

PROPOSED STUDENT WELFARE CENTRE FOR UVA WELLASSA UNIVERSITY- BADULLA

BILL OF QUANTITIES

MAIN SUMMARY

Bill No	DESCRIPTION	AMOUNT	
		Rs	Cts
1	PRELIMINARIES		
	<u>LAND PREPARATION</u>		
2	DEMOLISHING		
3	LAND LEVELLING		
	<u>CONSTRUCTION OF BUILDING</u>		
4	CIVIL WORKS - SUBSTRUCTURE		
5	CIVIL WORKS - SUPERSTRUCTURE		
6	WATER SUPPLY & DRAINAGE WORKS		
7	ELECTRICAL WORKS		
	<u>EXTERNAL WORKS</u>		
8	LANDSCAPING & EXTERNAL DRAINAGE SYSTEM		
9	RETAINING WALL & RAMP		
Sub Total - I			
Less Provisional Sums		13,040,000.00	
Sub Total - II			
Less Discount If Any			
Sub Total - III			
Add Provisional Sums		(13,040,000.00)	
Total Sum Carried to Form of Bid (Sub Total - IV)			
Add 15% VAT			
Grand Total (Inclusive of VAT)			

Total tender sum(Excluding VAT) in words:-Rupees.....
only.

Tenderer's VAT Registration Number :-.....

.....
 Signature of Tenderer

Date :-.....

Name & Address of Tenderer

.....

PROPOSED STUDENT WELFARE CENTRE FOR UVA WELLASSA UNIVERSITY - BADULLA

BILL OF QUANTITIES

BILL NO 01- PRELIMINARIES

Note:

- 1 The Engineer/ Consultant may modify or amended any item , or delete inappropriate item/s or add new item/s , depending on the nature of the proposed work.
- 2 Mode of payment are as below.

Mode of Payment	Category
Reimbursement of actual cost on submission of the relevant document acceptable to the Engineer plus 5% of the actual cost of obtaining the insurance policies and Securities.	A
60% on completion of temporary buildings or structures. 30% in equal installments over the contract period and balance 10% on dismantling and removal on completion.	C
Paid on satisfactory completion of the item	D
In equal installments over the contract period.	E
Mode of payment to be mutually agreed between contractor and the employer at the commencement of contract in relation to the program of work.	F
On the completion of work	G

- 3 The above recommended percentage may be adjusted by the Employer/Consultant to suit the particular project.
- 4 The tenderer is advised to visit the site of the proposed work, as it is his responsibility to ascertain the conditions, governing access to the site, external working space, storage area, status of the adjoining properties etc.

Item	Description	Mode of payment	Unit	Amount Rs. Cts.
	<u>A - PRELIMINARIES</u>			
	Insurance & Securities			
1	Provisional Sum for providing a Performance Security	A	P.S	100,000.00

Item	Description	Mode of payment	Unit	Amount Rs. Cts.
2	Provisional Sum for providing an Advance Payment Security	A	P.S	335,000.00
3	Provisional Sum for insurance of Works, Machinery & Equipment, Plant, Materials, third party persons & property at site as per the Contract.	A	P.S	100,000.00
4	Provisional Sum for insurance against accidents and injury to Contractor's personel as per the Contract.	A	P.S	100,000.00
Engineer's Facilities				
5	Allow lump sum for constructing, maintaining, dismantalling and removal on completion of the Works, a temporary building for Engineer's office including toilets with all necessary facilities in conformity with the plans provided for Engineer's requirements, including necessary furniture and fittings, furnishing, sanitary facilities and other facilities. (List facilities required)	C	Item	
Contractor's Facilities				
6	Allow lump sum for constructing, maintaining, dismantling and removal on completion of the Works, a <u>temporary site office</u> of adequate size including staff rest room and toilets and other facilities for the Contractor's site management staff in accordance with the plans prepared by the Contractor and concurred by the Engineer.	C	Item	
7	Allow lump sump for employing a licensed land surveyor to define the building site work etc., check levels.	D	Item	

Item	Description	Mode of payment	Unit	Amount Rs. Cts.
8	Provide service & maintaining for contractors site office (getting Telephone, Electricity & water supply connection and fax & email).	D	Item	
9	Allow lump sum for giving notices, obtaining permits & payment of fee in compliance with the requirements of government, local authority or other public authority.	E	Item	
10	<p>Construction Management and Supervision</p> <p>Allow lump sum for employing suitably qualified and experienced technical personnel for Construction Management and supervision Services at the site. CV's with originals of certificates should be provided by the Contractor for prior approval. Payments will be made on their daily attendance basis.</p> <p>Setting Out</p>	E	Item	
11	<p>Setting out of Works in accordance with drawings and other written information given by the Engineer</p> <p>Quality, Standards and Progress</p>	F	Item	
12	Allow lump sum for provision of progress reports including photographic records and other schedules included in the ICTAD publication - Guidelines for Effective Construction Management. (ICTAD/CM/01), relevant to contract administration as directed by the Engineer.	E	Item	
13	Allow lump sum for all cost in connection with preparing samples for testing, making arrangements for testing of Materials, Goods etc, as stipulated in the specification, obtaining test reports and submitting the same to the Engineer.	E	Item	
14	Allow lump sum for provision of 2 sets of (Hard copies and soft copies) as built drawings of all services, for Engineer's approval.	D	Item	

Item	Description	Mode of payment	Unit	Amount Rs. Cts.
	Health, Safety & Environment			
15	Allow lump sum for providing and maintaining a first aid box and regular supply of medicine, linen etc.	E	Item	
16	Allow lump sum for providing all necessary safety measures to workmen at site conforming to the latest industrial safety regulations and as directed by the Engineer.	E	Item	
17	Allow lump sum for maintaining the site in a clean and orderly manner at all times and during the entire contract period.	E	Item	
18	Allow lump sum for demobilization, removal of all rubbish, debris and clearing up site on completion, leaving all in good order and handing over.	G	Item	
	Security and Protection			
19	Allow lump sum for employing an adequate number of security personnel and security systems on full time basis throughout the period of construction, and provide for necessary security lighting and warning system	E	Item	
20	Allow lump sum for providing and maintaining necessary fencing, hoarding and gates for safeguarding the Works, Materials and Plants, as directed by the Engineer.	C	Item	
	Miscellaneous			
21	Allow lump sum to supply & fix name board, size 3.0mx2.0m as directed and approved by the Engineer. Rate to include for erection & fixing to the earth firmly on to the concrete base.	C	Item	
22	Allow Lump sum for Soil tests ("Machintosh probe test" - 5nos)	G	Item	
23	Allow Provisional Sum for supplying & fixing of plaque as directed.	P.S		200,000.00
	Sub Total Bill No 01 carried to Main Summary			

PROPOSED STUDENT WELFARE CENTRE FOR UVA WELLASSA UNIVERSITY- BADULLA

BILL OF QUANTITIES

BILL NO 02 - DEMOLISHING WORKS

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
2.1	Allow Provisional sum for Cutting & removing trees (approximate girth~ 0.45- 2.5m) and excavating tree roots and disposal of debris away from the site. Rate to include for back filling pits with available earth.	nr	3		
2.2	Allow Lump Sum for demolishing of existing septic tanks, soakage pits & Man hole etc.	Item			
2.3	Allow provisional Sum for shifting of under ground Electrical Fiber cable, water supply pipes etc.	PS		Allow	3,200,000.00
	Sub Total Bill No 02 carried to Main Summary				

PROPOSED STUDENT WELFARE CENTRE FOR UVA WELLASSA UNIVERSITY - BADULLA

BILL OF QUANTITIES

Bill No:03 - INITIAL SITE PREPARATION & LAND LEVELLING

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
	Note: 1.) The quantities given below are provisional quantities only. The actual quantities shall be determined at the time of construction depending on the site condition and as recommended by the Engineer. 2.) For the full description of materials and workmanship refer to the relevant sections of Specification of works, Pricing Preambles and the drawings.				
3B1	Clearing the entire land & removing vegetation, bushes , scrubs all debris as directed by the Engineer.	m ²	1400		
3B2	Removing unsuitable material including top soil 150mm depth & removal of debris away from site as instructed by engineer. (machinery cutting)(approximate haulage distance ~ 5km)	m ³	210		
3B3	Excavation in any material except rock requiring blasting using machinery to required levels as instructed by the Engineer. (Provisional Quantity)	m ³	1050		
3B4	Back Filling with available material for filling under floors including watering and well ramming using Whacker or other similar machine in 75mm layers as directed	m ³	500		
3B5	Disposal of surplus earth, inclusive of loading & unloading & transport up to 10km.	m ³	700		
	Sub Total Bill No 03 carried to Main Summary				

PROPOSED STUDENT WELFARE CENTRE FOR UVA WELLASSA UNIVERSITY - BADULLA

BILL OF QUANTITIES

BILL NO. 04- CIVIL WORKS - SUB STRUCTURE

SUB SUMMARY

ITEM	DESCRIPTION	AMOUNT	
		Rs.	Cts.
	<u>SUBSTRUCTURE</u>		
4B	EXCAVATION AND EARTH WORK		
4C	CONCRETE WORKS		
4D	MASONRY WORKS		
4E	MISCELLANEOUS WORKS		
SUB TOTAL CARRIED TO MAIN SUMMARY			

PROPOSED STUDENT WELFARE CENTRE FOR UVA WELLASSA UNIVERSITY - BADULLA

BILL NO 04- CIVIL WORKS - SUB STRUCTURE

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
	<p>4B - EXCAVATION AND EARTH WORK</p> <p><i>As excavation measured net unless otherwise specified in item description.</i></p> <p><i>Excavation shall be done as instructed by the Engineer and with close supervision of the Engineer's representative. Foundation depth may have varied according to site condition.</i></p> <p><u>Rate include unless otherwise stated</u></p> <p><i>Trimming sides, keeping clean and consolidating bottom of bases and trenches etc. levelling and consolidation where required. leveling and compacting where required under slabs or sub floor layers.</i></p> <p><i>Back filling with selected excavated materials from site as specified and directed.</i></p> <p><u>Any necessary additional excavation for working space to be included in the rates</u></p> <p>Excavation</p>	Note			
4B-1	Excavation for wall & column foundation to a depth not exceeding 1.5m in any material except rock requiring blasting, part return fill in and rammed and surplus spreading within the site as directed.	m ³	340		
4B-2	In RCC retaining wall foundation	m ³	20		
	Filling				
4B-3	Back Filling with available material for filling under floors including watering and well ramming using Whacker or other similar machine in 75mm layers as directed	m ³	340		
4B-4	Back Filling with borrowed filling material (gravel) for filling under floors including watering and well ramming using whacker or other similar machine in 75mm layers as directed	m ³	150		

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
4B-5	Back filling with available material behind the retaining wall ramming using whacker or other similar machine in 75mm layers as directed	m ³	43		
4B-6	Shoring work for excavations up to 3.0m height.	m ²	80		
	Surface Treatment				
4B-7	Anti termite treatment by specialist sub contractor possessing registration of pesticide controller including 10 years warrantee. (Warrantee should address directly to the employer)The chemical to be used should be approved by the pesticide controller. Work should be carried out through a reputed sub contractor and method statement shall be submitted to the Engineer for prior approval. (Approximate Ground floor area - 305 m ²)	m ²	305.00		
Sub Total of Excavation and Earth work Carried to Sub Summary of Bill					
	4C - CONCRETE WORKS				
	a) All concrete shall be so cast as to receive only that finishing on its exposed surfaces as specified in the respective items.	Note			
	b) Rates shall include for plants for mixing, handling , hoisting ,depositing , etc. curing and making good after removing formwork etc.	Note			
	c) Reinforced concrete fill into formwork and pack well around steel reinforcement in followings. (Reinforcement and formwork paid separately)	Note			
	d) All costs in connection with the construction of " kickers"	Note			
	e) All cement type to be OPC	Note			
	f) All major structural concrete works (Slabs, beams, columns, footings etc) shall be 'Ready mix' concrete of relevant grade and other minor concrete works (lintels, worktops, floor Concretes etc) shall be machine mixing concrete of relevant mix ratios.	Note			
	<u>The quality of the concrete should confirm to the relevant B.S.,S.L.S and ICTAD specification for building works</u>	Note			

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
	<p><u>Formwork</u></p> <p>Rate for formwork shall include for all necessary boarding, supports, erecting, framing, cutting angles, cleaning, apply approved foam oil, wetting before placing concrete, removal etc.</p> <p>Formwork is measured as the net contact surface measurement between formwork and concrete.</p> <p>Film coated Plywood or other equivalent quality approved type of shuttering to produced to have <u>fair faced concrete finish</u>. Mould oil should be applied to formwork surfaces before using.</p> <p>Rate for form work shall include for all necessary measures to provide fair face finish.(Concrete faces should be finished such a way to finish only with cement base putty. If not additional work involved to level the surface should be born by the Contractor)</p> <p><u>Reinforcement</u></p> <p>All reinforcement shall be as per relevant British Standards having minimum characteristic strength of 460 N/mm² for ribbed tor steel and 250 N/mm² for mild steel.</p> <p>Rate shall include for necessary tests as per BS4449 and SLS 375.</p> <p>All reinforcement shall be free from mill scale, dirt, oil, paint, grease or loose rust before fixing in position and shall be brushed with a stiff wire brush as directed.</p> <p>Rate for reinforcement shall include for supplying, cleaning, cutting, bending, fabricating, binding, placing in position, binding wires, ties, supporting bars, spaces, chairs, wastage etc.</p>	Note Note Note Note Note Note Note			
4C-1	<i>C15(15) Concrete</i> C15(25) cement concrete under column, wall & retaining wall foundation	m ³	12		
4C-2	75mm thick floor concrete including aying gauge 1000 polythene.	m ³	18		
4C-3	<i>Grade 25(20) Concrete</i> In column base, strip footing & shafts up to DPC	m ³	65		

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
4C-4	In Tie beam	m ³	18		
4C-5	In floor slab at DPC level	m ³	6		
4C-6	In floor beams at DPC level	m ³	3		
4C-7	In retaining wall	m ³	17		
	FORMWORK				
4C-8	In column base, strip footing & shafts up to DPC	m ²	180		
4C-9	In Tie beam	m ²	160		
4C-10	In floor slab at DPC level	m ²	40		
4C-11	In floor beams at DPC level	m ²	30		
4C-12	In retaining wall	m ²	135		
	REINFORCEMENT				
	High Yield Steel Reinforcement				
4C-13	In column base, strip footing & shafts up to DPC	kg	5,700		
4C-14	In Tie beam	kg	2,450		
4C-15	In floor slab at DPC level	kg	500		
4C-16	In floor beams at DPC level	kg	375		
4C-17	In retaining wall	kg	1115		
	Mild steel				
4C-18	Mild steel in columns & beams	kg	50		
Sub Total of Concrete Work Carried to Sub Summary of Bill No.04					
	4D - MASONRY WORKS				
	<i>Rate include for all joggles, cramps, dowels, ties, templates, rough and fair cutting, forming splays, angles, reveals and setting, joining, fixing in position and pointing, protecting and cleaning down</i>	<i>Note</i>			
4D-1	150x225mm Random rubble masonry for foundation in 1:5 cement sand mortar.	m ³	40		
Sub Total of Masonry Carried to Sub Summary of Bill No.04					

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
	4E - MISCELLANEOUS WORKS				
4E-1	20mm thick 1:3 cement sand rendering for plinth plaster including finishing smooth with Grey cement floating coat.	m ²	40		
4E-2	Supplying & fixing of 160mm dia uPVC type 600 perforated pipe as directed.	m	16		
4E-3	Supplying & laying " Geotextile" layer behind the wall Type T.S 30	m ²	48		
4E-4	Supplying & laying filter material (40-100mm metal) as per drawing	m ³	15		
4E-5	Applying water proofing material in two coats on retaining wall as per manufacturer's specification Rate to include for cleaning existing concrete surfaces to be free from dust, cement laitance, grout deposits and repair honey combs, P-cone holes, construction joints with approved non shrink, high strength repair grout, 25mm x 25mm angle fillet with 1:3 cement sand mortar and curing the application for 3 days.	m ²	55		
Sub Total Carried to Sub Summary of Bill No.04					

PROPOSED STUDENT WELFARE CENTRE FOR UVA WELLASSA UNIVERSITY - BADULLA

BILL OF QUANTITIES

BILL NO. 05 - CIVIL WORKS -SUPER STRUCTURE

(Total Floor Area~ 7030 ft²)

SUB SUMMARY

ITEM	DESCRIPTION	AMOUNT	
		Rs	Cts
5	<u>SUPER STRUCTURE</u>		
5C	CONCRETE		
5D	BRICK WORK		
5E	WALL FINISHES		
5F	FLOOR FINISHES		
5G	CEILING FINISHES		
5H	PAINTING		
5J	DOORS & WINDOWS		
5K	ROOFER		
5L	WATER PROOFING		
5M	MISCELLANEOUS WORKS		
SUB TOTAL CARRIED TO MAIN SUMMARY			

PROPOSED STUDENT WELFARE CENTRE FOR UVA WELLASSA UNIVERSITY - BADULLA

BILL OF QUANTITIES

BILL NO.05 - SUPER STRUCTURE

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
	<p>5C- CONCRETE WORK</p> <p>a) All concrete shall be so cast as to receive only that finishing on its exposed surfaces as specified in the respective items.</p> <p>b) Rates shall include for plants for mixing, handling , hoisting ,depositing , etc. curing and making good after removing formwork etc.</p> <p>c) Reinforced concrete fill into formwork and pack well around steel reinforcement in followings. (Reinforcement and formwork paid separately)</p> <p>d) All costs in connection with the construction of " kickers"</p> <p>e) All cement type to be OPC</p> <p>f) <i>All major structural concrete works (Slabs, beams, columns, footings etc) shall be 'Ready mix' concrete of relevant grade and other minor concrete works (lintels, worktops, floor Concretes etc) shall be machine mixing concrete of relevant mix ratios.</i></p> <p><u>The quality of the concrete should confirm to the relevant B.S.,S.L.S and ICTAD specification for building works</u></p> <p><u>Formwork</u> Rate for formwork shall include for all necessary boarding, supports, erecting, framing, cutting angles, cleaning, apply approved foam oil, wetting before placing concrete, removal etc.</p> <p>Formwork is measured as the net contact surface measurement between formwork and concrete.</p>	<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p>			

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
	Film coated Plywood or other equivalent quality approved type of shuttering to produced to have <u>fair faced concrete finish.</u> Mould oil should be applied to formwork surfaces before using.	Note			
	Rate for form work shall include for all necessary measures to provide fair face finish.(Concrete faces should be finished such a way to finish only with cement base putty. If not additional work involved to level the surface should be born by the Contractor)	Note			
	<u>Reinforcement</u> All reinforcement shall be as per relevant British Standards having minimum characteristic strength of 460 N/mm ² for ribbed tor steel and 250 N/mm ² for mild steel.	Note			
	Rate shall include for necessary tests as per BS4449 and SLS 375.	Note			
	All reinforcement shall be free from mill scale, dirt, oil, paint, grease or loose rust before fixing in position and shall be brushed with a stiff wire brush as directed.	Note			
	Rate for reinforcement shall include for supplying, cleaning, cutting, bending, fabricating, binding, placing in position, binding wires, ties, supporting bars, spaces, chairs, wastage etc.	Note			
	Grade 25 (20) cement concrete for column shafts.				
5C-1	Ground floor level to First floor level	m ³	4		
5C-2	First floor level to second floor level	m ³	12		
5C-3	Second floor level to Third floor level	m ³	7		
5C-4	Third floor level to Roof level	m ³	3		
	Grade 25(20) cement concrete for floor slab, beams & sunshade				
5C-5	Ground Floor slab	m ³	23		
5C-6	Ground Floor beams	m ³	9		

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
5C-7	First Floor slab	m ³	33		
5C-8	First Floor beams	m ³	15		
5C-9	water tank slab	m ³	2.5		
5C-10	water tank slab beam	m ³	2		
5C-11	Second Floor slab	m ³	14		
5C-12	Second Floor beams	m ³	7		
5C-13	Roof beams & up Stand beam	m ³	9		
	Grade 25 (20) cement concrete for Staircase including steps, waist, beams and landing.				
5C-14	Ground Floor to First Floor level	m ³	3		
5C-15	First Floor to Second Floor level	m ³	3		
5C-16	Second Floor to Third Floor level	m ³	3		
	150mmx150mm lintols in 1:2:4 (20mm) concrete including formwork and 4 nr 10mm H/Y steel bars.				
5C-17	Ground Floor	m	50		
5C-18	First Floor	m	35		
5C-19	Second Floor	m	32		
5C-20	Third Floor	m	38		
5C-21	In 150x75mm beam at window sill level. Rate to include for form work & reinforcement,02 Nos 10mm dia. High yield steel reinforcement & 6mm dia. Mild steel stirrup @ 150mm c/c spacing	m	100		
	<u>FORMWORK</u>				
	Formwork for sides of column shaft				
5C-22	Ground floor level to First floor level	m ²	75		
5C-23	First floor level to second floor level	m ²	175		

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
5C-24	Second floor level to Third floor level	m ²	130		
5C-25	Third floor level to Roof level	m ²	55		
	Formwork for soffit of slab & beams				
5C-26	Ground Floor slab	m ²	135		
5C-27	Ground Floor beams	m ²	80		
5C-28	First Floor slab	m ²	200		
5C-29	First Floor beams	m ²	120		
5C-30	water tank slab	m ²	18		
5C-31	water tank slab beam	m ²	15		
5C-32	Second Floor slab	m ²	70		
5C-33	Second Floor beams	m ²	60		
5C-34	Roof beams & up Stand beam	m ²	80		
	Formwork for Staircase including soffit of sloping flight, steps, waist, beams and landing.				
5C-35	Ground Floor to First Floor level	m ²	20		
5C-36	First Floor to Second Floor level	m ²	20		
5C-37	Second Floor to Third Floor level	m ²	20		
	REINFORCEMENT				
	High Yield steel reinforcement for column shaft				
5C-38	Ground floor level to First floor level	kg	1300		
5C-39	First floor level to second floor level	kg	1100		
5C-40	Second floor level to Third floor level	kg	980		
5C-41	Third floor level to Roof level	kg	430		

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
	High Yield steel reinforcement for slab & beams				
5C-42	Ground Floor slab	kg	2070		
5C-43	Ground Floor beams	kg	900		
5C-44	First Floor slab	kg	1970		
5C-45	First Floor beams	kg	1875		
5C-46	water tank slab	kg	225		
5C-47	water tank slab beam	kg	250		
5C-48	Second Floor slab	kg	1260		
5C-49	Second Floor beams	kg	875		
5C-50	Roof beams & up Stand beam	kg	900		
	High Yield steel reinforcement for Staircase including steps, waist, beams and landing.				
5C-51	Ground Floor to First Floor level	kg	300		
5C-52	First Floor to Second Floor level	kg	300		
5C-53	Second Floor to Third Floor level	kg	300		
	Mild steel				
5C-54	Mild steel reinforcement	kg	250		
Sub Total of Concrete Work Carried to Sub Summary of Bill No.05					
	5D-BLOCK WORK				
	Rate shall include for lifting, handling, wetting, all rough and fair cuttings, plumbing, reveals, rough arches, raking out all joints for pointing plastering, cutting chases, making good at the completion.	Note			
	Compressive Strength of Blocks not less than 2.0 N/mm ²	Note			
	Rate shall include for erecting scaffolding and dismantling after completion of work	Note			
	150mm thick solid cement block work in 1:5 Cement sand mortar.				
5D1	Ground Floor	m ²	185		

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
5D2	First Floor	m ²	382		
5D3	Second Floor	m ²	168		
5D4	Third Floor	m ²	115		
Sub Total of Brick Work Carried to Sub Summary of Bill No.05					
	5E - WALL FINISHES				
	Rate shall include to Rate shall include for all temporary rules screed, ground etc. for raking out joints of new brick work or backing new concrete for key internal and coved angles joints between new and old plastering arises inter sections between curved or irregular surface etc.,.. and all making good around pipes sanitary fittings and similar fixtures.				
	15mm thick external wall plaster in 1:1:5 cement, lime & sand finished rough.				
5E-1	Ground Floor	m ²	97		
5E-2	First floor	m ²	330		
5E-3	Second Floor	m ²	168		
5E-4	Third Floor	m ²	115		
	15mm thick internal wall plaster in 1:1:5 cement lime and sand finished smooth with lime putty.				
5E-5	Ground Floor	m ²	286		
5E-6	First floor	m ²	333		
5E-7	Second Floor	m ²	280		
5E-8	Third Floor	m ²	115		
	15mm thick Column plastering in 1:1:5 cement lime and sand finished smooth with skim coat.				
5E-9	Ground Floor	m ²	90		

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
5E-10	First floor	m ²	120		
5E-11	Second Floor	m ²	40		
5E-12	Third Floor	m ²	40		
5E-13	In external reveals.	m	360		
5E-14	In internal reveals.	m	270		
5E-15	300mm x 300mm size, glazed tiles to walls including all angles and corner beadings set and bedding in 20mm thick, 1:3 cement mortar up to 1800mm height and finished with coloured grout to match with the tile. (Prime cost per tile ~ Rs. 200.00- 300.00)	m ²	65		
Sub Total of Wall Finishes Carried to Sub Summary of Bill No.05					
5F - FLOOR FINISHES					
	Rate shall include to,				
	(a) All extra work involved to patterned work.	Note			
	(b) Fair edges, internal angles for Treads and risers	Note			
	(c) Ends angles, ramped and wreathed covers for strings and aprons.	Note			
	(d) Fair edges, rounded edges, covered junctions, angles, and the like for skirting curbs and edges or floors	Note			
	(e) Plastic corner beadings	Note			
	(f) Supplying and Fixing of materials	Note			
	<u>Floor Tiling</u>				
	At the beginning Contractor shall lay floor and wall tiles section by sections for Engineers inspection and checking neatness, quality and for approval to continue tiling. Rate shall include for such costs.	Note			
	cut pieces of tiles smaller than half of a tile shall not be used.	Note			
	Water absorption of floor tiles should be less than 0.5% and Modulus of rupture to be over 27N/mm ² .	Note			

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
	Supplying and laying of non slip homogeneous floor tiles of approved colour & size 600mm x 600mm for floors on 12mm thick, 1:3 cement mortar, joint filled with tile grout to match the colour of tiles and cleaning. (Prime Cost of Rs.1000.00- 1300.00 per tile) (F1)				
5F1	Ground Floor	m ²	85		
5F2	First Floor	m ²	45		
5F3	Second Floor	m ²	80		
5F4	Third Floor	m ²	70		
	Supplying and laying of homogeneous rustic floor tiles of approved colour & size 600mm x 600mm for floors on 12mm thick, 1:3 cement mortar, joint filled with tile grout to match the colour of tiles and cleaning. (Prime Cost of Rs.1000.00- 1300.00 per tile) (F2)				
5F5	First Floor	m ²	120		
	Supplying and laying of non slip homogeneous floor tiles size 600mm x300mm bedding on 12mm thick, 1:3 cement rendering finished with colour grout to match to toilets. (Prime Cost of Rs.600.00-650.00 per tile)(F5)				
5F6	First Floor	m ²	15		
	20mm thick 1:3 cement sand rendering including neat cement floating to floors				
5F7	Second Floor	m ²	105		
	100mm high tile skirting approved colour & pattern on 12mm thick, 1:3 cement mortar, joint filled with tile grout to match the colour of tiles and cleaning				
5F8	Ground Floor	m	135		
5F9	First Floor	m	160		
5F10	Second Floor	m	70		
5F11	Third Floor	m	40		

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
5F12	Supplying and laying of homogeneous rustic floor tiles of approved colour & size 300mm x 300mm for stair case on 12mm thick, 1:3 cement mortar, joint filled with tile grout to match the colour of tiles and cleaning. (Prime Cost of Rs.200.00-250.00 per tile)	m ²	180		
5F13	20mm thick 1:3 cement sand rendering including neat cement floating to floors	m ²	60		
Sub Total of Floor Finishes Carried to Sub Summary of Bill No.05					
5G - CEILING FINISHES Rate shall include to, (a) Working over and around obstructions (b) Support work and accessories for fittings (c) Suspension and framed members (d) Cutting (e) Additional hangers, framing and the like (f) Supplying and Fixing of materials Preparing & applying two coats skim coat on soffit of slab, soffit and sides of isolated beams. including reveals.					
5G-1	Ground Floor	m ²	215		
5G-2	First Floor	m ²	353		
5G-3	Second Floor	m ²	130		
5G-4	Roof beams	m ²	80		
Sub Total of Ceiling Carried to Sub Summary of Bill No.05					
5H- PAINTING Rates shall include for, The prices shall include for preparation of surface, cleaning down, use of wall fillers and primary paint coats to obtain neat surface., sand papering etc. Protection of floors and fittings, removing door and window furniture, and cleaning window etc. upon completion.					
		Note			
		Note			

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
	Reveal, Column Projections, undersides of lintels and wall ends less than 300mm shall not be measured and shall be incorporated in other measurements. Isolated columns shall be measured for payments.	Note			
	All weathershield/ floor paints, primer shall be of approved make with non lead pigment.	Note			
	Colour of Paint to be approved by the Architects.				
	Rate to include for the cost for the scaffoldings.	Note			
	Prepare and apply one primer coat and two coats of weathershield paint of approved colour and quality to external rough plastered face of walls and reveals.				
5H-1	Ground Floor	m ²	97		
5H-2	First Floor	m ²	330		
5H-3	Second Floor	m ²	168		
5H-4	Third Floor	m ²	115		
	Prepare and apply one primer coat and two coats of Emulsion paint of approved colour and quality to internal smooth plastered faces of walls and reveals.				
5H-5	Ground Floor	m ²	286		
5H-6	First Floor	m ²	333		
5H-7	Second Floor	m ²	280		
5H-8	Third Floor	m ²	115		
	Supply and application of one coat of primer and two coats of emulsion paint for soffit of slab, soffit and sides of beams including preparation of surface.				
5H-9	Ground Floor	m ²	215		
5H-10	First Floor	m ²	353		
5H-11	Second Floor	m ²	130		

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
5H-12	Third Floor Supply and application of one coat of primer and two coats of emulsion paint for columns including preparation of surface.	m ²	80		
5H-13	Ground Floor	m ²	90		
5H-14	First Floor	m ²	120		
5H-15	Second Floor	m ²	40		
5H-16	Third Floor	m ²	40		
Sub Total for Painting Carried to Sub Summary of Bill No.05					
	<p><u>5J-DOORS & WINDOWS</u></p> <p><u>All Aluminium sections shall be POWDER COATED ALUMINIUM EXTRUSIONS</u></p> <p><u>Rate to include for heavy quality door lock, door closers, hinges & all other accessories</u></p> <p>I. All doors shall have stainless steel hinges, locks shall be Japanese mortise cylinder locks.</p> <p>II. Japanese heavy duty door closers & floor hinges where applicable. Type New Star or approved equivalent</p> <p>III. Minimum section thickness 1.6mm door frame, 1.2mm window frame and 1.2mm partitions.</p> <p>IV. Coating thickness 60-80 micron</p> <p>V. Glass thickness for door shall be 6mm and others shall be 5mm</p> <p>The contractor is advised to refer to the specification prior to pricing of this section of work</p> <p>All sample shall be provided for approval by the Consultant prior to purchase of materials.</p>	Note			
5J1	Supply and fixing of door type D1, size 1200x2100mm Aluminium framed double sash glazed door with door lock , hinges & door handles. (09 nr)	m ²	23		

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
5J2	Supplying and fixing door type D2, size 900x2100mm Alumimium framed single sash door with bottom solid panel(01 nr).	m ²	2		
5J3	Supplying and fixing door type D3, size 750x2100mm Alumimium framed single sash cladding door(04 nr).	m ²	7		
5J4	Supplying and fixing window type W1, size 900x1200mm, Aluminium framed glazed top hung window with top louver panel(30 nr).	m ²	33		
5J5	Supplying and fixing window type W2, size 900x1200mm, Aluminium framed glazed sliding window with top louver panel(08 nr).	m ²	9		
5J6	Supplying and fixing window type W3, size 600x1800mm, Aluminium framed glazed sliding window with top louver panel(12 nr).	m ²	13		
5J7	Supplying and fixing powder coated Alumimium framed roller door WD with size 1985x1200mm (01 nr)	m ²	3		
5J8	Supplying and fixing 1500x2100mm steel framed steel gate (GR1). Rate to include for two coats of anticorrosive paint & two coats of enamel paint and all necessary locking arrangements. (01 nr)	m ²	4		
5J9	Supplying and fixing steel framed grill work <u>consists of 5mm thick , 32mm wide flat iron framed intermediate horizontal, members 750mm vertically apart and 12mm dia ms rods 200mm spacing vertical members</u> welded as shown in the drawing. Rate to include for two coats of anticorrosive paint & two coats of enamel paint and all necessary locking arrangements. (01 nr)	m ²	57		
5J10	Supplying and fixing type FG1, size 2425x1800mm, Powder coated Aluminium framed 10mm thick tempered fixed glass top louver panel(06 nr).	m ²	27		
5J11	Supplying and fixing type FG2, size 2300x1800mm, Powder coated Aluminium framed 10mm thick tempered fixed glass top louver panel(04 nr).	m ²	17		

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
5J12	Supplying and fixing type FL1, size 900x600mm, Powder coated Aluminium framed fanlight (04 nr).	m ²	3		
5J13	Supplying and fixing type GB, size 200x200mm, Fixed glass blocks (08 nr). Hand Rail	m ²	1		
5J14	Supplying & fixing of 60mm dia GI pipes Hand Rail fixed to parapet wall & stair case with 90mm high 60mm dia pipe, welded to 4mm thick MS plate (100x100mm size)as per Architectural drawing. Rate to include for one coat of etching primer & two coats of enamel paint. (parapet wall measured separately)	m	70		
Sub Total for Wood Work Carried Sub Summary of Bill No.05					-
	5K - ROOF COVERING & ROOF PLUMBING All steel used in the work shall comply with the relevant British Standards and to the specifications. All steel shall be new and each member shall be free from any built- weld or other forms of splice for the full length between joints shown in or indicated in the drawings unless such splice shall have been shown in the approved drawings. The Bidder shall submit the specification for the steel which he proposed to use and obtain prior approval from the Engineer before commencement of ordering of steel and fabrication. <u>Drawings</u> Before any steel work is fabricated the contractor shall obtain the Engineer's approval of the proposed details of fabrications. For this purpose, two copies of each drawings shall be submitted to the Engineer not less than 14 days before commencement of fabrication. <u>Inspections</u> All steel work shall be subjected for inspection by the Engineer. The steel works shall not be moved from the place of fabrication nor primed or painted until the approval of the Engineer has been obtained for the fabrication of steel work.	Note Note Note Note Note			

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
	<p><u>Welding</u> No welding shall be done until approval of the prepared surface has been obtained. All welding shall be carried out under the supervision of qualified persons.</p> <p>Base plate, Sole plate, gussets plate, splice etc. have not been measured separately but the weights of such attachments have been included in weight of respective items indicated in item description.</p> <p>Refer drawings for fabrication and fixing details of trusses, purlin etc.</p> <p>Rate shall include for all necessary cuttings, drillings, bolting, reverting, welding, grinding, delivering, unloading, hoisting, erecting and fixing in position, levelling, plumbing and submission and getting approval of all shop drawings.</p> <p>All steel works should be applied two coats of coloured anticorrosive paints (two different colours for two coats)</p> <p>Zn/Al coated sandwich panel sheets used for roofing sheets, gutters, down pipes etc., should have Minimum Yield Strength of the Base Material - 550N/mm² Coating Mass (g /m²) - AZ 150</p> <p>Roof Structure</p>	<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p>			
5K-1	Supplying & fixing of universal beam section size 175x102x19kg/m (approx weight 1600kg). Rate to include 8mm thick base plate, cleat, riverts, nut, washers, 200mm long-16mm dia rag bolts & painting with two coats of anticorrosive primer & two coats of enamel paint etc.	m	120		
5K-2	Supplying and fixing of High tensile 100mm x 50mm x 20mm x 2.0mm high tensile GI lipped channel purlins with all necessary accessories.	m	660		
5K-3	Supplying and fixing of 12mm dia sag rod. Rate to include necessary accessories to fixing.	m	60		

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
5K-4	Allow Provisional Sum for Construction of steel portal frame for first floor roof terrace	P.S		Allow	4,000,000.00
	Roof Covering				
5K-4	Supplying and fixing of 50mm thick sandwich panel roofing sheet with self drilling screws on steel frame work steel frame work measured separately). The exterior side of metal sheet is 0.35 BMT (Base metal thickness) and interior side is 0.32BMT	m ²	225		
5K-5	Supplying and fixing of 12mm thick tempered glass panel for court yard. Rate to include for 50x50mm box bars of stainless steel frame work and all necessary screws.	m ²	20		
5K-6	Supplying & laying 0.47 TCT colour bonded Zn/Al roofing sheet on Steel frame work. Steel frame work measured separately. Rate to include for necessary fasteners, gable capping, edge capping and other fixing arrangements.	m ²	110		
5K-7	Supplying and fixing of 0.47mm TCT Zn/Al Ridge capping, barge capping, edge capping etc.	m	36		
5K-8	Supplying & fixing 300mm wide 0.47mm TCT colour bonded Zn/Al fascia board with necessary steel frame work.	m	85		
5K-9	Supplying and fixing of Zn/Al flashing of 600mm wide including all screws, fastners etc.	m	35		
	Roof Plumber				
5K-10	Supplying & fixing AZ 150, 0.47mm TCT Zn/Al down pipes of size 125x125mm. Rate to include for brackets, brass screw, wooden plugs etc.	m	190		
5K-11	Supplying & fixing AZ 150, 0.47mm TCT Zn/Al eave gutters of size 470mm. Rate to include for necessary brackets.	m	85		
Sub Total for Roof Covering Carried to Sub Summary of Bill No.05					

ITEM	DESCRIPTION	UNIT	QTY	RATE Rs. Cts.	AMOUNT Rs. Cts.
	L- WATER PROOFING				
5L1	Waterproofing with cementitious waterproofing agent approved by the Engineer in two coats on surfaces of concrete toilet walls as per manufacturer's specification. Rate to include for cleaning existing concrete surfaces to be free from dust, cement laitance, grout deposits and repair honey combs, P-cone holes, construction joints with approved non shrink, high strength repair grout, 25mm x 25mm angle fillet with 1:3 cement sand mortar and curing the application for 3 days.	m ²	30		
5L2	Application of approved type water proofing agent (Torch on Membrane type) & heat insulation layer (25mm thick insulation layer with non wooven geo- textile polyester matt or equivalent) and 50 mm thick screed concrete with 50x50mm GI mesh over the concrete roof slab As per manufacture's specification.	m ²	137		
Sub Total for Roof Covering Carried to Sub Summary of Bill No.05					-
	<u>5M- MISCELLANEOUS WORKS</u>				
5M-1	Construction of 100mm thick RCC work top for wash basin. Rate to including concrete slab, glazed wall tiles in worktop. Rate shall include for cutting preparing of edges, voides and holes for wash basin and taps etc and 225mm thick brick walls finished with plastering & painting. (wash basin paid separately)	m	5		
5M-2	Allow for unforeseen work during estimating phase which may occure during construction period.	Pro. sum		Allow	1,475,000.00
5M-3	Construction of 2000mm wide 75mm thick C15 (25mm) concrete pavement with drain finished with 12mm thick 1:2 cement sand rendering rear side of the building.	m	80		
5M-4	Construction of 600mmx2000mm Pre cast concrete benches for student waiting area.	nr	6		
Sub Total for Roof Covering Carried to Sub Summary of Bill No.05					

PROPOSED STUDENT WELFARE CENTRE FOR UVA WELLASSA UNIVERSITY - BADULLA

BILL OF QUANTITIES

SUB SUMMARY

BILL NO. 06- WATER SUPPLY AND DRAINAGE WORKS

ITEM	DESCRIPTION	AMOUNT	
		Rs	Cts
6N	WATER SUPPLY SYSTEM		
6P	SANITARY FITTINGS & FIXTURES		
6Q	SEWAGE AND WASTE WATER DISPOSAL SYSTEMS		
SUB TOTAL CARRIED TO MAIN SUMMARY			

PROPOSED STUDENT WELFARE CENTRE FOR UVA WELLASSA UNIVERSITY - BADULLA

BILL OF QUANTITIES

BILL NO.06 - WATER SUPPLY, SANITARY FITTINGS AND DRAINAGE WORKS

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
	<p><u>General Notes:</u></p> <p><i>For the full description of materials and workmanship refer to the relevant sections of Specification for the works, Pricing Preambles and the Drawings.</i></p> <p><i>Where reference is made to certain manufacturers' products and items identified by registered trade marks, this has been done for the sole purpose of defining and establishing standards of quality and performance and not with the intention of restricting the procurement of material or fitting to a particular manufacturer.</i></p> <p><i>All types of fittings, materials, painting and finishes shall be approved by the Engineer prior to installation.</i></p> <p><i>The contractor is responsible for obtaining necessary authority approvals for the design, equipments and installation.</i></p> <p><i>The contractor shall arrange factory visit training of staff, demonstration.</i></p> <p><i>The contractor shall submit shop drawings for the approval of the Engineer where required, prior to commencing work.</i></p> <p><i>Contractor shall prepare and submit As-Built Drawings (Colour) as per the Contract.</i></p> <p><i>All samples shall be provided for the approval of the Engineer prior to purchase of material.</i></p>	<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p>			

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
	<i>The quantities given in the BOQ are provisional quantities and shall not to be considered as exact quantities of the works under the Contract. The Contractor shall determine actual quantity based on the Specifications and the Drawings issued under the Contract Agreement.</i>	Note			
	(m) All Faucet sockets (Tee, L-bow, Adapter etc) should be brass embedded PVC/PE/uPVC suitable with water supply pipes and relevant accessories.	Note			
	Control valves(Gate valves, Non return valve, Float valve Pressure reducersetc) must be brass/Stainless steelas per availability. Priority is brass.	Note			
	<u>7N - WATER SUPPLY SYSTEM</u>				
	<i>All Type 1000 unplasticized polyvinyl chloride (uPVC) pipes used in the plumbing installation must conform in every respect to the requirements of the SLS 147 of 1993 or BS 4514.</i>	Note			
	<i>All uPVC fittings and specials should be Type 1000, unless otherwise specified, with joints of approved quality and conforming to Sri Lankan Standards used in the plumbing installation.</i>	Note			
	Unless otherwise measured separately, rates shall include for:				
	<i>(a) Complying with the relevant Sri Lanka, British or any other relevant Standard.</i>	Note			
	<i>(b) Supply, transport to site and laying as specified.</i>	Note			
	<i>(c) Cutting and joining of pipes and wastage of pipes.</i>	Note			

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
	(d) All specials such as elbows, bends, tees, junctions, plugs, reducers and similar necessary pipe fittings. (Valves may be measured seperately)	Note			
	(e) Necessary jointing materials i.e rubber rings, solvent cement etc, specified fillings for pipe beddings etc.	Note			
	(f) All costs associated with provision of all holes (cutting or forming), mortises, openings, Chasing of brick, cement block or concrete walls, columns, beams etc. and necessary hangers and clips, for fixing to soffits, wall surfaces etc. and making good all works disturbed.	Note			
	(g) Necessary screws, nails, sockets, connection back nuts standard pipe fixing or supporting clips, saddles, brackets, holder bats, s-traps.	Note			
	(h) Connecting different types of pipes.	Note			
	(i) Testing, commissioning and disinfection after completion.	Note			
	(j) Excavation, backfilling, disposal of surplus soil.	Note			
	(k) Liaison with local authorities	Note			
	(l) Obtaining approval from relevant authority inclusive of all coordination activities.	Note			
	(m) All Fucet sokets(Tee, L-bow, Adapter should be Brass embedded uPVC)	Note			
	<u>Valves</u> Supplying &fixing following valves.				
6N1	40mm dia. brass stop valve for distribution line	nr	1		
6N2	32mm dia. brass stop valve for distribution line	nr	1		

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
6N3	25mm dia. brass stop valve for distribution line	nr	1		
	<u>DISTRIBUTION MAIN</u>				
	<u>Pipe Work</u>				
6N4	32mm dia. uPVC pipe	m	10		
6N5	25mm dia. uPVC pipe	m	10		
6N6	20mm dia. uPVC pipe	m	20		
	<u>Plastic Overhead Tank</u>				
6N7	Supplying & Installation of Plastic Tank with capacity 2000 L, brass stop valve for delivery pipe and washout pipe with all accessories in to working order.	nr	1		
<i>Sub Total of Water Supply Carried to Sub Summary of Bill No 07</i>					-
6P- SANITARY FITTINGS & FIXTURES					
<i>Supply and installation of approved quality sanitary appliances with pipe specials, fittings, and special connecting to water supply, sewage and wastewater disposal pipes.</i>		Note			
<i>Unless otherwise measured separately, Rates shall include for:</i>					
<i>(a) Fittings such as taps, wastewater outlets, internal overflows etc. and supporting brackets, incidental materials for fixing.</i>		Note			
<i>(b) Assembling, jointing together fixing components parts, and jointing to pipes including necessary coupling and for leaving perfectly clean and in perfect working order as on completion.</i>		Note			

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
	<p>(c) all necessary fixtures for sanitary fittings and special connection to water supply, wastewater and sewer lines</p> <p>(d) Jointing and connection pipes to sanitary fittings.</p> <p>(e) Testing and commissioning of the installation.</p> <p>(f) Making good the work disturbed.</p> <p>(g) Protecting the works</p> <p>(h) All Samples should be approved by the Engineer</p> <p>(j) Colour of the Sanitary fitting should be approved by the architect/Engineer.</p> <p>(k) Flexible type waste water connections (magic bends etc) are not allowed. Durable PVC or plastic connections must be used.</p> <p>(l) Floor gully & floor drain covers should be stainless steel heavy duty cover and must be fixed to the floor with screws.</p> <p>Supplying, Furnishing & installing ceramic squatting pan complete with foot rest, high level cistern and all other necessary connections . Approximate price per fitting~ Rs.12000.00</p>	<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p>			
6P-1	First Floor	nr	2		

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
	Supply and installation of under counter wash basins in overall white vitreous china including 40mm (1 1/4") dia. plastic bottle trap, 20mm (1/2") dia. 01 nr. plastic (Water tech or equivalent) pillar tap of approved quality, 40mm (1 1/4") dia. waste plug and chain, PVC flexible hose, brackets with all other accessories and special connection to complete work in order in all toilets. Rate to include for fixtures. Angle valve measured separately. (Prime cost per wash basin Rs.13,000.00, prime cost of pillar tap~ RS. 3600.00)				
6P-2	First Floor Supply and installation of chromium plated brass body angle valve (Prime cost of angle valve is Rs.1500.00).	nr	5		
6P-3	First Floor Supply and fixing of 600x400mm anti-fog large plain Glass Mirror with stainless steel clips and plugs to be fixed to wall. Rate to include for fixtures (prime cost Rs.1,345.00).	nr	6		
6P-4	First Floor , Supply and installation of Matt finish Stainless steel Towel Rail 600mm long (1mm wall thick, 16mm diameter bended tube welded with haunch to 2.5mm thick, 60mm x 30mm plate) mounted on wall with Stainless steel screw. Rate to include for fixtures. (Refer drawing) Prime cost per fitting~ Rs.1100.00	nr	2		
6P-5	First Floor Supply and fixing of 150x150mm molded uPVC Floor Trap Gully and stainless steel cover plate. Rate shall include for all fixtures (Prime Cost Rs.1,100.00).	nr	2		
6P-6	First Floor	nr	4		

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
6P-7	Supply and fixing of plastic Bib Taps in toilets. Rate to include for all fixtures. (Prime cost Rs. 850.00) First Floor	nr	2		
6P-8	Supply and installation of chromium plated Shower head with brass body arm and brass concealed valve. Rate to include for all fixtures (Prime cost of shower is Rs.8500.00). First Floor	nr	2		
6P-9	Supply and fixing of chromium plated brass body Hand Bidet Shower with flexible hose including wall mounted brackets in toilets. Rate to include for all fixtures and special connection to water supply line. Angle valve measured separately. (Prime cost of bidet shower Rs. 3500.00) First Floor	nr	2		
6P-10	Supplying & fixing Shower curtain First Floor	nr	2		
Sub Total of Sanitary Fittings & Fixtures Carried Sub Summary of Bill No 07					
6Q -SEWAGE AND WASTE WATER DISPOSAL SYSTEMS					
<i>All Type 600 unplasticized polyvinyl chloride (uPVC) pipes used in the plumbing installation must conform in every respect to the requirements of the SLS 147 of 1993 or BS 4514.</i>		Note			
Unless otherwise measured separately, Rates shall include for:					
<i>(a) Laying of pipes to falls.</i>		Note			
<i>(b) Excavation, backfilling, disposal of surplus soil.</i>		Note			

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
	<i>(c) All pipe specials such as bends, junctions, elbows, tees, end caps, puddle collar, etc. unless separately given in the BOQ.</i>	Note			
	<i>(d) Necessary jointing materials i.e rubber rings, solvent cement etc, specified fillings for pipe beddings etc.</i>	Note			
	<i>(e) All costs associated with provision of all holes (cutting or forming), mortises, openings, Chasing of brick, cement block or concrete walls, columns, beams etc. and necessary hangers and clips, for fixing to soffits etc. and making good all works disturbed.</i>	Note			
	<i>(f) Necessary screws, nails, sockets, connection back nuts standard pipe fixing or supporting clips, saddles, brackets, holder bats, straps.</i>	Note			
	<i>(g) Connecting different types of pipes.</i>	Note			
	<i>(h) Testing, commissioning and disinfection after completion.</i>				
	<i>(i) Connection to sides of manholes etc.</i>	Note			
	<i>(j) Providing sleeves etc., when pipes pass through walls, foundations etc.</i>	Note			
	<i>(k) Giving notices, obtaining permits, paying fees, liaison with local authorities (Central Environmental Authority etc). (all legitimate payments will be paid by the Client)</i>	Note			
	<i>(l) Protecting the works, all necessary hoardings, barricades.</i>	Note			
6Q-1	Supplying & installation of Pre cast Septic tank (1200 mm dia x2400mm). Rate to include for excavation, concreting & installation as directed.	nr	1		

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
6Q-2	Supplying & Installation of Pre cast soakage pit (1200mm diax 2400mm) with heavy duty cover slab Rate to include for excavation, concreting & installation as directed.	nr	2		
6Q-3	Supplying & Laying 110mm dia. Type 600 PVC pipes to sewer line at under ground. Rate to include excavation & back filling.	m	25		
6Q-4	Supplying and laying 63mm dia. Type 600 PVC pipes to waste water line.Rate to include excavation & back filling.	m	15		
6Q-5	Supplying and laying 50mm dia. Type 600 PVC pipes to waste water line.Rate to include excavation & back filling.	m	15		
6Q-6	Supplying and laying 40mm dia. Type 600 PVC pipes to waste water line.Rate to include excavation & back filling.	m	10		
6Q-7	Supply all material and construct Sewer Manhole in grade 25(20) concrete for 125mm thick base, walls and top slab consisting of all necessary form work, reinforcement (T8 @ 150 mm c/c single net), benching, internal plastering, Cast Iron cover and all necessary pipe work complete to working order as shown in the drawing and directed by Engineer. Rate shall include for excavation, shoring, dewatering, compacting and preparing surface, backfilling, disposal of surplus excavated material from site, 50mm thick Gr15(25) screed concreting, polythene etc.				
6Q-8	For size of internal 600x600mm sized (depth min 0.6 m)	nr	4		
Sub Total of Sewage and Waste Water Disposal Systems Carried to Sub Summary of Bill No 06					

PROPOSED STUDENT WELFARE CENTER FOR UVA WELLASSA UNIVERSITY - BADULLA**Engineer's Estimate for Electrical Installation****Bill No:07**

Item	Description	Unit	Qty.	Rate	Amount
I	Rates in Bill of Quantities shall include all necessary materials (Cables, conduits, PVC sunk box, bulbs, switches etc.) and labour required to complete the electrical installation to good working order.				
II	Except where specifically stated, all costs associated with provision of all holes, openings, chases, ducts and other builders' work required for installation and make them good, shall be included in the rates.				
III	Where reference is made to certain manufactures' products and items identified by registered trade marks, has been done for the sole purpose of defining and establishing standards of quality and performance and not with the intention of restricting the procurement of material or fitting to a particular manufacturer. However all equipment and material should meet the BS or an equivalent standard.				
IV	Testing and commissioning of the electrical installation is to be carried out by the contractor and inspection report submitted according to the requirements of the power supply Authority.				
V	Electrical Items (MCB,RCCB etc.) should be of European/Japanese origin or to the BS or equivalent and items without an accredited agent in Sri Lanka shall not be accepted. Guarantee cards(Fans etc.) should be provided from accredited agent before installation.				

Item	Description	Unit	Qty.	Rate	Amount
VI	All the quantities given here are approximated values and Quantities may change with the actual installation at the site.				
VII	All types of fittings, materials, painting and finishes shall be approved by the Engineer prior to installation.				
VIII	All panel boards and consumer units should have wire numbering and a laminated circuit diagram should be pasted on the inside surface of the door.				
	Note:- <u>Recommended Brands for Electrical Items</u>				
A	<u>Protective items (MCCBs, MCBs, RCCBs & ISOs)</u> Schneider,ABB,Hager,Eaton (Moeller) ,Terasaki or Eq.				
B	<u>Surge protective Device (SPDs)</u> obo-bettermann,j.propster,Schneider or Eq.				
C	<u>Fans</u> KDK Original or brands approved by the Engineer.				
D	<u>Electrical Switches & Socket Outlets</u> Orange,ACL,Clipsal(schneider) or Eq.				
E	<u>Light Fittings</u> Japanes, malayasian made or brands approved by the Engineer.				
F	<u>Bulbs (CFL,halogen bulb,sodium vapour lamp)</u> Philips,Osram or Eq.				
G	<u>Cables</u> Kelani,Sierra,ACL or Eq.				
H	<u>Polycarbonate made enclosure</u> Polychrome or brands approved by the Engineer.				

Item	Description	Unit	Qty.	Rate	Amount
I	PVC Trunking KTK or brands approved by the Engineer.				
	Electrical Distribution System				
1.00	CEB Connection Associated work for the getting CEB Electricity connection -Client pay for the connection.(30A Three phase Connection)	Pro. sum.			30,000.00
2.00	MDB Supply and installation of wall mounted switch gear with steel enclosure to the approval of the engineer with equipments as specified in each board.Wall recessed mounting type. (wall mounted surface type) 01 Nos. 32A, 4P MCB,6kA 03 Nos. 32A, 2P MCB,6kA 01 Nos. 40A 2P RCCB, 30mA sensitivity 12 Nos. 6-32A, 1P MCB,6kA 01 Set of 50A Cu Bus bars for L1,L2,L3 & N Earth Bar 01 Set of indicators with protection All internal connections. Equipment to be to the BS/IEC	No	1		
3.00	Single Phase Consumer Unit Supply and installation of wall mounted switch gear cubicle made out of polycarbonate sunk type enclosure to the approval of the engineer with equipment as specified in each board.Additional space to be provided inside the distribution board enclosure to install two additional breakers (of capacity with existing max.Outgoing breaker) if necessary.(including civil work for fixing sunk type enclosure to the wall properly) 01 No 40A, 2P, Isolator 01 No RCCB, 40A, 30mA, 2P 15 Nos MCBs, 1P (6A-32A)-6kA Two rows 24 way Polycarbonate made enclosure (sunk type) Earth Bar All internal connections Equipment to be to the BS/IEC				

Item	Description	Unit	Qty.	Rate	Amount
3.10	In first floor (1CU)	No	1		
3.20	In second floor (2CU)	No	1		
4.00	<u>Cables</u> Supply and installation (with all materials required including conduits and termination) of following cables.				
4.10	10mm ² , 1C × 4, Cu/PVC/PVC cable from CEB meter to MDB.	m	10		
4.20	10 mm ² CU/PVC Earth cable from MDB to Main Earth Electrode.	m	10		
4.30	6mm ² , 2C, Cu/PVC/PVC + 6mm ² Green & Yellow Earth cable				
4.3.1	from MDB to 1CU.	m	8		
4.3.2	from MDB to 2CU.	m	15		
5.00	<u>Light Fittings</u> Note :- Warranty of all LED bulbs must be minimum two years.				
5.10	Supply and installation of Surface type White, 4" round 6W LED panel light fitting with accessories.				
5.1.1	In ground floor	Nos	11		
5.1.2	In first floor	Nos	41		
5.1.3	In second floor	Nos	1		
5.20	Supply and installation of Surface type White, 6" round 12W LED panel light fitting with accessories.				
5.2.1	In ground floor	Nos	8		
5.2.2	In first floor	Nos	8		
5.2.3	In second floor	Nos	16		
5.30	Supply and installation of Indoor type Wall Bracket light fittings with 9W LED bulb inside, with accessories.				

Item	Description	Unit	Qty.	Rate	Amount
5.3.1	In ground floor	Nos	1		
5.3.2	In first floor	Nos	1		
5.3.3	In second floor	Nos	1		
5.40	Supply and installation of Out door type Wall Bracket light fittings with 9W LED (IP65) bulb inside,with accessories.				
5.4.1	In ground floor	Nos	11		
5.50	Supply and installation of 1200 mm long single fluorescent equivalent 18W LED tube light fitting having and opal diffuser with all accessories.				
5.5.1	In ground floor	Nos	3		
5.5.2	In second floor	Nos	22		
5.5.3	In third floor	Nos	17		
5.60	Supply and installation of Out door type (IP65) 10W spotlight with accessories.				
5.6.1	In ground floor	Nos	4		
5.70	Supply and installation of Out door type (IP65) 30W spotlight with accessories.				
5.7.1	In first floor	No	1		
5.80	<u>Light Point Wiring</u> Wiring (including supply of all materials) of the above light points using approved type PVC insulated PVC sheathed 1 mm ² copper cable drawn through securely fixed concealed PVC conduit with 2.5 mm ² earth cable.				
5.8.1	In ground floor	Nos	38		
5.8.2	In first floor	Nos	51		
5.8.3	In second floor	Nos	40		
5.8.4	In third floor	Nos	17		

Item	Description	Unit	Qty.	Rate	Amount
6.00	<u>Fans</u>				
6.10	<u>Ceiling Fans</u> Supply & installation of 1400mm (56") , 80W sweep ceiling fan , complete with regulator, fan hook, extension rod & attachment.				
6.1.1	In ground floor	Nos	6		
6.1.2	In first floor	Nos	2		
6.1.3	In second floor	Nos	6		
6.1.4	In third floor	Nos	6		
6.20	<u>Ceiling Fan point wiring</u> Wiring (including supply of all material, earth wire & switch) of the above ceiling fans using approved type 1 mm ² , Cu/PVC/PVC cable & 2.5 mm ² earth wire drawn through securely fixed concealed PVC conduits.				
6.2.1	In ground floor	Nos	6		
6.2.2	In first floor	Nos	2		
6.2.3	In second floor	Nos	6		
6.2.4	In third floor	Nos	6		
7.00	<u>Socket Outlets</u>				
7.10	<u>13A Socket outlets</u> Supply & installation of 13A shuttered switched single socket outlet to comply with BS .				
7.1.1	In ground floor	Nos	20		
7.1.2	In first floor	Nos	13		
7.1.3	In second floor	Nos	10		
7.1.4	In third floor	Nos	6		
7.20	<u>Wiring of 13A Socket outlets (radial circuit)</u> Wiring (including supply of all material required) of 13A socket outlets using approved type 2.5mm ² Cu/PVC/PVC, 2C cable & 2.5mm ² earth cable drawn through securely fixed concealed PVC conduit.				
7.2.1	In ground floor	Nos	20		
7.2.2	In first floor	Nos	13		
7.2.3	In second floor	Nos	10		
7.2.4	In third floor	Nos	6		

Item	Description	Unit	Qty.	Rate	Amount
8.00	<u>Main Earthing System</u> Supply and Installation of an earth electrode of minimum 16mm dia. copper Bonded rod of length 1.2m or more with a clamp connection to earth conductor. Earth resistance shall be less than 10 Ohms tested on a dry day. An earth pit of size 300mm x 300mm x 300mm is to be prepared and covered by concrete plate to protect the earth electrode.	Item			
9.00	<u>Inspection and Testing - Electrical installation</u> Testing the installation and rectify any defects and submit a certificate by a Chartered Electrical Engineer.	Item			
10.00	<u>Drawings</u> Provide three sets of 'As Built Drawings' (A3 size) to cover electrical distribution system binded as books.	Item			
11.00	<u>Telephone Network</u> Note :- 1. Cost for PABX is not included in this estimate.				
11.10	<u>Telephone Junction Boxes (GTJB)</u> Supply and Installation of telephone junction box with 20 pair crone sets. (in ground floor)	No	1		
11.20	<u>Telephone Socket Outlets</u> Supply and installation of RJ(11) single, shuttered, sunken wall mounted telephone socket outlet with modular insert and face plate comprising all other accessories required complying with relevant BS/IEC standards.				
11.2.1	In ground floor	Nos	5		
11.2.2	In first floor	Nos	4		
11.2.3	In second floor	Nos	2		

Item	Description	Unit	Qty.	Rate	Amount
11.30	<u>Wiring of Telephone Socket Outlets</u> Wiring up to the telephone socket outlets from the respective floor junction box using approved type 2 pair UTP (Unshielded Twisted Pair) telephone cable drawn through securely fixed concealed PVC conduits comprising all other accessories required.				
11.3.1	In ground floor	Nos	5		
11.3.2	In first floor	Nos	4		
11.3.3	In second floor	Nos	2		
11.40	<u>Telephone instruments</u> Supply and Installation of single line Analog type telephone instruments.				
11.4.1	In ground floor	Nos	5		
11.4.2	In first floor	Nos	4		
11.4.3	In second floor	Nos	2		
11.50	<u>Testing & Commissioning-Telephone Network</u> Testing the installation and rectify any defects and submit a certificate with as built drawing of Telephone Network.	Item			
SUB TOTAL Oof bill no-07 CARRIED TO MAIN SUMMARY					

PROPOSED STUDENT WELFARE CENTRE FOR UVA WELLASSA UNIVERSITY - BADULLA

ENGINEERS ESTIMATE

BILL NO. 08- LANDSAPING & EXTERNAL DRAINAGE SYSTEM

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
8.1	Supplying & Turfing with approved quality roller <u>grass carpet on embankement</u> (Malaysian grass or approved equivalent) & <u>maintaining in four months period</u> . Rate to include for laying top soil layer with coir-dust, organic mixture, black earth to 1:1:5 ratios on ground surface 3" thick and including sieving, rolling and watering to satisfaction of the Engineer.	m ²	600		
8.2	Allow Provisional sum for contruction of External stair ways.	P.S		Allow	1,500,000.00
8.3	Supplying & fixing pointed rubble dressing on exposed retaining wall	m ²	50		
8.4	Supplying & laying 200x100mm interlocking paving blocks to access road. Rate to include for concrete kerb line and laying quarry dust.	m ²	300		
8.5	Allow Provisional sum for storm water drainage system	P.S		Allow	2,000,000.00
SUB TOTAL CARRIED TO MAIN SUMMARY					

PROPOSED STUDENT WELFARE CENTRE FOR UVA WELLASSA UNIVERSITY - BADULLA

ENGINEERS ESTIMATE

SUB SUMMARY

BILL NO. 09- RETAINING WALL & RAMP

ITEM	DESCRIPTION	AMOUNT	
		Rs	Cts
9.1	RCC RETAINING WALL		
9.2	RRM TOE WALL		
9.3	CONSTRUCTION OF RAMP		
SUB TOTAL CARRIED TO MAIN SUMMARY			

PROPOSED STUDENT WELFARE CENTRE FOR UVA WELLASSA UNIVERSITY - BADULLA

ENGINEERS ESTIMATE

BILL NO. 09- RETAINING WALL (L-50m, H-4.0m)

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
9.1.1	Excavation for foundation	m ³	380		
9.1.2	Back filling with available soil	m ³	520		
9.1.3	75mmthick C15(40) screed concrete	m ³	12		
9.1.4	C25 (20) Concrete	m ³	110		
9.1.5	Formwork	m ²	600		
9.1.6	Reinforcement	kg	16000		
9.1.7	Weep holes with 75mm uPVC pipes	m	35		
9.1.8	Supplying & laying " Geotextile" layer behind the wall Type T.S 30	m ²	200		
9.1.9	Supplying & laying filter material (40-100mm metal) as per drawing	m ³	180		
9.1.10	Clay puddle	m ³	10		
9.1.11	Applying water proofing material in two coats on retaining wall as per manufacturer's specification. Rate to include for cleaning existing concrete surfaces to be free from dust, cement laitance, grout deposits and repair honey combs, P-cone holes, construction joints with approved non shrink, high strength repair grout, 25mm x 25mm angle fillet with 1:3 cement sand mortar and curing the application for 3 days.	m ²	200		
	Sub Total carried to Summary of Bill 09				-

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
9.2	<u>TOE WALL (Random Rubble Masonry)</u>				
9.2.1	Excavation for foundation	m ³	85		
9.2.2	Back filling with available soil	m ³	30		
9.2.3	C15 (40) Screed concrete	m ³	5		
9.2.4	C20 (20) Concrete	m ³	17		
9.2.5	Formwork	m ²	15		
9.2.6	Reinforcement	kg	450		
9.2.7	Random rubble masonry in 1:5 cement sand mortar in retaining wall	m ³	90		
9.2.8	Weep holes with 75mm uPVC pipes	m	28		
9.2.9	Supplying & laying filter material (40-100mm metal) as per drawing	m ³	36		
	Sub Total carried to Summary of Bill 09				
9.3	<u>CONSTRUCTION OF RAMP (Including Mass Concrete retaining wall)</u>				
9.3.1	Excavation for foundation	m ³	100		
9.3.2	Back filling with available soil	m ³	110		
9.3.3	C15 (40) screed concrete	m ³	5		
9.3.4	C20 (20) base Concrete & column in parapet wall	m ³	22		
9.3.5	100mm thick C20(20) floor concrete reinforced with 6mm dia BRC mesh 150mm C/C levelling to meet rough finish. Rate to include for Gauge 1000 polythene.	m ²	70		
9.3.6	C20 (40) mass Concrete	m ³	95		
9.3.7	Formwork	m ²	235		
9.3.8	Reinforcement	kg	750		
9.3.9	Supplying & laying " Geotextile" layer behind the wall Type T.S 30	m ²	100		
9.3.10	Weep holes with 75mm uPVC pipes	m	60		
9.3.11	Supplying & laying filter material (40-100mm metal) as per drawing	m ³	60		
	<u>Parapet wall</u>				
9.3.12	100mm thick solid cement block work in 1:5 Cement sand mortar.	m ²	35		

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
9.3.13	15mm thick external wall plaster in 1:1:5 cement, lime & sand finished rough.	m ²	75		
9.3.14	Prepare and apply one primer coat and two coats of weathershield paint of approved colour and quality to external rough plastered face of walls and reveals.	m ²	75		
9.3.15	Supplying & fixing of 60mm dia GI pipes Hand Rail fixed to parapet wall along ramp with 90mm high 60mm dia pipe, welded to 4mm thick MS plate (100x100mm size)as per Architectural drawing. Rate to include for one coat of etching primer & two coats of enamel paint. (parapet wall measured separately)	m	35		
Sub Total carried to Summary of Bill 09					