



**STATE BANK OF PAKISTAN
SBP BANKING SERVICES CORPORATION (BANK)**

TENDER DOCUMENTS

VOLUME – IV

PRICE BID

FOR

CONSTRUCTION OF SBP NEW OFFICE BUILDING

AT

D.I KHAN

LETTER OF PRICE BID

Name of Contract: Construction of SBP New Office Building at D.I Khan

To:

Director/Head
Engineering Department
State Bank of Pakistan SBP, BSC
1st Floor SBP Bolton Market Building
M.A. Jinnah Road, Karachi

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (IB)9;
(b) The total price of our Bid, excluding any discounts offered in item (c) below is:
Rs. _____
(c) The discounts offered and the methodology for their application are:
Rs. _____
(d) Our Bid shall be valid for a period of 180 days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
(e) If our Bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents;
(f) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed and we do hereby declare that the Bid is made without any collusion, comparison of figures or arrangement with any other bidder for the works.
(g) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.
(h) We agree to permit Employer or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors. This permission is extended for verification of any information provided in our Technical Bid which comprises all documents enclosed herewith in accordance with IB.11.1 of the Bidding Data.
(i) If awarded the contract, the person named below shall act as Contractor's Representative.

Name

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date

Address.....



PREAMBLE TO BILL OF QUANTITIES

1. The Bill of Quantities shall be read in conjunction with the Conditions of Contract, Specifications and Drawings.
2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work executed and measured by the Contractor and verified by the Engineer and valued at the rates and prices entered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix in accordance with provisions of the Contract.
3. The rates and prices entered in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the Contract include all costs of Contractor's plant, labour, supervision, materials, execution, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract. Furthermore, all duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as on the date 28 days prior to deadline for submission of Bids, shall be included in the rates and prices and the total Bid Price submitted by the Bidder.
4. A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of items against which the Contractor will have failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
5. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related items of the Works.
6. General directions and description of work and materials are not necessarily repeated nor summarised in the Bill of Quantities. References to the relevant sections of the Bidding Documents shall be made before entering prices against each item in the priced Bill of Quantities.
7. Units of measurement, symbols and abbreviations expressed in the Bidding Documents shall comply with the System International d' Unites (SI Units).
8. The following abbreviations shall be used in the Bill of Quantities:

Pakistani Rupees
Running feet
Square feet
Square Meter
Cubic feet
Metric Ton
Per Number
Lump Sum Job
Kilogram

Abbreviation

PKR/ Rs.
Rft. / Ft.
Sft./ SF
Sqm./ SM
Cft./ CF
M. Ton.
Number, No., Each
Job, Lot



9. Variety of the items are available in the market with diverse price range. Therefore, in order to have uniformity in the quoted bid prices by the prospective bidders, base rates are provided. Any fluctuation in market rates of material during execution of work shall not be payable. Any adjustment in Prices shall be paid as per Appendix-C to Bid and Sub-Clause 70.1 of Conditions of Contract.

Item No.	Material	Base Price
C-L-08	Pre-polished granite (min. thickness ¾") for floor having size up to 4 Sft.	Rs. 1,600/ Sft
C-L-09	Pre-polished granite (min. thickness ¾") for floor having size up to 2 Sft.	Rs. 1,300 / Sft
C-L-10	½" thick (minimum) Pre-polished granite tiles for dado/ skirting	Rs. 700/ Sft
C-L-11	Pre-polished granite slab (min. thickness ¾") having size up to 4 Sft. for steps etc. with rounded nosing and anti-skid grooves	Rs. 700/ Sft
C-L-12	Pre-polished granite slab (min. thickness ½") having size up to 2 Sft. for risers, counter face etc.	Rs. 400/ Sft
C-L-13	Porcelain (Imported) tiles up to 4 Sft.	Rs. 683/ Sft
C-L-14	Porcelain (Imported) tiles up to 2 Sft.	Rs. 683/ Sft
C-L-15	Porcelain (Imported) tiles in dado/ skirting	Rs. 683/ Sft
C-L-16	Porcelain (Imported) tiles in dado/ skirting	Rs. 683/ Sft
C-L-17	½" thick minimum marble tiles for skirting	Rs. 280/ Sft
C-L-18	½" thick minimum marble slabs/ tiles for risers, dado etc. up to 2 Sft.	Rs. 360/ Sft
C-L-19	¾" thick (minimum) colored marble (parlino) tiles for floors up to 2.5 Sft. in size	Rs. 450/ Sft
C-L-20	¾" thick (minimum) white/ colored marble tiles for floors up to 2 Sft. in size	Rs. 600/ Sft
C-L-21	¾" thick (minimum) white/ colored marble tiles for floors up to 2.5 Sft in size	Rs. 600/ Sft
C-L-22	¾" thick (minimum) white/ colored marble tiles for floors up to 4 Sft in size	Rs. 600/ Sft
C-L-23	¾" thick (minimum) white/ colored marble slabs for steps etc. with rounded nosing and anti skid grooves	Rs. 600/ Sft
C-L-24	¾" thick white/ colored marble slabs for vanity, counter tops etc. with rounded nosing	Rs. 600/ Sft
C-L-25	Pre-polished marble slabs (minimum thickness ¾") having size up to 5 Sft for steps etc. with rounded nosing	Rs. 700/ Sft
C-L-26	½" thick (minimum) pre-polished marble slabs for risers, dado etc. up to 2.5 Sft in size	Rs.450/ Sft
C-L-27	Carpet tiles (maximum size 4 Sft.) of approved design/ color/ shade/ texture	Rs. 725/ Sft



CONSTRUCTION OF SBP NEW OFFICE BUILDING AT D. I. KHAN

SUMMARY OF COST

Sr. No.	Component of Works	Cost of Works (Rs.)
1	Civil Works	
2	Plumbing and Fire-Fighting Works	
3	Electrical & Mechanical Works	
4	HVAC Works	
5	Operation & Maintenance Services	
6	Essential Spare Parts	
Total (Rs.)		
Rebate @ _____% (if any)		
Amount Less Rebate (Rs.)		
Amount in Words:		

Note: The bidder shall carry over the Total Price Bid to Letter of Price Bid Page LPB-1

Name

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date

Address



CONSTRUCTION OF SBP NEW OFFICE BUILDING AT D. I. KHAN

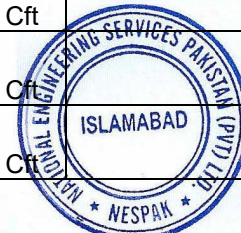
Bill of Quantities

CIVIL WORKS

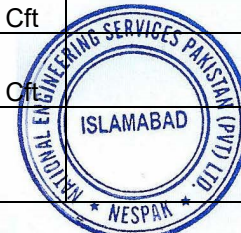
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section A - Earthworks					
C-A-01	Excavation in all kinds of subsurface material, including disposal of surplus excavated material with all lead and lift.	563,230	Cft		
C-A-02	Fill & back fill with suitable approved selected material obtained from excavation, including placing in layers and compaction complete.	50,061	Cft		
C-A-03	Providing and filling Engineered granular material compacted to at least 95% modified proctor in areas as shown on drawings or as directed by the Engineer.	27,330	Cft		
C-A-04	Providing and filling sand (if required) in areas as shown on drawings or as directed by the engineer including watering and compaction complete in all respects.	48,409	Cft		
Section A - Total (Rs.)					
Section B - Termite Control Treatment					
C-B-01	Termite control treatment in Building mixed with water in the mixing ratio as specified by the Manufacturer in bottom, sides of foundation trenches, spraying on stockpiled backfill material and under floors, treatment of all wood work with approved insecticides before installation in position.	38,185	Sft.		
Section B - Total (Rs.)					
Section C - Reinforcement					
C-C-01	High Tensile Steel Deformed round bars Grade 60.	959	M.Ton		
Section C - Total (Rs.)					
Section D - Plain & Reinforced Concrete					
C-D-01	Providing and laying Concrete Class 'E'	18,540	Cft		
C-D-02	Providing and laying Concrete Class 'D' in steps, under floors, Ramps etc. including fair faces to exposed surfaces.	1,255	Cft		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
C-D-03	Providing and laying reinforced Class D cement concrete in Stub columns , using O.P Cement, form work, curing etc. complete in all respects.	620	Cft		
C-D-04	Providing and laying Reinforced Concrete Class 'B' in Ramps	2,290	Cft		
C-D-05	Providing and fixing in position RCC class C Precast planks duct covers and joints filled with sealant complete in all respects.	50	Cft		
C-D-06	Providing and fixing in position RCC class C Precast planks duct covers and joints filled with sealant complete in all respects.	24	Cft		
C-D-07	Providing and laying Reinforced Concrete Class 'B' in the following:				
	a) Foundations	49,935	Cft		
	b) Plinth Beams	1,765	Cft		
	c) Plinth Beams (Building # 6)	505	Cft		
	d) Column, column stems	5,840	Cft		
	e) Column, column stems (Building # 6)	660	Cft		
	f) Slabs, beams, lintels, parapets, coping etc.				
	i) Building # 1	29,320	Cft		
	ii) Building # 2,3,4,5	24,300	Cft		
	g) Stairs				
	i) Building # 1	1,490	Cft		
	ii) Building # 2,4,5	540	Cft		
	h) Walls and Fins				
	i) Building # 1	17,935	Cft		
	ii) Building # 2,4	6,355	Cft		
	iii) Tank walls (Building # 6)	3,565	Cft		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	j) Overhead water tanks				
	i) Building # 1	600	Cft		
	ii) Building # 2,4,5	1,285	Cft		
C-D-08	Providing and laying Reinforced Concrete Class 'A' in the following				
	a) Column, column stems	16,440	Cft		
	b) Walls and Fins	6,475	Cft		
C-D-09	Providing and laying Reinforced Concrete Class 'A-1' in the following				
	a) Foundations / Raft	37,345	Cft		
	b) Column, column stems	465	Cft		
	c) Walls	8,135	Cft		
	d) Slabs & beams	11,100	Cft		
C-D-10	Class 'C' reinforced cement concrete fair face jali as per approved design including 2" wide (2 jalties sandwiched) decorative reinforced concrete Jali of approved design including painting with weather shield/weather coat, reinforcement etc. complete in all respects, reinforcement shall be minimum for shrinkage etc.	930	Sft.		
C-D-11	Providing and fixing 8" wide PVC water stopper in walls of overhead water Tank.	930	Rft		
Section D - Total (Rs.)					
Section E - Brick Masonry					
C-E-01	First class burnt brick masonry 9" thick and above laid and jointed in cement mortar 1:5 in any floor at any height.				
	a) Building # 1	21,650	Cft		
	b) Building # 2,3,4,5,6	24,035	Cft		
C-E-02	First class burnt brick masonry 4-1/2" thick laid and jointed in cement mortar 1:4 in any floor at any height.				



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	a) Building # 1	8,850	Cft		
	b) Building # 2,4,5,6	5,580	Cft		
C-E-03	Masonry in Fire Bricks with 1:1:4.5 cement, lime, sand and fine powdered baked clay with colour pigment mortar with reinforcing ties, including deep struck pointing and bars etc. including ornamental /decorative masonry work etc.				
	a) Building # 1	10,650	Cft		
	b) Building # 2,3,4,5,6	14,765	Cft		
C-E-04	Fire Bricks Masonry in Arches with 1:1:4.5 cement, lime, sand and fine powdered baked clay with colour pigment mortar with reinforcing ties, including deep struck pointing and bars etc. including ornamental /decorative masonry work and curved surfaces etc.				
	a) Building # 1	105	Cft		
	b) Building # 4	20	Cft		
Section E - Total (Rs.)					
Section F - Cement Plaster					
C-F-01	½" thick 1:4 cement sand plaster.	226,240	Sft.		
C-F-02	¾" thick 1:3 cement sand plaster including mixing Sikalite @ 1 Kg per bag of cement in over head water tanks complete in all respects.	1,310	Sft.		
Section F - Total (Rs.)					
Section G - Carpentry & Joinery					
C-G-01	Deodar wood panel doors with deodar wood frame (with approved design of groves) with hold-fasts embedded in adjoining surfaces, 2-1/2" thick single or double leaf shutters, using deodar wood in panels with approved design of grooves, deodar wood architraves, beads, Cornice as shown on drawing or approved by the engineer including 5mm thick plain Glass locks (imported of European origin) and all hardware fittings, matt enamel painting/ lacquer polishing, etc. complete in all respects all types	2,358	Sft.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
C-G-02	Deodar wood flush doors with deodar wood frame with hold-fasts embedded in adjoining surfaces, 1½" thick single or double leaf flush shutters with partial wood solid core with 5 mm (minimum) thick Deodar ply hydraulically pressed on both sides, deodar wood architraves/ beads/ lipping to shutters as shown on drawing or approved by the engineer including, locks (imported of European origin) and all hardware fittings, matt enamel painting/ lacquer polishing, etc. complete in all respects.	537	Sft.		
C-G-03	Provide & Fix Wooden Wardrobe Comprising of 2½"x2" deodar wood frame With ¾" thick commercial ply vin board in shutters, shelves, Partitions with ½"x¾" deodar wood supports under shelves including Polishing/painting & complete Hardware etc., as shown on drawings or as directed by the Engineer, Complete in all respects.	1,005	Sft.		
C-G-04	Providing making and fixing of kitchen cabinet consisting of wall hung and floor mounted cabinets, drawers, partitions, shelves and shutters with ¾" thick Vin board, framing and lipping with deodar wood, including all hardware fittings and the cost of Painting/polishing complete in all respect as per drawings specification and /or as directed by the Engineer.				
	a) Building # 1,5				
	i) Wall Mounted	227	Sft.		
	ii) Floor Mounted	310	Sft.		
	b) Building # 2				
	i) Wall Mounted	40	Sft.		
	ii) Floor Mounted	50	Sft.		
C-G-05	Providing and fixing in position 3 feet wide storage cabinets / wardrobe in laundry as per detail shown on drawings including polishing /painting & complete Hardware etc., as directed by the Engineer, Complete in all respects (in Building # 4)	20	Sft.		
C-G-06	Providing and fixing in position 3/8" thick Lasani wood access panel to duct openings including 1-1/2" x 1-1/2" x 1/8" MS angle frame fixed on walls with rawal bolts, matt enamel paint as per details shown on drawings complete in all respects	508	Sft.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
C-G-07	Providing and fixing in position 1-1/2" thick teak wood foldable wall fixed in top and bottom MS track with all accessories required as per approved shop drawings including lacquer polishing complete in all respects.	195	Sft.		
C-G-08	Providing and fixing Heavy Duty Hydraulic door Closers on doors as specified on drawings or as directed by Engineer.	76	Each		
Section G - Total (Rs.)					
Section H - Aluminum Works					
C-H-01	Powder coated aluminum doors (of approved colour) with fixed windows and ventilators Premium Model using 2mm thick minimum aluminum sections with minimum 100mm wide frame, including 5 mm thick imported tinted glass fixed with rubber lining/gasket, matching hardware, imported door locks, double action floor mounted concealed type door closer (as approved by the Engineer), push/pull bars, weather stripping, fixing with stainless steel screws, sealing the joints between aluminum sections and adjoining surfaces with transparent silicon sealant both inside and outside, etc. complete in all respect of the all type.	1,822	Sft.		
C-H-02	Providing & fixing of approved quality partially outward openable partially fixed as per the drawing sash type sound proof uPVC windows in white colour made from minimum 2mm thick imported (Winmark of other approved Turkish or approved origin) uPVC sections duly strengthened with 2mm thick MS sheet sections reinforcement, using frame made from minimum 70mm thick section and minimum 100mm size sash, double glazed with one 5mm thick and other 8mm thick both fully tempered clear glass panels with at least 8mm air space between the two glass				



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	panels vacuumed with argon gas, with best quality imported spacers and moisture absorbent chemicals, best quality rubbers, brushes, gaskets/EPDM, tapes, stoppers, thermal breaks, gears, approved quality & design uPVC handles, locks, latches, hinges and other hardware required, including repairing of jambs where required with mortar comprising of cement, sand & latex based bonding agent of approved make, sealing with approved quality silicone, complete in all respect as per site requirements, specifications, instructions of the manufacturer and as directed by the Engineer.	2,950	Sft.		
C-H-03	Providing and fixing in position 12mm thick tempered glass with anti shatter film, including all supports as required to fix on wall complete in all respects.	325	Sft.		
Section H - Total (Rs.)					
Section I - Structural Steel Works					
C-I-01	Providing and fixing Teak wood Rail comprising Brass bars as per details and finishes shown on drawing type R-1 Railing complete in all respects.	195	Rft		
C-I-02	Providing and fixing Teak wood Rail comprising vertical and horizontal stainless steel pipes as per details and finishes shown on drawing complete in all respects.	400	Rft		
C-I-03	Providing and fixing in position 2" dia Stainless Steel Pipe Bump rail as per details shown on drawings.	185	Rft		
C-I-04	Providing and fixing in position 2" dia Stainless Steel Pipe as per details shown on drawings.	20	Rft		
C-I-05	Providing and fixing in terrace Stainless Steel Pipe Railing comprising vertical and horizontal stainless steel pipes as per details and finishes shown on drawing complete in all respects.	80	Rft		
C-I-06	Steel doors (plain/louvered) comprising steel frame and steel shutter with 18 SWG sheet welded both sides, steel louvers where ever shown, including locks, all hardware fittings as per schedule, including painting with red-oxide and matt enamel paint, complete in all respects as per design, approved shop drawings, mock-up samples of the type. SD1,SD2, SD3 and SD4.	1,087	Sft.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
C-I-07	Steel doors comprising steel frame and steel shutter with 18 SWG sheet welded both sides, M.S Channels, M.S pipes, angle iron, welding as required including locks, all hardware fittings as per schedule, including painting with red-oxide and matt enamel paint, complete in all respects as per design shown on drawings. (Building # 3)	49	Sft.		
C-I-08	Providing and fixing Steel Revolving Doors (RD1) comprising 4" dia M.steel vertical pipe welded at bottom and top with unit having wheel bearings, M.S plates , Nut and bolts, class C concrete foundation, 1-1/2" dia M.S pipes horizontal welded with vertical pipe etc. as per approved shop drawing red-oxide paint and matt enamel paint, complete in all respects.	4	No.		
C-I-09	Providing and fixing Steel Gate as per design shown on drawings including red-oxide paint and matt enamel paint, complete in all respects. (Building # 6)	128	Sft.		
C-I-10	Providing, cutting, bending, welding and fixing in position M.S flat, angles, round bars monkey ladder as per design shown on drawings including nuts and bolts, red oxide and enamel painting complete in all respects.	1,010	Kg.		
C-I-11	Providing and fixing in position Stainless Steel Jali as per approved design, including all supports as required to fix on wall, steel polishing complete as directed by the Engineer.	165	Sft.		
C-I-12	Providing and fixing 2" thick one hour Fire Resistant Doors, fabricated from 16 SWG MS sheet and the core filled with heavy density Ceramic / Rock Wool insulation which can resist temperature up to 1300 Centigrade and full width door frame fabricated from 14 SWG MS sheet including locking arrangement/ panic bar, painting etc. complete in all respects as per approved shop drawing and mock-up sample.	140	Sft.		
C-I-13	Providing and fixing angle Iron 3" x 3" x 3/16" on walls with rawal bolts on area specified on drawings including cutting, bending, drilling and red oxide painting complete in all respects.	2,840	Kg.		



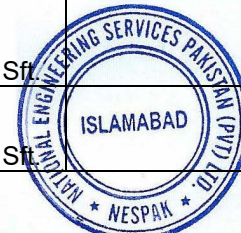
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
C-I-14	Providing and fixing Steel Bar Grills with doors comprising M.S angles Flats, steel bars, G.I wire mesh, Hinges, Electrical Lock, all welding works and hardwares etc. required as per design shown on drawings including red-oxide paint and matt enamel paint, complete in all respects.	3,365	Sft.		
C-I-15	Providing , cutting, fixing, welding in position Flat Iron (70mm X 6mm) HD grade in Vault foundation, walls and slabs complete in all respects as shown in drawings or as directed by the Engineer.	53,412	Kg.		
C-I-16	Providing and fixing Armored door with all accessories as per design including cutting, bending, welding, red oxide and enamel painting complete in all respects.	225	Sft.		
C-I-17	Providing, fabricating and fixing in position, steel door comprising of about 1.5" thick panel made from 1" x 1" sq. steel bars provided at about 8" distance (total 7 vertical bars & 11 horizontal bars), with 14 SWG GI skin sheet on both sides and concrete in-fill between the bars and between the steel bars mesh and skin sheets, with full length hinge made from 25mm dia steel shaft & heavy duty sockets welded with the door leaf and the door frame made from minimum 3mm thick hot rolled steel sheet according to the width of wall, with one see through bullet proof glass panel of 4" x 4" size with swinging type flip cover made from 14 SWG GI sheet, one tower bolt at bottom made from 1" dia steel shaft and heavy duty sockets welded over panel and one grouted in floor, three (03) Al-drops made from 1" dia steel shaft & heavy duty sockets welded to the door panel and grouted in the wall, one handle made from 1" dia welded to the internal steel bars mesh of the door panel, with one heavy duty hydraulic / spring type wheel set and allied accessories, all painted with approved quality red oxide primer and enamel paint, complete in all respects as per site requirements and directed by the Engineer- in charge. The vendor will have to submit the drawings, specifications, and other documents for approval of the Engineer before fabrication & installation of the door (4ft x 7ft size). Type-1 doors on exterior side of the premises	84	Sft.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
C-I-18	Providing, fabricating and fixing in position, steel door comprising of about 1.5" thick panel made from 1" x 1" sq. steel tubes of 18 SWG provided at about 8" distance (total 7 vertical tubes & 11 horizontal tubes), with 16 SWG GI skin sheet on both sides and gypsum / glass wool in-fill between the tubes and between the steel tubes mesh and skin sheets, with minimum 03 hinges made from 25mm dia steel shaft & heavy duty sockets welded with the door leaf and the door frame made from minimum 1.6mm thick GI sheet according to the width of wall, with one see through 12mm thick tempered glass panel of 4" x 4" size, one tower bolt at bottom made from 1" dia steel shaft and heavy duty sockets welded over panel and one grouted in floor, two (02) Al-drops made from 1" dia steel shaft & heavy duty sockets welded to the door panel and grouted / fixed in the wall. one handle made from 1" dia welded to the internal steel tubes mesh of the door panel, all painted with approved quality red oxide primer and enamel paint, complete in all respects as per site requirements and directed by the Engineer- in charge. The vendor will have to submit the drawings, specifications, and other documents for approval of the Engineer before fabrication & installation of the door (4ft x 7ft size). Type-2 doors on interior side of the premises.	84	Sft.		
Section I - Total (Rs.)					
Section J - False Ceiling					
C-J-01	Aluminum linear 8" wide strips false ceiling of M/s OWA (Germany) or approved manufacturer perforated with diffusion membrane, with approved Aluminum adjustable suspension system.	4,685	Sft.		
C-J-02	Providing and fixing of Gypsum board false ceiling (Elephant brand or as approved equivalent) as per approved design , 1/2" thick, including hanging arrangement supported including matt enamel paint finish of ICI make and as directed by the Engineer.	14,890	Sft.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
C-J-03	15 mm minimum thick 2' x 2' mineral fiber acoustical tile false ceiling (with surface pattern / design /texture), 4 sides revealed with bevel edges by M/s Daiken Corporation (Japan) or M/s OWA (Germany) with manufacturers approved and recommended adjustable suspension system and accessories in approved colour exposed surfaces, complete in all respects.	10,170	Sft.		
C-J-04	Providing and fixing of Stainless Steel Brush false ceiling as per approved design, including hanging arrangement supported including steel polishing complete as directed by the Engineer.	360	Sft.		
Section J - Total (Rs.)					
Section K - Water Proofing/ Expansion Joint Filling					
C-K-01	Water proofing treatment on roof slabs comprising: a) Cement sand slurry for filling crack & small pores. b) Primer for waterproofing membrane. c) 4mm thick Torch DWI waterproofing membrane. d) 3" thick (1:3:6) PCC laid in panels, 1" wide groove with filling material. e) 34mm thick heat insulation tiles. f) Expansion Joint as per details.	25,210	Sft.		
C-K-02	Water proofing treatment on roof slabs comprising (Building # 6): a) Cement sand slurry for filling crack & small pores. b) Primer for waterproofing membrane. c) 4mm thick Torch DWI waterproofing membrane. d) 3" thick (1:3:6) PCC laid in panels, 1" wide groove with filling material. e) 34mm thick heat insulation tiles. f) Expansion Joint as per details.	13	Sft.		
C-K-03	2" thick concrete class C in horizontal DPC.	130	Sft.		
C-K-04	Water proofing treatment of Retaining Walls, comprising: i) One layer of 2mm-SBS modified bituminous self adhesive membrane applied as per manufacturers specifications. ii) Bituminous primer applied as per manufacturers specification.	54,355	Sft.		
		24,660	Sft.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section K - Total (Rs.)					
Section L - Floor and Wall Finishes					
C-L-01	2" and down gauge graded stone ballast under floors, plinth protection and area as directed by the engineer.	2,965	Cft		
C-L-02	Class 'E' cement concrete (minimum mix 1:4:8) in sub floors, plinth protection and area as directed by the Engineer using ordinary Portland cement.	3,475	Cft		
C-L-03	Providing and laying 3" thick Class 'C' concrete floors using hardonate, laid in panels complete.	6,955	Sft.		
C-L-04	Providing and laying 1" thick concrete pigmented (imported pigment) checkered tiles (mechanically compressed and vibrated, factory manufactured) not exceeding 1 Sft. each on plinth protection, etc. laid in approved pattern set in 1" thick 1:4 cement mortar and joints grouted/pointed with pigmented cement slurry including cutting where required, complete in all respect as shown on drawings.	245	Sft.		
C-L-05	Providing and laying mosaic (Terrazzo) tiles 12" x 12" x 1" of white cement on floors laid and set in 1" thick cement mortar 1:3 and joints grouted with white/coloured cement using imported pigments, including cutting, grinding and chemical polishing, complete.	1,100	Sft.		
C-L-06	1/2" thick Granolithic skirting in white cement (1:2 one part cement and two parts granite chips of zero number) and approved shade pigment, over 1/2" thick rough cast 1:4 cement sand plaster including grinding and chemical polishing complete in all respects.	220	Sft.		
C-L-07	Providing and laying 2" thick Granolithic floors 1:2 (1 white cement and 2 granite chips of approved size) with approved shade pigment laid over 1-1/4" thick class C cement concrete in panels using 3/8" thick marble dividing strips, including cutting, grinding and chemical polishing, complete.	26,865	Sft.		



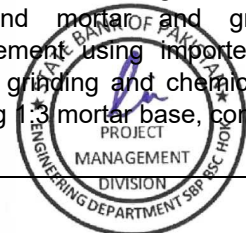
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
C-L-08	Providing and laying Pre-Polished Granite floor (minimum thickness ¾") of approved shade/colour (Cherry Brown, Cherry Pink, Sado Grey, Sado White, Steel Grey, Silver Pearl or approved equivalent) and having size up to 4 Sft. to specified surfaces of floors laid in approved design/pattern, including 1-1/4" thick cement sand 1:3 mortar base, grouted with cement slurry with matching colour pigmented (imported pigment), at any floor and any height complete in all respects.	8,140	Sft.		
C-L-09	Providing and laying Pre-Polished Granite floor (minimum thickness ¾") of approved shade/colour (Cherry Brown, Cherry Pink, Sado Grey, Sado White, Steel Grey, Silver Pearl or approved equivalent) and having size up to 2 Sft. to specified surfaces of floors laid in approved design/pattern, including 1-1/4" thick cement sand 1:3 mortar base, grouted with cement slurry with matching colour pigmented (imported pigment), at any floor and any height complete in all respects.	260	Sft.		
C-L-10	Providing and laying ½" thick (minimum) of approved shade and colour Pre-Polished Granite tiles (Cherry Brown, Cherry Pink, Sado Grey, Sado White, Steel Grey, Silver Pearl or approved equivalent) Dado / skirting, jointed in 1:3 cement sand mortar and grouted with white/coloured cement using imported pigments, including cutting, grinding and chemical polishing, over and including ½" thick 1:4 cement sand plaster base, including cutting, complete.	10,290	Sft.		
C-L-11	Providing and laying Pre-Polished Granite slabs Jet Black, Cherry Brown, Cherry Pink, Sado Grey, Sado White, Steel Grey, Silver Pearl or approved equivalent (minimum thickness ¾") of approved shade/colour and having size up to 4 Sft. to specified surfaces on steps, etc. with rounded nosing and anti skid grooves, including 1-1/4" thick cement sand 1:3 mortar base, grouted with cement slurry with matching colour pigmented (imported pigment), at any floor and any height complete in all respects.	2,125	Sft.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
C-L-12	Providing and laying ½" thick (minimum) of approved shade and colour Pre-Polished Granite slabs Jet black, Cherry Brown, Cherry Pink, Sado Grey, Sado White, Steel Grey, Silver Pearl or approved equivalent on risers, counter face etc. up to 2 Sft. in size, jointed in 1:3 cement sand mortar and grouted with white/coloured cement using imported pigments, including cutting, grinding and chemical polishing, over and including ½" thick 1:4 cement sand plaster base, including cutting, complete.	680	Sft.		
C-L-13	Providing and laying porcelain (imported) tiles (of approved colour/shade/texture) up to 4 Sft. in size on floors laid in pattern, jointed in 1:3 cement sand mortar and grouted with white/coloured cement using imported pigments, including laser cutting, over and including 1:3 cement sand mortar base, complete.	11,395	Sft.		
C-L-14	Providing and laying porcelain (imported) tiles (of approved colour/shade/texture) up to 2 Sft. in size on floors laid in pattern, jointed in 1:3 cement sand mortar and grouted with white/coloured cement using imported pigments, including laser cutting, over and including 1:3 cement sand mortar base, complete.	1,365	Sft.		
C-L-15	Providing and laying porcelain (imported) tiles (of approved colour/shade/texture) in dado/skirting with matching colour grout in joints set over 1/2" thick rough cast 1:4 cement sand plaster.	9,980	Sft.		
C-L-16	Providing and laying porcelain (imported) tiles (of approved colour/shade/texture) in dado/skirting with matching colour grout in joints set over 1/2" thick rough cast 1:4 cement sand plaster (Building # 5)	4,425	Sft.		
C-L-17	Providing and laying ½" thick (minimum) white/coloured marble tiles on skirting, jointed in 1:3 cement sand mortar and grouted with white/coloured cement using imported pigments, including cutting, grinding and chemical polishing, over and including ½" thick 1:4 cement sand plaster base, including cutting, complete.	2,420	Sft.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
C-L-18	Providing and laying ½" thick (minimum) white/coloured marble slabs/tiles on risers, dado, etc. up to 2 Sft. in size, jointed in 1:3 cement sand mortar and grouted with white/coloured cement using imported pigments, including cutting, grinding and chemical polishing, over and including ½" thick 1:4 cement sand plaster base, including cutting, complete.	165	Sft.		
C-L-19	Providing and laying ¾" thick (minimum) coloured marble (parlino) tiles on floors up to 2.5 Sft. in size, jointed in 1:3 cement sand mortar and grouted with coloured cement using imported pigments, including cutting, grinding and chemical polishing, over and including 1" thick 1:3 cement sand mortar base, complete.	305	Sft.		
C-L-20	Providing and laying ¾" thick (minimum) white/coloured marble tiles on floors up to 2 Sft. in size, jointed in 1:3 cement sand mortar and grouted with white/coloured cement using imported pigments, including cutting, grinding and chemical polishing, over and including 1-1/4" thick 1:3 cement sand mortar base, complete.	7,110	Sft.		
C-L-21	Providing and laying ¾" thick (minimum) white/coloured marble tiles on floors up to 2.5 Sft. in size, jointed in 1:3 cement sand mortar and grouted with white/coloured cement using imported pigments, including cutting, grinding and chemical polishing, over and including 1-1/4" thick 1:3 cement sand mortar base, complete.	195	Sft.		
C-L-22	Providing and laying ¾" thick (minimum) white/coloured marble tiles on floors up to 4 Sft. in size, jointed in 1:3 cement sand mortar and grouted with white/coloured cement using imported pigments, including cutting, grinding and chemical polishing, over and including 1-1/4" thick 1:3 cement sand mortar base, complete.	10,320	Sft.		
C-L-23	Providing and laying 3/4" thick (minimum) white/coloured marble slabs on steps, etc. with rounded nosing and anti skid grooves, jointed in 1:3 cement sand mortar and grouted with white/coloured cement using imported pigments, including cutting, grinding and chemical polishing, over and including 1-3" mortar base, complete.	275	Sft.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
C-L-24	Providing and laying 3/4" thick white/ coloured marble slabs on vanity, counter tops, with rounded nosing, jointed in 1:3 cement sand mortar and grouted with white/coloured cement using imported pigments, including cutting/cutting out area for basin, grinding and chemical polishing, over and including 1:3 cement sand mortar base, complete.	612	Sft.		
C-L-25	Providing and laying Pre-Polished Marble slabs (minimum thickness 3/4") of approved shade/colour and having size up to 5 Sft. to specified surfaces on steps, etc. with rounded nosing, including 1-1/4" thick cement sand 1:3 mortar base, grouted with cement slurry with matching colour pigmented (imported pigment), at any floor and any height complete in all respects.	945	Sft.		
C-L-26	Providing and laying 1/2" thick (minimum) of approved shade and colour Pre-Polished Marble slabs on risers, dado, etc. up to 2.5 Sft. in size, jointed in 1:3 cement sand mortar and grouted with white/coloured cement using imported pigments, including cutting, grinding and chemical polishing, over and including 1/2" thick 1:4 cement sand plaster base, including cutting, complete.	460	Sft.		
C-L-27	Providing and fixing carpet tiles (maxi. Size of 4 Sft) of approved design/ colour / shed / texture on floor fixed using approved adhesive complete in all respects.	840	Sft.		
C-L-28	Providing and laying cement concrete pavers 2 1/2" thick (minimum) with minimum 7000 Psi crushing strength in approved colour/ design/ shape laid in approved pattern, in paved areas, floors, foot paths, etc. (hydraulically compressed) laid and jointed in sand including 2" thick sand bed/cushion, etc. complete in all respects.	435	Sft.		
Section L - Total (Rs.)					
Section M - Painting					



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
C-M-01	3 coats of plastic emulsion paint including surface preparation by provision of a film with Alkali resisting primer on plastered wall and ceiling to form smooth base for plastic emulsion paint, including sanding, filling where required, etc. complete in all respect.	144,170	Sft.		
C-M-02	Painting with Weather shield paint of approved make and shade two coats over and including the cost of one priming coat complete over plastered surface at any height in any floor .	9,240	Sft.		
C-M-03	Painting with matt enamel paint of approved make and shade two coats over and including the cost of one priming coat complete over plastered surface at any height in any floor .	59,925	Sft.		
C-M-04	2 coats of bitumen coating @ 0.20 lb./Sft. each coat of 10/20 grade to concrete surfaces directly in contact with earth.	30,110	Sft.		
Section M - Total (Rs.)					
Section N - External Works					
SUB SECTION -1 EARTHWORK					
C-N-01	Clearing and Grubbing.	1,110	Sft.		
C-N-02	General excavation in all kinds of soil/material wet or dry including rock, boulders, gravels, conglomerate etc. including lead & lift and disposal of surplus excavated material stockpiling at designated places as directed by the Engineer.	33,725	Cft		
C-N-03	Formation of embankment/ filling with suitable already excavated material obtained under any item under this Contract and from any other area designated by the Engineer within the project premises including hauling up-to any lead and lift, placing in layers, compaction, dressing top and side slopes as per specifications and drawings or as directed by the Engineer.	28,295	Cft		
C-N-04	Structural and trench excavation in all kinds of soil/material wet or dry including rock, boulders, gravels, conglomerate etc. for road pavement structure, kerb stones etc. including disposal of surplus excavated material at designated locations within project premises as directed by the Engineer.	1,145	Cft		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
C-N-05	Compacted Backfilling with selected granular material as shown on drawing or as directed by the Engineer.	385	Cft		
C-N-06	Sub-grade preparation over bottom of excavation including excavation of 6" depth below sub-grade elevation and recompaction up to 95% modified AASHTO density as per cross slope/camber as shown on drawing or as directed by Engineer.	1,310	Sft.		
C-N-07	Sub-grade preparation over top of embankment including compaction up to 95% modified AASHTO density as per cross slope/camber as shown on drawing or as directed by Engineer.	1,110	Sft.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
SUB SECTION - 2 DRIVEWAY PAVEMENT					
C-N-08	Providing, laying stone ballast duly mixed with stone dust / Khaka to completely fill void spaces of stone ballast under lean concrete including compaction as specified or as directed by the Engineer.	10,160	Cft		
C-N-09	Providing and laying Concrete pavement in 1:2:4 in driveway, parking etc. using crushed graded boulders in panels of approved size laid to required gradient and camber including cost of necessary form work and its removal, compacting with vibrators (immersion or screen or both), roughening the surface after laying concrete with brush and curing etc. complete in all respects and as directed by the Engineer.	6,575	Cft		
C-N-10	Provide and fix Pre-cast kerb stones in class 'C' (1:2:4) concrete.	1,420	Rft		
C-N-11	Applying two coat of non reflective CR paint on kerb stones as per NHA specifications and quality as directed and approved by the engineer.	1,420	Rft		
C-N-12	Provide and lay Class 'E' (1:4:8) concrete in driveways, paved areas, parking and kerbstones etc. as shown on drawings or as directed by the Engineer.	4,939	Cft		
SUB SECTION - 3 GREEN AREAS					
C-N-13	Supplying and laying sweet earth free from salts, pebbles and grass roots etc. including all leads and lifts.	2,175	Cft		
C-N-14	Supplying and laying live (local) grass in slabs with earth intact including all lead and lifts.	4,350	Sft.		
Section N - Total (Rs.)					
Civil Works - Total (Rs.)					

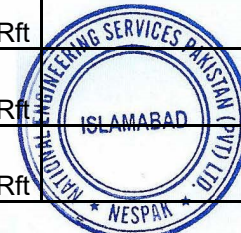


CONSTRUCTION OF SBP NEW OFFICE BUILDING AT D. I KHAN

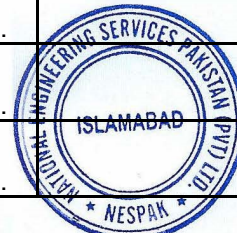
Bill of Quantities

PLUMBING & FIRE-FIGHTING WORKS

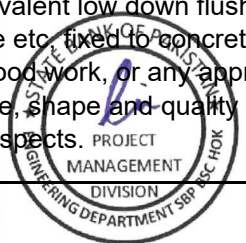
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
PLUMBING WORKS					
Section A - Water Supply Pipe Lines					
P-A-01	Providing, fixing, jointing and testing of G.I. water pipes conforming to EN-10255 (BS-1387), Medium Grade of Jamal or approved equivalent, i/c all fittings, wrapping polythene tape, giving anticorrosion treatment, applying protective painting, supports, making holes in concrete or masonry and then repairing holes, flushing, disinfecting, testing and commissioning etc. (filling & drain of over head water tank)				
	a) 2" dia	140	100Rft		
	b) 1/2" dia	90	100Rft		
	c) 1" dia (Supply line from Building # 1 to Plinth Protection of Building 6)	70	100Rft		
	d) 1-1/4" dia	10	100Rft		
	e) 1-1/2" dia	120	100Rft		
P-A-02	Providing, fixing, jointing and testing of G.I. water pipes (cold and hot water, on roof & in exposed condition) Conforming to EN-10255 (BS-1387, Medium Grade of Jamal or approved equivalent, i/c all fittings, wrapping glasswool thermal insulation with aluminium vapour barrier and G.I (28 gauge) cladding, making holes in concrete or masonry and then repairing holes, supports and hangers etc. of approved make, of the following diameters, complete in all respects.				
	a) 2" dia	40	100Rft		
	b) 1-1/2" dia	415	100Rft		
	c) 1-1/4" dia	325	100Rft		
	d) 1" dia	365	100Rft		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	e) 3/4" dia	215	100Rft		
P-A-03	Providing, fixing, jointing and testing of PPR water pipes PN-20 (for cold and hot water), inside building (un-exposed to sunlight conditions) conforming to DIN 8077-78, i/c all fittings (PN-25) of Dadex (polydex) or approved equivalent, cutting, jointing, hangers , support, making holes in concrete or masonry and then repairing holes, supports and hangers etc. of approved make of the following diameters.				
	a) 25mm dia	1,970	100Rft		
	b) 32mm dia	860	100Rft		
	c) 40mm dia	345	100Rft		
	d) 50mm dia	100	100Rft		
	e) 63mm dia	30	100Rft		
P-A-04	Providing, fixing, jointing and testing of PPR water pipes PN-20 (for cold and hot water), inside building (un-exposed to sunlight conditions) conforming to DIN 8077-78, i/c all fittings (PN-25) of Dadex (polydex) or approved equivalent, cutting, jointing, support, making holes in concrete or masonry and then repairing holes, supports etc. of approved make of the following diameter: a) 25mm dia	35	100Rft		
P-A-05	Provide, install and test Bronze gate valves, conforming to BS standards of Kitz Japan make or approved equivalent, including jointing arrangement of pipes on both ends of valves; nuts, bolts etc. complete in all respects, of following internal diameters.				
	a) 1/2" diameter	1	No.		
	b) 3/4" diameter	33	No.		
	c) 1" diameter	54	No.		
	d) 1-1/4" diameter	13	No.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	e) 1-1/2 " diameter	17	No.		
	f) 2 " diameter	4	No.		
P-A-06	Provide, install and test Bronze check valves, conforming to BS standards of Kitz Japan make or approved equivalent, including jointing arrangement of pipes on both ends of valves; nuts, bolts etc. complete in all respects, of following internal diameters.				
	a) 1-1/2" diameter	5	No.		
	b) 1-1/4" diameter	2	No.		
	c) 1 " diameter	10	No.		
P-A-07	Provide, install and test 3/4"dia Automatic Air Vent with risers, conforming to BS standards, of Kitz Japan or approved equivalent, including jointing arrangement of pipes on both ends of valves; nuts, bolts etc. complete in all respects.	27	No.		
Section A - Total (Rs.)					
Section B - Sanitary Plumbing & Fixtures					
P-B-01	Provide & install Water closet European pattern type HD-131N of Porta comprising flushing cistern, hydraulic seat cover, T-stop cock type HDJ817A of Porta or approved equivalent, connector and Dadex made or approved equivalent upvc thimble etc., or any approved make, colour, size, shape and quality fixed to concrete, brick or stone work, complete in all respects.	30	No.		
P-B-02	Provide & install Water closet Asiatic pattern best quality with integral foot rests type HD-70 of Porta or approved equivalent, Dadex or approved equivalent uPVC P-trap, T-stop cock type HDJ817A of Porta or approved equivalent & waste pipe, HDPT700 of Porta or approved equivalent low down flushing cistern, flush pipe etc. fixed to concrete, brick, stone or wood work, or any approved make, colour, size, shape and quality complete in all respects.	15	No.		



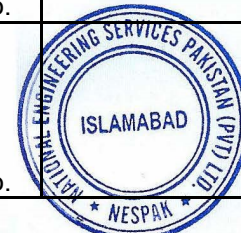
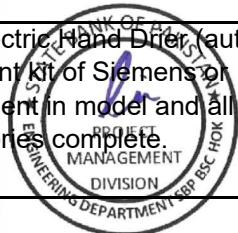
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-B-03	Provide & install HD-1 of Porta or approved equivalent Vanity type wash hand basin of approved make, colour, size, shape and quality including Porta or approved equivalent CP bottle trap with brass bottle and SS pipe , HDGD1023 of Porta or approved equivalent 1-1/4" basin waste, HDJ817A of Porta or approved equivalent tee-stop cocks HDA3571M of Porta or approved equivalent lever type mixer for cold and hot water, jointing and sealing material, etc. with all accessories for complete installation.	31	No.		
P-B-04	Provide & install type HD-11 of Porta or approved equivalent Wash hand basin or any approved make, colour, size, shape and quality including 1-1/4" basin waste, HDJ817A of Porta or approved equivalent tee-stop cocks HDA3571M or approved equivalent ,High Neck Pillar Cock 506 of Faisal or approved equivalent for cold water, jointing and sealing material, etc. with all accessories for complete installation. (HVAC Room)	1	No.		
P-B-05	Provide & install HD-11 of Porta or approved equivalent wash hand basin of approved make, colour, size, shape and quality including Porta or approved equivalent CP bottle trap with brass bottle and SS pipe, HDGD1023 of Porta or approved equivalent 1-1/4" basin waste, HDJ817A of Porta or approved equivalent tee-stop cocks, HDA3261M of Porta or approved equivalent lever type mixer for cold and hot water, jointing and sealing material, etc. with all accessories for complete installation.	23	No.		
P-B-06	Provide & install type HDSC8728 of Porta single bowl kitchen sink or any approved equivalent in size including 1-1/2" waste coupling, shape & quality including HDA270XQ of Porta or approved equivalent sink mixer for cold and hot water, etc., jointing and sealing material, painted heavy duty C.I. brackets etc. with all accessories for complete installation.	9	No.		



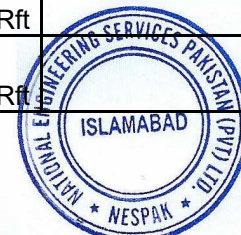
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-B-07	Provide & install type HDSC8868 of Porta Double bowl kitchen sink or any approved equivalent in size including 1-1/2" waste coupling, shape & quality including 2Nos HDA270XQ of Porta or approved equivalent sink mixer for cold and hot water, etc., jointing and sealing material, painted heavy duty C.I. brackets etc. with all accessories for complete installation.	1	No.		
P-B-08	Provide & install CP Liver type bath shower open wall mounted of Porta type HDA3263Y or approved equivalent with hand shower set of Porta type PHS3120D or approved equivalent, in approved size, shape and quality, with all accessories for complete installation.	23	No.		
P-B-09	Provide & fix 5mm thick Glass mirror Belgium make or approved equivalent, including fixing/ holding clips, screws etc and all fittings for complete installation.	596	30sft		
P-B-10	Provide & install Twin Water Heater (Gas+Electric) heavy guage of following capacity, excluding check valve on inlet connections and including automatic temperature/ pressure relief valves and all other accessories of Cannon make or approved equivalent for complete installation. a) 25 gallons	14	No.		
P-B-11	Supply & install Instant Gas Water Heater of following capacity, including tee stop cocks on inlet/ outlet connections and all other accessories of Corona or approved equivalent for complete installation. a) 10 Litre/minute	1	No.		
P-B-12	Provide & install Electric water coolers of following capacity of MECO/ME-40P or approved equivalent, including tee stop cock on inlet and all other accessories for complete installation. a) 40 gallons	6	No.		
P-B-13	Provide & install Water filters of SO-Safe or approved equivalent of following types including all accessories for complete installation. a) Triple type filter	6	No.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-B-14	Provide & fix MT8160L of Porta Cosmetic shelf or approved equivalent make, colour, size, shape and quality including CP brackets fixing screws etc and all fittings for complete installation.	22	No.		
P-B-15	Provide & fix 2808 of Faisal or approved equivalent CP bib cock complete in all respects.	6	No.		
P-B-16	Provide & fix CP Toilet paper holder of JM70 of Porta or approved equivalent in size, shape and quality, complete with plugs, screws etc. and all fittings for complete installation.	40	No.		
P-B-17	Provide & fix Automatic Soap dispenser of approved equivalent make, colour, size, shape and quality complete with plugs, screws etc. and all fittings for complete installation.	15	No.		
P-B-18	Provide & fix CP Soap Dish of Porta type JM-54 or approved equivalent in colour, size, shape and quality complete with plugs, screws etc. and all fittings for complete installation.	48	No.		
P-B-19	Provide & fix JM11 of Porta CP towel rail, 600mm long, 15mm dia or approved equivalent in size, shape and quality complete with fixing screws etc and all fittings for complete installation.	39	No.		
P-B-20	Provide & fix CP Small hook of Porta type CD-31 or approved equivalent in size, shape and quality complete with fixing screws etc and all fittings for complete installation.	79	No.		
P-B-21	Provide & fix HD60 of Porta or approved equivalent Muslim Shower combined with HDA5270B of Porta double bib-cock or approved equivalent in size, shape and quality including all fittings for complete installation.	45	No.		
P-B-22	Provide & fix CP ablution mixer, HDA181-WMM of Porta or approved equivalent including all fittings for complete installation.	14	No.		
P-B-23	Provide & fix Electric Hand Drier (automatic) with easy to mount kit of Siemens or approved equivalent in model and all required accessories complete.	12	No.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-B-24	Provide & fix Brush Holder of Porta type JM41 or approved equivalent in size, shape and quality complete with fixing screws etc and all fittings for complete installation.	17	No.		
Section B - Total (Rs.)					
Section C - Soil, Waste & Vent Pipes & Fittings					
P-C-01	Providing, fixing, jointing & testing of uPVC Soil, Waste and vent pipes conforming to ISO:3633 type "B" or BS-4514/5255 class "A" of Dadex or approved equivalent of the following diameters, including imported rubber ring/solvent cement fittings, jointing, hangers, supports, cutting, and breaking concrete/masonry and then making it good, applying painting, cleaning and testing etc. complete in all respects.				
	a) 1-1/2" dia	1,060	100Rft		
	b) 2" dia	110	100Rft		
	c) 3" dia	540	100Rft		
	d) 4" dia	160	100Rft		
P-C-02	Providing, fixing, jointing & testing of uPVC Soil, Waste and vent pipes conforming to ISO:3633 type "B" or BS-4514/5255 class "A" of Dadex or approved equivalent of the following diameters, including imported rubber ring/solvent cement fittings, jointing, supports, cutting, and breaking concrete/masonry and then making it good, applying painting, cleaning and testing etc. complete in all respects.				
	a) 1-1/2" dia	235	100Rft		
	b) 2" dia	220	100Rft		
	c) 3" dia	270	100Rft		
	d) 4" dia	260	100Rft		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-C-03	Provide and install uPVC(Sound proof) Soil, Waste and vent pipes of Wavin or approved equivalent conforming to DIN 4102 of the following diameters, including rubber ring/solvent cement fittings, jointing,hangers, supports, cutting, and breaking concrete/masonry and then making it good, applying painting, cleaning and testing etc. complete in all respects.				
	a) DN 56 mm	120	100Rft		
	b) DN 70 mm	450	100Rft		
	c) DN 100 mm	220	100Rft		
P-C-04	Provide & install uPVC Multi Floor Trap (110x75mm) of Dadex or approved equivalent including SS-304 strainer; supports; making required number of connections; breaking concrete or masonry work & then making it good; etc.	26	No.		
P-C-05	Provide & install uPVC Floor Trap including P-trap of Dadex or approved equivalent, SS-304 strainer; supports; making required number of connections; breaking concrete or masonry work & then making it good; etc.	46	No.		
P-C-06	Provide and install uPVC Floor Trap (soundproof) of Wavin or approved equivalent including p-trap, SS-304 strainer; supports; making required number of connections; breaking concrete or masonry work & then making it good; etc.	23	No.		
P-C-07	Provide & install uPVC floor Cleanout of Dadex or approved equivalent of the following diameter, including 2 No. 45° elbows, transition pipe, SS-304 top tile, breaking concrete or masonry work & then making it good, etc. complete in all respects.				
	a) 3" dia	13	No.		
	b) 4" dia	4	No.		



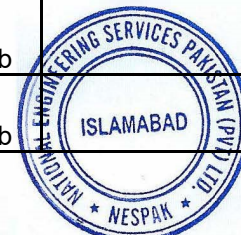
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-C-08	Provide & install uPVC Cowl on vent pipes of Dadex or approved equivalent of the following diameter. a) 3" dia	11	No.		
P-C-09	Provide & install uPVC Cowl on vent pipes of Wavin or approved equivalent conforming to DIN 4102 equivalent of the following diameter. a) 3" dia	14	No.		
P-C-10	Construction of Gully Trap Chamber (12"x12" clear) including supply & fixing of (6"x4") C.I. gully trap, construction of 4-1/2" thick brick masonry in 1:4 c/s mortar, 3" thick 1:4:8 PCC at bottom, 1:2:4 PCC in benching, (12"x12") CI cover with frame (7 kg), 1/2" thick 1:3 c/s plaster on inner face, etc. complete in all respects as shown on drawings.	15	No.		
P-C-11	Provide and install Stainless Steel Grease interceptor of 8 gallons capacity with dia 2" inlet & outlet connections, complete unit conforming to Jay R. Smith Mfg Co. standard, of approved make, complete in all respects.	1	No.		
Section C - Total (Rs.)					



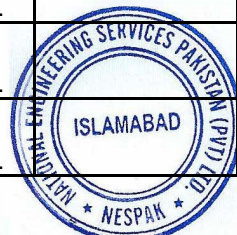
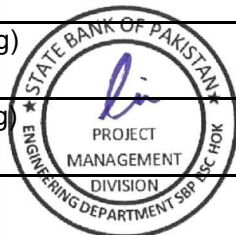
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section D - Rain Water Drainage Pipes & Fittings					
P-D-01	Providing, fixing, jointing & testing of uPVC drainage pipes conforming to ISO:3633 type "B" or BS-4514/5255 class "A" of Dadex or approved equivalent of the following diameters, including imported rubber ring/solvent cement fittings, jointing, supports, cutting, and breaking concrete/masonry and then making it good, applying painting, cleaning and testing etc. complete in all respects.				
	a) 3" dia	15	100Rft		
	b) 4" dia	420	100Rft		
P-D-02	Provide and install CI angle drain (double rubber ring push fit type) with SS-304 strainer of approved make of following diameters, including strainer, flushing material, and all accessories for complete installation, as per specifications.				
	a) 3" dia	2	No.		
	b) 4" dia	17	No.		
Section D - Total (Rs.)					



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section E - Sump Pit in Basement					
P-E-01	Provide and install DAB Submersible storm drainage pump set type FEKA 2500.2 T or approved equivalent, each (Cap = 80GPM & Head 30 Ft) with 2.41hp/2850 rpm or approved equivalent comprising of 02 Nos. centrifugal pump (both Working) with electric motor and motor control unit, having minimum 50 mm particle passage capacity, including all accessories, level/float switches, Duck Foot Bend, guide rails, pulling chains, alarm/ sounders, manual, tools, spare parts etc, complete in all respects.				
	a) Supply	1	Job		
	b) Installation	1	Job		
P-E-02	Provide and install Submersible drainage pump of DAB type FEKA VS 550 M-A or approved equivalent (Cap=20 GPM & Head 30 Ft) in HVAC Plant Room with 0.75hp/2850 rpm electric motor and motor control unit, or approved equivalent having minimum 50 mm particle size, including float switch with all accessories, complete in all respect.				
	a) Supply	1	Job		
	b) Installation	1	Job		
P-E-03	Provide and install Submersible Non Clogging sewage pump set (Cap 20 GPM & Head 30 Ft) of DAB type FEKA VS 750 M-A or approved equivalent with 1hp/2850 comprising of 02 Nos. centrifugal pump (one Working, one standby) with electric motor and motor control unit, having minimum 50 mm particle passage capacity, including all accessories, level/float switches, Duck Foot Bend, guide rails, pulling chains, relay switch, alarm/ sounders, manual, tools, spare parts etc, complete in all respect.				
	a) Supply	1	Job		
	b) Installation	1	Job		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-E-04	Providing, fixing, jointing and testing of G.I. water pipes conforming to EN-10255 (BS-1387), Medium Grade of Jamal or approved equivalent, i/c all fittings, wrapping polythene tape, giving anticorrosion treatment, applying protective painting, supports, making holes in concrete or masonry and then repairing holes, flushing, disinfecting, testing and commissioning etc.				
	a) 2" dia	200	100Rft		
	b) 3" dia	220	100Rft		
P-E-05	Provide, install and test Bronze gate valves, conforming to BS standards of Kitz Japan make or approved equivalent, including jointing arrangement of pipes on both ends of valves; nuts, bolts etc. complete in all respects, of following internal diameters.				
	a) 3 " diameter	2	No.		
	b) 2 " diameter	3	No.		
P-E-06	Provide, install and test Bronze check valves, conforming to BS standards of Kitz Japan make or approved equivalent, including jointing arrangement of pipes on both ends of valves; nuts, bolts etc. complete in all respects, of following internal diameters.				
	a) 3 " diameter	2	No.		
	b) 2 " diameter	3	No.		
P-E-07	Provide & fix Bitumen coated cast Iron grating cover with frame of TEEPU Pipes & Fittings or approved equivalent conforming to BS-497, on sump pits, including all fittings for complete installation.				
	a) 36"x36"(150kg)	1	No.		
	b) 36"x36"(175 kg)	1	No.		
	c) 24"x24" (120kg)	1	No.		



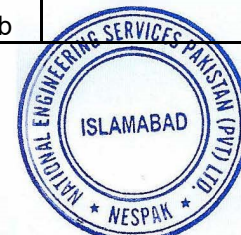
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-E-08	Provide & fix 3/4" diameter Galvanised MS ladder rungs for sump pits; each rung of 18" width, 6" projected outside the wall and 6" embedded in RCC on both ends; including all necessary works for complete installation.	14	No.		
Section E - Total (Rs.)					
Section F - Miscellaneous					
P-F-01	Provide & fix 3/4" diameter Galvanised MS ladder rungs for water tank; each rung of 18" width, 6" projected outside the wall and 6" embedded in RCC on both ends; including all necessary works for complete installation.	51	No.		
P-F-02	Provide & fix Bitumen coated cast Iron manhole cover with frame of TEEPU Pipes & Fittings or approved equivalent conforming to BS-497, on water tank, including all fittings for complete installation. a) 24"x24" (60kg)	4	No.		
P-F-03	Provide & install 2 inches Dia U-turned G.I. vent pipe on over head water tank including puddle plate etc. complete in all respects.	4	Job		
P-F-04	Provide and install Hot water In-Line recirculation pump (01 No.) of DAB type EVOPLUS 80/180 XM or approved equivalent having Cap= 10 GPM & Head 20Ft with electric motor, including motor control unit, integrated temperature sensor to automatically start & stop the pump to maintain desired temperature level and all other accessories, manual tools, spare parts etc. complete in all respect.				
	a) Supply	2	Job		
	b) Installation	2	Job		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-F-05	Provide and install Pressure Booster pump of DAB for potable water supply to toilets comprising of 01 No. centrifugal pump (Cap 10 GPM & Head 2 Bars) with IE2 electric motor and motor control unit or approved equivalent, including all accessories, pressure switches, pressure gauges, manual, tools, spare parts etc, complete in all respect.				
	a) Supply	2	Job		
	b) Installation	2	Job		
Section F - Total (Rs.)					



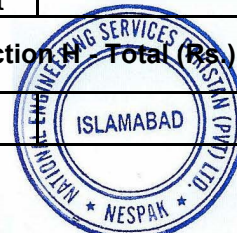
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section G - Under Ground Water Tanks and Pump Room					
P-G-01	Provide and install Horizontal Closed coupled Centrifugal pumps in Pump Room for filling of water tank of all buildings with electric motor, including all accessories, control pannels, pressure gauges, dry running protection, alarm switch of approved manufacturer of each of following Capacity and Pumping head.				
	a) Supply for Building No 1 Capacity = 50 lgpm Head = 80 feet	1	No.		
	b) Supply for Building No 2 Capacity = 50 lgpm Head = 65 feet	1	No.		
	c) Supply for Building No 4 Capacity = 50 lgpm Head = 80 feet	1	No.		
	d) Supply for Building No 5 Capacity = 50 lgpm Head = 80 feet	1	No.		
	e) Installation of Pumps mentioned above a) to d)	4	Job		
P-G-02	Provide and install Submersible drainage pump (01 No.) of DAB or approved equivalent (Cap 20 GPM & Head 20 ft) in sump pit of Pump room with electric motor and motor control unit, including all accessories, level switches, gate valve, check valve, manual, tools, spare parts etc, complete in all respect.				
	a) Supply	1	No.		
	b) Installation	1	No.		
P-G-03	Supply and installation of 4" dia G.I. U-turned vent pipes with insect proof mesh at their end open to air, puddle flanges, complete arrangement complete in all respects.	1	Job		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-G-04	Supply, fabrication and installation of 3/4" diameter Galvanised MS ladder rungs inside and outside of under ground water tank; each rung of 18" width, 6" projected outside the wall and 6" embeded in RCC on both ends; including all necessary works for complete installation.	20	No.		
P-G-05	Supply and installation of 36"X36" (Weight 150 kg) bitumen coated cast Iron manhole cover with frame conforming to BS-497, on under ground water tank for complete installation.	2	No.		
P-G-06	Supply, Laying, cutting, jointing, testing and disinfecting MS pipes, conforming to ASTM A53 Sch. 40 of Jamal or approved equivalent, including welding, flanges and other fittings for making connection with pumps and valves etc complete as per drawings and, painting with two coats of approved enamel paint after cleaning the pipe. complete in all respect.				
	a) 4 inches	10	100 Rft		
	b) 6 inches	30	100 Rft		
P-G-07	Provide and install G.I. Pipe of Jamal or approved equivalent conforming to ASTM A-53 SCH-40 including welding, fittings, elbows, tees, flanges and making connection with HDPE pipe etc., coating and testing and commissioning as per specifications and as directed by the Engineer.				
	a) 4 inches	20	100 Rft		
	b) 2.5 inches	90	100 Rft		
P-G-08	Provide and install MS sleeves conforming to ASTM A-53 Sch. 40, I/c all, welding providing anti-corrosion treatment, painting, of approved make, of the following diameters, complete in all respects.				
	a) 8 inches	1	No.		
	b) 6 inches	3	No.		



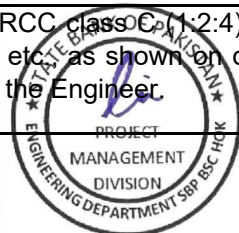
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	c) 4 inches	3	No.		
P-G-09	Provide and install C.I. check valves of Kitz (Japan) or approved equivalent conforming to BS-5153 (PN-16) including Adapters, flanges, nuts & bolts, transition pipe pieces with flanges, rubber seal, making required type of joints on both ends complete in all respect as shown on drawings or as directed by the Engineer of following diameters. a) 2.5 inches	4	No.		
P-G-10	Provide and install C.I. gate valves of Kitz (Japan) or approved equivalent conforming to BS-5153 (PN-16) including Adapters, flanges, nuts & bolts, transition pipe pieces with flanges, rubber seal, making required type of joints on both ends complete in all respect as shown on drawings or as directed by the Engineer of following diameters.				
	a) 4 inches	2	No.		
	b) 2.5 inches	10	No.		
P-G-11	Provide & install Expansion/flexible joints of Scon or approved equivalent of following nominal sizes including jointing arrangement with flanges etc. complete in all respects. a) 6 inches	1	No.		
Section G - Total (Rs.)					
EXTERNAL WATER SUPPLY SYSTEM					
Section H - Earthwork for Water & Fire Lines and Appurtenances					
P-H-01	Excavation in all kinds of subsurface material, including disposal of surplus excavated material with all lead and lift.	11,400	Cft		
P-H-02	Fill & back fill with suitable approved selected material obtained from excavation, including placing in layers and compaction complete.	7,600	Cft		
Section H - Total (Rs.)					
Section J - Water, Fire Lines, sewers and Bedding under Lines					



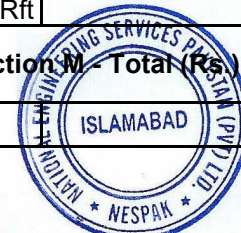
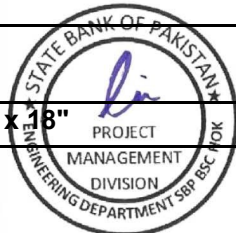
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-J-01	Providing and filling sand in trenches as directed by the engineer including watering and compaction complete in all respects.	3,400	Cft		
P-J-02	Supply, Laying, cutting, jointing, testing and disinfecting GI pipes, conforming to ASTM A53 Sch. 40 of Jamal or approved equivalent, including welding, and other fittings complete with flanges (where required) complete in all respect. (under ceiling of HVAC Plant Room) a) 2-1/2 inches	100	100 Rft		
P-J-03	Supply, Laying, cutting, jointing, testing and disinfecting HDPE pipes with compression fittings; pipes conforming to ISO4427/DIN8074-75 PE-100 PN-16 including provision of building connection of any size and Flanges for installation of valves,etc as per drawings and transportation upto place of installation, cleaning, testing and disinfecting. complete in all respects.				
	a) 90mm dia (filling line)	100	100 Rft		
	b) 75mm dia	830	100 Rft		
P-J-04	Provide & fix 2808 of Faisal or approved equivalent CP bib cock complete in all respects. (Near Generator)	2	No.		
P-J-05	Providing, fixing, jointing and testing of G.I. water pipes conforming to EN-10255 (BS-1387), Medium Grade of Jamal or approved equivalent, l/c all fittings, wrapping polythene tape, giving anticorrosion treatment, applying protective painting, flushing, disinfecting, testing and commissioning etc. (To bib cock) a) 1/2" dia	190	100Rft		
P-J-06	Supply, Laying, cutting, jointing, testing and disinfecting MS pipes, conforming to ASTM A53 Sch. 40 of Jamal or approved equivalent, including welding, and other fittings complete with and including provision of building connection and flanges for installation of hydrant as per drawings, painting with two coats of approved enamel paint after cleaning the pipe etc complete in all respect.				



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	a) 4 inches	350	100 Rft		
	b) 6 inches	610	100 Rft		
Section J - Total (Rs.)					
Section K - Valve Chamber & Fire Appurtenance					
P-K-01	Provide and install C.I. check valves of Kitz (Japan) or approved equivalent conforming to BS-5153 (PN-16) including Adapters, flanges, nuts & bolts, rubber seal, making required type of joints on both ends complete in all respect.of following diameter. a) 4 inches	1	No.		
P-K-02	Provide and install C.I. gate valves of Kitz (Japan)conforming to BS-5153 (PN-16) including Adapters, flanges, nuts & bolts, transition pipe pieces with flanges, rubber seal, making required type of joints on both ends complete in all respect as shown on drawings or as directed by the Engineer of following diameter. a) 6 inches	5	No.		
P-K-03	Provide, install and test Bronze gate valves, conforming to BS standards of Kitz Japan or approved equivalent, including jointing arrangement of pipes on both ends of valves; nuts, bolts etc. complete in all respects, of following internal diameter. a) 1/2 " diameter	1	No.		
P-K-04	Excavation in all kinds of subsurface material, including disposal of surplus excavated material with all lead and lift.	510	Cft		
P-K-05	Provide and lay, class 'D' (1:3:6) plain cement concrete in benching as shown on drawings or as directed by the Engineer.	30	Cft		
P-K-06	Provide and lay PCC class C (1:2:4) cast-in-situ in base slab of manholes etc., as shown on drawings or as directed by the Engineer.	50	Cft		
P-K-07	Provide and lay RCC class C (1:2:4) cast-in-situ in manholes etc. as shown on drawings or as directed by the Engineer.	400	Cft		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-K-08	Provide and lay, class 'E' (1:4:8) concrete in drains and culverts as shown on drawings or as directed by the Engineer.	30	Cft		
P-K-09	High Tensile Steel Deformed round bars Grade 60.	400	Kg		
P-K-10	Providing 2 coat of bitumen coating @ 0.2 lbs/sft, each coat of 10/20 grade to concrete surfaces directly in contact with earth.	200	Sft		
P-K-11	Supply and installation of 36"X36" (Weight 150 kg) bitumen coated cast Iron cover with frame conforming to BS-497, on chamber of check valve for complete installation.	6	No.		
Section K - Total (Rs.)					
EXTERNAL SEWERAGE SYSTEM WORKS					
Part A - Sewer Works Inside Site					
Section L - Earthwork for Sewer Lines and Appurtenances					
P-L-01	Excavation in all kinds of subsurface material, including disposal of surplus excavated material with all lead and lift.	12,000	Cft		
P-L-02	Fill & back fill with suitable approved selected material obtained from excavation, including placing in layers and compaction complete.	7,200	Cft		
Section L - Total (Rs.)					
Section M - Sewers & Bedding under Sewers					
P-M-01	Providing and filling sand in trenches as directed by the engineer including watering and compaction complete in all respects.	4,400	Cft		
P-M-02	Provide and install 200 mm dia uPVC non-pressure pipes for sanitary drainage conforming to BS-5481/BS-4660 EN1401 (SN4) with rubber ring fittings and specials compatible with pipe material as per manufacturer's recommendations, complete in all respects, flushing cleaning and disinfecting etc complete in all respect.	1,200	100 Rft		
Section M - Total (Rs.)					
Section N - Manholes 18" x 18"					



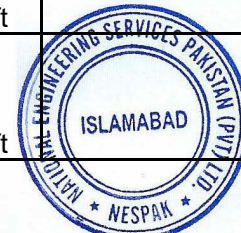
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-N-01	Excavation in all kinds of subsurface material, including disposal of surplus excavated material with all lead and lift.	1,890	Cft		
P-N-02	Provide and lay, class 'D' (1:3:6) plain cement concrete in benching as shown on drawings or as directed by the Engineer.	38	Cft		
P-N-03	Provide and lay PCC class C (1:2:4) cast-in-situ in base slab of manholes etc., as shown on drawings or as directed by the Engineer.	105	Cft		
P-N-04	Provide and lay RCC class C (1:2:4) cast-in-situ in manholes etc., as shown on drawings or as directed by the Engineer.	740	Cft		
P-N-05	Provide and lay, class 'E' (1:4:8) concrete in drains and culverts as shown on drawings or as directed by the Engineer.	75	Cft		
P-N-06	High Tensile Steel Deformed round bars Grade 60.	1,680	Kg		
P-N-07	Providing 2 coat of bitumen coating @ 0.2 lbs/sft, each coat of 10/20 grade to concrete surfaces directly in contact with earth.	1,110	Sft		
P-N-08	Supply, and fixing of bitumen coated cast iron manhole cover 18"x18" with frame (30kg) conforming to BS-497 including cutting, breaking and repairing brick/PCC/RCC works etc. complete in all respects.	32	No.		
Section N - Total (Rs.)					
Part-B: External Sewer Works, Outside Works					
Section O - Earthwork for Sewer Lines and Appurtenances					
P-O-01	Excavation in all kinds of subsurface material, including disposal of surplus excavated material with all lead and lift.	8,400	Cft		
P-O-02	Fill & back fill with suitable approved selected material obtained from excavation, including placing in layers and compaction complete.	4,200	Cft		
Section O - Total (Rs.)					



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section P - Sewers & Bedding under Sewers					
P-P-01	Providing and filling sand in trenches as directed by the engineer including watering and compaction complete in all respects.	3,830	Cft		
P-P-02	Provide and install 200 mm dia uPVC non-pressure pipes for sanitary drainage conforming to BS-5481/BS-4660 EN1401 (SN4) with rubber ring fittings and specials compatible with pipe material as per manufacturer's recommendations, complete in all respects, flushing cleaning and disinfecting etc complete in all respect.	1,000	100 Rft		
Section P - Total (Rs.)					
Section Q - Manholes 24" x 24"					
P-Q-01	Excavation in all kinds of subsurface material, including disposal of surplus excavated material with all lead and lift.	805	Cft		
P-Q-02	Provide and lay, class 'D' (1:3:6) plain cement concrete in benching as shown on drawings or as directed by the Engineer.	21	Cft		
P-Q-03	Provide and lay PCC class C (1:2:4) cast-in-situ in base slab of manholes etc., as shown on drawings or as directed by the Engineer.	50	Cft		
P-Q-04	Provide and lay RCC class C (1:2:4) cast-in-situ in manholes etc., as shown on drawings or as directed by the Engineer.	290	Cft		
P-Q-05	Provide and lay, class 'E' (1:4:8) concrete in manholes as shown on drawings or as directed by the Engineer.	32	Cft		
P-Q-06	High Tensile Steel Deformed round bars Grade 60.	655	Kg		
P-Q-07	Providing 2 coat of bitumen coating @ 0.2 lbs/sft, each coat of 10/20 grade to concrete surfaces directly in contact with earth.	460	Sft		



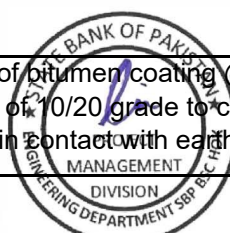
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-Q-08	Providing & laying 24"x24" clear R.C.C 1:2:4 slab cover 3" thick average (precast complete with M.S angle iron, M.S bars embedded in concrete) of any shape including the cost of reinforcement and welding etc. as per direction of Engineer Incharge	10	No.		
P-Q-09	Supply, fabrication and installation of 3/4" diameter Galvanised MS ladder rungs inside manholes; each rung of 18" width, 6" projected outside the wall and 6" embeded in RCC on both ends; including all necessary works for complete installation.	20	No.		
Section Q - Total (Rs.)					
Section R - Septic Tank					
P-R-01	Supply and installation of 4" dia. G.I. U-turned vent pipe with insect proof mesh at their end open to air, puddle flanges, complete arrangement complete in all respects.	2	Job		
P-R-02	Supply, fabrication and installation of 3/4" diameter Galvanised MS ladder rungs inside septic tank; each rung of 18" width, 6" projected outside the wall and 6" embeded in RCC on both ends; including all necessary works for complete installation.	26	No.		
P-R-03	Supply and installation of 36"X36" (Weight 150 kg) bitumen coated cast Iron cover with frame conforming to BS-497, on septic tank for complete installation.	2	No.		
Section R - Total (Rs.)					
EXTERNAL DRAINAGE SYSTEM WORKS					
Part A - Drain Works Inside Site					
Section S - Earthwork for Drains and Appurtenances					
P-S-01	Excavation in all kinds of subsurface material, including disposal of surplus excavated material with all lead and lift.	8,470	Cft		
P-S-02	Fill & back fill with suitable approved selected material obtained from excavation, including placing in layers and compaction complete.	5,290	Cft		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section S - Total (Rs.)					
Section T - Drains & Bedding under Drains					
P-T-01	Providing and filling sand in trenches as directed by the engineer including watering and compaction complete in all respects.	2,800	Cft		



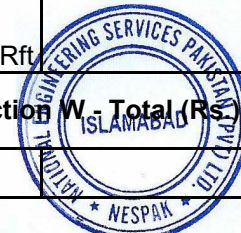
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-T-02	Laying, cutting, jointing, testing and disinfecting MS pipes, conforming to ASTM A53 Sch. 20 of Jamal or approved equivalent, including welding, and other fittings making connection between the catchpits etc complete in all respect. (under the ceiling of HVAC Plant Room). a) 8 inches	100	100 Rft		
P-T-03	Provide and install G.I. sheet cable trays with cover including joints, bend, mounting brackets hanger complete with all accessories. (For Water, fire and drain pipes in HVAC Plant Room.) a) 20"x 3"	100	Rft		
P-T-04	Provide and install 200 mm dia uPVC non-pressure pipes for sanitary drainage conforming to BS-5481/BS-4660 EN1401 (SN4) with rubber ring fittings and specials compatible with pipe material as per manufacturer's recommendations, complete in all respects, flushing cleaning and disinfecting.	1,060	100 Rft		
Section T - Total (Rs.)					
Section U - Catch Pits 18" x 18"					
P-U-01	Excavation in all kinds of subsurface material, including disposal of surplus excavated material with all lead and lift.	990	Cft		
P-U-02	Provide and lay, class 'D' (1:3:6) plain cement concrete in benching as shown on drawings or as directed by the Engineer.	25	Cft		
P-U-03	Provide and lay PCC class C (1:2:4) cast-in-situ in base slab of manholes etc., as shown on drawings or as directed by the Engineer.	70	Cft		
P-U-04	Provide and lay RCC class C (1:2:4) cast-in-situ in manholes etc., as shown on drawings or as directed by the Engineer.	350	Cft		
P-U-05	Provide and lay, class 'E' (1:4:8) concrete in drains and culverts as shown on drawings or as directed by the Engineer.	50	Cft		
P-U-06	High Tensile Steel Deformed round bars Grade 60.	800	Kg		
P-U-07	Providing 2 coat of bitumen coating @ 0.2 lbs/sft, each coat of 10/20 grade to concrete surfaces directly in contact with earth.	730	Sft		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-U-08	Supply, and fixing of bitumen coated cast iron manhole cover 18"x18" with frame (30kg) conforming to BS-497 including cutting, breaking and repairing brick/PCC/RCC works etc. complete in all respects.	21	No.		
Section U - Total (Rs.)					



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Part-B: External Drain Works Outside Works					
Section V - Earthwork for Drain Lines and Appurtenances					
P-V-01	Excavation in all kinds of subsurface material, including disposal of surplus excavated material with all lead and lift.	8,400	Cft		
P-V-02	Fill & back fill with suitable approved selected material obtained from excavation, including placing in layers and compaction complete.	4,235	Cft		
Section V - Total (Rs.)					
Section W - Drain & Bedding under Drain					
P-W-01	Providing and filling sand in trenches as directed by the engineer including watering and compaction complete in all respects.	3,830	Cft		
P-W-02	Provide and install CI angle drain (double rubber ring push fit type) with strainer of approved make of following diameters, including strainer, flushing material, and all accessories for complete installation, as per specifications in the Parking of Building-1. a) 4" dia	2	No.		
P-W-03	Providing, fixing, jointing & testing of uPVC drainage pipes conforming to ISO:3633 type "B" or BS-4514/5255 class "A" of Dadex or approved equivalent of the following diameters, including imported rubber ring/solvent cement fittings, jointing, supports, cutting, and breaking concrete/masonry and then making it good, applying painting, cleaning and testing etc. complete in all respects for Parking Rain water Disposal to catchpits. a) 4" dia	20	100Rft		
P-W-04	Provide and install 200 mm dia uPVC non-pressure pipes for sanitary drainage conforming to BS-5481/BS-4660 EN1401 (SN8) with rubber ring fittings and specials compatible with pipe material as per manufacturer's recommendations, complete in all respects, flushing, cleaning and disinfecting.	1,000	100 Rft		
Section W - Total (Rs.)					
Section X - Catchpits 24" x 24"					



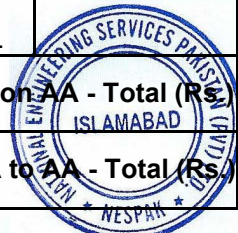
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-X-01	Excavation in all kinds of subsurface material, including disposal of surplus excavated material with all lead and lift.	645	Cft		
P-X-02	Provide and lay, class 'D' (1:3:6) plain cement concrete in benching as shown on drawings or as directed by the Engineer.	21	Cft		
P-X-03	Provide and lay PCC class C (1:2:4) cast-in-situ in base slab of manholes etc., as shown on drawings or as directed by the Engineer.	50	Cft		
P-X-04	Provide and lay RCC class C (1:2:4) cast-in-situ in manholes etc., as shown on drawings or as directed by the Engineer.	290	Cft		
P-X-05	Provide and lay, class 'E' (1:4:8) concrete in manholes as shown on drawings or as directed by the Engineer.	32	Cft		
P-X-06	High Tensile Steel Deformed round bars Grade 60.	655	Kg		
P-X-07	Providing 2 coat of bitumen coating @ 0.2 lbs/sft, each coat of 10/20 grade to concrete surfaces directly in contact with earth.	460	Sft		
P-X-08	Providing & laying 24"x24" clear R.C.C 1:2:4 slab cover 3" thick average (precast complete with M.S angle iron, M.S bars embedded in concrete) of any shape including the cost of reinforcement and welding etc. as per direction of Engineer Incharge.	10	No.		
P-X-09	Supply, fabrication and installation of 3/4" diameter Galvanised MS ladder rungs inside manholes; each rung of 18" width, 6" projected outside the wall and 6" embeded in RCC on both ends; including all necessary works for complete installation.	20	No.		
Section X - Total (Rs.)					
TUBEWELL WORKS					
Section Y - Investigation					
P-Y-01	Conducting Electric Resistivity survey of the area and furnishing its reports.	1	Job		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-Y-02	Mobilization and de-mobilization of drilling rig and related equipments at drilling site.	1	Job		
P-Y-03	Electrical logging in test hole.	1	Job		
P-Y-04	Drilling of 8" dia test hole	400	Rft		
P-Y-05	Collection of lithological samples at every 5 feet interval or change of lithology whichever is less.	1	Job		
P-Y-06	Yield test by air compressor.	1	Job		
Section Y - Total (Rs.)					



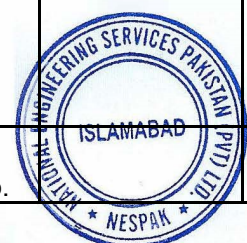
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section Z - Development					
P-Z-01	Reaming of test hole into 12" dia. Hole.	400	Rft		
P-Z-02	Supply and installation of blind pipe & strainer as detailed below.				
	a) 8" dia. Fibre glass blind pipe,5m thick	250	Rft		
	b) Fibre glass strainer 8"dia I.D. 5mm thick & 1/16" slot thickness.	150	Rft		
	c) Fibre glass. bail plug with 8" dia., 5mm wall thickness.	10	Rft		
P-Z-03	Supply and install Centralizers as per specifications.	7	No.		
P-Z-04	Supply & placing of shrouding material (pea gravel) well rounded obtained from approved nearby quarries ranging in size from 3.12mm to 6.25mm.	400	Rft		
P-Z-05	Development of tubewell with air compressor using polyphosphate, if required, as directed by the Engineer.	1	Job		
P-Z-06	Development & testing of tubewell at 150% of designed capacity for 72hrs. Chemical may also be used for removal of mud, if directed by the Engineer.	1	Job		
P-Z-07	Provision of Sanitary Seal along with fixing refilling the 2 no. dia. 2" PVC pipe upto 50ft.	1	Job		
Section Z - Total (Rs.)					
Section AA - Pumping Machinery					
P-AA-01	Installation, testing and commissioning of submersible pump with motor and motor control unit of tentative discharge Q=4000-5000 gph and tentative head 400ft and tentative setting depth SD= 200 ft including 3" MS (Epoxy coated) riser pipe, submersible motor drop cable, dry run cable, dry running protection, gate valve, non return valve and all other accessories complete in all respect as required.	1	No.		
Section AA - Total (Rs.)					
Plumbing Works from Section A to AA - Total (Rs.)					



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
FIRE FIGHTING WORKS					
Section AB - Fire Sprinkler System					
P-AB-01	Provide & install MS pipes with specials and clamps etc, conforming to ASTM A53 Sch. 40, of Jamal or approved equivalent including fixing, cutting, welding, hangers & support systems; and other fittings complete with and including the cost of breaking, through walls and slabs, making walls & slabs good thereafter, etc, painting with two coats of approved enamel paint after cleaning the pipe.				
	a) 1" dia	1,000	100Rft		
	b) 1-1/4" dia	245	100Rft		
	c) 1-1/2" dia	195	100Rft		
	d) 2" dia	280	100Rft		
	e) 2.5" dia	130	100Rft		
	f) 3" dia	25	100Rft		
P-AB-02	Provide and install FM/UL listed Pendent type sprinkler of SFFECO or approved equivalent having K factor 5.6 and minimum operating pressure is 7 psi with ordinary temperature range or as per specification of manufacturers for light hazard occupancy type complete with all accessories including jointing arrangement etc complete in all respect.				
	a) Supply	125	No.		
	b) Installation	125	No.		

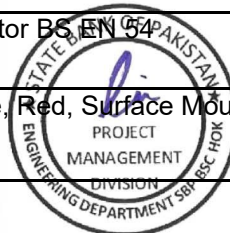


Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
P-AB-03	Provide and install 3" dia Floor Control Valve Assembly (FCVA) of LIFEKO or approved equivalent which includes butterfly valve, gate valve with tamper switch, check valve, sensors flow switch, drain valve, 1" sight glass auxiliary with clamp accessories, pressure gauge, inspector test valve etc complete in all respect and as recommended by suppliers.				
	a) Supply	4	No.		
	b) Installation	4	No.		
Section AB - Total (Rs.)					
Section AC - Fire Hose Cabinets & Fire Extinguisher					
P-AC-01	Provide & install MS pipes with specials and clamps etc, conforming to ASTM A53 Sch. 40, of Jamal or approved equivalent including fixing, cutting, welding, hangers & support systems; and other fittings complete with and including the cost of breaking, through walls and slabs, making walls & slabs good thereafter, etc, painting with two coats of approved enamel paint after cleaning the pipe.				
	a) 1-1/2" dia	115	100Rft		
	b) 2" dia	390	100Rft		
	c) 4" dia	70	100Rft		
P-AC-02	Provide and fix Fire Hose Reel Cabinets where indicated on drawings wall mounting swinging arm type made of 18 swg. sheet, glass front size (900mmx900mmx300m) including 1" brass gate valve at inlet, fire hose 25mm x 30m high pressure, fitting with couplings, one nozzle Nylon Plastic, spray type, cabinet painted with Epoxy powder red coating of SFECO or approved equivalent) complete in all respects as shown on drawings and as per approved manufacturer's Specifications.				
	a) Supply	9	No.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	b) Installation	9	No.		
P-AC-03	Provide and install 1-1/2" Pressure reducing arrangement consisting of pressure reducing valve (PRV) and gate valves (3 Nos.), unions etc.; on pipes including jointing arrangement etc. complete in all respects as per standards, manufacturer's recommendations, and as directed by the Engineer.	9	No.		
P-AC-04	Supply & installation of automatic powder fire extinguisher of 12kg capacity of SFFECO or approved make including all arrangement for hanging on ceiling in sub-station.	9	No.		
P-AC-05	Providing & fixing dry chemical powder fire extinguisher 6 Kg capacity, stored pressure type, SFFECO or approved equivalent including clamping/ brackets.	18	No.		
P-AC-06	Providing & fixing Foam type fire extinguisher of capacity 02 gallons of SFFECO or approved make including clamping brackets.	20	No.		
P-AC-07	Provide & supply Dry Powder Mobile fire extinguisher of 50kg capacity of SFFECO or approved equivalent in sub-station.	1	No.		
P-AC-08	Provide and install FM/UL Listed Floor Standing Steel fire hose rack including fire hose reel (2-1/2" dia with 100 feet length) with hose rack brass valve, hose rack nipple, ripped tail coupling, spray nozzle at one end, complete in all respect of SFFECO or approved equivalent.	5	No.		
P-AC-09	Provide and install FM/UL listed Fire pillar Hydrant of 04"dia seamless Sch-40 pipe, class 150 ANSI flange, 02 outlets of 2.5" with brass gate valves & female 2.5" coupling, from SFFECO or approved equivalent including stand pipe, Adapter, transition pipe pieces with flanges, nuts & bolts, making required type of joints on both ends complete in all respects.	5	No.		
P-AC-10	Provide and install 2 Way Or Breeching inlet connection with 4" outlet size of FIGHTER or approved equivalent at the main gate of site with jointing and sealing arrangements etc. complete in all respect.	1	No.		

Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section AC - Total (Rs.)					
Section AD - Clean Agent Fire Suppression System FM/UL Listed					
P-AD-01	Supply of Clean Agent Fire Extinguishing System of SFFECO or approved equivalent consisting of following components and their associated accessories including jointing arrangement in all respects as per standards, manufacturer's recommendations, and as directed by the Engineer.				
	a) Storage Cylinder including epoxy powder coated mounting bracket, 2.5" SS Head Valve, top plug adapter, SS Siphon tube, pressure gauge with guard, SS bracket with Clean agent of SFFECO or approved equivalent provided complete in all respect of following size				
	i) 20 lbs.	15	No.		
	ii) 35 lbs.	1	No.		
	iii) 150 lbs.	4	No.		
	iv) 250 lbs.	2	No.		
	b) Manual Actuator	12	No.		
	c) Automatic Actuator	12	No.		
	d) Abort Switch	12	No.		
	e) Pressure Supervisory Switch 500psi.	12	No.		
	f) Pressure operated switch	12	No.		
	g) 2.5"NPT flexible discharge hose stainless steel braided.	12	No.		
	h) Electric Control Panels conforming to BS EN 54	12	No.		
	i) Smoke Detector BS EN 54	15	No.		
	j) Horn & strobe, Red, Surface Mounted, Conventional	12	No.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	k) Conventional Bell 6" 24VDC	12	No.		
	l) Brass Discharge Nozzle 360degree radial (4 port)	17	No.		
	m) Pull Station Dual Action	12	No.		
	n) Warning/Caution Sign	12	No.		
P-AD-02	MS pipes with specials and clamps etc., conforming to ASTM A53 Sch. 40, of Jamal or approved equivalent including fixing, cutting, welding, hangers & support systems; and other fittings complete with and including the cost of breaking, through walls and slabs, making walls & slabs good thereafter, etc., painting with two coats of approved enamel paint after cleaning the pipe. a) 1" dia.	280	100Rft		
P-AD-03	Installation of Clean Agent Suppression System, complete in all respect.	1	Job		
P-AD-04	Installation of Novec 1230 Suppression System, complete in all respect. (Building # 2)	1	Job		
Section AD - Total (Rs.)					



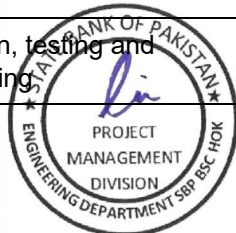
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section AE - Fire Fighting Pumping Unit					
P-AE-01	Provide and install UL listed Fire fighting pumping unit of Wilo or approved equivalent consisting of 02 Nos. multi-stage centrifugal pumps (One electric and one diesel driven) each of H=08Bars & Q=500 USGPM and 01No. vertical multi-stage centrifugal jockey pump of H=09 Bars & Q=50 USGPM with NFPA 70 compliance electric motor, including motor control unit and all other accessories, automatic relief valve on discharge side, elbow with vortex plate at inlet of suction header, manual, tools, spare parts, gate valves, check valves, pressure switches, pressure gauges on suction & delivery side of each pump, strainer etc., complete in all respect.				
	a) Supply	1	Job		
	b) Installation	1	Job		
Section AE - Total (Rs.)					
Fire Fighting Works from Section AB to AE - Total (Rs.)					
Plumbing & Fire-Fighting Works - Total (Rs.)					



CONSTRUCTION OF SBP NEW OFFICE BUILDING AT D. I KHAN
Bill of Quantities
ELECTRICAL & MECHANICAL WORKS

Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
ELECTRICAL WORKS					
Section A - Sub-Station Equipment					
E-A-01	11 KV WAPDA Metering Panel to be installed at WAPDA room as per WAPDA standards complete in all respects.				
	i) Supply	2	Nos.		
	ii) Installation, testing and commissioning	2	Nos.		
E-A-02	11 KV Consumer Distribution Panel for Switch Board for Consumer's Sub Station Installed at Sub Station as per drawings complete in all respects.				
	i) Supply	2	Nos.		
	ii) Installation, testing and commissioning	2	Nos.		
E-A-03	HT 11 KV 3 Core 240 mm ² stranded copper conductor XLPE Insulated cu taped screened pvc bedded and Pvc sheathed armoured cable laid in existing all kind of pipes cable duct channel etc. complete in all respect.				
	i) Supply	500	Rft		
	ii) Installation, testing and commissioning	500	Rft		
E-A-04	15kV termination kits suitable for size 3 core,120 mm ² 8.7/15 kV stranded copper conductor XLPE Insulated including all accessories, complete in all respects.	12	Nos.		
E-A-05	Dry type Transformer (1000 KVA) to be Installed in Substation complete in all respects.				
	i) Supply	2	Nos.		
	ii) Installation, testing and commissioning	2	Nos.		
E-A-06	PCC foundation suitable for above Transformers. The PCC foundation shall have dimensions and structural strengths as per Technical requirements, technical specification and standards complete in all respects.	2	Nos.		

Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
E-A-07	Supply, installation, testing & commissioning of Rubber insulation Mat., 1 meter wide, 6 mm. thick for laying in front of HT panel suitable to provide insulation for 15 kV working complete in all respects.	6	Nos.		
E-A-08	Supply, installation, testing & commissioning of 1000 A Bi-Metal (Aluminum + copper(Joints) Feeder 3P+N+PE IP54 with flanged end, elbow, End Closure, Elbow Horizontal Hanger Vertical Spring Hanger, Plug-in Hole Flexible link 4p for transformer, Edgewise Hanger complete with all accessories from transformer LT to incoming of main LT Switchboard, ATS to LTpanel as shown on the diagram complete in all respects.	150	Rft		
E-A-09	Supply, installation, testing & commissioning of 1600A Bi-Metal (Aluminum + copper(Joints) Feeder 3P+N+PE IP54 with flanged end, elbow, End Closure, Elbow Horizontal Hanger Vertical Spring Hanger, Plug-in Hole Flexible link 4p for transformer, Edgewise Hanger complete with all accessories from transformer LT to incoming of main LT Switchboard, ATS to LTpanel as shown on the diagram complete in all respects.	150	Rft		
E-A-10	Low tension Main Panel Board (MLTP) Installed in Substation at Ground Floor complete in all respects.				
	i) Supply	1	No.		
	ii) Installation, testing and commissioning	1	No.		
Section A - Total (Rs.)					
Section B - Emergency Generator Set					
E-B-01	500 KVA - Prime Rating Diesel Generator Set to Feed Electrical Load of Lighting, Small Power & HVAC System complete in all respects.				
	i) Supply	2	No.		
	ii) Installation, testing and commissioning	2	No.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
E-B-02	250 KVA - Prime Rating Diesel Generator Set to Feed Electrical Load of Lighting, Small Power & HVAC System complete in all respects.				
	i) Supply	1	No.		
	ii) Installation, testing and commissioning	1	No.		
E-B-03	Sound attenuated Canopy for 500 KVA Generator complete in all respects.				
	i) Supply	2	Nos.		
	ii) Installation, testing and commissioning	2	Nos.		
E-B-04	Sound attenuated Canopy for 250 KVA Generator complete in all respects.				
	i) Supply	1	No.		
	ii) Installation, testing and commissioning	1	No.		
E-B-05	Supply, installation, testing & commissioning of Control Cables for all Generators complete in all respects.	1	Job		
	LT 415V AC weather proof DBs shall be made from 14 SWG sheet steel and LT 415V AC indoor DBs shall be made from 16 SWG sheet steel. These shall be designed, fabricated and manufactured as a free standing floor type and recessed / surface mounted on wall (as per single line diagram shown on drawings). The sheet metal work shall be cleaned down to bare shining metal degreased, derusted and painted with TWO base coats of antirust RED paint. The sheet metal work shall be finished in TWO coats of powder paint. The color and shade shall be as approved by the Engineer. The distribution Board shall be complete with all internal wirings, tags, identification labels, TPN and E copper busbars, accessories etc. The DB should be provided with the armored glands. The bus-bars shall be insulated in RED, YELLOW, BLUE and BLACK insulations. The insulation shall be heat shrinkable type or as directed by the Engineer.				

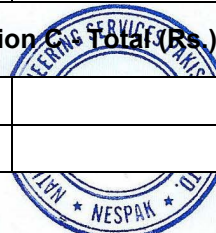
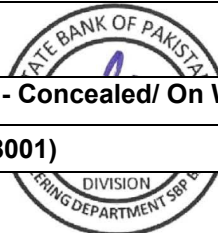
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section B - Total (Rs.)					



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section C - LOW TENSION MAIN PANEL BOARDs (LTMPBs) / MAIN PANEL BOARDs (MPBs)					
E-C-01	LT 415V AC weather proof DBs shall be made from 14 SWG sheet steel and LT 415V AC indoor DBs shall be made from 16 SWG sheet steel. These shall be designed, fabricated and manufactured as a free standing floor type and recessed / surface mounted on wall (as per single line diagram shown on drawings). The sheet metal work shall be cleaned down to bare shining metal degreased, derusted and painted with TWO base coats of antirust RED paint. The sheet metal work shall be finished in TWO coats of powder paint. The color and shade shall be as approved by the Engineer. The distribution Board shall be complete with all internal wirings, tags, identification labels, TPN and E copper busbars, accessories etc. The DB should be provided with the armored glands. The bus-bars shall be insulated in RED, YELLOW, BLUE and BLACK insulations. The insulation shall be heat shrinkable type or as directed by the Engineer				
	LT DISTRIBUTION BOARD				
	(Ref. Spec. 8001, 8132 ,8133)				
	a) Building No. 1				
	i) MDB-B1	1	Job		
	ii) MDB-(UPS)	1	Job		
	iii) DB-BF	1	Job		
	iv) DB-GF	1	Job		
	v) DB-FF	1	Job		
	vi) DB-SF	1	Job		
	vii) DB-BF (UPS)	1	Job		
	viii) DB-GF (UPS)	1	Job		
	ix) DB-FF (UPS)	1	Job		

Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	x) SMDB-ROOF	1	Job		
	b) Building No. 2				
	i) MDB-B2	1	Job		
	ii) UDB-BF	1	Job		
	iii) UDB-BF(VAULT)	1	Job		
	iv) DB-BF	1	Job		
	v) DB-GF	1	Job		
	vi) UDB-GF	1	Job		
	vii) DB-AC	1	Job		
	viii) DB-Roof	1	Job		
	c) Building No. 4				
	i) DB-BF	1	Job		
	ii) UDB-GF	1	Job		
	iii) DB-GF	1	Job		
	d) Building No. 5				
	i) MDB-B5	1	Job		
	ii) DB-GF1	1	Job		
	iii) DB-GF2	1	Job		
	iv) DB-A1	1	Job		

Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	v) DB-A2	1	Job		
	vi) DB-A3	1	Job		
	vii) DB-A4	1	Job		
	viii) DB-FF2	1	Job		
	e) Building No. 3 & 6				
	i) DB- (GF)	1	Job		
	ii) DB-SC/ROOM	1	Job		
	iii) DB-B3	1	Job		
	f) External Works				
	i) Supply, installation, testing & commissioning of Lighting Control Panel complete in all respect.	4	No.		
	g) Sync panel commissioning of suitable free standing panel suitable for 5 generators of suitable ratings as per drawings consisting of all controls, mains failure sensing equipment, ACBs of suitable rating and rupturing capacity, Auto start/stop, auto load sharing system, internal wiring, all necessary accessories complete in all respects. Panel shall be free standing weather proof type IP 54 and must be installed as per site.				
	i) Supply	1	Job		
	ii) Installation, testing and commissioning	1	Job		
				Section C Total (Rs.)	
Section D - Internal Wiring - Concealed/ On Wall					
	(Ref. Spec. Sec. 8001)				



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
E-D-01	Wiring of light circuit from Distribution Board to switch, including circuit wiring between switches on the same circuit with three nos. single core 2.5 Sqmm PVC insulated 600/1000 Volts grade stranded copper conductor cables in concealed 1 " PVC conduits including PVC conduit, conduit accessories (junction box, pull box, fan box etc.) complete in all respects.	136	Nos.		
E-D-02	Wiring from switch to light or fan point with 3 Nos. single core 1.5 Sqmm PVC insulated 600/1000 Volts grade stranded copper conductor cables in concealed 3/4" PVC conduit including PVC conduit, conduit accessories (junction box, pull box, fan box etc.) complete in all respects.	950	Nos.		
E-D-03	Wiring from light to light with 3 Nos. single core 1.5 Sqmm PVC insulated 600/1000 Volts grade stranded copper conductor cables in concealed 3/4" PVC conduit including PVC conduit, conduit accessories (junction box, pull box, fan box etc.) complete in all respects.	450	Nos.		
E-D-04	Wiring of circuit from Distribution Board to 13/15 A , 230 Volts, 3 pin switched socket outlet with Two nos. single core 4 sqmm and One no. 2.5 sqmm PVC insulated 600/1000 Volts grade stranded copper conductor cables in 1" dia concealed PVC conduit laid underfloor including PVC conduit, conduit accessories, etc. complete in all respects.	123	Nos.		
E-D-05	Wiring from 13 Amps, 3 pin socket to socket with Two nos. single core 4 Sqmm and One no. 2.5 sq mm PVC insulated 600/1000 Volts grade stranded copper conductor cables in concealed 1" PVC conduit laid underfloor including PVC conduit, conduit accessories, etc. complete in all respects.	425	Nos.		
E-D-06	Wiring of circuit from Distribution Board to 15 A , 230 Volts, flat pin duplex switched socket outlet with three nos. single core 2.5sqmm PVC insulated 600/1000 Volts grade stranded copper conductor cables in 1" dia concealed PVC conduit laid underfloor including PVC conduit, conduit accessories, etc. complete in all respects.	50	Nos.		

Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
E-D-07	Wiring from 13 Amps, 3 pin socket to socket with Three nos. single core 2.5 Sqmm PVC insulated 600/1000 Volts grade stranded copper conductor cables in concealed 1" PVC conduit laid underfloor including PVC conduit, conduit accessories, etc. complete in all respects.	180	Nos.		
Section D - Total (Rs.)					



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section E - Wiring In Poles					
(Ref. Spec. Sec. 8001)					
E-E-01	Cable Termination box for poles, made of 16SWG sheet steel powder coated with insulators, bus bars and clamps as per drawings complete in all respects.	10	Nos.		
E-E-02	Wiring from connector to light fixtures of 3 Nos. One core 4 Sqmm PVC insulated 300/500 Volts grade solid or stranded copper conductor cables in conduit (for all poles).	90	Nos.		
E-E-03	Wiring of light circuit from Distribution Board to first light , with Two nos. single core 2.5 Sqmm and One no.1.5 sq mm PVC insulated 600/1000 Volts grade stranded copper conductor cables in concealed 1 " PVC conduits including PVC conduit, conduit accessories (junction box, pull box, etc.) complete in all respects.	80	Nos.		
E-E-04	Wiring of light to light, with Two nos. single core 2.5 Sqmm and One no.1.5 sq mm PVC insulated 600/1000 Volts grade stranded copper conductor cables in concealed 1 " PVC conduits including PVC conduit, conduit accessories (junction box, pull box, etc.) complete in all respects.	160	Nos.		
Section E - Total (Rs.)					
Section F - Wiring Accessories					
(Ref. Spec. Sec. 8001, 8220)					
E-F-01	Supply, installation, testing & commissioning of 10A, 220V One Gang Switch Unit with Face Plate including sheet steel back box shall make of 16 SWG shall be finished in powder coated paint complete in all respect.	145	Nos.		
E-F-02	Supply, installation, testing & commissioning of 10A, 220V Two Gang Switch Unit with Face Plate including sheet steel back box shall make of 16 SWG shall be finished in powder coated paint complete in all respect.	108	Nos.		
E-F-03	Supply, installation, testing & commissioning of 10A, 220V Three Gang Switch Unit with Face Plate including sheet steel back box shall make of 16 SWG shall be finished in powder coated paint.	62	Nos.		

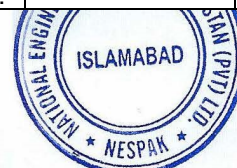
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
E-F-04	Supply, installation, testing & commissioning of 10A, 220V Four Gang Switch Unit with Face Plate including sheet steel back box shall make of 16 SWG shall be finished in powder coated paint complete in all respect.	67	Nos.		
E-F-05	Supply, installation, testing & commissioning of 10A, 220V Five Gang Switch Unit with Face Plate including sheet steel back box shall make of 16 SWG shall be finished in powder coated paint complete in all respect.	43	Nos.		
E-F-06	Supply, installation, testing & commissioning of 10A, 220V Six Gang Switch Unit with Face Plate including sheet steel back box shall make of 16 SWG shall be finished in powder coated paint.	13	Nos.		
E-F-07	Supply, installation, testing & commissioning of 10A, 220V One Gang Two way Switch Unit with Face Plate including sheet steel back box shall make of 16 SWG shall be finished in powder coated paint complete in all respect.	8	Nos.		
E-F-08	Supply, installation, testing & commissioning of 13A 250v International Switched Socket with Face Plate including sheet steel back box shall make of 16 SWG shall be finished in powder coated paint complete in all respect.	380	Nos.		
E-F-09	Supply, installation, testing & commissioning of 15A 250v Flat pin duplex Switched Socket with Face Plate including sheet steel back box shall make of 16 SWG shall be finished in powder coated paint complete in all respect complete in all respect.	242	Nos.		
E-F-10	Supply, installation, testing & commissioning of 15A 250V International Simplex Switched Socket with Face Plate including sheet steel back box shall make of 16 SWG shall be finished in powder coated paint.	45	Nos.		
E-F-11	Supply, installation, testing & commissioning of 20 Amps, 250 Volts flex outlet with double pole switch & neon indication lamp including appropriate size steel back box & fuse protection (For AC's)(For Electric Geysers) complete in all respect.	60	Nos.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
E-F-12	Supply, installation, testing & commissioning of 16 Amps, 3Pin Industrial socket direct operating with all mounting accessories complete in all respects .	8	Nos.		
E-F-13	Supply, installation, testing & commissioning of 16 Amps, 5Pin Industrial socket direct operating with all mounting accessories complete in all respects .	8	Nos.		
Section F - Total (Rs.)					



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section G - Fittings and Fixtures					
LIGHT FIXTURES					
(Ref. Spec. 8001, 8150)					
E-G-01	Supply, installation, testing & commissioning of (36-40)W 600mm x 600mm Surface/ ceiling Mounted LED smart panel Light complete in all respect.	360	Nos.		
E-G-02	Supply, installation, testing & commissioning of (36-40)W 1200mm x 300mm Surface/ ceiling Mounted LED smart panel Light complete in all respect.	225	Nos.		
E-G-03	Supply, installation, testing & commissioning of 100W Surface/ Ceiling Mounted LED Industrial Light complete in all respect.	20	Nos.		
E-G-04	Supply, installation, testing & commissioning of 10 W Surface/ Ceiling Mounted LED Down light complete in all respect.	236	Nos.		
E-G-05	Supply, installation, testing & commissioning of 7W Surface/ Ceiling Mounted LED Down light with all mounting accessories complete in all respects .	38	Nos.		
E-G-06	Supply, installation, testing & commissioning of 5 W Surface/ceiling Mounted LED spot light complete in all respect.	175	Nos.		
E-G-07	Supply, installation, testing & commissioning of 14W Surface Mounted LED Mirror Light complete in all respect.	25	Nos.		
E-G-08	Supply, installation, testing & commissioning of 7W Surface Mounted LED Mirror Light complete in all respect.	28	Nos.		
E-G-09	Supply, installation, testing & commissioning of 8/10 watt led Exit light complete in all respect.	50	Nos.		
E-G-10	Supply, installation, testing & commissioning of 10-15 W Indoor Decorative Wall Bracket Light with all mounting accessories complete in all respects .	46	Nos.		
E-G-11	Supply, installation, testing & commissioning of 12-15 W External Decorative Wall Bracket Light complete in all respect.	35	Nos.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
E-G-12	Supply, installation, testing & commissioning of (20-30)W LED Decorative Light for entrance (SPOT LIGHT) complete in all respect.	18	Nos.		
E-G-13	Supply, installation, testing & commissioning of 15W LED Decorative Light for stairs complete in all respect.	40	Nos.		
E-G-14	Supply, installation, testing & commissioning of 55W Surface Mounted LED ROPE/ STRIP complete in all respect.	1300	Rft		
E-G-15	Supply, installation, testing & commissioning of FLOOD LIGHT 100W outdoor complete in all respect.	40	Nos.		
E-G-16	Supply, installation, testing & commissioning of 50 watt LED Flood Light with all mounting accessories complete in all respects.	20	Nos.		
E-G-17	Supply, installation, testing & commissioning of Decorative chandelier with all mounting accessories complete in all respects.	4	Nos.		
E-G-18	Supply, installation, testing & commissioning of Decorative Gate Light weather protected with all mounting accessories complete in all respects .	4	Nos.		
E-G-19	Supply, installation, testing & commissioning of Decorative gate lights with 30W LED Lamp with all mounting accessories complete in all respects .	8	Nos.		
E-G-20	Supply, installation, testing & commissioning of 90 watt LED Light Road Lighting Luminaire with all mounting accessories complete in all respects .	41	Nos.		
E-G-21	Supply, installation, testing & commissioning of Bollard Light along with foundation complete in all respect with all mounting accessories complete in all respects	29	Nos.		
E-G-22	Supply, installation, testing & commissioning of 12 meter high Single arm galvanized, steel pole along with foundation complete in all respect	41	Nos.		
E-G-23	Supply, installation, testing & commissioning of 12 meter high Double arm galvanized, steel pole along with foundation complete in all respect	10	Nos.		

Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section G - Total (Rs.)					
Section H - Cables & Conduits					
(Ref. Spec. Sec. 8001 8230)					
E-H-01	Supply and Installation of PVC Pipes, Conduits & Ducts of following diameters complete in all respect:				
	a) 3/4" dia.	100	Rft		
	b) 1" dia	7500	Rft		
	c) 1-1/2" dia.	300	Rft		
	d) 2" dia.	1750	Rft		
	e) 3" dia PVC Conduit, buried underground complete in all respect.	300	Rft		
	f) 6" dia PVC Conduit, buried underground complete in all respect.	1550	Rft		
E-H-02	Supply and installation of (6") internal dia PVC Class 'D' pipe for HT cables and sealing the space around pipe. No open excavation is permissible.	1000	Rft		
E-H-03	Supply and installation of (3") internal dia PVC Class 'D' pipe for HT cables and sealing the space around pipe. No open excavation is permissible.	1000	Rft		
E-H-04	Supply and installation of (2") internal dia PVC Class 'D' pipe for HT cables and sealing the space around pipe. No open excavation is permissible.	100	Rft		
E-H-05	Supply and installation of Sealing of conduits after cable pulling with jute & Plaster of Paris as per Engineer's Instructions.	1	Job		
E-H-06	Supply and installation of Cable marker for HT cable as per drawing	3	Rft		
E-H-07	Supply and Installation of PVC Dura duct of following sizes complete in all respect.				
	a) 10 x 25 mm	200	Rft		
	b) 16 x 16 mm	200	Rft		



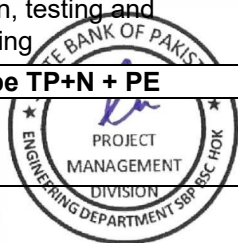
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	c) 16 x 25 mm	200	Rft		
E-H-08	Construction of Cable pulling Pit including civil works as per provided design, complete in all respect.	3	Nos.		
Section H - Total (Rs.)					
Section J - L.T. Cables					
(Ref. Spec. 8001, 8212)					
E-J-01	16 sqmm, 4 core CU/PVC/PVC stranded copper conductor cable, 600/1000V grade in already installed conduit/on cable tray complete in all respect.				
	i) Supply	2000	Rft		
	ii) Installation, testing and commissioning	2000	Rft		
E-J-02	25 sqmm, 4 core CU/PVC/PVC stranded copper conductor cable, 600/1000V grade in already installed conduit/on cable tray complete in all respect.				
	i) Supply	1000	Rft		
	ii) Installation, testing and commissioning	1000	Rft		
E-J-03	35 sqmm, 4 core CU/PVC/PVC stranded copper conductor cable, 600/1000V grade in already installed conduit/on cable tray complete in all respect.				
	i) Supply	3400	Rft		
	ii) Installation, testing and commissioning	3400	Rft		
E-J-04	150 sqmm, 1 core CU/PVC/PVC stranded copper conductor cable, 600/1000V grade in already installed PVC conduits complete in all respect.				
	i) Supply	5000	Rft		
	ii) Installation, testing and commissioning	5000	Rft		



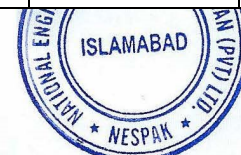
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
E-J-05	35 sqmm, 1 core CU/PVC/PVC stranded copper conductor cable, 600/1000V grade in already installed conduit/on cable tray complete in all respect.				
	i) Supply	3200	Rft		
	ii) Installation, testing and commissioning	3200	Rft		
E-J-06	16 sqmm, 1 core CU/PVC/PVC stranded copper conductor cable, 600/1000V grade in already installed conduit/on cable tray complete in all respect.				
	i) Supply	1900	Rft		
	ii) Installation, testing and commissioning	1900	Rft		
Section J - Total (Rs.)					



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section K - Bi-Metallic Bus way					
	(Ref. Spec. 8001, 8213)				
	Supply, installation, testing and commissioning of following size Bi-metallic (Aluminum with Copper Contacts) BUS BARS sandwiched type manufactured according to IEC/EN 61439, 415 V, 50Hz, 4 pole (3P + Neutral + PE) and IP66 rated including all accessories with plugin openings, TL, TT, Z type bends, tap-off/boxes, flanged ends, elbows, tees, expansion joints and end feed units, where required including cost of mounting supports (spring type hangers) complete in all respect must be installed not more than 1 m distance c/c. End enclosure should be installed at the end of riser complete in all respects as per the specifications and drawings. Reliability tested and approved by KEMA-KEUR and ASTA-DIAMOND etc. Temperature level 55°C.				
	NOTE: Actual length of bus bar shall be measured at site by Contractor before placing the order with all bus bars accessories and shall be paid accordingly Actual length of bus bars to be installed shall be practically measured at site by the Contractor, duly authenticated by the employers electrical engineer before placing the order with the manufacturer, however, approximate length of bus bars are shown herewith. Payments shall be made as per actual length installed. Contractor should provide shop drawings before installation and have to get approval from the Engineer.				
E-K-01	1000 A Plugin Type TP+N + PE				
	i) Supply	500	Rft		
	ii) Installation, testing and commissioning	500	Rft		
E-K-02	500 A Plugin Type TP+N + PE				
	i) Supply	200	Rft		
	ii) Installation, testing and commissioning	200	Rft		
E-K-03	250 A Plugin Type TP+N + PE				
	i) Supply	380	Rft		



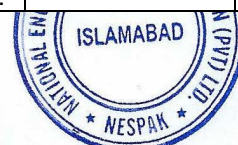
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	ii) Installation, testing and commissioning	380	Rft		
Section K - Total (Rs.)					
Section L - Earthing System					
(Ref. Spec. 8001, 8240)					
E-L-01	Providing and fixing Earthing set with 2'x2'x1/8" copper plate Buried in the ground at the depth of 20 feet or less if water comes out from the ground level (with salt and charcoal or earthing chemical powder) etc. making the pit 20 feet deep by excavation of all type of soil (except soft or hard rock)i/c fixing of 70mm copper wire in 1" GI conduit up to ECP complete in all respect as required.	37	Nos.		
E-L-02	Providing and fixing Earth Connecting Points (ECP) complete in all respect as required.	27	Nos.		
E-L-03	Providing and fixing Man Hole for Earthing complete in all respect as required.	7	Nos.		
Section L - Total (Rs.)					
Section M - Data, Computer Networking & CCTV System					
(Ref. Spec. 8001, 8312)					
DATA NETWORKING					
E-M-01	Wiring of Telecommunication RJ45 outlet point from relevant Floor distributor Cabinet to RJ45 outlet point with CAT-6A, U/UTP 10G supported cable including appropriate size concealed or surface PVC conduit or PVC channel , all accessories with cutting/making holes in walls making surface good complete in all respect.	279	Nos.		
E-M-02	Supply and installation of 6" x 2"of G I sheets of 16 SWG sheet steel trunking with cover including joints bends mounting brackets joints bends mounting Brackets hanger complete with all accessories	670	Rft		
E-M-03	Supply and installation of 12" x 2" same as above but ladder type	370	Rft		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
E-M-04	Supply and installation of Simplex Face plate (networking) with RJ-45 I/O CAT-6 UTP telecommunication outlet including sheet steel back box shall make of 16 SWG shall be finished in powder coated paint. including all mounting accessories.	240	Nos.		
E-M-05	Supply and installation of 24 port Cat-6A U/UTP 10G Supported modular (RJ45) jack (Loaded with (RJ45) jack) patch panels compatible 19" rack installed in floor/wall mounted cabinet including built-in rear cable management with all mounting accessories.	18	Nos.		
E-M-06	Supply and installation of 27 U Rack with Plexiglass door including Hoops, side management, cable trays, fan tray , Mesh Doors and required number of power sockets including all mounting accessories.	6	Nos.		
E-M-07	Supply and installation of 19" Rack mounted Front Cable Management.	16	Nos.		
E-M-08	Supply and installation of 1 metre long CAT-6, UTP Giga Speed patch cord with required connector at both ends:	222	Nos.		
E-M-09	Supply and installation of 3 metre long CAT-6, UTP Giga Speed patch cord with required connector at both ends:	222	Nos.		
TELEPHONE					
E-M-10	Wiring of Telecommunication RJ45 outlet point from relevant Floor distributor Cabinet to RJ45 outlet point with CAT-6A, U/UTP 10G supported cable including appropriate size concealed or surface PVC conduit or PVC channel , all accessories with cutting/making holes in walls making surface good complete in all respect.	130	Nos.		
E-M-11	Simplex Face plate (telephone)with RJ-45 I/O CAT-6 UTP telecommunication outlet including sheet steel back box shall make of 16 SWG shall be finished in powder coated paint. including all mounting accessories.	157	Nos.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
E-M-12	24 port Cat-6A U/UTP 10G Supported modular (RJ45) jack (Loaded with (RJ45) jack) patch panels compatible 19" rack installed in floor/wall mounted cabinet including built-in rear cable management with all mounting accessories.	10	Nos.		
E-M-13	Supply and installation of 19" Rack mounted Front Cable Management.	12	Nos.		
E-M-14	Supply and installation of 27 U Rack with Plexiglass door including Hoops, side management, cable trays, fan tray ,Mesh Doors and required number of power sockets including all mounting accessories.	8	Nos.		
E-M-15	27 U Rack with Plexiglass door including Hoops, side management, cable trays, fan tray ,Mesh Doors and required number of power sockets including all mounting accessories	1	No.		
E-M-16	Supply and installation of 1 metre long CAT-6, UTP Giga Speed patch cord with required connector at both ends:	130	Nos.		
E-M-17	Supply and installation of 3 metre long CAT-6, UTP Giga Speed patch cord with required connector at both ends:	130	Nos.		
E-M-18	Supply, installation, testing & commissioning of Tag Blocks/Junction Box (outdoor Type) for housing krone connectors/krone strips suitable for connection of 50 Pairs.	1	No.		
E-M-19	Supply, Installation, Jointing and Termination of 0.6 mm dia, 50 pair Copper armored (U/G) telephone cable in already installed conduits/pipes.	500	Rft		
CCTV SYSTEM					
E-M-20	Wiring of Telecommunication RJ45 outlet point from relevant Floor distributor Cabinet to RJ45 outlet point with CAT-6A, U/UTP 10G supported cable including appropriate size concealed or surface PVC conduit or PVC channel , all accessories with cutting/making holes in walls making surface good complete in all respect.	139	Nos.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
E-M-21	Supply and installation of Simplex Face plate (For CCTV) with RJ-45 I/O CAT-6 UTP telecommunication outlet including sheet steel back box shall make of 16 SWG shall be finished in powder coated paint. including all mounting accessories.	151	Nos.		
E-M-22	Supply and installation of 24 port Cat-6A U/UTP 10G Supported modular (RJ45) jack (Loaded with (RJ45) jack) patch panels compatible 19" rack installed in floor/wall mounted cabinet including built-in rear cable management with all mounting accessories.	8	Nos.		
E-M-23	Supply and installation of 19" Rack mounted Front Cable Management.	8	Nos.		
E-M-24	Supply and installation of 27 U Rack with Plexiglass door including Hoops, side management, cable trays, fan tray, Mesh Doors and required number of power sockets including all mounting accessories.	6	Nos.		
E-M-25	Supply and installation of 42 U Rack with Plexiglass door including Hoops, side management, cable trays, fan tray, Mesh Doors and required number of power sockets including all mounting accessories.	2	Nos.		
E-M-26	Supply and installation of 1 metre long CAT-6, UTP Giga Speed patch cord with required connector at both ends:	139	Nos.		
E-M-27	Supply and installation of 3 metre long CAT-6, UTP Giga Speed patch cord with required connector at both ends:	139	Nos.		
Section M - Total (Rs.)					
Section N - Miscellaneous Items					
Ref. Spec. Sec. 8001, 8290					
E-N-01	Providing & installing (56") sweep ceiling fan with blades, canopy, Ceiling hook, standard length of down rod including connection complete as required.	65	Nos.		
E-N-02	Supply, installation, testing & commissioning of Exhaust Fans with all mounting accessories complete in all respects .				



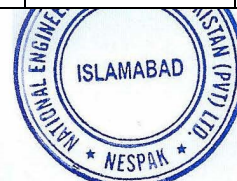
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	a) 12" dia.	14	Nos.		
	b) 14" dia.	15	Nos.		
	c) 16" dia.	1	No.		
	d) Wall Bracket fans	6	Nos.		
E-N-03	Supply, installation, testing & commissioning of Wall Bracket Fans with all mounting accessories complete in all respects .	20	Nos.		
E-N-04	Supply and installation of Cable pulling pit (2' x 3' x 2') made of RCC(1:2:4) and CI cover with MS angle hinged with frame for easy pulling of cables including all accessories located as per drawings.	15	Nos.		
E-N-05	Supply and installation of Cable pulling pit (4' x 6' x 4') made of RCC(1:2:4) and RCC cover with MS angle hinged with frame for easy pulling of cables including all accessories located as per drawings.	18	Nos.		
E-N-06	Supply and installation of Cable trench (2' x 2' x 2') made of RCC(1:2:4) and RCC cover with MS angle hinged with frame for easy pulling of cables including all accessories located as per drawings.	3500	Cft		
E-N-07	Excavation in all kind of material including back filling, compaction, layer of bricks 9" in width and warning tape, trench width 2' & height 3' complete in all respect as per specifications and as directed by the Engineer	1500	Cft		
E-N-08	Excavation in all kind of material including back filling, compaction, layer of bricks 9" in width and warning tape, trench width 1' & height 3' complete in all respect as per specifications and as directed by the Engineer	3500	Cft		
E-N-09	Providing and fixing 1" diameter 3ft long lighting copper rod with five spikes ,Air rod base and balls on its head as required.	11	Job		

Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
E-N-10	Providing and fixing Earthing set with 2'x2'x1/8" copper plate Buried in the ground at the depth of 20 feet or less if water comes out from the ground level (with salt and charcoal or earthing chemical powder) etc. making the pit 20 feet deep by excavation of all type of soil (except soft or hard rock)/i/c fixing of 70mm copper wire in 1" GI conduit up to ECP complete in all respect as required.	11	Job		
E-N-11	Supply and installation of 305 mm long, 50 mm wide and 6mm thick copper busbar as ECP (Earth Connecting Point) complete with insulators, washers, nuts, bolts mounting installation and operational accessories as per site requirements.	23	Job		
E-N-12	Supply and installation of Earth electrode for lightning protection system comprise 1/2" dia, 10' long Copper deposited steel rod, including appropriate clamp for clamping of the down conductor. The copper deposited steel rod shall be hammered into the ground to the depth of twelve inches below the ground surface. The earth electrode includes excavation, backfilling, etc.	20	Job		
E-N-13	Removable type testing terminals including nuts, bolts, washers, mounting accessories complete as required.	20	Job		
E-N-14	Providing and fixing 1-1/2" x 1/3" Thick copper strip with suitable saddle at 12" intervals complete as required.	4600	Rft		
E-N-15	Following sizes of perforated G.I. sheet cable trays with cover including joints, bend, mounting brackets hanger complete with all accessories.				
	a) 8" x 3"	600	Rft		
	b) 4" x 2"	500	Rft		
	c) 12" x 3"	300	Rft		
E-N-16	Perforated G.I. sheet cable trays Ladder type of size 12" x 3" with cover including joints, bend, mounting brackets hanger complete with all accessories.	300	Rft		

Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section N - Total (Rs.)					
Section O - Addressable Fire Alarm System					
Ref. Spec. Sec. 8230, 8331					
E-O-01	Supply, installation, testing & commissioning of Intelligent Photo Electronic Smoke Detector complete with all accessories complete in all respect.	195	Nos.		
E-O-02	Supply, installation, testing & commissioning of Intelligent Thermal Detector fixed temperature type complete with all accessories complete in all respect.	12	Nos.		
E-O-03	Supply, installation, testing & commissioning of Addressable Manual Call Point With break glass complete with all accessories complete in all respect.	27	Nos.		
E-O-04	Supply, installation, testing & commissioning of Addressable Directional Sounder with flasher complete with all accessories complete in all respect.	27	Nos.		
E-O-05	Supply, installation, testing & commissioning of FAJB complete with all accessories complete in all respect.	18	Nos.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
E-O-06	Supply, installation, testing & commissioning of 02 Loop Addressable fire Alarm Control panel complete with backup Batteries power supply and voice evacuation system Compatible with BMS System as shown on the Drawings. complete with all accessories complete in all respect.	5	Nos.		
E-O-07	Supply, installation, testing & commissioning of 02 Loop Addressable fire Alarm Control panel complete with backup Batteries power supply and voice evacuation system Compatible with BMS System as shown on the Drawings. complete with all accessories complete in all respect (Building # 4)	1	No.		
E-O-08	Supply, installation, testing & commissioning of 2 x 1.5 sq.mm twin + earth fire resistant cable complying BS5839 and EN50300 in 3/4 inch dia pvc conduit complete in all respect.	16900	Rft		
Section O - Total (Rs.)					
Section P - Public Address System					
(Ref. Spec. Sec. 8001, 8341)					
E-P-01	Supply, installation, testing & commissioning of Indoor IP Based column speaker 30W including RJ45 port complete in all respect	10	Nos.		
E-P-02	Supply, installation, testing & commissioning of IP Based mixer amplifier 240W including RJ45 ports complete in all respect.	3	Nos.		
E-P-03	Supply, installation, testing & commissioning of IP Based Ceiling speaker 6 W including RJ45 port complete in all respect	35	Nos.		
E-P-04	Supply, installation, testing & commissioning of outdoor IP Based column speaker 30W including RJ45 port complete in all respect	4	Nos.		
E-P-05	Supply, installation, testing & commissioning of Two way horn speakers along with amplifiers , mic , wiring with all Accessories complete in all respects.	4	Job		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
E-P-06	Wiring of Telecommunication RJ45 outlet point from amplifier to RJ45 outlet point with CAT-6A, U/UTP 10G supported cable including appropriate size concealed or surface PVC conduit or PVC channel , all accessories with cutting/making holes in walls making surface good complete in all respect.	70	Nos.		
Section P - Total (Rs.)					



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section Q - Security Items					
E-Q-01	Supply, installation, testing & commissioning of DB-ROAD BLOCKER complete in all respect.	2	Nos.		
E-Q-02	Supply, installation, testing & commissioning of Mechanical Road Blocker complete in all respect.	2	Job		
E-Q-03	Supply, installation, testing & commissioning of Locally Fabricated Manual Road Barrier in accordance with the size of Entrance gates complete in all respect.	2	Job		
E-Q-04	Supply, installation, testing & commissioning of Under Vehicle Surveillance System with 3 Nos. IR Cameras, Ramp & 4 channel DVR.				
	i) Supply	2	Nos.		
	ii) Installation, testing and commissioning	2	Nos.		
E-Q-05	Supply, installation, testing & commissioning of Locally fabricated tyre killers to enable the vehicle entry only in one direction. The tyre killer shall be provided on the exit side of the gates. The metal spikes of the tyre killers shall swing upwards under gravity by their own weight complete in all respect.	2	Nos.		
Section Q - Total (Rs.)					
Section R - Building Management System					
(Ref. Spec. Sec. 8001, 8351)					
E-R-01	Integration of Building Management System with Fire Alarm System including all associated equipment required for integration.	3	Job		
E-R-02	Integration of Building Management System with Main Diesel Fuel Tank complete in all respect.	1	Job		
E-R-03	Integration of Building Management System with Control for Fire Pumps & Portable Water Pumps including all associated equipment required for integration.	3	Job		
E-R-04	Integration of Building Management System with Energy Metering of Main LT Panel including all associated equipment required for integration.	1	Job		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
E-R-05	Integration of Building Management System with Energy Metering of HT Panels including all associated equipment required for integration.	1	Job		
E-R-06	Integration of Building Management System with Generators Operation including all associated equipment required for integration.	1	Job		
E-R-07	Integration of Building Management System with Access Control System including all associated equipment required for integration.	3	Job		
E-R-08	Integration of Building Management System with Lifts Operation including all associated equipment required for integration.	3	Job		
E-R-09	Building Management System , Integration Server , Prewired Control Panel with Complete Accessories , Modbus drivers , FX 80 Exp Module Dual RS485 , Portable Operator Terminal , Wiring of complete system , Latest Specifications Desktop Computer with - DVD RW - Keyboard-Mouse, LED 43" with Laser Jet Black Printer (A4) , Testing, Programming & Commissioning of Building Management System				
	i) Supply	3	Job		
	ii) Installation, testing and commissioning	3	Job		
Section R - Total (Rs.)					
Electrical Works from Section A to R - Total (Rs.)					
MECHANICAL WORKS					
Section S - Lift Works					
	Ref. Specification No. 8530 & 9000				
M-S-01	BUILDING-1 (BANKING HALL)				
	Passenger Lift (L-1A)				



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	Brand new Passenger Lift having capacity of 800 kg / 10 persons. Speed 1.0 m/s machine room type, VVVF drive, 04 stops / 04 openings, total travel 12.5m. The lift shall be complete in all respect including car, hoisting, machine, counter weight, support brackets, embedded parts, access ladder, separator screen, trap door etc. as per specification and drawing.				
	i) Supply	1	No.		
	ii) Installation, testing and commissioning	1	No.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
M-S-02	Passenger Cum Cargo Lifts (L-1B & 1C) Brand new Passenger Cum Cargo Lifts having capacity of 1600 kg / 21 persons, Speed 1.0 m/s machine room type, VVVF drive, 03 stops / 03 openings, total travel 8.53m with through type entrance. The lift shall be complete in all respect including car, hoisting, machine, counter weight, support brackets, embedded parts, access ladder, separator screen, trap door etc. as per specification and drawing.				
	i) Supply	2	Nos.		
	ii) Installation, testing and commissioning	2	Nos.		
M-S-03	Passenger Lifts (L-2A & L-2B) Brand new Passenger Lifts having capacity of 1000 kg / 13 persons. Speed 1.0 m/s Machine Room Type, VVVF drive, 02 stops / 02 openings, total travel 4.9m. The lift shall be complete in all respect including car, hoisting, machine, counter weight, support brackets, embedded parts, access ladder, separator screen, trap door etc. as per specification and drawing.				
	i) Supply	2	Nos.		
	ii) Installation, testing and commissioning	2	Nos.		
Section S - Total (Rs.)					
Section T - Gas Piping Works					
	Refer Specification Section No. 8460 (Entire under mentioned work will be executed by SNGPL or their approved Contractors)				
M-T-01	Galvanized Steel Pipes, medium grade conforming to BS 1387 with all fittings sockets, bends, tees, elbows, where required) fixed to walls, ceilings and floors etc. including caps and plugs as per specifications and drawings of the following sizes: a) 1-1/4 inch dia.				
	i) Supply	40	Rft.		



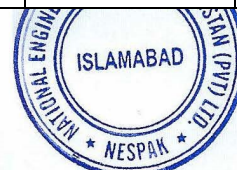
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	ii) Installation, testing and commissioning	40	Rft.		
	b) 1 inch dia.				
	i) Supply	205	Rft.		
	ii) Installation, testing and commissioning	205	Rft.		
	c) 3/4 inch dia.				
	i) Supply	345	Rft.		
	ii) Installation, testing and commissioning	345	Rft.		
	d) 1/2 inch dia.				
	i) Supply	195	Rft.		
	ii) Installation, testing and commissioning	195	Rft.		
M-T-02	Ball Valves in gas piping network as per specifications and drawings of following diameter:				
	a) 1/2 inch dia.				
	i) Supply	26	Nos.		
	ii) Fixing	26	Nos.		
Section T - Total (Rs.)					
Section U - Vault Doors					
Ref. Specification No. 8582 & 9000					



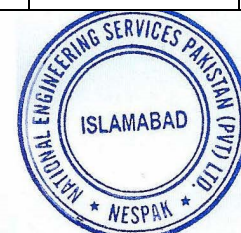
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
M-U-01	Single leaf vault door (VD) conforming to latest European Norm (EN) 1143-1 Standard Grade XI and having 2 Nos Class D High Security Locks (01 No. Mechanical type and 01 Nos Electronic type) conforming to latest EN 1300 Standard along with grille gate & lock. The door shall be equipped with electric power backup (UPS) system of at least 10 minutes. The door shall also be equipped with user friendly handle, light to use, burglary resistant, noise reducing and durable, comprising EN or approved equivalent hardwares, including the cost of civil and electrical works and any other necessary works required, complete in all respects and as directed by the Engineer and as per specification and drawings.				
	a) VD with minimum clear opening of 1500mm x 2500mm (W x H)				
	i) Supply	2	Nos.		
	ii) Installation	2	Nos.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
M-U-02	LOCAL VAULT DOORS (LVD) Ref. Specification No. 8583 & 9000 Single leaf vault doors conforming to manufacturer standard. The door shall be equipped with user friendly handle, light to use, burglary resistant, noise reducing and durable, comprising hardware, including the cost of civil and electrical works and any other necessary works required, complete in all respects and as directed by the Engineer and as per specification and drawings.				
	a) LVD with minimum clear opening of 1500mm x 2500mm (W x H)				
	i) Supply	6	Nos.		
	ii) Installation	6	Nos.		
	VAULT DOORS/ WINDOWS IN AC DUCTS Ref. Specification No. 8582 & 9000				
M-U-03	Vault door/ window inside Air-Conditioning Ducts to be fixed in the wall of strong room /vault conforming to latest European Norm (EN) 1143-1 Standard Grade XI and having 2 Nos Class D High Security Locks (01 No. Mechanical type and 01 Nos Electronic type) conforming to latest EN 1300 Standard along with grille gate & lock. The door/window shall be equipped with electric power backup (UPS) system of at least 10 minutes. The door/window shall be equipped with user friendly handle, light to use, burglary resistant, noise reducing and durable, comprising EN or approved equivalent hardware, including the cost of civil and electrical works and any other necessary works required, complete in all respects and as directed by the Engineer and as per specification and drawings.				
	a) DVD1, DVD2 and DVD4 for A/C Ducts with minimum clear opening of 813mm x 559mm (W x H)				
	i) Supply	3	Nos.		
	ii) Installation	3	Nos.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	VAULT DOORS IN AC DUCTS				
	Ref. Specification No. 8583 & 9000				
M-U-04	Single leaf Vault Doors inside Air-Conditioning Ducts conforming to manufacturer standards. The door shall be equipped with user friendly handle, light to use, burglary resistant, noise reducing and durable, comprising UL Listed hardware, including the cost of civil and electrical works and any other necessary works required, complete in all respects and as directed by the Engineer having following dimensions and as per specification and drawings:				
	a) DVD3 in A/C Duct 2'-2" x 1'-8" (W x H)				
	i) Supply	2	Nos.		
	ii) Installation	2	Nos.		
	b) DVD5 in A/C Duct 1'-6" x 1'-2" (W x H)				
	i) Supply	1	Nos.		
	ii) Installation	1	Nos.		
	c) DVD6 in A/C Duct 1'-2" x 1'-0" (W x H)				
	i) Supply	2	Nos.		
	ii) Installation	2	Nos.		
	d) DVD7 in A/C Duct 1'-2" x 0'-10" (W x H)				
	i) Supply	4	Nos.		
	ii) Installation	4	Nos.		
Section U - Total (Rs.)					
Section V - Fuel Supply System					
	Fuel Supply System				
	Underground Fuel Storage Tank				



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
M-V-01	20,000 liters capacity under ground fuel storage tank, manufactured as per DIN 6608 / ASME Section VIII, Div. 1 with internal & external coating, manhole cover, dip stick and connection nozzles complete in all respect as per specifications and drawings.				
	i) Design, fabrication & supply	1	No.		
	ii) Installation, testing & commissioning	1	No.		
	Fuel Oil Day Tank				
M-V-02	3,000 liters capacity above ground Day Tank, manufactured as per DIN 6616 / ASME Section VIII, Div. 1 with internal & external coating, manhole cover, dip stick and connection nozzles complete in all respect as per specifications and drawings.				
	i) Design, fabrication & supply	1	No.		
	ii) Installation, testing & commissioning	1	No.		
	Fuel Oil Piping Network				
M-V-03	MS Sch. 40 fuel piping network (above & under ground) Complete with fittings, accessories, ball & check valves, strainers, flow meters, pressure gauges, filling hose couplings, pipe supports, over flow piping, vent with bird / insect screen, drain valves and all related piping complete in all respect as per specifications and as shown in drawings.				
	i) Supply	1	Job		
	ii) Installation, testing & commissioning	1	Job		
	Fuel Oil Pump				



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
M-V-04	Fuel transfer pumps for transfer of diesel fuel from underground fuel tank to day tank. This pumping system should include but not limited to: - Two (02) Nos. electrically driven positive displacement pumps with explosion proof motors (Flow rate = 100 l/min) including pump control panel for fully automatic duty+stand-by operation, along with all accessories and as per specifications and drawings. - One (01) No. pump manual operation				
	i) Supply	1	Job		
	ii) Installation, testing & commissioning	1	Job		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	Fuel level sensors and Control				
M-V-05	a) Fuel Level sensors (low + high) for underground fuel storage tank with audible and visual alarm. b) Fuel Level sensors (low + high) for day tank. c) Fuel monitoring Panel including Fuel Level Indicators for underground and aboveground tank. d) Hand selector switch for manual operation of pumps. e) Audible alarms and sounders as per specifications and drawings. f) Power & Control cabling with conduits as per drawings and site conditions.				
	i) Supply	1	Job		
	ii) Installation, testing & commissioning	1	Job		
Section V - Total (Rs.)					
Total Mechanical Works from Section S to V (Rs.)					
Electrical & Mechanical Works - Total (Rs.)					

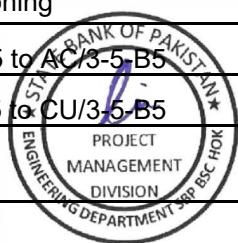


CONSTRUCTION OF SBP NEW OFFICE BUILDING AT D. I KHAN

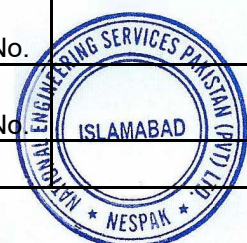
Bill of Quantities

HVAC WORKS

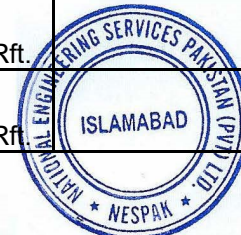
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section A - Locally procured Equipment, Material & Services (Procured from Local Market whether of imported origin or locally manufactured as per specification requirement)					
	Supply, installation, testing and commissioning of the following as per drawings, equipment schedule and specifications (8810 and 8965)				
H-A-01	Split Inverter Reversible Type AC units, Four Way or Round Ceiling Cassette / Wall Mounted / Floor Standing (or of the type as shown on drawings), complete with refrigerant piping (20 ft., liquid+gas), supports, insulation, refrigerant charge, thermostat, drain pumps, controls, electrical power and control cabling between indoor/outdoor units, conduiting / dura duct, mounting brackets, corrosion resistant covered perforated GI sheet tray for exposed and indoor insulated refrigerant piping, power and control cabling and accessories as per actual site requirements: (Note: Extra Refrigerant gas charging for refrigerant piping more than 20 ft. shall be incorporated in the quoted rates)				
	a) Ceiling Cassette Type:				
	1. AC/1-1-B5 to AC/1-1-B5				
	CU/1-1-B5 to CU/1-1-B5				
	i) Supply	1	No.		
	ii) Installation, testing and commissioning	1	No.		
	2. AC/2-1-B5 to AC/2-18-B5				
	CU/2-1-B5 to CU/2-18-B5				
	i) Supply	18	No.		
	ii) Installation, testing and commissioning	18	No.		
	3. AC/3-1-B5 to AC/3-5-B5				
	CU/3-1-B5 to CU/3-5-B5				
	i) Supply	5	No.		



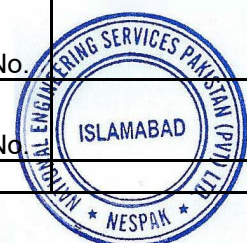
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	ii) Installation, testing and commissioning	5	No.		
	4. AC/3-1-B1 to AC/3-5-B1				
	CU/3-1-B1 to CU/3-5-B1				
	i) Supply	5	No.		
	ii) Installation, testing and commissioning	5	No.		
	5. AC/4-1-B1 to AC/4-2-B1				
	CU/4-1-B1 to CU/4-2-B1				
	i) Supply	2	No.		
	ii) Installation, testing and commissioning	2	No.		
	6. AC/4-1-B5 to AC/4-2-B5				
	CU/4-1-B5 to CU/4-2-B5				
	i) Supply	2	No.		
	ii) Installation, testing and commissioning	2	No.		
	7. AC/5-1-B1 to AC/5-4-B1				
	CU/5-1-B1 to CU/5-4-B1				
	i) Supply	4	No.		
	ii) Installation, testing and commissioning	4	No.		
	8. AC/6-1-B2 to AC/6-3-B2				
	CU/6-1-B2 to CU/6-3-B2				
	i) Supply	3	No.		
	ii) Installation, testing and commissioning	3	No.		
	b) Wall Mounted Type				
	1. AC/8-1-B1 to AC/8-8-B1				
	CU/8-1-B1 to CU/8-8-B1				
	i) Supply	9	No.		
	ii) Installation, testing and commissioning	9	No.		
	2. AC/8-1-B6				



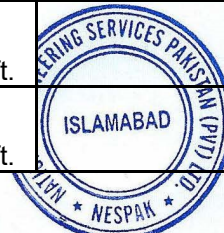
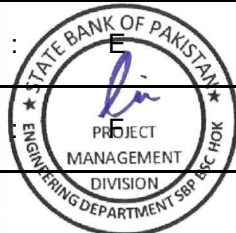
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	CU/8-1-B6				
	i) Supply	1	No.		
	ii) Installation, testing and commissioning	1	No.		
	3. AC/9-1-B1 to AC/9-3-B1				
	CU/9-1-B1 to CU/9-3-B1				
	i) Supply	3	No.		
	ii) Installation, testing and commissioning	3	No.		
	4. AC/9-1-B6 to AC/9-3-B6				
	CU/9-1-B6 to CU/9-3-B6				
	i) Supply	3	No.		
	ii) Installation, testing and commissioning	3	No.		
	5. AC/10-1-B1 to AC/10-4-B1				
	CU/10-1-B1 to CU/10-4-B1				
	i) Supply	12	No.		
	ii) Installation, testing and commissioning	12	No.		
H-A-02	Extra copper piping complete with insulation, conduiting / dura duct, supports, etc. complete in all respect. All refrigerant piping shall be provided with heavy gauge corrosion resistant perforated G.I cable trays/ trunking with openable arrangements.				
	a) Ceiling Cassette Type:				
	1. AC/1-1-B5 to AC/1-1-B5 CU/1-1-B5 to CU/1-1-B5	22	Rft.		
	2. AC/2-1-B5 to AC/2-18-B5 CU/2-1-B5 to CU/2-18-B5	961	Rft.		
	3. AC/3-1-B5 to AC/3-5-B5 CU/3-1-B5 to CU/3-5-B5	218	Rft.		
	4. AC/3-1-B1 to AC/3-5-B1 CU/3-1-B1 to CU/3-5-B1	431	Rft.		
	5. AC/4-1-B1 to AC/4-2-B1 CU/4-1-B1 to CU/4-2-B1	242	Rft.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	6. AC/4-1-B5 to AC/4-2-B5 CU/4-1-B5 to CU/4-2-B5	154	Rft.		
	7. AC/5-1-B1 to AC/5-4-B1 CU/5-1-B1 to CU/5-4-B1	310	Rft.		
	8. AC/6-1-B2 to AC/6-3-B2 CU/6-1-B2 to CU/6-3-B2	198	Rft.		
	b) Wall Mounted Type:				
	1. AC/8-1-B1 to AC/8-8-B1 CU/8-1-B1 to CU/8-8-B1	458	Rft.		
	2. AC/9-1-B1 to AC/9-3-B1 CU/9-1-B1 to CU/9-3-B1	81	Rft.		
	3. AC/10-1-B1 to AC/10-4-B1 CU/10-1-B1 to CU/10-4-B1	387	Rft.		
H-A-03	Exhaust air fans, Propeller type, backdraft damper and bird screen, complete in all respects.				
	a) EF/1-B1	1	No.		
	b) EF/2-1-B1 to EF/2-2-B1	2	No.		
	c) EF/7-B1	1	No.		
	d) EF/1-B4	1	No.		
	e) EF/1-1-B5 to EF/1-21-B5	21	No.		
	f) EF/2-1-B5 to EF/2-3-B5	3	No.		
	g) EF/1-B6	1	No.		
H-A-04	Primary and Secondary Chilled water Pumps, Centrifugal end Suction type with motors, mechanical seal, coupling, guards and vibration isolators, and complete in all respects:				
	a) PCHWP/1-1 to PCHWP/1-3				
	i) Supply	3	No.		
	ii) Installation, testing and commissioning	3	No.		
	b) SCHWP/1-1 to SCHWP/1-3				



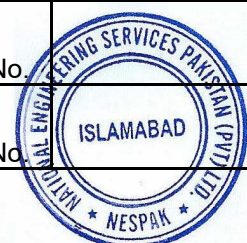
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	i) Supply	3	No.		
	ii) Installation, testing and commissioning	3	No.		
H-A-05	Condenser Water Pumps, centrifugal end suction type with motors, mechanical seal, coupling, guards and vibration isolators, and complete in all respects:				
	a) CWP/1-1 to CWP/1-3				
	i) Supply	3	No.		
	ii) Installation, testing and commissioning	3	No.		
H-A-06	G.I. Sheet Metal Duct-work complete with hangers, supports, bracings, fixing accessories, etc. (various gauges)	34,134	Sft.		
H-A-07	Flexible connections for connecting ductwork with Air Handling Units, fans and other HVAC equipment, complete in all respects. (Building # 1)	1	Lot		
H-A-08	Flexible connections for connecting ductwork with Air Handling Units, fans and other HVAC equipment, complete in all respects. (Building # 2)	1	Lot		
H-A-09	Flexible connections for connecting ductwork with fans and other HVAC equipment, complete in all respects. (Building # 4)	1	Lot		
H-A-10	Air Inlets & Outlets. (various Neck sizes), complete in all respects:				
	a) Code : A	153	Sft		
	b) Code : B	56	Sft		
	c) Code : C	95	Sft		
	d) Code : D	96	Rft.		
	e) Code :	108	Rft.		
	f) Code	30	Rft.		



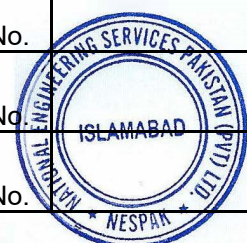
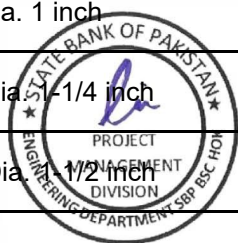
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	g) Code : G	30	Rft.		
	h) Code : H	5	Sft		
	i) Code : I	9	Sft		
	j) Code : J	9	Sft		
	k) Code : K	29	Sft		
	l) Code : L				
	i) Nom. Dia. 10 inch	3	Sft		
	ii) Nom. Dia. 12 inch	5	Sft		
	m) Code : M				
	i) Nom. Dia. 10 inch	3	Sft		
	ii) Nom. Dia. 12 inch	5	Sft		
	n) Code : N	1	Sft		
	o) Code : O	17	Sft		
H-A-11	Volume Control Dampers (various sizes)	242.7	Sft		
H-A-12	Fire Dampers (various sizes)	88	Sft		
H-A-13	Flexible insulated round duct with accessories complete in all respects (Building # 1)	1	Lot		
H-A-14	Flexible insulated round duct with accessories complete in all respects (Building # 2)	1	Lot		
H-A-15	Expansion tanks, vertical floor mounted sealed bladder type with all valves (as shown on drawings) and other accessories and complete in all respects.				
	a) Code :				



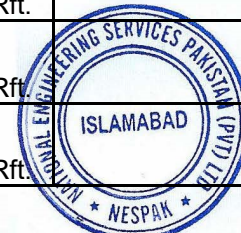
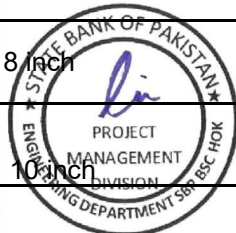
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	i) Supply	1	No.		
	ii) Installation, testing and commissioning	1	No.		
	Water valves & piping specialties:				
	a) Gate Valves:				
	i) Nom. Dia. 3/4 inch	4	No.		
	ii) Nom. Dia. 1 inch	4	No.		
	iii) Nom. Dia. 1-1/4 inch	2	No.		
	iv) Nom. Dia. 1-1/2 inch	2	No.		
	v) Nom. Dia. 2 inch	21	No.		
	vi) Nom. Dia. 2½ inch	7	No.		
	vii) Nom. Dia. 3 inch	4	No.		
	viii) Nom. Dia. 4 inch	2	No.		
	b) Butterfly Valves:				
	i) Nom. Dia. 5 inch	20	No.		
	ii) Nom. Dia. 6 inch	17	No.		
	iii) Nom. Dia. 8 inch	2	No.		
	c) Balancing Valves:				
	i) Nom. Dia. 3/4 inch	2	No.		
	ii) Nom. Dia. 1 inch	2	No.		
	iii) Nom. Dia. 1-1/4 inch	1	No.		
	iv) Nom. Dia. 1-1/2 inch	1	No.		
	v) Nom. Dia. 2 inch	4	No.		
	vi) Nom. Dia. 2½ inch	3	No.		



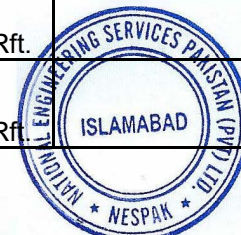
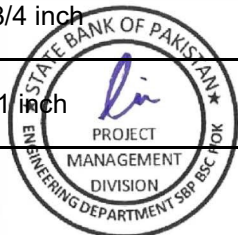
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	vii) Nom. Dia. 3 inch	2	No.		
	viii) Nom. Dia. 5 inch	12	No.		
	ix) Nom. Dia. 6 inch	11	No.		
	d) Check Valves:				
	i) Nom. Dia. 2½ inch	1	No.		
	ii) Nom. Dia. 5 inch	8	No.		
	iii) Nom. Dia. 6 inch	3	No.		
	e) Strainers:				
	i) Nom. Dia. 3/4 inch	2	No.		
	ii) Nom. Dia. 1 inch	2	No.		
	iii) Nom. Dia. 1-1/4 inch	1	No.		
	iv) Nom. Dia. 1-1/2 inch	1	No.		
	v) Nom. Dia. 2 inch	4	No.		
	vi) Nom. Dia. 2½ inch	3	No.		
	vii) Nom. Dia. 3 inch	2	No.		
	viii) Nom. Dia. 5 inch	6	No.		
	ix) Nom. Dia. 6 inch	3	No.		
	f) Flexible round pipe connection for Air handling unit, Fan coil units, Pumps & Chillers:				
	i) Nom. Dia. 3/4 inch	4	No.		
	ii) Nom. Dia. 1 inch	4	No.		
	iii) Nom. Dia. 1-1/4 inch	2	No.		
	iv) Nom. Dia. 1-1/2 inch	2	No.		



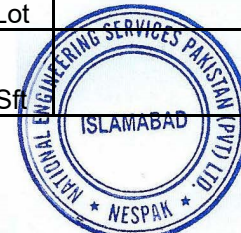
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	v) Nom. Dia. 2 inch	8	No.		
	vi) Nom. Dia. 2½ inch	6	No.		
	vii) Nom. Dia. 3 inch	4	No.		
	viii) Nom. Dia. 5 inch	16	No.		
	ix) Nom. Dia. 6 inch	10	No.		
	g) Pressure relief valves for Chilled water p	3	No.		
	h) Air vents, automatic type	5	No.		
H-A-16	Chilled water/Condenser water piping including fittings, hangers supports, bracings, fixing accessories, etc.				
	i) Nom. Dia. 3/4 inch	196	Rft.		
	ii) Nom. Dia. 1 inch	202	Rft.		
	iii) Nom. Dia. 1-1/4 inch	84	Rft.		
	iv) Nom. Dia. 1½ inch	46	Rft.		
	v) Nom. Dia. 2 inch	123	Rft.		
	vi) Nom. Dia. 2½ inch	81	Rft.		
	vii) Nom. Dia. 3 inch	200	Rft.		
	viii) Nom. Dia. 4 inch	437	Rft.		
	ix) Nom. Dia. 5 inch	524	Rft.		
	x) Nom. Dia. 6 inch	165	Rft.		
	xi) Nom. Dia. 8 inch	788	Rft.		
	xii) Nom. Dia. 10 inch	205	Rft.		



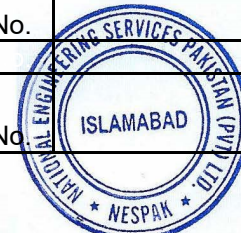
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
H-A-17	G.I. Piping for Condensate drain, make-up water, etc. for chilled water system including fittings and supports, hangers, fixing accessories, etc., complete in all respects.				
	i) Nom. Dia. 3/4 inch	198	Rft.		
	ii) Nom. Dia. 1 inch	149	Rft.		
	iii) Nom. Dia. 1-1/4 inch	120	Rft.		
	iv) Nom. Dia. 1½ inch	130	Rft.		
	v) Nom. Dia. 2 inch	155	Rft.		
	vi) Nom. Dia. 2½ inch	106	Rft.		
H-A-18	uPVC / PPR Piping for condensate drain of Split AC system including fittings, supports, hangers, fixing accessories, etc., complete in all respects.				
	i) Nom. Dia. 3/4 inch	611	Rft.		
	ii) Nom. Dia. 1 inch	311	Rft.		
	iii) Nom. Dia. 1-1/4 inch	142	Rft.		
	iv) Nom. Dia. 1½ inch	50	Rft.		
	v) Nom. Dia. 2 inch	20	Rft.		
	vi) Nom. Dia. 2½ inch	10	Rft.		
H-A-19	Fiberglass piping insulation for chilled water piping, complete in all respects:				
	i) Nom. Dia. 3/4 inch	196	Rft.		
	ii) Nom. Dia. 1 inch	202	Rft.		



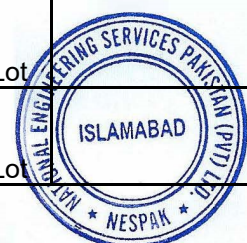
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	iii) Nom. Dia. 1-1/4 inch	84	Rft.		
	iv) Nom. Dia. 1½ inch	46	Rft.		
	v) Nom. Dia. 2 inch	123	Rft.		
	vi) Nom. Dia. 2½ inch	81	Rft.		
	vii) Nom. Dia. 3 inch	200	Rft.		
	viii) Nom. Dia. 4 inch	437	Rft.		
	ix) Nom. Dia. 5 inch	524	Rft.		
	x) Nom. Dia. 8 inch	229	Rft.		
	xi) Nom. Dia. 10 inch	77	Rft.		
H-A-20	Rubber foam insulation for Condensate drain piping, complete in all respects:				
	i) Nom. Dia. 3/4 inch	809	Rft.		
	ii) Nom. Dia. 1 inch	460	Rft.		
	iii) Nom. Dia. 1-1/4 inch	262	Rft.		
	iv) Nom. Dia. 1½ inch	180	Rft.		
	v) Nom. Dia. 2 inch	175	Rft.		
	vi) Nom. Dia. 2½ inch	116	Rft.		
H-A-21	Insulation for Primary and Secondary Chilled Water Pumps including G.I sheet removable boxes, complete in all respects.	1	Lot		
H-A-22	Fiberglass insulation for ductwork complete in all respects.	33,980	Sf		



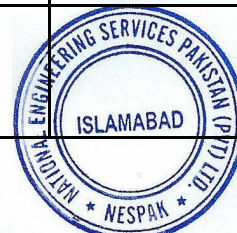
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
H-A-23	Canvas cloth covering including adhesive and two coats of fire retardant paint on all insulated ductwork, all chilled water piping and all insulated drain piping, complete in all respects.	37,852	Sft		
H-A-24	Acoustic Lining, complete in all respects.	1,810	Sft		
H-A-25	Electrical Works including all power and control wiring, conduiting, hangers, supports & other accessories, complete in all respects (Building # 1).	1	Lot		
H-A-26	Electrical Works including all power and control wiring, conduiting, hangers, supports & other accessories, complete in all respects (Building # 2).	1	Lot		
H-A-27	Electrical Works including all power and control wiring, conduiting, hangers, supports & other accessories, complete in all respects. (Building # 4).	1	Lot		
H-A-28	Electrical Works including all power and control wiring, conduiting, hangers, supports & other accessories, complete in all respects. (Building # 5).	1	Lot		
H-A-29	Electrical Works including all power and control wiring, conduiting, hangers, supports & other accessories, complete in all respects. (Building # 6).	1	Lot		
H-A-30	Electrical Control Panels, complete in all respects:				
	a) MCC - 1				
	i) Supply	1	No.		
	ii) Installation, testing and commissioning	1	No.		
	b) ACP / ECP - 1				
	i) Supply	1	No.		
	ii) Installation, testing and commissioning	1	No.		
	c) ACP / ECP -				
	i) Supply	1	No.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	ii) Installation, testing and commissioning	1	No.		
	d) ACP / ECP - 3				
	i) Supply	1	No.		
	ii) Installation, testing and commissioning	1	No.		
	e) ACP / ECP - 4				
	i) Supply	1	No.		
	ii) Installation, testing and commissioning	1	No.		
	f) ECP - 1				
	i) Supply	1	No.		
	ii) Installation, testing and commissioning	1	No.		
	g) ECP - 2				
	i) Supply	1	No.		
	ii) Installation, testing and commissioning	1	No.		
H-A-31	Aluminum washable filters in filter boxes for fr	32	Sft		
H-A-32	Sheet metal cladding including fixing accessories over all exposed insulated piping & all exposed insulated duct work including Plant room, complete in all respects.	14,714	Sft		
H-A-33	Instruments & Gauges, complete in all respects:				
	a) Pressure Gauges with syphon, shut-off cock and pressure snubbers.	48	No.		
	b) Pipe thermometers with thermowell filled with thermal grease	30	No.		
	c) Dial type duct thermometers	22	No.		
H-A-34	Equipment Foundations including corksheets and bitumen (Building no. 1)	1	Lot		
H-A-35	Equipment Foundations including corksheets and bitumen (Building no. 2)	1	Lot		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
H-A-36	Equipment Foundations including corksheets and bitumen (Building no. 4).	1	Lot		
H-A-37	Equipment Foundations including corksheets and bitumen (Building no. 5).	1	Lot		
H-A-38	Equipment Foundations including corksheets and bitumen (Building no. 6).	1	Lot		
H-A-39	Bypass type Chemical Feed System for Chilled water system complete with all valves and other accessories, complete in all respects.	1	Lot		
H-A-40	Air separators complete with all valves, insulation, cladding, painting, etc. and accessories, complete in all respects: Code : AS/1	1	No.		
H-A-41	Door Air curtains as per door dimensions, with all accessories and installation kit, complete in all respects: Code : DAC/1-1-B1	2	No.		
H-A-42	Painting & Identification of Services (Building # 1)	1	Lot		
H-A-43	Painting & Identification of Services (Building # 2)	1	Lot		
H-A-44	Provision of the following items for complete HVAC System:				
	a) Chemicals for Chilled and Condenser Water System.	1	Lot		
	b) Testing, adjusting, balancing and commissioning of complete HVAC System (by Independent Agency as per instruction of Consultants) complete in all respects as per schedule, specifications, drawings & as per instructions of Engineer for all buildings.	1	Job		
Section A - Total (Rs.)					
Section B - Supply of Imported Equipment & Materials					
	Supply of the following as per equipment schedules, drawings and specification (8810 and 8965):				



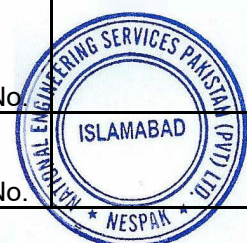
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
H-B-01	Water cooled screw chiller, complete in all respects:				
	a) CH/1-1 to CH/1-2	2	No.		
H-B-02	Cooling Towers, complete in all respects:				
	a) CT/1-1 to CT/1-2	2	No.		
H-B-03	Central Station Air Handling Units with base frame complete with all sections as defined in specifications and equipment schedule, complete in all respects:				
	a) AHU/1-B1	1	No.		
	b) AHU/2-B1	1	No.		
	c) AHU/3-B1	1	No.		
	d) AHU/4-B1	1	No.		
	e) AHU/5-B1	1	No.		
	f) AHU/6-B1	1	No.		
	g) AHU/7-B1	1	No.		
	h) AHU/8-B1 (alongwith Two Nos. Air Cooled Condensing, (cooling only) units, see details in equipment schedule)	1	No.		
	i) AHU / 1 - B2	1	No.		
	j) AHU / 2 - B2	1	No.		
	k) AHU / 3 - B2	1	No.		



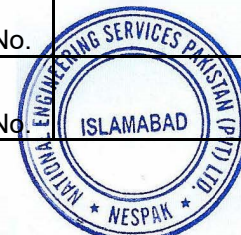
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
H-B-04	Fan coil units, wall mounted / round or 4-way ceiling recessed cassette type complete with all sections including drain pan, drain pump (with cassette type units), brackets, filters, spring isolators as defined in specification and equipment schedule:				
	a) Wall Mounted Type:				
	i) FCU/1-B1	1	No.		
	ii) FCU/2-B1	1	No.		
	iii) FCU/1-B2	1	No.		
	b) Ceiling Cassette Type:				
	i) FCU/3-B1	1	No.		
H-B-05	Exhaust air fans, centrifugal type with all accessories as defined in specification and equipment schedule, complete in all respects:				
	i) EF/3-B1	1	No.		
	ii) EF/4-B1	1	No.		
	iii) EF/5-B1	1	No.		
	iv) EF/6-B1	1	No.		
	v) EF/1-B2	1	No.		
	vi) EF/2-B2	1	No.		
	vii) EF/3-B2	1	No.		
	viii) EF/4-B2	1	No.		
	ix) EF/5-B2	1	No.		
	x) EF/2-B4	1	No.		



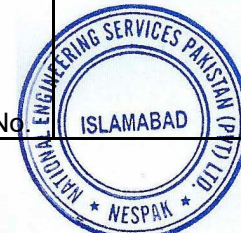
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
H-B-06	Fresh Air supply fans, centrifugal type complete with filters and all accessories as defined in specification and equipment schedule, complete in all respects:				
	i) SF/1-B1	1	No.		
	ii) SF/1-B2	1	No.		
H-B-07	Jet Induction Fans complete with all accessories as defined in specification and equipment schedule, complete in all respects. JF/1-1-B1 to JF/1-3-B1	3	No.		
H-B-08	Transfer Air Fans, Centrifugal type, complete with all accessories as defined in specification and equipment schedule, complete in all respects.				
	i) TF/1-B2	1	No.		
	ii) TF/2-B2	1	No.		
H-B-09	Automatic Chemical Feed System for Condenser Water System, complete with all valves, controls, pumps and other accessories, complete in all respects.	1	Lot		
H-B-10	HVAC Building Management / Automation System including variable frequency drives (VFDs) and all types of control valves, etc. as defined in equipment schedules, drawings and specification, complete in all respects of Building Nos. 1 and 2.	1	Lot		
Section B - Total (Rs.)					
Section C - Installation, Testing and Commissioning of Imported Equipment & Materials					
	Installation, testing and commissioning of the following as per equipment schedules, drawings and specification (8810 and 8965):				
H-C-01	Water cooled screw chiller, complete in all respects: CH/1-1 to CH/1-2	2	No.		
H-C-02	Cooling Towers, complete in all respects: CT/1-1 to CT/1-2	2	No.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
H-C-03	Central Station Air Handling Units with base frame complete with all sections as defined in specifications and equipment schedule, complete in all respects:				
	i) AHU/1-B1	1	No.		
	ii) AHU/2-B1	1	No.		
	iii) AHU/3-B1	1	No.		
	iv) AHU/4-B1	1	No.		
	v) AHU/5-B1	1	No.		
	vi) AHU/6-B1	1	No.		
	vii) AHU/7-B1	1	No.		
	viii) AHU/8-B1 (alongwith Two Nos. Air Cooled Condensing, (cooling only) units, see details in equipment	1	No.		
	ix) AHU/1-B2	1	No.		
	x) AHU/2-B2	1	No.		
	xi) AHU/3-B2	1	No.		
H-C-04	Fan coil units, wall mounted / round or 4-way ceiling recessed cassette type complete with all sections including drain pan, drain pump (with cassette type units), brackets, filters, spring isolators as defined in specification and equipment schedule:				
	a) Wall Mounted Type:				
	i) FCU/1-B1	1	No.		
	ii) FCU/2-B1	1	No.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	iii) FCU/1-B2	1	No.		
	b) Ceiling Cassette Type:				
	i) FCU/3-B1	1	No.		
H-C-05	Exhaust air fans, centrifugal type with all accessories as defined in specification and equipment schedule, complete in all respects:				
	i) EF/3-B1	1	No.		
	ii) EF/4-B1	1	No.		
	iii) EF/5-B1	1	No.		
	iv) EF/6-B1	1	No.		
	v) EF/1-B2	1	No.		
	vi) EF/2-B2	1	No.		
	vii) EF/3-B2	1	No.		
	viii) EF/4-B2	1	No.		
	ix) EF/5-B2	1	No.		
	x) EF/2-B4	1	No.		
H-C-06	Fresh Air supply fans, centrifugal type complete with filters and all accessories as defined in specification and equipment schedule, complete in all respects:				
	i) SF/1-B1	1	No.		
	ii) SF/1-B2	1	No.		
H-C-07	Jet Induction Fans complete with all accessories as defined in specification and equipment schedule, complete in all respects. JF/1-1-B1 to JF/1-3-B1	3	No.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
H-C-08	Transfer Air Fans, Centrifugal type, complete with all accessories as defined in specification and equipment schedule, complete in all respects.				
	i) TF/1-B2	1	No.		
	ii) TF/2-B2	1	No.		
H-C-09	Automatic Chemical Feed System for Condenser Water System, complete with all valves, controls, pumps and other accessories, complete in all respects.	1	Lot.		
H-C-10	HVAC Building Management / Automation System including variable frequency drives (VFDs) and all types of control valves, etc. as defined in equipment schedules, drawings and specification, complete in all respects of Buildings No. 1 and 2.	1	Lot.		
Section C - Total (Rs.)					
HVAC Works - Total (Rs.)					



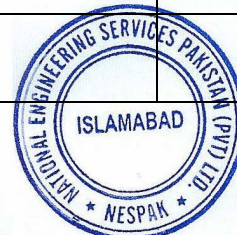
CONSTRUCTION OF SBP NEW OFFICE BUILDING AT D. I KHAN**Bill of Quantities****OPERATION & MAINTENANCE SERVICES**

Item No.	Brief Description of Item	Qty	Days	Rate per Day (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (iv) x (v)
O&M-1	Site In-Charge/Engineer (BE/B. Tech + 10 years relevant experience)	1	546		
O&M-2	Supervisors (Electrical, Lifts & HVAC Works) (DAE in relevant field + 8 years experience)	3	546		
O&M-3	Electrician (Metric + 3 years relevant experience)	6	546		
O&M-4	Helper for Electrical Works (Minimum 3 years relevant experience)	3	546		
O&M-5	Lifts Operator (Metric + 3 years relevant experience)	3	546		
O&M-6	FCU/AHU Technician (Metric + 3 years relevant experience)	1	546		
O&M-7	Plant Operator (Metric + 3 years relevant experience)	1	546		
O&M-8	General Fitter (Metric + 5 years relevant experience)	1	546		
O&M-9	Helper for HVAC Works (Minimum 3 years relevant experience)	2	546		
O&M-10	Plumber (Minimum 3 years relevant experience)	1	546		
O&M-11	Carpenter (Minimum 3 years relevant experience)	1	546		
O&M-12	Painter (Minimum 3 years relevant experience)	1	546		
Operation & Maintenance Services - Total (Rs.)					

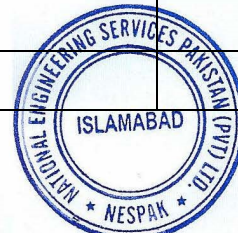
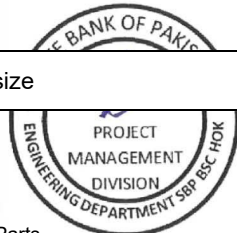


CONSTRUCTION OF SBP NEW OFFICE BUILDING AT D. I KHAN**Bill of Quantities****Essential Spare Parts**

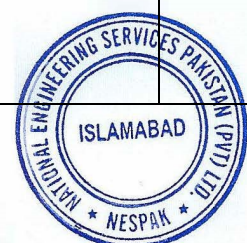
Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
Section A - Spare Parts for locally procured Equipment, Material (Procured from Local Market whether of imported origin or locally manufactured as per specification requirement)					
	Provision of the following items for complete HVAC System:				
SP-A-1	Supply of essential spare parts as mentioned below with proper packing & tagging.				
	(i) Split Air Conditioning Units (Refer to BOQ Item No. H-A-01)				
	a. Compressor for each size i.e. AC/1 (CU/1) to AC/10 (CU/10) in each building as per drawings	16	No.		
	b. Washable Air Filter (two set for each size i.e. AC/1 (CU/1) to AC/10 (CU/10) in each building as per drawings)	32	No.		
	c. Digital Thermostat (each size)	16	No.		
	(ii) Expansion Tank				
	a. Rubber Diaphragm / Bladder	1	Each Size		
	(iii) Instrument & Gauges				
	a. Pipe Thermometers	3	No.		
	b. Duct Thermometers	3	No.		
	c. Pressure Gauges	3	No.		
	(iv) Water Pumps (Refer to BOQ Item No. H-A-04 & H-A-05)				
	a. Mechanical Seal (4 for each type) (Size & specs shall conform to the requirement of each type of the water pump)	12	No.		
	b. Casing Wear Ring (5 for each type) (Size & specs shall conform to the requirement of each type of the water pump)	15	No.		
	c. Joint Ring (10 for each type) (Size & specs shall conform to the requirement of each type of the water pump)	30	No.		
	d. O-Ring (10 for each type) (Size & specs shall conform to the requirement of each type of the water pump)	30	No.		
	(v) Door Air Curtains (Refer to BOQ Item No. H-A-41)				



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	a. Electric Motor (One complete set for Each DAC Unit)	2	Set		
	(vi) Electrical Apparatus Control Panels (ACP/ECP/MCC) (Refer to BOQ Item No. H-A-30)				
	a. Each Type Breaker (10% of the quantity of each type)	1	Lot		
	b. Each Type Indication Lamps (10% of the quantity of each type)	1	Lot		
	c. Each Type Selection Switch (10% of the quantity of each type)	1	Lot		
	d. Each Type Overload Relay (10% of the quantity of each type)	1	Lot		
	e. Each Type Auxiliary Relays (10% of the quantity of each type)	1	Lot		
	f. Each Type Push Bottom (10% of the quantity of each type)	1	Lot		
	g. Each Type HRC Fuses (10% of the quantity of each type)	1	Lot		
	h. Any other Spare(s), recommended by manufacturer	1	Lot		
SP-A-2	Supply of the following Maintenance tools with proper tool boxes.				
	(i) Open-end Spanners (all standard sizes from 1/4" to 2")	1	Set		
	(ii) Ring Spanners (all standard sizes from 1/4" to 1-1/2")	1	Set		
	(iii) Offset Box Wrenches (all standard sizes from 1/4" to 1-1/2")	1	Set		
	(iv) Combination Pliers (Insulated)	1	No.		
	(v) Nose Pliers (Insulated)	1	No.		
	(vi) Multipurpose adjustable wrenches:				
	a. Size 6"	1	No.		
	b. Size 8"	1	No.		
	c. Size 10"	1	No.		
	d. Size 12"	1	No.		
	e. Size 14"	1	No.		
	(vii) Pipe Wrench				
	a. upto 2" pipe size	1	No.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	b. upto 4" pipe size	1	No.		
	(viii) Steel Hammer with Wooden Handle				
	a. Size 1 lb.	2	No.		
	b. Size 2 lbs.	2	No.		
	c. Size 5 lbs.	1	No.		
	(ix) Screw Drivers 'magnetic' (all standard lengths from 4" to 16")	1	Set		
	(x) Philip Screw Drivers 'magnetic' (all standard lengths from 4" to 12")	1	Set		
	(xi) Hacksaw Frame, 12" size	2	No.		
	(xii) Grease Gun (pressure type)	1	No.		
	(xiii) Oil can with pump (1 litre)	1	No.		
	(xiv) Oil can with pump (½ litre)	2	No.		
	(xv) Bearing Puller	1	No.		
	(xvi) Electric Air Blower, industrial type	1	No.		
	(xvii) Bench Vice, 6" size	1	No.		
	(xviii) Flat files (all sizes from 6" to 12")	1	No.		
	(xix) Steel Tool Boxes	1	No.		
	(xx) High pressure washer, Industrial type	1	No.		
	(xxi) Automatic Hard Drill Machine Cordless Operation	1	No.		
	(xxii) Automatic Hard Drill (Heavy Duty) Machine with 20 m wire, Industrial type	1	No.		
Section A - Total (Rs.)					
Section B - Spare Parts for Imported Equipment & Materials					
	Supply of Essential Spare Parts as mentioned below with proper packing and tagging				
SP-B-1	Air Handling Units (Refer to BOQ Item No. H-B-03)				
	a. Electric Motor (one for each AHU) (Specs shall conform to the requirement of each AHU mentioned at BOQ Item No. H-B-03)	11	No.		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	b. Drive Belts (one set for each AHU) (Specs shall conform to the requirement of each AHU mentioned at BOQ Item No. H-B-03)	11	No.		
	c. Air Filters (one set for each AHU) (Specs shall conform to the requirement of each AHU mentioned at BOQ Item No. H-B-03)	11	No.		
SP-B-2	Fan Coil Units (Refer to BOQ Item No. H-B-04)				
	a. Electric Motor + Fan Assembly (one set each size) (Specs shall conform to the requirement of each type of FCU mentioned at BOQ Item No. H-B-04)	4	Each Size		
	b. Air Filter (one set each FCU) (Specs shall conform to the requirement of each of FCU mentioned at BOQ Item No. H-B-04)	4	Set		
	c. Thermostat with integral switch (Two set for each type of FCU) (Specs shall conform to the requirement of each type of FCU mentioned at BOQ Item No. H-B-04)	8	No.		
SP-B-3	HVAC Building Management System (Refer to BOQ Item No. H-B-10)				
	a. Differential Pressure Switch	2	No.		
	b. Temperature Sensor	1	Each type		
	c. Humidity Sensor	2	No.		
	d. Smoke Detector	2	No.		
	e. Firestat	2	Each type		
	f. Valve Actuator	1	Each type		
	g. Damper Actuator	1	Each Size		
	h. Transformer	1	Each Size		
	i. Controllers	1	No.		
	j. Chilled Water Flow Sensor with display unit	1	No.		
	k. Pressure Sensor	2	No.		
SP-B-4	Cooling Towers (Refer to BOQ Item No. H-B-02)				
	a. Electric Motor	1	No.		
	b. Drive Belts	2	Sets		



Item No.	Brief Description of Item	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi) = (iii) x (v)
	c. Fan Assembly (complete)	1	No.		
	d. PVC Fill (100% of one cooling tower)	1	Lot		
	e. Louver Blades (50% of one cooling tower)	1	Lot		
SP-B-5	Chillers (Screw Chiller) (Refer to BOQ Item No. H-B-01)				
	a. High Pressure Switch	1	No.		
	b. Low Pressure Switch	1	No.		
	c. Indication Lights	1	Set		
	d. Compressor Motor Overload Relay	1	No.		
	e. Timer	1	No.		
	f. Gaskets	1	Set		
	g. Core Dehydrator	1	No.		
	h. Contactors:				
	i. Compressor	1	No.		
	ii. Condenser	1	No.		
	i. Fuses	1	Set		
	j. Time Delay Relay	1	No.		
SP-B-6	Exhaust Fans Centrifugal Type (Refer to BOQ Item No. H-B-05)				
	a. Electric Motor (one for each size) (Specs shall conform to the requirement of each Exhaust Fan mentioned at BOQ Item No. H-B-05)	10	Each		
	b. Drive Belts (one set each size) (Specs shall conform to the requirement of each Exhaust Fan mentioned at BOQ Item No. H-B-05)	10	Each		
Section B - Total (Rs.)					
Essential Spare Parts - Total (Rs.)					

