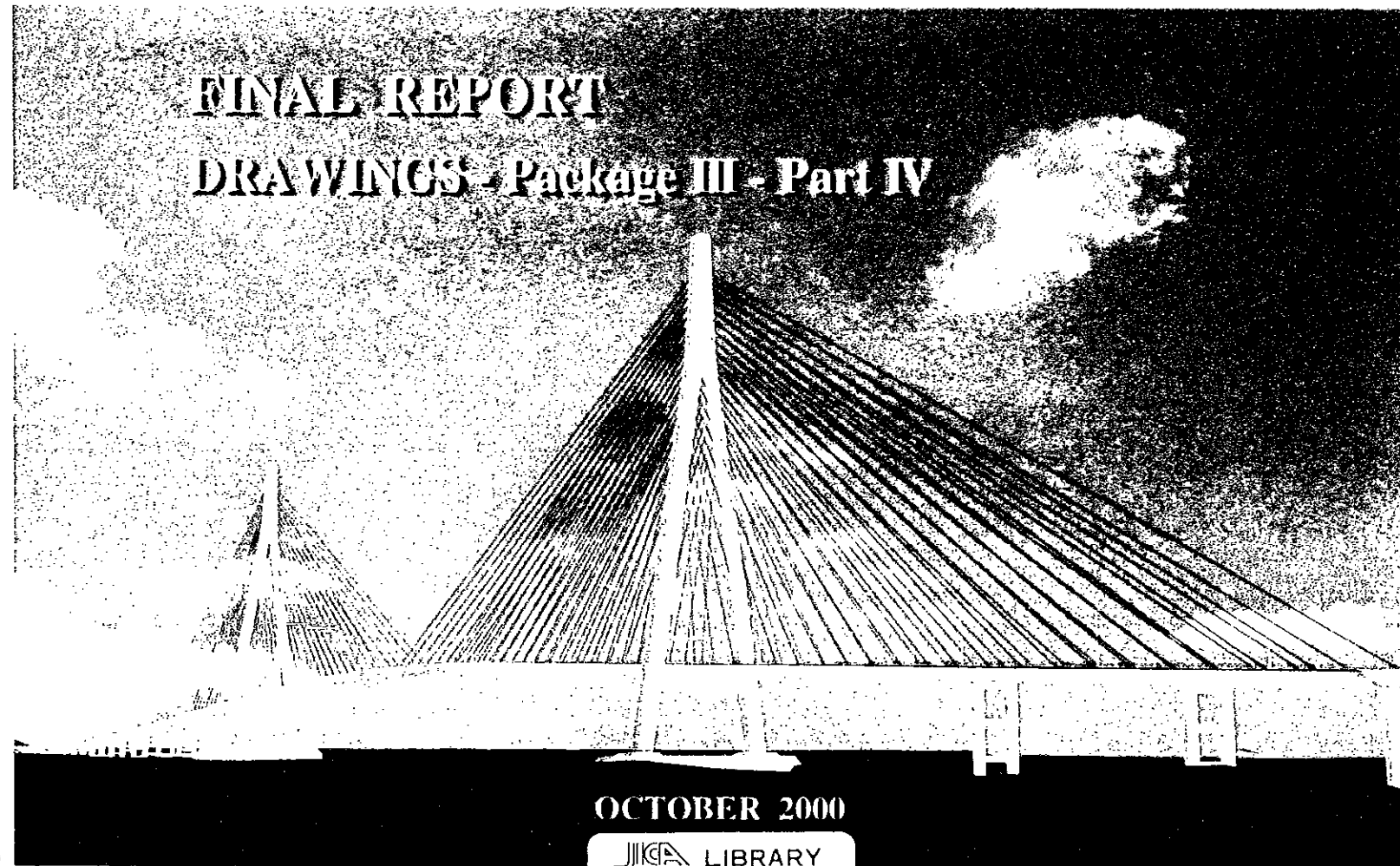


JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
MINISTRY OF TRANSPORT  
SOCIALIST REPUBLIC OF VIET NAM

THE DETAILED DESIGN  
ON  
THE CAN THO BRIDGE CONSTRUCTION  
IN  
SOCIALIST REPUBLIC OF VIET NAM



OCTOBER 2000

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JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
MINISTRY OF TRANSPORT  
SOCIALIST REPUBLIC OF VIET NAM

**THE DETAILED DESIGN  
ON  
THE CAN THO BRIDGE CONSTRUCTION  
IN  
SOCIALIST REPUBLIC OF VIET NAM**

**FINAL REPORT**

**DRAWINGS - Package III - Part IV**

OCTOBER 2000

**NIPPON KOEI CO., LTD.**



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# PACKAGE III (PART - 4)

P3/BR7

CAI RANG BRIDGE

P3/BR8

INTERCHANGE WITH NH.91B - OVERBRIDGE

P3/BR9

INTERCHANGE WITH NK.91B - RAMP D

# DRAWING LIST (1/3)

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
P3/BR7	CAI RANG BRIDGE	P3/BR7/0160	SEGMENT REINFORCEMENT - SHEET 2
P3/BR7/0010	GENERAL DRAWING LIST	P3/BR7/0470	SEGMENT REINFORCEMENT - SHEET 3
P3/BR7/0020	ABBREVIATIONS AND SYMBOLS	P3/BR7/0480	SEGMENT REINFORCEMENT - SHEET 4
P3/BR7/0030	STRUCTURAL NOTES	P3/BR7/0490	SEGMENT REINFORCEMENT - SHEET 5
P3/BR7/0040	LOCATION MAP	P3/BR7/0500	SEGMENT REINFORCEMENT - SHEET 6
P3/BR7/0050	COORDINATES OF BRIDGE	P3/BR7/0510	SEGMENT REINFORCEMENT - SHEET 7
P3/BR7/0060	GENERAL VIEW - SHEET 1	P3/BR7/0520	SEGMENT REINFORCEMENT - SHEET 8
P3/BR7/0070	GENERAL VIEW - SHEET 2	P3/BR7/0530	SEGMENT REINFORCEMENT - SHEET 9
P3/BR7/0080	GENERAL VIEW - SHEET 3	P3/BR7/0540	SEGMENT REINFORCEMENT - SHEET 10
P3/BR7/0090	QUANTITY TABLE OF BRIDGE	P3/BR7/0550	SEGMENT REINFORCEMENT - SHEET 11
P3/BR7/0100	<b>SUPERSTRUCTURE - APPROACH BRIDGE</b>	P3/BR7/0560	SEGMENT REINFORCEMENT - SHEET 12
P3/BR7/0110	GIRDER LAYOUT - SHEET 1	P3/BR7/0570	SEGMENT REINFORCEMENT - SHEET 13
P3/BR7/0120	GIRDER LAYOUT - SHEET 2	P3/BR7/0580	SEGMENT REINFORCEMENT - SHEET 14
P3/BR7/0130	GENERAL VIEW OF "I" GIRDER L=37.0M, H=1.85M	P3/BR7/0590	SEGMENT REINFORCEMENT - SHEET 15
P3/BR7/0140	GENERAL VIEW OF "I" GIRDER L=31.0M, H=1.85M	P3/BR7/0600	SEGMENT REINFORCEMENT - SHEET 16
P3/BR7/0150	TENDON ARRANGEMENT OF "I" GIRDER L=37.0M, H=1.85M	P3/BR7/0610	SEGMENT REINFORCEMENT - SHEET 17
P3/BR7/0160	TENDON ARRANGEMENT OF "I" GIRDER L=31.0M, H=1.85M	P3/BR7/0620	SEGMENT REINFORCEMENT - SHEET 18
P3/BR7/0170	TENDON ARRANGEMENT OF DIAPHRAGMS	P3/BR7/0630	SEGMENT REINFORCEMENT - SHEET 19
P3/BR7/0180	REINFORCEMENT OF "I" GIRDER L=37.0M, H=1.85M - SHEET 1	P3/BR7/0640	SEGMENT REINFORCEMENT - SHEET 20
P3/BR7/0190	REINFORCEMENT OF "I" GIRDER L=37.0M, H=1.85M - SHEET 2	P3/BR7/0650	SEGMENT REINFORCEMENT - SHEET 21
P3/BR7/0200	REINFORCEMENT OF "I" GIRDER L=31.0M, H=1.85M - SHEET 1	P3/BR7/0660	SEGMENT REINFORCEMENT - SHEET 22
P3/BR7/0210	REINFORCEMENT OF "I" GIRDER L=31.0M, H=1.85M - SHEET 2	P3/BR7/0670	ANCHOR & DEVIATOR REINFORCEMENT - SHEET 1
P3/BR7/0220	DECK SLAB REINFORCEMENT - SHEET 1	P3/BR7/0680	ANCHOR & DEVIATOR REINFORCEMENT - SHEET 2
P3/BR7/0230	DECK SLAB REINFORCEMENT - SHEET 2	P3/BR7/0690	ANCHOR & DEVIATOR REINFORCEMENT - SHEET 3
P3/BR7/0240	DECK SLAB REINFORCEMENT - SHEET 3	P3/BR7/0700	ANCHOR & DEVIATOR REINFORCEMENT - SHEET 4
P3/BR7/0250	DECK SLAB REINFORCEMENT - SHEET 4	P3/BR7/0710	ANCHOR & DEVIATOR REINFORCEMENT - SHEET 5
P3/BR7/0260	REINFORCEMENT OF DIAPHRAGMS	P3/BR7/0720	ANCHOR & DEVIATOR REINFORCEMENT - SHEET 6
P3/BR7/0270	DETAILS OF EXPANSION JOINT	P3/BR7/0730	ANCHOR & DEVIATOR REINFORCEMENT - SHEET 7
P3/BR7/0280	DETAILS OF BEARINGS	P3/BR7/0740	ANCHOR & DEVIATOR REINFORCEMENT - SHEET 8
P3/BR7/0290	QUANTITY TABLE OF SUPERSTRUCTURE - APPROACH BRIDGE	P3/BR7/0750	DETAILS OF EXPANSION JOINT DETAILS
P3/BR7/0300	<b>SUPERSTRUCTURE - MAIN BRIDGE</b>	P3/BR7/0760	DETAILS OF BEARING DETAILS - SHEET 1
P3/BR7/0310	GENERAL ARRANGEMENT OF SEGMENTS - SHEET 1	P3/BR7/0770	DETAILS OF BEARING DETAILS - SHEET 2
P3/BR7/0320	GENERAL ARRANGEMENT OF SEGMENTS - SHEET 2	P3/BR7/0780	MANHOLE COVER
P3/BR7/0330	GENERAL ARRANGEMENT OF SEGMENTS - SHEET 3	P3/BR7/0790	QUANTITY TABLE OF SUPERSTRUCTURE - MAIN BRIDGE
P3/BR7/0340	CONSTRUCTION SEQUENCE - SHEET 1		<b>ABUTMENTS</b>
P3/BR7/0350	CONSTRUCTION SEQUENCE - SHEET 2	P3/BR7/0800	ABUTMENT A1 & A2 - GENERAL VIEW
P3/BR7/0360	GENERAL SECTION	P3/BR7/0810	ABUTMENT A1 & A2 - RC PILE □ 450 - L=40.0M - SHEET 1
P3/BR7/0370	ANCHOR & DEVIATOR DETAILS - SHEET 1	P3/BR7/0820	ABUTMENT A1 & A2 - RC PILE □ 450 - L=40.0M - SHEET 2
P3/BR7/0380	ANCHOR & DEVIATOR DETAILS - SHEET 2	P3/BR7/0830	ABUTMENT A1 & A2 - REINFORCEMENT - SHEET 1
P3/BR7/0390	ANCHOR & DEVIATOR DETAILS - SHEET 3	P3/BR7/0840	ABUTMENT A1 & A2 - REINFORCEMENT - SHEET 2
P3/BR7/0400	ANCHOR & DEVIATOR DETAILS - SHEET 4	P3/BR7/0850	ABUTMENT A1 & A2 - REINFORCEMENT - SHEET 3
P3/BR7/0410	ANCHOR & DEVIATOR DETAILS - SHEET 5	P3/BR7/0860	ABUTMENT A1 & A2 - EARTHWORK SLOPE PROTECTION - SHEET 1
P3/BR7/0420	TENDON ARRANGEMENT - SHEET 1	P3/BR7/0870	ABUTMENT A1 & A2 - EARTHWORK SLOPE PROTECTION - SHEET 2
P3/BR7/0430	TENDON ARRANGEMENT - SHEET 2	P3/BR7/0880	DETAILS OF APPROACH SLAB
P3/BR7/0440	INTERNAL PRESTRESS	P3/BR7/0890	QUANTITY TABLE OF ABUTMENTS
P3/BR7/0450	EXTERNAL PRESTRESS		<b>PIERS</b>
	TRANSVERSE PRESTRESS OF TOP SLAB	P3/BR7/0900	PIER 1 & PIER 4 - GENERAL VIEW
	SEGMENT REINFORCEMENT - SHEET 1	P3/BR7/0910	PIER 2 & PIER 3 - GENERAL VIEW
		P3/BR7/0920	PIER 5 - GENERAL VIEW

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K. Matsumoto	GENERAL DRAWING LIST (PART - 4) (1/3)	P3/PA4/0010
				SIGNATURE	<i>T. Kametani</i>	<i>K. Matsumoto</i>		
				DATE	20/9/2000	29/9/2000		

## DRAWING LIST (2/3)

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
P3/BR7/0930	PIER 1 - BORED PILE DETAILS - L=50M	P3/BR8/0260	REINFORCEMENT ARRANGEMENT OF HOLLOW SLAB - SHEET 6
P3/BR7/0940	PIER P2 & P3 - BORED PILE DETAILS - L=49M	P3/BR8/0270	REINFORCEMENT ARRANGEMENT OF HOLLOW SLAB - SHEET 7
P3/BR7/0950	PIER P4 - BORED PILE DETAILS - L=45M	P3/BR8/0280	REINFORCEMENT ARRANGEMENT OF HOLLOW SLAB - SHEET 8
P3/BR7/0960	PIER P5 - RC PILE □ 450 - L=40.0M - SHEET 1	P3/BR8/0290	REINFORCEMENT ARRANGEMENT OF HOLLOW SLAB - SHEET 9
P3/BR7/0970	PIER P5 - RC PILE □ 450 - L=40.0M - SHEET 2	P3/BR8/0300	REINFORCEMENT ARRANGEMENT OF HOLLOW SLAB - SHEET 10
P3/BR7/0980	PIER 1 & PIER 4 - REINFORCEMENT - SHEET 1	P3/BR8/0310	REINFORCEMENT ARRANGEMENT OF HOLLOW SLAB - SHEET 11
P3/BR7/0990	PIER 1 & PIER 4 - REINFORCEMENT - SHEET 2	P3/BR8/0320	EXPANSION JOINT DETAILS AT ABUTMENT A1 & A2
P3/BR7/1000	PIER 2 & PIER 3 - REINFORCEMENT - SHEET 1	P3/BR8/0330	BEARING DETAILS AT ABUTMENT A1 & A2
P3/BR7/1010	PIER 2 & PIER 3 - REINFORCEMENT - SHEET 2	P3/BR8/0340	BEARING DETAILS AT PIER P2
P3/BR7/1020	PIER 5 REINFORCEMENT - SHEET 1	P3/BR8/0350	QUANTITY TABLE OF SUPERSTRUCTURE
P3/BR7/1030	PIER 5 REINFORCEMENT - SHEET 2		<b>ABUTMENTS</b>
P3/BR7/1040	PIER PROTECTION	P3/BR8/0360	ABUTMENT A1 & A2 - GENERAL VIEW - SHEET 1
P3/BR7/1050	QUANTITY TABLE OF PIERS	P3/BR8/0361	ABUTMENT A1 & A2 - GENERAL VIEW - SHEET 2
	<b>MISCELLANEOUS</b>	P3/BR8/0370	ABUTMENT A1 & A2 - BORED PILE DETAILS L=57M
P3/BR7/1060	PARAPET AND RAILING DETAILS	P3/BR8/0380	ABUTMENT A1 & A2 - REINFORCEMENT - SHEET 1
P3/BR7/1070	BRIDGE NAME PLAQUE	P3/BR8/0390	ABUTMENT A1 & A2 - REINFORCEMENT - SHEET 2
P3/BR7/1080	DRAINAGE AND LIGHTING POLES LAYOUT	P3/BR8/0400	ABUTMENT A1 & A2 - REINFORCEMENT - SHEET 3
P3/BR7/1090	DRAINAGE DETAILS	P3/BR8/0410	ABUTMENT A1 & A2 - REINFORCEMENT - SHEET 4
P3/BR7/1100	LIGHTING POLES BASE DETAILS	P3/BR8/0411	ABUTMENT A1 & A2 - REINFORCEMENT - SHEET 5
P3/BR7/1110	QUANTITY TABLE OF MISCELLANEOUS WORKS	P3/BR8/0412	ABUTMENT A1 & A2 - REINFORCEMENT - SHEET 6
		P3/BR8/0420	ABUTMENT A1 & A2 - EARTHWORK SLOPE PROTECTION
<b>P3/BR8</b>	<b>INTERCHANGE WITH NH91 - FLYOVER</b>	P3/BR8/0430	DETAILS OF APPROACH SLAB
	<b>GENERAL</b>	P3/BR8/0440	QUANTITY TABLE OF ABUTMENTS
P3/BR8/0010	DRAWING LIST		<b>PIERS</b>
P3/BR8/0020	ABBREVIATIONS AND SYMBOLS	P3/BR8/0450	PIER 1 & PIER 3 - GENERAL VIEW
P3/BR8/0030	STRUCTURAL NOTES	P3/BR8/0460	PIER 2 - GENERAL VIEW - SHEET 1
P3/BR8/0040	LOCATION MAP	P3/BR8/0470	PIER 2 - GENERAL VIEW - SHEET 2
P3/BR8/0050	COORDINATES OF BRIDGE	P3/BR8/0480	PIER 1, PIER 2 & PIER 3 - BORED PILE DETAILS L=57M
P3/BR8/0060	GENERAL VIEW - SHEET 1	P3/BR8/0490	PIER 1 & PIER 3 - REINFORCEMENT - SHEET 1
P3/BR8/0070	GENERAL VIEW - SHEET 2	P3/BR8/0500	PIER 1 & PIER 3 - REINFORCEMENT - SHEET 2
P3/BR8/0080	QUANTITY TABLE OF BRIDGE	P3/BR8/0510	PIER 1 & PIER 3 - REINFORCEMENT - SHEET 3
	<b>SUPERSTRUCTURE</b>	P3/BR8/0511	PIER 1 & PIER 3 - REINFORCEMENT - SHEET 4
P3/BR8/0090	GENERAL VIEW OF HOLLOW SLAB - SHEET 1	P3/BR8/0520	PIER 2 - REINFORCEMENT - SHEET 1
P3/BR8/0100	GENERAL VIEW OF HOLLOW SLAB - SHEET 2	P3/BR8/0530	PIER 2 - REINFORCEMENT - SHEET 2
P3/BR8/0110	CONSTRUCTION SEQUENCE	P3/BR8/0540	PIER 2 - REINFORCEMENT - SHEET 3
P3/BR8/0120	TENDON ARRANGEMENT OF HOLLOW SLAB - SHEET 1	P3/BR8/0550	QUANTITY TABLE OF PIERS
P3/BR8/0130	TENDON ARRANGEMENT OF HOLLOW SLAB - SHEET 2		<b>MISCELLANEOUS</b>
P3/BR8/0140	TENDON ARRANGEMENT OF HOLLOW SLAB - SHEET 3	P3/BR8/0560	PARAPET AND RAILING DETAILS - SHEET 1
P3/BR8/0150	TENDON ARRANGEMENT OF HOLLOW SLAB - SHEET 4	P3/BR8/0570	PARAPET AND RAILING DETAILS - SHEET 2
P3/BR8/0160	TENDON ARRANGEMENT OF HOLLOW SLAB - SHEET 5	P3/BR8/0580	BRIDGE NAME PLAQUE
P3/BR8/0170	TENDON ARRANGEMENT OF HOLLOW SLAB - SHEET 6	P3/BR8/0590	DRAINAGE AND LIGHTING POLE LAYOUT
P3/BR8/0180	TENDON ARRANGEMENT OF HOLLOW SLAB - SHEET 7	P3/BR8/0600	DRAINAGE DETAILS
P3/BR8/0190	TENDON ARRANGEMENT OF HOLLOW SLAB - SHEET 8	P3/BR8/0610	BASE DETAILS OF LIGHTING POLES
P3/BR8/0200	TENDON ARRANGEMENT OF HOLLOW SLAB - SHEET 9	P3/BR8/0620	QUANTITY TABLE OF MISCELLANEOUS WORKS
P3/BR8/0210	REINFORCEMENT ARRANGEMENT OF HOLLOW SLAB - SHEET 1		
P3/BR8/0220	REINFORCEMENT ARRANGEMENT OF HOLLOW SLAB - SHEET 2	<b>P3/BR9</b>	<b>INTERCHANGE WITH NH.91 - RAMP D</b>
P3/BR8/0230	REINFORCEMENT ARRANGEMENT OF HOLLOW SLAB - SHEET 3		<b>GENERAL</b>
P3/BR8/0240	REINFORCEMENT ARRANGEMENT OF HOLLOW SLAB - SHEET 4	P3/BR9/0010	DRAWING LIST
P3/BR8/0250	REINFORCEMENT ARRANGEMENT OF HOLLOW SLAB - SHEET 5	P3/BR9/0020	ABBREVIATIONS AND SYMBOLS

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K. Matsumoto	GENERAL DRAWING LIST (PART - 4) (2/3)	P3/PA4/0020
				SIGNATURE	<i>T. Kametani</i>	<i>K. Matsumoto</i>		
				DATE	20/9/2000	29/9/2000		
						K. Enomoto		
						<i>K. Enomoto</i>		
						5/10/2000		

## DRAWING LIST (3/3)

DRAWING NO.	DRAWING TITLE	DRAWING NO.	DRAWING TITLE
P3/BR9/0030	STRUCTURAL NOTES		MISCELLANEOUS
P3/BR9/0040	LOCATION MAP	P3/BR9/0180	DETAILS OF PARAPET AND RAILINGS
P3/BR9/0050	COORDINATES OF BRIDGE	P3/BR9/0490	BRIDGE NAME PLAQUE
P3/BR9/0060	GENERAL VIEW - SHEET 1	P3/BR9/0500	DRAINAGE AND LIGHTING POLES LAYOUT
P3/BR9/0070	GENERAL VIEW - SHEET 2	P3/BR9/0510	DETAILS OF DRAINAGE ON BRIDGE
P3/BR9/0080	QUANTITY TABLE OF BRIDGE	P3/BR9/0520	DETAILS OF LIGHTING POLE BASES
	<b>SUPERSTRUCTURE</b>	P3/BR9/0530	QUANTITY TABLE OF MISCELLANEOUS WORKS
P3/BR9/0090	GIRDER LAYOUT		
P3/BR9/0100	GENERAL VIEW OF "I" GIRDER L=28.0M (FOR RIGHT SPAN)		
P3/BR9/0110	GENERAL VIEW OF "I" GIRDER L=28.0M (FOR LEFT SPAN)		
P3/BR9/0120	GENERAL VIEW OF "I" GIRDER L=37.0M		
P3/BR9/0130	TENDONS ARRANGEMENT OF "I" GIRDER L=28.0M (FOR RIGHT SPAN)		
P3/BR9/0140	TENDONS ARRANGEMENT OF "I" GIRDER L=28.0M (FOR LEFT SPAN)		
P3/BR9/0150	TENDONS ARRANGEMENT OF "I" GIRDER L=37.0M		
P3/BR9/0160	TENDONS ARRANGEMENT OF DIAPHRAGMS		
P3/BR9/0170	REINFORCEMENT OF "I" GIRDER L=28.0M (FOR RIGHT SPAN)		
P3/BR9/0180	REINFORCEMENT OF "I" GIRDER L=28.0M (FOR LEFT SPAN)		
P3/BR9/0190	REINFORCEMENT OF "I" GIRDER L=37.0M		
P3/BR9/0200	REINFORCEMENT OF DIAPHRAGMS		
P3/BR9/0210	DECK SLAB REINFORCEMENT - SHEET 1		
P3/BR9/0220	DECK SLAB REINFORCEMENT - SHEET 2		
P3/BR9/0230	DECK SLAB REINFORCEMENT - SHEET 3		
P3/BR9/0240	DETAILS OF BEARINGS		
P3/BR9/0250	DETAILS OF EXPANSION JOINTS		
P3/BR9/0260	QUANTITY TABLE OF SUPERSTRUCTURE		
	<b>ABUTMENTS</b>		
P3/BR9/0270	GENERAL VIEW OF ABUTMENT A1 & A2		
P3/BR9/0280	ABUTMENTS A1 & A2 RC PILE □ 450 - L=40.0M - SHEET 1		
P3/BR9/0290	ABUTMENTS A1 & A2 RC PILE □ 450 - L=40.0M - SHEET 2		
P3/BR9/0300	REINFORCEMENT OF ABUTMENT A1 - SHEET 1		
P3/BR9/0310	REINFORCEMENT OF ABUTMENT A1 - SHEET 2		
P3/BR9/0320	REINFORCEMENT OF ABUTMENT A1 - SHEET 3		
P3/BR9/0330	REINFORCEMENT OF ABUTMENT A2 - SHEET 1		
P3/BR9/0340	REINFORCEMENT OF ABUTMENT A2 - SHEET 2		
P3/BR9/0350	REINFORCEMENT OF ABUTMENT A2 - SHEET 3		
P3/BR9/0360	EARTHWORKS SLOPE PROTECTION - SHEET 1		
P3/BR9/0370	EARTHWORKS SLOPE PROTECTION - SHEET 2		
P3/BR9/0380	DETAILS OF APPROACH SLAB - SHEET 1		
P3/BR9/0390	DETAILS OF APPROACH SLAB - SHEET 2		
P3/BR9/0400	QUANTITY TABLE OF ABUTMENTS		
	<b>PIERS</b>		
P3/BR9/0410	GENERAL VIEW OF PIERS P1 & P2		
P3/BR9/0420	PIERS P1 & P2 - RC PILE □ 450 - 40.0M - SHEET 1		
P3/BR9/0430	PIERS P1 & P2 - RC PILE □ 450 - 40.0M - SHEET 2		
P3/BR9/0440	REINFORCEMENT OF PIERS P1 & P2 - SHEET 1		
P3/BR9/0450	REINFORCEMENT OF PIERS P1 & P2 - SHEET 2		
P3/BR9/0460	PIER PROTECTION		
P3/BR9/0470	QUANTITY TABLE OF PIERS		

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K. Matsumoto	GENERAL DRAWING LIST (PART - 4) (3/3)	P3/PA4/0030
				SIGNATURE	<i>T. Kametani</i>	<i>K. Matsumoto</i>		
				DATE	20/9/2000	29/9/2000		



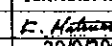
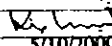


**P3/BR7 CAI RANG BRIDGE**

**DRAWING LIST**

DRAWING NO	DRAWING LIST
I	GENERAL
P3/BR/0010	DRAWING LIST
P3/BR/0020	ABBREVIATIONS AND SYMBOLS
P3/BR/0030	STRUCTURAL NOTES
P3/BR/0040	LOCATION MAP
P3/BR/0050	COORDINATES OF BRIDGE
P3/BR/0060	GENERAL VIEW-SHEET1
P3/BR/0070	GENERAL VIEW-SHEET2
P3/BR/0080	GENERAL VIEW-SHEET3
P3/BR/0090	QUANTITY TABLE OF BRIDGE
II	SUPERSTRUCTURE-APPROACH BRIDGE
P3/BR/0100	GIRDER LAYOUT-SHEET 1
P3/BR/0110	GIRDER LAYOUT-SHEET 2
P3/BR/0120	GENERAL VIEW OF "I" GIRDER L=37.0m, H=1.85m.
P3/BR/0130	GENERAL VIEW OF "I" GIRDER L=31.0m, H=1.85m.
P3/BR/0140	TENDON ARRANGEMENT OF "I" GIRDER L=37.0m, H=1.85m.
P3/BR/0150	TENDON ARRANGEMENT OF "I" GIRDER L=31.0m, H=1.85m.
P3/BR/0160	TENDON ARRANGEMENT OF DIAPHRAGMS
P3/BR/0170	REINFORCEMENT OF "I" GIRDER L=37.0m, H=1.85m SHEET1
P3/BR/0180	REINFORCEMENT OF "I" GIRDER L=37.0m, H=1.85m SHEET2
P3/BR/0190	REINFORCEMENT OF "I" GIRDER L=31.0m, H=1.85m SHEET1
P3/BR/0200	REINFORCEMENT OF "I" GIRDER L=31.0m, H=1.85m SHEET2
P3/BR/0210	DECK SLAB REINFORCEMENT-SHEET 1
P3/BR/0220	DECK SLAB REINFORCEMENT-SHEET 2
P3/BR/0230	DECK SLAB REINFORCEMENT-SHEET 3
P3/BR/0240	DECK SLAB REINFORCEMENT-SHEET 4
P3/BR/0250	REINFORCEMENT OF DIAPHRAGMS
P3/BR/0260	DETAILS OF EXPANSION JOINTS
P3/BR/0270	DETAILS OF BEARINGS
P3/BR/0280	QUALITY TABLES OF SUPERSTRUCTURE-APPROACH BRIDGE
III	SUPERSTRUCTURE-MAIN BRIDGE
P3/BR/0290	GENERAL ARRANGEMENT OF SEGMENT- SHEET1
P3/BR/0300	GENERAL ARRANGEMENT OF SEGMENT- SHEET2
P3/BR/0310	GENERAL ARRANGEMENT OF SEGMENT- SHEET3
P3/BR/0320	CONSTRUCTION SEQUENCE- SHEET1
P3/BR/0330	CONSTRUCTION SEQUENCE- SHEET2
P3/BR/0340	GENERAL SECTION
P3/BR/0350	ANCHOR & DEVIATOR DETAILS -SHEET1
P3/BR/0360	ANCHOR & DEVIATOR DETAILS -SHEET2
P3/BR/0370	ANCHOR & DEVIATOR DETAILS -SHEET3
P3/BR/0380	ANCHOR & DEVIATOR DETAILS -SHEET4
P3/BR/0390	ANCHOR & DEVIATOR DETAILS -SHEETS
P3/BR/0400	TENDON ARRANGEMENT- SHEET1
P3/BR/0410	TENDON ARRANGEMENT- SHEET2
P3/BR/0420	INTERNAL PRESTRESS
P3/BR/0430	EXTERNAL PRESTRESS
P3/BR/0440	TRANSVERSE PRESTRESSING TOP SLAB
P3/BR/0450	SEGMENT REINFORCEMENT-SHEET1
P3/BR/0460	SEGMENT REINFORCEMENT-SHEET2
P3/BR/0470	SEGMENT REINFORCEMENT-SHEET3
P3/BR/0480	SEGMENT REINFORCEMENT-SHEET4
P3/BR/0490	SEGMENT REINFORCEMENT-SHEET5
P3/BR/0500	SEGMENT REINFORCEMENT-SHEET6
P3/BR/0510	SEGMENT REINFORCEMENT-SHEET7
P3/BR/0520	SEGMENT REINFORCEMENT-SHEET8
P3/BR/0530	SEGMENT REINFORCEMENT-SHEET9
P3/BR/0540	SEGMENT REINFORCEMENT-SHEET10
P3/BR/0550	SEGMENT REINFORCEMENT-SHEET11
P3/BR/0560	SEGMENT REINFORCEMENT-SHEET12



DRAWING NO	DRAWING LIST
P3/BR/0570	SEGMENT REINFORCEMENT-SHEET13
P3/BR/0580	SEGMENT REINFORCEMENT-SHEET14
P3/BR/0590	SEGMENT REINFORCEMENT-SHEET15
P3/BR/0600	SEGMENT REINFORCEMENT-SHEET16
P3/BR/0610	SEGMENT REINFORCEMENT-SHEET17
P3/BR/0620	SEGMENT REINFORCEMENT-SHEET18
P3/BR/0630	SEGMENT REINFORCEMENT-SHEET19
P3/BR/0640	SEGMENT REINFORCEMENT-SHEET20
P3/BR/0650	SEGMENT REINFORCEMENT-SHEET21
P3/BR/0660	SEGMENT REINFORCEMENT-SHEET22
P3/BR/0670	ANCHOR & DEVIATOR REINFORCEMENT-SHEET1
P3/BR/0680	ANCHOR & DEVIATOR REINFORCEMENT-SHEET2
P3/BR/0690	ANCHOR & DEVIATOR REINFORCEMENT-SHEET3
P3/BR/0700	ANCHOR & DEVIATOR REINFORCEMENT-SHEET4
P3/BR/0710	ANCHOR & DEVIATOR REINFORCEMENT-SHEET5
P3/BR/0720	ANCHOR & DEVIATOR REINFORCEMENT-SHEET6
P3/BR/0730	ANCHOR & DEVIATOR REINFORCEMENT-SHEET7
P3/BR/0740	ANCHOR & DEVIATOR REINFORCEMENT-SHEET8
P3/BR/0750	DETAILS OF EXPANSION JOINTS
P3/BR/0760	DETAILS OF BEARINGS-SHEET1
P3/BR/0770	DETAILS OF BEARINGS-SHEET2
P3/BR/0780	MANHOLE COVER
P3/BR/0790	QUALITY TABLES OF SUPERSTRUCTURE-MAIN BRIDGE
IV	ABUTMENTS
P3/BR/0800	ABUTMENTS A1&A2 GENERAL VIEW
P3/BR/0810	ABUTMENTS A1&A2 RC PILE □ 450.0m-SHEET1
P3/BR/0820	ABUTMENTS A1&A2 RC PILE □ 450.0m-SHEET2
P3/BR/0830	ABUTMENTS A1&A2 REINFORCEMENT -SHEET 1
P3/BR/0840	ABUTMENTS A1&A2 REINFORCEMENT -SHEET 2
P3/BR/0850	ABUTMENTS A1&A2 REINFORCEMENT -SHEET 3
P3/BR/0860	ABUTMENTS A1&A2 EARTHWORK SLOPE PROTECTION-SHEET1
P3/BR/0870	ABUTMENTS A1&A2 EARTHWORK SLOPE PROTECTION-SHEET2
P3/BR/0880	DETAILS OF APPROACH SLAB
P3/BR/0890	QUALITY TABLES OF ABUTMENTS
V	PIERS
P3/BR/0900	PIER P1&P4-GENERAL VIEW
P3/BR/0910	PIER P2&P3-GENERAL VIEW
P3/BR/0920	PIER P5-GENERAL VIEW
P3/BR/0930	PIERS P1 BORED PILE DETAILS L=50m
P3/BR/0940	PIERS P2&P3 BORED PILE DETAILS L=49m
P3/BR/0950	PIERS P4 BORED PILE DETAILS L=45m
P3/BR/0960	PIERS P5 RC PILE □ 450.0m-SHEET1
P3/BR/0970	PIERS P5 RC PILE □ 450.0m-SHEET2
P3/BR/0980	PIERS P1&P4- REINFORCEMENT -SHEET 1
P3/BR/0990	PIERS P1&P4- REINFORCEMENT -SHEET 2
P3/BR/1000	PIERS P2&P3- REINFORCEMENT -SHEET 1
P3/BR/1010	PIERS P2&P3- REINFORCEMENT -SHEET 2
P3/BR/1020	PIERS P5- REINFORCEMENT -SHEET 1
P3/BR/1030	PIERS P5- REINFORCEMENT -SHEET 2
P3/BR/1040	PIER PROTECTION
P3/BR/1050	QUANTITY TABLE OF PIERS
VI	MISCELLANEOUS
P3/BR/1060	PARAPET AND RAILING SDETAILS
P3/BR/1070	BRIDGE NAME PLAQUE
P3/BR/1080	DRAINAGE AND LIGHTING POLE LAYOUT
P3/BR/1090	DRAINAGE DETAILS
P3/BR/1100	LIGHTING POLES BASES DETAILS
P3/BR/1110	QUANTITY TABLE OF MISCELLANEOUS WORKS

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	 NIPPON KOEI CO.,LTD.	NAME: T. Kametani SIGNATURE:  DATE: 20/9/2000	NAME: K. Matsumoto SIGNATURE:  DATE: 29/9/2000	NAME: K. Enomoto SIGNATURE:  DATE: 5/10/2000	CAI RANG BRIDGE GENERAL DRAWING LIST	P3/BR7/0010

# I. GENERAL

## ABBREVIATIONS AND SYMBOLS

A	PARAMETER OF CLOTHOID CURVE	I.P	POINT OF INTERSECTION
⊙	AT	KG	KILOGRAM
ABUT	ABUTMENT	KM	KILOMETER
AC	ASPHALT CONCRETE	KPH	KILOMETER PER HOUR
APPR	APPROACH	L	LENGTH OF CURVE WITH SPIRAL
ASPH	ASPHALT	LC	LENGTH OF CIRCULAR CURVE
&	AND	LS	LENGTH OF SPIRAL CURVE
A > B	A IS LARGER THAN B	LVC	LENGTH OF VERTICAL CURVE
BOR	BORING	LIN.M	LINEAR METER
BR	BRIDGE	M	METER
BX	BOX CULVERT	M <sup>2</sup>	SQUARE METER
C	CUT	M <sup>3</sup>	CUBIC METER
CTC	CENTER TO CENTER	MAX	MAXIMUM
℄	CENTERLINE	MIN	MINIMUM
CM	CENTIMETER	MOV	MOVABLE
CONC	CONCRETE	N.G.L	NATURAL GROUND LEVEL
CONST	CONSTRUCTION	OV	OVER BRIDGE
CONT	CONTINUOUS	%	PERCENT
C.S	CIRCULAR CURVE TO SPIRAL CURVE	P	PIPE CULVERT
CU.M	CUBIC METER	PC	BEGINNING POINT OF SIMPLE CURVE
DIA or ⌀	DIAMETER	PE.W	PARAPET WALL
DC	DRAINAGE CATCHBASIN	P.C	PRESTRESSED CONCRETE
DI	DRAINAGE INLET	P/C	PRE - CAST
DL	DATUM LINE	PH	PLAN HEIGHT
DO	DRAINAGE OUTLET	P.I	POINT OF INTERSECTION FOR HORIZONTAL ALIGNMENT
DS	DRAINAGE SIDEDITCH	PT	END OF POINT OF SIMPLE CURVE
DW	MORTARED RUBBLE PAVED WATERWAY	PC	PLATE COVER
E.P	END POINT	R	RADIUS OF CIRCULAR CURVE
E.V	MIDDLE ORDINATE VERTICAL CURVE	R.C	REINFORCED CONCRETE
EL	ELEVATION	R.O.W	RIGHT OF WAY
EQ	EQUAL	RW	RETAINING WALL
EXC	EXCAVATION	S.C	SPIRAL CURVE TO CIRCULAR CURVE
EXP	EXPANSION	S.P	SLOPE PROTECTION
F	FILL	S.P.P	STEEL PIPE PILE
FG	FINISHED GRADE	SQ	SQUARE
FIX	FIXED	SQ.M	SQUARE METER
FR	FRONTAGE ROAD	S.T	SPIRAL CURVE TO TANGENT
FTOF	FACE TO FACE	STA	STATION
G.F	GUARD FENCE	SM	STONE MASONRY
GR	GUARD RAIL	T	THICKNESS
GIR	GIRDER	T.S	TANGENT TO SPIRAL
H	HEIGHT	T.L	TANGENT LENGTH OF CIRCULAR CURVE
D.F.W.L	DATUM FLOODED WATER LEVEL	To	TANGENT LENGTH OF SPIRAL
HWY	HIGHWAY	V	DESIGN SPEED IN KPH
I	GRADIENT	W	WIDTH
I.C	INTERCHANGE	X	EASTING COORDINATE IN METERS
		Y	NORTHING COORDINATE IN METERS

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	 JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT ( MOT ) MY THUAN PROJECT MANAGEMENT UNIT	 NIPPON KOEI CO.,LTD.	NAME T. Kametani SIGNATURE <i>T. Kametani</i> DATE 20/9/2000	K. Matsumoto <i>K. Matsumoto</i> 29/9/2000	K. Enomoto <i>K. Enomoto</i> 5/10/2000	CAI RANG BRIDGE GENERAL ABBREVIATIONS AND SYMBOLS	P3/BR7/0020

# STRUCTURAL NOTES

## 1. GENERAL

- 1.1. UNLESS OTHERWISE NOTED THESE NOTES ARE APPLIED TO ALL DRAWINGS.
- 1.2. THE SCALE INDICATED IN DRAWINGS IS FOR 'A3' SIZE.
- 1.3. ALL CHAINAGES, COORDINATES, ELEVATIONS ARE IN METRES. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE INDICATED.
- 1.4. THE ELEVATION SYSTEM IS REFERRED TO THE MEAN SEA DATUM ELEVATION AT HONDAU - DO SON. COORDINATE REFER TO THE NATIONAL GRID SYSTEM.

## 2. DESIGN CRITERIA & LOADS

- 2.1. DESIGN STANDARDS:
  - AASHTO 1998 - LRFD BRIDGE DESIGN SPECIFICATIONS
  - AASHTO GUIDE SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF SEGMENTAL CONCRETE BRIDGES
  - JAPANESE HIGHWAY AND BRIDGE STANDARDS 1996
  - VIETNAMESE HIGHWAY BRIDGES STANDARDS 1979
- 2.2. DESIGN LOADS:
  - B\_LOADING IN ACCORDANCE WITH JAPANESE CODE
  - PEDESTRIAN LOAD : 3.6 kN/M<sup>2</sup> - AASHTO LRFD98
  - BASIC WIND VELOCITY : 160 KM/H - AASHTO LRFD 98
  - LATERAL SEISMIC RESPONSE COEFFICIENT : 0.12
  - VESSEL IMPACT : VIETNAMESE HIGHWAY BRIDGES STANDARDS 1979
  - TEMPERATURE RANGE : 17.7°C TO 36.7°C
  - UNIFORM TEMPERATURE : ±10°C
  - TEMPERATURE DIFFERENTIAL : 5°C

## 3. CONCRETE

- 3.1. UNLESS OTHERWISE INDECATED CONCRETE SHALL BE OF THE FOLLOWING GRADES BASED ON 28 DAY CYLINDER STRENGTH  $f_c$ :

CONCRETE CLASS	STRENGTH $f_c$ MPa	KIND OF STRUCTURE IN USE
B	40	PC BOX GIRDER, I-GIRDER
C	35	HOLLOW SLAB
D	30	IN-SITU DECK SLAB, BORED PILE
E	24	PIER, ABUTMENT, PILE CAP, RETAINING WALL, PARAPET, BARRIER, KERB
G	15	LEAN CONCRETE

- 3.2. WHEREVER FORMS ARE NOT USED REINFORCED CONCRETE SHALL BE PLACED AGAINST 100mm MINIMUM THICKNESS LEAN CONCRETE.
- 3.3. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 20x20mm UNLESS OTHERWISE NOTED.
- 3.4. ALL CONSTRUCTION JOINTS ARE TO BE LOCATED AS SHOWN ON THE DRAWINGS OR AS ENGINEER'S APPROVAL.

## 4. REINFORCEMENT

- 4.1. REINFORCEMENT SHALL BE DEFORMED, EXCEPT THAT PLAIN BARS OR PLAIN WIRE MAY BE USED FOR SPIRALS, HOOPS, AND WIRE FABRIC.
- 4.2. REINFORCEMENT SHALL BE SD390 OR EQUIVALENT. PLAIN ROUND BAR WITH  $f_y(\min)$  250 MPa AND HIGH YIELD DEFORMED BARS WITH YIELD STRENGTH NOT LESS THAN  $f_y(\min)$  390 MPa SHALL BE USED.
- 4.3. REINFORCEMENT IS NOTED ON THE DRAWINGS AS FOLLOWS:
- 4.4. ALL REINFORCEMENTS ARE SHOWN AS \_\_\_\_\_
- 4.5. SPLICES IN ADJACENT BARS SHALL BE STAGGERED EXCEPT WHERE NOTED ON THE DRAWINGS. SPLICES OTHER THAN THOSE SHOWN ON THE DRAWINGS MAY ONLY BE MADE WITH THE ENGINEER'S APPROVAL.
- 4.6. MINIMUM SPLICE LENGTH SHALL BE IN ACCORDANCE WITH AASHTO LRFD 1998.
- 4.7. STANDARD HOOKS AND MINIMUM BEND DIAMETER SHALL BE IN ACCORDANCE WITH AASHTO LRFD 1998.

## 4. REINFORCEMENT (CONTINUED)

- 4.8. REINFORCEMENTS INDECATED AS RANDOM LENGTH MAY BE LAP SPLICED AS NECESSARY SUBJECT TO THE FOLLOWING CONDITIONS:
  - A) LAP SPLICES IN ADJACENT BARS SHALL BE STAGGERED
  - B) MINIMUM LAP LENGTHS SHALL BE IN ACCORDANCE WITH AASHTO LRFD 1998, EXCEPT BORED PILE SHALL BE 40 BAR DIAMETERS
  - C) NOT MORE THAN ONE BAR PER LINE IS TO BE SHORTER THAN 12 METRES FOR ANY DIAMETER
- 4.9. UNLESS OTHERWISE INDECATED ON THE DRAWINGS, THE MINIMUM COVER TO ANY REINFORCEMENT SHALL BE AS FOLLOWS:
  - 75mm BORED PILE, RETAINING WALL & ABUTMENT
  - 50mm PILE CAP, DECK SLAB, PIER & ABUTMENT, PARAPET, KERB, APPROACH SLAB, etc...
  - TOLERANCE ON COVER IS +/-5MM

## 5. PRESTRESSING

- 5.1. NOMINAL DIAMETER, YIELD AND TENSILE STRENGTH OF PRESTRESSED TENDON ARE SPECIFIED AS FOLLOWS:

UTILIZATION	NOMINAL DIAMETER (mm)	TENSILE STRENGTH (MPa)	YIELD STRENGTH (MPa)	JACKING FORCE (kN)
INTERNAL CABLE	12S12.7	1860	1675	1650
EXTERNAL CABLE	12S15.2	1860	1675	2320
TOP SLAB CABLE	3S12.7	1860	1675	415

- 5.2. PRESTRESSED TENDONS SHALL BE FORMED FROM THE STRANDS OF 12.7mm OR 15.2mm DIAMETER MADE BY 7 LOW RELAXATION WIRES GRADE 270 CORRESPONDING WITH ASTM A416M. THE ACTUAL TENDON SIZES AND INITIAL PRESTRESSED FORCE ARE GIVEN ON THE DETAIL DRAWINGS.
- 5.3. PRESTRESSED SYSTEMS TO BE ADOPTED SHALL BE IN ACCORDANCE WITH THE ENGINEER'S APPROVAL.
- 5.4. DUCTS FOR INTERNAL TENDONS SHALL BE SEMI-RIGID GALVANISED SHEATHING UNLESS OTHERWISE NOTED AND SHALL BE RIGIDLY SUPPORTED AT NOT MORE THAN 750mm FROM CENTRES.
- 5.5. THE METHOD TO FIX THE DUCTS AND THE METHOD OF JOINTING AND SEALING OF DUCTS AT CONSTRUCTION JOINTS SHALL BE IN ACCORDANCE WITH THE ENGINEER'S APPROVAL.
- 5.6. TENDON PROFILES ARE SPECIFIED TO THE CENTER OF SHEATHING. THE TENDON ARE TO BE PLACED TO SMOOTH PROFILES PASSING THROUGH THE SPECIFIED POINTS.
- 5.7. EACH TENDON SHALL BE KEPT STRAIGHT FOR A MINIMUM LENGTH OF 1000mm FROM ANCHORAGE FACES.
- 5.8. GROUTING POINTS SHALL BE PROVIDED AT ALL CROWN POINTS, SAG POINTS, ANCHORAGES AND DEVIATORS.

## 6. WATERPROOF

- 6.1. ALL REINFORCED CONCRETE SURFACES IN CONTACT WITH BACKFILL SHALL BE COATED WITH TWO COATS OF BITUMINOUS MEMBRANE.
- 6.2. THE BRIDGE DECK SHALL BE WATERPROOFED WITH APPROVED PROPRIETARY WATERPROOFING SYSTEM IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

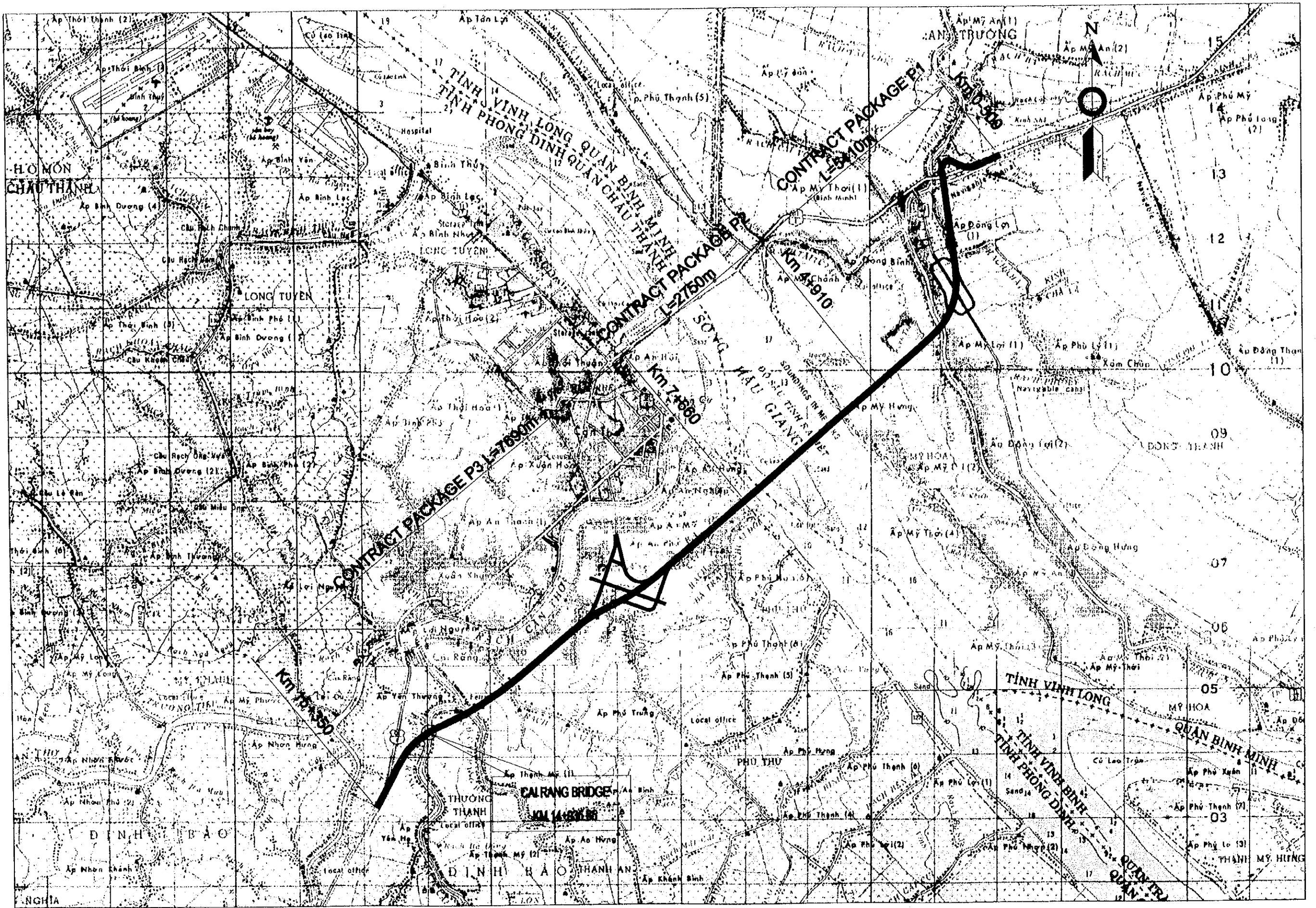
## 7. SUPERSTRUCTURE

- 7.1. SUPERSTRUCTURE IS DESIGNED ON THE BASIS OF CONSTRUCTION SEQUENCE DETAILED ON THE DRAWINGS. ANY CHANGES TO THE CONSTRUCTION SEQUENCE WILL REQUIRE A RE-DESIGN OF THE BRIDGE.
- 7.2. THE SUPERSTRUCTURE DESIGN IS BASED ON THE USE OF BOTH INTERNAL & EXTERNAL PRESTRESSING WITH THE FOLLOWING PARAMETERS:

COEFFICIENT OF FRICTION PER RADIAN	0.25
WOBBLE FACTOR K - 1/m (FOR INTERNAL ONLY)	0.004
DRAW-IN	5 mm
RELATIVE HUMIDITY	85%

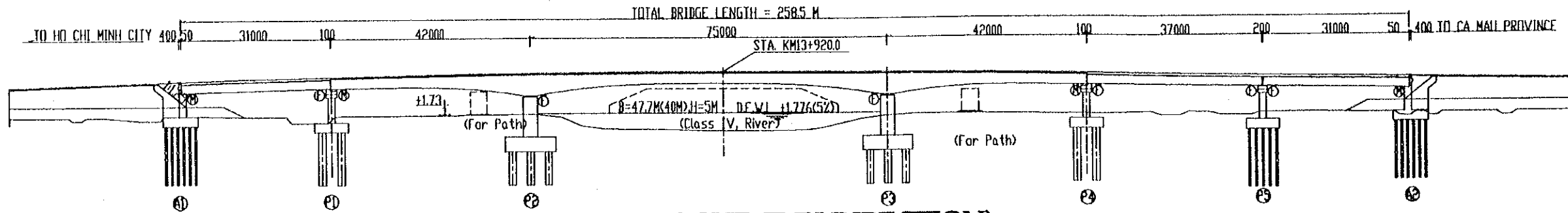
- 7.3. ANCHOR BAR SHALL BE CONFORMING TO THE REQUIREMENTS OF SS400 OF JS G3101.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	T. Kametani	K. Matsumoto	K. Enomoto	CAI RANG BRIDGE GENERAL STRUCTURAL NOTES	P3/BR7/0030
				SIGNATURE				
				DATE	20/9/2000	29/9/2000		
						5/10/2000		

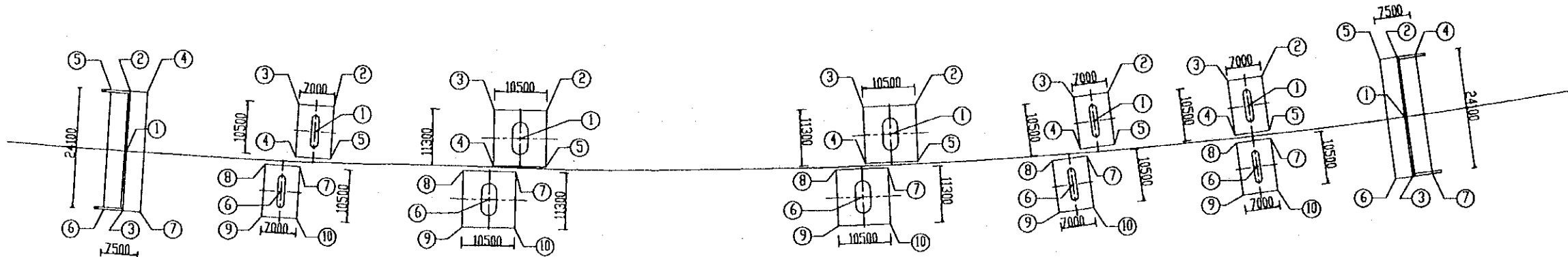
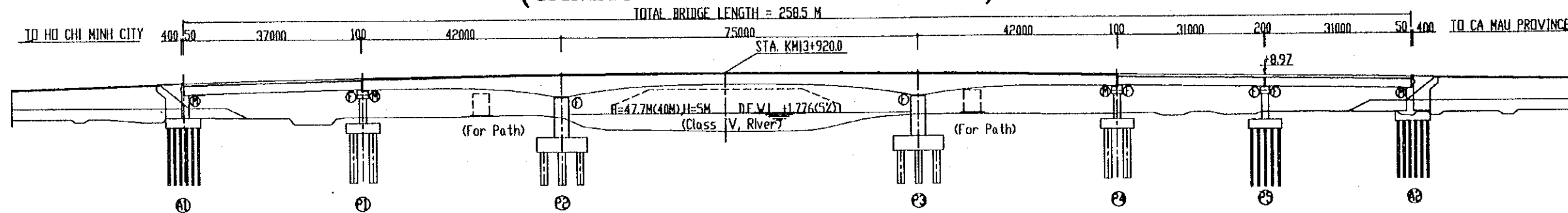


PROJECT NAME DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	IMPLEMENTATION AGENCY JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	EXECUTING AGENCY SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	JICA STUDY TEAM NIPPON KOEI CO.,LTD.	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE CAI RANG BRIDGE LOCATION MAP	DWG NO. P3VBR70040	
				NAME	T. Kametani	K. Matsumoto			K. Enomoto
				SIGNATURE	<i>T. Kametani</i>	<i>K. Matsumoto</i>			<i>K. Enomoto</i>
				DATE	20/9/2000	29/9/2000	5/10/2000		

(HOCHIMINH-CAMAU DIRECTION)



(CAMAU-HOCHIMINH DIRECTION)



COORDINATES TABLE

POINT	A1		P1		P2		P3		P4		P5		A2	
	N	E	N	E	N	E	N	E	N	E	N	E	N	E
1	582671.884	1105324.552	582641.908	1105301.346	582605.937	1105280.671	582542.965	1105240.650	582509.343	1105216.825	582484.342	1105197.828	582456.147	1105183.032
2	582677.518	1105313.900	582641.268	1105295.069	582604.312	1105273.131	582541.801	1105233.026	582510.002	1105210.550	582485.001	1105191.552	582463.842	1105173.759
3	582666.251	1105335.204	582647.456	1105298.341	582613.337	1105278.498	582550.484	1105238.930	582515.389	1105215.020	582490.388	1105196.022	582448.452	1105192.306
4	582674.335	1105312.217	582642.547	1105307.623	582607.561	1105288.210	582544.129	1105248.274	582508.684	1105223.100	582483.683	1105204.103	582460.841	1105171.269
5	582680.965	1105315.723	582636.359	1105304.351	582598.537	1105282.843	582535.447	1105242.370	582503.297	1105218.630	582478.296	1105199.633	582466.613	1105176.057
6	582669.699	1105337.027	582641.385	1105315.167	582604.811	1105294.356	582541.015	1105254.241	582506.280	1105229.896	582476.453	1105207.336	582451.223	1105194.605
7	582666.251	1105335.204	582640.745	1105308.890	582603.153	1105286.823	582539.814	1105246.622	582506.939	1105223.621	582477.112	1105201.060	582445.450	1105189.817
8			582646.933	1105312.162	582612.202	1105292.150	582548.525	1105252.485	582512.326	1105228.091	582482.499	1105205.530		
9			582642.024	1105321.444	582606.469	1105301.888	582542.216	1105261.859	582505.621	1105236.171	582475.794	1105213.611		
10			582635.836	1105318.172	582597.420	1105296.561	582533.505	1105255.997	582500.234	1105231.701	582470.407	1105209.141		

NOTES  
IF FOR STANDARD STRUCTURE NOTES SEE DRAWING No.P3/BR7/0030

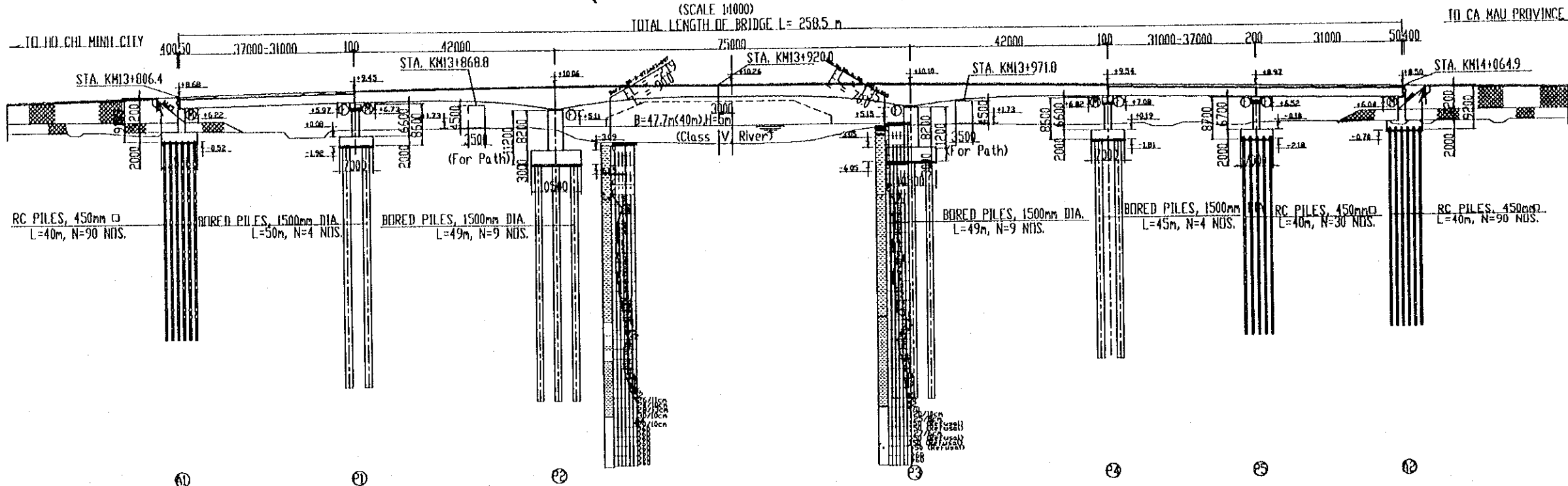
PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	T. Kametani	K. Matsumoto	K. Enomoto	CAI RANG BRIDGE GENERAL COORDINATES OF BRIDGE	P3/BR7/0030
				SIGNATURE	SIGNATURE	SIGNATURE		
				DATE	DATE	DATE		



## SIDE ELEVATION (CA MAU - HO CHI MINH DIRECTION)

(SCALE 1/1000)

TOTAL LENGTH OF BRIDGE L = 258.5 m



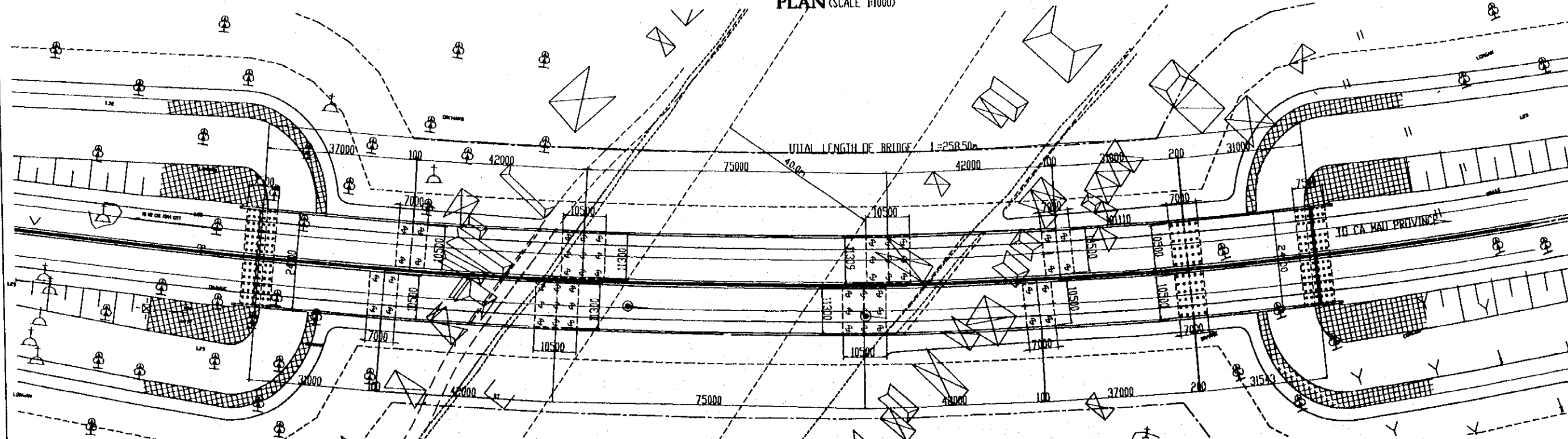
DATUM LEVEL: -75.00

GRADIENT	VERTICAL CURVE R=4015 L=200.01m	
SUPERELEVATION	-2%	
DESIGN LEVELS (m)	8.678	9.547
EXISTING LEVELS (m)	1.350	1.470
CHAINAGE	3770.00	3810.00

CHAINAGE	EXISTING LEVELS (m)	DESIGN LEVELS (m)
3770.00	1.350	8.678
3780.00	1.350	
3782.50	1.350	
3785.20	0.750	
3790.00	1.350	
3797.50	0.670	
3800.00	0.670	
3802.50	1.678	
3810.00	1.470	
3820.00	1.280	
3889.50	1.280	
3892.00	1.430	
3894.00	1.430	
3895.00	1.400	
3896.00	1.420	
3897.00	1.510	
3898.00	1.630	
3898.50	1.000	10.117
3899.00	-0.770	
3899.50	-1.490	
3900.00	-1.530	
3907.00	-1.610	
3917.00	-1.930	
3920.00	-1.950	
3928.00	-2.010	
3937.00	-1.800	
3940.00	-1.500	
3949.00	0.500	
3953.00	1.000	
3960.00	1.380	10.040
3967.00	1.440	
3980.00	1.330	
3990.00	1.210	
4000.00	1.150	
4010.00	0.480	
4012.00	0.780	
4016.00	0.780	
4018.00	1.480	
4020.00	1.460	
4022.00	1.460	
4025.00	0.960	
4033.50	0.960	
4040.00	1.400	8.973
4050.00	1.240	
4057.50	1.240	
4060.00	0.370	
4062.00	1.170	
4064.00	1.170	
4065.50	0.790	8.498
4075.00	0.470	
4080.00	1.270	
4083.00	1.270	
4090.00	1.270	
4100.00	1.310	

## PLAN (SCALE 1/1000)



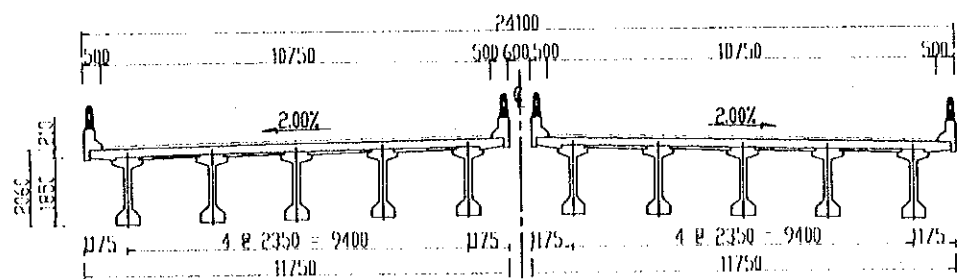
PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KOEI CO.,LTD.	NAME T. Kametani SIGNATURE <i>T. Kametani</i> DATE 20/9/2000	NAME K. Matsumoto SIGNATURE <i>K. Matsumoto</i> DATE 29/9/2000	NAME K. Enomoto SIGNATURE <i>K. Enomoto</i> DATE 5/10/2000	CAI RANG BRIDGE GENERAL GENERAL VIEW-SHEET 1	P3/087/0060



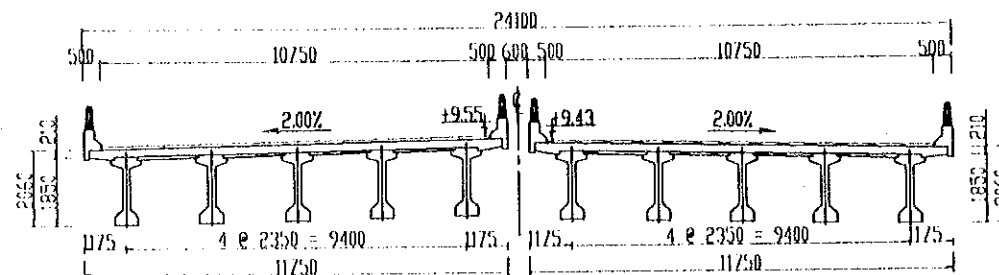
# TYPICAL SECTIONS FOR SUPERSTRUCTURE

(SCALE 1:200)

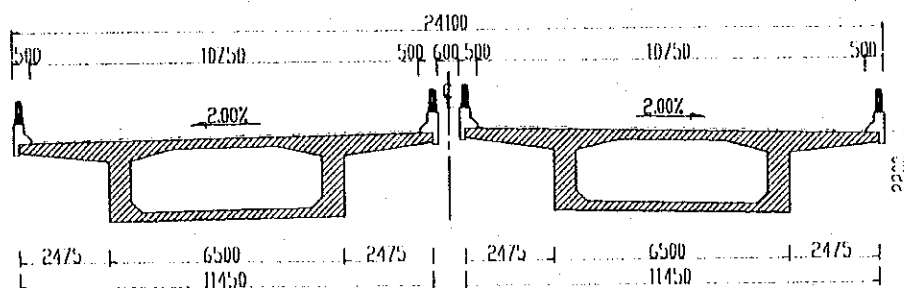
**AT ABUTMENT A1**



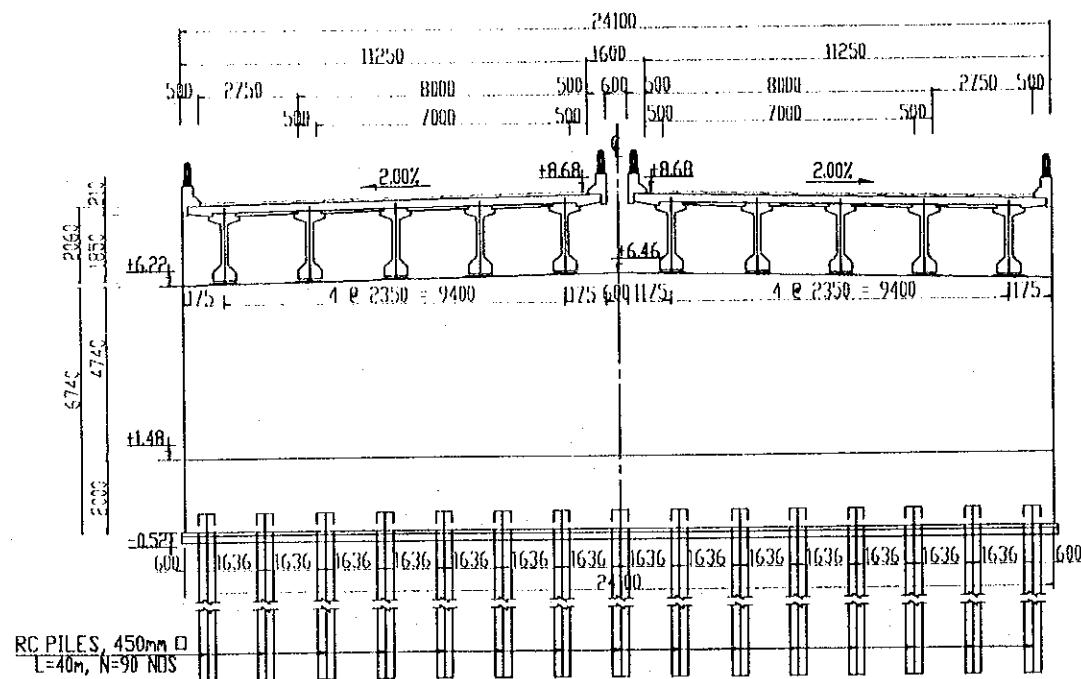
**AT PIER P1**



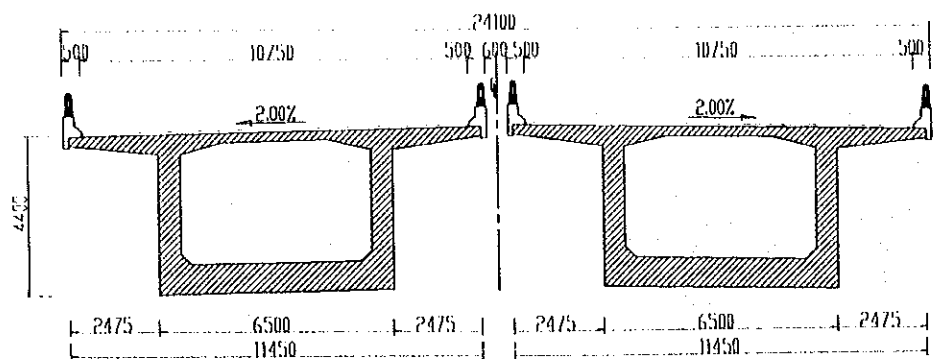
**AT CENTER SPAN & END SPAN**



**A-A (ABUTMENT A1)**



**AT PIER P2 & PIER P3**

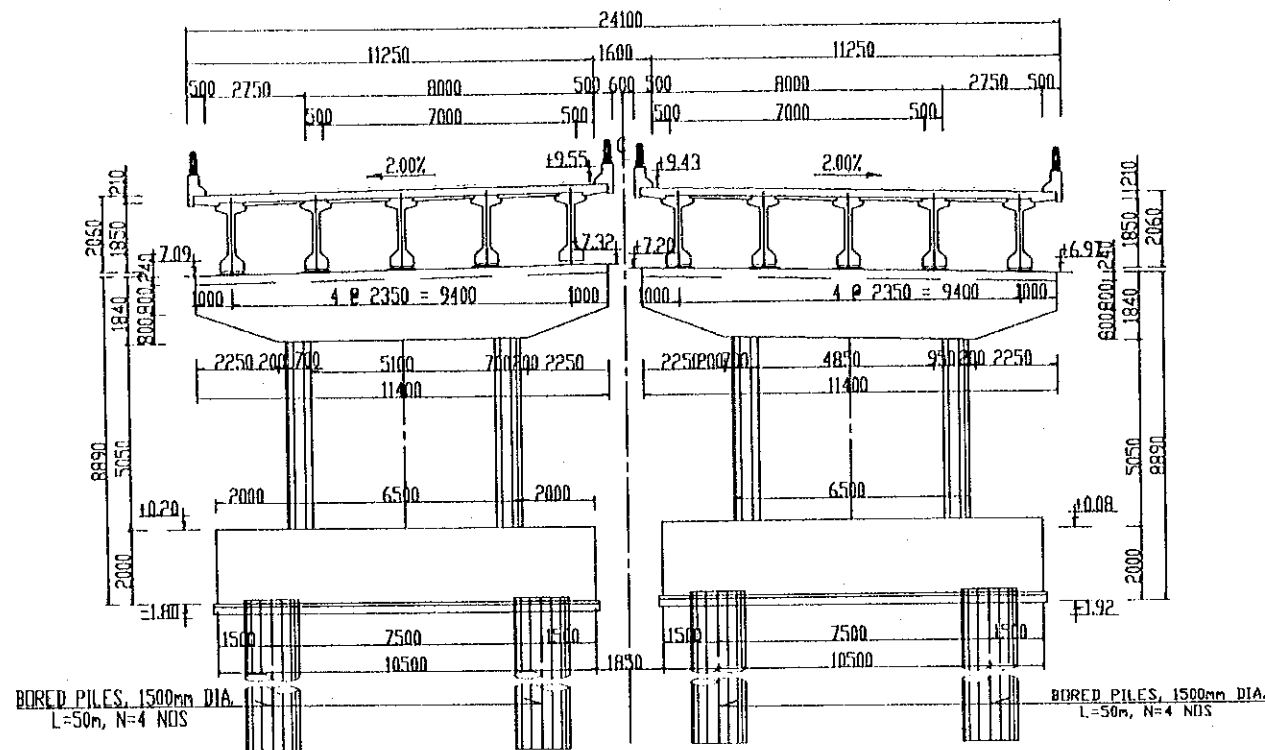


PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KORI CO.,LTD.	T. Kametani	K. Matsumoto	K. Enonoto	CAI RANG BRIDGE GENERAL VIEW-SHEET 2	P3/BK7/0070
				NAME				
				SIGNATURE				
				DATE	20/9/2000	29/9/2000	5/10/2000	

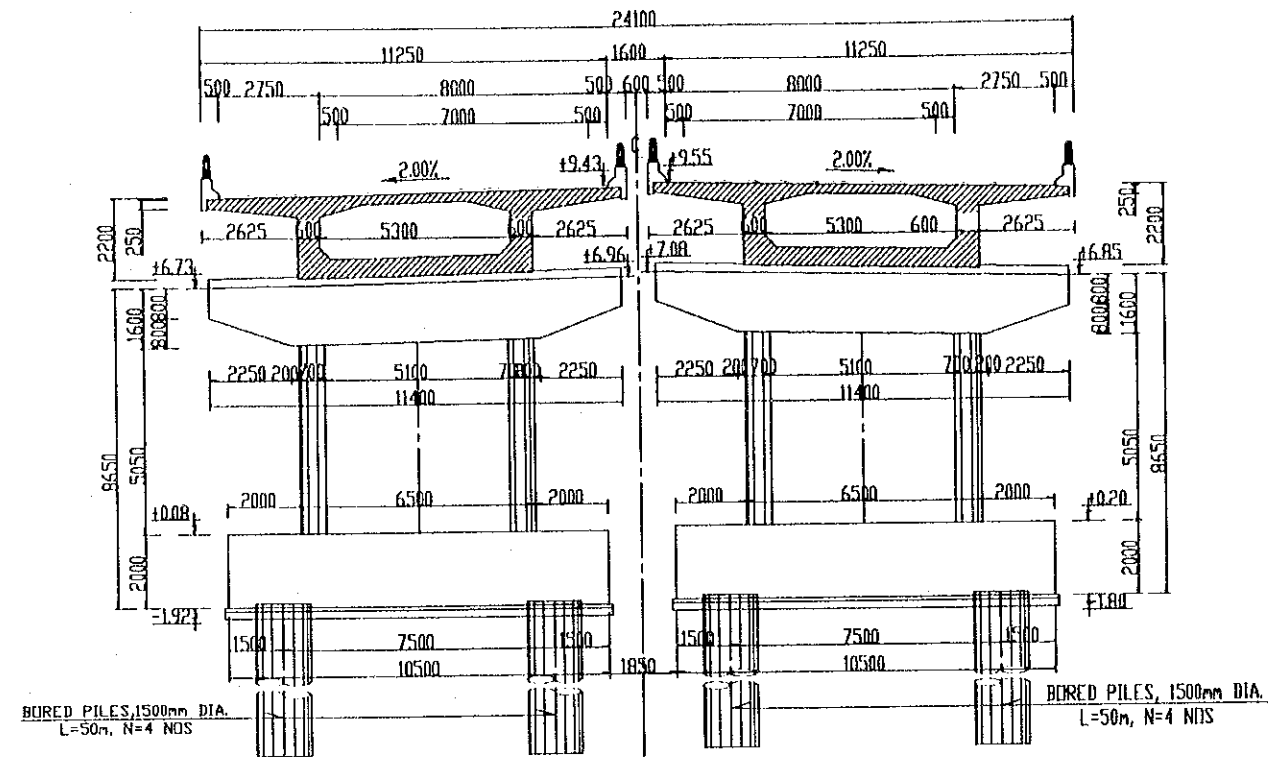
# CROSS - SECTIONS

(SCALE 1:200)

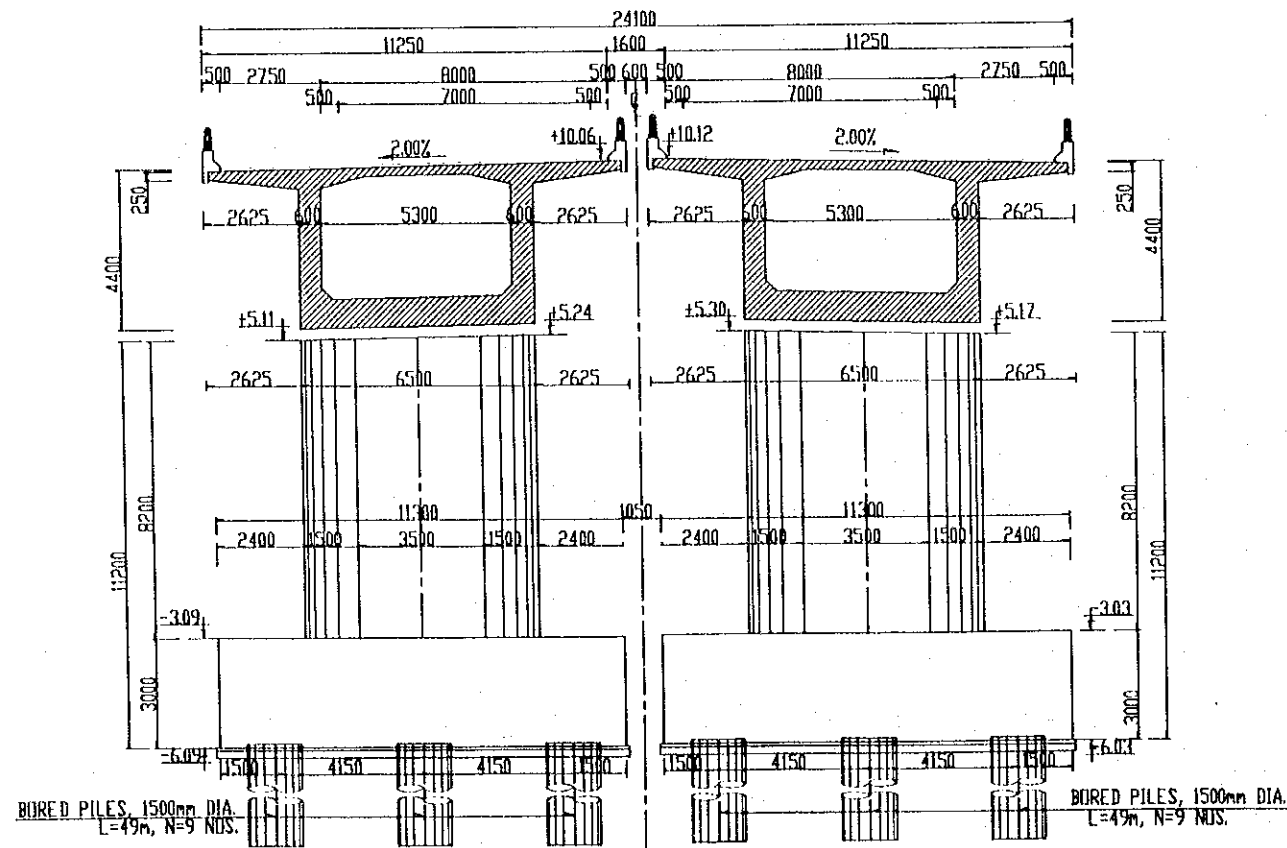
### B - B (PIER P1)



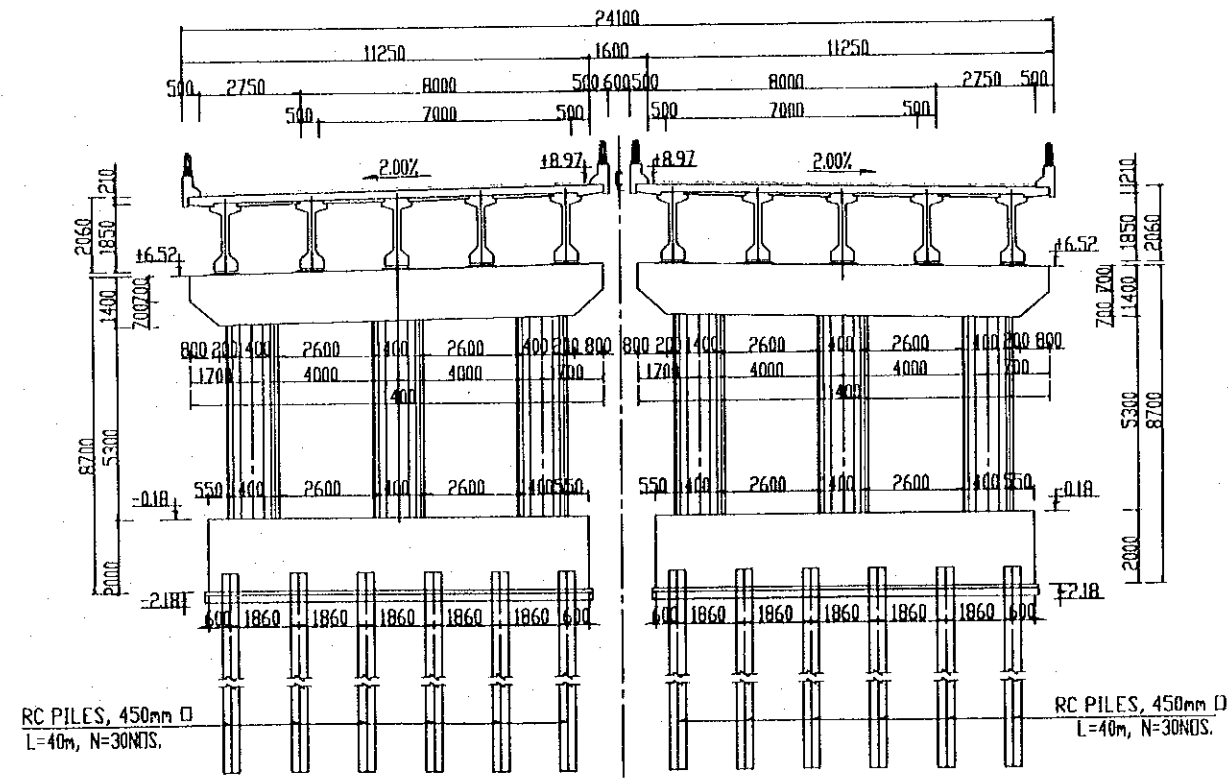
### C - C (PIER P1)



### D - D (PIER P2)



### E - E (PIER P5)



## NOTES

FOR STANDARD STRUCTURAL NOTES SEE DRAWING No.P3/BR7/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	T. Kametani	K. Matsumoto	K. Enomoto	CAI RANG BRIDGE GENERAL VIEW-SHEET 3	P3/BR7/0080
				SIGNATURE	SIGNATURE	SIGNATURE		
				DATE	DATE	DATE		

## QUANTITY TABLE OF BRIDGE

ITEMS	UNIT	SUPERSTRUCTURE		ABUTMENTS	PIERS	MISCELLANEOUS WORKS			TOTAL	
		APPROACH BRIDGE	MAIN BRIDGE			DRAINAGE	LIGHTING-BASE	RAILING		
CONCRETE	CLASS B	m <sup>3</sup>	781.4	3164.0					3945.4	
	CLASS D	m <sup>3</sup>	719.6		1164.0	4704.2			6887.8	
	CLASS E	m <sup>3</sup>			1280.7	3327		0.5	2639	4871.9
	CLASS G	m <sup>3</sup>			59.8	428				488.2
PC - STEEL	12 S15.2	ton		26.0					26.0	
	12 S12.7	ton	39.9	581					98.1	
	3 S12.7	ton	0.8	8.4					9.3	
SHEATHING	CABLES #80/85	n	4300.0	6260.2					10560.2	
	CABLES #90/100	n		1969.5					1969.5	
	CABLES #50/55	n	362.0						362.0	
	FLAT DUCT 25x80mm	n		3732.7					3732.7	
CEMENT GROUT IN SHEATHING	m <sup>3</sup>	22.3	26.4						48.7	
STEEL JOINT KEY	set		2400						2400	
ANCHORAGE	CABLES 12S15.2	live	set		72.0				72.0	
	CABLES 12S12.7	live	set	260.0	344.0				604.0	
		dead	set		0.0				0.0	
	CABLES 3S12.7	live	set	104.0	326.0				430.0	
		dead	set		326.0				326.0	
REINFORCEMENT	D < = 14	ton	154.5	97.7	39.8	55.8			41.3	389.1
	16 < = D < = 25	ton	78.3	488.0	303.0	378.5		0.2		1152.0
	25 < D < = 32	ton	0.0	0.0	0.9	134.7				135.6
	TOTAL	ton	224.7	497.7	220.8	569.0		0.2	41.3	1553.7
EXPANSION JOINT	50mm	n	64.5							64.5
	100mm	n		43.0						43.0
BEARING	Non-Shrink Mortar	m <sup>3</sup>		4.0						4.0
	550x300x57	set	40.0							40.0
	600x300x57	set	20.0							20.0
	660x560x125	set			8.0					8.0
	1410x1410x214	set			8.0					8.0
ANCHORAGE BAR	#75 mm, L=1250mm	set	40.0	16.0						56.0
	#125 mm, L=2500mm	set		16.0						16.0
HANDHOLES	set		4.0							4.0
PVC PILE	#50 mm	n			148.0					148.0
DRAINAGE	Pot	n					35.0			35.0
	Pile # 180	n					58.5			58.5
LIGHTING POLE	set		2.0	4.0						6.0
PAVEMENT	WATER PROOFING 5 mm	m <sup>2</sup>	2128.5	3418.6						5547.1
	ALPHALT CONCRETE 70 mm	m <sup>2</sup>	2128.5	3418.6						5547.1
GEOTEXTILE	m <sup>2</sup>			1324.0						1324.0
STONE MASONRY T=300mm	m <sup>3</sup>			1753.5						1753.5
BLINDING AGGREGATE T=100mm	m <sup>3</sup>			541.4						541.4
RIP RAP	m <sup>3</sup>				3915.9					3915.9
BLINDING STONE	m <sup>3</sup>			66.4	83.3					149.7
WOODEN PILE, L=3m	n			1771.7						1771.7
EXCAVATION	m <sup>3</sup>			4500.5	15173.3					19673.8
SCAFFOLDING	H < = 4m	m <sup>2</sup>		284.8	1288.8					1573.6
	4m < H < 30m	m <sup>2</sup>		1124.4	1336.1					2460.5
SUPPORT	m <sup>3</sup>			24.6	422.0					446.6
FILLING	m <sup>3</sup>			122.3	2236.9					3459.7
COFFERDAMS	LARSEN IV	n			7440.0					7440.0
	I 400	n			1680.0					1680.0
	C 300	n			2165.2					2165.2

### NOTES

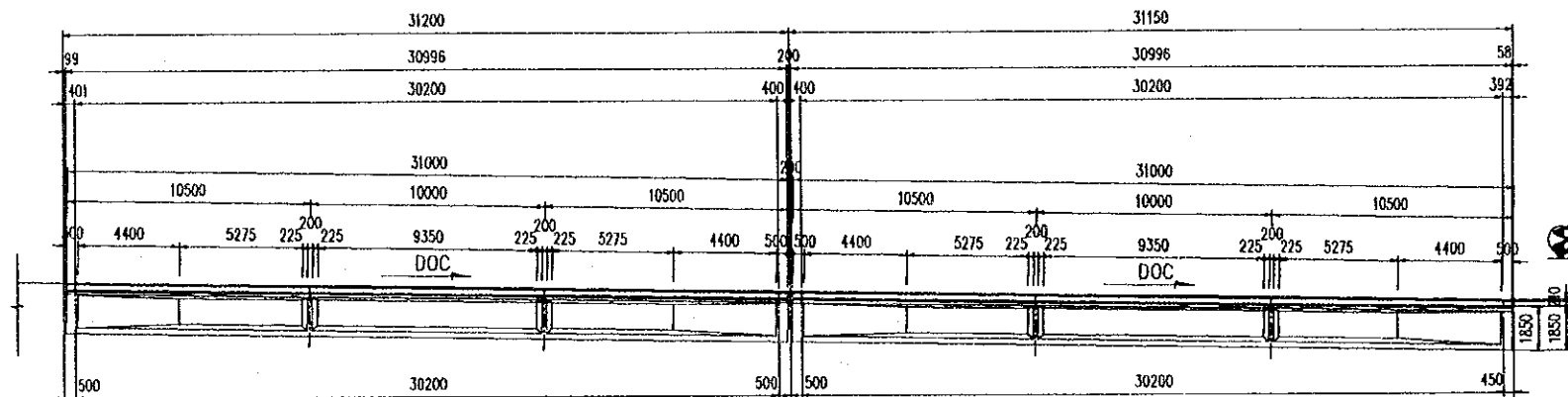
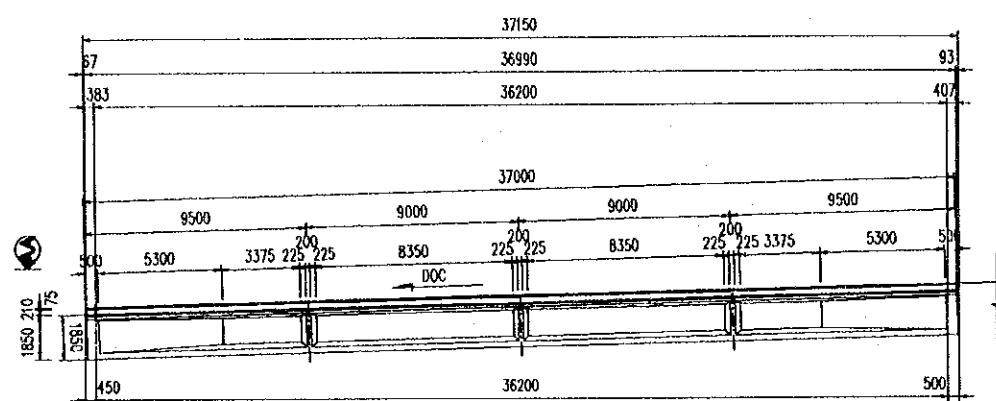
1. FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO P3/BR7/0030.
2. QUANTITY OF PILE CONCRETE IN THE TABLE DOES NOT INCLUDE THE VOLUME OF TRIMMING OUT OF THE PILE HEAD.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.	
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K. Matsumoto	K. Enomoto	SUPERSTRUCTURE-APPROACH BRIDGE QUANTITY TABLE OF BRIDGE	P3/BR7/0090
				SIGNATURE	<i>T. Kametani</i>	<i>K. Matsumoto</i>	<i>K. Enomoto</i>		
				DATE	20/9/2000	29/9/2000	5/10/2000		

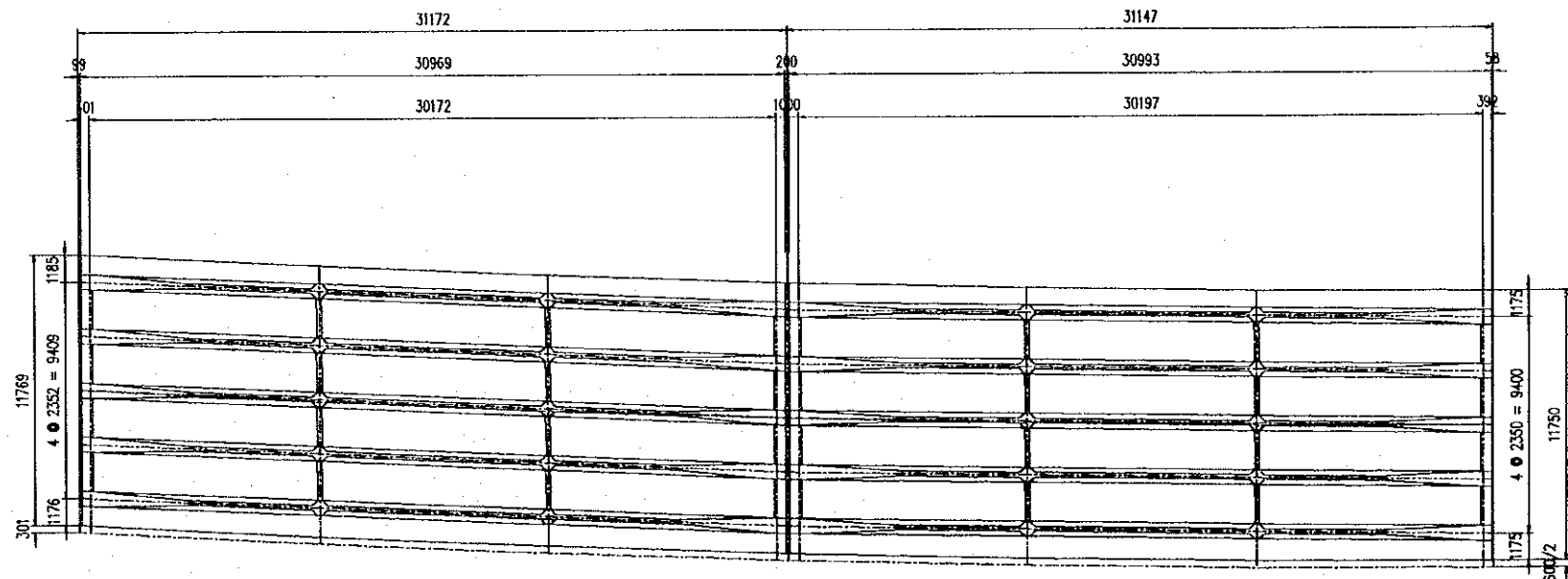
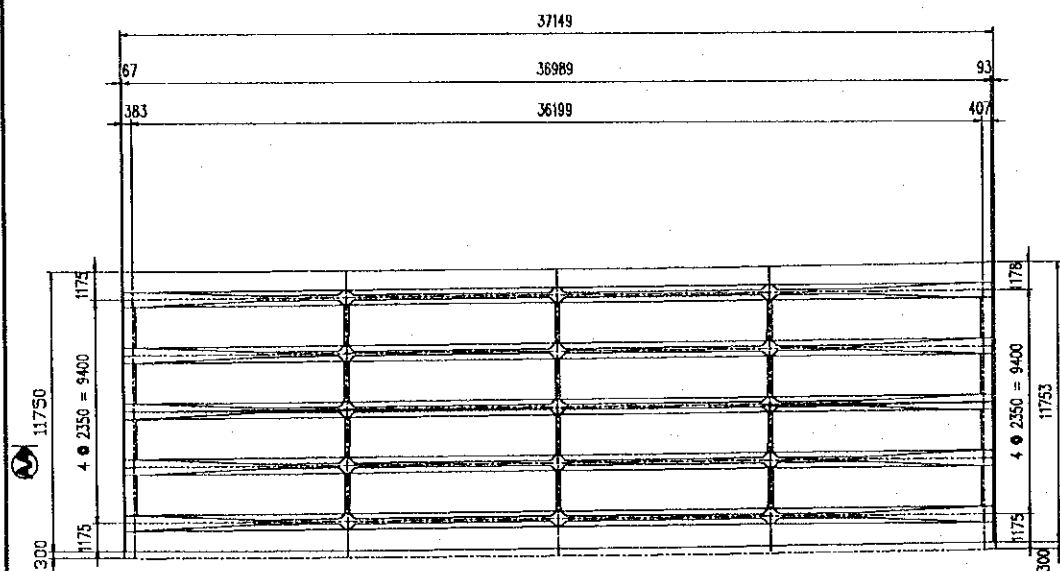
## **II. SUPERSTRUCTURE - APPROACH BRIDGE**

CA MAU - HO CHI MINH DIRECTION

SECTION A - A



SECTION B - B



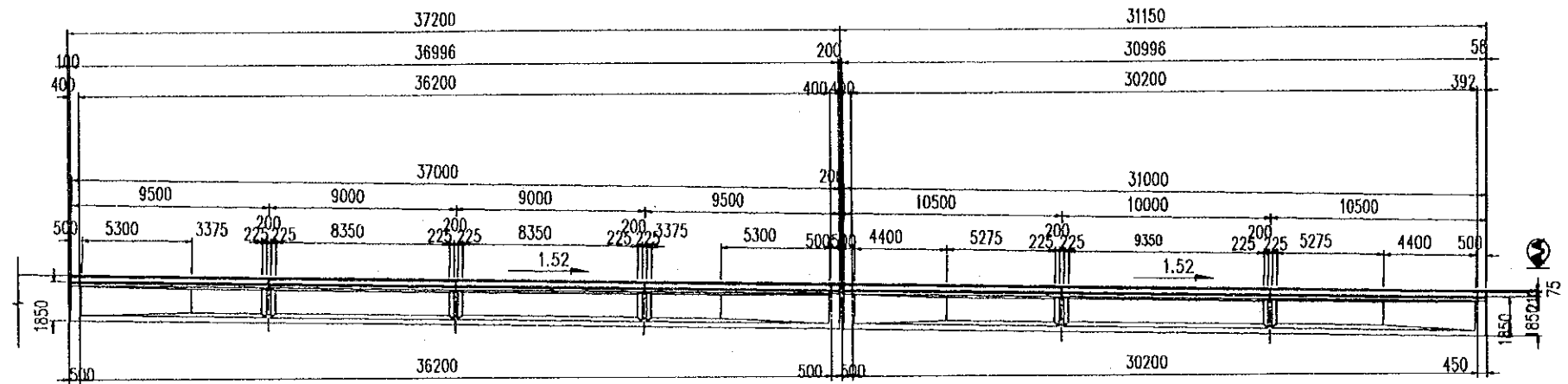
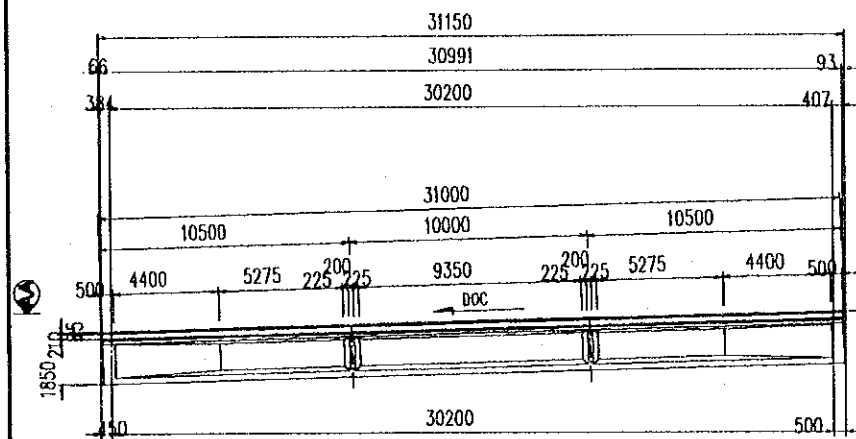
NOTES :

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR7/0030.

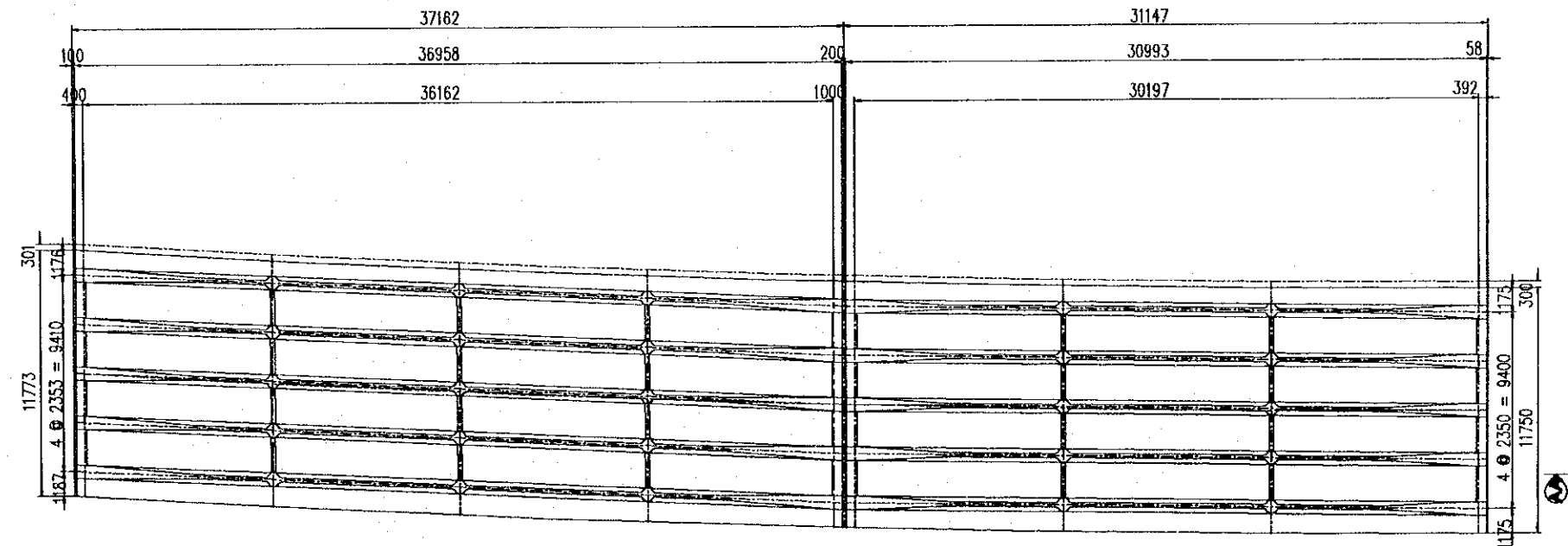
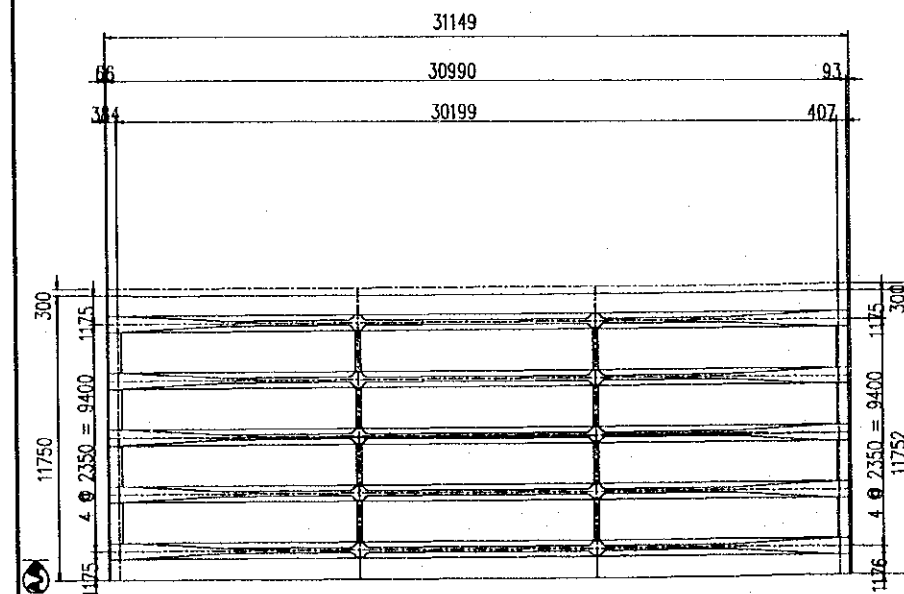
PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KOEI CO.,LTD.	T. Kametani	K. Matsumoto	K. Enomoto	CAI RANG BRIDGE SUPERSTRUCTURE - APPROACH BRIDGE GIRDER LAYOUT - SHEET 1	P3/BR7/0100
				DATE: 20/9/2000	DATE: 29/9/2000	DATE: 5/10/2000		

HO CHI MINH - CA MAU DIRECTION

SECTION A - A



SECTION B - B



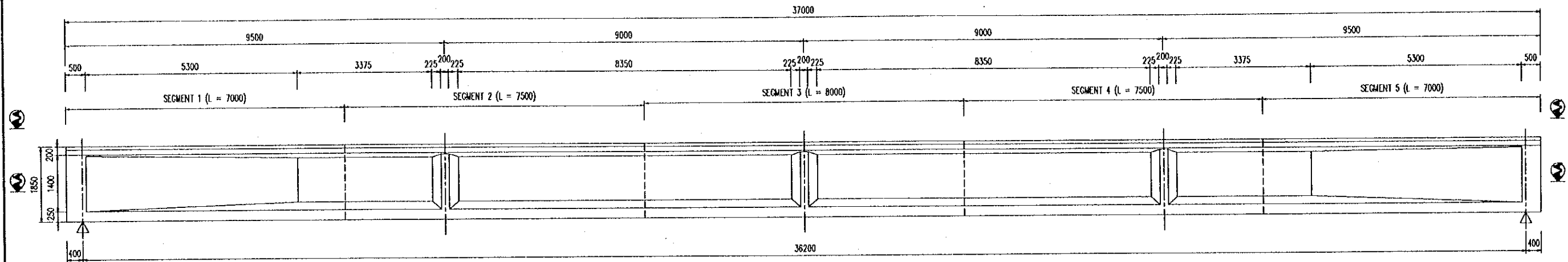
NOTES :

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR7/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KOEI CO.,LTD.	T. Kametani	K. Matsumoto	K. Enomoto	CAI RANG BRIDGE SUPERSTRUCTURE - APPROACH BRIDGE GIRDER LAYOUT - SHEET 2	P3/BR7/0110
				NAME				
				SIGNATURE				
				DATE	20/9/2000	29/9/2000	5/10/2000	

### ELEVATION

(SCALE : 1:100)

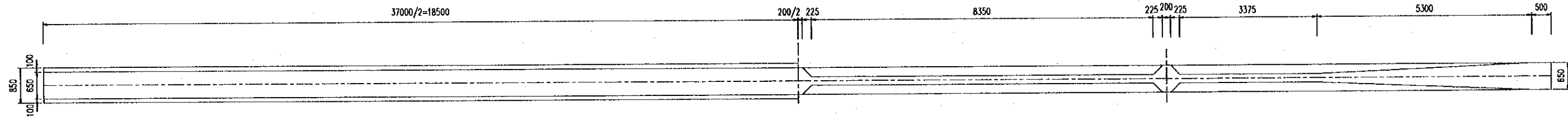


### 1/2 SECTION A - A

(SCALE : 1:100)

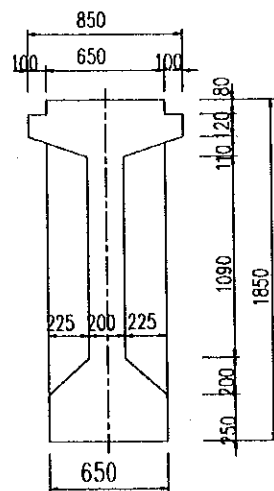
### 1/2 SECTION B - B

(SCALE : 1:100)



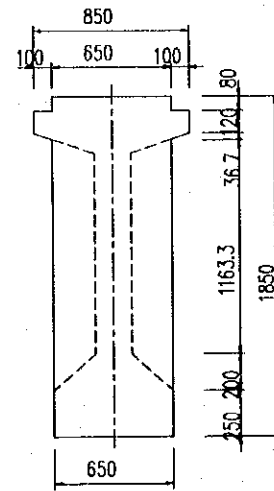
### SECTION C - C

(SCALE : 1:40)



### SECTION D - D

(SCALE : 1:40)



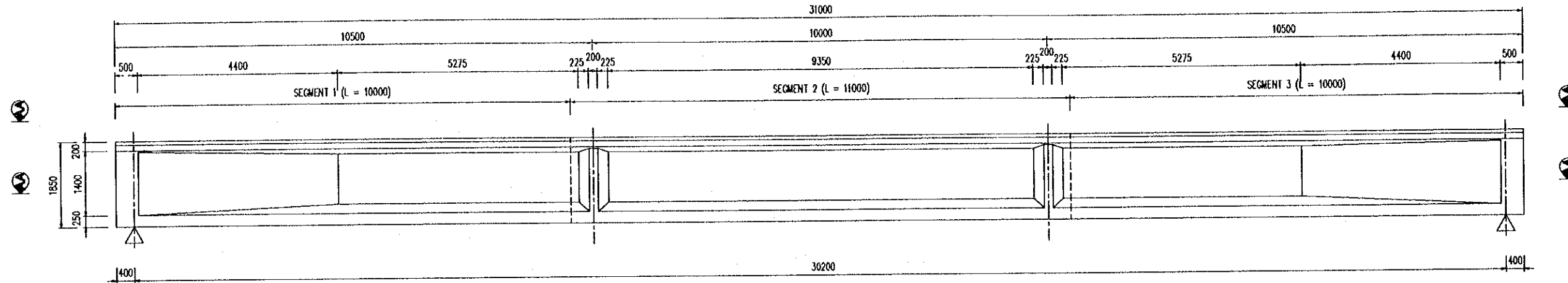
### NOTES :

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR7/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KOBI CO.,LTD.	NAME: T. Kametani SIGNATURE: <i>T. Kametani</i> DATE: 20/9/2000	NAME: K. Matsumoto SIGNATURE: <i>K. Matsumoto</i> DATE: 29/9/2000	NAME: K. Enomoto SIGNATURE: <i>K. Enomoto</i> DATE: 5/10/2000	CAI RANG BRIDGE SUPERSTRUCTURE - APPROACH BRIDGE GENERAL VIEW OF "T" GIRDER L = 37M, H = 1.85M	P3/BR7/0120

# ELEVATION

(SCALE : 1/100)

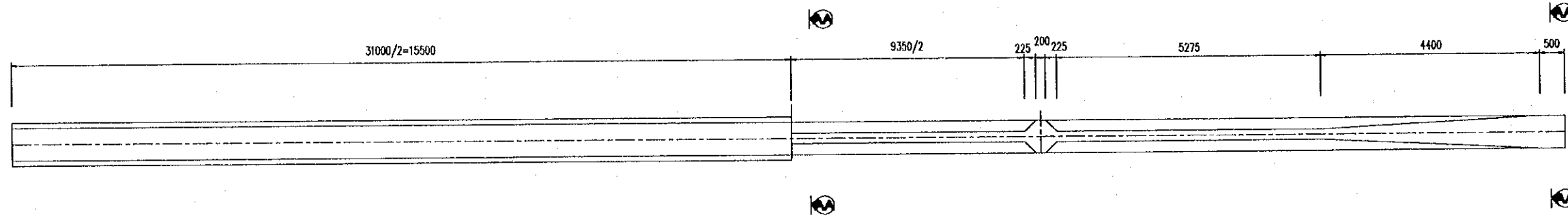


## 1/2 SECTION A - A

(SCALE : 1/200)

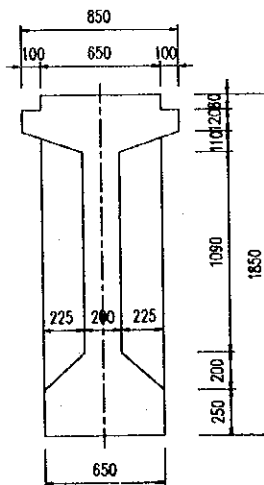
## 1/2 SECTION B - B

(SCALE : 1/200)



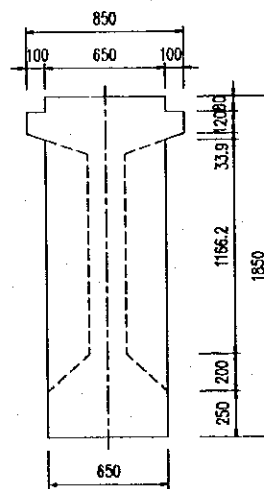
## SECTION C - C

(SCALE : 1/40)



## SECTION D - D

(SCALE : 1/40)



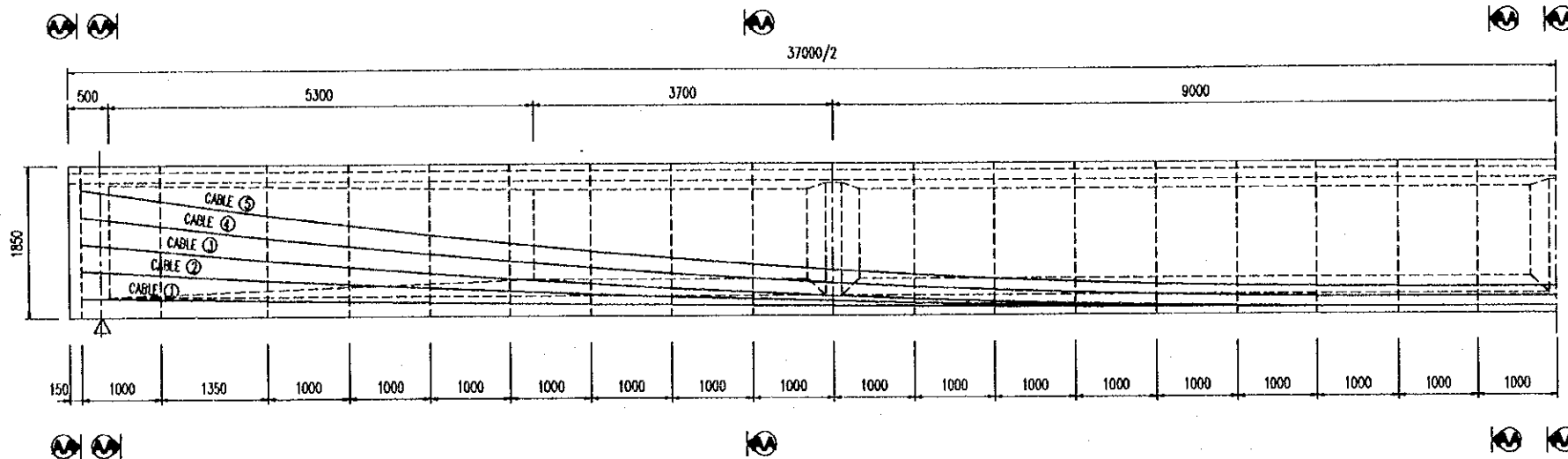
### NOTES :

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR7/0030.

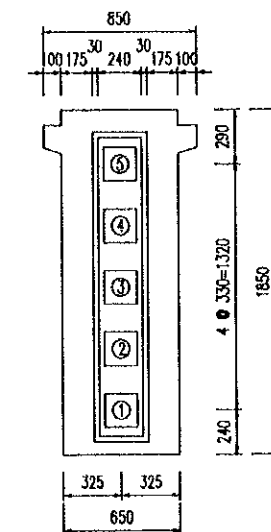
PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KOEI CO.,LTD.	T. Kametani	K. Matsumoto	K. Enomoto	CAI RANG BRIDGE SUPERSTRUCTURE - APPROACH BRIDGE GENERAL VIEW OF T GIRDER L=31M,H=1.85M	P3/BR7/0130
				NAME SIGNATURE DATE	NAME SIGNATURE DATE	NAME SIGNATURE DATE		



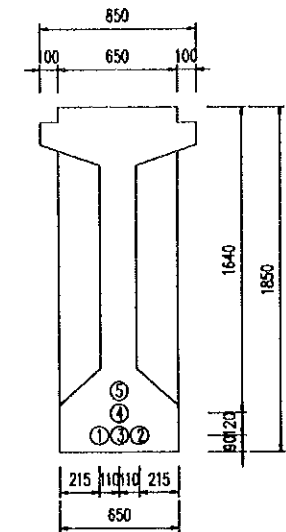
# TENDON ARRANGEMENT OF GIRDER FOR CAI RANG BRIDGE (Ls = 36.2M)



**SECTION A - A**  
(SCALE 1 : 40)



**SECTION E - E**  
(SCALE 1 : 40)



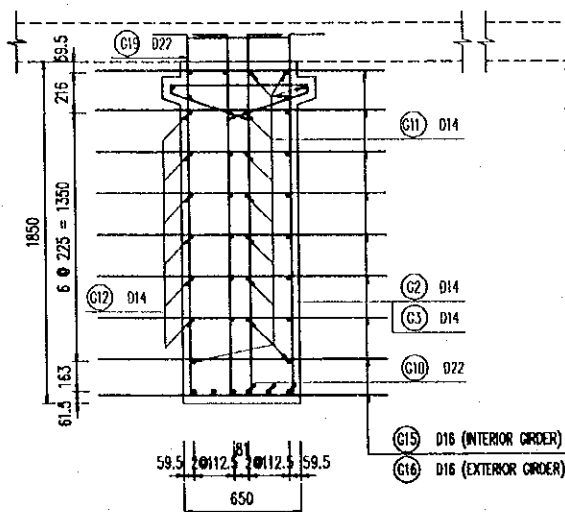
**POSITION OF CABLE CENTER FROM BOTTOM OF GIRDER**

L	18350	17350	16000	15000	14000	13000	12000	11000	10000	9000	8000	7000	6000	5000	4000	3000	2000	1000
CABLE ①	240	223	200	185	171	158	146	136	126	118	110	104	99	95	92	91	90	90
CABLE ②	570	515	443	395	350	308	270	236	205	178	155	135	119	106	97	92	90	90
CABLE ③	900	807	686	604	528	458	394	336	285	239	200	166	139	117	102	93	90	90
CABLE ④	1230	1112	961	857	762	673	593	520	455	398	348	306	271	245	225	214	210	210
CABLE ⑤	1560	1418	1235	1111	995	889	792	704	626	556	496	446	404	372	349	335	330	330

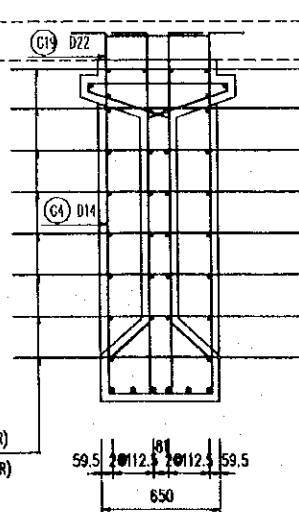
PC CABLE 12.5 12.7 (UNIT : MM)					
CABLE No	L1	L2	L3	2x Σ Li	a
①	1000	15351	2000	36702	0°59'
②	1002	15355	2000	36714	2°52'
③	1004	15373	2000	36754	5°20'
④	1007	15385	2000	36784	6°42'
⑤	1010	15401	2000	36822	8°4'

WEIGHT = 183.78 x 9.29 kg/m = 1707.3 kg  
 SHEATHING Ø 80/85 : 183.78 M  
 ANCHORAGE : 10 SET  
 CEMENT GROUT IN SHEATHING : 0.923 M3  
 CONCRETE : 28.563 M3

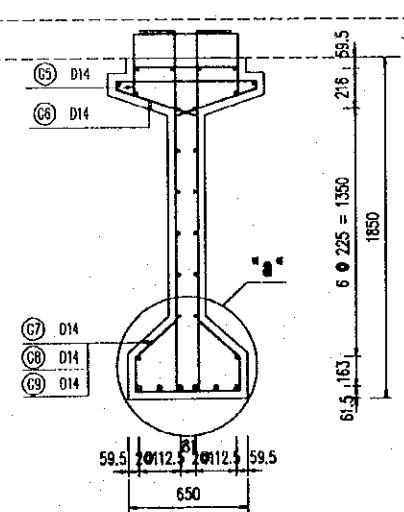
**SECTION B - B**  
(SCALE : 1:40)



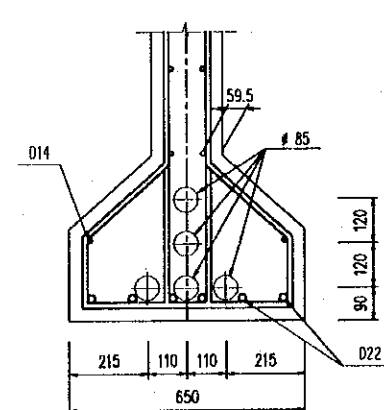
**SECTION C - C**  
(SCALE : 1:40)



**SECTION D - D**  
(SCALE : 1:40)



**DETAIL "a"**  
(SCALE 1:20)

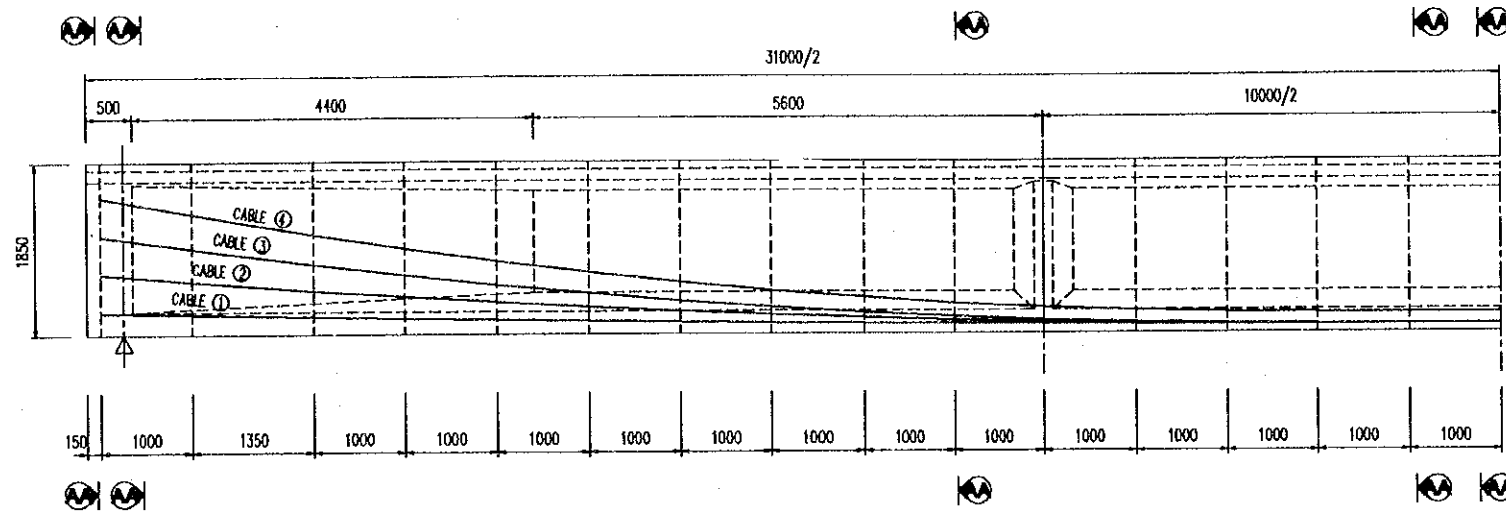


**NOTES :**

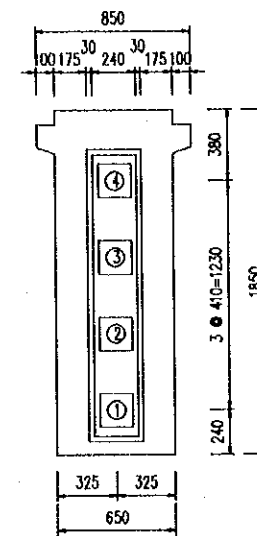
FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR7/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KOEI CO.,LTD.	NAME T. Kametani SIGNATURE DATE 20/9/2000	NAME K. Matsumoto SIGNATURE DATE 29/9/2000	NAME K. Enomoto SIGNATURE DATE 5/10/2000	CAI RANG BRIDGE SUPERSTRUCTURE - APPROACH BRIDGE TENDON ARRANGEMENT OF T GIRDER L=37M, H=1.85M	P3/BR7/0140

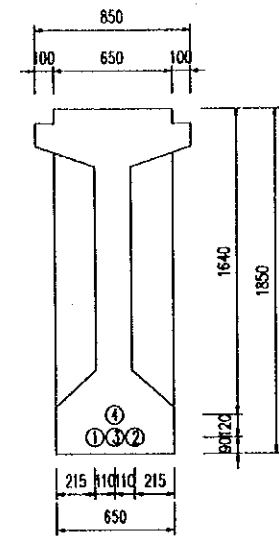
# TENDON ARRANGEMENT OF GIRDER FOR CAI RANG BRIDGE (Ls = 30.2M, W = 11.75M)



**SECTION A - A**  
(SCALE 1 : 40)



**SECTION E - E**  
(SCALE 1 : 40)



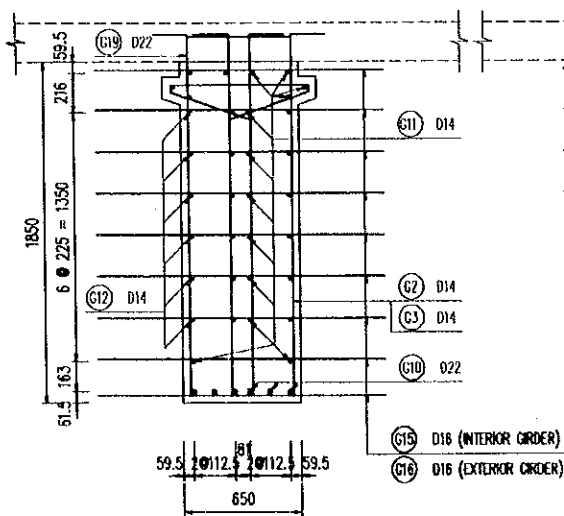
**POSITION OF CABLE CENTER FROM BOTTOM OF GIRDER**

L	15350	14350	13000	12000	11000	10000	9000	8000	7000	6000	5000	4000	3000	2000	1000
CABLE ①	240	219	192	175	159	144	132	121	111	104	98	95	91	90	90
CABLE ②	650	572	472	406	346	292	245	204	169	141	118	103	95	90	90
CABLE ③	1060	925	752	637	533	440	358	287	227	178	139	112	96	90	90
CABLE ④	1470	1294	1070	921	786	665	558	466	388	324	274	238	217	210	210

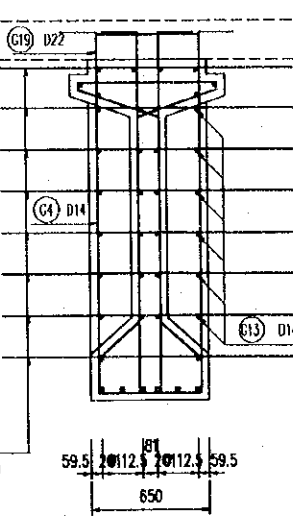
PC CABLE 12 S 12.7					(UNIT : MM)
CABLE No	L1	L2	L3	2x Σ L1	a
①	1000	12351	2000	30702	1'12"
②	1003	12363	2000	30732	4'28"
③	1009	12388	2000	30794	7'42"
④	1015	12413	2000	30856	9'58"

WEIGHT = 123.08 x 9.29 kg/m = 1143.5 kg  
 SHEATHING Ø 80/85 : 123.08 M  
 ANCHORAGE : 8 SET  
 CEMENT GROUT IN SHEATHING : 0.62 M<sup>3</sup>  
 CONCRETE : 24.00 M<sup>3</sup>

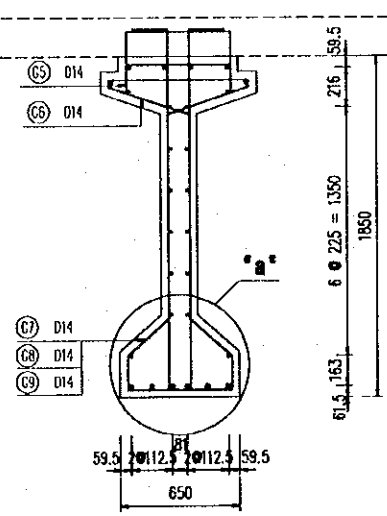
**SECTION B - B**  
(SCALE : 1:40)



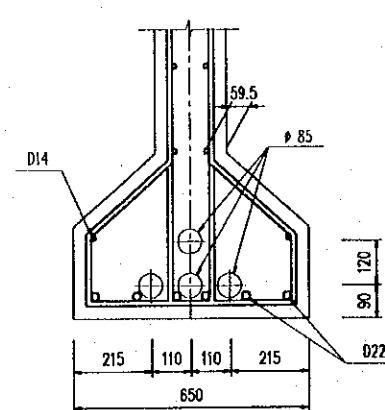
**SECTION C - C**  
(SCALE : 1:40)



**SECTION D - D**  
(SCALE : 1:40)



**DETAIL "a"**  
(SCALE 1:20)



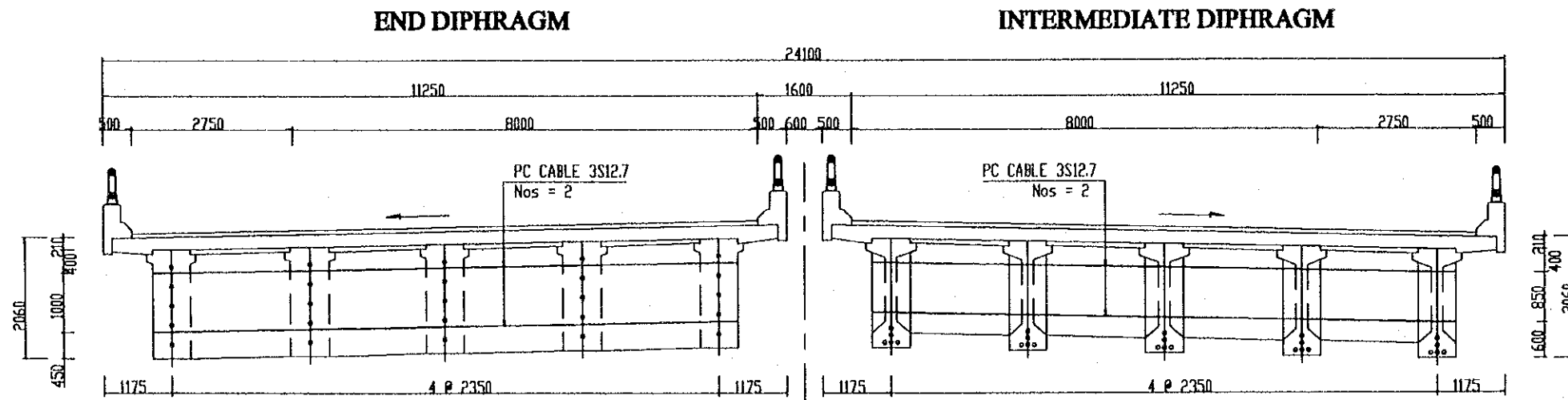
**NOTES :**

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR7/0030.

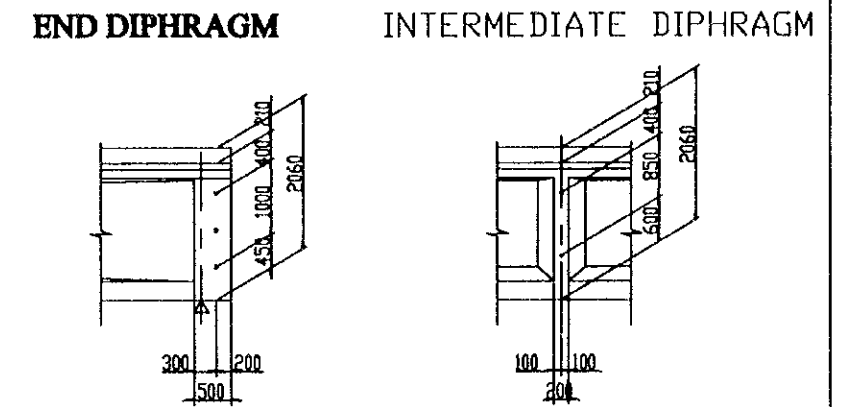
PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KOEI CO.,LTD.	NAME: T. Kametani SIGNATURE: [Signature] DATE: 20/9/2000	NAME: K. Matsumoto SIGNATURE: [Signature] DATE: 29/9/2000	NAME: K. Enomoto SIGNATURE: [Signature] DATE: 5/10/2000	CAI RANG BRIDGE SUPERSTRUCTURE - APPROACH BRIDGE TENDON ARRANGEMENT OF T GIRDER L=30.2M, W=11.75M	P3/BR7/0150

## SECTION OF "I" GIRDER L = 37M

(SCALE 1 : 100)

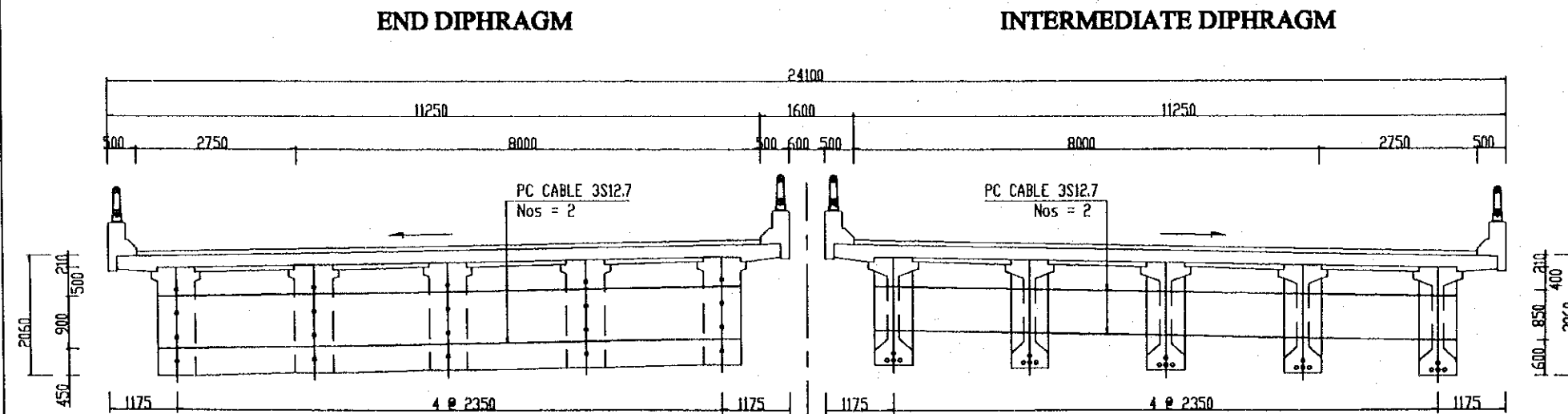


### PROFILE

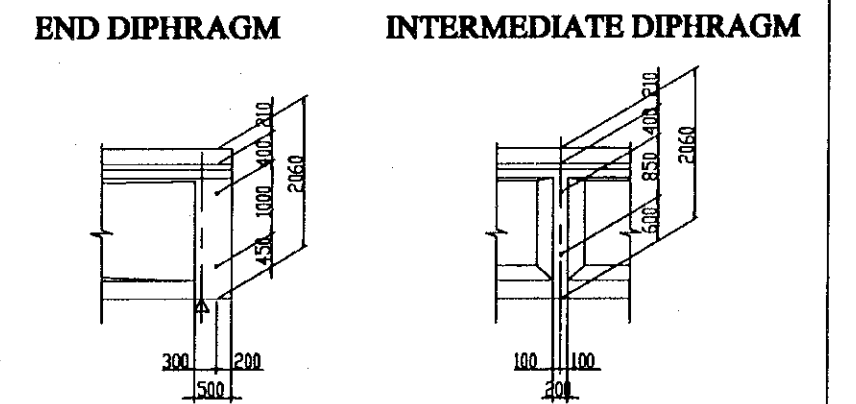


## SECTION OF "I" GIRDER L = 31M

(SCALE 1 : 100)



### PROFILE

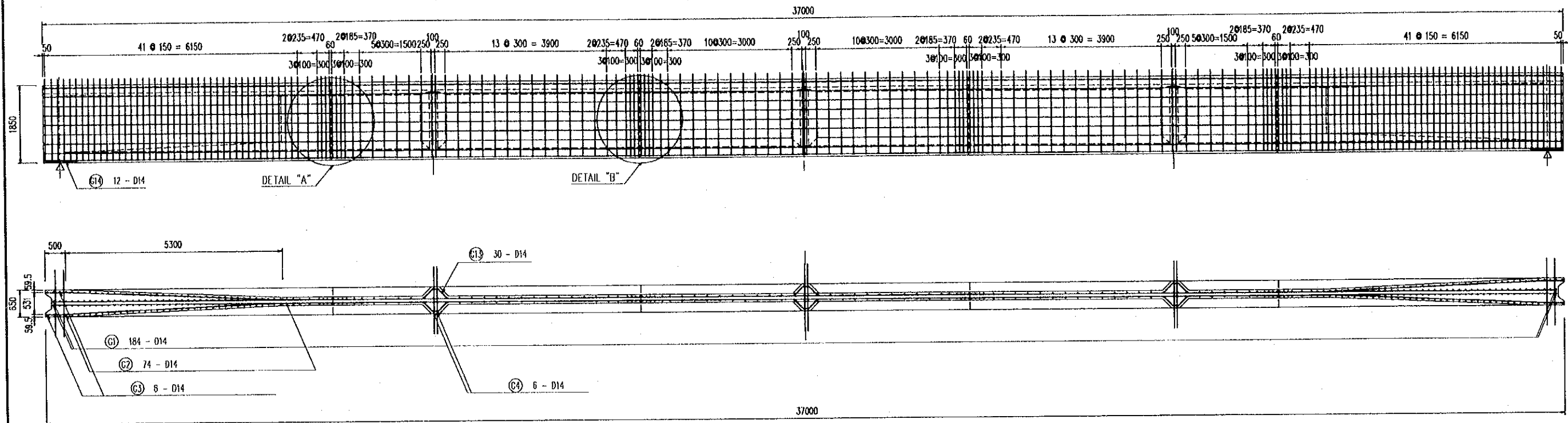


### TOTAL QUANTITY

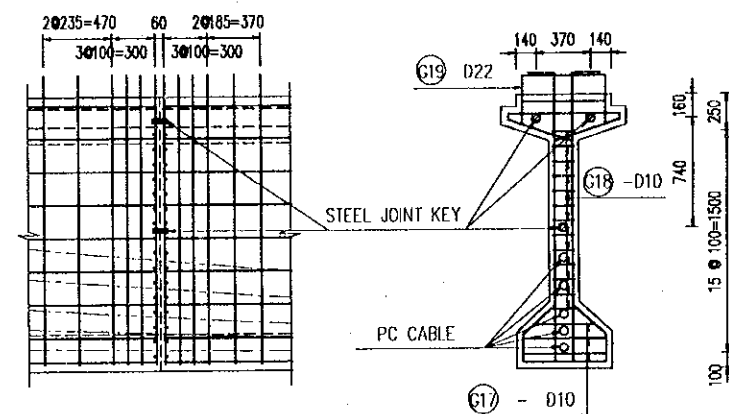
TOTAL WEIGHT OF PC CABLE 3S12.7 = 522.6 x 2.32 kg/m = 1212.4 (kg)  
 SHEATHING ϕ 50/55 : 522.6 M  
 ANCHORAGE : 104 SET  
 CEMENT GROUT IN SHEATHING : 1.03 M3

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME: T. Kametani SIGNATURE: DATE: 20/9/2000	NAME: K. Matsumoto SIGNATURE: DATE: 29/9/2000	NAME: K. Enomoto SIGNATURE: DATE: 5/10/2000	CAI RANG BRIDGE SUPERSTRUCTURE - APPROACH BRIDGE TENDON ARRANGEMENT OF DIAPHRAGMS	F3/BR/70160

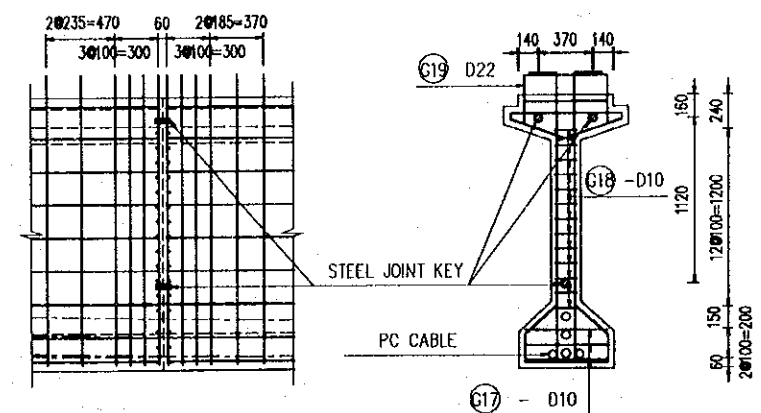
# REINFORCEMENT OF GIRDER FOR CAI RANG BRIDGE (FOR SPAN ON THE LEFT) (Ls = 36.2M)



**DETAIL "A"**  
(SCALE 1 : 50)



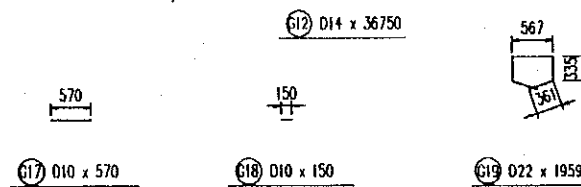
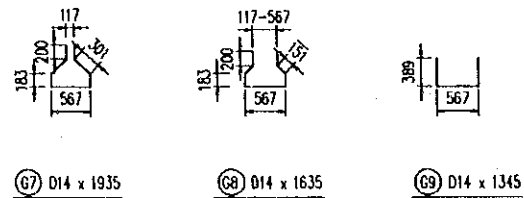
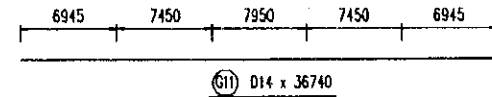
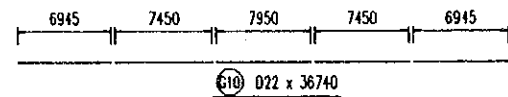
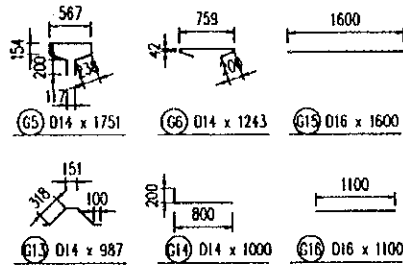
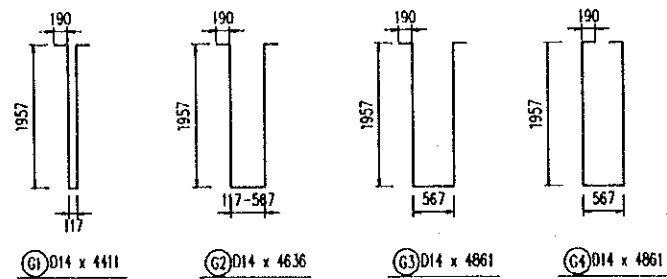
**DETAIL "B"**  
(SCALE 1 : 50)



**NOTES :**

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR7/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KOEI CO.,LTD.	T. Kametani	K. Matsumoto	K. Enomoto	CAI RANG BRIDGE SUPERSTRUCTURE - APPROACH BRIDGE REINFORCEMENT OF T GIRDER L = 37M (L=1.5M-SHEET 1)	P3/BR7/0170
				NAME SIGNATURE DATE	NAME SIGNATURE DATE	NAME SIGNATURE DATE		



**BAR LIST (FOR 1 GIRDER)**

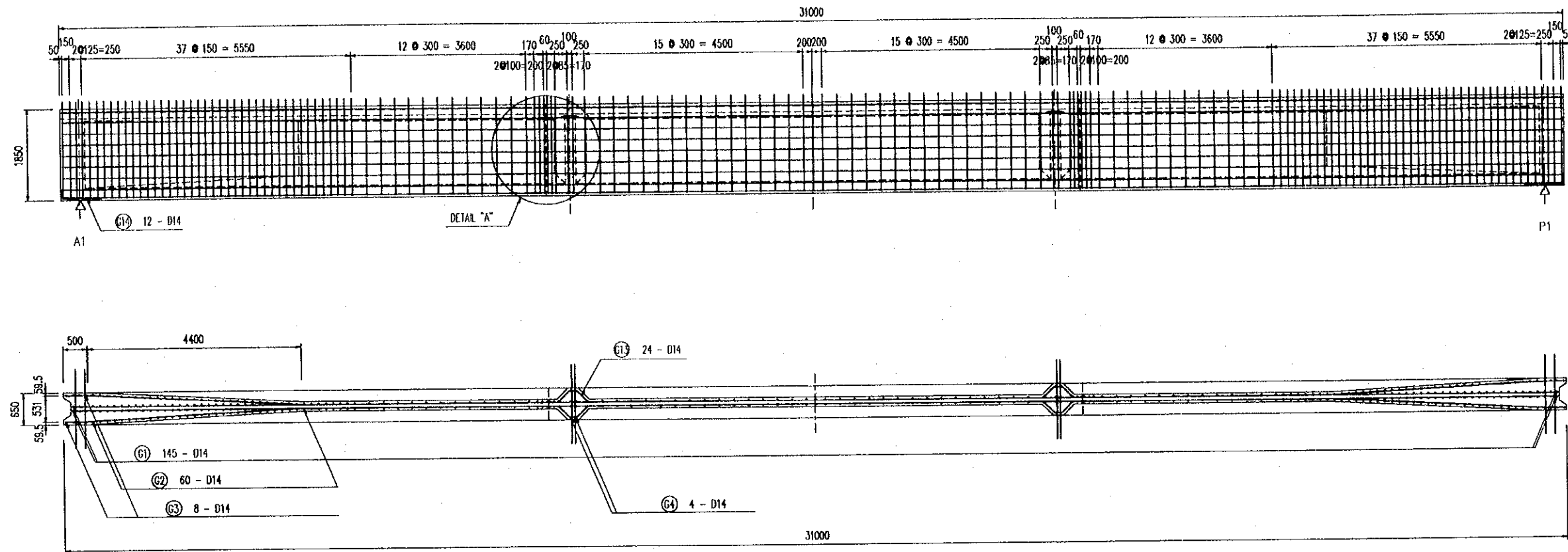
REINF No	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT (kg)	REMARKS
G1	14	4411	184	1.208	980.4	
G2	14	4636	74	1.208	414.4	AVERAGE
G3	14	4861	6	1.208	35.2	
G4	14	4861	6	1.208	35.2	
G5	14	1751	196	1.208	414.6	
G6	14	1243	196	1.208	294.3	
G7	14	1935	122	1.208	285.2	
G8	14	1635	74	1.208	146.2	AVERAGE
G9	14	1345	6	1.208	9.7	
G10	22	36740	6	2.984	657.8	
G11	14	36740	22	1.208	976.4	
G12	14	36750	12	1.208	532.7	
G13	14	987	30	1.208	35.8	
G14	14	1000	12	1.208	14.5	
G15	16	1600	84	1.578	212.1	INTERIOR GIRDER
G16	16	1100	84	1.578	145.8	EXTERIOR GIRDER
G17	10	570	24	0.617	8.4	
G18	10	150	104	0.617	9.6	
G19	22	1959	196	2.984	1122.4	
TOTAL				6185.0	(6118.7)	
				D10	18.0	(18.0)
				D14	4174.7	(4174.7)
				D16	212.1	(145.8)
				D22	1780.2	(1780.2)
STEEL JOINT KEY : 12 SET						

**NOTES :**

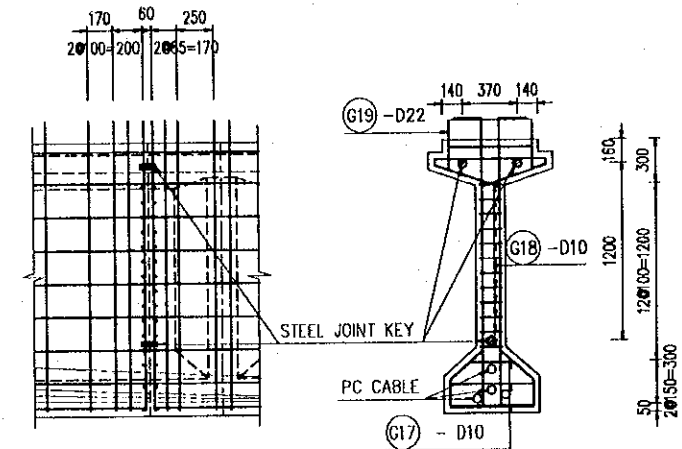
- FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR7/0030.
- THE VALUE OF INSIDE ( ) ARE FOR EXTERIOR GIRDER.

PROJECT NAME DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	IMPLEMENTATION AGENCY <b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	EXECUTING AGENCY SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	JICA STUDY TEAM NIPPON KOEI CO.,LTD.	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE CAI RANG BRIDGE SUPERSTRUCTURE - APPROACH BRIDGE REINFORCEMENT OF "I" GIRDER L = 37M,R-1.65M-SHEET2	DWG NO. P3/BR7/0180	
				NAME	T. Kametani	K. Matsumoto			K. Enomoto
				SIGNATURE	<i>T. Kametani</i>	<i>K. Matsumoto</i>			<i>K. Enomoto</i>
				DATE	20/9/2000	29/9/2000	5/10/2000		

**REINFORCEMENT OF GIRDER FOR CAI RANG BRIDGE (FOR SPAN ON THE LEFT)**  
**( Ls = 30.2M , W = 11.75M )**



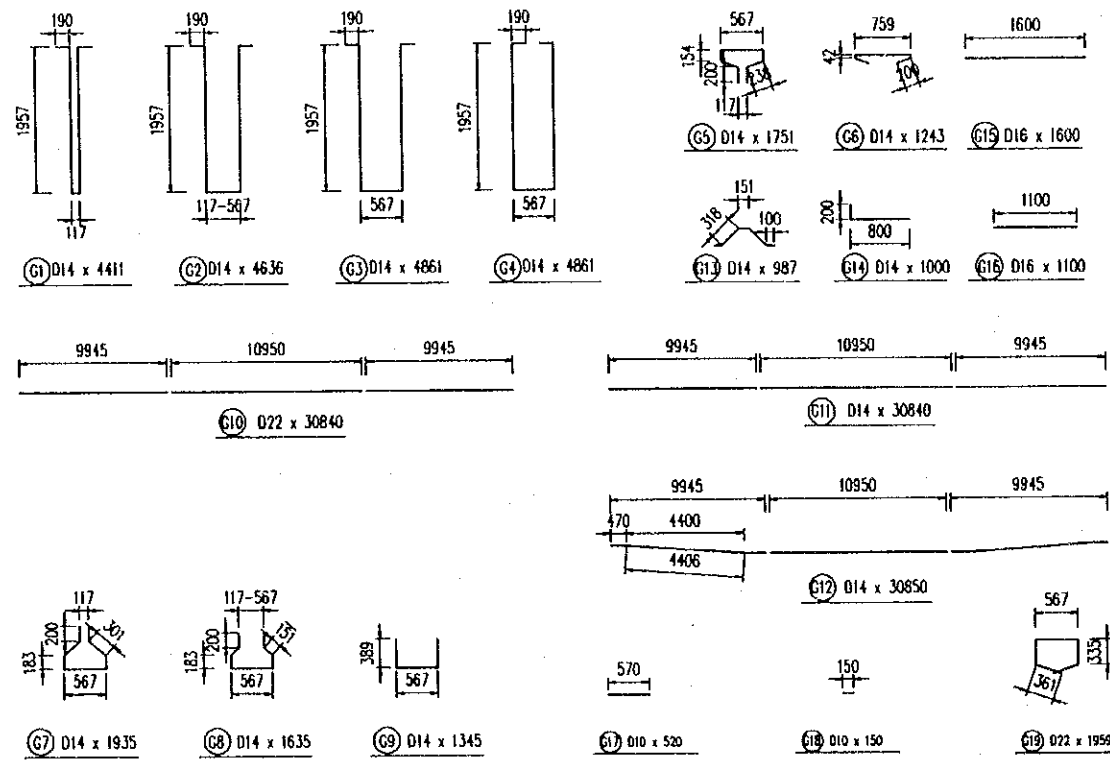
**DETAIL "A"**  
(SCALE 1 : 50)



**NOTES :**

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR7/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT ( MOT ) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME: T. Kametani SIGNATURE: DATE: 20/9/2000	NAME: K. Matsumoto SIGNATURE: DATE: 29/9/2000	NAME: K. Enomoto SIGNATURE: DATE: 5/10/2000	CAI RANG BRIDGE SUPERSTRUCTURE - APPROACH BRIDGE REINFORCEMENT OF T GIRDER L=31M,W=11.5M - SHEET 1	P3/BR7/0190



**BAR LIST (FOR 1 GIRDER)**

REF No	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT (kg)	REMARKS
G1	14	4411	145	1.208	772.6	
G2	14	4636	60	1.208	336.0	AVERAGE
G3	14	4861	8	1.208	47.0	
G4	14	4861	4	1.208	23.5	
G5	14	1751	155	1.208	327.9	
G6	14	1243	155	1.208	232.7	
G7	14	1935	89	1.208	208.0	
G8	14	1635	60	1.208	118.5	AVERAGE
G9	14	1345	8	1.208	13.0	
G10	22	30840	6	2.984	552.2	
G11	14	30840	22	1.208	819.6	
G12	14	30850	12	1.208	447.2	
G13	14	987	24	1.208	28.6	
G14	14	1000	12	1.208	14.5	
G15	16	1600	68	1.578	171.7	INTERIOR GIRDER
G16	16	1100	68	1.578	118.0	EXTERIOR GIRDER
G17	10	570	12	0.617	4.2	
G18	10	150	48	0.617	4.4	
G19	22	1959	155	2.984	906.1	
TOTAL			5027.8		4974.1	
			010	8.7	(8.7)	
			014	3389.2	(3389.2)	
			016	171.7	(118.0)	
			022	1458.3	(1458.3)	
STEEL JOINT KEY : 6 SET						

**NOTES :**

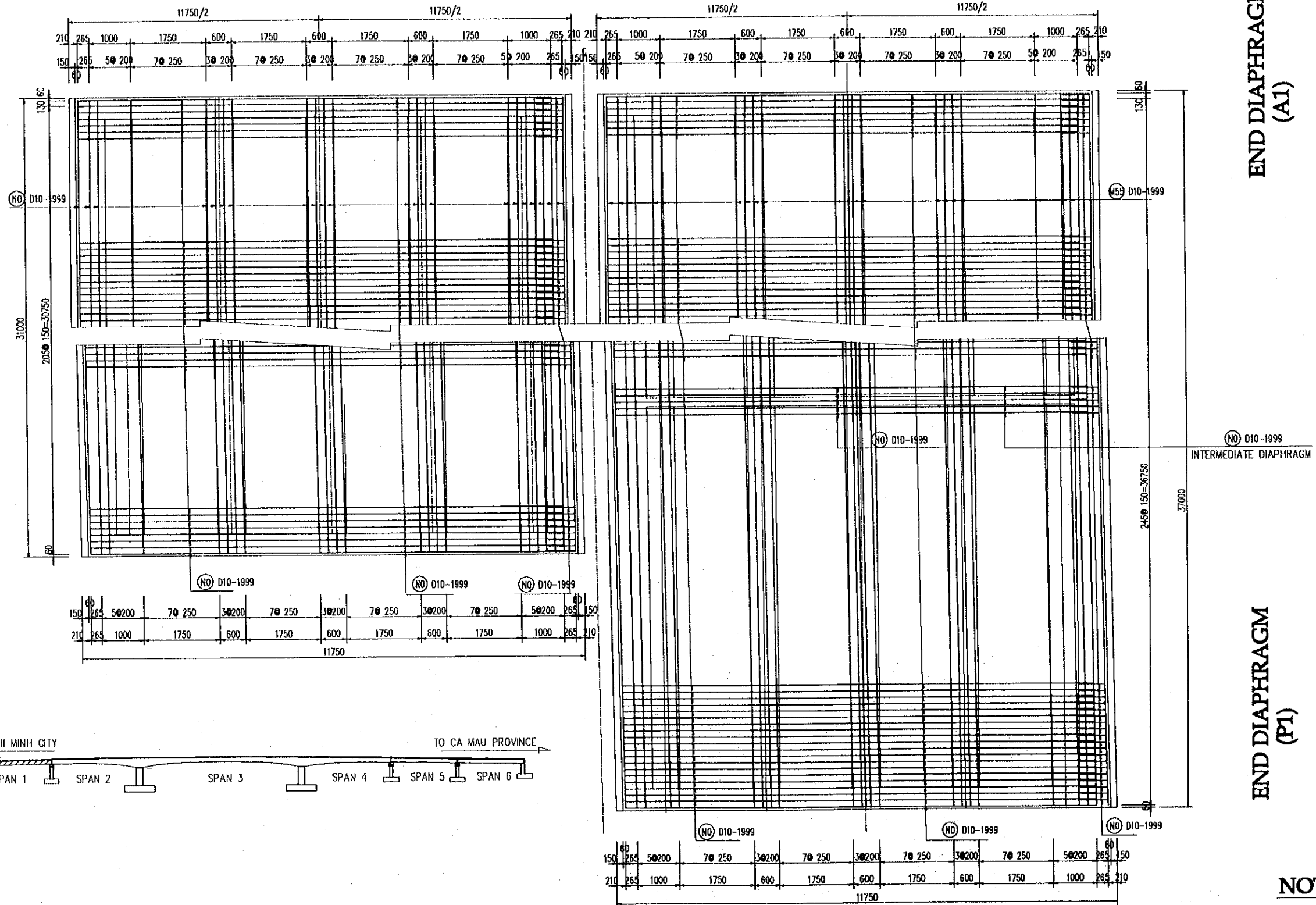
- FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR7/0030.
- THE VALUE OF INSIDE ( ) ARE FOR EXTERIOR GIRDER.

PROJECT NAME DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	IMPLEMENTATION AGENCY JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	EXECUTING AGENCY SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	JICA STUDY TEAM NIPPON KOEI CO.,LTD.	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE CAI RANG BRIDGE SUPERSTRUCTURE - APPROACH BRIDGE REINFORCEMENT OF T GIRDER L=31M,H=1.85M - SHEET2	DWG NO. P3/BR7/0200	
				NAME	T. Kametani	K. Matsumoto			K. Enomoto
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

PLAN

SCALE 1:100

BOTTOM REINFORCEMENT TOP REINFORCEMENT BOTTOM REINFORCEMENT TOP REINFORCEMENT



END DIAPHRAGM (A1)

END DIAPHRAGM (P1)

INTERMEDIATE DIAPHRAGM

NOTE:

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO.P3/BR7/0030

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	T. Kametani	K. Matsumoto	K. Enomoto	CAI RANG BRIDGE SUPERSTRUCTURE - APPROACH BRIDGE DECK SLAB REINFORCEMENT - SHEET 1	P3/BR7/0210
				SIGNATURE	SIGNATURE	SIGNATURE		
				DATE	DATE	DATE		
				20/9/2000	29/9/2000	5/10/2000		

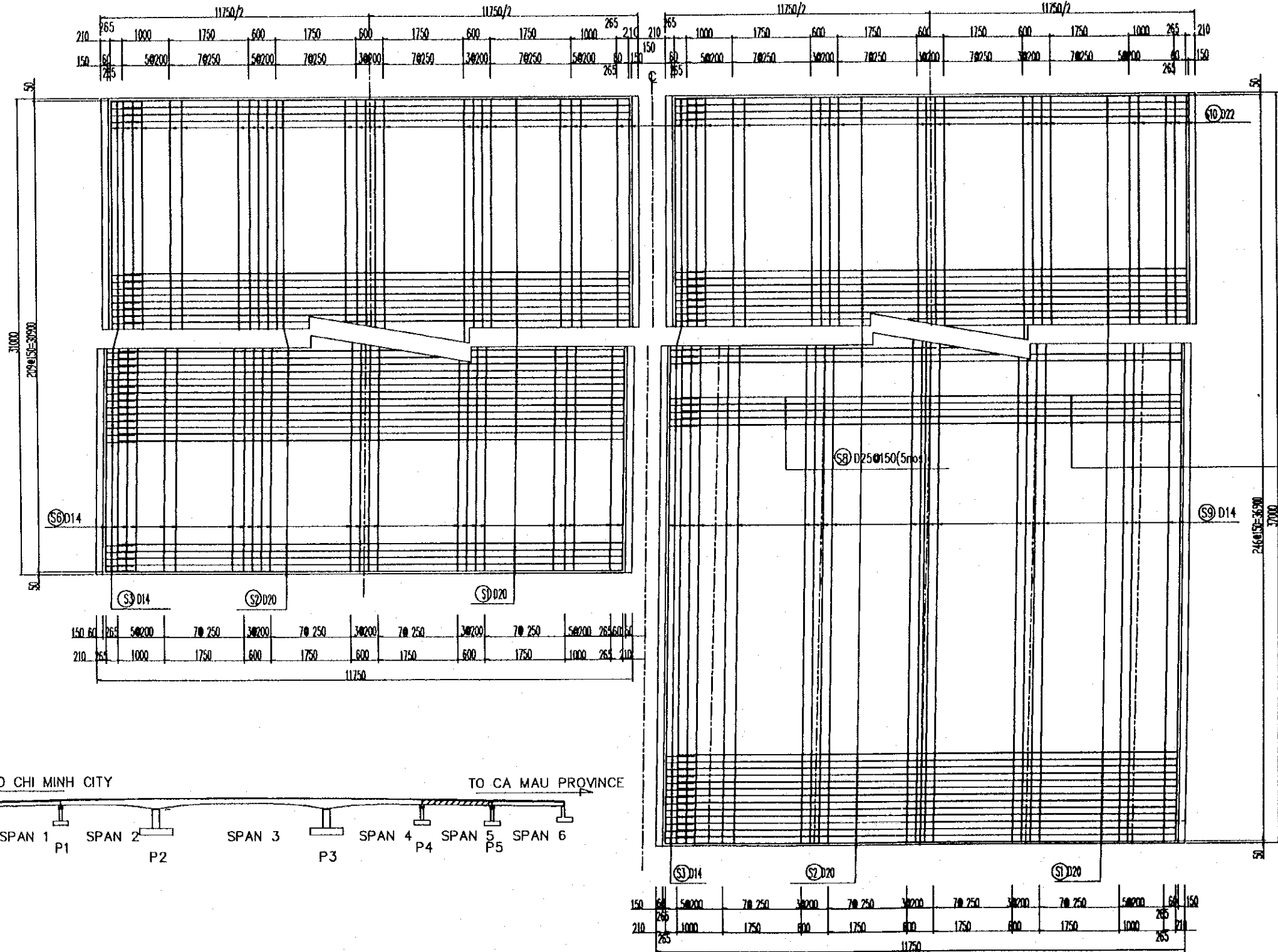


**BOTTOM REINFORCEMENT**  
SCALE 1:100

**TOP REINFORCEMENT**  
SCALE 1:100

**BOTTOM REINFORCEMENT**  
SCALE 1:100

**TOP REINFORCEMENT**  
SCALE 1:100



END DIAPHRAGM (P5)

S7 D25@150(5nos)  
INTERMEDIATE DIAPHRAGM

END DIAPHRAGM (P4)

**NOTES**

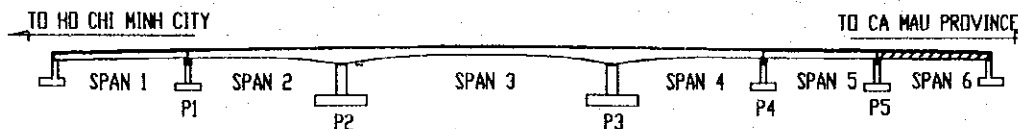
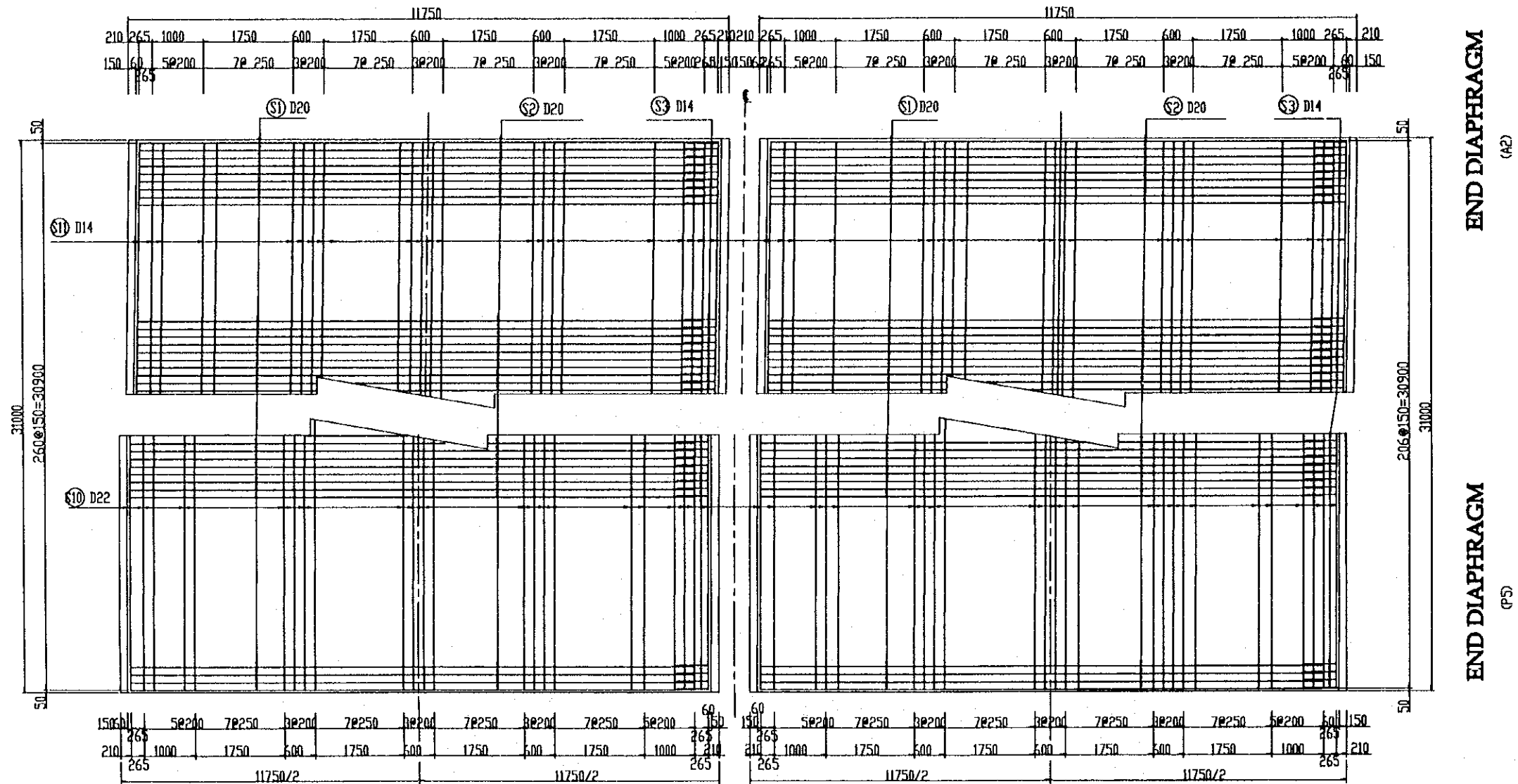
1. FOR STANDARD STRUCTURAL NOTES SEE DRAWING No. P3/BR7/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NKC) NIPPON KOEI CO., LTD.	NAME: T. Kametani SIGNATURE: <i>T. Kametani</i> DATE: 20/9/2000	NAME: K. Matsumoto SIGNATURE: <i>K. Matsumoto</i> DATE: 29/9/2000	NAME: K. Enomoto SIGNATURE: <i>K. Enomoto</i> DATE: 5/10/2000	CAN RANG BRIDGE SUPERSTRUCTURE-APPROACH BRIDGE DECK SLAB REINFORCEMENT-SHEET (2)	P3/BR7/0220

# PLAN

SCALE 1:100

BOTTOM REINFORCEMENT    TOP REINFORCEMENT    BOTTOM REINFORCEMENT    TOP REINFORCEMENT



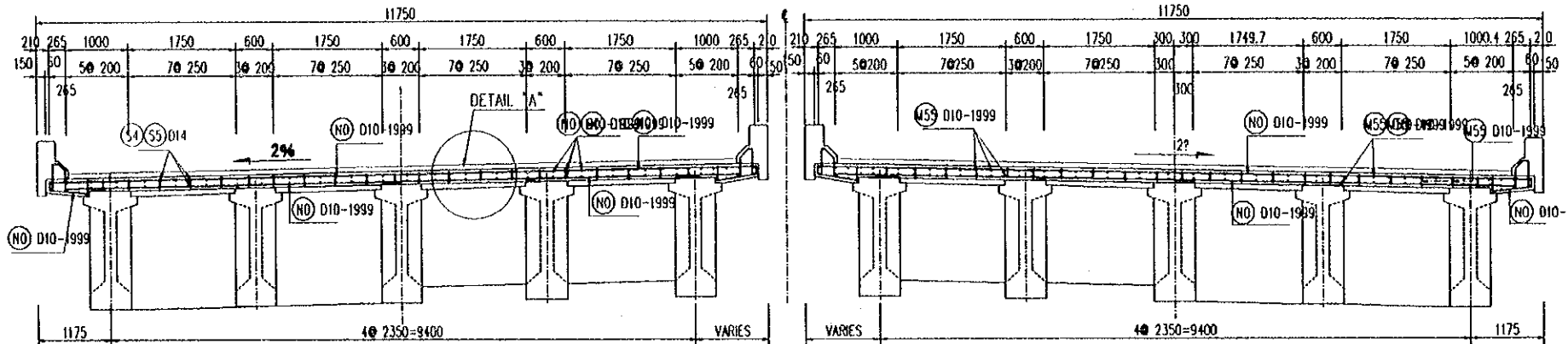
PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO., LTD.	NAME: T. Kametani SIGNATURE: <i>T. Kametani</i> DATE: 20/9/2000	NAME: K. Matsumoto SIGNATURE: <i>K. Matsumoto</i> DATE: 29/9/2000	NAME: K. Enomoto SIGNATURE: <i>K. Enomoto</i> DATE: 5/10/2000	CAI RANG BRIDGE SUPERSTRUCTURE - APPROACH BRIDGE DBCK SLAB REINFORCEMENT - SHEET 3	F3/007/0230

1/4 SECTION  
AT ABUTMENT A1

1/4 SECTION AT  
INTERMEDIATE DIAPHRAGM

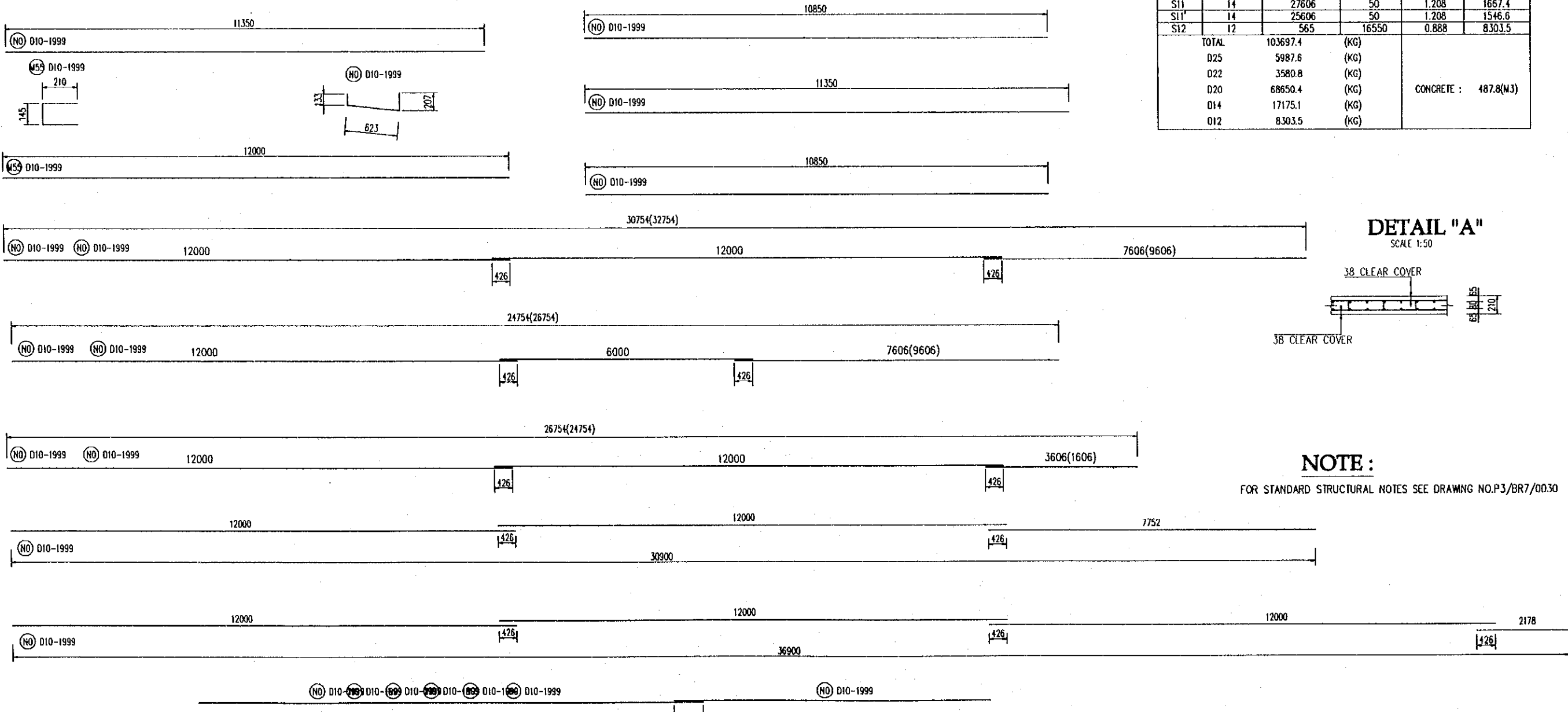
1/4 SECTION AT  
CONNECTION DIAPHRAGM

1/4 SECTION  
AT ABUTMENT A2



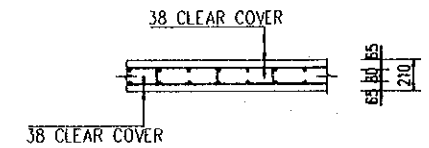
LIST OF REINFORCEMENT

TYPE	DIAMETER (mm)	LENGTH (mm)	NUMBER	UNITWEIGHT (kg/m)	WEIGHT (kg)
S1	20	11350	1254	2.466	35098.3
S2	20	10850	1254	2.466	33552.1
S3	14	963	5296	1.208	6160.9
S4	14	31752	50	1.208	1917.8
S5	14	38178	50	1.208	2306.0
S6	14	31606	25	1.208	954.5
S6'	14	33606	25	1.208	1014.9
S7	25	11350	70	3.853	3061.2
S8	25	10850	70	3.853	2926.4
S9	14	25606	25	1.208	773.3
S9'	14	27606	25	1.208	833.7
S10	22	12000	100	2.984	3580.8
S11	14	27606	50	1.208	1667.4
S11'	14	25606	50	1.208	1546.6
S12	12	565	16550	0.888	8303.5
TOTAL		103697.4	(KG)		
D25		5987.6	(KG)		
D22		3580.8	(KG)		
D20		68650.4	(KG)		
D14		17175.1	(KG)		
D12		8303.5	(KG)		
					CONCRETE : 487.8(M3)



DETAIL "A"

SCALE 1:50

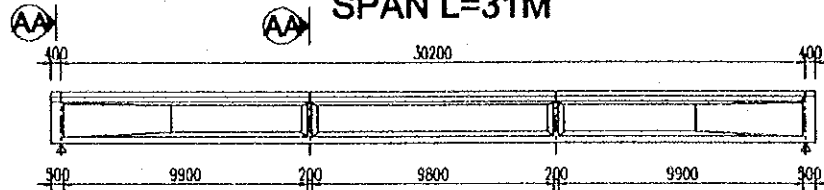


NOTE :

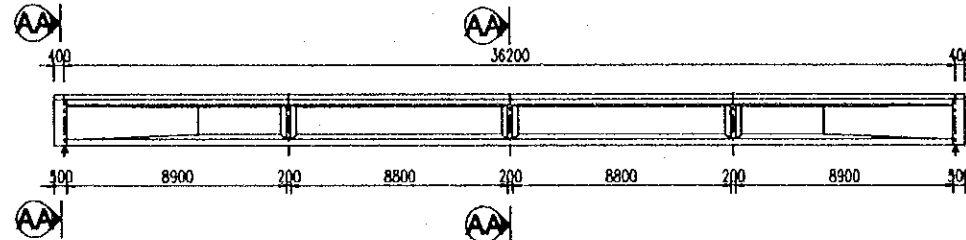
FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO.P3/BR7/0030

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KOEI CO.,LTD.	T. Kametani	K. Matsumoto	K. Enomoto	CAI RANG BRIDGE SUPERSTRUCTURE - APPROACH BRIDGE DECK SLAB REINFORCEMENT - SHEET 4	P3/BR7/0240
				NAME				
				SIGNATURE				
				DATE	20/9/2000	29/9/2000	5/10/2000	

PROFILE  
SPAN L=31M

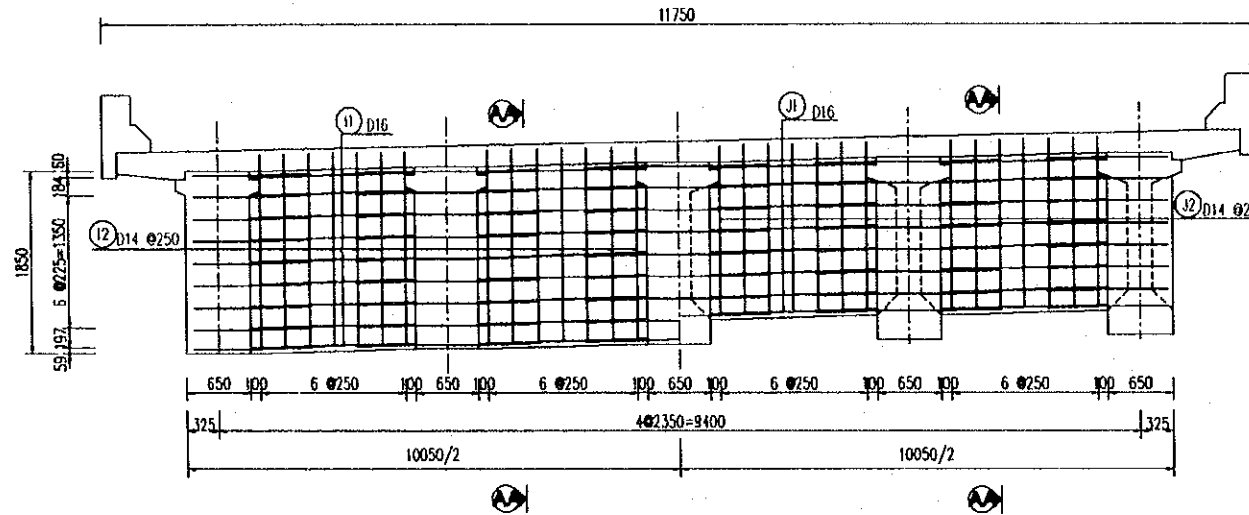


SPAN L=37M



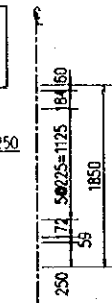
HALF SECTION A-A

SCALE 1:75

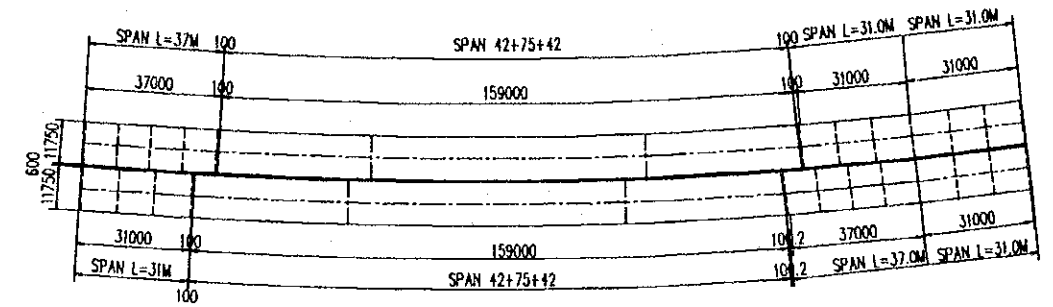


HALF SECTION B-B

SCALE 1:75

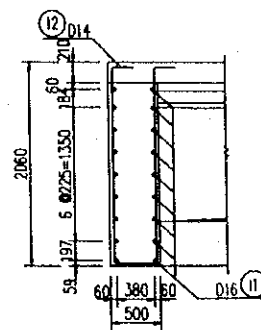


KEY PLAN



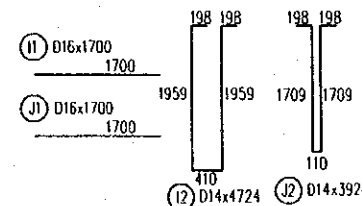
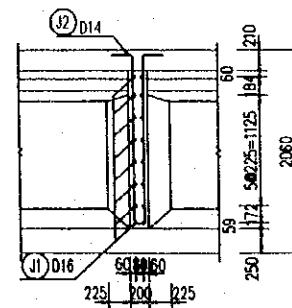
SECTION 1-1

SCALE 1:75



SECTION 2-2

SCALE 1:75



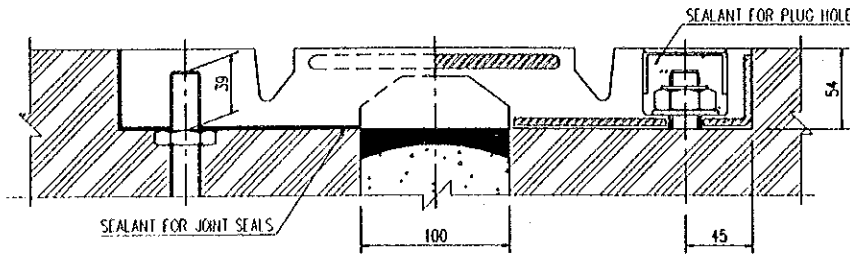
NOTES:

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR7/0030

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KOEI CO., LTD.	T. Kametani	K. Matsumoto	K. Enomoto	CAIRANG BRIDGE SUPERSTRUCTURE-APPROACH BRIDGE REINFORCEMENT OF DIAPHRAGMS	P3/BR7/0250
				NAME				
				SIGNATURE				
				DATE	20/9/2000	29/9/2000	5/10/2000	

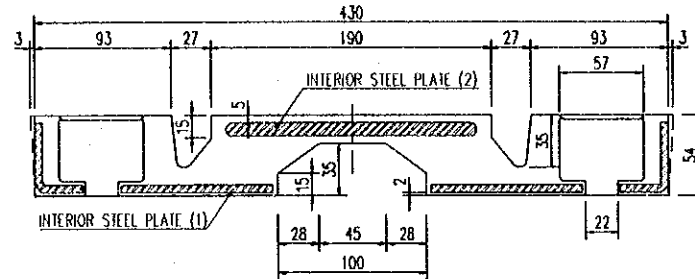
### INSTALLATION SECTION

SCALE 1:5



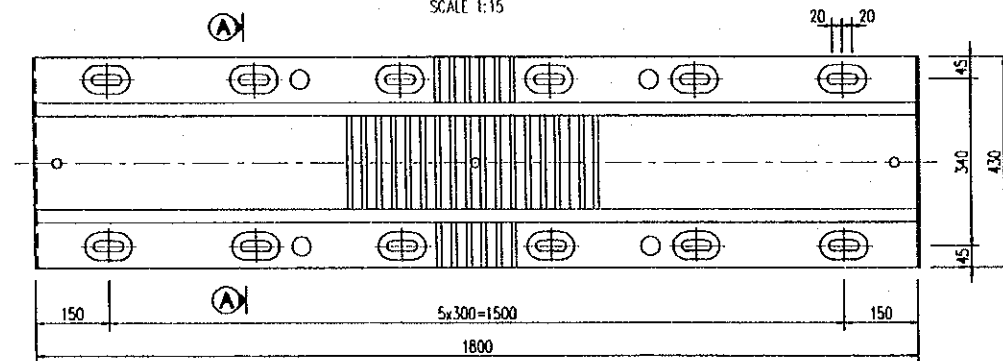
### SECTION A - A

SCALE 1:5

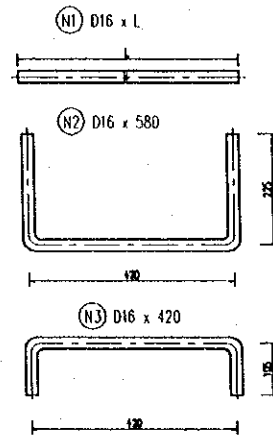


### PLAN

SCALE 1:15



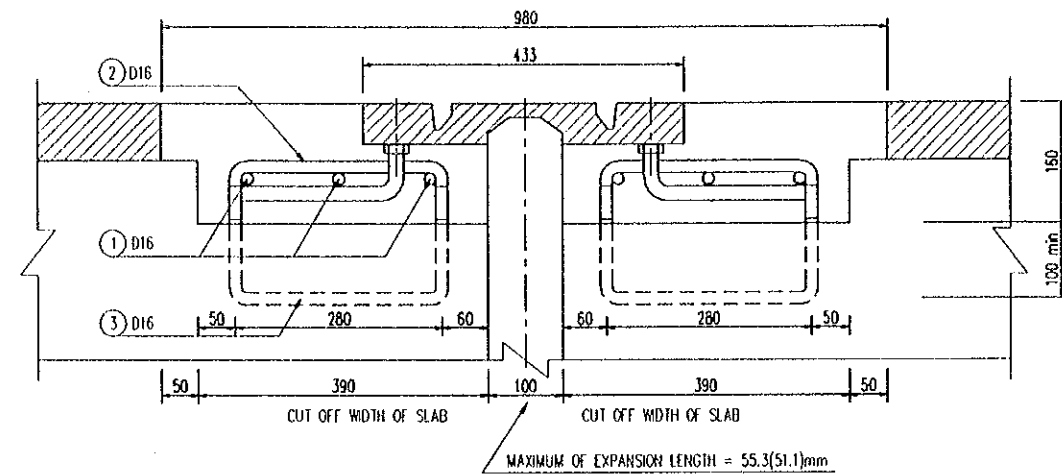
### QUANTITY TABLE(Per m)



ITEMS	KIND OR SIZE	QUANTITY	REMARKS
EXPANSION JOINT	IF No.80	1 m	
ANCHOR BOLT	#16 L = 272 mm	12/1.8m	Ø300
REINFORCEMENT	(N1) 6 - D16	9.47 kg	L = 12.5m
	(N2) 5 - D16	4.58 kg	Ø200
	(N3) 5 - D16	3.32 kg	Ø200
CONCRETE		0.114 m <sup>3</sup>	CAST IN PLACE

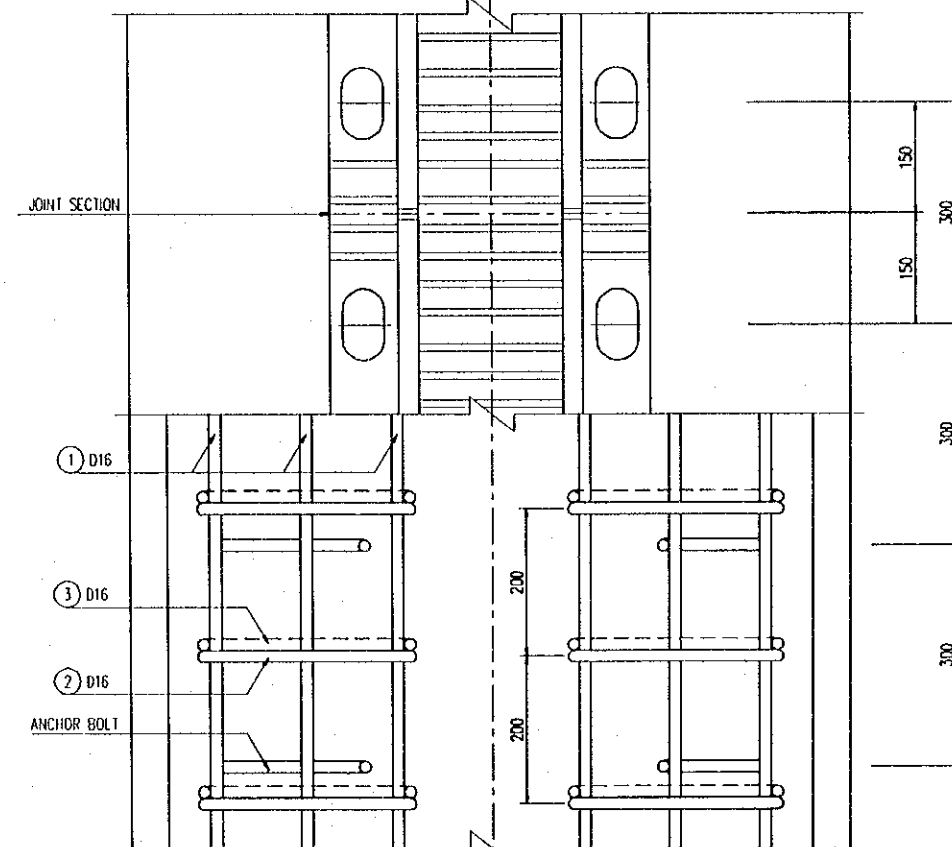
### VERTICAL SECTION

SCALE 1:10

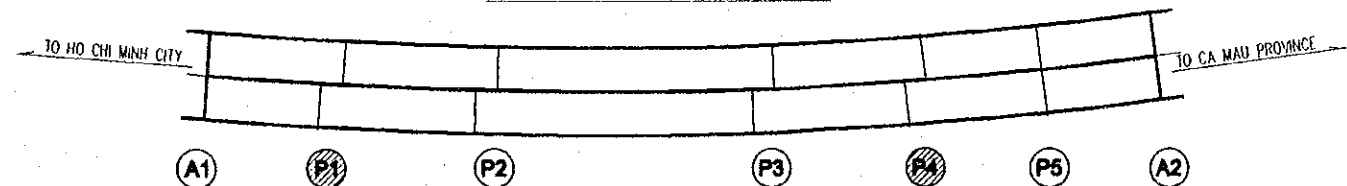


### PLAN

SCALE 1:10



### MARKING DIAGRAM

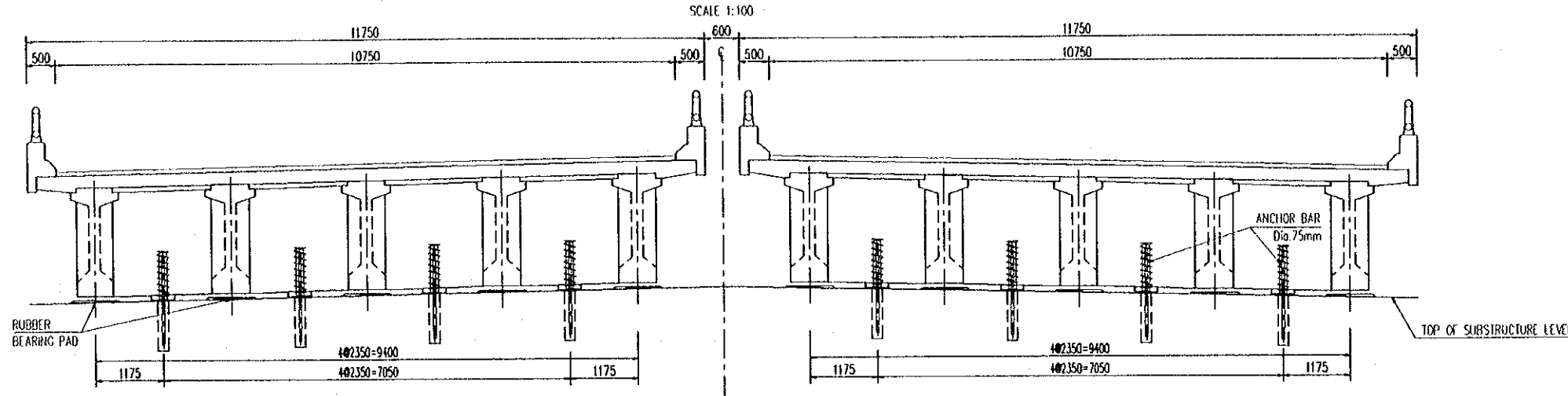


### NOTES:

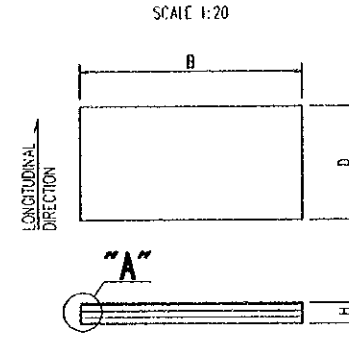
- FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR7/0030.
- THE VALUES INSIDE "( )" ARE FOR 31m SPAN.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KOEI CO.,LTD.	T. Kametani	K. Matsumoto	K. Enomoto	CAI RANG BRIDGE SUPERSTRUCTURE - MAIN BRIDGE EXPANSION JOINT DETAILS	P3/BR7/0260
				NAME: T. Kametani	NAME: K. Matsumoto	NAME: K. Enomoto		
				SIGNATURE: [Signature]	SIGNATURE: [Signature]	SIGNATURE: [Signature]		
				DATE: 20/9/2000	DATE: 29/9/2000	DATE: 5/10/2000		

### CROSS SECTION



### ELASTOMERIC BEARING



### DIMENSIONS OF BEARING

BEARING	DIMENSIONS (mm)		
	B	D	H
FOR GIRDER "I", L=37m	600	300	57
FOR GIRDER "I", L=31m	550	300	57

### BEARING PERFORMANCE REQUIREMENTS

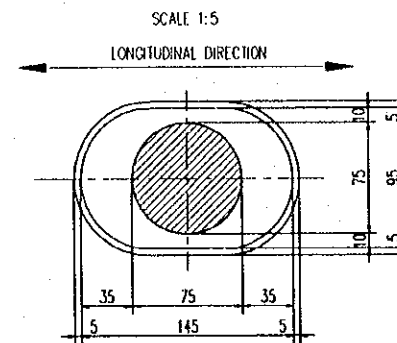
LOCATION	SERVICEABILITY	
	VERTICAL LOAD (kN)	
	MAXIMUM	MINIMUM
MOVABLE BEARINGS	1 180	535

### QUANTITY TABLE

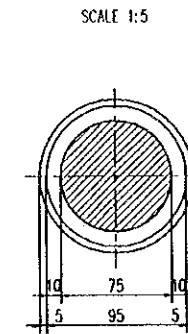
(TOTAL FOR SUPERSTRUCTURE - APPROACH)

ITEMS	UNIT	QUANTITY
BEARINGS 600x300x57	SET	20
BEARINGS 550x300x57	SET	40
ANCHOR BAR	SET	48

### ANCHOR CAP AT ABUTMENT

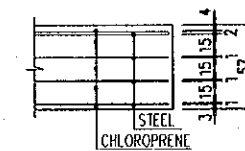


### ANCHOR CAP AT P1 & P4

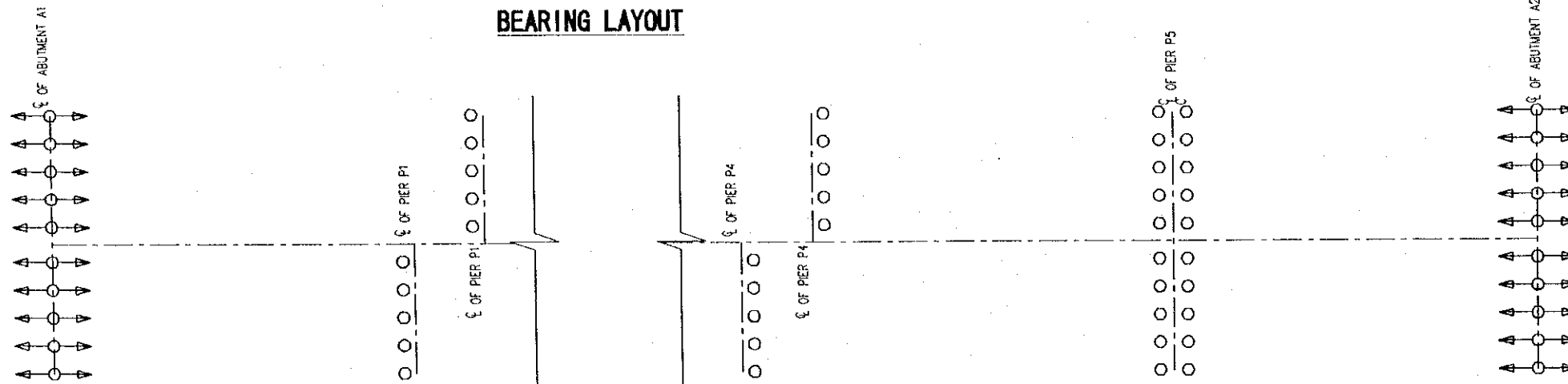


### DETAIL "A"

SCALE 1:5



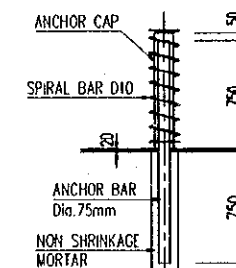
### BEARING LAYOUT



KEY: DENOTES GUIDE SLIDING BEARING MOVEMENT (IN THE GIVEN BY THE ARROWS)

### ANCHOR BAR

SCALE 1:50



### NOTES:

1. FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR7/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KOEI CO.,LTD.	T. Kametani	K. Matsumoto	K. Enomoto	CAI RANG BRIDGE SUPERSTRUCTURE - APPROACH BRIDGE BEARING DETAILS	P3/BR7/0270
				SIGNATURE	SIGNATURE	SIGNATURE		
				DATE	DATE	DATE		

## QUANTITY OF SUPERSTRUCTURE - APPROACH

Item		Work Item		Unit	Quantity	Remarks	
Concrete	CLASS B	Girder		m3	781.4	ck=400kgf/c	
	CLASS D	Panel		m3	107.7	ck=300kgf/c	
		Deck Slab		m3	487.8		
		Diaphragm		m3	124.0		
		Total		m3	719.6		
Pavement		Asphalt concrete 70 mm		m2	2,128.5		
		Water proofing 5 mm		m2	2,128.5		
Re-bar	Diaphragm	D ≤ 14	D14	ton	6.2		
		14 < D < 25	D16	ton	9.1		
		Total		ton	15.2		
	Panel		D10	ton	12.9		
	Deck Slab	D ≤ 14	D12	ton	8.3		
			D14	ton	17.2		
		14 < D < 25	D20	ton	68.7		
			D22	ton	3.6		
			D25	ton	6.0		
		25 < D ≤ 32	D28	ton	0.0		
		Total		ton	116.6		
	Girder	D ≤ 14	D10	ton	0.4		
			D14	ton	109.5		
		14 < D ≤ 25	D16	ton	4.7		
			D22	ton	47.0		
		Total		ton	161.5		
	TOTAL			ton	293.4		
	PC Cable		12S12.7B		ton	39.9	SWPR7B
			3S12.7B		ton	1.2	
	Anchorage		Cable anchorage 12S12.7B		set	260	
		Cable anchorage 3S12.7B		set	104		
Sheathing		Cable 12S12.7B 80/85 mm		m	4300		
		Cable 3S12.7B 50/55 mm		m	522.6		
		Cement grout in sheathing		m3	22.3		
Expansion joint		50 mm		set	64.5		
Bearing		550x300x57		set	40.0		
		600x300x57		set	20.0		
Anchorage bar				set	40.0		
Steel joint key				set	240.0		

### NOTES

1. FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO P3/BR7/0030.
2. QUANTITY OF PILE CONCRETE IN THE TABLE DOES NOT INCLUDE THE VOLUME OF TRIMMING OUT OF THE PILE HEAD.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.	
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K. Matsumoto	K. Enomoto	SUPERSTRUCTURE-APPROACH BRIDGE QUANTITY TABLE OF SUPERSTRUCTURE-APPROACH BRIDGE	P3/BR7/0280
				SIGNATURE	<i>T. Kametani</i>	<i>K. Matsumoto</i>	<i>K. Enomoto</i>		
				DATE	20/9/2000	29/9/2000	5/10/2000		