



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF HIGHWAYS, PORTS & SHIPPING

ROAD DEVELOPMENT AUTHORITY

CONSTRUCTION OF
EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA
TO HAMBANTOTA

SECTION 2 FROM BELIATTA TO WETIYA

CONTRACT AWARDED TO
CHINA STATE CONSTRUCTION ENGINEERING CORPORATION LTD

CIVIL WORK CONTRACT NO: RDA/SEEP/CONT-S2

VOLUME 5

SCOPE OF WORK

PREAMBLE TO THE BILL OF QUANTITIES

PRICED BILL OF QUANTITIES

SEPTEMBER 2014

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SCOPE OF WORKS

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SCOPE OF WORKS

Project Description

The Southern Expressway from Colombo to Matara is being implemented in various stages. The section from Kottawa to Galle is in operation and the section from Galle to Matara (Godagama) is being constructed and will be opened soon. The extension of the expressway from Matara to Hambantota is identified as one of the key components in the development of the road network. The proposed extension has been divided into four sections as given below:

- Section 1 - Matara to Beliatte
- Section 2 - Beliatte to Wetiya
- Section 3 - Wetiya to Andarawewa
This section will be implemented under a separate project namely Hambantota Hub Project
- Section 4 - Mattala to Hambantota via Andarawewa

This project is scheduled to be funded by EXIM Bank of China. This is a fully access controlled expressway approximately 96 km in length. The design speed is 120 km/hr. The formation of road will require cut fill embankment, viaduct and bridges.

The cut embankment will be formed to six lane while fill embankment will be formed to 4 lane in general keeping the option for outer widening to accommodate 6 lane in future. The viaduct and bridges will generally be formed to four lane facility.

This scope of works would cover section 2 from Beliatte to Wetiya in an approximate length of 26km.

Designs

The Contractor is required to carry out the detailed design of the entire works including relevant surveys and investigations. The contractor is also required to carry out the design necessitated in remedying any defects in the works.

The detailed design shall be carried out in accordance with the following and other requirements of the contract.

The Pavement Design shall be based on the following documents:

- Overseas Road Note 31 – Transport Research Laboratory, Fourth Edition, 1993
- A Guide to the Structural Design of Roads under Sri Lankan Conditions – RDA Publication

The Design of Structures shall be based on the following documents:

- Design Code BS 5400
- Bridge Design Manual – RDA Publication 1997

The Geometric Design shall be based on the following documents:

- Austroads -2009 (for Expressway)
- AASHTO-2004 (for Expressway)
- Guide to the Geometric Design of Roads - RDA Publication 1998 (for other than Expressway)

The detailed designs are required to be based on preliminary designs / outline designs / conceptual designs (if any) carried out by the Employer and given in the contract. The detailed design shall include major components such as plan and profile, cross sections, design of interchanges and bridges, over & under passes, drainage facilities, traffic sign and road marking, street lighting system, Design of safety devises & Landscaping, etc. The outcomes of the design, including working drawings, shall have sufficient details in compliance with the contract documents to the satisfaction of the Engineer. The designs require the approval of the Engineer.

Expressway Construction

General features of the project are as follows,

1. Carriageway to accommodate 4 lanes, two lanes per each direction of traffic flow, each lane being 3.6m wide.
2. Centre median to a width of 2.0 m
3. Outer Hard Shoulder to a width of 2.5m and an inner hard shoulder to a width of 0.75m on the carriageways of both directions of traffic.
4. Verges on either side of width 0.75m.

Construction of the expressway will consist of soft ground treatment, clearing or clearing and grubbing, demolition of structures and grading the designated corridor, raising the road to the formation level by forming the embankment, constructing the subbase, base and shoulders to the required thickness and width and constructing the surfacing to the required thickness and width with a binder course and wearing course, using hot mixed asphalt concrete. In addition other major activities involved are Construction of Viaduct, Construction of Interchanges, Construction of underpasses, Construction of overpasses, cut and fill, Construction of bridges, box type underpasses, culverts and drainage, Protection works, Construction of Toll system with related facilities.

Maintenance of Existing Road Facilities Affected by Work

The contractor will be required to generally maintain the road section covered by the Contract and road facilities affected by the work, during the contract to ensure the safety of the public and residents and to ensure 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 and to ensure minimum disruption to flow of traffic to the satisfaction of the Engineer, the Engineer shall be entitled to employ a sub-contractor who shall be treated as a nominated sub contractor to carry out the required works and pay for such work done through the Contract. This shall not relieve the Contractor of any of his obligations under the Contract.

In addition to the above following incidental works are involved:

Guardrails, road signs, marking, lighting, traffic signals, communication optical cable, landscaping, etc.

Relocation of utility (such as electricity and telegraphic) service lines, water supply pipes, and railway facilities (if any).

Investigation & Surveys

The contractor is required to carry out detail investigation and ground surveys necessary for the design.

Other Aspects

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.

Items not Included but Required

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.

Quality Control

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

Environmental Management Action Plan (EMAP)

The contractor will be required to adhere to all environmental requirements outlined in Volume 6 Supplementary Information and Technical Specifications. The actions resulting from the compliance of clauses in EMAP are incidental to the Works and no separate payment will be made.

PREAMBLE TO THE BILL OF QUANTITIES

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Bill of Quantities

PREAMBLE

The Bill of Quantities shall be read in conjunction with the instructions to Bidders, General Conditions of Contract, Appendix to Tender, Bidding Data, General Specifications, Particular Specifications and Drawings.

1. The quantities given in the Bill of Quantities are estimated and provisional, and give to provide a common basis for bidding. The quantities are not to be used by the contractor to order materials. The Contractor will be responsible to assess his own purchasing requirements based on approved Drawings and/or Specifications etc.
2. Measurements will be for the actual quantities of work ordered and carried out, as measured in accordance with these Preambles and the Measurement and Basis of Payment Clauses in the Specifications and the Clauses of the Contract Documents. Measurement will be made using units listed below in these Preambles.
3. Payment will be made in accordance with the Basis of Payment Clauses of the Specifications and the Clauses of the Contract Documents at the unit rates and prices bid for the appropriate pay items in the priced Bill of Quantities, where applicable, otherwise at such rates and prices as the Engineer may fix within the terms of the Contract.
4. Whenever the method of measurement is not clear from the document available, the principles as given in the Civil Engineering Method of Measurement (CEMM-3).
5. The rates and priced tendered in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the Contract, include all constructional plant, labour, supervision, material, erection, maintenance, insurance, overheads, profit, taxes and duties/levies, royalties, together with all general risks, liabilities and obligations (including environmental impact mitigation measures and safety provisions) set out or implied In the Contract.
6. The rates and prices shall be quoted entirely in the Sri Lanka currency of Rupees and Cents.
7. The cost of items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
8. The whole cost of complying with the provisions of the Contract shall be included in the pay items provided in the Bill of Quantities, in accordance with the Method of Measurement, Basis of Payment Clauses of the Specification, and where no pay items are provided the cost shall be deemed to be distributed among the rates and prices entered for the related items Works.

9. General direction and descriptions of works and materials are abbreviated and do not necessarily give the full extent of such works. The Contractor must also refer to the other Contract Documents to satisfy himself as to the full requirements of such works prior to entering rates or prices against each item in the Bill of Quantities.
10. Provisional Sums, included and so designated in the Bill of Quantities shall be expended in whole or in part solely at the direction and discretion of the Engineer in accordance with the Contract.
11. Errors will be corrected by the Employer for any arithmetic errors.
12. Where the determination for payment purposes of the quantity of any item of work depends upon the measurement of existing features or ground levels and the like, then prior to carrying out any operations which might affect such measurement, the Contractor shall first take such levels and measurement as the Engineer may direct and, after the Engineer has had the opportunity to check the same, they shall be certified as agreed by both the Engineer and the Contractor. In the event that the Contractor fails to observe the above procedure, the Engineer shall determine the quantity to be assumed for payment purposes using the best information available to him, and his decision in the matter shall be final.
13. Bidder should visit the site and acquaint themselves with all existing conditions, the nature and extent of work to be done under this contract ascertaining the conditions governing access to the site, the extent of work and accordingly include for, in their prices.
14. Bill No. 100 – Preliminary and General
 - a. Items provided under Bill No. 100 – Preliminary and general are intended to cover all aspects of the works described in Section 1 – General of the Particular Specifications or elsewhere in the Contract Documents in connection with required facilities and services for the Engineer and his Representative's team on site, and any such requirements not directly mentioned in the item descriptions shall be deemed to be included in the items rates as overheads or incidentals.
 - b. Items in Bill No. 100 – Preliminary and General expressed on monthly basis shall be measured using either the actual period of application or the total construction period during which the use of the relevant facilities is required or the maximum Contract Period allowed for in the Contract, whichever, in the opinion of the Engineer, is appropriate. In case the Contract overruns by fault of the Contractor, any extension in time required for the completion of the works shall not be reflected in additional payment months and all facilities shall continue to be provided to the Engineer at the Contractors expenses. Items expressed on monthly basis shall be measured to the neared day. The actual calendar days in any moth shall be used in deciding the fraction.

- c. In the event that a house or office or vehicle is not required for use by the Engineer for any period equal to or greater than one month during the Contract, the Engineer shall notify the Contractor, the respective facility shall be locked or immobilized by the Engineer and payment under the respective provision of services etc. items in the case of housing or mobile office and the respective item for the vehicle that has been immobilized, shall be discontinued for the period the facility is not used.

15. Day works

The rates of labour, equipment & materials in Bill No. 800, Day works shall be for works ordered by the Engineer to be performed under the provisions of the Contract Conditions Clause 13.6 Dayworks. The rates shall be payable only for actual and equipment engaged and shall include all supervision, tools, consumables, overtime premiums, overheads, profits and all other costs. The rates for equipment shall include provisions of driver, operator or attendant. Actual working time of equipment shall not include period when the equipment is idling or is broken down.

The rates for materials shall be the cost of purchase, including any custom duty, freight handling, transportation and all expenses incurred including the transport cost of the material to site. Payments for materials actually used in Dayworks shall be at the unit rates contained in Bill No. 800 and at the percentage rate stated in Appendix to Tender which shall be in respect of all other costs incurred and profit and overhead. **The percentage rate is applicable to the material rate only is not applicable to labour and equipment rates.**

16. Provisional Sum

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

Provisional Sums are represented with 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 provided in the Appendix to Tender on actual amount of provisional sum spent in the Contract.

17. Payment of Lump Sums for Items

Lump Sum items stipulated, 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.

18. Shifting of Utilities.

A Provisional Sum has also been provided in the BOQ to meet the expenses required to be incurred for relocation of the existing utilities. The Contractor has to arrange for the shifting in commensuration with his construction program in detailed PCC clause no. 8.3 by engaging the concerned authorities. The expenses incurred by the respective authorities shall be paid through the Contractor. The Contractor shall be entitled to reimbursement of the actual payments made to the concerned authorities plus the percentage rate mentioned in the Appendix to Tender on the actual cost towards his overhead and profit.

19. The following units of measurement and abbreviations are used in the Bill of Quantities:

UNIT	ABBREVIATION
Lump Sum	sum
Provisional Sum	PS
Number	nr
Hour	hr
Day	d
Month	nth
Hectare	ha
Litre	litre
Metre	m
Square Metre	sq.m
Cubit Metre	cu.m
Kilogramme	kg
Metric Ton	tonne
Cubic Metre Kilometre	km.cu.m

PRICED BILL OF QUANTITIES

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EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA		
Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km (26km)		
		Amount(SLR)
100	Preliminaries and General 100A	1,994,357,953.90
	Preliminaries and General 100B	165,600,000.00
200	Earth Works	20,585,977,510.00
300	Base Course	2,749,426,000.00
400	Pavement	4,645,190,000.00
550A	Minor Structures	1,386,831,276.40
550B	Road and River Bridges	6,712,651,384.70
550D	Concrete Underpasses	578,398,250.00
600	Incidentals Construction	3,936,136,500.00
800	Day works (Labour, Plant, Material)	19,756,125.00
900	Provisional Sum	3,225,675,000.00
	Sub Total - A	46,000,000,000.00
	PS for contingencies (B) - 10%	4,600,000,000.00
	PS for Escalation © - 10%	4,600,000,000.00
	Total Amount	55,200,000,000.00

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA

Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL 100A : PRELIMINARY AND GENERAL					
Item Nr.	Item Description	Pay Unit	Quantity	RATE SLR	AMOUNT SLR
	Mobilization				
103(1)	Mobilization of Contractor's facilities and Plant/ Equipment	LS	Item	150,000,000.00	150,000,000.00
103(2)	De- Mobilization of Contractor's facilities and Plant/ Equipment	LS	Item	38,000,000.00	38,000,000.00
	Insurance & Bonds				
107(1)	Allow for cost of providing Insurances	PS	Item	275,000,000.00	275,000,000.00
107(2)	Allow for cost of providing Performance Security & all other necessary bonds	PS	Item	225,000,000.00	225,000,000.00
	Office for Engineer/ Employer				
101.4(1)	Provide & equip office for Engineer Type A	nr	1.00	45,000,000.00	45,000,000.00
101.4(2)	Provide & equip office for Engineer and Employer Type B	nr	3.00	15,000,000.00	45,000,000.00
101.4(3)	Furnishing Engineer's and Employer's office Type A	nr	1.00	20,000,000.00	20,000,000.00
101.4(4)	Furnishing Engineer's and Employer's offices Type B	nr	3.00	15,000,000.00	45,000,000.00
	Provide Laboratories for Engineer				
101.9(1)	Main testing laboratory	nr	1.00	22,000,000.00	22,000,000.00
101.9(3)	Secondary testing laboratory	nr	2.00	10,000,000.00	20,000,000.00
101.9(1)	Testing laboratory equipment	PS	Item	40,000,000.00	40,000,000.00
	Provide and Maintenance				
110.10(1)	Survey equipment for Engineer	PS	Item	15,000,000.00	15,000,000.00
	Video cameras for Engineer and Employer(if required)	PS	Item	750,000.00	750,000.00
	Computers and printers for Engineer/ Employer (if required)	PS	Item	5,000,000.00	5,000,000.00
	Designs				
106(1)	Investigation , comprehensive design and preparation of drawings for longitudinal and cross sectionals for full pavement width	LS	1.00	387,727,953.90	387,727,953.90
	Administrative costs				
109(1)	Administrative costs for the Project Management Unit	PS	Item	50,000,000.00	50,000,000.00

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EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA

Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL 100A : PRELIMINARY AND GENERAL					
Item Nr.	Item Description	Pay Unit	Quantity	RATE SLR	AMOUNT SLR
110(1)	Maintaining facilities for Engineer & Employer	PS	Item	300,000,000.00	300,000,000.00
	Housing for Engineer				
101.6(1)	Provide & equip housing for Engineer and Employer Type A	nr	2.00	19,000,000.00	38,000,000.00
101.6(2)	Provide & equip housing for Engineer Type A1	nr	1.00	12,000,000.00	12,000,000.00
101.6(3)	Provide & equip housing for Engineer Type B	nr	4.00	10,000,000.00	40,000,000.00
101.6(4)	Furnishing & equipment for Engineers and Employer housing Type A	nr	2.00	4,000,000.00	8,000,000.00
101.6(5)	Furnishing & equipment for Engineers housing Type A1	nr	1.00	3,000,000.00	3,000,000.00
101.6(6)	Furnishing & equipment for Engineers housing Type B	nr	4.00	2,000,000.00	8,000,000.00
	Vehicles for Engineer				
101.8(1)	Provide Vehicle Type 1A (4 wheel Jeep) as specified in appendix 4 of Volume 3	PS	Item	18,000,000.00	18,000,000.00
101.8(2)	Provide Vehicle Type 1B (4 wheel Double Cab) as specified in appendix 4 of Volume 3	PS	Item	90,000,000.00	90,000,000.00
101.8(3)	Provide Vehicle Type 2 as specified in appendix 4 of Volume 3	PS	Item	10,000,000.00	10,000,000.00
101.8(4)	Provide Vehicle Type 3 as specified in appendix 4 of Volume 3	PS	Item	24,000,000.00	24,000,000.00
101.8(5)	Provide Vehicle Type 4 as specified in appendix 4 of Volume 3	PS	Item	4,000,000.00	4,000,000.00
	Vehicles for Employer				
101.8(6)	Provide Vehicle Type 1A (4 wheel Jeep) as specified in appendix 4 of Volume 3	PS	Item	18,000,000.00	18,000,000.00
101.8(7)	Provide Vehicle Type 1B (4 wheel Double Cab) as specified in appendix 4 of Volume 3	PS	Item	10,000,000.00	10,000,000.00
101.8(8)	Provide Vehicle Type 2 (Petrol Car) as specified in appendix 4 of Volume 3	PS	Item	20,000,000.00	20,000,000.00
	Project Sign Board				
102.7(1)	Provide and maintain Project Sign Board	nr	2.00	400,000.00	800,000.00
102.7(2)	Provide and maintain project plaques	nr	2.00	300,000.00	600,000.00
	Progress Photographs for Engineer				
102.8(1)	Progress photographs including video tapes	mth	36.00	180,000.00	6,480,000.00
Total of Bill No:100A Carried to Main Summary					1,994,357,953.90

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA

Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No. 100B: PRELIMINARY & GENERAL					
Item Nr.	Item Description	Pay Unit	Quantity	RATE SLR	AMOUNT SLR
	Traffic Control and Diversions				
1	108(1) Management, Safety control and temporary diversion of traffic, including provision for a general traffic management plan	mth	36.00	2,000,000.00	72,000,000.00
	Care of the Environment				
2	105(1) Compliance with Environmental activities required in addition to contractual obligations	mth	36.00	2,600,000.00	93,600,000.00
Total of Bill No: 100B Carried to Main Summary					165,600,000.00

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA

Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No.200 : EARTH WORK					
Item No	Item Description	Pay Unit	BOQ Qty	Rate	Amount(SLRS)
201	Clearing				
201.001	General clearing	ha.	142	800000.00	113,600,000.00
201.002	Clearing & grubbing	ha.	112	900000.00	100,800,000.00
201.003	Remove trees dia 300mm to 900 mm	nr	6,400	6475.00	41,440,000.00
201.003	Remove trees over dia 900 to 1200mm	nr	2,500	10090.00	25,225,000.00
201.003	Remove trees over dia 1200mm	nr	2,700	14190.00	38,313,000.00
202	Demolish and Remove Buildings, Waterways				
202.001	Building, floor area not exceeding 50sq.m	nr	20	125000.00	2,500,000.00
202.002	Building, floor area 50 - 100sq.m	nr	16	250000.00	4,000,000.00
202.003	Building, floor area 100 - 150sq.m	nr	6	375000.00	2,250,000.00
202.004	Building, floor area 150 - 200sq.m	nr	2	500000.00	1,000,000.00
202.005	Building, floor area 200 - 250sq.m	nr	1	625000.00	625,000.00
202.006	Building, floor area 250 - 300sq.m	nr	2	750000.00	1,500,000.00
202.010	Water well depth up to 3.00m	nr	12	59500.00	714,000.00
202.011	Water well depth 3.00 - 6.00m	nr	4	88850.00	355,400.00
202.012	Water well depth 6.00 - 10.00m	nr	2	133225.00	266,450.00
202.013	Septic tank	nr	16	95750.00	1,532,000.00
202.015	Culverts	nr	4	150000.00	600,000.00
203.000	Dismantling Structures				
203.001	Masonry	cu.m	12,500	5320.00	66,500,000.00
203.002	Concrete	cu.m	2,600	9310.00	24,206,000.00
203.003	Rubble masonry	cu.m	2,500	7690.00	19,225,000.00
207	Excavation and Embankment				
207.001	Stripping & stockpiling top soil	cu.m	35,000	790.00	27,650,000.00
207.002	Unclassified excavation	cu.m	1,205,000	1425.00	1,717,125,000.00
207.003	Excavation rock (to crusher plant)	cu.m	103,000	6980.00	718,940,000.00
207.004	Excavation rock (to embankment)	cu.m	37,675	7860.00	296,125,500.00
207.005a	Excavation unsuitable soil 0 m to 3 m depth	cu.m	382,080	2090.00	798,547,200.00

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA

Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No.200 : EARTH WORK					
Item No	Item Description	Pay Unit	BOQ Qty	Rate	Amount(SLRS)
207.005b	Excavation unsuitable soil 3 m to 6 m depth	cu.m	159,200	2860.00	455,312,000.00
207.005c	Excavation unsuitable soil over 6 m depth	cu.m	95,520	3630.00	346,737,600.00
207.005d	Disposal of excavated unsuitable material beyond 5km from the ROW	cu.m/km	800,000	80.00	64,000,000.00
207.007	Filling with selected material including boulders & RUC4 using ROW Material	cu.m	37,670	5910.00	222,629,700.00
207.007a	Filling with selected material including boulders & RUC4 using Material from borrow	cu.m	105,560	3890.00	410,628,400.00
207.008	Filling with unclassified material using available material within ROW	cu.m	1,308,455	1530.00	2,001,936,150.00
207.008a	Filling with unclassified material from borrow	cu.m	2,850,000	1630.00	4,645,500,000.00
207.009	Geotextile material class B	sq.m	420,000	1070.00	449,400,000.00
207.01	High strength Geotextile 200/50	sq.m	150,000	950.00	142,500,000.00
207.011	High strength Geotextile (600/50)	sq.m	220,000	1800.00	396,000,000.00
211	Borrow Excavation				-
211.001	Unclassified borrow excavation	cu.m	2,850,000	1170.00	3,334,500,000.00
211.002	Rock borrow excavation	cu.m	102,000	6060.00	618,120,000.00
212	Structural Excavation & Filling				-
212.001	Unclassified excavation for drainage structures	cu.m	4,529	3950.00	17,889,550.00
212.002	Unclassified excavation for minor structures (retaining walls)	cu.m	2,336	4100.00	9,577,600.00
212.003	Unsuitable excavation for drainage structures	cu.m	8,000	3550.00	28,400,000.00
212.004	Unsuitable excavation for minor structures (retaining walls)	cu.m	4,000	3650.00	14,600,000.00
212.005	Rock excavation for drainage structures (provisional)	cu.m	500	5510.00	2,755,000.00
212.006	Rock excavation for minor structures (provisional)	cu.m	750	5510.00	4,132,500.00
212.007	Structural backfill for drainage structures (using 0-50 mm aggregate material)	cu.m	6,504	7650.00	49,755,600.00
212.008	Structural backfill for minor structures (retaining walls)(using 0-50 mm aggregate material)	cu.m	1,138	7650.00	8,705,700.00
212.009	Geotextile material class B	sq.m	4,063	1070.00	4,347,410.00

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA

Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No.200 : EARTH WORK					
Item No	Item Description	Pay Unit	BOQ Qty	Rate	Amount(SLRS)
217	Special Rock Fill				-
217.001	Special rock fill 10 mm < 20 mm (provisional)	cu.m	5,000	7950.00	39,750,000.00
217.002	Special rock fill 50 mm < 150 mm (provisional)	cu.m	35,000	7690.00	269,150,000.00
217.003	Fine aggregate filter (provisional)	cu.m	1,000	6510.00	6,510,000.00
217.004	Shot rock	cu.m	500	19150.00	9,575,000.00
218	Slope Protection				-
218.002	Grouted stone pitching	sq.m	17,000	15150.00	257,550,000.00
218.003	Gabion	cu.m	10,500	18750.00	196,875,000.00
218.004	Reno mattress	cu.m	7,000	11750.00	82,250,000.00
218.006	Random rubble masonry	cu.m	34,825	14540.00	506,355,500.00
218.007	Precast concrete facing panel	sq.m	1,350	18000.00	24,300,000.00
218.008	Anchored earth fill	cu.m	9,600	35000.00	336,000,000.00
218.009	Granular backfill	cu.m	2,000	8184.00	16,368,000.00
218.010	Surface ceiling in G 15 (20) concrete, 150 mm thick	sq.m	12,000	3150.00	37,800,000.00
218.011	Grade 20(20) concrete for berm drains, drain, cascade etc.	cu.m	850	23050.00	19,592,500.00
218.012	Sawn formwork	sq.m	76,400	3080.00	235,312,000.00
218.012a	Wrought formwork	sq.m	50,000	3135.00	156,750,000.00
218.013	Reinforcing steel bar	kg	245,000	285.00	69,825,000.00
218.014	L Shaped 16 mm galvanized double tie bar with non- shrink grout in 1.5 m lenght (hole = 150 mm Ø)	nr	2,800	22500.00	63,000,000.00
218.015	16 mm Galvanized rebar with end tightening arrangement and non-shrink grout in 1.5 m length (hole = 100 mm dia)	m	1,200	5500.00	6,600,000.00
218.016	wheep hole with filtering arrangement	nr	11,500	2960.00	34,040,000.00
218.017	Sealing with non-shrink and water proofing cementation mix	litre	n/a		
218.018	Filling with 20/20 concrete	cu.m	18,500	23050.00	426,425,000.00
218.019	Drilling and installing 25 mm L shaped hot dip galvanized dowels (max. 3 m depth)	m	500	23500.00	11,750,000.00
218.020	Fixing of relief drains on cavities where necessary (1 m length)	nr	300	18500.00	5,550,000.00

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA

Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No.200 : EARTH WORK					
Item No	Item Description	Pay Unit	BOQ Qty	Rate	Amount(SLRS)
218.021	Filling and compacting using lateric soil for cavities less than 0.5 m deep	sq.m	1,800	1480.00	2,664,000.00
218.022	Filling with random rubble masonry for cavities larger than 0.5 m deep	cu.m	600	7270.00	4,362,000.00
218.023	Installing dowels on soil	m	500	2800.00	1,400,000.00
218.024	Installing dowels on rock	m	800	4800.00	3,840,000.00
218.025	Layer of porus fabric wrapped in filter fabric drain mat	sq.m	350	2450.00	857,500.00
218.026	Impermeable fabric	sq.m	n/a		
218.027	Fixing of 50 mm dia PVC pipe (length 0.5 m) including necessary drilling weathered rock	nr	150	17100.00	2,565,000.00
218.028	Fixing of relief drain on rock surface	nr	250	21000.00	5,250,000.00
218.029	High yield deformed 25 mm L shaped hot dip galvanized dowels (-1 m) with cementious non-shrink grout (25 N/mm2 at 7 days) including drilling and installation on weathered rock	nr	200	18500.00	3,700,000.00
218.030	High yield deformed 25 mm L shaped hot dip galvanized dowels (-0.6 m) with cementious non-shrink grout (25 N/mm2 at 7 days) including drilling and installation on weathered rock	nr	200	8750.00	1,750,000.00
218.031	Concrete/shotcrete (dry batch) including supplying and installation	sq.m	6,000	10750.00	64,500,000.00
218.032	Wiremesh including installation 100x100x6mm	sq.m	2,400	1450.00	3,480,000.00
218.033	Wiremesh including installation 50x50x3.15mm	sq.m	3,600	1450.00	5,220,000.00
218.034	slope protection using Soil Nailing method	sq.m	14,700	24180.00	355,446,000.00
228	Subgrade Preparation				-
228.001	Compacted subgrade (provisional)	sq.m	291,000	125.00	36,375,000.00
229	Shoulders and Ditches				-
229.001	1.00m wide rounding to shoulder	m	46,000	1100.00	50,600,000.00
229.002	Ditch trimming	m	4,800	350.00	1,680,000.00
240	Cleaning Existing Culverts, Inlets & Manholes				-
240.001	Clean culvert (provisional)	nr	20	11500.00	230,000.00
240.002	Clean inlet (provisional)	nr	12	9750.00	117,000.00

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA
Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No.200 : EARTH WORK					
Item No	Item Description	Pay Unit	BOQ Qty	Rate	Amount(SLRS)
240.003	Clean manhole (provisional)	nr	15	9750.00	146,250.00
Total of Bill No. 200 Carried to Main Summary					20,585,977,510.00

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA
Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No 300 - BASE COURSES					
Item No	Item Description	Pay Unit	BOQ Qty	Rate	Amount (SLRS)
307	Crushed Aggregate Base Course				
307.001	Graded crushed rock base course	cu.m	212,500.00	7980.00	1,695,750,000.00
314	Sub base				
314.001	Granular sub base	cu.m	176,200.00	5980.00	1,053,676,000.00
Total of Bill No. 300 Carried to Main Summary					2,749,426,000.00

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA
Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No. 400 - PAVEMENT					
Item No	Item Description	Pay Unit	BOQ Qty	Rate	Amount (SLRS)
401	Hot Mix Asphalt Base Wearing and Patching & Levelling Courses				
401.001	Hot mix asphalt concrete binder course including bituminous materials	tonne	120,000.00	21,000.00	2,520,000,000.00
401.002	Hot mix asphalt concrete wearing course including bituminous materials	tonne	80,000.00	22,000.00	1,760,000,000.00
408	Tack Coat				
408.001	Tack coat	litre	475,000.00	380.00	180,500,000.00
409	Prime Coat				
409.001	Prime coat	litre	647,000.00	270.00	174,690,000.00
415	Remove Existing Pavement Surface				
415.001	Remove existing pavement surface	PS	1.00	10,000,000.00	10,000,000.00
Total of Bill No. 400 Carried to Main Summary					4,645,190,000.00

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA

Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No. 550A - MINOR STRUCTURES					
Item No	Item Description	Pay Unit	BOQ Qty	Rate	Amount (SLRS)
565	Concrete Work for Pipe and Box Culverts				
	Class 30/20 Concrete				
565.001	Top, bottom slabs, walls, Head walls, apron, toe walls and Wing wall etc	cu.m	8,678.36	27,190.00	235,964,608.40
	Class 25/20 Concrete				
551.002	Structure elements (Tie beams, pier head, abutment, approach slabs and parapet etc)	cu.m	475.00	25,420.00	12,074,500.00
	Class 20/20 Concrete				
551.003	Structure elements (Tie beams, pier head, abutment, approach slabs and parapet etc)	cu.m	2,470.00	23,050.00	56,933,500.00
	Class 15/20 Concrete				
565.004	Blinding	cu.m	860.20	21,000.00	18,064,200.00
	Formwork				
565.005	Wrought formwork	sq.m	22,080.00	3,135.00	69,220,800.00
565.006	Sawn formwork	sq.m	15,511.20	3,080.00	47,774,496.00
	Reinforcing Steel				
565.007	Reinforcing steel bar	kg	1,591,839.20	285.00	453,674,172.00
566	Surface Drainage				
566.001	Surface drainage system for storm water inclusive of pre-cast kerb, catch pit and shoulder paving in asphalt concrete	PS	1.00	20,000,000.00	20,000,000.00
554	Driven Piles - Pile Embankment area				
554.006	400x400mm precast concrete pile for piled embankment.	m	15,600.00	22,000.00	343,200,000.00
554.007	Pile caps to piled embankment including formwork & reinforcement	cu.m	2,150.00	59,500.00	127,925,000.00
554.008	Pile Load test	PS	1.00	2,000,000.00	2,000,000.00
Total of Bill No. 550A Carried to Main Summary					1,386,831,276.40

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA
Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km
BILL No 550 B - ROAD AND RIVER BRIDGES INCLUDING
VIA DUCTS AND OVERPASS - SUMMARY

Bill No.	Description	AMOUNT (SL RS)
200	Earth Works	80,119,729.20
550	Structures	6,428,997,655.50
600	Incidental Construction	203,534,000.00
Total of Bill No. 550B Carried to Main Summary		6,712,651,384.70

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA

Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No 550 B - ROAD AND RIVER BRIDGES INCLUDING VIA DUCTS AND OVER PASS

Item No	Item Description	Pay Unit	BOQ Qty	Rate	Amount (SLRS)
SUB BILL No	200 - EARTHWORK				
212	Structural Excavation including dewatering shoring coffer damping, sheet piling etc				
212.012	Unclassified excavation	cu.m	7,380.00	4,250.00	31,365,000.00
212.013	Unsuitable excavation	cu.m	5,000.00	3,850.00	19,250,000.00
212.014	Rock excavation	cu.m	0,750.00	8,060.00	6,045,000.00
212.017	Structural backfill for structures (using 0-50 mm aggregate material)	cu.m	3,050.68	7,690.00	23,459,729.20
Total of 550B Bill No. 200 Carried to Summary of 550B					80,119,729.20

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA

Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No 550 B - ROAD AND RIVER BRIDGES INCLUDING VIA DUCTS AND OVER PASS

Item No	Item Description	Pay Unit	BOQ Qty	Rate	Amount (SLRS)
SUB BILL No.	550 - STRUCTURE				
551	Structural Concrete				
	Class 40/20 Concrete				
551.001	Decks, cross beams and diaphragms etc	cu.m	5,478.00	30,150.00	165,161,700.00
	Class 30/20 Concrete				
551.002	Structure elements (Tie beams, pile caps, pier, pier head, abutment, approach slabs and parapet etc)	cu.m	21,000.00	27,190.00	570,990,000.00
	Class 15/20 Concrete				
551.008	Blinding	cu.m	261.34	21,000.00	5,488,140.00
	Formwork				
551.009	Wrought formwork	sq.m	25,475.30	3,135.00	79,865,065.50
551.010	Sawn formwork	sq.m	20,000.00	3,080.00	61,600,000.00
552	Reinforcing Steel				-
	Reinforcement in Bridges				-
552.001	Reinforcing steel bar	kg	5,223,030.00	285.00	1,488,563,550.00
553	Prestressed Concrete Members				
	Fabrication of PC post tension-T Girders supplied at site				
553.001	- 30m long type I	nr	30.00	3,880,000.00	116,400,000.00
553.002	- 30m long type II	nr			
553.003	- 25m long	nr	154.00	3,750,000.00	577,500,000.00
553.004	- 20m long	nr	60.00	3,480,000.00	208,800,000.00
	Launching of PC-T Girders in to positions including stressing and grouting of continuous joints				
553.005	- 30m long type I	nr	30.00	1,780,000.00	53,400,000.00
553.006	- 30m long type II	nr			
553.007	- 25m long	nr	154.00	1,600,000.00	246,400,000.00
553.008	- 20m long	nr	60.00	1,500,000.00	90,000,000.00
	Testing of Beams				
553.005	- 30m long type I	nr	2.00	7,475,000.00	14,950,000.00

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA

Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No 550 B - ROAD AND RIVER BRIDGES INCLUDING VIA DUCTS AND OVER PASS.

Item No	Item Description	Pay Unit	BOQ Qty	Rate	Amount (SLRS)
553.006	- 30m long type II	nr		-	-
553.007	- 25m long	nr	2.00	6,975,500.00	13,951,000.00
553.008	- 20m long	nr	1.00	6,432,000.00	6,432,000.00
555	Bearing Devices				
555.001	Elastomeric bearing pads	nr	488.00	110,000.00	53,680,000.00
562	Preformed Elastomeric Joint Sealer				
562.001	Expansion joint	m	710.80	180,000.00	127,944,000.00
554	Piling work				
554.001	Bored Piles 1800mm Dia	m	320.00	442,580.00	141,625,600.00
554.002	Bored Piles 1500mm Dia	m	240.00	377,640.00	90,633,600.00
554.003	Bored Piles 1200mm Dia	m	8,096.00	278,000.00	2,250,688,000.00
	Static Load Testing of Piles				
554.005	Load Testing of 1800mm dia Bored piles to a load of 2200 tonnes	nr	1.00	3,125,000.00	3,125,000.00
554.006	Load Testing of 1500mm dia Bored piles to a load of 1650 tonnes	nr	1.00	2,975,000.00	2,975,000.00
554.007	Load Testing of 1200mm dia Bored piles to a load of 1050 tonnes	nr	5.00	2,875,000.00	14,375,000.00
	Pile Dynamic Analysis Test				
554.009	Load Testing of 1200mm dia Bored piles	nr	18.00	2,200,000.00	39,600,000.00
554.010	Load Testing of 1500mm dia Bored piles	nr	1.00	2,350,000.00	2,350,000.00
554.011	Load Testing of 1800mm dia Bored piles	nr	1.00	2,500,000.00	2,500,000.00
Total of 550B Bill No. 550 Carried to Summary of 550B					6,428,997,655.50

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EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA

Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No.550B - ROAD AND RIVER BRIDGES

Item No	Item Description	Pay Unit	BOQ Qty	Rate	Amount (SLRS)
SUB BILL No	600 - INCIDENTAL CONSTRUCTION				
	Miscellaneous				
600.001	Bridge Catch pit	nr	372.00	30,000.00	11,160,000.00
600.002	Bridge Drainage Pipe PVC Ø200mm	m	5860.00	13,000.00	76,180,000.00
600.003	Bridge mesh fence (Type- 3) Before Highway Bridges	m	16.00	35,000.00	560,000.00
600.004	Bridge Safety Net for Highway Bridge	sq.m.	180.00	11,700.00	2,106,000.00
600.005	Clay Puddle	cu.m	68.00	4,750.00	323,000.00
600.006	P.V.C.. Pipe 75mm dia	m	450.00	3,250.00	1,462,500.00
600.007	Precast Concrete Barrier	m	3620.00	25,000.00	90,500,000.00
600.008	P.V.C.. Pipe 110mm dia(on Bridge)	m	2930.00	7,250.00	21,242,500.00
Total of 550B Bill No. 600-Total Carried to Summary of 550B					203,534,000.00

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EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA
Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No. 550D - CONCRETE UNDERPASSES

Item No	Item Description	Pay Unit	BOQ Qty	Rate	Amount (SLRS)
SUB	200 - EARTHWORK				
BILL No	212 Structural Excavation				
212.024	Unclassified excavation for concrete underpasses	cu.m	4,380.00	4,250.00	18,615,000.00
212.025	Unsuitable excavation for concrete underpasses	cu.m	1,311.00	3,850.00	5,047,350.00
212.026	Rock excavation for concrete underpasses	cu.m	520.00	8,060.00	4,191,200.00
212.027	Structural backfill for concrete underpasses (using 0-50 mm aggregate material)	cu.m	1,710.00	7,690.00	13,149,900.00
	Sub Total				41,003,450.00
551	Reinforced Concrete Underpasses				
	Class 30/20 Concrete				
551.021	Top, bottom, walls, approach slabs, Head walls and toe walls	cu.m	5,500.00	27,190.00	149,545,000.00
	Class 15/20 Concrete				
551.024	Blinding	cu.m	147.00	21,000.00	3,087,000.00
	Formwork				
551.025	Wrought formwork	sq.m	6,250.00	6,000.00	37,500,000.00
551.026	Sawn formwork	sq.m	3,680.00	3,080.00	11,334,400.00
551.027	Water stops to specification clause 708.10	m	592.00	8,500.00	5,032,000.00
552	Reinforcing Steel				
552.001	Reinforcing Steel bar	kg	1,161,040.00	285.00	330,896,400.00
	Carried Forward				578,398,250.00

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA
Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No. 600 - INCIDENTAL CONSTRUCTION

Item No	Item Description	Pay Unit	BOQ Qty	Rate	Amount (SLRS)
604	Pipe Culverts				
	Concrete Pipes				
604.001	Reinforced concrete pipe dia. 450 mm	m	18.00	19,500.00	351,000.00
604.002	Reinforced concrete pipe dia. 600 mm	m	24.00	29,550.00	709,200.00
604.003	Reinforced concrete pipe dia. 900 mm	m	350.00	41,370.00	14,479,500.00
604.005	Reinforced concrete pipe dia. 1,200 mm	m	180.00	95,000.00	17,100,000.00
604.006	Reinforced concrete pipe dia. 1,500 mm	m	12.00	115,750.00	1,389,000.00
	End Sections				
604.007b	450 mm dia (RRM only)	nr	4.00	19,500.00	78,000.00
604.008b	600 mm dia (RRM only)	nr	6.00	25,400.00	152,400.00
604.009b	900 mm dia (RRM only)	nr	40.00	37,800.00	1,512,000.00
604.011 b	1,200 mm dia (RRM only)	nr	20.00	78,000.00	1,560,000.00
604.012b	1,500 mm dia (RRM only)	nr	2.00	101,000.00	202,000.00
	Bedding of Pipes				
604.015	Class C	cu.m	220.00	12,750.00	2,805,000.00
605	Manholes and Inlets				
605.001	Drop inlet 900 x 800 x 1,000 (maximum pipe size 450 mm dia.)	nr	4.00	54,000.00	216,000.00
605.002	Drop inlet 900 x 1,200 x 1,300 (maximum pipe size 600 mm dia.)	nr	8.00	91,750.00	734,000.00
605.003	Drop inlet 900 x 1,300 x 1,400 (maximum pipe size 900 mm dia.)	nr	24.00	143,500.00	3,444,000.00
605.004	Drop inlet 900 x 1,500 x 1,600 (maximum pipe size 1,200 mm dia.)	nr	12.00	178,600.00	2,143,200.00
605.005	Drop inlet 900 x 1,900 x 1,900 (maximum pipe size 1,500 mm dia.)	nr	10.00	204,300.00	2,043,000.00
606	Underdrains				
606.001	150 mm pipe underdrain (provisional)	m	550.00	4,300.00	2,365,000.00
606.002	Fabric lined aggregate underdrains (provisional)	m	900.00	7,690.00	6,921,000.00
606.003	Geocomposite underdrain (provisional)	m	1,500.00	1,170.00	1,755,000.00

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA
Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No. 600 - INCIDENTAL CONSTRUCTION

Item No	Item Description	Pay Unit	BOQ Qty	Rate	Amount (SLRS)
606.004	Pipe edge drain (provisional)	m	1,000.00	1,700.00	1,700,000.00
606.005	Geocomposite edge drain (provisional)	m	1,500.00	2,100.00	3,150,000.00
606.006	Geocomposite drain without pipe (provisional)	m	2,100.00	1,850.00	3,885,000.00
606.007	Geocomposite drain with pipe (provisional)	m	900.00	6,500.00	5,850,000.00
606.008	Underdrain junction boxes (provisional)	m	60.00	123,000.00	7,380,000.00
606.011	Outlet pipe dia. 150 mm (provisional)	m	90.00	7,580.00	682,200.00
606.013	Slope walls to outlet pipes (provisional)	m	10.00	45,600.00	456,000.00
606.015	Underdrain pipe outlets treated with fastening (prov)	m	30.00	87,150.00	2,614,500.00
606.018	Drainage wicks at the bottom of the embankment foundations (provisional)	m	180,000.00	1,100.00	198,000,000.00
606.019	Pre-Construction investigations at wick drain area (static cone, Pieza cone, Bore-Holing, Van shear testing etc or as specified by the Engineer	ps	1.00	6,000,000.00	6,000,000.00
606.020	Post Construction Monitoring of Pore Pressure and Settlement including installation of Piezometers, Toe-stakes, settlement-gauges etc.	ps	1.00	9,000,000.00	9,000,000.00
607	Guardrail (Supply & Installation)				
607.001	Guardrail type 3	m	58,000.00	16,000.00	928,000,000.00
607.002	Guardrail type 3B	nr	18.00	175,000.00	3,150,000.00
607.003	Guardrail type 3D	nr	80.00	60,000.00	4,800,000.00
607.004	Guardrail type 3E	nr	30.00	60,000.00	1,800,000.00
607.005	Guardrail type 3G	nr	24.00	85,000.00	2,040,000.00
607.006	Guardrail type 4	m	350.00	55,000.00	19,250,000.00
607.007	Guardrail type 5	m	24,000.00	25,000.00	600,000,000.00
608	Right of Way Fence				
608.001	Woven wire fence with RC posts	m	52,000.00	12,000.00	624,000,000.00
608.002	Woven wire gate 4.80 m minimum and 6.0 m maximum opening	nr	30.00	80,000.00	2,400,000.00
608.003	Walk gates approximately 1.00 m opening	nr	80.00	53,000.00	4,240,000.00
608.004	Cattle Guard in Steel as per 4/SB/014 & 015	nr	6.00	1,500,000.00	9,000,000.00
609	Wire Rope Safety Barrier				
609.001	Wire rope safety barrier	m	8,000.00	8,750.00	70,000,000.00
651	Furnishing and Placing Topsoil				
651.001	Furnishing and placing topsoil	cu.m	38,000.00	250.00	9,500,000.00

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA
Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No. 600 - INCIDENTAL CONSTRUCTION

Item No	Item Description	Pay Unit	BOQ Qty	Rate	Amount (SLRS)
652	Seeding and Mulching including maintainance				
652.004	Grassing of embankment slope	sq.m	384,000.00	750.00	288,000,000.00
652.005	Slope protection for cut slope upto 15 m in height	sq.m	120,000.00	875.00	105,000,000.00
652.006	Slope protection for cut slope above 15 m in height	sq.m	60,000.00	1,020.00	61,200,000.00
653	Vine (Creeping Plant) and Ground Cover Planting				
653.00	Vines	sq.m	15,000.00	1,900.00	28,500,000.00
653.00	Ground covers	sq.m	24,000.00	1,400.00	33,600,000.00
654	Tree and Shrub Planting				
654.001	Tree	nr	600.00	3,000.00	1,800,000.00
654.002	Shrub	nr	50,000.00	550.00	27,500,000.00
	ROAD TRAFFIC SIGN AND INFOMATIVE SIGNS				
	Traffic Sign				
	Supply and installation of road traffic signs (Includes, Danger Warning Signs,Regulatory Signs, Informative Signs, Direction Symbols, Special Regulation Signs, Route Number Signs, Service Facilities Signs Additional). Rate shall include foundation, 50mm dia, thickness not less than 3mm heavy duty galvanized Iron Post				
657.001	Sign board area up to 0.50 m2	m2	600.00	95,000.00	57,000,000.00
657.002	Sign board area over 0.50 m2 to 1.00 m2	m2	350.00	109,000.00	38,150,000.00
657.003	Sign board area over 1.00 m2	m2	80.00	160,000.00	12,800,000.00
657.004	Sign board area up to 0.50 m2, but without post and fix to the concrete structure with necessary anchored bolts	m2	15.00	75,000.00	1,125,000.00
	Informative Signs				
	Supply and installation of informative road signs (Includes, Advance Direction Signs, Direction Signs, Overhead Mounted Direction Signs, Direction Signs for Expressway, Place Identification Signs, Confirmatory Signs,). Rate shall include foundation, frames and heavy duty galvanized Iron double or more posts with necessary support according to the technical specification requirement				
657.005	Sign board area over 0.50 m2 to 1.00 m2	m2	60.00	299,900.00	17,994,000.00
657.006	Sign board area over 1.00 m2	m2	680.00	399,900.00	271,932,000.00
662	Electrical Work and Roadway Licthithq				
662.001	Cable 4c x 25 mm2 swa/pvc/pvc/cu	m	10,500.00	9,390.00	98,595,000.00

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA
Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No. 600 - INCIDENTAL CONSTRUCTION

Item No	Item Description	Pay Unit	BOQ Qty	Rate	Amount (SLRS)
662.002	Cable 4c x 16 mm ² swa/pvc/pvc/cu	m	2,100.00	6,850.00	14,385,000.00
662.003	Cable 4c x 10 mm ² swa/pvc/pvc/cu	m	700.00	4,850.00	3,395,000.00
662.004	Cable 3c x 10 mm ² pvc/pvc/cu	m	1,160.00	4,250.00	4,930,000.00
662.005	Cable 3c x 6 mm ² pvc/pvc/cu	m	1,500.00	3,650.00	5,475,000.00
662.006	Single arm 12.00 m high steel pole complete with type II or III semi cut off distribution and 250W HP sodium luminary	nr	278.00	385,000.00	107,030,000.00
662.007	Single arm 12.00 m high steel pole complete with type II or III cut off distribution and 250W HP sodium luminary	nr	42.00	435,000.00	18,270,000.00
662.008	Double arm 12.00 m high steel pole complete with type II or III semi cut off distribution and 250W HP sodium luminary	nr	4.00	600,000.00	2,400,000.00
662.009	Double arm 12.00 m high steel pole complete with type II or III cut off distribution and 250W HP sodium luminary	nr	2.00	700,000.00	1,400,000.00
662.01	Feeder pillar	nr	4.00	3,500,000.00	14,000,000.00
662.011	Feeder pillar Underpasses/Bridges	nr	30.00	350,000.00	10,500,000.00
662.012	Underpass lighting with 70 W HP sodium lamp	nr	21.00	251,000.00	5,271,000.00
662.013	Underpass lighting with 36 W twin florescent lamp	nr	65.00	149,000.00	9,685,000.00
662.014	u-PVC duct with concrete encased 2x1 10mm dia. uPVC	m	90.00	15,000.00	1,350,000.00
662.015	u-PVC duct with concrete encased 4x1 10mm dia. uPVC	m	216.00	19,750.00	4,266,000.00
662.016	Manholes for power cables	nr	25.00	235,000.00	5,875,000.00
662.017	Over-ground Junction Boxes (OGJBs)	nr	4.00	97,500.00	390,000.00
663	Pavement Marking				
663.001	Road marking, thermoplastic	sq.m	25,000.00	2,370.00	59,250,000.00
663.003	Reflecting road studs (provisional)	nr	6,100.00	3,490.00	21,289,000.00
663.004	Rumble strip	sq.m	120.00	6,750.00	810,000.00
663.005	Raised median rumble strips	sq.m	250.00	8,750.00	2,187,500.00
663.006	Raised Center Median	m	1,650.00	14,500.00	23,925,000.00
Total of Bill No. 600 Carried to Main Summary					3,936,136,500.00

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EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA
Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No 800 - DAY WORK SUMMARY

		Proponent's
Bill No.	Description	Total Amount (Rs.)
	Labour	1,811,000.00
	Plant	6,550,000.00
	Material	11,395,125.00
Total of Bill No. 800 Carried to Main Summary		19,756,125.00

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA
Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No 800 - SCHEDULE OF DAYWORKS: LABOUR

Item No	Item Description	Pay Unit	BOQ Qty	Proponent's	
				Rate (SLRs)	Amount (SLRs)
801.01	Ganger	hr	500.00	500.00	250,000.00
801.02	General Laborer	hr	1,250.00	400.00	500,000.00
801.03	Carpenter	hr	750.00	500.00	375,000.00
801.04	Mason	hr	625.00	450.00	281,250.00
801.05	Bar Bender	hr	200.00	450.00	90,000.00
801.06	Welder	hr	60.00	450.00	27,000.00
801.07	Mechanic	hr	60.00	700.00	42,000.00
801.08	Electrician	hr	60.00	700.00	42,000.00
801.09	Driver Light Duty	hr	150.00	400.00	60,000.00
801.10	Driver Heavy Duty	hr	175.00	500.00	87,500.00
801.11	Operator	hr	125.00	450.00	56,250.00
Bill No. 800 Daywork Labour total Carried to Bill 800 Day work Summary					1,811,000.00

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA
Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL No 800 - SCHEDULE OF DAYWORKS: PLANT

Item No	Item Description	Pay Unit	BOQ Qty	Proponent's	
				Rate (SLRs)	Amount (SLRs)
802.01	Dump Truck 3.00 ton	hr	75.00	2,500.00	187,500.00
802.02	Cargo Truck 12.00 ton	hr	125.00	3,500.00	437,500.00
802.03	Agricultural Tractor with Trailer	hr	100.00	2,100.00	210,000.00
802.04	Bitumen Distributor	hr	25.00	7,000.00	175,000.00
802.05	Self Propelled Chipping Spreader	hr	37.50	7,000.00	262,500.00
802.06	Prime Mover & 75.00 ton Flat Bed Truck	hr	12.50	18,000.00	225,000.00
802.07	Water Tanker 6,000 litre	hr	37.50	6,000.00	225,000.00
802.08	Bulldozer 100.00 kw	hr	25.00	8,000.00	200,000.00
802.09	Motor Grader 100.00 kw	hr	25.00	8,000.00	200,000.00
802.11	Loader Front End 88.00 kw	hr	25.00	5,500.00	137,500.00
802.12	Loader Backhoe 88.00 hp	hr	20.00	7,500.00	150,000.00
802.13	Excavator 107.00 kw	hr	20.00	8,000.00	160,000.00
802.14	Mobile Crane 25.00 ton	hr	20.00	7,000.00	140,000.00
802.15	Steel Wheel Roller 20.00 ton	hr	12.50	2,000.00	25,000.00
802.16	Hand Push Roller 600 kg	hr	125.00	1,500.00	187,500.00
802.17	Compaction Tamper 60 kg	hr	125.00	800.00	100,000.00
802.18	Rubber Tired Roller 10.00 ton	hr	75.00	5,500.00	412,500.00
802.20	Concrete Mixer 150 litre	hr	75.00	800.00	60,000.00
802.21	Concrete Truck Mixer 8.0 c.y	hr	50.00	10,000.00	500,000.00
802.22	Concrete Pump 30 cu.m/ hr	hr	50.00	15,000.00	750,000.00
802.23	Concrete Vibrator 2 kw	hr	50.00	800.00	40,000.00
802.24	Generator Set 100.0 kw	hr	125.00	3,000.00	375,000.00
802.25	Welding Set Electric	hr	25.00	600.00	15,000.00
802.26	Water Pump dia. 100.00 mm	hr	125.00	4,000.00	500,000.00
802.27	Compressor 375 cfm	hr	125.00	4,000.00	500,000.00
802.29	Vibro Hammer 15.00 kw with Power Unit	hr	25.00	15,000.00	375,000.00
Bill No. 800 Daywork Plant total Carried to Bill 800 Day work Summary					6,550,000.00

EXTENSION OF SOUTHERN EXPRESSWAY FROM MATARA TO HAMBANTHOTA
Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

BILL NR. 800 - SCHEDULE OF DAYWORKS: MATERIALS

Item No	Item Description	Pay Unit	BOQ Qty	Proponent's	
				Rate (SLRs)	Amount (SLRs)
803.01	Cement ordinary	t	0.75	26,000.00	19,500.00
803.02	Cement rapid hardening	t	0.15	30,000.00	4,500.00
803.03	Cement sulphate resisting	t	0.10	50,000.00	5,000.00
803.04	Bitumen 80/100	liter	625.00	195.00	121,875.00
803.05	Bitumen MC 30	liter	750.00	550.00	412,500.00
803.06	Bitumen emulsion CRS - 01	liter	500.00	450.00	225,000.00
803.07	Hot mix asphalt concrete	t	25.00	24,000.00	600,000.00
803.08	Cold mix	t	1.50	19,000.00	28,500.00
803.09	Formwork timber smooth	sq.m	62.50	8,000.00	500,000.00
803.10	Formwork timber rough	sq.m	62.50	3,000.00	187,500.00
803.11	Steel bar reinforcement	kg	250.00	300.00	75,000.00
803.12	Concrete grade 15	cu.m	6.00	25,000.00	150,000.00
803.13	Concrete grade 30	cu.m	25.00	30,000.00	750,000.00
803.14	Concrete grade 35	cu.m	50.00	35,000.00	1,750,000.00
803.15	100 mm Dia. U-Pvc pipe	m	50.00	5,000.00	250,000.00
803.16	150 mm Dia. U-Pvc pipe	m	50.00	9,000.00	450,000.00
803.17	Reinforced concrete pipe dia. 450 mm	m	20.00	6,000.00	120,000.00
803.18	Reinforced concrete pipe dia. 600 mm	m	30.00	8,000.00	240,000.00
803.19	Reinforced concrete pipe dia. 900 mm	m	62.50	12,000.00	750,000.00
803.20	Reinforced concrete pipe dia. 1,000 mm	m	50.00	15,000.00	750,000.00
803.21	Reinforced concrete pipe dia. 1,200 mm	m	37.50	20,000.00	750,000.00
	Sub Total				8,139,375.00
803.24	15% to be added to invoice value of materials not listed above	PS	1,220,906.25	1.00	1,220,906.25
803.25	Extra Over for overhead & Profit 25%	PS	2,034,843.75	1.00	2,034,843.75
Bill No. 800 Daywork Plant total Carried to Bill 800 Day work Summary					11,395,125.00

EXTENSION OF SOUTHEN EXPRESSWAY FROM MATARA TO HAMBANTOTA
Section 2 From Beliatta to Wetiya Ch 30+000 to 56+000 km

Bill No. 900 PROVISIONAL SUM

ITEM		UNIT	QTY	RATE (Rs)	AMOUNT (RS)
	<u>Technical Support</u>				
901.00	Allow for provision of standards/technical literature as required by the Engineer	PS			5,000,000.00
901.00	Tests as required by the Engineer	PS			9,000,000.00
901.00	Diversion, Protection or Removal of Electrical Service	PS			45,000,000.00
901.00	Diversion, Protection or Removal of Water Service	PS			35,000,000.00
901.01	Diversion, Protection or Removal of Telecommunication Service	PS			20,000,000.00
901.01	Landscaping works	PS			100,000,000.00
901.01	Provide temporary accommodation for Engineer's local staff	PS			1,000,000.00
901.01	Temporary vehicles for Engineer/the Employer	PS			200,000.00
901.01	Additional soil investigation	PS			45,000,000.00
901.01	Temporary office for the Engineer (Until supply, max. 5 months)	PS			475,000.00
901.01	Radio Communication system for the Engineer	PS			1,000,000.00
901.01	Instrumentation, monitoring and testing for earthwork	PS			2,000,000.00
901.01	Provide CCTV Monitoring System covering entire length	PS			80,000,000.00
901.01	Provide Emergency Telephone System	PS			75,000,000.00
901.02	Provide Fire Hydrant System	PS			100,000,000.00
901.02	Cost of resettlement works Toll system	PS			500,000,000.00
901.02	Closed Electronic and Manual in compatible with other system	PS			500,000,000.00
901.02	Biological and Electrical Fencing for Elephants	PS			50,000,000.00
901.02	Overseas Training facility for RDA staff	PS			50,000,000.00
901.02	Supply of Vehicles for Operation And Maintenance	PS			300,000,000.00
901.02	Construction of Buildings for Tall boots with Furniture and Equipment	PS			300,000,000.00
901.02	Provision for Semi mountable Kerb	PS			2,000,000.00
901.02	Diversion of streams and irrigation structures	PS			50,000,000.00
901.02	Sub Surface and cross shoulder Drains	PS			575,000,000.00
901.02	Provision for soft ground treatment	PS			350,000,000.00
901-026	Provision of power connection	PS			30,000,000.00
Provisional Sum Total					3,225,675,000.00

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