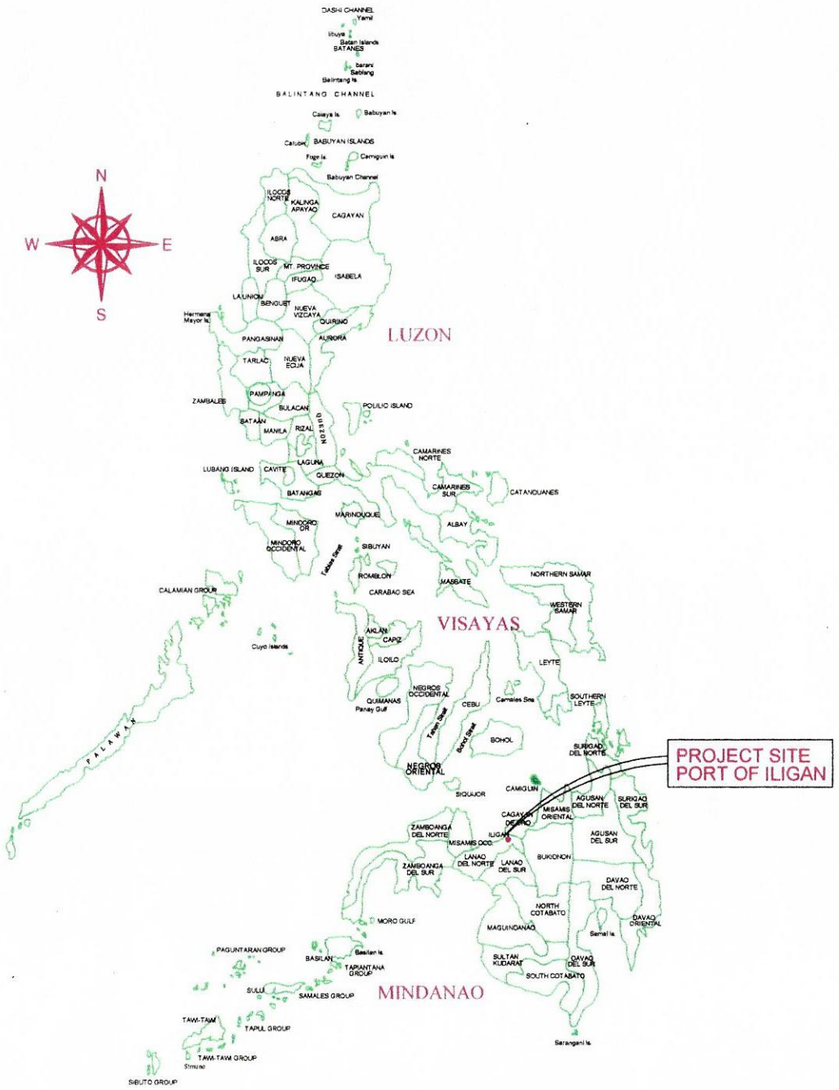
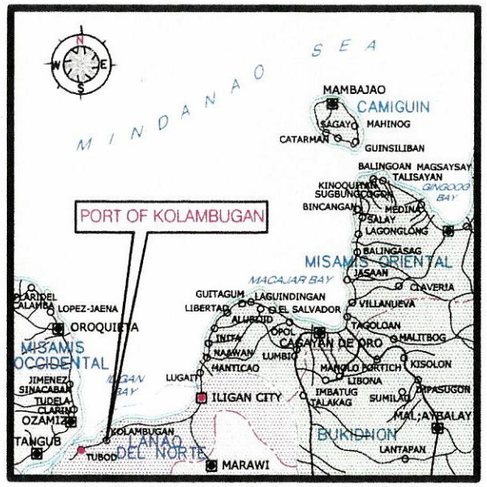
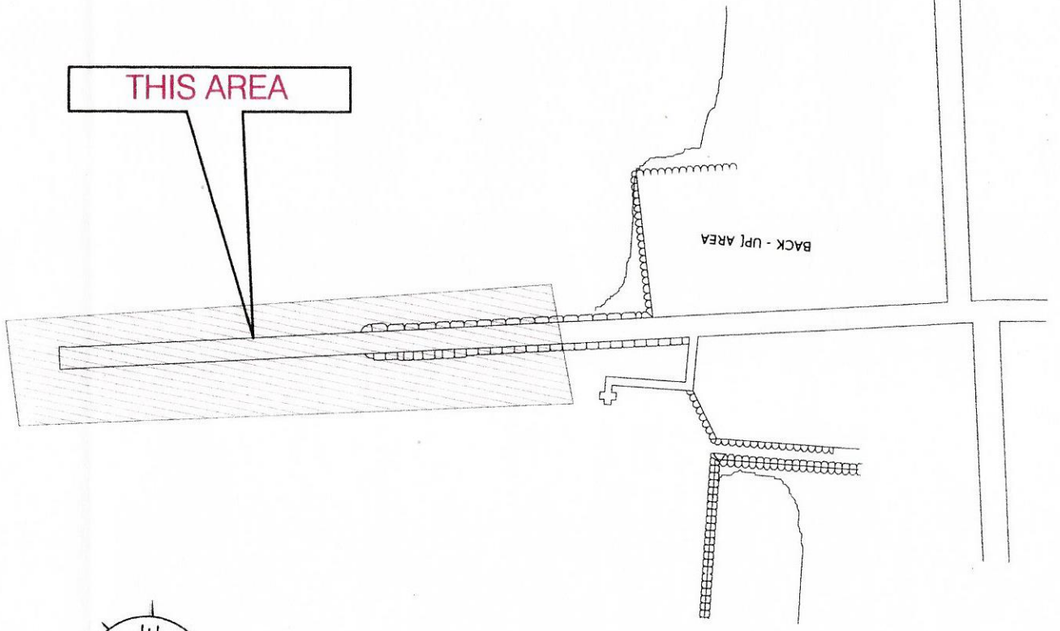


LOCATION MAP
SCALE: NTS.



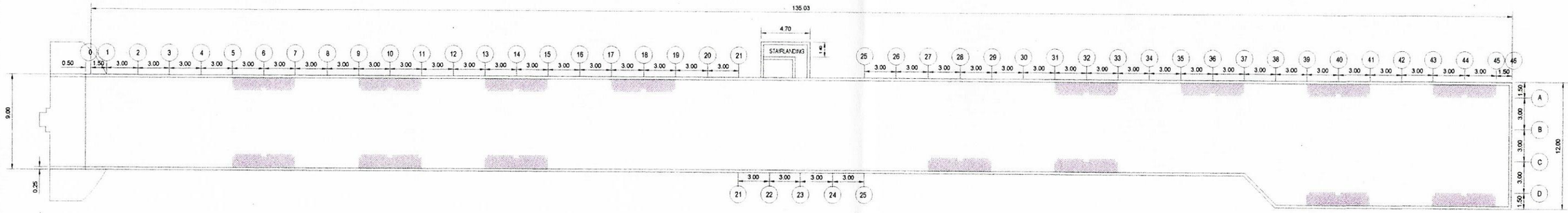
VICINITY MAP
SCALE: NTS.



SITE DEVELOPMENT PLAN
SCALE: NTS.

PHILIPPINE PORTS AUTHORITY
PORT MANAGEMENT OFFICE OF LANAO DEL NORTE / ILIGAN

TITLE:	REPAIR OF FENDERING AND MOORING SYSTEM			ARCHITECTURAL
LOCATION:	PORT OF KOLAMBUGAN, LANAO DEL NORTE			SHEET CONTENTS
PREPARED BY:	CHECKED BY:	RECOMMENDED BY:	APPROVED:	• VICINITY PLAN • LOCATION PLAN • SITE DEVELOPMENT PLAN
DENNIS S. CAMBAYA Engineering Assistant A	COLIN KAY R. CAJOTE Senior Engineer A	JOEL B. ESCALA Acting ESD Manager	Engr. SALVADOR L. DELINA Port Manager	SHEET NO. 1/5

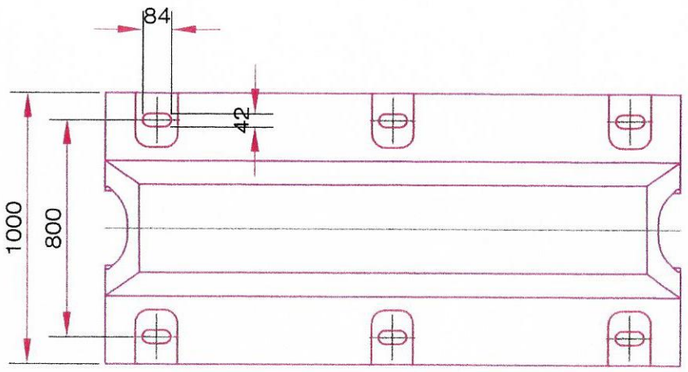


UNDERSIDE PLAN OF RC PIER

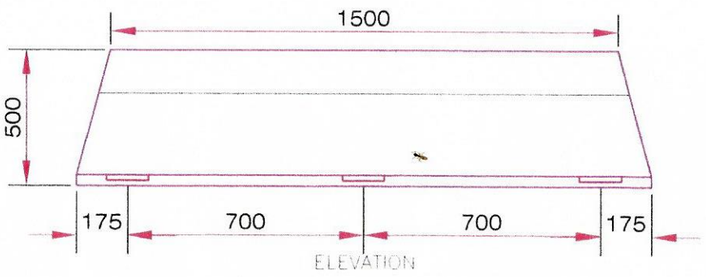
SCALE: 1:400MTS.

LEGEND:

- AFFECTED PORTION OF FENDER AND MOORING



PLAN



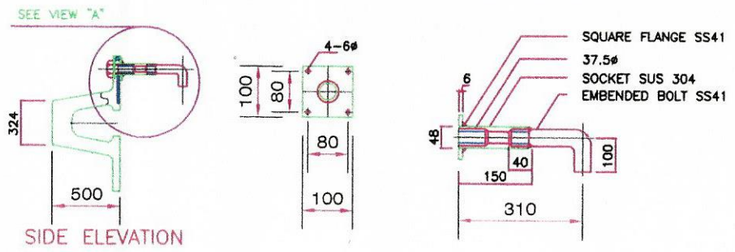
ELEVATION

DETAIL OF RUBBER DOCK FENDER (V-500H)

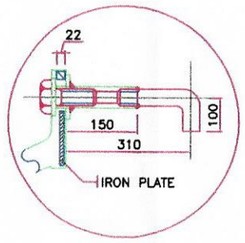
SCALE NTS

PERFORMANCE CHARACTERISTIC OF 500 H (V-Type)

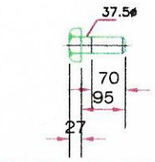
AT RATED DEFLECTION OF FENDER (45%)		
HULL PRESSURE	REACTION FORCE	ENERGY ABSORPTION
TON / M	TON	TON / M
48	28.1	4.69



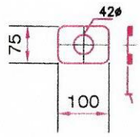
SIDE ELEVATION



VIEW "A"



FIXING BOLT (SS41) (Zn COATING)



WASHER (SS41) (Zn COATING)

DETAIL OF ANCHOR BOLT (NORMAL)

TYPICAL DETAIL OF FENDERS

SCALE: 1:400MTS.

PHILIPPINE PORTS AUTHORITY
PORT MANAGEMENT OFFICE OF LANAO DEL NORTE / ILIGAN

TITLE: REPAIR OF FENDERING AND MOORING SYSTEM

LOCATION: PORT OF KOLAMBUGAN, LANAO DEL NORTE

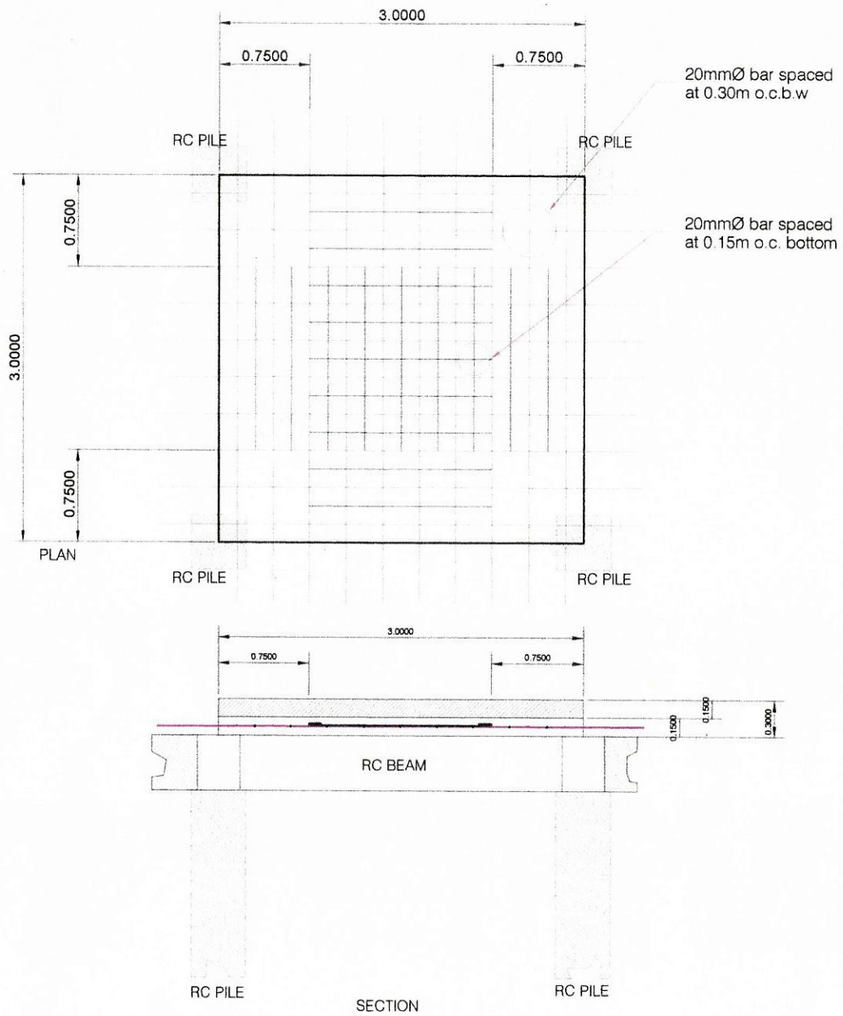
PREPARED BY:	CHECKED BY:	RECOMMENDED BY:	APPROVED:
DENNIS S. CAMBAYA	COLIN KAY B. CAJOTE	JOEL B. ESCALA	Engr. SALVADOR L. DELINA
Engineering Assistant A	Senior Engineer A	Acting ESD Manager	Port Manager

ARCHITECTURAL

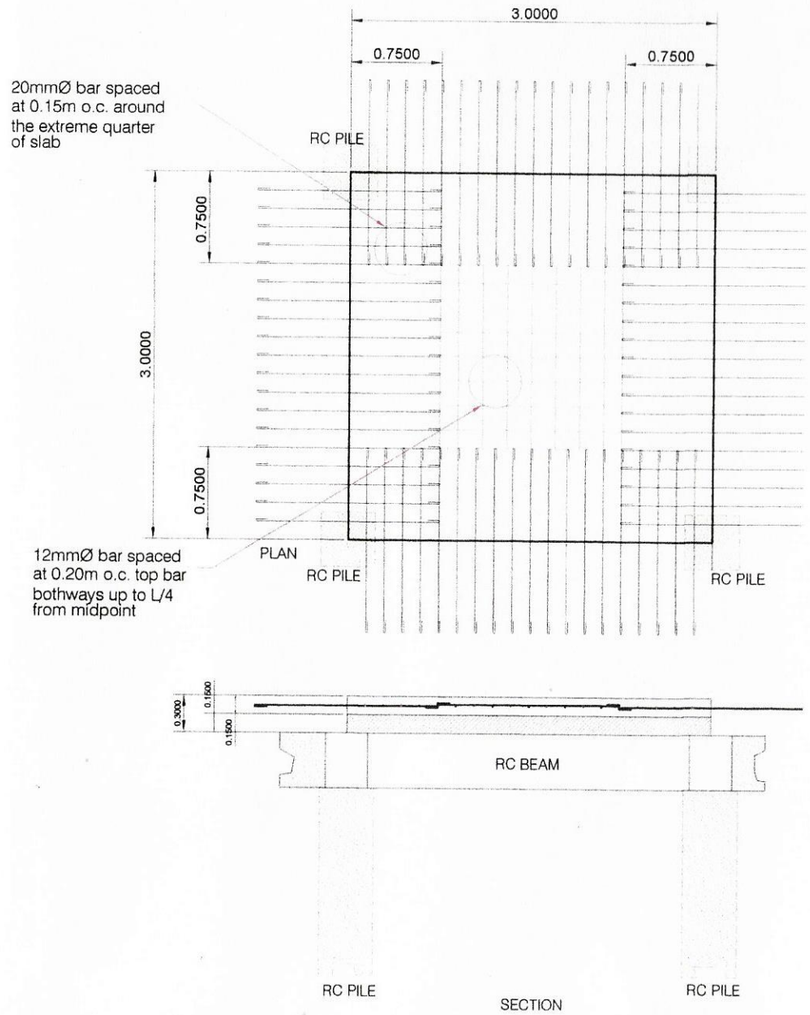
SHEET CONTENTS

- UNDERSIDE PLAN OF RC PIER
- TYPICAL DETAIL OF FENDERS

SHEET NO. 2 / 5



DETAIL OF PRE-CAST SLAB
(bottom slab)



DETAIL OF CAST-IN-PLACE
(top slab)

TYPICAL DETAIL OF RC SLAB

SCALE: 1:50mts

PHILIPPINE PORTS AUTHORITY
PORT MANAGEMENT OFFICE OF LANAO DEL NORTE / ILIGAN

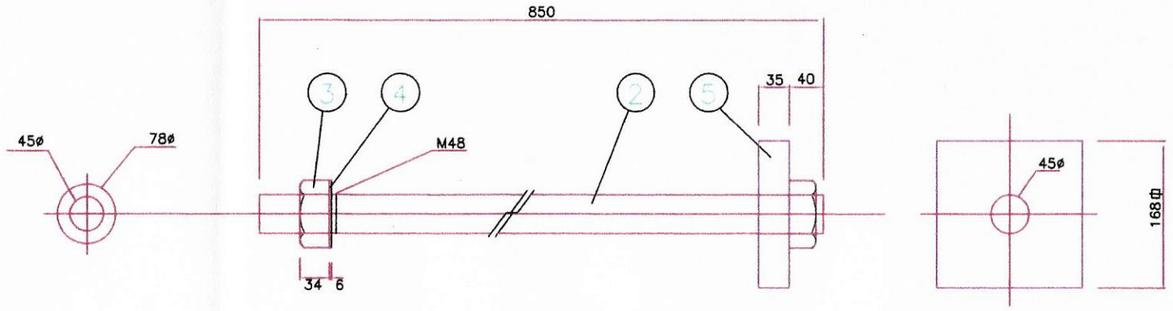
TITLE: REPAIR OF FENDERING AND MOORING SYSTEM			ARCHITECTURAL
LOCATION: PORT OF KOLAMBUGAN, LANAO DEL NORTE			SHEET CONTENTS
PREPARED BY: DENNIS S. CAMBAYA, Engineering Assistant A	CHECKED BY: COLIN KAY A. CAJOTE, Senior Engineer A	RECOMMENDED BY: JOEL B. ESCALA, Acting ESD Manager	APPROVED: Engr. SALVADOR L. DELINA, Port Manager

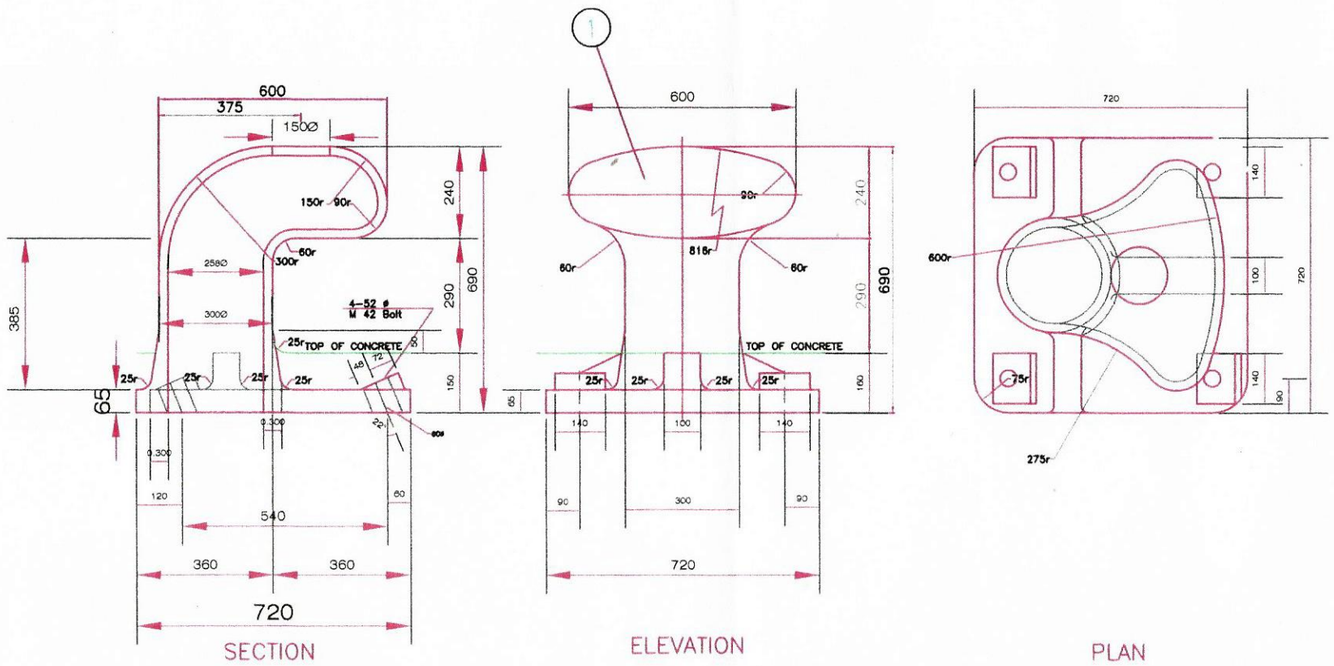
- RYPICAL DETIAL OF RC SLAB

SHEET NO. 3 / 5

MATERIALS AND WEIGHT

NO.	DESCRIPTION	MATERIALS AND SPECIFICATION	ALLOW. STRESS (Kgf/cm^2)	QTY.	WEIGHT PER Pc. (Kgf)	WT. (Kgf)
1	BODY	JIS G 5101 3 GRADE SC 46	1,400	1	420	426
2	ANCHOR BOLT	JIS G 3101 2 GRADE SS41 JIS B 0205 M 48-5	1,400	4	9	36
3	HEXAGON NUTS	JIS B 1181 I GRADE 4T. M42-4.5	-	8	-	-
4	PLAIN WASHER	JIS B 1256 ROUND STEEL	-	4	-	-
5	ANCHOR RING	JIS G 3101 2 GRADE SS41 OR JIS G 5101 3 GRADE SC46	1,400	4	8	32





15 TON MOORING TEE HEAD

SCALE 1 : 10

PHILIPPINE PORTS AUTHORITY
PORT MANAGEMENT OFFICE OF L'NAO DEL NORTE / ILIGAN

TITLE: REPAIR OF FENDERING AND MOORING SYSTEM

LOCATION: PORT OF KOLAMBUGAN, LANAO DEL NORTE

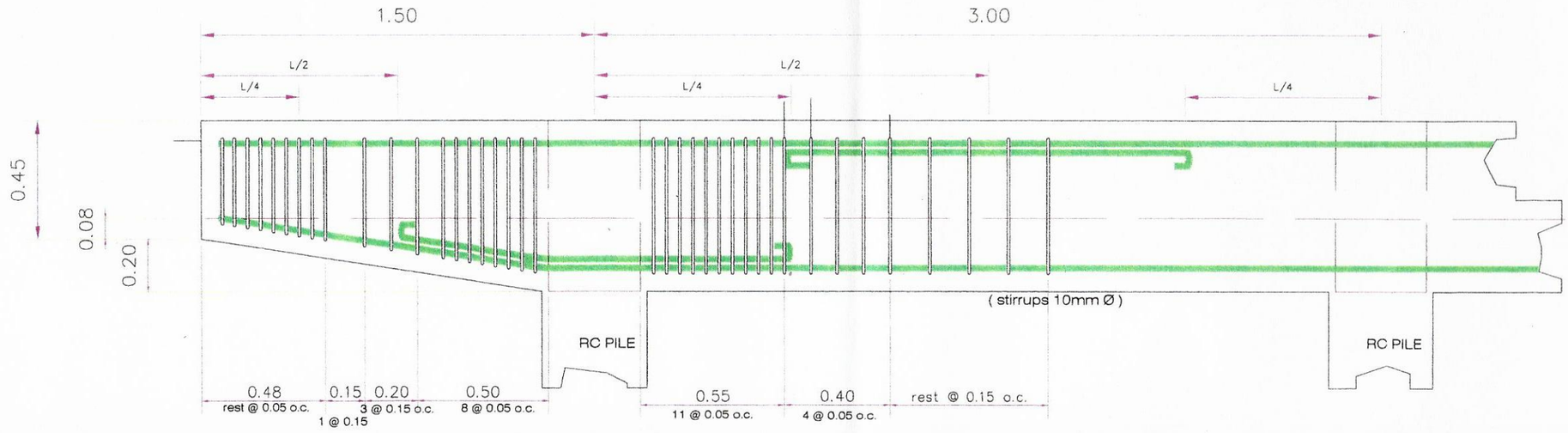
PREPARED BY:	CHECKED BY:	RECOMMENDED BY:	APPROVED:
DENNIS S. CAMBAYA	COLIN KAY F. CAJOTE	JOEL B. ESCALA	Engr. SALVADOR L. DELINA
Engineering Assistant A	Senior Engineer A	Acting ESD Manager	Port Manager

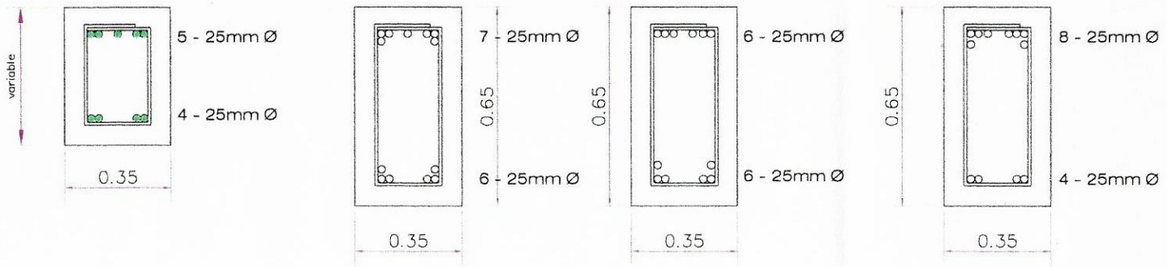
ARCHITECTURAL

SHEET CONTENTS

- 15 TONNER MOORING TEE HEAD

SHEET NO. 4/5





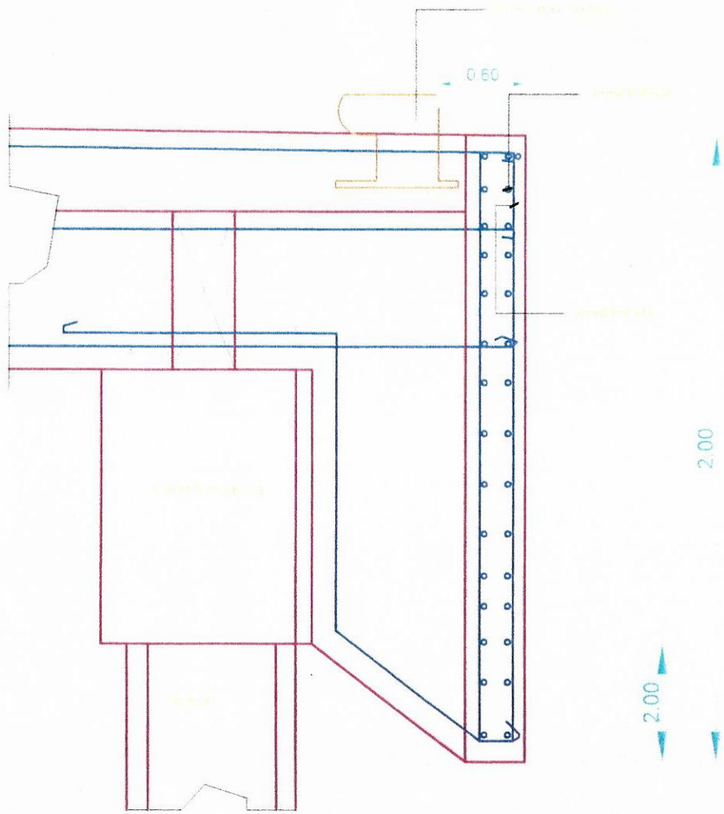
DETAIL OF CANTILEVER / RC BEAM

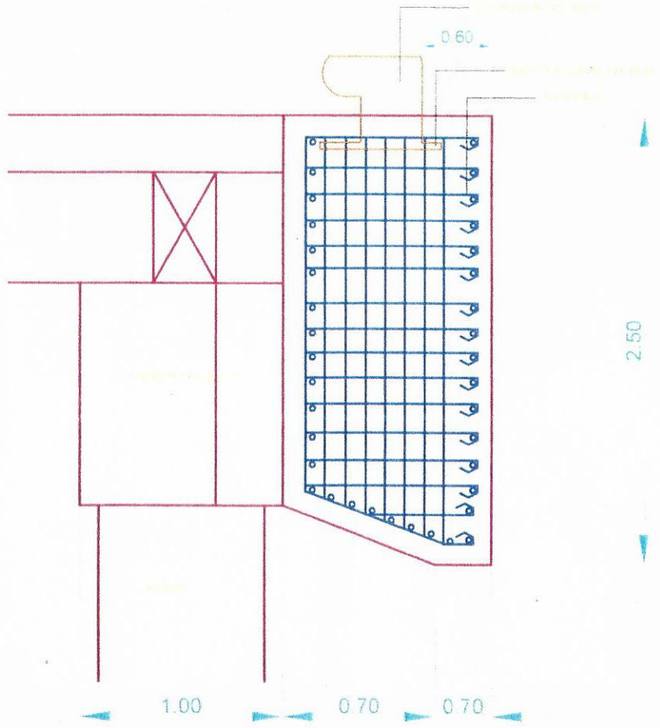
PHILIPPINE PORTS AUTHORITY
PORT MANAGEMENT OFFICE OF LANAO DEL NORTE / ILIGAN

TITLE: REPAIR OF FENDERING AND MOORING SYSTEM			ARCHITECTURAL
LOCATION: PORT OF KOLAMBUGAN, LANAO DEL NORTE			SHEET CONTENTS
PREPARED BY:	CHECKED BY:	RECOMMENDED BY:	APPROVED:
DENNIS S. CAMBAYA	COLIN KAY R. CAJOTE	JOEL B. ESCALA	Engr. SALVADOR L. DELINA
Engineering Assistant A	Senior Engineer A	Acting ESD Manager	Port Manager

- DETAIL OF CANTILEVER /RC BEAM

SHEET NO. 5 / 5





TYPICAL DETAIL OF FENDER BLOCK
AND MOORING TEE HEAD