

SIX ROWS OF 1500g/m² ENVIROCK GEOCONTAINER BAGS.
1 BAG - 2500mm LONG x 2000mm WIDE x 500mm HIGH.
ONE BAG WEIGHS APPROXIMATELY 4.0 Tonnes (40 KN).

AREA TO BE SAND BAGGED.

1 x LEVEL OF SAND BAGS = 25m

TOTAL APPROXIMATE VOLUME OF SAND NEEDED TO FILL BAGS FOR AREA 1 = 150m³

PLEASE REFER TO ZIMBALI STREAM EMBANKMENT STABILIZATION DRAWING FOR DETAIL.

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1 BAG - 2500mm LONG x 2000mm WIDE x 500mm HIGH.
ONE BAG WEIGHS APPROXIMATELY 4.0 Tonnes (40 KN).

AREA TO BE SAND BAGGED.

1 x LEVEL OF SAND BAGS = 35m

TOTAL APPROXIMATE VOLUME OF SAND NEEDED TO FILL BAGS FOR AREA 1 = 195m³

PLEASE REFER TO ZIMBALI STREAM EMBANKMENT STABILIZATION DRAWING FOR DETAIL.

AREA TO INFILL
The total unfactored fill volume = 1 055m³

GENERAL PLAN LAYOUT
SCALE 1:500

GENERAL NOTES :

- 1.0 ALL BUILDING WORKS TO BE IN ACCORDANCE WITH RELEVANT S.A.B.S. BUILDING CODES AND NATIONAL BUILDING REGULATIONS.
- 2.0 DRAWINGS MUST BE CHECKED BY THE CONTRACTOR, WHERE DISCREPANCIES IN THE DIMENSIONS ARE FOUND THESE MUST BE REPORTED TO THE ENGINEER BEFORE WORK COMMENCES.
- 3.0 ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE ARCHITECT'S DRAWINGS.
- 4.0 ALL SETTING OUT DIMENSIONS AND LEVELS ARE TO BE DONE AS PER THE ARCHITECT'S DETAILS.

STORMWATER DRAINAGE :

- 1.0 ALL RWP TO FEED INTO SOAKWAYS OR STORMWATER MANAGEMENT SYSTEM AS DETAILED.
- 2.0 ALL SURFACE RUN-OFF TO BE CHANNLED INTO DETAILED STORMWATER CATCHMENTS, SHOULD NATURAL DRAINAGE CHANNELS BE UTILIZED FOR SURFACE RUN-OFF SUITABLE EROSION PROTECTION MEASURES ARE TO BE CONSTRUCTED.
- 3.0 THE STORMWATER MANHOLES AND PIPES ARE TO BE CONSTRUCTED DURING THE BULK EARTHWORKS PHASE OF THE PROJECT.
- 4.0 ALL PERMANENT STORMWATER CATCH-PITS CONSTRUCTED DURING THE INITIAL STORMWATER CONSTRUCTION PHASE ARE TO BE CONSTRUCTED AS TEMPORARY RAISED CATCH PITS IF INSTRUCTED BY THE ENGINEER.
- 5.0 EARTH BERMS TO BE PLACED ALONG THE TOP OF ALL EARTHWORKS SLOPES / EMBANKMENTS TO MINIMISE SOIL EROSION AND STORMWATER DAMAGE.
- 6.0 EARTH BERMS MAY BE REPLACED BY STACKED SAND BAGS AS AN ALTERNATIVE.
- 7.0 SILT TRAPS TO BE CLEARED REGULARLY.
- 8.0 BERM / SAND BAG PROTECTION OF BANKS TO BE CHECKED REGULARLY FOR DAMAGE.
- 9.0 THIS DRAWING TO BE READ IN CONJUNCTION WITH THE STORMWATER GENERAL DETAIL DRAWING.

EARTHWORKS NOTES :

- 1.0 MAXIMUM SLOPE OF CUT BANKS : 1:1.5
- 2.0 MAXIMUM SLOPE OF FILL BANKS : 1:1.5
- 3.0 ALL FILL MATERIAL TO BE COMPACTED TO 93% MOD AASHTO DENSITY IN LAYERS NOT EXCEEDING 300mm LOOSE THICKNESS.
- 4.0 MAXIMUM TEMPORARY CUT BANKS TO BE 1:1

PLACEMENT OF FILL NOTES :

- 1.0 ALL EXISTING GRASS & TOPSOIL TO BE STRIPPED & REMOVED TO STOCKPILE.
- 2.0 SELECTED G7 FILL MATERIAL TO BE PLACED IN 200mm THICK LAYERS.
- 3.0 MINIMUM GRADE OF SELECTED FILL MATERIAL TO BE OF G7 QUALITY, SHALL BE CLEAN, COHESIONLESS MATERIAL WHICH IS NON PLASTIC AND HAS LESS THAN 10% SILT AND CLAY.
- 4.0 ALL LAYERS TO BE COMPACTED TO 93% MOD AASHTO DENSITY.
- 5.0 THE CONTRACTOR IS TO SUPPLY TROLXER DENSITY TEST RESULTS BY AN INDEPENDENT LABORATORY ON A 10.0m GRID ALONG THE TOP OF EARTHWORKS AND ALL SELECTED FILL LAYERS. SEE COMPACTION DENSITY TEST NOTES.
- 6.0 ALL FILL TO BE BENCHES INTO THE IN-SITU MATERIAL THROUGH 1200mm WIDE x 300mm DEEP BENCHES.

COMPACTION DENSITY TESTS TO EARTHWORKS LAYERS :

TROLXER DENSITY TESTS ARE TO BE PERFORMED ON A 10m GRID ON EACH LAYER BY AN INDEPENDENT APPROVED SOILS LABORATORY.

THE TEST RESULTS ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO THE PLACEMENT OF THE NEXT LAYER.

ANY AREA FAILING THE TEST IS TO BE REWORKED AND RETESTED TO ACHIEVE THE REQUIRED DENSITY.

THE COSTS OF THE TESTS ARE TO BE INCLUDED IN THE CONTRACTORS TENDER PRICE AND INDICATED AS SUCH AS A SEPARATE ITEM.

SHOULD THE CONTRACTOR FAIL TO SUPPLY TEST RESULTS PRIOR TO THE PLACEMENT OF THE NEXT LAYER, THE UNTESTED LAYER IS TO BE EXPOSED AT THE STATED NUMBER OF PLACES AND TESTED AS REQUIRED. SHOULD THESE TESTS INDICATE A FAILURE TO MEET THE REQUIRED DENSITIES, THE CONTRACTOR SHALL AT HIS OWN EXPENSE REMOVE THE UPPER LAYER AND REWORK THE FAILED AREAS TO THE ENGINEERS SATISFACTION.

DRAWING LIST:

Dwg. No.	Description	Beskriving
10		
09		
08		
07		
06		
05		
04		
03		
02	OPTION TWO - LONG & CROSS SECTIONS	
01	OPTION TWO - GENERAL LAYOUT	

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Rev. No.	Description	Date	By
03	ISSUED FOR PRELIMINARY USE	25/06/2020	S.E.
02	ISSUED FOR PRELIMINARY USE	02/06/2020	S.E.
01	ISSUED FOR PRELIMINARY USE	10/05/2020	S.E.

AMENDMENTS/WYSIGING

SERVICE: **PRELIMINARY** DIENS

DESIGNED/ONTWERP	R. SHUTTLEWORTH
DRAWN/GETEKEN	S. EKSTEEN
CAD FILE NAME/CAD LÊER NAAM	Zimbali Civil's.dwg
CHECKED/NAGESIEN	R. SHUTTLEWORTH
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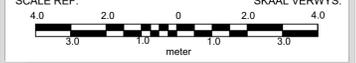
CLIENT: **ZIMBALI** KLIËNT:

PROJECT: **STORMWATER DISCHARGE** PROJEK:

PROJECT NO: **RM** PROJEK NO:

TITLE: **OPTION TWO - SANDBAGGED CHANNEL GENERAL LAYOUT** TITEL:

DATE/DATUM: **JUNE 2020**
SCALE/SKAAL: **AS SHOWN**



CONSULTANT DWG. NO. **01** KONSULTANT TEK. NR.

CLIENT DWG. NO. KLIËNT TEK. NO.

PROPOSED BULK EARTHWORKS SUMMARY :

Key Bulk Earthworks Platform Considerations:

Volumes for spill way cut.

- 1.0 The total unfactored cut volume over the plan area = 6 300m³ = 1 632m³
- 2.0 The total unfactored fill volume over the plan area = 6 300m³ = 27m³
- 3.0 The total unfactored cut to spoil = 1 605m³.

Volumes for infill area.

- 1.0 The total unfactored cut volume over the plan area = 2 335m³ = 0m³
- 2.0 The total unfactored fill volume over the plan area = 2 335m³ = 1 055m³.
- 3.0 The total unfactored cut to fill = 1 055m³.