

M/s. Vola Enterprise

Section 6. Bill of Quantities

Construction of manhole at junction of SSDS and delivery line, chlorine room, toilet of Tejgoan SLS. The materials/completed works will be accepted after joint inspection of EE, AE, and SAE of PSTP division and EE, P&D (Sewer) division in presence of SE, W& STP circle. Final bill be paid after getting satisfactory acceptance at the time of joint inspection comparing with the mentioned technical specification and sample. The contractor will provide free service during defect liability period of 6 (six) months of concerning any problem of this work.

Bill of Quantities

Item no.	Group	Item Code (if any)	Description of Item	Measurement Unit	Quantity	Unit Price (In figures: BDT)	Unit Price (In words: BDT)	Total Price (In figures: BDT)	Total Price (In words: BDT)
1	N/A	N/A	Providing and maintenance one project profile signboards to be placed at a suitable place of the site including submission of proposals for the materials of the signboards and text layout containing 3D picture, safety instructions, project information with security light etc to the Engineer-in-charge for approval which will be positioned as directed by the Engineer-in-charge and removing the same on completion of the works or as instructed by the Engineer-in-charge.	Sqm	2.000	2914.454	Two Thousand Nine Hundred and Fourteen point Four Five Four	5828.908	Five Thousand Eight Hundred and Twenty-Eight point Nine Zero Eight
2	N/A	N/A	Layout and marking for earthwork in excavation in foundation accepted by the Engineer-in-charge. [Plinth area of the structure shall be considered for measurement]	Sqm.	6.250	16.776	Sixteen point Seven Seven Six	104.850	One Hundred and Four point Eight Five
3	N/A	N/A	"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	Sqm	35.530	192.473	One Hundred and Ninety-Two point Four Seven Three	6838.566	Six Thousand Eight Hundred and Thirty-Eight point Five Six Six

			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.						
4	N/A	N/A	Earthwork in excavation of pond of any dimension in all kinds of soil including cutting up to required depth including bailing out water and throwing on the embankment, breaking clods, ramming and leveling, dressing in 225 mm layer with maintaining the side slopes and level of both pond and the embankment as per design and accepted by the Engineer-in-charge.	Cum	78.000	236.829	Two Hundred and Thirty-Six point Eight Two Nine	18472.662	Eighteen Thousand Four Hundred and Seventy-Two point Six Six Two
5	N/A	N/A	Removal of excavated earth/debris etc.	Cum	52.030	667.473	Six Hundred and Sixty-Seven point Four Seven Three	34728.620	Thirty-Four Thousand Seven Hundred and Twenty-Eight point Six Two
6	N/A	N/A	One layer brick flat soling in foundation or in floor with first class/picked jhama bricks including preparation of bed and filling the interstices with local sand, levelling etc. complete and accepted by the Engineer-in-charge	Sqm	9.230	457.343	Four Hundred and Fifty-Seven point Three Four Three	4221.276	Four Thousand Two Hundred and Twenty-One point Two Seven Six
7	N/A	N/A	Mass concrete (1:2:4) in foundation or in floor with cement, sand (F.M. 1.2) and picked jhama brick chips including breaking of chips, screening, mixing, laying, compacting to required level and curing for at least 7 days including the supply of water, electricity, costs of tools & plants and other charges etc. all complete and accepted by Engineer-in-charge. (Cement: CEM-II/B-M)	Cum	0.690	7804.837	Seven Thousand Eight Hundred and Four point Eight Three Seven	5385.338	Five Thousand Three Hundred and Eighty-Five point Three Three Eight
8	N/A	N/A	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	Cum	17.680	6647.355	Six Thousand Six Hundred and Forty-Seven point Three Five Five	117525.236	One Lakh Seventeen Thousand Five Hundred and Twenty-Five point Two Three Six

			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/A-M) In ground floor						
9	N/A	N/A	Providing minimum 20 mm thick cement sand (F.M. 1.2) plaster with neat cement finishing to dado with cement (1:4) up to 150 mm including washing of sand, finishing the edges and corners and curing at least for 7 days, cost of water, electricity, scaffolding and other charges etc. all complete in all respect as per drawing and accepted by the Engineer-in-charge. (Cement: CEM-II/A-M) ground floor.	Sqm	159.637	499.722	Four Hundred and Ninety-Nine point Seven Two Two	79774.121	Seventy-Nine Thousand Seven Hundred and Seventy-Four point One Two One
10	N/A	N/A	Providing minimum 12 mm thick cement sand (F.M. 1.2) plaster (1:4) with fresh cement to both inner and outer surface of wall, finishing the corner and edges including washing of sand, cleaning the surface, curing at least for 7 days, cost of water, electricity, scaffolding and other charges etc. all complete in all respect as per drawing and accepted by the Engineer-in-charge. (Cement: CEM-II/A-M) ground floor.	Sqm	48.700	278.997	Two Hundred and Seventy-Eight point Nine Nine Seven	13587.154	Thirteen Thousand Five Hundred and Eighty-Seven point One Five Four
11	N/A	N/A	Fair-faced RCC WORKS: 1:1.5:3 (measured on gross concrete section). ($f_c = 25$ MPa, minimum $f_{cr} = 33.5$ MPa in nominal mix 1:1.5:3). (100% sand of F.M. 2.2) Cast-in-place fair-faced concrete works with $f_{cr}=33.5$ Mpa and $f_c=25$ Mpa at 28 days on standard cylinders by using 75% of OPC and 25% of white 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, 20 mm down and well graded stone chips conforming to ASTM C-33 (Aggregate grading as per table shown in technical specification) at mix ratio of 1:1.5:3, adding coloring pigment admixture (satisfying ASTM C979) as per	Cum	4.816	15345.686	Fifteen Thousand Three Hundred and Forty-Five point Six Eight Six	73904.824	Seventy-Three Thousand Nine Hundred and Four point Eight Two Four

			architectural design, conforming to the standard practice of code ACI/BNBC/ASTM including conducting necessary tests, screening sand and chips through proper sieves, washing, making and placing shutter in position maintaining true to plumb, making shutter water tight properly, placing reinforcement in position, including pouring of concrete in form, 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).						
12	N/A	N/A	Grade 400 (RB 400 /RB 400W: complying BDS ISO 6935-2:2006) ribbed or deformed bar produced and marked according to Bangladesh standard, with minimum yield strength, fy (ReH)= 400 MPa but fy not exceeding 450 MPa and whatever is the yield strength within allowable limit as per BNBC/ ACI 318, the ratio of ultimate tensile strengthfull to yield strength fy, shall be at least 1.25 and minimum elongation after fracture and minimum total elongation at maximum force is 16% and 8% respectively : up to ground floor.	Kg	365.950	114.778	One Hundred and Fourteen point Seven Seven Eight	42003.009	Forty-Two Thousand AND Three point Zero Zero Nine
13	N/A	N/A	50 mm down graded picked jhama khoa consolidation in foundation trenches by mixing in mixer machine with best quality local sand (F.M. 1.2) and cement in 1:6:12 (cement: sand: khoa) proportion to achieve minimum dry density of 95% with optimum moisture content (Modified proctor test) including breaking and screening chips, laying and spreading in 150 mm layers uniformly and compacting etc. all complete and accepted by Engineer-in-charge.	Cum	0.418	5116.406	Five Thousand One Hundred and Sixteen point Four Zero Six	2138.658	Two Thousand One Hundred and Thirty-Eight point Six Five Eight

14	N/A	N/A	Carrying the following sizes of machine made RCC pipes with collar & other fittings of standards as mentioned in the specification from the factory or WASA Central Store Pagla to the working site or any place of Dhaka City by truck, loading & unloading by crane or by any means, well stacked in the site etc. all complete as per direction of the E/c. 900 mm dia	Rm	3.660	274.317	Two Hundred and Seventy-Four point Three One Seven	1004.000	One Thousand AND Four
15	N/A	N/A	Laying, jointing of the following sizes of machine made RCC pipe with collar, of the standards as mentioned in the specification in trenches to proper lines, levels and gradient including supplying & local carrying of pipes, supplying of Cement sand & other jointing materials etc. all complete as per drawing, specification and direction of the E/c. Pipes to be used in the work must be tested as per testing procedures and passed by the E/c. (Pipe will be Supplied by the Dept.) 900 mm dia	Rm	3.660	1252.217	One Thousand Two Hundred and Fifty-Two point Two One Seven	4583.114	Four Thousand Five Hundred and Eighty-Three point One One Four
16	N/A	N/A	Manufacturing and supply of machine made (Bell & spigot joint) R.C.C. Pipe as described below. The reinforced concrete pipe shall consist of sulphate resisting cement (S.R. cement), sand(F.M. 2.00) and approved jhama chips in proportion 1:1.5:3 S.R. cement will ne supplied by DWASA, or may be supplied by the supplier if necessary. The rate shall include the cost of all the materials , casting , curing, form work etc. Transportation up to pagla store ,loading un loading. handling at pagla store etc. The rate shall include VAT and all other taxes to be imposed . The effect ive length of all pipe shall be 1830/2440 mm. excluding the bell length. All the work must be completed as per Drawing, Specification, detail terms and conditions mentioned in the tender documents and direction of the Engineer in-charge. 900 mm dia RCC Pipe (tongue & groove joint)	Rm	3.660	10594.801	Ten Thousand Five Hundred and Ninety-Four point Eight Zero One	38776.972	Thirty-Eight Thousand Seven Hundred and Seventy-Six point Nine Seven Two

17	N/A	N/A	Making suitable connection of any dia new storm sewer line with the existing line or manhole of storm sewer including supplying of all necessary materials, protecting to the underground utility services and cutting of walls of existing manholes and making good the damages done and making necessary diversions arrangement of the existing flow etc. all complete as per drawing specification and direction of the Engineer-in-charge.	Each	1.000	3394.266	Three Thousand Three Hundred and Ninety-Four point Two Six Six	3394.266	Three Thousand Three Hundred and Ninety-Four point Two Six Six
18	N/A	N/A	Sand filling in foundation trenches and plinth with sand having F.M. 0.5 to 0.8 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	84.180	960.533	Nine Hundred and Sixty point Five Three Three	80857.668	Eighty Thousand Eight Hundred and Fifty-Seven point Six Six Eight
19	N/A	N/A	Fitting fixing the following sizes of CI manhole 550mm diacovers during casting of R.C.C. manhole slabs as per drawing specification & direction of the E/C	Each	1.000	813.284	Eight Hundred and Thirteen point Two Eight Four	813.284	Eight Hundred and Thirteen point Two Eight Four
20	N/A	N/A	Bailing out of trapped water caused by inundation or rain, by pump from foundation trenches.	hour	120.000	597.724	Five Hundred and Ninety-Seven point Seven Two Four	71726.880	Seventy-One Thousand Seven Hundred and Twenty-Six point Eight Eight
21	N/A	N/A	Hire charge of road surface cutter machine (Mechanically) : During construction / rehabilitation of water line to out or dismantling the RCC, CC., Asphalt and bituminous road surface by open cut method using hard surface mechanical cutting machine with necessary removal of dismantled materials. Providing temporary indication board, etc. complete .Mechanical cutting machine charge for narrow road (per meter measurement will be taken considering both side edge of trench).	Rm	10.000	114.778	One Hundred and Fourteen point Seven Seven Eight	1147.780	One Thousand One Hundred and Forty-Seven point Seven Eight

22	N/A	N/A	Demobilization and cleaning of the work site, removal of debris and other materials from inside the sewers, restoration of the finished ground surface, filling the surrounding ground surface removing, contractor's materials sheeds, machinery etc from the work site after completion of the works upto satisfaction of the Engineer-in-charge.	LS	1.000	39730.501	Thirty-Nine Thousand Seven Hundred and Thirty point Five Zero One	39730.501	Thirty-Nine Thousand Seven Hundred and Thirty point Five Zero One
23	N/A	N/A	Dismantling of plain concrete made of lime or cement and removal of debris to a safe distance.	Cum	4.110	1454.384	One Thousand Four Hundred and Fifty-Four point Three Eight Four	5977.518	Five Thousand Nine Hundred and Seventy-Seven point Five One Eight
24	N/A	N/A	"Cleaning the following sizes pipe drain/Brick sewer manhole catch pits etc. including removing the bund inside the line manhole cleaning the solid semi-solid & slushy earth, debris, polythene and any other foreign materials by manually labour by using ladder or by any other means, from the existing base of the line, without making any damage to the structure, including supply of all necessary equipments materials if necessary to ensure the proper cleaning along the whole length & width up to the invert level of the line and removing the sludge & debris to safe distant place without causing any disturbance to the traffic etc. all complete as per direction the E/C. "	Cum	258.540	293.124	Two Hundred and Ninety-Three point One Two Four	75784.279	Seventy-Five Thousand Seven Hundred and Eighty-Four point Two Seven Nine
25	N/A	N/A	Removal of Pipe line and Brick sewer sludge from the cleaning site up to the nearest D.C.C. dumping yard carrying loading unloading etc. complete as per direction of the Engineer-in-charge.	Cum	155.124	330.998	Three Hundred and Thirty point Nine Nine Eight	51345.734	Fifty-One Thousand Three Hundred and Forty-Five point Seven Three Four
26	N/A	N/A	Making cross bundh of required height & width for the purpose of dewatering and keeping the site always workable, with sand/ soil & empty bags arranged by the contractor and maintaining the same till the completion of work including supply of necessary planks, runner	Each	2.000	60037.201	Sixty Thousand AND Thirty-Seven point Two Zero One	120074.402	One Lakh Twenty Thousand AND Seventy-Four point Four Zero Two

			hings etc. with necessary equipments & removal the same accurately after completion of work as per direction of the Engineer-in-charge. (For Brick Sewer 2400 mm dia & Above).						
27	N/A	N/A	"Manufacture and supply of 550mm dia theft proof C.I. Manhole Cover (with frames) perforated as per drawing enclosed details terms & conditions, specification and direction of delivery at Pagla Store Or by any means inpresence of an acceptance by the authorized representative of Executive Engineer, Store Division, Dhaka WASA. If must be intrigued on C.I. Manhole Cover the monogram with the year, Drainage Division, Dhaka WASA. The manhole cover with frames must be capable of with standing a load of 5 (five) tons within on area of 300mm dia in circle, otherwise it will not acceptale 1% (one percent) of total supplied materials or Calculated amount given by concerned officers) must be tested in BUET/Govt. laboratory, Suppliers must have to bear total expenses involved in testing and other expenses. (including VAT). Different dia theft proof C.I.Manhole Cover 550mm dia (Av.145 kg)"	Each	1.000	24289.069	Twenty-Four Thousand Two Hundred and Eighty-Nine point Zero Six Nine	24289.069	Twenty-Four Thousand Two Hundred and Eighty-Nine point Zero Six Nine
28	N/A	N/A	Geo textile bag. (size-600 mm x 500 mm, 400 GSM/PP, thickness-3 mm).	Each	15.000	131.553	One Hundred and Thirty-One point Five Five Three	1973.295	One Thousand Nine Hundred and Seventy-Three point Two Nine Five
29	N/A	N/A	Geo textile bag. (size-800 mm x 500 mm, 400 GSM/PP, thickness-3 mm).	Each	15.000	158.041	One Hundred and Fifty-Eight point Zero Four One	2370.615	Two Thousand Three Hundred and Seventy point Six One Five
30	N/A	N/A	Geo textile bag. (size-1000 mm x 1000 mm, 400 GSM/PP, thickness-3 mm).	Each	15.000	327.557	Three Hundred and Twenty-Seven point Five Five Seven	4913.355	Four Thousand Nine Hundred and Thirteen point

									Three Five Five
31	N/A	N/A	Rent of compressor, oxygen mask and full set for expct water sink man.	days	4.000	11036.251	Eleven Thousand AND Thirty-Six point Two Five One	44145.004	Forty-Four Thousand One Hundred and Forty-Five point Zero Zero Four
32	N/A	N/A	Rent of tripod, MS plate and other acessorices	days	10.000	1103.626	One Thousand One Hundred and Three point Six Two Six	11036.260	Eleven Thousand AND Thirty-Six point Two Six
33	N/A	N/A	C I Foot Step (300 x 200 mm)	each	8.000	867.608	Eight Hundred and Sixty-Seven point Six Zero Eight	6940.864	Six Thousand Nine Hundred and Forty point Eight Six Four
34	N/A	N/A	Rent of 75kW genarator, genarator oil. change over, wair, matel halogen light and light acessorices.	days	3.000	6180.301	Six Thousand One Hundred and Eighty point Three Zero One	18540.903	Eighteen Thousand Five Hundred and Forty point Nine Zero Three
35	N/A	N/A	Road cutting charge & VAT for Rajdhani Unnayan Kartripakkha (RAJUK)	item	1.000	26487.001	Twenty-Six Thousand Four Hundred and Eighty-Seven point Zero Zero One	26487.001	Twenty-Six Thousand Four Hundred and Eighty-Seven point Zero Zero One
36	N/A	N/A	Approved best quality and colour synthetic polyvinyl distemper delivered from authorized local agent of the manufacturer in a sealed container, applying to wall and ceiling 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 1 coat of interior sealer of specified brand on prepared surface; then applying 1 coat of interior putty of specified brand for levelling, spot filling, crack filling and cutting by sand	sqm	159.637	188.059	One Hundred and Eighty-Eight point Zero Five Nine	30021.175	Thirty Thousand AND Twenty-One point One Seven Five

			paper/zero water paper; finally applying 2 coats of synthetic polyvinyl distemper 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.						
37	N/A	N/A	Supply, fitting and fixing of electrification, light, holder, cable and other accessories by skilled manpower.	item	1.000	1765.801	One Thousand Seven Hundred and Sixty-Five point Eight Zero One	1765.801	One Thousand Seven Hundred and Sixty-Five point Eight Zero One
38	N/A	N/A	Supplying, fitting and fixing of 38 mm thick well matured seasoned (moisture content should be between 12% to 16%) solid wood single leaf door shutter having stile section 100mm x 38mm, top rail section 125mm x 38mm, lock rail section 100mm x 38mm and bottom rail section 225mm x 38mm (made from minimum 250mm wide plank) with 4nos 100mm long, 3mm thick hinge, 12mm dia 250mm long tower bolt, 12mm dia 200mm long socket bolt, 2nos 150mm long handle, hinged cleats and buffer blocks. All complete in all floors and accepted by the Engineer-in-charge. Chattogram Teak (SS Fittings)	item	5.881	11918.082	Eleven Thousand Nine Hundred and Eighteen point Zero Eight Two	70090.240	Seventy Thousand AND Ninety point Two Four
39	N/A	N/A	Supplying, fitting and fixing of flush valve for water closet on walls or directly over water closet with necessary accessories, making holes wherever required and mending good the damages and fitting, fixing & finishing etc. all complete with all necessary fittings and connections approved and accepted by the Engineer-in-charge. Flush valve (local)	each	1.000	37292.142	Thirty-Seven Thousand Two Hundred and Ninety-Two point One Four Two	37292.142	Thirty-Seven Thousand Two Hundred and Ninety-Two point One Four Two
40	N/A	N/A	Supply, fitting and fixing of water line conuction with pipe, valve and other accessories by skilled manpower.	item	1.000	10594.801	Ten Thousand Five Hundred and Ninety-Four point	10594.801	Ten Thousand Five Hundred and Ninety-Four point

								Eight Zero One	Eight Zero One
41	N/A	N/A	Making catch pit, sewer pipe line laying and drain system and other works.	item	1.000	12360.601	Twelve Thousand Three Hundred and Sixty point Six Zero One	12360.601	Twelve Thousand Three Hundred and Sixty point Six Zero One
42	N/A	N/A	Shoring and boxing by steel sheet.	Rm	6.588	176.012	One Hundred and Seventy-Six point Zero One Two	1159.567	One Thousand One Hundred and Fifty-Nine point Five Six Seven
43	N/A	N/A	Shalbullha strut 100 mm dia (avg).	Rm	740.664	113.894	One Hundred and Thirteen point Eight Nine Four	84357.186	Eighty-Four Thousand Three Hundred and Fifty-Seven point One Eight Six
44	N/A	N/A	All working site cleaning.	LS	1.000	10545.272	Ten Thousand Five Hundred and Forty-Five point Two Seven Two	10545.272	Ten Thousand Five Hundred and Forty-Five point Two Seven Two
							Grand Total:	1298612.771	Twelve Lakh Ninety-Eight Thousand Six Hundred and Twelve point Seven Seven One

* Note: All applicable taxes, custom duties, VAT and other levies payable by the Contractor under the Contract shall be included in the unit prices submitted by the Tenderer.

This Section 6. Bill of Quantities is Electronically Signed by Mr. Md. Hossain on behalf of M/s. Vola Enterprise