



- NOTES**
1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
 2. ALL LEVELS ARE IN METERS AND COORDINATES ARE BASED ON UTM.
 3. THE MANHOLE INVERT LEVELS AND PIPE SLOPES ARE AS SHOWN ON DRAWINGS UNLESS OTHERWISE INDICATED ON SITE BY THE ENGINEER.
 4. MANHOLE TO BE 25MM ABOVE THE GROUND ADJACENT TO ROAD, 150MM ON VERGES, AND 500MM ON OPEN GROUND. THE DEPTHS INDICATED ON THE DRAWING EXCLUDE THESE PROVISIONS.
 5. SEWERS ARE TO BE LAID TO EVEN GRADIENTS WITH A MINIMUM COVER OF 1.0M. WHERE COVER IS LESS THAN THIS, PIPE TO BE SURROUNDED WITH CONCRETE TYPE 'D' HAUNCH.
 6. FOR BEDDING, HAUNCH AND MANHOLE DETAILS REFER TO THE APPROVED STANDARD DRAWINGS.
 7. ACTUAL POSITION OF MANHOLES IS AS SHOWN OR AS DIRECTED BY THE ENGINEER ON SITE.

- LEGEND**
- EXISTING GROUND LEVEL
 - PROPOSED SEWER LINE
 - PROPOSED MANHOLE
 - TRUE NORTH
 - PROP. MANHOLE
 - EXT. TRUNK SEWER LINE AND SEWER NETWORK
 - EXISTING BANANA PLANTATION
 - EXISTING TREE
 - CADASTRAL BOUNDARY
 - RIVER
 - EXISTING ROAD NETWORK

MANHOLES SETTING OUT CO-ORDINATES

POINT	EASTINGS	NORTHINGS
KIBERA SEWERLINE		
L1 MH-1	255271.92	9854710.89
L1 MH-2	255247.12	9854738.17
L1 MH-3	255177.07	9854711.53
L1 MH-4	255143.51	9854664.67
L1 MH-5	255078.47	9854691.87
L1 MH-6	255036.80	9854709.37
L1 MH-7	255003.20	9854733.22
L1 MH-8	254957.38	9854738.89
L1 MH-9	254911.67	9854733.28
L1 MH-10	254861.57	9854716.73
L1 MH-11	254801.51	9854744.26

MANHOLES SETTING OUT CO-ORDINATES

POINT	EASTINGS	NORTHINGS
KIBERA SEWERLINE 2		
L2 MH-11	254814.57	9854776.45
L2 MH-10	254889.95	9854787.40
L2 MH-9	254964.78	9854791.37
L2 MH-8	255002.10	9854789.15
L2 MH-7	255042.27	9854786.58
L2 MH-6	255095.61	9854817.92
L2 MH-5	255147.38	9854848.23
L2 MH-4	255178.00	9854865.91
L2 MH-3	255225.09	9854827.69
L2 MH-2	255246.88	9854786.99
L2 MH-1	255268.41	9854757.92



NAIROBI CITY WATER & SEWERAGE COMPANY LIMITED

P O BOX 30656-00100 NAIROBI

PROJECT

KIBERA SEWERLINE 1 AND 2 (LAYOUT PLAN SHEET)

SURVEY WORK			DESIGN WORK		
SURVEYED	T. OUMA	SIGN.	DESIGNED	W. OPUCH	SIGN.
DRAWN	C. M. MACHUNIA	SIGN.	DRAWN	C. M. MACHUNIA	SIGN.
CHECKED	I. MUTHAMA	SIGN.	CHECKED	Eng. D. MANORE	SIGN.

APPROVED	Eng. Lucy N. Macharia
	SIGN.
	TECHNICAL DIRECTOR

DATE	DECEMBER 2020
SCALE	HOR: 1 : 1000 VERT: 1 : 100
FIELD BOOK NO.	NCWS/TEC/ENG/004/
DRG No.	NCWS/TEC/ENG/004/S/