	QUANTITY CALCULATION C		
Project	Detailed Design on Port Reactivation Project in La Union Province	Project Code	JC1N004/2N001
Work Section Title	COPING CONCRETE OF CALSSON	Pay Item No. (BOQ)	20-0901
Quantity Item	CONCRETE	Unit	m3

Concrete volume was computed for each type of coping.

On the coping there are crone occessories, whithy
pits and so on. Concrete volume needs to be
reduced by them.

## References. Calculation Base and Revisions

Rehances: Tinder Drawings:

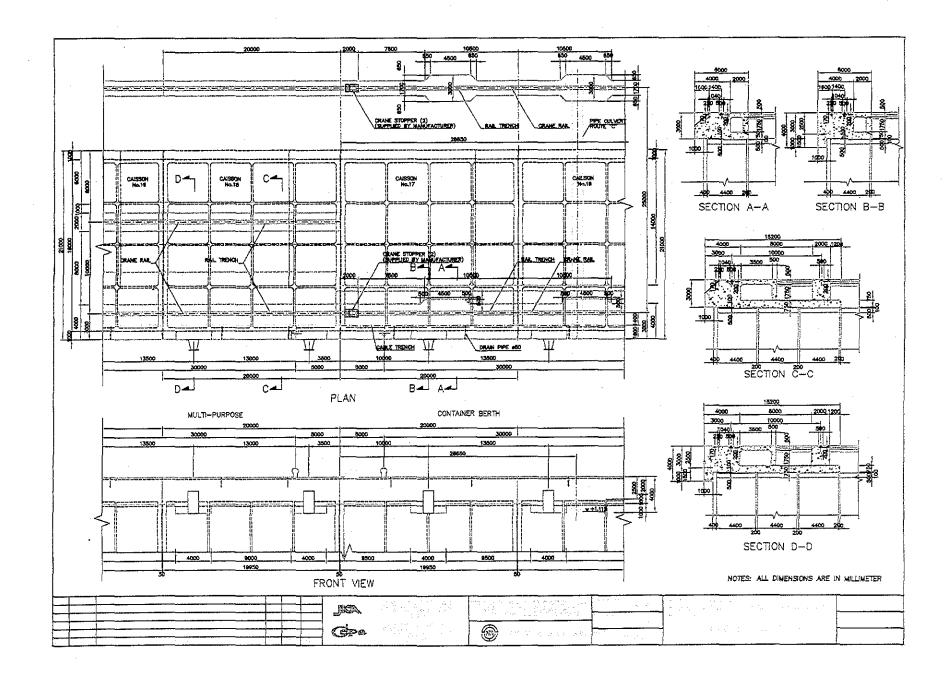
DW-GV4-21-043 Detail of Coping (e)

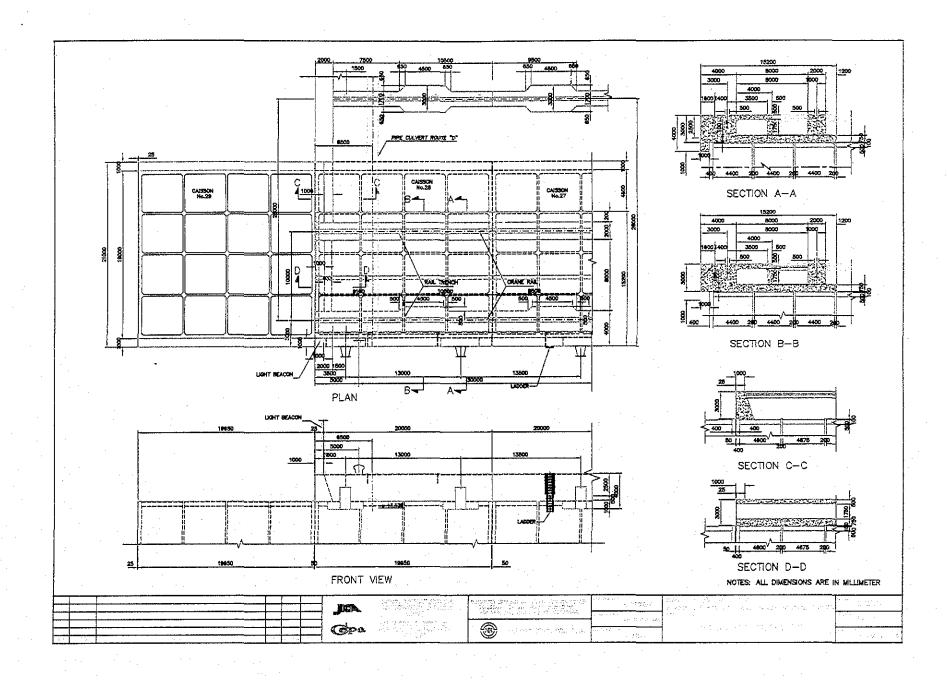
sw-an-01-044 Detail of Coping (3)

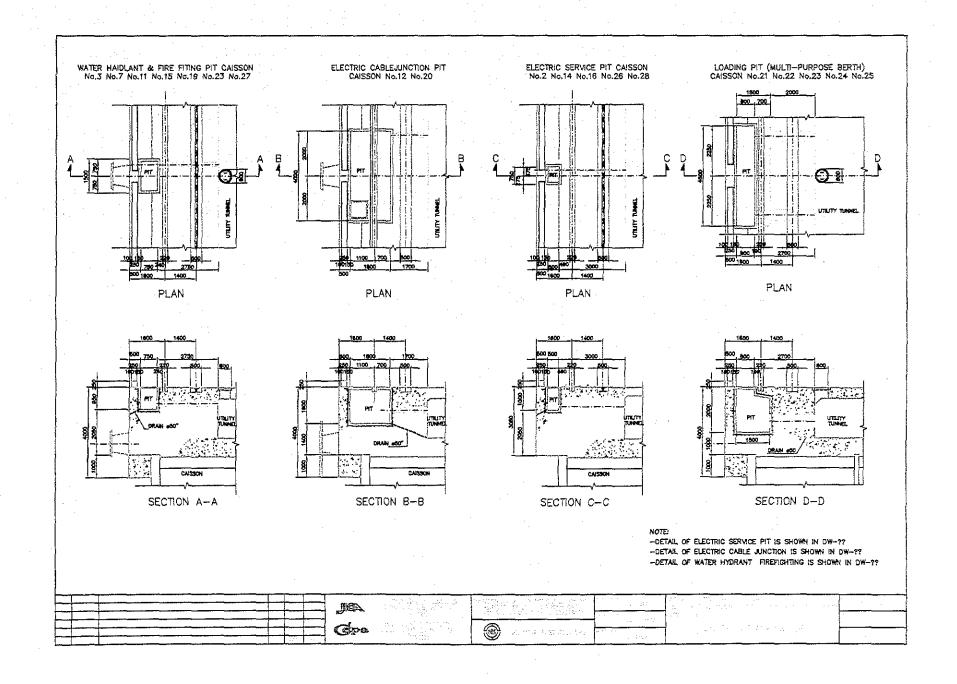
SW-QW-01-093 Detail of Coping (4)

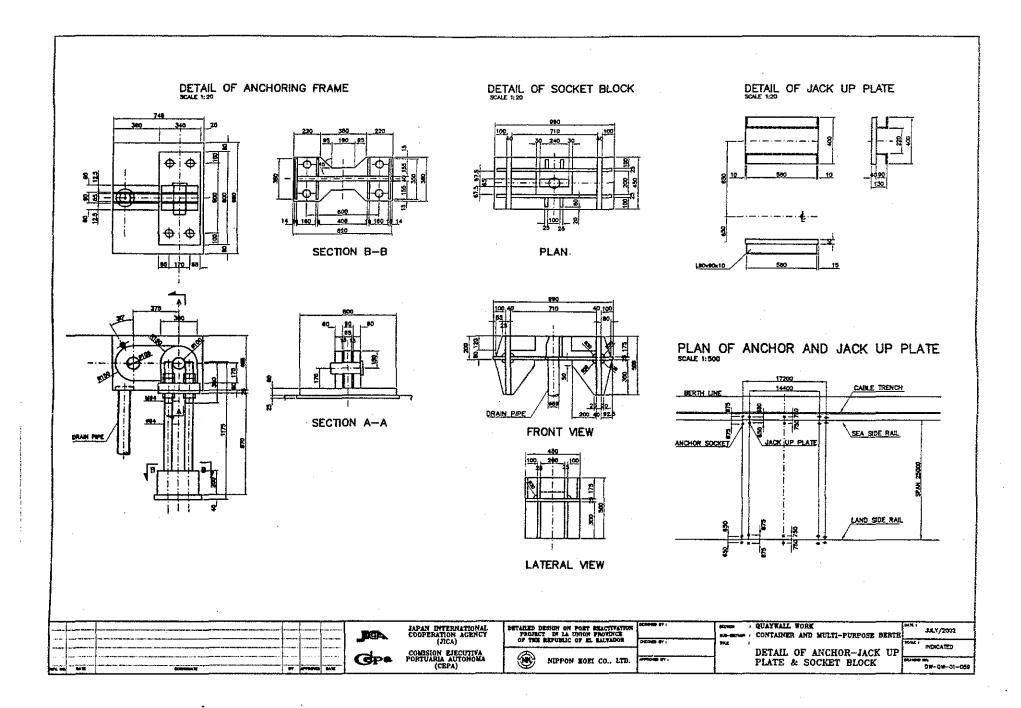
pri-ani-01-059 Defail of Anchor-Tack up plate

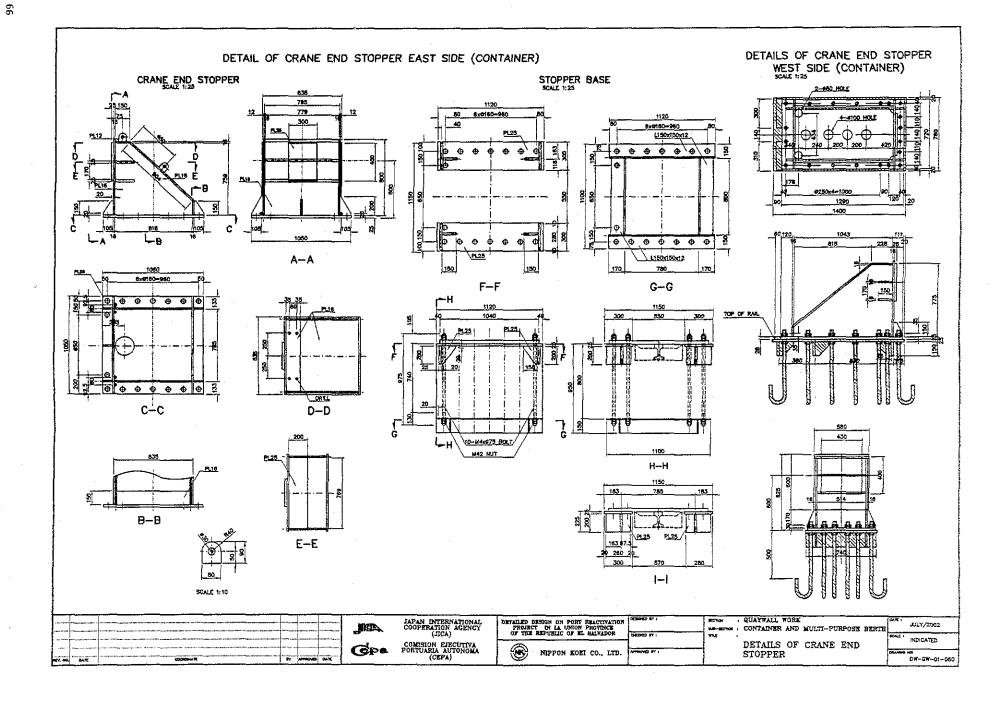
Rev	Prep	ared	No. of	Check	ked	Revie	wed	Superseded
<u> </u>	by	Date	Pages	by	Date	by	Date	by Calc No.
0	Karla Gorcía	7		Mr. Inuma	-	Mr. Ando		
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# MIPPON KOEI CO.,LTD.

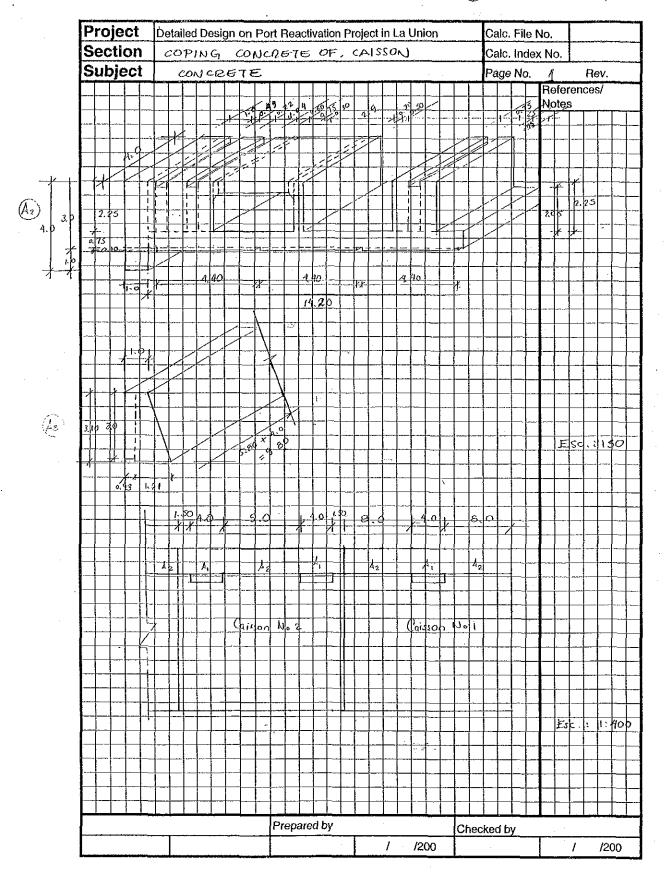


TABLE OF REINFORCEMENT (	(Multi-purpose Berth Coping)

TABLE OF		EMENT (Multi-	purpose Berth	Coping)	- <del></del>	
	D	L (m)	Qty	W/bar (kg)	W (kg)	Remarks
D1-1	D16	8.00	216	12.48	2695.68	
D1-2	D16	8.00	216 ′	12.48	2695.68	
D1-3	D16	4.80	216	7.488	1617.408	
D2-1	D16	8.00	6 /	12.48	74.88	
D2-2	D16	8.00	67	12.48	74.88	
D2-3	D16	4.95	6/	7.722	46.332	
D3-1	D22	8.00	80 /	24.32	1945.6	
D3-2	D22	8.00	80 /	24.32	1945.6	
D3-3	D22	5.20	80 /	15.808	1264.64	
D4-1	D25	8.00	76,	31.84	2419.84	
D4-2	D25	8.00	76 /	31.84	2419.84	
D4-3	D25	5.30	76 /	21.094	1603.144	
D5 /	D16	3.60	26/	5.616	146.016	
E1 /	D16	3.80	38	5.928	225.264	
E2 /	D16	2.80	102 /	4.368	445.536	
E3 /	D16	2.70	200 /	4.212	842.4	
E4 /	D16 /	2.65	200 /	4.134	826.8	
Fl.,	D25 /	4.70	300 /	18.706	5611.8	
F2	D25 /	8.00	100 <	31.84	3184	*
F3 /	D16 /	2.00 /	100 /	3.12	312	1
F4-1	D19/	7.80 /	200 ′	17.55	3510	
F4-2 /	D19 /	8.00 /	200 /			· · · · · · · · · · · · · · · · · · ·
YI	D16	1.01 /	2100 /	1.58184	3321.864	
Y2	D16	2.90	38 /	4.524	171.912	
Y3	D16	1.70 /	100 /	2.652	265.2	
Y4	D16	1.50 /	300 ′	2.34	702	
Y5	D16	0.95 /	100 ·	1.482	148.2	
Y6	D16	2.70	300 .	4.212	1263.6	
Y7	D16	2.65	200 ,	4.134	826.8	
Y8	D16	0.95 /	1800.	1.482	2667.6	1
Y9	D16	1.00,	400 /	1.56	624	
Y10	D16	1.80 ,	100 /	2.808	280.8	
H2	D16	1.02	200	1.5912	318.24	
				Sub Total	44497.6 kg	
		. <u>.                                   </u>			44.50 fon	(11) = 489. 50 hm
	<del>                                     </del>					10,500

~ 490 lon

04 June /2002

#### Concrete Volume of Coping of Caisson

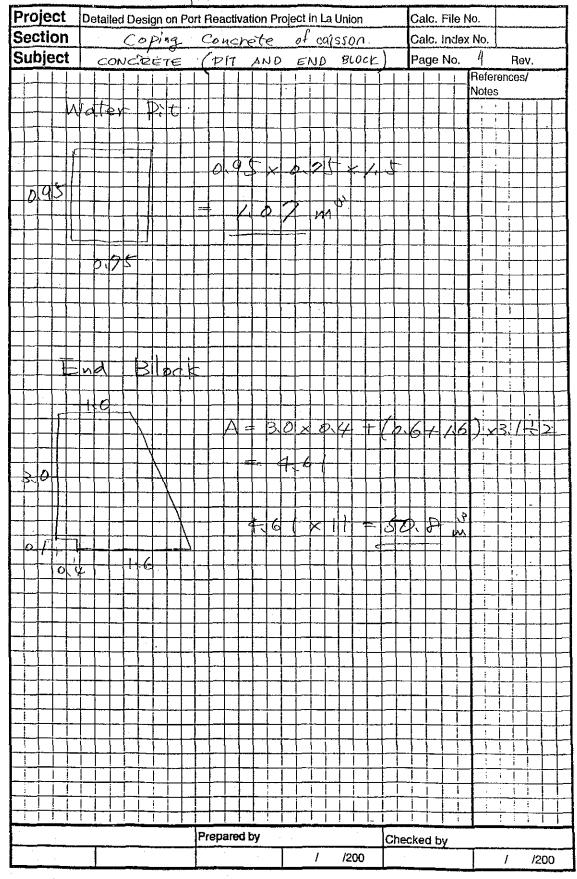
	:		Crane	Pit	Other	Volume
Container	No.1	316.8	0.73		0.69	316.76
Berth	No.2	320.8				320.8
	No.3	316.8		1.07		315.73
	No.4	320.8				320.8
	No.5	316.8				316.8
	No.6	320.8				320.8
	No.7	316.8		1.07		315,73
	No.8	320.8				320.8
	No.9	316.8				316.8
	No.10	320.8				320.8
	No.11	316.8		1.07	1 1 1	315.73
	No.12	320.8	:	11.52		309.28
100	No.13	316.8		•		316.8
	No.14	320.8	1.82	:		318.98
	No.15	316.8	1.82	1.07		313.91
	No.16	320.8	1.82	·		318.98
	No.17	316.8	2.55			314.25
and the second	End Block	64.6				64.6
	Total					5,460 m
				* .		
Multi-purpose	No.18	586.8				586.8
Berth	No.19	582.8		1.07	- : .	581.73
4.	No.20	586.8	1	16.2		570.6
	No.21	582.8				582.8
	No.22	586.8	1.00	12.08		574.72
	No.23	582.8	· · · · · · · · · · · · · · · · · · ·	13.15		569.65
	No.24	586.8	- 1 1	12.08		574.72
4	No.25	582.8				582.8
	No.26	586.8				586.8
1	No.27	582.8	1.82	1.07		579.91
•	No.28	586.8	2.55			584.25
	End Block	50.8				50.8
	Total					6,430 m

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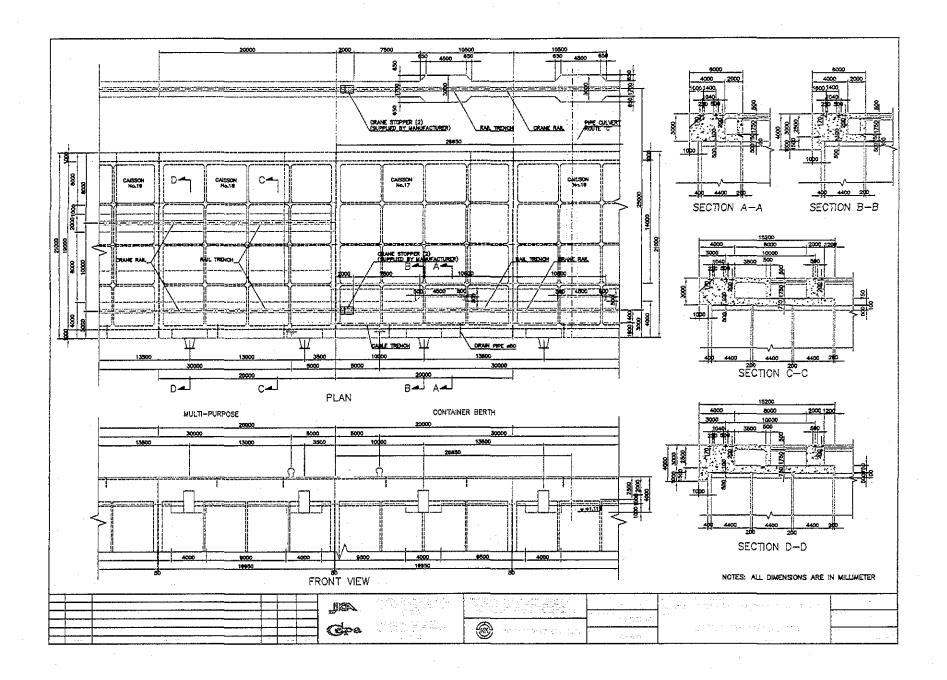
Project	Detailed Design on Port Reactivation Project in La Union Province	Project Code	JC1N004/2N001
	in La Union Province		00111004/211001
Work Section Title	coping concrete of caisson	Pay Item No. (BOQ)	2C-0902
Quantity Item	ELAS TIGH BOARD (HULTI-PURPOUR BEATH)	Unit	m z
Calculation Procedu			
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# References, Calculation Base and Revisions

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	QUANTITY CALCULATION C		
Project	Detailed Design on Port Reactivation Project in La Union Province	Project Code	JC1N004/2N001
Work Section Title	COPING CONCRETE OF CAISSON	Pay Item No. (BOQ)	20-0903
Quantity Item	REINFORCEMENT WITT	Unit	ton

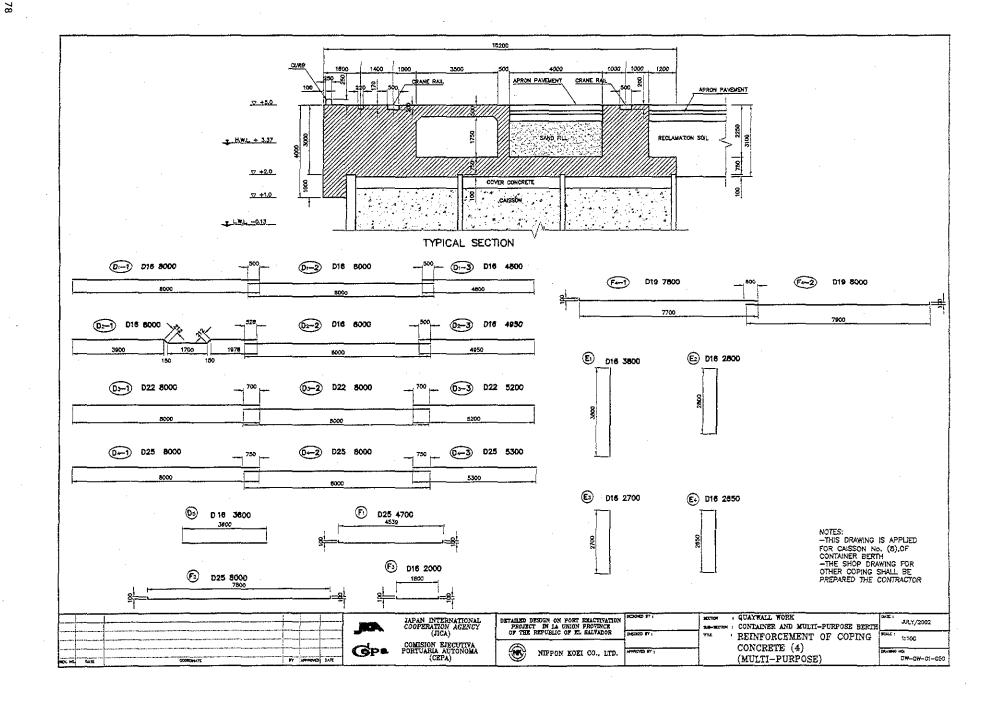
Reinforcement was computed using the details of coping bors with the types lengths. From reinforcement plans, the detail of number of bors per each type was obtained.

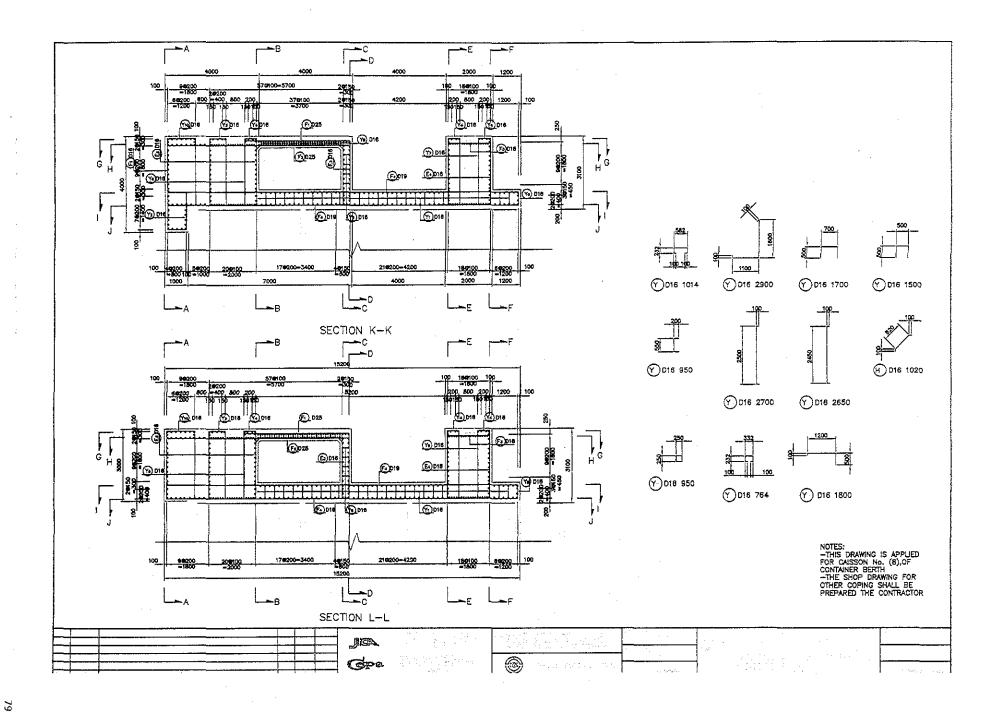
### References, Calculation Base and Revisions

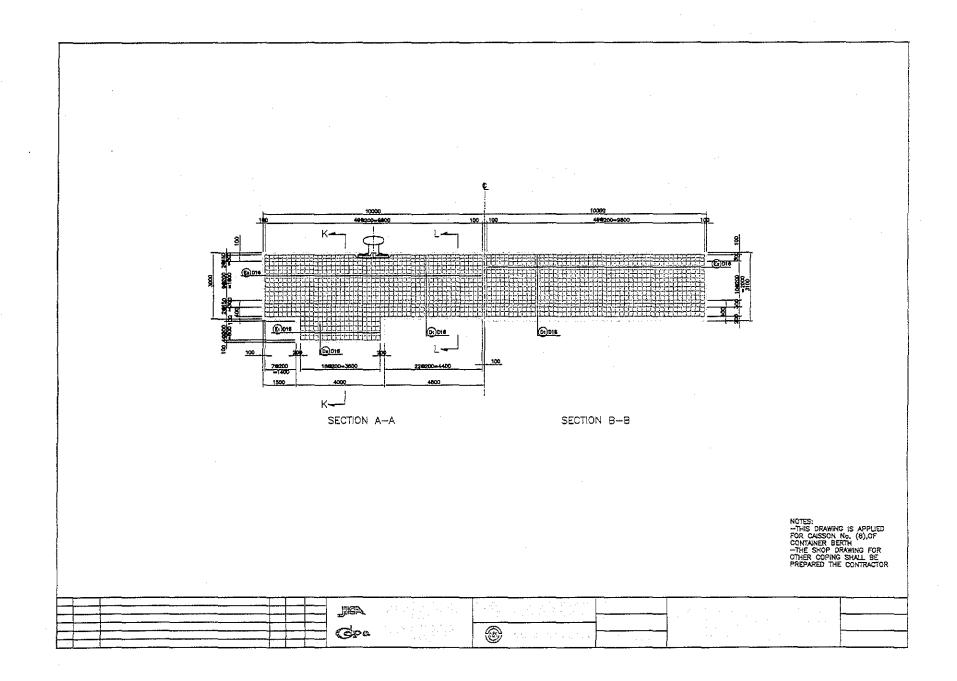
Refunce: Tinder Drawings:

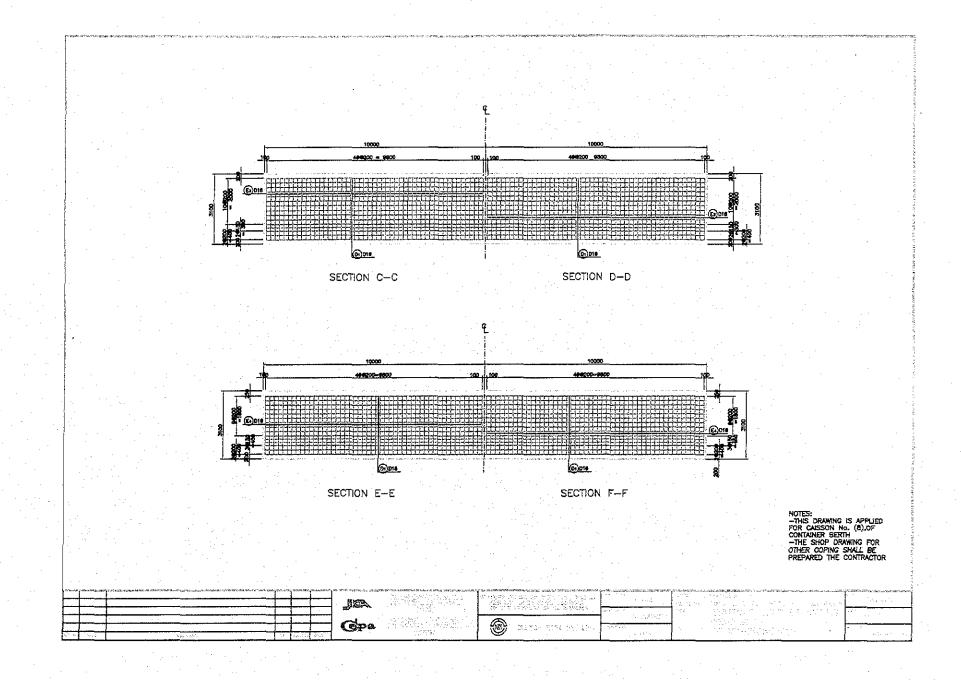
From DW-QW-01-050 Reinforcement of Coping Converte (4)

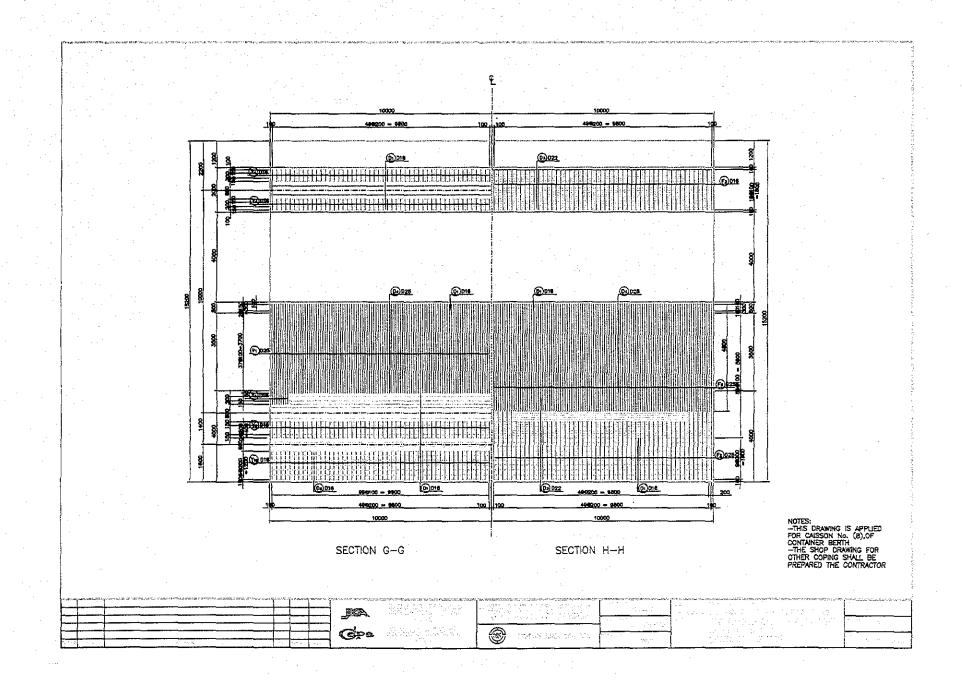
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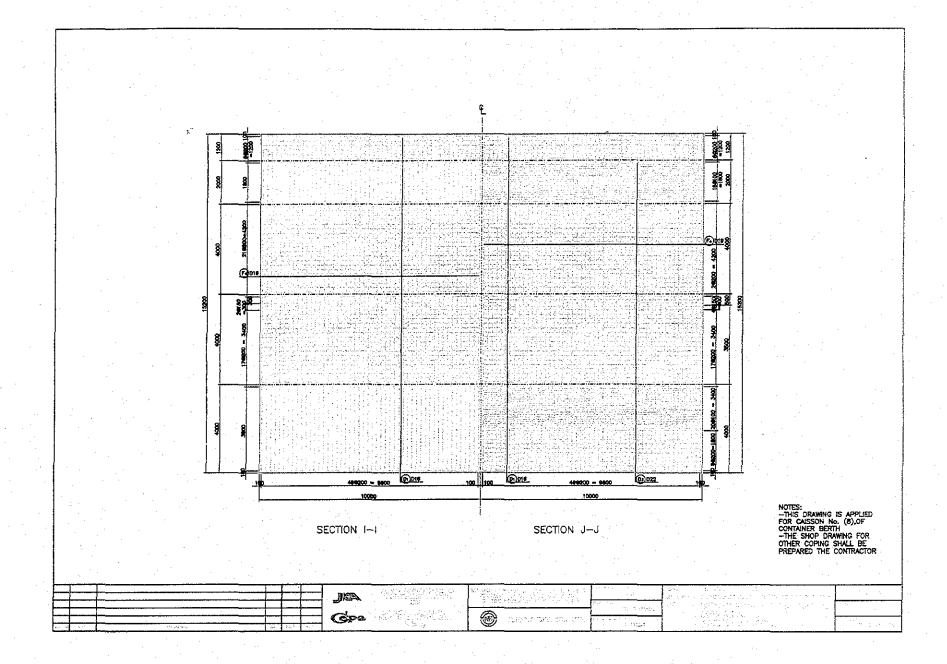




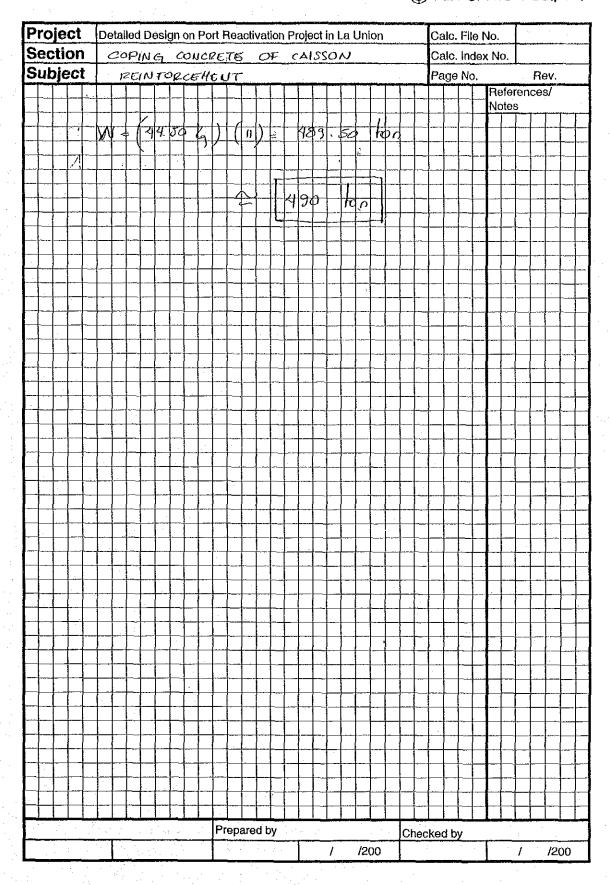








## NIPPON KOEI CO.,LTD.



	QUANTITY CALCULATION C		
Project	Detailed Design on Port Reactivation Project in La Union Province	Project Code	JC1N004/2N001
Work Section Title	COPING CONCRETE OF CAISSON	Pay Item No. (BOQ)	20-0904
Quantity item	Form.	Unit	M2 .

Form of coping concrete was computed for Multi-purpose berth.

#### References, Calculation Base and Revisions

References: Tender Drawings:

DW - QW - 01 - 043 Detail of Coping (2)

DW - QW - 01 - 044 Detail of Coping (3)

DW - QW - 01 - 045 Detail of Coping (4)

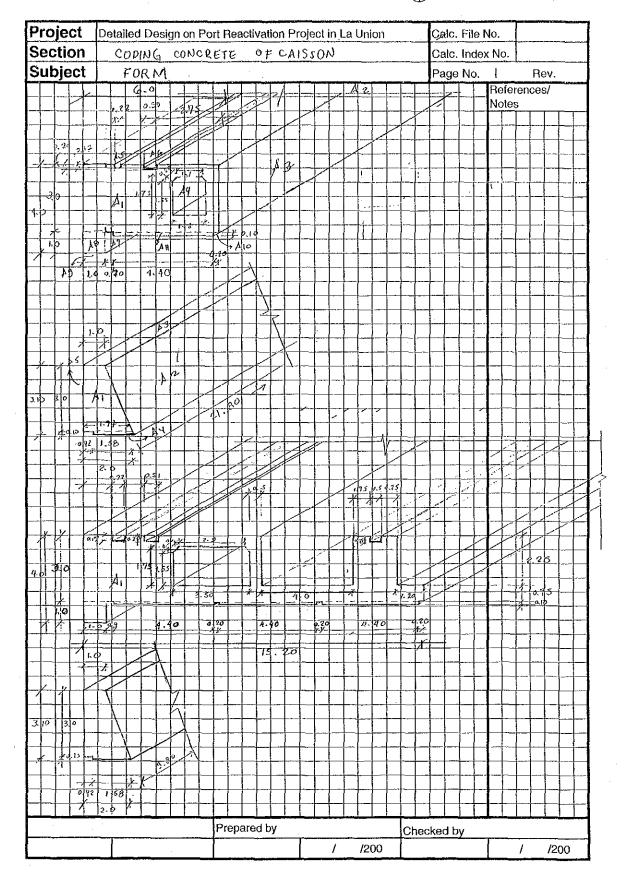
DW - QW - 01 - 059 Detail of Anchor - Jack up Plate.

DW - QW - 01 - 060 Detail of Crone End Shopper

(Somo as "Convete")

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Form of Coping	g of Caisson						
<i>S</i>		1	Crane	Stopper	Other	sqm	
Container	No.1	270.65		2.9		274	
Berth	No.2	262				262	
	No.3	256				256	
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	No.14	262	9.6			271.6	
	No.15	256	9.6	<u> 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 </u>		265.6	
	No.16	262	9.6	<u> </u>		271.6	
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	End Block	87.7			· · · · · · · · · · · · · · · · · · ·	87.7	2
	Total	* *	٠.	* * .		<b>4,550</b> r	pot m <sup>™</sup>
Multi-purpose		396		•		396	
Berth	No.19	390		<u> </u>		390	• •
	No.20	396			*	396	100
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v - *	No.22	396			26.2	422.2	
	No.23	390			26.2	416.2	
	No.24	396			26.2	422.2	
1	No.25	390				390	
	No.26	396				396	
	No.27	390	9.6			399.6	
	No.28	423.6	9.6	2.9		436.1	
	End Block	68.9				68.9	а
•	Total					4,530	<b>ജെ</b> ന്

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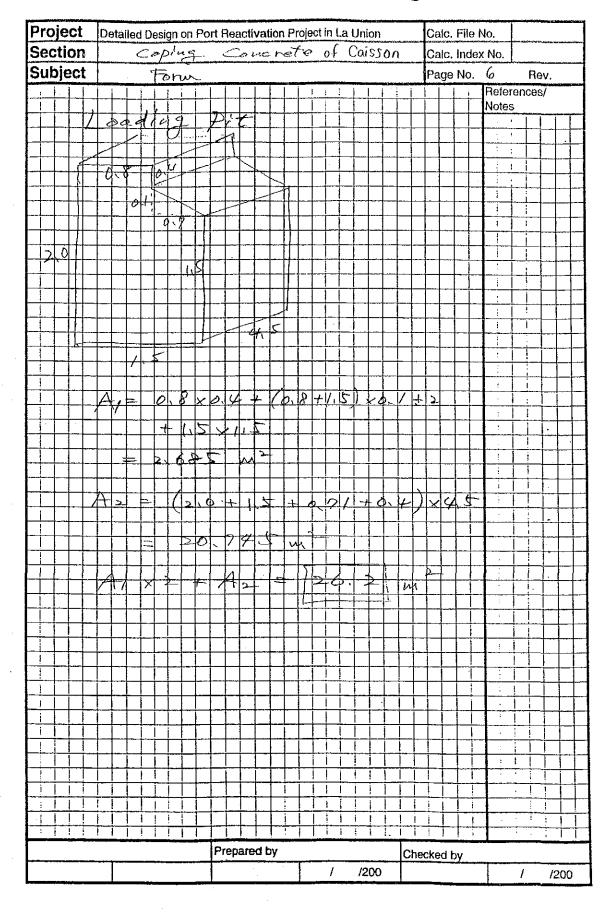
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## (a) NIPPON KOEI CO.,LTD.



	QUANTITY CALCULATION C		
Project	Detailed Design on Port Reactivation Project in La Union Province	Project Code	JC1N004/2N001
Work Section Title	COPING CONCRETE OF CAISSON	Pay Item No. (BOQ)	2C-0905
Quantity Item	CORNER PROTECTION	Unit	m

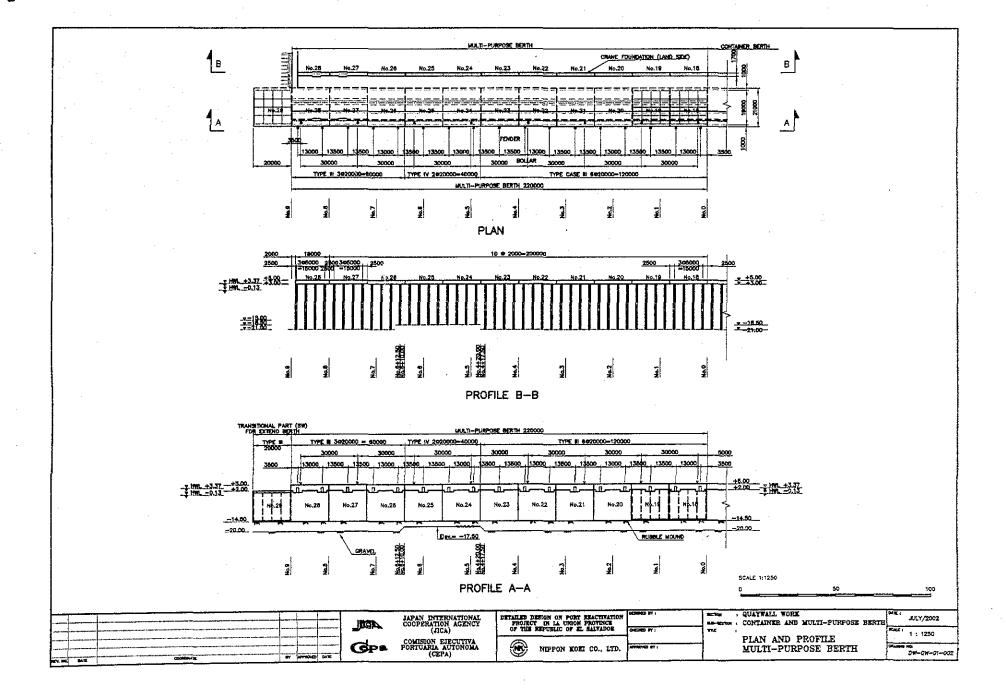
Corner protection will be set in the corner of coping concrete.

### References, Calculation Base and Revisions

Références Tinda Downings:

SW-and-01-002 Plon and Fafile
Pullipupose Bull

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	QUANTITY CALCULATION C		
Project	Detailed Design on Port Reactivation Project in La Union Province	Project Code	JC1N004/2N001
Work Section Title	COPING CONCRETE OF CAISSON	Pay Item No. (BOQ)	2c-0906
Quantity Item	CONCRETE TOR CURB	Unit	мЗ

Length's of ourbs are 4 Types (3.5 m, 3.0 m, 3.5 m, 2.0 m).

Regarding the arrangement, see the alloched drawing.

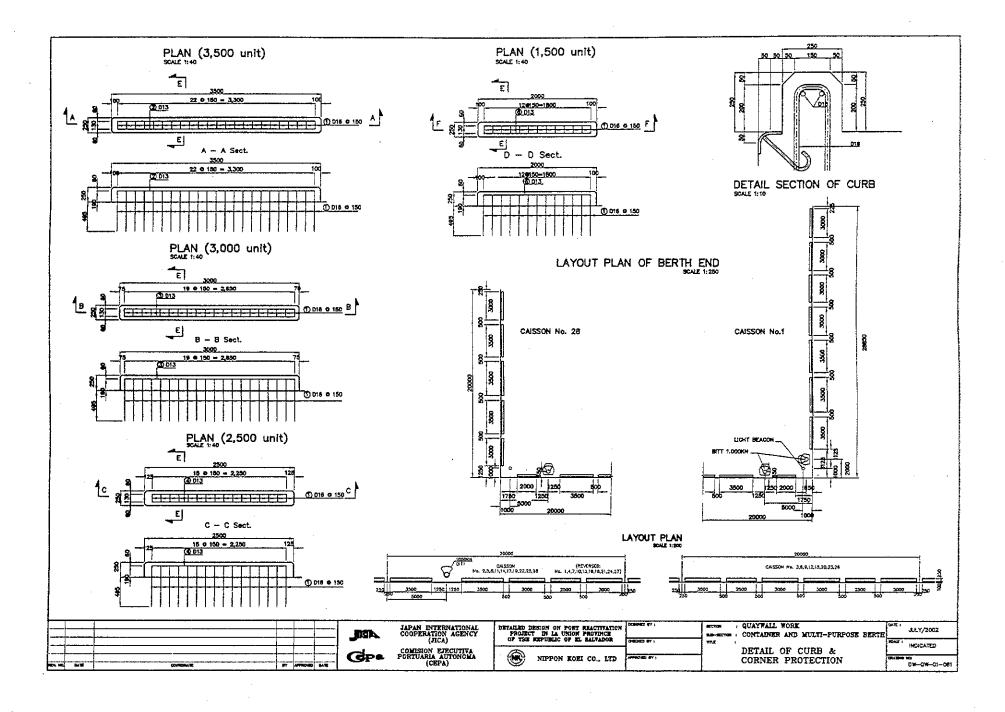
Colonlation was computed by using Excel.

### References, Calculation Base and Revisions

Retarnecs: Tender Downing::

Dru-aw-01-061 Detail of Curb & Corner Protection

Rev	Prepared		No. of	Checked		Reviewed		Superseded
	by	Date	Pages	by	Date	by	Date	by Calc No.
0	Kana Garas	A		Hr. Truma		H. Ando		
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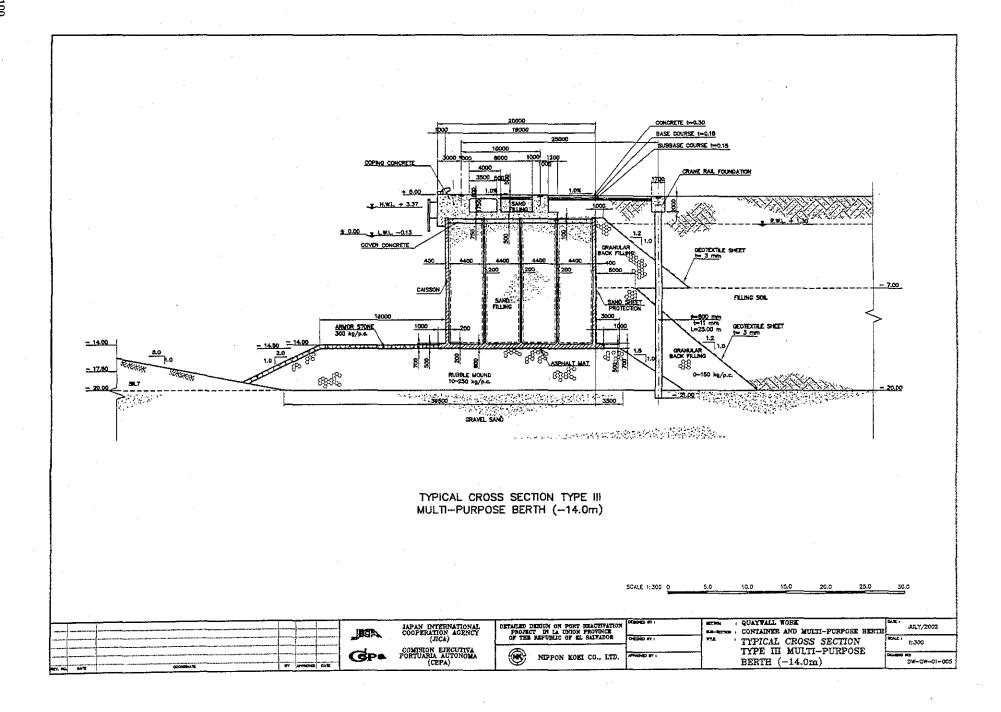
# Concrete for our (Mulli-P.)

Curb	on the	Caisson						
		3.5m	3.0m	2.5m	2.0m	Concrete (m3)	Form (m2)	
No	1	4	6	1	1	2.19	20.92	633.1
	2	2	2	1		0.93	8.87	268
	3		3	2		0.84	7.96	241.5
	4	2		1		0.93	8.87	268
	5	2	2 2	1		0.93	8.87	268
	6		3	2		0.84	7.96	241.5
	7	2	2	1		0.93	8.87	268
	8	2	2	j		0.93	8.87	268
	9		3	2		0.84	7.96	241.5
	10	2	2	1		0.93	8.87	268
	11	2	2	1		0.93	8.87	268
	12		3 2 2 3	2		0.84	7.96	241.5
	13	2	2	1		0.93	8.87	268
	14	2	2	1		0.93	8.87	268
	15		3	2		0.84	7.96	241.5
	16	2	2	1		0.93	8.87	268
	17	2	2	1		0.93	8.87	268
	Total					16.7	159.0	4790.0
	18	2	2	1		0.93	8.87	268
	19	2	2	1		0.93	8.87	268
	20		3 .	2		0.84	7.96	241.5
	21	2	2	1		0.93	8.87	268
	22	2	2	1		0.93	8.87	268
	23		3	2		0.84	7.96	241.5
	24	2	. 2	1		0.93	8.87	268
	25	2	2	1		0.93	8.87	268
	26		3	2		0.84	7.96	241.5
	27	2	. 2	1		0.93	8.87	268
	28	4	4	1	1	1.83	17.52	528.1
	Total					10.9	104.0	3130.0

	Concrete	Form	Re-Bar
	m3	m2	kg
L=3.5m	0.21	2.02	60.5
L=3.0m	0.18	1.7	52.5
L=2.5m	0.15	1.43	42.0
L=2.0m	0.12	1.21	34.1

## NIPPON KOEI CO,,LTD,

Project	Detailed Design on Po	rt Reactivation Pr	oject in La Union	Calc. File N	Catc. File No.									
Section	coping concrete	DF CAISSO	Calc. Index	Calc. Index No.										
Subject	Concrete fi			Page No.	Rev.									
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1177					Notes									
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	QUANTITY CALCULATION C		
Project	Detailed Design on Port Reactivation Project in La Union Province	Project Code	JC1N004/2N001
Work Section Title	COPING CONCRETE OF CAISSON	Pay Item No. (BOQ)	2C-0907
Quantity Item	FORM FOR CURB	Unit	m <sup>2</sup>

#### Calculation Procedure Applied

lenghls of wib one 4 types (3.50m, 3.0m, 2.50 m, 2.00m).
Calculation was computed by using Excel. Regarding numbers of each type, see the altoched summary.

#### References, Calculation Base and Revisions

References: Tinder Drowings: DW-QW - 01 - 061 Detail of Cub & Corner Protection (Some as Concrete for wib)

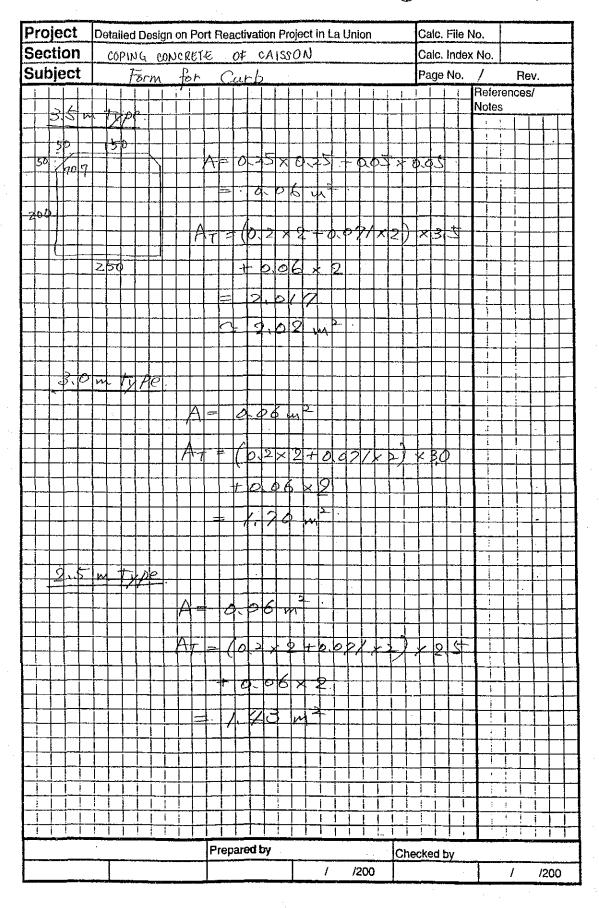
Rev	Prepa	red	No. of	Chec	ked	Revie	wed	Superseded
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# Form for curb (Hulfi-P.)

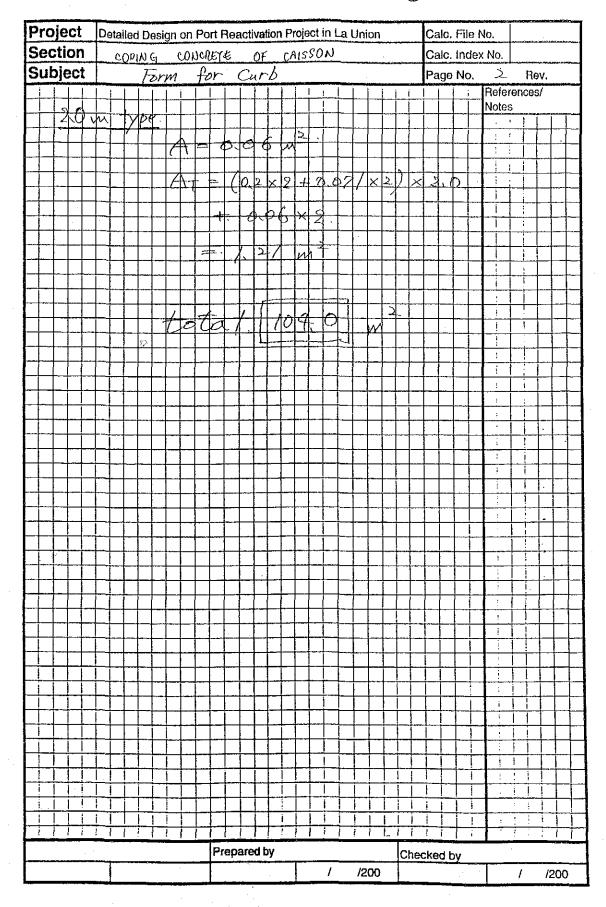
Curb	on the	e Caisson						
		3.5m	3.0m	2.5m	2.0m	Concrete (m3)	Form (m2)	Re-Bar (kg)
No	1	4	6	1	1	2.19	20.92	633.1
	2	2	2	1	•	0.93	8.87	268
	3		3	2		0.84	7.96	241.5
	4	2	2	1		0.93	8.87	268
	4 5 6 7	2	2 3	. 1		0.93	8,87	268
	6		3	2		0.84	7.96	241.5
		2	2	1		0.93	8.87	268
	8 9	2	2	1		0.93	8.87	268
	9		3 2	2	•	0.84	7.96	241.5
	10	2		1		0.93	8.87	268
	11	2	2	1		0.93	8.87	268
	12		3	2		0.84	7.96	241.5
	13	2	2	1		0.93	8.87	268
	14	2	2	1		0.93	8.87	268
	15		3	2		0.84	7.96	241.5
	16	2	2	1		0.93	8.87	268
	17	2	2	1		0.93	8.87	268
	Total					16.7	159.0	4790.0
	18	2	. 2	1		0.93	8,87	268
	19	2	2	1		0.93	8.87	268
	20	~	2 2 3	2		0.84	7.96	241.5
	21	2	2	1		0.93	8.87	268
	22	2	2	1		0.93	8.87	268
	23		3	2	_	0.84	7.96	241.5
	24	2	3 2	1		0.93	8.87	268
	25	2	2	1		0.93	8.87	268
	26		3	2		0.84	7.96	241.5
	27	2	2	1		0.93	8.87	268
	28	4	. 4	1	1	1.83	17.52	528.1
	Total					10.9	104.0	3130.0

	Concrete	Form	Re-Bar
	m3	m2	kg
L=3.5m	0.21	2.02	60.5
L=3.0m	0.18	1.7	52.5
L=2.5m	0.15	1.43	42.0
L=2.0m	0.12	1.21	34.1

## NIPPON KOEI CO.,LTD.



### (I) NIPPON KOEI CO.,LTD.



	QUANTITY CALCULATION C		
Project	Detailed Design on Port Reactivation Project In La Union Province	Project Code	JC1N004/2N001
Work Section Title	COPING CONCRETE OF CAISSON	Pay Item No. (BOQ)	20-0908
Quantity Item	REINFORCEMENT FOR CURIS	Unit	t

#### Calculation Procedure Applied

lengths for wib one 4 types (3.50 m, 3.00 m, 2.50 m, 2.00 m).

Calculation was computed by using Excel.

Regarding numbers of each type, see alloched summary.

#### References, Calculation Base and Revisions

References: Tender Drowings:

DW-QW-01-061 Detail of Curb & Gorner Protection

(Some as Concrete for Curb)

Rev	Prep	ared	No. of	Chec	ked	Revi	ewed	Superseded
1164	by	Date	Pages	by	Date	by	Date	by Calc No.
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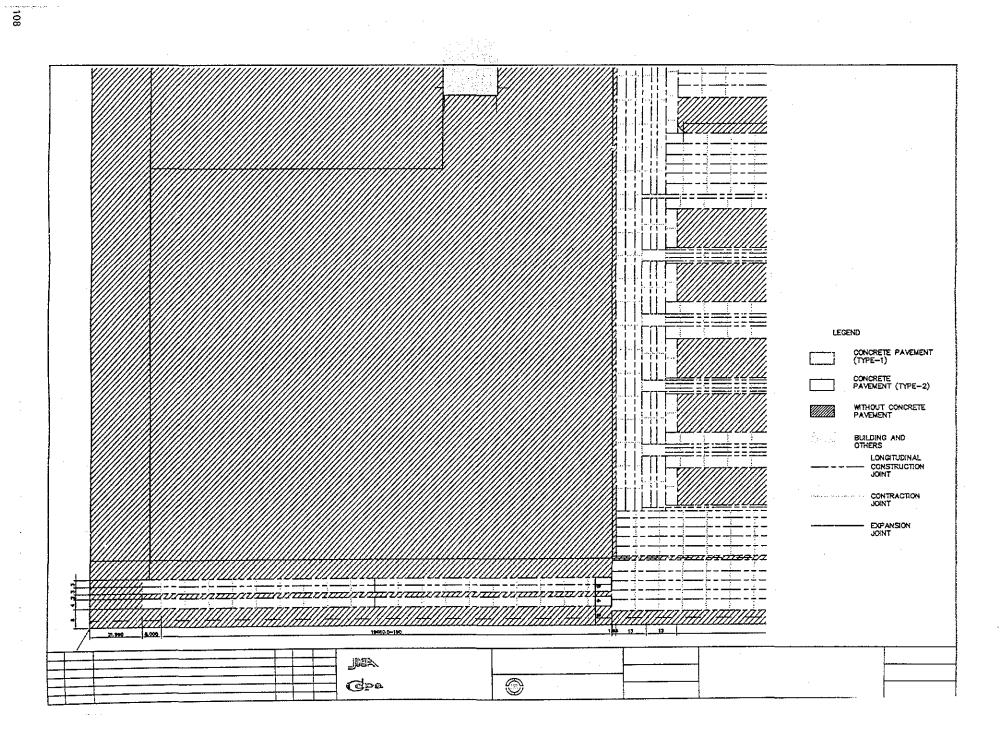
# Reinforcement for who (Holl.P.)

Curb	on the	Caisson						
		3.5m	3.0m	2,5m	2.0m	Concrete (m3)	Form (m2)	Re-Bar (kg)
No	1	4	6	1	1	2.19	20.92	633.1
	2	2	2	1		0.93	8.87	268
	3		3	2		0.84	7.96	241.5
	4	2	2	1		0.93	8.87	268
	5	2	2 2	1		0,93	8.87	268
	6		3	2		0.84	7.96	241.5
	7	2	2	1		0.93	8.87	268
	8	2		1		0.93	8.87	268
	9		2 3	2		0.84	7.96	241.5
	10	2	2	1		0.93	8.87	268
	11	2		1		0.93	8.87	268
	. 12		2 3 2 2	2		0,84	7.96	241.5
	13	2	2	1		0.93	8.87	268
	14	2	2	1		0.93	8.87	268
	15		3	2		0.84	7.96	241.5
	16	2	2 2	. 1		0.93	8.87	268
	17	2	2	1		0,93	8.87	268
	Total				» h	16.7	159.0	4790.0
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	18	2	2	1	*	0.93	8.87	268
	19	2	2	1		0.93	8.87	268
	20		3	2		0.84	7.96	241.5
	21	2 2	2	]		0.93	8.87	268
	22	2	. 2	1		0.93	8.87	268
	23		3	2		0.84	7.96	241.5
	24	2	2	1	•	0.93	8.87	268
	25	· 2	2 3	1		0.93	8.87	268
	26		3	2		0.84	7.96	241.5
	27	2	2	1		0.93	8.87	268
	28	4	4	1	1	1.83	17.52	528.1
	Total					10.9	104.0	3130.0

	Concrete	Form	Re~Bar
	m3	m2	kg
L=3.5m	0.21	2.02	60.5
L=3.0m	0.18	1.7	52.5
L=2.5m	0.15	1.43	42.0
L=2.0m	0.12	1.21	34.1

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	QUANTITY CALCULATION C		
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Work Section Title	COPING CONCRETE OF CAISSON	Pay Item No. (BOQ)	20-0909
Quantity Item	DEAIN PIPE	Unit	LM

#### Calculation Procedure Applied

Coping drain pipe was computed multiplying the length of cope to the number of pipe contained in one coisson and multiplied to the total of coissons in Container and Hullipurpose Brith, including water hardlant, electric cools junction and roading pit.

#### References, Calculation Base and Revisions

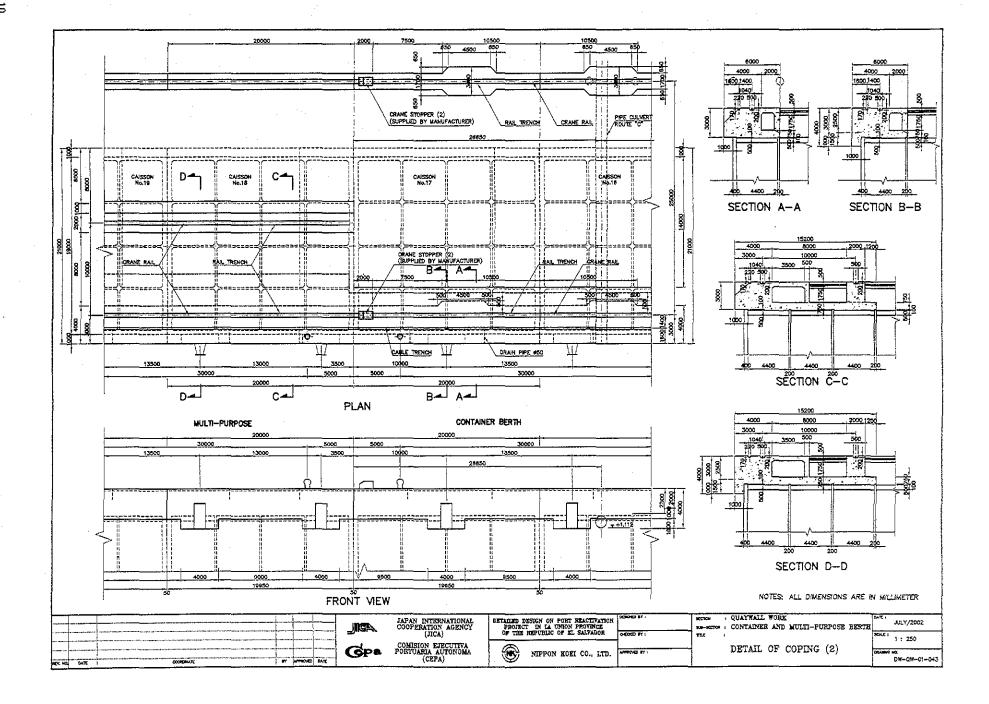
Reference: Tender Drawings:

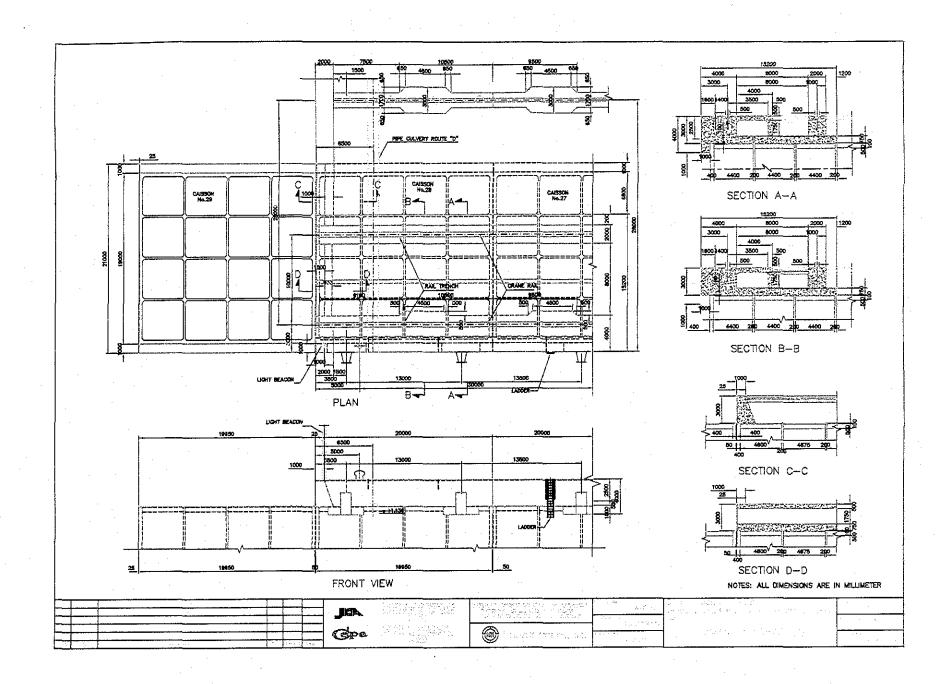
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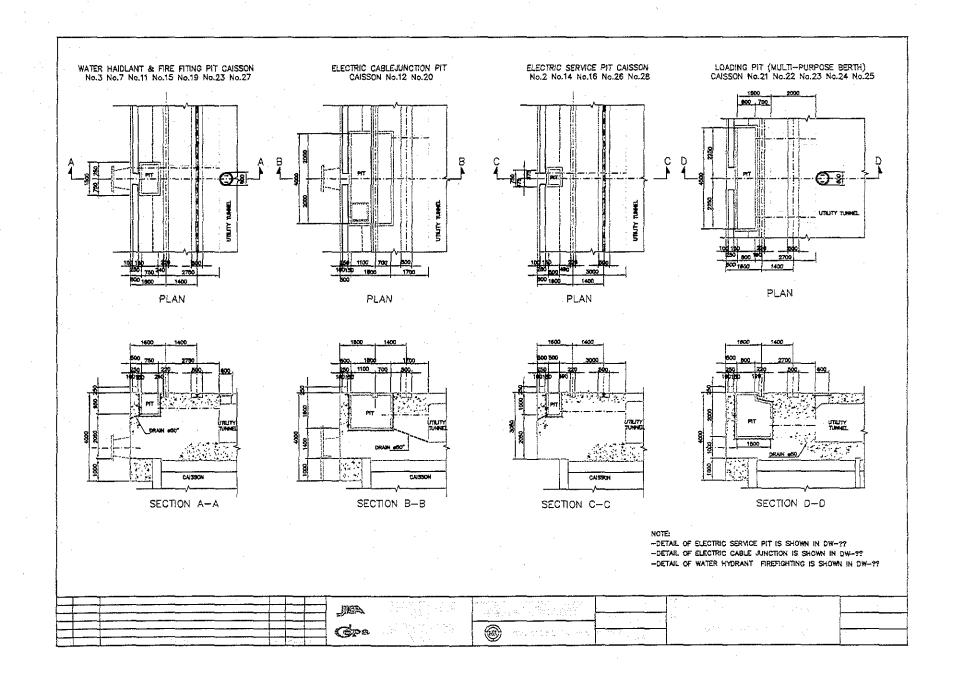
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