

Section III. Bills of Quantities

**NEF/23 of 2014
Construction of 12 Housing Units & Associated Infrastructural works to Gros Cailloux
Social Housing Integrated Project**

BILL OF QUANTITIES

SUMMARY		
BILL NO.	DESCRIPTION	AMOUNT IN MAURITIAN RUPEES (MUR)
1	PRELIMINARIES AND GENERAL ITEMS	_____
2	ROADWORKS AND DRAINAGE	_____
3	CONSTRUCTION OF HOUSING UNITS	_____
4	WATER RETICULATION NETWORK	_____
5	STREET LIGHTING	_____
6	SCHEDULE OF RATES	0
SUB TOTAL WORKS		
VALUE ADDED TAX(VAT) @ 15%		
TOTAL		

Price Activity Schedule authorized by :

Signature:

Name:

Position:

Date:

Authorized for and on behalf of:

Company:

Affix seal of Company

CONSTRUCTION OF 12 HOUSING UNITS ASSOCIATED INFRASTRUCTURAL WORKS TO GROS CAILLOUX SOCIAL HOUSING INTEGRATED
PROJECT
NEF/23 of 2014

Item No	Description of Works	Unit	Quantity	Rate (MUR)	Amount (MUR)
Bill No. 1	Preliminaries and General Items				
1.1	Allow for the cost of providing bonds and securities as per contract requirements	Sum			
1.2	Allow for the cost of providing Insurance for the works	Sum			
1.3	Allow for the cost of providing Third Party Insurance	Sum			
1.4	Allow for the cost of facilities to the Employer's and Project Manager's representatives for the proper checking and setting out of the works, examination, testing and measuring, office facility and transportation and the like	Sum			
1.5	Allow for the cost of providing all tools, equipment and the like for the proper conduct and superintendence of the works	Sum			
1.6	Allow for the cost of providing progress photographs during the course of the project	No	50		
1.7	Allow for the supply, erection and dismantling after the taking of works, sign boards as indicated on drawings. Exact Position of fixing to be determined on site	No	2		
1.8	Allow for the costs of carrying out miscellaneous works as directed by the Employer/Project Manager (Provisional Sum)	Sum			600,000
1.9	Allow for the cost of supplying, erecting and maintaining of all necessary offices, stores and associated labour cost not included elsewhere in the contract price. Price to include the implementation and maintenance of all safety measures and environmental management.	Sum			
1.10	The Contractor shall describe hereunder price of other works he may consider have been omitted from the BoQ and for which he desires to enter separate charges. If no charge is made hereunder, the amounts in the BoQ shall be held as covering expenses for such works, obligations or things.	Sum			
Bill No. 1 - Carried to Tender Main Summary					

Item No	Description of Works	Unit	Quantity	Rate (MUR)	Amount (MUR)
Bill No. 2	Roadworks and Drainage				
2.1	Site clearance and grubbing along road width alignment and road reserves	m ²	1200		
2.2	Removal of top soil, organic soil or any soil layers found improper for the works after carrying out laboratory tests	m ³	200		
2.3	Excavate road to sub-grade level, inclusive of levelling and compaction of surface to the specified compaction effort. Rate to included on-site and off site tests.	m ³	400		
2.4	Supply and place imported fill material to form grade surface	m ³	50		
2.5	Extra over for excavation in hard rock material	m ³	80		
2.6	Supply, lay, water and compact to the required compaction effort road base material in broken blue basalt; crusher run (0-31.5mm) as specified. Depth of sub base to be 200mm thick after compaction and to be laid in two compacted layers of 100mm. (Dwg 14/nef/gc/ext/04)	m ²	670		
2.7	Clean base surface and apply prime coat as specified. Rate to include all barricading to roads and rectification of defective or spoilt portions.	m ²	670		
2.8	Supply material, lay and compact wearing course in asphalt concrete material, thickness to be 40mm after compaction (Dwg 13/nef/gc/ext/04)	m ²	670		
	Road kerb				
2.9	Supply, place and join 130mm thick and 330mm high precast road kerb complete with nominal excavation and levelling of ground, supply and placing plain cement concrete base, nominal reinforcement wherever required, to road edges and pedestrian footpath, as shown in drawings. (Dwg 14/nef/gc/ext/04)	m	240		
2.10	Ditto but drain inlets K2 and K4 types at every 3m as shown in drawings. (Dwg 14/nef/gc/ext/04)	m	20		
	Road Furniture				
	Supply all materials and carry out road markings as specified and directed by the Engineer and the Traffic Management and Road Safety Unit of the Ministry of Public Infrastructure. Contractor to provide experience and details of firm if he intends to sub-contract this item of works	Provisional Sum			8,000

Drainage					
2.11	Excavate for drain and culverts to lines and levels along road reserves and as shown on drawings(Dwg 14/nef/gc/ext/04)	m ³	80		
2.12	Supply,place and compact Grade 25 concrete for the construction of reinforced concrete drains. Rate to include for the supply and placing of vertical formwork with smooth type finish and blinding. Reinforcement to be measured separately	m ³	25		
2.14	Supply and place precast reinforced concrete covers to drains as shown in drawings. Rate to include for formwork, on-site and off-site works, transportation and handling.	m	125		
2.15	Construct complete catchpits as shown on drawing inclusive of excavation, blinding concrete, concrete base and walls and cover inclusive of all materials, formwork and blinding.	No	3		
2.16	Construct pedestrian walkway in road reserves (on both sides of the road) in nominally reinforced 100mm concrete structure inclusive of preparation and compaction of surface to receive concrete, reinforcement (A-142 mesh) construction and expansion joints, trowel finish surface and the like.	m	140		
2.17	Supply, cut, bend and fix high yield reinforcement to concrete drains	t	2.6		
2.18	Supply and place to lines and levels 500mmx500mm reinforced concrete precast drains Rate to include for all materials, handling, transportation and storage and for soil compaction and 50mm thick C15 concrete blinding. This is an alternative to the in-situ rc drains. Bidders may quote for full drain length if they intend to provide precast drains. In such cases Items 2.12 and 2.17 should not be priced.	m	10		
Bill No. 2 - Carried to Tender Main Summary					

Item No	Description of Works	Unit	Quantity	Rate (MUR)	Amount (MUR)
Bill No. 3	Construction of Housing Units				
	Reference shall be made to the architectural, structural and M&E drawings provided in the bid document. To assist bidders in their pricing a comprehensive bill for an individual unit is attached to this Bill No. 3. However, bidders shall ascertain themselves on the exact quantities and items for the completeness of their prices. The NEF shall not pay any additional amount in case bidders have omitted any items not found in the attached schedule. All prices and rates shall cover for all materials and labour, transportation, handling, idle time and the like				
3.1	Allow for the cost of providing shop drawings and design notes as specified in the bid document to Project Manager for approval	Sum			
3.2	Allow for the cost of providing samples and test certificates for approval	Sum			
3.3	Supply all materials and construct housing units as shown in drawings	No	12		
3.4	Supply all materials and construct internal boundary wall to all housing units as described in Bill No. 3B and as shown in drawings.	Sum			
3.5	Allow for the cost of clearing the plots of all spoils and debris after completion of works	Sum			
3.6	Allow for the cost of providing all test certificates and compliance certificate for the construction works (Structural, Electrical and Mechanical)	Sum			
3.7	The Contractor shall describe hereunder price of other works he may consider have been omitted from the BoQ and for which he desires to enter separate charges. If no charge is made hereunder, the amounts in the BoQ shall be held as covering expenses for such works, obligations or things.	Sum			
Bill No. 3 - Carried to Tender Main Summary					

Item	Description of works	UNIT	Quantity	Rate (MUR)	Amount (MUR)
Bill No.3A	One Typical Housing Unit				
	SECTION A - SUB-STRUCTURE				
A1.1	Clearing,Grubbing and Removal of Top Soil				
A1.1.1	Clearing and Grubbing	m ²	230		
A1.1.2	Removal of top soil, organic soil or any soil layers	m ²	10		
A1.2	Excavation and Earthworks				
	<i>Excavation in any type of material including rock, hard materials, as described and including bedrock and the like.</i>				
A1.2.1	Depth not exceeding 1.20m	m ³	40		
A1.3	Disposal				
	<u>Excavated Material</u>				
	<i>Selected, containing no stones exceeding 100mm gauge, backfilling and compacting in layers 225mm, as described</i>				
A1.3.1	Backfilling to excavations	m ³	25		
A1.3.2	Removing surplus and storing 1km away from site	m ³	15		
A1.4	Filling				
	<i>Hardcore filling consisting of hard stone of 100mm in size depositing and compacting and finish graded and compacted to receive crusher (m/s) to Project Manager's approval</i>				
A1.4.1	To make up level	m ³	6		
	<i>100mm thick Crusher Graded 0 - 20mm depositing and compacting to Engineer's approval</i>				
A1.4.2	To make up level	m ³	3		
A1.5	Surface treatments				
	Black polythene sheeting, approximate thickness 1.0mm, to act as damp proof membrane	m ²	265		
A1.6	Concrete works				
	<i>Plain in-situ concrete designed mix Grade 15N/mm² 20mm aggregate, as described in</i>				
A1.6.1	50mm thick blinding layer under footing, bases, and the like	m ³	1.5		
	<i>Reinforced concrete work in-situ concrete, design mix Grade 25N/mm², 20mm aggregate vibrated as described in</i>				
A1.6.2	Base of footing	m ³	7.5		
A1.6.3	Column	m ³	0.15		
A1.6.4	Ground beam	m ³	1.7		
A1.6.5	Ground floor slab	m ³	3.5		
	<i>Sawn formwork finish as described, strutting at/from any level and including rebates and grooves formers as described to</i>				
A1.6.6	Base of footing	m ²	16		
A1.6.7	Column	m ²	4		
A1.6.8	Ground beam	m ²	15		
A1.6.9	Ground floor slab	m ²	3		

	<u>Reinforcement bars to MS 10/BS 4449 hot rolled deformed high yield steel, as described</u>				
A1.6.10	Base of footing	Kg	780		
A1.6.11	Column	Kg	25		
A1.6.12	Ground beam	Kg	180		
A1.6.13	Ground Floor Slab	Kg	370		
A1.7	Blockwork and Reinforced Blockwork				
	<u>Hollow concrete blocks to BS 6073 minimum average compressive strength 3.5 N/mm² in cement mortar (1:3) as described and with and including wall ties at juntions as shown on Engineer's drawings</u>				
	Walls				
A1.7.1	150mm thick upto Ground Floor Level	m ²	25		
	SECTION B - SUPER-STRUCTURE				
B1.1	Concrete works				
	<u>Reinforced concrete work in-situ concrete, design mix Grade 25N/mm², 20mm aggregate vibrated as described in</u>				
B1.1.1	Column	m ³	0.5		
B1.1.2	Beam	m ³	9		
B1.1.3	Slab	m ³	4.2		
B1.1.4	Parapet wall	m ³	0.3		
B1.1.5	Windows cill	m ³	0.05		
B1.1.6	Concrete countertop 100mm thick for kitchen	m ³	0.1		
	<u>Sawn formwork finish as described, strutting at/from any level and including rebates and grooves formers as described to</u>				
B1.1.7	Column	m ²	13		
B1.1.8	Beam	m ²	30		
B1.1.9	Slab	m ²	4		
B1.1.10	Parapet Wall	m ²	2.7		
B1.1.11	Windows cill	m ²	0.5		
B1.1.12	Concrete countertop 100mm thick for kitchen	m ²	1.3		
	<u>Reinforcement bars to MS 10/BS 4449 hot rolled deformed high yield steel, as described</u>				
B1.1.13	Column	Kg	60		
B1.1.14	Beam	Kg	920		
B1.1.15	Slab	Kg	430		
B1.1.16	Parapet wall	Kg	25		
B1.1.17	Windows cill	Kg	3		
B1.1.18	Concrete countertop 100mm thick for kitchen	Kg	10		
B1.2	Blockwork and Reinforced Blockwork				
	<u>Hollow concrete blocks to BS 6073 minimum average compressive strength 3.5 N/mm² in cement mortar (1:3) as described and with and including wall ties at juntions as shown on Engineer's drawings</u>				
	Walls				
B1.2.1	150mm thick	m ²	70		
	Partition Walls				
B.1.2.2	100mm thick	m ²	10		

	SECTION C- FINISHES				
C1.1	Rendering				
	<u>Cement and sand (1:3) screed, washed rocksand finish 25mm thick laid to falls and cross falls</u>				
C1.1.1	Floors and the like	m ²	30		
	<u>Cement and sand (1:3) rendering as described, smooth trowelled finish, sponge finish to the following surfaces</u>				
	13mm thick to				
C1.1.2	Wall, columns,beams, slabs, parapet walls and the like	m ²	200		
C1.1.6	Ceilings	m ²	30		
C1.2	Painting				
	<u>Prepare and paint one coat of primer and two full coats of matt emulsion paint to the following internally rendered surfaces. Colour to be white.</u>				
C1.2.1	Wall, columns, beams and the like	m ²	200		
C1.2.2	Ceiling	m ²	30		
	<u>Prepare and paint one coat of primer and two full coats of matt emulsion paint to the following externally rendered surfaces. Colour to be beige.</u>				
C1.2.3	Wall, columns, beams and the like	m ²	200		
	SECTION D - OPENINGS				
	<u>Openings to Housing Units manufactured and installed in accordance with the drawings and specifications, inclusive of frames, glazing, fixings and weather tight sealing and complete with ironmongery. Dimensions shown are clear openings</u>				
D1.1	Windows				
D1.1.1	Powder coated Aluminium frame to suit structural size of 900mm x 1200mm high, with side and top hungs	No.	2		
D1.1.2	Ditto, but size 900mm x 950 mm high	No.	1		
D1.1.3	Ditto, but size 450mm x 450 mm high	No.	2		
	Doors				
D1.1.4	Powder coated Aluminium frame and door to suit structural size of 900 x 2100mm high, with side and top hungs	No.	1		
D1.1.5	Supply and install semi-solid timber door to bedroom with painted finish and with 2 lever lock and handles (UNION or similar). Provide meranti door frame in painted finish. door size 800 x 2100 high	No.	2		
D1.1.6	Ditto, but to toilet and bathroom - size 700 x 2100 high	No.	2		
	SECTION E : ROOF COVERINGS AND RAIN WATER PIPES				
	<u>Rainwater installations, Rigid PVC pipes and fittings to BS4576: Part 1 as described , with socket joints sealed as per manufacturer's specification fixed to columns at 1.20m centres with PVC clips and stainless steel screws and working in projected concrete boxing</u>				
E1.1.1	75mm diameter PVC pipe	m	5		
	<u>Cement and sand (1:3) with plasticiser compound as per manufacturer's instruction to roof screed as described smooth floated finish laid to falls and crossfalls and to slopes and working around roof outlet</u>				
E1.1.2	25mm thick cement and sand mortar roof screed laid to falls and cross falls	m ²	30		

SECTION F: SERVICE INSTALLATIONS AND ACCESSORIES					
F1.1	Sanitary installation				
	<i>Supply and Fix the following sanitary appliances to BS standard which shall be of Type Armitage UK, Vaal, Orbit, Cobra or of similar and acceptable quality to Engineer, complete with all accessories including pipes, stops, flexible pipes and connections and builder's work. Contractor to submit shop drawings to the Engineer for approval, prior to installation.</i>				
F1.1.1	WC to be vitreous china to BS 5303:1990 complete with all fittings and accessories, including 7.5L flushing cistern to BS 7357:1990 in vitreous china	No.	1		
F1.1.2	Wash hand basins in vitreous on pedestal in vitreous china complete with all accessories	No.	1		
F1.1.3	Adjustable Shower heads with stop taps	No.	1		
F1.1.4	Shower floor area to be tiled with antiskid tiles (100x100x5mm)	m ²	1.0		
F1.1.5	Towel bar 850 mm long	No.	1		
F1.1.6	Stainless steel sink, including waste, taps (cobra type) and bottle trap to kitchen unit. Sink to be embedded in concrete top.	No.	1		
F1.2	Electrical works				
	<i>Electrical Works as shown on drawings including testing and commissioning. The complete installation shall meet the specifications as set out in the Latest Edition of the I.E.E "Regulations for the Electrical Equipment of Buildings". Special attention to be paid for the earthing system and safety in general. Prior to commissioning the Contractor shall submit records of all tests as required by I.E.E & Government E.S.D Services.</i>				
	Power Incoming				
F1.2.1	Electric cables	m	20		
F1.2.2	Metering cubicle	No.	1		
F1.2.3	Distribution board	No.	1		
	Low Voltage Distribution				
F1.2.4	Low voltage power cables	m	20		
	Internal Electrical works				
	<i>Supply, installation, test and commission complete with wirings and trunking (20mmx10mm) to housing unit</i>				
F1.2.5	Light points: ceiling	No.	6		
F1.2.6	Single switch points	No.	5		
F1.2.7	Double switch points	No.	1		
F1.2.8	Switch-and- socket outlets	No.	7		
F1.2.9	Electrical junction box	No.	5		
	Internal and External Lighting system				
F1.2.10	25W incandescent light bulbs to ceiling	No.	6		
F1.2.11	2 foot fluorescent tube	No.	1		

F1.3	Plumbing works				
F 1.3.1	Water Supply Works				
	<i>High density polythene pipe minimum 3mm thick wall thickness of pipe to BS Standard with threaded and socketed joints and all associated fittings and ancillaries, to manufacturer's specifications and to Engineer's approval. Rate shall include for forming chases, holes and the like and making good finishes (Quantities all provisional). Contractor to submit shop drawings to Engineer for approval, prior to installation.</i>				
F1.3.1.1	20mm diameter HTA pipe	m	8		
F1.3.1.2	20mm diameter LDPE material	m	8		
F1.3.1.3	Globe Valve	No.	4		
F1.3.1.4	Angle valve for spray tap	No.	1		
F1.3.1.5	Angle valve for WC	No.	1		
F1.3.2	Waste Pipework				
	<i>Rigid PVC pipes to BS Standard jointed in accordance with manufacturer's specification and with including all necessary bends, tees, reducers, end caps and similar fittings. Rate shall include for forming holes, chases, grooves and the like and making good to structure and finishes (Quantities all provisional). Contractor to submit shop drawings to Engineer for approval, prior to installation.</i>				
F1.3.2.1	50mm PVC pipe	m	5		
F1.3.2.2	110mm PVC pipe	m	8		
F1.3.2.3	110mm PVC pan adaptor	No.	1		
F1.3.2.4	75mm PVC pipe for Air Vent	m	4		
F1.3.3	Sundry Items				
	Septic tanks and Absorption pit				
F1.3.3.1	Construct complete septic tank 2,4m x 1.2m x 1.5m liquid depth as shown in dwg 14/nef/gc/ext/19 , inclusive of excavation works, levelling, backfilling and compaction of soil surface.	No.	1		
	<u>OR</u> Supply and place prefabricated fibreglass septic tank having the same capacity mentioned above, inclusive of excavation works, levelling, backfilling and compaction of soil surface.	Sum			
F1.3.3.2	Complete construction of absorption pit 1.5m diameter depth, not exceeding 2.0m in depth, as shown in dwg 14/nef/gc/ext/19 , inclusive of excavation works, levelling, backfilling and compaction of soil surface.	No.	1		
F1.3.3.3	Construct complete absorption pit 500mmx 500mm deep, with 100mm internal walls, to receive rainwater from 75mm PVC pipe, as shown in dwg 14/nef/gc/ext/19 , inclusive of excavation works, levelling, backfilling and compaction of soil surface.	No.	1		
	Manhole and Gully traps				
F1.3.3.4	Construct complete manhole 0.6mx0.6m deep, with 150mm internal walls, as shown in dwg 14/nef/gc/ext/18 , inclusive of excavation works, levelling, backfilling and compaction of soil surface.	No.	1		
F1.3.3.5	Complete complete gully traps, as shown in dwg 14/nef/gc/ext/18 , inclusive of excavation works, levelling, backfilling and compaction of soil surface.	No.	2		

	Water Tank				
F1.3.3.6	Supply,install and place 700 litres roof water tank in fibre glass. Rate to include for all piping systems, fittings and fixing accessories to water tank and of water tank to roof slab.	No.	1		
Bill No. 3A- Carried to Item 3.3 in Rate Column					
Bill No.3B	Section G : INTERNAL BOUNDARY WALL FOR ALL 12 HOUSING UNITS				
G1.1.1	Clear site along alignment of internal boundary wall	m ²	100		
G1.1.2	Excavate for foundation for strip footing to lines and levels as shown in 14/nef/gc/ext/17 .Rate to include for compaction of soil to 95% BS heavy,part backfilling and part cart away to spoil.	m ³	70		
G1.1.3	Supply and place 50mm thick lean mix concrete blinding in grade 15 concrete for blinding surface to foundation.	m ³	10		
G1.1.4	Supply, cut, bend and fix high steel reinforcement to footing,copings.	t	2		
G1.1.5	Supply and place Grade 25 concrete to strip footings, inclusive of formwork, supports and the like	m ³	25		
G1.1.6	Supply, lay and joint 150mm thick block to form internal blockwork, inclusive of infilled concrete block with Grade 25 Concrete at positions of Galvanised Iron poles.	m ²	25		
G1.1.7	Supply all materials to 13mm thick render on both faces of the blockwall protruding overground.Finish to be sponge type finish.	m ²	150		
G1.1.8	Supply all materials and construct boundary wall with chain link fencing 1.05m wide complete with Galvanised Iron poles, strainer wires and the like	m	350		
Bill No. 3B - Carried to Item 3.4 in Rate Column					

Item No	Description of Works	Unit	Quantity	Rate (MUR)	Amount (MUR)
Bill No. 4	Water Reticulation Network				
4.1	Excavate trench for water works to lines and levels as shown on drawing. Rate to include for part backfilling and part cart away to spoil and for depth not exceeding 1.5m.	m ³	100		
4.2	Extra over for excavation in rock materials	m ³	20		
4.3	Supply, lay and compact granular bedding material (0-6mm) to receive 63mm water pipe up to half barrel as shown in drawing	m	135		
4.4	Ditto but size 0-12 over pipe as shown in drawing.	m	135		
4.5	Supply, lay joint, disinfect and test to the required pressure 63mm dia. HDPE pipe complete with couplers and electrofusion pipe preparation, tools accessories and the like. Contractor to submit complete fittings schedule of water network prior to placing order. Rate to include for administrative charges, disinfection exercise and tests from CWA laboratory and disinfection tests reports.	m	135		
4.6	Supply, place and connect all materials for 50mm dia. single orifice air release valves as shown in drawings. Rate to include for construction of chambers, frames and covers	No	2		
4.7	Ditto but to fire hydrant	No	1		
4.8	Supply material, lay, joint, test and disinfect 20mm dia LDPE material for individual house connections complete with saddle/ferrule tapping, 37mm dia sleeve surrounded by 50mm thick crushed basalt stone 0-6mm underneath road for road crossing and LDPE pipe with galvanized end cap and extending 1.0m beyond individual plot as shown in drawing	No	4		
4.9	Ditto but for connection to individual plots not requiring road crossing	No	8		
4.10	Supply and place marker posts to valves and hydrants complete with nominal excavation and nominally reinforced concrete works, white painting of post with royal blue lettering.	No	3		
Bill No. 4 - Carried to Tender Main Summary					

Item No	Description of Works	Unit	Quantity	Rate (MUR)	Amount (MUR)
Bill No. 5	Street Lighting to housing units				
	<i>Bill relates to the supply and fixing and lanterns and lamps on wooden poles on site. Based on Sample approved by District Council Contractor to provide shop drawings from layout to Project Manager prior to construction. All rates to include for handling charges, freight, transportation, labour, equipment, tools, idle time, storage, replace of defective parts prior to commissioning and the like.</i>				
5.1	Supply and place street lanterns complete with galvanised brackets to wooden pole as per approved sample and drawings	No	4		
5.2	Supply and fix 60 W LED type street lamp as per approved sample.	No	4		
5.3	Supply and place aerial twisted cables to supply power to street lanterns, complete with connections. This item may be carried out by the CEB. (Provisional)	m	400		
5.4	Allow for the cost of final connection to the CEB line, testing and commissioning to the satisfaction of the District Council. This is a provisional item as the CEB may wish to perform this task.	Provisional Sum			25,000
Bill No. 5 - Carried to Tender Main Summary					

Item No	Description of Works	Unit	Quantity	Rate (MUR)	Amount(MUR)
Bill No. 6	Schedule of rates				
	Equipment				
6.1	Tractor D 4 with dozer	h	1		0
6.2	Tractor D 6 with dozer	h	1		0
6.3	Tractor D 8 with dozer and ripper	h	1		0
6.4	Scraper 12 – 15 m ³	h	1		0
6.5	Traxcavator 3 – 4 m ³	h	1		0
6.6	Power grader min. 120HP	h	1		0
6.7	Tandem, roller 6 – 8 Ton	h	1		0
6.8	Tandem 10 – 12 Ton	h	1		0
6.9	Tandem roller 10 -15 Ton	h	1		0
6.10	Self – propelled vibrating roller 3 –	h	1		0
6.11	Hand propelled vibrating roller	h	1		0
6.12	Concrete mixer with wgt batcher	h	1		0
6.13	Poker vibrator	h	1		0
6.14	Bitumen sprayer 4500 litres	h	1		0
6.15	Asphalt Paver	h	1		0
6.16	Compressor with tools	h	1		0
6.17	2 ton dumper	h	1		0
6.18	Lorry with service platform	h	1		0
6.19	Water distributor (bowser)	h	1		0
6.20	Agricultural tractor and trailer	h	1		0
6.21	Cutting equipment	h	1		0
6.22	5hp pump and motor	h	1		0
6.23	1 ton pickup truck	h	1		0
6.24	7 ton tipper truck	h	1		0
6.25	11 ton tipper truck	h	1		0
6.26	8 ton mobile crane	h	1		0
6.27	Welding equipment	h	1		0
6.28	Generator – 5 kVA	h	1		0
	Labour				0
6.29	Leading hand artisan	h	1		0
6.30	Mason,carpenter,plumbers grade I	h	1		0
6.31	Mason,carpenter,plumbers grade II	h	1		0
6.32	Bar bender grade I	h	1		0
6.33	Bar bender superior grade	h	1		0
6.34	Unskilled worker	h	1		0
	Materials				0
6.35	Portland cement	Ton	1		0
6.36	Cut – back MC 30	Ton	1		0
6.37	Cut – back RC 250	Ton	1		0
6.38	Mild steel reinforcement	kg	1		0
6.39	High tensile steel reinforcement	kg	1		0
6.40	Timber for shuttering	m ³	1		0
6.41	Crusher run 0/31.5	m ³	1		0
6.42	Coarse aggregate for concrete	m ³	1		0
6.43	Sand or fine aggregate	m ³	1		0
6.44	Aggregate for bituminous surface t	m ³	1		0
6.45	Bituminous concrete for wearing c	Ton	1		0
6.46	Bituminous concrete for base cour	Ton	1		0
6.47	Cold laid asphalt	Ton	1		0
6.48	Concrete class 15	m ³	1		0
6.49	Concrete class 25	m ³	1		0