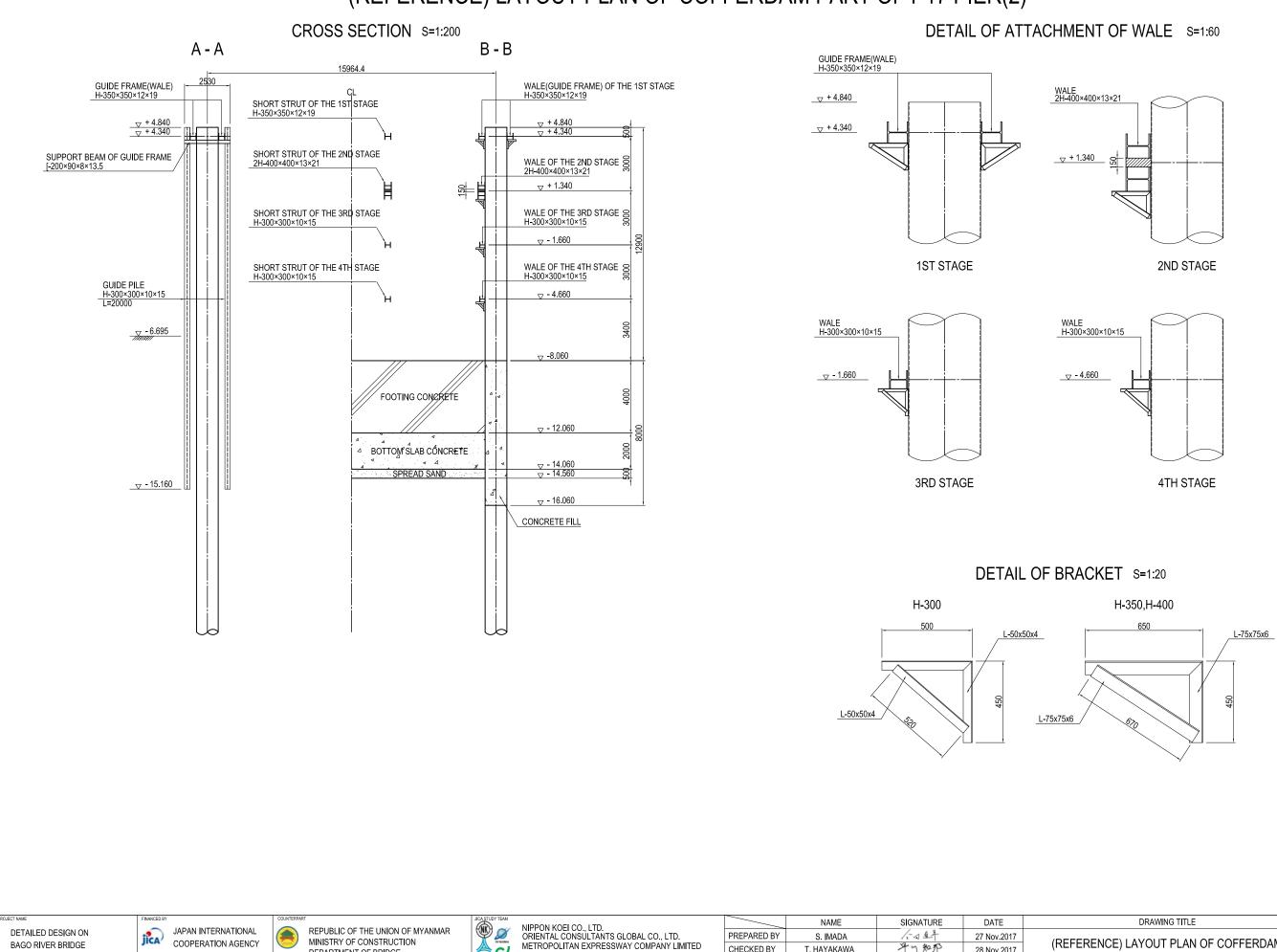
S. IMADA

T. HAYAKAWA

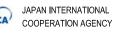
Y. SANO

DRAWING TITLE	PACKAGE
	2
(REFERENCE) LAYOUT PLAN OF COFFERDAM	DWG No.
PART OF P17 PIER (1)	P2-SB-2330

(REFERENCE) LAYOUT PLAN OF COFFERDAM PART OF P17 PIER(2)



BAGO RIVER BRIDGE CONSTRUCTION PROJECT



MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE

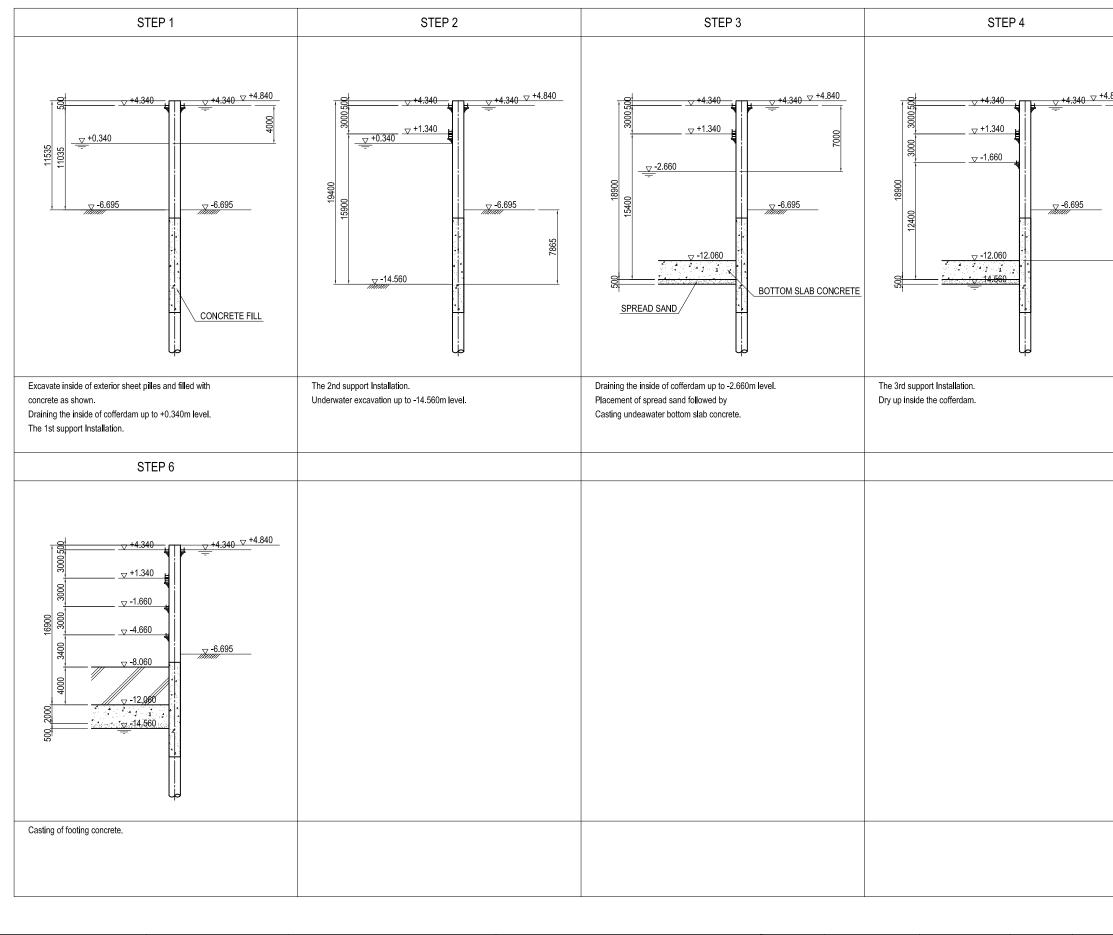


CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	
PREPARED BY	S. IMADA	1-147	27 Nov.2017	
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017	
APPROVED BY	Y. SANO	批野 肱一,	29 Nov.2017	

DRAWING TITLE	PACKAGE
	2
(REFERENCE) LAYOUT PLAN OF COFFERDAM	DWG No.
PART OF P17 PIER (2)	P2-SB-2331
PART OF P17 PIER (2)	

(REFERENCE) CONSTRUCTION PLAN OF STEEL PIPE SHEET PILE WORK OF P17



DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT

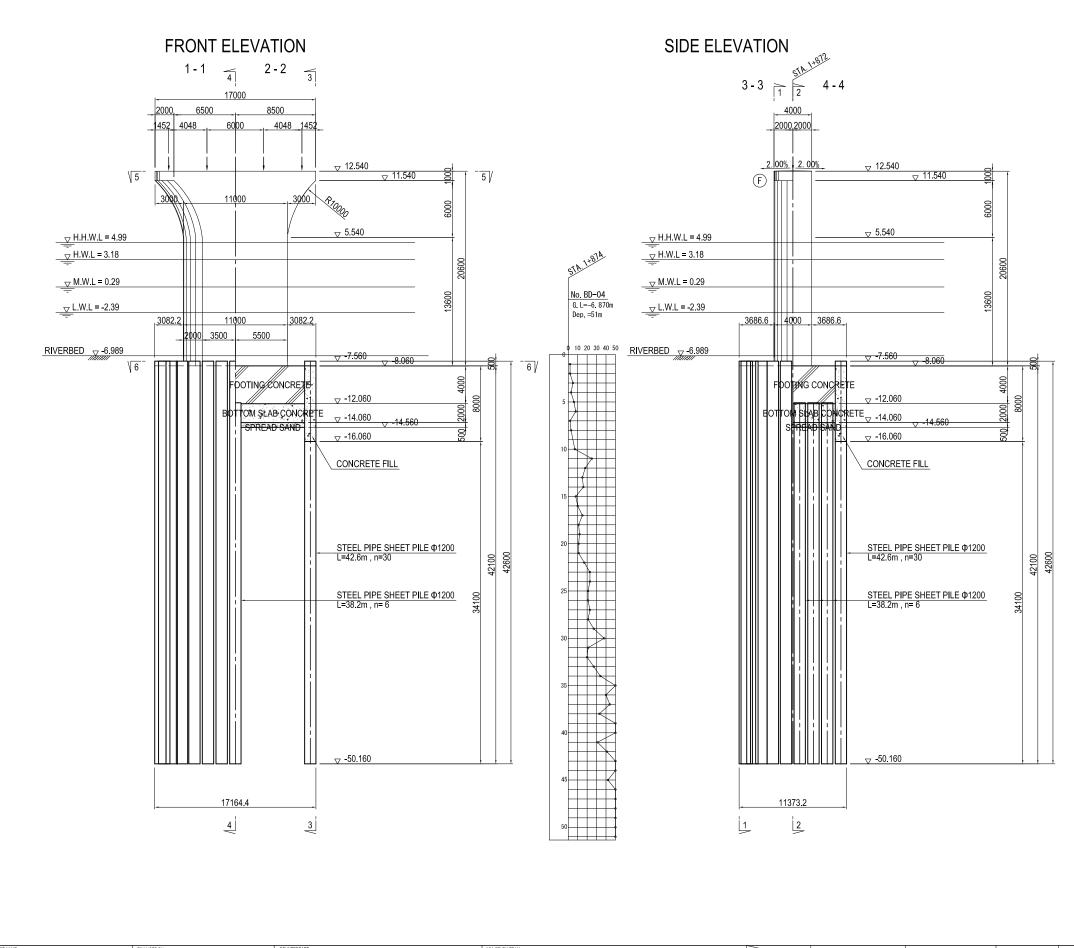


	NAME	SIGNATURE	DATE	
PREPARED BY	S. IMADA	1-147	27 Nov.2017	
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017	
APPROVED BY	Y. SANO	牡鸦 肱一,	29 Nov.2017	

P17 PIE	ER S=1:400	
	STEP 5	
40 ▽ +4.840 5 5	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	<u> → +4.840</u> 0000000000000000000000000000000000
	The 4th support Installation.	
	Note : This drawing can be used for reference only.	
(REFERENC	DRAWING TITLE E) CONSTRUCTION PLAN OF STEEL PIPE HEET PILE WORK OF P17 PIER	PACKAGE 2 DWG No. P2-SB-2332

GENERAL VIEW OF P18 PIER (1)

S=1:400

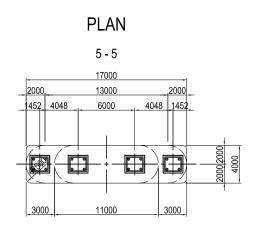






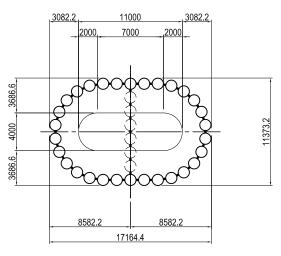
NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

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PREPARED BY	S. IMADA	1-147	27 Nov.2017
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017
APPROVED BY	Y. SANO	牡鸦 肱一,	29 Nov.2017





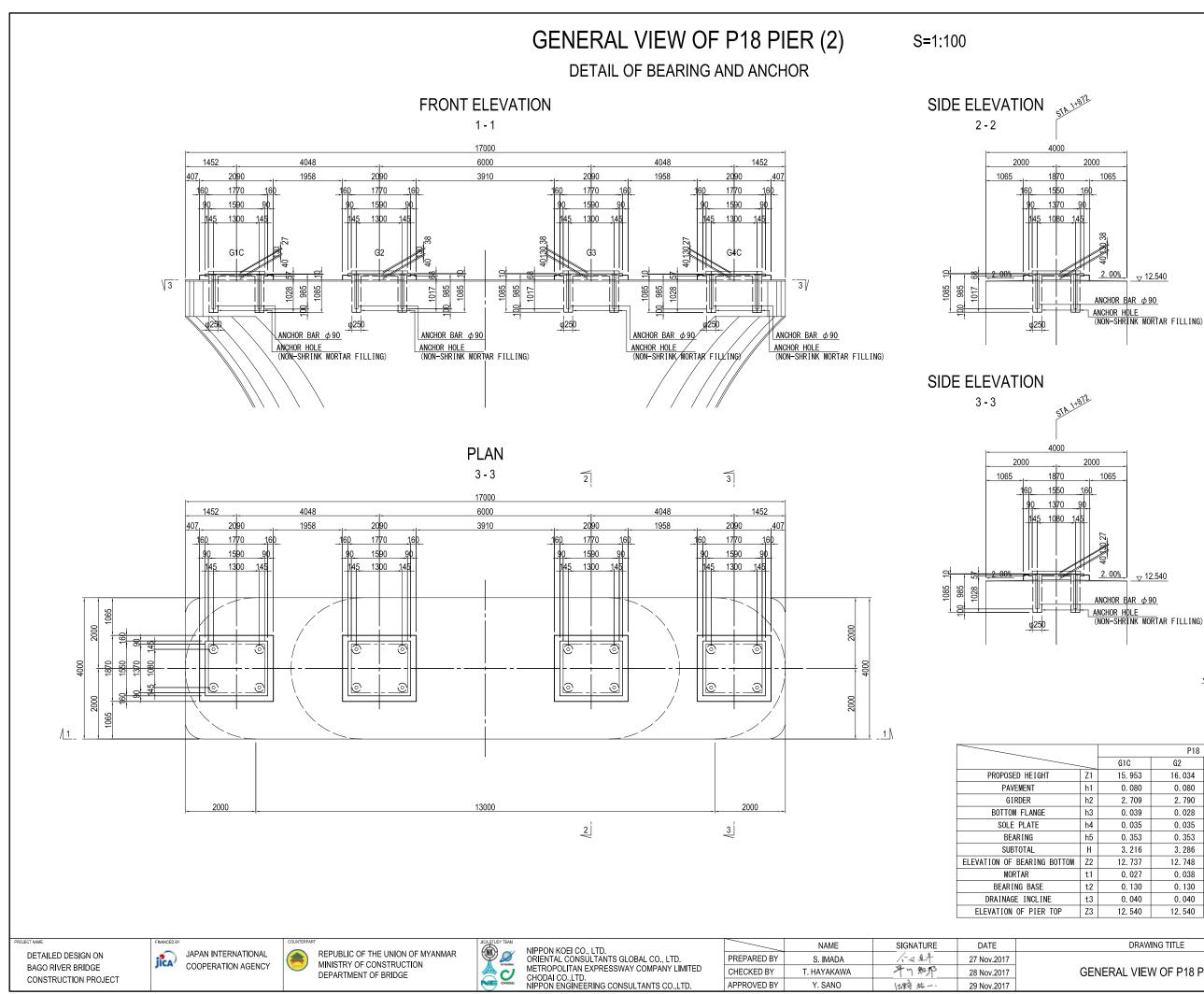




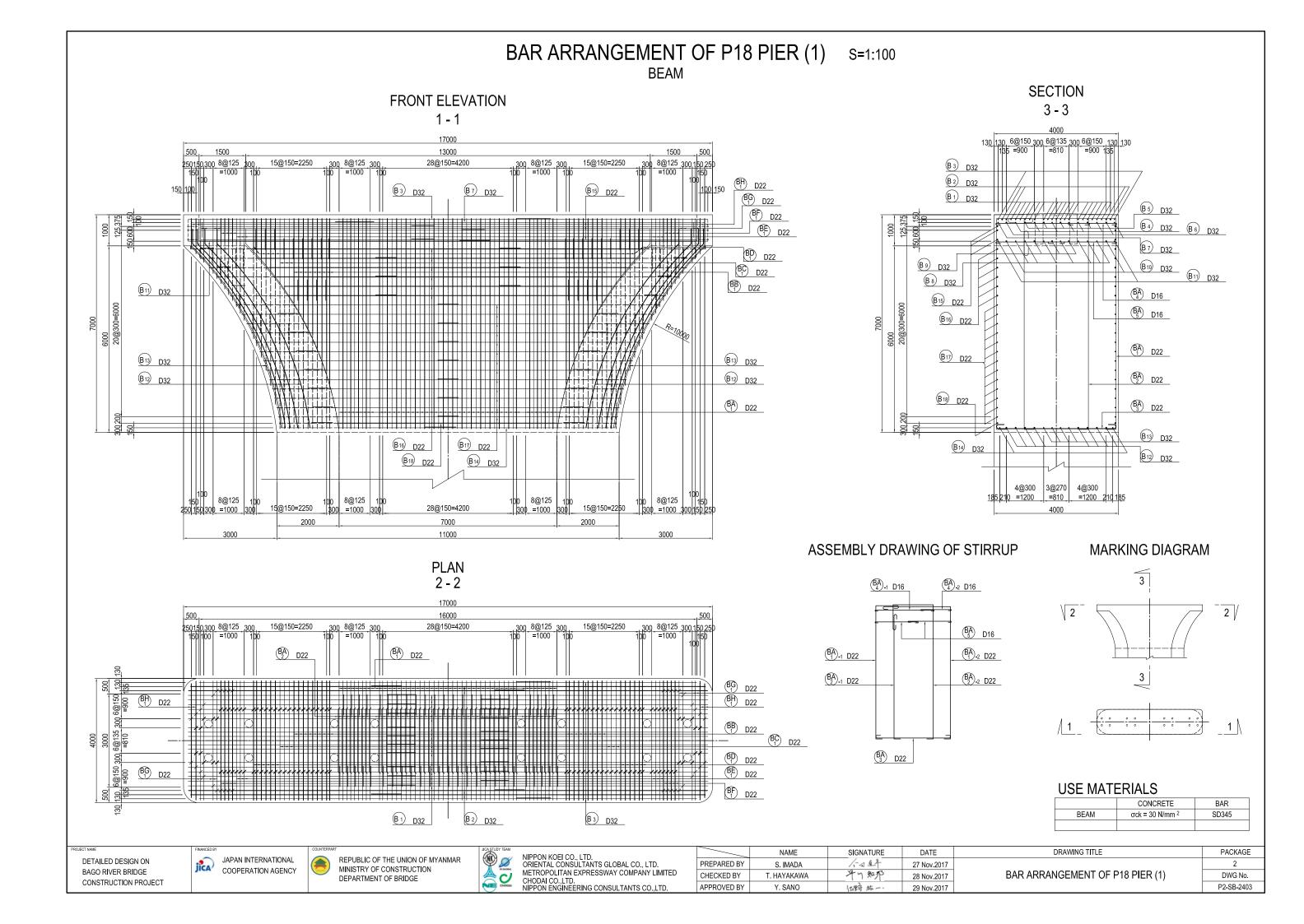
USE MATERIALS

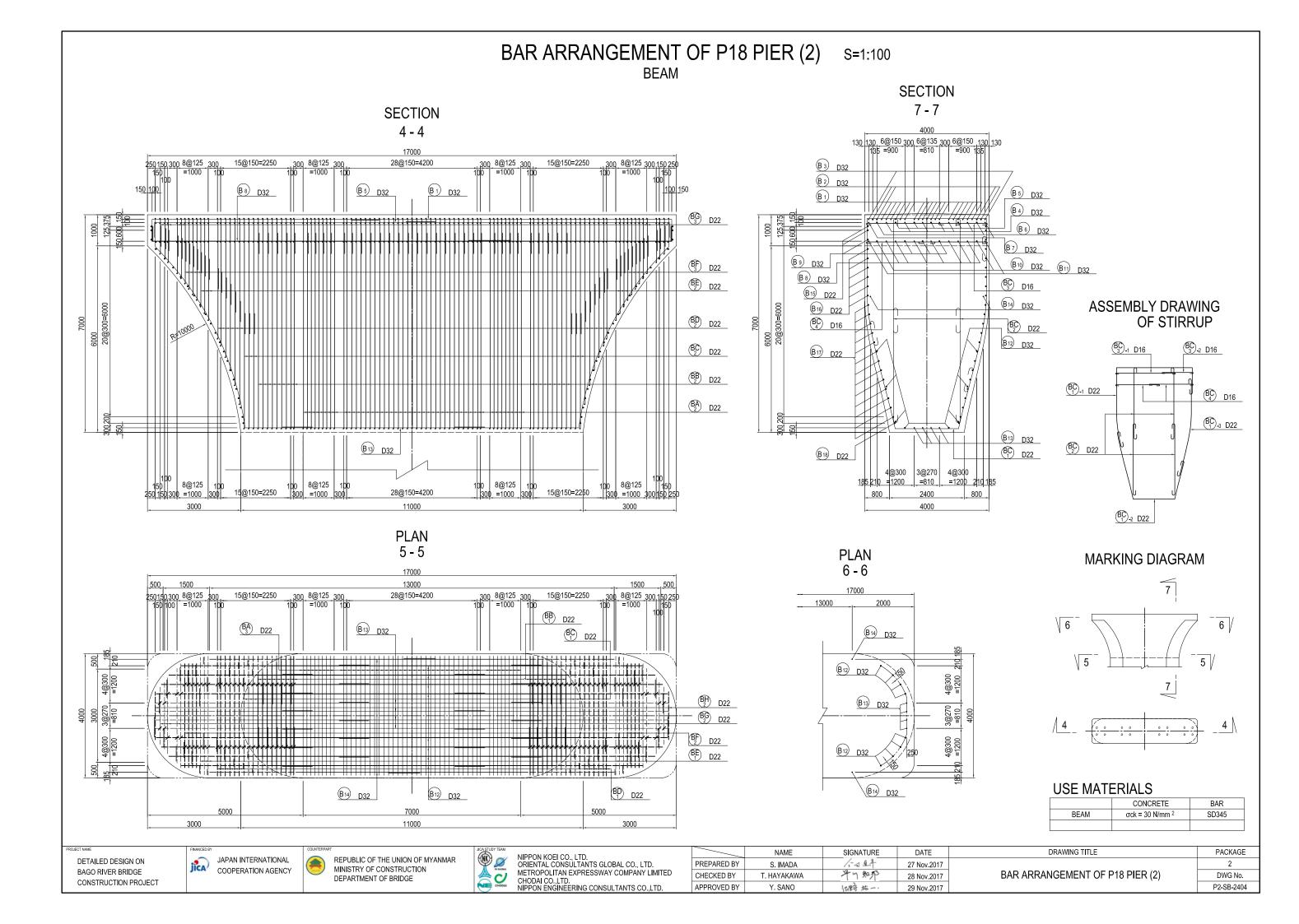
	CONCRETE	BAR
BEAM	σck = 30 N/mm ²	SD345
COLUMN	σck = 30 N/mm ²	SD390 • SD345
FOOTING	σck = 24 N/mm ²	SD345

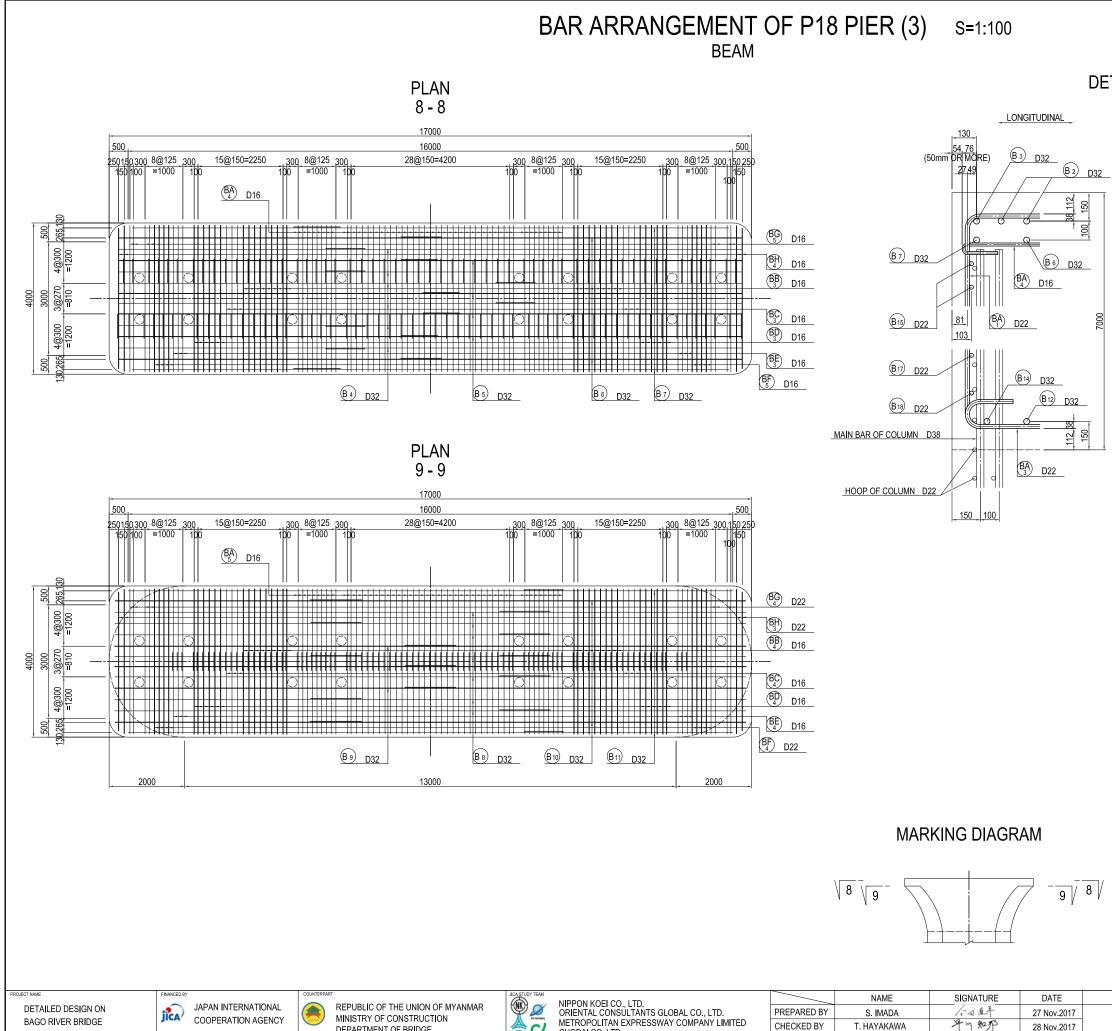
DRAWING TITLE	PACKAGE
GENERAL VIEW OF P18 PIER (1)	2
	DWG No.
	P2-SB-2401



		2.00% 2.00% NCHOR BAR ¢S NCHOR HOLE NON-SHIRINK MO	RTAR FILLING)	∑ Z1	2.00%	13 21 H
			P18 P	IFR		7
		G1C	G2	G3	G4C	-
	Z1	15.953	16.034	16.034	15.953	1
	h1	0.080	0.080	0. 080	0. 080	1
	h2	2. 709	2.790	2.790	2. 709	1
	h3	0.039	0.028	0. 028	0. 039	1
	h4	0.035	0.035	0.035	0. 035	1
	1.5	0. 353	0.353	0.353	0. 353	1
	h5	3.216	3.286	3. 286	3. 216	1
	h5 H				12. 737	1
TTOM		12. 737	12.748	12.748	12.737	
TTOM	Н		12.748 0.038	12. 748 0. 038	0. 027	
TTOM	H Z2	12. 737				-
ITTOM	H Z2 t1	12. 737 0. 027	0.038	0. 038	0. 027	-
)TTOM)P	H Z2 t1 t2	12. 737 0. 027 0. 130	0. 038 0. 130	0. 038 0. 130	0. 027 0. 130	-







BAGO RIVER BRIDGE CONSTRUCTION PROJECT JICA COOPERATION AGENCY

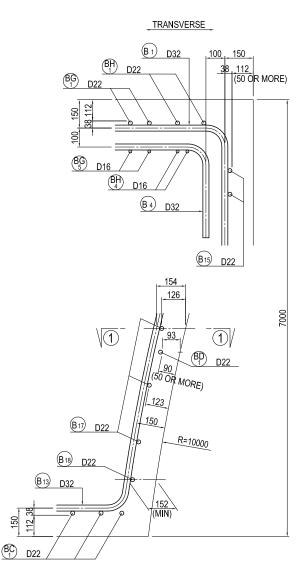
DEPARTMENT OF BRIDGE

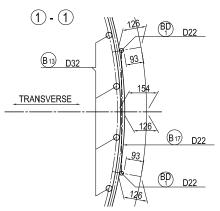


CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	
PREPARED BY	S. IMADA	1-247	27 Nov.2017	
CHECKED BY	T. HAYAKAWA	中心知	28 Nov.2017	
APPROVED BY	Y. SANO	比野 施一,	29 Nov.2017	

DETAIL OF BEAM S=1:20

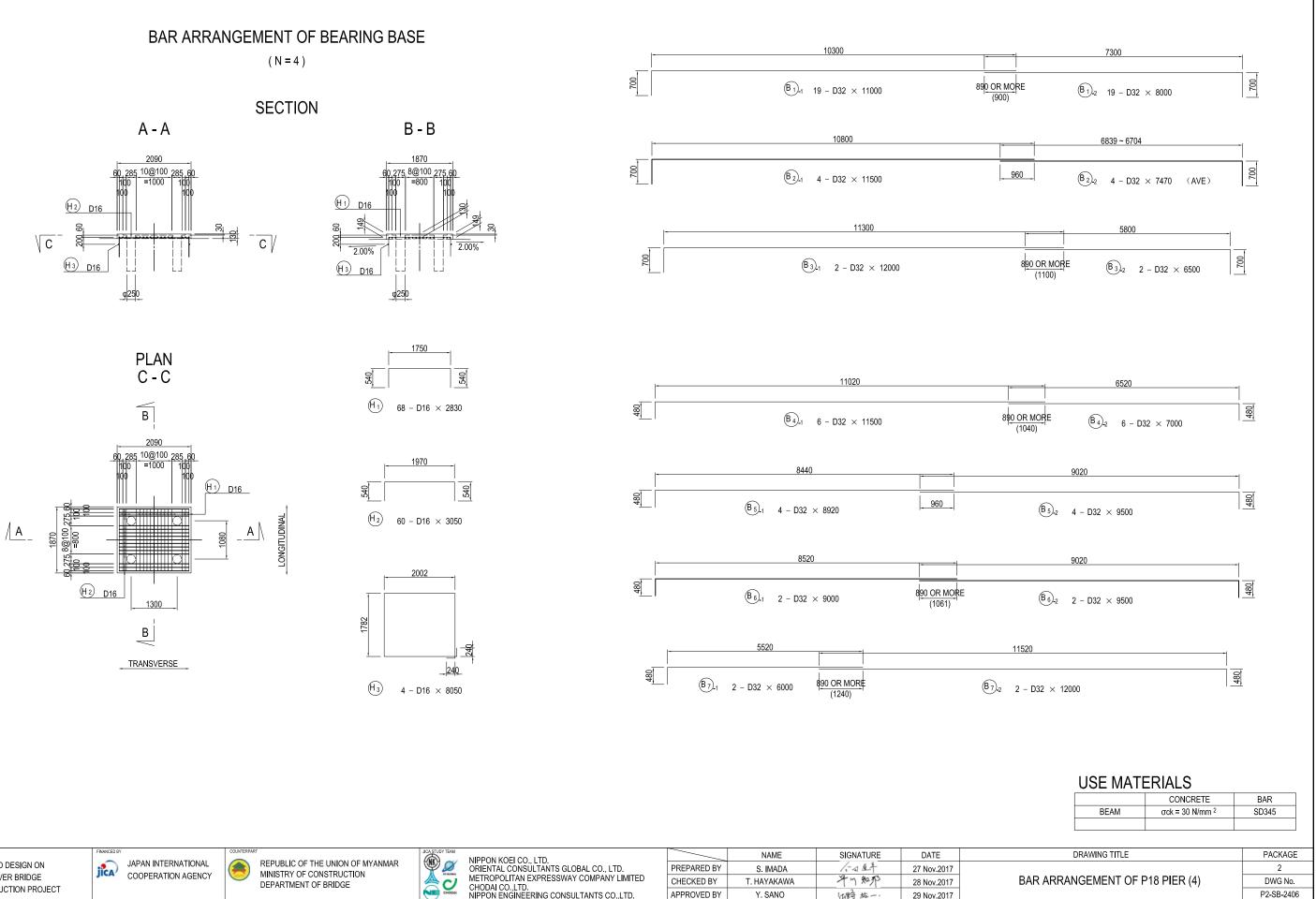




	USE MAT	ERIALS			
		CONCRETE		BAR	
	BEAM	σck = 30 N/mm ²		SD345	
	PACKAGE				
	2				
BAR ARRAI	DWG No.				

P2-SB-2405

BAR ARRANGEMENT OF P18 PIER (4) S=1:100 BEAM



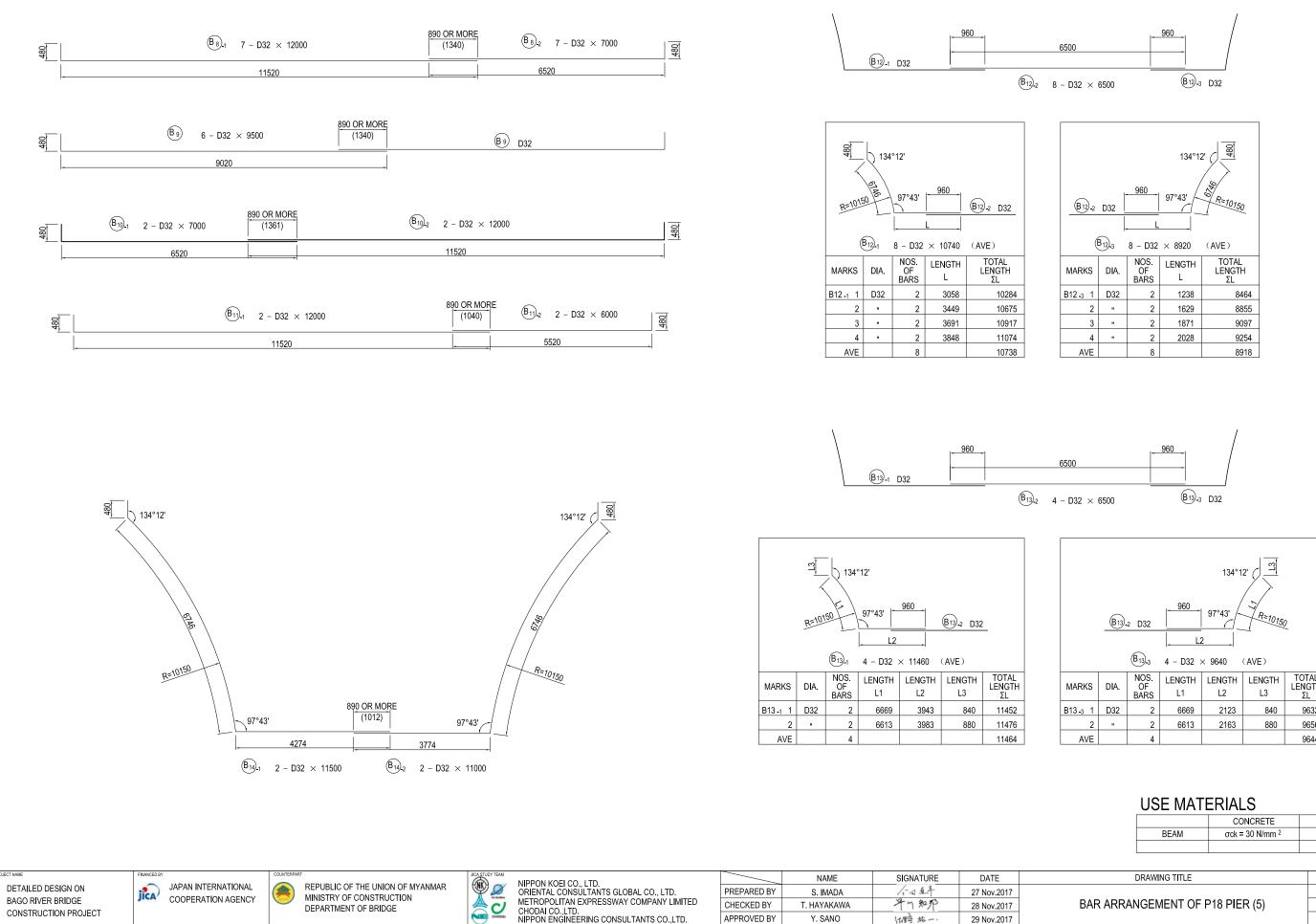
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT



CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE	
PREPARED BY	S. IMADA	1-147	27 Nov.2017	
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017	
APPROVED BY	Y. SANO	比野 肱一,	29 Nov.2017	

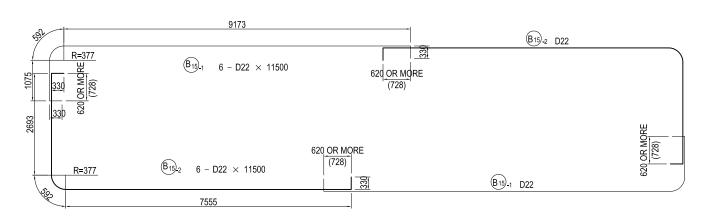
BAR ARRANGEMENT OF P18 PIER (5) S=1:100 BEAM

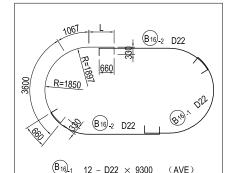


134°12'							
B13-2 D32							
			L:	2			
		(B ₁₃) ₃	4 – D32 🗄	× 9640	(AVE)		
MARKS	DIA.	NOS. OF BARS	LENGTH L1	LENGTH L2	LENGTH L3	TOTAL LENGTH ΣL	
B13 ₋₃ 1	D32	2	6669	2123	840	9632	
2	"	2	6613	2163	880	9656	
AVE		4				9644	

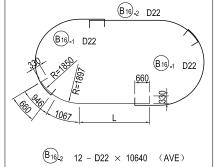
	USE MATE	ERIALS	
		CONCRETE	BAR
	BEAM	σck = 30 N/mm ²	SD345
	PACKAGE		
	2		
AR ARRAN	DWG No.		
	P2-SB-2407		

BAR ARRANGEMENT OF P18 PIER (6) S=1:100 BEAM

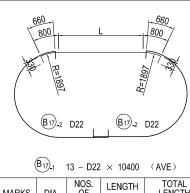




	,	010-1	12 – D22	\times 9300	(AVE)
MARK	s	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
B16-1	1	D22	2	4612	9939
	2	"	2	4328	9655
	3	"	2	4065	9392
	4	"	2	3823	9150
	5	"	2	3598	8925
	6	"	2	3391	8718
AV	E		12		9297

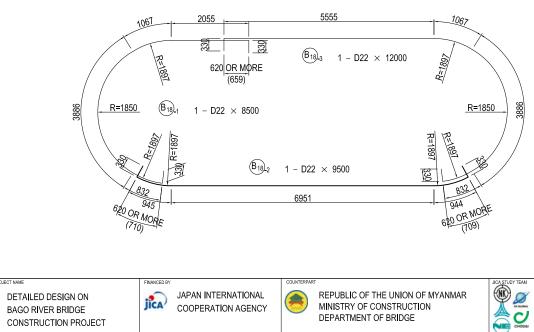


MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
B16 ₋₂ 1	D22	2	8612	11285
2	"	2	8328	11001
3	"	2	8065	10738
4	"	2	7823	10496
5	"	2	7598	10271
6	"	2	7391	10064
AVE		12		10643



MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
B17 ₋₁ 1	D22	1	9737	11997
2	"	1	9381	11641
3	"	1	9052	11312
4		1	8749	11009
5	"	1	8470	10730
6	"	1	8215	10475
7	"	1	7982	10242
8		1	7771	10031
9	"	1	7580	9840
10	"	1	7410	9670
11	"	1	7260	9520
12		1	7128	9388
13	"	1	7016	9276
AVE		13		10395

	1067 1067	() () () () () () () () () ()	B17-1 D22 660 	(AVE)
MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
B17 ₋₂ 1	D22	2	5198	11738
2	"	2	5020	11560
3	"	2	4856	11396
4	"	2	4705	11245
5		2	4565	11105
6	"	2	4438	10978
7	"	2	4321	10861
8	"	2	4215	10755
9	"	2	4120	10660
10	"	2	4035	10575
11	"	2	3960	10500
12	"	2	3894	10434
13	"	2	3838	10378
AVE		26		10937



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	S. IMADA	1-147	27 Nov.2017
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017
APPROVED BY	Y. SANO	牡鸦 肱一,	29 Nov.2017

DRAWING TITLE	PACKAGE
	2
BAR ARRANGEMENT OF P18 PIER (6)	DWG No.
	P2-SB-2408

CONCRETE

σck = 30 N/mm 2

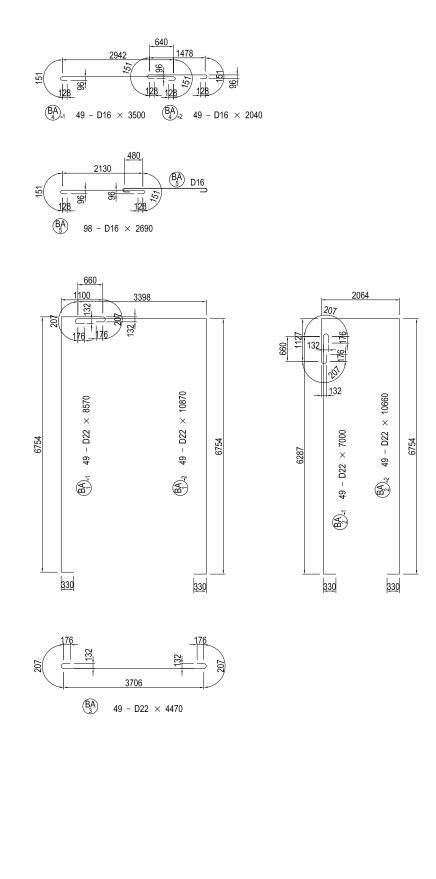
BAR

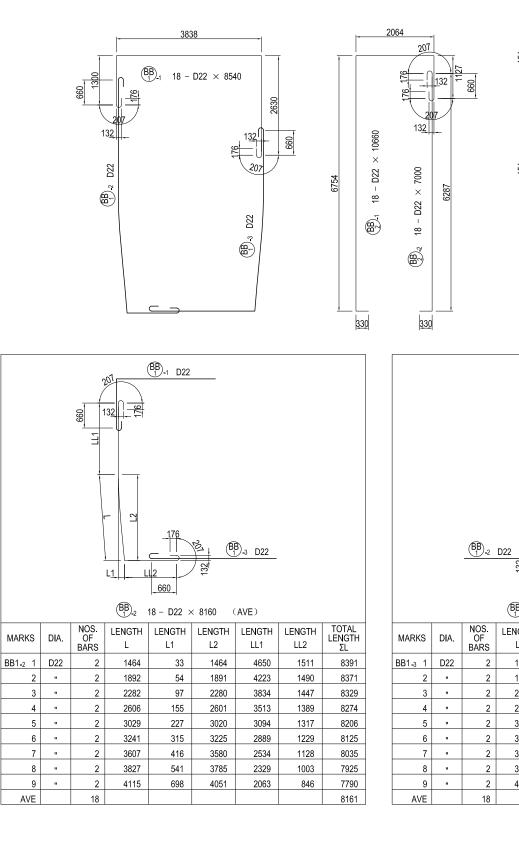
SD345

USE MATERIALS

BEAM

BAR ARRANGEMENT OF P18 PIER (7) S=1:100 BEAM





DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT

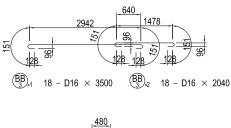


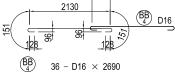
REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE

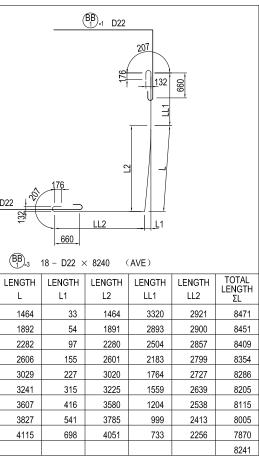


NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE	
PREPARED BY	S. IMADA	1-147	27 Nov.2017	
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017	
APPROVED BY	Y. SANO	牡鸦 肱一,	29 Nov.2017	



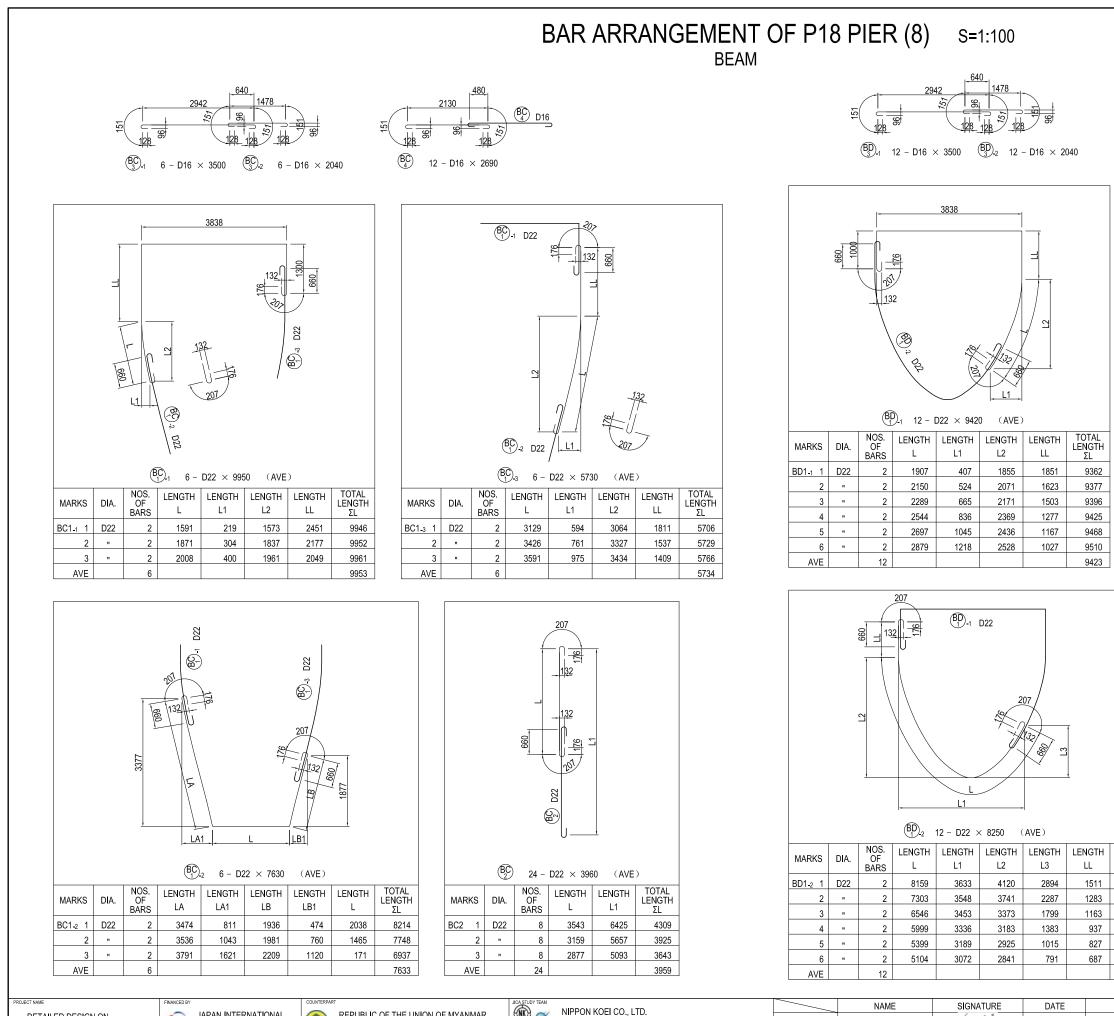




USE MATERIALS

	CONCRETE	BAR
BEAM	σck = 30 N/mm ²	SD345

DRAWING TITLE	PACKAGE
	2
BAR ARRANGEMENT OF P18 PIER (7)	DWG No.
	P2-SB-2409

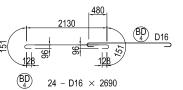


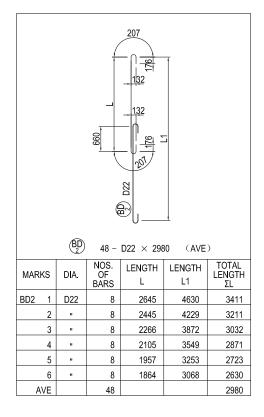
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE

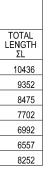


NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	
PREPARED BY	S. IMADA	1-147	27 Nov.2017	
CHECKED BY	T. HAYAKAWA	中们知外	28 Nov.2017	
APPROVED BY	Y. SANO	仇野 肱一,	29 Nov.2017	



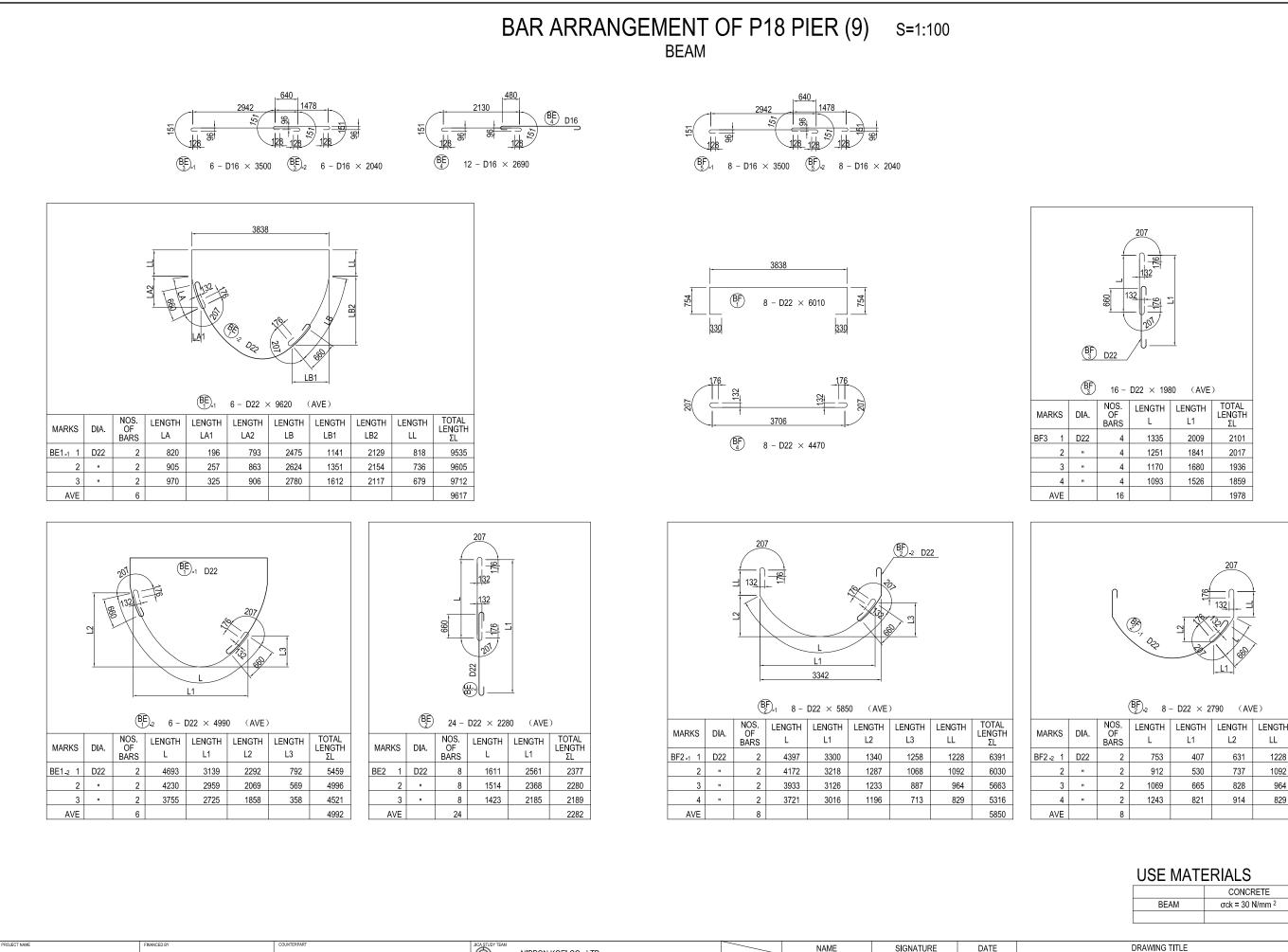




US	SE I	MA	TEF	RIA	LS
----	------	----	-----	-----	----

	CONCRETE	BAR
BEAM	σck = 30 N/mm ²	SD345

DRAWING TITLE	PACKAGE
	2
BAR ARRANGEMENT OF P18 PIER (8)	DWG No.
	P2-SB-2410



DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT

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.

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PREPARED BY	S. IMADA	1-147	27 Nov.2017	
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017	
APPROVED BY	Y. SANO	牡鸦 肱一,	29 Nov.2017	

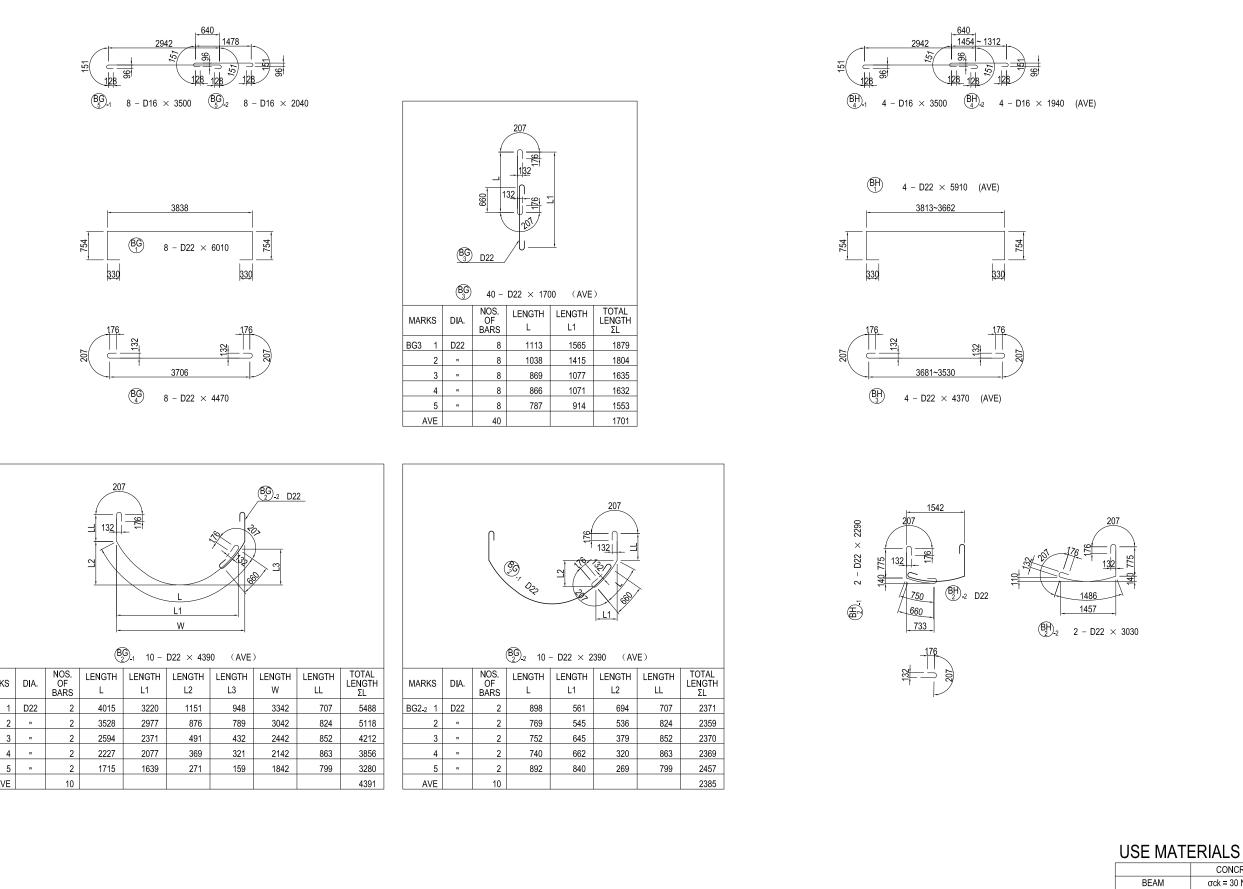
RKS	DIA.	NOS. OF BARS	LENGTH L	LENGTH L1	LENGTH L2	LENGTH LL	TOTAL LENGTH ΣL
-2 1	D22	2	753	407	631	1228	2747
2		2	912	530	737	1092	2770
3	"	2	1069	665	828	964	2799
4	"	2	1243	821	914	829	2838
AVE		8					2789

USE I	MAT	'ERI/	۹LS
-------	-----	-------	-----

	CONCRETE	BAR
BEAM	σck = 30 N/mm ²	SD345

DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF P18 PIER (9)	2
	DWG No.
	P2-SB-2411

BAR ARRANGEMENT OF P18 PIER (10) S=1:100 BEAM



DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT

MARKS

BG2_1 1

2

3

5

AVE

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



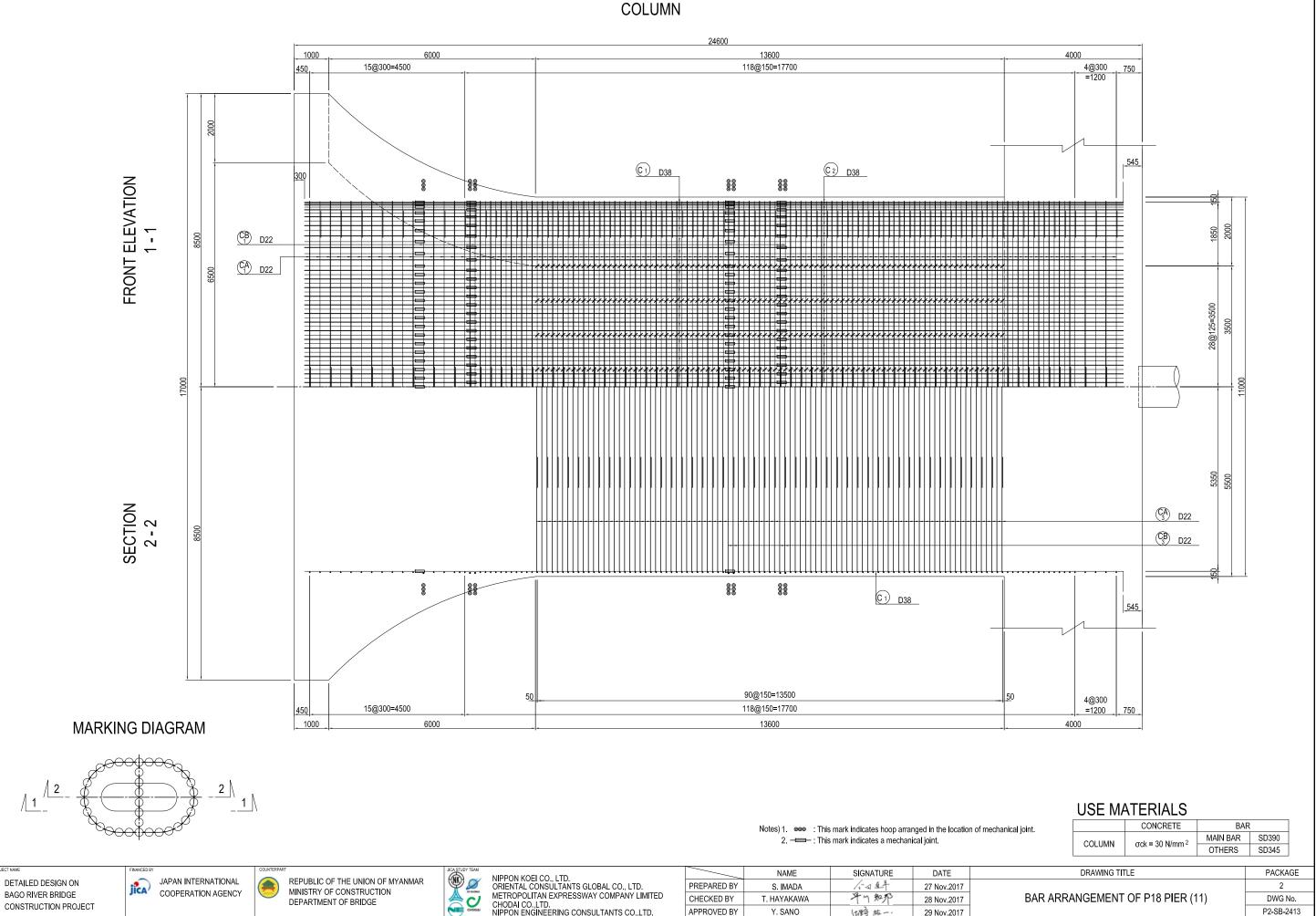
NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE	
PREPARED BY	S. IMADA	1-147	27 Nov.2017	
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017	
APPROVED BY	Y. SANO	批野 肱一,	29 Nov.2017	

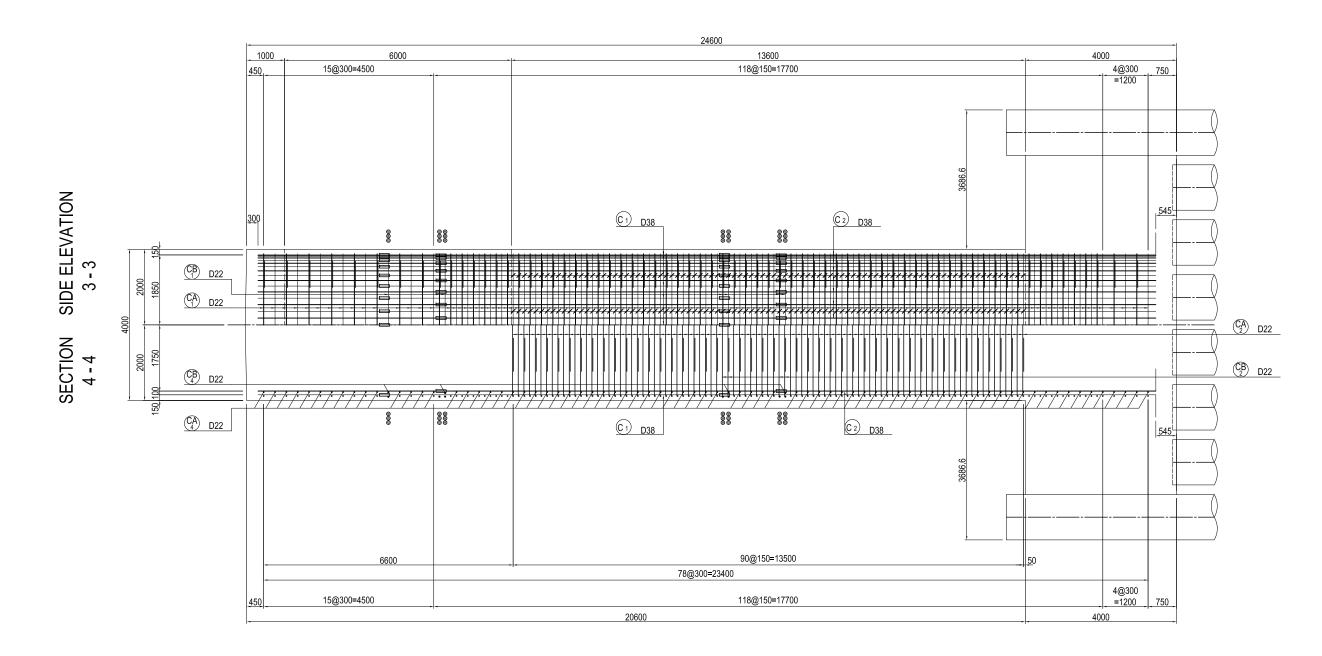
+		
Q		
05		

		CONCRETE	BAR	
	BEAM	σck = 30 N/mm ²	SD345	
	PACKAGE			
	2			
BAR ARRAN	DWG No.			
	 P2-SB-2412			

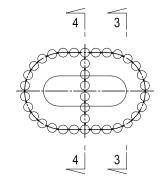
BAR ARRANGEMENT OF P18 PIER (11) S=1:100 COLUMN 24600



BAR ARRANGEMENT OF P18 PIER (12) S=1:100 COLUMN



MARKING DIAGRAM



DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT



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

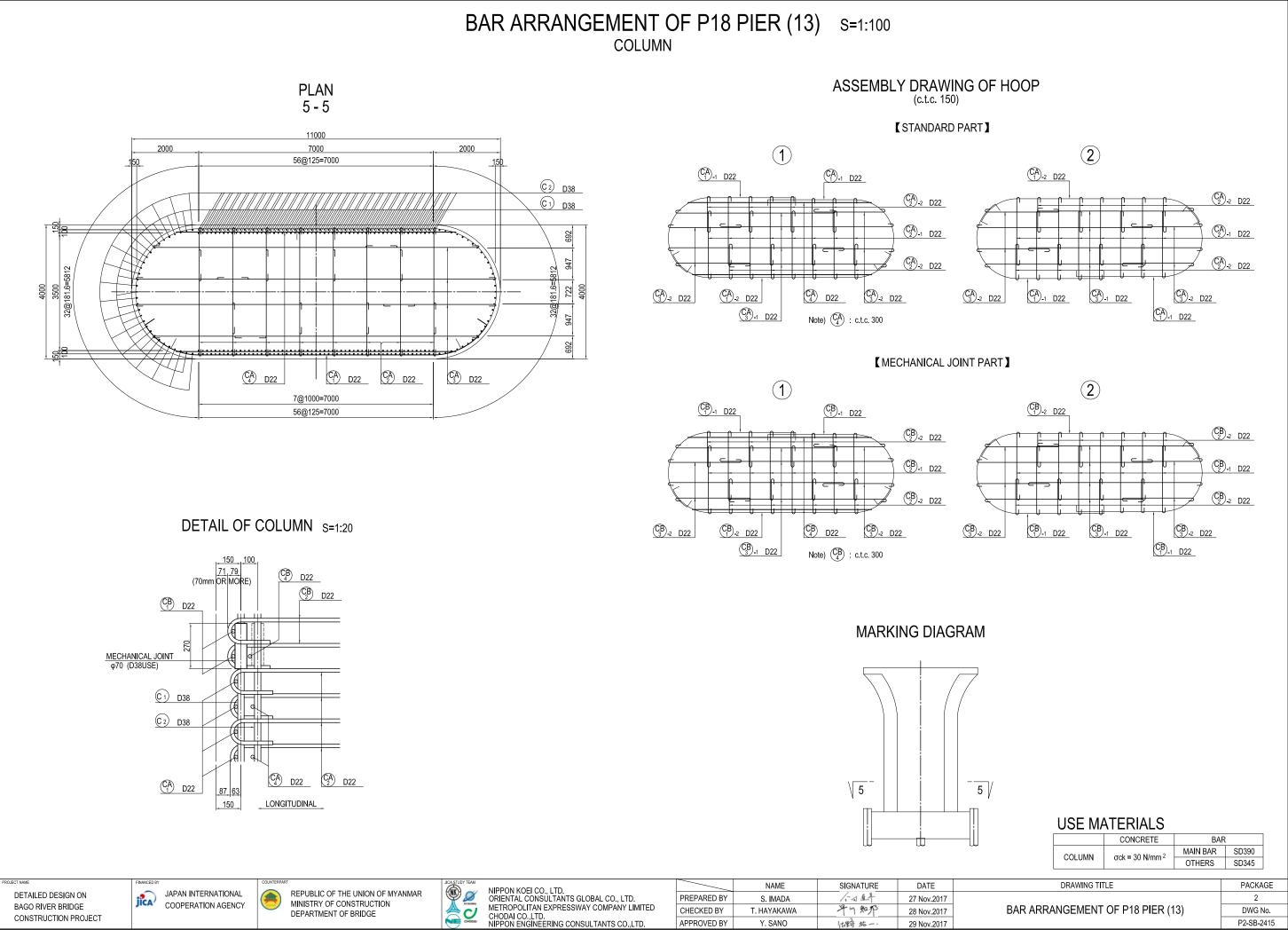


NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

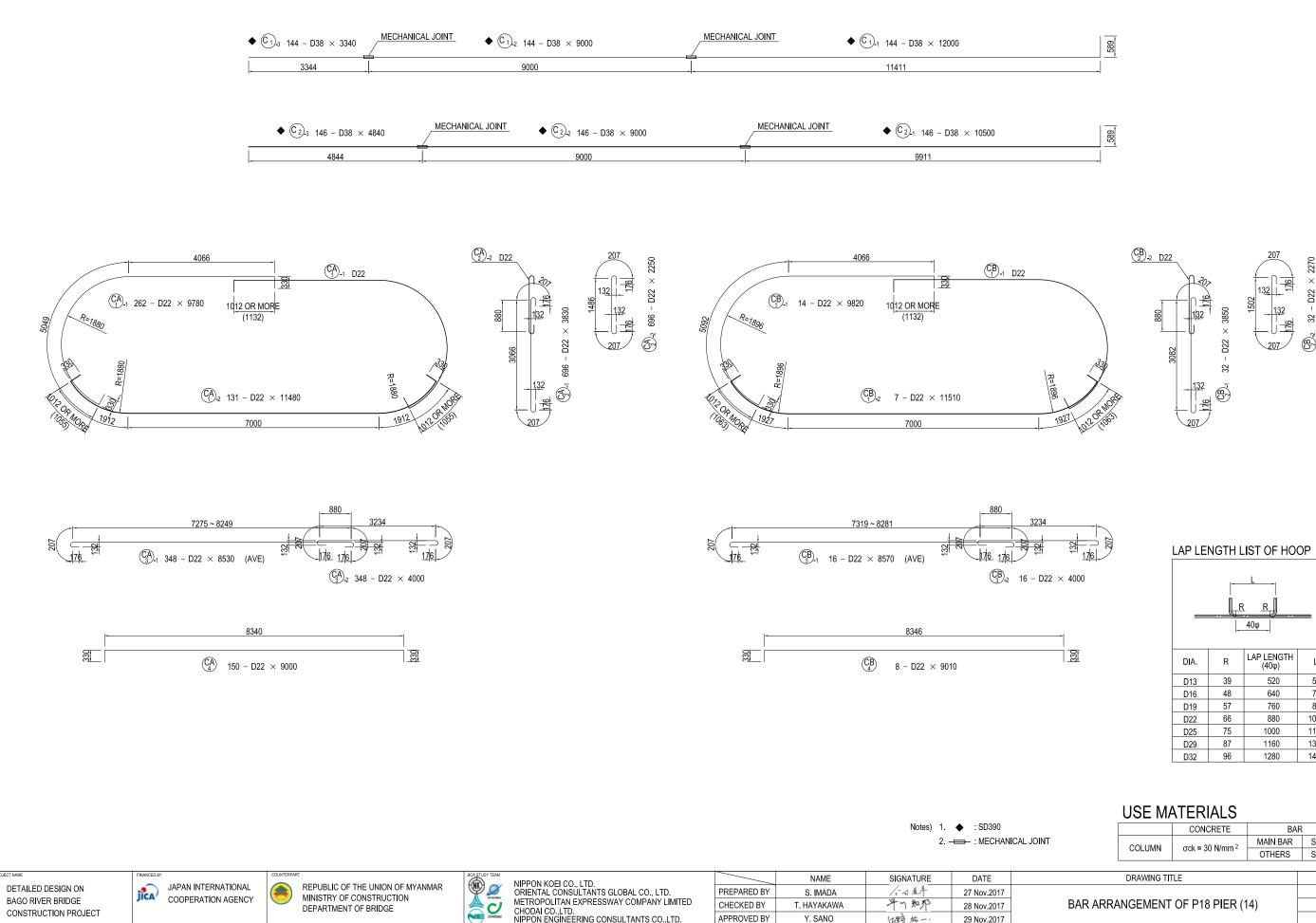
	NAME	SIGNATURE	DATE
PREPARED BY	S. IMADA	1-1 17	27 Nov.2017
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017
APPROVED BY	Y. SANO	优野 肱一,	29 Nov.2017

Notes) 1. end : This mark indicates hoop arranged in the location of mechanical joint. 2. ----- : This mark indicates a mechanical joint.

USE MATERIALS CONCRETE BAR COLUMN $\sigma ck = 30 \text{ N/mm}^2$ MAIN BAR SD390 OTHERS SD345 OTHERS SD345 DRAWING TITLE PACKAGE BAR ARRANGEMENT OF P18 PIER (12) 2 DWG No. P2-SB-2414



BAR ARRANGEMENT OF P18 PIER (14) S=1:100 COLUMN



APPROVED BY

Y. SANO

化野 施一,

29 Nov.2017

BAGO RIVER BRIDGE CONSTRUCTION PROJECT

DIA.	R	LAP LENGTH (40φ)	L					
D13	39	520	598					
D16	48	640	736					
D19	57	760	874					
D22	66	880	1012					
D25	75	1000	1150					
D29	87	1160	1334					
D32	96	1280	1472					

		CONCRETE	BAF	٦		
NT	COLUMN	$\sigma ck = 30 \text{ N/mm}^2$	MAIN BAR	SD390		
	COLOMIN	OCK - 30 N/mm ²	OTHERS	SD345		
	DRAWING TITLE					
				2		
BAR ARRA	BAR ARRANGEMENT OF P18 PIER (14)					
				P2-SB-2	416	

BAR ARRANGEMENT OF P18 PIER (15) NOT TO SCALE

BAR SCHEDULE (SD390)

BAR SCHEDULE (SD345)

5	MARKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	REM	ARK
	B 1-1	D32	11000	19	6.23	68.53	1302	-	
	1-2	"	8000	19	"	49.84	947	_	
	2-1	"	11500	4	"	71.65	287	-	
	2-2	"	7470	4	"	46.54	186	_	(AVE
	3-1		12000	2	п	74.76	150	-	
	3-2	"	6500	2		40.50	81	_	
	4-1	"	11500	6	"	71.65	430	-	
	4-2	"	7000	6	"	43.61	262	-	
	5-1		8920	4		55.57	222	-	
	5-2	"	9500	4		59.19	237	_	
	6-1		9000	2		56.07	112	~	
	6-2	"	9500	2	"	59.19	118	_	
	7-1	"	6000	2		37.38	75	-	
	7-2	"	12000	2		74.76	150	-	
	8-1		12000	7		74.76	523	_	
	8-2		7000	7		43.61	305		
			9500	6		59.19	355		
	9		7000	2		43.61	87	"	
	10-1			2		74.76		_	
	10-2		12000 12000				150		
	11-1	"		2	"	74.76	150	_	
	11-2	"	6000	2	"	37.38	75		
	12-1	"	10740	8	"	66.91	535		(AVE
	12-2	"	6500	8	"	40.50	324		
	12-3	"	8920	8	"	55.57	445		(AVE
	13-1	"	11460	4	"	71.40	286	\sim	(AVE
	13-2	"	6500	4	"	40.50	162	—	
	13-3	"	9640	4	"	60.06	240	<u> </u>	(AVE
	14-1	"	11500	2	"	71.65	143	\mathbf{L}	
	14-2	"	11000	2	"	68.53	137		
	15-1	D22	11500	6	3.04	34.96	210	C	
	15-2	"	11500	6	"	34.96	210	Ĺ	
	16-1	"	9300	12	"	28.27	339	C	(AVE
	16-2	"	10640	12	п	32.35	388	<u> </u>	(AVE
	17-1	"	10400	13	"	31.62	411	\frown	(AVE
	17-2	"	10940	26		33.26	865	C	(AVE
	18-1	"	8500	1		25.84	26	C	
	18-2		9500	1	п	28.88	29		
	18-3	"	12000	1	"	36.48	36	C	
						SUBTOTAL	10990	kg	
	BA 1-1	D22	8570	49	3.04	26.05	1276	ſ	
	1-2		10870	49	п	33.04	1619	5	
	2-1	"	7000	49		21.28	1043	ſ	
	2-2	"	10660	49		32.41	1588	5	
	3	"	4470	49		13.59	666	_ 	
	4-1	D16	3500	49	1.56	5.46	268	-	
	4-1	"	2040	49	"	3.18	156	"	
	5		2690	98		4.20	412		
	5		2030			SUBTOTAL	7028	kg	
						SOBTOTAL	1020		
	1								

MAF	RKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	REM	IARK
С	1-1	D38	12000	144	8.95	107.40	15466		(144
	1-2	"	9000	144		80.55	11599	•	(144
	1-3		3340	144		29.89	4304	—	
	2 - 1	"	10500	146	"	93.98	13721	•	(146
	2-2	"	9000	146		80.55	11760	•	(146
	2-3	"	4840	146	=	43.32	6325	_	
						SUBTOTAL	63175	kg	
						(1	IECHANICAL	JOIN	T)
		SI	D390	D38 63175			(580)		
							()		
				TOTAL	6	63175 ^{kg}	(580)		

REMARKS	MARKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	RE	MARKS	MAF	RKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	REN	IARKS
-	BB 1-1	D22	8540	18	3.04	25.96	467	5		BH	1	D22	5910	4	3.04	17.97	72		(AVE)
-	1-2	"	8160	18	u	24.81	447	C	(AVE)		2-1		2290	2		6.96	14	L	
-	1-3	"	8240	18		25.05	451	2	(AVE)		2-2		3030	2		9.21	18	J	
(AVE)	2-1	"	10660	18		32.41	583	Г			3		4370	4		13.28	53	-	(AVE)
-	2-2	"	7000	18	u	21.28	383]			4-1	D16	3500	4	1.56	5.46	22	-	
-	3-1	D16	3500	18	1.56	5.46	98	-			4-2		1940	4		3.03	12	"	(AVE)
-	3-2	"	2040	18		3.18	57	"								SUBTOTAL	191	kg	
_	4	"	2690	36		4.20	151												
-						SUBTOTAL	2637	kg		н	1	D16	2830	68	1.56	4.41	300		
-											2		3050	60		4.76	286	"	
-	BC 1-1	D22	9950	6	3.04	30.25	182	C	(AVE)		3		8050	4		12.56	50	D,	
-	1-2	"	7630	6		23.20	139	0	(AVE)							SUBTOTAL	636	kg	
-	1-3	"	5730	6	u	17.42	105	J	(AVE)										
_	2	"	3960	24		12.04	289	C	(AVE)	CA	1-1	D22	9780	262	3.04	29.73	7789	C	
<u> </u>	3-1	D16	3500	6	1.56	5.46	33	-			1-2		11480	131		34.90	4572	J	
	3-2	"	2040	6	"	3.18	19				2-1		3830	696	"	11.64	8101	C	
<u> </u>	4		2690	12	"	4.20	50				2-2		2250	696	"	6.84	4761		
"						SUBTOTAL		kg			3-1		8530	348		25.93	9024	-	(AVE)
											3-2		4000	348		12.16	4232		()
<u> </u>	BD 1-1	D22	9420	12	3.04	28.64	344	5	(AVE)		4		9000	150		27.36	4104	-	
	1-2	"	8250	12	"	25.08	301	Ū	(AVE)							SUBTOTAL		kg	
(AVE)	2		2980	48		9.06	435	C	(AVE)								.2000		
_ (///2/	3-1	D16	3500	12	1.56	5.46	66	-		СВ	1-1	D22	9820	14	3.04	29.85	418	C	
_/ (AVE)	3-2	"	2040	12		3.18	38				1.2	"	11510	7		34.99	245	5	
(AVE)	4		2690	24		4.20	101				2-1		3850	32		11.70	374	C	
		I				SUBTOTAL	1285	kg			2-2		2270	32		6.90	221	"	
_/ (AVE)											3-1		8570	16		26.05	417	-	(AVE)
<u>(,)</u>	BE 1-1	D22	9620	6	3.04	29.24	175	5	(AVE)		3-2		4000	16		12.16	195		(///2/
_/	1-2	"	4990	6	"	15.17	91	Ū	(AVE)		4		9010	8		27.39	219	-	
C	2	"	2280	24		6.93	166	C	(AVE)							SUBTOTAL		kg	
L	3-1	D16	3500	6	1.56	5.46	33	-											
(AVE)	3-2	"	2040	6	"	3.18	19												
(AVE)	4		2690	12		4.20	50					SI	0345	D32		8476 ^{kg}			
(AVE)			2000			SUBTOTAL		kg						D22		59323			
(AVE)														D16		2359			
с (,\\ <u>`</u>	BF 1	D22	6010	8	3.04	18.27	146	L.	1					2.0					
ب	2-1	"	5850	8	"	17.78	142	C						TOTAL		70158 ^{kg}			
<u> </u>	2-1		2790	8		8.48	68	5							,				
9	3		1980	16		6.02	96	C	(AVE)										
	4		4470		"	13.59	109	L.		L									
P	5-1	D16	3500	8	1.56	5.46	44	5											
<u> </u>	5-2	"	2040	8	"	3.18	25												
1	52		2010	Ű		SUBTOTAL	630	kg											
<u> </u>						CODIONAL	000												
	BG 1	D22	6010	8	3.04	18.27	146	Γ.											
		"	4390	10	3.04	13.35	140	C											
"	2-1		2390	10	"	7.27	73	5											
"	2-2	"	1700	40	"	5.17	207	C	· · ·										
ig	3	,	4470	40	"	13.59	109	ں د	(AVE)										
	4	" D16	3500	8	1.56	5.46	44	- -											
	5-1	"	2040	8	1.00	3.18	25												
	5-2		2040	0		SUBTOTAL		kg											
						SUBIUIAL	100								ATER				



	NAME	SIGNATURE	DATE	
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CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017	
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jîca

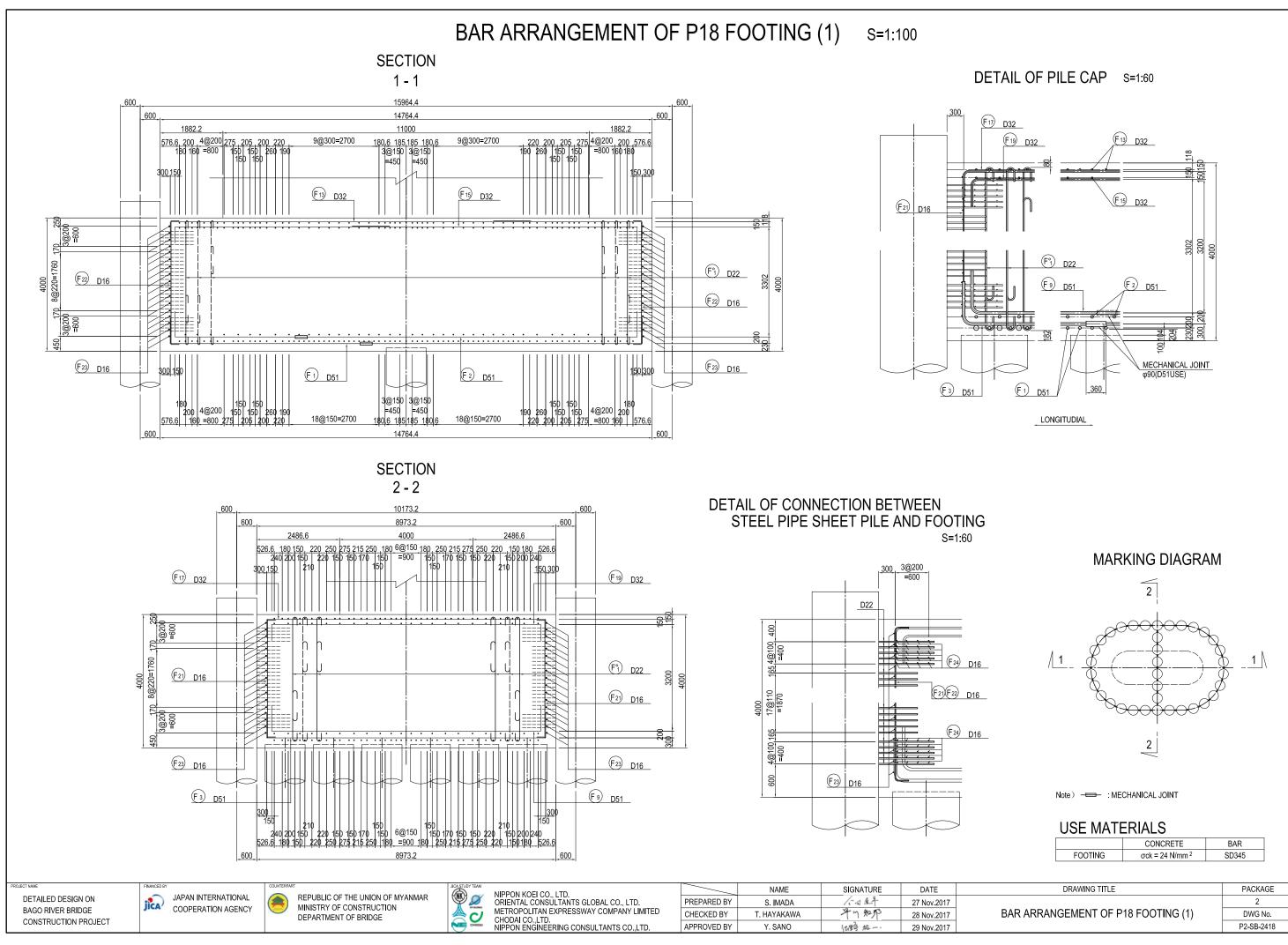
JAPAN INTERNATIONAL

COOPERATION AGENCY

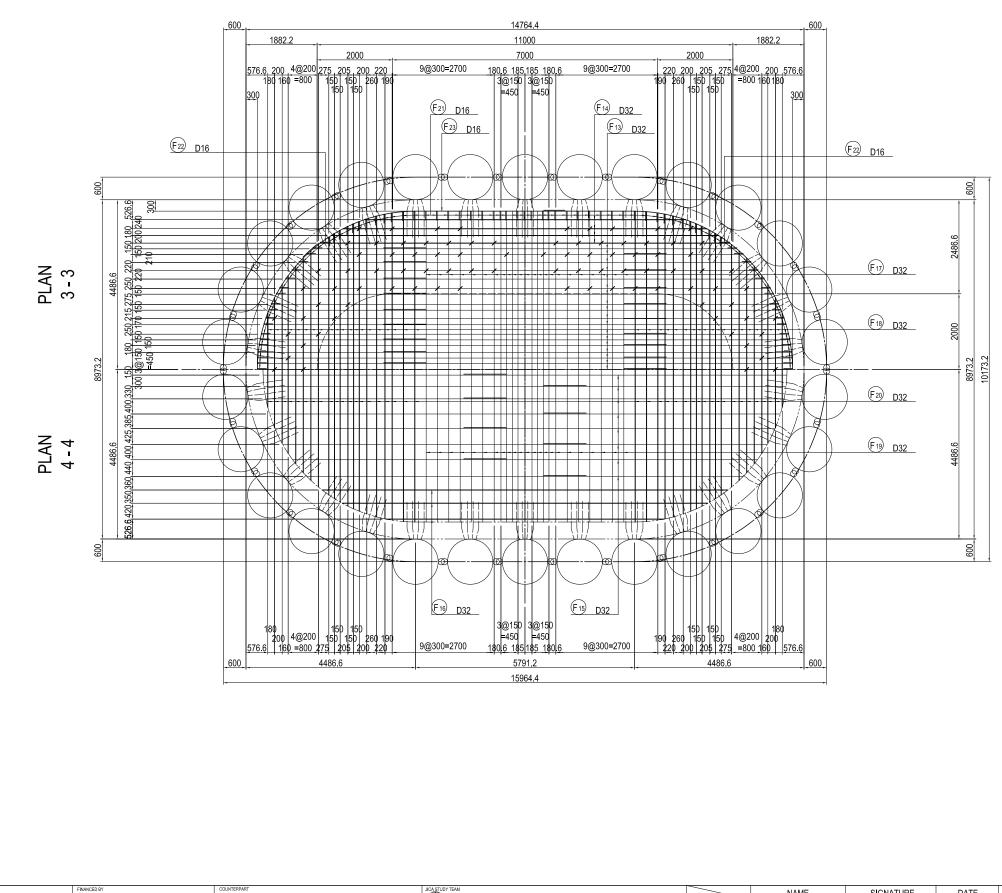
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USE MATERIALS

	COLUMN	σck = 30 N/mm ²	MAIN BAR	SD390					
	COLUMIN	OCK - 30 N/mm -	OTHERS	SD345					
	PACKAGE								
		2							
BAR ARRA	NGEMENT	OF P18 PIER (1	5)	DWG N	lo.				
	P2-SB-2417								



BAR ARRANGEMENT OF P18 FOOTING (2) S=1:100

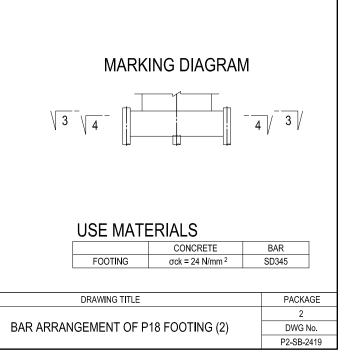


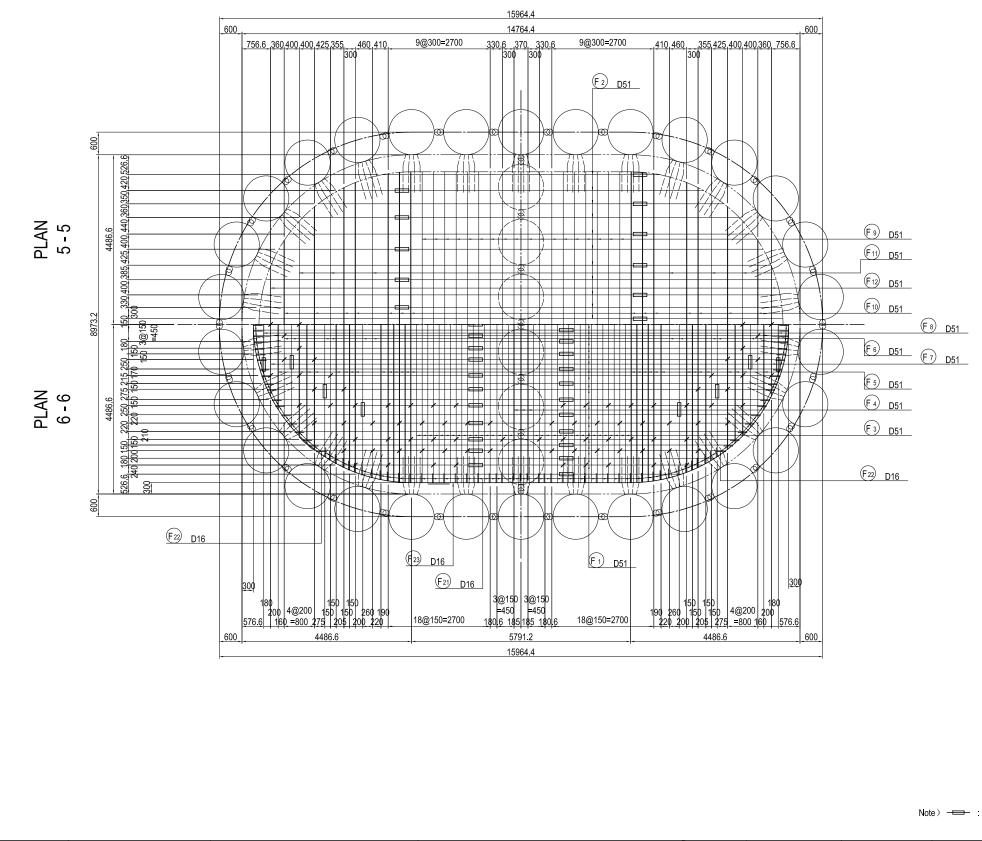
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE



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

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DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT •

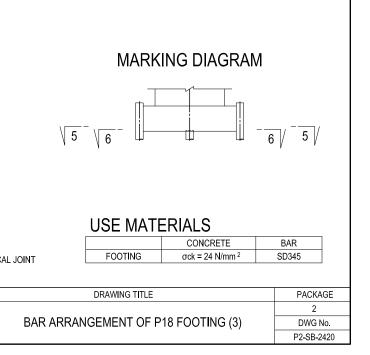
REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE



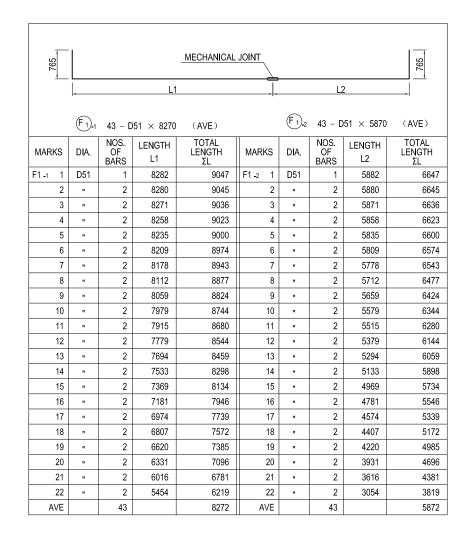
NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

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CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017	
APPROVED BY	Y. SANO	批野 施一,	29 Nov.2017	

Note) ----- : MECHANICAL JOINT

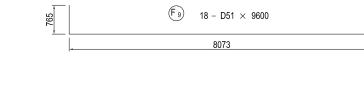


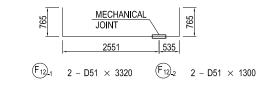


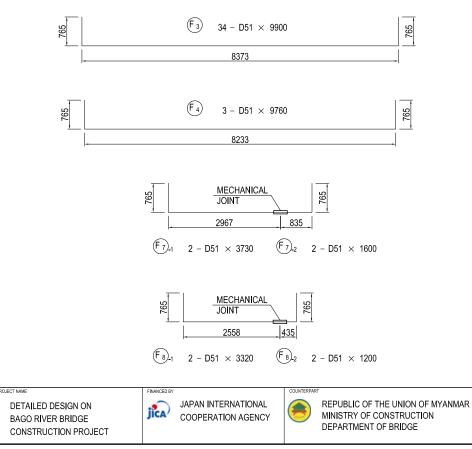


1- 165				L	
		(F 5)	28 – D	51 × 8930	(AVE)
MAR	KS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F5	1	D51	2	8373	9903
	2	"	2	8366	9896
	3	"	2	8349	9879
	4	"	2	8320	9850
	5	"	2	8281	9811
	6	"	2	8215	9745
	7	"	2	7825	9355
	8	"	2	7704	9234
	9	"	2	7569	9099
	10	"	2	7361	8891
	11	"	2	6610	8140
	12	"	2	6278	7808
	13	"	2	5901	7431
	14	"	2	4502	6032
A	VE		28		8934

765					MECHANICAL				
				L1				Lź	2
		(F ₂) ₁	22 – D	51 × 9940	(AVE)	·	(F_2)_2	22 – D	951 × 3640
MAR	٢S	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2
F2 -1	1	D51	2	10079	10844	F2_2 1	D51	2	3779
	2	"	2	10057	10822	2	"	2	3757
	3	"	2	10006	10771	3	"	2	3706
	4	"	2	9906	10671	4	"	2	3606
	5	"	2	9766	10531	5	"	2	3466
	6	"	2	9558	10323	6	"	2	3258
	7	"	2	9299	10064	7	"	2	2999
	8	"	2	8924	9689	8	"	2	2624
	9	"	2	8519	9284	9	"	2	2219
	10	"	2	7985	8750	10	"	2	1685
	11	"	2	6828	7593	11	"	2	528
A	VE		22		9940	AVE		22	







	MEC			⁵⁹²
(F <u>6</u> 1 1	2 – D51	× 5820	(AVE)
MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F6 -1 1	D51	2	6381	7146
2		2	6231	6996
3	"	2	5456	6221
4	"	2	5268	6033
5	"	2	3734	4499
6		2	3233	3998

12

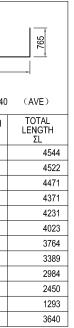
AVE

 $(F_{6})_{-2}$ 12 - D51 × 2500

5816

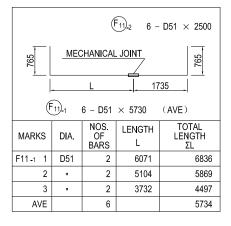
NIPPON KOEL CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.

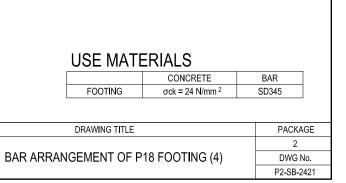
	NAME	SIGNATURE	DATE	
PREPARED BY	S. IMADA	1-147	27 Nov.2017	
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017	
APPROVED BY	Y. SANO	牡鸦 肱一,	29 Nov.2017	



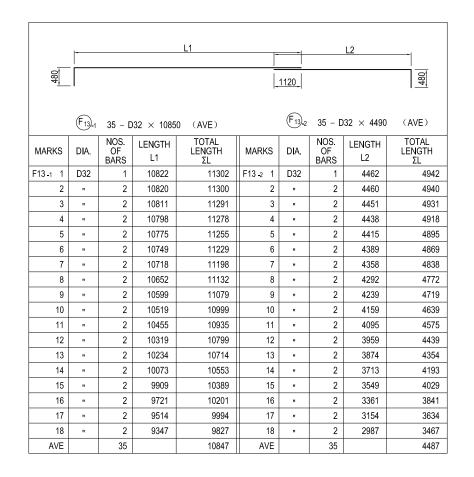
765

765			L	
	(F ₁₀)	14 – D	51 × 8600	(AVE)
MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F10 1	D51	2	8073	9603
2	"	2	8048	9578
3		2	7977	9507
4		2	7503	9033
5	"	2	7236	8766
6	"	2	6226	7756
7	"	2	4444	5974
AVE		14		8602





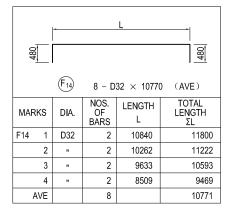
BAR ARRANGEMENT OF P18 FOOTING (5) S=1:100

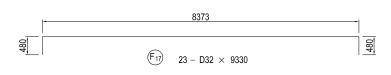


				L	
480					480
		(F ₁₈)	40 – D	32 × 7680	(AVE)
MAR	KS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F18	1	D32	2	8373	9333
	2	-	2	8349	9309
	3	"	2	8281	9241
	4	"	2	8215	9175
	5		2	8116	9076
	6		2	7966	8926
	7	"	2	7825	8785
	8	"	2	7704	8664
	9		2	7569	8529
	10	"	2	7361	8321
	11	"	2	7191	8151
	12	"	2	7003	7963
	13	"	2	6610	7570
	14		2	6278	7238
	15		2	5901	6861
	16	"	2	5469	6429
	17		2	4968	5928
	18	"	2	4502	5462
	19	"	2	3802	4762
	20	"	2	2993	3953
Д	٧E		40		7684

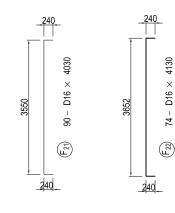
				L1	-			L2
480	_				_	1120		
	(F ₁₅₎₋₁	16 – D	032 × 8650	(AVE)		$(F_{15})_{2}$	16 – D	032 × 6530
MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2
F15 -1 1	D32	2	8549	9029	F15_2 1	D32	2	6429
2	"	2	8527	9007	2	"	2	6407
3	"	2	8476	8956	3	"	2	6356
4	"	2	8376	8856	4	"	2	6256
5	"	2	8236	8716	5	"	2	6116
6	"	2	8028	8508	6	"	2	5908
7	"	2	7769	8249	7	"	2	5649
8	"	2	7394	7874	8	"	2	5274
AVE		16		8649	AVE		16	

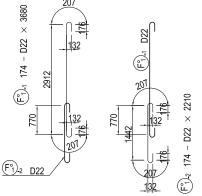
480	 -		L	480
	(F ₁₆)	6 – D	32 × 1022	(AVE)
MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F16 1	D32	2	10738	11698
2	"	2	9671	10631
3	"	2	7356	8316
AVE		6		10215





×





DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT

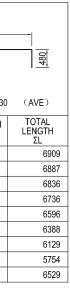
JAPAN INTERNATIONAL jica COOPERATION AGENCY

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



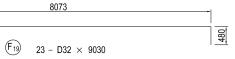
NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	S. IMADA	1-147	27 Nov.2017
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017
APPROVED BY	Y. SANO	牡鸦 肱一,	29 Nov.2017



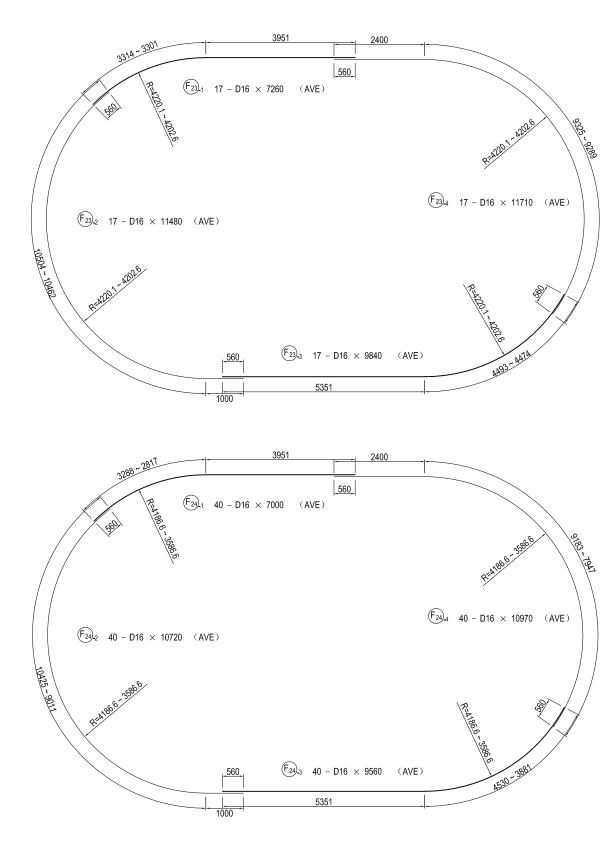
480

	ľ			L	<u> </u>
480					480
		(F ₂₀)	40 – D	32 × 7270	(AVE)
MAR	KS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F20	1	D32	2	8073	9033
	2	"	2	8048	9008
	3	=	2	7977	8937
	4	"	2	7909	8869
	5	"	2	7806	8766
	6		2	7650	8610
	7	"	2	7503	8463
	8	=	2	7377	8337
	9	"	2	7236	8196
	10		2	7018	7978
	11		2	6839	7799
	12	"	2	6641	7601
	13	"	2	6226	7186
	14		2	5872	6832
	15	"	2	5467	6427
	16	=	2	4998	5958
	17		2	4444	5404
	18		2	3916	4876
	19		2	3086	4046
	20	=	2	2006	2966
A	٨VE		40		7265



	USE MATE	ERIALS		
		CONCRETE	BAR	
	FOOTING	σck = 24 N/mm ²	SD345	
				-
	DRAWING TITLE		PACKA	GE
			2	
BAR ARRAN	IGEMENT OF P	18 FOOT I NG (5)	DWG N	۱o.
			P2-SB-2	422

BAR ARRANGEMENT OF P18 FOOTING (6) S=1:100



BAR SCHEDULE

MA	RKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	1	GHT/EA. (kg)	WEIGHT (kg)	REN	IARKS
F	1-1	D51	8270	43	15.9		131.49	5654		(43) (AVE)
	1-2	"	5870	43	"		93.33	4013		(AVE)
	2-1	"	9940	22	"		158.05	3477		(22) (AVE)
	2-2	"	3640	22	"		57.88	1273	_	(AVE)
	3	"	9900	34	"		157.41	5352		
	4	"	9760	3	"		155.18	466	"	
	5	"	8930	28	"		141.99	3976		(AVE)
	6-1	"	5820	12	"		92.54	1110		(12) (AVE)
	6-2		2500	12	"		39.75	477	_	
	7-1	"	3730	2	"		59.31	119		(2)
	7-2	"	1600	2	"		25.44	51		
	8-1	"	3320	2	"		52.79	106		(2)
	8-2	"	1200	2	"		19.08	38	_	
	9	"	9600	18	"		152.64	2748		
	10	"	8600	14	"		136.74	1914	"	(AVE)
	11-1	"	5730	6	"		91.11	547		(6) (AVE)
	11-2		2500	6	"		39.75	239	_	(,,,=)
	12-1		3320	2	"		52.79	106		(2)
	12-2	"	1300	2			20.67	41		
	13-1	D32	10850	35	6.23		67.60	2366	-	(AVE)
	13-2	"	4490	35	"		27.97	979	-	(AVE)
	14		10770	8	"		67.10	537	_	(AVE)
	15-1	"	8650	16			53.89	862	-	(AVE)
	15-2	"	6530	16	"		40.68	651	-	(AVE)
	16		10220	6			63.67	382	_	
	17		9330	23	"		58.13	1337	"	(AVE)
	18		7680	40	"		47.85	1914	"	(4)/(5)
	19	"	9030	23	"		56.26	1294	"	(AVE)
	20		7270	40			45.29	1812	"	(4)/E)
	20	D16	4030	90	1.56		6.29	566	[(AVE)
	22	"	4130	74	"		6.44	477	"	
	23-1		7260	17	"		11.33	193	-	(4)(5)
	23-2		11480	17	"		17.91	304	C	(AVE)
	23-2		9840	17			15.35	261	5	(AVE)
	23-4		11710	17			18.27	311	5	(AVE)
	24-1	"	7000	40	"		10.92	437	-	(AVE)
	24-2	"	10720	40			16.72	669	C	(AVE) (AVE)
	24-3		9560	40			14.91	596	5	
	24-3		10970	40			17.11	684	٦	(AVE)
	24-4		10070	-10		SUI	BTOTAL	48339	kg	(AVE)
F°	1-1	D22	3680	174	3.04		11.19	1947	C	
•	1-2	"	2210	174	"		6.72	1169	"	
	1-2		2210	1/4		SUI	BTOTAL	3116	kg	
						001	DIGINE	0110		
							()	/IECHANICAL		IT)
				D51		31707	kg	(89)		•• /
				D32		12134		(09)		
				D32		3116				
				D22		4498				
				010		7730				
				TOTAL		51455	kg	(89)		
				IUIAL		01700		(09)		

Note) The joint position of the reinfocing bar is rotated 180 degrees for each step arranged.

DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT



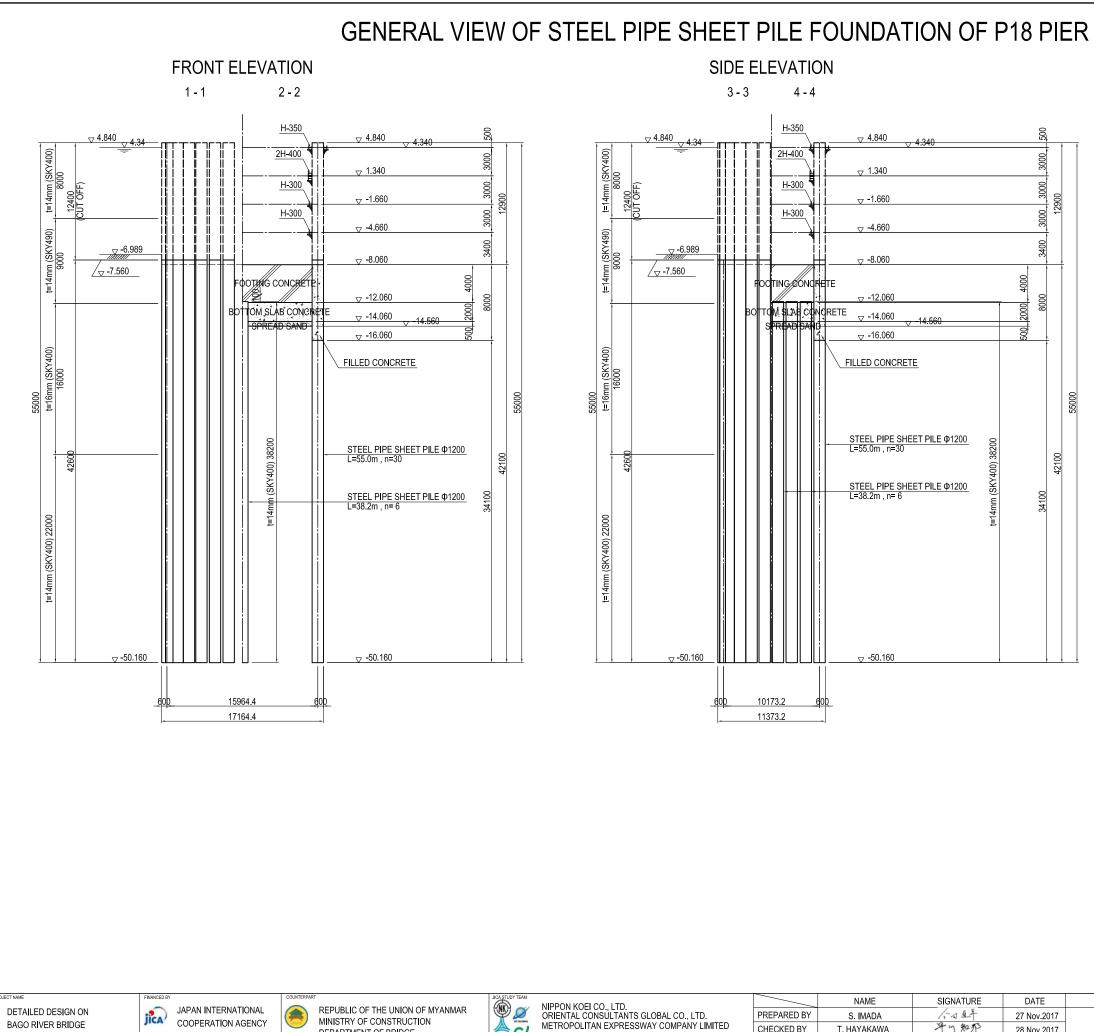
REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE



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

NAME	SIGNATURE	DATE	
S. IMADA	1-147	27 Nov.2017	
T. HAYAKAWA	中的知外	28 Nov.2017	
Y. SANO	休野 祐一,	29 Nov.2017	
	S. IMADA T. HAYAKAWA	S. IMADA パーマ 生子 T. HAYAKAWA 子り 知力	S. IMADA イーローキ 27 Nov.2017 T. HAYAKAWA イーローキア 28 Nov.2017

	USE MATE	ERIALS			
		CONCRETE		BAR	
	FOOTING	σck = 24 N/mm ²		SD345	
	DRAWING TITLE			PACKA	GE
2					
BAR ARRANGEMENT OF P18 FOOTING (6) DWG No.					lo.
				P2-SB-2	423



DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE



CHECKED BY

APPROVED BY

T. HAYAKAWA

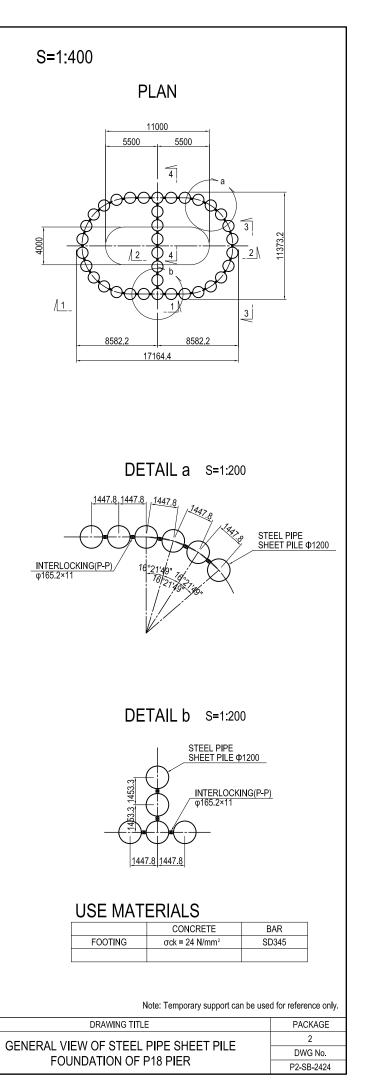
Y. SANO

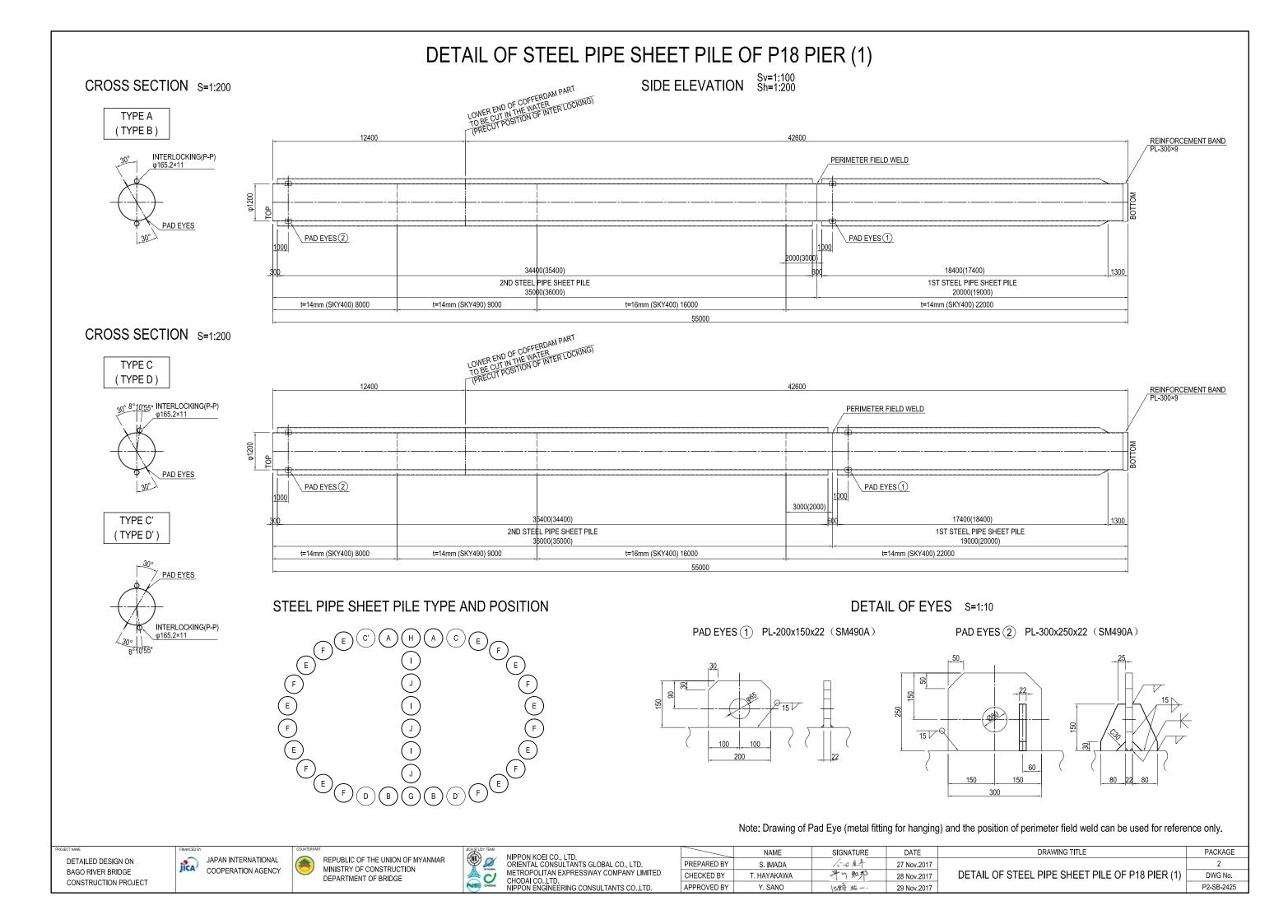
平り知れ

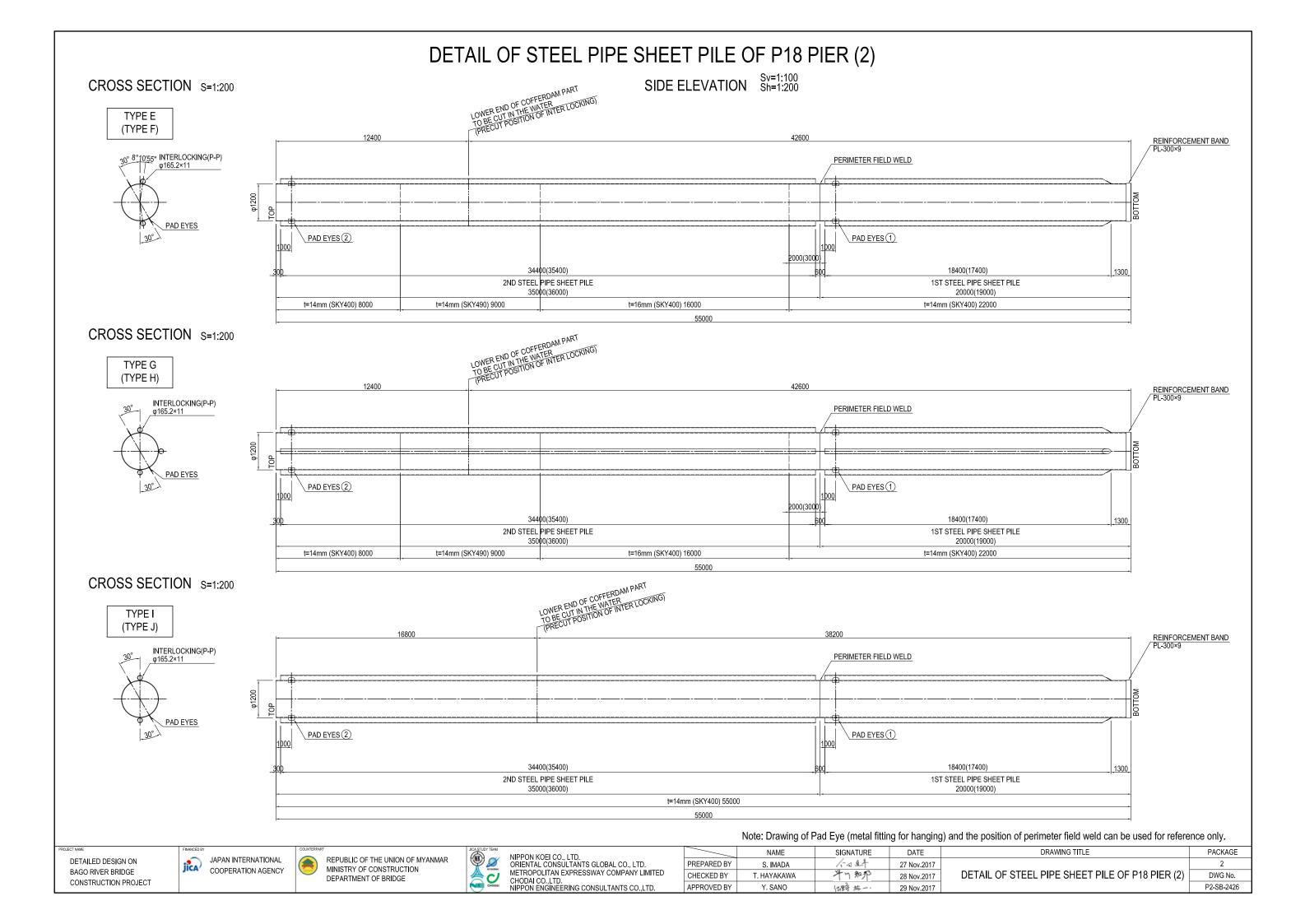
出野 施一·

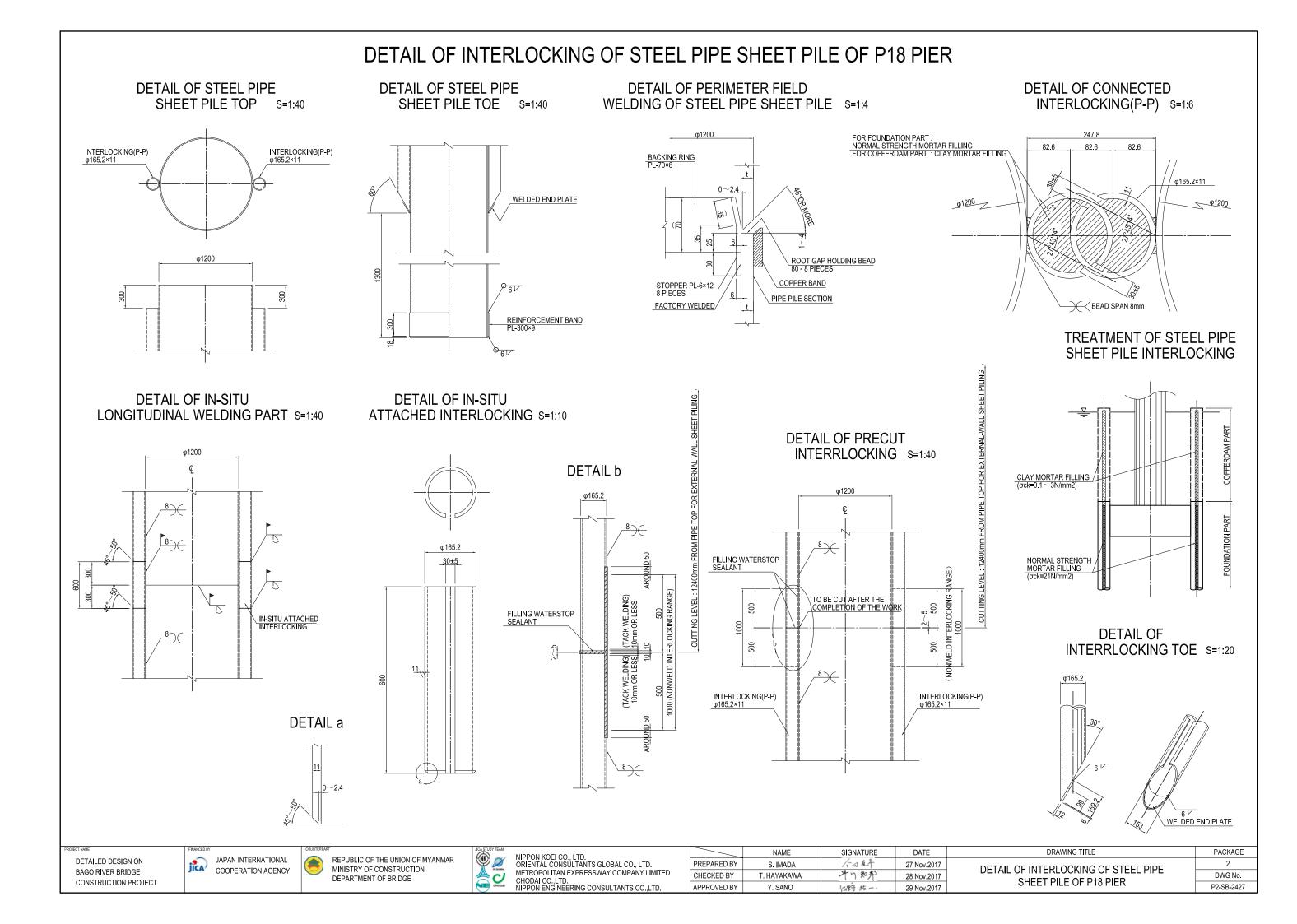
28 Nov.2017

29 Nov.2017

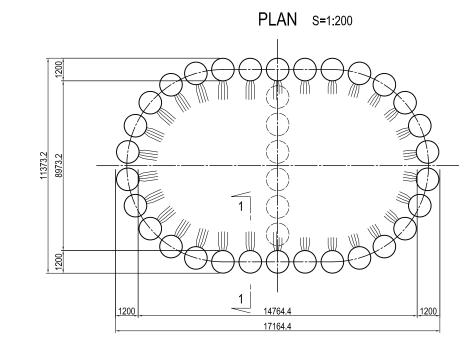






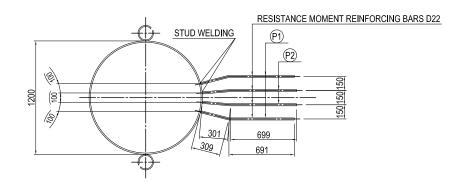


DETAIL OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND FOOTING OF P18 PIER

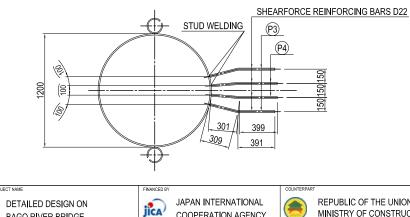


CROSS SECTION OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND REINFORCING BARS S=1:40

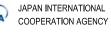
3 - 3 CROSS SECTION (RESISTANCE MOMENT REINFORCING BARS CONNECTION PART)



4 - 4 CROSS SECTION (SHEARFORCE REINFORCING BARS CONNECTION PART)



BAGO RIVER BRIDGE CONSTRUCTION PROJECT



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



691

R110 (INNER DIAMETER)

165°**4**0'34"

(P1) 600-D22×1000

309

NIPPON KOEI CO., LTD. ORIENTAL CONSULTAN METROPOLITAN EXPRES CHOD.

R110 (INNER DIAMETER)

175°13'31"

(P2) 600-D22×1000

301

ITAL CONSULTANTS GLOBAL CO., LTD.
OPOLITAN EXPRESSWAY COMPANY LIMITED
AI CO.,LTD.
IN ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE	
PREPARED BY	S. IMADA	1-147	27 Nov.2017	
CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017	
APPROVED BY	Y. SANO	牡鸦 肱一,	29 Nov.2017	

R110 (INNER DIAMETER)

175°13'31"

(P4) 1080-D22×700

399

301

MARK

 $\overline{\mathbb{P}1}$

(P2)

P3

(P4)

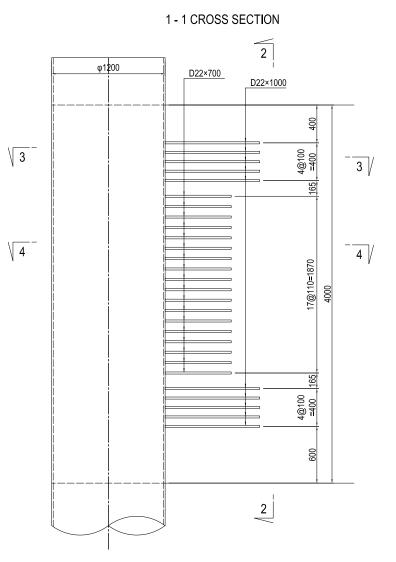
TYPE

D22

D22

D22

D22





DIAMETER

R110 (INNER]

165°<u>4</u>0'34"

P3 1080-D22×700

391

309

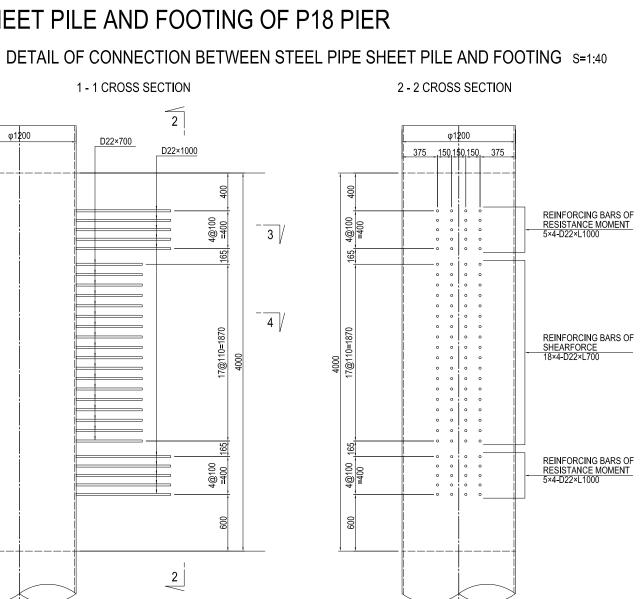


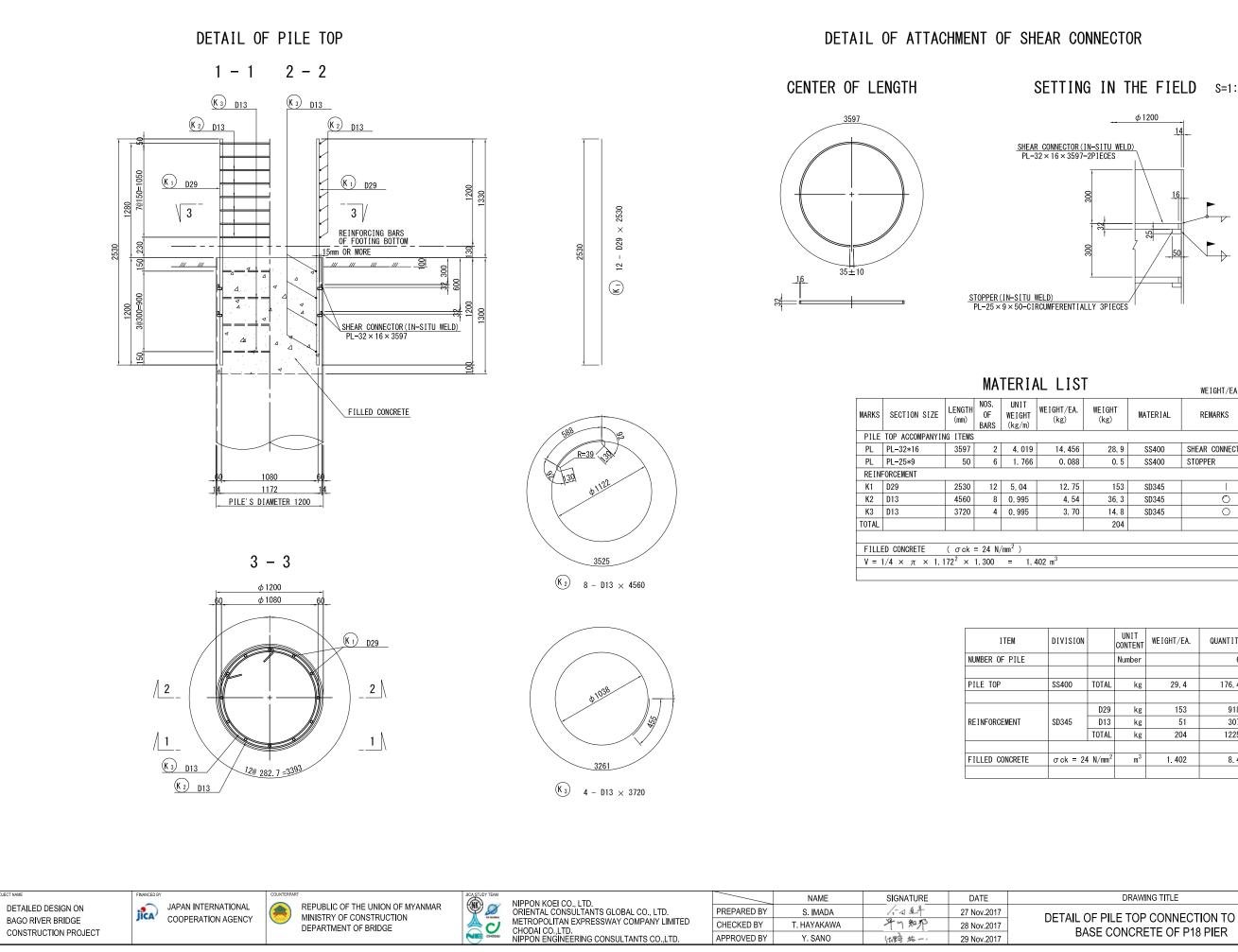
TABLE OF REINFORCING BARS

	LENGT (mm)		PIECES (piece)	UNIT WEIGHT (kg/m)	UNIT WEIGHT (kg/piece)		EIGHT (kg)	GRADE	MEMO
	100	00	600	3.04	3.04		1824.0	SD345 for STUD WELDING	
	100	00	600	3.04	3.04		1824.0	SD345 for STUD WELDING	
	70	00	1080	3.04	2.13		2300.4	SD345 for STUD WELDING	<u> </u>
	70	00	1080	3.04	2.13		2300.4	SD345 for STUD WELDING	
				D22	8248.8	kg			
				TOTAL WEIGHT	8248.8	kg			
E					DRAWING TITL	E			PACKAG
-									

DETAIL OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND FOOTING OF P18 PIER

2 DWG No. P2-SB-2428

DETAIL OF PILE TOP CONNECTION TO THE BASE CONCRETE OF P18 PIER S=1:40



SETTING IN THE FIELD S=1:20

	-		WEIGHI/EA.
VEIGHT/EA. (kg)	WEIGHT (kg)	MATERIAL	REMARKS
			-
14.456	28.9	SS400	SHEAR CONNECTOR
0.088	0.5	SS400	STOPPER
			-1
12. 75	153	SD345	
4. 54	36.3	SD345	0
3. 70	14. 8	SD345	0
	204		
			-
12 m ³			
			•

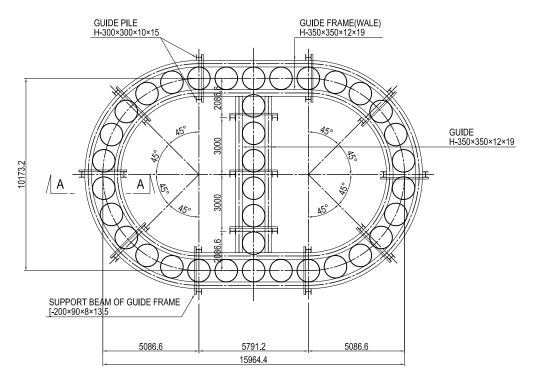
DIVISION		UNIT CONTENT	WEIGHT/EA.	QUANTITY
		Number		6
SS400	TOTAL	kg	29.4	176.4
	D29	kg	153	918
SD345	D13	kg	51	307
	TOTAL	kg	204	1225
$\sigma ck = 24 \text{ N/mm}^2$		m ³	1. 402	8.4

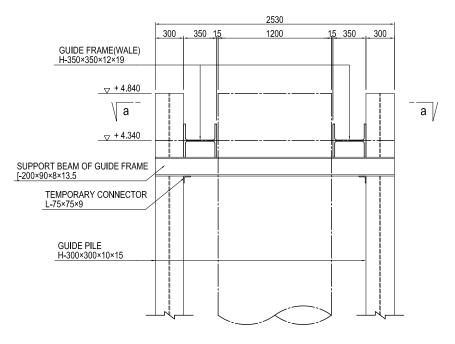
DRAWING TITLE	PACKAGE
DETAIL OF PILE TOP CONNECTION TO THE	2
	DWG No.
BASE CONCRETE OF P18 PIER	P2-SB-2429

(REFERENCE) LAYOUT PLAN OF COFFERDAM PART OF P18 PIER (1)

LAYOUT PLAN OF GUIDE FRAMES AND GUIDE PILES S=1:200

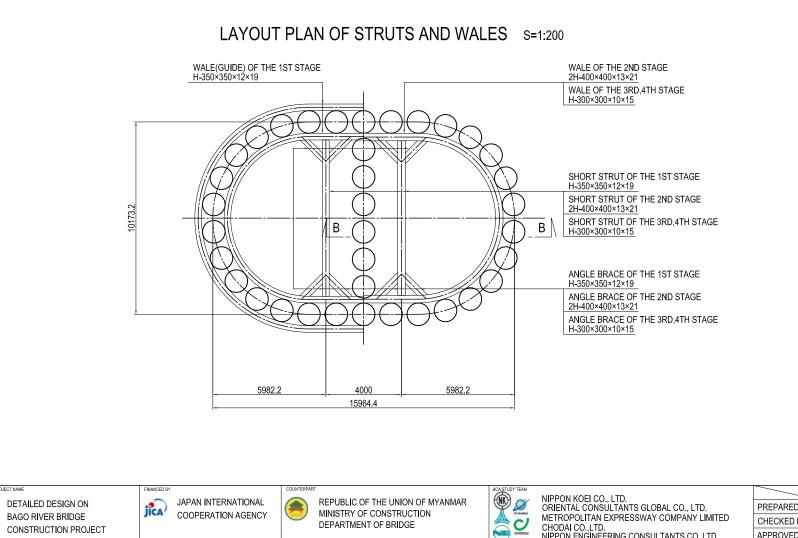
DETAIL OF ATTACHMENT OF GUIDE PILES AND GUIDE FRAMES S=1:40

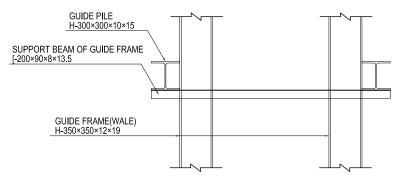




a - a

(



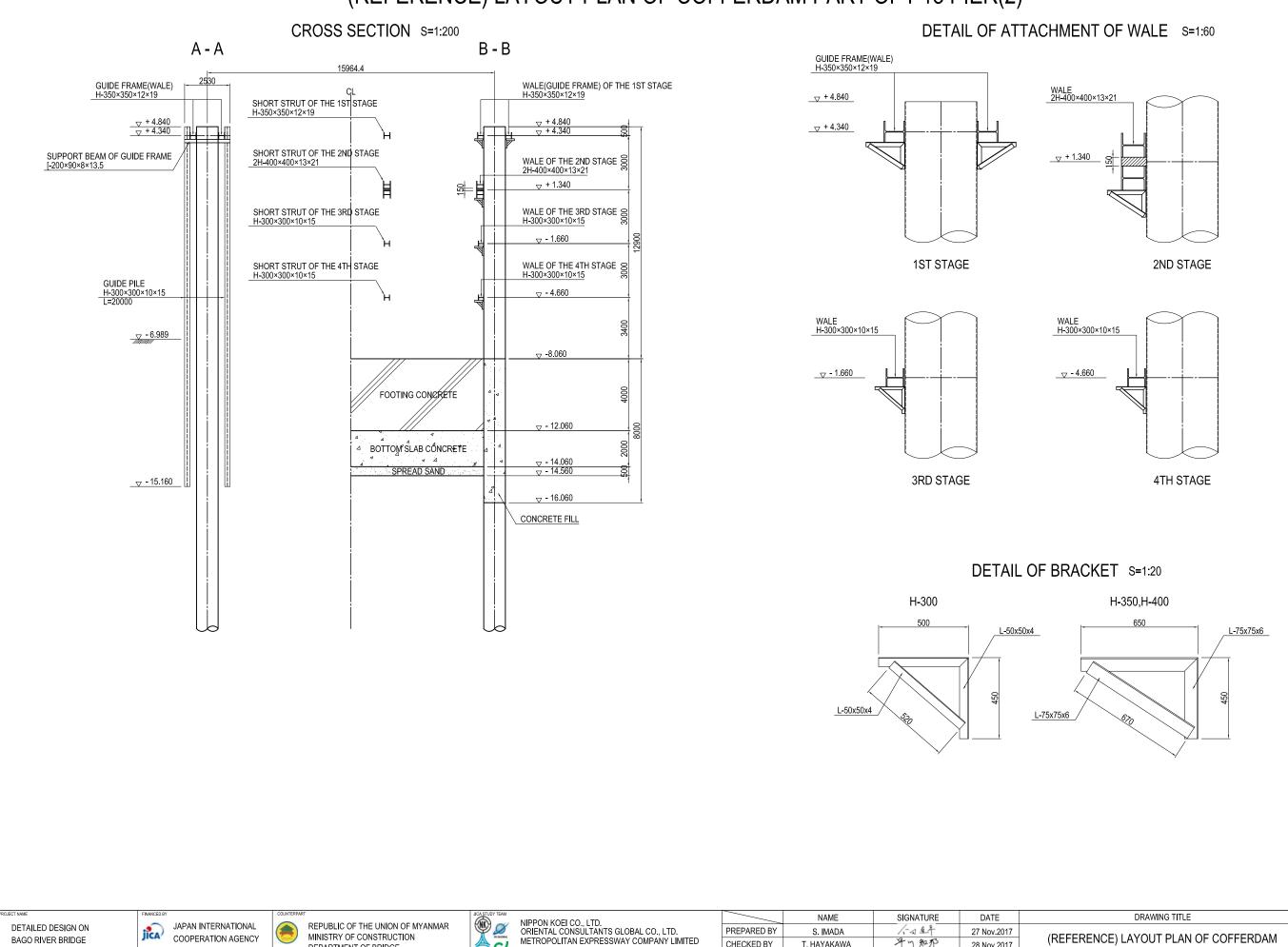


CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD. AP

/	NAME	SIGNATURE	DATE
REPARED BY	S. IMADA	1-147	27 Nov.2017
HECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017
PPROVED BY	Y. SANO	比野 肱一,	29 Nov.2017

DRAWING TITLE	PACKAGE
	2
(REFERENCE) LAYOUT PLAN OF COFFERDAM	DWG No.
PART OF P18 PIER (1)	P2-SB-2430

(REFERENCE) LAYOUT PLAN OF COFFERDAM PART OF P18 PIER(2)





MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE

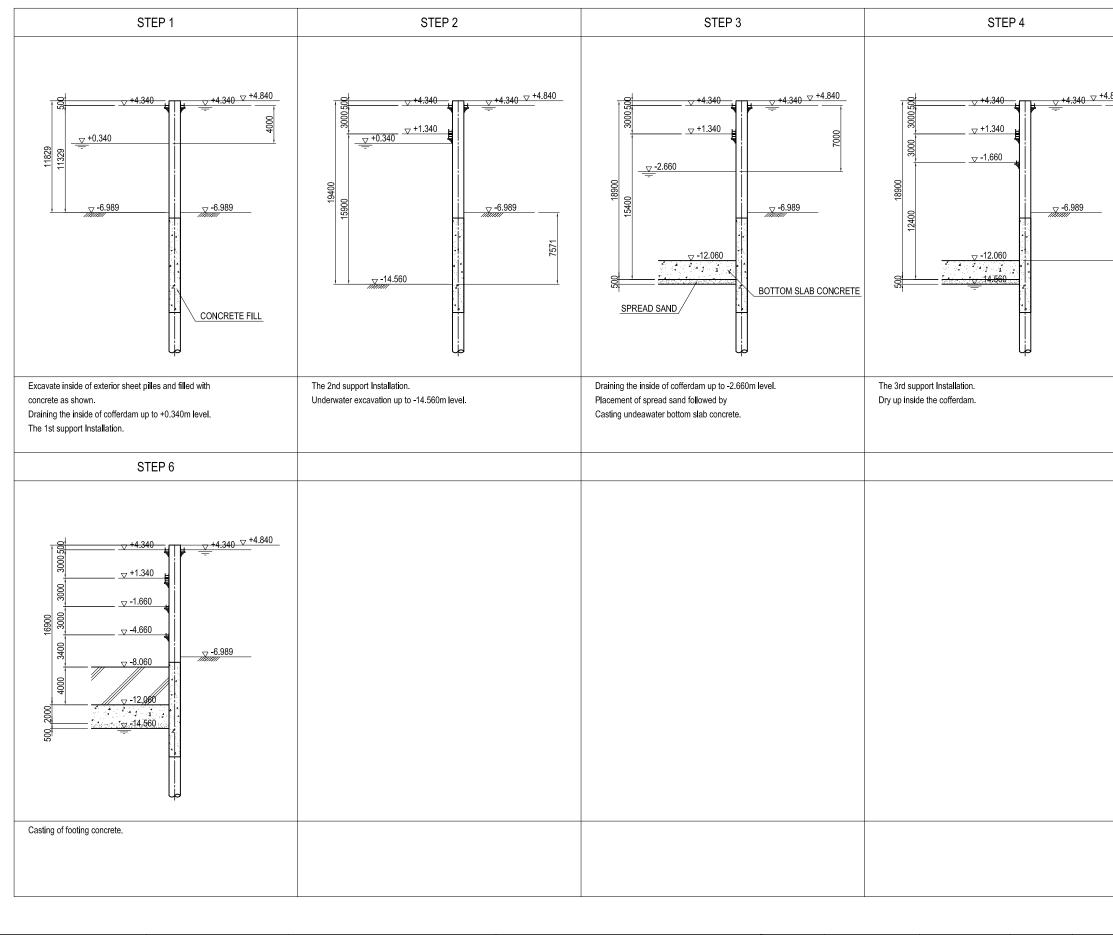


CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

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CHECKED BY	T. HAYAKAWA	中们知此	28 Nov.2017	
APPROVED BY	Y. SANO	牡鸦 肱一,	29 Nov.2017	

DRAWING TITLE	PACKAGE
	2
(REFERENCE) LAYOUT PLAN OF COFFERDAM	DWG No.
PART OF P18 PIER (2)	P2-SB-2431

(REFERENCE) CONSTRUCTION PLAN OF STEEL PIPE SHEET PILE WORK OF P18



DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT



	NAME	SIGNATURE	DATE	
PREPARED BY	S. IMADA	1-1 17	27 Nov.2017	
CHECKED BY	T. HAYAKAWA	中心知	28 Nov.2017	
APPROVED BY	Y. SANO	斑羚 施一,	29 Nov.2017	

P18 PIER S=1:400					
<u>40 ▽ +4.840</u>	♥	<u>∠ +4.840</u>			
	0000 0000 0000 0000 0000 0000 0000 00	- 16400			
	The 4th support Installation.				
	Note : This drawing can be used for reference only.				
(REFERENC S	DRAWING TITLE E) CONSTRUCTION PLAN OF STEEL PIPE HEET PILE WORK OF P18 PIER	PACKAGE 2 DWG No. P2-SB-2432			