THE UNITED REPUBLIC OF TANZANIA

PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT

PROPOSED DISPENSARY

Schedule of Material, Labour & Drawings for Septic and Soak way pit

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PROJECT AREA

TANZANIA MAINLAND

Ministry of Health, Community,
Delelopment Gender, Elderly and Children,
University of Dodoma,
College of Humanities,
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40478 DODOMA.

President's Office,
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Mkapa House,
Mlezi Road,
P.O.Box 1923,
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APRIL, 2018 PO-RALG

Schedule of Materials

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
	MATERIALS				
A	**SEPTIC TANK -** PROVISIONAL				
	6" Cement & Sand Block	380	No		
	Sand	3	M^3		
	Cement-50kgs	35	Bags		
	Aggregates (1/2")	4	M^3		
	Reinforcement - 12mm diameter high tensile	6	PC'S		
	Reinforcement - 8mm diameter	5	PC'S		
	Binding Wire - 1kg	3	Bundle		
	Timber 1" X 8" to Sides (5.2m long)	3	PC'S		
	Timber 1" X 5" (Plates)	1	PC'S		
	Timber 2" X 2"	2	PC'S		
	Supporting Props	8	PC'S		
	450 X450mm stainlesssteel cover	4	PC'S		
	100mm diameter PVC vent pipe 3000mm high com	1	PC'S		
	SUB-TOTAL SEPTIC TANK				
B	**SOAK AWAY PIT -** PROVISIONAL				
	6" Cement & Sand Block	200	No		
	25 -50mm broken stones (4.5m3 per trip)	8	trip		
	Sand	5	M^3		
	Cement-50kgs	65	Bags		
	Aggregates (1/2")	6	M^3		
	Reinforcement - 12mm diameter high tensile	5	PC'S		
	Reinforcement - 8mm diameter	4	PC'S		
	Binding Wire - 1kg	2	Bundle		
	Timber 1" X 8" to Sides (5.2m long)	3	PC'S		
	Timber 1" X 5" (Plates)	1	PC'S		
	Timber 2" X 2"	2	PC'S		
	Supporting Props	10	PC'S		
	450 X450mm stainlesssteel cover	1	PC'S		
	SUB-TOTAL SOAK AWAY PIT				

	GENERAL SUMMARY	**AMOUNT**
		TZS
	SEPTIC TANK AND SOAK AWAY PIT- DISPENSARY	
A.	SEPTIC TANK -PROVISIONAL	
B.	SOAK AWAY PIT -PROVISIONAL	
	TOTAL MATERIALS COST FOR SEPTIC TANK AND SOAKAWAY PIT	

Schedule of Labour

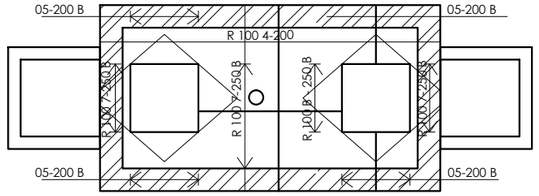
Na.	AINA YA KAZI	BEI YA UFUNDI - Shs
A	**Msingi wa Jengo (Sub-structure)**	
1	Kuseti Shimo	
2	Uchimbaji wa Shimo	
3	Kufukia	
	Kufunga mbao	
4	Pembezoni mwa jamvi	
5	Pembezoni mwa nguzo	N/A
6	Kuondoa mbao	
	Kumwaga zege	
7	Chini kwenye msingi wa tofali	N/A
8	Chini kwenye msingi wa nguzo	N/A
9	katika nguzo ya awali	N/A
10	kwenye jamvi	
11	Ujenzi wa tofali (580NR)	
	Mawe	
12	Upangaji wa mawe na utandazaji wa DPM	
13	Umwagiliaji wa maji	
	Jumla ndogo msingi wa jengo	
B.	**Kunyanyua jengo (Super-structure)**	
1	Ujenzi wa tofali za kuta	N/A
	Kufunga mbao katika:	
2	Nguzo mlalo	N/A
3	Nguzo wima	N/A
	Kusuka nondo katika:	
4	Nguzo mlalo	N/A
5	Nguzo wima	N/A
5	Shimo	
	Kumwaga zege katika:	
6	Nguzo mlalo	N/A
7	Nguzo wima	N/A
8	Umwagiliaji wa maji	
C.	**Kuezeka (Roof structure and covering)**	
1	Kuezeka na ufungaji wa gata	N/A
	Jumla ndogo kunyanyua jengo	
D.	**Milango**	
1	Kufitisha fremu za milango	N/A
2	Kufitisha shata za milango pamoja na vitasa	N/A
3	Upakaji wa Varnishi katika milango na fremu	N/A
E.	**Umaliziaji (Finishing)**	
	Upigaji wa lipu pamoja na kutengeneza koplo:	N/A
1	Nje ya jengo	N/A
2	Ndani ya jengo	N/A

Na.	AINA YA KAZI	BEI YA UFUNDI - Shs
	Sakafu	
3	Uwekaji wa sakafu ya kupokea vigae (beds)	N/A
4	Uwekaji wa vigae pamoja na grauti katika sakafu (floor tiles) -	N/A
	Dali:	
6	Ufungaji wa mbao za dali (Brandering)	N/A
7	Uwekaji wa dali na mikanda ya gypsum	N/A
8	Uwekaji wa dali ya pvc kuzunguka nyumba kwa nje	N/A
9	Uwekaji wa vigae katika kuta na upakaji grout	N/A
	Jumla ndogo umaliziaji(finishing)	
F.	**Rangi na Mapambo (Painting & Decoration)**	
	Kupaka rangi mikono mitatu pamoja na skimming katika:	
1	Kuta za nje	N/A
2	Kuta za ndani	N/A
3	Dali	N/A
	Kupaka rangi mikono mitatu katika:	
4	Msingi wa nyumba	N/A
5	Grill za milango na madirisha	N/A
	Jumla ndogo Rangi na mapambo	
G.	**Umeme (Electrical installation)**	
1	Usukaji wa umeme awamu ya kwanza - Conduit na Box	N/A
2	Usukaji wa umeme awamu ya pili (2nd fix)-fittings	N/A
	Jumla ndogo Umeme	
H.	**Mifumo ya maji safi na taka (Water Supply and Sewage system)**	
1	Ufungaji bomba awamu ya kwanza (Kuchimbia bomba)	N/A
2	Ufungaji bomba awamu ya pili (2nd fix) -fittings	N/A
3	Ufungaji wa Mifumo ya maji ya mvua kwenda kwenye tanki	N/A
	Jumla ndogo Mifumo ya maji safi na taka	

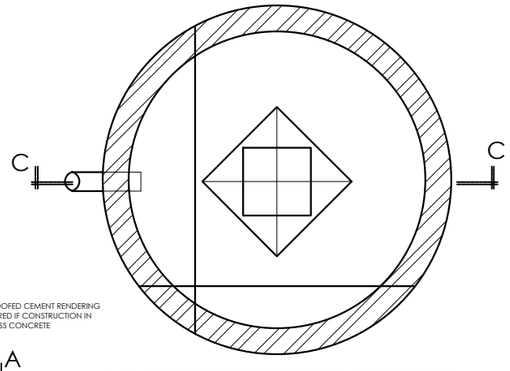
	MAJUMUISHO (SUMMARY)	
		Shs
A.	Msingi wa Jengo (Sub-structure)	
B.	Kunyanyua jengo (Super-structure)	
C.	Kuezeka (Roof structure and covering)	
D.	Milango	
E.	Umaliziaji (Finishing)	
F.	Rangi na Mapambo (Painting & Decoration)	
G.	Umeme (Electrical installation)	
H.	Mifumo ya maji safi na taka (Water Supply and Sewage system)	
	JUMLA KUU Shs.	

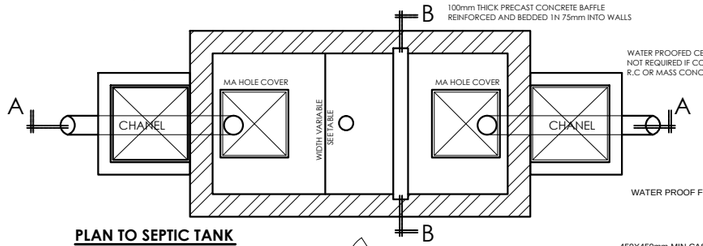
ANGALIZO:
Fundi anatakiwa kujaza hii fomu kwa kupitia mchoro wa jengo husika

Drawings

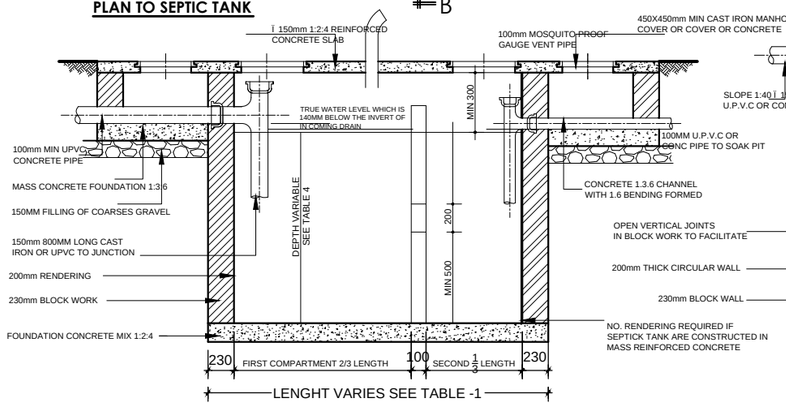


SEPTIC TANK REINFORCEMENT ARRANGEMENT

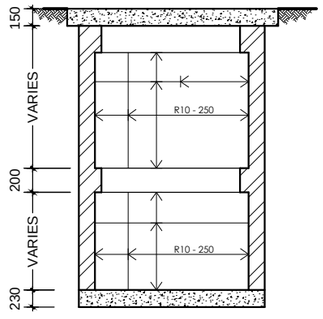




PLAN TO SEPTIC TANK



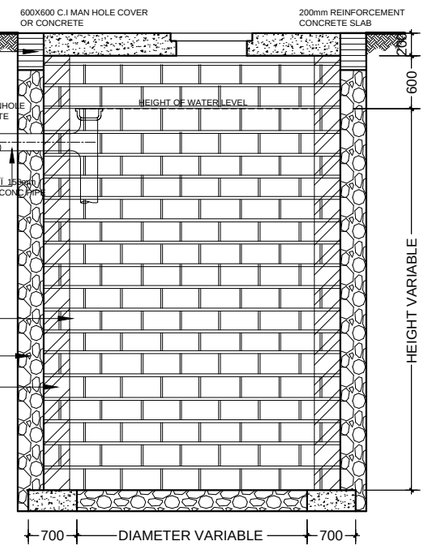
SECTION A:A



SECTION B-B

REINFORCED CONCRETE

SOAKAGE PIT REINFORCEMENT ARRANGEMENT



SECTION C:C

ALTERNATIVES

- SEALED CESSPIT TO BE USED WHEN SOIL CONDITIONS FALLS BELLOW THE MINIMUM PERCOLATIONS FACTOR AND DISTANCE TO THE NEAREST SEWER IS VERY FAR
- DRAINFED TRENCHES PREFERRED TO SOAKAGE PITS IF SPACE PERMITS
- APPLICATION CAN BE MADE TO THE AUTHORITY FOR CONNECTION TO LOCAL SEWER
- FURTHER ASSISTANCE REGARDING SANITATION MAY BE OBTAINED FROM HEALTH INSPECTORS

- MASS OR REINFORCED CONCRETE WALL CAN BE USED INSTEAD OF BLOCKS
- THE TANK SHALL BE OF WATER TIGHT CONSTRUCTION RENDERED WITH WATER PROOFED POWDER OR OTHER APPROVED MATERIALS

DISTANCE REQUIRED FOR SEPTIC TANKS AND SOAKWAYS		
MINIMUM DISTANCE FROM	SEPTIC	SOAK WAY
BUILDING	1.5	3.5
PROPERTY BOUNDARIES	1.5	1.5
WELLS	3.00	3.00
CUTS OR EMBARKMENTS	7.5	3.00
WATER PIPES	3.0	3.0
LARGE TREES	3.0	3.0

- FOR DIAMETER UP TO 3.00 USER 10, 290mm c/c FOR DIAMETER UP TO 3.50M USER10, 290MM C/C ARRANGEMENTS OF REINFORCEMENT AS SHOWN
- BENDING SCHEDULE VARIES WITH THE DIAMETER OF SOAK PIT AS WALL AS SIZES OF SEPTIC TANK

SEPTICK TANK SIZES TABLE 1

TYPES	ALL WASTES NO OF USERS	DIMENSION			VOLUMES
		LENGTH(mm)	WIDTH(mm)	DEPTH(mm)	M³
1	7	1600	800	1500	181
2	15	2300	1100	1500	3.87
3	30	3200	1600	1500	7.74
4	40	3600	1900	1500	10.33
5	50	4100	2100	1500	12.92
6	60	4500	2300	1500	15.48
7	75	4600	2300	1800	19.35
8	85	4900	2400	1800	21.93
9	130	5500	2750	2200	33.54

BAR BENDING SCHEDULE

BAR MARK	LENGTH	TYPE	SHAPE
01	VARIABLES	R10	100 L 100
02	"	R10	100 L 100
03	"	R10	100 L 100
04	"	R10	100 L 100
05	"	R10	100 L 100
06	"	R10	100 L 100
07	"	R10	100 L 100
08	"	R10	100 L 100

- ALL DIMENSIONS ARE IN MILLIMETERS
- SOIL PERMEABILITY TEST MUST BE CONDUCTED AT PLOT SITE EFFLUENT DISPOSAL BY SOAKING IS NOT APPLICABLE WHERE SOIL ARE NON POROUSEG CRAY OR STANDARD PERCOLATION RATE IN ACCESS OF 600min PER 15min

CORRESPONDING DIMENSION SOAK WAYS

NO. OF USERS	DIAMETER (M)	DEPTH (M)
7	1.5	1.8
15	1.7	1.85
30	2.1	2.0
40	2.35	2.1
50	2.61	2.2
60	2.85	2.3
75	2.23	2.45
85	3.5	2.5
130	4.1	3.0

N.B

1. THESE DIMENSIONS ONLY APPLY FOR POROUS SOIL
2. FOR NON POROUS SOILS EG CLAY AND WHERE WATER TABLE IS VERY HIGH OTHER MEANS OF DISPOSAL e.g SEWER CONNECTION MUST BE APPLIED
3. ALTERNATIVELY THESE DIMENSIONS (IN PARTICULAR THE DIAMETER)MAY BE DOUBLED TO CREATE LONGER RETENTION PERIOD DUE TO INFILTRATION

Building Section
Policy and Planning Department
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Approved

No.	Description	Date

Client

PRESIDENT'S OFFICE, REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT

Project

PROPOSED STANDARD DESIGN FOR A DISPENSARY

SEPTIC & SOAKAWAY PIT

Project number	2017 / 05 / 02
Date	24 APRIL 2018
Drawn by	DCNM
Checked by	DCNM
Scale	1: 100

A101