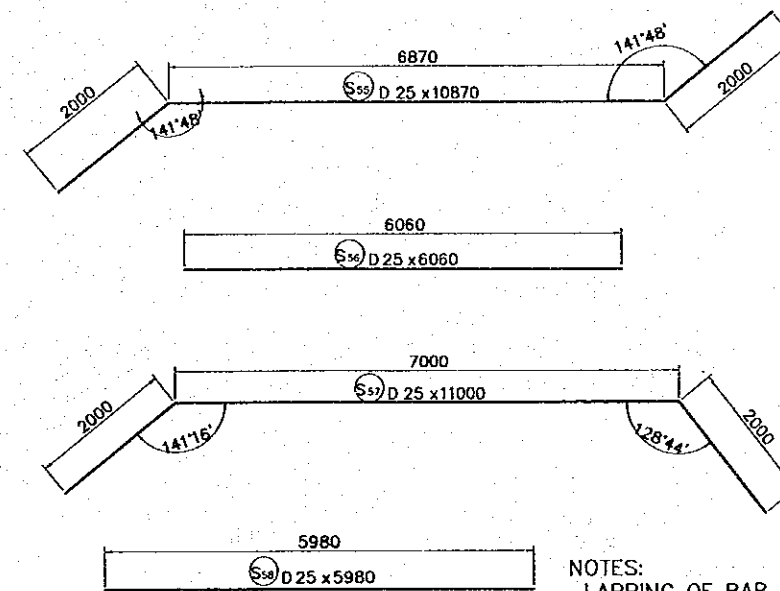
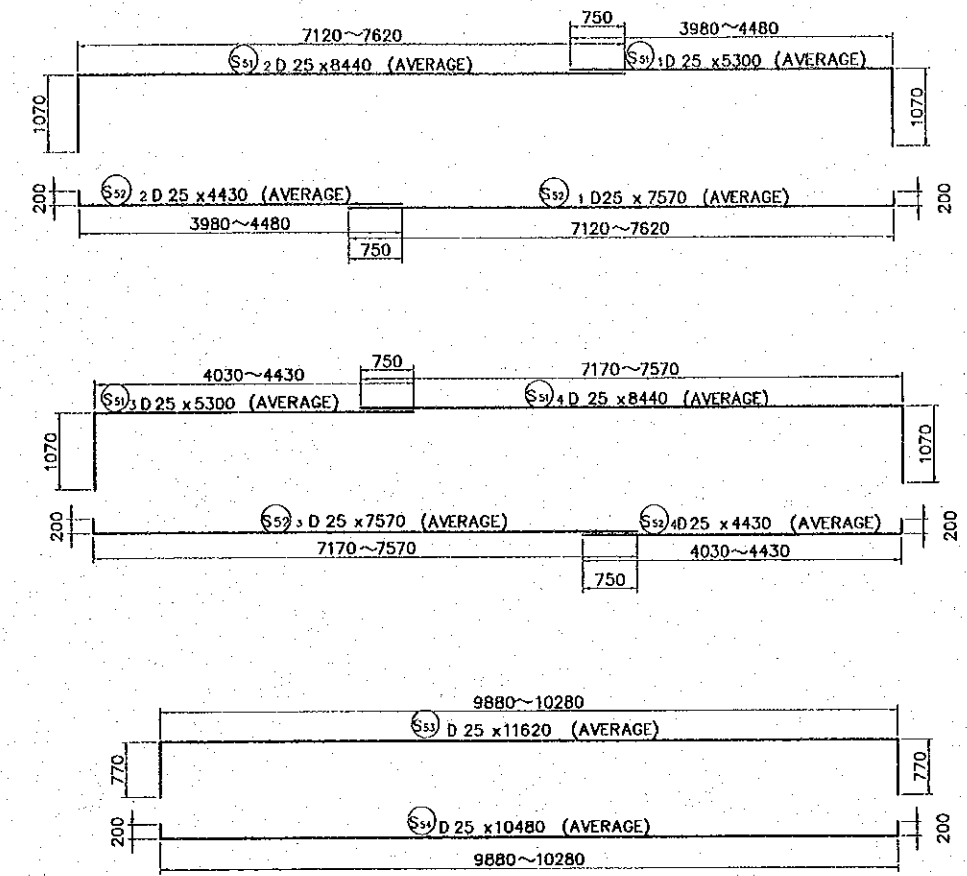
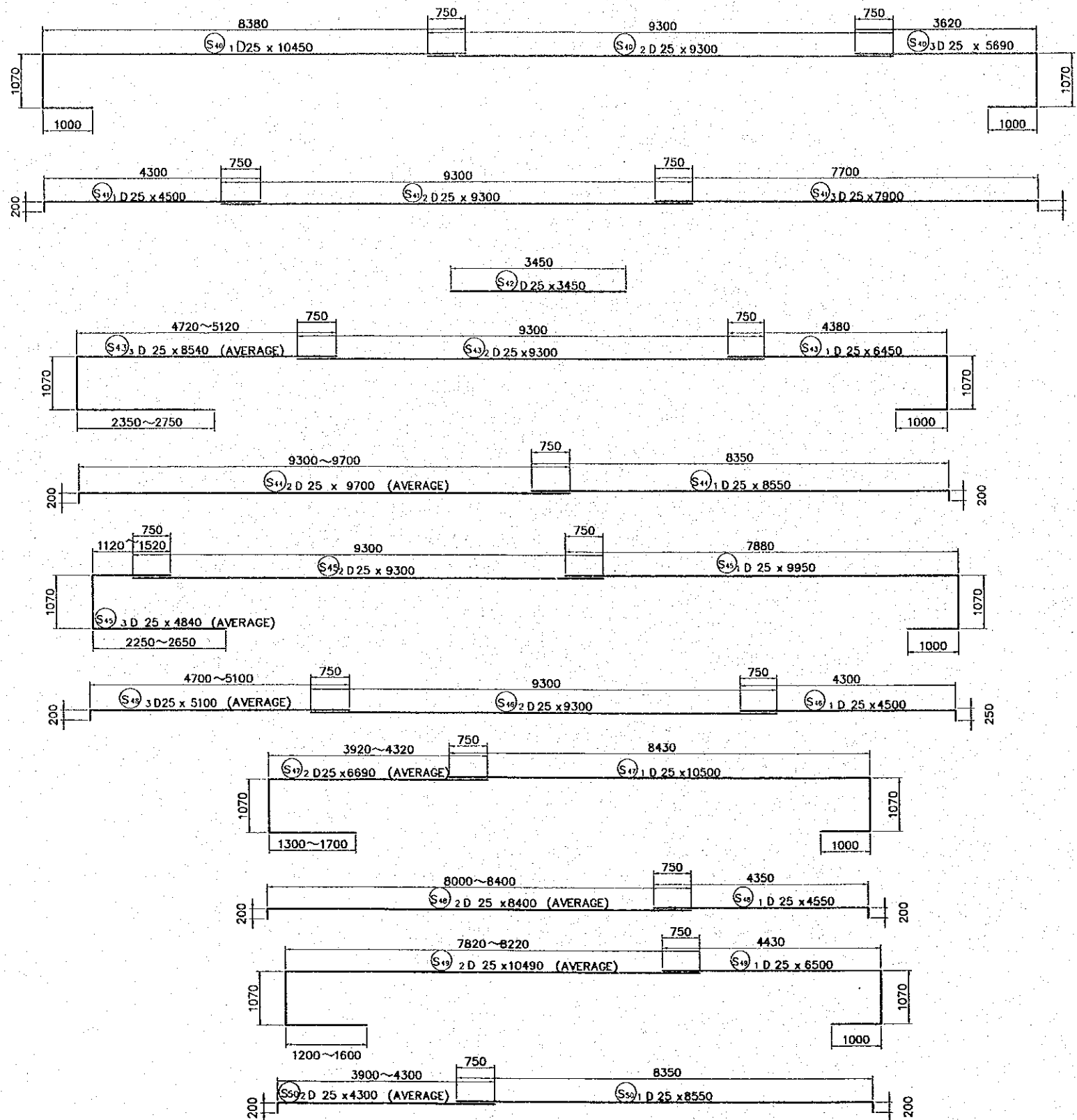


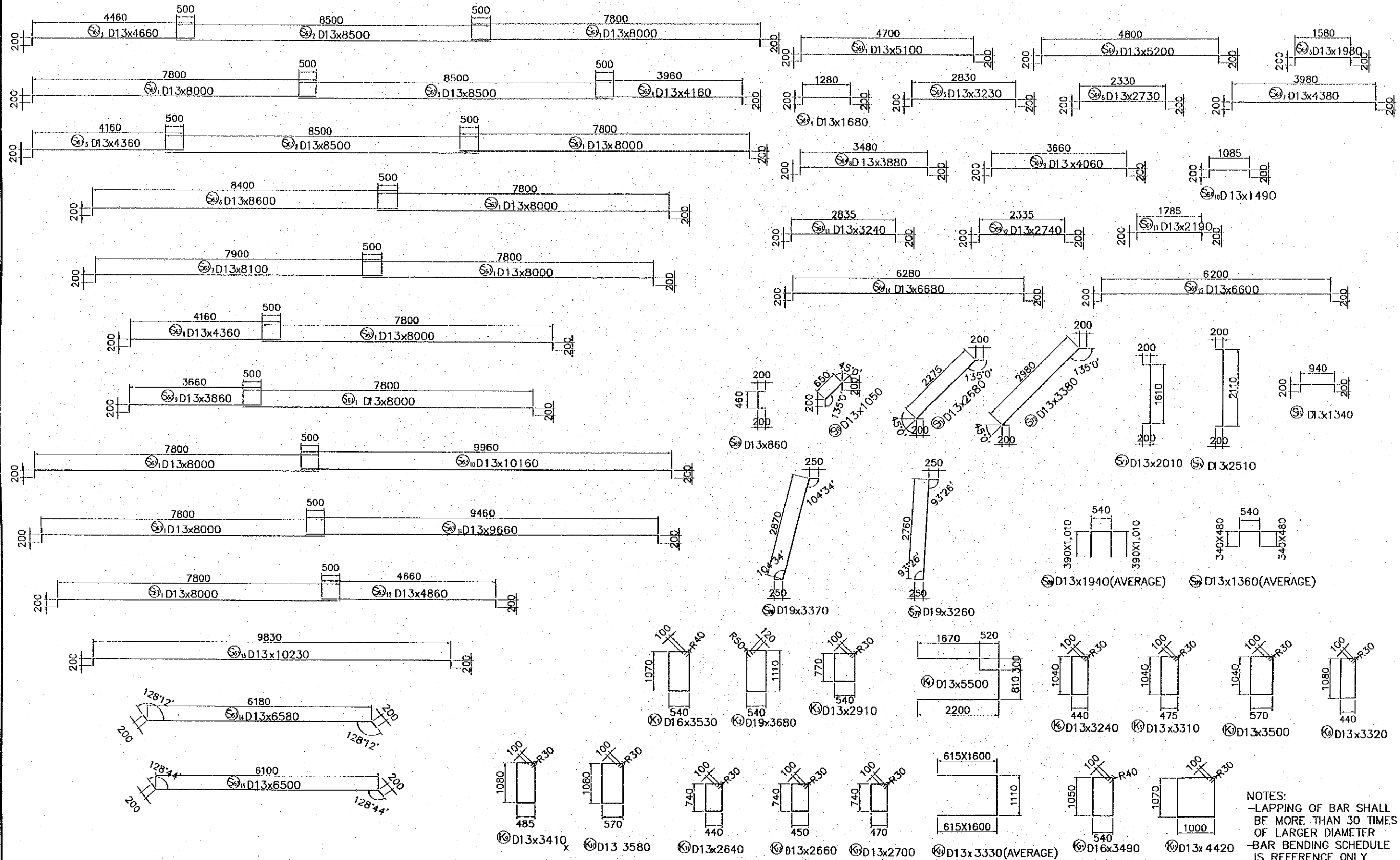
BAR BENDING SCHEDULE FOR PLATFORM2 No. 3 (BEAM PART2)



NOTES:
 -LAPPING OF BAR SHALL BE MORE THAN 30 TIMES OF LARGER DIAMETER
 -BAR BENDING SCHEDULE IS REFERENCE ONLY

REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR NIPPON KOEI CO., LTD.	DESIGNED BY:	SECTION :	DATE :
									SUB-SECTION : TITLE :	QUAYWALL WORK PASSENGER BERTH BAR BENDING SCHEDULE FOR PLATFORM 2 No.3 (BEAM PART 2)	OCTOBER/2002 SCALE : 1 : 100 DRAWING NO. QW-02-023

BAR BENDING SCHEDULE FOR PLATFORM2 No. 4 (BEAM PART3)

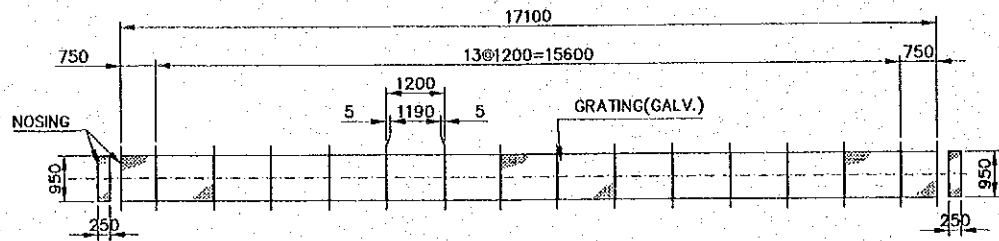


NOTES:
 -LAPPING OF BAR SHALL BE MORE THAN 30 TIMES OF LARGER DIAMETER
 -BAR BENDING SCHEDULE IS REFERENCE ONLY

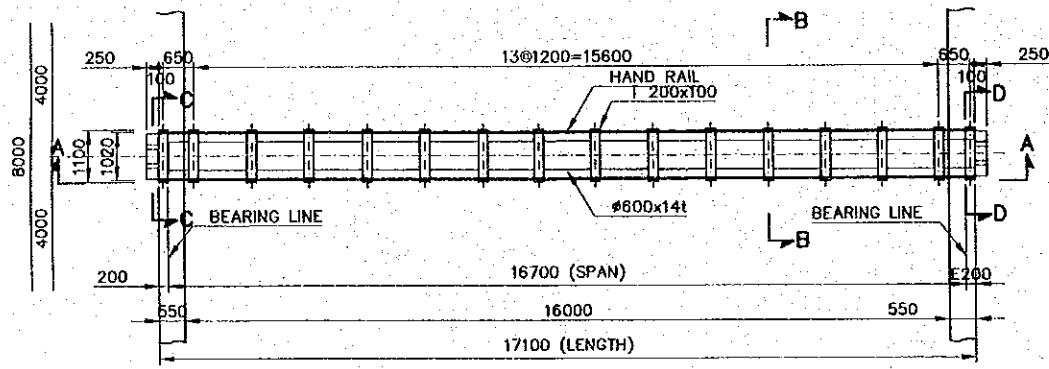
REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE	<p>JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)</p>	<p>THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR</p> <p>NIPPON KOEI CO., LTD.</p>	DESIGNED BY:	SECTION : QUAYWALL WORK SUB-SECTION : PASSENGER BERTH TITLE : BAR BENDING SCHEDULE FOR PLATFORM 2 No.4 (BEAM PART 3)	DATE : OCTOBER/2002
					CHECKED BY:			SCALE : 1 : 100		
					APPROVED BY:			DRAWING NO. : QW-02-024		

DETAIL OF CATWALK

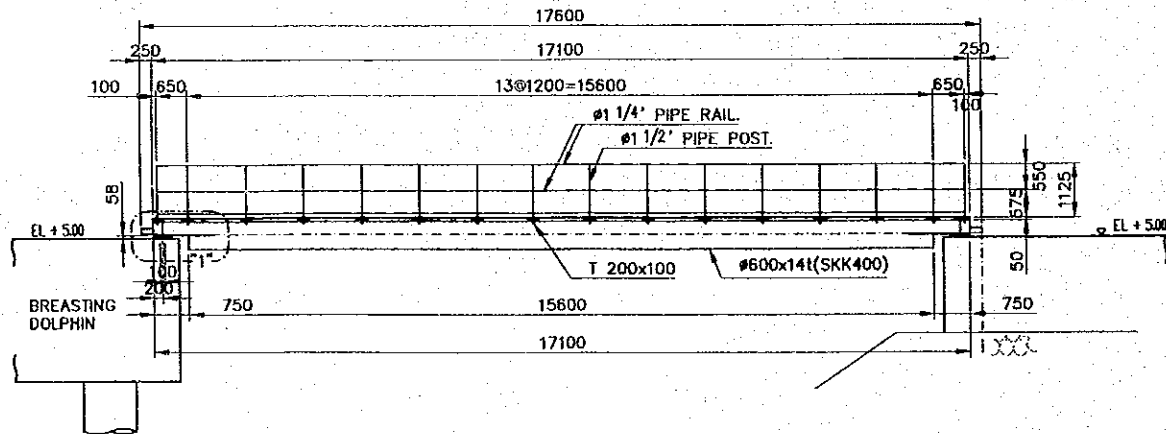
GRATING PLAN S=1:150



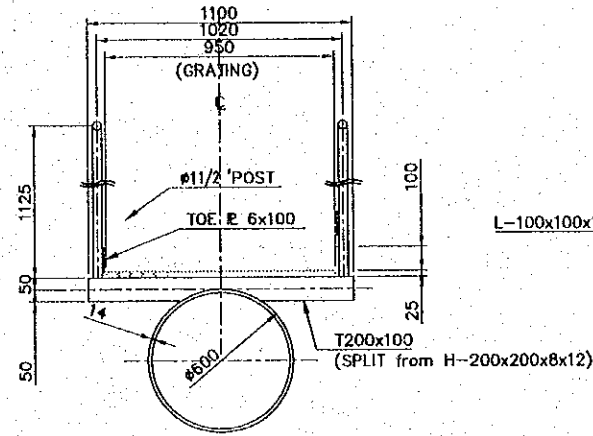
PLAN S=1:150



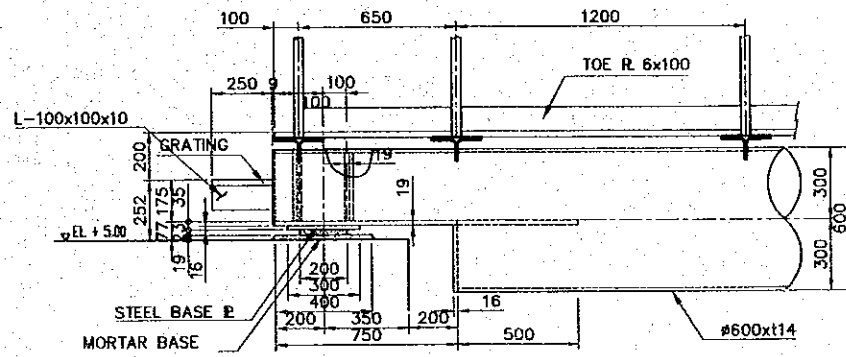
VIEW A-A S=1:150



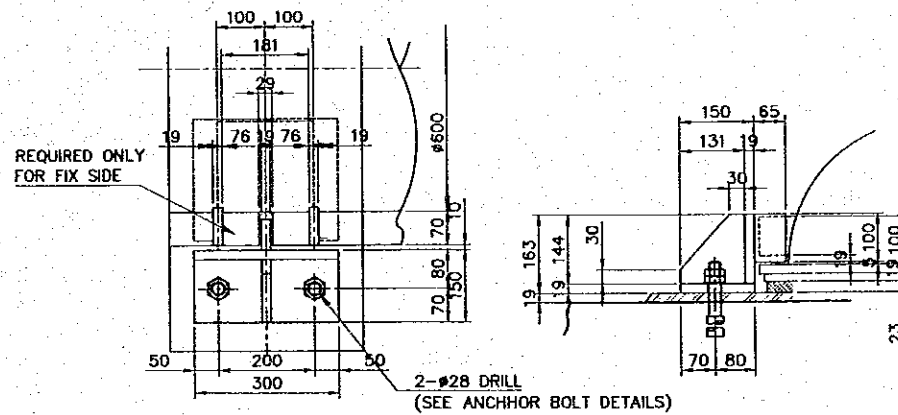
VIEW B-B S=1:300



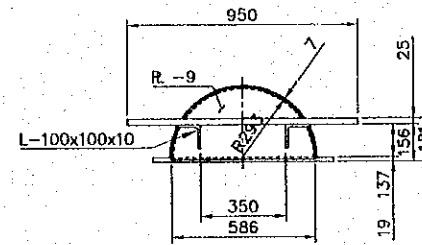
DETAIL "1" S=1:300



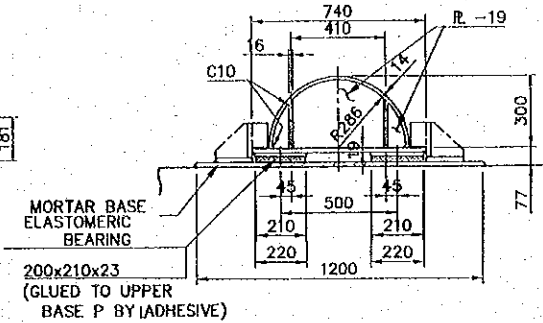
STOPPER DETAILS S=1:15



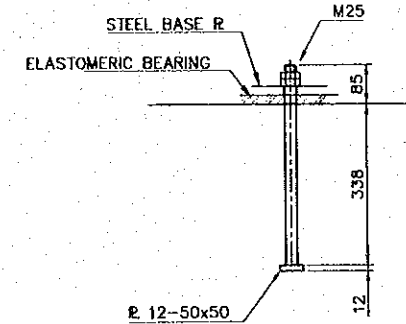
VIEW C-C S=1:300



VIEW D-D S=1:300



ANCHOR BOLT DETAILS S=1:15

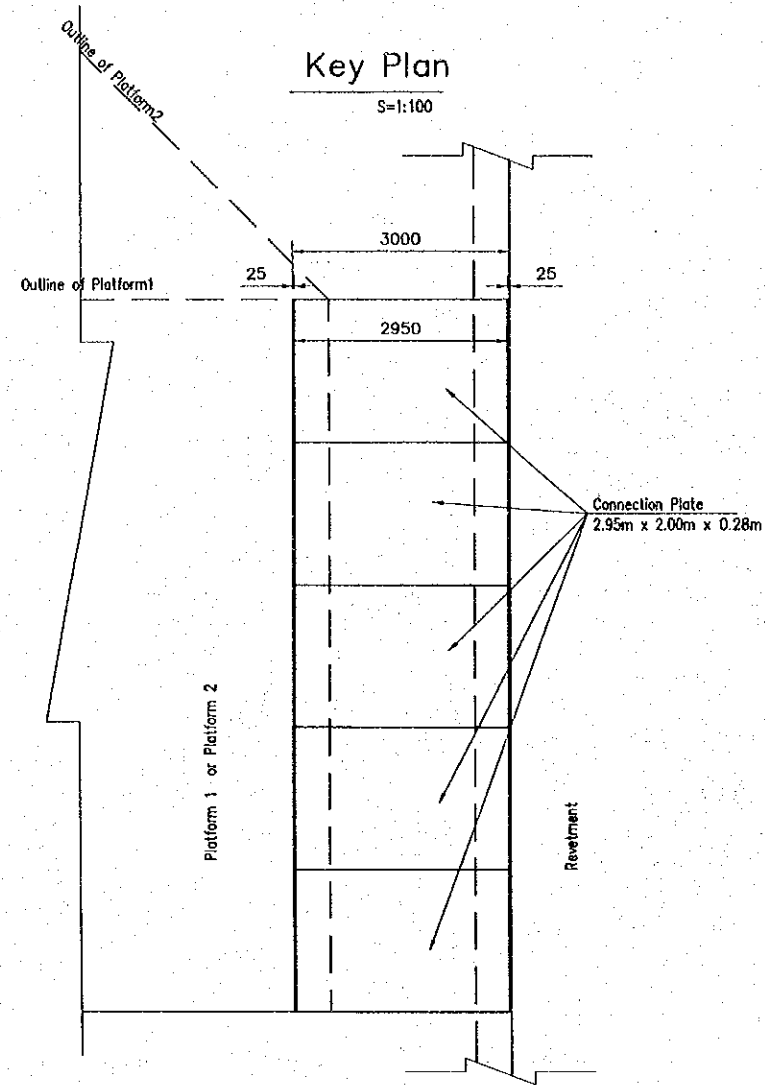


COMPONENT	MEMO	MATERIAL	WEIGHT(KG)
PILE	#600x14t	SKK400	3151.20
H	H-200x200x8x12	SS400	439.12
PIPE RAIL	#1 1/4"	SGP	228.49
PIPE POST	#1 1/2"	SGP	140.04
GRATING	t=25mm	SS400	749.42
PLATE	PL6x100	SS400	159.20
ANGLE	L-100x100x10	SS400	14.90
HALF-CIRCLE	R293	SS400	19.08
HALF-CIRCLE	R286 t16	SS400	64.06
PLATE	200x250x119	SS400	76.07
STOPPER	t19	SS400	49.22
BASE	200x220x116	SS400	22.61
PLATE	740x1250x119	SS400	255.05
HALF-CIRCLE	R300 t16	SS400	35.17
			5403.63

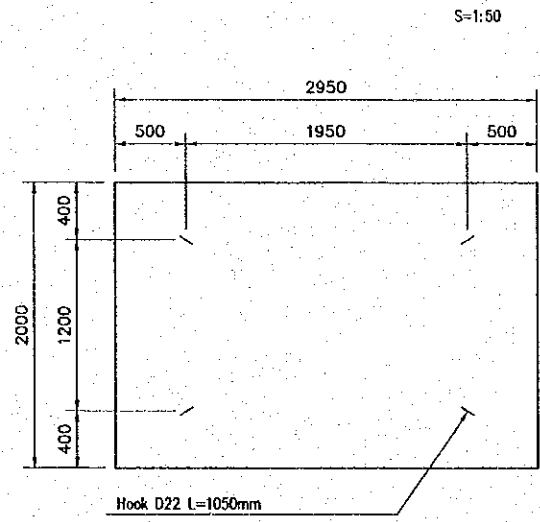
Note:
Following items shall be galvanized in accordance with relevant Specifications.
- Grating
- Stopper
- Anchor bolt
All members of metal material except for the above items shall be coated in accordance with relevant Specifications.

REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR	DESIGNED BY : CHECKED BY : APPROVED BY :	SECTION : QUAYWALL WORK SUB-SECTION : PASSENGER BERTH TITLE :	DATE : OCTOBER/2002
										COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)
										DRAWING NO. : QW-02-025

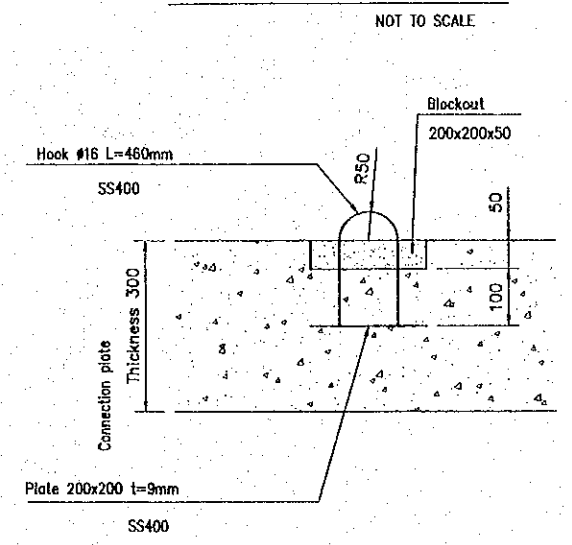
STRUCTURE OF CONNECTION PLATE



Arrangement Plan of Hooks

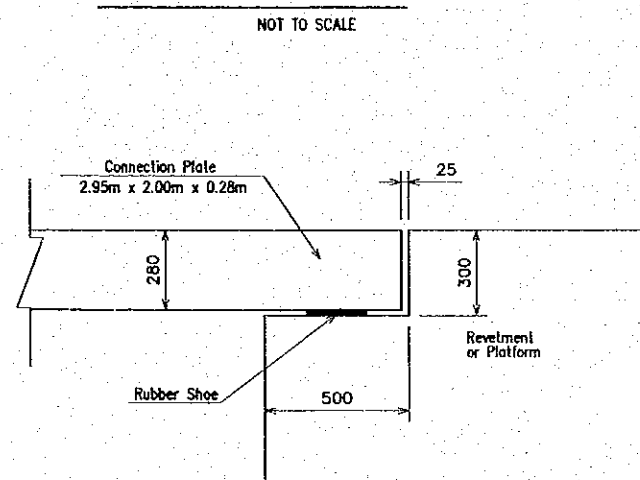


Structure of Hooks

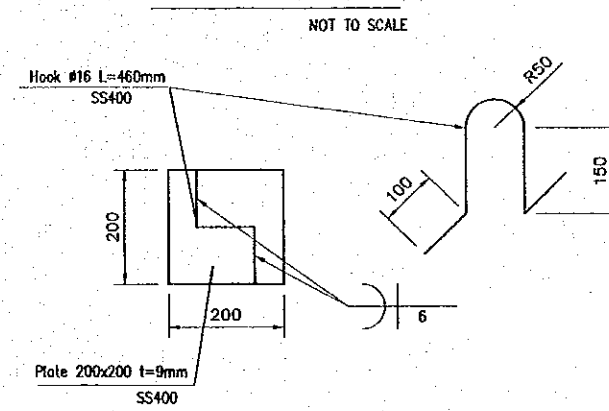


Hook (Quantity for one Plate)
 $1.58 \text{ kg/m} \times 0.46 \text{ m} \times 4 \text{ pieces} = 3 \text{ kg}$

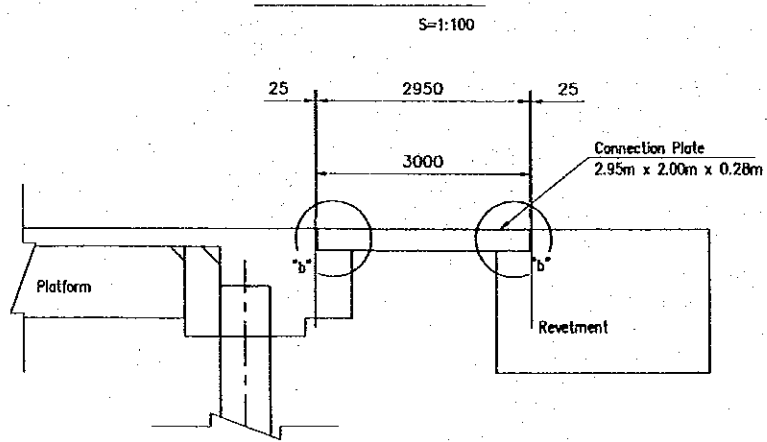
Detail of part "b"



Detail of Hook



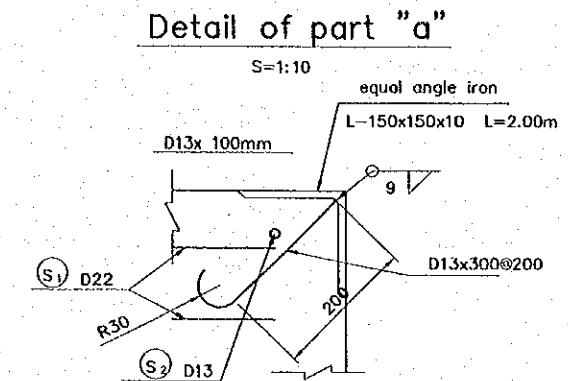
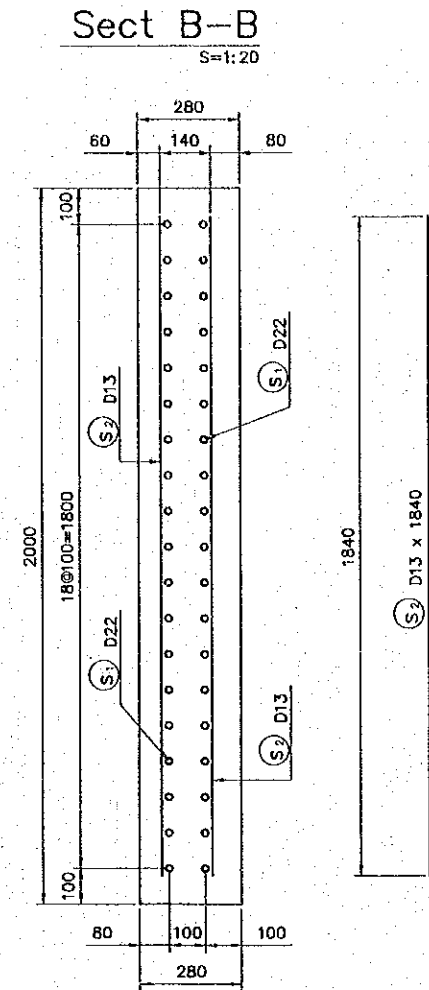
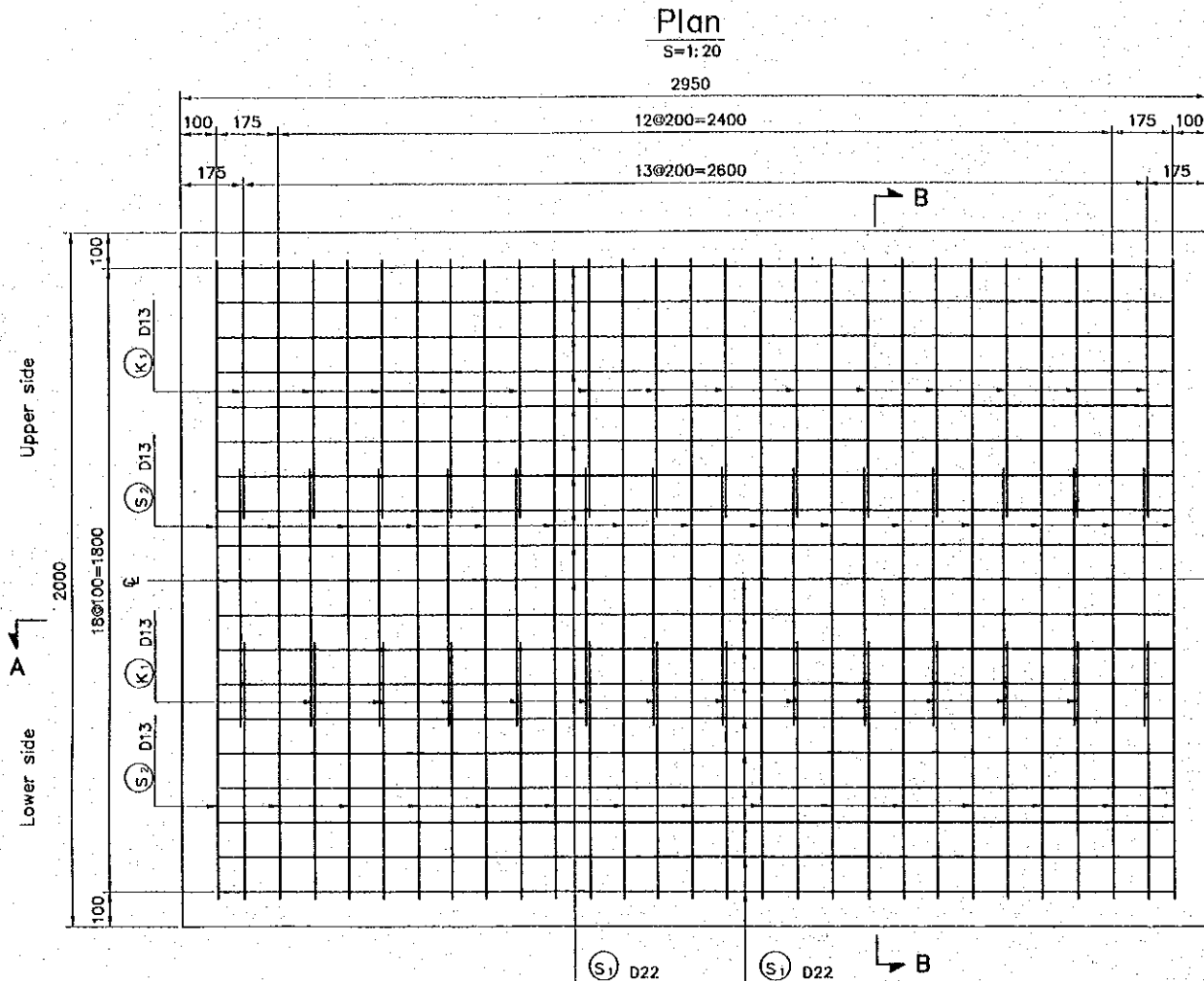
Cross Section



REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE

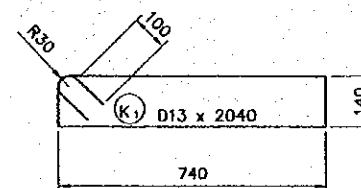
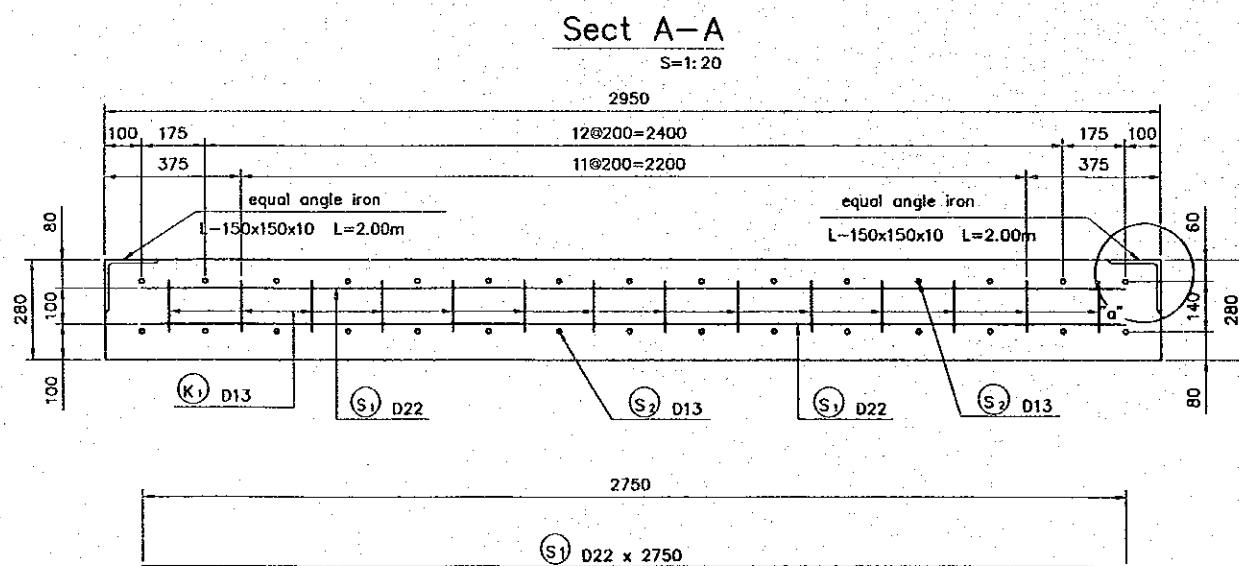
 JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	 CEPA COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	 NIPPON KOEI CO., LTD.	DESIGNED BY :	SECTION : QUAYWALL WORK	DATE : OCTOBER/2002
			CHECKED BY :	SUB-SECTION : PASSENGER BERTH	SCALE : AS INDICATED
			APPROVED BY :	TITLE : STRUCTURE OF CONNECTION PLATE	DRAWING NO. : QW-02-026

BAR ARRANGEMENT FOR CONNECTION PLATE



BAR SCHEDULE FOR CONNECTION PLATE
(Quantity for one plate)

BAR No.	DIR	LENGTH (mm)	UNIT WT (kg/m)	Q.T.Y	WEIGHT (kg)	TOTAL WT. (kg)	SHAPE
S1	D 22	2,750	3.04	38	8.360	318	—
S2	D 13	1,840	0.995	30	1.831	55	—
					D13	55 kg	
					D19	318 kg	
					TOTAL	373 kg	
K1	D 13	2,040	0.995	42	2.030	85	—
					D13	85 kg	
					TOTAL	85 kg	
TOTAL					D13	140 kg	
					D19	318 kg	
					TOTAL	458 kg	
					equal angle iron (L-150 x 150 x 10 L=2.00m)	22.9 kg /m x 2.00 m x 2 pieces = 91.6 kg	
	D 13	300	0.995	10	0.299	3	—
					concrete volume	1.652 m3	
					form	2.772 m2	



REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE

JICA
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Gpa
COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)

THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR

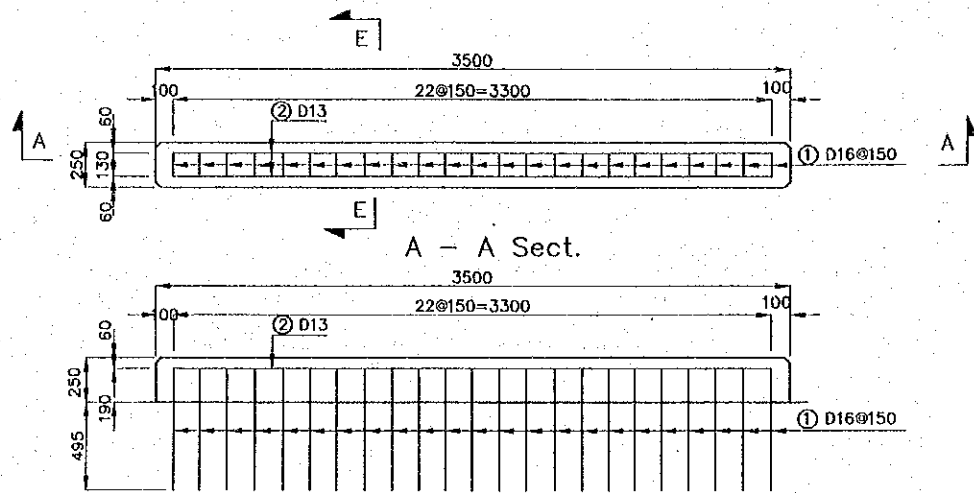
NIPON KOEI CO., LTD.

DESIGNED BY :
CHECKED BY :
APPROVED BY :

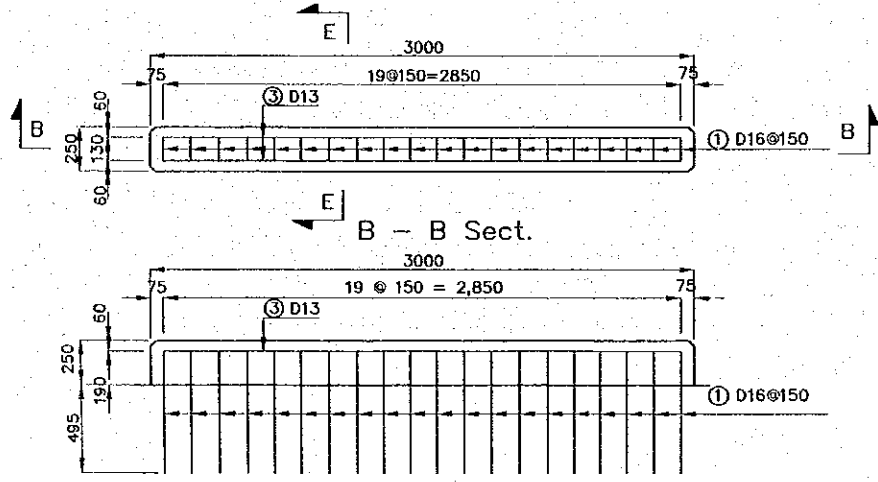
SECTION : QUAYWALL WORK
SUB-SECTION : PASSENGER BERTH
TITLE : BAR ARRANGEMENT FOR CONNECTION PLATE

DATE : OCTOBER/2002
SCALE : AS INDICATED
DRAWING NO. : QW-02-027

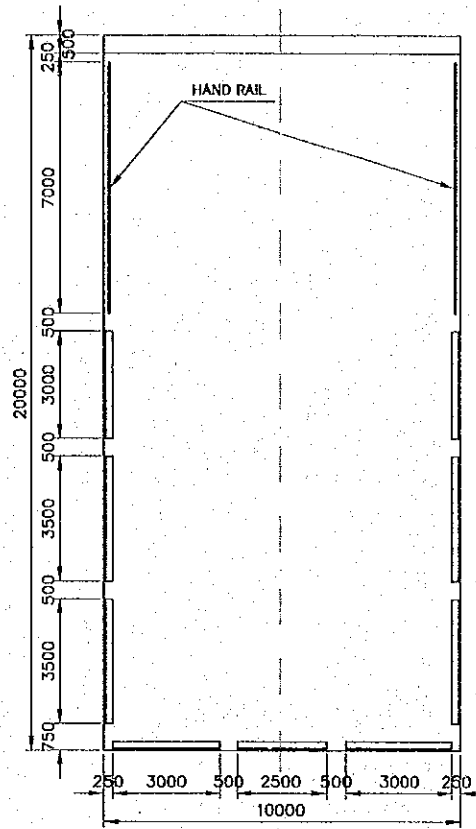
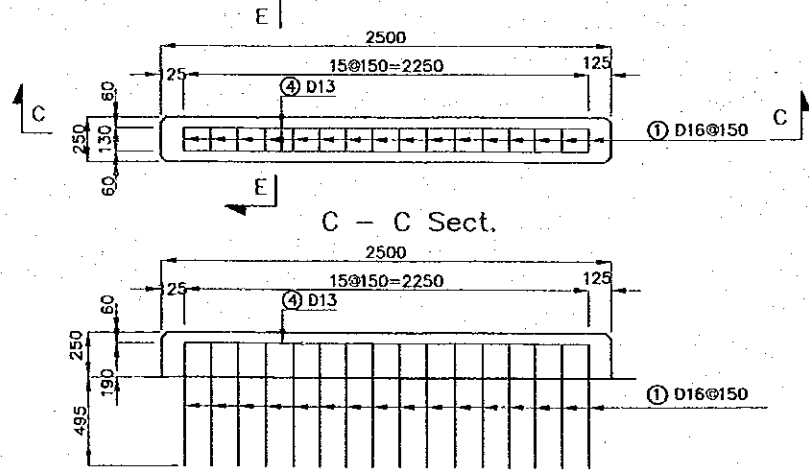
PLAN (3,500 unit)
SCALE 1:40



PLAN (3,000 unit)
SCALE 1:40

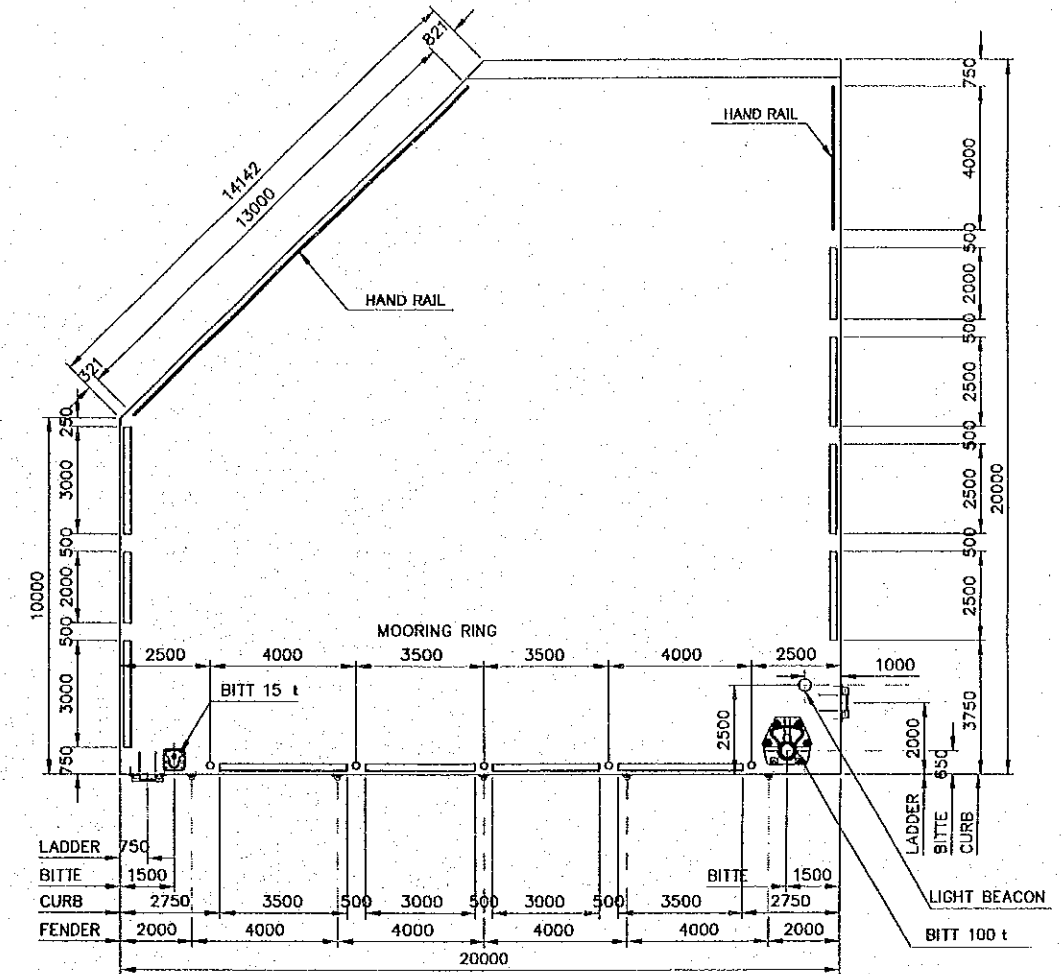
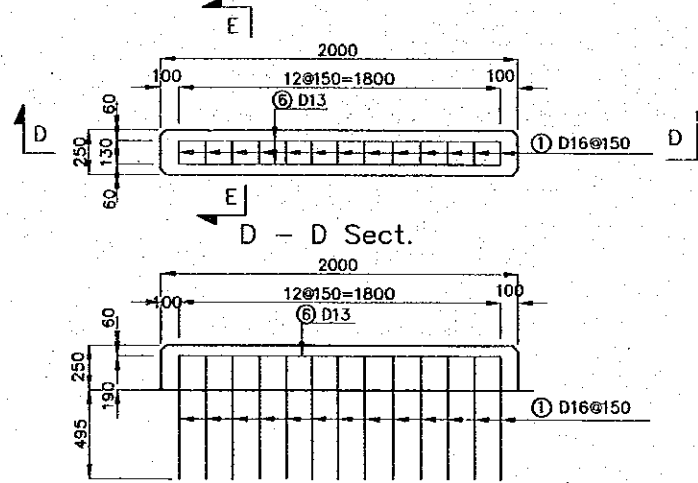


PLAN (2,500 unit)
SCALE 1:40

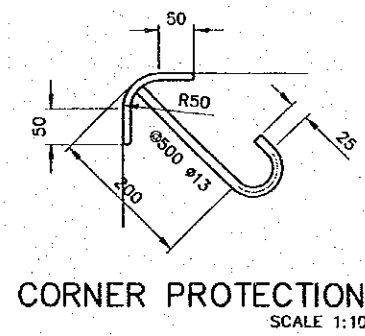


PLATFORM No.1
SCALE 1:200

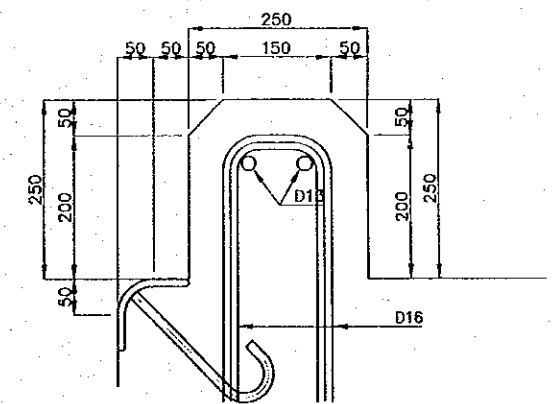
PLAN (2,000 unit)
SCALE 1:40



PLATFORM No.2
SCALE 1:200



CORNER PROTECTION
SCALE 1:10



DETAIL SECTION E-E OF CURB
SCALE 1:10

REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE

JICA
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Gpa
COMISION EJECUTIVA
PORTUARIA AUTONOMA
(CEPA)

THE DETAILED DESIGN
ON PORT REACTIVATION PROJECT
IN LA UNION PROVINCE
OF THE REPUBLIC OF EL SALVADOR

NK
NIPPON KOEI CO., LTD.

DESIGNED BY :
CHECKED BY :
APPROVED BY :

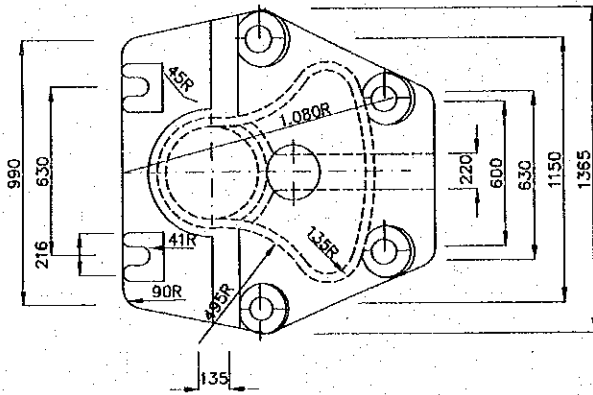
SECTION : QUAYWALL WORK
SUB-SECTION : PASSENGER BERTH

DETAIL OF CURB

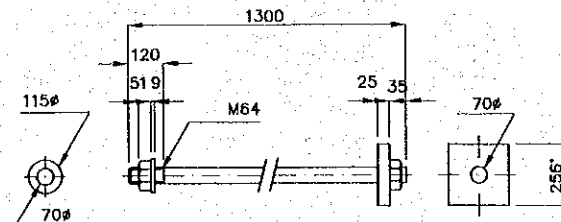
DATE : OCTOBER/2002
SCALE : AS INDICATED
DRAWING NO. : QW-02-028

DETAILS OF BOLLARD AND BITT
(FOR REFERENCE)

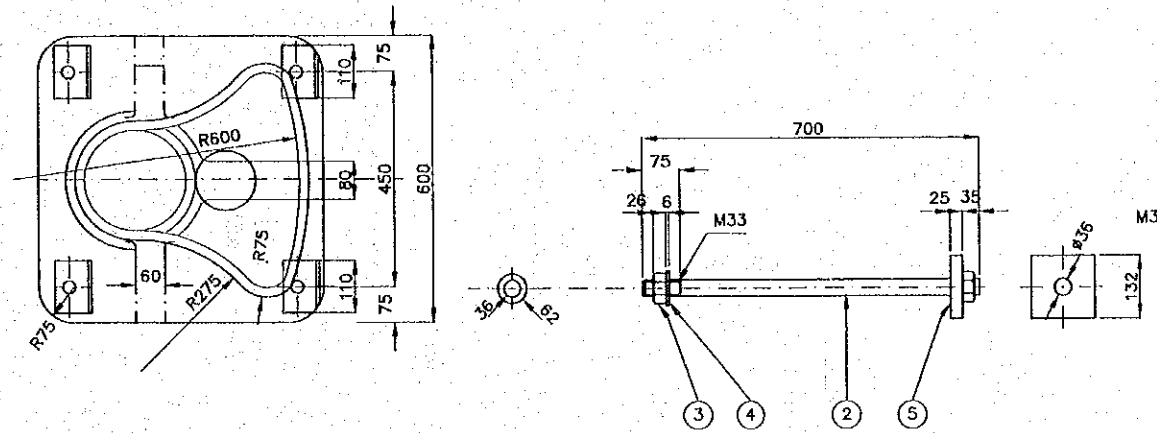
BOLLARD (100T TYPE)
NO TO SCALE



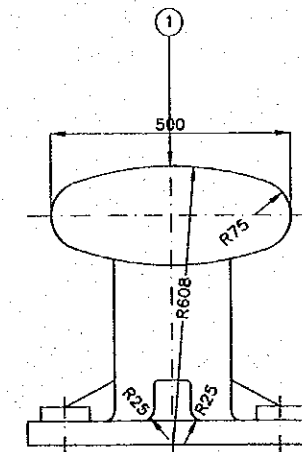
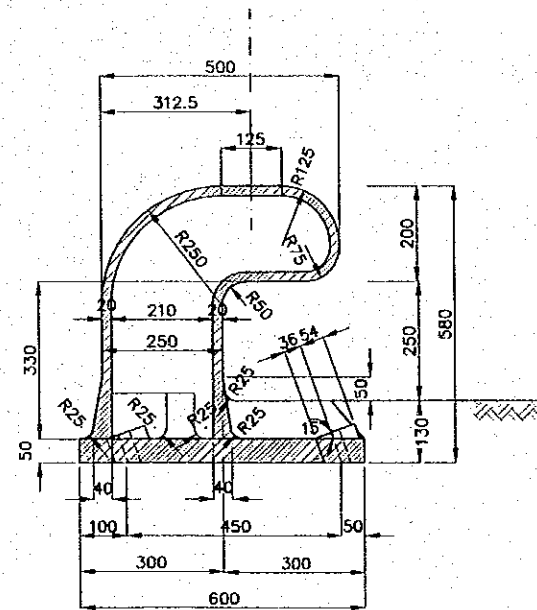
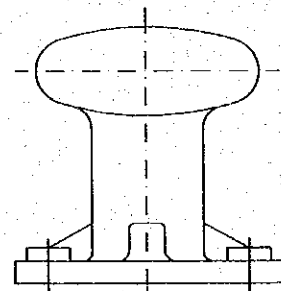
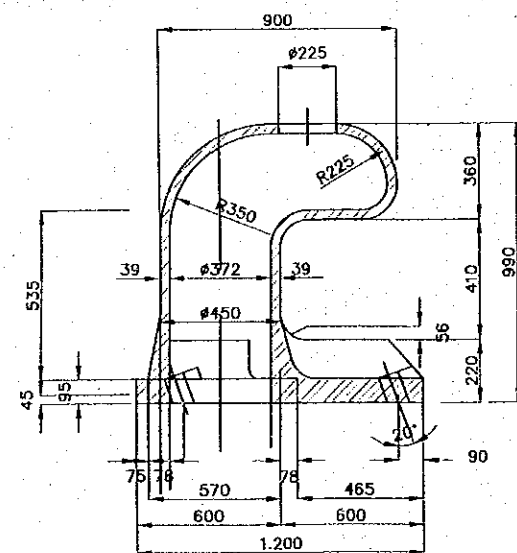
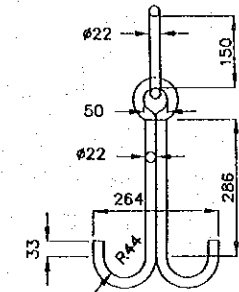
DETAIL OF ANCHOR BOLT
NO TO SCALE



BITT 15T TYPE
SCALE 1:15



MOORING RING
FOR SMALL CRAFT
SCALE 1:15



REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE



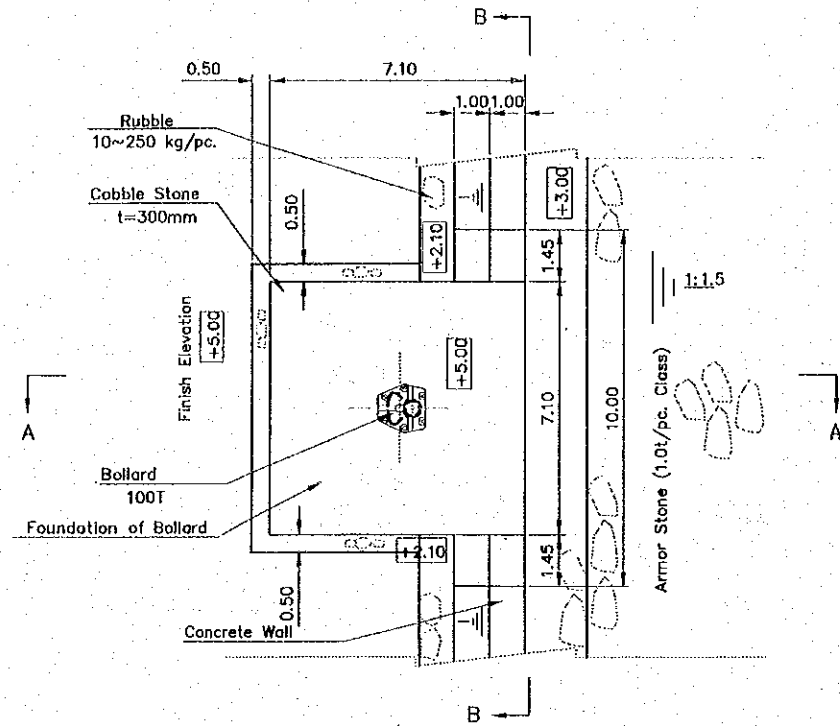
JICA
JAPAN INTERNATIONAL
COOPERATION AGENCY
(JICA)
COMISION EJECUTIVA
PORTUARIA AUTONOMA
(CEPA)

THE DETAILED DESIGN
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OF THE REPUBLIC OF EL SALVADOR
NIPPON KOEI CO., LTD.

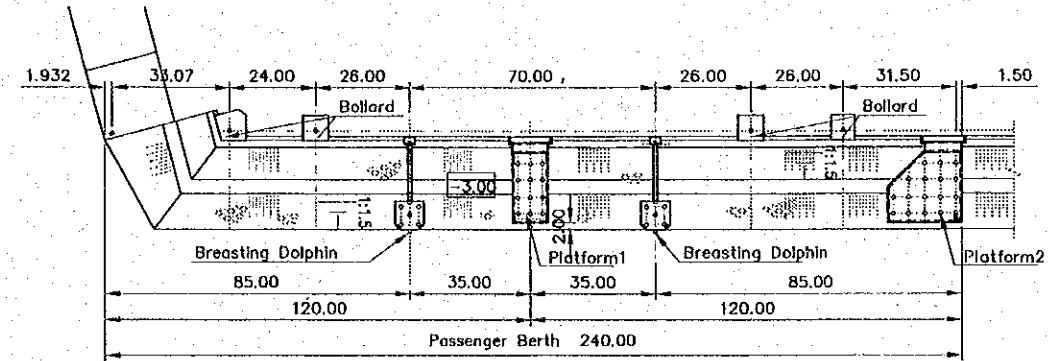
DESIGNED BY :
CHECKED BY :
APPROVED BY :

SECTION : QUAYWALL WORK
SUB-SECTION : PASSENGER BERTH
TITLE :
DETAILS OF BOLLARD AND
BITT (PASSENGER)

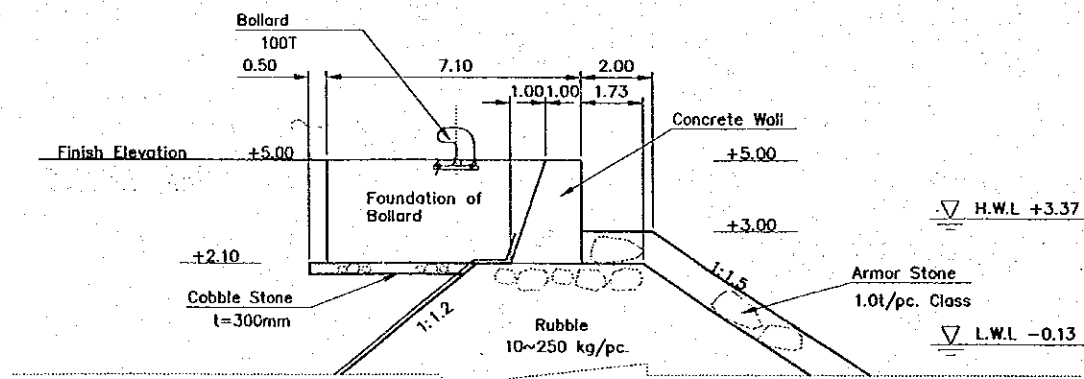
DATE : OCTOBER/2002
SCALE : AS INDICATED
DRAWING NO : QW-02-029



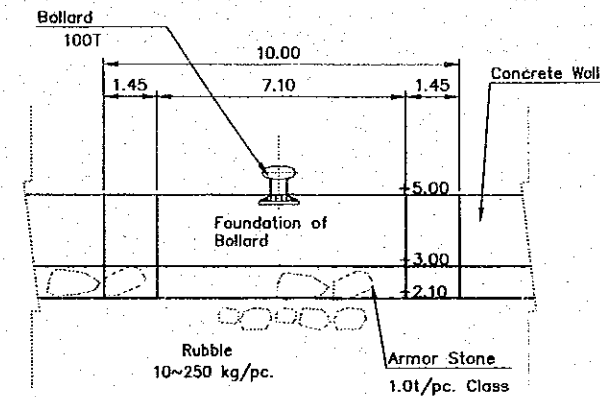
PLAN
S=1:200



KEY PLAN
S=1:2000




Sect A-A
S=1:200



Sect B-B
S=1:200

REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE

 JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)

THE DETAILED DESIGN
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 OF THE REPUBLIC OF EL SALVADOR
 NIPPON KOEI CO., LTD.

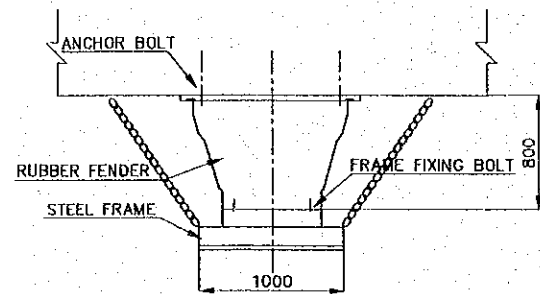
DESIGNED BY :	
CHECKED BY :	
APPROVED BY :	

SECTION : QUAYWALL
 SUB-SECTION : PASSENGER BERTH
 TITLE : ARRANGEMENT AND STRUCTURE OF FOUNDATION OF BOLLARD

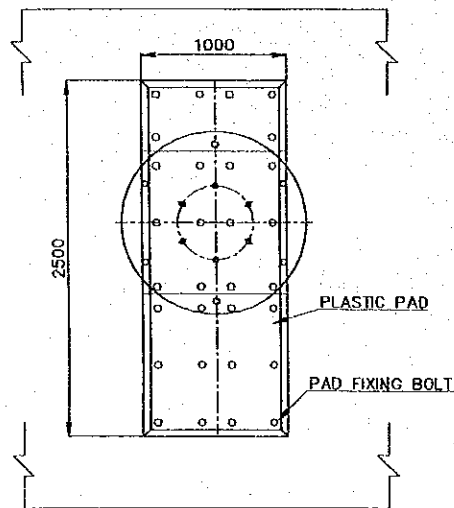
DATE :	OCTOBER/2002
SCALE :	AS INDICATED
DRAWING NO.:	QW-02-030

FENDER AND LADDER
(FOR REFERENCE)

FENDER



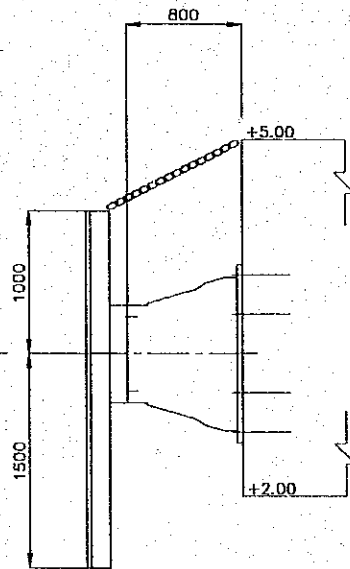
PLAN



FRONT VIEW

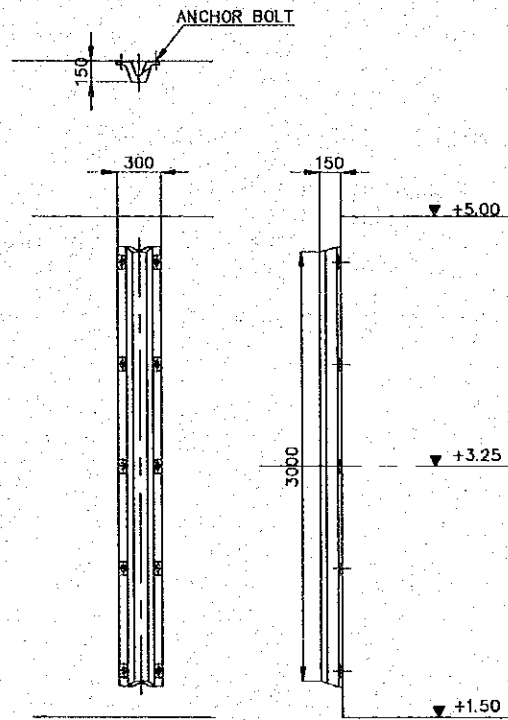
▼ H.W.L. +3.37

▼ L.W.L. -0.13

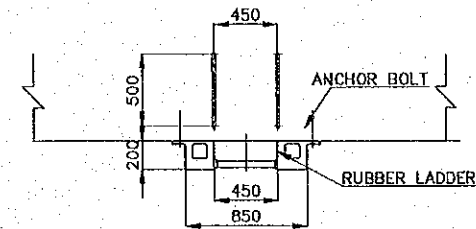


LATERAL VIEW

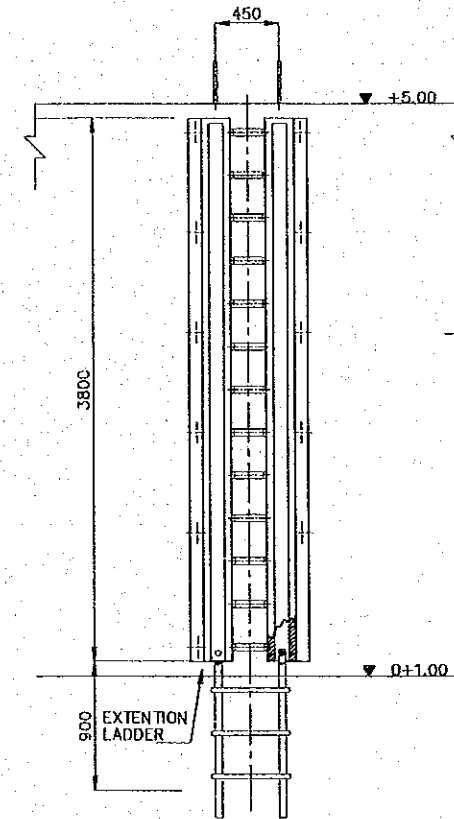
FENDER FOR SMALL CRAFT



LADDER



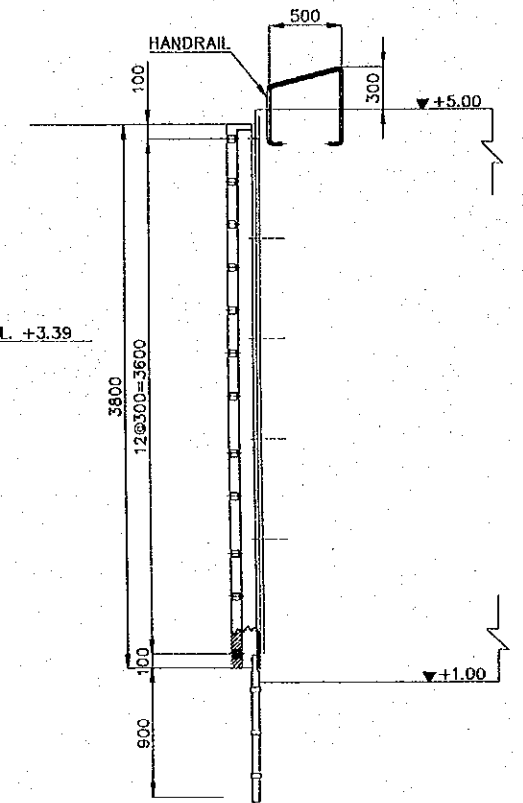
PLAN



FRONT VIEW

▼ H.W.L. +3.39

▼ L.W.L. -0.13



LATERAL VIEW

REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE



JAPAN INTERNATIONAL
COOPERATION AGENCY
(JICA)
COMISION EJECUTIVA
PORTUARIA AUTONOMA
(CEPA)

THE DETAILED DESIGN
ON PORT REACTIVATION PROJECT
IN LA UNION PROVINCE
OF THE REPUBLIC OF EL SALVADOR



DESIGNED BY :
CHECKED BY :
APPROVED BY :

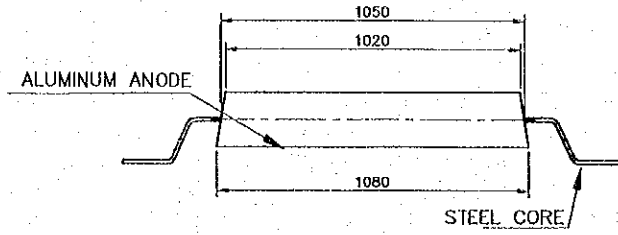
SECTION : QUAYWALL WORK
SUB-SECTION : PASSENGER BERTH
TITLE :
FENDER SYSTEM AND LADDER

DATE : OCTOBER/2002
SCALE : 1 : 50
DRAWING NO : QW-02-031

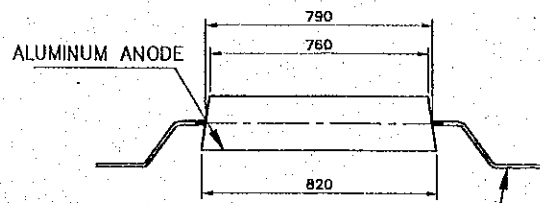
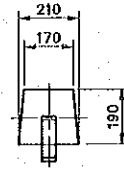
CATHODIC PROTECTION (1) (FOR REFERENCE)

ALUMINUM ALLOY ANODE

SCALE: 1:250

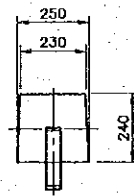


3.0AX20YEAR



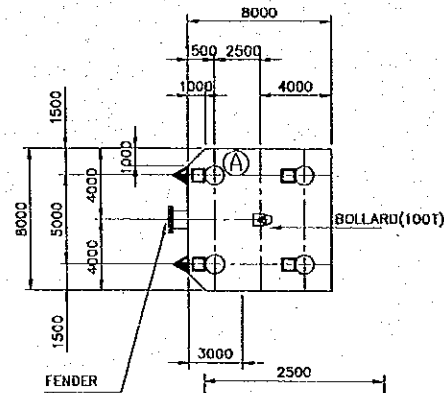
STEEL CORE

3.5AX20YEAR



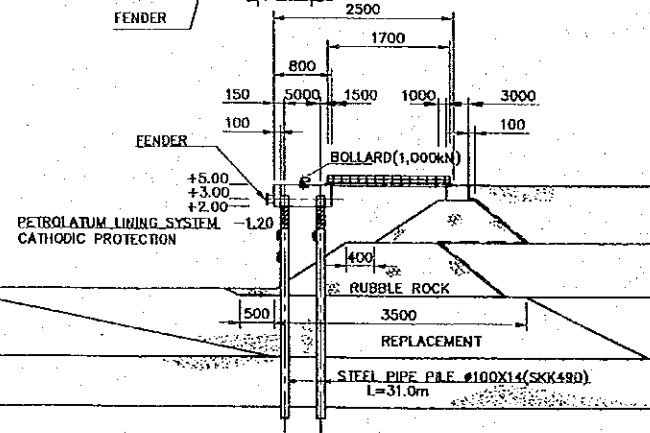
PLAN BREASTING DOLPHIN

SCALE: 1:400



BOLLARD(100T)

FENDER

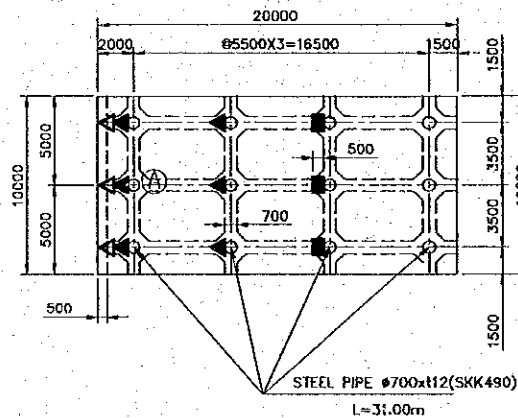


TYPICAL CROSS SECTION

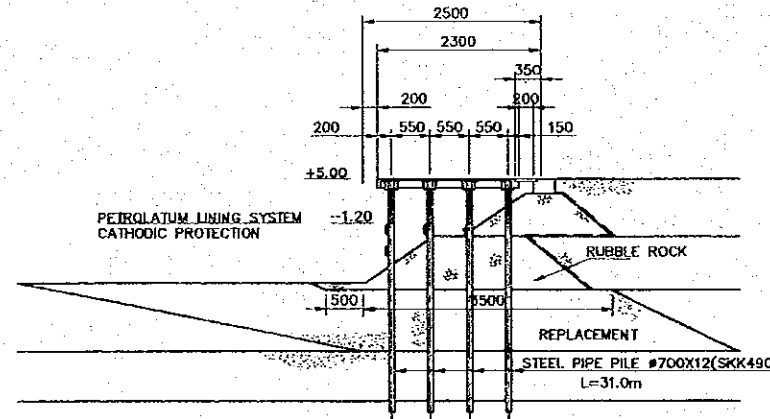
SCALE: 1:1000

PIER 1

SCALE: 1:400



STEEL PIPE #700x12(SKK490)
L=31.00m



TYPICAL CROSS SECTION

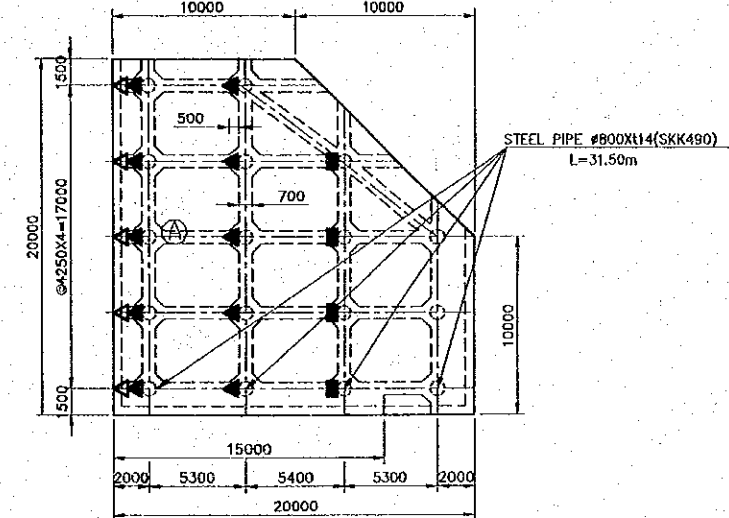
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CATHODIC PROTECTION SYSTEM

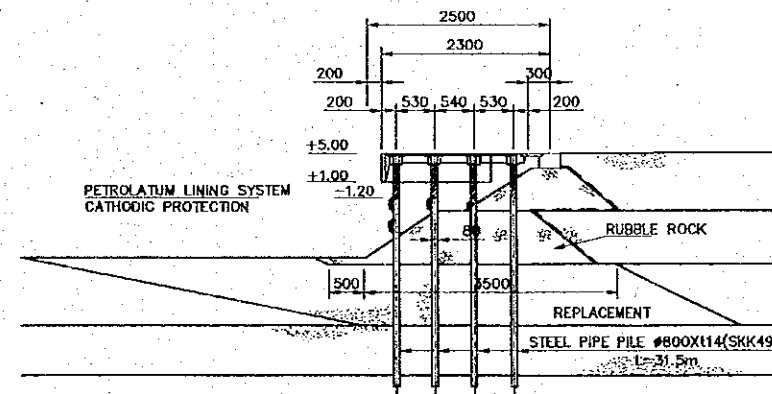
NAME	SYMBOL	INSTALLATION LEVEL	INSTALLATION	BREASTING DOLPHIN (2-UNITS)	PIER-1 (1-UNITS)	PIER-2 (1-UNITS)	TOTAL
ALUMINUM ANODE 3.0AX20YEAR	▲	-1.60	VERTICAL INSTALLATION	—	6 PCSX1 = 6 PCS	10 PCSX1 = 10 PCS	16 PCS
	△	-4.00	—	—	3 PCSX1 = 3 PCS	5 PCSX1 = 5 PCS	8 PCS
	■	-1.30	HORIZONTAL INSTALLATION	—	3 PCSX1 = 3 PCS	4 PCSX1 = 4 PCS	7 PCS
TOTAL					12 PCS	19 PCS	31 PCS
3.5AX20YEAR	□	-1.60	VERTICAL INSTALLATION	4 PCSX2 = 8 PCS	—	—	8 PCS
	▲	-4.00	HORIZONTAL INSTALLATION	2 PCSX2 = 4 PCS	—	—	4 PCS
TOTAL				12 PCS			12 PCS
MEASURING TERMINAL	⊕			1 PC X 2 = 2 PCS	1 PC X 1 = 1 PC	1 PC X 1 = 1 PC	4 PCS

PIER 2

SCALE: 1:400



STEEL PIPE #800x14(SKK490)
L=31.50m



TYPICAL CROSS SECTION

SCALE: 1:1000

REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE



JAPAN INTERNATIONAL
COOPERATION AGENCY
(JICA)

COMISION EJECUTIVA
PORTUARIA AUTONOMA
(CEPA)



THE DETAILED DESIGN
ON PORT REACTIVATION PROJECT
IN LA UNION PROVINCE
OF THE REPUBLIC OF EL SALVADOR

NIPPON KOEI CO., LTD.

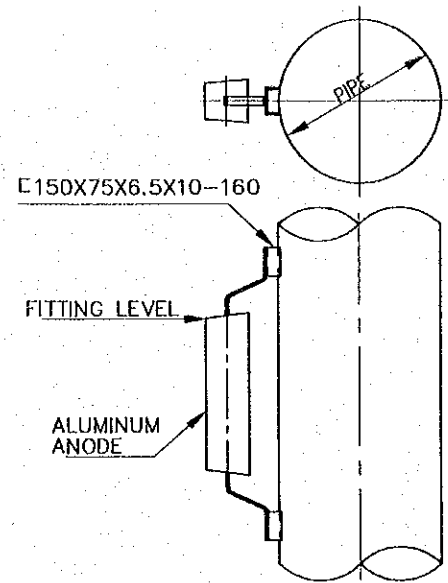
DESIGNED BY :
CHECKED BY :
APPROVED BY :

SECTION : QUAYWALL WORK
SUB-SECTION : PASSENGER BERTH
TITLE : CATHODIC PROTECTION
SYSTEM (1)

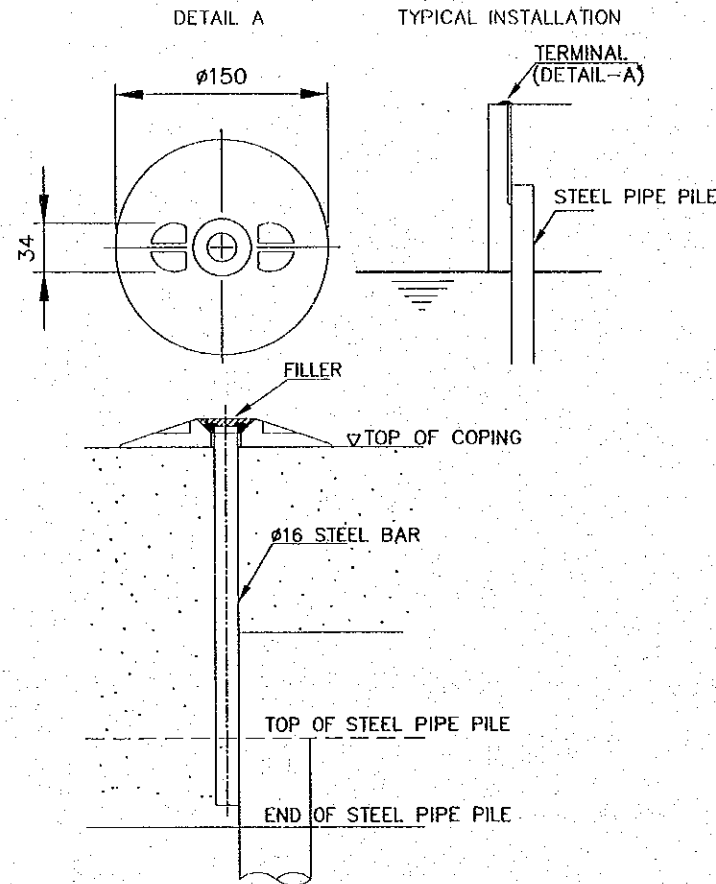
DATE : OCTOBER/2002
SCALE : AS INDICATED
DRAWING NO. : QW-02-032

CATHODIC PROTECTION (2) (FOR REFERENCE)

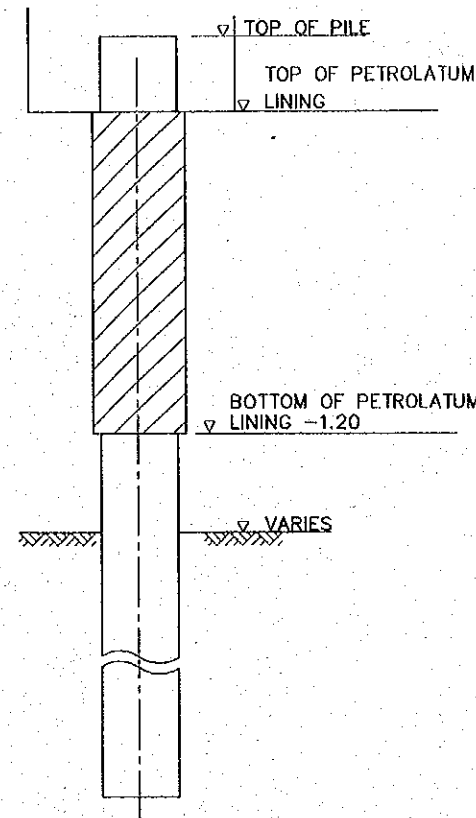
**ANODE
VERTICAL INSTALATION**



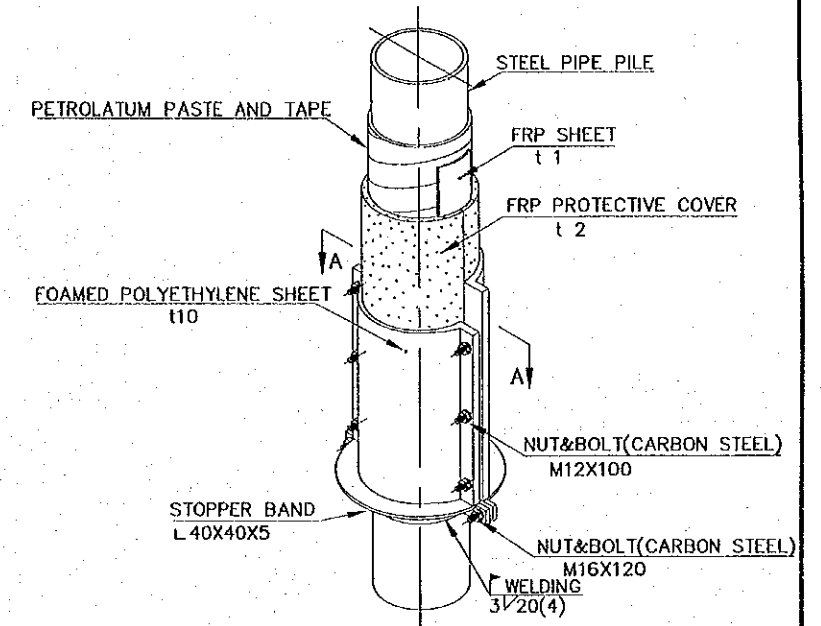
MEASURING TERMINAL



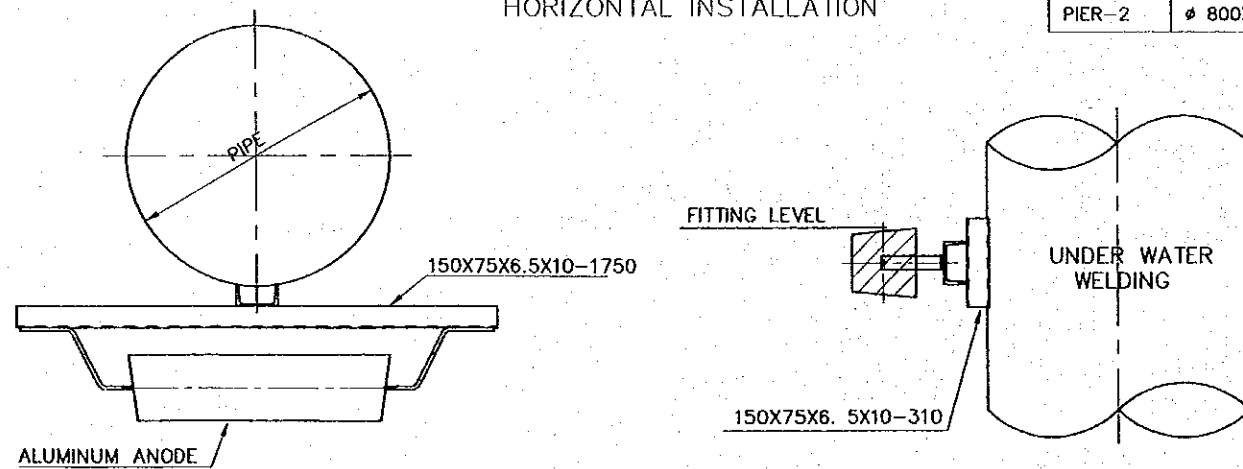
PETROLATUM LINING SYSTEM



**PETROLATUM LINING SYSTEM
DETAIL OF PETROLATUM LINING**



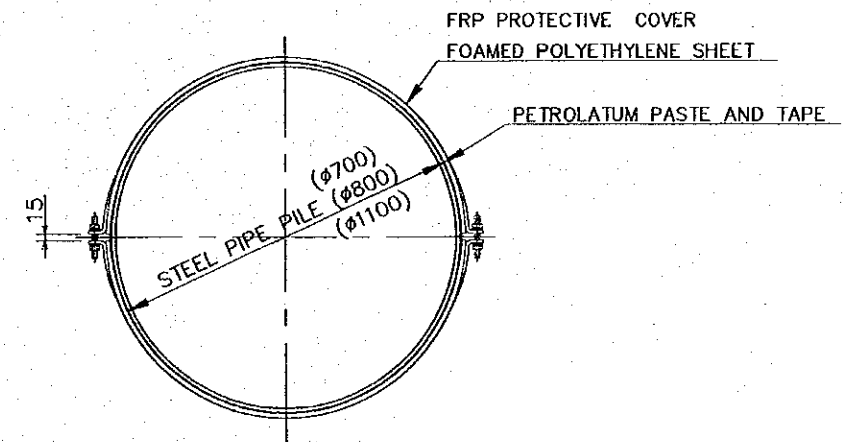
**ANODE
HORIZONTAL INSTALLATION**



LIST OF STEEL PIPE PILES

LOCATION	PIPE SIZE	NOS.	TOP OF PETROLATUM LINING	BOTTOM OF PETROLATUM LINING	No.OF STRUCTURE
BREASTING DOLPHIN	φ1100Xt14	4	+2.00	-1.20	2-UNITS
PIER-1	φ 700Xt12	12	+3.50	-1.20	1-UNITS
PIER-2	φ 800Xt14	17	+3.50	-1.20	1-UNITS

TYPICAL CROSS SECTION A-A



REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)		CEPA COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	
						NIPPON KOEI CO., LTD.		THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR	
						DESIGNED BY :	SECTION :	DATE :	
						CHECKED BY :	SUB-SECTION :	OCTOBER/2002	
						APPROVED BY :	TITLE :	SCALE :	
							CATHODIC PROTECTION SYSTEM (2)	NOT TO SCALE	
								DRAWING NO. : QW-02-033	