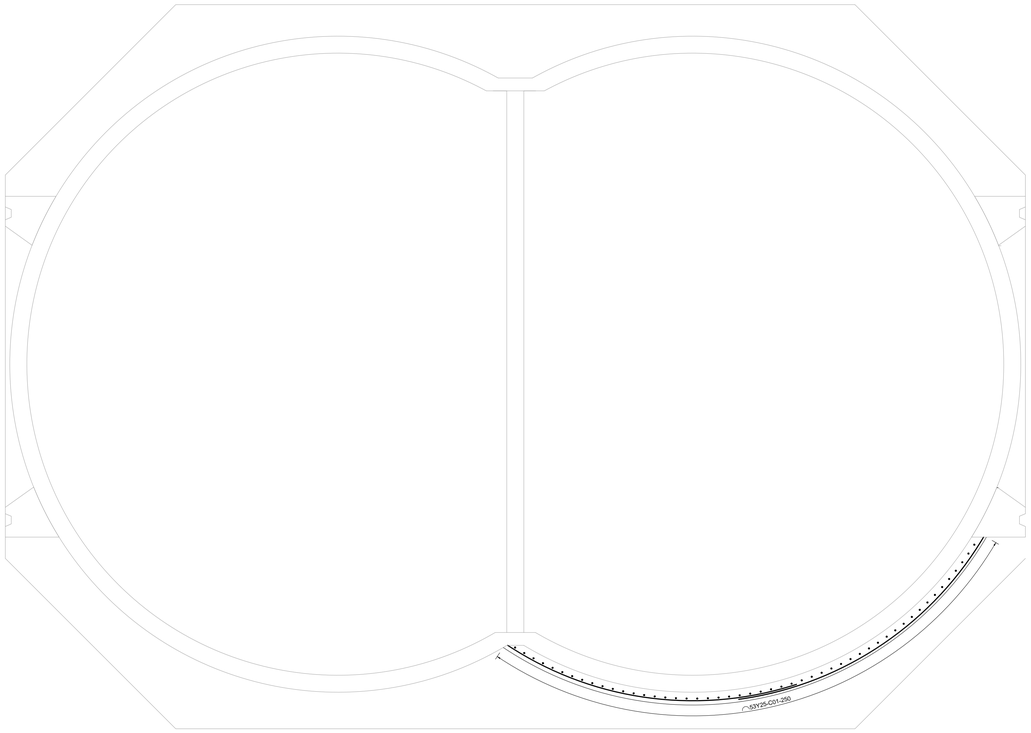
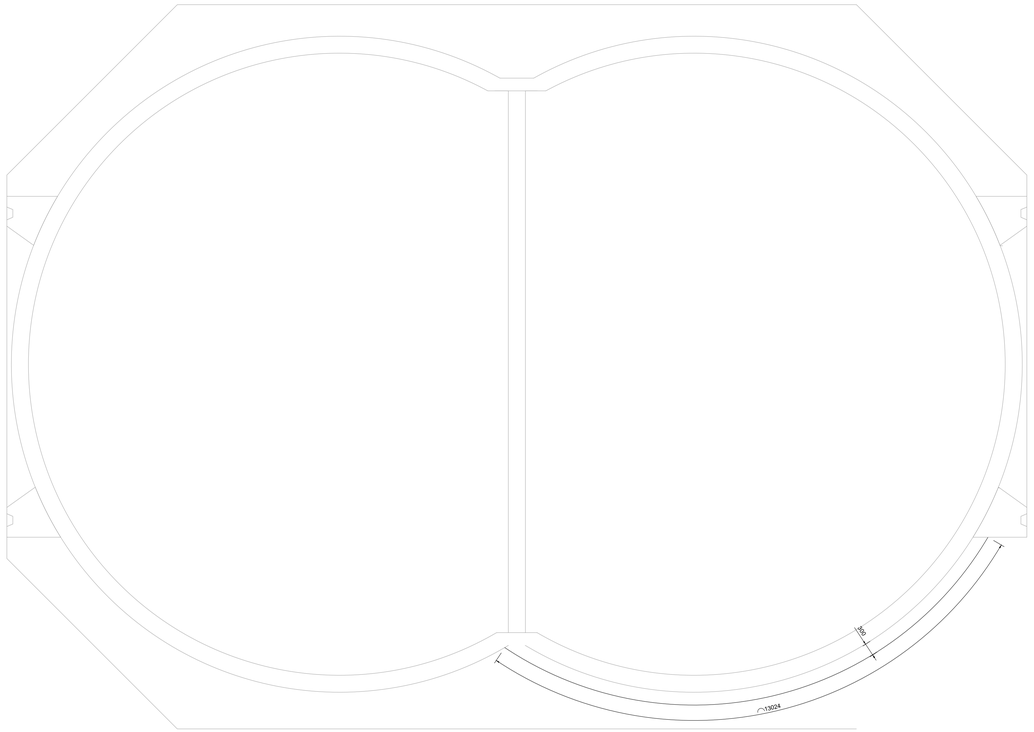


REINFORCEMENT LAYOUT
1:50

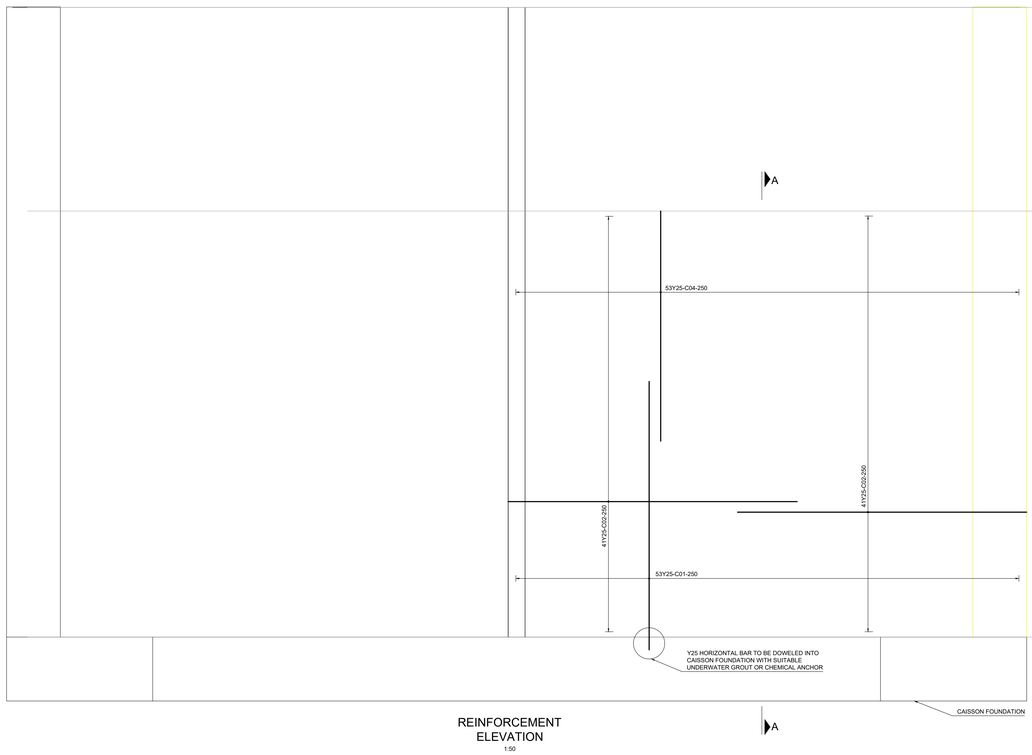


CAISSON WALL
THICKENING LAYOUT
1:50

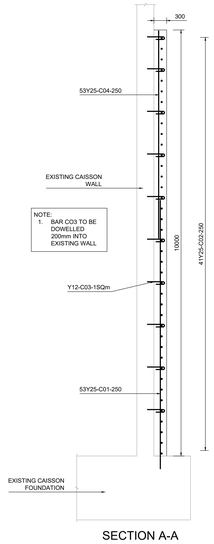
Level 3
14780

Level 2
10 000

Level 1
0



REINFORCEMENT
ELEVATION
1:50



SECTION A-A
1:50

MEMBER & SIZE	REINFORCEMENT						SHAPE CODE	DIMENSIONS				
	UNITS	MARK	TYPE & DIA.	No. PER UNIT	TOTAL No.	LENGTH		A	B	C	D	E/R
CAISSON WALL REINFORCEMENT	1	C01	Y25	53	53	6300	20					
		C02	Y25	82	82	7150	65	7150				7940
		C03	Y12	130	130	550	39	400	60	150		
		C04	Y25	53	53	5400	20					

PROPOSED REPAIR METHODOLOGY

1. CLEAR SEA GROWTH
2. DREDGE CAISSON TOE AND EXPOSE TOP OF CAISSON FOUNDATION
3. SCABBLE SURFACE OF CONCRETE
4. DOWEL Y25 VERTICAL BARS 300mm INTO CAISSON FOUNDATION
5. FIX HORIZONTAL BARS (C02) TO VERTICAL BARS
6. FIX BOTH BOTH HORIZONTAL AND VERTICAL BARS TO WALL WITH HOLDING DOWN BAR C03.
7. BAR C03 TO BE DOWELED 100-200mm INTO EXISTING WALL
8. CAST CONCRETE IN 500mm LIFTS
9. TEMPORARY WORKS AND SHUTTERS TO BE CONTRACTORS DESIGN
10. CONCRETE COVER TO BE AT LEAST 80mm

DRAWING NO.	REFERENCE

REFERENCE DRAWINGS

General

This drawing to be read in conjunction with all relevant architects and engineers drawings.

Dimensions must not be scaled or assumed. After notification, discrepancies or missing dimensions will be corrected in writing by the engineer.

Levels shown to foundations are provisional and will be finalised by the engineer on site.

Foundations have been designed for a permissible bearing pressure of 50 KN/m²

Reinforcement shall comply with SANS 920 and be bent to SANS 282.

Symbols :
R = Mild steel bars with characteristic strength of 250 MPa.
Y = Hot rolled or cold worked high yield steel bars with characteristic strength of 450 MPa.
(Only reinforcement fabricated under the SANS mark shall be deemed to comply with SANS requirements).

Concrete (where applicable the following shall apply)

All concrete work shall conform with the latest amended issue of :
SANS 1200 : Standard Specification for concrete and
SANS 10100 : The structural use of concrete.

A set of six cubes must be made for every fifty cubic meter (or portion thereof) of concrete poured on a specific day, 3 of the cubes must be tested at seven days, and the balance must be available for testing at 28 days.
The test results are to be submitted to the engineers immediately and should any problems be anticipated no shuttering is to be stripped until further notice from the engineer.

All concrete shall be vibrated according to specification. All concrete must be cured continuously for seven days after pouring and effectively protected against dehydration.

All exposed concrete to be chamfered 25mm x 25mm

Shuttering and propping may only be struck after thelapse of the following times: (Ordinary Portland Cement in normal weather conditions)

Position of Shuttering Props	Striking Time Days
Beam side walls & unloaded columns	2
Slab soffits without removal of slab props	4
Beam soffits without removal of props	7
Props unloaded slabs	10
Props unloaded beams	14

Beams and slabs must be poured with the following cambers.

Beam or Slab Element	Camber
Cantilever beams and slabs	Span/150
Other beams and slabs	Span/400

Concrete strengths are specified in terms of clauses in SANS 1200.
For the various elements they are as follows

Structural Element	Concrete Grade
Blinding	15
Bases/footings	30
Beams / Slabs	30
Walls	30
Columns	30

The structure has been designed for the following imposed floor loads:

Structure	Loading(kN/m²)
Live Load	

Concrete cover to reinforcement (in mm) - Unless Otherwise Specified

Bases/footings	- 80	Strap beams	- 80
Plecap (top and sides)	- 80	Columns	- 80
Plecap (bottom)	- 80	Beams	- 80
Ground beams	- 80	Slab (top steel)	- 80
Retaining walls (earth face)	- 80	Slab (bottom steel)	- 80

NO.	DESCRIPTION	BY	CHKD	APPD	DATE
00	ISSUED FOR CONSTRUCTION	SR	MS	SR	13-09-2026

REVISIONS

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CONTRACTOR / CONSULTANT			
TITLE	NAME	SIGN	DATE

OPERATING DIVISIONS			
TITLE	NAME	SIGN	DATE

NATIONAL PORTS AUTHORITY			
TITLE	NAME	SIGN	DATE
DRAWN			
CHECKED			
DESIGNED			
CHECKED			

PR.ENG. / PR.TECH./PR. ARCH		
NAME	S.RAMBRIDGE	DATE
SIGNATURE		
REG. NUMBER	20170278	
SCALE :	NOTED	A0

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DURBAN
P.O. BOX 1073, DURBAN
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PORT OF DURBAN

POINT PRECINCT: BERTH C EMERGENCY REPAIRS

REINFORCEMENT LAYOUT AND DETAILS

PROJECT NUMBER	OD	FBS	DIS	TYPE	DRAWING NO.	SHEET	REV	ID
. . . . .	. .	. . . .	S	. .	. . . . .	. . . . .	. .	TD