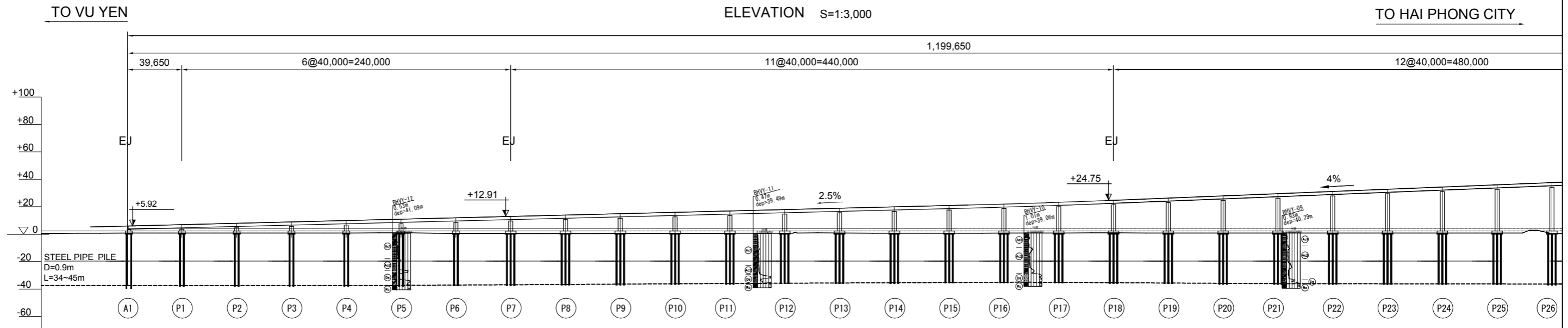


VU YEN BRIDGE

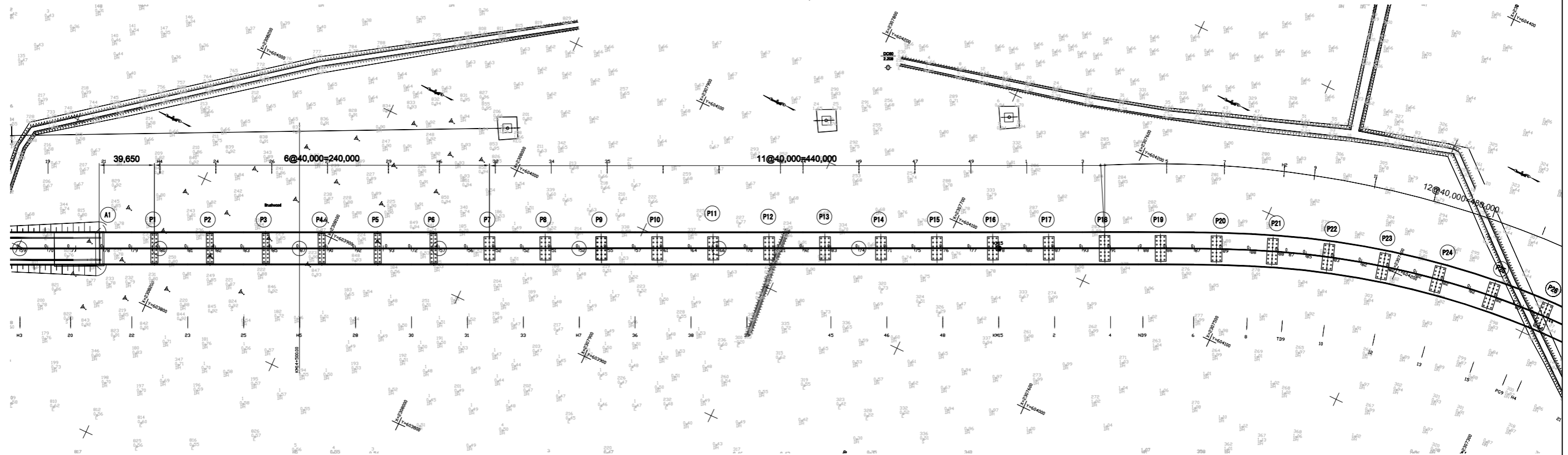
GENERAL VIEW OF VU YEN BRIDGE (1)

ELEVATION S=1:3,000



GRADIENT	i=2.500% L=740.000																								
PROPOSED HEIGHT	4.645	7.010	9.510	12.010	14.510	17.010	19.510	22.078	22.698	25.710	25.835	29.710	30.002	33.710	37.710										
GROUND LEVEL	0.590	0.800	0.870	0.570	0.520	0.660	0.740	0.780	0.800	0.890	0.880	0.880	0.870	0.820	0.440										
CHAINAGE	14,300,000	14,400,000	14,500,000	14,600,000	14,700,000	14,800,000	14,900,000	15,000,000	15,020,000	15,100,000	15,103,130	15,200,000	15,207,297	15,300,000	15,400,000										
STATION	NO.143	NO.144	NO.145	NO.146	NO.147	NO.148	NO.149	NO.150	+20.000	NO.151	KA 9-1	NO.152	KE 9-1	NO.153	NO.154										

PLAN S=1:3,000



PROJECT: PREPARATORY SURVEY ON HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



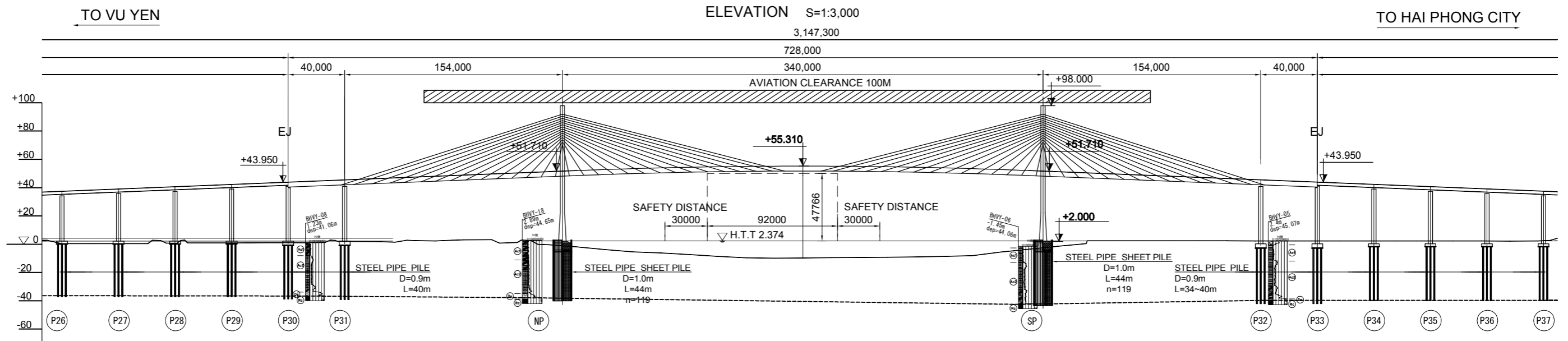
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF CHODAI CO.,LTD. ORIENTAL CONSULTANTS GLOBAL CO.,LTD. ALMEC VPI CO.,LTD.

DRAWING TITLE: GENERAL VIEW OF VU YEN BRIDGE (1)
DRAWING No. VY-01 SCALE 1:3,000

Rev No.

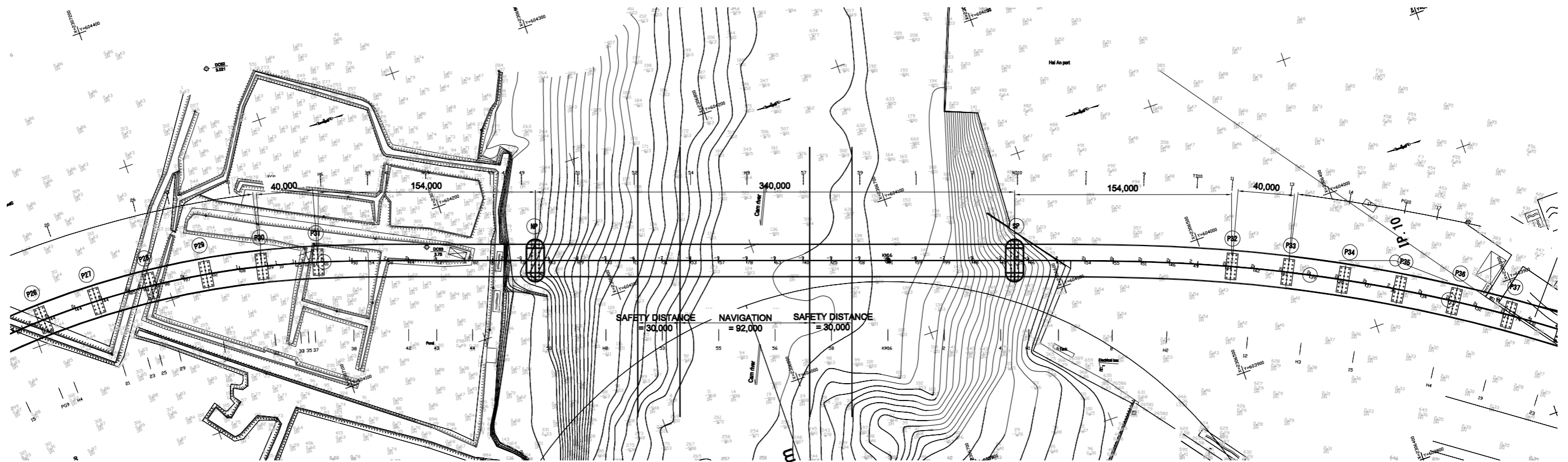
GENERAL VIEW OF VU YEN BRIDGE (2)

ELEVATION S=1:3,000



GRADIENT	i=4.000% L=900.000		58.510										i=4.000% L=900.000					
PROPOSED HEIGHT	37.710	41.710	44.425	45.710	48.592	49.710	51.710	53.510	55.260	55.310	54.510	51.710	47.310	46.658	43.310	39.310		
GROUND LEVEL	0.440	0.970	1.100	2.010	2.880	3.230	-1.065	-5.330	-9.780	-9.630	-8.910	-2.432	2.460	2.490	2.390	2.330		
CHAINAGE	15,400.000	15,500.000	15,567.871	15,600.000	15,672.038	15,700.000	15,750.000	15,800.000	15,900.000	15,920.000	16,000.000	16,090.000	16,200.000	16,216.312	16,300.000	16,400.000		
STATION	NO.154	NO.155	KE 9-2	NO.156	KA 9-2	NO.157	+50.000	NO.158	NO.159	+20.000	NO.160	+90.000	NO.161	KA 10-1	NO.162	KE 10-1	NO.163	NO.164

PLAN S=1:3,000



PROJECT: PREPARATORY SURVEY ON HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT

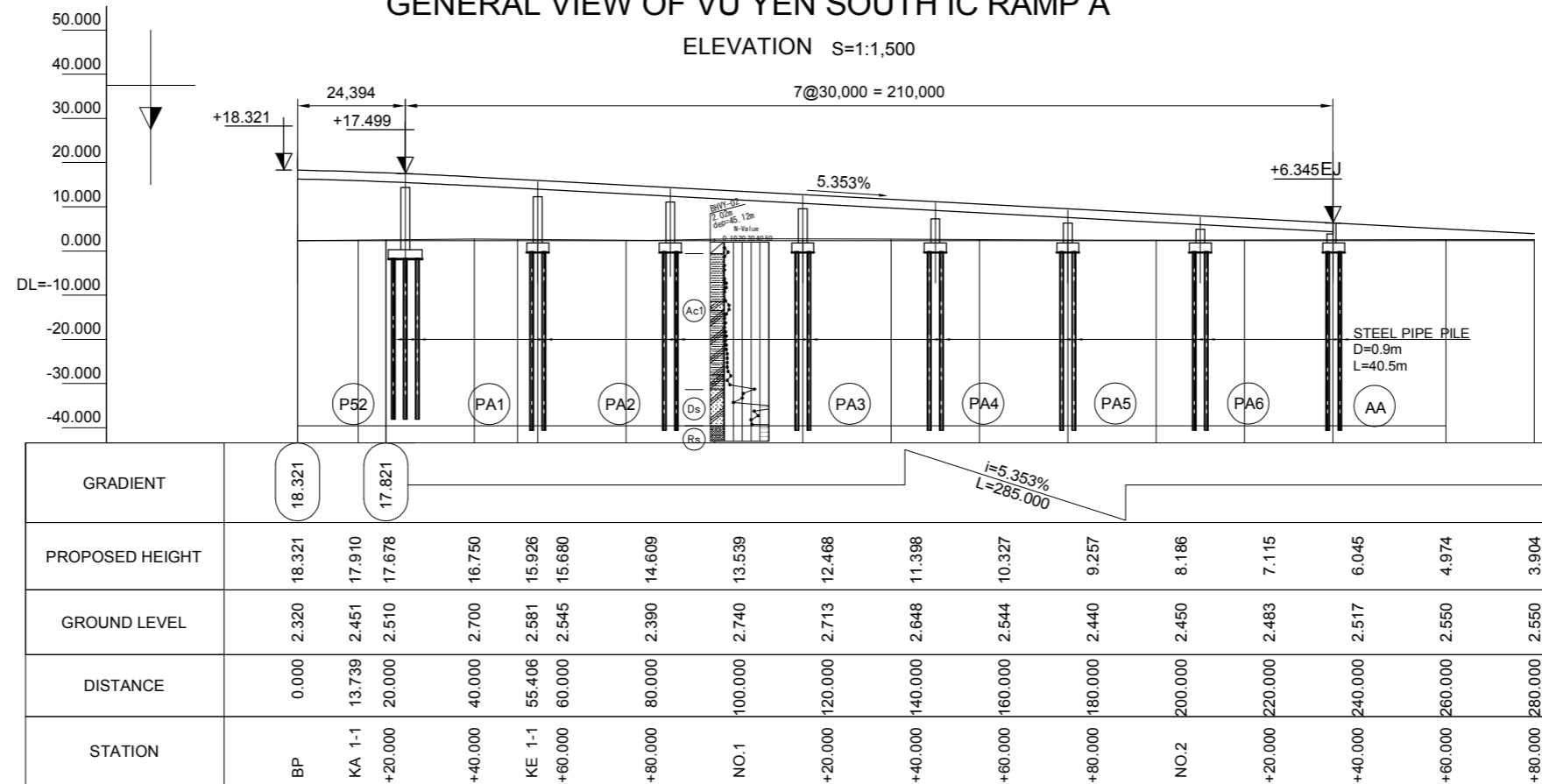


JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF CHODAI CO.,LTD. ORIENTAL CONSULTANTS GLOBAL CO.,LTD. ALMEC VPI CO.,LTD.

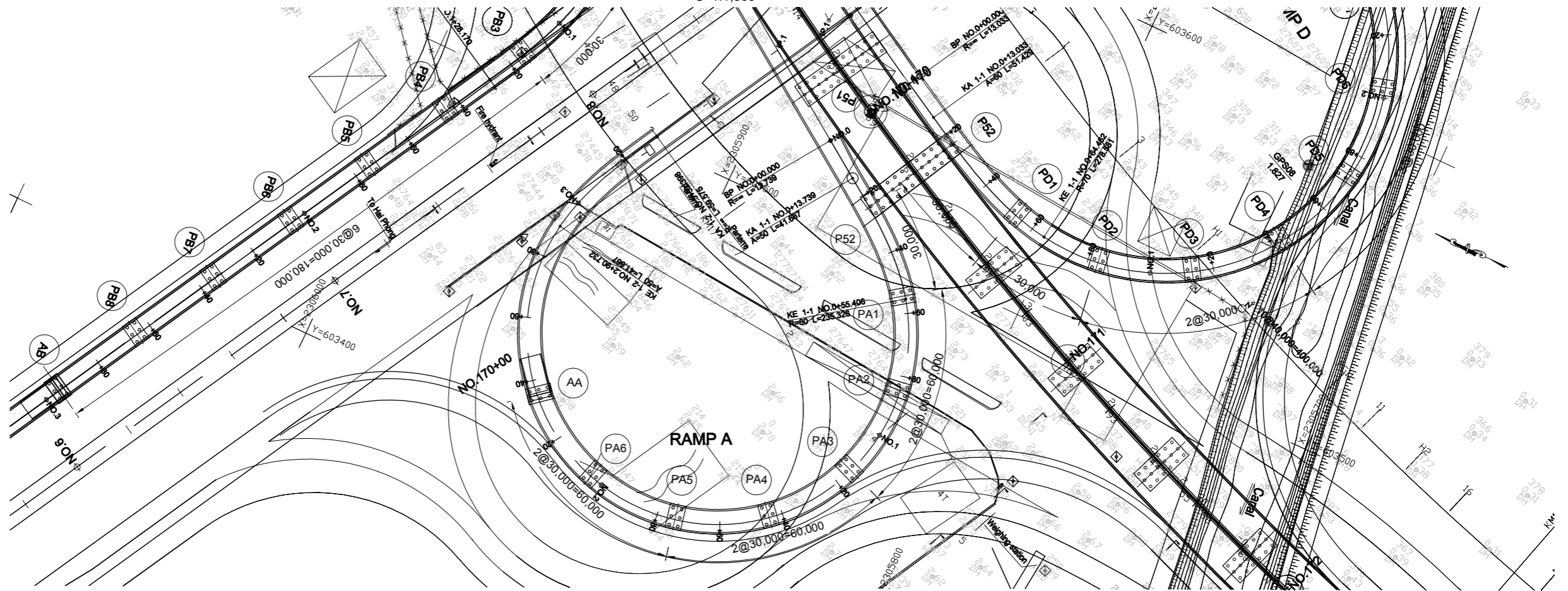
DRAWING TITLE: GENERAL VIEW OF VU YEN BRIDGE (2)				Rev No.
DRAWING No.	VY-02	SCALE	1:3,000	

GENERAL VIEW OF VU YEN SOUTH IC RAMP A

ELEVATION S=1:1,500



PLAN S=1:1,500



PROJECT: PREPARATORY SURVEY ON HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF CHODAI CO.,LTD. ORIENTAL CONSULTANTS GLOBAL CO.,LTD. ALMEC VPI CO.,LTD.

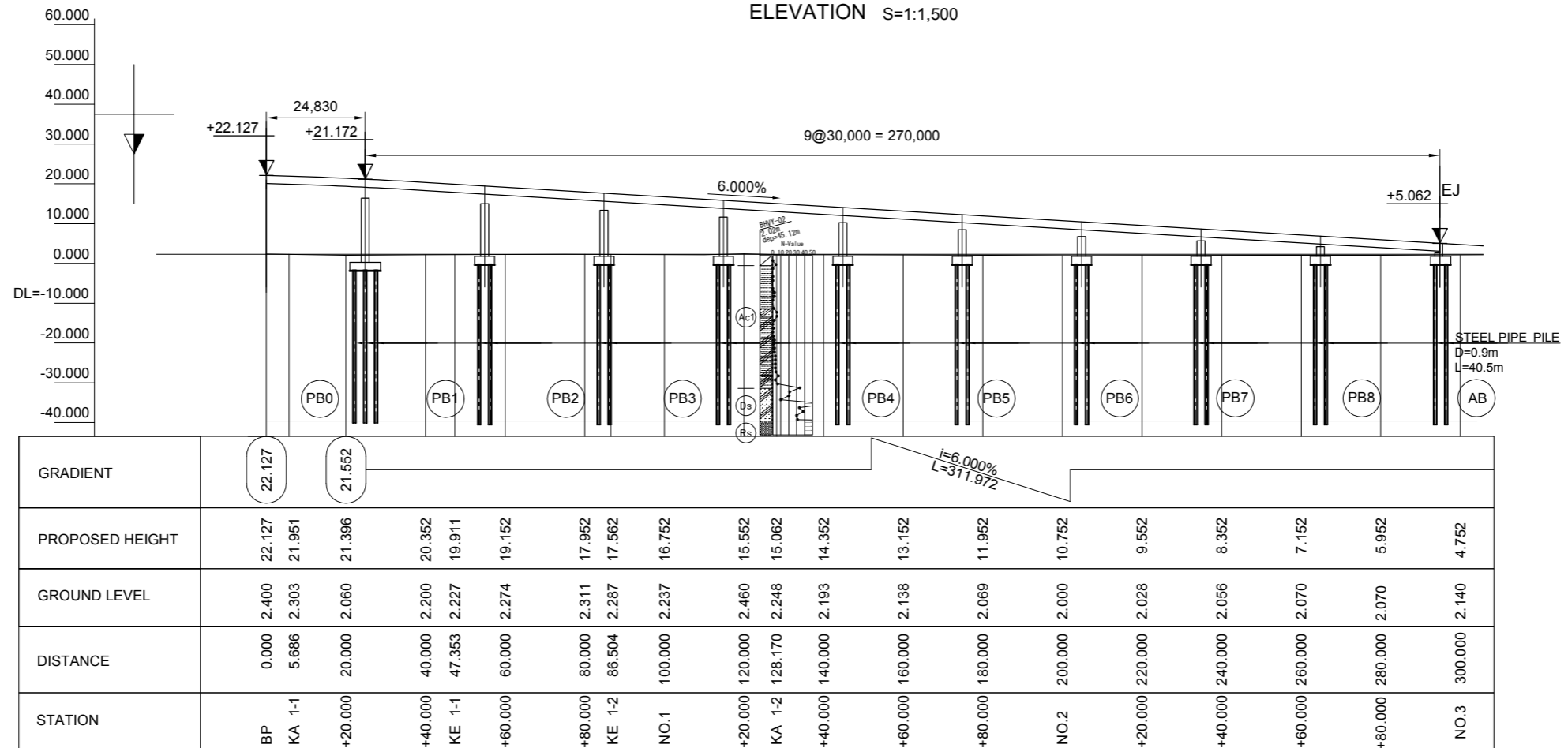
DRAWING TITLE: GENERAL VIEW OF VU YEN SOUTH IC RAMP A

Rev No.

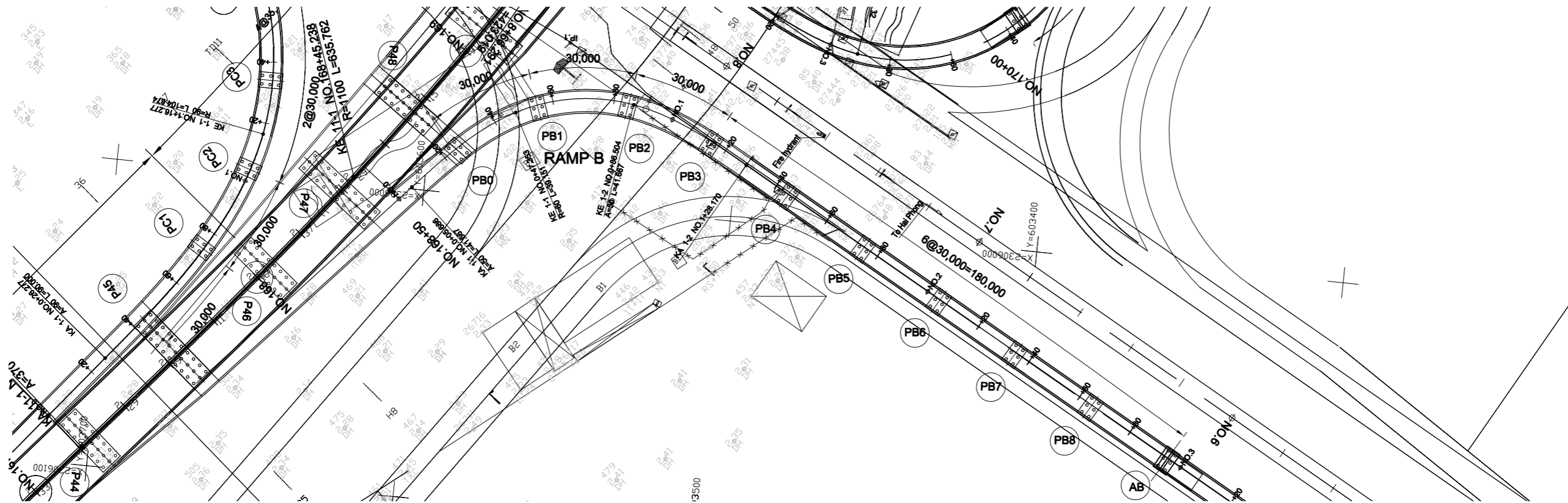
DRAWING No.	VY-04	SCALE	1:1,500
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GENERAL VIEW OF VU YEN SOUTH IC RAMP B

ELEVATION S=1:1,500



PLAN S=1:1,500



PROJECT: PREPARATORY SURVEY ON HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF CHODAI CO.,LTD. ORIENTAL CONSULTANTS GLOBAL CO.,LTD. ALMEC VPI CO.,LTD.

DRAWING TITLE: GENERAL VIEW OF VU YEN SOUTH IC RAMP B

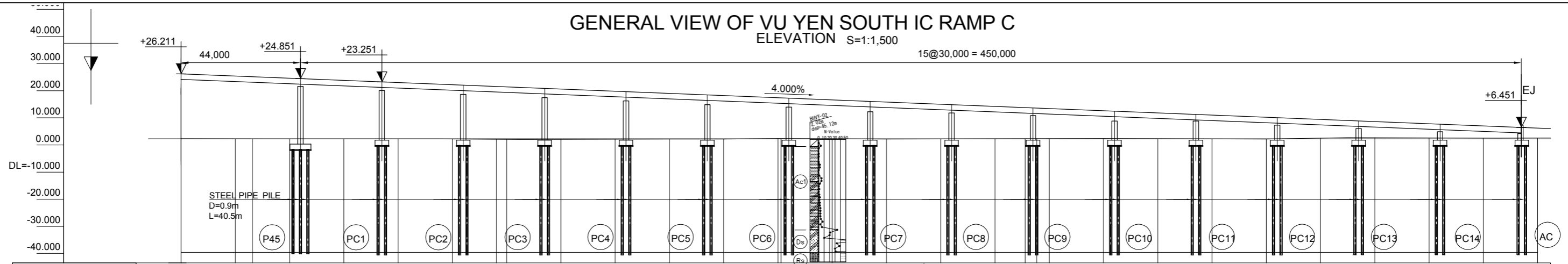
Rev No.

DRAWING No.	VY-05	SCALE	1:1,500
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GENERAL VIEW OF VU YEN SOUTH IC RAMP C

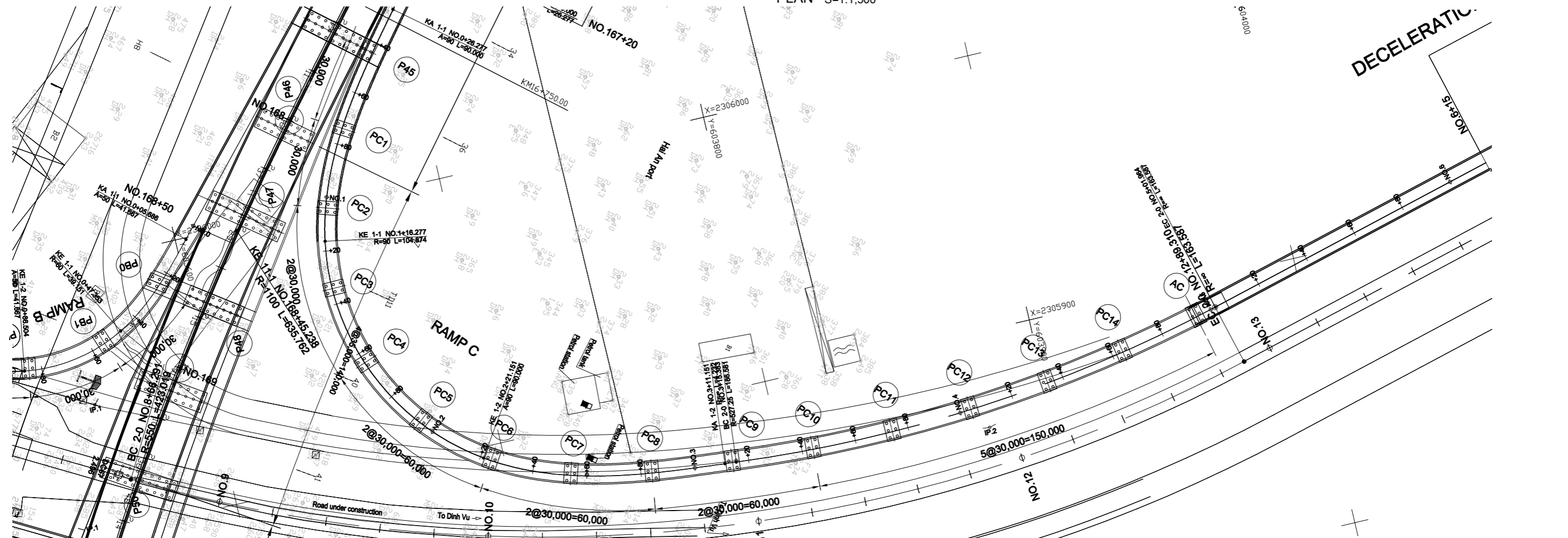
ELEVATION S=1:1,500

15@30,000 = 450,000



GRADIENT	26.211		i=4.000% L=595.000																												
PROPOSED HEIGHT	26.211	25.411	25.160	24.611	23.811	23.011	22.211	21.560	21.411	20.611	19.811	19.011	18.211	17.411	17.365	16.611	15.811	15.011	14.211	13.765	13.596	13.411	12.611	11.811	11.011	10.211	9.411	8.611	7.811	7.011	6.211
GROUND LEVEL	2.290	2.243	2.229	2.223	2.228	2.222	2.178	2.075	2.052	2.050	2.090	2.130	2.130	2.360	2.353	2.245	2.130	2.183	2.235	2.264	2.275	2.288	2.340	2.290	2.240	2.190	2.530	2.673	2.618	2.564	2.600
DISTANCE	0.000	20.000	26.277	40.000	60.000	80.000	100.000	116.277	120.000	140.000	160.000	180.000	200.000	220.000	221.151	240.000	260.000	280.000	300.000	311.151	315.383	320.000	340.000	360.000	380.000	400.000	420.000	440.000	460.000	480.000	500.000
STATION	BP	+20.000	KA 1-1	+40.000	+60.000	+80.000	NO.1	KE 1-1	+20.000	+40.000	+60.000	+80.000	NO.2	+20.000	KE 1-2	+40.000	+60.000	+80.000	NO.3	KA 1-2	BC 2-0	+20.000	+40.000	+60.000	+80.000	NO.4	+20.000	+40.000	+60.000	+80.000	NO.5

PLAN S=1:1,500



PROJECT: PREPARATORY SURVEY ON HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT

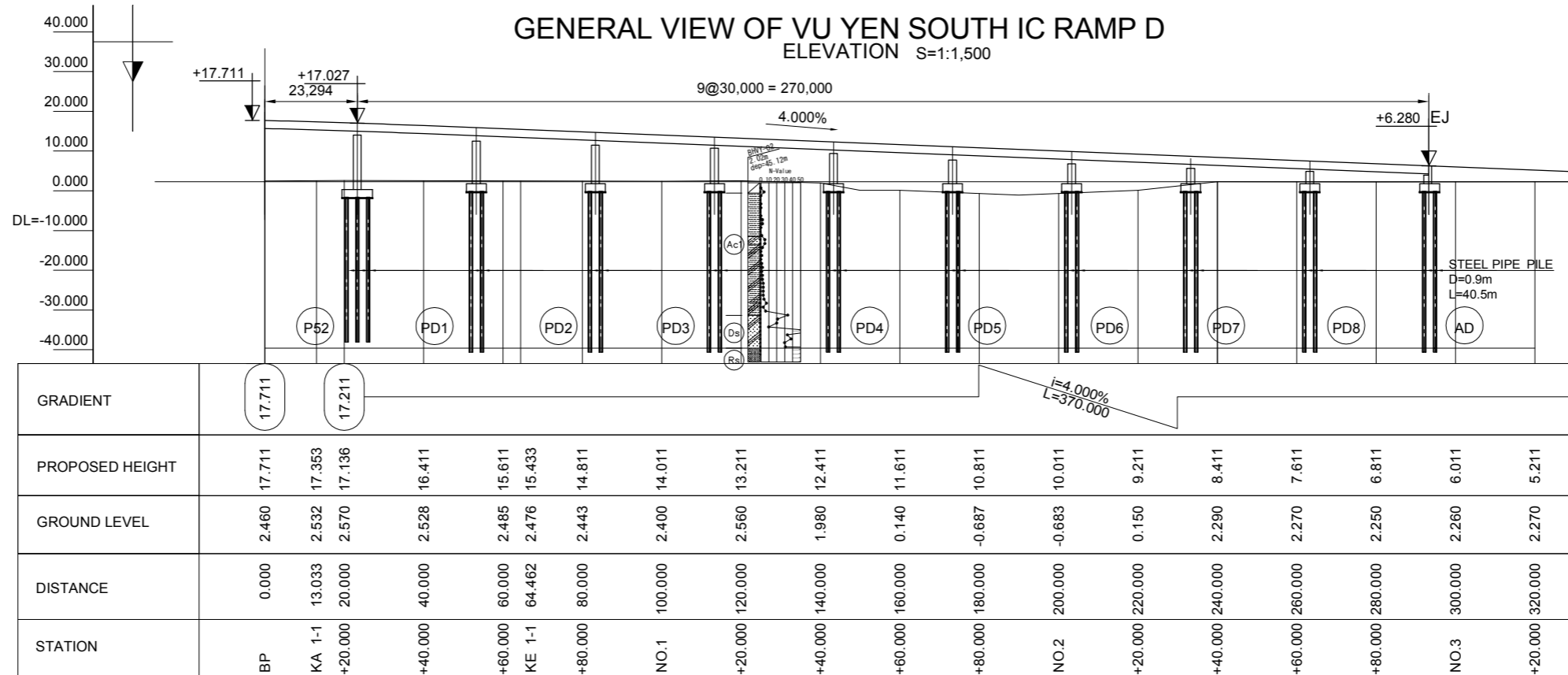


JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF CHODAI CO.,LTD. ORIENTAL CONSULTANTS GLOBAL CO.,LTD. ALMEC VPI CO.,LTD.

DRAWING TITLE: GENERAL VIEW OF VU YEN SOUTH IC RAMP C				Rev No.
DRAWING No.	VY-06	SCALE	1:1,500	

GENERAL VIEW OF VU YEN SOUTH IC RAMP D

ELEVATION S=1:1,500



PLAN S=1:1,500



PROJECT: PREPARATORY SURVEY ON HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF CHODAI CO.,LTD. ORIENTAL CONSULTANTS GLOBAL CO.,LTD. ALMEC VPI CO.,LTD.

DRAWING TITLE: GENERAL VIEW OF VU YEN SOUTH IC RAMP D

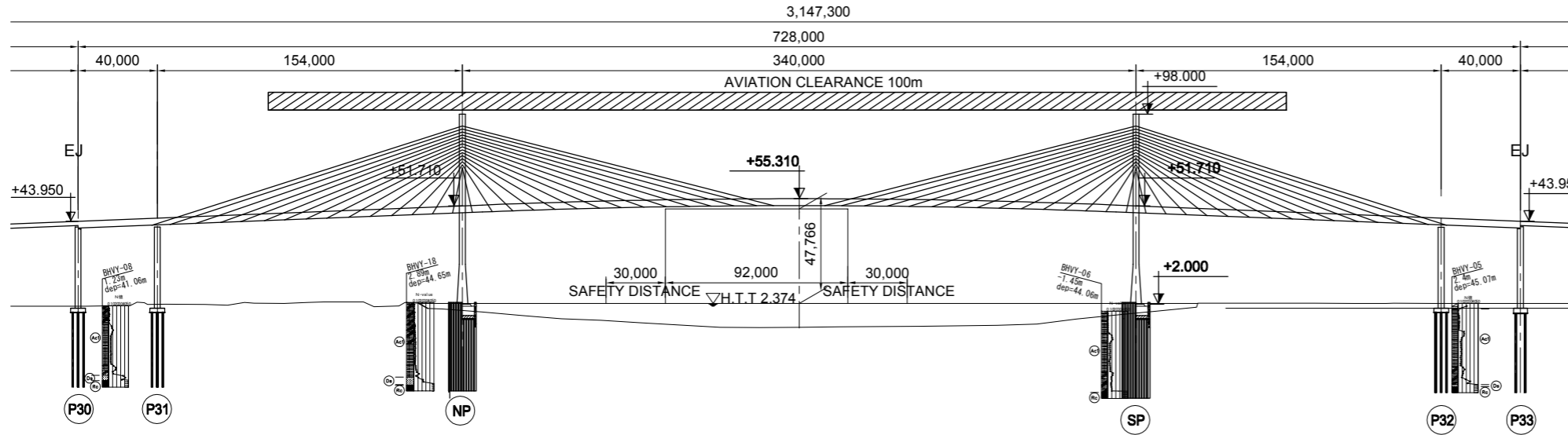
DRAWING No.	VY-07	SCALE	1:1,500
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Rev No.

GENERAL VIEW OF CABLE STAYED BRIDGE

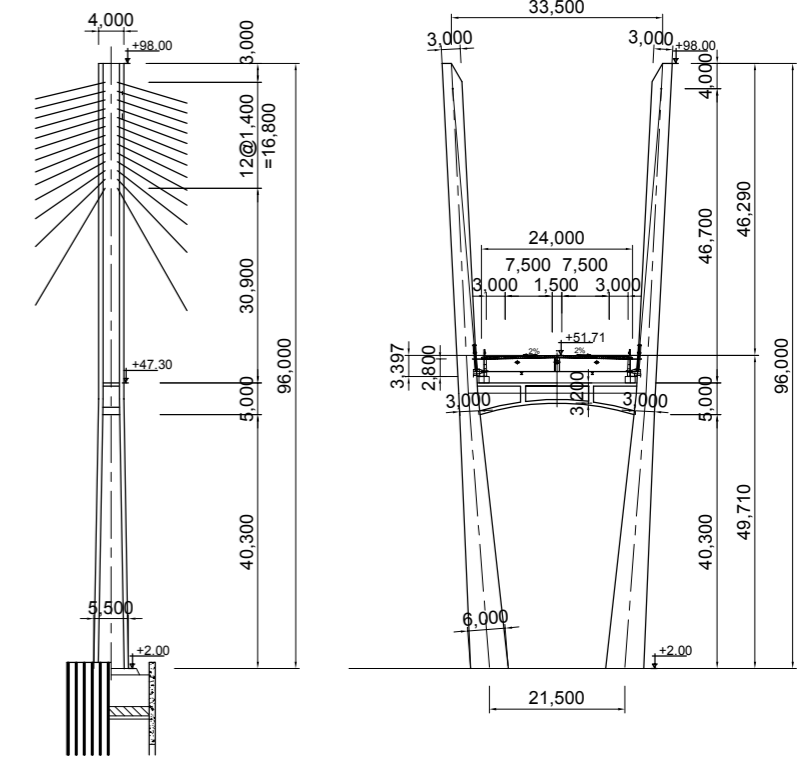
ELEVATION

S=1:3,000



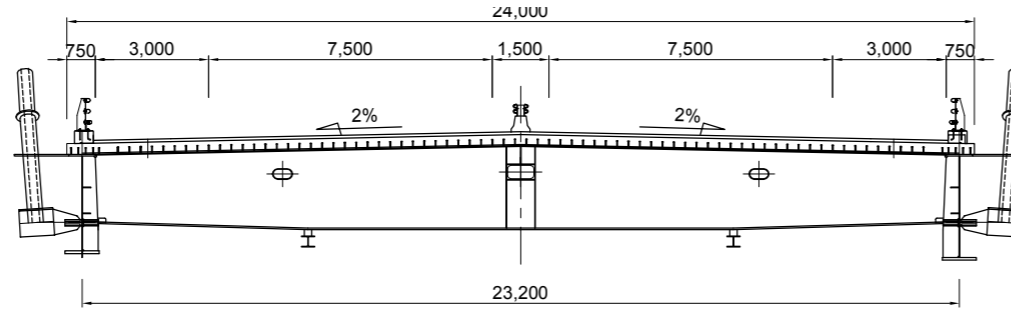
GENERAL VIEW OF PYLON

S=1:1,200



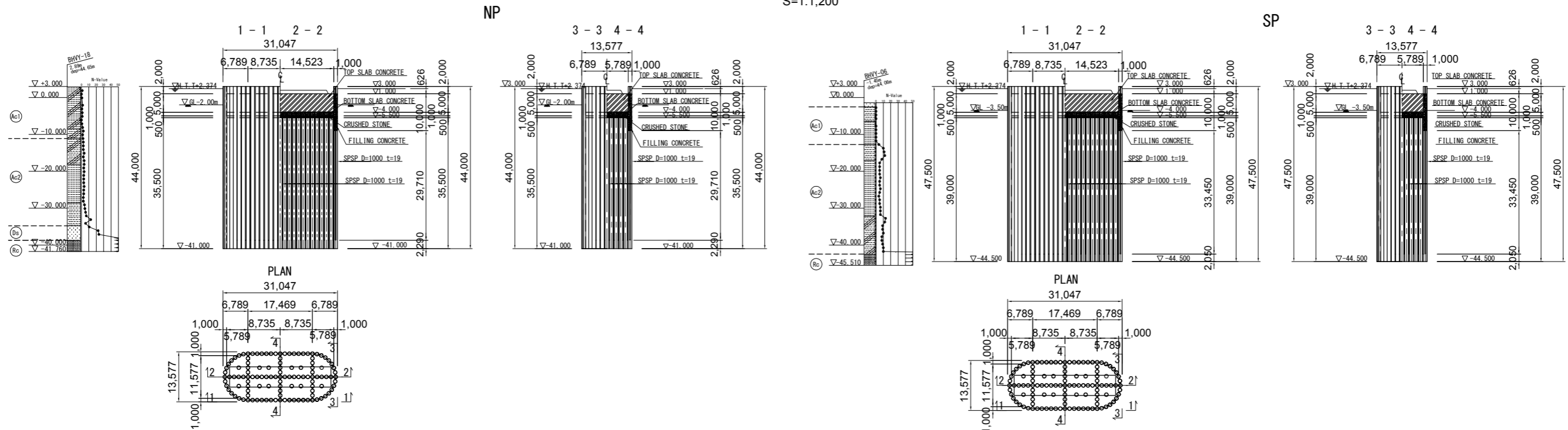
TYPICAL CROSS SECTION OF MAIN BRIDGE

S=1:200



FOUNDATION

S=1:1,200



PROJECT: PREPARATORY SURVEY ON HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 CONSULTANTS: JOINT VENTURE OF CHODAI CO.,LTD. ORIENTAL CONSULTANTS GLOBAL CO.,LTD. ALMEC VPI CO.,LTD.

DRAWING TITLE: GENERAL VIEW OF CABLE STAYED BRIDGE

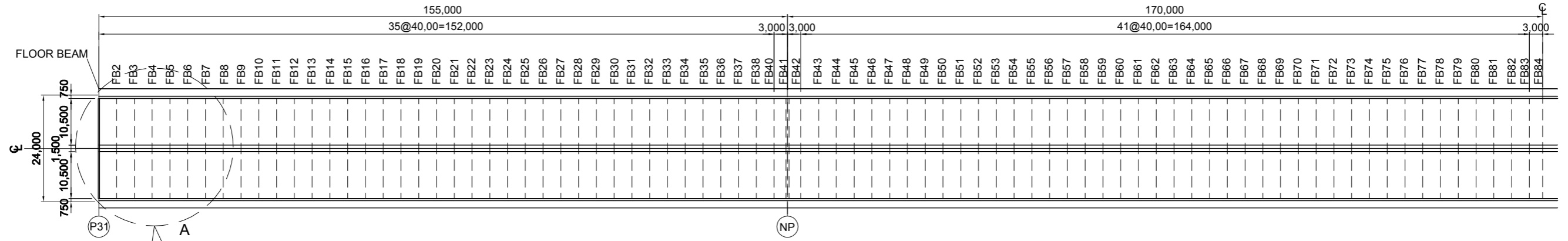
Rev No.

DRAWING No. VY-08 SCALE AS SHOWN

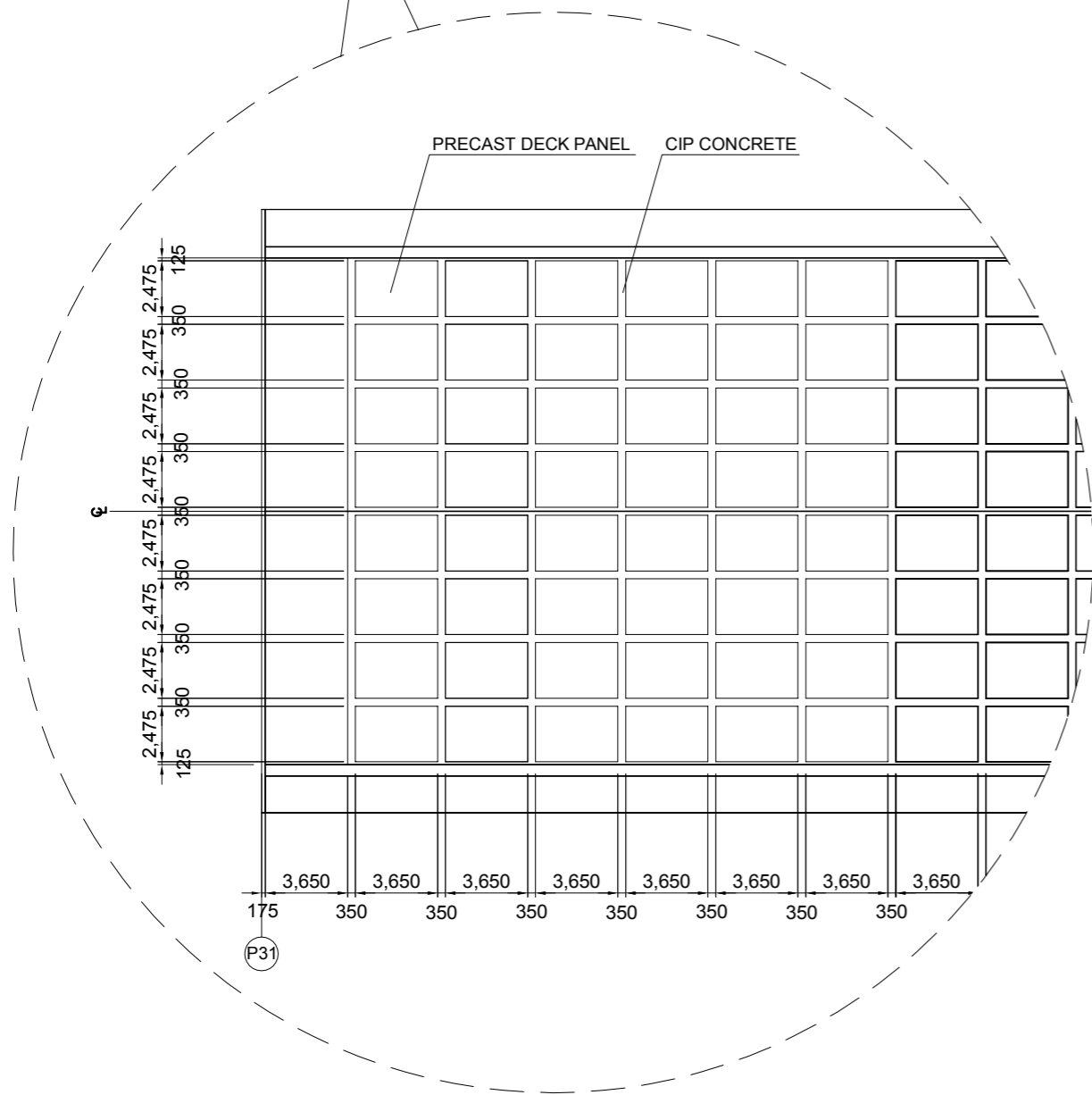
GIRDER, PC-SLAB

CROSS BEAM ARRANGMENT

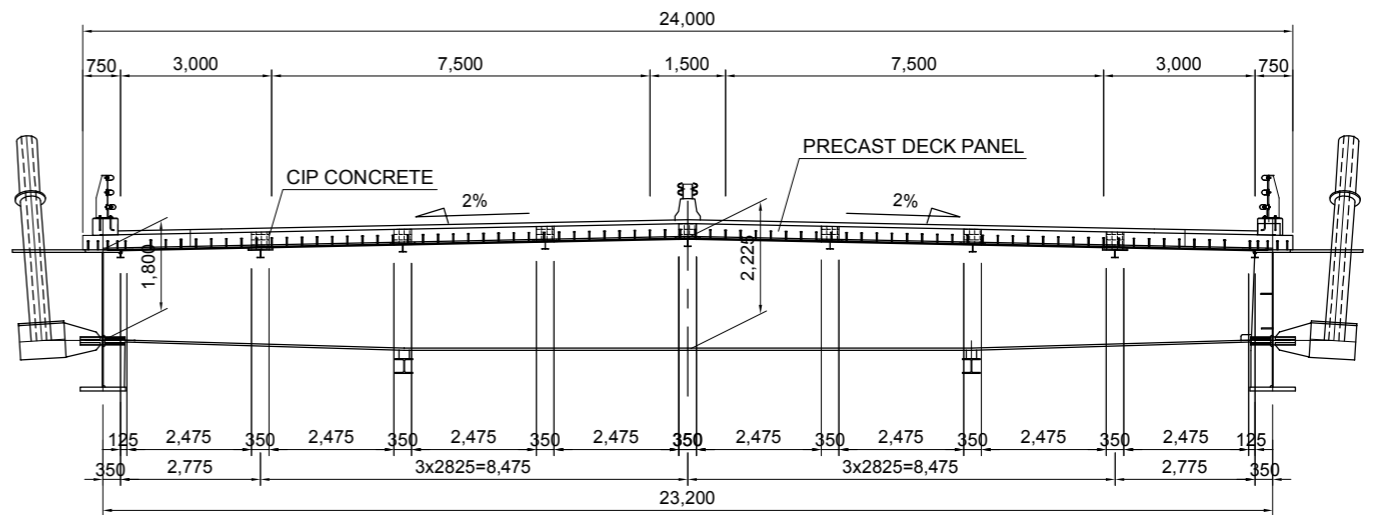
S=1:1,000



"A" SECTION DETAILS
S=1:300



CROSS SECTION
S=1:150



PROJECT:
**PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT**



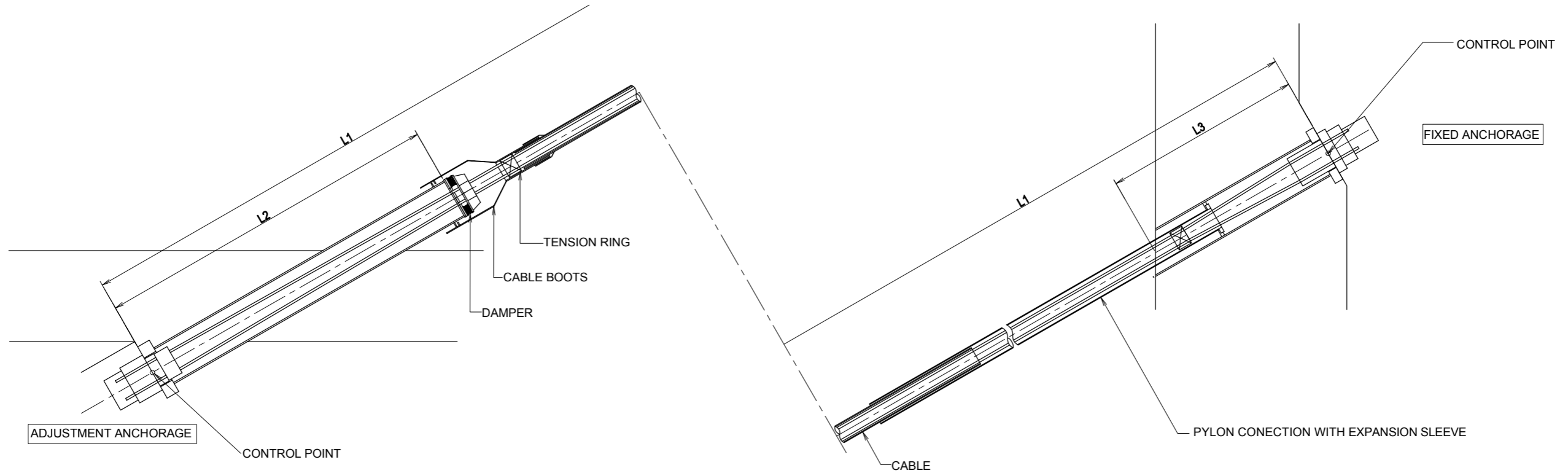
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS:
JOINT VENTURE OF
CHODAI CO.,LTD.
ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
ALMEC VPI CO.,LTD.

DRAWING TITLE:
GIRDER, PC-SLAB

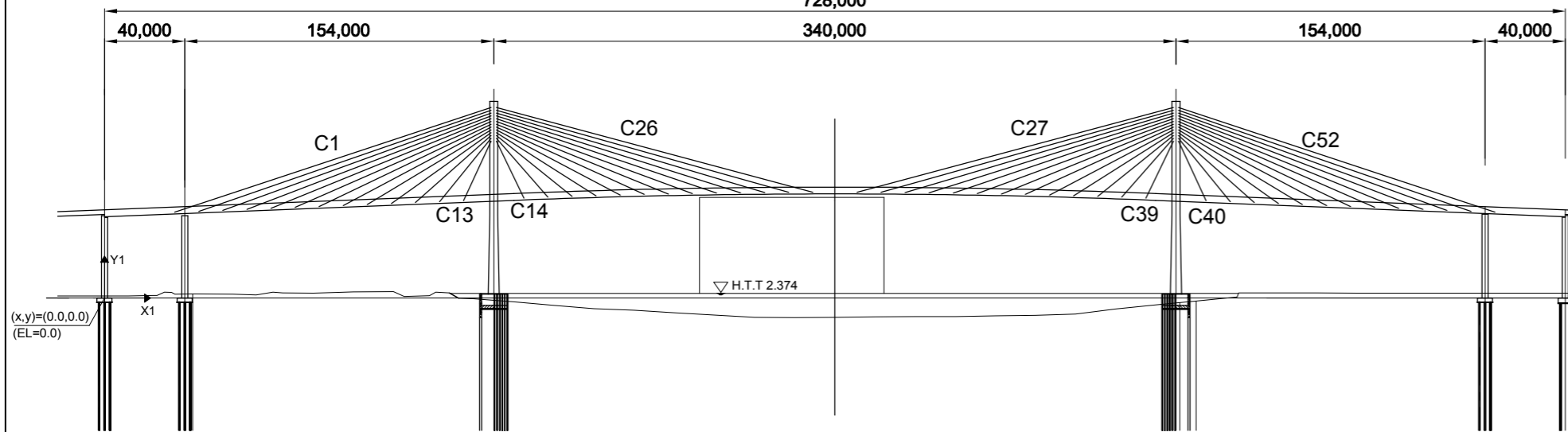
Rev No.

DRAWING No. VY-09 SCALE AS SHOWN

STAY CABLE



PROFILE
S=1:3,000
728,000



DIMENSION OF STAY CABLE

Cable No.		Cable unit	Fracture intensity	Control point for girder side		Control point for pylon side		Cable length L1 (m)	Length of guide pipe L		Cable weight W (Kg)
North pylon	South pylon			X(m)	Y (m)	X (m)	Y (m)		Gider side L2 (m)	Pylon side L3 (m)	
C1	C52	361	24,590	35.0	44.8	193.9	93.0	166.1	6,156.5	0.732	18,837.3
C2	C51	349	23,770	47.0	45.3	193.9	91.6	154.1	5,984.7	0.734	16,904.4
C3	C50	301	20,500	59.0	45.7	193.9	90.2	142.1	5,752.1	0.737	13,485.4
C4	C49	241	16,420	71.0	46.2	193.9	88.8	130.1	5,500.1	0.741	9,942.3
C5	C48	199	13,560	83.0	46.7	193.9	87.4	118.2	5,226.5	0.746	7,364.1
C6	C47	211	14,370	95.0	47.2	193.9	86.0	106.3	4,928.7	0.752	7,144.9
C7	C46	199	13,560	107.0	47.6	193.9	84.6	94.5	4,603.9	0.761	5,887.9
C8	C45	163	11,100	119.0	48.1	193.9	83.2	82.8	4,249.2	0.773	4,247.2
C9	C44	163	11,100	131.0	48.6	193.9	81.8	71.2	3,862.1	0.791	3,653.4
C10	C43	139	9,470	143.0	49.1	193.9	80.4	59.9	3,441.6	0.821	2,628.3
C11	C42	121	8,240	155.0	49.6	193.9	79.0	48.9	2,991.1	0.876	1,878.1
C12	C41	109	7,420	167.0	50.0	193.9	77.6	38.7	2,525.7	0.998	1,341.6
C13	C40	91	6,200	179.0	50.5	193.9	76.2	29.9	2,094.7	1.369	854.5
C14	C39	73	4,970	209.0	51.7	194.1	76.2	28.8	2,122.2	1.321	666.3
C15	C38	91	6,200	221.0	52.2	194.1	77.6	37.2	2,632.2	0.959	1,063.1
C16	C37	109	7,420	233.0	52.6	194.1	79.0	47.2	3,213.8	0.845	1,636.1
C17	C36	139	9,470	245.0	53.0	194.1	80.4	57.9	3,801.3	0.795	2,543.4
C18	C35	151	10,290	257.0	53.3	194.1	81.8	69.2	4,368.3	0.768	3,291.7
C19	C34	163	11,100	269.0	53.6	194.1	83.2	80.6	4,904.0	0.753	4,135.9
C20	C33	187	12,740	281.0	53.9	194.1	84.6	92.3	5,404.5	0.742	5,415.2
C21	C32	211	14,370	293.0	54.1	194.1	86.0	104.0	5,868.8	0.735	6,988.1
C22	C31	241	16,420	305.0	54.3	194.1	87.4	115.8	6,297.5	0.730	8,847.4
C23	C30	223	15,190	317.0	54.5	194.1	88.8	127.7	6,692.1	0.727	9,052.0
C24	C29	265	18,050	329.0	54.6	194.1	90.2	139.6	7,054.1	0.724	11,711.2
C25	C28	313	21,320	341.0	54.7	194.1	91.6	151.5	7,385.5	0.722	14,940.9
C26	C27	349	23,770	353.0	54.7	194.1	93.0	163.5	7,688.2	0.720	17,936.3

NOTE
 •DAMPING DEVICE IS INFORMATION ONLY.
 •MANUFACTURED LENGTH AND WEIGHT OF STAY CABLE ARE INFORM ONLY
 SINCE THESE COME UNDER THE INFLUENCE OF CONSTRUCTION CONDITION.
 LENGTH ON THIS DRAWING IS CALCULATED AS L1+2.0m.
 •CABLE WEIGHT SHOWS NON COATING, NON GALVANIZED, AND ELEMENTAL
 WIRE WEIGHT

PROJECT: PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 CONSULTANTS: JOINT VENTURE OF
 CHODAI CO.,LTD.
 ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
 ALMEC VPI CO.,LTD.

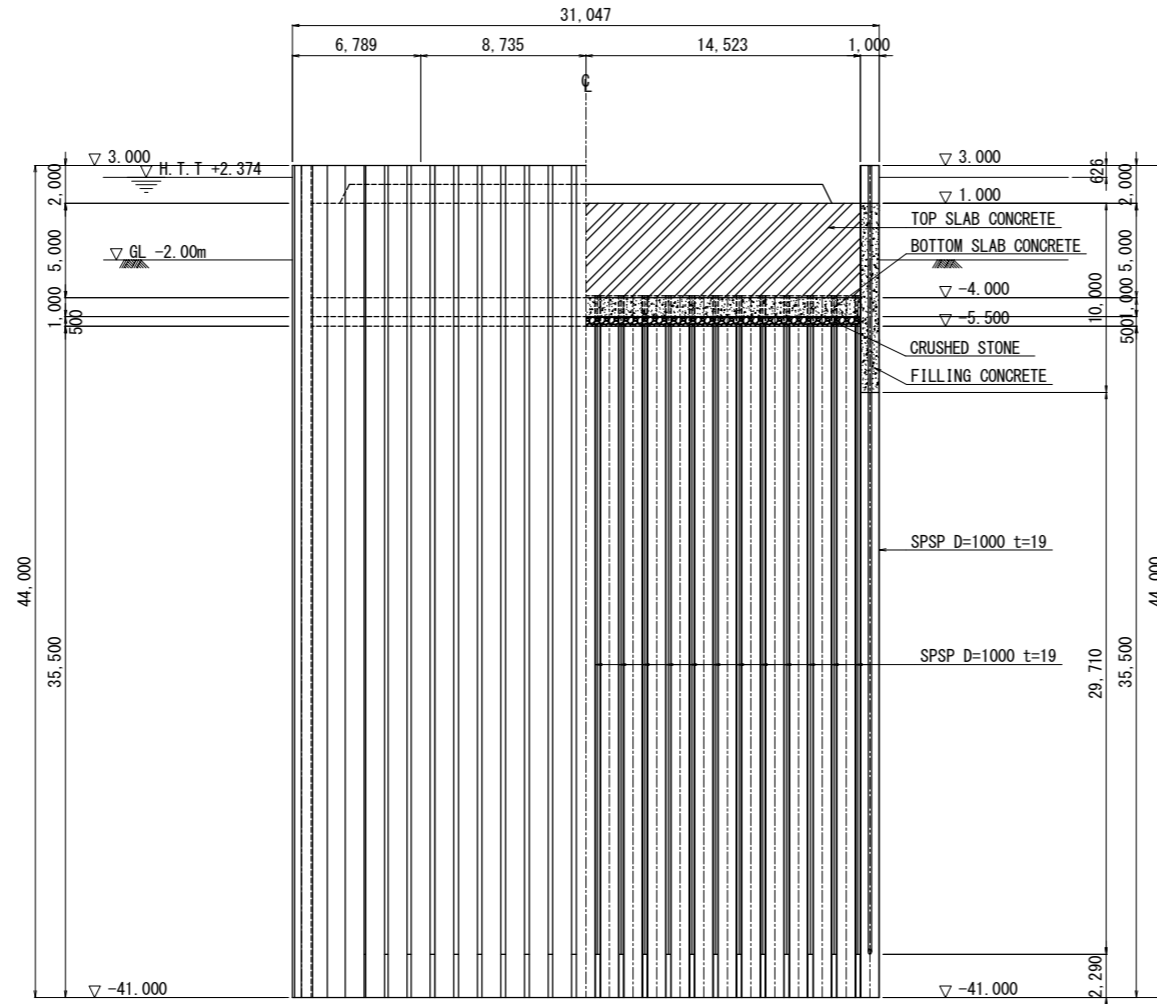
DRAWING TITLE: STAY CABLE				Rev No.
DRAWING No.	VY-10	SCALE	AS SHOWN	

FOUNDATION (NP)

S=1:400

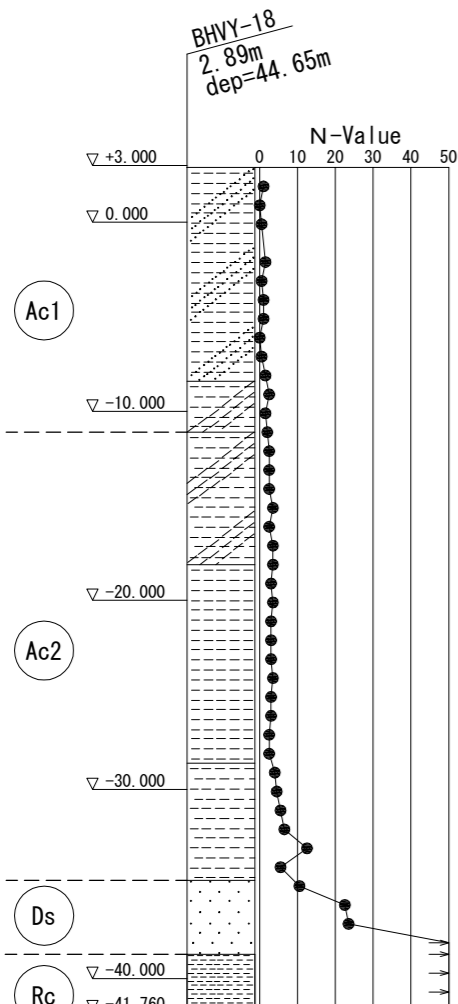
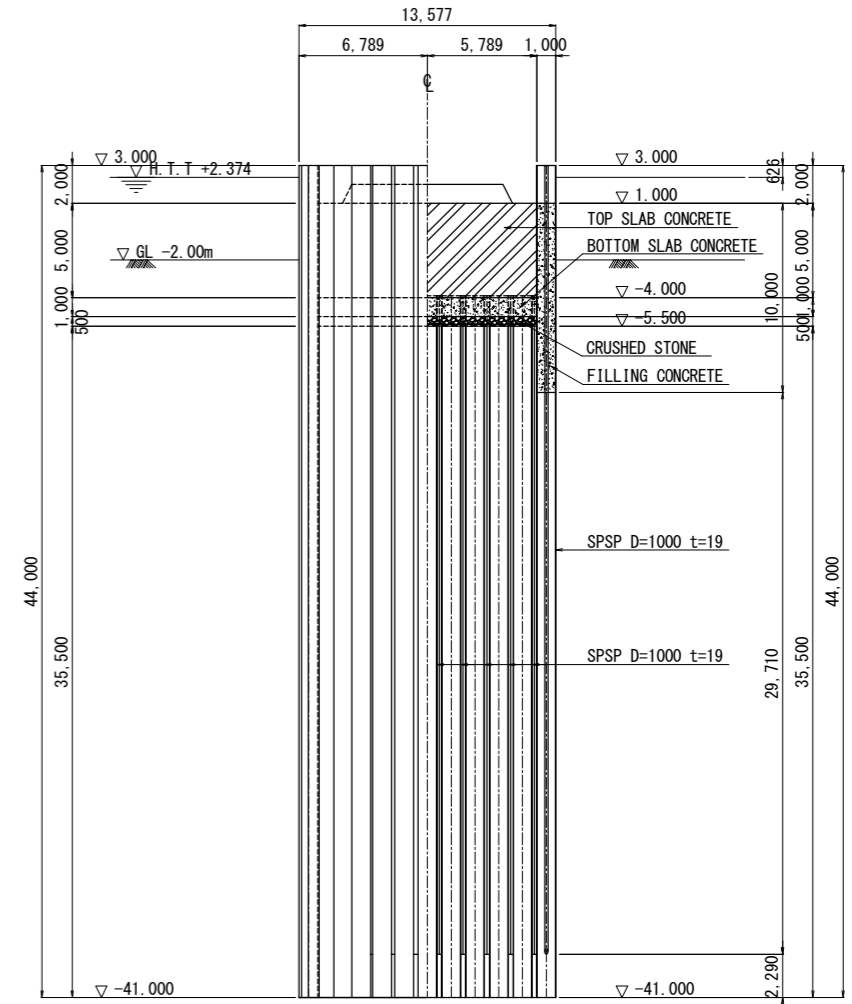
CROSS SECTION

1 - 1 2 - 2

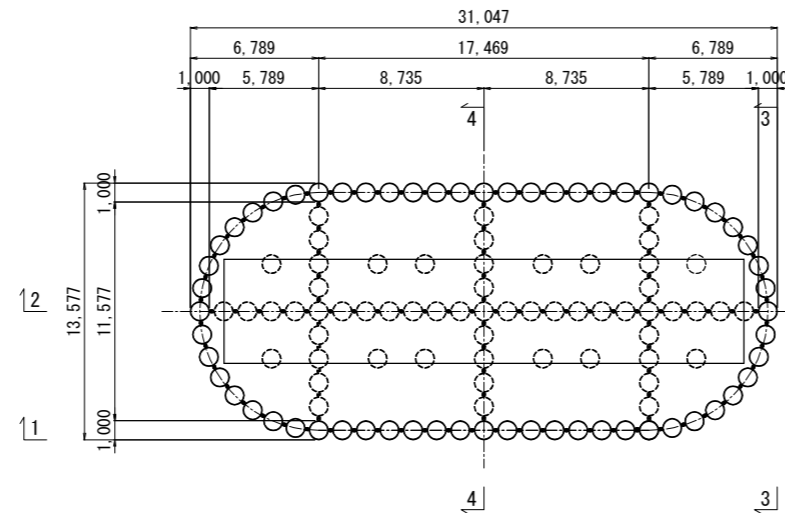


CROSS SECTION

3 - 3 4 - 4

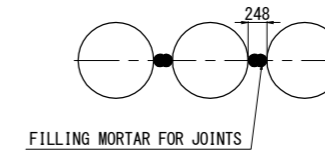


PLAN



DETAIL OF JOINTS

S=1:100



PROJECT: PREPARATORY SURVEY ON HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT

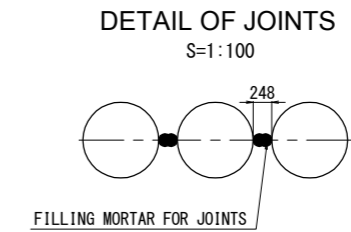
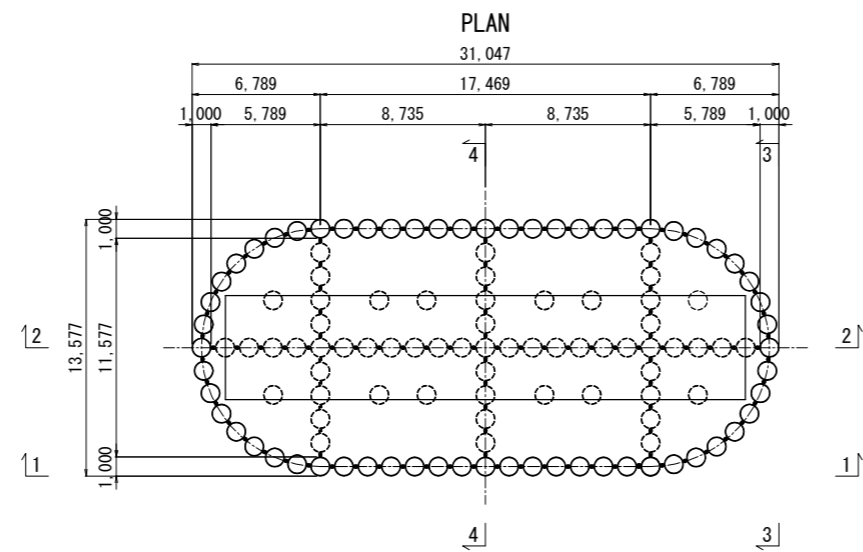
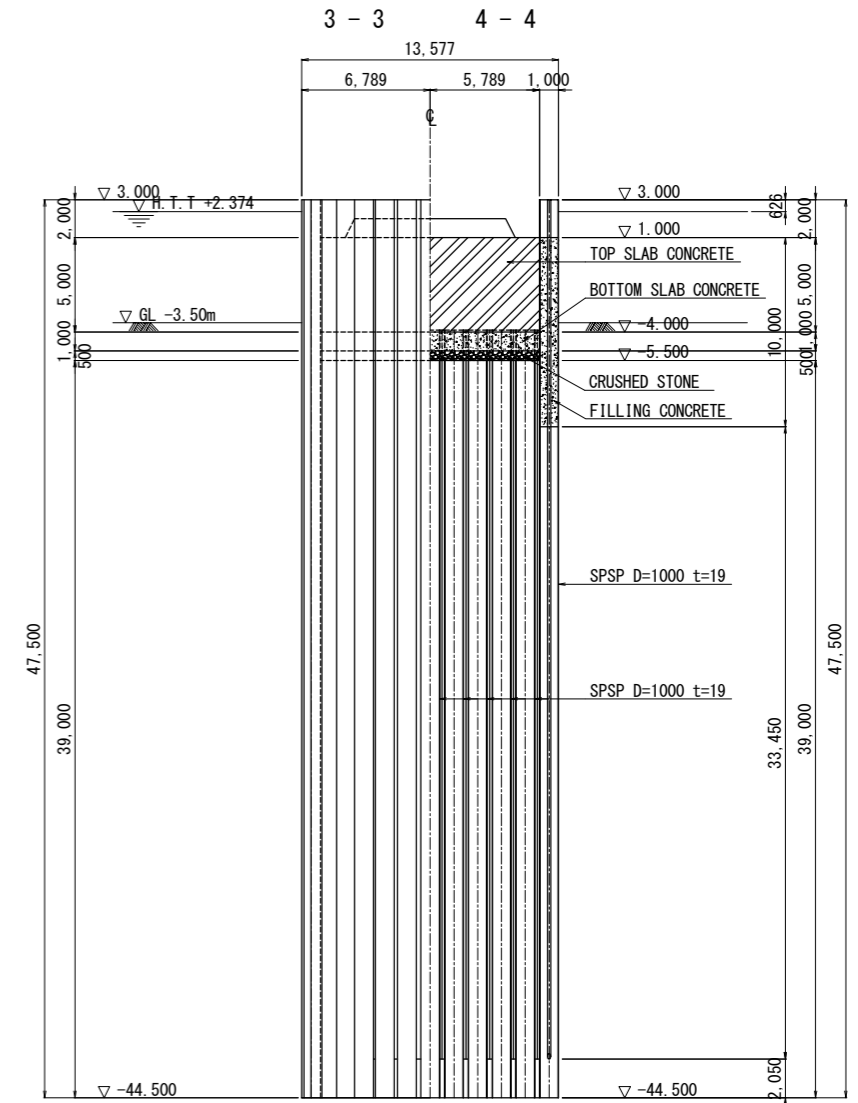
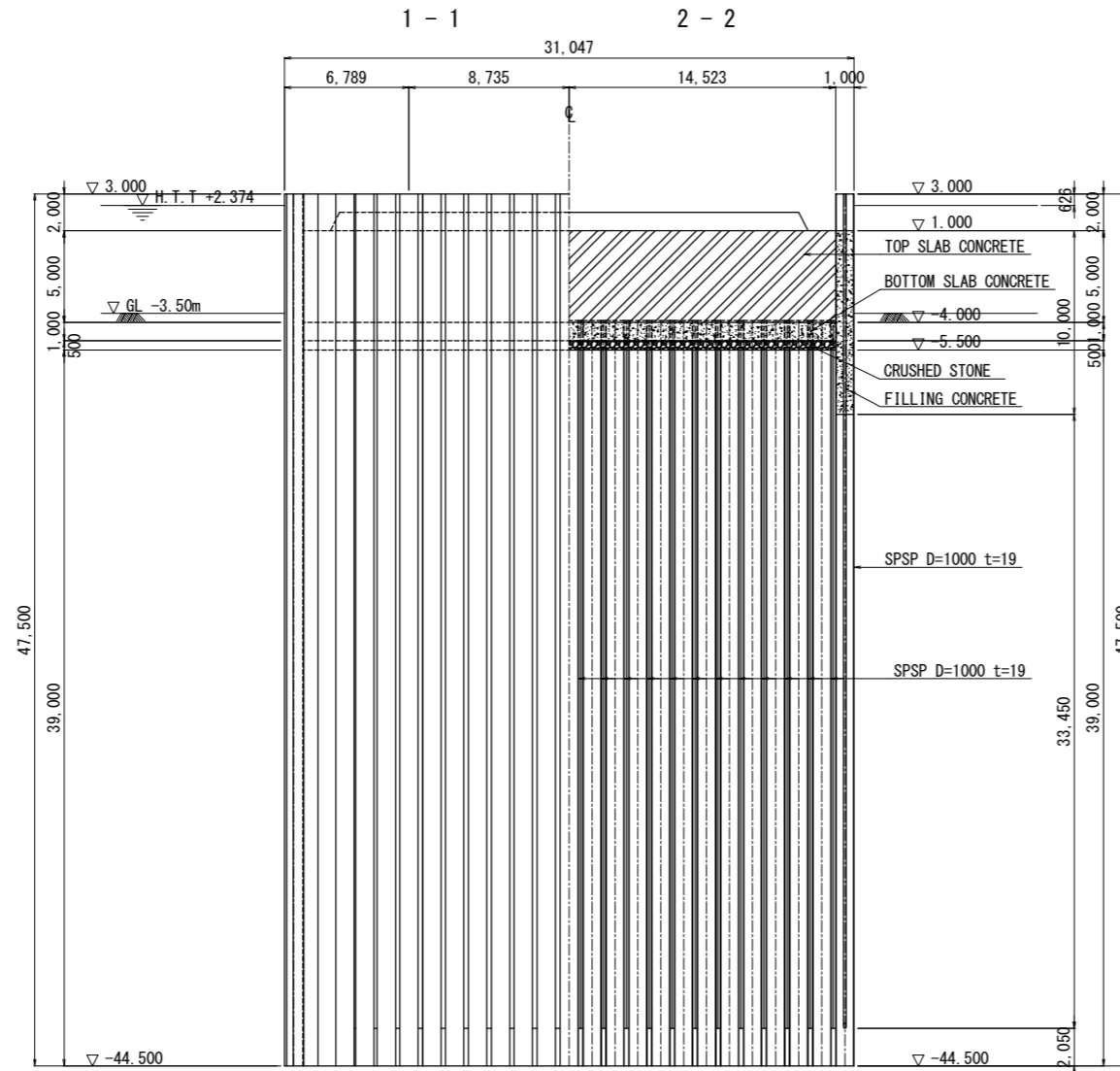
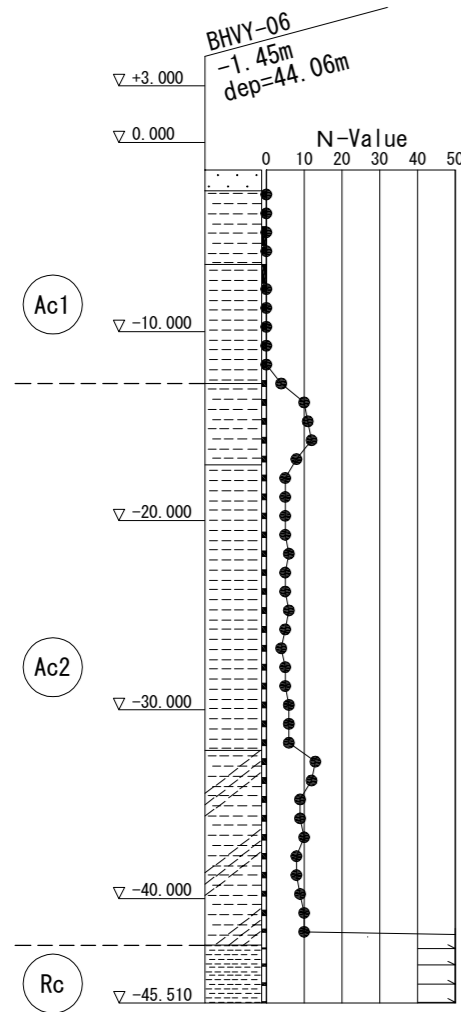


JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF CHODAI CO.,LTD. ORIENTAL CONSULTANTS GLOBAL CO.,LTD. ALMEC VPI CO.,LTD.

DRAWING TITLE: FOUNDATION (NP)				Rev No.
DRAWING No.	VY-12	SCALE	AS SHOWN	

FOUNDATION (SP)

S=1:400



PROJECT: PREPARATORY SURVEY ON HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



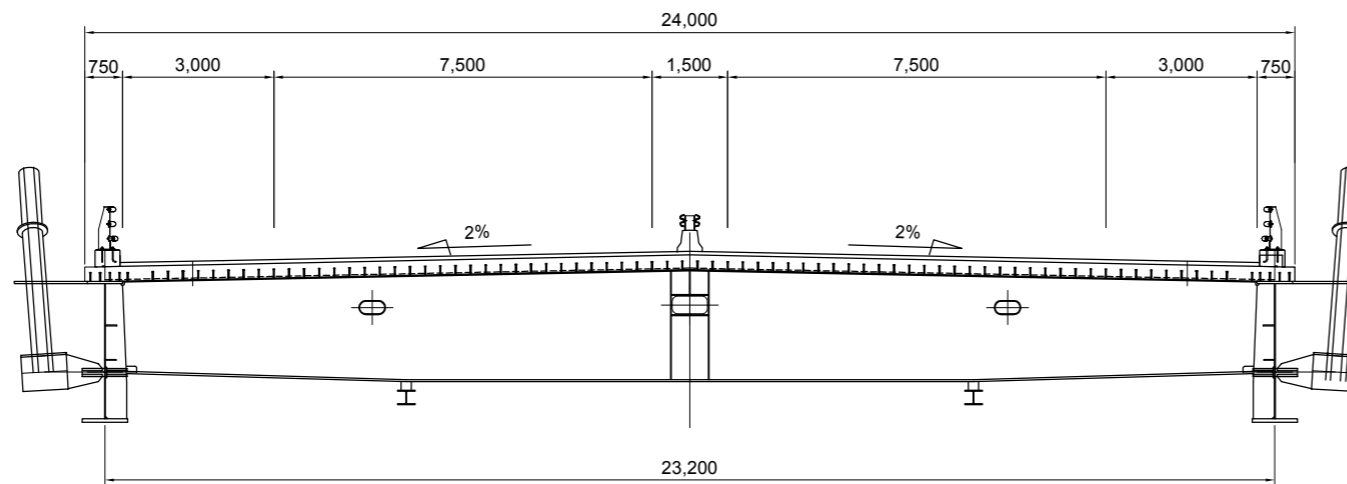
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF CHODAI CO.,LTD. ORIENTAL CONSULTANTS GLOBAL CO.,LTD. ALMEC VPI CO.,LTD.

DRAWING TITLE: FOUNDATION (SP)		Rev No.	
DRAWING No.	VY-13	SCALE	AS SHOWN

GIRDER OF APPROACH BRIDGE

TYPICAL CROSS SECTION OF MAIN BRIDGE

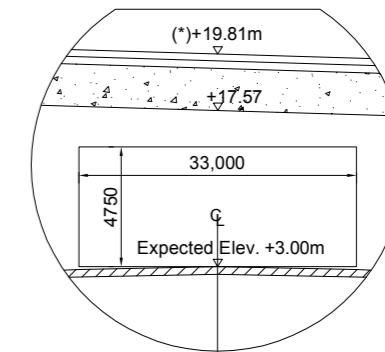
S=1:150



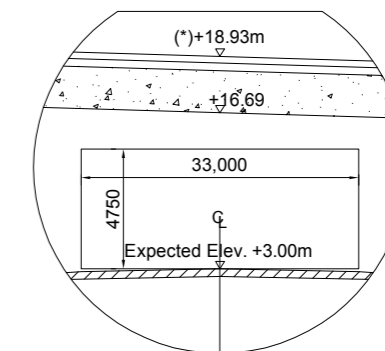
CROSS SECTION

S=1:300

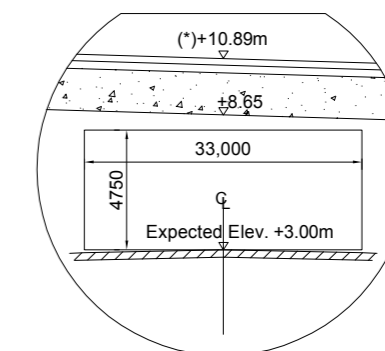
DETAIL A



DETAIL B

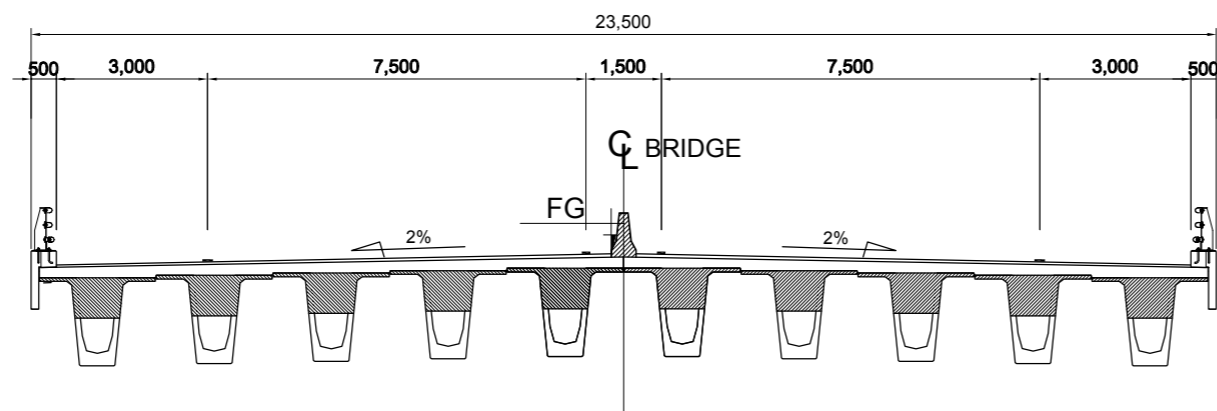


DETAIL C



TYPICAL CROSS SECTION OF APPROACH BRIDGE

S=1:150



PROJECT: PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF
CHODAI CO.,LTD.
ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
ALMEC VPI CO.,LTD.

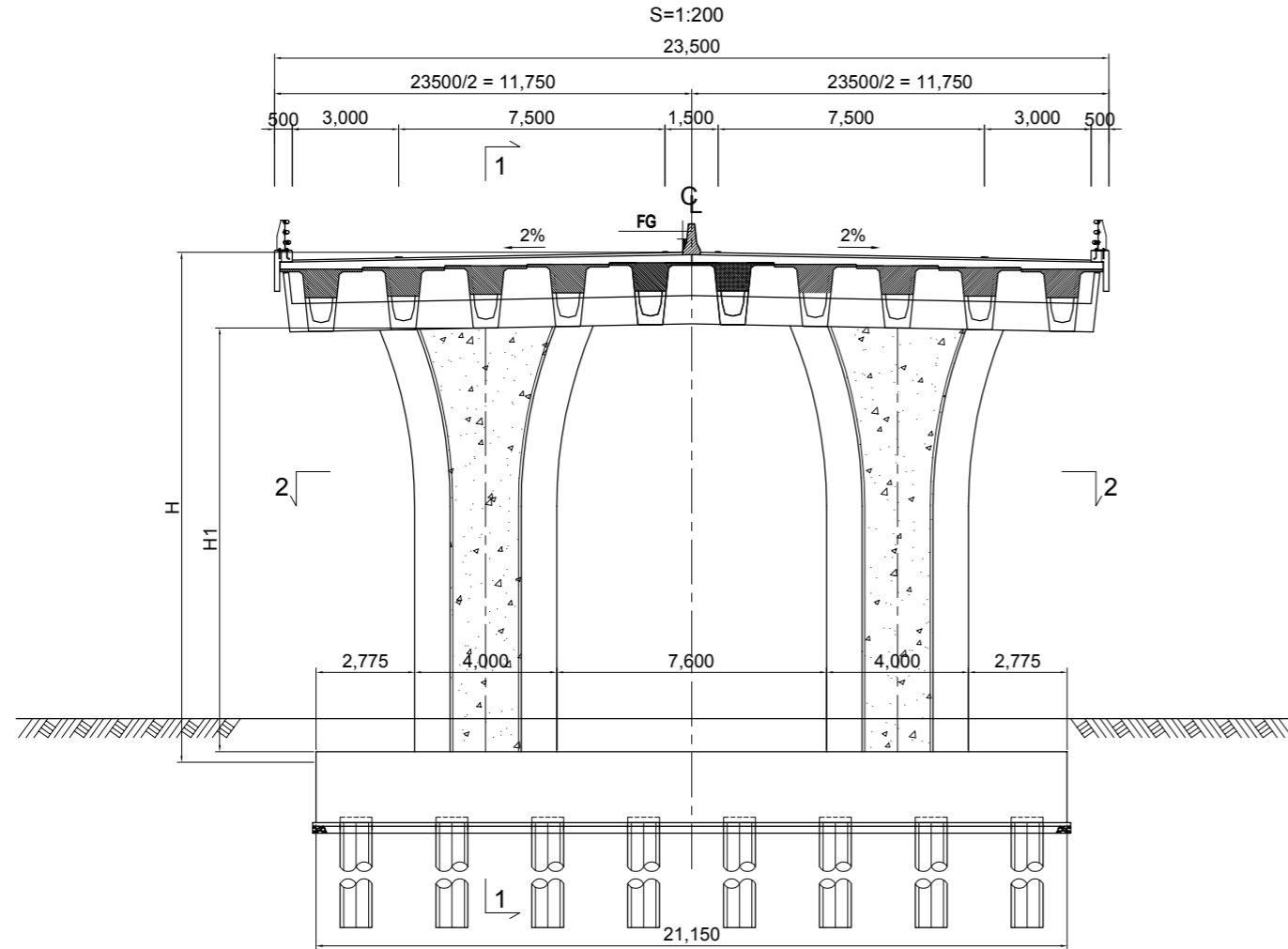
DRAWING TITLE:
GIRDER OF APPROACH BRIDGE

Rev No.

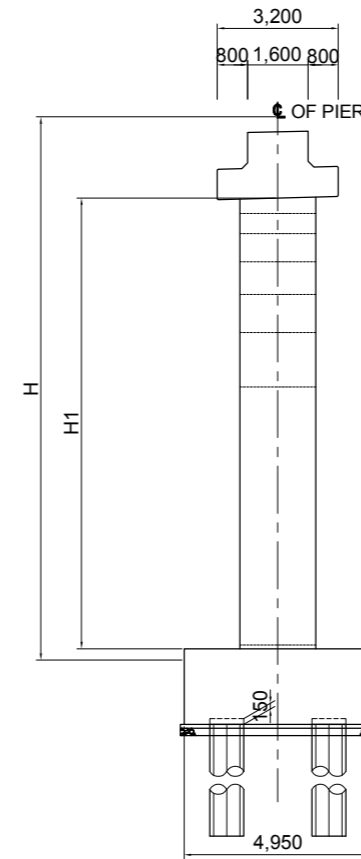
DRAWING No.	VY-14	SCALE	AS SHOWN
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PIER OF APPROACH BRIDGE

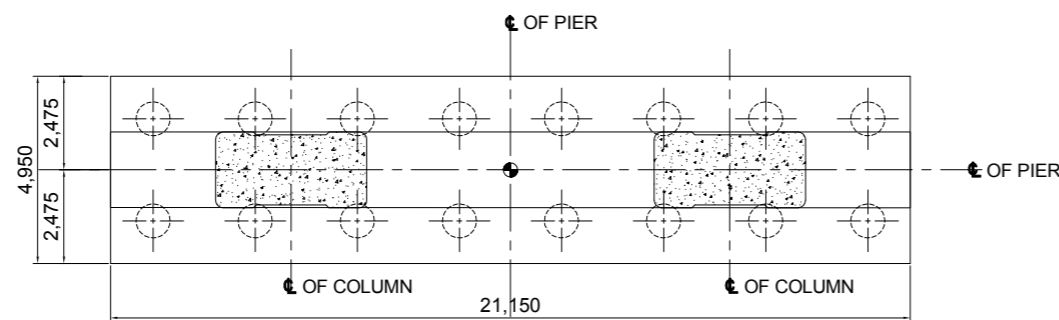
CROSS SECTION VIADUCT



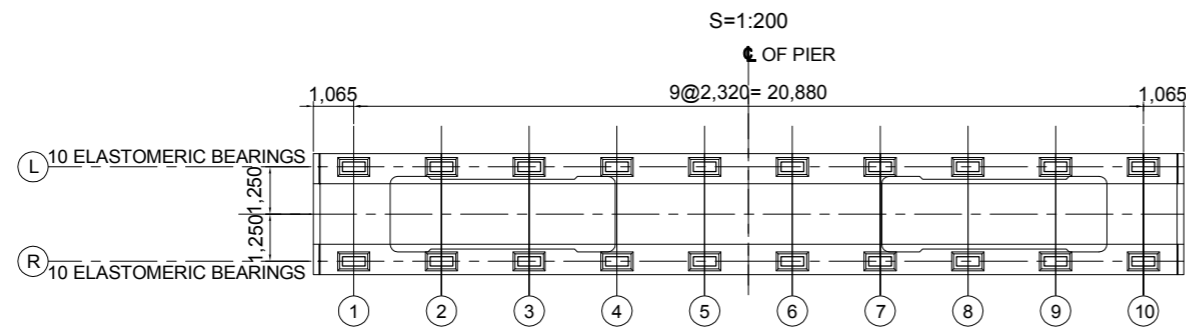
SECTION 1 - 1
SCALE 1:200



SECTION 2 - 2
S=1:200



PLAN OF HEADSTOCK



NOTE: BLINDING CONCRETE 100mm
CRUSHED STONE 200mm

TABLE OF HEIGHT OF PIERS

PIER No.	H (m)	H1 (m)	PILE NUMBER
			n
P1	6.910	2.610	2 × 8=16
P2	7.910	3.610	2 × 8=16
P3	8.910	4.610	2 × 8=16
P4	9.910	5.610	2 × 8=16
P5	10.910	6.610	2 × 8=16
P6	11.910	7.610	2 × 8=16
P7	12.910	8.610	3 × 6=18
P8	13.910	9.610	3 × 6=18
P9	14.910	10.610	3 × 6=18
P10	15.910	11.610	3 × 6=18
P11	16.910	12.610	3 × 6=18
P12	17.910	13.610	3 × 6=18
P13	18.910	14.610	3 × 6=18
P14	19.910	15.610	3 × 6=18
P15	20.910	16.610	3 × 6=18
P16	21.961	17.611	3 × 6=18
P17	23.237	18.937	3 × 6=18
P18	24.750	20.450	3 × 7=21
P19	26.350	22.050	3 × 7=21
P20	27.950	23.650	3 × 7=21
P21	29.550	25.250	3 × 7=21
P22	31.150	26.850	3 × 7=21
P23	32.750	28.450	3 × 7=21
P24	34.350	30.050	3 × 7=21
P25	35.950	31.650	3 × 7=21
P26	37.550	33.250	3 × 7=21
P27	39.150	34.850	3 × 7=21
P28	40.750	36.450	3 × 7=21
P29	42.350	38.050	3 × 7=21
P34	42.350	39.650	3 × 7=21
P35	40.750	38.050	3 × 7=21
P36	39.150	36.450	3 × 7=21
P37	37.550	34.850	3 × 7=21
P38	35.950	33.250	3 × 7=21
P39	34.350	31.650	3 × 8=24
P40	32.750	30.050	3 × 8=24
P41	31.150	28.450	3 × 8=24
P42	29.550	26.850	3 × 8=24
P43	27.950	25.250	3 × 8=24
P44	26.350	23.650	3 × 8=24
P45	24.751	22.051	3 × 10=30
P46	23.271	20.570	3 × 8=24
P47	22.140	19.440	3 × 10=30
P48	21.163	18.463	3 × 8=24
P49	20.285	17.585	3 × 9=27
P50	19.410	16.710	3 × 10=30
P51	18.410	15.710	3 × 11=33
P52	17.410	14.710	3 × 12=36
P53	16.410	13.710	3 × 6=18
P54	15.410	12.710	3 × 6=18
P55	14.410	11.710	3 × 6=18
P56	13.410	10.710	3 × 6=18
P57	12.410	9.710	3 × 6=18
P58	11.410	8.710	2 × 8=16
P59	10.410	7.710	2 × 8=16
P60	9.410	6.710	2 × 8=16
P61	8.410	5.710	2 × 8=16
P62	7.410	4.710	2 × 8=16
P63	6.410	3.710	2 × 8=16

PROJECT:
PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS:
JOINT VENTURE OF
CHODAI CO.,LTD.
ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
ALMEC VPI CO.,LTD.

DRAWING TITLE:
PIER OF APPROACH BRIDGE

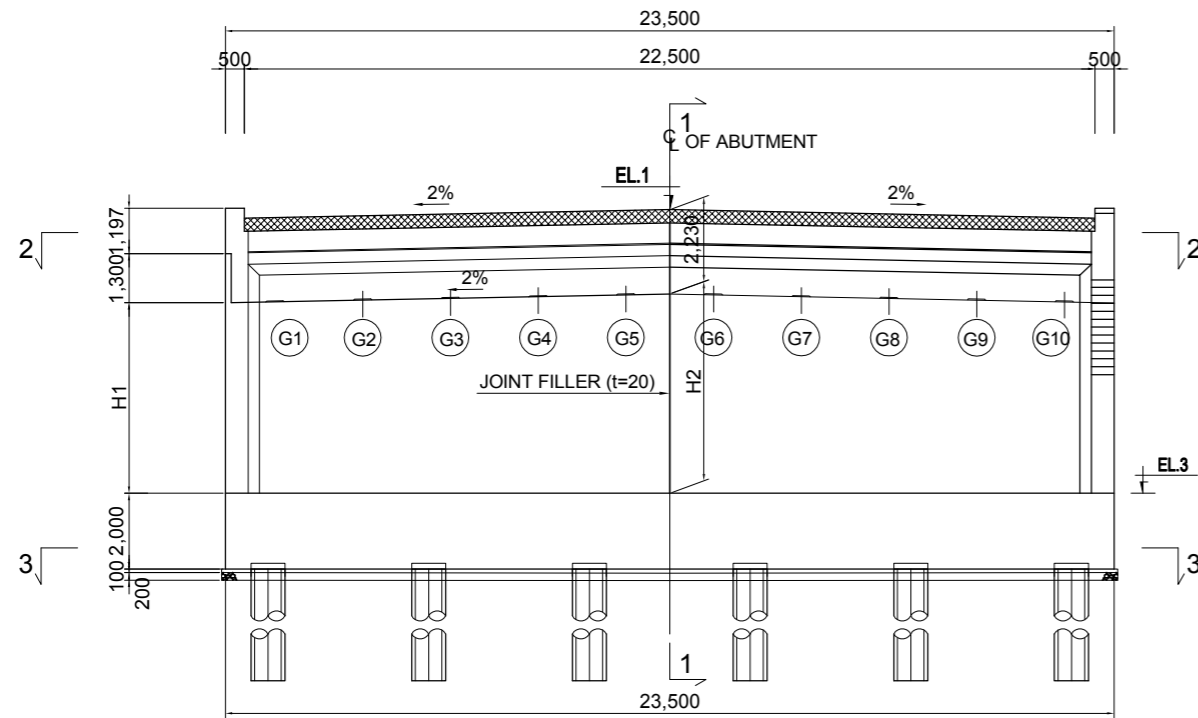
Rev No.

DRAWING No.	VY-15	SCALE	AS SHOWN
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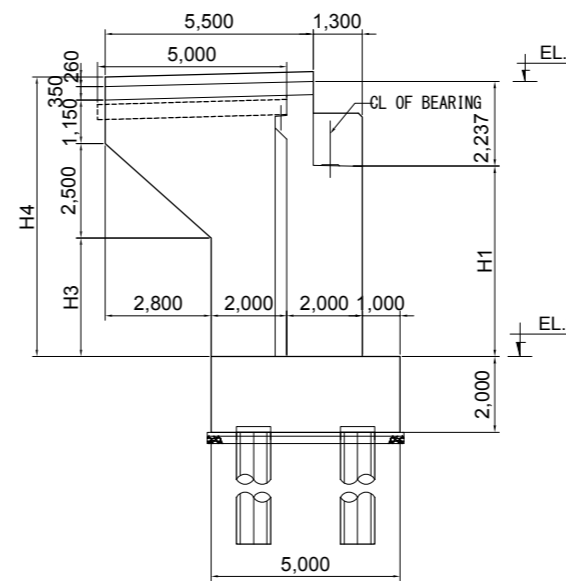
ABUTMENT OF APPROACH BRIDGE

S=1:200

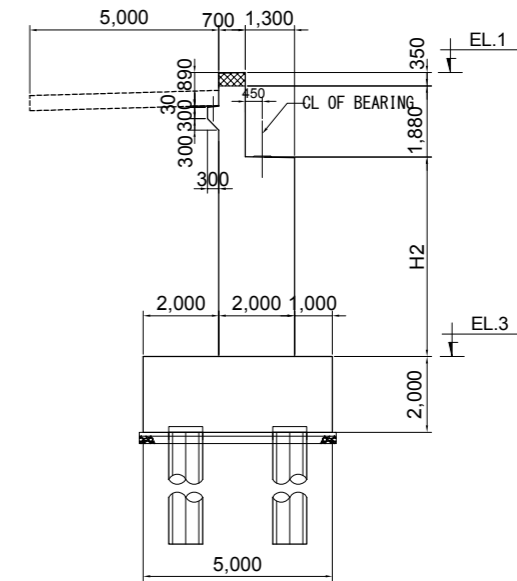
FRONT VIEW OF ABUTMENT



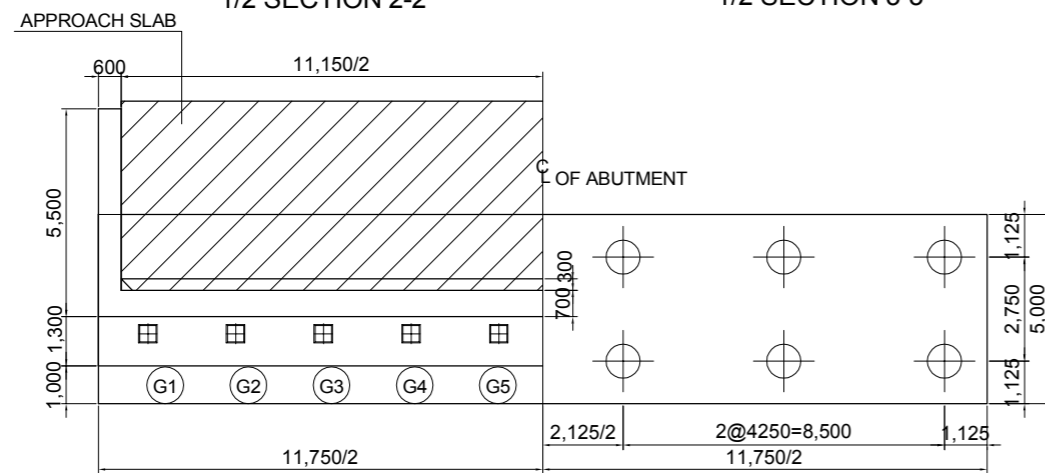
SIDE VIEW



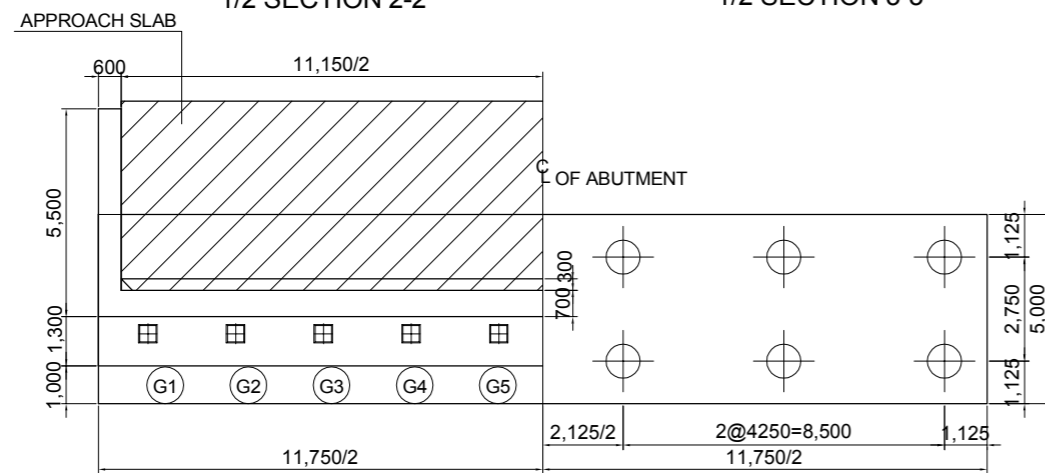
SECTION 1-1



1/2 SECTION 2-2



1/2 SECTION 3-3



BRIDGE ABUTMENT HEIGHT TABLE

ABUTMENT	EL1	EL2	EL3	H1	H2	H3	H4
	m	m	m	m	m	m	m
A1	+5.919	5.694	+0.00	3.457	3.689	1.634	5.844
A2	+5.544	5.319	+0.00	3.082	3.314	1.259	5.469

NOTE: BLINDING CONCRETE 100mm
CRUSHED STONE 200mm

PROJECT: PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF
CHODAI CO.,LTD.
ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
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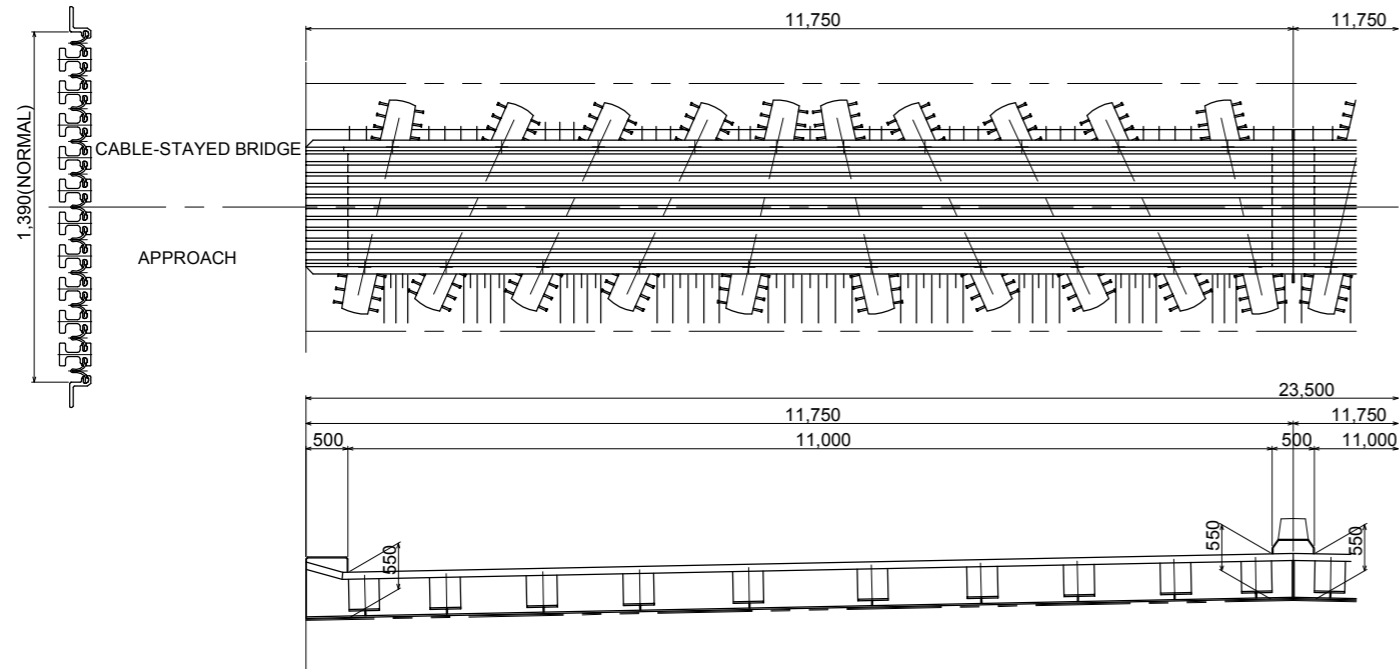
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ABUTMENT OF APPROACH BRIDGE

Rev No.

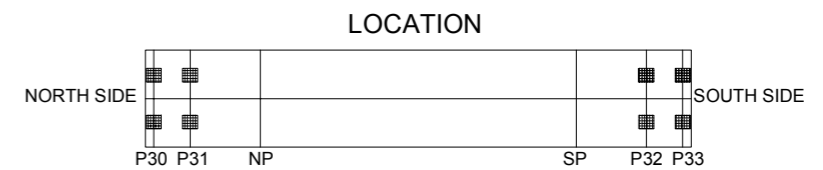
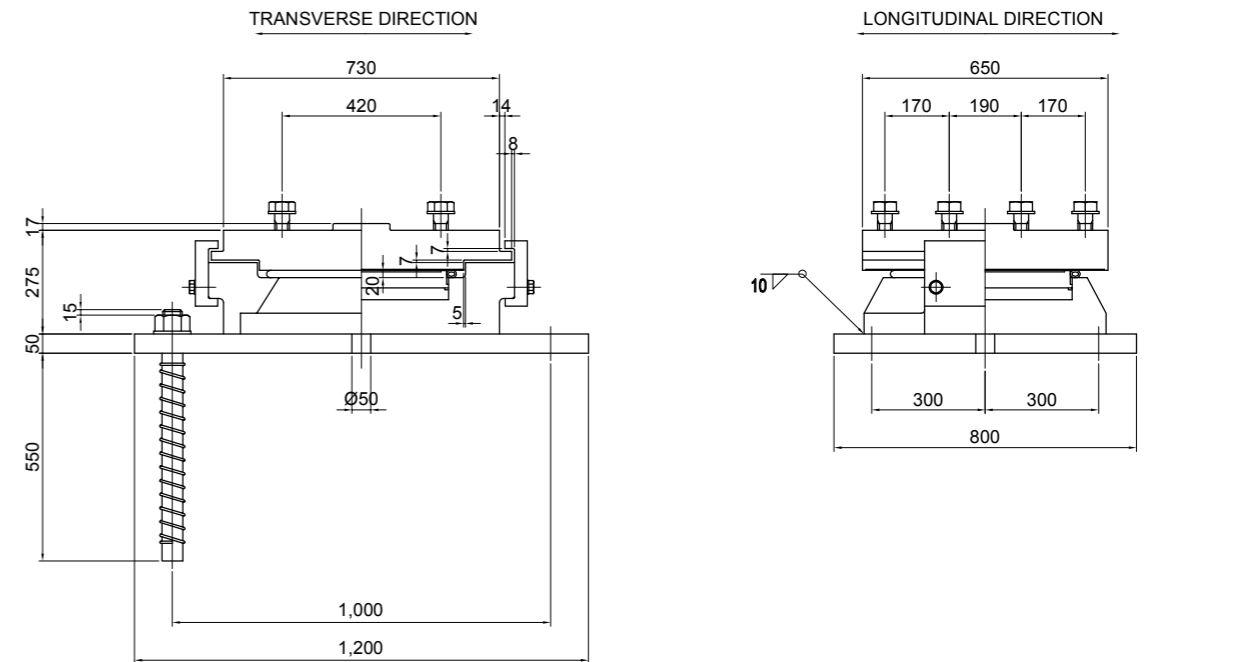
DRAWING No. VY-16 SCALE 1:200

BEARING, EXPANSION JOINT ASSEMBLY DRAWING, CROSS SECTION DRAWING

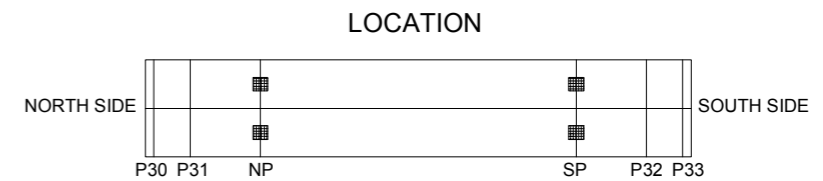
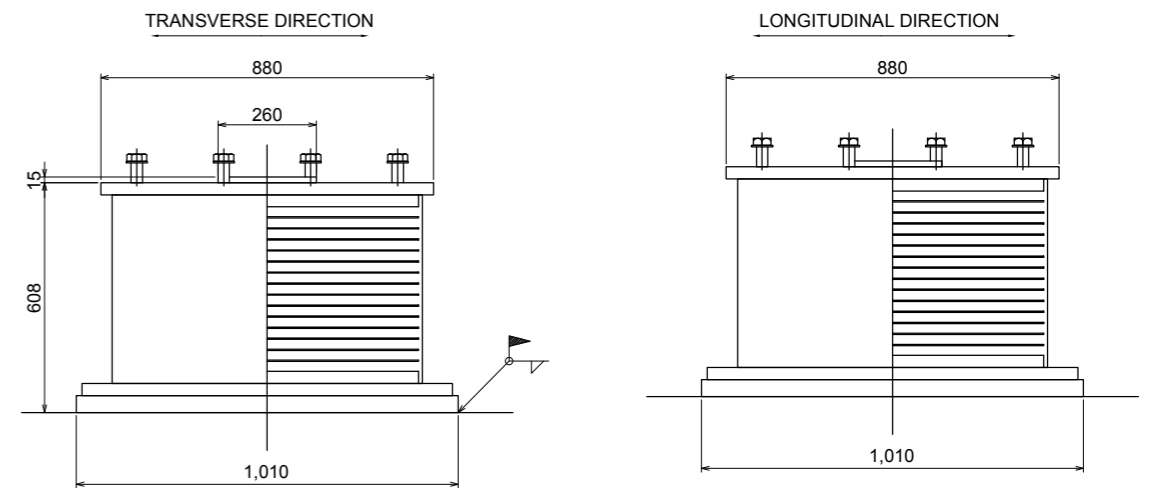
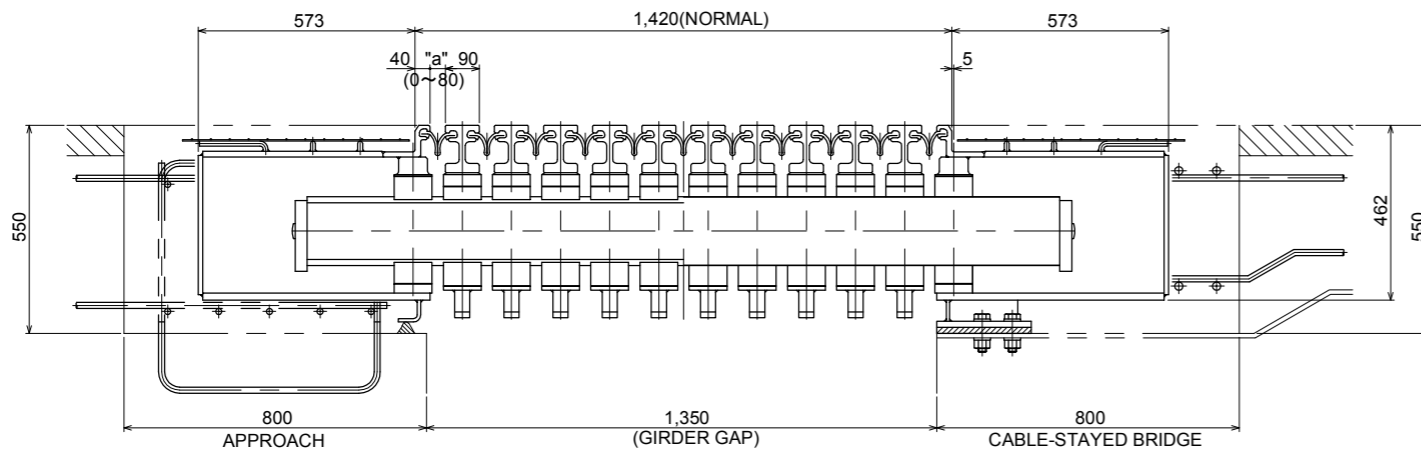
EXPANSION JOINT DETAILS
S=1:15



BEARING DETAILS
S=1:15



CROSS SECTION
S=1:30



PROJECT:
PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS:
JOINT VENTURE OF
CHODAI CO.,LTD.
ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
ALMEC VPI CO.,LTD.

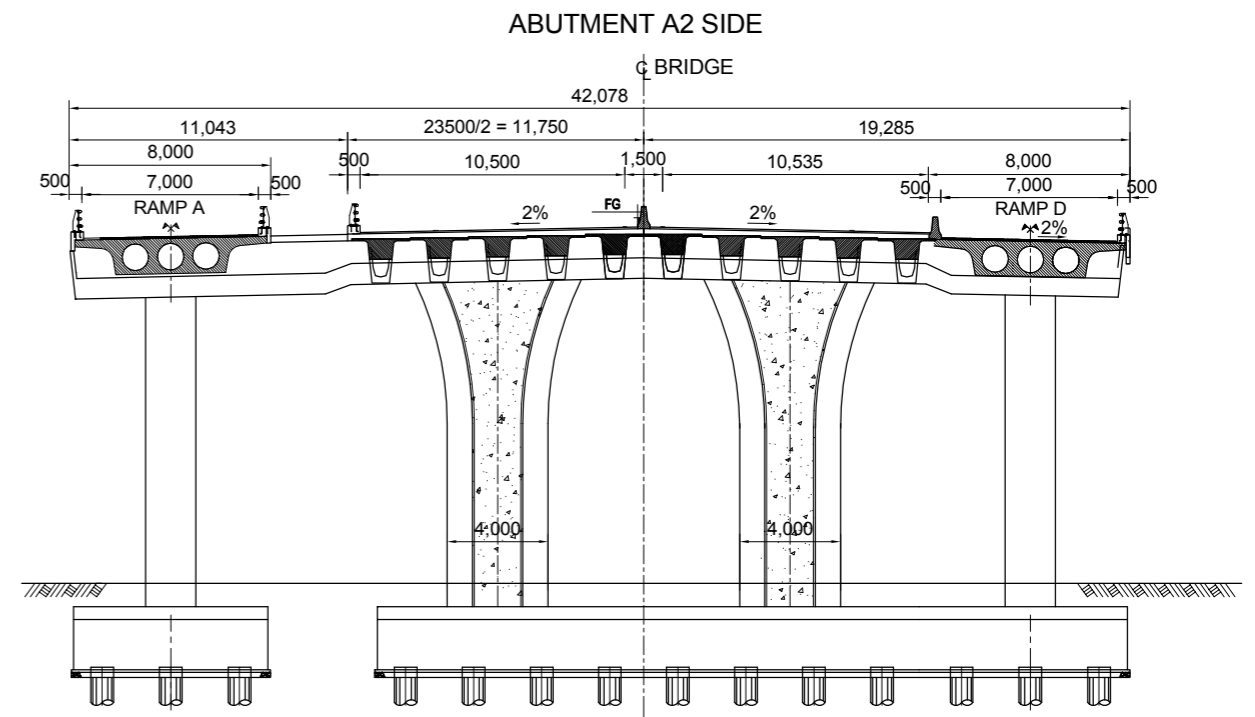
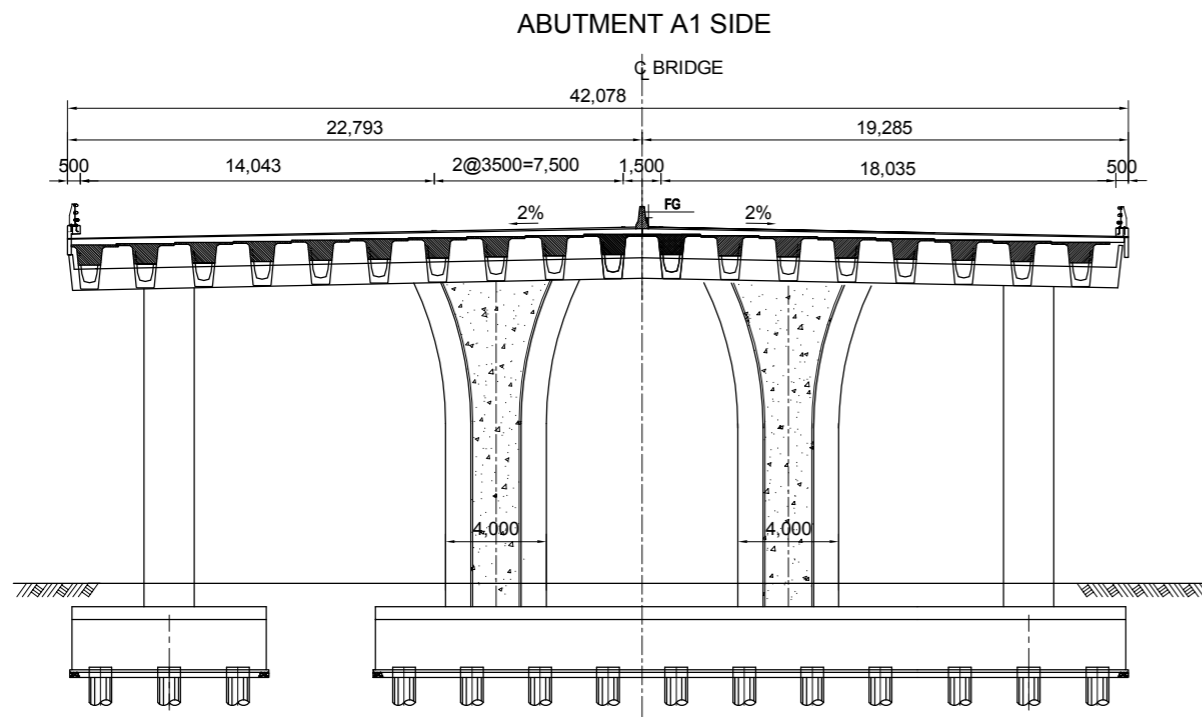
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BEARING, EXPANSION JOINT

Rev No.

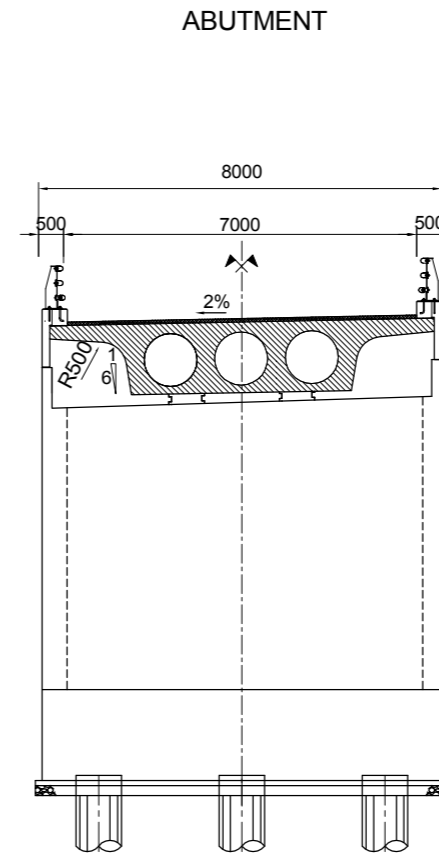
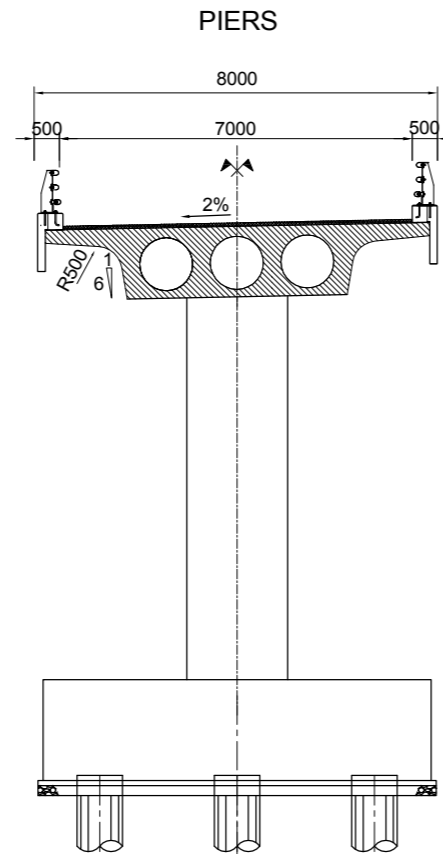
DRAWING No.	VY-17	SCALE	AS SHOWN
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PIER AND ABUTMENT OF RAMP WAY A, D

CROSS SECTION AT PIER 52
S=1:300



TYPICAL CROSS SECTION
S=1:150



PROJECT: PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF
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ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
ALMEC VPI CO.,LTD.

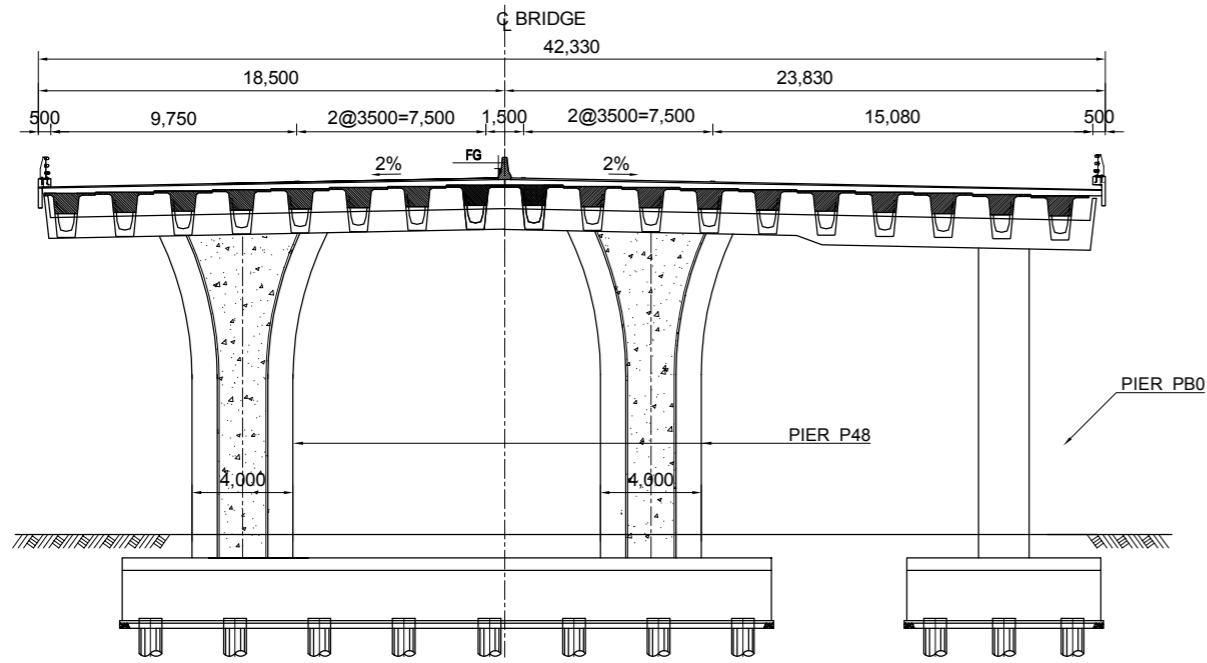
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PIER AND ABUTMENT OF RAMP WAY A, D

Rev No.

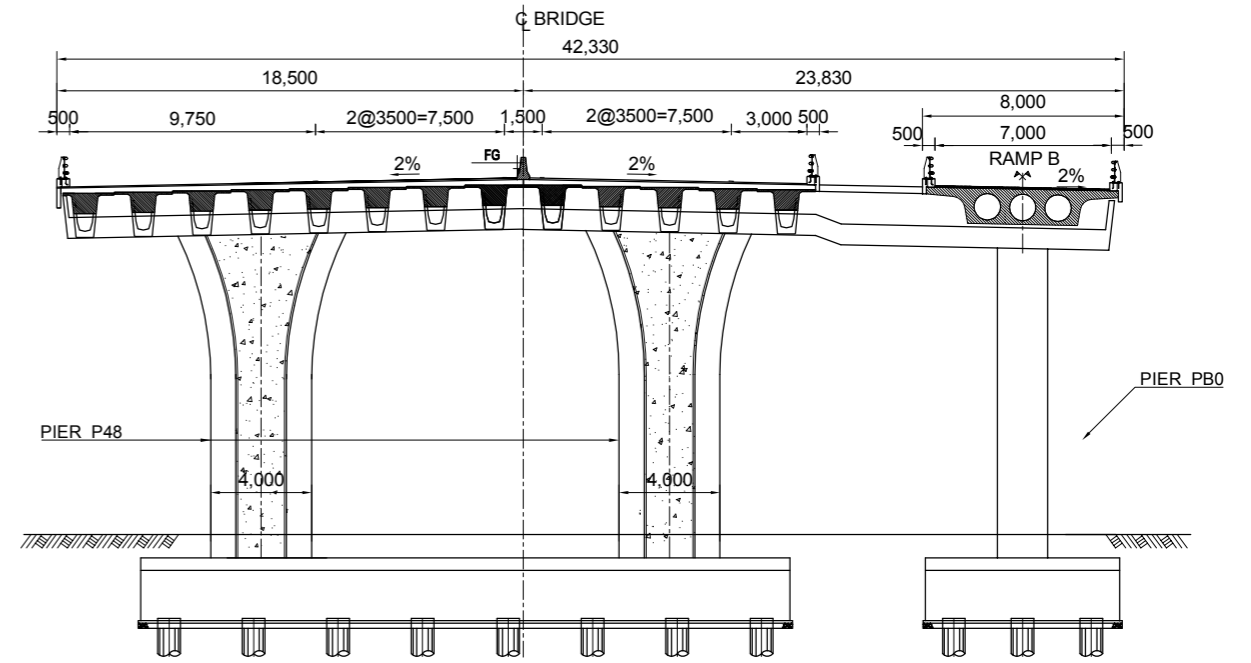
DRAWING No.	VY-18	SCALE	AS SHOWN
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PIER AND ABUTMENT OF RAMP WAY B

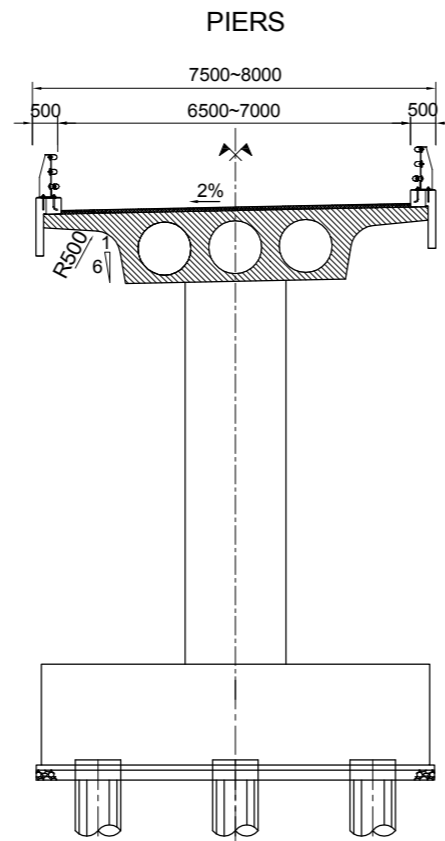
CROSS SECTION AT PIER 48 AND PB0
ABUTMENT A1 SIDE S=1:300



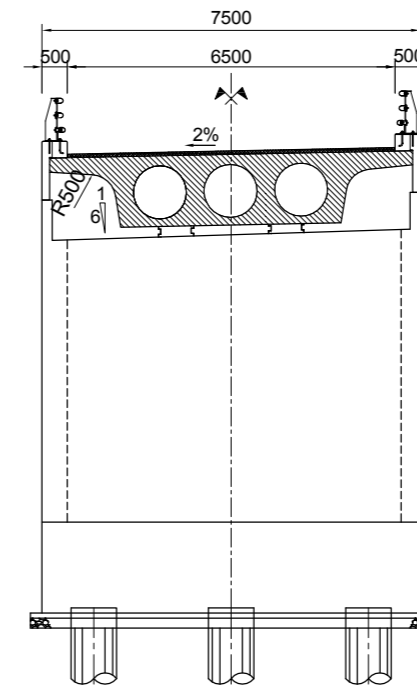
CROSS SECTION AT PIER 48 AND PB0
ABUTMENT A2 SIDE S=1:300



TYPICAL CROSS SECTION
S=1:150



ABUTMENT



PROJECT: PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



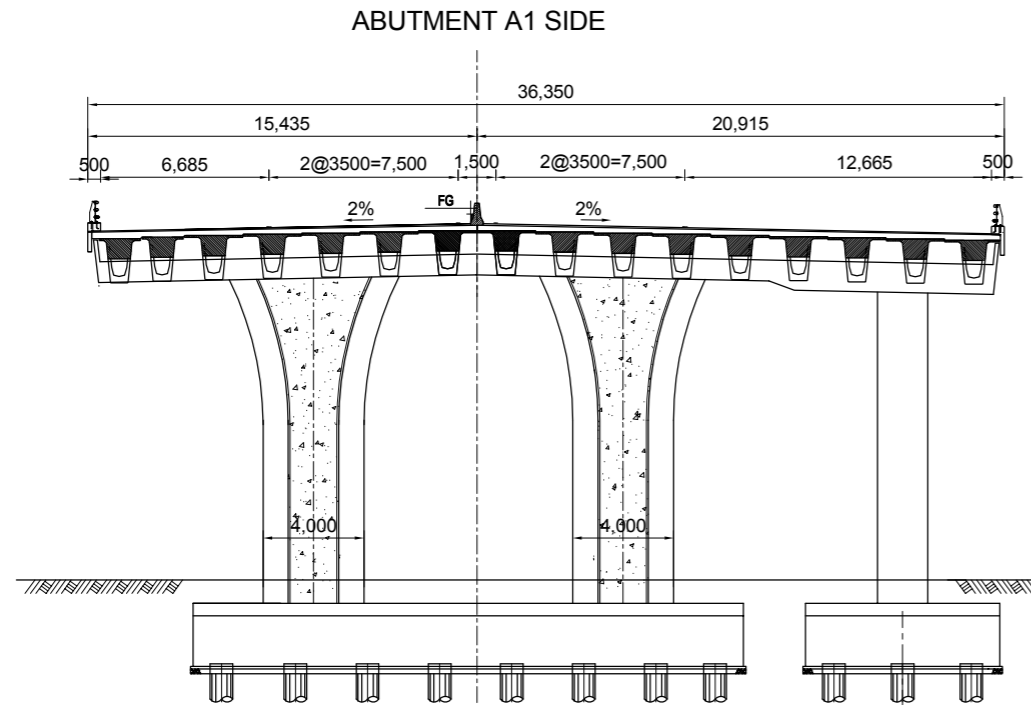
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF
CHODAI CO.,LTD.
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ALMEC VPI CO.,LTD.

DRAWING TITLE: PIER AND ABUTMENT OF RAMP WAY B				Rev No.
DRAWING No.	VY-19	SCALE	AS SHOWN	

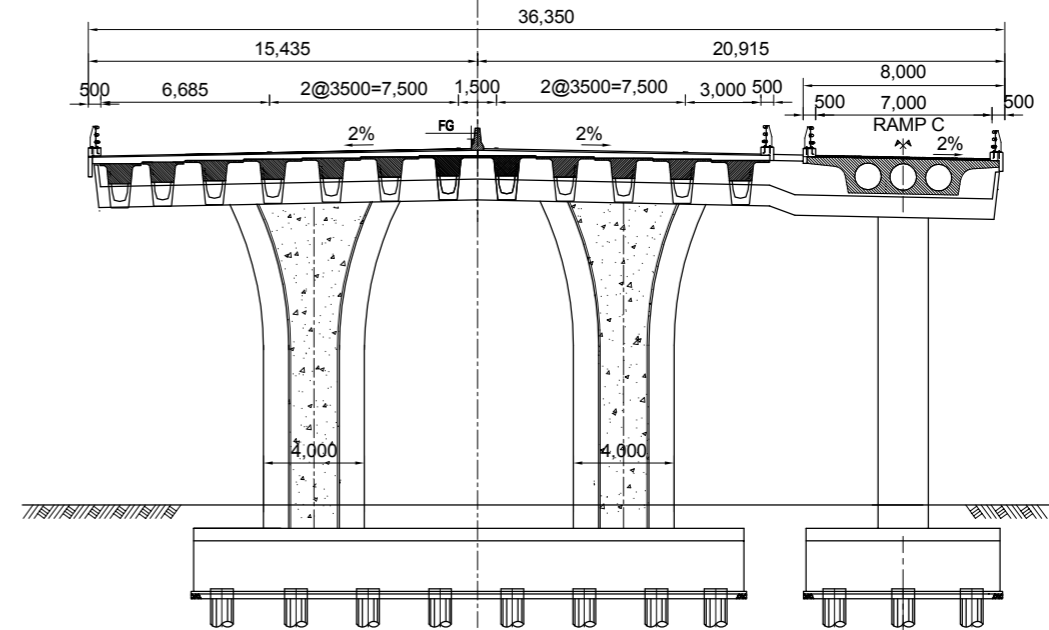
PIER AND ABUTMENT OF RAMP WAY C

CROSS SECTION AT PIER 45

S=1:300

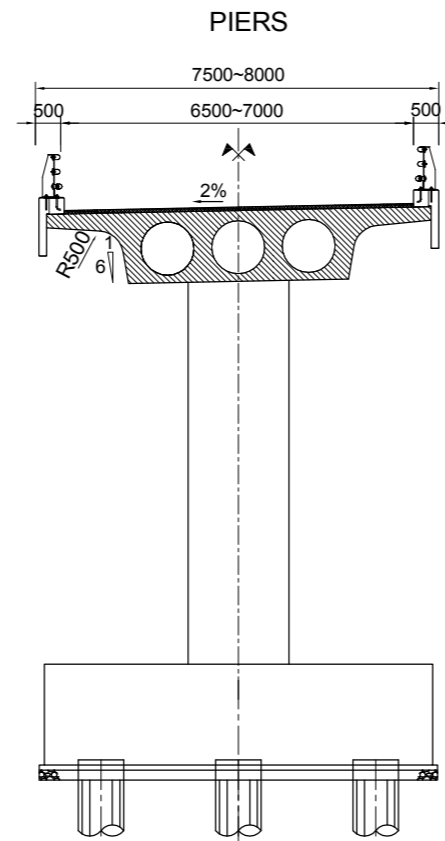


ABUTMENT A2 SIDE

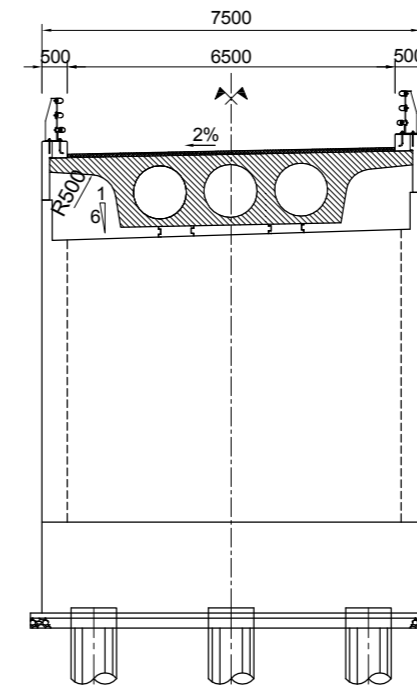


TYPICAL CROSS SECTION

S=1:150



ABUTMENT



PROJECT: PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



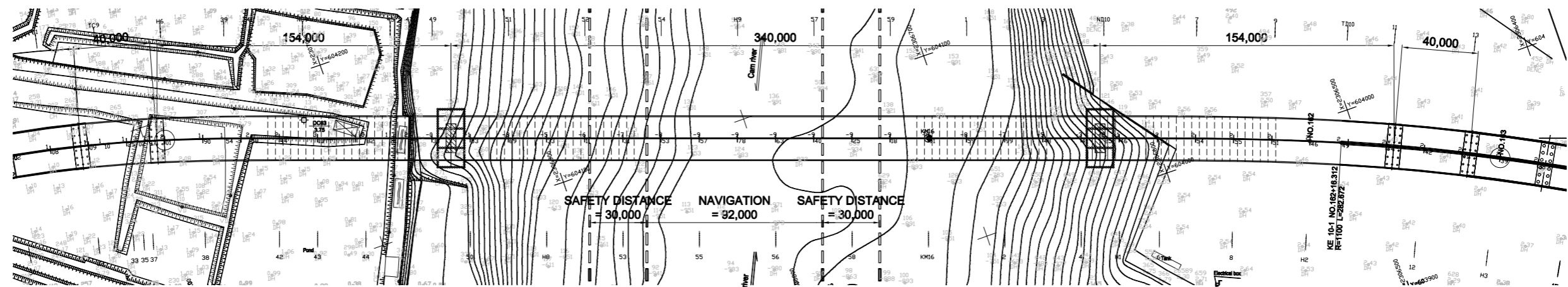
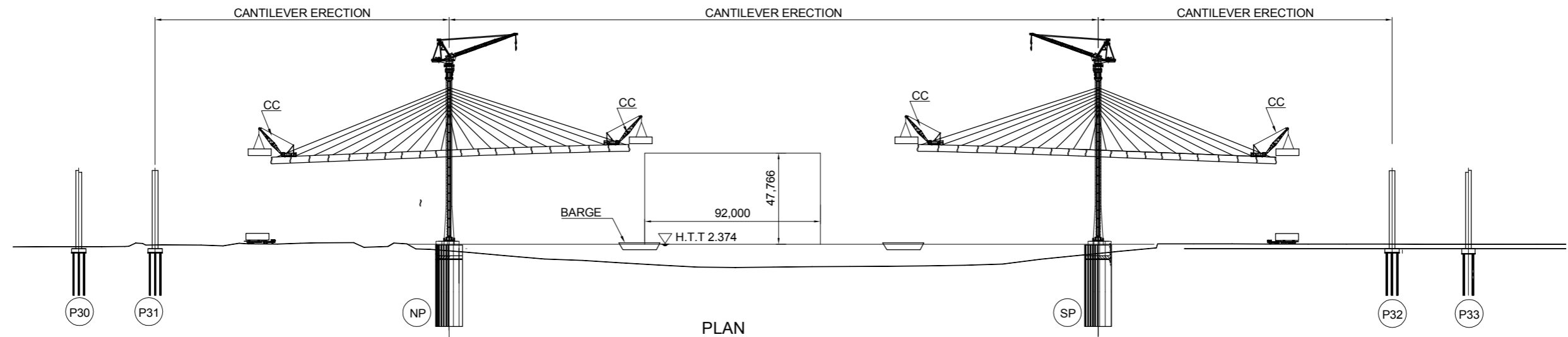
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF
CHODAI CO.,LTD.
ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
ALMEC VPI CO.,LTD.

DRAWING TITLE:
PIER AND ABUTMENT OF RAMP WAY C

Rev No.

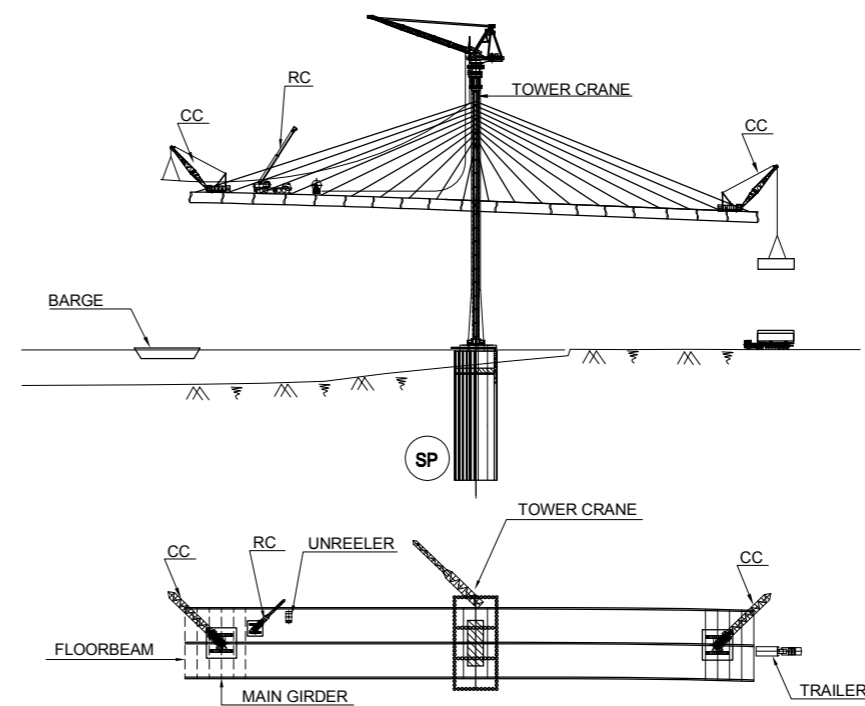
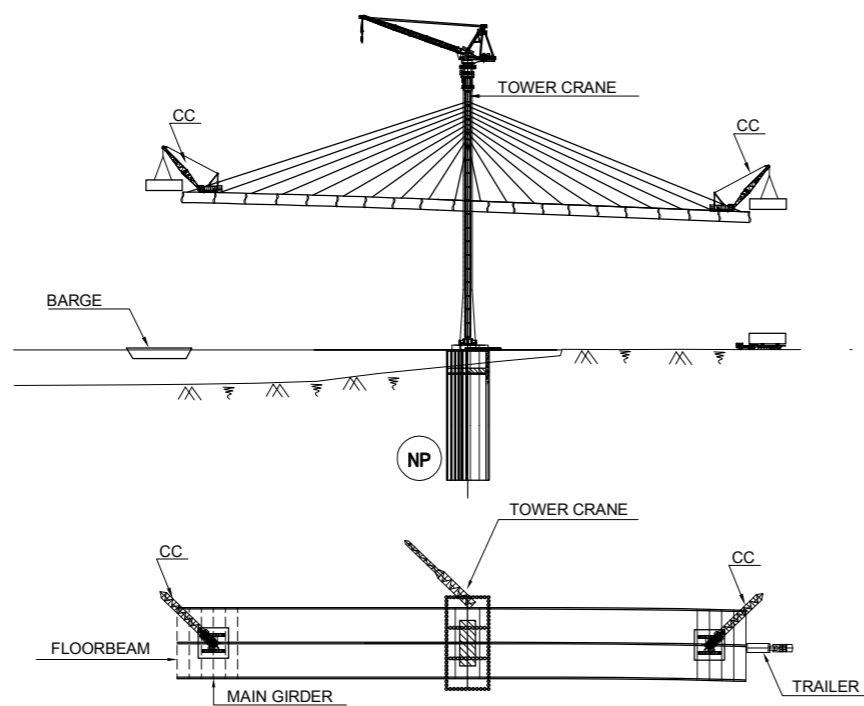
DRAWING No.	VY-20	SCALE	AS SHOWN
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CONSTRUCTION SEQUENCE OF CABLE STAYED BRIDGE (2) S=1:2,500



GIRDER CANTILEVER ERECTION

CABLE ERECTION



PROJECT: PREPARATORY SURVEY ON HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 CONSULTANTS: JOINT VENTURE OF CHODAI CO.,LTD. ORIENTAL CONSULTANTS GLOBAL CO.,LTD. ALMEC VPI CO.,LTD.

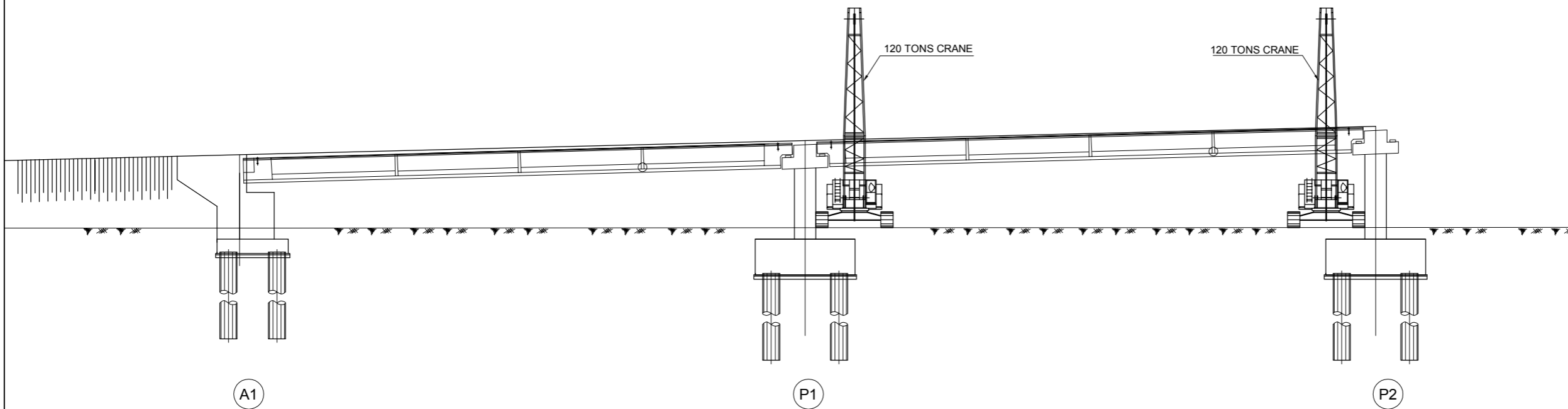
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Rev No.

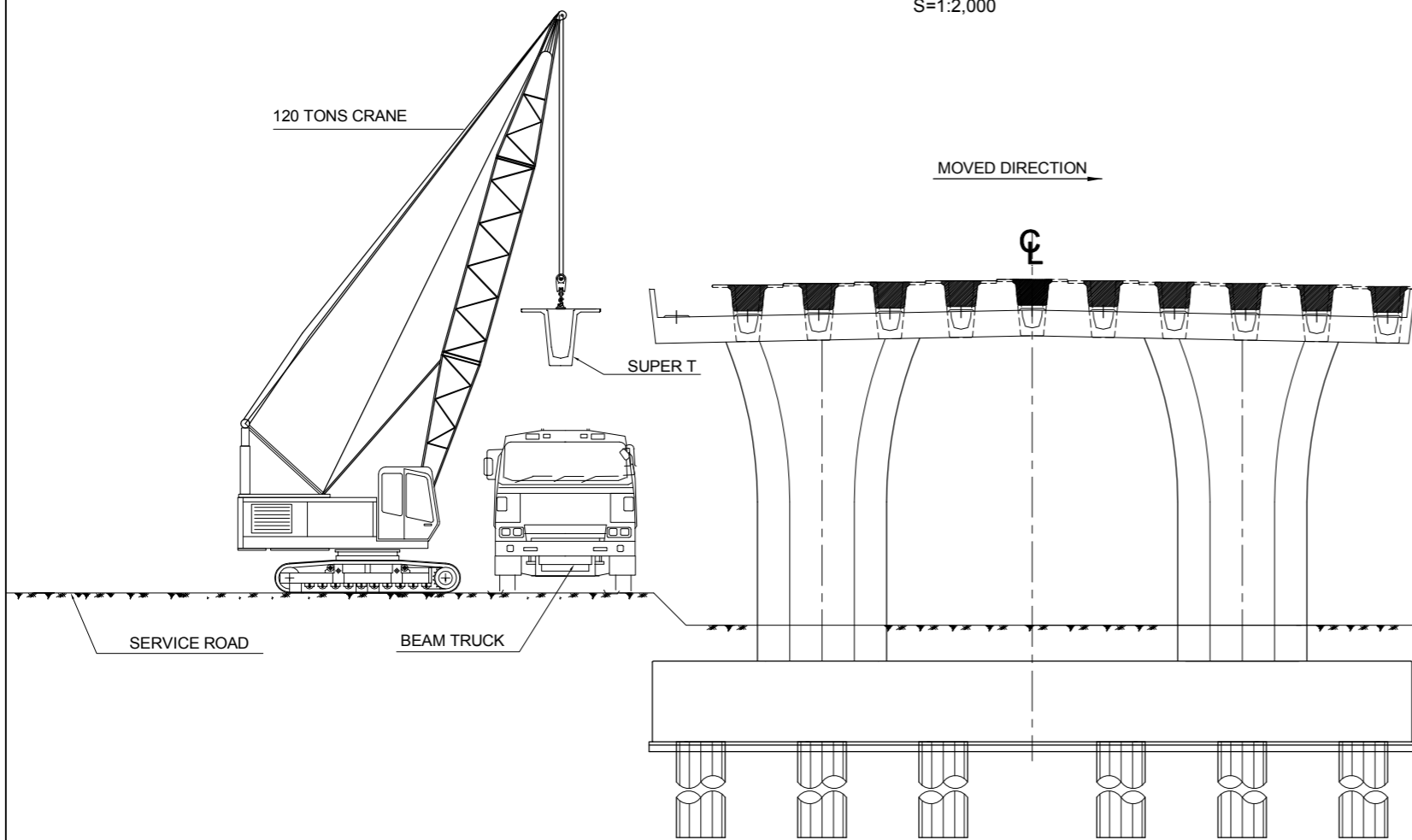
DRAWING No.	VY-22	SCALE	1:2,500
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CONSTRUCTION SEQUENCE OF APPROACH BRIDGE (1)

SUPER T GIRDERS ERECTION USING TWO CRANES (FOR SPANS ON A1 TO P3 AND P61 TO A2)
S=1:300



CROSS SECTION OF SPAN CONSTRUCTION METHOD ON LAND
S=1:2,000



CONSTRUCTION STEPS

STEP 1: SUPER T GIRDER ERECTION

- TRAILER TRANSPORTED SUPER T GIRDERS FROM SUPER T YARD TO ERECTION POSITION.
- TWO 120T CRANES STAND ON SERVICE ROAD LIFT SUPER T GIRDER SLOWLY AND PLACE IT ON EXTERIOR LEFT BEARING PAD.
- TRAILER MOVE AWAY ERECTION SITE FOR TRANSPORT OTHER SUPER T GIRDERS.
- TWO 120T CRANES LIFT SUPER T GIRDER FROM EXTERIOR BEARING PAD, MOVE AND PLACE IT ON INTERIOR PAD.

STEP 2: DECK SLAB CONSTRUCTION.

- CROSSBEAMS / DIAPHRAGMS.
- DECK SLAB.
- LINK SLABS.
- PRECAST FASCIA PANELS.
- BARRIERS.
- ASPHALTIC CONCRETE WEARING SURFACE.
- INSTALLATION OF MODULAR EXPANSION JOINTS.
- DECK DRAINAGE.

PROJECT: PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF
CHODAI CO.,LTD.
ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
ALMEC VPI CO.,LTD.

DRAWING TITLE:
CONSTRUCTION SEQUENCE OF APPROACH BRIDGE (1)

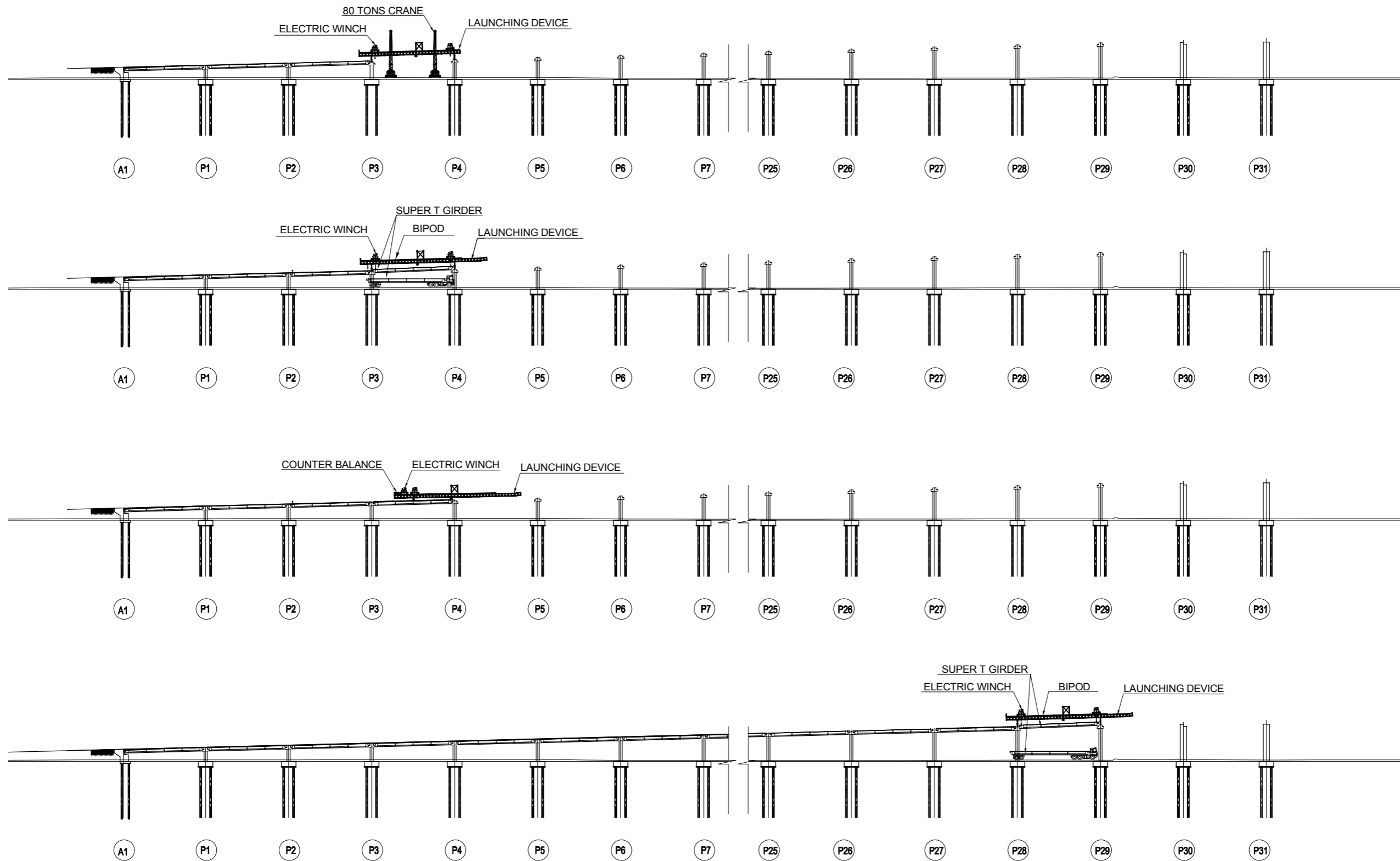
Rev No.

DRAWING No.	VY-23	SCALE	AS SHOWN
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CONSTRUCTION SEQUENCE OF APPROACH BRIDGE (2)

S=1:2,000

CONSTRUCTION SEQUENCE OF APPROACH BRIDGE (FOR SPANS ON P3 TO P30 AND P33 TO P61)



PROJECT: PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF
CHODAI CO.,LTD.
ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
ALMEC VPI CO.,LTD.

DRAWING TITLE:
CONSTRUCTION SEQUENCE OF APPROACH BRIDGE (2)

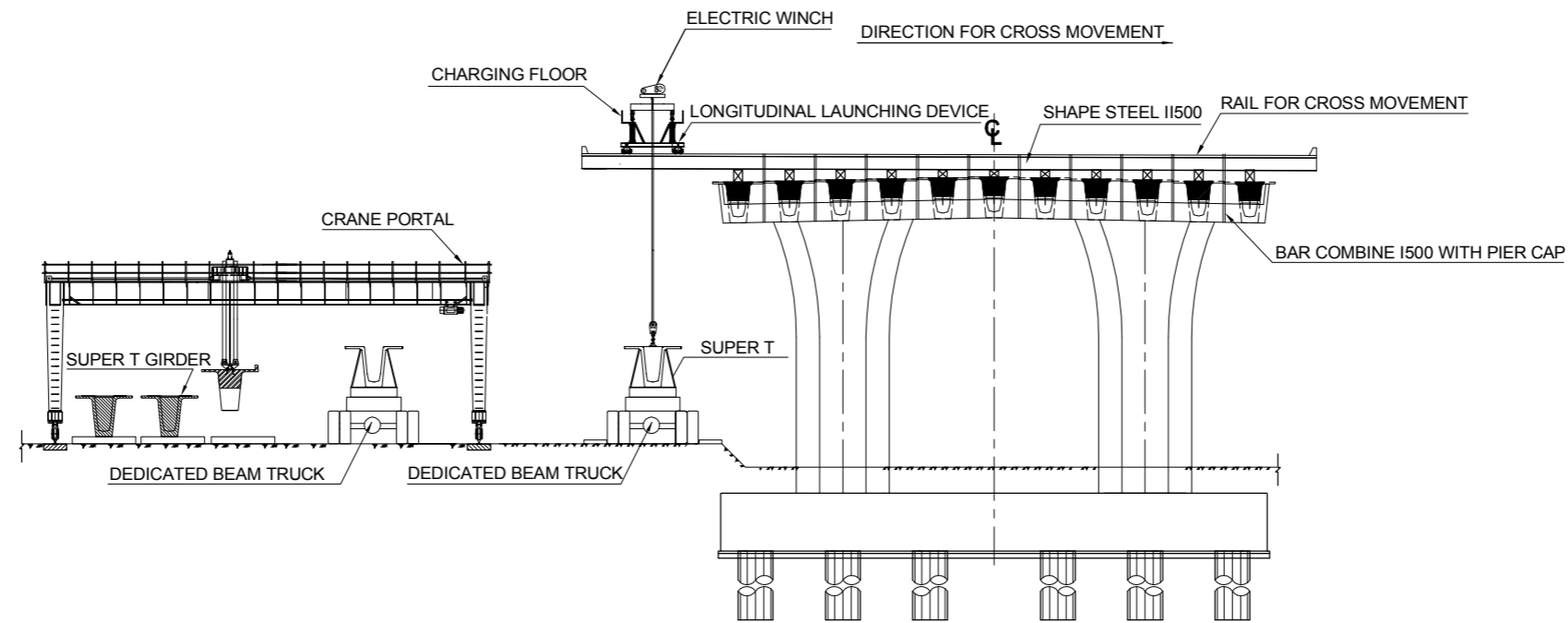
Rev No.

DRAWING No.	VY-24	SCALE	1:2,000
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CONSTRUCTION SEQUENCE OF APPROACH BRIDGE (3)

S=1:3,000

CROSS SECTION OF SPAN CONSTRUCTION SEQUENCE ON LAND



CONSTRUCTION STEPS

STEP 1

- INSTALLING RAIL OF CROSS LAUNCHING DEVICE ON PIER P3 - P4 AND P60 - P61.
- USE TWO 80T CRANE INSTALLING LAUNCHING DEVICE ON PIER P3 - P4 AND P60 - P61.
- USING BEAM TRUCK FOR CARRYING SUPER T GIRDER FROM CASTING YARD TO SPAN LOCATION.
- USING SYSTEM OF CROSS LAUNCHING DEVICE ON PIER FOR PUTTING GIRDERS ON SPAN LOCATION .
- JOINTING STARTER BAR OF DIAPHRAGM.

STEP 2

- AFTER LAUNCHING COMPLETELY SPAN P3 - P4 AND P60 - P61 INSTALLING RAIL OF CROSS LAUNCHING DEVICE ON PIER P4 - P5 AND P59 - P60.
- MOVING LAUNCHING TO SPAN P4 - P5 AND P59 - P60.

STEP 3

- USING BEAM TRUCK FOR CARRYING SUPER T GIRDER FROM CASTING YARD TO SPAN LOCATION.
- USING SYSTEM OF CROSS LAUNCHING DEVICE ON PIER FOR PUTTING GIRDERS ON SPAN LOCATION P4 - P5 AND P59 - P60.
- JOINTING STARTER BAR OF DIAPHRAGM.

STEP 4

- CARRY OUT THE NEXT STEPS LIKE STEP 2 & 3 TO INSTALL ALL OF GIRDERS OF SPAN FROM P5 - P6 AND P58 - P59.

STEP 5

- REMOVE LAUNCHING DEVICE.
- CONSTRUCTION DIAPHRAGM, CIP SLAB.
- COMPLETING RAILING, DRAINAGE SYSEM, ETC...

PROJECT:
PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS:
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CHODAI CO.,LTD.
ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
ALMEC VPI CO.,LTD.

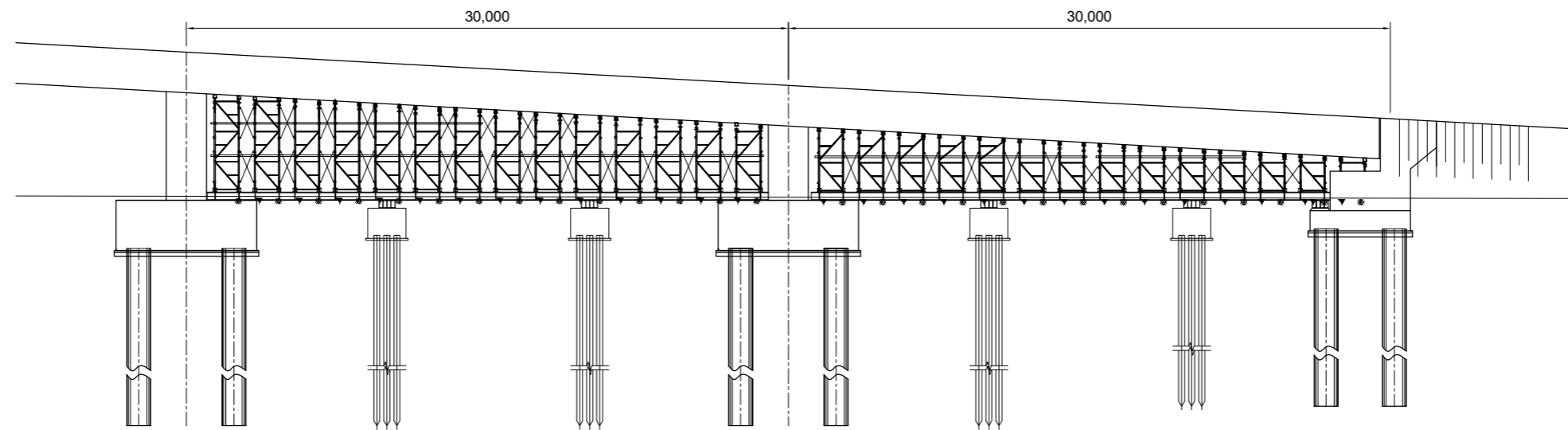
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CONSTRUCTION SEQUENCE OF APPROACH BRIDGE (3)

Rev No.

DRAWING No.	VY-25	SCALE	1:3,000
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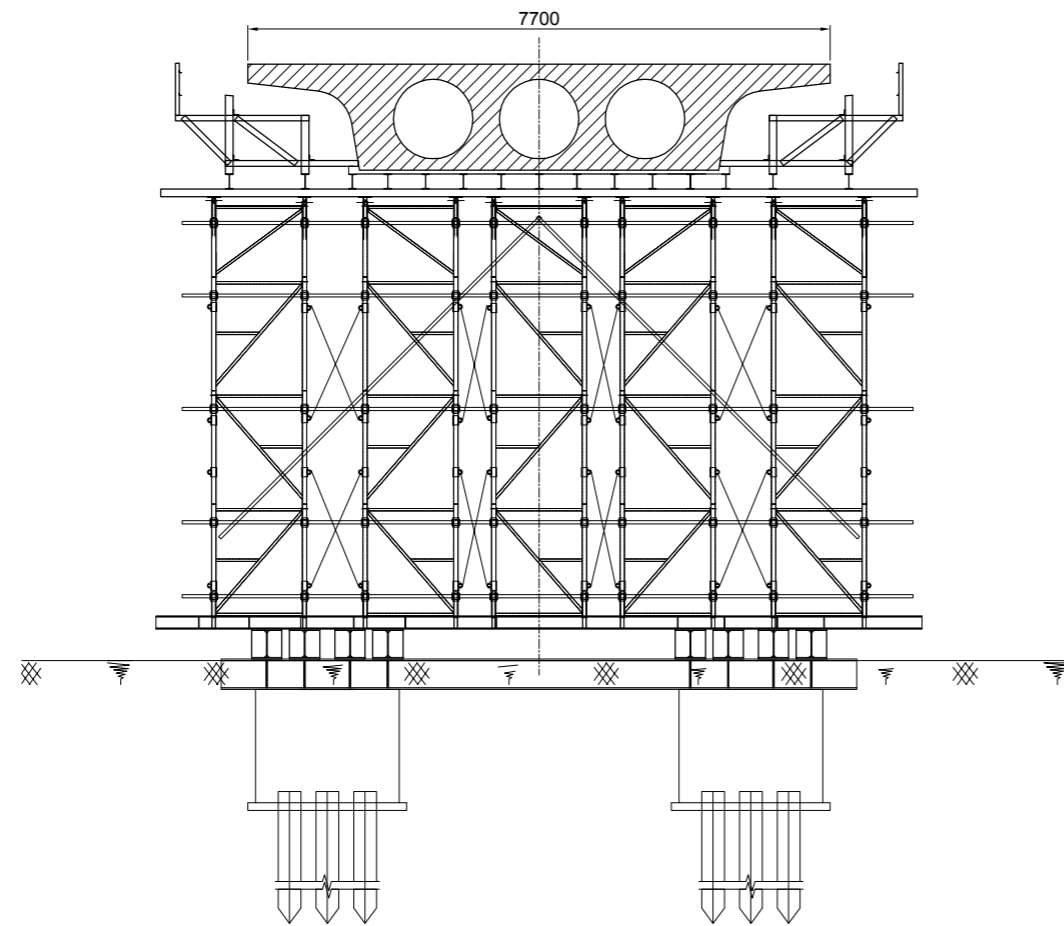
CONSTRUCTION SEQUENCE OF RAMP WAY

S=1:300



CROSS SECTION

S=1:100



CONSTRUCTION STEPS

- INSTALLING THE SCAFFOLDING.
- EXECUTING LOADING TEST OF THE SCAFFOLDING.
- INSTALLING FORMWORK, REINFORCEMENT AND POSTTENSIONING DUCTS.
- CASTING CONCRETE, CURING WORKS.
- PRESTRESSED STRANDS STRESSING AFTER CONCRETE HAS ACHIEVED TO CONCRETE STRENGTH PROVIDED IN TECHNICAL SPECCIFICATION.
- CONSTRUCTION OF REMAINING ABUTMENT PART.
- EXECUTING THE MISCELLANEOUS (RAILING, DRAINAGE, PAVEMENT...).
- PERFECTING TASKS.

PROJECT:
**PREPARATORY SURVEY
 ON
 HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT**



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
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 CHODAI CO.,LTD.
 ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
 ALMEC VPI CO.,LTD.

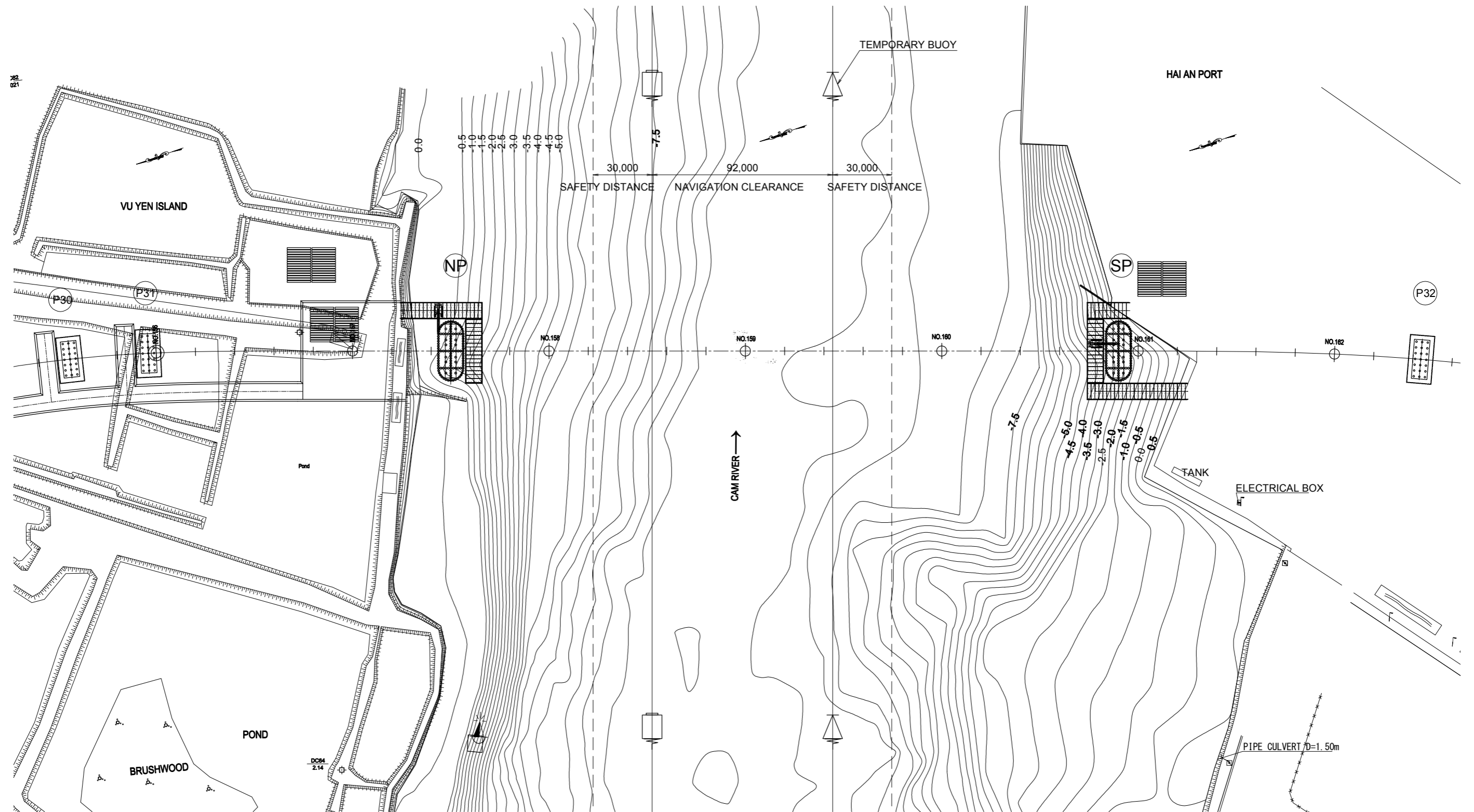
DRAWING TITLE:
CONSTRUCTION SEQUENCE OF RAMP WAY

Rev No.

DRAWING No.	VY-26	SCALE	AS SHOWN
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CONSTRUCTION SEQUENCE OF FOUNDATION (1)

S=1:2,000



PROJECT: PREPARATORY SURVEY ON HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



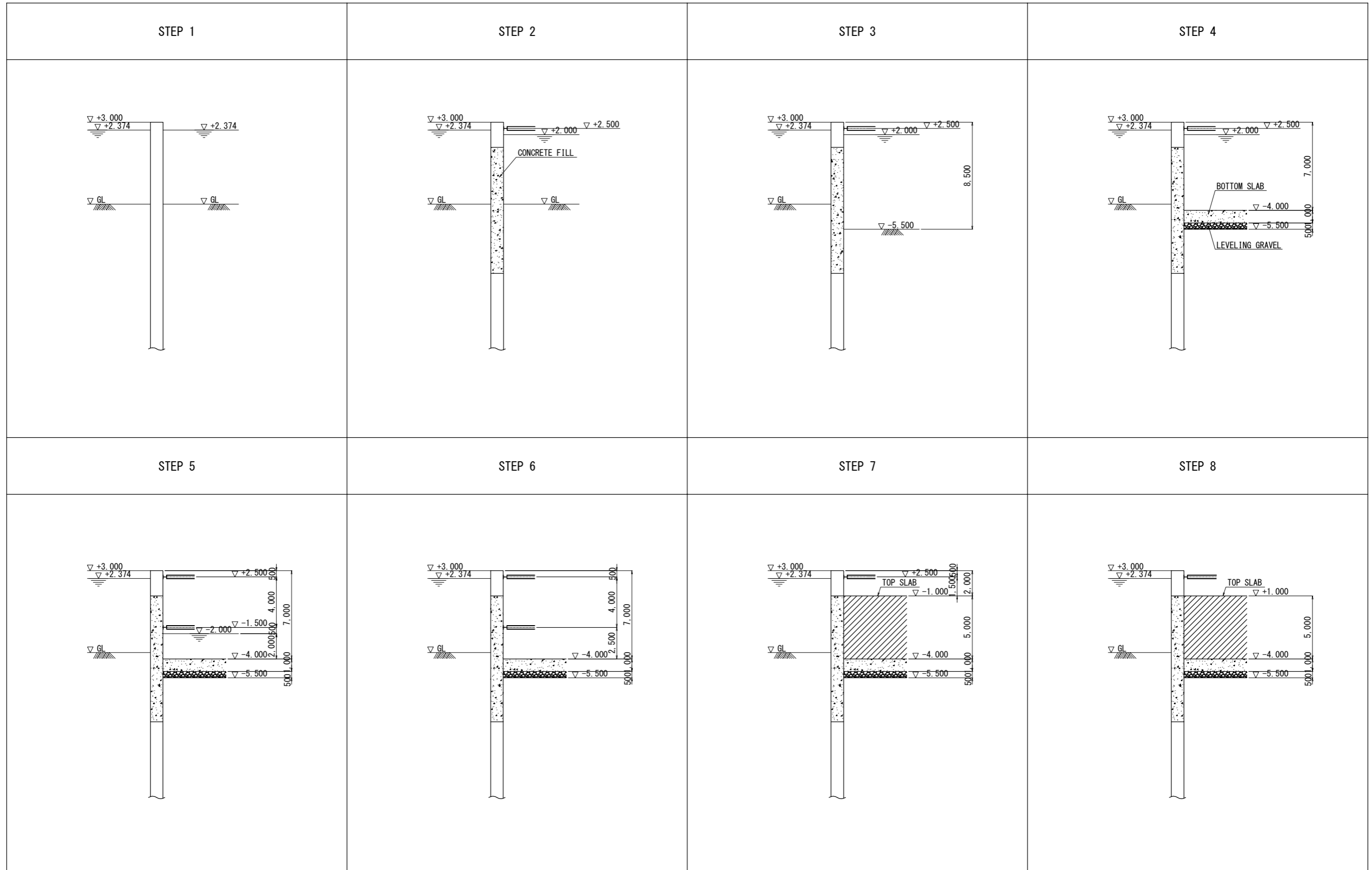
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 CONSULTANTS: JOINT VENTURE OF CHODAI CO.,LTD. ORIENTAL CONSULTANTS GLOBAL CO.,LTD. ALMEC VPI CO.,LTD.

DRAWING TITLE: CONSTRUCTION SEQUENCE OF FOUNDATION (1)

Rev No.

DRAWING No.	VY-27	SCALE	1:2,000
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CONSTRUCTION SEQUENCE OF FOUNDATION (2)



PROJECT: PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF
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DRAWING TITLE:
CONSTRUCTION SEQUENCE OF FOUNDATION (2)

Rev No.

DRAWING No.

VY-28

SCALE

QUANTITIES OF SUPERSTRUCTURE

ITEM	SPECIFICATIONS	UNIT	MAIN BRIDGE
			CABLE STAYED BRIDGE
			L=738M
CABLE $\sigma_t=1770[N/mm^2]$	LENGTH (EACH CABLE)	[m]	9,832(29-166)
	DIAMETER OF WIRE	[mm]	7
	NOS OF WIRE/1STRAND	[Nos]	73-361
	NOS OF STRAND	[Nos]	104
	WEIGHT	[ton]	730
CABLE SOCKET	WEIGHT	[ton]	50
STIFFENING GIRDER	WEIGHT OF SM490	[ton]	1107
	WEIGHT OF BHS500	[ton]	214
BEARING	RUBBER BEARING	[Nos]	4
	POT BEARING	[Nos]	4
EXPANSION JOINT	LENGTH FOR LONGITUDE	[m]	13.9
	LENGTH FOR TRANSVERSE	[m]	23.5
PYLON	CONCRETE C40	[m ³]	4720
	REBAR SD390	[ton]	710
	PC STRAND, 1860 MPA	[ton]	40.9
	PT BAR, $\Phi 35$	[ton]	8.5

ITEM	SPECIFICATIONS	UNIT	NORTH APPROACH	SOUTH APPROACH	RAMP-A	RAMP-B	RAMP-C	RAMP-D
			SUPER-T	SUPER-T	HOLLOW SLAB	HOLLOW SLAB	HOLLOW SLAB	HOLLOW SLAB
			L=1199.65M	L=1219.65M	L=210.0M	L=270.0M	L=450.0M	L=270.0M
CAST-IN-PLACE CONCRETE	CONCRETE C35	[m ³]	5,945	7,142	1,233	1,585	2,642	1,585
	CONCRETE C25	[m ³]	572	582	42	54	90	54
PRE-CAST CONCRETE	CONCRETE C50 (FOR SUPER-T ONLY)	[Nos]	300	370				
	CONCRETE C25	[m ³]	456	463	80	103	171	103
REINFORCING STEEL	REBAR SD390 FOR SUPERSTRUCTURE	[ton]	1,511	1,804	154	198	330	198
BEARING	POT BEARING (FOR SUPER-T)	[Nos]	60	68				
	ELASTOMERIC BEARING	[Nos]	540	672	16	20	32	20
FINGER TYPE JOINT	LENGTH	[m]	71	75	16	16	24	16

PROJECT:
PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS:
JOINT VENTURE OF
CHODAI CO.,LTD.
ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
ALMEC VPI CO.,LTD.

DRAWING TITLE:
QUANTITIES OF SUPERSTRUCTURE

DRAWING No.

VY-29

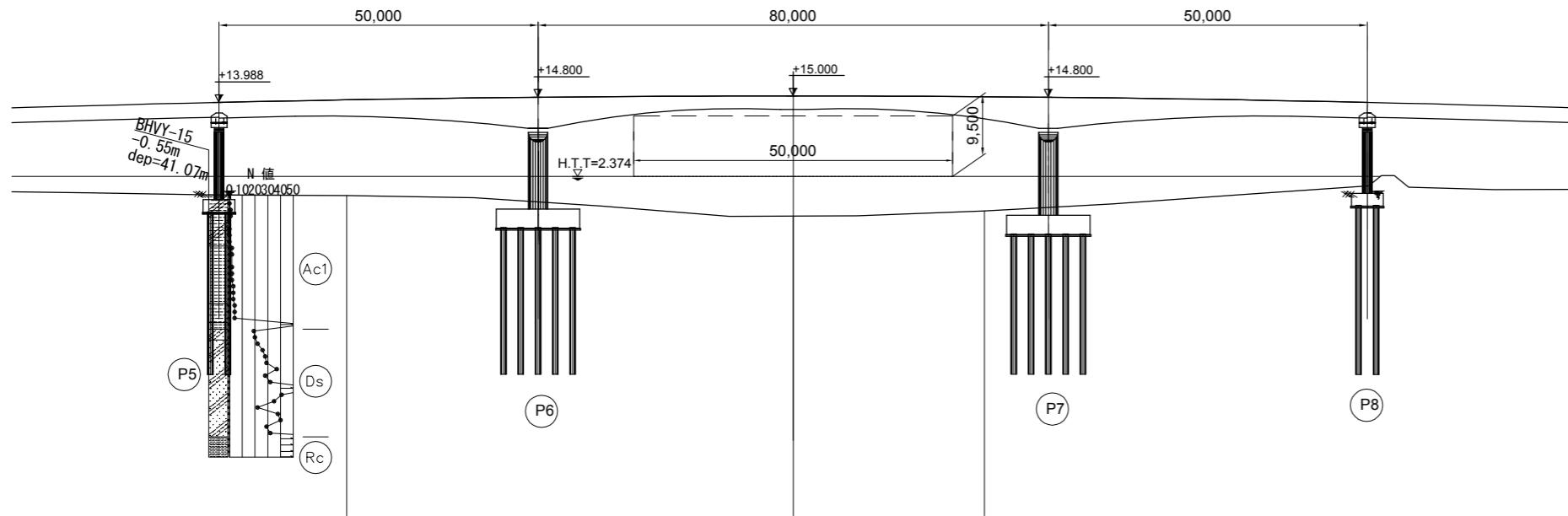
SCALE

Rev No.

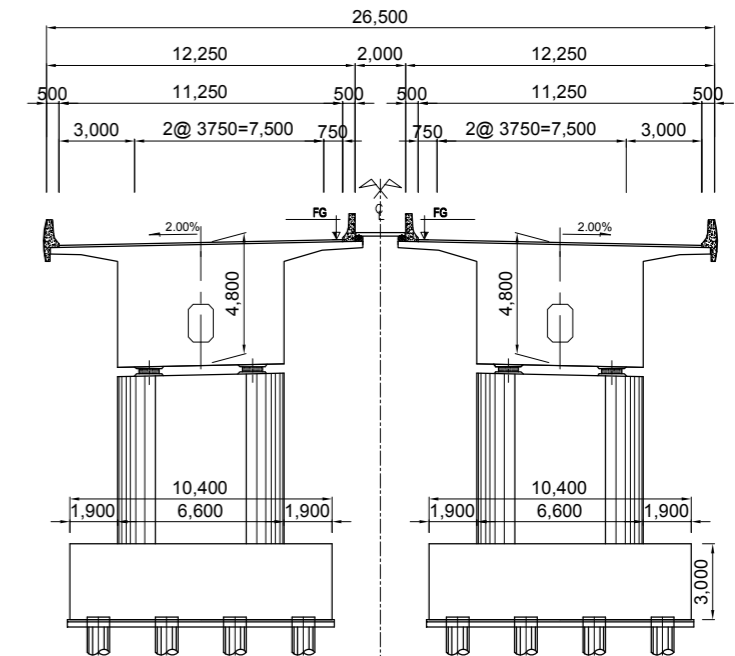
RUOT LON BRIDGE

GENERAL VIEW OF PC BOX BRIDGE

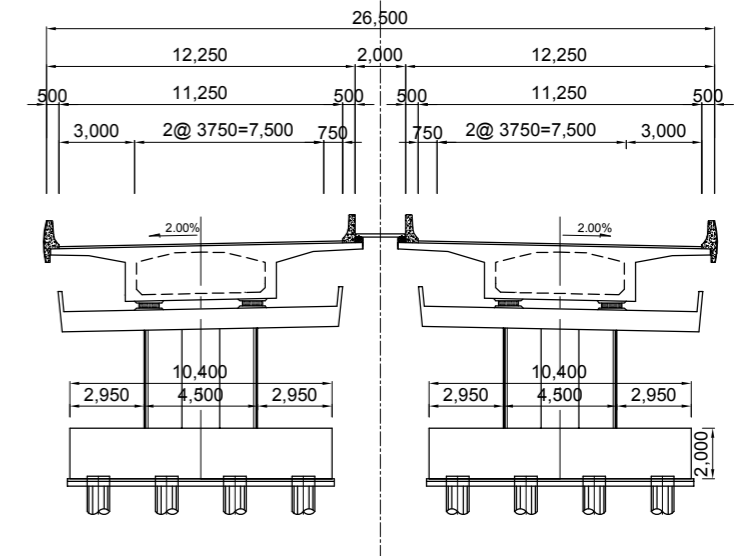
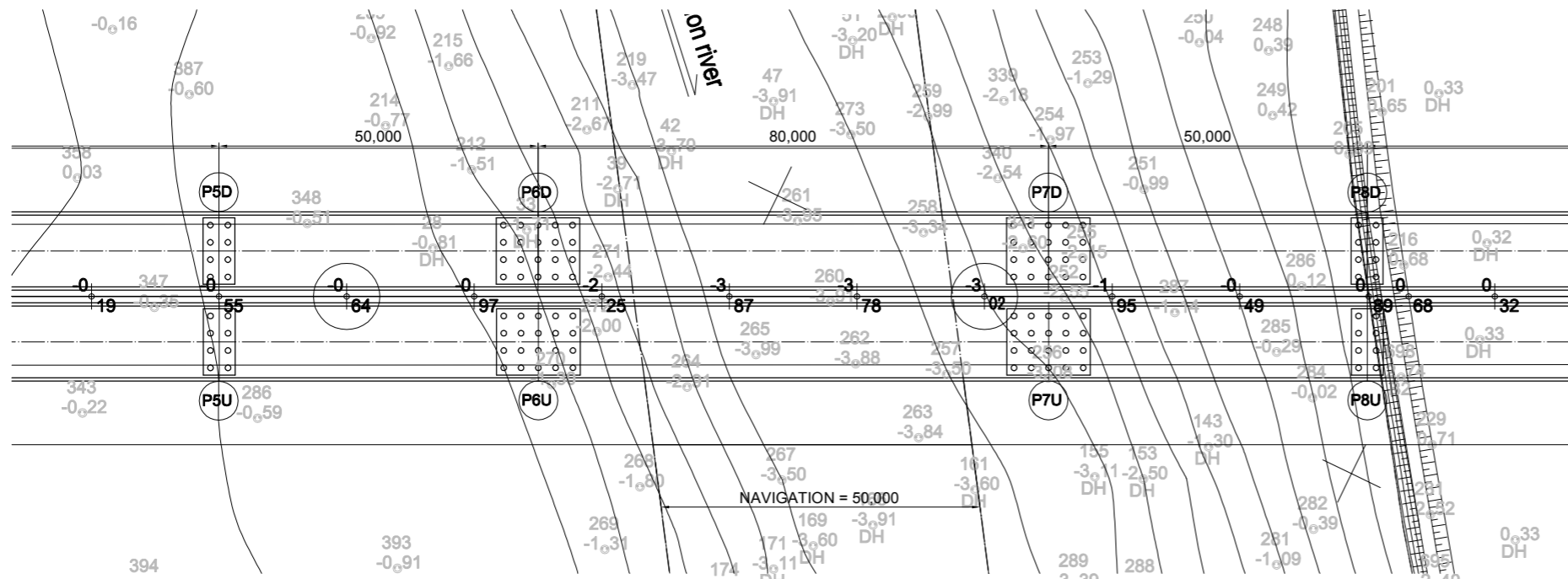
ELEVATION S=1:1,000



CROSS SECTION OF PC BOX BRIDGE
S=1:300



PLAN S=1:1,000



PROJECT: PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF
CHODAI CO.,LTD.
ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
ALMEC VPI CO.,LTD.

DRAWING TITLE:
GENERAL VIEW OF PC BOX BRIDGE

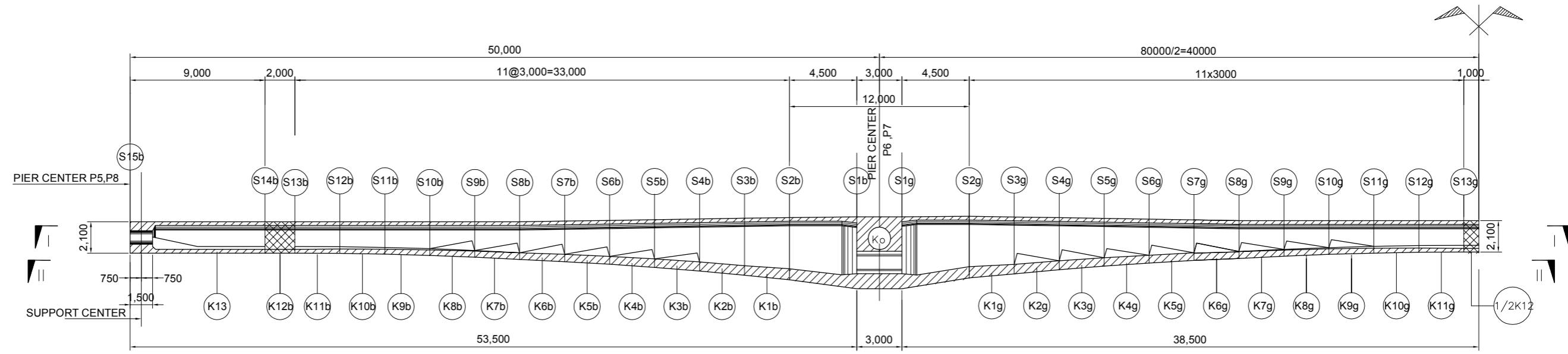
Rev No.

DRAWING No.	RL-02	SCALE	AS SHOWN
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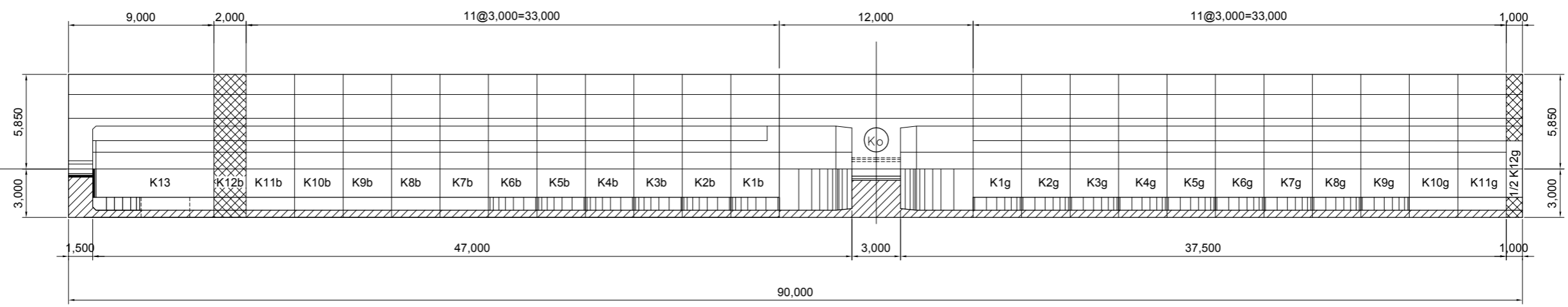
GIRDER (1)

S=1:300

1/2 SIDE VIEW OF BOX GIRDER



1/2 SECTION I-I



1/2 SECTION II-II

NOTE:

SYMBOL :

- Kib ; Kig : NAME SEGMENT
- Sib ; Sig : NAME SECTION
- KO : SEGMENT TOP PIER SCAFFOLD
- K12b ; K12g : CLOSURE SEGMENT
- K13 : SEGMENT SCAFFOLD

PROJECT:
PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



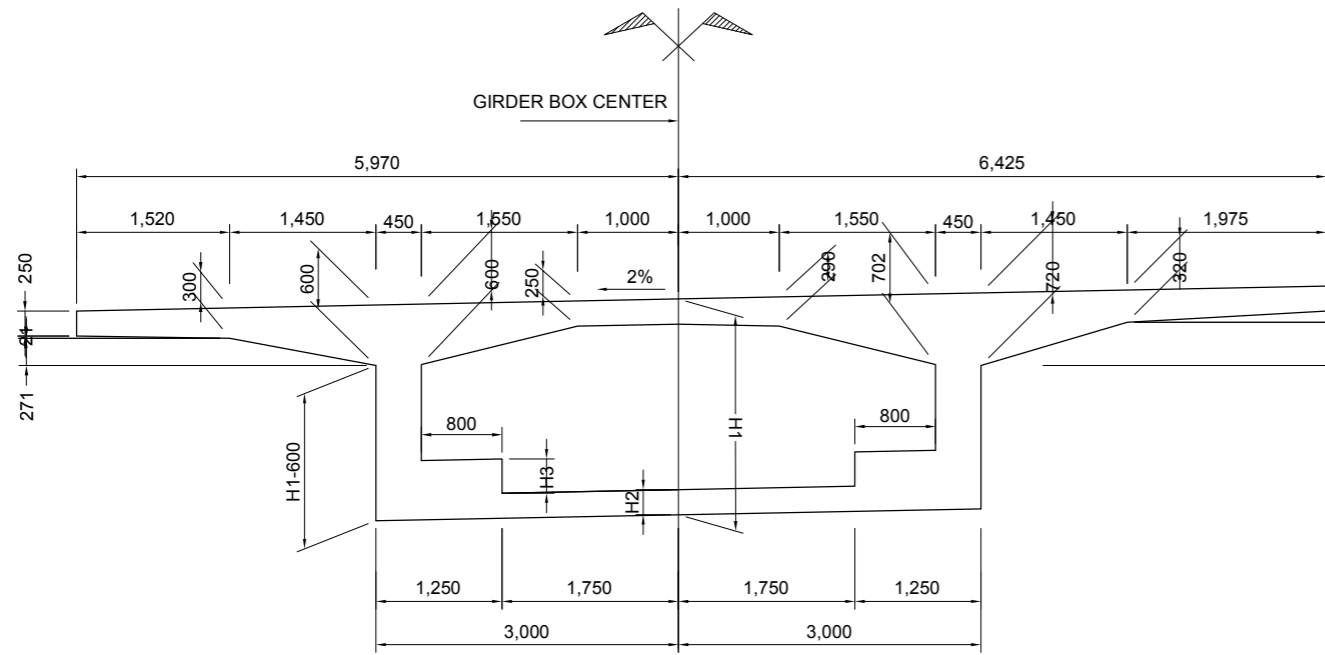
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS:
JOINT VENTURE OF
CHODAI CO.,LTD.
ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
ALMEC VPI CO.,LTD.

DRAWING TITLE: GIRDER (1)				Rev No.
DRAWING No.	RL-03	SCALE	1:300	

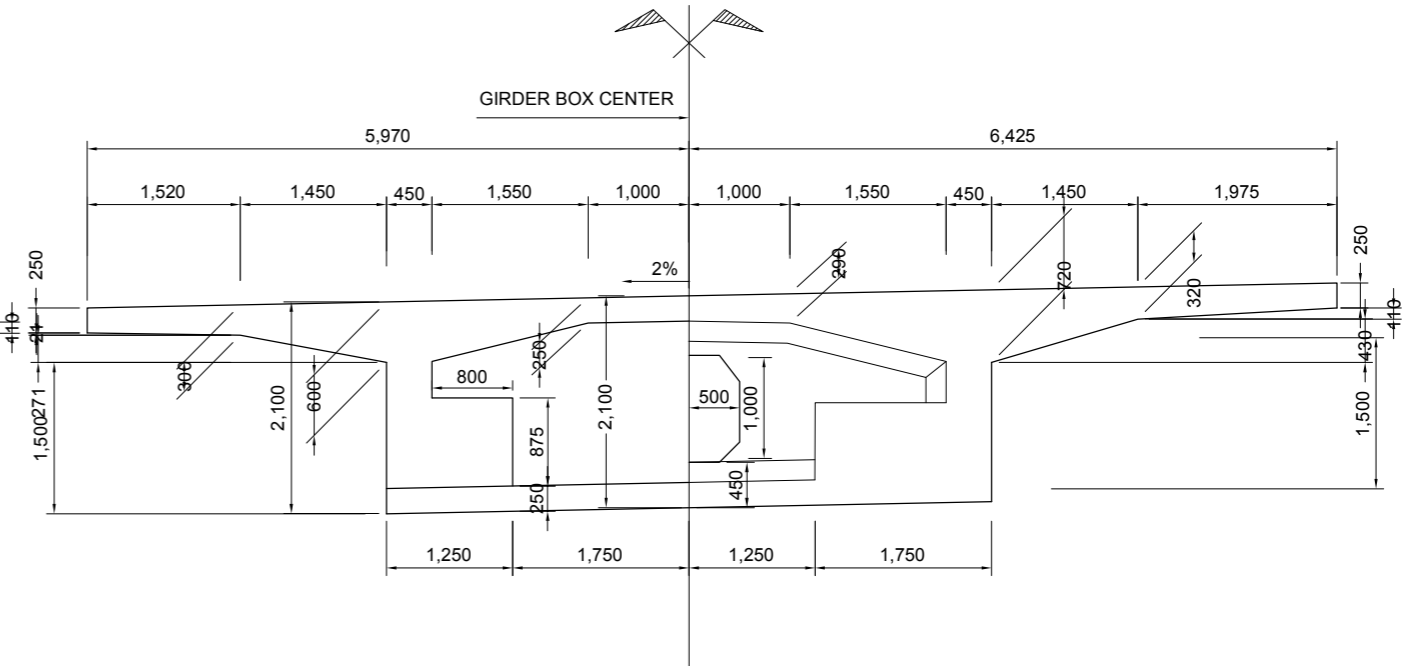
GIRDER(2)

S=1:75

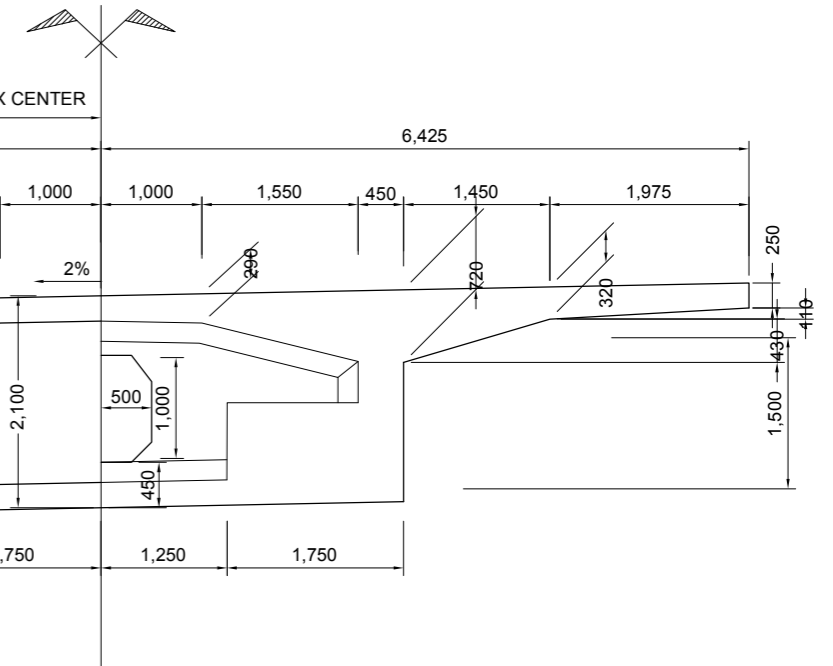
TYPICAL SECTION BOX GIRDER



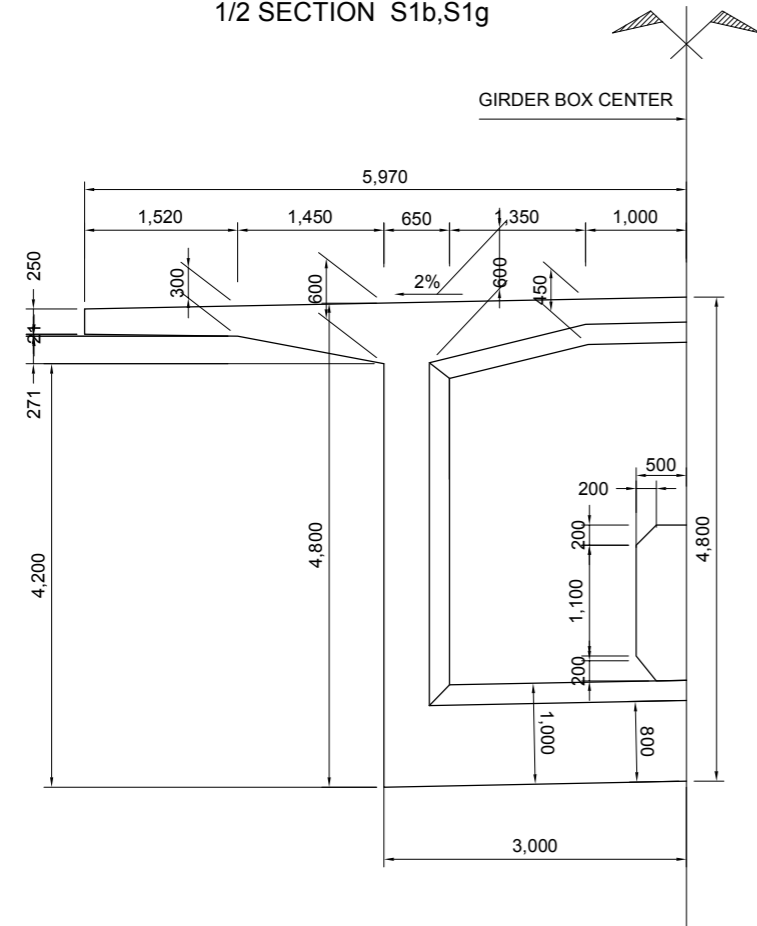
1/2 SECTION SEGMENT ON SCAFFOLD



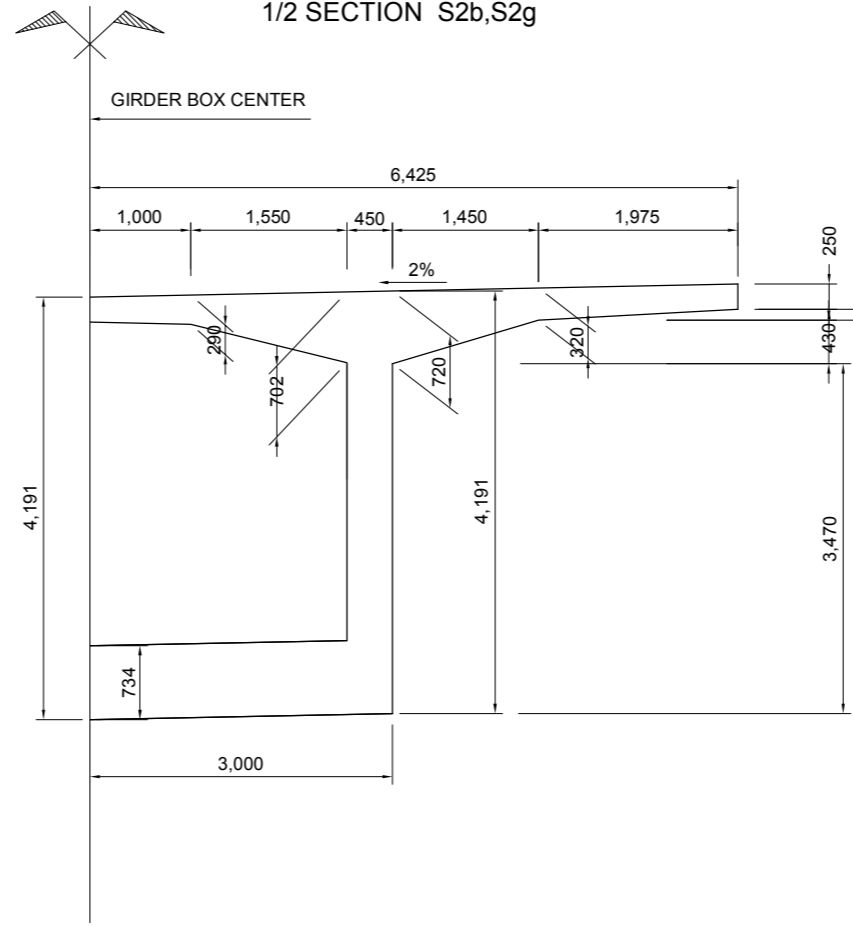
1/2 CENTER PIER GIRDER 2&5



1/2 SECTION S1b,S1g



1/2 SECTION S2b,S2g



DIMENSION OF SECTIONS

SEGMENT	SECTION	DIMENSION (mm)		
		H1	H2	H3
K0	S1b - S1g	4800.0	800.0	0.0
K1b - K1g	S2b - S2g	4190.9	734.0	0.0
K2b - K2g	S3b - S3g	3828.0	690.0	0.0
K3b - K3g	S4b - S4g	3499.7	646.0	0.0
K4b - K4g	S5b - S5g	3205.9	602.0	0.0
K5b - K5g	S6b - S6g	2946.7	558.0	0.0
K6b - K6g	S7b - S7g	2722.1	514.0	0.0
K7b - K7g	S8b - S8g	2532.0	470.0	0.0
K8b - K8g	S9b - S9g	2376.5	426.0	24.0
K9b - K9g	S10b - S10g	2255.5	382.0	68.0
K10b - K10g	S11b - S11g	2169.1	338.0	112.0
K11b - K11g	S12b - S12g	2117.3	294.0	156.0
K12b - K12g	S13b - S13g	2100.0	250.0	200.0
K13	S14b-S15b	2100.0	250.0	900.0

PROJECT: PREPARATORY SURVEY ON HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



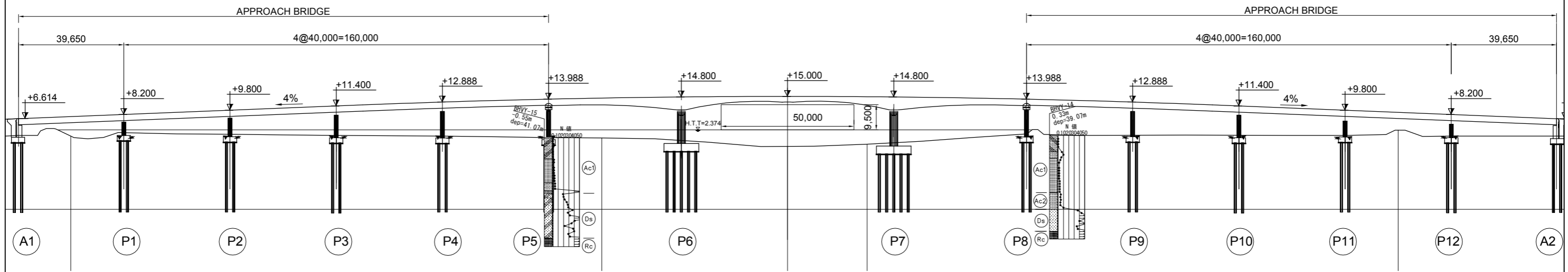
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF CHODAI CO.,LTD. ORIENTAL CONSULTANTS GLOBAL CO.,LTD. ALMEC VPI CO.,LTD.

DRAWING TITLE: GIRDER (2)
DRAWING No. RL-04 SCALE 1:75

Rev No.

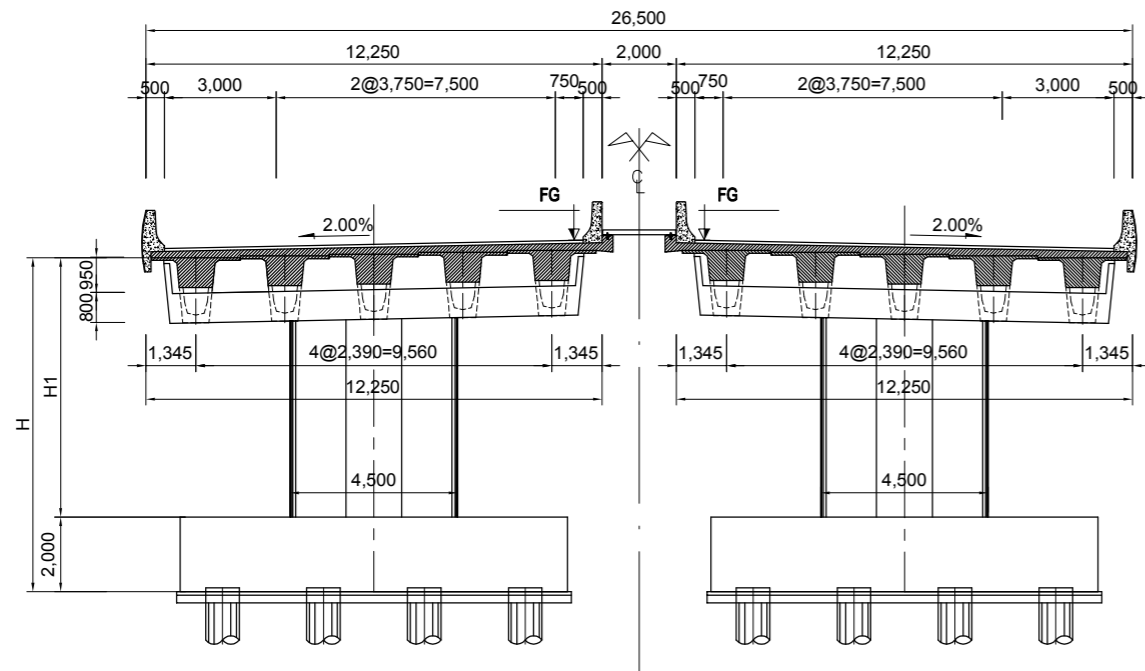
GENERAL VIEW OF APPROACH BRIDGE

S=1:1,000



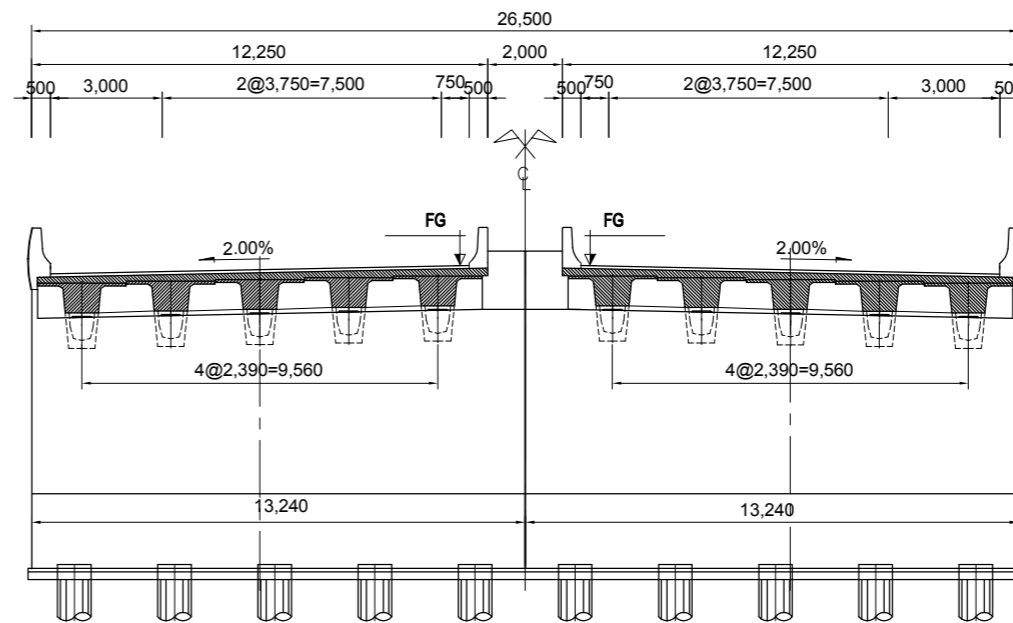
CROSS SECTION OF APPROACH BRIDGE

S=1:200



CROSS SECTION OF ABUTMENT

S=1:200



BRIDGE PIER QUANTITY TABLE

PIER No.	BRIDGE PIER QUANTITY		PILE NUMBER
	H (m)	H1 (m)	n
P1	6.992	4.992	8
P2	8.592	6.592	8
P3	10.192	8.192	8
P4	11.679	9.679	8
P9	11.672	9.672	8
P10	10.192	8.192	8
P11	8.591	6.591	8
P12	6.991	4.991	8

PROJECT: PREPARATORY SURVEY ON HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



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CONSULTANTS: JOINT VENTURE OF CHODAI CO.,LTD. ORIENTAL CONSULTANTS GLOBAL CO.,LTD. ALMEC VPI CO.,LTD.

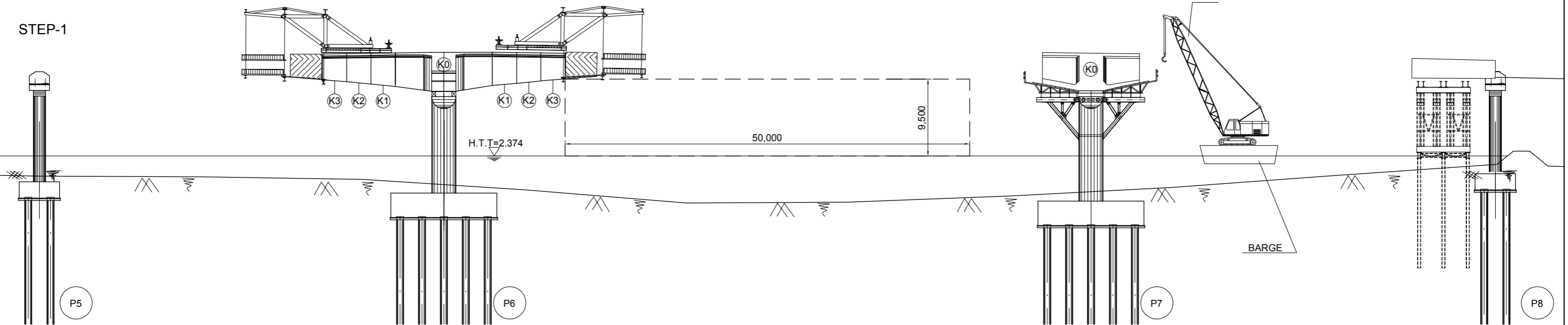
DRAWING TITLE: GENERAL VIEW OF APPROACH BRIDGE

Rev No.

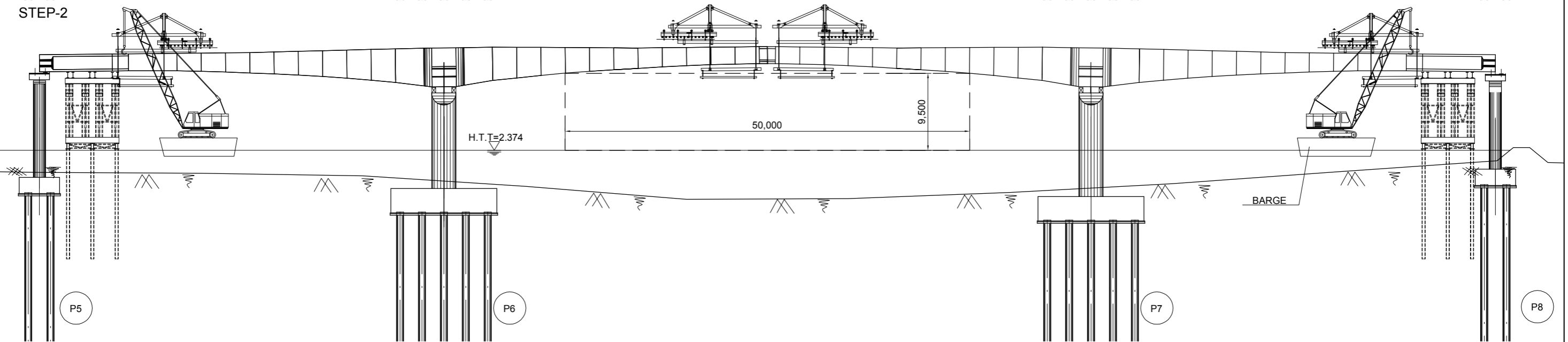
DRAWING No. RL-05 SCALE AS SHOWN

CONSTRUCTION SEQUENCE OF PC-BOX GIRDER

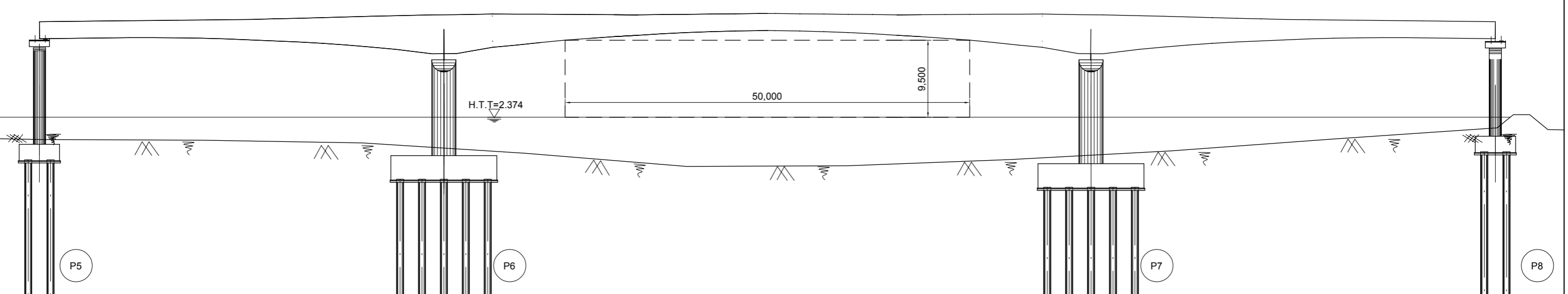
STEP-1



STEP-2



STEP-3



PROJECT: PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS:
JOINT VENTURE OF
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DRAWING TITLE:
CONSTRUCTION SEQUENCE OF PC-BOX GIRDER

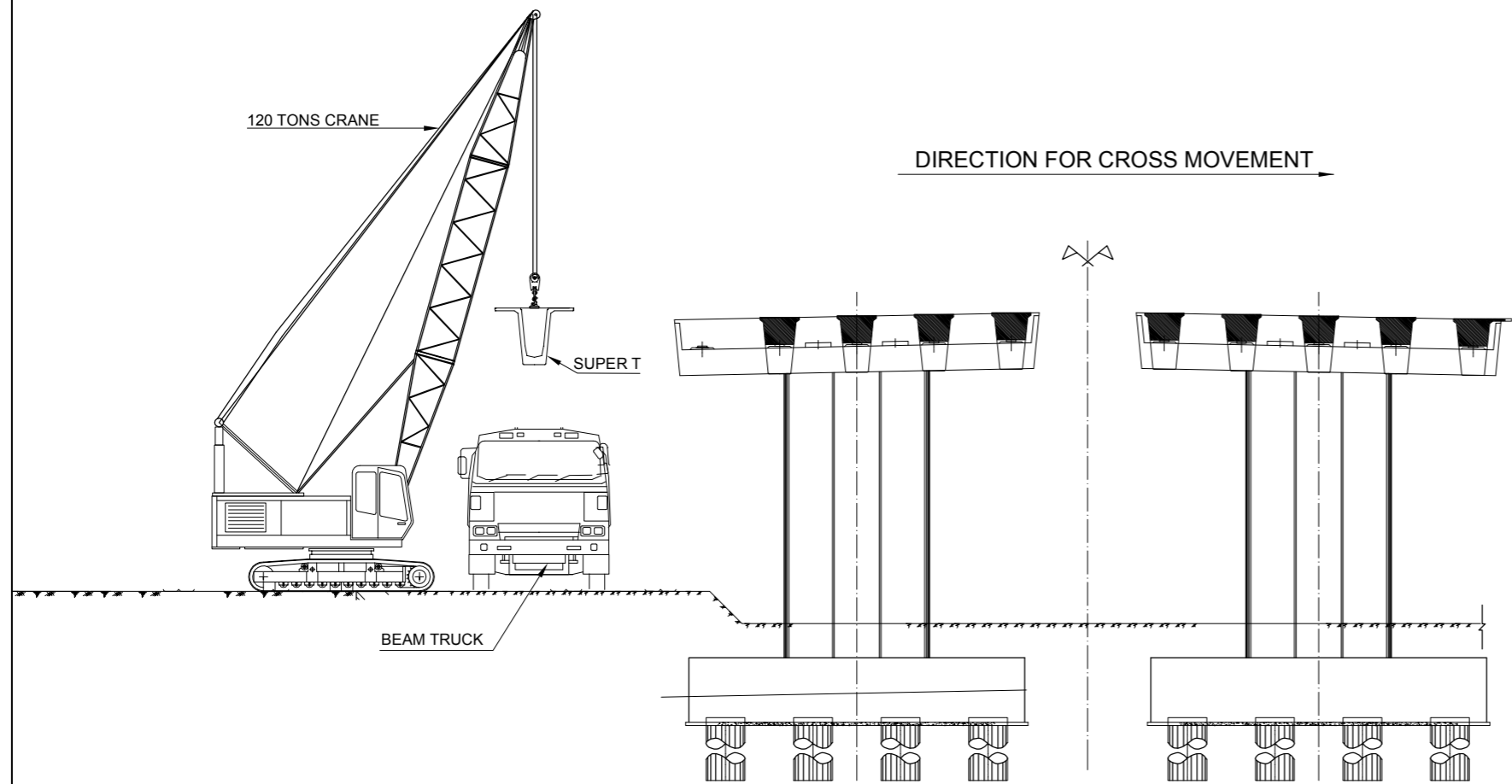
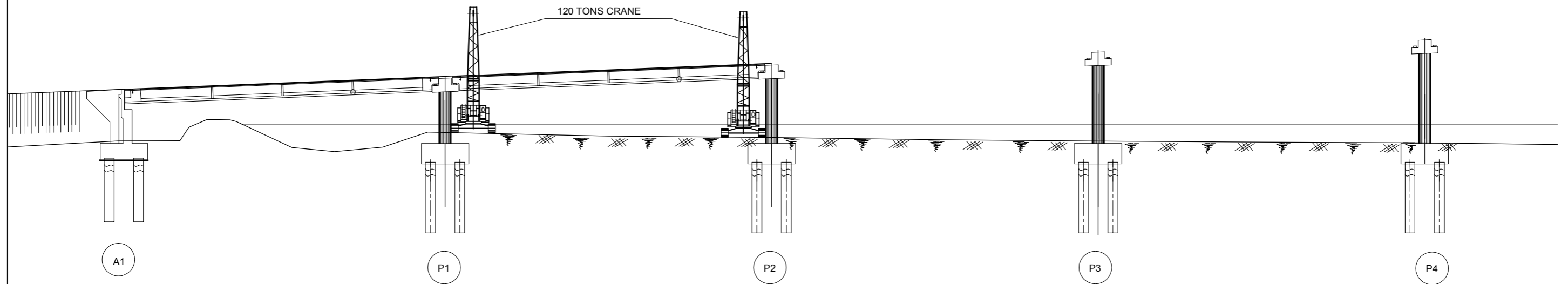
Rev No.

DRAWING No.

RL-06

SCALE

CONSTRUCTION SEQUENCE OF APPROACH BRIDGE
 SUPER T GIRDERS ERECTION USING TWO CRANES (FOR SPANS 01 TO 05 AND SPANS 8 TO 12)



CONSTRUCTION STEPS

STEP 1: SUPER T GIRDER ERECTION

- TRAILER TRANSPORTED SUPER T GIRDERS FROM SUPER T YARD TO ERECTION POSITION.
- TWO 120T CRANES STAND ON SERVICE ROAD LIFT SUPER T GIRDER SLOWLY AND PLACE IT ON EXTERIOR LEFT BEARING PAD.
- TRAILER MOVE AWAY ERECTION SITE FOR TRANSPORT OTHER SUPER T GIRDERS.
- TWO 120T CRANES LIFT SUPER T GIRDER FROM EXTERIOR BEARING PAD, MOVE AND PLACE IT ON INTERIOR PAD.

STEP 2: DECK SLAB CONSTRUCTION.

- CROSSBEAMS / DIAPHRAGMS.
- PRECAST FASCIA PANELS.
- ASPHALTIC CONCRETE WEARING SURFACE.
- INSTALLATION OF MODULAR EXPANSION JOINTS.
- DECK DRAINAGE.

PROJECT: PREPARATORY SURVEY
 ON
 HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 CONSULTANTS: JOINT VENTURE OF
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 ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
 ALMEC VPI CO.,LTD.

DRAWING TITLE:
 CONSTRUCTION SEQUENCE OF APPROACH BRIDGE

Rev No.

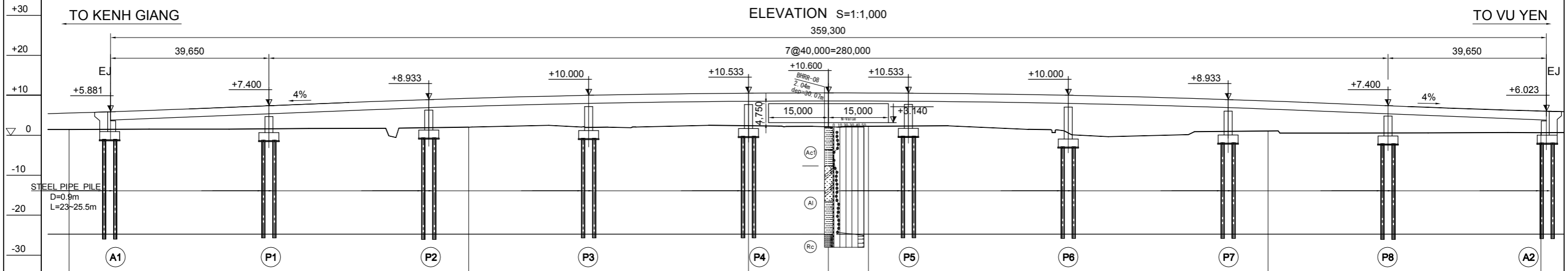
DRAWING No.	RL-07	SCALE	
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OVERPASS BRIDGE

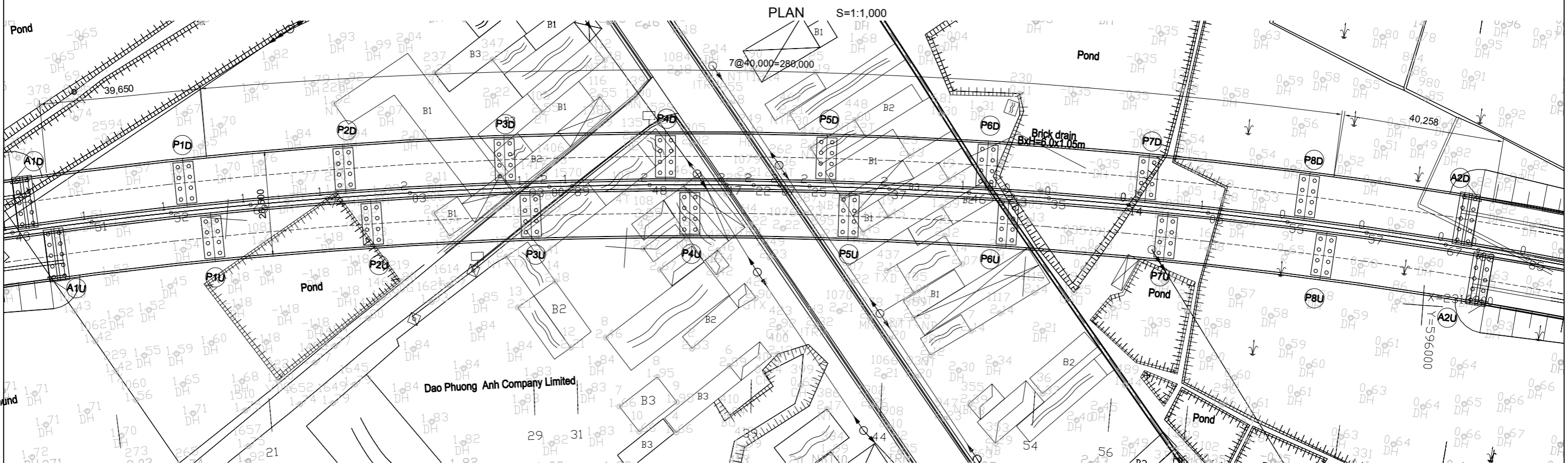
GENERAL VIEW OF No.1 IC OVERPASS BRIDGE.

ELEVATION S=1:1,000

359,300



GRADIENT	i=4.000% L=210.000		13.000						i=4.000% L=195.000	
PROPOSED HEIGHT	5.557		9.250	10.533	10.600	10.583	10.563		8.583	6.061
GROUND LEVEL	1.430		2.030	2.366	2.128	2.250	2.280		1.050	0.630
CHAINAGE	300.000		400.000	470.000	490.000	500.000	505.000		600.000	668.275
STATION	NO.3		NO.4	+70.000	+90.000	NO.5	+5.000		NO.6	KE 1-2



PROJECT: PREPARATORY SURVEY ON HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT

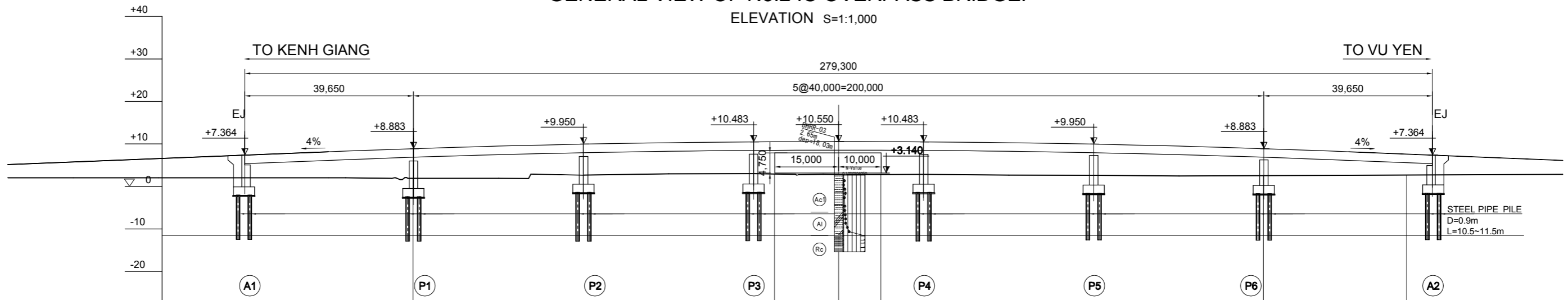


JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF CHODAI CO.,LTD. ORIENTAL CONSULTANTS GLOBAL CO.,LTD. ALMEC VPI CO.,LTD.

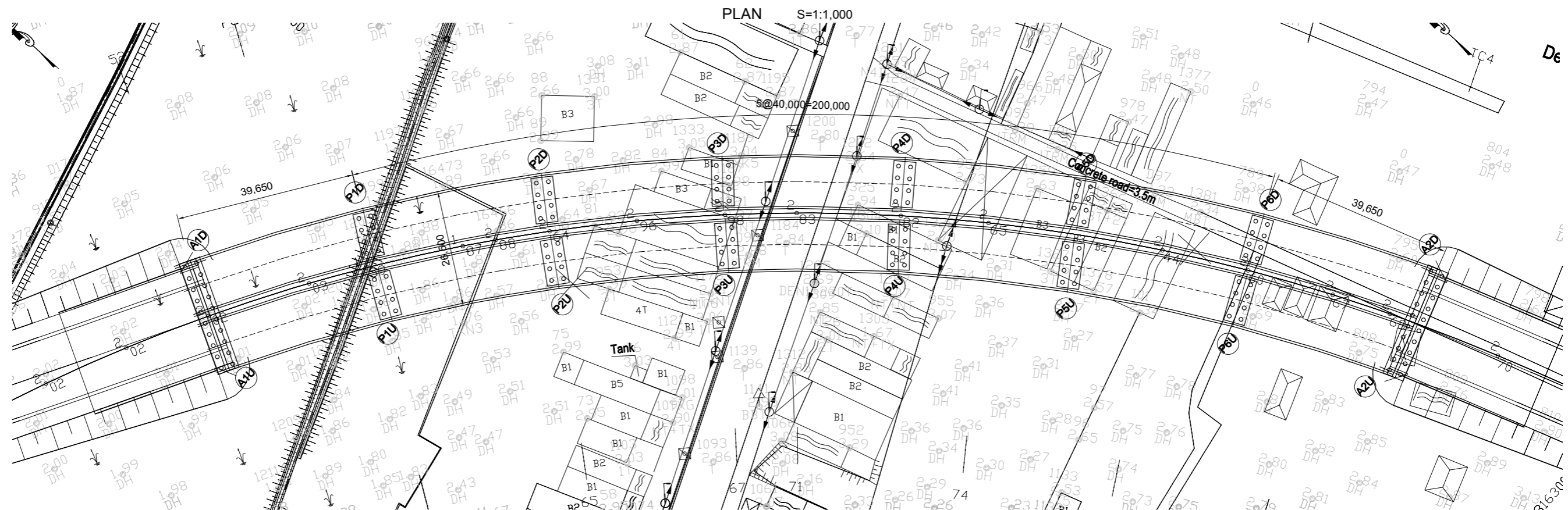
DRAWING TITLE: GENERAL VIEW OF No.1 IC OVERPASS BRIDGE.				Rev No.
DRAWING No.	OP-01	SCALE	1:1,000	

GENERAL VIEW OF No.2 IC OVERPASS BRIDGE.

ELEVATION S=1:1,000



GRADIENT	i=4.000% L=250.000		12.950				i=4.000% L=250.000		
PROPOSED HEIGHT		8.883		10.513	10.550	10.533		8.883	7.602
GROUND LEVEL		1.870		2.904	2.760	2.770		2.520	2.655
CHAINAGE		5400.000		5485.000	5500.000	5510.000		5600.000	5633.691
STATION		NO.54		+85.000	NO.55	+10.000		NO.56	KE 4-2



PROJECT:
PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS:
JOINT VENTURE OF
CHODAI CO.,LTD.
ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
ALMEC VPI CO.,LTD.

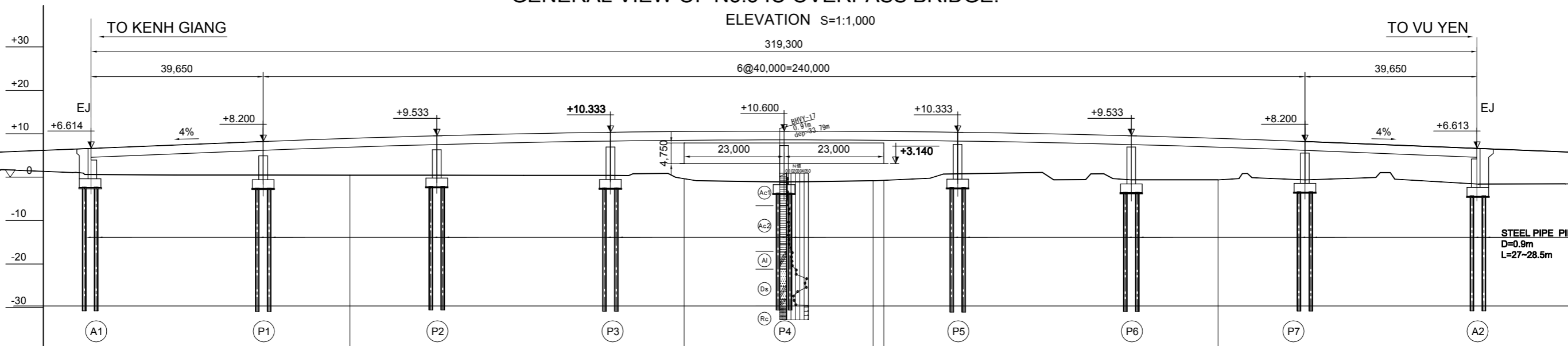
DRAWING TITLE:
GENERAL VIEW OF No.2 IC OVERPASS BRIDGE.

Rev No.

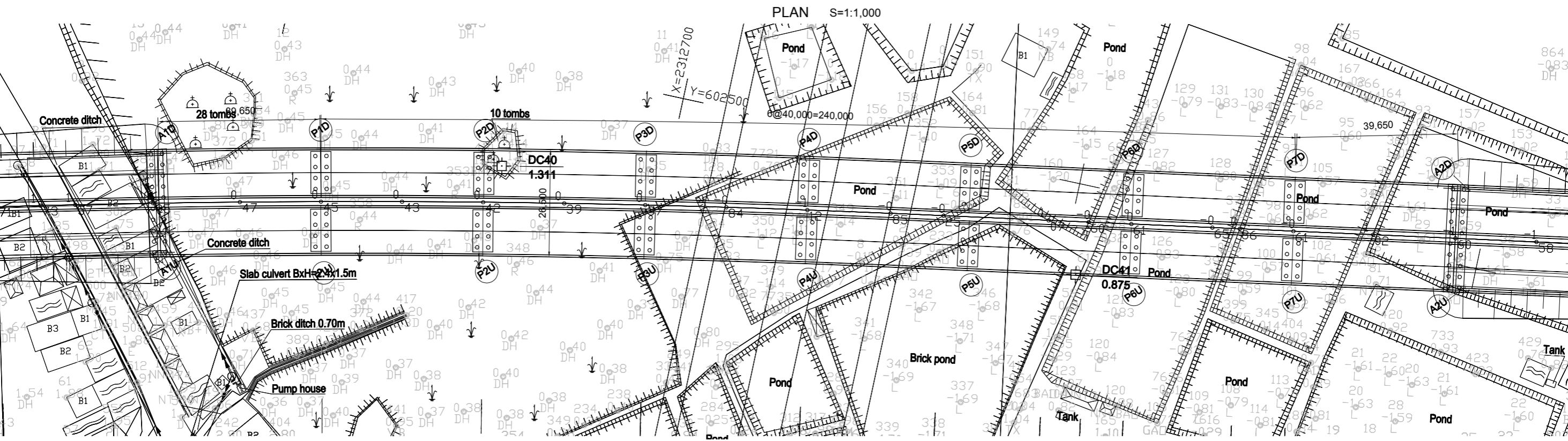
DRAWING No.	OP-02	SCALE	1:1,000
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GENERAL VIEW OF No.3 IC OVERPASS BRIDGE.

ELEVATION S=1:1,000



GRADIENT	i=4.000% L=250.000		(13.000)		i=4.000% L=250.000	
PROPOSED HEIGHT		8.933	10.512	10.600	10.530	8.933
GROUND LEVEL	0.430	0.430	-0.352	-1.120	-0.850	-0.650
CHAINAGE	9600.000	9600.000	9677.000	9700.000	9720.549	9800.000
STATION	NO.96	NO.96	+77.000	NO.97	EC 6-0	NO.98



PROJECT: PREPARATORY SURVEY ON HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 CONSULTANTS: JOINT VENTURE OF CHODAI CO.,LTD. ORIENTAL CONSULTANTS GLOBAL CO.,LTD. ALMEC VPI CO.,LTD.

DRAWING TITLE: GENERAL VIEW OF No.3 IC OVERPASS BRIDGE.

Rev No.

DRAWING No.	OP-03	SCALE	1:1,000
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SUBSTRUCTURE OF No.1 IC OVERPASS BRIDGE

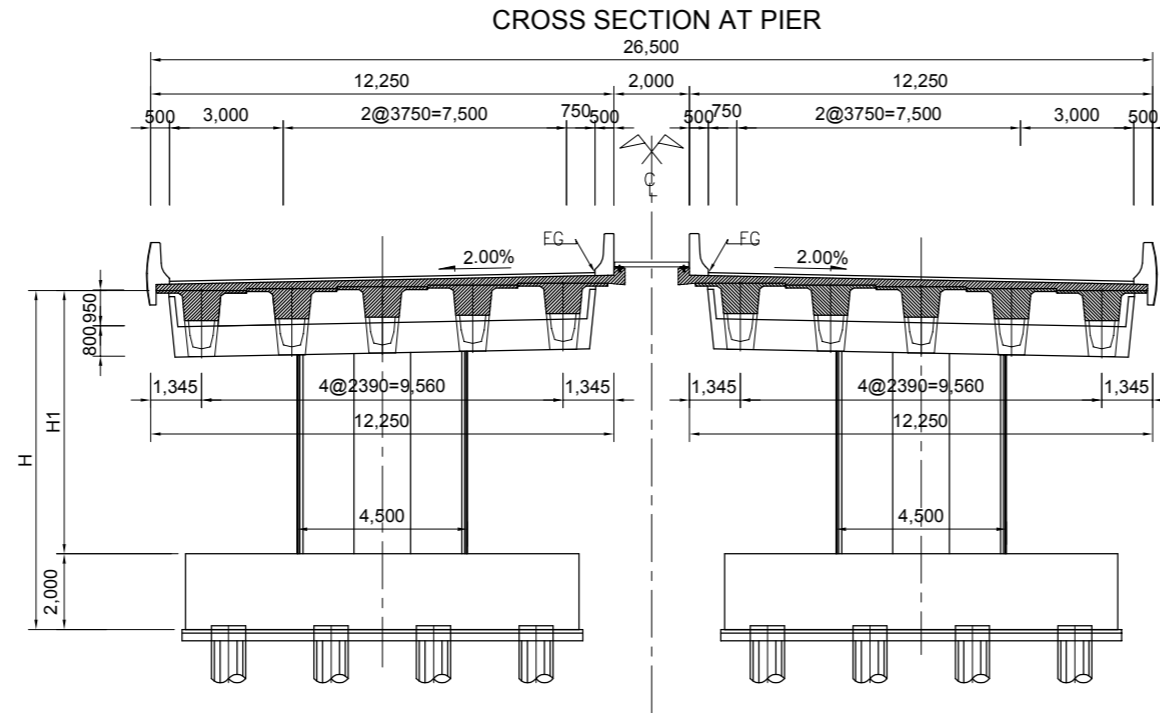
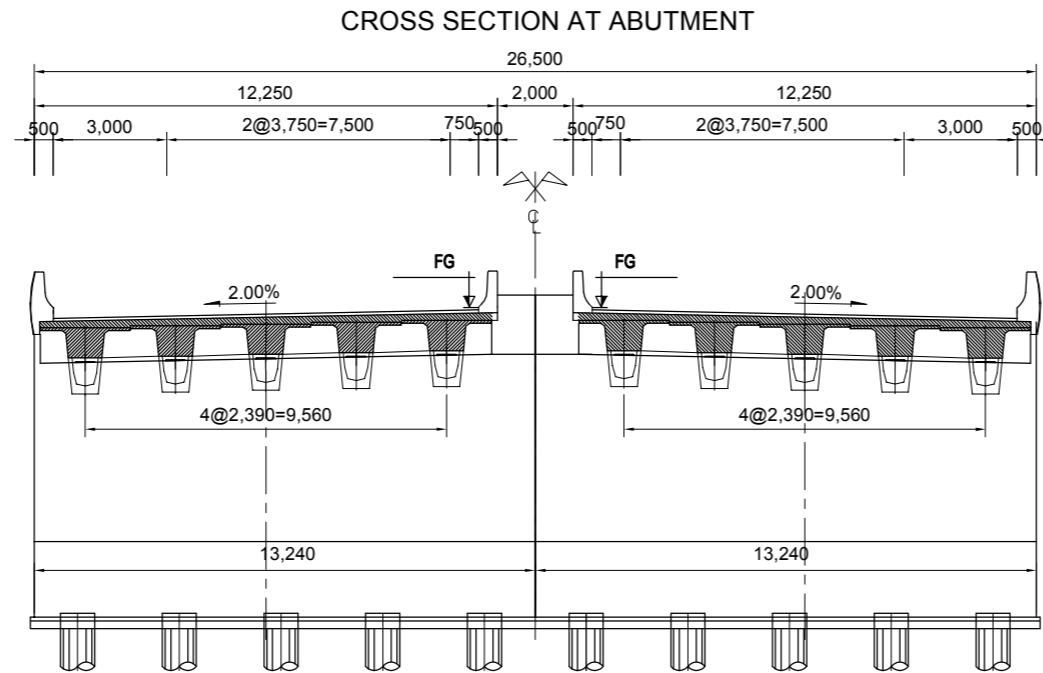


TABLE HEIGHT OF PIERS

PIER No.	BRIDGE PIER QUANTITY		PILE NUMBER
	H (m)	H1 (m)	
P1	6.887	4.887	8
P2	8.420	6.420	8
P3	9.487	7.487	8
P4	10.020	8.020	8
P5	10.020	8.020	8
P6	9.487	7.487	8
P7	8.420	6.420	8



PROJECT:
 PREPARATORY SURVEY
 ON
 HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS:
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DRAWING TITLE:
 SUBSTRUCTURE OF No.1 IC

Rev No.

DRAWING No.	OP-04	SCALE	1:200
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SUBSTRUCTURE OF No.2 IC OVERPASS BRIDGE

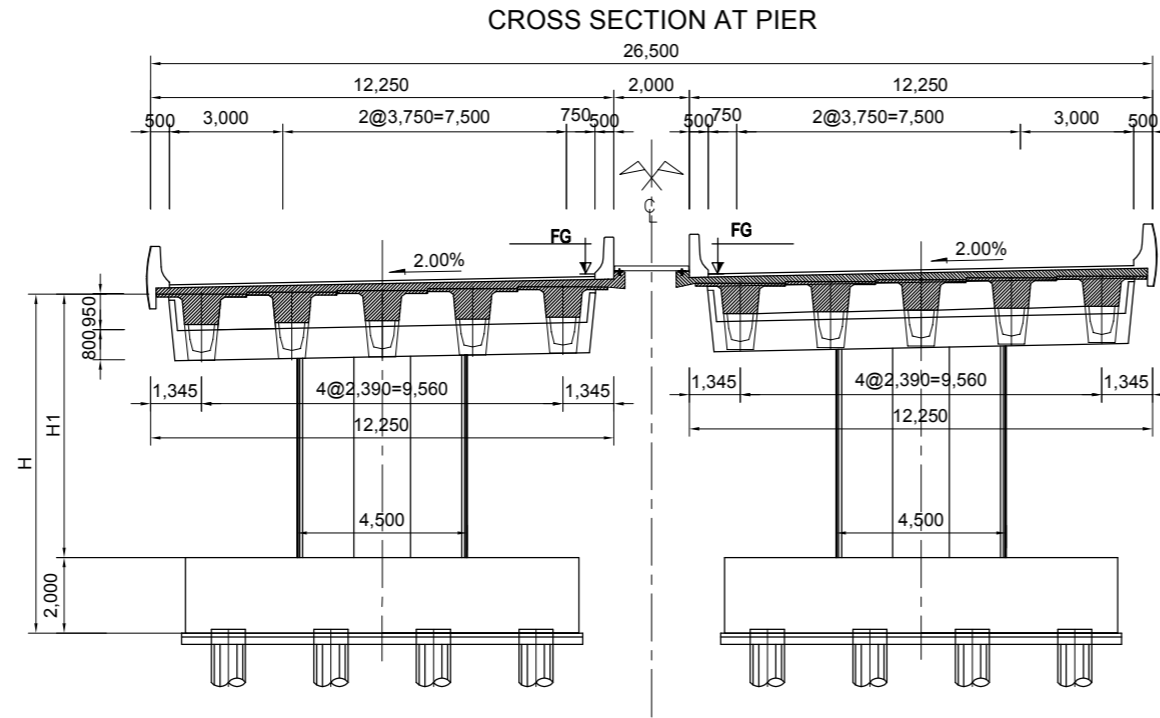
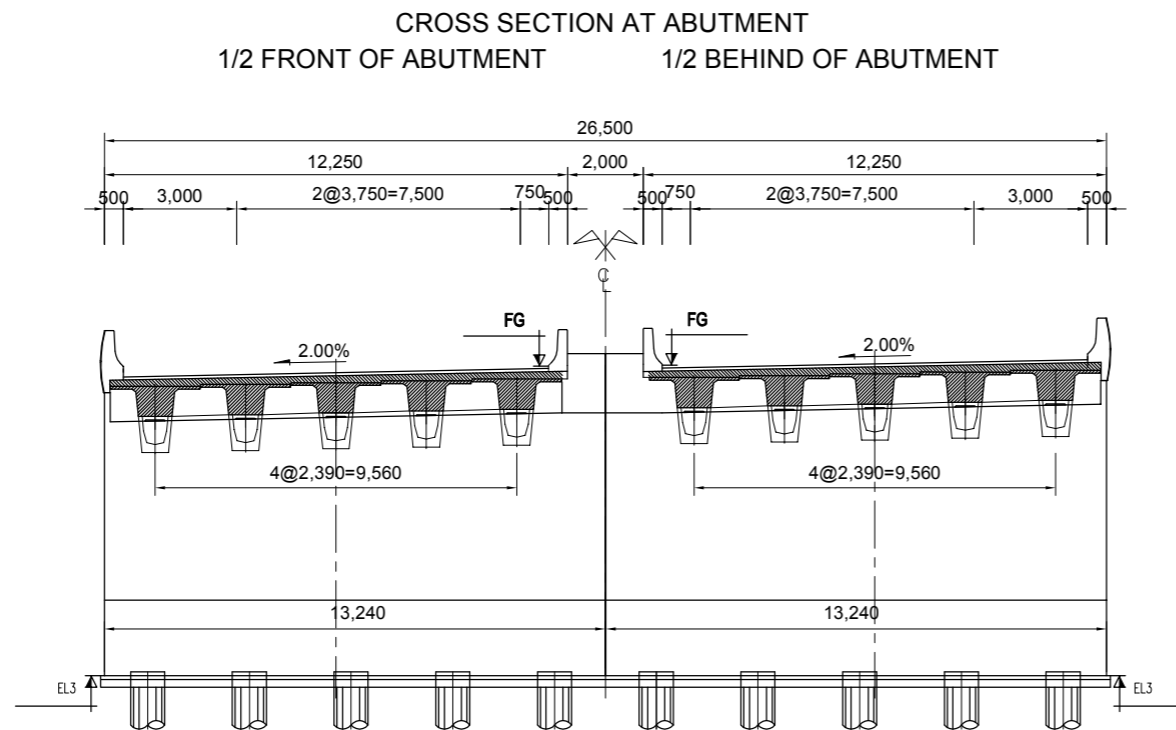


TABLE HEIGHT OF PIERS

PIER No.	BRIDGE PIER QUANTITY		PILE NUMBER
	H (m)	H1 (m)	n
P1	8.371	6.371	8
P2	9.437	7.437	8
P3	9.971	7.971	8
P4	9.971	7.971	8
P5	9.437	7.437	8
P6	8.371	6.371	8



PROJECT:
 PREPARATORY SURVEY
 ON
 HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS:
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DRAWING TITLE:
 SUBSTRUCTURE OF No.2 IC

Rev No.

DRAWING No.	OP-05	SCALE	1:200
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SUBSTRUCTURE OF No.3 IC OVERPASS BRIDGE

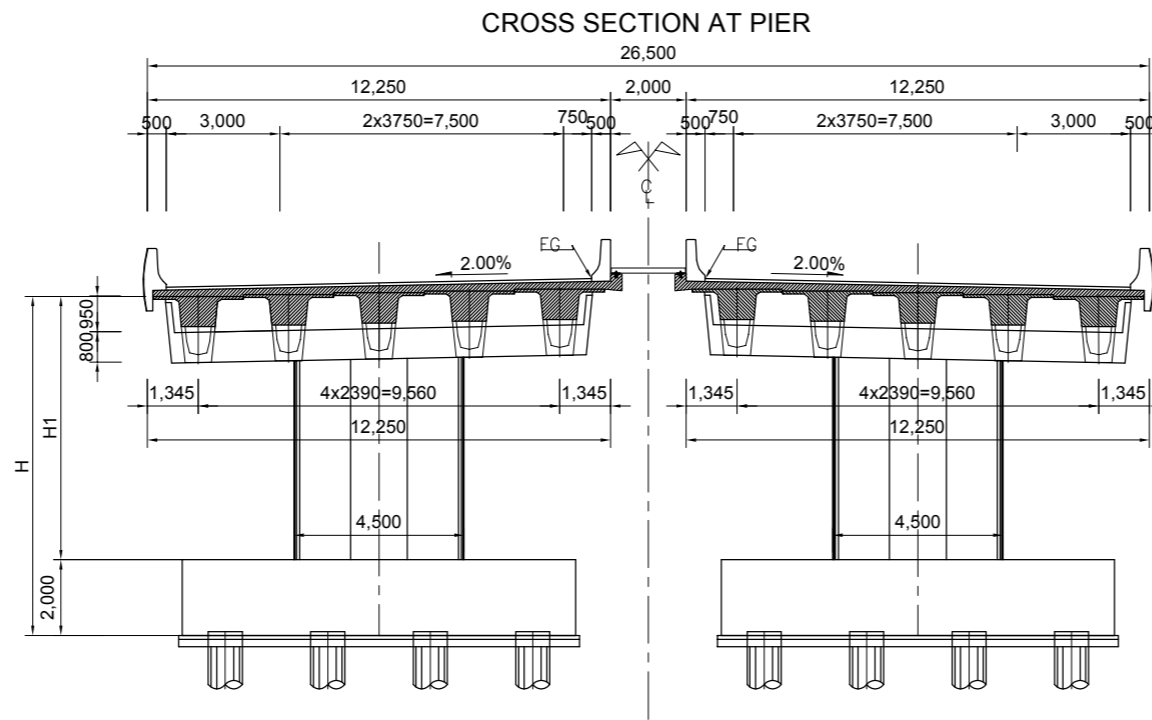
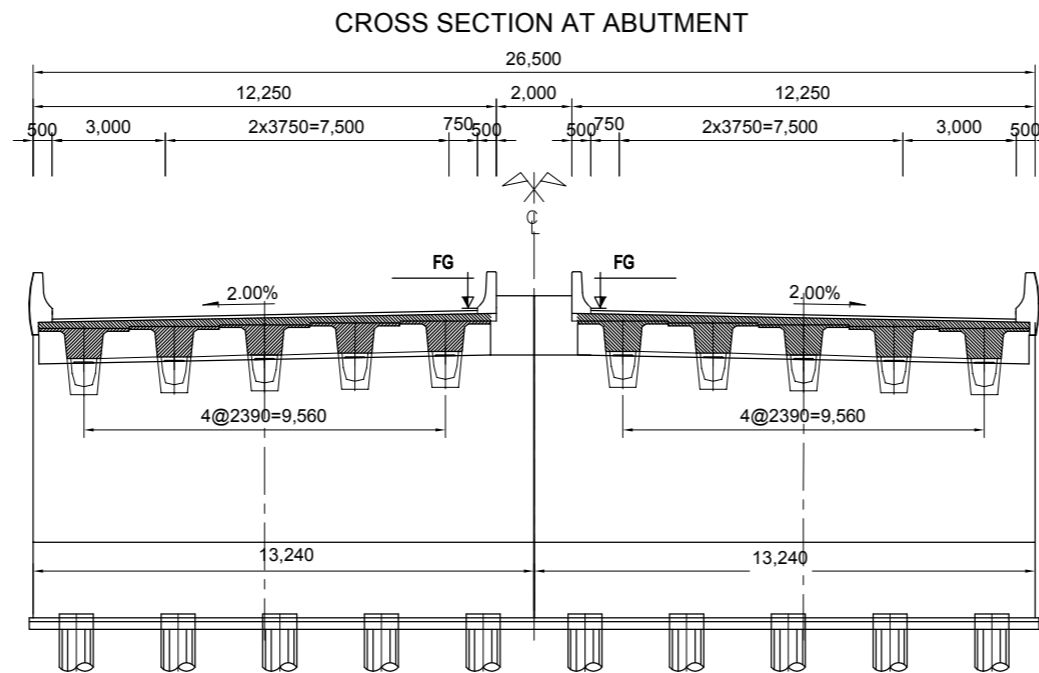


TABLE HEIGHT OF PIERS

PIER No.	BRIDGE PIER QUANTITY		PILE NUMBER
	H (m)	H1 (m)	
P1	7.687	5.687	8
P2	9.020	7.020	8
P3	9.820	7.820	8
P4	10.087	8.087	8
P5	9.820	7.820	8
P6	9.020	7.020	8
P7	7.687	5.687	8



PROJECT:
 PREPARATORY SURVEY
 ON
 HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS:
 JOINT VENTURE OF
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 ORIENTAL CONSULTANTS GLOBAL CO.,LTD.
 ALMEC VPI CO.,LTD.

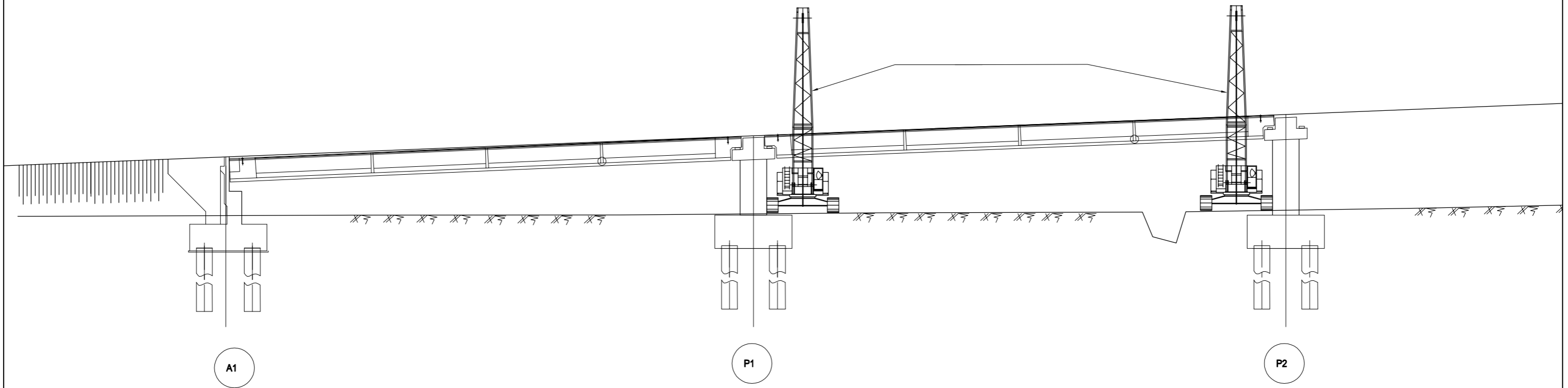
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 SUBSTRUCTURE OF No.3 IC

Rev No.

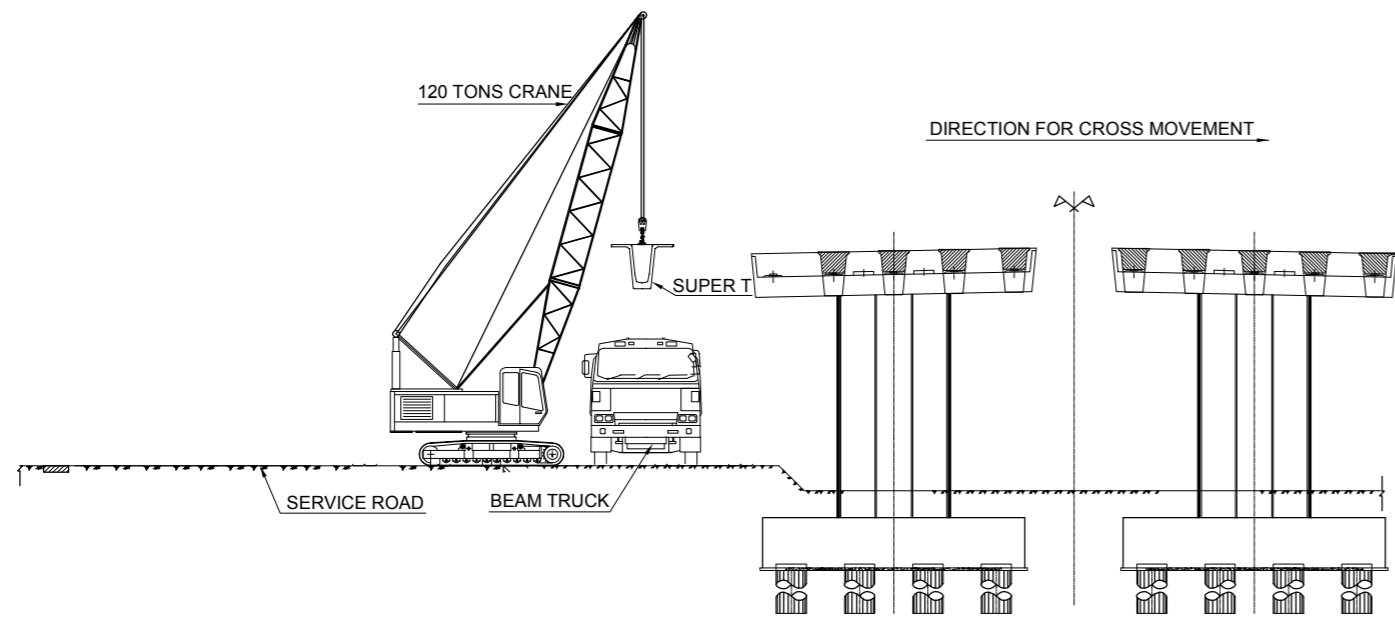
DRAWING No.	OP-06	SCALE	1:200
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CONSTRUCTION SEQUENCE OF OVERPASS

SUPER T GIRDERS ERECTION USING TWO CRANES



CROSS SECTION CONSTRUCTION METHOD BY BIPOD



CONSTRUCTION STEPS

STEP 1: SUPER T GIRDER ERECTION

- TRAILER TRANSPORTED SUPER T GIRDERS FROM SUPER T YARD TO ERECTION POSITION.
- TWO 120T CRANES STAND ON SERVICE ROAD LIFT SUPER T GIRDER SLOWLY AND PLACE IT ON EXTERIOR LEFT BEARING PAD.
- TRAILER MOVE AWAY ERECTION SITE FOR TRANSPORT OTHER SUPER T GIRDERS.
- TWO 120T CRANES LIFT SUPER T GIRDER FROM EXTERIOR BEARING PAD, MOVE AND PLACE IT ON INTERIOR PAD.

STEP 2: DECK SLAB CONSTRUCTION.

- CROSSBEAMS / DIAPHRAGMS.
- DECK SLAB.
- LINK SLABS.
- PRECAST FASCIA PANELS.
- ASPHALTIC CONCRETE WEARING SURFACE.
- INSTALLATION OF MODULAR EXPANSION JOINTS.
- DECK DRAINAGE.

PROJECT: PREPARATORY SURVEY
ON
HAI PHONG ARTERIAL ROAD CONSTRUCTION PROJECT



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
CONSULTANTS: JOINT VENTURE OF
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