



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

MINISTRY OF HIGHWAYS, PORTS & SHIPPING

ROAD DEVELOPMENT AUTHORITY

**CHINA DEVELOPMENT BANK FUNDED IMPROVEMENT
AND REHABILITATION OF
PRIORITY ROAD PROJECT 3 (PRP3)**

CIVIL WORK CONTRACT NO: RDA/RNIP/PRP3/PHASE-1/PACKAGE-1

Contract Component No.	Description
RDA/RNIP/PRP3/Phase1/Package-1/C1	Kiriella - Nedurana - Eheliyagoda Road (0.00-14.75 km)
RDA/RNIP/PRP3/Phase1/Package-1/C2	Ratnapura - Palawela - Karawita Road (0.00-21.28 km)
RDA/RNIP/PRP3/Phase1/Package-1/C3	Ratnapura - Wewalwatta Road (0.00-27.5 km)
RDA/RNIP/PRP3/Phase1/Package-1/C4	Veyangoda - Ruwanwella Road (12.4-32.2 km) - Road Package
	Veyangoda - Ruwanwella Road (12.4-32.2 km) - Bridge Package

CONTRACTOR

**CHINA NATIONAL AERO - TECHNOLOGY INTERNATIONAL
ENGINEERING CORPORATION (CATIC - ENG)**

VOLUME 5

Scope of Work

Preamble to the Bill of Quantities

Priced Bill of Quantities

DECEMBER 2013

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- (a) The Contract Agreement
- (b) The Letter of Acceptance
- (c) The Letter of Tender
- (d) Appendix to Tender

VOLUME 2

- (e) The Particular Conditions
- (f) The General Conditions of Contract

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VOLUME 5

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VOLUME 5

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SCOPE OF WORK

SCOPE OF WORKS

- 1.1 The works involve the rehabilitation of the existing road with improvement to the road geometry together with improvement to longitudinal drainage, the widening, repairing or reconstruction of existing culverts & bridges and construction of new culverts, bridges and flyovers as required.

The contractor is required to carry out the design of all components of the work in the contract.

The contractor is required to carry out improvements to the geometry of the road within the existing Right of Way (ROW) unless otherwise specified. The topographical survey, level survey and cross section survey necessary for this work is also required to be carried out by the contractor. The proposed improvements to the geometry require the approval of the Engineer.

A road condition investigation consisting of visual inspection, DCP testing & trial pits with materials testing is required to be done by the contractor. Based on this investigation, sections of road that require rehabilitation over and above the pavement thickness shown in the bid documents is to be identified by the contractor. The additional thickness of condition proposed (if any) require the approval of the Engineer.

The contractor will design bridges and culverts identified for widening and reconstruction. The contractor will also design all protection works in the form of gabion walls, retaining walls, toe walls, etc. These designs require the approval of the Engineer.

The contractor will prepare the working drawings resulting from the above and submit same to the Engineer for approval. The contractor will set out the centre line in accordance with the approved drawings.

The Work will be carried out within the existing ROW unless otherwise specified and will include, inter alia, the following :

- Rehabilitation works will generally consist of raising the flooding sections, widening the carriageway to the required standard where possible within the ROW, rebuilding the shoulders to the required width on either side, strengthening the base and constructing hot mix asphalt concrete overlays comprising profile correction course where required and a wearing course.
- In the case of heavily distressed or deformed sections of the existing road, rehabilitation will involve the reconstruction of the pavement from sub-grade level or any other level as per the instructions of the Engineer.
- Shoulders will be rehabilitated with granular material and in urban areas the shoulder will be constructed as raised pedestrian walks or covered drains as directed by the Engineer.
- Longitudinal drainage works will involve the provision/rehabilitation of lined drains in either masonry or concrete in hilly sections, where erosion is a concern; unlined longitudinal drains will generally be constructed/rehabilitated in rural sections.
- Transverse drainage improvements will involve the extension of existing culverts; replacement of existing damaged culverts; the provision of new culverts as per the Engineers instruction.
- Similarly, narrow structurally sound bridge will be widened to the required width and damaged bridges will be reconstructed.

- Both longitudinal and transverse subsoil drainage will be introduced in areas of high water table affecting sub grade support.
- Protection works in the form of gabion, masonry or concrete retaining walls or toe walls may also be required to stabilize cut slopes or embankments where localized earthworks are involved.

1.2 The scope of the works will also address the following issues:

- Provision and maintenance of facilities for the Engineer including office accommodation, vehicles, fully equipped materials testing laboratory for the works etc.
- Provision & maintenance of facilities for the employer including office accommodation and vehicles.
- Implementing and managing site safety
- Implementing and maintaining traffic management along the project.
- Protection of the environment and mitigating potential hazards.
- Maintaining access to adjacent properties.
- Locating and removing of mines and UXO (if applicable).

1.3 The contractor will be required to generally maintain the road section covered by the Contract during construction of the Works to ensure the safety of the public and residents along the road and minimum disruption to flow of traffic to the satisfaction of the Engineer.

If the Contractor fails to maintain the road to ensure the safety of road users, the public and residents along the road and minimum disruption to flow of traffic to the satisfaction of the Engineer, the Engineer shall be entitled to employ a sub-contractor to carry out the required works and pay for such work done and recover the cost from the Contractor. The Engineer may, without prejudice to any other method of recovery, deduct such cost from any money due or which may become due to the Contractor and such deduction shall not relieve the Contractor of any of his obligations under the Contract.

1.4 The scope of work is deemed to include any other item of work that may be required to be carried out for the proper completion of the Works in all respects in accordance with the provisions of the Contract.

1.5 The quality control in the contract will be required to be carried out in accordance with the technical specifications.

PREAMBLE TO THE BILL OF QUANTITIES

PREAMBLE TO BILL OF QUANTITIES

1. General

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

2. Application of Preamble to Subsequent Work

The relevant clause 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.

3. Method of Measurement

The Works as executed will be measured for payment in accordance with the method adopted in the Bill 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.

Payment will be made for only those materials, which are specified and permanently installed in the works to the approval of the Engineer. 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 who shall reimburse the Employer any money that was paid to the Contractor for the supply and delivery to site of the surplus materials.

4. Units and Extension of Bills of Quantities

All sizes and quantities have been entered in the Bills of Quantities 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.

5. 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) Temporary 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) The supply, inspection, sampling and testing of materials and of the Works under construction, including the provision and use of equipment;
- (14) 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;
- (15) 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;
- (16) All statutory taxes and levy, surcharges etc. including stamp duty payable on the contract, which will have to be borne by the Contractor.

No claim will be considered for further payment in respect of any work or method of execution, which may be described in the Contract or is inherent in the construction of the work and detailed on the drawings on account of

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

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.

The quantities set out in the Bills of Quantities are the estimated quantities of the work and they shall not be taken as the actual and correct quantities of the works to be executed by the contractor in fulfillment of his obligation under the contract.

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.

6. Rates and Sums to Bear Proper Relation to Work Described

The rates and sums entered by the Contractor against all items in the Bills 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 Bills 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.

However, the Contractor shall ascertain the exact nature and extent of work to be performed by reference to the Drawings, Specifications and Conditions of Contract as the case may be.

7. 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" or "PS" entered under the description.

The total payment to the Contractor under this BOQ item will be assessed by applying the percentage rate indicated in the specifications as overhead cost and profit on the actual total amount of Provisional Sums spent in the Contract.

8. Provisional Quantity Items

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 provisional, 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.

9. Payment of Items in a Monthly Basis

Payment under items, which are measured on a monthly basis, will not be commenced until the facilities described in the items and the Specification has been provided to the satisfaction of the Engineer. Payment will continue until such time as the Engineer shall signify that facilities are no longer required.

Certain manpower inputs by the Contractor for certain specific positions will be paid under the BOQ items provided for this purpose. Any other manpower inputs by the Contractor will not be paid under these items.

10. Payment of Lump Sums for General Items

Lump Sum items stipulated in Bill No-1, which are related to specific work will be paid on the basis of the proportion of actual work done to the total work of that specific item as assessed by the Engineer.

Items with quantities and units will be paid against number of units used and/or incorporated in the works.

11. 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.

12. Demolition

The rates and prices for demolition shall include for;

- (1) The activities prior to the demolition, including further surveys, investigations.
- (2) Providing adequate supports to the adjacent structures and the structure to be demolished, including the shoring, propping needling etc.
- (3) Removal of all debris as directed, and recover the salvaged material.
- (4) Making good of all works disturbed or damaged.
- (5) Diverting or disconnecting any existing service lines which could be affected.

13. Site Clearance

Rates for site clearance shall include (if not separately allowed) for the removal of all trees, shrubs, boulders or other debris from the area of the site and disposal of same in an approved location, spreading at least 100mm of topsoil over the site upon completion.

14. Earthworks**(1) Excavation in all Material except Rock**

The 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.

- (a) For structures, volume of material excavated measured as the product of the horizontal area of the base of permanent work to be constructed and the mean depth below ground level, or measured as the volume to be occupied by permanent work below ground level, whichever is the greater.

In no case shall any of the following quantities be included in the measurement for payment.

- (1) Quantity outside the vertical planes of neat outline of foundation structures unless shown otherwise on the drawings.
 - (2) Quantity of excavation and/or backfill for water supply pipe lines, sewer pipelines, and storm drainage except as allowed for in pipeline construction as specified.
 - (3) Quantity of any excavation performed prior to the taking of measurements of the undisturbed natural ground.
 - (4) Quantity of any material re-handled, except where the drawings indicate or the Engineer directs the excavation after embankment has been placed.
 - (5) Removal of slides, cave-ins, silting or filling due to the action of the elements or weather and/or carelessness of the Contractor.
- (b) For unsuitable material, volume of excavated material shall be measured as volume of material (below base of the permanent works) directed to be removed by the Engineer. However, this does not include removal of material rendered unsuitable due to contractor's method of excavation.

No allowance is made for bulking or for any extra transport required due to bulking. The rates shall include, if separate items are not provided but not by way of limitation, for:

- (1) excavation to the correct depth and preserving the bottoms of excavations in a state suitable for the reception of concrete or other foundation work, and no payment will be made 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 shuttering, 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 including bottoming to falls, and trimming to 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) keeping the site and trenches and all other excavations 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, 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.

(2) Excavation in Rock

Excavation in rock, which shall, in all cases, be measured extra over measurement under 1(a) or 1(b) above by volume from the level at which rock is encountered. For work described under 1(a) and 1(b), measurement shall be as specified therein.

(3) Fill

Fill shall be measured as the net volume above ground level of the permanent earthwork to the dimensions shown on the Drawings or ordered by the Engineer, irrespective of source of material. The rate shall include for selection, handling, placing, compaction of excavated or imported material and cost of control and material selecting tests (field and laboratory). Costs incurred in connection with the remedial work ordered by the Engineer consequent to the results of control tests falling below the minimum specified shall be borne by the Contractor.

15. Concrete

The rates for concrete are to include for

- (1) all costs incurred in determining the mixes to satisfy the Specification (including any admixtures);
- (2) supplying all material (including any admixtures), storing, mixing, transporting, placing and compaction (whether by hand or vibration);
- (3) excavation as required below previously filled levels and back filling (except where separate items are provided);
- (4) roughening the surface of previously executed work as required in order to provide the necessary bond with new concrete;
- (5) achieving specified tolerance;

- (6) forming sloping, falls and the like;
- (7) forming holes or boxing out for pipes, bolts, frames for covers and other steel work;
- (8) building in cable conduit, pipes, junction boxes etc;
- (9) forming 25mm chamfers on all external arises to exposed concrete;
- (10) forming all construction joints, keys, stop ends, temporary stops and shuttering of other than permanently exposed faces (except where separate items are provided);
- (11) curing the concrete and all measures to protect freshly poured concrete from direct sunlight and wave action;
- (12) troweling, rubbing down etc. and making good the concrete surfaces to provide the specified finishes;
- (13) the cost of control testing throughout the period of concreting and for the testing of concrete and remedial work ordered by the Engineer consequent to the results of control tests falling below the minimum specified;
- (14) overtime working to maintain continuity of casting;
- (15) a daily return to the Engineer showing the quantities of cement and the volume of concrete placed and compacted in position, of each class of concrete in each section of the works and temporary works.

The measurement of concrete shall be by cubic metre, square metre or linear metre of completed structure. Where volumetric measure is used, no deductions will be made for channels, recesses or rebates less than 600mm girth, for splays or chamfers less than 300mm measured on the splay nor for holes or ducts formed in the concrete less than 1m girth. Fillets less than 300mm on the splay will be measured.

16. Form Work

Rates and prices for the formwork shall include for

- (1) general formwork, working in narrow spaces and small quantities, for setting up, strutting and supporting at any height, together with any necessary strutting and supporting through lower floors, applying mould oil, use of polythene, easing, striking and removing, cleaning preparing for reuse, and removal, including all props, stays, struts, wedges, bolts etc;
- (2) all fillets to form grooves, rebates, throats, splays or chamfers, raking, circular cutting, cutting around all pipes, sleeves, conduits etc;
- (3) Providing samples to the Engineer for approval.

17. Steel Reinforcement

The rates for steel bar and steel fabric reinforcement shall include for supplying, transporting, storing, cleaning, cutting bending, all labour in working, distribution to the various parts of the works, fixing in position and supporting and for the use of binding wire and for welding where indicated.

The unit of measurement for steel reinforcement is the Kilogram (kg.) and the weight of steel has been calculated net with no allowance made for wastage or laps and the cost of these will be deemed to be covered in the rates.

The weight of steel supports, spacer bars and ties, but including stirrups and binders, used to locate and hold the reinforcement in place is not included in the quantity and the cost of these will be deemed to be covered in the rates.

18. Timber

The rates for timber shall include for all handling, labour and waste, for all chamfers and nosing and for protective treatment except where otherwise provided. The rates for timber for permanent works are to allow for the use of new properly seasoned new timber.

19. Brickwork

The basis of measurement for brickwork walls shall be the overall area of the walls measured in plane elevation, no allowance being made for setbacks, recesses and nibs.

Rates for brickwork shall include for bricks of the thickness stated bounded in cement mortar, damp proof course, finishing around all openings vertical expansion joints as required, building in electrical conduit and small pipes and tubes, galvanized wire ties to steel work and concrete.

20. Hand Railing

Rates and prices for hand railing shall be for handrail materials and forged standards as specified including all bends, removable sections, wall hooks, fixings and painting.

21. Painting and Protective Coatings

The rate for painting and protective coatings, whether measured separately or included in other items, is to include for all temporary staging ladders and the like, covering the adjacent works to prevent splashing providing adequate protection to the work being painted or coated against dust, spray and other foreign matter, for all preparation and priming, carrying out the work in materials and colours to the requirements of the Engineer, curling in edges, washing off stains, and leaving the whole of the work perfect on completion. The rates for painting are to allow the applying of the final coat of paint immediately prior to handing over any section of the work.

22. Fences and Boundary Walls

Rates for fences and boundary walls shall include but not limited to, excavation, refilling and ramming, disposal of surplus, materials for construction of fences and boundary walls, and all painting.

23. Unit of Measurement

Metric units are used throughout the Bill of Quantities for measurement purposes unless otherwise indicated. The following abbreviations are used in this Contract.

<i>Unit</i>	<i>Abbreviation</i>
Millimetre	mm
Metre	m
Square metre	m ² or sq m
Cubic metre	m ³ or cu m
Kilometre	km
Kilo gram	kg
Tonne	t
Litre	ltr
Number	nr
Provisional Sum	PS
Lump Sum	LS
Hour	h
Week	wk
Month	mon
Labour day	L.day
Man Month	MM
Sri Lanka Rupees	Rs.
Cents.	Cts.

24. DAYWORK SCHEDULE

General

Reference should be made to Clause 13.6 of the Conditions of Contract. Work shall not be executed on a day work basis except by written order of the Engineer. Contractors shall enter rates for day work items in schedules, which rates shall apply to any quantity of day work ordered by the Engineer.

The Contractors shall price all items in the day work schedule for Labour, Constructional Plant and Material.

Labour

The contractor is to enter hereunder the individual rates for labour for skilled and unskilled workers and gangers employed on dayworks solely on the direction of the Engineer. The quantities given below are all provisional and these rates shall include to cover all costs of the Contractor including the amount of wages paid to such labour, transportation time, overtime, subsistence allowance, and any sums paid to or on behalf of such labour for social benefits in accordance with law of the country, as well as Contractor's profit, overheads, superintendence, liabilities and insurance and allowance to labour, timekeeping and clerical and office work, the use of consumable stores, water, lighting and power use and repair of staging, scaffolding, workshops and stores, portable power tools, manual plant and tools; supervision by the Contractor's staff, foremen and other supervisory personnel; and charges incidental to the foregoing.

Constructional Plant

The Contractor shall be entitled to payments in respect of Constructional Plant already on Site and employed on daywork at the rental rates entered by him in the "Schedule of Daywork Rates: Constructional Plant".

The rates shall be deemed to include due and complete 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. The cost of drivers, operators and assistants will be paid for separately as described under the section on Daywork Labour.

In calculating the payment due to the Contractor for Constructional Plant employed on daywork, only the actual number of working hours will be eligible for payment, except that where applicable and agreed with the Engineer, the traveling time from the part of the Site where the Constructional Plant was located when ordered by the Engineer to be employed on daywork and the time for return journey thereto shall be included for payment.

Materials

The contractor shall be entitled to payments in respect of materials used for daywork at the rates entered by him in the "Schedule of Daywork Rates: Materials" together with an additional percentage payment on the basic rate to cover overhead charges and profit as follows:

(a) the basic rates for materials shall be calculated on the basis of the invoiced price, freight, insurance, handling expenses, damages, losses, etc., and shall provide for delivery to store for stock piling at the Site as directed by the Engineer.

The contractor may allow an additional percentage payment on the actual cost of materials to allow for his handling and storage costs, overhead profit. The percentage mark up cost shall be inserted by the Contractor in the appropriate item in the Daywork Schedule.

(b) the cost of hauling materials for use on work ordered to be carried out as daywork from the store or stockpile on the Site to the place where it is to be used will be paid in accordance with the terms for Labour and Constructional Plant.

SUMMARY OF PRICED BILL OF QUANTITIES

Improvement and Rehabilitation of Priority Road Project 3

Contract Package No. 1

C1 - Kiriella-Nadurana-Eheliyagoda (B222) - From 0.0km to 14.75km

C2 - Ratnapura-Pelawatta-Karavita (B390) - From 0.0km to 21.28km

C3 - Ratnapura-Wewalwatta (B391) - From 0.0km to 27.5km

C4 - Veyangoda-Ruwanwella (B445) - From 12.28km to 32.05km

**GRAND SUMMARY
BILL OF QUANTITIES**

SUMMARY No	Description	C1	C2	C3	C4		TOTAL AMOUNT.	
					Road	Bridge		
1	Preliminary and General I A	257,659,000.00	302,171,000.00	283,040,000.00	326,110,000.00	Included in road package BIOQ	1,168,980,000.00	
	Preliminary and General I B	12,000,000.00	12,000,000.00	20,160,000.00	15,000,000.00	N/A	59,160,000.00	
2	Site Clearing	30,589,170.00	25,978,950.00	29,749,615.00	58,441,525.00	N/A	144,759,260.00	
3	Earthworks	565,854,075.00	294,238,375.00	271,575,614.40	784,514,500.00	N/A	1,916,182,564.40	
4	Sub Base, Base & Shoulders	529,384,550.00	951,666,360.00	824,147,520.00	729,612,990.00	N/A	3,034,811,420.00	
5	Surface Application	384,342,910.00	649,409,270.00	731,208,400.00	613,633,400.00	N/A	2,378,593,980.00	
6	Bridges and Culverts	817,880,907.00	947,306,055.00	1,267,143,257.36		1,821,688,585.86	4,854,018,805.22	
7	Drainage Construction	177,000,770.00	241,455,900.00	209,551,250.00	84,228,865.00	N/A	712,236,785.00	
8	Incidental Construction	83,862,688.91	113,457,225.00	196,959,833.84	70,671,720.00	N/A	464,951,467.75	
10	Maintenance of Roads	39,002,500.00	95,618,900.00	30,226,500.00	23,959,560.00	N/A	188,807,460.00	
11	PS -Items	72,800,000.00	101,400,000.00	153,400,000.00	45,500,000.00	N/A	373,100,000.00	
	Day works -Labour	241,400.00	241,650.00	241,790.00	863,950.00		1,588,790.00	
	Day works -Equipment	2,537,220.00	2,580,570.00	2,954,100.00	4,839,250.00	Refer Road BOQ	12,911,140.00	
	Day works -Materials	2,496,983.00	2,475,745.00	2,496,781.62	2,624,240.00		10,093,749.62	
	Sub Total 1:	2,975,652,173.91	3,740,000,000.00	4,022,854,662.22	2,760,000,000.00	1,821,688,585.86	15,320,195,421.99	
	Provisional sum for Price Escalation 10% of Sub-Total I	297,565,217.39	374,000,000.00	402,285,466.22	276,000,000.00	182,168,858.59	1,532,019,542.20	
	Contingencies at 5% of Sub-Total I	148,782,608.70	187,000,000.00	201,142,733.11	138,000,000.00	91,084,429.29	766,009,771.10	
	Sub Total 2:	446,347,826.09	561,000,000.00	603,428,199.33	414,000,000.00	273,253,287.88	2,298,029,313.30	
	Grand Total	3,422,000,000.00	4,301,000,000.00	4,626,282,861.55	3,174,000,000.00	2,094,941,873.74	17,618,224,735.29	
	Tender Price (carried over to Letter of Tender)							17,618,224,735.29

* Grand Total in Total Rate Column will be the Tender Price

Tender Price in words Rupees

Bidder: Signature
Name
Address

Suo Shute
Suo Shute

THE PRICED BILL OF QUANTITIES

PRP3/C1

CDB FUNDED IMPROVEMENT AND REHABILITATION OF PRIORITY ROAD PROJECT
Kiriella - Nedurana - Eheliyagoda Road (B222)from 0.0km to 14.75km

Grand Summary		
Bill No.	Description	Contract Value (Rs)
1	Preliminary and General 1 A	257,659,000.00
	Preliminary and General 1 B	12,000,000.00
2	Site Clearing	30,589,170.00
3	Earthworks	565,854,075.00
4	Sub Base, Base & Shoulders	529,384,550.00
5	Surface Application	384,342,910.00
6	Bridges and Culverts	817,880,907.00
7	Drainage Construction	177,000,770.00
8	Incidental Construction	83,862,688.91
10	Maintenance of Roads	39,002,500.00
11	PS -Items	72,800,000.00
12	Day works -Labour	241,400.00
	Day works -Equipment	2,537,220.00
	Day works -Material	2,496,983.00
	Sub Total - 1	2,975,652,173.91
	Provision for Price Escalation - 10% of Sub Total 1	297,565,217.39
	Contingencies at 5% of Sub Total 1	148,782,608.70
	GRAND TOTAL (TENDER PRICE)	3,422,000,000.00

CDB FUNDED IMPROVEMENT AND REHABILITATION OF PRIORITY ROAD PROJECT

Kiriella - Nedurana - Eheliyagoda Road from 0.0km to 14.75km

BILL No.1A : PRELIMINARY GENERAL

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
1	108.1(1)	Allow for cost of providing Performance Security	LS	Item	Allow	12,000,000.00
2	108.2(1)	Allow for the cost of providing Insurances	LS	Item	Allow	16,000,000.00
3	108.3(1)	Mobilization of Contractor's facilities and Plant / Equipment	LS	Item	Allow	16,000,000.00
4	108.3(2)	De-Mobilization of Contractor's facilities & Plant / Equipment	LS	Item	Allow	6,500,000.00
5	108.7(1)	Provide and maintain Project sign board	nr	2	100,000.00	200,000.00
6	108.7(2)	Provide and maintain Project Plaques	nr	2	150,000.00	300,000.00
7	118.4(1)	Provide Main office for the Engineer. (1 No)	P.Sum	Item	Allow	6,000,000.00
8	118.4(2)	Provide office for the Employer	P.Sum	Item	Allow	6,000,000.00
9	118.6(1)	Provide Housing for the Employer	P.Sum	Item	Allow	4,000,000.00
10	118.6(2)	Provide Housing for the Engineer	P.Sum	Item	Allow	4,000,000.00
		Vehicles for the Engineer				
11	118.8(1)	Provide Vehicle Type 1A as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	18,000,000.00
12	118.8(2)	Provide Vehicle Type 1B as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	16,000,000.00
13	118.8(3)	Provide Vehicle Type 3 as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	7,000,000.00
14	118.8(4)	Provide Vehicle Type 4 as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	500,000.00
15	118.8(5,6)	Overhead & Profitfor supply of vehicle type 1A&1B	%	34,000,000.00	15%	5,100,000.00
16	118.8(7)	Overhead & Profitfor supply of vehicle type 3	%	7,000,000.00	15%	1,050,000.00
17	118.8(8)	Overhead & Profitfor supply of vehicle type 4	%	500,000.00	15%	75,000.00
		Vehicles for the Employer				
18	118.8(13)	Provide Vehicle Type 1A as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	8,000,000.00
19	118.8(15)	Provide Vehicle Type 2 as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	10,000,000.00
20	118.8(16,17)	Overhead & Profitfor supply of vehicle type 1A&1B	%	8,000,000.00	15%	1,200,000.00
21	118.8(18)	Overhead & Profitfor supply of vehicle type 2	%	10,000,000.00	15%	1,500,000.00
22	118.9(1)	Provide Main Laboratory	P.Sum	Item	Allow	3,000,000.00
23	118.9(3)	Provide Equipment for the Main Laboratory	P.Sum	Item	Allow	12,000,000.00
24	118.10(1)	Provide and maintain Survey equipment (2 sets)	P.Sum	Item	Allow	7,000,000.00
25	118(1)	Supplying & maintaining all facilities for engineer & Employer including 15% Overhead Charges	P.Sum			78,534,000.00
26	119(1)	Longitudinal and Cross sectional detailing of full pavement width	km	14.75	1,200,000.00	17,700,000.00
Bill No.1A Carried to Summary						257,659,000.00

CDB FUNDED IMPROVEMENT AND REHABILITATION OF PRIORITY ROAD PROJECT
 Kiriella - Nedurana - Eheliyagoda Road from 0.0km to 14.75km

BILL No.1B : PRELIMINARY GENERAL

ITEM NO		DESCRIPTION	UNIT	QUANTITY	Rate	Amount
Bill	Pay					
1	103(1)	Management, Safety and Control and Temporary Diversion of Traffic, including provision of a general traffic management plan in accordance with technical specifications clause 112.8 of the general items.	mon	24	480,000.00	11,520,000.00
2	108.4(1)	Progress Photographs	mon	24	20,000.00	480,000.00
Bill No.1B Carried to Summary						12,000,000.00

BILL No.2 : SITE CLEARING

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	Amount
Bill	Pay					
CLEARING AND GRUBBING						
1	201(1)	Clearing and grubbing	m ²	60,000	95.00	5,700,000.00
		<i>Remove trees :</i>				
2	201(2)	- Girth 300 to 600 mm	nr	150	5,200.00	780,000.00
3	201(2)	- Girth 600 to 1,200 mm	nr	75	6,545.00	490,875.00
4	201(3)	- Girth 1,200 to 2,000 mm	nr	10	11,900.00	119,000.00
5	201(4)	- Girth over 2000 mm	nr	5	23,800.00	119,000.00
		<i>Remove Branches :</i>				
6	201(5)	- Girth 300 to 600 mm	nr	650	1,071.00	696,150.00
7	201(6)	- Girth 600 to 1,200 mm	nr	25	1,665.00	41,625.00
8	201(7)	- Girth over 1,200 mm	nr	10	2,142.00	21,420.00
		<i>Remove Stumps :</i>				
9	201(8)	- Girth 300 to 600 mm	nr	10	4,950.00	49,500.00
10	201(9)	- Girth 600 to 1,200 mm	nr	15	5,175.00	77,625.00
2.2 REMOVAL OF STRUCTURES & OBSTRUCTIONS						
11	202(1)	Dismantle & remove brick masonry structures (Provisional)	m ³	2,000	3,927.00	7,854,000.00
12	202(2)	Dismantle & remove Random Rubble masonry structures (Provisional)	m ³	325	3,570.00	1,160,250.00
13	202(3)	Dismantle & remove concrete structures (Provisional)	m ³	80	6,545.00	523,600.00
14	202(4)	Dismantle & remove Dress stone masonry structures (Provisional)	m ³	25	4,165.00	104,125.00
15	202(5)	Remove fencing (Provisional Quantity)	m	9,000	1,428.00	12,852,000.00
Bill No.2 Carried to Summary						30,589,170.00

BILL No.3 : EARTH WORKS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	Amount
Bill	Pay					
3.1		ROADWAY EXCAVATION				
1	301(1)	Roadway excavation , soil suitable for fill	m ³	200	1,428.00	285,600.00
2	301(8)	Roadway excavation , soft rock (Provisional Quantity)	m ³	22,500	3,120.00	70,200,000.00
3	301(2)	Roadway excavation , boulders (Provisional Quantity)	m ³	13,500	5,593.00	75,505,500.00
4	301(3)	Roadway excavation, hard rock Normal Blasting. (Provisional Quantity)	m ³	6,000	5,474.00	32,844,000.00
5	301(9)	Roadway excavation, hard rock Control Blasting. (Provisional Quantity)	m ³	1,800	10,000.00	18,000,000.00
6	301(4)	Roadway excavation, unsuitable soil	m ³	65,000	1,547.00	100,555,000.00
7	301(6)	Road Pavement Excavation	m ³	3,950	1,500.00	5,925,000.00
3.2		STRUCTURE EXCAVATION AND BACKFILL				
8	302(1)	Excavation for structures & backfill in suitable soil	m ³	10	2,499.00	24,990.00
9	302(2)	Excavation for structures, unsuitable soil and backfill with suitable material	m ³	3,200	3,065.00	9,808,000.00
3.3		EMBANKMENT CONSTRUCTION				
10	304(1)	Trim, level and compact Original gravel	m ²	98,200	142.00	13,944,400.00
11	304(2)	Embankment construction, Type 1	m ³	500	2,592.00	1,296,000.00
12	304(3)	Embankment construction, Type 2	m ³	500	2,592.00	1,296,000.00
13	304(5)	Embankment construction, Type 1 with available	m ³	9,100	2,592.00	23,587,200.00
14	304(6)	Embankment construction, Type 2, with available suitable	m ³	45,000	2,592.00	116,640,000.00
15	304 (4)	Boulder packing for soft ground treatment including geofabric	m ³	14,400	6,000.00	86,400,000.00
3.4		CHANNEL EXCAVATION				
16	307(1)	Channel excavation, suitable soil	m ³	20	1,428.00	28,560.00
17	307(3)	Channel excavation, hard rock (Provisional Quantity)	m ³	425	6,545.00	2,781,625.00
18	307(4)	Channel excavation, unsuitable soil	m ³	4,100	1,642.00	6,732,200.00
Bill No.3 Carried to Summary :						565,854,075.00

BILL No.4 : SUB BASE, BASES AND SHOULDERS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	Amount
Bill	Pay					
4.1		GRANULAR PAVEMENT				
1	401(1)	Sub base as compacted in position	m ³	18,000	3,360.00	60,480,000.00
2	405(1)	Dense graded aggregate base	m ³	39,160	9,600.00	375,936,000.00
3	408(1)	Scarify and Remove existing bitumen layer	m ²	49,150	214.00	10,518,100.00
4.2		SHOULDERS				
4	409(1)	Earthen shoulder as compacted in position	m ³	5,900	3,371.00	19,888,900.00
5	409(2)	Dense graded aggregate shoulder as compacted in position	m ³	6,500	9,600.00	62,400,000.00
6	409(3)	Trench excavation for cross shoulder drain	m ³	10	4,275.00	42,750.00
7	1710(1)	Geotextile for cross shoulder drain	m ²	75	1,584.00	118,800.00
Bill No. 4 Carried to Summary						529,384,550.00

BILL No.5 : SURFACE APPLICATION AND SURFACINGS						
5.1		PRIME COAT AND TACK COAT				
1	501(1)	Bituminous Prime Coat using M30 at 1 litre per m ²	m ²	90,000	333.00	29,970,000.00
2	501(3)	Bituminous Prime Coat using CSS-1 at 1 litre per m ² (PQ)	m ²	40,000	300.00	12,000,000.00
3	502(1)	Bituminous Tack Coat (Cationic Emulsion grade CRS1 at 0.3 litre/m ²)	m ²	35,000	150.00	5,250,000.00
5.2		BITUMINOUS SURFACING				
4	506(1)	Asphalt concrete in wearing course 50mm compacted thickness	m ²	111,115	3,034.00	337,122,910.00
Bill No. 5 Carried to Summary						384,342,910.00

BILL No.6 : BRIDGES, CULVERTS AND OTHER STRUCTURES

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	Amount
Bill	Pay					
6.1		STRUCTURES -Reconstruction of Bridge				
		Excavation&Backfill				
1	302(1)	Excavation&backfill in suitable soil	m ³	10	4,100.00	41,000.00
2	302(9)	Preparation of base of foundation	m ²	500	7,000.00	3,500,000.00
3	302(6)	Construction of necessary cofferdams cribs sheeting, shoring and bracing and their subsequent removal	PS		10,000,000.00	10,000,000.00
4	302(7)	Dewatering	PS		3,000,000.00	3,000,000.00
		Concrete for Structure				
5	1001(1)	Grade C 15	m ³	40	29,750.00	1,190,000.00
6	1001(2)	Grade C 20	m ³	1,375	33,320.00	45,815,000.00
7	1001(3)	Grade C 25	m ³	100	38,080.00	3,808,000.00
8	1001(5)	Grade C 40	m ³	40	50,000.00	2,000,000.00
		Reinforcement				
9	1002(1)	Tor Steel reinforcement	kg	5,100	333.00	1,698,300.00
10	1002(3)	Mild Steel reinforcement	kg	2,200	333.00	732,600.00
		Rubble work				
11	1006(1)	Random rubble masonry	m ³	10	17,850.00	178,500.00
		Prestressed Concrete				
12	1003(1)a	Supply of PSC beams(7m long-)	Nos.	64	273,600.00	17,510,400.00
13	1003(2)a	Launching of beams(7m)	Nos.	64	68,400.00	4,377,600.00
		Formwork				
14	1008(1)	Formwork smooth finish	m ²	1,120	2,975.00	3,332,000.00
15	1008(2)	Formwork rough finish	m ²	1,100	2,618.00	2,879,800.00
		Weephole				
16	705(1)	100mm crushed stone back fill material	m ³	450	6,398.00	2,879,100.00
17	705(2)	37.5mm maximum size crushed stone - filter material	m ³	60	7,438.00	446,280.00
18	706(1)	Weep hole, 100mm dia. PVC pipe (Type 600)	m	270	2,915.00	787,050.00
17		Drain pipes				
19	706(2)	Rainwater outlet/Duts 160mm dia PVC pipe (Type 600)	m	32	4,218.00	134,976.00
20	706(3)	50mm dia. PVC drain pipes	m	32	1,938.00	62,016.00
		Expansion joint				
21	1009(1)	Mild Steel angle iron hard rubber Expansion Joint	m	80	11,172.00	893,760.00
		Dowels				
22	1002(3)	20mm Dia 400m long stain less Steel Dowels	Nos	60	6,500.00	390,000.00
23	1002(3)	20mm Dia 1800mm long hot rolled mild steel dowels driven into bed rock for abutment and wing walls supplied fixed and grouted as per drawing.	Nos	400	12,500.00	5,000,000.00
		Bridge Bearings				
24	1010(1)	75mm*12mm hard rubber bearing pad	m	40	47,880.00	1,915,200.00
		Miscellaneous				
25	1018(1)	Servise duct size 350*200 formed in deck	m	100	2,400.00	240,000.00
26	1017(1)	Cover slab (500*400*75mm)	Nos.	500	7,500.00	3,750,000.00
27	1013(1)	Bituminous sealing felt under beams	m	80	570.00	45,600.00
28	1014(1)	Bituminous sealing felt under approach slab	m	60	570.00	34,200.00

BILL No.6 : BRIDGES, CULVERTS AND OTHER STRUCTURES

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	Amount
Bill	Pay					
		Kerbs				
29	807(4)	Bridge Kerbs	m	100	3,978.00	397,800.00
30	807(5)	Lower Kerbs	m	100	1,824.00	182,400.00
		Railing				
31	814(2)	End pilasters	Nos.	16	142,505.00	2,280,080.00
32	808(1)	Guard stone	Nos.	50	6,270.00	313,500.00
33	814(1)	Hand Rails and uprights	m	60	9,462.00	567,720.00
6.2		STRUCTURES-Widening of Bridge				
		Excavation&backfill				
34	301(4)	Excavation&backfill in Unsuitable soil	m ³	4	3,065.00	12,260.00
		Concrete for Structures				
35	1001(1)	Grade Gr 15	m ³	10	29,750.00	297,500.00
36	1001(3)	Grade Gr 25	m ³	12	38,080.00	456,960.00
37	1001(4)	Grade Gr 30	m ³	5	47,600.00	238,000.00
38	1001(5)	Grade Gr 40	m ³	4	50,000.00	200,000.00
		Reinforcement				
39	1002(1)	Tor Steel reinforcement	kg	1,100	333.00	366,300.00
40	1002(3)	Mild Steel reinforcement	kg	125	333.00	41,625.00
		Rubble Work				
41	1006(1)	Random rubble masonry	m ³	5	17,900.00	89,500.00
		Prestressed Concrete				
42	1003(1)a	Supply of PSC beams(7m long-)	Nos.	7	273,600.00	1,915,200.00
43	1003(2)a	Launching of beams(7m)	Nos.	7	68,400.00	478,800.00
		Formwork				
44	1008(1)	Formwork smooth finish	m ²	23	3,876.00	89,148.00
		Weephole				
		Drain pipes				
45	706(2)	Rainwater outlet/Duts 160mm dia PVC pipe (Type 600)	m	4	4,250.00	17,000.00
46	706(3)	50mm dia PVC Drain Pipes	m	4	1,925.00	7,700.00
		Expansion joint				0.00
47	1009(1)	Mild Steel Hard rubber expansion joints	m	9	11,500.00	103,500.00
		Dowels				
48	1002(2)	20mm Dia 400m long stain less Steel Dowels	Nos	6	6,500.00	39,000.00
		Bridge Bearings				
49	1010(1)	75*12mm hard rubber bearing pad	m	9	47,880.00	430,920.00
		Miscellaneous				
50	1016(1)	Servise duct size 350*200 formed in deck	m	12	1,773.00	21,276.00
51	1017(1)	Cover slab (500*400*75mm)	Nos.	60	4,727.00	283,620.00
52	1013(1)	Bituminous sealing felt under beams	m	9	570.00	5,130.00
53	1014(1)	Bituminous sealing felt under approachslab	m	8	570.00	4,560.00
		Kerbs				
54	807(4)	Bridge Kerbs	m	12	3,876.00	46,512.00
55	807(5)	Lower Kerbs	m	12	1,824.00	21,888.00

BILL No.6 : BRIDGES, CULVERTS AND OTHER STRUCTURES

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	Amount
Bill	Pay					
		Railing				
56	814(2)	End pilasters	Nos.	2	142,505.00	285,010.00
57	808(1)	Guard stone	Nos.	6	6,270.00	37,620.00
58	814(1)	Hand Rails and uprights	m	8	9,462.00	75,696.00
6.3		RECONSTRUCTION/WIDENNING OF CULVERTS				
59	707(3)	Suppling, Laying and jointing of pipes,900mm dia. (single row)	m	7	95,550.00	668,850.00
60	707(4)	Suppling, Laying and jointing of pipes,900mm dia. (Double row)	m	16	250,000.00	4,000,000.00
61	1001(1)	Class B cement concrete nominal mix 1:3:6(37.5mm)	m ³	600	29,750.00	17,850,000.00
62	1001(2)	Class B cement concrete Grade 20(19mm)	m ³	150	33,320.00	4,998,000.00
63	1002(1)	Tor Steel reinforcement	kg	7,000	333.00	2,331,000.00
64	1002(3)	Mild Steel reinforcement	kg	400	333.00	133,200.00
65	1006(1)	Random rubble masonry	m ³	1,507	17,850.00	26,899,950.00
66	1006(2)	Plastering, 1:3 cement sand mix ,16mm thick	m ²	30	1,690.00	50,700.00
67	1008(1)	Formwork smooth finish	m ²	800	2,975.00	2,380,000.00
68	1008(2)	Formwork rough finish	m ²	800	2,618.00	2,094,400.00
69	705(1)	Aggregate back fill material 50-200mm	m ³	370	7,500.00	2,775,000.00
70	705(2)	37.5mm Filter Material Crushed stone	m ³	50	7,437.00	371,850.00
71	706(1)	Weep hole, 75mm dia. PVC pipe (Type 600)	m	420	2,915.00	1,224,300.00
72	707(11)	1.0x1.0 Precast Culvert	m	200	140,225.00	28,045,000.00
73	707(12)	1.5x1 Precast Culvert	m	200	210,000.00	42,000,000.00
74	707(13)	2x1.5 Precast Culvert	m	100	230,000.00	23,000,000.00
6.4		COSTRUCTION OF RETAINING WALL				
75	301(4)	Excavation in unclassified soil for foundtion and backfilling	Cu.m.	6,700	3,065.00	20,535,500.00
76	1008(2)	supplying & fixing 25mm thick planks and struts of class II timber as formwork rough finish,in foundation including removing.	Sq.m	3,100	2,618.00	8,115,800.00
77	1008(1)	supplying&fixing smoothing shuttering of class II timber as formwork complete with props etc. for concrete retaining walls/toe walls including removing 25mm thick planks and struts of class 11 timber as formwork.	Sq.m	15,500	2,975.00	46,112,500.00
78	1001(1)	Class B cement concrete nominal mix 1:3:6(37.5mm)	Cu.m.	7,200	29,750.00	214,200,000.00
79	1001(2)a	Class B cement concrete grade 25(19mm)	Cu.m.	3,300	38,080.00	125,664,000.00
80	1006(2)	Plastering 19mm thick with cement sand moter 1:3 mix (smooth finish) in exposed surface of retaining walls/toewalls.	Sq.m	25	1,690.00	42,250.00
81	706(1)	Forming weep holes in retainig walls using P.V.C. pipes of int. dia. Not less than 75mm complete with dripledge and surround finished smooth.	L.m.	3,750	2,915.00	10,931,250.00
82	705(1)	50-200mm aggregate backfilling behind retaining wall/toewalls	Cu.m.	5,650	7,200.00	40,680,000.00
83	705(2)	Supplying & packing 75mm thick 40mm stone filter layer behind dry stone lining.	Cu.m.	650	2,915.00	1,894,750.00
84	1002(1)	Tor as reinforcement	kg	195,000	333.00	64,935,000.00
		Sub - Total Brought Forward				
Bill No.6 Carried to Summary:						817,880,907.00

BILL NO: 7 - SUB - DRAINAGE CONSTRUCTIONS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	Amount
Bill	Pay					
7.1		Concrete				
1	1001(1)	Grade C 15	m ³	740	29,750.00	22,015,000.00
2	1001(2)	Grade C 20	m ³	2,000	33,320.00	66,640,000.00
3	1001(3)	Grade C 25	m ³	50	38,080.00	1,904,000.00
4	1006(1)	Random rubble masonry	m ³	100	18,125.00	1,812,500.00
5	1006(2)	plasing 1.3 cement sand mix , 16mm thick	m ²	400	1,716.00	686,400.00
6	701(9)	0.45x0.45x1.5 Precast drain	nr	150	26,765.00	4,014,750.00
7	701(10)	0.6x0.6x1.5 Precast drain	nr	150	34,350.00	5,152,500.00
8	701(11)	1.0x0.8x1.5 Precast drain	nr	150	63,600.00	9,540,000.00
7.2		Precast Concrete cover slab				
9	701(3)	690x600x100	m ²	100	10,000.00	1,000,000.00
10	701(5)	690x600x125	m ²	35	12,500.00	437,500.00
11	701(3)	840x600x100	m ²	45	10,000.00	450,000.00
12	701(5)	840*600*125	m ²	45	12,500.00	562,500.00
13	701(8)	840*600*150	m ²	45	13,500.00	607,500.00
14	701(8)	1300x600x150	m ²	135	15,000.00	2,025,000.00
15	1002(1)	Tor - Steel reinforcement	kg	85,000	333.00	28,305,000.00
16	1008(1)	Formwork smoth finish	m ²	10,000	2,975.00	29,750,000.00
17	1008(2)	Formwork rough finish	m ²	300	2,618.00	785,400.00
7.3		Clearing and Repairing Culverts and Drains				
18	1301(1)	Clearing and reshaping of earth drains	m	200	666.00	133,200.00
19	1303(1)	Clearing and Desilting culverts	No	19	62,080.00	1,179,520.00
TOTAL FOR BILL NO 7 CARRIED FORWARD TO MAIN SUMMARY						177,000,770.00

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BILL No.8 : INCIDENTAL WORKS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	Amount
Bill	Pay					
8.1		TOP SOILING				
1	801(1)	Furnish, Spread and compact top soil	m ²	7,500	595.00	4,462,500.00
8.2		GRASSING				
2	802(1)	Grass sodding	m ²	14,400	797.00	11,476,800.00
8.3		RIP RAP PROTECTION FOR EMBANKMENT SLOPES				
3	804(1)	Dumped Rip Rap	m ³	600	6,421.71	3,853,023.91
		GABIONS WALLS AND MATTRESSES USING WIRE BASKETS				
4	805(1)	Gabions	m ³	500	23,800.00	11,900,000.00
8.4		PAVED SIDE WALKS				
5	409(1)	Supplying,spreading and compacting approved soil	m ³	150	5,908.00	886,200.00
6		Preparation of sand bed	m ³	40	7,679.00	307,160.00
7	806(1)	Precast concrete slab (450x450x50mm) paving	m ²	650	4,660.00	3,029,000.00
8.5		PRE CAST CONCRETE KERBS AND CHANNELS				
8	807(1)	Standard kerb	m	500	4,229.00	2,114,500.00
9	808(1)	Guard stones	nr	650	6,545.00	4,254,250.00
10	808(3)	Guard rails for foot walk	m	100	1,600.00	160,000.00
8.6		ROAD MARKING				
		<i>Center line :</i>				
11	810(1)	Continuous	m ²	750	3,570.00	2,677,500.00
12	810(2)	Intermittent	m ²	850	3,570.00	3,034,500.00
		<i>Edge line :</i>				
13	810(3)	Continuous	m ²	3,110	3,570.00	11,102,700.00
14	810(4)	Pedestrian crossing	m ²	410	6,690.00	2,742,900.00
15	810(5)	Road Studs	nr	50	5,355.00	267,750.00
8.7		ROAD SIGNS				
		<i>Reflective road sign :</i>				
16	811(1)	Single pole, sign area up to 0.5m ²	nr	255	21,420.00	5,462,100.00
17	811(2)	Double pole, sign area up to 2.0m ²	nr	210	41,564.00	8,728,440.00
18	811(3)	Chevron warning sign	nr	85	8,925.00	758,625.00
19	811(4)	Flag Type Sign	nr	10	11,994.00	119,940.00
8.8		CONCRETE KERB INLETS				
20	813(1)	Kerb inlet k1/t1	nr			
8.9		KILOMETRE POSTS				
21	815(1)	Provide ,Install and paint new kilometre post	nr	14	35,700.00	499,800.00
8.1 0		SAFETY MEASURES				
22	808(2)	W-Beams (Length and Locations are decided by the Engineer.	m	200	30,125.00	6,025,000.00
Bill No. 8 Carried to Summary						83,862,688.91

BILL No. 10: MAINTENANCE OF ROAD

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	Amount
Bill	Pay					
		MAINTENANCE OF CAGGIAGEWAY				
1	1101(1)	filling pot-holes and patch repairs with Asphalt concrete cold mix (Mc30), 20mm & less in depth	m ²	13,500	1,475.00	19,912,500.00
2	1101(2)	filling pot-holes and patch repairs with Asphalt concrete cold mix (Mc30), 75mm & less in depth	m ²	3,500	3,500.00	12,250,000.00
3	1101(3)	filling pot-holes and patch repairs with Asphalt concrete cold mix (Mc30), deeper than 75mm	m ²	1,800	3,800.00	6,840,000.00
Bill No.10 Carried to summary:						39,002,500.00

BILL No.11 : PROVISIONAL SUMS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
1	103(2)	Temporary by-passes/Using bailay bridges for culverts and other structures	PS	Item	Allow	2,000,000.00
3	113.1(1)	Repairs to damages of existing services	PS	Item	Allow	2,000,000.00
4	113.1(2)	Demolition / Rebuilding of property	PS	Item	Allow	1,000,000.00
5	117.1(1)	Diversion, protection or removal of electrical services	PS	Item	Allow	25,000,000.00
6	117.1(2)	Diversion, protection or removal of water services	PS	Item	Allow	5,000,000.00
7	117.1(3)	Diversion, protection or removal of telecommunication services	PS	Item	Allow	20,000,000.00
9	703(1)	Grade adjustment of existing manholes	PS	Item	Allow	1,000,000.00
10		Allow for Contractor's overheads and profit for above Provisional Sum items.	%	Item	30%	16,800,000.00
Bill No. 11 Carried to Summary						72,800,000.00

BILL No.12 : SCHEDULE OF DAY WORKS RATES**12.1 : LABOUR DAY WORKS**

All Quantities are Provisional

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	Amount
1	Surveyor	Hr	50	1,350.00	67,500.00
2	Laboratory Technician (skilled)	Hr	50	715.00	35,750.00
3	Carpenter	Hr	80	285.00	22,800.00
4	Mason	Hr	80	285.00	22,800.00
5	Steel Fixer	Hr	80	285.00	22,800.00
6	Semi-skilled workman	Hr	150	250.00	37,500.00
7	Unskilled workman (labourer)	Hr	150	215.00	32,250.00
Labour Day works Carried to Summary					241,400.00

BILL No.12 : SCHEDULE OF DAY WORKS RATES**12.2 : EQUIPMENT DAY WORKS**

All Quantities are Provisional

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	Amount
1	Bowser, water, up to 6,000 litres with Spray Bar	Hr	50	1,428.00	71,400.00
2	Backhoe, wheeled, 50 - 100 HP	Hr	40	3,570.00	142,800.00
3	Backhoe, tracked, 50 - 100 HP	Hr	40	3,570.00	142,800.00
4	Motor grader, 120 to 140HP	Hr	100	4,998.00	499,800.00
5	Mobile Crane 25 tonnes	Hr	20	14,280.00	285,600.00
6	Water pump with hoses, 50 to 100 mm outlet	Hr	40	1,428.00	57,120.00
7	Concrete mixer, over 0.50 cu.m.	Hr	40	1,428.00	57,120.00
8	Generator, 10 to 50 KVA	Hr	100	7,140.00	714,000.00
9	Poker Vibrator, petrol driven	Hr	40	357.00	14,280.00
10	Steel-wheeled roller 8 to 10 tonnes	Hr	40	3,850.00	154,000.00
11	Pneumatic-tyred roller ,vibratory,8 to 10 tonnes	Hr	40	6,520.00	260,800.00
12	Hand roller vibratory, 1/2-1 tone	Hr	50	1,210.00	60,500.00
13	Plate compactor, vibratory over 90 kg	Hr	50	715.00	35,750.00
14	Rammer ,mechanical, over 60 kg	Hr	50	825.00	41,250.00
Equipment Day works Carried to forward :					2,537,220.00

12.3 : MATERIAL DAY WORKS

ITEM	DESCRIPTION	UNIT	QUANTITY	Rate	Amount
1	Aggregate base, dense graded (37.5mm)	m ³	10	6,745.00	67,450.00
2	Asphalt concrete, cold mix	mt	10	16,000.00	160,000.00
3	Asphalt concrete, hot mix	mt	10	20,000.00	200,000.00
4	Bitumen emulsion, (CRS 1, CRS 2, CSS 1)	ltr	10	200.00	2,000.00
5	Bitumen prime coat, cutback MC	ltr	10	200.00	2,000.00
6	Bitumen, sraight run, 60/70 penetration	ltr	10	200.00	2,000.00
7	Block, cement, 400*200*100mm	no	10	500.00	5,000.00
8	Cement, ordinary Portland	mt	10	24,000.00	240,000.00
9	Concrete pipe, reinforced 600mm diameter	m	10	8,300.00	83,000.00
10	Concrete pipe, reinforced 900mm diameter	m	10	14,250.00	142,500.00
11	Concrete pipe, reinforced 1,200mm diameter	m	10	19,000.00	190,000.00
12	Concrete, Grade 15/20	m ³	10	25,000.00	250,000.00
13	Concrete, Grade 20/20	m ³	10	33,000.00	330,000.00
14	Formwork, timber (smooth)	m ²	10	2,600.00	26,000.00
15	Pipe, PVC, 100mm diameter (Type 600)	m	10	3,234.00	32,340.00
16	Reinforcement, high-yield steel, Grade 460/425	kg	10	338.00	3,380.00
17	Reinforcement, mild steel, Grade 250	kg	10	338.00	3,380.00
18	Rubble, 100 - 150 mm	m ³	10	5,000.00	50,000.00
19	Rubble, 150 - 250 mm	m ³	10	5,000.00	50,000.00
20	River Sand	m ³	10	5,030.00	50,300.00
21	Timber, Class 2, Sri Lanka Timber Corporation	m ³	10	60,003.30	600,033.00
22	Auto diesel	ltr	10	200.00	2,000.00
23	Petrol	ltr	10	260.00	2,600.00
24	Kerosene Oil	ltr	10	300.00	3,000.00
Material Day works Carried to forward :					2,496,983.00

THE PRICED BILL OF QUANTITIES

PRP3/C2

Ratnapura - Palawela - Karawita (B390) from 0.00km to 21.28km

Grand Summary		
Bill No.	Description	Contract Value (Rs)
1	Preliminary and General 1 A	302,171,000.00
	Preliminary and General 1 B	12,000,000.00
2	Site Clearing	25,978,950.00
3	Earthworks	294,238,375.00
4	Sub Base, Base & Shoulders	951,666,360.00
5	Surface Application	649,409,270.00
6	Bridges and Culverts	947,306,055.00
7	Drainage Construction	241,455,900.00
8	Incidental Construction	113,457,225.00
10	Maintenance of Roads	95,618,900.00
11	PS -Items	101,400,000.00
12	Day works -Labour	241,650.00
	Day works -Equipment	2,580,570.00
	Day works -Material	2,475,745.00
	Sub Total - 1	3,740,000,000.00
	Provision for Price Escalation - 10% of Sub Total 1	374,000,000.00
	Contingencies at 5% of Sub Total 1	187,000,000.00
	GRAND TOTAL (TENDER PRICE)	4,301,000,000.00

BILL No.1A : PRELIMINARY GENERAL

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
1	108.1(1)	Allow for cost of providing Performance Security	L.Sum	Item	Allow	15,300,000.00
2	108.2(1)	Allow for the cost of providing Insurances	L.Sum	Item	Allow	20,000,000.00
3	108.3(1)	Mobilization of Contractor's facilities and Plant / Equipment	LS	Item	Allow	20,000,000.00
4	108.3(2)	De-Mobilization of Contractor's facilities & Plant / Equipment	LS	Item	Allow	12,000,000.00
5	108.7(1)	Provide and maintain Project sign board	nr	2	160,000.00	320,000.00
6	108.7(2)	Provide and maintain Project Plaques	nr	2	180,000.00	360,000.00
7	118.4(1)	Provide Main office for the Engineer. (1 No)	P.Sum	Item	Allow	6,000,000.00
8	118.4(1)	Provide Secondary office for the Engineer (1No)				
9	118.4(2)	Provide office for the Employer	P.Sum	Item	Allow	6,000,000.00
10	118.6(1)	Provide Housing for the Employer	P.Sum	Item	Allow	4,000,000.00
11	118.6(2)	Provide Housing for the Engineer	P.Sum	Item	Allow	4,000,000.00
		Vehicles for the Engineer				
12	118.8(1)	Provide Vehicle Type 1A as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	18,000,000.00
13	118.8(2)	Provide Vehicle Type 1B as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	16,000,000.00
14	118.8(3)	Provide Vehicle Type 3 as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	7,000,000.00
15	118.8(4)	Provide Vehicle Type 4 as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	500,000.00
16	118.8(5,6)	Overhead & profit supply of vehicle type 1A&1B	P.Sum	34,000,000.00	15%	5,100,000.00
17	118.8(7)	Overhead & profit supply of vehicle type 3	P.Sum	7,000,000.00	15%	1,050,000.00
18	118.8(8)	Overhead & profit supply of vehicle type 4	P.Sum	500,000.00	15%	75,000.00
		Vehicles for the Employer				
19	118.8(13)	Provide Vehicle Type 1A as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	9,000,000.00
20	118.8(15)	Provide Vehicle Type 2 as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	10,000,000.00
21	118.8(16,17)	Overhead & profit supply of vehicle type 1A&1B	P.Sum	9,000,000.00	15%	1,350,000.00
22	118.8(8)	Overhead & profit supply of vehicle type 2	P.Sum	10,000,000.00	15%	1,500,000.00
23	118.9(1)	Provide Main Laboratory	P.Sum	Item	Allow	3,000,000.00
24	118.9(2)	Provide Secondary Laboratory				
25	118.9(3)	Provide Equipment for the Main Laboratory	P.Sum	Item	Allow	12,000,000.00
26	118.9(4)	Provide Equipment for the Field Laboratory	P.Sum	Item	Allow	8,000,000.00
27	118.10(1)	Provide and maintain Survey equipment (2 sets)	P.Sum	Item	Allow	7,000,000.00
28	119(1)	Longitudinal and Cross sectional detailing of full pavement width	km	21.28	1,200,000.00	25,536,000.00
29	118(1)	Supplying & maintaining all facilities for engineer & Employer including 15% Overhead Charges	P.Sum			79,080,000.00
30	120(1)	Administrative costs for the Project Management Unit	P.Sum			10,000,000.00
Bill No. 1A Carried to Summary						302,171,000.00

BILL No.1B : PRELIMINARY GENERAL

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
1	103(1)	Management, Safety and Control and Temporary Diversion of Traffic, including provision of a general traffic management plan in accordance with technical specifications clause 112.8 of the general items.	mon	24	480,000.00	11,520,000.00
2	108.4(1)	Progress Photographs	mon	24	20,000.00	480,000.00
Bill No. 1B Carried to Summary						12,000,000.00

BILL No.2 : SITE CLEARING

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	Amount
Bill	Pay					
		CLEARING AND GRUBBING				
1	201(1)	Clearing and grubbing	m ²	83,270	95.00	7,910,650.00
		<i>Remove trees :</i>				
2	201(2)	- Girth 300 to 600 mm	nr	350	4,938.00	1,728,300.00
3	201(2)	- Girth 600 to 1,200 mm	nr	150	6,545.00	981,750.00
4	201(3)	- Girth 1,200 to 2,000 mm	nr	50	11,900.00	595,000.00
5	201(4)	- Girth over 2000 mm	nr	15	23,800.00	357,000.00
		<i>Remove Branches :</i>				
6	201(5)	- Girth 300 to 600 mm	nr	700	1,071.00	749,700.00
7	201(6)	- Girth 600 to 1,200 mm	nr	50	1,666.00	83,300.00
8	201(7)	- Girth over 1,200 mm	nr	25	2,142.00	53,550.00
		<i>Remove Stumps :</i>				
9	201(8)	- Girth 300 to 600 mm	nr	25	5,742.00	143,550.00
10	201(9)	- Girth 600 to 1,200 mm	nr	30	5,175.00	155,250.00
2.2		REMOVAL OF STRUCTURES & OBSTRUCTIONS				
11	202(1)	Dismantle & remove brick masonry structures (Provisional)	m ³	1,350	3,927.00	5,301,450.00
12	202(2)	Dismantle & remove Random Rubble masonry structures (Provisional)	m ³	250	3,570.00	892,500.00
13	202(3)	Dismantle & remove concrete structures (Provisional)	m ³	60	6,545.00	392,700.00
14	202(4)	Dismantle & remove Dress stone masonry structures (Provisional)	m ³	50	4,165.00	208,250.00
15	202(5)	Remove fencing (Provisional Quantity)	m	4,500	1,428.00	6,426,000.00
Bill No.2 Carried to Summary						25,978,950.00

BILL No.3 : EARTH WORKS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	Amount
Bill	Pay					
3.1		ROADWAY EXCAVATION				
1	301(1)	Roadway excavation , soil suitable for fill	m ³	11,000	1,428.00	15,708,000.00
3	301(8)	Roadway excavation , soft rock (Provisional Quantity)	m ³	4,000	3,120.00	12,480,000.00
4	301(2)	Roadway excavation , boulders (Provisional Quantity)	m ³	2,000	5,593.00	11,186,000.00
5	301(3)	Roadway excavation, hard rock Normal Blasting. (Provisional Quantity)	m ³	4,700	5,474.00	25,727,800.00
6	301(9)	Roadway excavation, hard rock Control Blasting. (Provisional Quantity)	m ³	300	11,000.00	3,300,000.00
8	301(4)	Roadway excavation, unsuitable soil	m ³	78,000	1,547.00	120,666,000.00
9	301(6)	Road Pavement Excavation	m ³	4,250	1,500.00	6,375,000.00
3.2		STRUCTURE EXCAVATION AND BACKFILL				
10	302(1)	Excavation for structures & backfill in suitable soil	m ³	25	2,499.00	62,475.00
12	302(2)	Excavation for structures, unsuitable soil and backfill with suitable material	m ³	5,900	3,060.00	18,054,000.00
3.3		EMBANKMENT CONSTRUCTION				
14	304(1)	Trim, level and compact Original gravel	m ²	5,100	142.00	724,200.00
16	304(2)	Embankment construction, Type 1	m ³	500	3,780.00	1,890,000.00
17	304(3)	Embankment construction, Type 2	m ³	500	3,780.00	1,890,000.00
18	304(5)	Embankment construction, Type 1 with available	m ³	2,500	3,780.00	9,450,000.00
19	304(6)	Embankment construction, Type 2, with available suitable	m ³	8,500	3,780.00	32,130,000.00
21	304 (4)	Boulder packing for soft ground treatment including geofabric	m ³	1,650	7,200.00	11,880,000.00
3.4		CHANNEL EXCAVATION				
22	307(1)	Channel excavation, suitable soil	m ³	50	1,428.00	71,400.00
23	307(3)	Channel excavation, hard rock (Provisional Quantity)	m ³	700	6,545.00	4,581,500.00
24	307(4)	Channel excavation, unsuitable soil	m ³	11,000	1,642.00	18,062,000.00
Bill No.3 Carried to Summary :						294,238,375.00

BILL No.4 : SUB BASE, BASES AND SHOULDERS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	Amount
Bill	Pay					
4.1		GRANULAR PAVEMENT				
1	401(1)	Sub base as compacted in position	m ³	21,310	4,760.00	101,435,600.00
2	405(1)	Dense graded aggregate base	m ³	82,210	9,750.00	801,547,500.00
3	408(1)	Scarify and Remove existing bitumen layer	m ²	30,000	214.00	6,420,000.00
4.2		SHOULDERS				
4	409(1)	Earthen shoulder as compacted in position	m ³	11,000	3,371.00	37,081,000.00
5	409(2)	Dense graded aggregate shoulder as compacted in position	m ³	500	9,750.00	4,875,000.00
6	409(3)	Trench excavation for cross shoulder drain	m ³	20	4,275.00	85,500.00
7	1710(1)	Geotextile for cross shoulder drain	m ²	140	1,584.00	221,760.00
Bill No. 4 Carried to Summary						951,666,360.00

BILL No.5 : SURFACE APPLICATION AND SURFACINGS					RATE	Amount
5.1		PRIME COAT AND TACK COAT				
1	501(1)	Bituminous Prime Coat using M30 at 1 litre per m ²	m ²	188,320	333.00	62,710,560.00
2	501(3)	Bituminous Prime Coat using CSS-1 at 1 litre per m ² (PQ)	m ²	1,000	300.00	300,000.00
3	502(1)	Bituminous Tack Coat (Cationic Emulsion grade CRS1 at 0.3 litre/m ²)	m ²	75,000	140.00	10,500,000.00
5.2		BITUMINOUS SURFACING				
4	506(1)	Asphalt concrete in wearing course 50mm compacted thickness	m ²	189,815	3,034.00	575,898,710.00
5	506(2)	Asphalt concrete in binder/ Correction course	MT		24,990.00	
Bill No. 5 Carried to Summary						649,409,270.00

Ratnapura - Palawela - Karawita (B390) from 0.00km to 21.28km						
Reconstruction of bridge no 4/5						
ITEM		DESCRIPTION	UNIT	QUANTITY	Rate	Amount
Bill	Pay					
6.1		STRUCTURES -Reconstruction of Bridge				
1	201(1)	Clearing and grubbing	m ²	1,800	95.00	171,000.00
2	113.1(2)	Removal & disposal of existing structure	PS			8,000,000.00
3	103(2)	Temporary Bypass using balay bridges	PS			4,000,000.00
		Excavation&Backfill				
4	302-1	Excavation&backfill in suitable soil	m ³	10	2,499.00	24,990.00
5	302(2)	Excavation for structures, unsuitable soil and backfill with suitable material	m ³	1,400	3,065.00	4,291,000.00
6	302(9)	Preparation of base of foundation(PQ)	m ²	120	7,800.00	936,000.00
7	302(6)	Construction of necessary cofferdams cribs sheeting, shoring and bracing and their subsequent removal	PS			10,000,000.00
8	302(7)	dewatering	PS			3,000,000.00
		Concrete for Structure				
9	1001(1)	Grade C 15	m ³	7,781	29,750.00	231,484,750.00
10	1001(2)	Grade C 20	m ³	140	33,320.00	4,664,800.00
11	1001(3)	Grade C 25	m ³	185	38,080.00	7,044,800.00
12	1001(5)	Grade C 40	m ³	148	50,000.00	7,400,000.00
		Reinforcement				
13	1002(1)	Tor Steel reinforcement	kg	11,700	333.00	3,896,100.00
14	1002(3)	Mild Steel reinforcement	kg	2,950	333.00	982,350.00
		Rubble work				
15	1006(1)	Random rubble masonry	m ³	25	17,850.00	446,250.00
		Prestressed Concrete				
16	1003(1)a	Supply of PSC beams(7m long-)	Nos.	36	273,600.00	9,849,600.00
17	1003(2)a	Launching of beams(7m)	Nos.	36	68,400.00	2,462,400.00
		Formwork				
18	1008(1)	Formwork smooth finish	m ²	1,179	2,975.00	3,507,525.00
19	1008(2)	Formwork rough finish	m ²	74	2,618.00	192,423.00
		Weephole				
20	705(1)	100mm crushed stone back fill material	m ³	167	6,940.00	1,158,980.00
21	705(2)	37.5mm maximum size crushed stone - filter material	m ³	15	7,437.00	111,555.00
22	706(1)	Weep hole, 100mm dia. PVC pipe (Type 600)	m	120	2,915.00	349,800.00
		Drain pipes				
23	706(2)	Rainwater outlet/Duts 160mm dia PVC pipe (Type 600)	m	32	4,218.00	134,976.00
24	706(3)	50mm dia. PVC drain pipes	m	32	1,938.00	62,016.00
		Expansion joint				
25	1009(1)	Mild Steel angle iron hard rubber Expansion Joint	m	30	11,172.00	335,160.00
		Dowels				
26	1002(3)	20mm Dia 400m long stain less Steel Dowels	Nos	141	6,500.00	916,500.00
27	1002(3)	20mm Dia 1800mm long hot rolled mild steel dowels driven into bed rock for abutment and wing walls supplied fixed and grouted as per drawing.	Nos	400	12,500.00	5,000,000.00

		Bridge Bearings				
28	1001(1)	75mm*12mm hard rubber bearing pad	m	40	47,880.00	1,915,200.00
		Miscellaneous				
29	1016(1)	Service duct size 350*200 formed in deck	m	70	1,773.00	124,110.00
30	1017(1)	Cover slab (500*400*75mm)	Nos.	300	4,727.00	1,418,100.00
31	1013(1)	Bituminous sealing felt under beams	m	80	570.00	45,600.00
32	1014(1)	Bituminous sealing felt under approach slab	m	60	570.00	34,200.00
		Kerbs				
33	807(4)	Bridge Kerbs	m	72	3,876.00	279,072.00
34	807(5)	Lower Kerbs	m	72	1,824.00	131,328.00
		Railing				
35	814(2)	End pilasters	Nos.	4	142,506.00	570,024.00
36	808(1)	Guard stone	Nos.	50	6,545.00	327,250.00
37	814(1)	Hand Rails and uprights	m	68	9,877.00	671,536.00
		Construction of approaches				
38	401(1)	Sub base as compacted in position	m ³	290	4,970.00	1,441,300.00
39	405(1)	Dense graded aggregate base	m ³	235	9,758.00	2,293,130.00
40	501(1)	Bituminous Prime Coat using M30 at 1 litre per m ²	m ²	1,680	333.00	559,440.00
42	506(1)	Asphalt concrete in wearing course 50mm compacted thickness	m ²	1,850	3,034.00	5,612,900.00
						325,846,265.00

BILL No.6 : BRIDGES, CULVERTS AND OTHER STRUCTURES

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	Amount
Bill	Pay					
6.1		STRUCTURES-Widening of Bridge				
		Excavation&backfill				
1	301(4)	Excavation&backfill in Unsuitable soil	m ³	4	3,064.00	12,256.00
		Concrete for Structures				
2	1001(1)	Grade Gr 15	m ³	10	29,750.00	297,500.00
3	1001(3)	Grade Gr 25	m ³	12	38,080.00	456,960.00
4	1001(4)	Grade Gr 30	m ³	5	47,600.00	238,000.00
5	1001(5)	Grade Gr 40	m ³	4	50,000.00	200,000.00
		Reinforcement				
6	1002(1)	Tor Steel reinforcement	kg	1,100	333.00	366,300.00
7	1002(3)	Mild Steel reinforcement	kg	125	333.00	41,625.00
		Rubble Work				
8	1006(1)	Random rubble masonry	m ³	5	17,850.00	89,250.00
		Prestressed Concrete				
9	1003(1)a	Supply of PSC beams(7m long-)	Nos.	7	273,600.00	1,915,200.00
10	1003(2)a	Launching of beams(7m)	Nos.	7	68,400.00	478,800.00
		Formwork				
11	1008(1)	Formwork smooth finish	m ²	23	2,975.00	68,425.00
		Weephole				
12	705(2)	37.5mm maximum size crushed stone - filter material	m ³	-		
		Drain pipes				
13	706(2)	Rainwater outlet/Duts 160mm dia PVC pipe (Type 600)	m	4	4,218.00	16,872.00
14	706(3)	50mm dia PVC Drain Pipes	m	4	1,938.00	7,752.00
		Expansion joint				
15	1009(1)	Mild Steel Hard rubber expansion joints	m	9	11,172.00	100,548.00
		Dowels				
16	1002(2)	20mm Dia 400m long stain less Steel Dowels	Nos	6	6,500.00	39,000.00
		Bridge Bearings				
17	1010(1)	75*12mm hard rubber bearing pad	m	9	47,880.00	430,920.00
		Miscellaneous				
18	1016(1)	Servise duct size 350*200 formed in deck	m	12	1,773.00	21,276.00
19	1017(1)	Cover slab (500*400*75mm)	Nos.	60	4,727.00	283,620.00
20	1013(1)	Bituminous sealing felt under beams	m	9	570.00	5,130.00
21	1014(1)	Bituminous sealing felt under approachslab	m	8	570.00	4,560.00
		Kerbs				
22	807(4)	Bridge Kerbs	m	12	3,876.00	46,512.00
23	807(5)	Lower Kerbs	m	12	1,824.00	21,888.00
		Railing				
24	814(2)	End pilasters	Nos.	2	142,505.00	285,010.00
25	808(1)	Guard stone	Nos.	6	6,545.00	39,270.00
26	814(1)	Hand Rails and uprights	m	8	9,877.00	79,016.00

BILL No.6 : BRIDGES, CULVERTS AND OTHER STRUCTURES

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	Amount
Bill	Pay					
6.3		RECONSTRUCTION/WIDENNING OF CULVERTS				
29	707(3)	Suppling, Laying and jointing of pipes,900mm dia. (single row)	m	29	95,000.00	2,755,000.00
30	707(4)	Suppling, Laying and jointing of pipes,900mm dia. (double row)	m	20	250,000.00	5,000,000.00
32	1001(1)	Class B cement concrete nominal mix 1:3:6(37.5mm)	m ³	3,250	29,750.00	96,687,500.00
33	1001(2)	Class B cement concrete Grade 20(19mm)	m ³	1,020	33,320.00	33,986,400.00
34	1002(1)	Tor Steel reinforcement	kg	55,300	333.00	18,414,900.00
35	1002(3)	Mild Steel reinforcement	kg	1,200	333.00	399,600.00
36	1006(1)	Random rubble masonry	m ³	25	17,850.00	446,250.00
37	1006(2)	Plastering, 1:3 cement sand mix ,16mm thick	m ²	50	1,690.00	84,500.00
38	1008(1)	Formwork smooth finish	m ²	7,300	2,975.00	21,717,500.00
39	1008(2)	Formwork rough finish	m ²	2,050	2,618.00	5,366,900.00
40	705(1)	Aggregate back fill material 50-200mm	m ³	2,600	7,500.00	19,500,000.00
41	705(2)	37.5mm Filter Material Crushed stone	m ³	180	7,437.00	1,338,660.00
42	706(1)	Weep hole, 75mm dia. PVC pipe (Type 600)	m	810	2,915.00	2,361,150.00
43	707(11)	1.0x1.0 Precast Culvert(PQ)	m	115	140,225.00	16,125,875.00
44	707(12)	1.5x1 Precast Culvert(PQ)	m	10	210,000.00	2,100,000.00
45	707(13)	2x1.5 Precast Culvert(PQ)	m	10	230,000.00	2,300,000.00
6.4		COSTRUCTION OF RETAINING WALL				
46	301(4)	Excavation in unclassified soil for foudntion and backfilling	Cu.m.	6,250	3,500.00	21,875,000.00
47	1008(2)	supplying & fixing 25mm thick planks and struts of class II timber as formwork rough finish,in foundation including removing.	Sq.m	2,250	3,400.00	7,650,000.00
48	1008(1)	supplying&fixing smoothing shuttering of class II timber as formwork complete with props etc. for concrete retaining walls/toe walls including removing 25mm thick planks and struts of class 11 timber as formwork.	Sq.m	10,000	3,400.00	34,000,000.00
	1001(1)	Class B cement concrete nominal mix 1:3:6(37.5mm)	Cu.m.	5,700	29,750.00	169,575,000.00
49	1001(3)	Class B cement concrete grade 25(19mm)	Cu.m.	1,800	38,080.00	68,544,000.00
50	1006(2)	Plastering 19mm thick with cement sand moter 1:3 mix (smooth finish) in exposed surface of retaining walls/toewalls.	Sq.m	50	1,689.80	84,490.00
51						
Sub-Total Carried Forward						
Sub - Total Brought Forward						
52	706(1)	Forming weep holes in retaining walls using P.V.C. pipes of int. dia. Not less than 75mm complete with dripledge and surround finished smooth.	L.m.	3,400	2,915.00	9,911,000.00
53	705(1)	50-200mm aggregate backfilling behind retaining wall/toewalls	Cu.m.	4,750	7,200.00	34,200,000.00
54	705(2)	Supplying & packing 75mm thick 40mm stone filter layer behind dry stone lining.	Cu.m.	525	2,915.00	1,530,375.00
55	1002(1)	Tor as reinforcement	kg	120,000	333.00	39,960,000.00
						621,459,790.00
Bill No.6 Carried to Summary:						947,306,055.00

25

BILL NO: 7 - SUB - DRAINAGE CONSTRUCTIONS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	Amount
Bill	Pay					
7.1		Concrete				
1	1001(1)	Grade C 15	m ³	690	29,750.00	20,527,500.00
2	1001(2)	Grade C 20	m ³	3,000	33,320.00	99,960,000.00
3	1001(3)	Grade C 25	m ³	50	38,080.00	1,904,000.00
4	1006(1)	Random rubble masonry	m ³	25	17,850.00	446,250.00
5	1006(2)	plasing 1.3 cement sand mix ,16mm thick	m ²	100	1,716.00	171,600.00
6	701(9)	0.45x0.45x1.5 Precast drain	nr	200	26,765.00	5,353,000.00
7	701(10)	0.6x0.6x1.5 Precast drain	nr	200	34,350.00	6,870,000.00
8	701(11)	1.0x0.8x1.5 Precast drain	nr	100	63,600.00	6,360,000.00
7.2		Precast Concrete cover slab				
9	701(3)	690x600x100	m ²	130	10,000.00	1,300,000.00
10	701(5)	690x600x125	m ³	50	12,500.00	625,000.00
11	701(3)	840x600x100	m ²	90	10,000.00	900,000.00
12	701(5)	840*600*125	m ²	45	12,500.00	562,500.00
13	701(8)	840*600*150	m ²	45	13,500.00	607,500.00
14	701(8)	1300x600x150	m ²	90	15,000.00	1,350,000.00
15	1002(1)	Tor - Steel reaiforcement	kg	140,000	333.00	46,620,000.00
16	1008(1)	Formwork smoth finish	m ²	15,000	2,975.00	44,625,000.00
17	1008(2)	Formwork rough finish	m ²	50	2,618.00	130,900.00
7.3		Clearing and Repairing Culverts and Drains				
18	1301(1)	Clearing and reshaping of earth drains	m	250	667.00	166,750.00
19	1303(1)	Clearing and Desilting culverts	No	50	59,518.00	2,975,900.00
TOTAL FOR BILL NO 7 CARRIED FORWARD TO MAIN SUMMARY						241,455,900.00

BILL No.8 : INCIDENTAL WORKS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	Amount
Bill	Pay					
8.1		TOP SOILING				
1	801(1)	Furnish, Spread and compact top soil	m ²	8,000	595.00	4,760,000.00
8.2		GRASSING				
2	802(1)	Grass sodding	m ²	8,000	797.00	6,376,000.00
8.3		RIP RAP PROTECTION FOR EMBANKMENT SLOPES				
3	804(1)	Dumped Rip Rap	m ³	500	7,679.00	3,839,500.00
		GABIONS WALLS AND MATTRESSES USING WIRE BASKETS				
4	805(1)	Gabions	m ³	1,000	23,800.00	23,800,000.00
8.4		PAVED SIDE WALKS				
5	409(1)	Supplying, spreading and compacting approved soil	m ³	150	5,908.00	886,200.00
6		Preparation of sand bed	m ³	40	7,679.00	307,160.00
7	806(1)	Precast concrete slab (450x450x50mm) paving	m ²	720	4,665.00	3,358,800.00
8.5		PRE CAST CONCRETE KERBS AND CHANNELS				
8	807(1)	Standard kerb	m	600	4,229.00	2,537,400.00
9	808(1)	Guard stones	nr	1,500	6,545.00	9,817,500.00
10	808(3)	Guard rails for foot walk	m	250	1,600.00	400,000.00
8.6		ROAD MARKING				
		<i>Center line :</i>				
11	810(1)	Continuous	m ²	1,100	3,570.00	3,927,000.00
12	810(2)	Intermittent	m ²	1,300	3,570.00	4,641,000.00
		<i>Edge line :</i>				
13	810(3)	Continuous	m ²	4,550	3,570.00	16,243,500.00
14	810(4)	Pedestrian crossing	m ²	650	6,695.00	4,351,750.00
15	810(5)	Road Studs	nr	50	5,355.00	267,750.00
8.7		ROAD SIGNS				
		<i>Reflective road sign :</i>				
16	811(1)	Single pole, sign area up to 0.5m ²	nr	350	21,420.00	7,497,000.00
17	811(2)	Double pole, sign area up to 2.0m ²	nr	250	41,564.00	10,391,000.00
18	811(3)	Chevron warning sign	nr	75	8,925.00	669,375.00
19	811(4)	Flag Type Sign	nr	10	10,534.00	105,340.00
8.9		KILOMETRE POSTS				
21	815(1)	Provide, Install and paint new kilometre post	nr	21	35,700.00	749,700.00
8.1 0		SAFETY MEASURES				
22	808(2)	W-Beams (Length and Locations are decided by the Enginner.	m	250	30,125.00	7,531,250.00
23		Additional Traic Sign Boards and Road Markings or other Safety measures requested by the enginner where necessary	ps		1,000,000.00	1,000,000.00
Bill No. 8 Carried to Summary						113,457,225.00

js

BILL No. 10: MAINTENANCE OF ROAD

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	Amount
Bill	Pay					
MAINTENANCE OF CAGGIAGEWAY						
1	1101(1)	filling pot-holes and patch repairs with Asphalt concrete cold mix (Mc30), 20mm & less in depth	m ²	13,800	1,475.00	20,355,000.00
2	1101(2)	filling pot-holes and patch repairs with Asphalt concrete cold mix (Mc30), 75mm & less in depth	m ²	3,600	3,800.00	13,680,000.00
3	1101(3)	filling pot-holes and patch repairs with Asphalt concrete cold mix (Mc30), deeper than 75mm	m ²	15,350	4,000.00	61,400,000.00
4	1101(4)	filling pot holes and patch repairs with gravel	m ³	30	6,130.00	183,900.00
Bill No.10 Carried to summary:						95,618,900.00

BILL No.11 : PROVISIONAL SUMS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
1	103(2)	Temporary by-passes/Using bailay bridges for culverts and other structures	PS	Item	Allow	3,000,000.00
3	113.1(1)	Repairs to damages of existing services	PS	Item	Allow	1,000,000.00
4	113.1(2)	Demolition / Rebuilding of property	PS	Item	Allow	3,000,000.00
5	117.1(1)	Diversion, protection or removal of electrical services	PS	Item	Allow	30,000,000.00
6	117.1(2)	Diversion, protection or removal of water services	PS	Item	Allow	5,000,000.00
7	117.1(3)	Diversion, protection or removal of telecommunication services	PS	Item	Allow	25,000,000.00
8	703(1)	Grade adjustment of existing manholes	PS	Item	Allow	1,000,000.00
9	123(1)	Allow for Overseas training facility for Technical personal	PS	Item	Allow	10,000,000.00
11		Allow for Contractor's overheads and profit for above Provisional Sum items.	%	Item	30%	23,400,000.00
Bill No. 11 Carried to Summary						101,400,000.00

J

BILL No.12 : SCHEDULE OF DAY WORKS RATES**12.1 : LABOUR DAY WORKS**

All Quantities are Provisional

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	Amount
1	Surveyor	Hr	50.00	1,356.00	67,800.00
2	Laboratory Technician (skilled)	Hr	50.00	714.00	35,700.00
4	Carpenter	Hr	80.00	285.00	22,800.00
5	Mason	Hr	80.00	285.00	22,800.00
6	Steel Fixer	Hr	80.00	285.00	22,800.00
7	Semi-skilled workman	Hr	150.00	250.00	37,500.00
8	Unskilled workman (labourer)	Hr	150.00	215.00	32,250.00
Labour Day works Carried to Summary					241,650.00

BILL No.12 : SCHEDULE OF DAY WORKS RATES**12.2 : EQUIPMENT DAY WORKS**

All Quantities are Provisional

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	Amount
1	Bowser, water, up to 6,000 litres with Spray Bar	Hr	50.00	1,428.00	71,400.00
2	Backhoe, wheeled, 50 - 100 HP	Hr	40.00	3,570.00	142,800.00
3	Backhoe, tracked, 50 - 100 HP	Hr	40.00	3,570.00	142,800.00
4	Motor grader, 120 to 140HP	Hr	100.00	4,998.00	499,800.00
5	Mobile Crane 25 tonnes	Hr	20.00	14,280.00	285,600.00
6	Water pump with hoses, 50 to 100 mm outlet	Hr	40.00	1,428.00	57,120.00
7	Concrete mixer, over 0.50 cu.m.	Hr	40.00	1,428.00	57,120.00
8	Generator, 10 to 50 KVA	Hr	100.00	7,140.00	714,000.00
9	Poker Vibrator, petrol driven	Hr	40.00	357.00	14,280.00
10	Steel-wheeled roller 8 to 10 tonnes	Hr	40.00	4,235.00	169,400.00
11	Pneumatic-tyed roller ,vibratory,8 to 10 tonnes	Hr	40.00	6,875.00	275,000.00
12	Hand roller vibratory, 1/2-1 tone	Hr	50.00	1,331.00	66,550.00
13	Plate compactor, vibratory over 90 kg	Hr	50.00	786.00	39,300.00
14	Rammer ,mechanical, over 60 kg	Hr	50.00	908.00	45,400.00
Equipment Day works Carried to forward :					2,580,570.00

12.3 : MATERIAL DAY WORKS

ITEM	DESCRIPTION	UNIT	QUANTITY	Rate	Amount
1	Aggregate base, dense graded (37.5mm)	m ³	10	6,745.00	67,450.00
2	Asphalt concrete, cold mix	mt	10	16,000.00	160,000.00
3	Asphalt concrete, hot mix	mt	10	20,000.00	200,000.00
4	Bitumen emulsion, (CRS 1, CRS 2, CSS 1)	ltr	10	200.00	2,000.00
5	Bitumen prime coat, cutback MC	ltr	10	200.00	2,000.00
6	Bitumen, straight run, 60/70 penetration	ltr	10	200.00	2,000.00
7	Block, cement, 400*200*100mm	no	10	500.00	5,000.00
8	Cement, ordinary Portland	mt	10	19,000.00	190,000.00
9	Concrete pipe, reinforced 600mm diameter	m	10	24,000.00	240,000.00
10	Concrete pipe, reinforced 900mm diameter	m	10	14,250.00	142,500.00
11	Concrete pipe, reinforced 1,200mm diameter	m	10	19,000.00	190,000.00
12	Concrete, Grade 15/20	m ³	10	25,000.00	250,000.00
13	Concrete, Grade 20/20	m ³	10	33,000.00	330,000.00
14	Formwork, timber (smooth)	m ²	10	2,600.00	26,000.00
15	Pipe, PVC, 100mm diameter (Type 600)	m	10	3,234.00	32,340.00
16	Reinforcement, high-yield steel, Grade 460/425	kg	10	338.00	3,380.00
17	Reinforcement, mild steel, Grade 250	kg	10	338.00	3,380.00
18	Rubble, 100 - 150 mm	m ³	10	5,000.00	50,000.00
19	Rubble, 150 - 250 mm	m ³	10	5,000.00	50,000.00
20	River Sand	m ³	10	5,030.00	50,300.00
21	Timber, Class 2, Sri Lanka Timber Corporation	m ³	10	47,380.00	473,800.00
22	Auto diesel	ltr	10	129.50	1,295.00
23	Petrol	ltr	10	180.00	1,800.00
24	Kerosene Oil	ltr	10	250.00	2,500.00
Material Day works Carried to forward :					2,475,745.00

THE PRICED BILL OF QUANTITIES

PRP3/C3

CDB FUNDED IMPROVEMENT AND REHABILITATION OF PRIORITY ROAD PROJECT

Ratnapura - Wewelwatte (B391) from 0.00km to 27.50km

Grand Summary

Bill No.	Description	Contractor's Amount (Rs.)
1	Preliminary and General 1 A	283,040,000.00
	Preliminary and General 1 B	20,160,000.00
2	Site Clearing	29,749,615.00
3	Earthworks	271,575,614.40
4	Sub Base, Base & Shoulders	824,147,520.00
5	Surface Application	731,208,400.00
6	Bridges	364,978,610.00
6a	Culverts & Retaining walls	902,164,647.36
7	Drainage Construction	209,551,250.00
8	Incidental Construction	196,959,833.84
10	Maintenance of Roads	30,226,500.00
11	PS -Items	153,400,000.00
12	Day works -Labour	241,790.00
	Day works -Equipment	2,954,100.00
	Day works -Materials	2,496,781.62
	Sub Total - 1	4,022,854,662.22
	Provision for Price Escalation - 10% of Sub Total 1	402,285,466.22
	Contingencies at 5% of Sub Total 1	201,142,733.11
	GRAND TOTAL (TENDER PRICE)	4,626,282,861.55

BILL No.1A : PRELIMINARY GENERAL

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
1	108.1(1)	Allow for cost of providing Performance Security	LS	Item	Allow	16,500,000.00
2	108.2(1)	Allow for the cost of providing Insurances	LS	Item	Allow	21,100,000.00
3	108.3(1)	Mobilization of Contractor's facilities and Plant / Equipment	LS	Item	Allow	21,100,000.00
4	108.3(2)	De-Mobilization of Contractor's facilities & Plant / Equipment	LS	Item	Allow	8,450,000.00
5	108.7(1)	Provide and maintain Project sign board	nr	2	300,000.00	600,000.00
6	108.7(2)	Provide and maintain Project Plaques	nr	2	230,000.00	460,000.00
7	118.4(1)	Provide Main office for the Engineer. (1 No)	P.Sum	Item	Allow	6,000,000.00
8	118.4(2)	Provide office for the Employer	P.Sum	Item	Allow	6,000,000.00
9	118.6(1)	Provide Housing for the Employer	P.Sum	Item	Allow	4,000,000.00
10	118.6(2)	Provide Housing for the Engineer	P.Sum	Item	Allow	4,000,000.00
		Vehicles for the Engineer				
11	118.8(1)	Provide Vehicle Type 1A as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	18,000,000.00
12	118.8(2)	Provide Vehicle Type 1B as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	16,000,000.00
13	118.8(3)	Provide Vehicle Type 3 as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	7,000,000.00
14	118.8(4)	Provide Vehicle Type 4 as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	500,000.00
15	118.8(5,6)	Overhead & Profitfor supply of vehicle type 1A&1B		34,000,000.00	15%	5,100,000.00
16	118.8(7)	Overhead & Profitfor supply of vehicle type 3		7,000,000.00	15%	1,050,000.00
17	118.8(8)	Overhead & Profitfor supply of vehicle type 4		500,000.00	15%	75,000.00
		Vehicles for the Employer				
18	118.8(13)	Provide Vehicle Type 1A as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	9,000,000.00
19	118.8(15)	Provide Vehicle Type 2 as specified in appendix 4 of Volume 2	P.Sum	Item	Allow	10,000,000.00
20	118.8(16,17)	Overhead & Profitfor supply of vehicle type 1A&1B		9,000,000.00	15%	1,350,000.00
21	118.8(3)	Overhead & Profitfor supply of vehicle type 3		10,000,000.00	15%	1,500,000.00
22	118.9(1)	Provide Main Laboratory	P.Sum	Item	Allow	3,000,000.00
23	118.9(3)	Provide Equipment for the Main Laboratory	P.Sum	Item	Allow	12,000,000.00
24	118.10(1)	Provide and maintain Survey equipment (1sets)	P.Sum	Item	Allow	3,500,000.00
	118(1)	Supplying & maintaining all facilities for engineer & Employer including 15% Overhead Charges	P.Sum	Item	Allow	73,755,000.00
25	120(1)	Longitudinal and Cross sectional detailing of full pavement width	km	27.5	1,200,000.00	33,000,000.00
Total						283,040,000.00

BILL No.1B : PRELIMINARY GENERAL

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
1	103(1)	Management, Safety and Control and Temporary Diversion of Traffic, including provision of a general traffic management plan in accordance with technical specifications clause 112.8 of the general items.	mon	24	820,000.00	19,680,000.00
2	108.4(1)	Progress Photographs	mon	24	20,000.00	480,000.00
Total						20,160,000.00

BILL No.2 : SITE CLEARING

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
CLEARING AND GRUBBING						
1	201(1)	Clearing and grubbing	m ²	112,000	95.00	10,640,000.00
		<i>Remove trees :</i>				
2	201(2)	- Girth 300 to 600 mm	nr	600	4,939.00	2,963,400.00
3	201(2)	- Girth 600 to 1,200 mm	nr	550	6,545.00	3,599,750.00
4	201(3)	- Girth 1,200 to 2,000 mm	nr	175	11,900.00	2,082,500.00
5	201(4)	- Girth over 2000 mm	nr	50	23,800.00	1,190,000.00
		<i>Remove Branches :</i>				
6	201(5)	- Girth 300 to 600 mm	nr	50	1,071.00	53,550.00
7	201(6)	- Girth 600 to 1,200 mm	nr	20	1,666.00	33,320.00
8	201(7)	- Girth over 1,200 mm	nr	10	2,142.00	21,420.00
		<i>Remove Stumps :</i>				
9	201(8)	- Girth 300 to 600 mm	nr	25	4,950.00	123,750.00
10	201(9)	- Girth 600 to 1,200 mm	nr	15	5,177.00	77,655.00
2.2		REMOVAL OF STRUCTURES & OBSTRUCTIONS				
11	202(1)	Dismantle & remove brick masonry structures (Provisional)	m ³	175	3,927.00	687,225.00
12	202(2)	Dismantle & remove Random Rubble masonry structures (Provisional)	m ³	210	3,570.00	749,700.00
13	202(3)	Dismantle & remove concrete structures (Provisional)	m ³	480	6,545.00	3,141,600.00
14	202(4)	Dismantle & remove Dress stone masonry structures (Provisional)	m ³	972	4,165.00	4,048,380.00
15	202(5)	Remove fencing (Provisional Quantity)	m ³	236	1,428.00	337,365.00
Bill No.2 Carried to Summary						29,749,615.00

BILL No.3 : EARTH WORKS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
3.1		ROADWAY EXCAVATION				
1	301(1)	Roadway excavation , soil suitable for fill	m ³	6,000	1,428.00	8,568,000.00
2	301(8)	Roadway excavation , soft rock (Provisional Quantity)	m ³	1,710	3,713.00	6,349,230.00
3	301(2)	Roadway excavation , boulders (Provisional Quantity)	m ³	945	5,593.00	5,285,385.00
4	301(3)	Roadway excavation, hard rock Normal Blasting. (Provisional Quantity)	m ³	2,420	5,474.00	13,247,080.00
5	301(9)	Roadway excavation, hard rock Control Blasting. (Provisional Quantity)	m ³	1,960	14,280.00	27,988,800.00
6	301(4)	Roadway excavation, unsuitable soil	m ³	53,000	1,547.00	81,991,000.00
7	301(6)	Road Pavement Excavation	m ³	540	1,499.00	809,460.00
3.2		STRUCTURE EXCAVATION AND BACKFILL				
8	302(1)	Excavation for structures & backfill in suitable soil	m ³	749	2,499.00	1,871,751.00
9	302(2)	Excavation for structures, unsuitable soil and backfill with suitable material	m ³	20,500	3,064.00	62,812,000.00
3.3		EMBANKMENT CONSTRUCTION				
10	304(1)	Trim, level and compact Original gravel	m ²	117,600	143.00	16,816,800.00
11	304(2)	Embankment construction, Type 1	m ³	500	4,096.00	2,048,000.00
12	304(3)	Embankment construction, Type 2	m ³	500	4,096.00	2,048,000.00
13	304(5)	Embankment construction, Type 1 with available	m ³	4,200	4,096.00	17,203,200.00
14	304(6)	Embankment construction, Type 2, with available suitable	m ³	1,673	4,096.00	6,852,608.00
15	304 (4)	Boulder packing for soft ground treatment including geofabric	m ³	551	8,640.00	4,762,800.00
3.4		CHANNEL EXCAVATION				
16	307(1)	Channel excavation, suitable soil	m ³	437	1,428.00	623,750.40
17	307(3)	Channel excavation, hard rock (Provisional Quantity)	m ³	750	6,545.00	4,908,750.00
18	307(4)	Channel excavation, unsuitable soil	m ³	4,500	1,642.00	7,389,000.00
Bill No.3 Carried to Summary :						271,575,614.40

BILL No.4 : SUB BASE, BASES AND SHOULDERS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
4.1		GRANULAR PAVEMENT				
1	401(1)	Sub base as compacted in position	m ³	21,925	5,184.00	113,659,200.00
2	405(1)	Dense graded aggregate base	m ³	70,580	9,758.00	688,719,640.00
3	408(1)	Scarify and Remove existing bitumen layer	m ²	3,800	214.00	813,200.00
4.2		SHOULDERS				
4	409(1)	Earthen shoulder as compacted in position	m ³	4,830	3,371.00	16,281,930.00
5	409(2)	Dense graded aggregate shoulder as compacted in position	m ³	350	9,758.00	3,415,300.00
6	409(3)	Trench excavation for cross shoulder drain	m ³	140	4,275.00	598,500.00
7	1710(1)	Geotextile for cross shoulder drain	m ²	350	1,885.00	659,750.00
Bill No. 4 Carried to Summary						824,147,520.00

BILL No.5 : SURFACE APPLICATION AND SURFACINGS

ITEM		PRIME COAT AND TACK COAT	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
1	501(1)	Bituminous Prime Coat using M30 at 1 litre per m ²	m ²	215,050	333.00	71,611,650.00
2	501(3)	Bituminous Prime Coat using CSS-1 at 1 litre per m ²	m ²	2,800	300.00	840,000.00
3	502(1)	Bituminous Tack Coat (Cationic Emulsion grade CRS1 at 0.3 litre/m ²)	m ²	40,000	152.00	6,080,000.00
5.2		BITUMINOUS SURFACING				
5	506(1)	Asphalt concrete in wearing course 50mm compacted thickness	m ²	215,050	3,035.00	652,676,750.00
Bill No. 5 Carried to Summary						731,208,400.00

BILL No.6 : BRIDGES, CULVERTS AND OTHER STRUCTURES

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
6.1		STRUCTURES -Reconstruction of Bridge				
1	302(1)	Excavation&Backfill				
	302(9)	Preparation of base of foundation	m ²	200.00	10,000.00	2,000,000.00
	302(6)	Construction of necessary cofferdams cribs sheeting shorting and bracing and their subsequent remove	PS			10,000,000.00
	302(7)	Dewatering	PS			4,000,000.00
3	302(2)	Excavation&backfill in unsuitable soil	m ³	5,500.00	3,064.00	16,852,000.00
		<i>Concrete for Structure</i>				
4	1001(1)	Grade C 15	m ³	3,200.00	29,750.00	95,200,000.00
5	1001(3)	Grade C 25	m ³	1,350.00	38,080.00	51,408,000.00
7	1001(5)	Grade C 40	m ³	110.00	50,000.00	5,500,000.00
		Reinforcement				
8	1002(1)	Tor Steel reinforcement	kg	55,000.00	333.00	18,315,000.00
9	1002(3)	Mild Steel reinforcement	kg	12,500.00	333.00	4,162,500.00
		Rubble work				
10	1006(1)	Random rubble masonry	m ³	750.00	17,850.00	13,387,500.00
		Prestressed Concrete				
11	1003(1)a	Supply of PSC beams(7.0m long-T/B507)	Nos.	45.00	288,000.00	12,960,000.00
12	1003(2)a	Launching of beams(7.0m)	Nos.	45.00	70,000.00	3,150,000.00
13	1003(1)b	Supply of PSC beams(9.5m long-T/B507)	Nos.	36.00	300,000.00	10,800,000.00
14	1003(2)b	Launching of beams(9.5m)	Nos.	36.00	90,000.00	3,240,000.00
15	1003(1)c	Supply of PSC beams(12.5m long-T/B506)	Nos.	36.00	449,000.00	16,164,000.00
16	1003(2)c	Launching of beams(12.5m)	Nos.	36.00	120,000.00	4,320,000.00

BILL No.6 : BRIDGES, CULVERTS AND OTHER STRUCTURES

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
		<i>Formwork</i>				
17	1008(1)	Formwork smooth finish	m ²	6,200.00	2,975.00	18,445,000.00
18	1008(2)	Formwork rough finish	m ²	1,200.00	2,618.00	3,141,600.00
		Weephole				
19	705(1)	100mm crushed stone back fill material	m ³	1,250.00	6,938.00	8,672,500.00
20	705(2)	37.5mm maximum size crushed stone - filter material	m ³	165.00	7,438.00	1,227,270.00
21	706(1)	Weep hole, 100mm dia. PVC pipe (Type 600)	m	950.00	2,916.00	2,770,200.00
		Drain pipes				
22	706(2)	Rainwater outlet/Duts 160mm dia PVC pipe (Type 600)	m	60.00	4,371.00	262,260.00
23	706(3)	50mm dia. PVC drain pipes	m	40.00	2,008.00	80,320.00
		Expansion joint				
24	1009(1)	Mild Steel angle iron hard rubber Expansion Joint	m	450.00	11,466.00	5,159,700.00
		Dowels				
25	1002(2)	20mm Dia 400mm long stain less Steel Dowels	Nos	375.00	6,500.00	2,437,500.00
		Bridge Bearings				
27	1010(1)	75mm*12mm hard rubber bearing pad	m	530.00	49,616.00	26,296,480.00
		Miscellaneous				
28	1016(1)	Servise duct size 350*200 formed in deck	m	320.00	1,773.00	567,360.00
29	1017(1)	Cover slab (500*400*75mm)	Nos.	640.00	4,727.00	3,025,280.00
30	1013(1)	Bituminous sealing felt under beams	m	530.00	590.00	312,700.00
31	1014(1)	Bituminous sealing felt under approach slab	m	150.00	590.00	88,500.00

BILL No.6 : BRIDGES, CULVERTS AND OTHER STRUCTURES

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
		Kerbs				
32	807(4)	Bridge Kerbs	m	355.00	4,962.00	1,761,510.00
33	807(5)	Lower Kerbs	m	355.00	3,978.00	1,412,190.00
		Railing				
34	814(2)	End pilasters	Nos.	116.00	107,100.00	12,423,600.00
35	808(1)	Guard stone	Nos.	350.00	6,500.00	2,275,000.00
36	814(1)	Hand Rails and uprights	m	320.00	9,877.00	3,160,640.00
						364,978,610.00
6.3		RECONSTRUCTION/WIDENNING OF CULVERTS				
39	1001(1)	Class B cement concrete nominal mix 1:3:6(37.5mm)	m ³	10,148	29,000.00	294,294,465.00
40	1001(3)	Class B cement concrete Grade 25(19mm)	m ³	4,339	33,000.00	143,179,245.00
41	1002(1)	Tor Steel reinforcement	kg	100,282	333.00	33,393,772.79
42	1006(1)	Random rubble masonry	m ³	236	17,850.00	4,209,030.00
43	1006(2)	Plastering, 1:3 cement sand mix ,16mm thick	m ²	315	1,690.00	532,350.00
44	1008(1)	Formwork smooth finish	m ²	22,361	2,975.00	66,523,713.20
45	1008(2)	Formwork rough finish	m ²	3,516	2,618.00	9,204,888.00
46	705(1)	Aggregate back fill material 50-200mm	m ³	3,289	6,938.00	22,816,306.80
47	705(2)	37.5mm Filter Material Crushed stone	m ³	354	7,438.00	2,635,841.25
48	706(1)	Weep hole, 75mm dia. PVC pipe (Type 600)	m	2,789	2,916.00	8,131,266.00
49	707(11)	pre cast box culvert length 1.5 m and 1m*1m opening	m	1,008	140,225.00	141,346,800.00
50	707(12)	1.5x1 Precast Culvert	m	50	210,000.00	10,500,000.00
51	707(13)	2x1.5 Precast Culvert	m	50	230,000.00	11,500,000.00

BILL No.6 : BRIDGES, CULVERTS AND OTHER STRUCTURES

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
52		COSTRUCTION OF RETAINING WALL				
53	301(4)	Excavation in unclassified soil for foundtion and backfilling	Cu.m.	5,730	3,064.00	17,556,720.00
54	1008(2)	supplying & fixing 25mm thick planks and struts of class II timber as formwork rough finish,in foundation including removing.	Sq.m	862	2,975.00	2,563,260.00
55	1008(1)	supplying&fixing smoothing shuttering of class II timber as formwork complete with props etc. for concrete retaining walls/toe walls including removing 25mm thick planks and struts of class 11 timber as formwork	Sq.m	1,688	2,975.00	5,020,639.75
56	1006(1)	Random rubble masonry	m ³	950	17,850.00	16,957,500.00
57	1001(1)	Class B cement concrete nominal mix 1:3:6(37.5mm)	Cu.m.	550	29,750.00	16,362,500.00
58	1001(3)	Class B cement concrete grade 25(19mm)	Cu.m.	1,644	38,080.00	62,603,520.00
59	1006(2)	Plastering 19mm thick with cement sand moter 1:3 mix (smooth finish) in exposed surface of retaining walls/toewalls	Sq.m	2,094	1,406.00	2,944,164.00
60	706(1)	Forming weep holes in retainig walls using P.V.C. pipes of int. dia. Not less than 75mm complete with dripledge and surround finshed smooth.	L.m.	1,957	1,300.00	2,543,840.00
61	705(1)	50-200mm aggregate backfilling behind retaining wall/toewalls		1,791	7,500.00	13,432,500.00
62	705(2)	Supplying & packing 75mm thick 40mm stone filter layer behind dry stone lining.	Cu.m.	149	7,800.00	1,164,150.00
63	1002(1)	Tor as reinforcement	kg	38,283	333.00	12,748,175.57
Bill No.6 Carried to Summary:						902,164,647.36

BILL NO: 7 - SUB - DRAINAGE CONSTRUCTIONS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
7.1		Concrete				
1	1001(1)	Grade C 15	m ³	1,000	29,750.00	29,750,000.00
2	1001(2)	Grade C 20	m ³	3,500	33,320.00	116,620,000.00
3	701(9)	0.45x0.45x1.5 Precast drain	nr	250	26,765.00	6,691,250.00
4	701(10)	0.6x0.6x1.5 Precast drain	nr	250	34,350.00	8,587,500.00
5	701(11)	1.0x0.8x1.5 Precast drain	nr	200	63,600.00	12,720,000.00
7.2		Precast Concrete cover slab				
	701(3)	690x600x100	m ²	180	10,000.00	1,800,000.00
	701(5)	690x600x125	m ³	45	12,500.00	562,500.00
6	701(3)	840x600x100	m ²	90	10,000.00	900,000.00
	701(5)	840*600*125	m ²	90	12,500.00	1,125,000.00
	701(8)	840*600*150	m ²	45	13,500.00	607,500.00
7	701(8)	1300x600x150	m ²	180	15,000.00	2,700,000.00
8	1002(1)	Tor - Steel reaiforcement	kg	27,000	333.00	8,991,000.00
9	1008(1)	Formwork smoth finish	m ²	5,000	2,975.00	14,875,000.00
10	1008(2)	Formwork rough finish	m ²	820	2,618.00	2,146,760.00
7.3		Clearing and Repairing Culverts and Drains				
11	1301(1)	Clearing and reshaping of earth drains	m	350	666.00	233,100.00
12	1303(1)	Clearing and Desilting culverts	No	20	62,082.00	1,241,640.00
TOTAL FOR BILL NO 7 CARRIED FORWARD TO MAIN SUMMARY						209,551,250.00

BILL No.8 : INCIDENTAL WORKS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
8.1		TOP SOILING				
1	801(1)	Furnish, Spread and compact top soil	m ²	2,000	595.00	1,190,000.00
8.2		GRASSING				
2	802(1)	Grass sodding	m ²	9,000	797.00	7,173,000.00
8.3		RIP RAP PROTECTION FOR EMBANKMENT SLOPES				
3	804(1)	Dumped Rip Rap	m ³	400	10,125.01	4,050,003.84
		GABIONS WALLS AND MATTRESSES USING WIRE BASKETS				
4	805(1)	Gabions	m ³	896	23,800.00	21,324,800.00
8.4		PAVED SIDE WALKS				
5	409(1)	Supplying, spreading and compacting approved soil	m ³	400	5,908.00	2,363,200.00
6		Preparation of sand bed	m ³	300	7,679.00	2,303,700.00
7	806(1)	Precast concrete slab (450x450x50mm) paving	m ²	1,350	4,665.00	6,297,750.00
8.5		PRE CAST CONCRETE KERBS AND CHANNELS				
8	807(1)	Standard kerb	m	1,500	5,117.00	7,675,500.00
9	808(1)	Guard stones	nr	2,424	6,545.00	15,865,080.00
10	808(3)	Guard rails for foot walk	m	1,500	2,975.00	4,462,500.00
8.6		ROAD MARKING				
		<i>Center line :</i>				
11	810(1)	Continuous	m ²	1,800	3,570.00	6,426,000.00
12	810(2)	Intermittent	m ²	1,120	3,570.00	3,998,400.00
		<i>Edge line :</i>				
13	810(3)	Continuous	m ²	5,600	3,570.00	19,992,000.00
14	810(4)	Pedestrian crossing	m ²	2,000	6,694.00	13,388,000.00
15	810(5)	Road Studs	nr	500	5,355.00	2,677,500.00
8.7		ROAD SIGNS				
		<i>Reflective road sign :</i>				
16	811(1)	Single pole, sign area up to 0.5m ²	nr	620	21,420.00	13,280,400.00
17	811(2)	Double pole, sign area up to 2.0m ²	nr	15	41,564.00	623,460.00
18	811(3)	Chevron warning sign	nr	200	8,925.00	1,785,000.00
19	811(4)	Flag Type Sign	nr	10	11,994.00	119,940.00
8.8		CONCRETE KERB INLETS				
20	813(1)	Kerb inlet k1/t1	nr	50	14,280.00	714,000.00
8.9		KILOMETRE POSTS				
21	815(1)	Provide ,Install and paint new kilometre post	nr	28	35,700.00	999,600.00
8.10		SAFETY MEASURES				
22	808(2)	W-Beams (Length and Locations are decided by the Enginner.	m	2,000	30,125.00	60,250,000.00
Bill No. 8 Carried to Summary						196,959,833.84

BILL No. 10: MAINTENANCE OF ROAD

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
MAINTENANCE OF CAGGIAGEWAY						
1	1101(1)	filling pot-holes and patch repairs with Asphalt concrete cold mix (Mc30), 20mm & less in depth	m ²	8,100.00	2,000.00	16,200,000.00
2	1101(2)	filling pot-holes and patch repairs with Asphalt concrete cold mix (Mc30), 75mm & less in depth	m ²	1,860.00	4,355.00	8,100,300.00
3	1101(3)	filling pot-holes and patch repairs with Asphalt concrete cold mix (Mc30), deeper than 75mm	m ²	900.00	4,522.00	4,069,800.00
4	1101(4)	filling pot holes and patch repairs with gravel	m ³	300.00	6,188.00	1,856,400.00
Bill No.10 Carried to summary:						30,226,500.00

BILL No.11 : PROVISIONAL SUMS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
1	103(2)	Temporary by-passes for culverts, bridges and other structures	PS	Item	Allow	35,000,000.00
2	1013.1(2)	Repairs to damages of existing services	PS	Item	Allow	2,000,000.00
3	113.1(2)	Demolition / Rebuilding of property	PS	Item	Allow	5,000,000.00
4	117.1(1)	Diversion, protection or removal of electrical services	PS	Item	Allow	30,000,000.00
5	117.1(2)	Diversion, protection or removal of water services	PS	Item	Allow	5,000,000.00
6	117.1(3)	Diversion, protection or removal of telecommunication services	PS	Item	Allow	30,000,000.00
7	703(1)	Grade adjustment of existing manholes	PS	Item	Allow	1,000,000.00
8	123(1)	Allow for Overseas training facility for Technical personal	PS	Item	Allow	10,000,000.00
		Allow for Contractor's overheads and profit for above Provisional Sum items.	%		30%	35,400,000.00
Bill No. 11 Carried to Summary						153,400,000.00

BILL No.12 : SCHEDULE OF DAY WORKS RATES**12.1 : LABOUR DAY WORKS**

ITEM	DESCRIPTION	UNIT	QUANTITY	Rate	Amount
1	Surveyor	Hr	50	1,357.00	67,850.00
2	Laboratory Technician (skilled)	Hr	50	714.00	35,700.00
4	Carpenter	Hr	80	286.00	22,880.00
5	Mason	Hr	80	286.00	22,880.00
6	Steel Fixer	Hr	80	286.00	22,880.00
7	Semi-skilled workman	Hr	150	250.00	37,500.00
8	Unskilled workman (labourer)	Hr	150	214.00	32,100.00
Labour Day works Carried to Summary					241,790.00

BILL No.12 : SCHEDULE OF DAY WORKS RATES**12.2 : EQUIPMENT DAY WORKS**

ITEM	DESCRIPTION	UNIT	QUANTITY	Rate	Amount
1	Bowser, water, up to 6,000 litres with Spray Bar	Hr	50	1,728.00	86,400.00
2	Backhoe, wheeled, 50 - 100 HP	Hr	40	4,320.00	172,800.00
3	Backhoe, tracked, 50 - 100 HP	Hr	40	4,320.00	172,800.00
4	Motor grader, 120 to 140HP	Hr	100	6,048.00	604,800.00
5	Mobile Crane 25 tonnes	Hr	20	17,279.00	345,580.00
6	Water pump with hoses, 50 to 100 mm outlet	Hr	40	1,728.00	69,120.00
7	Concrete mixer, over 0.50 cu.m.	Hr	40	1,728.00	69,120.00
8	Generator, 10 to 50 KVA	Hr	100	8,639.00	863,900.00
9	Poker Vibrator, petrol driven	Hr	40	432.00	17,280.00
10	Steel-wheeled roller 8 to 10 tonnes	Hr	40	3,850.00	154,000.00
11	Pneumatic-tyed roller ,vibratory,8 to 10 tonnes	Hr	40	6,520.00	260,800.00
12	Hand roller vibratory,1/2-1 tone	Hr	50	1,210.00	60,500.00
13	Plate compactor,vibratory over 90 kg	Hr	50	715.00	35,750.00
14	Rammer ,mechanical,over 60 kg	Hr	50	825.00	41,250.00
Equipment Day works Carried to forward :					2,954,100.00

12.3 : MATERIAL DAY WORKS

ITEM	DESCRIPTION	UNIT	QUANTITY	Rate	Amount
1	Aggregate base, dense graded (37.5mm)	m ³	10	6,500.00	65,000.00
2	Asphalt concrete, cold mix	mt	10	12,846.00	128,460.00
3	Asphalt concrete, hot mix	mt	10	20,000.00	200,000.00
4	Bitumen emulsion, (CRS 1, CRS 2, CSS 1)	ltr	10	180.00	1,800.00
5	Bitumen prime coat, cutback MC	ltr	10	180.00	1,800.00
6	Bitumen, sraight run, 60/70 penetration	ltr	10	180.00	1,800.00
7	Block, cement, 400*200*100mm	no	10	500.00	5,000.00
8	Cement, ordinary Portland	mt	10	22,000.00	220,000.00
9	Concrete pipe, reinforced 600mm diameter	m	10	9,000.00	90,000.00
10	Concrete pipe, reinforced 900mm diameter	m	10	14,250.00	142,500.00
11	Concrete pipe, reinforced 1,200mm diameter	m	10	19,000.00	190,000.00
12	Concrete, Grade 15/20	m ³	10	30,750.00	307,500.00
13	Concrete, Grade 20/20	m ³	10	33,941.16	339,411.62
14	Formwork, timber (smooth)	m ²	10	3,200.00	32,000.00
15	Pipe, PVC, 100mm diameter (Type 600)	m	10	3,234.00	32,340.00
16	Reinforcement, high-yield steel, Grade 460/425	kg	10	380.00	3,800.00
17	Reinforcement, mild steel, Grade 250	kg	10	380.00	3,800.00
18	Rubble, 100 - 150 mm	m ³	10	4,030.00	40,300.00
19	Rubble, 150 - 250 mm	m ³	10	4,200.00	42,000.00
20	River Sand	m ³	10	4,200.00	42,000.00
21	Timber, Class 2, Sri Lanka Timber Corporation	m ³	10	60,000.00	600,000.00
22	Auto diesel	ltr	10	175.00	1,750.00
23	Petrol	ltr	10	252.00	2,520.00
24	Kerosene Oil	ltr	10	300.00	3,000.00
Material Day works Carried to forward :					2,496,781.62

THE PRICED BILL OF QUANTITIES

PRP3/C4

VEYANGODA RUWANWELLA ROAD (B445) 12+400 km to 32+200 km

Bill No.	Description	AMOUNT(Rs)
1	Preliminary and General 1 A	326,110,000.00
	Preliminary and General 1 B	15,000,000.00
2	Site Clearing	58,441,525.00
3	Earthworks	784,514,500.00
4	Sub Base, Base & Shoulders	729,612,990.00
5	Surface Application	613,633,400.00
6	Bridges and Culverts	
7	Drainage Construction	84,228,865.00
8	Incidental Construction	70,671,720.00
9	Rigid Pavement	
10	Maintenance of Roads	23,959,560.00
11	PS -Items	45,500,000.00
12	Day works -Labour	863,950.00
	Day works -Equipment	4,839,250.00
	Day Works - Material	2,624,240.00
	Sub Total - 1	2,760,000,000.00
	Provision for Price Escalation - 10% of Sub Total 1	276,000,000.00
	Contingencies at 5% of Sub Total 1	138,000,000.00
	GRAND TOTAL (TENDER PRICE)	3,174,000,000.00

BILL No.1A : PRELIMINARY GENERAL

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
1	108.1(1)	Allow for cost of providing Performance Security	LS	Item	Allow	19,200,000.00
2	108.2(1)	Allow for the cost of providing Insurances	LS	Item	Allow	24,680,000.00
3	108.3(1)	Mobilization of Contractor's facilities and Plant / Equipment	LS	Item	Allow	24,680,000.00
4	108.3(2)	De-Mobilization of Contractor's facilities & Plant / Equipment	LS	Item	Allow	9,880,000.00
5	108.7(1)	Provide and maintain Project sign board	nr	2	300,000.00	600,000.00
6	108.7(2)	Provide and maintain Project Plaques	nr	2	230,000.00	460,000.00
7	118.4(1)	Provide Main office for the Engineer. (1 No)	PS	Item	Allow	9,000,000.00
9	118.4(2)	Provide office for the Employer	PS	Item	Allow	500,000.00
10	118.6(1)	Provide Housing for the Employer	PS	Item	Allow	4,000,000.00
11	118.6(2)	Provide Housing for the Engineer	PS	Item	Allow	4,000,000.00
		Vehicles for the Engineer				
12	118.8(1)	Provide Vehicle Type 1A as specified in appendix 4 of Volume 2	PS	Item	Allow	14,000,000.00
13	118.8(2)	Provide Vehicle Type 1B as specified in appendix 4 of Volume 2	PS	Item	Allow	12,000,000.00
14	118.8(2)	Provide Vehicle Type 2 as specified in appendix 4 of Volume 2	PS	Item	Allow	6,600,000.00
15	118.8(3)	Provide Vehicle Type 3 as specified in appendix 4 of Volume 2	PS	Item	Allow	4,500,000.00
16	118.8(4)	Provide Vehicle Type 4 as specified in appendix 4 of Volume 2	PS	Item	Allow	1,000,000.00
17	118.8(5,6)	Over heads and profit for supply of vehicle Type 1A & B	%		15%	3,900,000.00
18	118.8(6)	Over heads and profit for supply of vehicle Type 2	%		15%	990,000.00
19	118.8(7)	Over heads and profit for supply of vehicle Type 3	%		15%	675,000.00
20	118.8(8)	Over heads and profit for supply of vehicle Type 4	%		15%	150,000.00
		Vehicles for the Employer				
21	118.8(13)	Provide Vehicle Type 1A as specified in appendix 4 of Volume 2	PS	Item	Allow	7,000,000.00
22	118.8(15)	Provide Vehicle Type 2 as specified in appendix 4 of Volume 2	PS	Item	Allow	6,600,000.00
23	118.8(16,17)	Over heads and profit for supply of vehicle Type 1A	%		15%	1,050,000.00
24	118.8(8)	Over heads and profit for supply of vehicle Type 2	%		15%	990,000.00
25	118.9(1)	Provide Main Laboratory	PS	Item	Allow	4,000,000.00
26	118.9(2)	Provide field Laboratory	PS	Item	Allow	2,000,000.00
27	118.9(3)	Provide Equipment for the Main Laboratory	LS	Item	Allow	25,000,000.00
28	118.9(4)	Provide Equipment for the Field Laboratory	LS	Item	Allow	22,000,000.00
29	118.10(1)	Provide and maintain Survey equipment (2 sets)	LS	Item	Allow	7,000,000.00
30	119(1)	Longitudinal and Cross sectional detailing of full pavement width	km	19.77	1,500,000.00	29,655,000.00
	118.5(1)	Supplying & Maintaining all facilities for Engineer 7 Employer including 15% overhead charges	PS	Item	Allow	70,000,000.00
	120(1)	Administrative costs for the Project Management Unit	PS	Item	Allow	10,000,000.00
Bill No. 1A Carried to Summary						326,110,000.00

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BILL No.1B : PRELIMINARY GENERAL

ITEM NO		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
1	103(1)	Management, Safety and Control and Temporary Diversion of Traffic, including provision of a general traffic management plan in accordance with technical specifications clause 112.8 of the general items.	mon	30	480,000	14,400,000.00
2	108.4(1)	Progress Photographs	mon	30	20,000	600,000.00
Bill No. 1B Carried to Summary						15,000,000.00

BILL No.2 : SITE CLEARING

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Bill	Pay					
CLEARING AND GRUBBING						
1	201(1)	Clearing and grubbing	m ²	121,000	95.00	11,495,000.00
Remove trees :						
2	201(2)	- Girth 300 to 600 mm	nr	1,100	4,939.00	5,432,900.00
3	201(2)	- Girth 600 to 1,200 mm	nr	1,500	6,545.00	9,817,500.00
4	201(3)	- Girth 1,200 to 2,000 mm	nr	300	11,900.00	3,570,000.00
5	201(4)	- Girth over 2000 mm	nr	80	23,800.00	1,904,000.00
Remove Branches :						
6	201(5)	- Girth 300 to 600 mm	nr	80	1,071.00	85,680.00
7	201(6)	- Girth 600 to 1,200 mm	nr	50	1,666.00	83,300.00
8	201(7)	- Girth over 1,200 mm	nr	30	2,142.00	64,260.00
Remove Stumps :						
9	201(8)	- Girth 300 to 600 mm	nr	40	4,950.00	198,000.00
10	201(9)	- Girth 600 to 1,200 mm	nr	30	5,177.00	155,310.00
2.2 REMOVAL OF STRUCTURES & OBSTRUCTIONS						
11	202(1)	Dismantle & remove brick masonry structures (Provisional)	m ³	1,300	3,927.00	5,105,100.00
12	202(2)	Dismantle & remove Random Rubble masonry structures (Provisional)	m ³	1,950	3,570.00	6,961,500.00
13	202(3)	Dismantle & remove concrete structures (Provisional)	m ³	385	6,545.00	2,519,825.00
14	202(4)	Dismantle & remove Dress stone masonry structures (Provisional)	m ³	2,550	4,165.00	10,620,750.00
15	202(5)	Remove fencing (Provisional Quantity)	m	300	1,428.00	428,400.00
Bill No.2 Carried to Summary						58,441,525.00

BILL No.3 : EARTH WORKS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Bill	Pay					
3.1		ROADWAY EXCAVATION				
1	301(1)	Roadway excavation , soil suitable for fill	m ³		1,428.00	0.00
2	301(8)	Roadway excavation , soft rock (Provisional Quantity)	m ³	25,688	4,400.00	113,027,200.00
3	301(2)	Roadway excavation , boulders (Provisional Quantity)	m ³	19,150	4,672.00	89,468,800.00
4	301(3)	Roadway excavation, hard rock Normal Blasting. (Provisional Quantity)	m ³	13,253	5,474.00	72,544,185.00
5	301(9)	Roadway excavation, hard rock Control Blasting. (Provisional Quantity)	m ³	19,675	7,140.00	140,479,500.00
7	301(4)	Roadway excavation, unsuitable soil	m ³	31,425	1,547.00	48,614,475.00
9	301(6)	Road Pavement Excavation	m ³	6,000	1,499.00	8,994,000.00
3.2		STRUCTURE EXCAVATION AND BACKFILL				
10	302(1)	Excavation for structures & backfill in suitable soil	m ³	900	2,499.00	2,249,100.00
11	302(2)	Excavation for structures, unsuitable soil and backfill with suitable material	m ³	3,000	4,000.00	12,000,000.00
3.3		EMBANKMENT CONSTRUCTION				
14	304(1)	Trim, level and compact Original gravel	m ²	116,150	143.00	16,609,450.00
15	304(5)	Embankment construction, Type 1	m ³	22,730	3,000.00	68,190,000.00
16	304(6)	Embankment construction, Type 2	m ³	28,595	3,000.00	85,785,000.00
19	304 (4)	Boulder packing for soft ground treatment including geofabric	m ³	17,530	6,528.00	114,435,840.00
3.4		CHANNEL EXCAVATION				
20	307(1)	Channel excavation, suitable soil	m ³	150	1,428.00	214,200.00
21	307(3)	Channel excavation, hard rock (Provisional Quantity)	m ³	790	6,545.00	5,170,550.00
22	307(4)	Channel excavation, unsuitable soil	m ³	4,100	1,642.00	6,732,200.00
Bill No.3 Carried to Summary :						784,514,500.00

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BILL No.4 : SUB BASE, BASES AND SHOULDERS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Bill	Pay					
4.1		GRANULAR PAVEMENT				
1	401(1)	Sub base as compacted in position	m ³	39,500	4,023	158,908,500.00
2	405(1)	Dense graded aggregate base	m ³	52,020	9,500	494,190,000.00
3	408(1)	Scarify and Remove existing bitumen layer	m ²	68,165	214	14,587,310.00
4.2		SHOULDERS				
4	409(1)	Earthen shoulder as compacted in position	m ³	9,530	3,371	32,125,630.00
5	409(2)	Dense graded aggregate shoulder as compacted in position	m ³	3,120	9,500	29,640,000.00
6	409(3)	Trench excavation for cross shoulder drain	m ³	10	4,275	42,750.00
7	1710(1)	Geotextile for cross shoulder drain	m ²	75	1,584	118,800.00
Bill No. 4 Carried to Summary						729,612,990.00

BILL No.5 : SURFACE APPLICATION AND SURFACINGS

5.1		PRIME COAT AND TACK COAT				
1	501(1)	Bituminous Prime Coat using M30 at 1 litre per m ²	m ²	147,800	333	49,217,400.00
2	501(3)	Bituminous Prime Coat using CSS-1 at 1 litre per m ² (PQ)	m ²	50	300	15,000.00
3	501(2)	Extra over For MC30	liter	1,000	333	333,000.00
4	502(1)	Bituminous Tack Coat (Cationic Emulsion grade CRS1 at 0.3 litre/m ²)	m ²	65,000	140	9,100,000.00
5	501(1)	Extra over For CRS1	liter	1,000	170	170,000.00
5.2		BITUMINOUS SURFACING				
6	506(1)	Asphalt concrete in wearing course 50mm compacted thickness	m ²	182,800	3,035	554,798,000.00
7	506(2)	Asphalt concrete in binder/ Correction course	MT		24,990	0.00
Bill No. 5 Carried to Summary						613,633,400.00

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BILL NO: 7 - SUB - DRAINAGE CONSTRUCTIONS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Bill	Pay					
7.1		Concrete				
1	1001(1)	Grade C 15	m ³	50	29,750	1,487,500.00
2	1001 (2)	Grade C 20	m ³	200	33,320	6,664,000.00
3	1001 (3)	Grade C 25	m ³	575	37,485	21,553,875.00
4	1006 (1)	Random rubble masonry(PQ)	m ³		17,850	0.00
5	1006 (2)	plasing 1.3 cement sand mix ,16mm thick(PQ)	m ²		1,690	0.00
7.2		Precast Concrete cover slab				
6	701 (3)	690 x 600 x100mm for drain	m ²	300	10,000	3,000,000.00
7	701 (5)	690 x 600 x125mm for drain	m ²	60	12,500	750,000.00
8	701 (3)	840 x 600 x100mm for drain	m ²	120	10,000	1,200,000.00
9	701 (5)	840 x 600 x125mm for drain	m ²	60	12,500	750,000.00
10	701 (8)	840 x 600 x150mm for drain	m ²	30	13,500	405,000.00
11	701 (8)	1300 x 600 x150mm for drain	m ²	30	15,000	450,000.00
12	1002 (1)	Tor - Steel reaforcement	kg	30,100	333	10,023,300.00
13	1008 (1)	Formwork smoth finish	m ²	8,050	2,975	23,948,750.00
14	1008 (2)	Formwork rough finish	m ²	3,600	2,618	9,424,800.00
7.3		Clearing and Repairing Culverts and Drains				
15	1301(1)	Clearing and reshaping of earth drains	m	5,000	666	3,330,000.00
16	1303(1)	Clearing and Desilting culverts	No	20	62,082	1,241,640.00
TOTAL FOR BILL NO 7 CARRIED FORWARD TO MAIN SUMMARY						84,228,865.00

BILL No.8 : INCIDENTAL WORKS

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Bill	Pay					
8.1		TOP SOILING				
1	801(1)	Furnish, Spread and compact top soil	m ²	1,375	595	818,125.00
8.2		GRASSING				
2	802(1)	Grass sodding	m ²		797	0.00
8.3		RIP RAP PROTECTION FOR EMBANKMENT SLOPES				
3	804(1)	Dumped Rip Rap	m ³	1,375	9,710	13,351,255.00
		GABIONS WALLS AND MATTRESSES USING WIRE BASKETS				
4	805(1)	Gabions	m ³	100	23,800	2,380,000.00
8.4		PAVED SIDE WALKS				
5	409(1)	Supplying, spreading and compacting approved soil	m ³	150	5,908	886,200.00
6		Preparation of sand bed	m ³	40	7,679	307,160.00
7	806(1)	Precast concrete slab (450x450x50mm) paving	m ²	675	4,665	3,148,875.00
8.5		PRE CAST CONCRETE KERBS AND CHANNELS				
8	807(1)	Standard kerb	m		4,300	0.00
9	808(1)	Guard stones	nr	525	6,545	3,436,125.00
10	808(3)	Guard rails for foot walk	m	500	2,500	1,250,000.00
8.6		ROAD MARKING				
		Center line :				
11	810(1)	Continuous	m ²	275	3,570	981,750.00
12	810(2)	Intermittent	m ²	140	3,570	499,800.00
		Edge line :				
13	810(3)	Continuous	m ²	1,160	3,570	4,141,200.00
14	810(4)	Pedestrian crossing	m ²	200	6,694	1,338,800.00
15	810(5)	Road Studs	nr		5,355	0.00
8.7		ROAD SIGNS				
		Reflective road sign :				
16	811(1)	Single pole, sign area up to 0.5m ²	nr	200	21,420	4,284,000.00
17	811(2)	Double pole, sign area up to 2.0m ²	nr	410	41,564	17,041,240.00
18	811(3)	Chevron warning sign	nr	50	8,925	446,250.00
19	811(4)	Flag Type Sign	nr	10	11,994	119,940.00
8.8		CONCRETE KERB INLETS				
20	813(1)	Kerb inlet k1/1	nr		14,280	0.00
8.9		KILOMETRE POSTS				
21	815(1)	Provide ,Install and paint new kilometre post	nr	5	35,700	178,500.00
8.10		SAFETY MEASURES				
22	808(2)	W-Beams (Length and Locations are decided by the Engineer.	m	500	30,125	15,062,500.00
23		Additional Traic Sign Boards and Road Markings or other Safety measures requested by the enginner where necessary	PS	Item	1,000,000	1,000,000.00
Bill No. 8 Carried to Summary						70,671,720.00

BILL No. 10: MAINTENANCE OF ROAD

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Bill	Pay					
MAINTENANCE OF CAGGIAGEWAY						
1	1101(1)	filling pot-holes and patch repairs with Asphalt concrete cold mix (Mc30), 20mm & less in depth	m ²	2,700	1,800	4,860,000.00
2	1101(2)	filling pot-holes and patch repairs with Asphalt concrete cold mix (Mc30), 75mm & less in depth	m ²	4,812	3,800	18,285,600.00
3	1101(3)	filling pot-holes and patch repairs with Asphalt concrete cold mix (Mc30), deeper than 75mm	m ²	180	4,522	813,960.00
4	410(1)	filling pot holes and patch repairs with gravel	m ³		8,168	0.00
Bill No.10 Carried to summary:						23,959,560.00

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BILL No.11 : PROVISIONAL SUMS

ITEM		DESCRIPTION	UNIT	..	RATE	AMOUNT (Rs)
Bill	Pay					
1	103(2)	Temporary by-passes and bailey bridge for culverts, bridges and other structures	PS		Allow	5,000,000.00
2	113.1(1)	Repairs to damages of existing services	PS		Allow	500,000.00
3	113.1(2)	Demolition / Rebuilding of property	PS		Allow	500,000.00
4	117.1(1)	Diversion, protection or removal of electrical services	PS		Allow	16,500,000.00
5	117.1(2)	Diversion, protection or removal of water services	PS		Allow	2,000,000.00
6	117.1(3)	Diversion, protection or removal of telecommunication services	PS		Allow	10,000,000.00
7	703(1)	Grade adjustment of existing manholes	PS		Allow	500,000.00
10		Allow for Contractor's overheads and profit for above Provisional Sum items.	%	35,000,000	30%	10,500,000.00
Bill No. 11 Carried to Summary						45,500,000.00

BILL No.12 : SCHEDULE OF DAY WORKS RATES**12.1 : LABOUR DAY WORKS**

All Quantities are Provisional

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	Surveyor	Hr	100	1,360.00	136,000.00
2	Laboratory Technician (skilled)	Hr	300	716.00	214,800.00
3	Carpenter	Hr	100	286.00	28,600.00
N-0015	Electrician	Hr	50	377.00	18,850.00
4	Mason	Hr	150	286.00	42,900.00
5	Steel Fixer	Hr	200	286.00	57,200.00
6	Semi-skilled workman	Hr	600	251.00	150,600.00
7	Unskilled workman (labourer)	Hr	1,000	215.00	215,000.00
Labour Day works Carried to Summary					863,950.00

BILL No.12 : SCHEDULE OF DAY WORKS RATES**12.2 : EQUIPMENT DAY WORKS**

All Quantities are Provisional

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	Bowser, water, up to 6,000 litres with Spray Bar	Hr	50	1,732.00	86,600.00
2	Backhoe, wheeled, 50 - 100 HP	Hr	100	4,331.00	433,100.00
3	Backhoe, tracked, 50 - 100 HP	Hr	100	4,331.00	433,100.00
4	Motor grader, 120 to 140HP	Hr	50	6,063.00	303,150.00
5	Mobile Crane 25 tonnes	Hr	25	17,322.00	433,050.00
6	Water pump with hoses, 50 to 100 mm outlet	Hr	200	1,732.00	346,400.00
7	Concrete mixer, over 0.50 cu.m.	Hr	100	1,732.00	173,200.00
8	Generator, 10 to 50 KVA	Hr	50	8,661.00	433,050.00
9	Poker Vibrator, petrol driven	Hr	100	433.00	43,300.00
10	Steel-wheeled roller 8 to 10 tonnes	Hr	150	3,850.00	577,500.00
11	Pneumatic-tyed roller ,vibratory, 8 to 10 tonnes	Hr	200	6,520.00	1,304,000.00
12	Hand roller vibratory, 1/2-1 tone	Hr	200	1,210.00	242,000.00
13	Plate compactor, vibratory over 90 kg	Hr	20	715.00	14,300.00
14	Rammer ,mechanical, over 60 kg	Hr	20	825.00	16,500.00
Equipment Day works Carried to forward :					4,839,250.00

12.3 : MATERIAL DAY WORKS

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
1	Aggregate base, dense graded (37.5mm)	m ³	10	4,935.00	49,350.00
2	Asphalt concrete, cold mix	mt	10	15,620.00	156,200.00
3	Asphalt concrete, hot mix	mt	10	18,480.00	184,800.00
4	Bitumen emulsion, (CRS 1, CRS 2, CSS 1)	ltr	10	99.00	990.00
5	Bitumen prime coat, cutback MC	ltr	10	154.00	1,540.00
6	Bitumen, sraight run, 60/70 penetration	ltr	10	132.00	1,320.00
7	Block, cement, 400*200*100mm	nr	10	75.00	750.00
8	Cement, ordinary Portland	mt	10	24,200.00	242,000.00
9	Concrete pipe, reinforced 600mm diameter	m	10	12,100.00	121,000.00
10	Concrete pipe, reinforced 900mm diameter	m	10	19,800.00	198,000.00
11	Concrete pipe, reinforced 1,200mm diameter	m	10	34,100.00	341,000.00
12	Concrete, Grade 15/20	m ³	10	16,300.00	163,000.00
13	Concrete, Grade 20/20	m ³	10	18,150.00	181,500.00
14	Formwork, timber (smooth)	m ²	10	3,557.00	35,570.00
15	Pipe, PVC, 100mm diameter (Type 600)	m	10	3,557.00	35,570.00
16	Reinforcement, high-yield steel, Grade 460/425	kg	10	4,742.00	47,420.00
17	Reinforcement, mild steel, Grade 250	kg	10	17,784.00	177,840.00
18	Rubble, 100 - 150 mm	m ³	10	1,126.00	11,260.00
19	Rubble, 150 - 250 mm	m ³	10	1,186.00	11,860.00
20	River Sand	m ³	10	5,928.00	59,280.00
21	Timber, Class 2, Sri Lanka Timber Corporation	m ³	10	59,989.00	599,990.00
22	Auto diesel	ltr	10	125.00	1,250.00
23	Petrol	ltr	10	165.00	1,650.00
24	Kerosene Oil	ltr	10	110.00	1,100.00
Material Day works Carried to forward :					2,624,240.00

VEYANGODA RUWANWELLA ROAD (B445) Bridges and Culverts

Bill No.	Description	AMOUNT(Rs)
1	Preliminary and General 1 A	Include in Road Work BOQ
	Preliminary and General 1 B	Include in Road Work BOQ
2	Site Clearing	N/A
3	Earthworks	N/A
4	Sub Base, Base & Shoulders	N/A
5	Surface Application	N/A
6	Bridges and Culverts	1,821,688,585.86
7	Drainage Construction	N/A
8	Incidental Construction	N/A
9	Rigid Pavement	N/A
10	Maintenance of Roads	N/A
11	PS -Items	N/A
12	Day works -Labour	Refer Road BOQ
	Day works -Equipment	Refer Road BOQ
	Day Works - Material	Refer Road BOQ
	Sub Total - 1	1,821,688,585.86
	Provision for Price Escalation - 10% of Sub Total 1	182,168,858.59
	Contingencies at 5% of Sub Total 1	91,084,429.29
	GRAND TOTAL (TENDER PRICE)	2,094,941,873.74

BILL No.6 : BRIDGES, CULVERTS AND OTHER STRUCTURES

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
6.1		STRUCTURES -Reconstruction of Bridge 14/2 and 14/3				
		A. REMOVAL OF EXISTING STRUCTURES				
1	202(1b)	Removal and disposal of existing bridge deck, dismantling of steel work, transporting the reusable material to a place within 10km. as directed and stacking the same after completion of the bypass and allowing traffic on the same and demolishing the existing substructure to level specified in the drawing or as directed by the Engineer.	LS	Item		10,000,000.00
2	113.1(2)	Removal and disposal of existing bridge foundation in the area under new foundation.	LS	Item		2,000,000.00
		B. FOUNDATION & SUBSTRUCTURE				
		B. Abutment & Wingwall				
		Clearing & Grubbing				
3	201(1)	Clearing & Grubbing	m ²	230	95	21,850.00
4		Excavation & Backfill				
5	301(1)	Excavation in unclassified soil and backfill for abutments, and wingwalls.	m ³	460	3,749	1,724,540.00
6	302(10)	Construction of necessary cofferdams cribs sheeting, shoring and bracing and their subsequent removal.	LS	Item		8,000,000.00
7	302(7)	Dewatering	LS	Item		8,000,000.00
		Piling				
8	1004(1b)	Provide 300 x 250mm. reinforced concrete sheet piles in Class A Grade 30(20) concrete as per drawing.	m	640	20,000	12,800,000.00
9	1004(2b)	Cast insitu 800mm dia. bored piles in Grade 30(20) concrete inclusive of reinforcement as per drawing for foundations of abutments & wingwalls.	m	454	404,000	183,416,000.00
		(ii) Supplying and pumping of grouting material to the 50mm dia.GI Pipes	m	454	29,750	13,506,500.00
		(iii) Load test(Static or Pile Dynamic Analysis test),	PS			2,000,000.00
10	1004(3a)	Drive 300 x 250mm. reinforced concrete sheet piles as per drawing.	m	640	18,000	11,520,000.00
		Concrete For Structures				
11	1001(3a)	Class C concrete nominal mix 1:3:6(20) as screed under pile cappings of abutments & wingwalls.	m ³	10.2	29,750	303,450.00
12	1001(1a)	Class A concrete of Grade 30(19) in pile cappings of abutments & wingwalls.	m ³	172	47,600	8,187,200.00
13	1001(1c)	Class A concrete of Grade 30(20) in abutments & wingwalls.	m ³	148	47,600	7,044,800.00
14	1001(1c)	Class A concrete of Grade 30(20) in capping beams, ballast walls, curtain walls & bearing pads.	m ³	87.5	47,600	4,165,000.00
15	1001(1c)	Class A concrete of Grade 25(20) in approach slab.	m ³	17	38,080	647,360.00
		Formwork				
16	1008(2)	Rough finish formwork for pile cappings of abutments & wingwalls.	m ²	140	2,618	366,520.00
17	1008(1a)	Smooth finish formwork for abutments & wingwalls	m ²	420	2,975	1,249,500.00
18	1008(1b)	Smooth finish formwork for abutment capping beams, ballast walls, curtain walls, bearing pads and approach slabs.	m ²	300	2,975	892,500.00
		Reinforcement				
19	1002(1b)	Cold worked deformed high yield steel bars of Grade 460 in pile cappings of abutments & wingwalls.	Kg	13000	333	4,329,000.00
20	1002(1a)	Cold worked deformed high yield steel bars of Grade 460 in abutments & wingwalls.	Kg	12500	333	4,162,500.00

BILL No.6 : BRIDGES, CULVERTS AND OTHER STRUCTURES

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
21	1002(1c)	Hot rolled mild steel bars of Grade 250 in bearing pads and approach slabs.	Kg	800	333	266,400.00
22	1002(1d)	Cold worked deformed high yield steel bars of Grade 460 in abutment capping beams, curtain walls, ballast walls, bearing pads and approach slabs.	Kg	8600	333	2,863,800.00
		Weep Holes				
23	706(1)	Forming weep holes in abutments & wingwalls using 110mm dia. P.V.C. pipes and finished smooth with dripledge and surround complete as per drawing.	m	65	3,876	251,940.00
		Drainage Backfill Material				
24	705(1)	50-200mm. dry stone lining behind abutment & wingwalls as per drawing.	m ³	236	7,125	1,681,500.00
25	705(2)	75mm. thick 40mm. stone filter layer behind dry stone lining as per drawing.	m ³	21	7,125	149,625.00
26	705(3)	Clay puddled & laid behind abutments & wingwalls to form the impervious layer as per drawing.	m ²	57	2,850	162,450.00
		C. SUPER STRUCTURE				
27	1003(1)a	Casting, Supplying and stacking type P.S.C beam 10.74m(T/B/506- Using Strands)Long(Excluding transport of beam to site)	nr	40	266,000	10,640,000.00
28		Transport of 10.74m long psc beam to the site (Rate per 1 No. per km distance)	nr	40	1,800	72,000.00
29	1003(2)a	Internal transporting ,launching and centering and centering type PSC beam 10.74m long on bearing pads(including 100km travelling distance to mobile crane)	nr	40	90,000	3,600,000.00
		Concrete For Structures				
30	1001(1c)	Class A concrete of Grade 25(20) in footwalks, footwalk ramps at approaches.	m ³	12	38,080	456,960.00
		Formwork				
31	1008(1b)	Smooth finish formwork on concreting of footwalks & footwalk ramps at approaches.	m ²	20	2,975	59,500.00
		Railings				
32	1022(2)	Supplying & fixing of hand rails & uprights	m	44	9,877	434,588.00
33	1019(1)	End pillasters in Class A concrete of Grade 25(20) with foundation type IV as per drawing No. T/B/513.	nr	8	107,100	856,800.00
		Concrete Kerbs				
34	807(1)	Precast kerb in Class B Grade 25(20) concrete with light reinforcement & mould as per drawing No. T/B/106 Rev. 1	m	60	3,876	232,560.00
		Bridge Bearings				
35	1010(2)	75x12mm. hard rubber bearing pads supplied & laid over corbel for approach slab as per drawing.	m	30	47,880	1,436,400.00
		Expansion joints				
36		25mm Expansion Joint supplied and fixed to deck inclusive of all incidental work required	m	42	26,000	1,092,000.00
		Miscellaneous				
37	1011(1)	20mm Dia. 200mm long hot rolled mild steel dowels supplied fixed and grouted for the approach slab as per drawing.	nr	62	798	49,476.00
38	1014(1)	Bituminous sealing felt under approach slabs at capping beam ends to prevent bitumen running on capping beam as per drawing.	m	30	570	17,100.00
39	806(4)	450x450x50mm. thick paving slab for footwalks at approaches in Class B Grade 25(20) concrete inclusive of light reinforcement and smooth shuttering provided as per drawing.	nr	230	5,700	1,311,000.00

BILL No.6 : BRIDGES, CULVERTS AND OTHER STRUCTURES

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
40	812(1)	12 m high steel lamp post with single arm bracket, supplied & fixed as per drawing. (Drg. No. T/0041/A) This includes installation of electric cables, fixing of lamps and other necessary appliances.	nr	4	800,000	3,200,000.00
D. MISCELLANEOUS STRUCTURES						
41	103(2)	Providing & maintaining of a temporary by-pass to accommodate the traffic flow during the construction, and removing of the same after completion of new bridge.	LS			2,000,000.00
6.2 STRUCTURES -Reconstruction of Bridge(single cell box) 15/2(4.3m)and 18/4(3.5m)						
42	202(1b)	Removal and disposal of existing structure including foundation in the area under new foundation and transporting the reusable material to a place within 10km. as directed and stacking the same after completion of the bypass	LS	Item	Allow	10,000,000.00
B. FOUNDATION & SUBSTRUCTURE						
B. Abutment & Wingwall						
Clearing & Grubbing						
43	201(1)	Clearing & Grubbing	m ²	100	95	9,500.00
Excavation & Backfill						
44	302(1)	Excavation in unclassified soil and backfill for vertical walls, and wingwalls.	m ³	310	3,064	949,840.00
45	302(7)	Preparing of sand bed under the bottom slab as per drawing.	LS	Item		800,000.00
Concrete For Structures						
46	1001(1a)	Concrete of Grade C 15(20) as screed under bottom slab of box Bridge	m ³	1.785	29,750	53,103.75
47	1001(4a)	Concrete of Grade C 30(20) in bottom slab and drop wall of box Bridge	m ³	36.75	47,600	1,749,300.00
48	1001(4b)	Concrete of Grade C 30(20) in vertical walls, wingwalls, corbel for approach slab and approach slab	m ³	84	47,600	3,998,400.00
Formwork						
49	1008(2)	Rough finish formwork for bottom slab and drop wall of box bridge	m ²	56.7	2,508	142,203.60
50	1008(1a)	Smooth finish formwork for vertical walls, wingwalls, corbel for approach slab and approach slab	m ²	367.5	2,975	1,093,312.50
Reinforcement						
51	1002(1a)	Cold worked deformed high yield steel bars of Grade 460 in bottom slab and drop walls of box bridge.	kg	3297	333	1,097,901.00
52	1002(1a)	Cold worked deformed high yield steel bars of Grade 460 in vertical walls, wingwall, corbel for approach slab and approach slab.	kg	6300	333	2,097,900.00
Weep Holes						
53	706(6)	Forming weep holes in vertical wall using 110mm dia. P.V.C pipes and finished smooth with drpledge and surround complete as per drawing	m	18.9	3,876	73,256.40
Drainage backfill material						
54	705(3)	50-200mm dry stone lining behind abutment and wingwalls as per drawing.	m ³	60.9	7,125	433,912.50
55	705(2)	75mm thick 40mm. Stone filter layer behind dry stone lining as per drawing.	m ³	9.45	7,125	67,331.25
56	705(4)	Clay puddled & laid behind abutments & wingwalls to form the impervious layer as per drawing.	m ³	8.4	2,850	23,940.00
Rip Rap Protection						
57	804(1a)	Grouted rip rap filled with 1:3 cement mortar as per drawing	m ³	8.4	31,500	264,600.00
58	804(1b)	construction of apron for scour protection as per drawing	m ³	7.14	33,000	235,620.00
C. SUPER STRUCTURE						

BILL No.6 : BRIDGES, CULVERTS AND OTHER STRUCTURES

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
		Concrete For Structures				
59	1001(4a)	Concrete of Grade C 30(20) in slab of box Bridge	m ³	32.34	47,600	1,539,384.00
60	1001(3a)	Concrete of Grade C 25(20) in footwalks and footwalk ramps	m ³	5.88	38,080	223,910.40
		Formwork				
61	1008(1a)	Smooth finish formwork for top slab concreting of box bridge	m ²	117.6	2,850	335,160.00
62	1008(1b)	Smooth finish formwork on sides for foot walk concreting	m ²	11.76	2,850	33,516.00
		Reinforcement				
63	1002(1a)	Cold worked deformed high yield steel bars of Grade 460 in top slab of box bridge	kg	4368	333	1,454,544.00
64	1002(1a)	Cold worked deformed high yield steel bars of Grade 460 in footwalks	kg	588	333	195,804.00
		Railings				
65	1018(2)	Precast reinforced concrete railing and uprights in Class A Grade 25(20) concrete inclusive of light reinforcement and mould as per drawing .	m	48.3	9,462	457,014.60
66	1019(1)	End pillars in Class A concrete of Grade 25(20) with foundation type V-B as per drawing .	nr	8.4	107,100	899,640.00
		Concrete Kerbs				
67	807(4)	Precast kerb in Class B Grade 25(20) concrete with light reinforcement & mould as per drawing.	m	73.5	3,876	284,886.00
68	807(2)	Lower Kerbs in Class B Grade 20(14) concrete cast insitu as per drawing.	m	73.5	1,824	134,064.00
		Bridge Bearings				
69	1010(1)	75*12mm.hard rubber bearing pads supplied and laid over corbel for approach slab as per drawing.	m	30	47,880	1,436,400.00
		Miscellaneous				
70	1011(1)	20mm Dia. 200mm long hot rolled mild steel dowels supplied fixed and grouted for the approach slab as per drawing.	nr	64	798	51,072.00
71	1014(1)	Bituminous sealing felt under approach slabs at capping beam ends to prevent bitumen running on capping beam as per drawing.	m	30	570	17,100.00
72	1016(1)	Service duct of size 350*230mm formed in deck as per drawing	m	70	4,000	280,000.00
73	1017(1)	500*450*75mm thick cover slabs for service ducts in Class B Grade 25(20)concrete inclusive of light reinforcement and smooth suttering provided as per drawing.	nr	140	5,200	728,000.00
		Guard Stone				
74	808(2)	Precast Concrete Guard stones supplied and fixed as per Drawing	nr	16	6,500	104,000.00
		Tack Coat				
75	502(1)	Medium curing cut back bitumen (10-20%) or emulsified bitumen grade CSS-1 or CSS-1 h tack coat applied at the rate of .5 litres/m2 to concrete deck surface	m ²	126	251	31,600.80
		D. MISCELLANEOUS STRUCTURES				
77	103(2)	Providing & maintaining of a temporary by-pass to accomodate the traffic flow during the construction, and removing of the same after completion of new bridge.	LS	Item	Allow	2,000,000.00
6.3		STRUCTURES -Reconstruction of 12 Nos. Culverts				
302-1		Excavation&Backfill				

BILL No.6 : BRIDGES, CULVERTS AND OTHER STRUCTURES

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
78		Excavation&backfill in suitable soil	m ³			
79	302(2)	Excavation&backfill in unsuitable soil	m ³	1754	3,064	5,374,256.00
		Concrete for Structure				
80	1001(1)	Grade C 15	m ³		29,750	0.00
81	1001(2)	Grade C 20	m ³	297	33,320	9,896,040.00
82	1001(3)	Grade C 25	m ³	130.33	38,080	4,962,966.40
83	1001(5)	Grade C 40	m ³		50,000	0.00
		Reinforcement				
84	1002(1)	Tor Steel reinforcement	kg	10135	333	3,374,955.00
85	1002(3)	Mild Steel reinforcement	kg	800	333	266,400.00
		Formwork				
86	1008(1)	Formwork smooth finish	m ²	2500	2,975	7,437,500.00
87	1008(2)	Formwork rough finish	m ²	461.22	2,618	1,207,473.96
		Weephole				
88	705(1)	100mm crushed stone back fill material	m ³		6,938	0.00
89	705(2)	37.5mm maximum size crushed stone - filter material	m ³	326.4	7,438	2,427,600.00
90	706(1)	Weep hole, 100mm dia. PVC pipe (Type 600)	m	422.4	2,916	1,231,507.20
6.4		CONSTRUCTION OF RETAINING WALLS				
91	302(15)	Excavation in unclassified soil for foundation and backfilling	Cu.m.	3315	3,064	10,157,160.00
92	1008(2)	supplying & fixing 25mm thick planks and struts of class II timber as formwork rough finish, in foundation including removing.	Sq.m		2,975	0.00
93	1008(1)	supplying&fixing smoothing shuttering of class II timber as formwork complete with props etc. for concrete retaining walls/toe walls including removing 25mm thick planks and struts of class 11 timber as formwork.	Sq.m	3000	2,975	8,925,000.00
94	1001(1)	Class B cement concrete nominal mix 1:3:6(37.5mm)	Cu.m.	175	29,750	5,206,250.00
95	1001(3)	Class B cement concrete grade 25(19mm)	Cu.m.	1000	38,080	38,080,000.00
97	706(1)	Forming weep holes in retaining walls using P.V.C. pipes of int. dia. Not less than 75mm complete with dripledge and surround finished smooth.	L.m.	715	2,916	2,084,582.50
98	705(1)	50-200mm aggregate backfilling behind retaining wall/toewalls		3680	6,938	25,530,736.00
99	705(2)	Supplying & packing 75mm thick 40mm stone filter layer behind dry stone lining.	Cu.m.		7,125	0.00
100	1002(1)	Tor steel reinforcement	kg	100000	333	33,300,000.00
6.5		STRUCTURES -Reconstruction of Bridge No. 20/2,25/1,29/4,30/3,30/11,30/13,31/4,20/13,24/9,26/5,27/6,28/7,32/1+ Reconstruction of culverts 164 nos.+RC wall				
	302-1	Excavation&Backfill				
101		Excavation&backfill in suitable soil	m ³		2,583	0.00
102	302(2)	Excavation&backfill in unsuitable soil	m ³	28100	3,064	86,098,400.00
103	302(7)	Dewatering	LS	Item		52,000,000.00
		Concrete for Structure				
104	1001(1)	Grade C 15	m ³	612	29,750	18,207,000.00
105	1001(2)	Grade C 20	m ³	15450	33,320	514,794,000.00

BILL No.6 : BRIDGES, CULVERTS AND OTHER STRUCTURES

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
106	1001(3)	Grade C 25	m ³	2260	38,080	86,060,800.00
107	1001(5)	Grade C 40	m ³	40	50,000	2,000,000.00
		Reinforcement				
108	1002(1)	Tor Steel reinforcement	kg	358125	333	119,255,625.00
109	1002(3)	Mild Steel reinforcement	kg	3000	333	999,000.00
		Rubble work				
110	1006(1)	Random rubble masonry	m ³	10	17,850	178,500.00
		Prestressed Concrete				
111	1003(1)a	Supply of PSC beams(7m long-) T/B-506	Nos.	48	288,000	13,824,000.00
112	1003(2)a	Launching of beams(7m)	Nos.	48	70,000	3,360,000.00
113	1003(1)b	Supply of PSC beams(12.5m long-T/B506)	Nos.	48	407,143	19,542,864.00
114	1003(2)b	Launching of beams(12.5m)	Nos.	48	150,000	7,200,000.00
115	1003(1)c	Supply of PSC beams(16.5m long-T/B506)	Nos.	48	535,715	25,714,320.00
116	1003(2)c	Launching of beams(16.5m)	Nos.	48	200,000	9,600,000.00

BILL No.6 : BRIDGES, CULVERTS AND OTHER STRUCTURES

ITEM		DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT (Rs)
Bill	Pay					
		Formwork				
117	1008(1)	Formwork smooth finish	m ²	30500	2,975	90,737,500.00
118	1008(2)	Formwork rough finish	m ²	5010	2,618	13,116,180.00
		Weephole				
119	705(1)	100mm crushed stone back fill material	m ³	17680	6,938	122,658,536.00
120	705(2)	37.5mm maximum size crushed stone - filler material	m ³	4200	7,438	31,237,500.00
121	706(1)	Weep hole, 100mm dia. PVC pipe (Type 600)	m	11100	2,916	32,362,050.00
		Drain pipes				
122	706(2)	Rainwater outlet/Duts 160mm dia PVC pipe (Type 600)	m	32	4,371	139,872.00
123	706(3)	50mm dia. PVC drain pipes	m	32	1,938	62,016.00
		Expansion joint				
124	1009(1)	Mild Steel angle iron hard rubber Expansion Joint	m	260	11,172	2,904,720.00
		Dowels				
125	1002(3)	20mm Dia 400m long stain less Steel Dowels	Nos	60	1,596	95,760.00
126	1002(3)	20mm Dia 1800mm long hot rolled mild steel dowels driven into bed rock for abutment and wing walls supplied fixed and grouted as per drawing.	Nos	2920	7,182	20,971,440.00
		Bridge Bearings				
127	1001(1)	75mm*12mm hard rubber bearing pad	m	280	47,880	13,406,400.00
		Miscellaneous				
128	1016(1)	Servise duct size 350*200 formed in deck	m	700	3,800	2,660,000.00
129	1017(1)	Cover slab (500*400*75mm)	Nos.	700	5,200	3,640,000.00
130	1013(1)	Bituminous sealing felt under beams	m	300	590	177,000.00
131	1014(1)	Bituminous sealing felt under approach slab	m	100	590	59,000.00
		Kerbs				
132	807(4)	Bridge Kerbs	m	450	3,876	1,744,200.00
133	807(5)	Lower Kerbs	m	100	1,824	182,400.00
		Railing				
134	814(2)	End pilasters	Nos.	26	107,100	2,784,600.00
135	808(1)	Guard stone	Nos.	2125	6,500	13,812,500.00
136	814(1)	Hand Rails and uprights	m	220	9,877	2,172,940.00
Bill No. 6 Carried to Summary						1,821,688,585.86