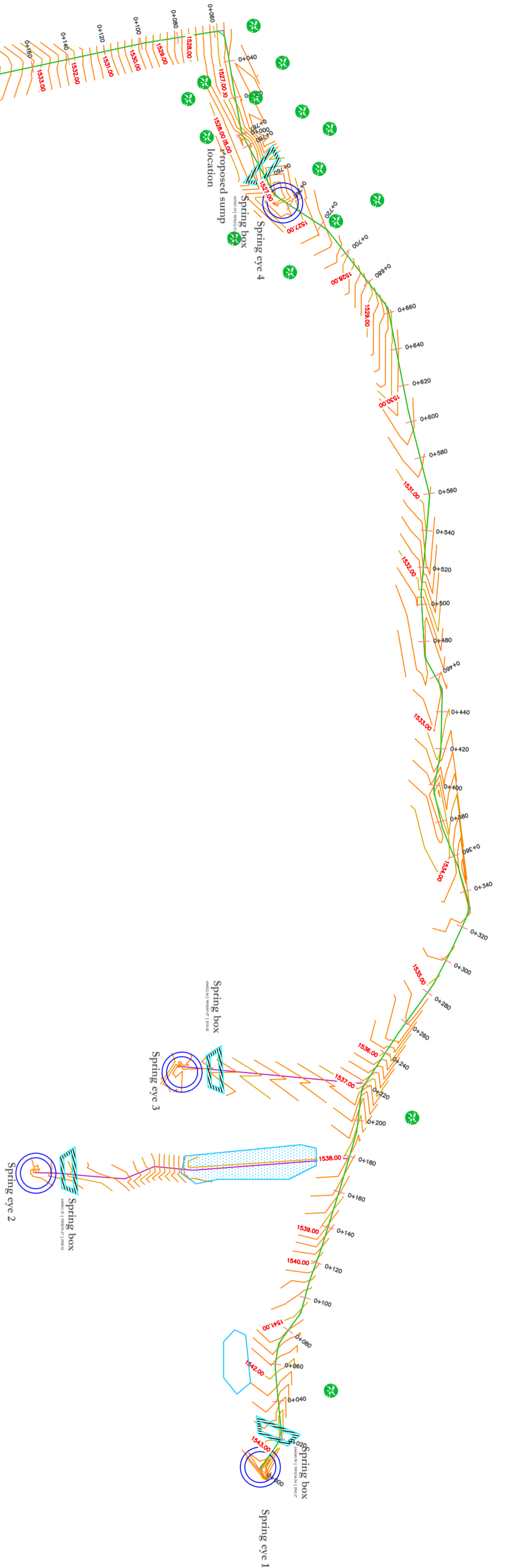


OLOONTARE SPRINGS SURVEY



LEGEND

- Tree/Bushes
- Control/Beacon Point
- Contours
- Fence
- Path
- Spring Eye
- Swamp

INFORMATION

Scale: 1:1000 (A3) Date: November 2023

NOTES

- Contour Interval Major 1.0 Meters Minor 0.2 m
- Total area surveyed 2.96 Ha

PROJECT DETAILS

Project: Oloontare Topographic Survey
Client: Amref Health Africa
P. O. Box 30125-00100
Nairobi
Kenya
Email: info.kenya@amref.org
Surveyor: Peter Njenga Wainaina

DRAWN BY

No: Name:

- Peter Njenga Wainaina
Registered Land Surveyor

Signature: _____

Contact: 0712 909 354

Email: wainjenga@gmail.com

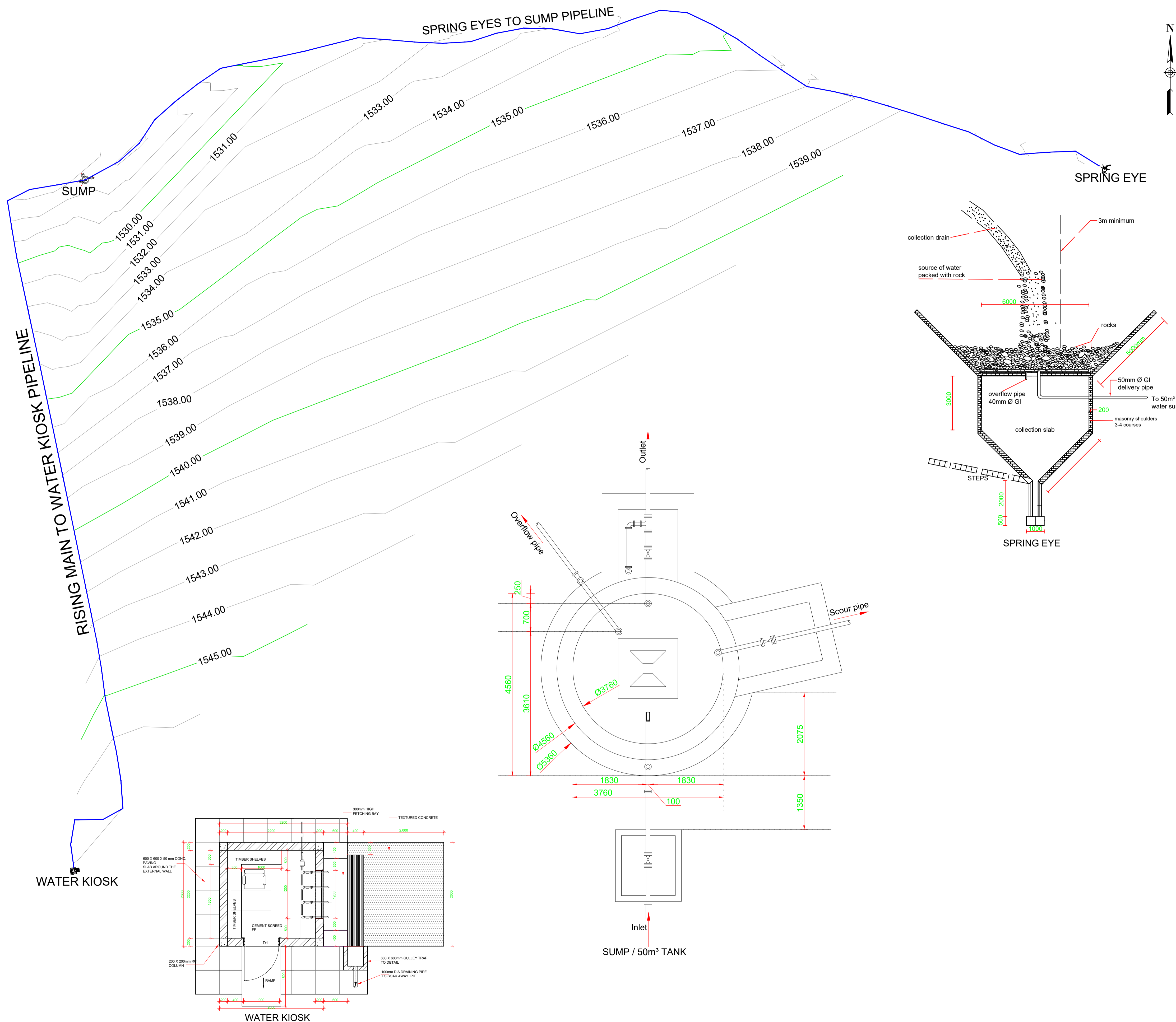
COORDINATE SYSTEM

Projection: UTM
Datum: WGS84
Ellipsoid: WGS84
Zone: 36S
Units: Meters

DWG No: Sheet No. 1 of 1

LOCATION DIAGRAM

Not to scale



NOTES:

LEGEND:

Client:

Amref Health Africa
P. O. Box 30125-00100
Nairobi Kenya
Email: info.kenya@amref.org

Drawing Title:
PROJECT LAYOUT

[illegible]



1. ALL LEVELS ARE IN METRES BASED ON NATIONAL DATUM.
2. ALL DISTANCES ARE IN METRES UNLESS STATED OTHERWISE.
3. THE LOCATION OF PIPES FROM EDGES OF ROADS/ PLOT BOUNDARIES AND FENCES AS SHOWN ARE APPROXIMATE.
4. EXACT LOCATION OF UNDERGROUND SERVICES TO BE CROSSED BY PIPELINES TO BE DETERMINED BY THE CONTRACTOR WITH ASSISTANCE FROM THE RELEVANT AUTHORITY AND FULL RESPONSIBILITY FOR ANY DAMAGE LIES WITH THE CONTRACTOR.
5. THE ACTUAL SETTING OUT TO BE CONFIRMED ON SITE BY THE ENGINEER
6. MINIMUM COVER TOP ALL PIPES TO BE 1.0M

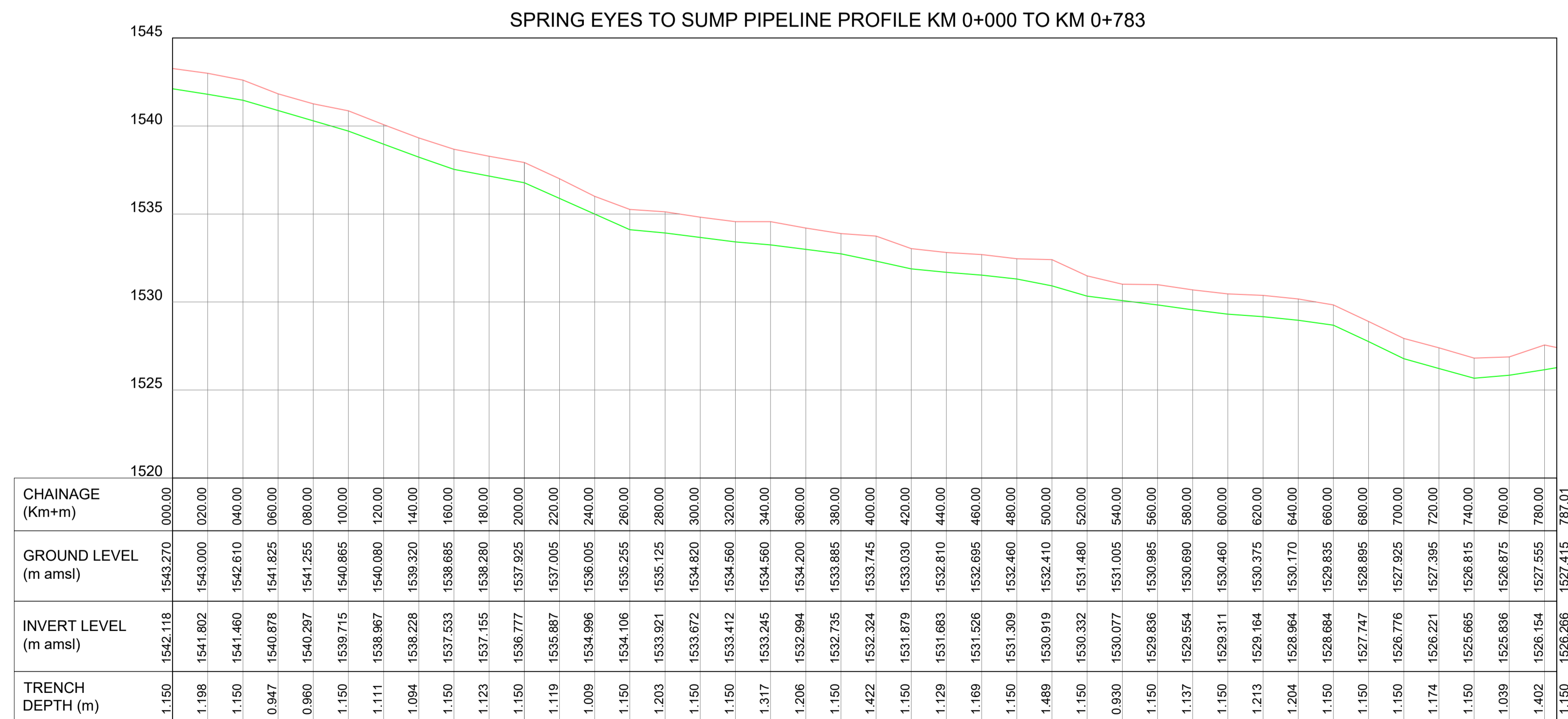
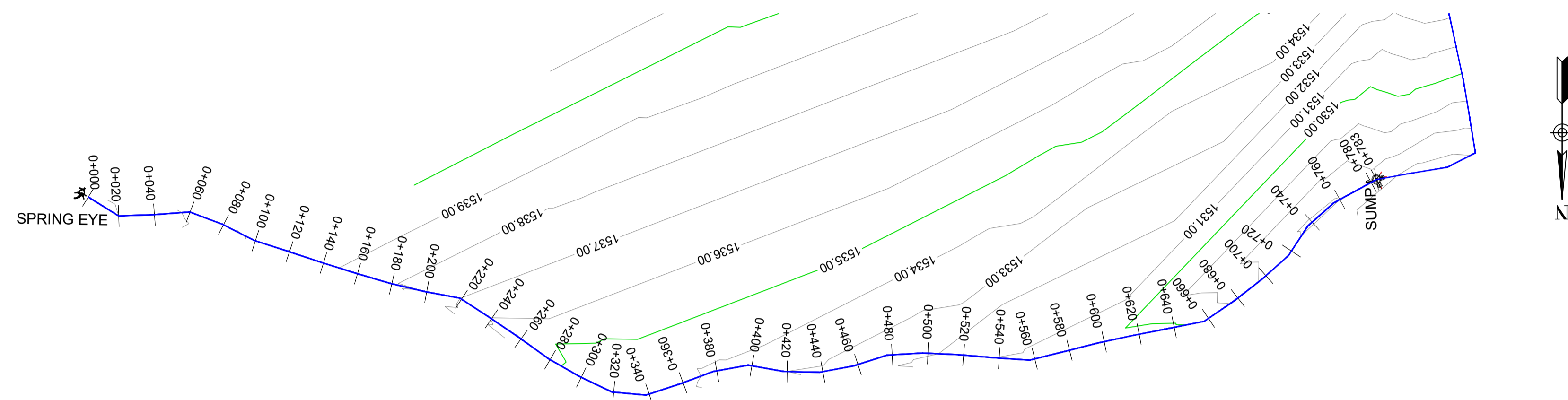
	PROPOSED WATER MAIN
	ROAD
	BOREHOLE
	STRUCTURES
	EL STATIC
	HGL
	ORIGINAL GROUND LEVEL
	PIPE INVERT LEVEL
S.A.V 	SINGLE ORIFICE AIR VALVE USE AUTOMATIC AIR VALVE OR SMALL ORIFICE AIR VALVE
D.A.V 	DOUBLE ORIFICE AIR VALVE USE LARGE ORIFICE AIR VALVE
S.V 	SECTIONAL VALVE
W.O 	WASHOUT
	STANDARD BEND
















OLOONTERA WATER SUPPLY PROJECT

Drawn by	: S.O
Surveyed by	: N.W
Designed by	: J.A
Checked by	: J.A
Approved by	: J.A
Date	: DECEMBER 2023
Scale	: HS 1:2000 VS 1:200
Drg No.	: AMREF/OL/RM/01

[illegible]



- ## NOTES:
1. ALL LEVELS ARE IN METRES BASED ON NATIONAL DATUM.
 2. ALL DISTANCES ARE IN METRES UNLESS STATED OTHERWISE.
 3. THE LOCATION OF PIPES FROM EDGES OF ROADS, PLOT BOUNDARIES AND FENCES AS SHOWN ARE APPROXIMATE.
 4. EXACT LOCATION OF UNDERGROUND SERVICES TO BE CROSSED BY PIPELINES TO BE DETERMINED BY THE CONTRACTOR WITH ASSISTANCE FROM THE RELEVANT AUTHORITY AND FULL RESPONSIBILITY FOR ANY DAMAGE LIES WITH THE CONTRACTOR.
 5. THE ACTUAL SETTING OUT TO BE CONFIRMED ON SITE BY THE ENGINEER
 6. MINIMUM COVER TOP ALL PIPES TO BE 1.0M

- ## LEGEND:
- | | |
|---|---|
|  | PROPOSED WATER MAIN |
|  | ROAD |
|  | BOREHOLE |
|  | STRUCTURES |
|  | EL STATIC |
|  | HGL |
|  | ORIGINAL GROUND LEVEL |
|  | PIPE INVERT LEVEL |
| S.A.V  | SINGLE ORIFICE AIR VALVE USE
AUTOMATIC AIR VALVE OR SMALL
ORIFICE AIR VALVE |
| D.A.V  | DOUBLE ORIFICE AIR VALVE
USE LARGE ORIFICE AIR
VALVE |
| S.V  | SECTIONAL VALVE |
| W.O  | WASHOUT |
|  | STANDARD BEND |

Client:

 **amref**
health africa

Amref Health Africa
P. O. Box 30125-00100
Nairobi Kenya
Email: info.kenya@amref.org

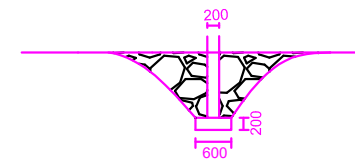
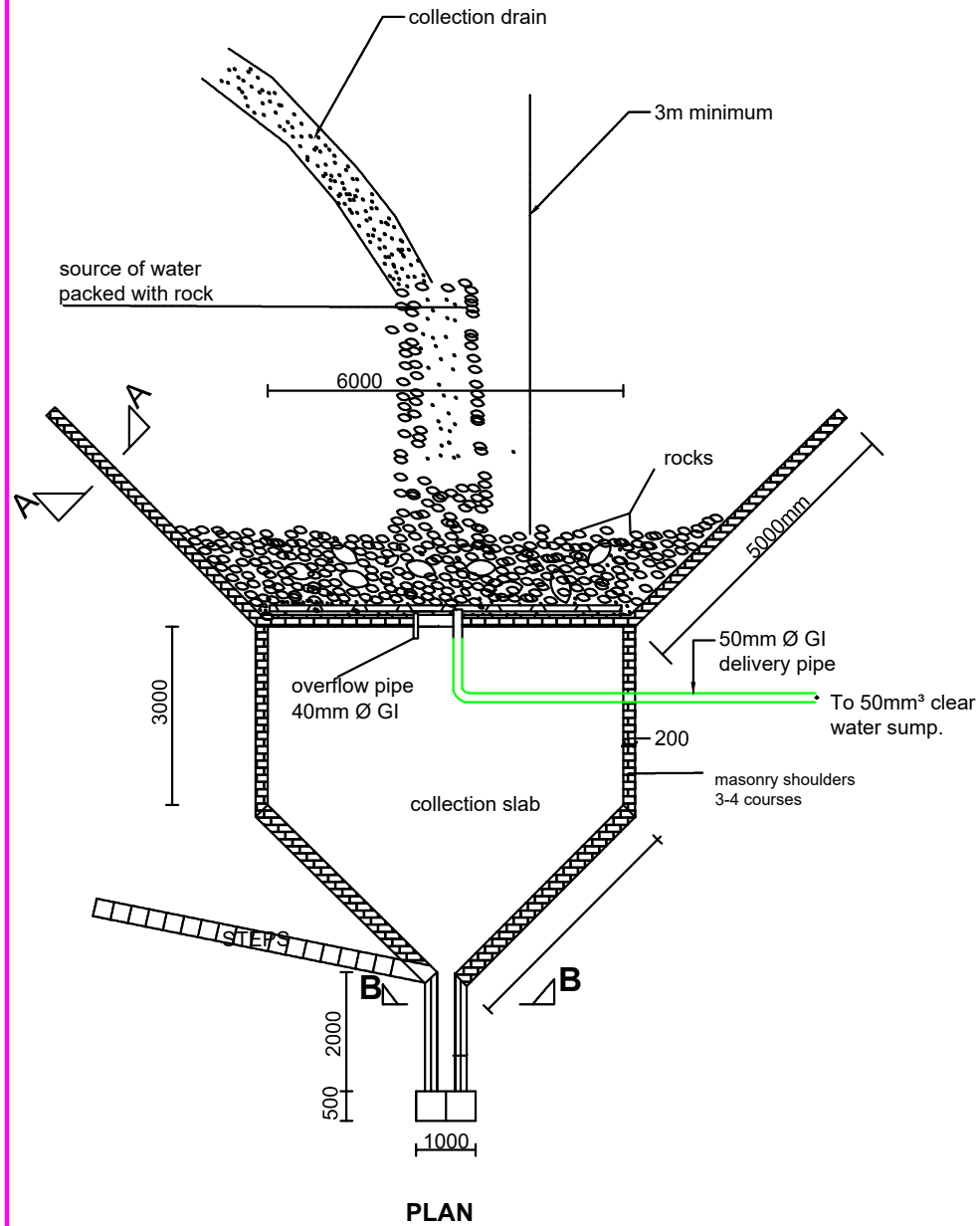
Project:

OLOONTERA WATER SUPPLY
PROJECT

Drawing Title:
SPRING EYES TO SUMP PIPELINE
PROFILE AND LAYOUT
KM 0+000 TO KM 0+783

Drawn by	: S.O
Surveyed by	: N.W
Designed by	: J.A
Checked by	: J.A
Approved by	: J.A
Date	: DECEMBER 2023
Scale	: HS 1:2000 VS 1:200
Drg No.	: AMREF/OL/SP/01

[illegible]



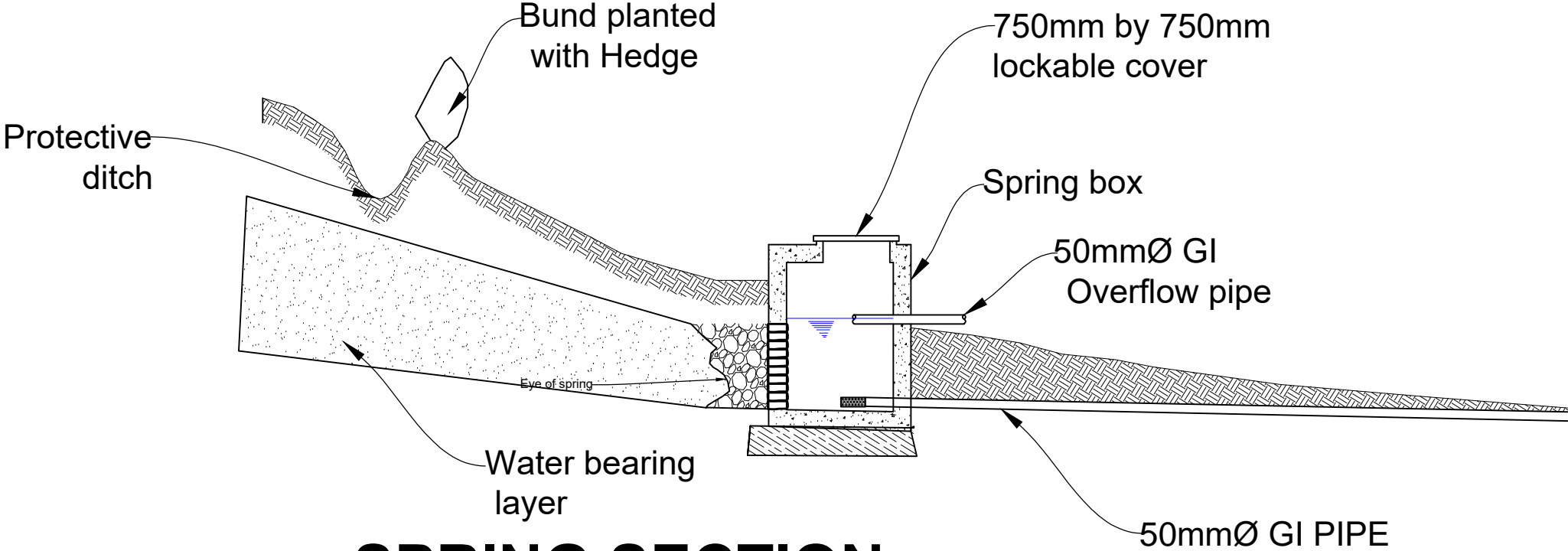
SECTION A-A

AMREF

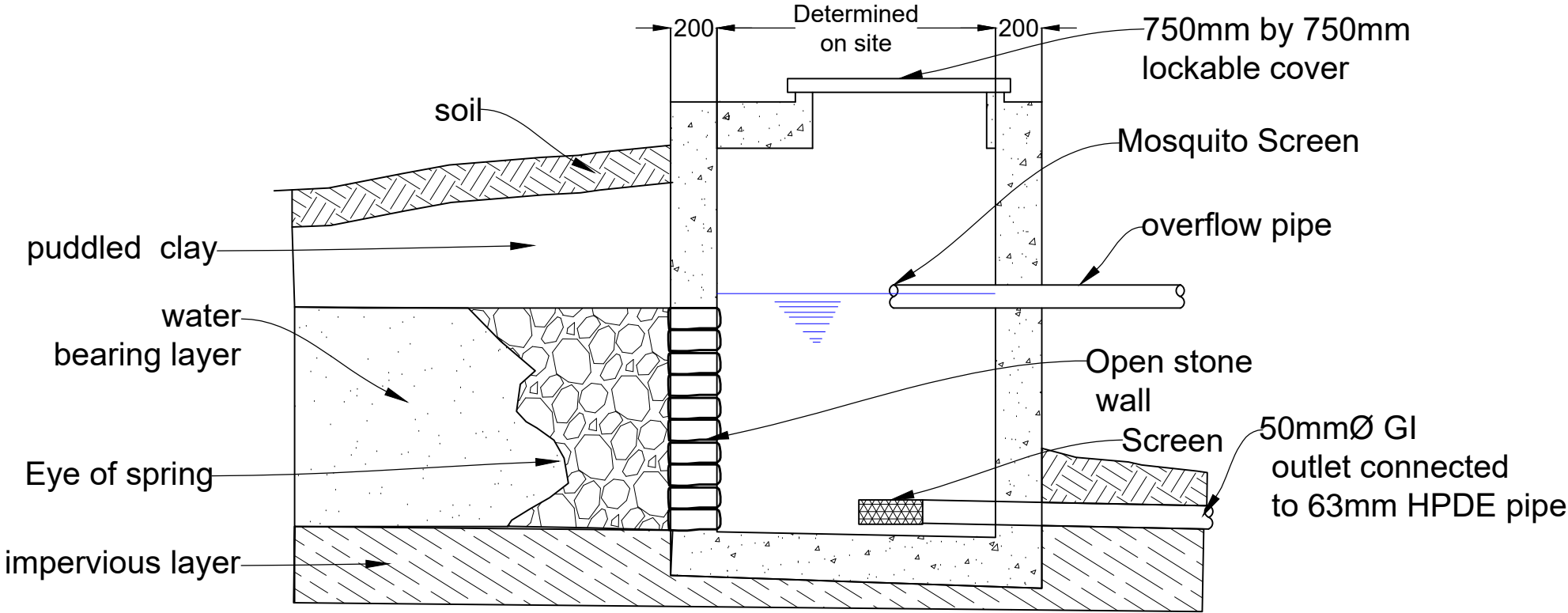
OLOONTARE SPRINGS WATER PROJECT

TYPE

SPRING PROTECTION

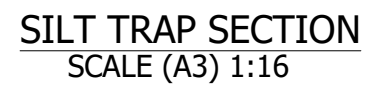
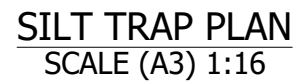


SPRING SECTION



TYPICAL ELEVATION OF SPRING BOX

NO Revisions:	Date:	Client:	Financed By:	Project:	Drawing title:	Drawn by : J.A
NO; 1						Checked by : J.A
NO; 2						Reviewed by :
NO; 3						Approved by : Eng.
						Date :
						Drg No. :
		AMREF HEALTH AFRICA - KENYA	AMREF HEALTH AFRICA - KENYA	OLOONTARE SPRINGS WATER PROJECT	SPRING PLAN AND ELEVATION ELEVATION	



1. ALL LEVELS ARE IN METRES BASED ON NATIONAL DATUM.
2. ALL DISTANCES ARE IN METRES UNLESS STATED OTHERWISE.
3. THE LOCATION OF PIPES FROM EDGES OF ROADS, PLOT BOUNDARIES AND FENCES AS SHOWN ARE APPROXIMATE.
4. EXACT LOCATION OF UNDERGROUND SERVICES TO BE CROSSED BY PIPELINES TO BE DETERMINED BY THE CONTRACTOR WITH ASSISTANCE FROM THE RELEVANT AUTHORITY AND FULL RESPONSIBILITY FOR ANY DAMAGE LIES WITH THE CONTRACTOR.
5. THE ACTUAL SETTING OUT TO BE CONFIRMED ON SITE BY THE ENGINEER

Client:



Amref Health Africa
P. O. Box 30125-00100
Nairobi Kenya
Email: info.kenya@amref.org

Project:

OLOONTARE WATER SUPPLY PROJECT

Drawing Title:

10M³ SILT TRAP PLAN
AND SECTION

Drawn by : S.O

Surveyed by	: N.W
-------------	-------

Designed by : J.A

Checked by : J.A

Approved by : J.A

Date : OCT, 2023

Scale : AS SHOWN

Drg No.	: AMREF/OLOO/STR/01
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[illegible]

[illegible]

[illegible]

INLET VALVE CHAMBER
SECTION C-C
Scale 1:50

INLET VALVE CHAMBER
BASE SLAB LAYOUT
Scale 1:50

INLET VALVE CHAMBER
SECTION C-C R.C DETAILS
Scale 1:50

INLET VALVE CHAMBER
BASE SLAB AND R.C DETAILS
Scale 1:50

OUTLET AND SCOUR VALVE CHAMBER
SECTION D-D
Scale 1:50

OUTLET AND SCOUR VALVE CHAMBER
BASE SLAB LAYOUT
Scale 1:50

OUTLET AND SCOUR VALVE CHAMBER
SECTION D-D R.C DETAILS
Scale 1:50

OUTLET AND SCOUR VALVE CHAMBER
BASE SLAB AND R.C DETAILS
Scale 1:50

NOTES:

1. All dimensions are in millimetres unless specified otherwise.
2. All levels are indicated in millimetres unless specified otherwise.
3. Structural Drawing to be read in conjunction with the relevant drawings
4. All structural concrete to be Class C30/20 unless stated otherwise.
5. Minimum cover to all reinforcement to be:

Slabs & Walls	= 25mm
Foundations	= 50mm
6. Maximum tolerance on concrete cover is +/- 5mm.
7. All high tensile (T) bars to be in accordance with BS 4449 and fabric mesh to be made from cold worked steel bars in accordance with BS 4483.
8. Minimum laps to all bars to be 50Ø unless stated otherwise.
9. All reinforcement to be inspected by the structural Engineer before concreting.
10. Maximum aggregate size to be 20mm
11. All foundations to be taken down to firm bearing strata to Engineer's approval.
12. Foundations designed for allowable bearing pressure of 150KN/m².

Client:



Amref Health Africa
P. O. Box 30125-00100
Nairobi Kenya
Email: info.kenya@amref.org

Project:

OLOONTARE WATER SUPPLY PROJECT

Drawing Title:

50M³ STORAGE TANK VALVE CHAMBER DETAILS

Drawn by : S.O

Drawn by	: F.S.S
Surveyed by	: N.W

Designed by : J.A

Checked by : J.A

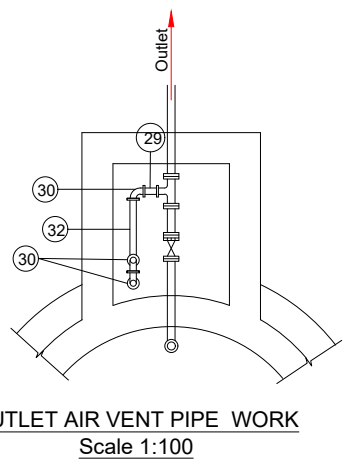
Approved by : J.A

Date : OCT, 2023

Scale : AS SHOWN

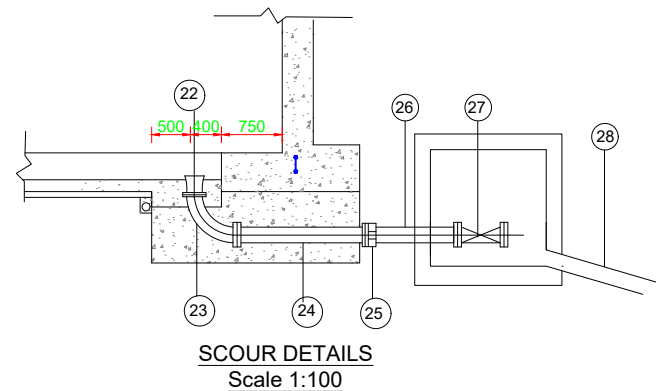
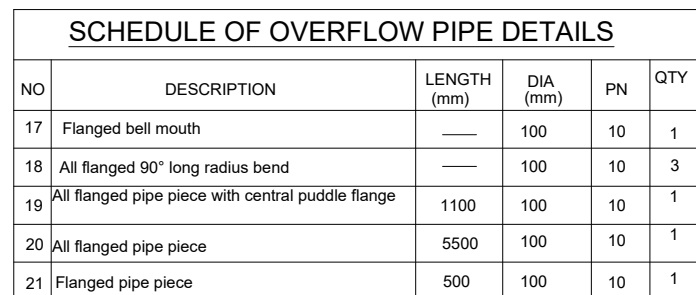
Drg No. : AMREF/OLOO/ST/04

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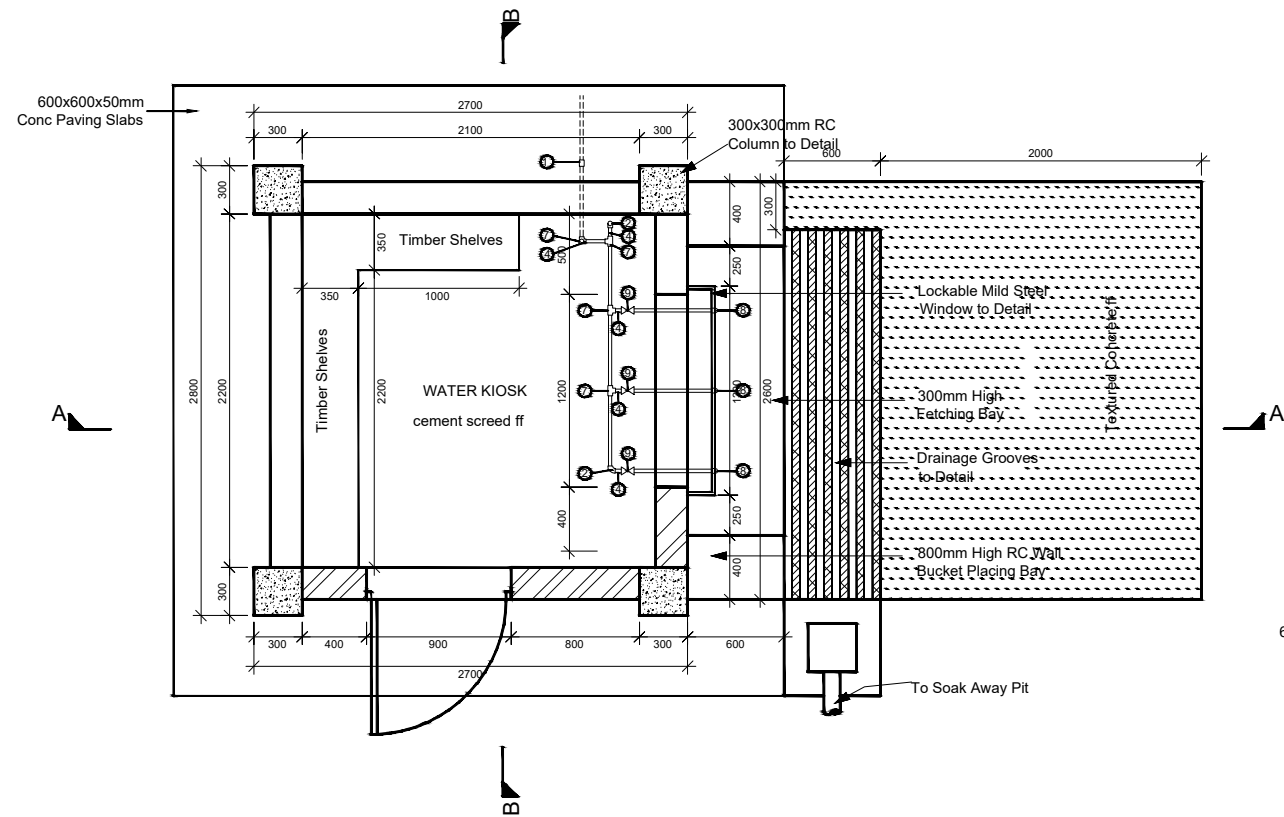
SCHEDULE OF OUTLET PIPE DETAILS					
NO	DESCRIPTION	LENGTH (mm)	DIA (mm)	PN	QTY
33	Flange adaptor	—	50	10	2
34	All flanged strainer	—	50	10	1
35	Flanged pipe piece	1000	50	10	1
36	All flanged master meter	—	50	10	1
37	All Flanged pipe piece	1000	50	10	1
38	All flanged pipe piece	500	50	10	1

OUTLET AIR VENT PIPE DN 80 STEEL					
NO	DESCRIPTION	DIA (mm)	LENGTH (mm)	PN	QTY
29	All flanged pipe piece	80	500	10	1
30	All flange 90° bend	80		10	4
31	All flanged pipe piece	80	6000	10	1
32	All flanged pipe piece	80	1000	10	1

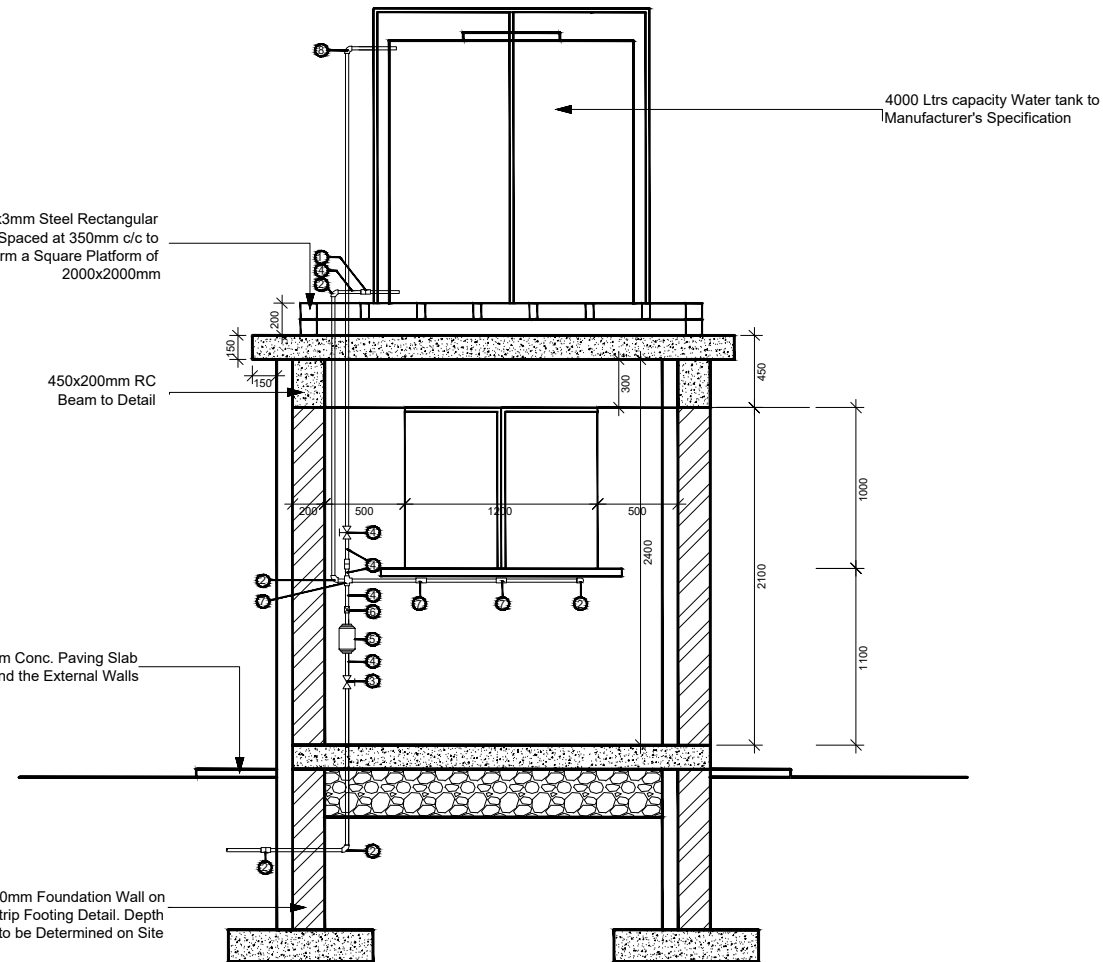


<u>SCHEDULE OF SCOUR STEEL PIPE FITTINGS</u>					
NO	DESCRIPTION	LENGTH (mm)	DIA (mm)	PN	QTY
22	Bell mouth flanged	—	100	10	1
23	Long radius bend 90° Flanged	—	100	10	1
24	All flanged pipe piece	1800	100	10	1
25	Flange adaptor	—	100	10	1
26	Flanged spigot pipe piece	1000 —	100	10	1
27	Sluice valve flanged	—	100	10	1
28	All spigot pipe piece PVC drain pipe	1000	100	10	1

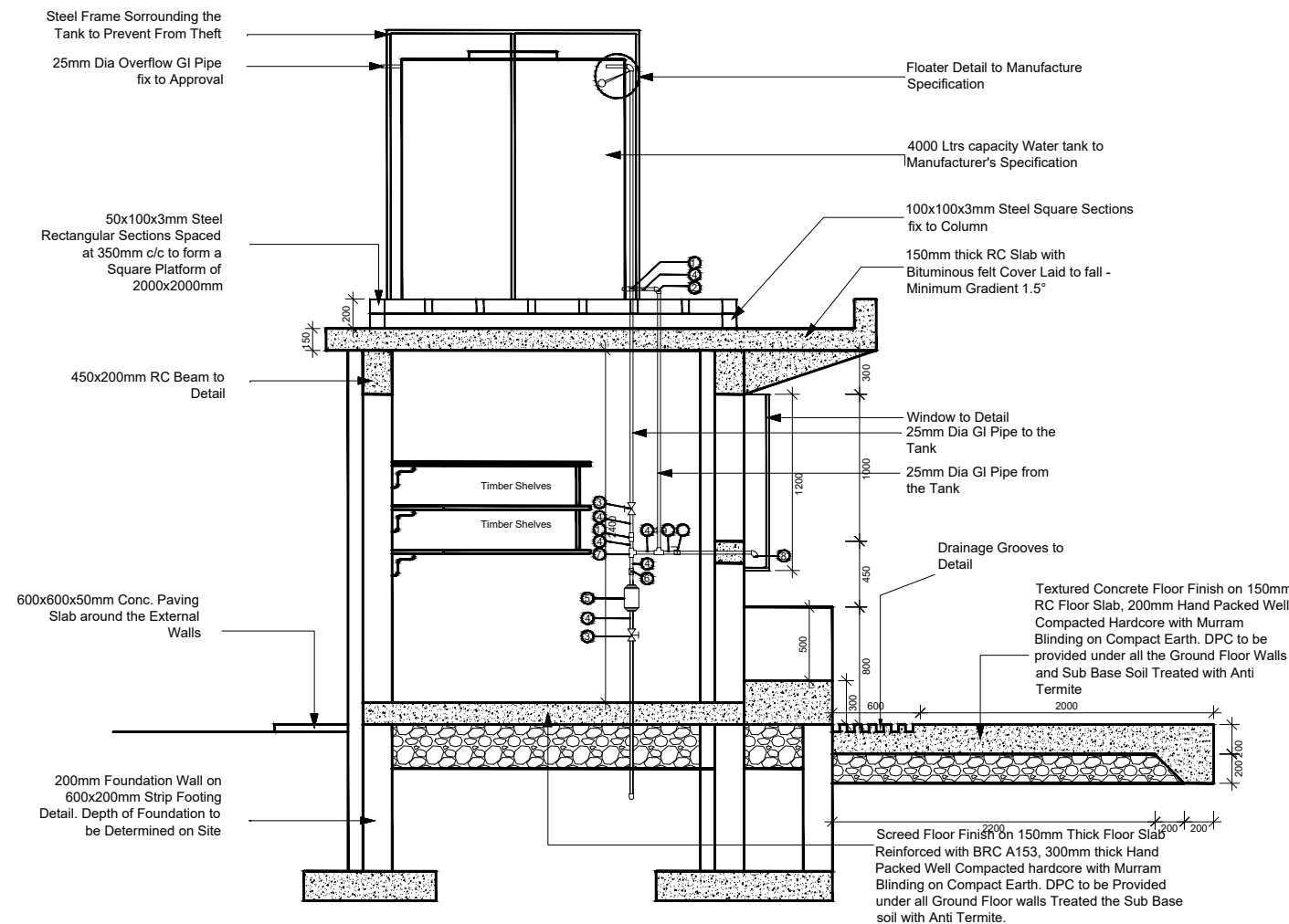
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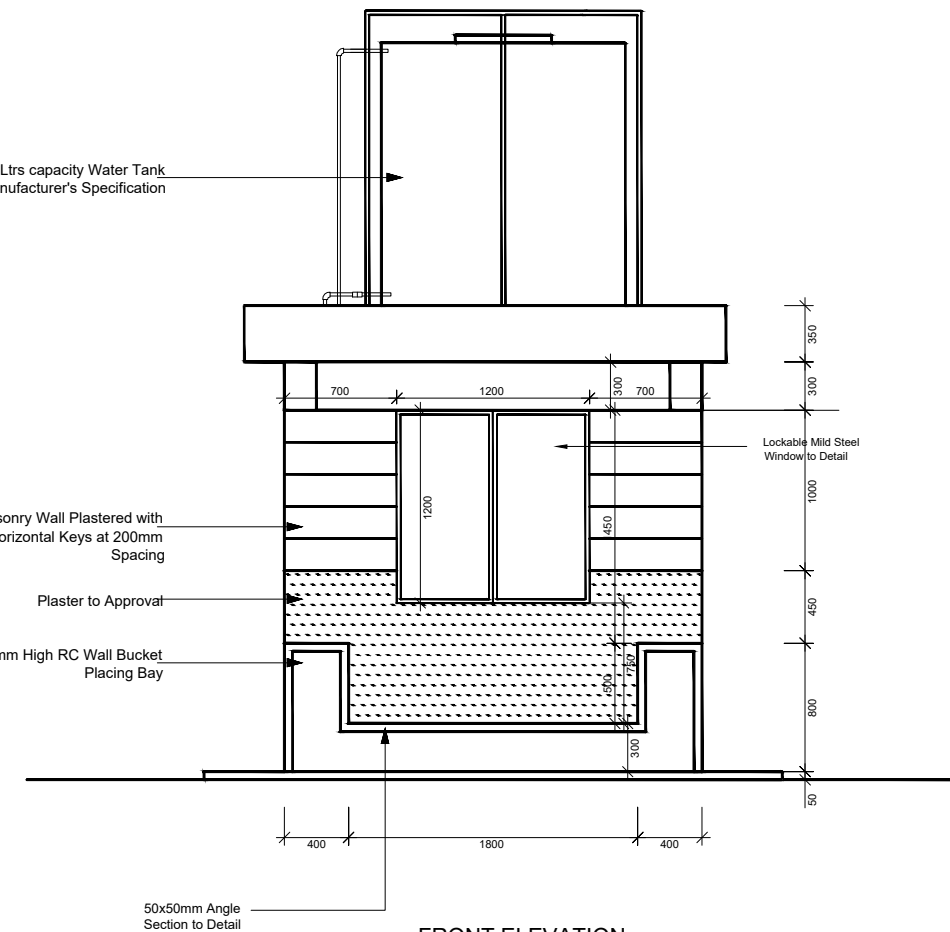
FLOOR PLAN



SECTION B-B



SECTION A-A



FRONT ELEVATION

NOTES :

1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED.
2. ALL CONCRETE TO BE CLASS 20/20
3. ALL PRECAST CONCRETE UNITS TO BS 556
4. CONCRETE FILLING CLASS 25/20 VIBRATED AND CURED IN ACCORDANCE WITH THE APPROPRIATE SPECIFICATION CLAUSES.
5. TOLERANCE ON OVERALL SIZE 3mm
6. ALL HAUNCHES ARE CLASS 15/40 CONCRETE AS INDICATED ON THE SPECIFICATION OVER EXCAVATION TO BE MADE GOOD IN CONCRETE CLASS 15/40.

Rev. No.	DESCRIPTION	DATE

CLIENT

Amref Health Africa P. O. Box
30125-00100 Nairobi Kenya Email:
info.kenya@amref.org

PROJECT :

OLOONTERA WATER SUPPLY PROJECT

TOWN : KOSACHEI

DRAWING TITLE :

WATER KIOSK DETAILS

SCALES :

DRG. No. :

DATE : NOVEMBER 2023

SHEET No. :

CONTRACT NO:

SURVEYED BY :

DRAWN BY :
N. Titiya.

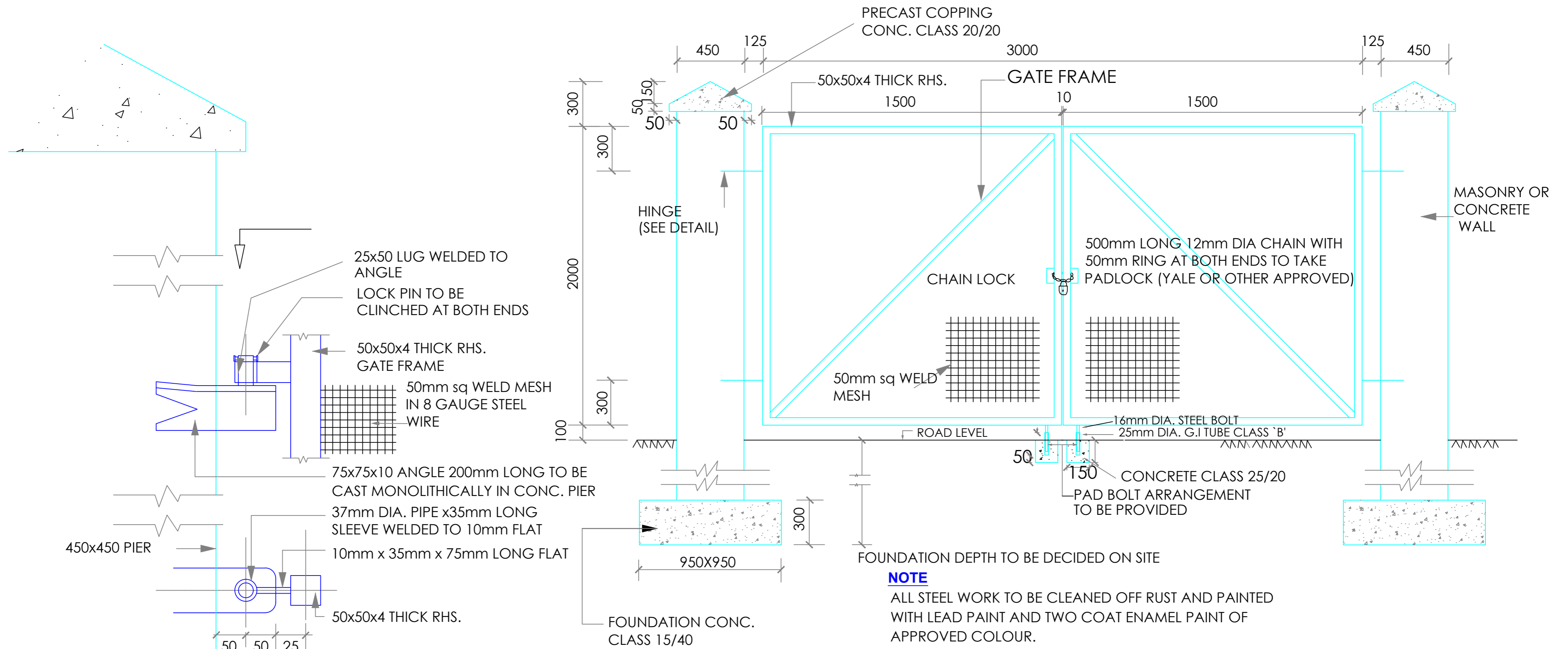
DESIGNED BY :

CHECKED BY :
J. A.

APPROVED BY :

DATE :

SIGNATURE :



DETAILS OF 3m WIDE GATE

REVISION				CLIENT/EMPLOYER:	PROJECT:	DRAWING TITLE:	DRAWING TITLE:	DRAWN BY:	
No.	Date	Description	Initial					CHECKED BY:	
				Amref Health Africa P. O. Box 30125-00100 Nairobi Kenya Email: info.kenya@amref.org	OLOONTARE WATER SUPPLY PROJECT	DETAILS OF 3M GATE	SHEET 1		
								SCALE: AS SHOWN	