

Section 6. Bill of Quantities

Guidance Notes on the Bill of Quantities

Objectives

The objectives of the Bill of Quantities (BOQ) are;

- (a) to provide sufficient information on the quantities of Works to be performed to enable Tenders to be prepared efficiently and accurately; and
- (b) when a Contract has been entered into, to provide a priced BOQ for use in the periodic valuation of Works executed.
- (c) a separate item for tests that may be required to be carried out to ensure the quality of materials and works.

In order to attain these objectives, the items in the Bill of Quantities should be grouped into sections to distinguish between those parts of the Works that by nature, location, access, timing, or any other special characteristics may give rise to different methods of construction, phasing of the Works, or considerations of cost. General items common to all parts of the Works may be grouped as a separate section in the Bill of Quantities. Consistent with these requirements, the layout and content of the BOQ should be as simple and brief as possible. Quantities should be computed net from the Drawings, unless directed otherwise in the Contract, and no allowance should be made for bulking, shrinkage, or waste. Quantities should be rounded up or down where appropriate and spurious accuracy should be avoided.

The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for Tendering. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Project Manager and valued at the rates or prices quoted in the priced Bill of Quantities, where applicable, and otherwise at such rates or prices as the Project Manager may fix within the terms and conditions of the Contract.

Unit Rates and Price

Tenderer's profit, overheads, VAT and all other charges including corresponding incidental service charges for banking shall be deemed included in all the unit rates and prices in the BOQ against each basic item or activity and, thus forth the total Tender Price quoted by the Tenderers.

The method of measurements of completed works for payment shall be based on metric system unless otherwise unavoidable.

A sample format has been suggested.

Bill of Quantities

Name of Works: Construction of boundary wall with MS barbed wire fencing from PSTP entry gate to rail gate.(Lot-3).

IFT No.: 46.113.433.00.00.2025-26.81-16, Package No.: W20, Lot No.: Single

Sl. No.	Description of work	Unit	Quantity	Rate	Total Amount
1	Mobilization and cleaning site before commencing actual physical work and during contract period and demobilization after completion of the works under contract to be accepted by the Engineer-in-charge. This work shall also cover cleaning and clearing, cutting or filling, dressing the project area on and in the ground to an extent that all the events of works of the project can be executed smoothly in a working environment with a particular attention on safety and security in all respects, and to stockpile the end outcome to a place for disposal agreed by the Engineer-in-charge, where, payments are to be based on ground area determined by the Engineer-in-charge and be proportionate to the percentage progress of work under contract as a whole in all respects and approved by the Engineer-in-charge.	sqm	120	62.001	7,440.120
2	Earth work in excavation in all kinds of soil for foundation trenches including layout, providing center lines, local bench-mark pillars, levelling, ramming and preparing the base, fixing bamboo spikes and marking layout with chalk powder, providing necessary tools and plants, protecting and maintaining the trench dry etc., stacking, cleaning the excavated earth at a safe distance out of the area enclosed by the layout etc. all complete and accepted by the Engineer-in-charge, subject to submit method statement of carrying out excavation work to the Engineer-in-charge for approval. However, engineer's approval shall not relieve the contractor of his responsibilities and obligations under the contract. Earthwork in excavation in foundation trenches up to 1.5 m depth and maximum 10 m lead.	cum	74.2	168.001	12,465.674
3	One layer brick flat soling in foundation or in floor with sand cement solid block (SCSB) (240x114x70)mm including preparation of bed and filling the interstices with local sand, leveling etc. complete and accepted by the Engineer-in-charge	sqm	20.16	518.001	10,442.900
4	Sand filling in foundation trenches and plinth with sand having minimum F.M. 0.5 in 150 mm layers including leveling, watering and compaction to achieve minimum dry density of 95% with optimum moisture content (Modified proctor test) by ramming each layer up to finished level as per design supplied by the design office only, all complete and accepted by the Engineer-in-charge.	cum	49.71	1,088.001	54,084.530

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5	FORMWORK (Wooden) for boundary wall, gate, centry post etc. Pedestals, column, wall	sqm	77.97	526.001	41,012.298
6	Grade 400 (B400DWR / B420DWR: complying BDS ISO 6935-2:2016 / ASTM A615) ribbed or deformed bar produced and marked according to Bangladesh standard, with minimum yield strength, f_y (R_{eH}) = 400 MPa but f_y not exceeding 480 MPa and whatever is the actual yield strength within allowable limit as per BNBC/ ACI 318, the ratio of ultimate tensile strength f_u to yield strength f_y , shall be at least 1.25 and minimum elongation after fracture and minimum total elongation at maximum force is 17% and 8% respectively : up to ground floor.	kg	1,775.80	121.001	214,873.576
7	Reinforced cement concrete works with minimum cement content relates to mix ratio 1:2:4 having maximum water cement ratio = 0.40 and minimum f_{cr} = 30.5 MPa, satisfying a specified compressive strength f_c = 22 MPa at 28 days on standard cylinders as per standard practice of Code ACI/BNBC/ASTM, cement conforming to BDS EN-197-1-CEM-I, 52.5N (52.5 MPa) / ASTM-C 150 Type - I, best quality Sylhet sand or coarse sand of equivalent F.M. 2.2 and 20 mm down well graded stone chips conforming to ASTM C-33 (Aggregate grading as per table shown in technical specification), conducting necessary tests, making and placing shutter in position maintaining true to plumb, making shutter water-tight properly, placing reinforcement in position; mixing in standard mixer machine with hopper fed by standard measuring boxes, casting in forms, compacting by vibrator machine and curing at least for 28 days, removing centering-shuttering after specified time approved; including cost of water, electricity, other charges etc. all complete, approved and accepted by the Engineer-in-charge. (Rate is excluding laboratory test fees, the cost of reinforcement and its fabrication, placing, binding etc. and the cost of shuttering & centering). Pedestals, column, column capital, lift wall and RCC wall up to ground floor	cum	12.8	13,863.00 1	177,446.413
8	Brick works with first class bricks with cement sand (F.M. 1.2) mortar (1:4) in exterior walls including filling the interstices with mortar, raking out joints, cleaning and socking the bricks at least for 24 hours before use and washing of sand, necessary scaffolding, curing at least for 7 days etc. all complete including cost of water, electricity and other charges (measurement to given as 250 mm width for one brick length and 375 mm for one brick and a half brick length) accepted by the Engineer-in-charge. (Cement: CEM-II/B-M) In ground floor	Cum	3.7	10,097.00 1	37,358.904
9	Minimum 12 mm thick cement sand (F.M. 1.2) plaster with neat cement finishing to dado (1:4) with cement up to 150 mm below ground level with neat cement finishing including washing of sand, finishing the edges and corners and curing at least for 7 days, cost of water, electricity and other charges etc. all complete in all respect as per drawing and accepted by the Engineer. (Cement: CEM-II/A-M)	sqm	147.42	335.001	49,385.847

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10	Manufacturing, supplying, fitting and fixing M.S. grill fencing as per design with outer frames having 38 mm x 38 mm x 6 mm M.S. angle and inner members having 10 mm dia M.S.rod placed @ 100 mm c/c diagonally on both direction,welding each cris-cross end of rod with corners of outerframe including cutting rods and size angles to required shapes and size and setting the entire fence with the previously installed box tube (box tube made with 2 nos. angle) post including thorough and full welding the frame with the angle box posts, painting 2 coats of synthetic enamel paint over a coat of anti-corrosive priming etc. all complete as per drawing and accepted by the Engineer-in-charge. (Rate is excluding the cost of paint)	sqm	69.69	2,619.001	182,518.180
11	Exterior premium acrylic emulsion paint of approved best quality and color with high performance against dirt picking tendency and efflorescence resistance properties along with water resisting properties and resistance properties against fungi, fading and flaking from authorized local agent of the manufacturer in a sealed container; applying to exterior surface with surface preparation including cleaning drying, making free from dirt, grease, wax, removing all chalked and scaled materials, fungus, mending good the surface defects using sand paper and necessary scaffolding; applying necessary exterior sealer of specified brand on prepared surface; then applying necessary exterior putty of specified brand for levelling, spot filling, crack filling and cutting by sand paper/zero water paper; finally applying 2 coats of exterior emulsion paint spreading by brush/roller/spray & necessary scaffolding etc. upto desired finishing, elapsing specified time for drying or recoating; all complete in all floors and accepted by the Engineer-in-charge.	sqm	148	298.001	44,104.148
12	Cleaning and disposing of earth from the construction site by truck or by any other means to a place within 30 km radius of the city or town area including loading & unloading at both ends, leveling and dressing the carried earth etc. complete and accepted by the Engineer-in-charge.	Cum	14	756.000	10,584.000
13	Supplying, fitting and fixing 12 BWG barbed wire fencing in a circular shape of 600 mm dia and 100 mm pitch fitted with MS rod casing (made by 8 nos. 10 mm dia plain bar in a circular pattern and placed at equal interval), 38 mm x 38 mm x 6 mm M.S. angle post (300 mm embedded in RCC or in brick work with a cement concrete base of 75 mm x 75 mm x 300 mm) and 600 mm vertical and 450 mm inclined placed @ 3.0 m c/c including straightening, binding the joints with 18 BWG wire, making holes in the angle etc. including supply of all necessary materials complete in all respect and accepted by the Engineer-in-charge. (Rate is excluding the cost of Painting).	m	40	2,553.001	102,120.040
14	Premium synthetic enamel paint of approved best quality and colour delivered from authorized local agent of the manufacturer in a sealed container, having high water resistance, high bondability, flexibility property; using specified brand thinner applying to metallic or wooden surface by brass/roller/spray in two coats over single coat anti-corrosive coating including cleaning, drying, making free from dirt, grease, wax, removing all chalked and scaled materials, all complete in all floors and accepted by the Engineer-in-charge.	sqm	69.7	238.001	16,588.670

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15	Bailing out of trapped water caused by inundation or rain, by pump from foundation trenches.	hour	67	474.001	31,758.067
16	Providing Safety Measures etc. as per direction of the engineer-in-charge.	LS	1	5,432.070	5,432.070
Grand Total Tk=					997,615.436
Taka In words : Nine Lac Ninety Seven Thousand Six Hundred Fifteen point Four Three Six only.					

Tender Price quoted by the Tenderer: 1.1% (ONE percent) above / below / at par the total estimated cost in the BOQ

This Bill of Quantities contains (insert number) corrections duly initialled and signed by the Tenderer [strike out the inappropriate]

Note

1. It is suggested that the Tenderer uses these sheets of the BOQ in order to avoid any manipulation, distortion and inadvertent mistakes or omissions in course of preparing the Tender by the Tenderer
2. Tenderer's profit, overheads, VAT and all other charges including corresponding incidental service charges for banking shall be deemed included in all the unit rates and prices in the BOQ against each basic item or activity and, thus forth the total Tender Price quoted by the Tenderers.

Follow the Guidance notes under Section 6 in filling this Schedule



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