



COUNTY GOVERNMENT OF SIAYA

**DEPARTMENT OF AGRICULTURE, FOOD SECURITY, LIVESTOCK
AND BLUE ECONOMY**

SPECIFICATIONS AND BILLS OF QUANTITIES

**SIRIWO ENHANCED RICE PROCESSING AND MARKETING
IN USONGA WARD – SIAYA COUNTY**

**FUNDED BY THE GOVERNMENT OF KENYA, WORLD BANK
AND
THE COUNTY GOVERNMENT OF SIAYA**

JANUARY 2026

GENERAL SUMMARY

ITEM	DESCRIPTION	PAGE NO.	AMOUNT (K.SHS)
1	SECTION NO.01 - PRELIMINARY ITEMS/WORKS	PAGE 1/3	
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GRAND TOTAL CARRIED TO FORM OF TENDER			

Amount in words.....

.....

.....

Tenderers signature and stamp.....

Address.....

Date.....

Witness Name.....

Signature.....

Address.....

Date.....

PREAMBLES

1. The Bill Of Quantities shall be read in conjunction with the instructions to bidders, General and particular conditions of technical specifications and drawings
2. The quantities given in the BOQ are estimated and provisional and are given to provide a common basis for bidding. The basis for payment will be the actual quantities of work ordered and carried out, as measured by the contractor and verified by the engineer and valued at the rates and process bid in the priced BOQ, where applicable and otherwise at such rates and prices as the engineer may fix within the terms of the contract.
3. The rates and prices bid in the priced BOQ shall except, insofar as it is otherwise provided under the contract, include all constructional plant, labour, supervision, materials, erection, maintenance, insurance, profit, taxes, and duties, together with general risks, liabilities, and obligations set out or implied in the contract.
4. A rate of price shall be entered against each item in the priced BOQ, whether quantities are stated or not. 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 BOQ.
5. The whole cost of complying with the provisions of the contract shall be included in the items provided in the priced BOQ, and where no items are provided, the costs shall be deemed to be distributed among the rates and prices entered for the related item of work
6. General directions and descriptions of work and materials are neither necessarily repeated nor summarized in the BOQ. References to the relevant sections of the contract documentation shall be made before entering prices against each item in the priced BOQ.
7. Provisional sums included and so designated in the BOQ shall be expended in whole or in part at the direction and discretion of the engineer in accordance with subclauses 13.4 and 13.5 of the general conditions except with respect to DAAB fees and expenses from which no instruction will be required from the engineer
8. The method of measurement of completed work for payment shall be Admeasurement in accordance with ICE conditions of contract measurement clauses.

SECTION 01 - PRELIMINARY ITEMS/WORKS

ITEM	DESCRIPTION	K.SHS	
	<u>PARTICULAR PRELIMINARIES</u>		
A	SITE RESTORATION The Contractor shall remove all temporary works, rubbish, debris and surplus materials from the site as they accumulate and upon completion of the works, remove and clear away all plant, equipment, rubbish, unused materials and stains and leave in a clean and tidy state to the reasonable satisfaction of the Project Manager. The whole of the works shall be delivered up clean, complete and in perfect condition in every respect to the satisfaction of the Project Manager.		Section 1.9
B	SIGNBOARD Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away a signboard as designed, specified and approved by the Project Manager.		Section 1.6
C	SECURITY The Contractor shall allow for providing adequate security for the works and the workers in the course of execution of this contract. No claim will be entertained from the Contractor for not maintaining adequate security for both the works and workers.		Section 1.7
PARTICULAR PRELIMINARIES CARRIED TO GRAND SUMMARY			

SIRIWO ENHANCED RICE PROCESSING AND MARKETING

ITEM	DESCRIPTION	K.SHS	
	<u>GENERAL PRELIMINARIES</u>		
A	STORAGE OF MATERIALS The Contractor shall provide at his own risk and cost where directed on the site weather proof lock-up sheds and make good damaged or disturbed surfaces upon completion to the satisfaction of the PROJECT MANAGER Nominated Sub-Contractors are to be made liable for the cost of any storage accommodation provided especially for their use.		Section 1.1
B	SAMPLES The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER, may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the Ministry of Public Works. The procedure for submitting samples of materials for testing and the method of marking for identification shall be as laid down by the PROJECT MANAGER. The Contractor shall allow in his tender for such samples and tests except those in connection with nominated sub-contractors' work.		Section 1.3
C	ACCESS TO SITE AND TEMPORARY ROADS. Means of access to the Site shall be agreed with the PROJECT MANAGER prior to commencement of the work and Contractor must allow for building any necessary temporary access roads for the transport of the materials, plant and workmen as may be required for the complete execution of the works including the provision of temporary culverts, crossings, bridges, or any other means of gaining access to the Site. Upon completion of the works, the Contractor shall remove such temporary access roads; temporary culverts, bridges, etc., and make good and reinstate all works and surfaces disturbed to the satisfaction of the PROJECT MANAGER		Section 1.1
C	WATER AND ELECTRICITY SUPPLY FOR THE WORKS The Contractor shall provide at his own risk and cost all necessary water, electric light and power required for use in the works. The Contractor must make his own arrangements for connection to the nearest suitable water main and for metering the water used. He must also provide temporary tanks and meters as required at his own cost and clear away when no longer required and make good on completion to the entire satisfaction of the PROJECT MANAGER. The Contractor shall pay all charges in connection herewith. No guarantee is given or implied that sufficient water will be available from mains and the Contractor must make his own arrangements for augmenting this supply at his own cost. Nominated Sub-contractors are to be made liable for the cost of any water or electric current used and for any installation provided especially for their own use.		Section 1.8
D	REMOVAL OF RUBBISH ETC. Removal of rubbish and debris from the Buildings and site as it accumulates and at the completion of the works and remove all plant, scaffolding and unused materials at completion.		Section 1.9
E	WORKS TO BE DELIVERED UP CLEAN Clean and flush all gutters, rainwater and waste pipes, manholes and drains, wash (except where such treatment might cause damage) and clean all floors, sanitary fittings, glass inside and outside and any other parts of the works and remove all marks, blemishes, stains and defects from joinery, fittings and decorated surfaces generally, polish door furniture and bright parts of metalwork and leave the whole of the buildings watertight, clean, perfect and fit for occupation to the approval of the PROJECT MANAGER		Section 1.9
F	HOARDING The Contractor shall enclose the site or part of the works under construction with a hoarding 2400mm high consisting of iron sheets on 100 x 50mm timber posts firmly secured at 1800mm centres with two 75 x 50mm timber rails for a total length of approximately five hundred meters. The Contractor is in addition required to take all precautions necessary for the safe custody of the works, materials, plant, public and Employer's property on the site.		Section 1.7
TOTAL FOR GENERAL PRELIMINARIES CARRIED TO GRAND SUMMARY			

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ITEM	DESCRIPTION	K.SHS	
A	<u>SPECIAL PRELIMINARIES</u> PROJECT ESIA DOCUMENTATION		
C	ENGAGEMENT OF ADJUDICATOR Allow a Provisional Sum for engagement of a professional adjudicator for conflict resolution during project Implementation		
SPECIAL PRELIMINARIES CARRIED TO GRAND SUMMARY			
ITEM	DESCRIPTION	K.SHS	
	<u>COLLECTION FOR PRELIMINARIES</u> TOTAL FOR PARTICULAR PRELIMS B/F TOTAL FOR GENERAL PRELIMS B/F TOTAL FOR SPECIAL PRELIMS B/F		
TOTAL FOR PRELIMINARIES CARRIED TO GRAND SUMMARY			

SECTION NO.02 - TYPICAL 2NO. STORES (PRODUCT AND CURING STORES)

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT	SPECS REF
	<u>1NO. TYPICAL STORE</u>					
	<u>ELEMENT NO. 01</u>					
	<u>SUB-STRUCTURE WORKS (All Provisional)</u>					
	<u>NOTE: This elements include all works upto & including the ground floor slab</u>					
	<u>Site Clearence & Earthworks</u>					
A	Clear site of all vegetation, small trees n.e 600mm girth, scrubs and undergrowth; grub up roots and including disposing appropriately or as directed	430	SM			Section 2.4
B	Excavate oversite to remove vegetable soil average 150mm deep and remove away from site	388	SM			Section 2.6-2.8
C	Excavate to reduce levels average 300mm deep starting from stripped levels	95	CM			Section 2.6-2.8
D	Excavate foundation trenches and not exceeding 1.5m deep and deposit on site	74	CM			Section 2.6 - 2.8
E	Excavate pit for column bases not exceeding 1.5m deep starting from the reduced level	34	CM			Section 2.6 - 2.8
F	Cart away excavated materials to spoil heap 25mtrs away from site	178	CM			Section 2.8
G	Fill in and ram murrum around foundation	28	CM			Section 2.10
H	500mm thick hardcore filling spread, levelled & compacted	214	CM			Section 2.10
J	50mm thick murrum blinding to hardcore surface	298	SM			Section 2.10
	<u>Anti-termite Treatment</u>					
K	Treat surface of blinded hardcore with approved anti-termite treatment	298	SM			Section 2.13
	<u>Damp Proofing</u>					
L	500 gauge polythene sheets laid on prepared bed ready to receive concrete floor slab (m.s)	298	SM			Section 2.14
	<u>Concrete Work</u>					
	<u>In situ mass concrete class 15 (19mm aggregates): vibrated to:</u>					
M	50mm blinding under strip foundation	82	SM			Section 3.55
N	Ditto under columns bases/pads	20	SM			Section 3.55
	<u>In situ concrete class 25 (20mm aggregates): vibrated reinforced to:</u>					
P	200mm thick ground slab	74	CM			Section 3.1 & 3.29
Q	Column bases/pads	23	CM			Section 3.1& 3.29
R	Ditto to stub columns; upto dwarf wall height	12	CM			Section 3.1& 3.29
S	Strip footings and ground beams	32	CM			Section 3.1
T	Concrete access ramps 5.2m wide; finished with rough concrete screeding on surfaces	6	CM			Section 3.1
CARRIED TO COLLECTION						

SIRIWO ENHANCED RICE PROCESSING AND MARKETING

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT	SPECS REF
A	<u>Foundation walling</u> <u>Rough dressed natural stones: in c/s mortar</u> 200mm Thick walls; and reinforced with 20 guage hoop iron wall ties at every alternate courses	146	SM			Section 3.4
B	<u>High yield deformed bars to B.S.4449: including bends, hooks and tying wire</u> D-16mm re-bars	885	KG			Section 3.34-3.42
C	D-12mm re-bars	1387	KG			Section 3.34-3.42
D	D-10mm re-bars	1078	KG			Section 3.34-3.42
E	D-8mm re-bars	1436	KG			Section 3.34-3.42
F	<u>Mesh fabric reinforcement to B.S 4483 B.R.C A142 weighing 2.22KG/M2</u> Floor beds with 200mm end laps	298	SM			Section 3.35
G	<u>Expansion Joints</u> 25mm thick flexell in expansion joint	65	SM			Section 3.12 & 3.56
H	25 x 12mm mastic sealant	124	LM			Section 3.12 & 3.56
J	<u>Sawn formwork: one coat approved retarding agent: to</u> Vertical sides of column bases	44	SM			Section 3.47 - 3.49
K	Ditto to sub-columns; upto dwarf wall height	56	SM			Section 3.47 - 3.49
L	Ditto to strip footing/ground beams	98	SM			Section 3.47 - 3.49
M	Edges of floor slab exceeding 75mm but n.e 150mm high	83	LM			Section 3.47 - 3.49
N	15mm thick cement/sand mortar render to plinth area	32	SM			Section 9.3
P	Prepare and apply two coats of first grade Bituminous paint to rendered plinth	32	SM			Section 9.9
Q	<u>Paving slabs</u> 1.2m wide p.c.c class 20/20; 600x600x50mm thick slabs laid on & including excavations and 50mm consolidated bed of sand; jointed and pointed in c/s mortar	124	SM			Section 9.24
CARRIED TO COLLECTION						
	COLLECTION FOR SUB-STRUCTURES Brought forward from pg 1/2 from pg above					
TOTAL ELEMENT NO. 1 - SUB-STRUCTURES CARRIED TO SECTIONAL SUMMARY						

SIRIWO ENHANCED RICE PROCESSING AND MARKETING

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT	SPECS REF
ELEMENT NO. 2 - SUPER-STRUCTURE WORKS						
<u>H/I-Section Steel Columns/Beams/Roof Supports: All in steel works to Str. Eng's details; all in two coats chromate primer paint (Provisional)</u>						
A	Provide for preparation of detailed workshop fabrication drawings for the steel works under this contract (2-sets of drawings to be submitted for approvals) illustrations, schedules, samples and progress photos	1	L/Sum			Section 7.6
B	Fabricate & assemble in 75 x 75 x 6mm SHS stanchions including welding & bolting	118	LM			Section 7.1-7.9
C	Ditto 300 x 600 x 8mm thick base plate connections; 6No. M16 bolts grade 08mm fillet weld	28	NO			Section 7.1-7.9
D	Ditto but H-Section 203 x 133 x 25mm; Columns	156	LM			Section 7.1-7.9
E	Ditto in roof rafters 203 x 133 x 25mm	178	LM			Section 7.1-7.9
F	Fabricate with bolt holes weld 203 x 150 x 8mm M12 bolts bolted on all joints surfaces	32	NO			Section 7.1-7.9
G	Ditto 150 x 150 x 8mm thick connection plate, CP1	44	NO			Section 7.1-7.9
H	200mm thick fairly dressed stone walling; bedded in cement /mortar 1:3 and reinforced with medium gauge hoop-iron at 2 alternating courses	98	SM			Section 4.8
J	200mm wide; B.S.743 T-A bitumen hessian base 150mm laps (no allowance made for laps); horizontal, 1 no. layer, bedded in cement sand (1:3) mortar	58	LM			Section 4.13 & 9.8
K	100 x 75 x 8mm thick high yield R.H.S sections bracings; bolted to steel columns and trusses	446	LM			Section 7.1-7.9
L	20mm dia. steel strainers bolted to roof purlins at intervals	72	LM			Section 7.1-7.9
M	100 x 75 x 3mm thick high yield steel Z-Purlins; spaced and welded to trusses @ 1000mm centres	548	LM			Section 7.1-7.9
N	225mm wide x 3mm plate welded to steel columns in an slanting /overlapping parttern forming p.v; c/w gauze wire all round and above doors	112	SM			Section 7.1-7.9
P	28G IT5 Box profiled walls/roof cover fixed with rubber washer match and J-bolts on 100 x 75 x 2mm Z-purlins (m/s) Galsheet or equal and approved	788	SM			Section 5.1
Q	Ditto ridge cap	25	LM			Section 5.1
R	225 x 3mm galvanized fascia/barge boards; soldier-jointed	60	LM			Section 5.1
S	Knot, prime and stop: prepare and apply three coats gloss oil paint to isolated surfaces of fascias; girth 200-300mm	54	LM			Section 11.38
26 gauge galvanized iron:						
T	150 x 100 x 150mm boxed gutter: soldier-jointed at straight joints and fixed with metal brackets at 1000mm (minimum) centres; c/w primer paint to steel surfaces	46	LM			Section 5.2
<u>Extra over gutters for:</u>						
U	closed ends	4	NO			Section 5.2
V	spigot outlets	4	NO			Section 5.2
W	75mm diameter downpipes	38	LM			Section 5.2
<u>Extra over downpipe for:</u>						
X	swan neck	4	NO			Section 5.2
Y	horse-shoe end	4	NO			Section 5.2
Z	Supply and install 10,000ltrs approved PVC tank c/w base and accessories	1	NO			Section 5.2
TOTAL ELEMENT NO. 2 - SUPER-STRUCTURES CARRIED TO SECTIONAL SUMMARY						

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ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT	SPECS REF
	<u>ELEMENT NO. 3</u>					
	<u>DOORS & WINDOWS</u>					
	<u>Sliding doors</u>					
A	Fabricate and install 5000 x 4000mm high first grade steel plate double sliding doors c/w all accessories	2	NO			Section 8.8
B	Purpose made steel plate door size 900 x 2400mm high; comprising 50 x 50 x 4mm RHS framing, middle rails and 2mm thick plate; c/w all iron-mongery and accessories	1	NO			Section 8.8
C	Purpose made steel window size 1500 x 1200mm high; 50 x 50 x 4mm RHS framing, 4mm thick glasses; c/w all iron-mongery and accessories	1	NO			Section 8.9
D	Prepare and apply three coats of gloss paint to steel door surfaces	72	SM			Section 11.4
TOTAL ELEMENT NO. 3 - DOORS/WINDOWS CARRIED TO SECTIONAL SUMMARY						

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ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT	SPECS REF
	<u>ELEMENT NO. 4</u>					
	<u>FINISHING WORKS</u>					
	<u>Lime gauged plaster as described</u>					
A	12mm thick gauged plaster cement sand lime with a smooth float to internal surfaces of walls	102	SM			Section 9.3
B	Vertical and horizontal wall pointing to external surfaces of protective walls; with bituminous paint to keys; to architect's approval	62	SM			Section 9.3
C	Prepare and apply three coats of emulsion paint to plastered wall surfaces	102	SM			Section 9.3
	<u>Floor finishes</u>					
	<u>Internally</u>					
D	Apply 30mm thick c/s floor screed backing to receive Terrazzo and floor finishes appropriate falls and cross-falls (m.s)	298	SM			Section 9.3
E	Apply 33mm thick polished Terrazzo finish with & including plastic dividing strips at approved intervals finished smooth to appropriate falls and cross-falls	298	SM			Section 9.3
F	E.o for carborandum insert	216	LM			Section 9.3
	<u>Externally to ramps</u>					
G	40mm thick 2-coats hardened/rich concrete screed; one layer of chicken wire to be laid and mixing to be of curry dust, sand and cement; to be finished smooth to appropriate falls and cross-falls; jointed surfaces	42	SM			Section 9.3
TOTAL ELEMENT NO. 4 - FINISHES CARRIED TO SECTIONAL SUMMARY						

SECTIONAL SUMMARY

ITEM	DESCRIPTION	RATE	AMOUNT	
1	TOTAL FOR SUB-STRUCTURES			
2	TOTAL FOR SUPER-STRUCTURES			
3	TOTAL FOR DOORS & WINDOWS			
4	TOTAL FOR FINISHES WORKS			
TOTAL FOR 1NO. TYPICAL STORES				
	X2NO. STORES			
TOTAL 2NO. STORES (CURING & PRODUCT STORES) TO CARRIED TO GENERAL SUMMARY				

SECTION NO.03 - SOLARIZATION OF SIRIWO RICE MILL

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT	
	<u>Rates inclusive of Taxes</u>					
	<u>SCHEDULE NO.1: PRELIMINARIES AND GENERAL ITEMS</u>					
1	Preparation of detailed working drawings for the PV solar power generation system under this contract (3-sets of drawing to be submitted after approval) illustrations, schedules, product data, brochures, samples and progress photos	1	Item			Section 14.2
2	Trainings of the client's maintenance personnel in all aspects of operation and maintenance of the various project component	1	Item			Section 14.3
3	Identification and labelling of installations on completion of the works as per the specifications	1	Item			Section 14.1
4	Deliver all works up clean and restore all disrupted surfaces at site					Section 14.12
	Sub-Total 1					
	SCHEDULE NO 2: BQ FOR SOLAR PV INSTALLATION					
	Solar PV Panels					
1.01	(1722X11134X30)mm 550W mono Crystalline panels with roof mounting provision and integral 4.0mm2 as per the specifications or approved equivalent	200	NO			Section 14.3
	Hybrid grid-tied inverter Charger					
1.02	Supply and Install 50Kw 48V Hybrid inverter charger as per the specifications; to p.m's approvals	3	No			Section 14.5
	Interconnecting Cables					
1.03	Supply, install ALL necessary cables,interconnecting cables between the panels,inverter, control cables complete with accessories and supply cable from solar plant to consumer boxes as per working drawings for proper functionality of the solar system	1	Item			Section 14.6
	Earthing					
1.04	Supply and install Earthing of DC and AC installation at the busbar chambers; comprising of 25sq.mm SC PVC insulated copper cable from the roof to copper earth electrode of size 1200mm long x 15mm diameter enclosed by a concrete manhole of size 300x300x200mm with removal cover	1	No			Section 14.7
	Roof mounting Structure					
1.05	Supply and install Roof mounting aluminium for solar panels structure for 550W panels complete with clamps and screws	1	Item			Section 14.4
	Solar PV Accessories & Associated Electrical Works					
1.06	Supply and Install System Control and monitoring device or equivalent and approved complete with cabling	1	No			Section 14.8
1.07	Supply and Install 400A 4P Automatic Transfer Switch as specified or approved equivalent	1	No			Section 14.8
1.08	Supply and install Surge protection Device (SPD) 1000VDC,40KA	2	No			Section 14.8
1.09	Supply and install 63A SP MCB complete with enclosure	2	No			Section 14.8
1.1	Supply and install 100A 4-way distribution board	1	No			Section 14.8
1.2	Supply and install 20A DC fuses/MCB complete with enclosure	6	No			Section 14.8
1.3	Supply and Install 2pole 250A DC Battery disconnecter complete with fuses	2	No			Section 14.8

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	Con'td				
1.4	Supply and install 8 input DC Combiner box	1	No		Section 14.8
	Power cable				
1.5	Supply and installation of 10mm-3core armoured cable for connection of Building Distribution Board to the solar power room	50	Lm		Section 14.6
1.6	Purchase of inverter and Generator cage	1	sum		Section 14.11
	Testing & Commissioning				
1.7	Provide for any extras for installation, testing & commissioning for the entire PV solar power installation		Item		Section 14.13
	Generator				
1.8	Supply & install a 50KVA generator including all its accessories	1	No		Section 14.11
	Sub-Total 2				
	Sub-Total 1 B/F				
	TOTALS (1 + 2)				
GRAND TOTAL FOR SOLARIZATION CARRIED TO GENERAL SUMMARY					

SECTION 4 - ELECTRICAL INSTALLATIONS

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT	
	<u>TYPICAL STORES ELECTRICAL WORKS</u>					
	<u>Rates Inclusive of Taxes</u>					
	Supply, install, test & commission of the following;					
A	LIGHTING POINTS					Section 13.8
1.00	Lighting point wired in 3×1.5mm ² single core PVC cables drawn in 20mm heavy gauge conduits concealed in walls and floors for;					
	a) One way switching	0	No			
	b) Two way switching	15	No			Section 13.8
	c) unswitched	6	No			Section 13.8
B	<u>LIGHTING FITTINGS.</u>					
1.01	10Amp concealed Screw Ivory Switch Plates flush mounted on walls as specified or approved equivalent.					
	a) 1 gang 1 way	0	No			
	b) 1gang 2 way	0	No			
	c) 2gang 1 way	0	No			
	d) 2gang 2 way	2	No			Section 13.7 & 13.8
	Light Fittings complete with all accessories and lamps as follows:					Section 13.7 & 13.8
	e) 1200mm SmartBright waterproof LED Batten fitting complete with 50 watts Essential LED tube as specified or approved equivalent	10	No			Section 13.7 & 13.8
	f) 600mm SmartBright LED Batten fitting complete with 18 watts Essential LED tube as specified or approved equivalent	1	No			Section 13.7 & 13.8
	g) 20W, rectangular LED floodlight IP 65, 5250lm 4000K, 30000Hrs lifetime complete with photocell as specified or equal and approved equivalent	5	No			Section 13.7 & 13.8
	g) 50W, rectangular LED floodlight IP 65, 5250lm 4000K, 30000Hrs lifetime complete with photocell as specified or equal and approved equivalent	4	No			Section 13.7 & 13.8
	Supply, install, test and commission the following :-					
C	SOCKET OUTLET AND POWER POINTS					
1.02	13A twin Socket Outlet Points wired in 3 x 2.5 mm ² SC PVC insulated CU cables drawn in 25 mm Ø HG PVC conduits /Trunking concealed in building fabric complete with all the necessary accessories excluding socket outlet plate	2	No			Section 13.7 & 13.8
1.03	13A twin socket outlets as specified or approved equivalent.	2	No			Section 13.7 & 13.8
D	CONSUMER UNIT					
1.04	6-way 100A SPN consumer unit flush mounted complete with 100 A SPN integral isolator and lockable cover and all accessories excluding MCBs as specified or approved equivalent	1	No			Section 13.7 & 13.8
1.05	The following MCBs as specified or approved equivalent for item above.					Section 13.7
	i)10A SP MCB	2	No			Section 13.7
	ii)32A SP MCB	1	No			Section 13.7
	iii)Blanking Plate	1	No			Section 13.7

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E	Cont'd					
	POWER CONNECTION TO THE BUILDING					
	a) Trenching and backfilling	18	Lm			Section 13.11
	b) Lay 3x4mm ² armoured cable from existing power source and buried 600mm deep trenching	18	Lm			Section 13.11
	LIGHTNING PROTECTION					Section 13.10
	25mmx3mm copper tape including copper saddles at 1500mm intervals and bonding to water tanks and other metal work on the roof , all as specified	18	LM			
	Copper air terminations (lightning arrestors) inclusive of base clamp and all fixing materials as specified	2	No.			Section 13.10
	Test clamp as specified	2	No.			Section 13.10
	<u>EARTHING.</u>					
	Earthing, for item above, comprising of the following and any other necessary accessories:-					
	a) 12.5 mm x 1200 mm earth rod; cat. No. RB 105.	2	No.			Section 13.10
	b) 12.5 mm dia. Driving stud; cat.No. ST100.	2	No.			Section 13.10
	c) Rod to cable clamp; cat. No. CR510.	2	No.			Section 13.10
	d) Concrete inspection pit; cat. No. PT005 (or a well made 320mm x 320mm x 210 mm depth pit)	2	No.			Section 13.10
	e) 25mmx3mm copper tape	10	Lm			Section 13.10
	Provide for fire detection and alarm systems					Section 13.15
	TOTAL FOR 1NO. TYPICAL STORE					
	X 2NO.TYPICAL STORES	2				
	SUB-TOTAL FOR ELECTRICAL WORKS TO STORES					
TOTAL FOR ELECTRICAL WORKS CARRIED TO GENERAL SUMMARY						