

1. ALL CONSTRUCTION WORK TO BE ACCORDING TO SABS 1200.

2. ALL DIMENSIONS ON THIS DRAWING MUST BE CHECKED ON SITE BY THE CONTRACTOR BEFORE ANY WORK COMMENCES. DESCRIPENCY MUST BE REPORTED TO THE ENGINEER

3. GENERAL:

a) DESIGN GROUND PRESSURE AT SERVICEABILITY LOAD= 150 kPa

b) SLAB DESIGN LOADING:

GENERAL OFFICE= 250 kg/m²

c) WIND LOADS

TO SABS 0160-1989 TO THE FOLLOWING PARAMETERS

SITE LOCATION : EPEMBE CONSTITUENCY, NAMIBIA,

TERRAIN CATEGORY 2

MEAN RETURN PERIOD : 50 YEARS

d) SEISMIC COEFFICIENT: NO EARTH QUAKE ZONE

e) DRAWINGS MUST BE READ IN CONJUNCTION WITH ARCHITECT'S DRAWINGS AND ANY DISCREPANCY MUST BE REPORTED IMMEDIATELY

f) REFER TO ARCHITECT'S DRAWINGS FOR CONCRETE FINISHES, GROOVES, CHAMFERS, ETC.

g) ALL BASES & COLUMNS ARE SYMMETRICAL ON GRID LINES, UNLESS INDICATED OTHERWISE.

h) ALL LEVELS ON DRAWINGS REFER TO TOP OF UNFINISHED CONCRETE, STEEL, ETC., UNLESS OTHERWISE INDICATED.

i) THE CONTRACTOR IS RESPONSIBLE FOR THE TRUE AND PROPER SETTING OUT OF THE WORKS AND FOR THE CORRECTNESS OF THE POSITION, GRID SYSTEM, LEVELS, DIMENSIONS AND ALIGNMENT OF ALL PARTS OF THE WORKS. IT IS ADVISABLE THAT THE CONTRACTOR VERIFIES THIS THROUGH A REGISTERED LAND SURVEYOR.

5. STRIP FOOTINGS

a) 600x250 STRIP FOOTINGS PLACED CENTRICALLY BELOW 220 WALLS

450x250 STRIP FOOTINGS PLACED CENTRICALLY BELOW 110 WALLS

b) ENGINEER TO CONFIRM EXCAVATION LEVELS ON SITE. EXTRA EXCAVATION DOWN TO ACCEPTABLE MATERIAL SHALL BE BACKFILLED WITH 1 MPa SOILCRETE ACCORDING TO THE FOLLOWING SPECIFICATIONS:

i) 7% ORDINARY PORTLAND CEMENT MIXED WITH ii) & iii)

ii) 93% APPROVED INSITU MATERIAL OR RIVERSAND (LUMPS TO CRUSHED)

iii) WATER CONTENT TO BE ADJUSTED TO OBTAIN 80-100mm SLUMP

iv) TO BE COMPACTED WITH MECHANICAL VIBRATION

c) REMOVE ALL LOOSE MATERIAL AT BOTTOM OF EXCAVATION.

d) BOTTOM OF EXCAVATION TO BE TREATED WITH APPROVED INSECTICIDE & WEEDKILLER IN STRICT ACCORDANCE WITH MANUFACTURER'S SPEC.

6. BRICKWORK:

a) LAYOUT OF BRICKWORK, SPECIFICATIONS AND JOINTS TO ARCHITECT'S DRAWINGS

b) CARE SHALL BE TAKEN TO INSTALL ROOF TRUSS HOLDING DOWN TIES INTO BRICK WALLS AND BEAMS AS DETAILED ON RELEVANT DRAWINGS

c) PRE FABRICATED LINTELS TO BE USED ONLY IN STRICT ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS

d) FOUNDATION BRICKWORK SHALL COMPLY WITH THE FOLLOWING MINIMUM SPECIFICATIONS:

i) 14 MPA BRICK STRENGTH

ii) MORTAR CLASS 2

e) A 10mm JOINT IS TO BE PROVIDED BETWEEN ALL BEAMS/SLABS AND NON-LOADBEARING WALLS

f) ALL EXPANSION JOINTS TO BE CUT THROUGH PLASTERWORK, BUT NOT THROUGH FOUNDATIONS.

g) 2.8mm THICK BRICKFORCE MUST BE INSTALLED IN EVERY 4th LAYER OF BRICKWORK WITH LAP LENGTHS OF AT LEAST 400mm. BRICKFORCE NOT CONTINUOUS ACROSS MOVEMENT JOINTS.

i) PROVIDE BRICKFORCE IN THE FIRST SIX COURSES OF BRICKWORK ABOVE THE WALL FOUNDATIONS & SUSPENDED SLABS.

j) PROVIDE BRICKFORCE IN THE FIRST TWO LAYERS OF BRICKWORK ABOVE WINDOWS AND DOORS AS WELL AS IN THE FIRST TWO LAYERS UNDERNEATH WINDOWS, TO 1m BEYOND SIDES OF OPENING

6. PROVIDE BRICKFORCE IN THE LAST FIVE COURSES OF BRICKWORK BELOW RINGBEAM OR WALLPLATE LEVEL.

1) PROVIDE A BUTT JOINT BETWEEN THE INTERNAL & EXTERNAL WALL CONNECTION. BRICKFORCE MUST BE CONTINUOUS THROUGH THE JOINT.

m) SHOT FIX HOOP IRONS TO RC COLUMNS AND BUILD INTO BRICKWORK AT EVERY 4th COURSE. PROVIDE 10mm SOFTBOARD BETWEEN RC COLUMN AND BRICKWORK TO ALLOW FOR MOVEMENT. (SEE DETAIL, SHOWN ELSEWHERE ON THIS DRAWING). THESE WALLS SERVE AS BRACING.

7. CONCRETE:

a) DIMENSIONS OF BEAMS ARE SHOWN AS WIDTH x DEPTH (DEPTH OF BEAM INCLUDES SLAB DEPTH, WHERE APPLICABLE)

b) THE GRADES FOR CONCRETE SHALL BE AS FOLLOWS: (UNLESS OTHERWISE INDICATED.)

MASS CONCRETE	CLASS	15/38 MPa
SURFACE BED	CLASS	25/19 MPa
STRIP FOUNDATIONS	CLASS	25/19 MPa
STRUCTURAL SLABS & BEAMS	CLASS	25/19 MPa
COLUMNS	CLASS	25/19 MPa

c) CONCRETE COVER OVER REINFORCEMENT: (UNLESS OTHERWISE INDICATED ON BENDING SCHEDULE)

STRUCTURAL SLABS & BEAMS 25mm OVER STIRRUPS

d) REINFORCING SHALL BE INSPECTED BY THE ENGINEER ONLY AFTER IT HAS BEEN COMPLETELY FIXED IN POSITION (COVER BLOCKS INC.), INSPECTED BY THE CONTRACTOR HIMSELF AND SHUTTERING CLEANED

e) WELDING OF REINFORCEMENT IS NOT PERMITTED, UNLESS IT HAS BEEN APPROVED BY THE ENGINEER IN WRITING

f) FOR PROCESS CONTROL TESTING PURPOSES, ONE SET OF CONCRETE CUBES OF EACH CLASS OF CONCRETE POURED ON ANY ONE DAY AND FROM AT LEAST EVERY 50m³ OF CONCRETE PLACED SHALL BE TAKEN ON SITE IN ACCORDANCE WITH SABS 1200 G (CLAUSE 7). PROCESS CONTROL TESTS ARE DEEMED TO BE INCLUDED IN THE RATE FOR CONCRETE.

g) CURING & PROTECTION OF CONCRETE SHALL BE CARRIED OUT STRICTLY IN ACCORDANCE WITH SABS 1200 G CLAUSE 5.5.8

h) CONSTRUCTION JOINTS MUST BE DISCUSSED WITH THE ENGINEER

i) ALL PIPES, SLEEVES AND CONDUITS THROUGH JOINTS SHALL BE PROVIDED WITH AN EXPANSION JOINT OR FLEXIBLE COUPLING

j) EXPANSION JOINTS IN CONCRETE STRUCTURE MUST BE CONTINUED THROUGH BRICKWORK, SCREEDS AND FINISHES

k) BEFORE COMMENCING TO CAST NEW CONCRETE, THE SURFACE OF THE OLD CONCRETE SHALL BE CLEANED AND CHIPPED TO EXPOSE THE AGGREGATE AND SHALL BE KEPT WET FOR TWO HOURS BEFORE CASTING (RECOMMENDED SLOPE= 75°). THE OLD CONCRETE MUST BE SLUSHED WITH CEMENT BEFORE CASTING.

1) NO HORIZONTAL JOINTS SHALL BE ALLOWED IN BASES, OR OTHER DEEP ELEMENTS

m) NO VERTICAL CONSTRUCTION JOINTS SHALL BE MADE IN ELEMENTS DIRECTLY EXPOSED TO THE WEATHER, EXCEPT WHERE INDICATED OTHERWISE

n) CEMENT SHALL NOT BE STORED FOR LONGER PERIODS THAN SIX WEEKS WITHOUT THE APPROVAL OF THE ENGINEER

o) CASTING OF CONCRETE IN EXCESS OF 3,5m HIGH IS NOT PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER

p) THE CONTRACTOR MUST ENSURE THAT ALL EMBEDDED ITEMS FOR SERVICES HAVE BEEN POSITIONED AND PROVIDED FOR ACCORDING TO THE LATEST DRAWINGS OF ALL DISCIPLINES BEFORE CASTING CONCRETE

7. PROVISION FOR PROPS UNDER SLABS AND BEAMS: THE CONTRACTOR MUST ENSURE THAT BEAMS AND/OR SLABS HAVE SUFFICIENT STRENGTH AND/OR ARE ADEQUATELY PROPPED TO CARRY CONSTRUCTION LOADS FROM ABOVE. DISCUSS WITH ENGINEER.

r) BACKFILL BEHIND RETAINING WALL ONLY TO COMMENCE AFTER SLAB HAS BEEN CASTED.

s) MINIMUM LAP LENGTH FOR MESH : 400mm

t) ALL EXPOSED CONCRETE CORNERS TO RECEIVE 25mm CHAMFERS.

u) WATER PROOFING AND SLOPED SCREED TO SLAB ACCORDING TO ARCHITECT'S SPECIFICATIONS.

v) ALL LEVELS REFER TO TOP OF UNFINISHED CONCRETE.

w) PARTITIONS / ALUMINIUM WINDOWS: PROVISION MUST BE MADE FOR THE LONG TERM DEFLECTION OF THE SLABS.

8. STRUCTURAL STEEL:

a) ALL RELEVANT DIMENSIONS SHALL BE CHECKED BY THE CONTRACTOR ON SITE BEFORE MANUFACTURING OF STRUCTURAL STEEL COMMENCES

b) ALL WELDING AND SURFACE PREPARATION SHALL BE DISCUSSED, INSPECTED AND APPROVED BY THE ENGINEERY.

c) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE UNTIL ALL ELEMENTS HAVE BEEN ERECTED AND FIXED IN POSITION

d) ALL WELDS TO BE 6mm FILLET WELDS UNLESS OTHERWISE SHOWN.

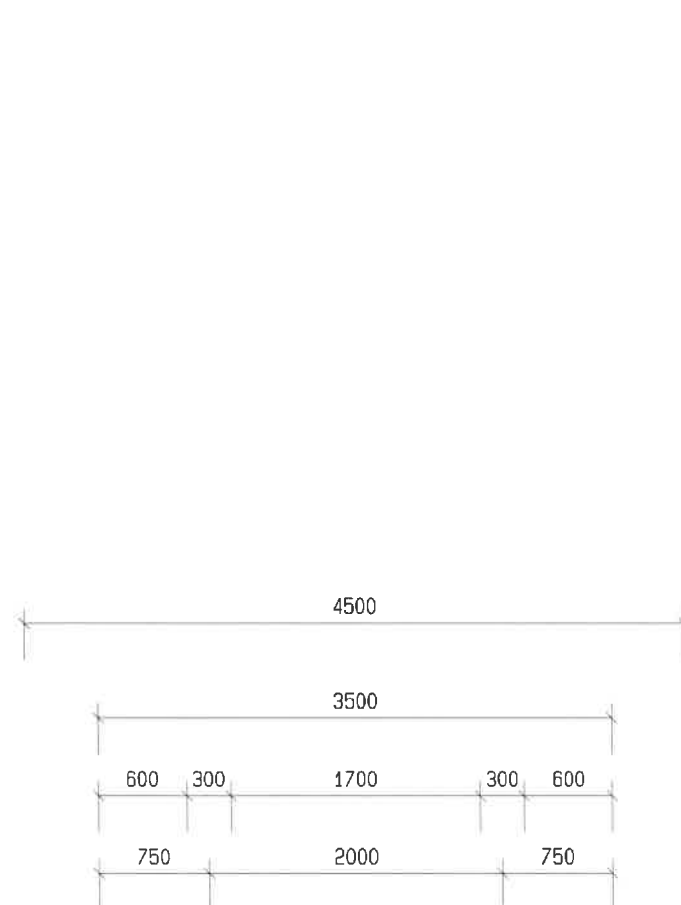
e) ALL STEEL TO BE GRADE 300W UNLESS OTHERWISE SHOWN.

f) ALL PURLINS AND GIRTS SHALL BE FABRICATED IN SECTION CONTINUOUS OVER AT LEAST TWO SPANS

g) ALL OPEN ENDS OF HOLLOW SECTIONS TO BE SEALED WITH 3mm END PLATE UNLESS SHOWN OTHERWISE

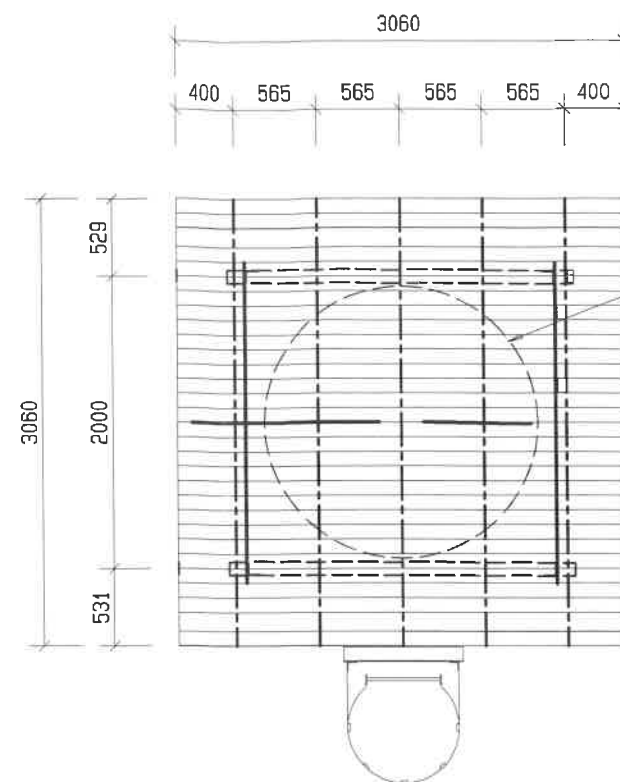
h) PRIMER: ZINC PHOSPHATE

0	7/2/2022	FOR TENDERING	S.N
No:	DATE	DESCRIPTION	Initial
OHANGWENA REGIONAL COUNCIL			
Address:Private Beg 88011			
Eenhana			
Namibia			
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Designed:STEFANUS. S. N		Surveyor:	
Drawn: STEFANUS. S. N		Approval Date:	
Checked: CLARA	/02/2022	
SETTLEMENT/OFFICE: ONDOMBE CONSTITUENCY			
P.O. Box:			
Tel: xxxxxx			
Fax : xxxxxx			
PROJECT:CONSTRUCTION AND ISTALLATION			
OF WATER TANK AT OSHINI MARULA			
FACTORY – ONDOBE			
DRAWING TITLE: GENERAL NOTE			
Drawing Date:		SCALE: AS SHOWN	
Drawing No:		REVISION	
OHR 2022-ST-001		0	



FOUNDATION LAYOUT FOR HIGH
ELEVATED WATER TANKS (5m³)

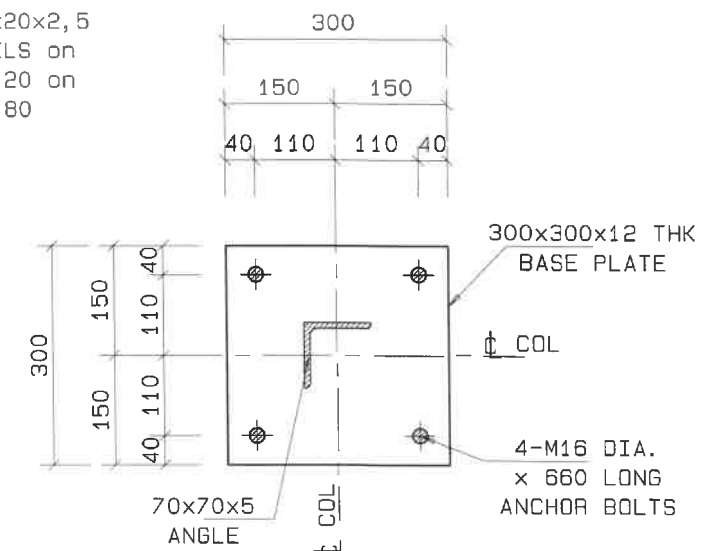
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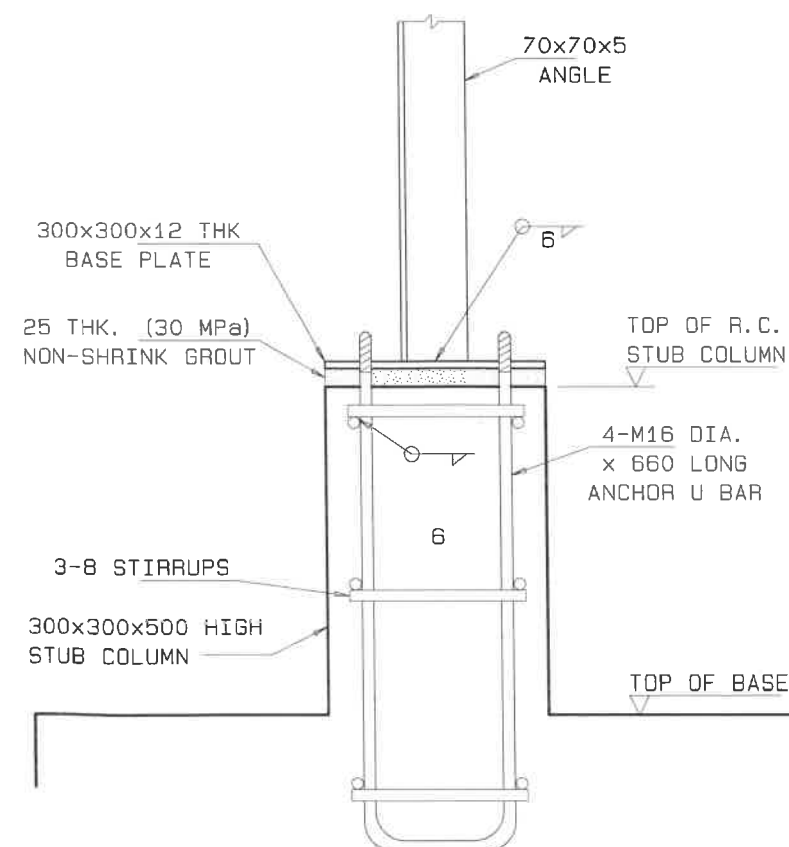
PLAN
SCALE 1:50



5m³ EXTRA HEAVY
WEIGHT POLYTHENE
WATER TANK on
30 of 100x50x20x2,5
LIPPED CHANNELS on
5 of IPE-AA 120 on
2 of IPE-AA 180



BASE PLATE DETAIL
SCALE 1:10



COLUMN FIXING DETAIL

SCALE 1:10

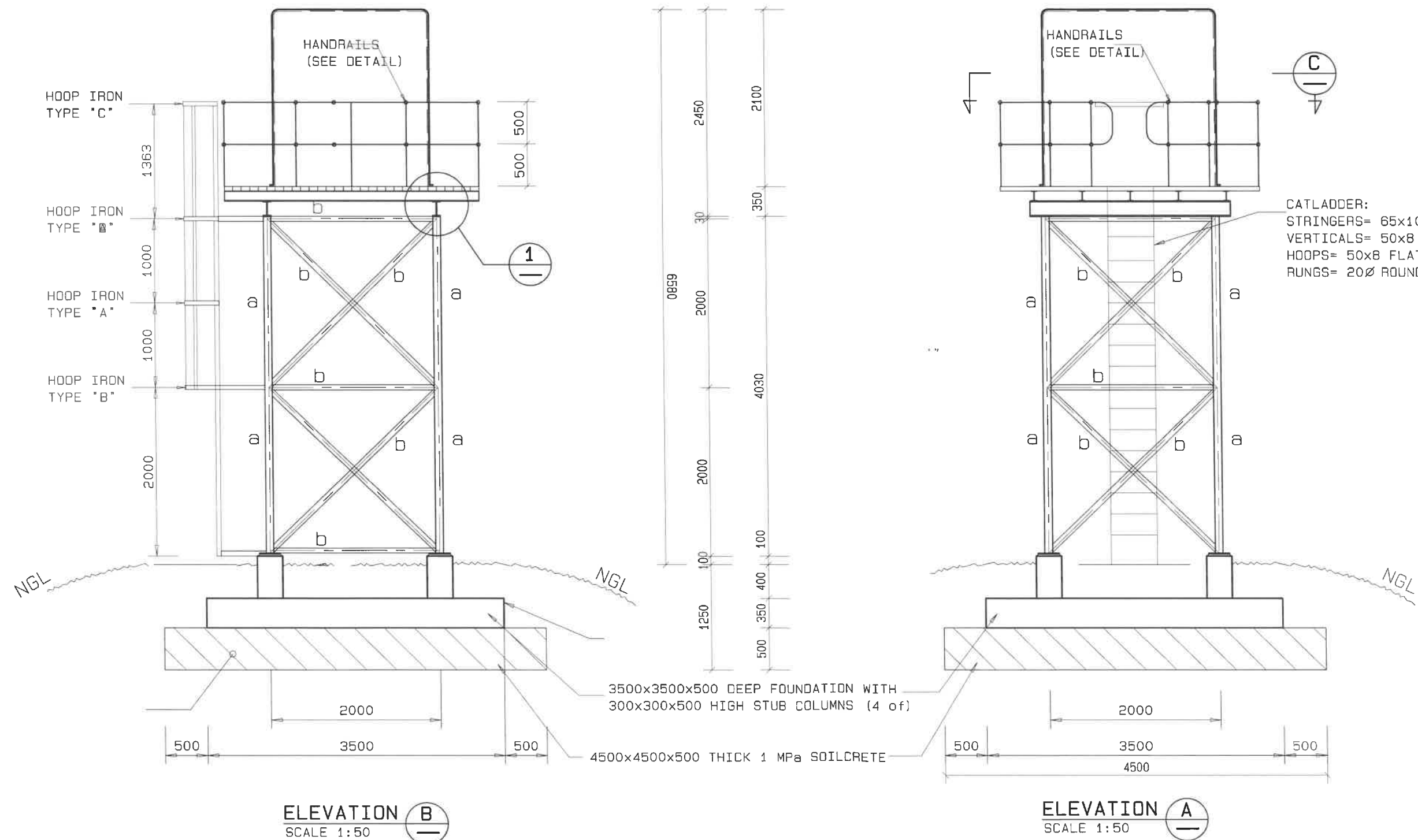
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OHANGWENA REGIONAL COUNCIL			
Address: Private Bag 88011 Eenhana Namibia			
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Drawn: STEFANUS. S. N		Approval Date:	
Checked: CLARA	/02/2022	
SETTLEMENT/OFFICE: ONDOMBE CONSTITUENCY			
P.O. Box: Tel: xxxxxx Fax : xxxxxx			
PROJECT: CONSTRUCTION AND INSTALLATION OF WATER TANK AT OSHINI MARUL FACTORY - ONDOBE			
DRAWING TITLE: FOUNDATION LAYOUT PLAN LAYOUT AND DETAILS			
Drawing Date:		SCALE: AS SHOWN	
FEBRUARY 2022			
Drawing No:		REVISION	
OHR 2022-ST-002		0	

NOTES:

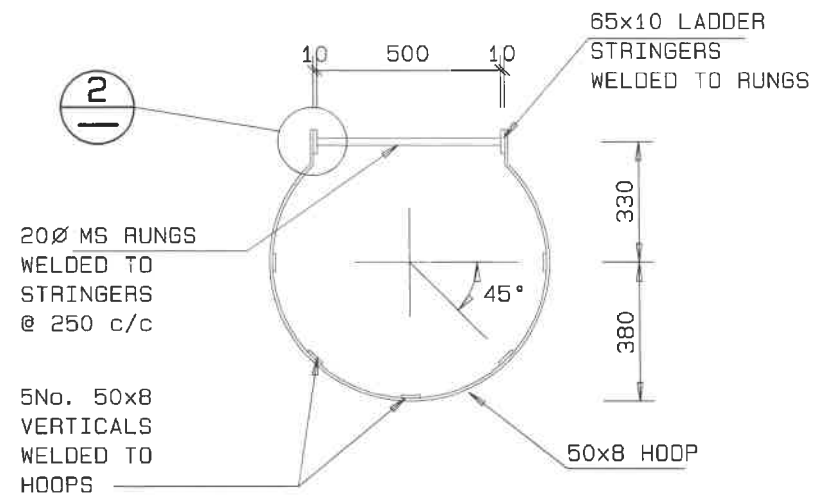
1. ALL WELDS TO BE 6mm
FILLET WELDS ALL AROUND,
EXCEPT LIPPED CHANNELS TO
BE 3mm FILLET WELDS ALL AROUND.
2. MINIMUM WELD LENGTH 130mm

MEMBER SIZES:

- a= 70x70x5 ANGLE
b= 60x60x5 ANGLE

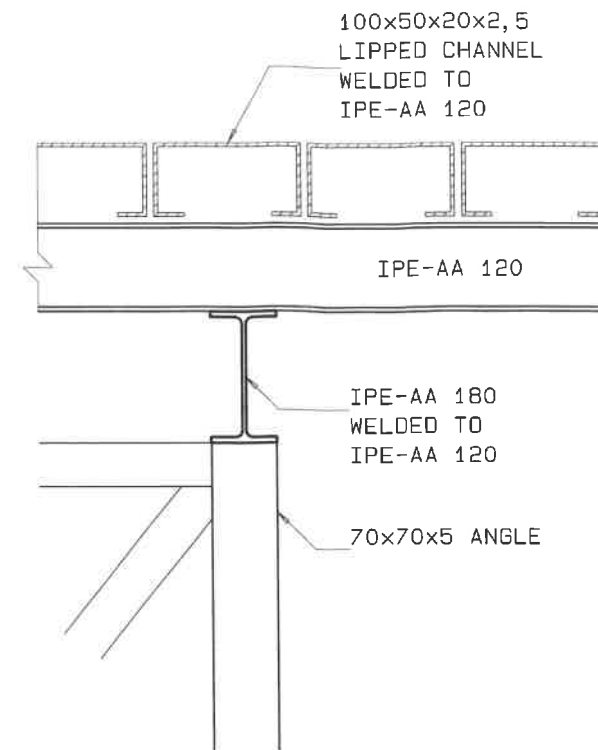


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OHANGWENA REGIONAL COUNCIL			
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Drawn: STEFANUS. S. N		Approval Date:	
Checked: CLARA	/02/2022	
SETTLEMENT/OFFICE: ONDOMBE CONSTITUENCY P.O. Box: Tel: xxxxxx Fax: xxxxxx			
PROJECT: CONSTRUCTION AND INSTALLATION OF WATER TANK AT OSHINI MARULA FACTORY - ONDOMBE			
DRAWING TITLE: ELEVATION A AND B			
Drawing Date: FEBRUARY 2022			SCALE: AS SHOWN
Drawing No:			REVISION
OHR 2022-ST-003			0



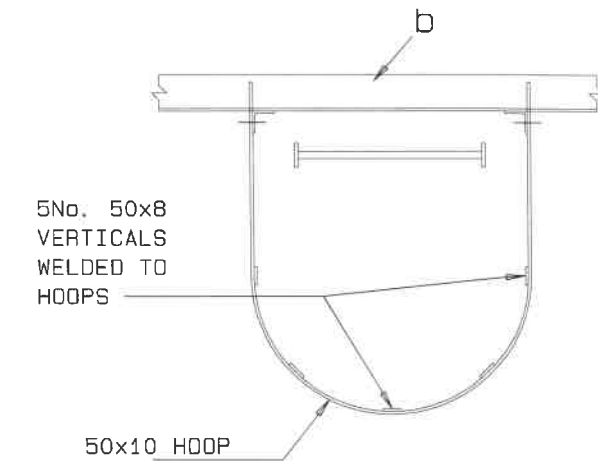
HOOP TYPE 'A'

SCALE 1 : 20



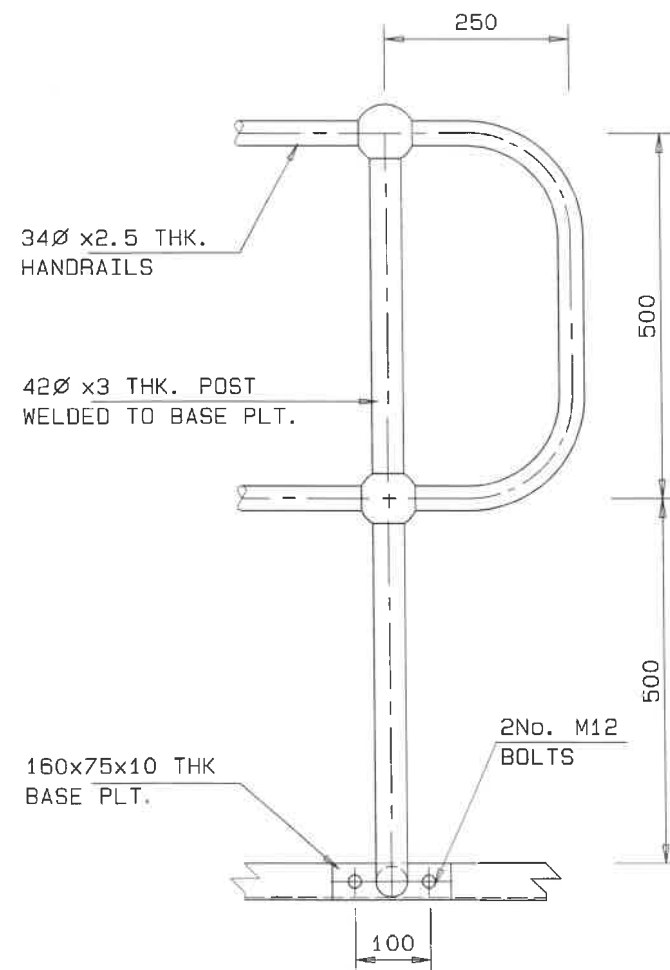
DETAIL 1

SCALE 1:10



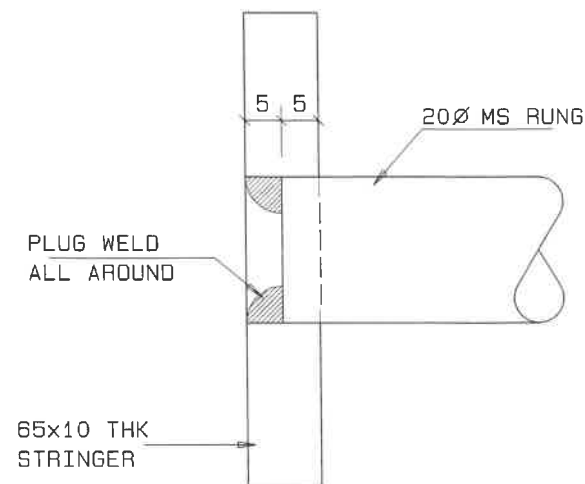
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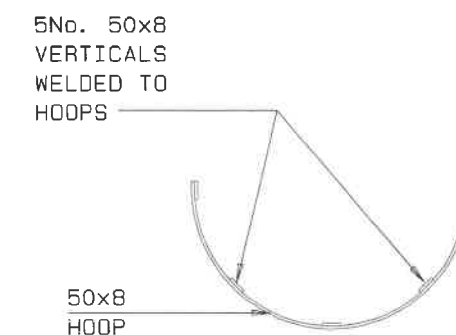
HANDRAIL DETAIL

SCALE 1:10



DETAIL 2

SCALE 1:1



HOOP TYPE 'C'

SCALE 1 : 20

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Drawn: STEFANUS. S. N.		Approval Date:	
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P.O. Box: Tel: xxxxxx Fax : xxxxxx			
PROJECT: CONSTRUCTION AND INSTALLATION OF WATER TANK AT OSHINI MARULA FACTORY - ONDOBE			
DRAWING TITLE: DETAILS			
Drawing Date: FEBRUARY 2022		SCALE: AS SHOWN	
Drawing No: OHR 2022-ST-004		REVISION	
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