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When replying please quote: AWWDA/NaRSIP II/W-04/2021 PE-ao

10th May, 2021

To all Bidders:

**NAIROBI RIVERS BASIN REHABILITATION AND RESTORATION PROGRAM:
SEWERAGE IMPROVEMENT PROJECT PHASE II: LOT 4-CONSTRUCTION OF
EAST AND WEST OF NAIROBI RETICULATION SEWERS ICB No: AWWDA/NaRSIP
II/W-04/2021**

REF: CLARIFICATIONS NO.2 TO THE ADVERTISED BID

Reference is made to the ongoing procurement of works for Lot 4-Construction of East and West of Nairobi Reticulation Sewers project. ICB NO: AWWDA/NARSIP II/W-04/2021.

Pursuant to clause No.27 of the Instructions to Bidders, please find attached responses to clarifications as received by AWWDA.

All bidders are further informed that the last date of submission of bids remains unchanged and The Bids must be submitted no later than 25th May 2021 **12.00 pm East African Time.**

ENG.MICHAEL M. THUITA
CHIEF EXECUTIVE OFFICER.

PROGRAMME: NAIROBI RIVERS BASIN REHABILITATION AND RESTORATION PROGRAM -SEWERAGE IMPROVEMENT PROJECT, PHASE II

CLARIFICATIONS NO.2 TO THE ADVERTISED BID FOR PROCUREMENT OF WORKS FOR LOT 4-CONSTRUCTION OF EAST AND WEST OF NAIROBI RETICULATION SEWERSPROJECT. ICB No: AWWDA/NaRSIP II/W-04/2021

	QUERY	AWWDA'S RESPONSE
1.	DRG. No. CWE20/E&W/GL/04 shows PROPOSED PARKLANDS RIVER TRUNK SEWER EXTENSION, However No Bills of Quantities are included in the Bid Document, kindly clarify.	Quote only for the specified Items provided for in the Bill of Quantities (BoQ)
2.	DRG. No. CWE20/E&W/GL/06 shows PROPOSED MIHANG'O TRUNK SEWER 1, PROPOSED MIHANG'O TRUNK SEWER 2, PROPOSED UTAWALA TRUNK SEWER and PROPOSED RUM TRUNK SEWER, However No Bills of Quantities are included in the Bid Document, kindly clarify.	Quote only for the specified Items provided for in the Bill of Quantities (BoQ)
3.	DRG. No. CWE20/E&W/GL/06 shows Mihang'o sewers, However No Bills of Quantities are included in the Bid Document, kindly clarify.	Quote only for the specified Items provided for in the Bill of Quantities (BoQ)
4.	There is no drawing/detail for Bill No. 13 HOUSEHOLD CONNECTIONS, please provide detail drawing to use for a Consumer Sewer Connection.	See annex 1 for the typical Household Connection drawing.
5.	There are no drawing/ detail for Bill NO.15 KAREN PONDS FENCING X.2 Masonry fencing, X.4 Security gate, please provide detail drawings	See annex 2 for the masonry fence drawing
6.	There are no drawing/ detail for BILL No.14 RUAKA INTESIFICATION SEWERS, please provide detail drawings.	Please refer to the Book of drawings on AWWDA Website
7.	Is Bill No.16 Item 10.x 91.1 and 10.x91.2 quoted independently by the contractor?	See Annex 3 for the revised Bill No. 16



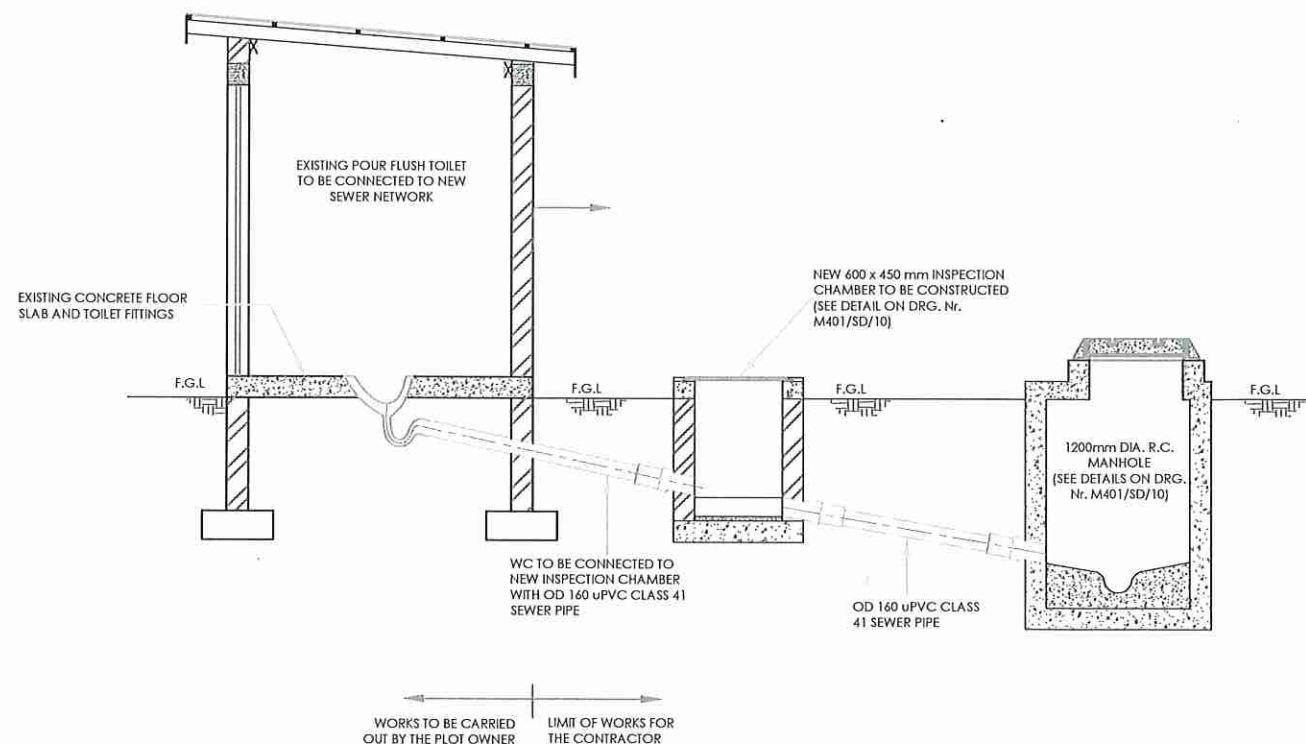
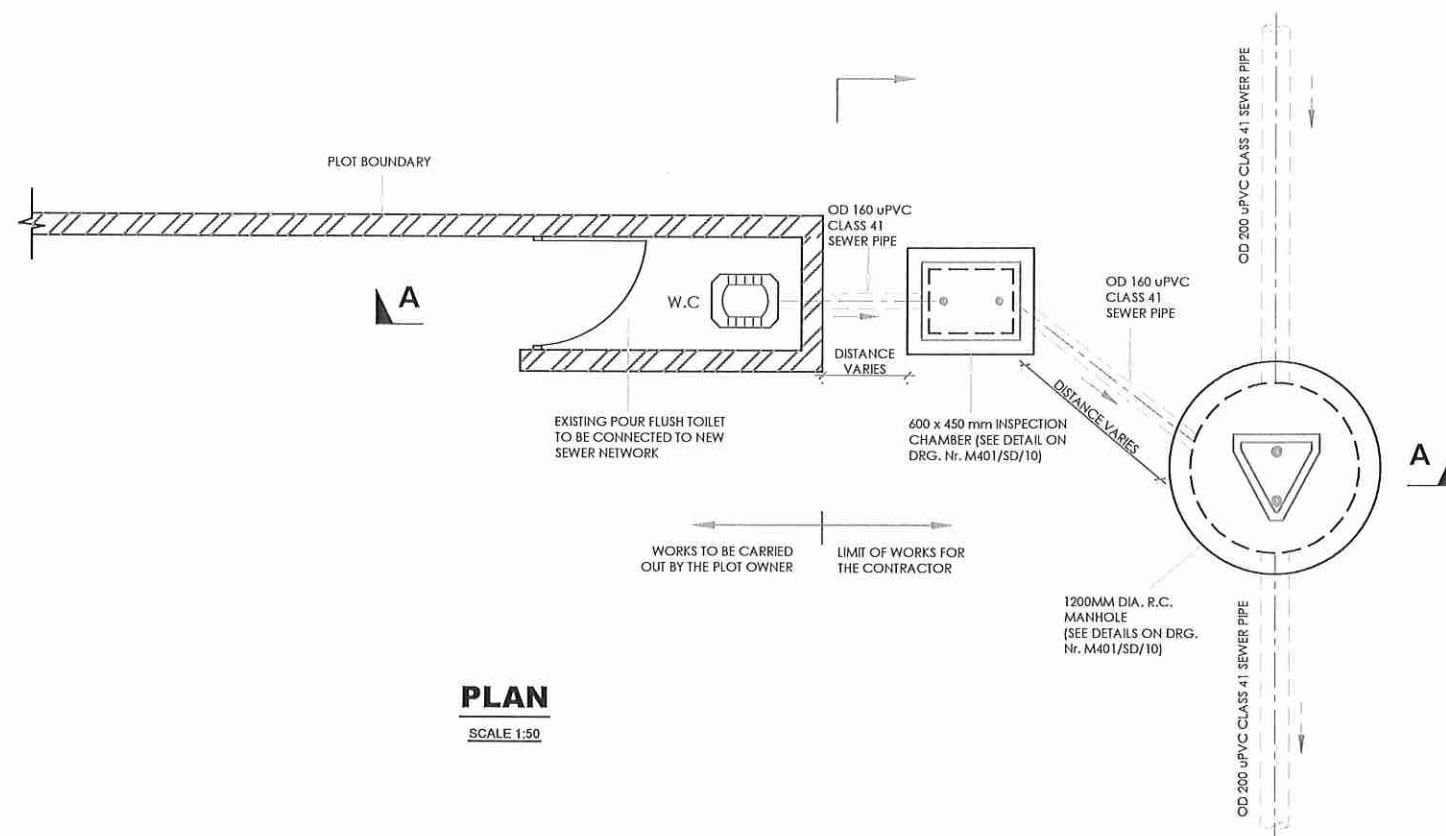
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	QUERY	AWWDA'S RESPONSE
8.	Collection sheet for Bill No 13 (Pg 45 of BoQ)	See Annex 4 for the revised Bill No. 13 Collection sheet
9.	Is Item 314 and 525 of Bill No.13B quoted by the contractor independently?	<ul style="list-style-type: none"> • Allow for a PC sum of Ksh. 1,000,000 for Bill Item No 13B-314 • Allow for a PC sum of Ksh. 200,000 for Bill Item No 13B-525
10.	Please provide detail drawings to use for BILL NO. 16 ACCESSORY SITE WORKS.	See annex 5 for the typical accessory site works including drainage drawing
11.	Please provide detail drawings for Bill NO.15 X.8 Drainage	See annex 5 for the typical accessory site works including drainage drawing
12.	There are no drawing/ detail for BILL 13B-DRILLING AND EQUIPPING OF 1 NO. BOREHOLE 300M DEPTH, please provide detail drawings	See annex 6 for the Tentative Log for Borehole drawing
13.	Item I100 of Bill Bo.1 Kirichwa Dogo Trunk Sewer Extension requires 'supply of pipes Item I100 Pre-cast Concrete (PCC) Pipes with joining accessories Dia 450 mm ,QTY=30000m' Please clarify if we can use Double Wall Corrugated HDPE SN 4 Pipes with all joining accessories Dia 400 mm instead of PCC Pipes	Bidders are required to bid as per the specified items/materials in the Bill item.
14.	Bill No.14 Supply of Pipes- Item 100.4 requires 'supply of HDPE Spiral Pipes SN 4 Pipes with joining Dia 400 mm Qty=1,423 m' . We want to know if we can use HDPE DWC Pipes SN400 mm for this item.	Bidders are required to bid as per the specified items/materials in the Bill item.

ANNEX 1

TYPICAL HOUSEHOLD CONNECTION DRAWING

SEWER CONNECTION PLOT TO BE CONNECTED TO NEW SEWER NETWORK



SCOPE OF SEWER CONNECTION WORKS

1. CONSTRUCT NEW 450 X 600mm EXTERNAL INSPECTION CHAMBER (I.C.)
2. INSTALL OD160 uPVC CLASS 41 SEWER PIPE FROM EXISTING W.C. TO THE NEW PROPOSED I.C. AND FROM THE NEW PROPOSED I.C. TO NEARBY MANHOLE.

NOTES:

1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED
2. DETAILS SHOWN ON THIS DRAWING ARE TYPICAL. EXACT ARRANGEMENT AND DIMENSIONS OF THE COMPONENTS TO BE DETERMINED BY THE ENGINEER ON A CASE-BY-CASE BASIS ON SITE

ABBREVIATIONS

mm	- MILLIMETERS
OD	- OUTSIDE DIAMETER
F.G.L	- FINISHED GROUND LEVEL
DIA.	- DIAMETER
uPVC	- UNPLASTICISED POLYVINYL CHLORIDE
R.C.	- REINFORCED CONCRETE
W.C.	- WATER CLOSET
I.C.	- INSPECTION CHAMBER
F.F.L	- FINISHED FLOOR LEVEL
M.H	- MANHOLE

AS-BUILT DRAWINGS

REVISIONS	BY	DATE	APPROVED
	CHECKED		
	BY		
	CHECKED		
	BY		
	CHECKED		

CLIENT:



CHIEF EXECUTIVE OFFICER
ATHI WATER WORKS
DEVELOPMENT AGENCY
P.O BOX 45283 - 00100 NAIROBI
TEL: 020 - 2727438 FAX: 2724295

PROJECT TITLE:

NAIROBI RIVERS BASIN REHABILITATION
PROGRAM NARSIP-2

CONTRACT No. AWWDA/NARSIP II/W-04/2021

CONSTRUCTION OF EAST AND WEST OF
NAIROBI RETICULATION SEWERS

STANDARD DRAWINGS

DRAWING TITLE:

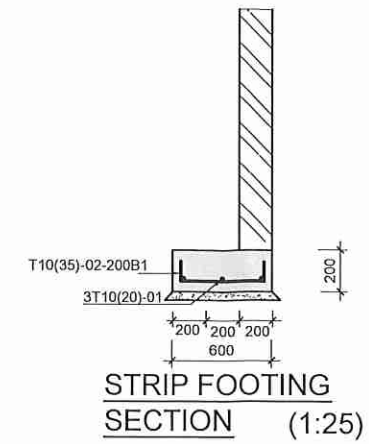
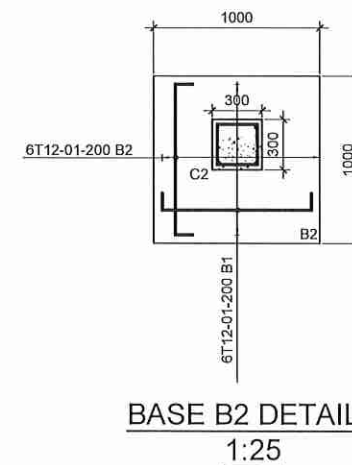
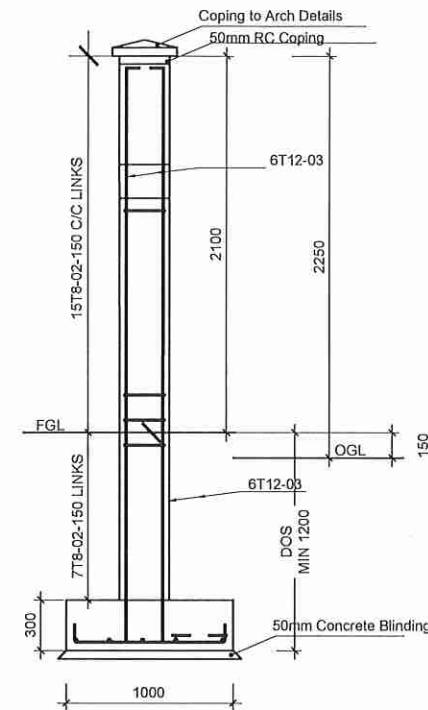
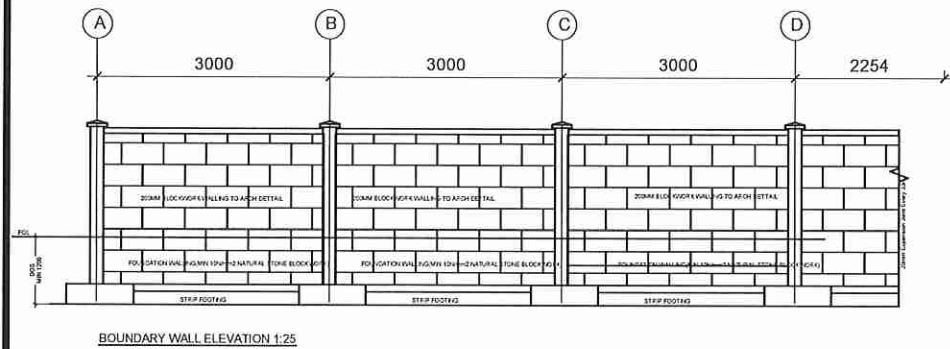
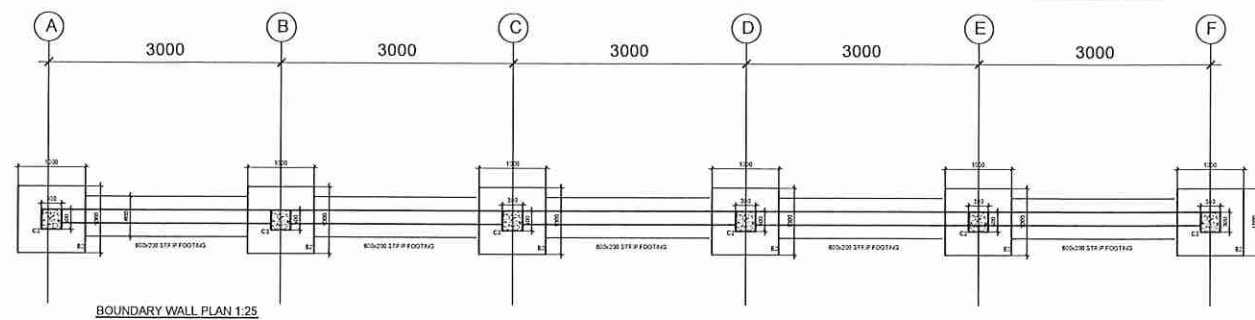
TYPICAL SEWER CONNECTION
DETAILS

Designed by:	Drawn by:
Checked by:	Approved by:
Scale:	Date:
DRG No.	REV

Handwritten signature

ANNEX 2

BOUNDARY WALL/MASONRY FENCE DRAWING



REV.	DATE	DESCRIPTION
<p>NOTES</p> <p>1. ALL DIMENSIONS IN MM</p> <p>2. ALL SETTING OUT DIMENSIONS TO BE CONFIRMED BY ENGINEER ON SITE</p> <p>3. ALL STRUCTURAL WORKS TO APPROVAL OF ENGINEER CONCRETE</p> <p>4. STRUCTURAL CONCRETE MIX TO BE 1:2:4 (CLASS 20 CEMENT:SAND:AGGREGATE)</p> <p>5. CONCRETE COVERS TO BE AS FOLLOWS:</p> <p>i) ALL SUBSTRUCTURES = 50mm</p> <p>ii) COLUMNS = 40mm</p> <p>iii) BEAMS = 25mm</p> <p>6. REINFORCEMENT CUT, BENT AND SCHEDULED TO BS 4466</p> <p>7. SQUARE TWISTED HIGH YIELD REINFORCEMENT TO B.S. 4461</p> <p>8. ALL BOLTS TO BE MILD STEEL BLACK BOLTS STRENGTH DESIGNATION 4.6</p>		
<p>CLIENT</p> <p>ATHI WATER WORKS DEVELOPMENT AGENCY.</p>		
<p>PROJECT</p> <p>NAIROBI RIVERS BASIN REHABILITATION AND RESTORATION PROGRAM.</p>		
<p>CONSTRUCTION OF EAST AND WEST OF NAIROBI RETICULATION SEWERS</p>		
<p>TITLE</p> <p>BOUNDARY WALL DETAILS</p>		
<p>DESIGNED BY:</p>		<p>CHECKED BY:</p>
<p>DRAWN BY:</p>		<p>SCALE: 1:25</p>

ANNEX 3

REVISED BILL No. 16

BILL NO. 16: ACCESSORY SITE WORKS

Item No.	Description	Unit	Quantity	Rate (Ksh)	Amount (Kshs)
E636.2	Grassing of side slopes of the access road channels as directed by the engineer.	m2	1,800		
	CLASS G: PRECAST CONCRETE				
H511.1	Provide, lay and joint 600x450x225mm invert block drains on both sides of access road.	nr	1,000		
H511.2	Provide, lay and joint 600x225x75mm side slabs on both sides of access road channel, include for laying and jointing.	nr	1,000		
	CLASS F: INSITU CONCRETE				
	Place, vibrate, and cure concrete in the following elements of structures as per details in the drawings,,				
G213	Mass concrete Class 20/20 on base slabs; 150mm thick	m3	300		
G213	Mass concrete Class 20/20 on headwalls and wing walls; 150mm thick	m3	300		
	CLASS G: CONCRETE ANCILLARIES				
	Formwork				
G145	Rough finish; plane vertical sides of headwalls.	m2	100		
G243	Fair finish; plane vertical sides of headwalls and wing walls.	m2	100		
	Concrete Block Paved Roads				
	<u>Sub-Base and Base Courses: Provide, Lay and Compact to required relative density as per Clause 304 of Specifications:</u>				
3.6	Hand packed hardcore compacted to CBR not less than 30 up to formation level (where road is in fill)	m2	1,800		
3.7	Base 200mm thick crusher run or quarry chips (hand packed), including for watering and stone dust blinding as directed.	m2	1,800		
3.8	200mm murram, include for watering and stone dust blinding as directed	m2	1,800		
3.9	Provide and apply approved weed killer / herbicide to road surface in accordance with manufacturer's instructions	m2	1,800		
	Concrete Block Paving (as Manufactured by Bamburi Special Products Ltd. or Other Approved Supplier)				
3.10	Supply and lay Medium Duty Paving Blocks, 60mm thick, Minimum strength 37-41N/mm ² laid on and including 50mm thick sand bed and compacted by surface vibration	m ²	1,800		
4.00	Footpaths				
	Provide and lay:				
4.10	100mm murram sub-base, compacted to Engineer's approval	m ²	1,000		
4.20	50mm thick concrete bed for footpath (Class 15)	m ²	1,000		
10.X91.1	Allow PC sum for application to KPLC and electrical power installation	pc	1	1,000,000	
10.X91.2	Electrification of the Treatment Works. (including wiring and electrical fittings, 10Nr Compound Lighting using 10m light poles and LED bulbs.)	item	1	1,000,000	
10.X91.5	Contractors overhead on Items X91.1 and X91.4	%	-		
	TOTAL CARRIED TO GRAND SUMMARY				-

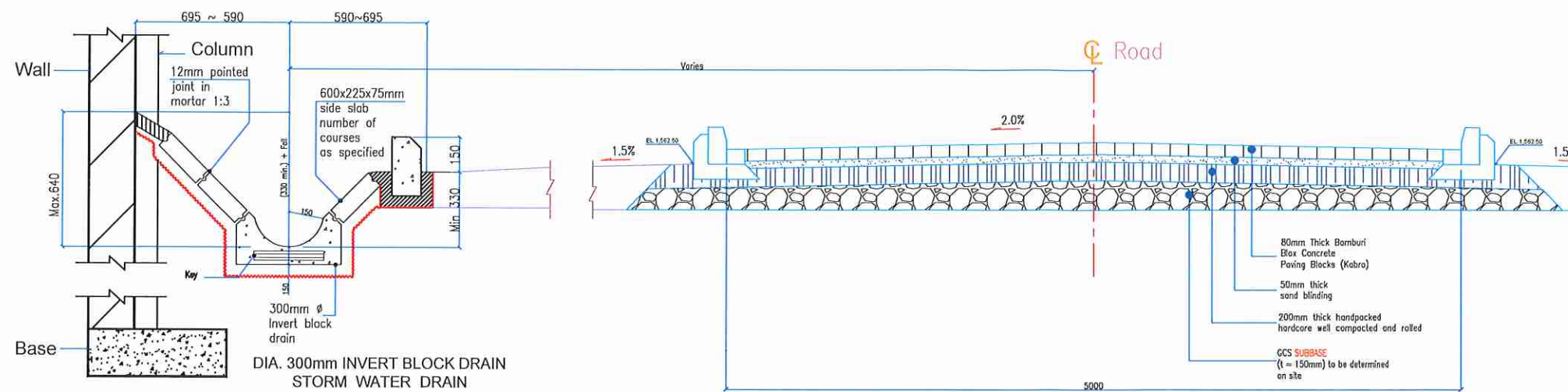
ANNEX 4

**REVISED BILL No. 13 COLLECTION
SHEET**

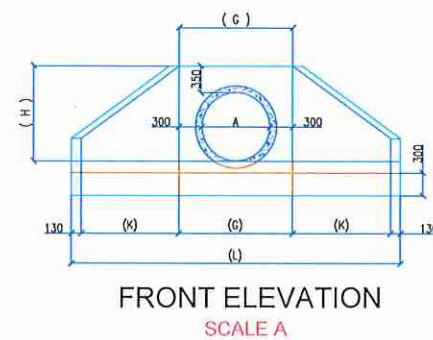
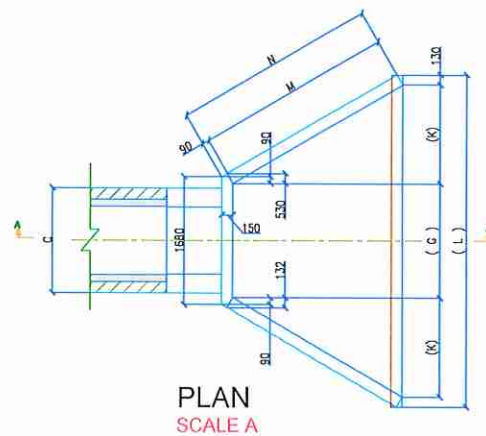
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ANNEX 5

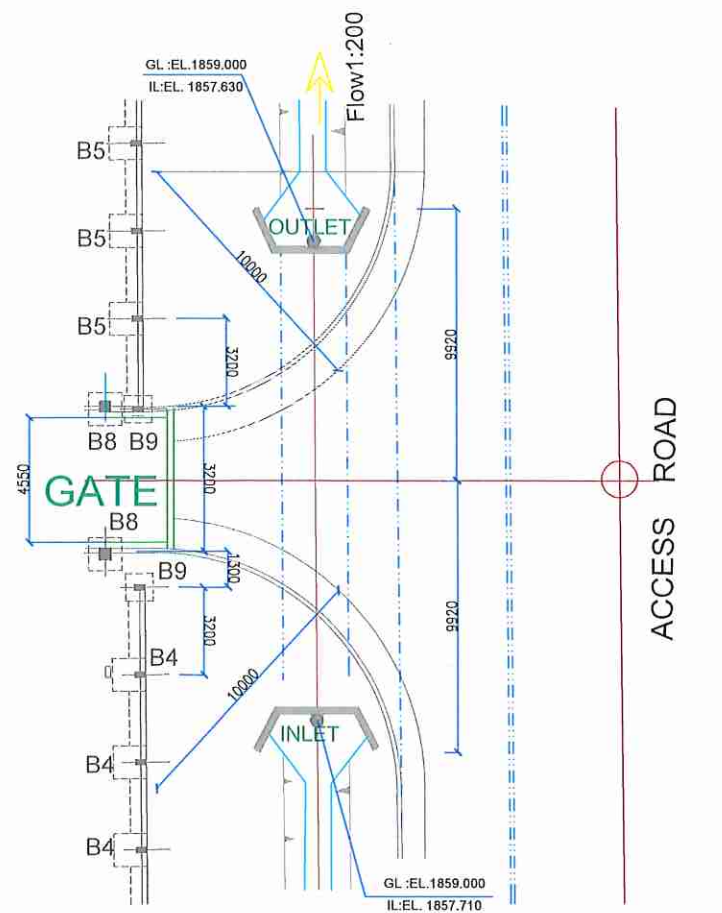
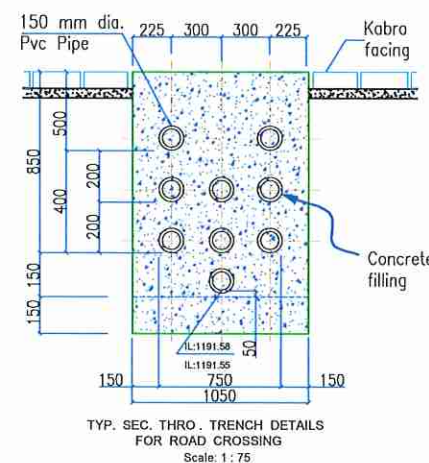
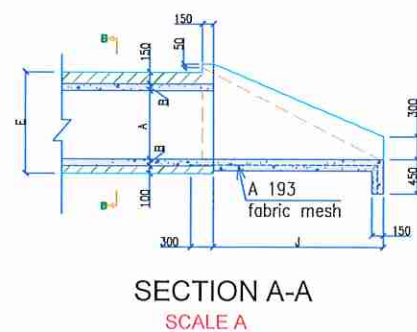
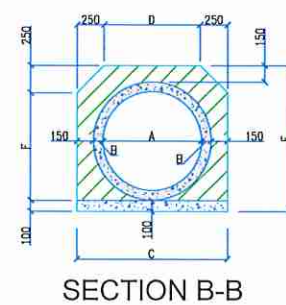
**TYPICAL ACCESSORY SITE WORKS
INCLUDING DRAINAGE DRAWING**



TYPICAL SECTIONAL DETAILS FOR INTERNAL ROADS
SCALE A



CULVERTS	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	J (mm)	K (mm)	L (mm)	M (mm)	N (mm)	P (mm)	Q (mm)	CONCRETE CLASS 25/29 INLET & OUTLET	CONCRETE CLASS 15/20 SURROUND & BED PER RUNNING m.
Diameter 900mm	900	90	1,380	880	1,330	980	1,500	1,250	2,250	1,300	4,360	2,600	2,690	1,680	90	4.14m ³	0.86m ³
Diameter 600mm	600	90	1,380	880	1,330	980	1,200	1,250	2,250	1,300	4,360	2,600	2,690	1,680	90	4.14m ³	0.86m ³



NOTES

- All dimensions are in mm.
- Figure dimensions are preferred to scale.
- For gradients:
Storm water drains 1 : 200
Cable trenches 1 : 200

NOTE:

- A 193 fabric mesh reinforcement to be placed as shown
- The slope of pipe shall be as directed by the engineer
- All dimensions are in millimetres
- Minimum concrete surround for 1.2m diameter pipe will be 200mm and not 150mm

REVISIONS

DATE	DESCRIPTIONS	BY

CLIENT:



THE CHIEF EXECUTIVE OFFICER
ATHI WATER WORKS DEVELOPMENT AGENCY

PROJECT TITLE:

LOT 4-CONSTRUCTION OF EAST AND WEST OF NAIROBI
RETICULATION SEWERS

DRAWING TITLE:

DETAILS FOR ACCESSORY SITE WORKS
INCLUDING DRAINAGE



ANNEX 6

TENTATIVE LOG FOR BOREHOLE DRAWING

Drawing No. 1 Tentative Log for Borehole

