

DUPLICATE*Section 8***BILL OF QUANTITIES**

Notes : In preparation of the bidding document the users are advised to;

- (1) Include appropriate Preliminary Bill items as Bill No. 01 in accordance with CIDA Publication No. CIDA/ID/04.
- (2) Allow provision for the bidders to include the VAT Component separately and instruct them not to carry the VAT component to the Letter of Bid.
- (3) Advise the bidders that any discount offered will not be considered for Provisional Sum Items.

BILL OF QUANTITIES

This CIDA –SBD 102 is issued to this particular “Identified Construction Work” (ICW) under appended QR code, and duplicate use in other ICWs will be an offence.

MARCH 2023

Construction Industry Development Authority (CIDA)

DUPLICATE

Other Special Requirements from Bidder

- Bidder has to submit rate analysis for the item number 2.4.1, 2.4.2, 2.4.3, 2.5.1, 2.5.2, & 2.5.3 with bidder.(this is valid only for evaluation purpose)
- Bidder has to submit sewer pipe supplier detail with sewer pipe specifications.
- Previously done quality test results should be required with pipe specification.
- Pipe laying method statement should submit with bid.
- At least similar work experience should require within last five years for the bidder.

Specially

- depth 5.5 m or more and
 - Sewer gravity pipe length more than 150 m
- If bidder is going to do by trenchless method, relevant experience should be submitted with bid.
 - Colombo Municipal Council is more preferred for doing by Trenchless method.
 - Pre bid meeting with site inspection will be held on xx/xx/2023 at 10.00 am, Director Engineering (Drainage)'s office, Drainage Division, Maligakanda, Colombo Municipal Council, Colombo 10. A site visit conducted by the Employer shall be organized following the Pre – Bid meeting.

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BILLS OF QUANTITIES**DUPLICATE****PREAMBLE****1. General**

The Contractor's attention is directed to the Conditions of Contract, the Special Conditions, Specification, and the Drawings, which are to be read in conjunction with the Bills of Quantities and the Preamble.

The Bills of Quantities have generally been prepared in accordance with the Civil Engineering Standard Method of Measurement (CESMM3), Third Edition (1991) and incorporating the additional, amendments and special methods of measurement mentioned hereunder.

In so far as the text of an item description may in conflict or be inconsistent with the CESMM3 definition then the text of that item shall always prevail. Therefore, any conflict of item description given in the Bills of Quantities with CESMM3 definition will not be recognized as a basis of any claim. The item descriptions given in the Bills of Quantities shall not be taken as limiting the Contractor's obligations under the Contract to provide the Works, which are fully, described elsewhere.

The quantities set out in the Bills of Quantities are the estimated quantities of the work and shall not be taken as actual and correct quantities of the Works to be executed by the Contractor in fulfilment of his obligations under the Contract.

The amounts entered in these Schedules will be used for calculation stage payments due, interim instalments due, and for valuing variations.

2. Payment for Material

Payment will be made for pipes on site up to 80% of the invoiced amount. Construction materials supplied and delivered to the site by the Contractor which become surplus to the requirements of the works shall become the property of the Contractor and will not be paid.

3. Payments for Holidays

No extra payments will be made due to any recognised holidays or other customs in Sri Lanka as well as adverse weather conditions. The Contractor shall be deemed to have taken into account all recognized holidays, festivals, religious and other customs in his Bid Prices and his Construction Programmes.

4. Application of Preamble to Subsequent Work

The relevant clauses of this Preamble shall be deemed to apply equally to work subsequently ordered for execution by the Contractor, either under Provisional Sum orders or variation orders, except where specifically varied therein.

5. Method of Measurement

The Works as executed will be measured for payment in accordance with the method adopted in the Bills of Quantities and under the item as therein set forth. The net measurement or weight of the finished work in place will always be taken, and except where otherwise stated or where separate items are provided, no allowance will be made for cutting, waste, laps, circular work, etc., and no deductions will be made for grout nicks, joggle holes, rounded arises or for shrinkage for fitting ironwork and the like.

6. Units and Extension of Bills of Quantities

All sizes and quantities have been entered in the Bills of Quantities are in Metric Units. Figures involving decimals, including sums of money are written in the British tradition, namely, with a full stop in the decimal position and commas between each successive group of three digits to the left of the decimal position. The Bidder shall indicate the total amount for each item (i.e. the quantity multiplied by the rate) to the nearest cent when inserting the figures in the BOQ.

7. Currency of Bid

Rates and amounts shall be quoted only in Sri Lanka rupees.

8. Rates and Sums to be for Work Complete

Notwithstanding any limits which may be implied by the wording of the individual items and/or explanation in this preamble, it is to be clearly understood by the Contractor that the rates and sums which he enters in the Bills of Quantities shall be for the work finished complete in every respect. He shall be deemed to have taken full account of all requirements and obligations, whether expressed or implied, covered by all parts of the Contract, and to have priced the items herein accordingly. The rates and sums must therefore include for all incidental and contingent expenses and risks of every kind necessary to construct, complete and maintain the whole of the Works in accordance with the Contract. Full allowance shall be made in the rates and/or sums against the various items in the Bills of Quantities for all costs involved in the following inter-alia, which are referred to and/or specified herein except where separate items are provided.

- (1) All site investigations, which may be necessary;
- (2) All setting out and survey work;
- (3) All Temporary works; shoring, dewatering, barricading, fencing, watching, and lighting
- (4) Paying fees and giving notice to authorities;
- (5) Payment of all patent rights and royalties;
- (6) Reinstatement of the site;
- (7) Safety precautions and all measures to prevent and suppress fire and other hazards;
- (8) Interference to the works by persons, vehicles, and the like using the existing facilities;
- (9) Works in connection with the protection and safety of adjacent structures;
- (10) Supplying, maintaining and removing on completion Contractor's own accommodation, offices, stores, workshops, transport, welfare services and all charge in connection therewith; except those for which a separate BOQ item is provided;
- (11) Working in the dry except where otherwise permitted by the specification;
- (12) Maintaining access roads
- (13) Supplying, maintaining and removing on completion material testing laboratory with equipment for Engineer's use.
- (14) The supply, inspection, sampling and testing of materials and of the Works under construction, including the provision and use of equipment;
- (15) Except where separate items are provided for bringing plant to the site and removing on completion, for providing, transporting to site, setting to work operating (including all fuel and consumable stores), maintaining and removing from the site upon completion

all construction plant and equipment necessary for the execution of the work, including the cost of all tests and other requirements in respect to such plant and equipment;

- (16) The recruitment, bringing to and from the site, accommodating and feeding and all incidental costs and expenses involved in the provision of all necessary skilled and unskilled labour and supervision, except for whom a separate BOQ item is provided;
- (17) The cost of complying with environmental, health and safety, traffic management and social safeguards including the cost of carrying out public relations activities.
- (18) All statutory taxes and levy, surcharges etc. including stamp duty payable on the contract, which will have to be borne by the Contractor.

Note: Value Added Tax (VAT) as applicable to different items of work / supply etc. should not be built (included) in the rates. VAT will be paid at the prevailing rate at the time of payment to the contractor.

9. Payment for Method of Execution

No payment will be made for method of execution in respect of any work, which is described in the Contract or is inherent in the construction of such work and/or detailed on the drawings because of:

- (1) Any omission in the wording of the items or in a clause in the Preamble or
- (2) No mention of such work or method of execution having been in the Preamble

10. Payments for Items without Rates/Amount

Items against which no rates or sum is entered by the Contractor, whether quantities are stated or not, will not be paid for when executed, but will be regarded as covered by other rates in the Bills of Quantities.

11. Drawings

All drawings related to sewer network are drawings illustrating the Employer design. The drawing provided for in the Bidding Documents for gravity network and shall be used as a reference. The Contractor should visualise the nature and type of work contemplated and understand that adjustments that may be required to both vertical and horizontal alignments to avoid obstacles, utilities, etc. Contractor shall ensure that the rates and price quoted by him in the Bills of Quantities have due consideration of the qualitative and quantitative variations, as may be found at the site and complexities of work involved during actual execution/construction. Contractor shall carry out such changes to the alignment as necessary, provide designs, and shop drawings illustrating the proposed changes.

12. Rates and Sums to Bear Proper Relation to work Described

The rates and sums entered by the Contractor against all items in the Bill of Quantities must bear a proper relationship to the cost of carrying out the work described in the Contract. All on-costs and similar charges, which are applicable to the Contract as a whole, are to be spread over all the rates in the Bill of Quantities, whilst those, which are applicable only to particular sections of the Contract, are only to be spread over items to which these sections refer.

13. Provisional Sum Items

Provisional Sums will be dealt with as provided for in the Conditions of Contract.

Provisional Sums are represented by the words "Provisional Sum" entered under the description.

The Bidder shall indicate a percentage figure and the amount in the appropriate BOQ item provided, based on the total sum of all such "Provisional Sums", to cover up his overhead costs, profits and any other related costs involved in executing the work under provisional sum items. The total payment to the Contractor under this BOQ item will be assessed by applying the percentage rate indicated by Contractor on the actual total amount of Provisional Sums spent in the Contract that includes execution of any part of the works or for the supply of equipment, material or related services in accordance with the Employer's Requirements.

14. Provisional Quantity Items

No extension of time will be awarded against work that is included as provisional items in the Bill of Quantities. Consequently, rates for provisional items shall include for all uplifts and overhead costs and for resourcing the provisional activities, if instructed, so as not to affect the progress of other works.

Certain items in the Bills of Quantities are designated "Provisional Quantity" in the description column to indicate that the quantities for the work covered by such items are the best possible estimates that can be made in advance of the execution of the work, or that the provision of such facilities as are described in the items may not in the event be required under the contract. All items so designated will be used only at the direction and discretion of the Engineer, and if not used either wholly or in part shall, as to the amount not used, be deducted from the Contract Price. Where such items consist of a sum, the Contractor shall enter a lump sum, which shall be the price for the work if executed, as distinct from a "Provisional Sum" as defined herein.

No claim will be entertained in respect of overhead charges or any other costs, which may allegedly result from the omission of all, or part of the work covered by such "Provisional Quantity" Items.

15. Payment of Items in a Monthly Basis

Payment under items, which are measured on a monthly basis will not be commenced until such work is requested by the Engineer and until the full facilities described in the items and the specification have been provided to the satisfaction of the Engineer. Payment will continue until such time as the Engineer shall indicate that facilities are no longer required.

Certain manpower inputs by the Contractor for certain specific positions will be paid under the BOQ items on monthly basis. Any other manpower inputs by the Contractor will not be paid under the monthly paid items.

16. Payment of Lump Sums for General Items

Lump Sum items and where the Tenderer includes additional items for complying with the general conditions etc., will be paid on the basis of a proportion of respective lump sum in the same ratio as the value of the work completed to the total value of the Contract.

Lump sum items, which are related to a specific work, will be paid based on the proportion of actual work done to the total work of that specific item as assessed by the Engineer.

17. Payment of Test and Completion Based Items

Payment under items, which are subject to test and handed over to relevant authorities etc., will not be commenced in full, until the full facilities described in the items and the specification have been provided and handed over to the satisfaction of the Engineer and relevant authorities. Payment will continue until such time as the Engineer shall signify that withholding is no longer required.

Supply and laying of gravity pipes: 50% of the payment on installation of the pipe as per the contract less the amount paid as per Preamble item 2 as applicable to the quantity invoiced; 30% payment based on positive completion of preliminary tests. Balance 20% on completion.

18. Protection of Work and Cleaning up on Completion

The Contractor shall allow, in his rates, for protecting completed work from subsequent operations, making good all damage to complete work, for clearing away all rubbish as it accumulates, and leaving the site in a tidy condition to the satisfaction of the Engineer.

19. Demolition, Removal and Clearing of Debris

Unless otherwise separately paid, rates shall include the removal of all debris or other material from the area of the site and disposal of same in an approved location in an environmentally acceptable manner.

20. Earthworks

Excavation for trenches: The meter cube rates and prices for excavations shall be for all types of material encountered except rock including ground conditions above or below water level. The Contractor must make due allowance for the possibility of permission not being granted to the use of explosives for blasting and other operations. No allowance is made for bulking or for any extra transport required due to bulking. If separate items are not provided, the rates shall include for:

- (1) excavation to the correct depth and preserving the bottoms of excavations in a state suitable for any concrete or any bedding required for filling over-excavated volumes or disturbed areas to the net dimensions as indicated on the Drawings,
- (2) any additional excavation required for working space, temporary or permanent shoring, and subsequent refilling and ramming and disposal of surplus and back fills behind structures,
- (3) provision of storage areas for the temporary storage of any material required for back filling which cannot be stored alongside the excavation for any reason, together with the cost of transporting, loading including disposal of surplus and unloading such material and all other charges incurred in this respect,
- (4) trimming the bottoms of excavations and sloping surfaces where required or indicated on the Drawings,
- (5) taking all precautions by supporting faces of excavation to ensure the safety of the workmen and to prevent damage to adjacent walls, building and all other structures and services, including permanent and/or temporary shoring of trenches,
- (6) Dewatering and keeping the site and trenches free from water from whatever cause arising,
- (7) for clearing any scrub or other vegetable growth including all trees and for disposing of the whole of the cleared material to tip provided by the Contractor,
- (8) all temporary and permanent measures required to protect and support all existing pipes, utilities, cables and services, including all chambers, gullies and foundations thereto, or repair or replace them should they become damaged due to the Contractor's activities,
- (9) all barriers, lighting, warning signs and any other measures necessary to ensure complete safety around the area of the works,
- (10) reinstatement except where separate items are included

21. Supply, laying and fixing of Pipe

The measurement of pipe line shall be by linear meter (m), no deductions will be made for fittings, except for valves, in line equipment or any length measured under separate item. Linear meter (m) unit rate shall be included for;

- (1) Supplying all material require for pipe line including storing, transporting, placing;
- (2) Laying and jointing of pipe
- (3) All short length and fittings
- (4) All loose collars, coupling and similar material including all joining material including gaskets, bolts and nuts for flange pipes;
- (5) Provision for pipe supports;
- (6) Testing of pipes alignment; integrity and water tightness

22. Supply of Reinforced Concrete Manhole, Chambers, Trust blocks, Marker post

Linear meter (m) unit rate shall be included for;

- (1) Supplying of unit (in-situ or precast) including transporting, and placing.
- (2) All excavation and backfill as required ; removing of water, support to side of excavation, backfilling with compaction, disposal of surplus materials;
- (3) Forming holes or boxing out for pipes, bolts, frames for covers and other steel and pipe work including that of backdrops or internal drops, stubouts;
- (4) Building in parts; heavy duty DI man hole cover and frame;
- (5) Manhole steps;
- (6) Temporary reinstatement, back filling, surface finish to suit with existing surface type, etc.;
- (7) All temporary and permanent measures required to protect and support all existing pipes, cables and utilities, services, including all chambers, gullies and foundations thereto, or repair or replace them should they become damaged due to the Contractor's activities,
- (8) All work as per the detail drawings;

23. Road Crossing Reinstatement

Unless otherwise provided separately the rates shall be included for temporary and permanent reinstatement of roads and rail crossings in accordance with specification and as per the requirements of the road authority i.e. SLPA,CMC, SLR and ICTAD as appropriate. Cost shall include supply of materials, material testing, and all work as required for temporary and permanent reinstatement of roads and rail crossings.

24. Field Test

Rates shall be included for performing all tests for gravity sewer line and furnish as specified in Section 2 of Employer's requirements.

25. Road Traffic & Safety Control

Rates shall be included for making of all arrangement as specified in Section 1.9 of Employer's requirements

26. Tidiness of sites

Rates shall be included for all the work necessary to provide and maintenance of all requirements as specified in Employer's Requirements.

27. Removal of Salvageable Items and Handover to CMC

Rates shall include cost of all activities related to safe dismantling/removal, safe storage at site on temporary basis, transportation and handing over to the CMC stores or yard as directed by the Engineer; CMC storage and yard are located within the Colombo City (Section 9 of Employer's Requirements).

28. Micro tunnelling

Rate, shall be included for all the work necessary for Section 2 and Section 4 of the Employer's Requirements.

29. CCTV inspection of sewers

Rate shall be included for all items required to complete CCTV inspection of sewers as per details of specifications as specified in Section 6 of Employer's requirements.

30. DAYWORKS

- Bill No 4 includes Rates to be used when work is to be executed on a day-work basis. Work shall not be executed as day-work except by order of the Engineer in accordance with the provisions of the Contract.
- The Contractors shall price all items in the day work schedule for Labour, Constructional Plant and Material.
- Payment for day work will be made for actual usage for machinery and equipment and on duration of work for labour.
- **Labour:** The contractor is to enter the individual rates for all items of labour provided in **Section 6.2** of the day works schedule. The quantities given are all provisional. Rates shall cover all costs to the Contractor including the wages, transportation, overtime, subsistence, allowances, provision of tools and health and safety gear, and any sums paid to such labour for social benefits in accordance with law of the country, as well as Contractor's profit, overheads, superintendence.
- **Constructional Equipment:** The Contractor shall be entitled to payments in respect of Constructional Plant already on Site and employed on Daywork basis at the rental rates entered by him in the schedule of Daywork rates **Section 6.3**.

The rates shall be deemed to include allowance for depreciation, interest, indemnity and insurance, repairs, maintenance, supplies, fuel, lubricants, and other consumable, and all overhead profit and administrative costs related to the use of such plant.

- **Materials:** The contractor shall be entitled to payments in respect of materials used for day work at the rates entered by him in the schedule of Day Works: **Section 6.2**. Rate quoted by the contractor shall include all costs associated with supply of material under the day works.

COLOMBO MUNICIPAL COUNCIL
MUNICIPAL ENGINEER'S DEPARTMENT

PROJECT: CONSTRUCTION OF SEWER LINE AT R1-VISUMPAYA PREMISSES

PROJECT NO: ME/DR/OTH/SW/11/2023

Item	Item Description	Unit	Qty	Rate	Amount
	BILL NO. 01 - Priliminary				
	Contractual Requirements				
1.1	Provisional sum for providing Performance security.	Provisional sum			158,200.00
1.2	Provisional sum for providing an Advance Payment security.	Provisional sum			632,700.00
1.3	Provisional sum for insurance of the works,Machinery & equipment, Plant, Materials, third party persons & property and Employer's personnel & property at site as per contract.	Provisional sum			427,000.00
1.4	Provisional sum for insurance of against accident and injury to contractor's personnel as per th contract..	Provisional sum			500,000.00
1.5	Aggreement fee	Provisional sum			949,000.00
	Contractor's Facilities				
1.6	Allow lump sum for constructing, maintaining, dismantling and removal on completion of the works, a temporary site office of adequate size including staff rest roomand toilets and other facilities for the contractor's site management staff in accordance with the plans prepared by the Contractor and concurred by the Engineer.	Item			
1.7	Allow lump sum for constructing, maintaining, dismantling and removal on completion of the works, building to be used as workshops and stores for perishable materials. Buildings shall be costructed in accordance with the drawing prepared by the Contractor and concurred by the Engineer.The lump sum shall also include for altering, modifyng or dismantling and re-erecting within the site all temporary buildings/stuctures if required.	Item			

Item	Item Description	Unit	Qty	Rate	Amount
1.8	Allow lump sum for constructing, maintaining, dismantling and removal on completion of the works, temporary building to in accordance with the plans prepared by the Contractor and concurred by the Engineer to accommodate by the following:	Item			
	a) Workers' rest room, canteen facilities, kitchen				
	b) Toilet & wash areas.				
	c) Sick/First - Aid room				
	d) Accomadation for Contractor's staff and workmen including sanitary facilities on site of applicable.				
	Facilities to workmen shall conform to the latest public health and industrial regulation.				
1.9	Allow lump sum for providing Accomadation including sanitary facilities and transport Contractor's staff and workment off site.	Item			
1.10	Allow lump sum for providing telephone and facsimile facilities, electricity and water services for the contractor's site office for their use in connection with the works.	Item			
1.11	Allow lump sum for maintenance, rental, consumption charges etc. for telephone and facsimile facilities, electricity and water services for the contractor's site office for their use in connection with the works.	Item			
1.12	Allow lump sum for contractor's transport facilities at site.	Item			
	SETTING OUT				
1.13	Allow lump sum for employing a licensed land surveyor to define the bulding site work stc.,check levels and carry out such other surveys as may be necessary to establish accurately the placing of forms and pouring of concrete and all other setting out in both vertical and horizontal plane.	Item			
1.14	Allow lump sum for setting out of works in accordance with drawing and other written information given by the Engineer.	Item			
	QUALITY, STANDARDS & PROGRESS				
1.15	Allow Lump sum for provision of progress report photographic record and other schedules including in the ICTAD publication-Guideline for Effective Construction Management. (ICTAD/CM/01), relevant to contract administration as directed by the Engineer.	Item			

Item	Item Description	Unit	Qty	Rate	Amount
1.16	Allow lump sum for all cost in connection with preparing samples for testing, making arrangement for testing of materials, goods etc, as stipulated in the specification, obtaining test reports and submitting the same to the Engineer.	Item			
1.17	Allow lump sum for provision of shop drawings, bar schedules etc.for Engineer's approval.	Item			
1.18	Allow lump sum for provision of 2 sets of (hard copies and soft copies) as-built drawings of all services, for Engineer's approval.	Item			
Health, Safety & Environment					
1.19	Allow lump sum for following services throughout the period of construction for Engineer's office, contractor's site office and worker's rest room and other facilities;	Item			
	a) Employing Workmen to clean and maintain all areas to be in good hygienic conditions including toilets, wash areas, kitchen etc. rest room, canteen facilities, kitchen				
	b) Supplying adequate drinking water, water for washing purposes, soap, detergent, etc. throughout the period of construction.				
1.20	Allow Lump sum for providing all necessary safety measures to workmen at site conforming to the latest industrial safety regulation and as directed by the Engineer.	Item			
1.21	Allow Lump sum for making adequate provision against air and noise pollution of surrounding areas. Hoarding and dust screens shall be provided to control dust escaping to surrounding areas.	Item			
1.22	Allow Lump sum for maintaining the site in a clean and orderly manner at all times and during the entire contract period.	Item			
1.23	Allow Lump sum for demobilization, removal of all rubbish & debris and clearing up site on completion, leaving all in good order and handing over.	Item			
1.24	Allow Lump sum for employing an adequate number of security personnel and security system on full time basis throughout the period of construction, and provide for necessary security lighting and a warning system.	Item			

50 (21) **DUPLICATE**

Item	Item Description	Unit	Qty	Rate	Amount
1.25	Allow lump sum for providing and maintaining necessary fencing, hoarding, and gates for safeguarding the works, materials and plant as directed by the Engineer.	Item			
1.26	Allow lump sum for protection of public and private services at site. The contractor shall take due care to protect, water supply and drainage systems, telephone and overhead/buried electrical cables etc. whose location are identified and made available to the bidder at the time of bidding, unless earmarked for demolition, during the execution of the works, the contractor is to make good any cause within his control at his own expense or pay any cost and charges in connection therewith.	Item			
1.27	Allow lump sum for supply of water for the works and paying all charges and other expenses in connection with the supply from water mains or any other alternative method of water supply, storage and reticulation.	Item			
1.28	Allow lump sum for supplying temporary electricity for the works including connection, distribution system for the works, internal arrangements and all payments to the authorities for consumption.	Item			
1.29	Allow lump sum for providing hoisting equipment and other plant for the use of the works on site(dry hire).	Item			
1.30	Allow lump sum for providing small machinery and equipment for the use of the works at site.	Item			
1.31	Allow lump sum for erecting and maintaining scaffolding and/or self climbing platforms. Such scaffolding etc. shall be removed on completion and all works disturbed shall be made good.	Item			
1.32	Allow lump sum for stamp duty in accordance with the prevailing regulations of the Government.	Item			
BILL NO. 1 TOTAL CARRIED TO SUMMARY					

BILL NO. 02 - GRAVITY SEWER PIPE WORKS

Item	Item Description	Unit	Qty	Rate	Amount
2.1	Ground Investigation Works				
	Excavation for trial trenches on the asphalt roads shall be carried out by using asphalt cutter to remove the asphalt surfaces and further excavation may be by manually and backfilling as per the Specification. rate shall include for dewatering , necessary shoring and removal of excavated material as per Specification				
2.1.1	Excavation of trial trenches in minimum 600mm width to locate all under ground utilities in depth up to 2.50m	m	36		
	Note: Road Cutting Permit should be taken by the contractor from the Central Road Maintenance Unit (CRMU) of CMC Permanent reinstatement should be done by CRMU of CMC and reinstatement cost has to be paid to CRMU separately by the contractor				
2.1.2	Temporary and permanent reinstatement in asphalt roads	m2	36		
2.2	Geo-technical Investigation				
	Carryout Geotechnical investigation works to verify geotechnical data given in supplementary information and to design all temporary & permanent works, machinery for micro tunnelling works including designing of shoring & dewatering and preparation of sectional drawing for employer's approval as specified in the Specifications				
2.2.1	Mobilization of Team and equipment including cost of traveling, locating underground utilities, all other preparatory work and demobilisation etc for following relevant Items Drilling of boreholes in any soil except hard rock depth up to 15.0 m depth (from ground Level) or up to bed rock, including temporary reinstatement	nos	4		
	Note: Road Cutting Permit should be taken by the contractor from the Central Road Maintenance Unit (CRMU) of CMC Permanent reinstatement should be done by CRMU of CMC and reinstatement cost has to be paid to CRMU separately by the contractor				

BILL NO. 02 - GRAVITY SEWER PIPE WORKS

Item	Item Description	Unit	Qty	Rate	Amount
2.2.2	Temporary and permanent reinstatement in asphalt roads	m2	36		
2.3	Topographic Survey				
2.3.1	Carryout topographic survey works to verify data given in supplementary information to design all temporary & permanent works including submission of survey report as specified in the Specification	sum	Item		
2.4	Gravity Sewer (Trenchless) or Open Cut				
	<u>Trenchless</u>				
	Note: Sulphar resistant Cement should be used for all concrete work				
	Supply and installation 600mm dia Vetrified Clay Pipe or concrete pipe with PVC linear for micro-tunnelling in trenchless including dewatering, pipe testing after installation of pipe and disposal of excavated material to as per Employer's requirement, as per Specification. Construction of jacking and receiving shafts necessary for trenchless method.				
	Or				
	<u>Open Cut</u>				
	Supply and laying 600mm Dia vetrified clay pipe or concrete pipe with PVC linear in open cut methods Item shall include excavation in trenches, removal of excess earth, preparation surfaces, backfilling, shoring, dewatering, bed and haunching, compaction with suitable imported soil or available soil or Quarry dust as instructed by the engineer, by 150mm thick compacted layers and if required boundry wall demolisin work and reconstruction work or protect it. Additionally pipe testing must be done contractor as per Engineers instructions.				
2.4.1	Invert Depth up to 3.5m-4.0m(Drawing No:ME/DR/OTH/SW/11/2023)	Lm	60.00		
2.4.2	Invert Depth up to 4.0m-4.5m(Drawing No:ME/DR/OTH/SW/11/2023)	Lm	64.19		
2.4.3	Invert Depth up to 4.5m-5.0m (Drawing No:ME/DR/OTH/SW/11/2023)	Lm	29.35		
PIPEWORK - MANHOLES AND PIPEWORK ANCILLARIES					
2.5	Manholes				
	Note: Sulphar resistant Cement should be used for all concrete work				

DUPLICATE

15

BILL NO. 02 - GRAVITY SEWER PIPE WORKS

Item	Item Description	Unit	Qty	Rate	Amount
	<u>1200x1200 mm concrete Manholes to be constructed as detailed on drawings and Specification including supply and fixing of heavy duty non-ventilated removable 600mm dia manhole cover and frame. Rate shall include for cutting and removing of asphalt roads surface by using asphalt cutter for and further excavation by manually or machinery, including dewatering, backfilling with suitable material, compaction, soil testing, disposal of excavated material as per Specification, shoring as approved by Engineer, temporary and permanent reinstatement as per CMC Specification</u>				
2.5.1	Shaft Manhole - Depth: 3.5m -4.0m (Shaft will be converted into Manhole)	nr	2.00		
2.5.2	Shaft Manhole - Depth: 4.0m -4.5m (Shaft will be converted into Manhole)	nr	2.00		
2.5.3	Shaft Manhole - Depth: 4.5m -5.0m (Shaft will be converted into Manhole)	nr	2.00		
2.6	Field Tests				
2.6.1	CCTV internal condition Assesment report according to WRC guideline	item			
2.6.2	Visual inspection test for manholes	item			
2.6.3	Infiltration and Exfiltration tests for pipelines and manholes	item			
2.6.4	Light Mirror test for pipes	item			
2.7	Two Connections of exsiting Sewer Line and Install Permanent Plug for diverted section	item			
BILL NO. 2 TOTAL CARRIED TO SUMMARY				LKR	

DUPLICATE

BILL NO. 3 -PROVISIONAL SUM				
Item	Item Description	Unit	Rate	Amount
3.1	<u>Provisional Sum</u>			
3.1.1	Additional tests as instructed by the Engineer	PS		250,000.0
3.1.2	additional Soil Investigation as Required by the Engineer, including temporary reinstatement	PS		200,000.0
3.1.3	Inspection and witness of testing for materials and equipment as specified in Employer's Requirement	PS		150,000.0
	Note: Road Cutting Permit should be taken by the contractor from the Central Road Maintenance Unit (CRMU) of CMC) Permanent reinstatement should be done by CRMU of CMC and reinstatement cost has to be paid to CRMU separately by the contractor			
3.1.4	Permanent reinstatement of damaged asphalt paved road as instructed and approved by the Engineer	PS		300,000.0
	Demolishing and Reconstruction work			
3.1.5	Demolishing and reconstruction existing building as per Engineer's Instructions.	PS		1,000,000.0
3.1.6	Protection of other services as per the Engineer's instruction	PS		2,000,000.0
	Sub Toal			
	Contractor's Overheads and Profit for above (10%)			
BILL NO. 3 TOTAL CARRIED TO SUMMARY			LKR	

DUPLICATE

16

25

COLOMBO MUNICIPAL COUNCIL
MUNICIPAL ENGINEER'S DEPARTMENT

PROJECT: CONSTRUCTION OF SEWER LINE-AT R1-VISUMPAYA PREMISSES

PROJECT NO: ME/DR/OTH/SW/11/2023

Bill No.	Description	Amount, excluding Mark-up (LKR)
1	General items (Bill No.01)	
2	Gravity Sewers (Bill No 2)	
3	Provisional Sums (Bill no. 3)	
	Sub Total (Bill 1,2 & 3)	
4	Add 10% of for Contingencies	
	Sub Total	
5	Price fluctiation 20%	
	Sub Total	
6	Add 15% Vat	
	Project Amount	

Bidder"s Signature : Date :

Day works (Rate Only)					
Item	Item Description	Unit	Qty	Rate (LKR)	Amount (LKR)
4.1	Daywork - Labour The Tenderer is required to price the following Rates (LKR) to be applied to any dayworks ordered by the Employer. The Rate (LKR)s are to be fully inclusive. The Rate (LKR)s quoted shall remain unchanged for the duration of the Contract.				
4.1.1	Skilled Labour	day	15		
4.1.2	Semi-Skilled Labour	day	15		
4.1.3	Unskilled Labour	day	20		
4.2	Daywork - Materials				
4.2.1	Concrete (Ready Mix) Grade 25	m ³	5		
4.2.2	Concrete (Ready Mix) Grade 30	m ³	5		
4.2.3	Cement, Sulphur resistant	kg	100		
4.2.4	Cement, Ordinary Portland	kg	100		
4.2.5	Aggregate base, dense graded (37.5mm)	m ³	5		
4.2.6	Asphalt	ton	5		
4.2.7	Sand	m ³	5		
4.2.8	Quarry Dust	m ³	5		
4.2.9	Bitumen emulsions, (CRS 1 CSS 1)	ltr	50		
4.2.10	Bitumen prime cost, cutback MC 30	ltr	50		
4.2.11	Bitumen, straight run, 60/70 penetration	ltr	50		
4.2.12	VC Pipes diameter 450mm; 2m in length	m	10		
4.2.13	VC Pipes diameter 310mm; 2m in length	m	10		
4.2.14	Concrete pipe with PVC Liner diameter 300mm; 2m in length	m	10		
4.2.15	Concrete pipe with PVC Liner diameter 450mm; 2m in length	m	10		
4.2.16	Reinforcement, high-yield steel, Grade 460/425	kg	50		
4.2.17	Reinforcement, mild steel Grade 250	kg	50		
4.3	Daywork - Equipments The Contractor is required to price the following Rate (LKR)s per hour for equipment to be applied to any work ordered by the Engineer. It shall include for fuel and consumables, stores, repairs etc. and inclusive of driver / operator				
	Concrete mixer without weigh batching gear minimum capacity 7/5	hr	5		
4.3.1	Poker Vibrator 2" size diesel	hr	10		
4.3.2	Mobile crane up to 5 tones capacity	hr	10		
4.3.3	Dumper minimum capacity 1 Cu.m.	hr	10		
4.3.4	Track mounted Backhoe Excavator 3/8 cu.m. capacity	hr	10		
4.3.5	Excavator between 3/8 and 3/4 cu.m. capacity wheel mounted with back-actor trench excavating bucket and front shovel wheel	hr	10		
4.3.6	Lorry up to 5 Tones	hr	10		
4.3.7	Vibrating Roller up to 1 tone	hr	2		
4.3.8	Road-Roller 6-10 tones	hr	2		
4.3.9	Rammer for compaction	hr	10		
4.3.10	Portable air compressor complete with hoses and pneumatic tools, minimum capacity 2.82cu.m. (100cu.ft) per minute and pressure 70kg / sq.m (100 psi)	hr	10		
4.3.11	Portable self-priming diesel engine driven centrifugal pump with houses 75mm minimum delivery	hr	10		

4.3.12	Portable welding set 500A capacity complete with welding accessories	hr	10		
4.3.13	Mobile Generator up to 25kVA	hr	10		
4.3.14	Pipe cutters with cutting discs etc;	hr	10		
4.3.15	Dum Truck 5 - 10 tones capacity	hr	10		
4.3.16	Water Bowser up to 3000G	hr	10		
4.3.17	Flood light system with all necessary accessories for night working in roads	hr	10		
4.3.18	Jetting Machine with 200 - 250 bar pressure	hr	2		
4.3.19	Drilling 100mm holes vertically max. up to 6m depth from a jet grout column if approx. 800mm using cement/sodium silicate with necessary admixtures under pressure	lm	6		
4.3.20	Sodium Silicate kg	kg	25		
4.3.21	Completer sewer by passing system between manholes including piping of 100 meters in length, balloons for blocking wastewater flow (different sizes) and portable engine driven centrifugal pump maximum suction head 7 m and maximum flow 300 l/s min flow 50 l/s	hr	10		