



Ref : CWWDA/T/MSA/004/2024-2025/ (007)

Date : 3rd March 2025

To all Bidders,

RE: ADDENDUM NO.1 FOR CONTRACT NO. CWWDA/T/MSA/W/004/2024-2025-Water Supply to The Creek Village Affordable Housing Units in Kisauni Constituency, Mombasa County

The above subject matter refers.

Please be informed that modifications have been made to the original Bill of Quantities as outlined below:

Bill No. 2 – Transmission Pipeline

1. **Item No. 1.4:**
Item descriptions and quantities have been revised.
2. **Item No. 2.2:**
Item description has been changed
3. **Item No. 2.21, 2.22, 2.23, 2.24:**
Item descriptions and quantities have been revised.
4. **Item No. 2.25, 2.26, 2.27, 2.28:**
These Items have been introduced
5. **Item No. 2.31, 2.32**
Item descriptions have been changed
6. **Item No. 2.41**
Item description has been changed



7. Item No. 2.61, 2.62, 2.63

Item description has been changed

8. Item No. 2.71, 2.72, 2.73

Item description has been changed

9. Item No. 2.102, 2.111

Item description has been changed

10. Item No. 3

Item description has been changed

11. Item No. 4.1

This Item has been introduced

12. Item No. X61

This item has been deleted

Bill No. 4 – RC Retaining Wall

5. Items No. 4.32, 4.33, 4.34, 4.35, 4.36:

Quantities have been adjusted.

Note: A complete set of the revised Bills of Quantities is attached, reflecting all changes made.

As a result, **Bid Submission Deadline has been extended to 17th March 2025 11.00Hrs**

Yours faithfully,


Eng. Martin Tsuma

Ag. CHIEF EXECUTIVE OFFICER

SECTION VII- BILLS OF QUANTITIES

**WATER SUPPLY TO THE CREEK VILLAGE AFFORDABLE HOUSING UNITS IN KISAUNI
CONSTITUENCY, MOMBASA COUNTY**

	<u>SUMMARY FOR ALL THE BILLS</u>	AMOUNT KES
1	PRELIMINARY AND GENERAL ITEMS	
2	TRANSMISSION PIPELINE	
3	REINFORCED CONCRETE WATER STORAGE TANK 500M3	
4	RC RETAINING WALL	
5	DAYWORKS	
	SUB-TOTAL	
	Allow 10% contingency sum	
	TOTAL	
	Add 16% VAT	
	GRAND TOTAL	

SECTION VII - BILLS OF QUANTITIES
BILL No. 1 - PRELIMINARY AND GENERAL ITEMS

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
1	Contractual Requirements				
1.1	Allow for provision of Performance Security in accordance with Clause 50.1 of Section VII of the General Conditions, Bidding Document Volume I.	Item	L.S		
1.2	Allow for provision of Insurance of Works and Contractor's Equipment in accordance with Clause 13.1 of Section VII of the General Conditions, Bidding Document Volume I.	Item	L.S		
1.3	Allow for provision for Third Party Insurance's in accordance with the Conditions of Contract.	Item	L.S		
1.4	Allow for provision of Insurance against Accident to Workmen in accordance with Clause 13.1 of Section IV of the General Conditions, Bidding Document Volume I.	Item	L.S		
1.5	Allow a Prime Cost Sum Ksh. 3,000,000 for Land compensation, statutory dues etc	Item	1	3,000,000.00	3,000,000.00
1.6	% Adjustment to the provisional sum for contractor costs for items 1.5	Item			
2	SPECIAL REQUIREMENTS				
2.1	Contractor's Camp and Storage Yard: Allow for erection of the Contractor's Camp(s), Offices, Storage Yard and other facilities including mobilization, demobilization and movement of the works site on Completion. Include for all equipment, temporary measures, machines, tools, materials, facilities for workers, water and electricity supply etc. all as specified for execution of the Works, for the entire Contract Period. The Employer has no available land to offer for Contractor's Camp, storage of materials and preparation of concrete etc. Identification and procurement of suitable area of land for Contractor's Camp whether rented or purchased is the responsibility of the Contractor. <u>Details of proposed camp / stores. location of land where the Contractor will establish his camp(s) to be submitted with the Bid.</u>	Item	L.S		
2.2	Allow a P.C. Sum of Kshs.500,000 for training of Employer's Staff during Construction, Testing and Commissioning of the Works as specified in Clause 137 of Section I, General and Particular Specifications of Bidding Document Volume II	Item	P.C		500,000.00
2.3	Add% for profit, administration, attendance upon, overheads, etc. for Item 2.2 above	%			
PAGE 1 TOTAL CARRIED FORWARD TO BILL NO. 1 COLLECTION SHEET					

2.4	Test Running of the Scheme: Allow for Test Running all the Project Components for a period of 4 weeks upon completion and official commissioning of the Works. Test Running to be carried out in close liaison with the Water Services Provider's Staff. Contractor to allow for 'on job' training of Operation and Maintenance Staff, Tools, etc, and ensure that the operations are carried out full time on a 24 hour basis, all in accordance with Clause 137 Section 1 - General and Particular Specifications of the Bidding Document Volume II	Item	L.S		
2.5	Allow for provision of Operation and Maintenance (O&M) Manuals in accordance with Clause 139 - General and Particular Specifications of Bidding Document Volume II	Item	L.S		
2.6	Allow for provision of As-Built Drawings in accordance with Clause 147 - General and Particular Specifications of Bidding Document Volume II	Item	L.S		
3	SPECIFIED REQUIREMENTS				
	Sign Boards				
3.1	Allow for provision, erection and maintenance of Project Sign Boards at the sites indicated by the Engineer's Representative, within the Project Area, Steel fabricated size 3x2 m. Design to be approved by the Resident Engineer. The rate quoted by the Contractor to include for payment of all statutory charges to the relevant Authority and removal after completion of the Project.	Nr	2.00		
	Setting Out & Survey Work				
3.2	Allow for establishment of Level Datum Survey, Setting Out of the Works. This shall include pegging of pipeline Routes and preparation of Setting Out Survey Report to the Engineer for approval.	Item	L.S		
3	Attendance Upon Engineer's staff				
	Staff provided should have qualifications approved				
3.1	Driver	month	12	25,000.00	300,000.00
3.2	Chainmen	month	12	35,000.00	420,000.00
3.3	Engineering/survey technician	month	12	45,000.00	540,000.00
3.4	Enviromentalist/sociologist	month	12	45,000.00	540,000.00
3.5	Inspector of Works Earthworks & Pipeline	month	12	50,000.00	600,000.00
3.6	Allow a Provisional Sum for material testing and exploratory works as directed by Engineer	Sum	1		
PAGE 2 TOTAL CARRIED FORWARD TO BILL NO. 1 COLLECTION SHEET					

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE Kes	AMOUNT Kes
3.7	% Adjustment to the provisional sum for contractor's on costs for items 3.1 to 3.6	%			
3.8	Allow a PC Sum of 2,000,000.00 for design review for Transmission Pipelines by Consultant approved by the Employer	Item	PC		
4	Temporary Works				
4.1	Allow for diversions and pumping whilst the intake works are carried out	Sum	PC		
4.2	Traffic diversion during road crossing works	Sum	PC		
5	Other Provisional Sums				
5.1	Allow a provisional sum to be spent in whole or part, for community sensitization/ public participation and mobilisation activities to be spent as directed by the Engineer	Sum	PC		
5.2	Provisional Sum of Kshs 1,500,000 for any payment for services by roads authorities KeNHA, KURA, County Government, etc and any other that have any statutory jurisdiction over the works. Rate to include sourcing road cutting permits and reinstatement to standard, permits to work on road verges and tree cutting permits as may be required	Sum	PC	1,500,000.00	1,500,000.00
5.3	Allow sum for EIA report and NEMA licence acquisition, Compensation, RAP and related activities	Sum	PC		
5.4	KPLC Charges for power supply to sites				
5.5	Percentage adjustment to provisional sum in item 5.1 to 5.4	%			
5.6	Allow the Provisional Sum of KShs. 2,500,000 to cover supervision costs of Engineers assigned on the project from the Employer's head office to be expended as directed by the Project Manager.	PC	1	2,500,000.00	2,500,000.00
5.7	Percentage Adjustment to the provisional sum for Item 5.6	%			
5.8	Allow Provisional Sum of Ksh, 5,000,000 for project branding and communication	Sum	PC	5,000,000.00	5,000,000.00
PAGE 3 TOTAL CARRIED FORWARD TO BILL NO. 1 COLLECTION SHEET					

BILL No. 1 : COLLECTION SHEET					
<u>DESCRIPTION</u>					AMOUNT
					KShs
Brought forward from page 1					
Brought forward from page 2					
Brought forward from page 3					
BILL No. 1 PRELIMINARY & GENERAL ITEMS TOTAL CARRIED FORWARD TO COST					
SUMMARY PAGE					

SECTION VII - BILLS OF QUANTITIES

WATER SUPPLY TO THE CREEK VILLAGE AFFORDABLE HOUSING UNITS IN KISAUNI CONSTITUENCY,
MOMBASA COUNTY

BILL No. 2 - TRANSMISSION PIPELINE

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE Kes	AMOUNT Kes
	BILL No. 2 - TRANSMISSION PIPELINE				
1	General Items				
1.1	Field Pressure Testing, Cleansing and Sterilization of Pipelines DN 63mm,110mm,160,250mm	m	8,500		
1.2	General clearance; width n.e.3 meter on either side of center line for laying of pipelines.	m	4,500		
1.3	Cutting of trees, removal of stumps with holes backfilled with excavated material tree grith 100 - 200mm	nr	20		
1.4	Extra over excavation for excavating in rock 1.5m depth and average 1000mm wide.	m ³	1,500		
2.1	Tee -Take off on Existing DN700 Nguu Tatu tank - Kisauni mains				
	Steel Fittings shall be coated internally and externally in fusion bonded epoxy to AWWA C213 to a thickness of 300 – 400 microns, • Bolts, nuts and washers will be hot dipped galvanized to BS 729 with minimum coating weight of 305 gms/m ² .(Rate to include supply and fixing of Associated Fittings i.e. Mechanical Couplings,hdpe adaptors, bolts and nuts, etc.)				
2.11	Allow sum for Cutting of existing 700mm steel pipe bore 200mm and install Single flanged steel pipe Spigot 200mm x1.5m, PN25 by arc weld onto 700mm mains to act Tee-take off.	Item	1		
2.12	DN200, PN25 SV all flanged, AVK Type or equivalent	nr	1		
2.13	DN200, PN25 Flanged adaptor	nr	1		
2.14	200mm HDPE-Steel joining fitting spigot single flanged (stub end joint)	nr	1		
2.15	Offtake Valve Chamber, rc Concrete sluice valve chamber 1.5x1.5x1.5m with cover as specified in drawings	nr	1		
PAGE 1 TOTAL CARRIED FORWARD TO BILL NO. 2 COLLECTION SHEET					

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE Kes	AMOUNT Kes
2.2	Pipework - pipes & fittings				
	Supply, Transport to site and store in secure place. Include supply of jointing material, Bolts nuts, gaskets etc.				
	HDPE pipes PN 12.5 including provision for Butt-Fusion/ Electrofusion Welded Jointing				
	<u>Konkodia Offtake to Junda Mission Estate</u>				
2.21	OD 250mm in trenches, depth range 1.5 - 2.0m	m	3,500		
	<u>Parallel water distribution mains Konkodia to Junda Mission Estate</u>				
2.22	OD 110mm in trenches, depth range 1.0 - 1.5m	m	3,500		
	<u>Extension to Creek Village AHU</u>				
2.23	OD 160mm in trenches, depth range 1.0 - 1.5m	m	1,000		
2.24	Extension to Ngomeni Settlement				
	OD 200mm in trenches, depth range 1.0 - 1.5m	m	1,500		
	<u>Trenching and Pipe laying</u>				
	Transport from store, lay and joint pipes in trench; include excavation, preparation of surfaces, disposal of excavated material, backfilling and final reinstatement.				
	<u>Konkodia Offtake to Junda Mission Estate</u>				
2.25	OD 250mm in trenches, depth range 1.5 - 2.0m	m	3,500		
	<u>Parallel water distribution mains Konkodia to Junda Mission Estate</u>				
2.26	OD 110mm in trenches, depth range 1.0 - 1.5m	m	3,500		
	<u>Extension to Creek Village AHU</u>				
2.27	OD 160mm in trenches, depth range 1.0 - 1.5m	m	1,000		
	Extension to Ngomeni Settlement				
2.28	OD 200mm in trenches, depth range 1.0 - 1.5m	m	1,500		
2.3	<u>Hdpe Bends/ elbows</u>				
	HDPE pipe horizontal and Vertical Plain Ended Bends (Rate to include supply and fixing inclusive of Associated Fittings i.e. Mechanical Couplings, bolts and nuts etc.) PN 12.5 nominal bore n.e.200mm				
2.31	250mm HDPE elbow fitting butt fusion 90 degree	nr	5		
2.32	250mm HDPE elbow fitting butt fusion 45 degree	nr	6		
2.4	<u>HDPE Reducers and Tees</u>				
	Supply, handle, deliver to site, fix in place and test inclusive of all fittings to details. Include for necessary HDPE-Steel joining fittings. (rate to exclude gate valves or sluice valves and construction of chambers but include for all other jointing materials and fittings)(includes gate valve, handwheel, stub end, flange, bolts, nuts, gasket)				
2.41	HDPE 250x110mm Tee	nr	3		
2.42	HDPE 110x63mm Tee	nr	10		
PAGE 2 TOTAL CARRIED FORWARD TO BILL NO. 2 COLLECTION SHEET					

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE Kes	AMOUNT Kes
2.9	Chambers and Manholes				
	Masonry chambers; cost to include excavation, construction and backfilling				
2.91	Air Valve chamber; depth 1.0 - 1.5m, plan area n.e 2.5 m ²	nr	4		
2.92	Washout Gate valve chamber; depth 1.0 - 1.5m plan area n.e 2.5 m ²	nr	4		
2.93	Gate Valve chamber; depth 1.5 - 2.0 m; plan area n.e 2.5 m ²	nr	4		
2.94	Bulk meter chamber; depth 1.0 - 1.5 m; plan area n.e 4 m ²	nr	3		
2.10	Micro-tunnelling Nguu Tatu Tarmac Road				
	Seek Approval and Micro tunnel Tarmac Road Konkodia to install a 300mm Duct and provide a 300mm sleeve to lay a DN 200mm HDPE water line (the approval should also include authority for installation of assorted diameters water distribution pipes along existing road reserves from various stakeholders i.e. MCG, KURA, KENHA, KERRA)				
2.101	Allow Sum for micro tunneling across tarmac road 20 m length for 250mm hdpe water pipe	Item	1		
	<u>Road Crossing</u>				
2.102	Install 350mm pvc casing with mass concrete class 20/20 surround across cabro/ murram roads	m	200		
2.11	Mass concrete class 20/20 in thrust blocks				
	<u>Thrust blocks for bends.</u>				
2.111	Nominal bore n.e 250mm; volume n.e 0.5 m ³	nr	10		
2.112	<u>Mass concrete class 20/20 in stools or valves</u>	nr	10		
2.112	Supply and install pcc marker posts as specified as drawings	nr	50		
3	<u>Water distribution pipes/ extensions</u>				
	Supply and Transport to site. Transport from site store, lay and joint pipes in trench, include for excavation, preparation of surfaces, disposal of excavate material, shoring sides of excavation and backfilling. Note:- Trench width and minimum cover to pipes is as per the Specification. The cost shall include for strutting, shuttering, stabilizing the earth faces of trenches and keeping the trenches free of water from whatever source by pumping or other means and cost of use of selected soil from the excavated material for compaction in bed and surround to backfilling of trenches, all as specified				
	HDPE pipes PN 12.5 including provision for Butt-Fusion/ Electrofusion Welded Jointing				
3.1	63mm HDPE pipes PN 12.5	m	500		
3.2	Allow sum for supply 63mm hdpe pipefittings for item 3.1 water connections	sum	1		

3.3	20mm Smart meters				
	supply and delivery of 20mm consumer meter of Volumetric (Mechanical with AMR enabled * [Smart]); * Automatic Meter Reading or Smart Water Meter	nr	50		
4	Junda - New Hope Steel DN 400 Steel Pipe				
4.1	Allow sum of Ksh. 1,500,000 for repair of leaking joints on DN 400 Junda - New Hope steel pipe by replacement bots, gaskets, chambers	sum			1,500,000.00
PAGE 5 & 6 TOTAL CARRIED FORWARD TO BILL NO. 2 COLLECTION SHEET					

	BILL 2 COLLECTION SHEET				
					KShs
	Brought forward from page 1				
	Brought forward from page 2				
	Brought forward from page 3				
	Brought forward from page 4				
	Brought forward from page 5				
	BILL No. 2 TRANSMISSION PIPEINE TOTAL CARRIED FORWARD TO COST SUMMARY PAGE				

SECTION VII - BILLS OF QUANTITIES

WATER SUPPLY TO THE CREEK VILLAGE AFFORDABLE HOUSING UNITS IN KISAUNI CONSTITUENCY,
MOMBASA COUNTY

REINFORCED CONCRETE WATER STORAGE TANK 500M3					
ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE Kshs	AMOUNT Kshs
1	GENERAL ITEMS				
1.1	Allow for testing, cleaning and sterilisation of Reservoir in accordance with specifications.	Item	1.00		
1.2	Allow for pressure testing, cleaning and sterilisation of Pipework in accordance with specifications.	Item	1.00		
1.3	Allow a P.C. Sum of Kshs.30,000 for ground investigation below the formation surface.	Sum	1.00		
2	EARTHWORKS				
	The rates shall include for all strutting, shuttering, stabilising the excavation faces, and keeping the excavation free of water by pumping, bailing or other means.				
	Bulk excavations and top soil stripping for all structures are measured under Bill No. 3.13 (Site & Ancillary Works).				
	Excavate below stripped level to formation level in common material, part backfill after construction and remainder, cart away to tips or use as fill on site, all as directed by the Engineer.				
2.1	Maximum depth n.e. 1.0 m	m ³	400.00		
2.2	-Ditto- but maximum depth 1.0 m to 2.0 m	m ³	400.00		
2.3	-Ditto- but maximum depth 2.0 m to 3.0 m	m ³	400.00		
2.4	-Ditto- but maximum depth 3.0 m to 4.0 m	m ³	400.00		
2.5	-Ditto- but maximum depth exceeding 4.0 m	m ³	150.00		
2.6	Transport approved excavated material from site and use as fill and compact in 200 mm layers as specified on site as and where directed by the Engineer. Compaction tests to be done and rates to include for this.	m ³	950.00		
2.7	Provide approved hardcore material and compact in layers of 200 mm, blinded with final material 75 mm thick.	m ³	100.00		
2.8	Extra over Items 2.1 to 2.5 for excavation in rock Class 'A', blasting not permitted (Provisional).	m ³	200.00		
2.9	-Ditto- for excavation in rock Class 'B', blasting not permitted (Provisional)	m ³	200.00		
2.10	-Ditto- for excavation in rock Class 'C', blasting not permitted (Provisional)	m ³	75.00		
PAGE 1 TOTAL CARRIED TO BILL COLLECTION PAGE					

3	<u>IN SITU CONCRETE</u>				
	Provision of Concrete				
	CONCRETE WORKS				
	<u>Provide, mix and place concrete as directed</u>				
	Mass Concrete; Class 15/20				
3.1	Blinding under Column bases	m ³	1.00		
3.2	Blinding under wall bases	m ³	18.00		
3.3	Blinding under base slab; thickness 75mm	m ³	24.00		
	Reinforced Concrete; Class 25/20				
	<u>Bases, Footings, Pipe Caps, and Ground Slabs; >150 Thickness <300mm</u>				
3.4	External wall base including key and splay	m ³	70.00		
3.5	Base slab laid to slopes	m ³	60.00		
3.6	Bases to columns	m ³	1.50		
3.7	Bases to internal baffle walls	m ³	12.00		
3.8	Base to overflow chamber	m ³	2.50		
	Suspended Slabs; Thickness >150 <300mm				
3.9	Top slab including all upstands	m ³	65.00		
	Walls; Thickness >150 <300mm				
3.10	Main external walls, 300mm thick	m ³	40.00		
3.11	Baffle walls	m ³	10.00		
3.12	Walls - washout sump	m ³	1.00		
3.13	Walls - overflow chamber	m ³	1.00		
	Walls; Thickness >300 <500mm				
3.14	Main external walls, 500mm thick	m ³	35.00		
	Columns; Cross-Sectional Area >0.03 <0.1m²				
3.15	Columns excluding top flared heads	m ³	1.00		
	Other Concrete Forms				
3.16	Top flared heads of columns	m ³	1.00		
PAGE 2 TOTAL CARRIED TO BILL COLLECTION PAGE					

	Formwork: Fair Finish; For Voids			
	Formwork: Fair Finish; Concrete Components of Constant Cross-section			
	Columns			
4.15	Sides of columns; 300mm x 300mm - 2 No. columns	m ²	8.00	
	Other Members			
4.16	Sides of column bases; 1500mm x 1500mm - 4 No. bases	m ²	5.00	
4.17	50mm x 50mm rebates for Access Manhole cover	m	6.00	
4.18	-Ditto but for overflow chamber cover	m	4.00	
4.19	12mm dia. half round fillet for drip mould round soffit of roof slab overhang	m	40.00	
4.20	Fillet to form 25mm x 25mm chamfer for all roof slab upstands & manhole upstands	m	60.00	
4.21	Boxing out 600mm x 600mm holes in concrete wall of tank for inlet pipe	Nr	1.00	
4.22	Boxing out 250mm dia. hole in concrete wall of sump in tank & making good after installation of pipework.	Nr	1.00	
4.23	-Ditto - but size 400mm dia. hole in base of overflow chamber	Nr	1.00	
4.24	-Ditto - but size 1020mm x 1020mm hole in roof slab of tank	Nr	1.00	
	<u>Reinforcement: Deformed High Yield Steel Bars to BS4449</u>			
	Rate to include for cutting, bending, supporting, trying and securing reinforcement.			
4.25	Diameter ranging from 8 mm to 25mm.	Kg	40,000.00	
4.26	Steel fabric to BS4483: A252 square mesh; nominal mass 3 - 4 kg/m ²	m ²	300.00	
	Construction Joints			
	Provide and install the following waterstops in construction joints including all surface treatment, formwork, forming of rebate and sealing of rebate with polysuphide sealant, all as per drawings and specification.			
4.27	Open surface with filler; average width n.e. 0.5m	m ²	66.00	
4.28	Formed surface with filler; average width n.e. 0.5m	m ²	37.00	
4.29	Plastic horizontal waterstops; rear guard type, width 200mm	m	150.00	

4.30	Plastic vertical waterstops, width 200mm	m	150.00		
4.31	Sealed 20mm x 20mm rebates with polysuphide joint sealant	m	70.00		
	Miscellaneous Work (including provision and laying)				
4.32	500 gauge polythene sheeting on blinding below base slab	m ²	250.00		
4.33	Average 100mm thick layer of pumice on roof slab	m ²	250.00		
4.44	80mm dia ferrous roof drain pipe (Cut to suit on site)	m	6.00		
5	PIPEWORK - FITTINGS AND VALVES				
	<u>Supply, Transport to Site & Store in Secure Place Including Jointing Material, Bolts, Gaskets, Packing, Jointing Glues, etc., As Applicable</u>				
	All Diameters are Nominal				
	<u>Approved Lined Ferrous Pipes Fittings to NP 16</u>				
	Inlet Ferrous Pipes Fittings & Valves				
5.1	200mm dia. all flanged pipe, 1950mm long, with Puddle flanged at 750mm from one end (Mark a)	Nr	1.00		
5.2	200mm dia. flanged spigot pipe, 1200mm long (Mark b)	Nr	1.00		
5.3	200mm dia. V.J coupling (Mark c)	Nr	1.00		
	<u>Outlet (Delivery) Ferrous Pipes Fittings & Valves</u>				
5.4	200mm dia. Special Flanged Bellmouth, 600mm length, with Puddle Flange 350mm from the Bellmouth end (Mark A)	Nr	1.00		
5.5	200mm dia. 90° Double Flanged Bends (Mark B)	Nr	1.00		
5.6	200mm dia. Double Flanged Pipe, length 7050mm with Puddle Flange 5440mm from one end (Mark C)	Nr	1.00		
5.7	200mm dia. Double Flanged Gate Valve, to BS 5163 - Hand Operated, EURO Series 20, Type 23, Saint GOBAIN or approved equivalent (In chamber) with extended spindle, 3.8m long (Mark D)	Nr	1.00		
5.8	200mm dia Flange Adaptor (Mark E)	Nr	2.00		
5.9	200mm dia plain ended Pipe, length 1200mm (Mark F)	Nr	1.00		
5.10	200mm Dia. V.J Coupling (Mark G)	Nr	3.00		
5.11	200mm dia. Flanged spigot Pipe, length 1400mm long with Puddle Flange 1000mm from flanged end (Mark H)	Nr	1.00		

5.12	200mm dia. Plain ended Pipe, length 1400mm with Puddle Flange 1000mm from flanged end (Mark H1)	Nr	2.00		
5.13	200mm dia All Flanged Volumetric Water Meter (Kent or Approved Equivalent) (Mark I)	Nr	1.00		
5.14	200mm dia. plain ended pipe 5260mm long (Mark J)	Nr	1.00		
	Overflow Ferrous Pipe Fittings				
5.15	150mm dia. Flanged Spigot Pipe 1715mm length, with Puddle Flange at 100mm from Spigot End (Mark 1)	Nr	1.00		
5.16	150mm dia. 60° Double Flanged Bend (Mark 2)	Nr	1.00		
5.17	150mm dia. Flanged Spigot Pipe 2150mm length, with end bevelled (Length cut to suit on site). (Mark 3)	Nr	1.00		
	Washout Ferrous Pipe Fittings				
5.18	100mm dia. Double Flanged Gate Valve, Hand Operated to BS 5163, EURO 20 Series Type 23 (short face to face) or approved equivalent, with extended spindle 4.0m long (Mark 5)	Nr	1.00		
5.19	100mm dia. Flanged Spigot Pipe 6000mm length, with Puddle Flange at 100mm from Spigot End (Mark 4)	Nr	1.00		
5.20	100mm dia. Single Flanged 90° bend (Cut to suit on site) (Mark 6)	Nr	1.00		
	<u>Transport From Site Store, Install, Test & Commission. Include for Excavation & Backfilling of Pipe Trenches Where Applicable.</u>				
	Inlet Ferrous Pipes Fittings & Valves				
5.21	200mm dia. all flanged pipe, 1950mm long, with Puddle flanged at 750mm from one end (Mark a)	Nr	1.00		
5.22	200mm dia. flanged spigot pipe, 1200mm long (Mark b)	Nr	1.00		
5.23	200mm dia. V.J coupling (Mark c)	Nr	1.00		
	<u>Outlet (Delivery) Ferrous Pipes Fittings & Valves</u>				
5.24	200mm dia. Special Flanged Bellmouth, 600mm length, with Puddle Flange 350mm from the Bellmouth end (Mark A)	Nr	1.00		
5.25	200mm dia. 90° Double Flanged Bends (Mark B)	Nr	1.00		
5.26	200mm dia. Double Flanged Pipe, length 7050mm with Puddle Flange 5440mm from one end (Mark C)	Nr	1.00		
5.27	200mm dia. Double Flanged Gate Valve, to BS 5163 - Hand Operated, EURO Series 20, Type 23, Saint GOBAIN or approved equivalent (In chamber) with extended spindle 3.8m long (Mark D)	Nr	1.00		
5.28	200mm dia. Flange Adaptor (Mark E)	Nr	2.00		
PAGE 6 TOTAL CARRIED TO BILL COLLECTION PAGE					

5.29	200mm dia. plain ended Pipe, length 1200mm (Mark F)	Nr	1.00		
5.3	200mm dia. V.J Coupling (Mark G)	Nr	3.00		
5.31	200mm dia. Plain ended pipe, length 1400mm with Puddle Flange 1000mm from one end (Mark H)	Nr	1.00		
5.32	200mm dia. Flanged spigot pipe, length 1400mm with Puddle Flange at 1000mm from flanged end (Mark H1)	Nr	1.00		
5.33	200mm dia All Flanged Volumetric Water Meter (Kent or Approved Equivalent) (Mark I)	Nr	1.00		
5.34	200mm dia. plain ended pipe 5260mm long (Mark J)	Nr	1.00		
	<u>Overflow Ferrous Pipe Fittings</u>				
5.35	150mm dia. Flanged Spigot Pipe 1715mm length, with Puddle Flange at 100mm from Spigot End (Mark 1)	Nr	1.00		
5.36	150mm dia. 60° Double Flanged Bend (Mark 2)	Nr	1.00		
5.37	150mm dia. Flanged Spigot Pipe 2150mm length, with end bevelled (Length cut to suit on site). (Mark 3)	Nr	1.00		
	<u>Washout Ferrous Pipe Fittings</u>				
5.38	100mm dia. Double Flanged Gate Valve, Hand Operated to BS 5163, EURO 20 Series Type 23 (short face to face) or approved equivalent with extended spindle 4.0m long (Mark 5)	Nr	1.00		
5.39	100mm dia. Flanged Spigot Pipe 6000mm length, with Puddle Flange at 100mm from Spigot End (Mark 4)	Nr	1.00		
5.40	100mm dia. Single Flanged 90° bend (Cut to suit on site) (Mark 6)	Nr	1.00		
6	<u>PIPEWORK - SUPPORTS AND PROTECTION. ANCILLARIES TO LAYING AND EXCAVATION</u>				
	Provide and place:				
6.1	Mass Concrete Class 15/20 surround to washout pipe diameter 200mm to pipes; pipe nominal bore 250mm -450mm	m	3.00		
6.2	-Dito - but outlet pipe, diameter 400mm	m	3.00		
	<u>Concrete Class 20/20 in Stools and Thrust blocks</u>				
6.3	Nominal bore 200 - 40mm; volume n.e. 0.1m ³	Nr	3.00		
7	MISCELLANEOUS METALWORK				
	Rate to include supply and fixing, inclusive of foundations where applicable				
7.1	Galvanised mild steel internal ladders with stringers returned to form handrails.	m	4.00		
7.2	Lockable mild steel checkered plate covers for access manholes overflow chambers.	Nr	4.00		
PAGE 7 TOTAL CARRIED TO BILL COLLECTION PAGE					
8	MISCELLANEOUS WORK				
8.1	Provide and fix GI vent pipes	Nr	6.00		

8.2	Provide & lay 300mm wide x 12mm thick rubberoid layer between wall & roof slab.	m	50.00		
8.3	Provide all materials and construct a 1500x1500x3500mm deep Reinforced Concrete Scour and Overflow Chamber.	Nr	1.00		
8.4	Provide all materials and construct a 2400x2400x3500mm deep Reinforced Concrete Outlet Valve Chamber.	Nr	1.00		
8.5	Provide all materials and construct a 2400x2400x3500mm deep Reinforced Concrete Meter Chamber.	Nr	1.00		
8.6	Supply and install water sampling pipes & fittings.	Nr	1.00		
PAGE 8 TOTAL CARRIED TO BILL COLLECTION PAGE					

SUMMARY PAGE

	Page Total, Page 1 of 8				
	Page Total, Page 2 of 8				
	Page Total, Page 3 of 8				
	Page Total, Page 4 of 8				
	Page Total, Page 5 of 8				
	Page Total, Page 6 of 8				
	Page Total, Page 7 of 8				
	Page Total, Page 8 of 8				
Bill No. 3.5 Total Exclusive of VAT Carried to Section 3 Summary Sheet					

SECTION VII - BILLS OF QUANTITIES

WATER SUPPLY TO THE CREEK VILLAGE AFFORDABLE HOUSING UNITS IN MOMBASA COUNTY

BILL No. 4 RC RETAINING WALL

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE Kes	AMOUNT Kes
4.1	SITE CLEARANCE AND TOPSOIL STRIPPING				
4.11	Light bush clearance	m ²	1500		
4.12	Clearing obstructions and other condemned concrete structures	m ³	50		
4.13	Remove to spoil top soil to maximum depth of 1000mm as directed by the Engineer	m ³	300		
4.2	EARTHWORKS				
	No separate payments shall be made for the overhaul of material and the cost of such haulage shall be included in the rates/ prices				
4.21	Cut to spoil in soft material	m ³	450		
4.22	Cut to spoil in Hard material	m ³	200		
4.23	Provide and fill in approved soft material and compact to 100% MDD (AASHTO T99) as directed by the Engineer.	m ³	5400		
4.24	Scarify, process and compact existing ground to at least 100%MDD to a depth of 150mm below cuts.	m ³	155		
4.25	Allow for keeping excavations free of ground water	Day	60		
4.3	CONCRETE WORKS				
	Base & Stem				
4.31	Provide materials and cast in place concrete Class 15/20 as retaining wall for foundation works. Rate to include formwork for sides	m ³	55		
4.32	Provide materials and cast in place concrete Class 25/20 as foundation bases and stems	m ³	400		
	Provide reinforcement bars for item 5.32 above, as follows. Rate tp include transport, cutting, bending and placement				
4.33	i) D8 Rebars	kg	0		
4.34	i) D10 Rebars	kg	12,000		
4.35	ii) D12 Rebars	kg	12,000		
4.36	ii) D16 Rebars	kg	12,000		
4.4	Provide materials for fair formwork for item 4.4	m ²	5000		
4.5	Provide weep holes	No	1000		
	BILL 5 RC RETAINING WALL TOTAL Carried Forward to Summary Page				

SECTION VII - BILLS OF QUANTITIES

WATER SUPPLY TO THE CREEK VILLAGE AFFORDABLE HOUSING UNITS IN KISAUNI CONSTITUENCY, MOMBASA COUNTY

BILL No. 5 - DAYWORKS

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	Labour: The rates inserted herein should include for all costs such as insurance, travelling time, accommodation and use and maintenance of small tools of trade. Only time engaged upon works will be paid for;				
5.1	Unskilled Labourer	hr	50		
5.2	Foreman	hr	20		
5.3	Driver	hr	20		
5.4	Mason	hr	20		
5.5	Carpenter	hr	20		
5.6	Plumber	hr	20		
5.7	Electrician	hr	20		
5.8	Plant Operator	hr	20		
5.7	Surveyor	hr	2400		
5.8	Pipelayer	hr	20		
5.9	Concretor	hr	20		
5.10	Painter	hr	150		
5.11	Watchman	hr	320		
5.12	Add % adjustment to the provisional sum for contractor's for daywork labour	%			
	Materials				
5.13	Ordinary portland cement	t	1.0		
5.14	150mm thick building stone/concrete blocks	m ²	50		
5.15	225mm thick building stone/concrete blocks	m ²	50		
5.16	Concrete Class 20/20	m ³	5		
5.17	Concrete Class 25/20	m ³	5		
5.18	8mm and under mild steel round bars	kg	100		
5.19	10mm and under mild steel round bars	kg	200		
5.20	12mm and over mild steel round bars kg 400	kg	200		
PAGE 3 TOTAL CARRIED FORWARD TO BILL NO. 1 COLLECTION SHEET					

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE Kes	AMOUNT Kes
	Day works - Plant				
5.21	7 tonne lorry (tipper)	h	10		
5.22	10 tonne lorry (tipper)	h	10		
5.23	Hydraulic excavator/shovel (1.0m3)	h	10		
5.24	Wheel loader	h	10		
5.25	Concrete mixer 1.0m3	h	8		
5.26	Concrete vibrator (petrol or diesel) with drive, flex and 40mm poker	h	8		
5.27	Concrete mixer 1.0m3	h	8		
5.28	Concrete vibrator (petrol or diesel) with drive, flex and 40mm poker				
5.29	Portable dewatering pump	h	100		
5.3	Vibrating plate compactor	h	10		
5.31	Air compressor machine (5000 l/min)	h	10		
5.32	Generator (15kVA)	h	10		
5.33	Electric welding set including electrodes	h	8		
5.34	Cutting and welding set including oxygen and acetylene	h	8		
5.35	Add % Adjustment to provisional sums for Day works Plant	%	0		
PAGE 4 TOTAL CARRIED FORWARD TO BILL NO. 1 COLLECTION SHEET					
BILL No. 1 : COLLECTION SHEET					
DESCRIPTION					AMOUNT
					KShs
Brought forward from page 1					
Brought forward from page 2					
BILL No. 5 DAYWORKS TOTAL CARRIED FORWARD TO COST SUMMARY PAGE					