

Vol-IV

PREAMBLE TO BILL OF QUANTITIES

(These preambles apply to all the sections of the Bill of Quantities. The Contract rates shall take into account all these provisions in addition to various provisions in other parts of

SI No.	DESCRIPTION
1	This is an "Item Rate Tender". Rates shall include cost of materials, labour, plants & equipments taxes, duties and all necessary apparent services required for complete execution, and commissioning in accordance with relevant drawings and specification. The HLL/HLPPT decision on interpretation of bill of quantities and its preamble shall be final and binding on the contractor.
2	The quantities given in this Bill of Quantities are liable to variations. Such variations in quantities shall not, however, vitiate the contract in any way whatsoever and all quoted rates shall remain valid as per deviation limits provided in the contract. Contractor shall be paid for the actual measured quantities of work executed by him/them .
3	Rates quoted shall be firm and shall not be subject to any price variations except as specifically provided in the contract.
4	The contractor's quoted rate shall include surveying, making layout and demarcation of all services as required for completion of the works within the scope of this contract .
5	The words "as specified", "as described", "as shown", "as directed", or "as approved", shall mean as described in the specifications, Schedule of Quantities and other Contract documents as shown on the drawings or as directed by EIC.
6	The following notations as appearing in the Bill of Quantities and specifications shall mean :
	a) Cum = Cubic metre
	b) Sqm. = Square metre
	c) Rm/Mtr./ Metre = Running metre
	d) No./Nos./Each/Set = Numbers
	e) Kg. = Kilogram
	f) MT. = Metric Ton
7	For the general guidance of the bidders, tender drawings are available with the HLL/HLPPT which should be seen /consulted by the intending bidders before bidding. The detailed working drawings shall be issued to the successful bidder after start of work at site and during the execution of the work so as per requirement and progress chart prepared initially and /or modified subsequently by the contractors.
8	The bidders shall take into account all leads and lifts involved in transport of materials to site, erection and hire of T & P, sheds for materials, etc. while quoting the rates for various sub heads of the work. Similarly all taxes including Octroi, Toll or Sales Tax/VAT, Works Contract Tax or any other Taxes etc. as payable by the contractor at the time of submission of bids shall be taken in to account by the bidders before quoting their. Any claim in these matters whatsoever in this respect shall not be entertained.

Addition
 Deletion.....
 Correction.....
 Over Writing.....

Estimated Cost for Construction of HLPPT Office Building at Lucknow			
FINANCIAL BID SUMMARY SHEET			
Sl. No.	Sub-Head Description	Quoted Amount in Figures (Rs.)	Quoted Amount in Words (Rs.)
1	Civil Works		
2	Internal & External Plumbing & Sanitary works		
3	Internal Electrification & LV Work		
4	External Electrification Work (Sub- Station/DG Set etc.)		
5	Fire Fighting System		
7	Lifts		
8	HVAC		
	Total		

Addition
 Deletion.....
 Correction.....
 Over Writing.....

CONSTRUCTION OF HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW			
<u>SUMMARY-CIVIL WORKS</u>			
Sl. No.	Description	Quoted Amount in Figures (Rs.)	Quoted Amount in Words (Rs.)
A	EARTH WORKS		
B	CONCRETE WORKS		
C	REINFORCED CEMENT CONCRETE WORK		
D	BRICK WORK		
E	MARBLE & GRANITE WORK		
F	WOOD & PVC WORK		
G	STEEL WORK		
H	FLOORING		
I	ROOFING		
J	FINISHING		
K	ALUMINIUM WORK		
L	WATER PROOFING		
M	ROADWORK & MISC.		
TOTAL Amount in Rs.			

Addition
 Deletion.....
 Correction.....
 Over Writing.....

CONSTRUCTION OF HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
BILL OF QUANTITIES - CIVIL WORKS							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
A	2.0	<u>EARTH WORKS</u>					
1	2.1	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth upto 50 m and lift upto 1.5 m, disposed soil to be levelled and neatly dressed :					
i	2.1.1	All kinds of soil	3.40	100 Sqm			
2	2.6	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.					
i	2.6.1	All kinds of soils	2480.00	CUM			
3	2.7	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5 m, disposed earth to be levelled and neatly dressed.					
i	2.7.1	Ordinary rock	100.00	CUM			
4	2.8	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.Upto 1.5 M depth.					
	2.8.1	All kinds of soil.	159.00	CUM			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
5	2.10	Excavating trenches of required width for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5m including getting out the excavated soil, and then returning the soil as required, in layers not exc					
i	2.10.1	All kinds of soil.					
ii	2.10.1.2	Pipes, cables, etc. exceeding 80mm dia but not exceeding 300mm dia.	155.00	RM			
	2.11	Extra for excavating trenches for pipes, cables etc. in all kinds of soil for depth exceeding 1.5 m, but not exceeding 3 m. (Rate is over corresponding basic item for depth upto 1.5 metre).	29.00	RM			
6	2.18	Close timbering over areas including strutting, shoring and packing cavities (wherever required) etc. complete. (Measurements to be taken of the face area timbered) :					
i	2.18.3	Depth exceeding 3 m but not exceeding 4.5 m.	468.00	Sqm			
7	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	732.00	CUM.			
8	2.26	Extra for every additional lift of 1.5 m or part thereof in excavation / banking excavated or stacked materials.					
i	2.26.1	All kinds of soil (1.5-3.0m)	526.00	CUM.			
ii		All kinds of soil (3.0-4.5m)	515.00	CUM.			
iii		All kinds of soil (4.5-6.0m)	500.00	CUM.			
iv		All kinds of soil (6.0-7.5m)	500.00	CUM.			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
9	2.27	Supplying and filling in plinth with river sand under floors including, watering, ramming consolidating and dressing complete.	102.00	CUM			
10	2.31	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.	3.40	100 SQM			
11		Anti termite treatment					
	2.35	Supplying chemical emulsion in sealed containers including delivery as specified					
i	2.35.1	Along external wall where the apron is not provided using chemical emulsion @ 7.5 litres / sqm of vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall & rodding ect. Complete.					
	2.35.1.1	With Chlorpyrifos / Lindane E.C 20% with 1% concentration.	100.00	metre			
12	1.1	Carriage of materials by mechanical transport including loading, unloading and stacking					
i	1.1.2	Lime, moorum, building Earth					
		1km	1100.00	cum			
		TOTAL					
B	4.0	<u>CONCRETE WORKS</u>					
1	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :					

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
i	4.1.8	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	82.00	CUM			
	4.1.10	1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size)	4.00	CUM			
ii	4.1.3	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)	22.00	cum			
iii	4.10	Providing and laying damp-proof course 40 mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size).	18.00	sqm			
2	4.17	Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement:3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top	70.00	sqm			
		TOTAL					
C	5.0	<u>REINFORCED CEMENT CONCRETE WORK</u>					
1	5.9	Centering and shuttering including strutting, propping etc. and removal of form for :					
a	5.9.1	Foundations, footings, bases of columns, etc. for mass concrete.	190.00	SQM			
b	5.9.2	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	1050.00	SQM			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
c	5.9.3	Suspended floors, roofs, landings, balconies and access platform.	1115.00	SQM			
d	5.9.4	Shelves (Cast in situ)	15.00	SQM			
e	5.9.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers	850.00	SQM			
f	5.9.6	Columns, Pillars, Piers, Abutments, Posts and Struts.	600.00	SQM			
g	5.9.7	Stairs, (excluding landings) except spiral-staircases.	100.00	SQM			
h	5.9.9	Arches, domes, vaults up to 6 m span	5.00	SQM			
i	5.9.15	Small lintels not exceeding 1.5m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like.	110.00	SQM			
j	5.9.16	Edges of slabs and breaks in floors and walls.					
	5.9.16.1	Under 20cms wide	299.00	metre			
k	5.9.19	Weather shade, chajjas, corbels etc. Including edges.	50.00	sqm			
l	5.11.1	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc. including cost of de-shuttering and decentering at all levels, over a height of 3.5 m, for every additional height of 1 metre or part thereof (Plan area to be measured) 5.11.1 Suspended floors, roofs, landing, beams and balconies (Plan area to be measured).	1100.00	Sqm			
2	5.22	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete all level.					

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
a	5.22.6	Thermo-Mechanically Treated bars.	126720.00	KG			
3	5.30	Add for plaster drip course/ groove in plastered surface or moulding to R.C.C. projections.	330.00	metre			
4	5.33	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge.					
		(Note :- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately).					
a)	5.33.1	All works upto plinth level	55.00	cum			
b)	5.33.2	All works above plinth level upto floor V level	61.00	cum			

Addition
 Deletion.....
 Correction.....
 Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
5	5.37	Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work, including pumping of R.M.C. from transit mixer to site of laying , excluding the cost of centering, shuttering finishing and reinforcement, including cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge.					
		(Note :- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately).					
a)	5.37.1	All works upto plinth level	265.00	cum			
b)	5.37.2	All works above plinth level upto floor V level	330.00	cum			
6	5.34	Extra for providing richer mixes at all floor levels.					
		Note:- Excess/less cement over the specified cement content used is payable /recoverable separately.					
a)	5.34.1	All works upto plinth level	711.00	cum			
b)	5.35	Add for using extra cement in the items of design mix over and above the specified cement content therein.	20.00	quintl			
		TOTAL					
D	6.0	BRICK WORK					
1	6.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:					

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
i	6.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	120.00	cum			
2	6.4	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in					
i	6.4.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	417.00	cum			
		HALF BRICK MASONRY					
3	6.12	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundations and plinth in :					
i	6.12.2	cement mortar 1:4 (1 cement : 4 coarse sand)	201.00	sqm			
4	6.13	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.					
i	6.13.2	Cement mortar 1:4 (1 cement :4 coarse sand)	458.00	sqm			
5	6.15	Extra for providing and placing in position 2 Nos. 6mm dia. M.S. bars at every third course of half brick masonry .	659.00	Sqm			
		TOTAL					
E	8.0	MARBLE & GRANITE WORK					

Addition
 Deletion.....
 Correction.....
 Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
1	8.2	Providing and fixing 18mm thick gang saw cut (premoulded and prepolished) machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edge to give high gloss finish etc. complete at all levels.					
a	8.2.2	Granite of any colour and shade					
i	8.2.2.1	Area of slab upto 0.50 sqm	10.00	SQM			
ii	8.2.2.2	Area of slab over 0.50 sqm	10.00	SQM			
2	8.3	Extra for providing edge moulding to 18mm thick marble stone counters, Vanities ect. Including machine polishing to edge to give high gloss finish ect. Complete as per design approved by Engineer - in Charge.					
i	8.3.2	Granite work	32.00	metre			
3	8.4	Extra for fixing marble / granite stone over and above corresponding basic item, in facia and drops of width upto 150mm with epoxy resin baesd adhesive including cleaning etc. complete.	32.00	metre			
4	8.5	Extra for providing opening of required size & shape for wash basins/ kitchen sink in kitchen platform, vanity counters and similar location in marble/Granite/Stone work including necessary holes for pillar taps etc. including rubbing and polishing of cut edge etc. complete.	10.00	each			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
5	16.86	Providing and laying gang saw cut 18 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid over 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge.					
i	16.86.1	Area less than 0.50 sqm.	185.00	SQM			
6	NDSR	Extra for granite stone flooring in treads of steps and risers using single length upto 2.0 m.	130.00	SQM			
7	NDSR	Extra for pre-finished nosing to treads of steps of granite stone	178.00	metre			
		TOTAL					
F	9.0	WOOD & PVC WORK					
1	9.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be for separately).					
i	9.1.1	Second class teak wood	1.00	cum			

Addition
 Deletion.....
 Correction.....
 Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
2	9.21	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters :					
i	9.21.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.	47.00	sqm			
3	9.23	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of shutters (over all area of door shutter to be measured) over item no. 9.20 and 9.21	47.00	sqm			
4	9.33	Providing and fixing expandable fasteners of specified size with necessary plastic sleeves and galvanised M.S. screws including drilling holes in masonry work /CC/ R.C.C. and making good etc. complete.					
i	9.33.1	25 mm long	25.00	Each			
ii	9.33.2	32 mm long	30.00	Each			
iii	9.33.3	40 mm long	75.00	Each			
iv	9.33.4	50 mm long	40.00	Each			
5	9.127	Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt / suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S including cost of adhesive of approved quality					
i	9.127.2	1.0 mm thick.	93.00	sqm			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
6	9.53	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size)	88.00	each			
7	9.84	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.	41.00	EACH			
8	9.97	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete :					
i	9.97.1	300x10 mm	114.00	EACH			
ii	9.97.5	100x10 mm	98.00	EACH			
9	9.100	Providing and fixing aluminium handles of approved make anodized (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete.					
i	9.100.1	125 mm	106.00	EACH			
ii	9.100.2	100mm	98.00	EACH			

Addition
 Deletion.....
 Correction.....
 Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
10	9.101	Providing and fixing aluminium hanging floor door stopper ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with necessary screws etc. complete.					
i	9.101.1	Single rubber stopper	42.00	EACH			
11	9.102	Providing and fixing aluminium casement stays ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with necessary screws etc. complete.	64.00	EACH			
12	9.103	Providing & fixing bright finished brass 100 mm mortice latch and lock ISI marked with six levers and a pair of anodised (anodic coating not less than grade AC 10 as per IS :1868) aluminium lever handles with necessary screws etc. complete (Best make of approved quality)	33.00	EACH			

Addition
 Deletion.....
 Correction.....
 Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
13	9.105	Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing of frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120gms/sqm(both side inclusive), consisting of floor and ceiling channel 50mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts, including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre.					
		The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete.					
i	9.105.1	75 mm overall thickness partition with 12.5 mm thick double skin fire rated board conforming to IS: 2095: part I	200.00	sqm			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
14	NDSR	Fire Door					
		50MM THICK (minimum) WOODEN FIRE RATED DOOR OF 120 MINUTES FIRE RATING:					
a	NDSR	DOOR FRAME: Supply and fixing of 2nd class teakwood (Ivory Coast) door frame of section Max. 150mm x 75mm with heat activated intumescent fire seal strip of section 10mm x 4mm 2 No. of approved make and one coat anti-termite fire retardant primer of approved make.	Metre	23			

Addition
 Deletion.....
 Correction.....
 Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
b	NDSR	DOOR SHUTTER: Supply and fixing asbestos free composite fire/smoke check wooden shutter (minimum thickness 50mm but not more than 55mm) of 120 min. fire rating confirming to BS : 476 part 22 & IS : 3614 Part II as per the prototype tested and certified by CBRI Roorkee, suitable for mounting on the door frame, comprising of two non combustible boards 12mm mm thick sandwiching to 20 to 25 mm fire resistant insulation filler veneered with 3mm thick commercial ply on both faces and pasting of minimum 1 mm thick laminate over wooden fire approved brand a 100% without Asbestos, Bructile and merschaum, having density not more than 1150 kg/m3 and thermal conductivity 0.14 W/m K with heat activated intumescent fire seal strip of size 20mm x 4mm of approved mounted in the grooves of teakwood lipping on all sides except bottom. The intumescent sealant is used to fill the gaps between board and internal wooden lipping. (The sample(s) of the fire door shall be collected out of the delivered doors, as per specifications, and shall get tested the door from CBRI Roorkee or any other laboratory approved by Engineer-in-Charge. The work shall be carried out as per specification and as per direction of Engineer-in-Charge.	Sqm	13			
c		Providing & fixing following Hardware's for Fire Door of approved makes complete in all respect as directed by Engineer-in-charge					
i	NDSR	Supply and fixing of 304 grade stainless steel ball bearing hinges of size 100x 75 x 3mm of approved make as per direction of Engineer in Charge.	nos	24			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
ii	NDSR	Providing and fixing of fire rated door closer tested in accordance with BS:476 Part 22 for fire rating) and BS EN 1154 with 10 year warranty as per direction of Engineer in Charge.	nos	4			
iii	NDSR	PANIC EXIT DEVICES : Providing and fixing of UL listed fire rated single/double leaf panic exit devices tested in accordance with BS EN 1125: 1997 & BS EN 179: 1997, EN 1670 (Corrosion Resistant), & BS 476 Part 22 (for fire rating) with 5 years warranty as per direction of Engineer in Charge.					
a		For Double Leaf door	nos	4			
iv	NDSR	MORTICE DEAD LOCK:- Providing and fixing 2 hrs, fire rated mortice lock with lever handle tested in accordance with BS:476 Part 22.with 5 year warranty.	nos	4			
v	NDSR	FIRE RATED GLASS FOR FIRE RATED DOORS VISION PANEL: Supply and fixing of minimum 11mm thick, Contraflame Door Lite Clear, 120 minutes rated (EW 120) Non Wired, Toughened Interlayered Glass toughened fire rated glass having light transmission 87% of approved make which can also withstand thermal shock upto 800 degree centigrade shall be used as a	nos	4			
vi	NDSR	Supply and fixing of stainless steel 304 Grade D - Type pull handle of size 300mm long 22mm dia of approved made as per direction of Engineer-in-Charge.	nos	8			
vii	NDSR	Supply & application of fire retardant paint of approved brand in three or more coats to provide Class I surface spread of flame as per IS 12777 and BS 476 Part 7 tested from CBRI Roorkee or any other Laboratory approved by Engineer-in-Charge.	Sqm	30			

Addition
Deletion.....
Correction.....
Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
viii	NDSR	Providing and fixing door Co-ordinator for coordination of double leaf doors as manufactures specifications.	Each	4			
ix	NDSR	Providing of Openable locks / trims for Panic Bars (Becker Fire Solutions) to operate panic bar from outside with necessary screws as required.The lock and handle should be an amalgamanted single motion piece from the same manufacturer as that of Panic Bar	Each	4			
		TOTAL (Carried Over to Summary of Civil Works)					
G	10.0	STEEL WORK					
1	10.25	Steel work welded in built up sections/ framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required					
a	10.25.1	In stringers, treads, landings etc. of stair cases including use of chequered plate wherever required, all complete.	250.00	KG			
b	10.25.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works.	1770.00	KG			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
2	10.28	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc. including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge. (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.)	1200.00	KG			
		TOTAL (Carried Over to Summary of Civil Works)					
H	11.0	<u>FLOORING WORK</u>					
1	11.3	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc. complete.					
i	11.3.1	40mm thick with 20mm nominal size stone aggregate.	211.00	sqm			
2	11.4	52 mm thick cement concrete flooring with concrete hardener topping, under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacturer's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	140.00	sqm			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
3	11.6	Cement plaster skirting up to 30 cm height, with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement.					
i	11.6.1	18 mm thick	16.00	sqm			
4	11.26	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :					
i	11.26.1	25 mm thick.	50.00	sqm			
5	11.27	Kota stone slabs 25 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	5.00	sqm			
6	11.36	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacture) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge	407.00	sqm			
7	11.38	Providing and laying Ceramic floor tiles 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1: 4 (1 Cement : 4 Coarse sand) including pointing the joints with white cement and matching pigments etc., complete.	129.00	sqm			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
8	11.41	Providing & Laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption's less than 0.08% and confirming to IS : 15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc, complete.					
i	11.41.2	Size of Tile 60 x 60 cm	608.00	sqm			
9	NSR	Supply,installation & finishing of wooden sorts flooring system consisting of the surface board of 2nd class teak wood,surface board finished with 20mm thick,60 to 70mm width and in random length in tongue and groove shape.The edges of the boards will have a finger lock grove and the bottom side with air pass groove and applied with polyurethane lacquer.The under frame made of commercial quality Fir/Spruce/Pine wood runners of 70mm x 45mm treated with anti-termite	34.00	Sqm			
10	8.9	Stone tile (polished) work for wall lining over 12mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/sqm including pointing in white cement complete.					
i	8.9.1.2	Granite of any colour and shade.	40.00	Sqm			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
11	NDSR	Providing and fixing Vinyl flooring of 2mm thick 100% recycled PVC flexible, homogeneous antistatic calendared compacted floor covering, minimum weight 3120 g/m ² in minimum sheet of size 2mtrs. x 20 mtrs. approved pattern & colour combination with PUR Protect or equivalent surface treatment having wear minimum resistance of $\leq 4.0\text{mm}^3$ as per EN 660.2 and wear group Group P as per EN-649 and should have a minimum residual indentation of <0.03mm confirming to EN-433. The laid flooring should have non- directional design, colour dyed as a raw mixture to ensure even colour throughout the thickness and its surface should be densely compacted for improving wear and ease of maintenance with Anti-bacterial and Fungicidal properties. The laid flooring shall confirms the fire rating B1 class as per EN 13501-1. The floor finish should terminate at the room perimeter passing over a concealed cove former and continuing up the wall for 100mm. The joints in the flooring should be sealed by using a PVC welding bar of matching colour to be supplied by the manufacturer using a hot air gun for fusion of welding bar.	40.00	Sqm			
		TOTAL (Carried Over to Summary of Civil Works)					
I	12.0	ROOFING					
1	12.21	Providing and laying gola 75x75mm in cement concrete M15 grade including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design in 75x75 mm deep chase.	94.72	rmt.			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
2	12.53	Providing and Fixing 15 mm thick densified tegular edged eco friendly light weight calcium silicate false ceiling tiles of approved texture spintone /cosmos / Hexa or equivalent of size 595 x 595 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanised steel Sections (galvanising @ 120 grams per sqm including both side) consisting of main 'T' runner suitably spaced at joints to get required length and of size 24x38mm made from 0.33 mm thick (minimum) sheet, spaced 1200mm centre to centre, and cross "T" of size 24x28mm made out of 0.33mm (Minimum) sheet, 1200mm long spaced between main'T' at 600mm centre to centre to form a grid of 1200x600mm and secondary cross 'T' of length 600mm and size 24 x28mm made of 0.33mm thick (Minimum) sheet to be inter locked at middle of the 1200x 600mm panel to from grid of size 600x600mm, resting on periphery walls /partitions on a Perimeter wall angle pre-coated steel of size(24x24X3000 mm made of 0.40 mm thick (minimum) sheet with the help of rawl plugs at	71.14	Sqm			

Addition
Deletion.....
Correction.....
Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
		450mm centre to centre with 25mm long dry wall screws @ 230mm interval and laying 15mm thick densified edges calcium silicate ceiling tiles of approved texture (Spintone / Cosmos/hexa) in the grid including, cutting/ making opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc., wherever required, Main 'T' runners to be suspended from ceiling using G.I. slotted cleats of size 25x35x1.6mm fixed to ceiling with 12.5 mm dia and 50mm long dash fasteners, 4mm G.I. adjustable rods with galvanised steel level clips of size 85 x 30 x 0.8 mm, spaced at 1200mm centre to centre along main 'T' , bottom exposed with 24mm of all T-sections shall be pre-painted with polyester baked paint, for all heights, as per specifications, drawings and as directed by engineer-in-charge.					
		Note :- Only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for exposed frames/opening (cut outs) having area less than 0.30 sqm. The calcium silicate ceiling tile shall have NRC. value of 0.50(Minimum), light reflection > 85%, non - combustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity<0.043 w/m 0 KC. (for toilet)					

Addition
 Deletion.....
 Correction.....
 Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
3	12.45	Providing and fixing at all height false ceiling including providing and fixing of frame work made of special sections power pressed from M.S. sheet and galvanised in accordance with zinc coating of grade 350 as per IS : 277 and consisting of angle cleats of size 25mm wide x 1.6mm thick with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with dash fastner 12.5mm diax40mm long with 6mm dia bolts to the angle hangers of 25x25x0.55mm of required length, and other end of angle hanger being fixed with nut and bolts to G.I. channels 45x15x0.9mm running at the rate of 1200mm centre to centre to which the ceiling section 0.5mm thick botton wedge of 80mm with tapered flanges of 26mm each having clips of 10.5mm at 450mm centre to centre shall be fixed in a direction perpendicular to G.I. channel with connecting clips made out of 2.64mm diax230mm long G.I. wire at every junction including fixing the gypsum board with ceiling section and perimeter channels 0.5mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/partition with the help					

Addition
Deletion.....
Correction.....
Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
		of rawl plugs at 450mm centre to centre with 25mm long drive-all screws @ 230mm interval including jointing and fixing to a flush finish of tapered and square edges of the gypsum board with recommended filler, jointing tapes, finisher and two coats of primer suitable for board as per manufactures specification and also including the coat of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed all complete as per drawing and specification and direction of the Engineer in Charge but excluding the cost of painting with :					
i	12.45.1	12.5mm thick tapered edge gypsum board conforming to IS : 2095-Part I	688.41	SQM			
4	12.31	Providing 10 mm thick plaster of Paris (gypsum anhydrous) ceiling up to a height of 5 m above floor level over first class kail wood strips 25x6 mm with 10 mm gap in between and reinforced with rabbit wire mesh fixed to wooden frame					
i	12.31.1	Flat surfaces	169.24	SQM			
5	12.41	Providing and fixing on wall face unplasticised Rigid PVC RAIN WATER PIPES conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.(i) Single socketed pipes.					
i	12.41.2	110 mm diaMeter	105.00	Metre			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
6	12.42	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.					
i	12.42.1	Coupler					
	12.42.1.2	110 mm	14.00	Each			
ii	12.42.5	Bend 87.5°					
	12.42.5.2	110 mm bend	8.00	Each			
iii	12.42.6	Shoe (Plain)					
	12.42.6.2	110 mm Shoe	8.00	Each			
7	12.60	Providing and fixing thermal insulation of ceiling (under deck insulation) with Resin Bonded Rockwool conforming to IS: 8183, density 48 kg/ m ³ , 50 mm thick, wrapped in 200 G Virgin Polythene bags fixed to ceiling with metallic cleats (50x50x3 mm) @ 60 cm and wire mesh of 12.5mm x 24 gauge wire mesh, for top most ceiling of building.	218.00	sqm			
		TOTAL (Carried Over to Summary of Civil Works)					
J	13.0	<u>FINISHING WORK</u>					
1	13.1	12 mm cement plaster of mix :					
i	13.1.2	1:6 (1 cement: 6 fine sand)	2491.71	SQM			
2	13.2	15 mm cement plaster on the rough side of single or half brick wall of mix:					
i	13.2.2	1:6(1 Cement : 6 Fine Sand).	1973.00	SQM			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
3.a	13.3	20 mm cement plaster of mix :					
i	13.3.1	1:4 (1 cement: 4 fine sand)	122.00	SQM			
3.b	13.12	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement: 5 coarse sand) and a top layer 6 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished rough with sponge.	400.00	SQM			
4	5.30	Add or deduct for plaster drip course/ groove in or moulding to R.C.C. projections.plastered surface	122.00	metre			
5	13.16	6 mm cement plaster of mix :					
i	13.16.1	1:3 (1 cement: 3 fine sand)	120.51	SQM			
6	13.21	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers.	300.00	per bag of 50KG Cement Used in Mix			
7	13.26	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete	4464.70	SQM			
8	13.41	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade					
i	13.41.1	New work (two or more coats) over and including priming coat with cement primer.	400.00	SQM			
9	13.85	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.					

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
i	13.85.3	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	5400.00	SQM			
10	13.45	Finishing walls with textured exterior paint of required shade :					
i	13.45.1	New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including base coat of water proofing cement paint applied @ 2.20kg/10 sqm.	755.00	SQM			
11	13.48	Finishing walls with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :					
i	13.48.2	Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @0.90 ltr/10 sqm over an under coat of primer applied @0.75 ltr/ 10 sqm of approved brand or manufacture	20.00	SQM			
12	13.50	Applying priming coat :					
i	13.50.1	With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood)	20.00	SQM			
13	13.52	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc.					
i	13.52.1	On steel work	202.00	SQM			
14	13.83	Wall painting with premium acrylic emulsion paint of interior grade , having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.					

Addition
Deletion.....
Correction.....
Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
i	13.83.2	two coats	3200.00	SQM			
15	13.44	Finishing walls with water proofing cement paint of required shade :					
i	13.44.1	New work (Two or more coats applied @ 3.84 kg/10 sqm)	1600.00	SQM			
		TOTAL (Carried Over to Summary of Civil Works)					
K	21.0	ALUMINIUM WORK					
		For External window:					
1	NDSR	Providing and fixing Aluminium fixed windows with DGU 6mm Solar reflective high performance low-E Glass + 12mm air gap +6mm clear glass giving minimum u-value 0.31 BTU/sqft F and SHGC 0.55, VLT 73% and 37Db noise reduction (Glass rate :2800/sqm)	80.25	sqm			
		For Internal door & window:					
2	21.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS : 1285, fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed echanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. Glazing and paneling to be paid for separately) :					

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
a)	21.1.1	For fixed portion.					
i	21.1.1.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	803.74	KG			
b)	21.1.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of PVC / neoprene gasket required (Fittings shall be paid for separately).					
i	21.1.2.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	950.60	KG			
3	21.3	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):					
i	21.3.1	With float glass panes of 4.0 mm thickness	80.25	SQM			
ii	21.3.2	With float glass panes of 5.50 mm thickness	92.22	SQM			
4	21.4	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg., for doors, including cost of cutting floors , embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.					

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
i	21.4.1	With stainless steel cover plate minimum 1.25 mm thickness.	39.00	each			
5	21.8	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.					
i	21.8.1	Upto 5mm depth and 5 mm width	377.38	metre			
6	21.6	Providing and fixing 6 mm dia. G.I. level adjusting hangers (upto 1200mm length), fixed to roof slabs by means of ceiling cleats made out of G.I. flat 40x3mm size 60 mm long and stainless steel expandable dash fastener of 12.5 mm dia and 50 mm long, complete as per direction of Engineer -in-charge.	374.99	EACH			
7 (i)	21.18	Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacturer, including providing and fixing top & bottom pivot & spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc.to be paid	6.00	sqm			
7(ii)	NDSR	Providing and fixing approved brand and manufacturer SS 304 grade top and bottom patch fittings for frameless doors fixed with SS screws etc. complete in all respects as per manufacturer's specifications & as directed by Engineer-in-charge	2.00	set			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
7(iii)	NDSR	Providing and fixing S.S Patch lock to Lock the Door at Centre etc. complete in all respects as per direction of the Engineer-in-charge.	2.00	nos			
7(iv)	NDSR	Providing and fixing approved brand and manufacturer SS 304 grade S.S Pull Handle 25mmx325mm fixed with SS screws etc. complete in all respects as per manufacturers' specifications & as directed by Engineer-in-charge.	2.00	set			
7(v)	NDSR	Providing and fixing 12 mm thick frameless toughened glass door partitions of approved brand and manufacturer, including providing and fixing partitions at top & bottom with aluminum channel etc. all complete as per direction of Engineer-in-charge	5.00	sqm			
8	NDSR	External Structure Glazing					

Addition
 Deletion.....
 Correction.....
 Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
i	26.1	Providing and supplying aluminium extruded tubular and other aluminium sections as per the architectural drawings and approved shop drawings , the aluminium quality as per grade 6063 T5 or T6 as per BS 1474,including super durable powder coating of 60-80 microns conforming to AAMA 2604 of required colour and shade as approved by the Engineer-in-Charge. (The item includes cost of material such as cleats, sleeves, screws etc. necessary for fabrication of extruded aluminium frame work. Nothing extra shall be paid on this account).	400.00	Kg			
9	NDSR	Designing, Providing, fixing and testing SEMI UNITIZED SYSTEM based 20+2 micron thick Anodized, Extruded Aluminium structural glazing of approved sections and make with in built drainage system including application of sealants, spacer tapes etc., with following detailed specs. (Works including Scaffolding and staging works)					
		ALUMINIUM SECTIONS: Extruded Aluminium anodized with approved shade/colour and covered with self adhesive masking tape comprising of Aluminium mullion, Sub frame T-section with lip and transoms sections will of 6063-T5 or T6 alloy (confirming to ASTM B 221) and mechanical properties as per IS-733, verticals and horizontals designed to withstand a wind pressure of 150 kg. /sqm even at 30m height.					
		FASTENERS AND FIXTURES: The frame shall be fixed to the masonry wall/RCC work with necessary clamps, anchoring brackets, fastening strips, nuts, bolts, rivets, washers and other fastening materials (brackets confirming to MS. and all screws, bolts, nuts and washers only stainless steel or as required).					

Addition
 Deletion.....
 Correction.....
 Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
		CAPING: Caping with extruded aluminium section 150 x 150 mm at every floor slab level as per drawing.					
		Silicon - Pasting silicon (inside) and Weather Coat silicon (outside) The entire semi unitized panels, i.e., fixed and openable duly assembled and glazed with glass as mentioned below with all standard accessories to suit the area as per drawings. Including necessary fittings etc. complete for :					
		U' value of glass shall be less than 1.1					
i	a)	SINGLE GLAZING : 5 mm toughened heat reflective glass : classic dark blue/safair blue make of Asai/Saint Gobain/Modi Guard or Equivalent make.	548.61	sqm			

Addition
 Deletion.....
 Correction.....
 Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
10	26.7	Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building, for all heights and all levels etc. including: a) Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design. b) Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc.					

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
		c) The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing. The item includes cost of all material & labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled aluminium composite panel cladding, cleaning and protection of the cladding with aluminium composite panel cladding till the handing over of the building for occupation. The Contractor shall provide aluminium composite panel cladding, having all the performance characteristics all complete, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer-in-Charge. "However, for the purpose of payment, only the actual area on the external face of the cladding with Aluminum Composite Panel Cladding (including width of groove) shall be measured in sqm. up to two decimal places."	150.00	sqm			
		TOTAL					

Addition
 Deletion.....
 Correction.....
 Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
L	22	WATER PROOFING					
1	NDSR	Providing water proofing treatment by chemical injection grout process on vertical surfaces like walls & other similar locations using 25mm dia . M.S nozzles , minimum 1/4th thickness of wall or 40mm(long) whichever is more inside the walls fixed @ 1.5m c/c in both the directions and @ 0.75 m c/c along construction joints. The inunction grout which consist of injection cement slurries of different viscosities & expansive plasticizing agent (a non shrinkage compensating grout)Flowcable 50 or equivalent is to be pumped in to the nozzles under pressure with a pump . The nozzles to be sealed off after the injection operation with suitable admixture. Providing & applying two coats of two component based elastomeric, cementitious coating Master Seal 551 or equivalent taking care that the subsequent coat is applied when the previous coat is touch dry , 20mm cement plaster of mix 1:4 (1 cement :4 coarse sand) mixed with liquid waterproofing admixture MasterPal 707 or equivalent complete as per manufacturer's specifications & as directed.(Work to be got executed through a specialized agency and covered by a 10 years guarantee by the main contractor.)					

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
			580.34	sqm			
2	NDSR	Providing water proofing treatment by chemical injection grout process on horizontal surfaces like rafts & other similar locations using 25mm dia . G.I nozzles , minimum 1/4th thickness of raft 40mm(long) whichever is more, inside the raft fixed @ 1.5m c/c in both the directions. The inunction grout which consist of injection cement slurries of different viscosities & expansive plasticizing agent (a non shrinkage compensating grout) Flowcable 50 or equivalent is to be pumped in to the nozzles under pressure with a pump . The nozzles to be sealed off after the injection operation with suitable admixture. Providing & applying two coats of two component based elastomeric, cementitious coating Master Seal 551 or equivalent taking care that the subsequent coat is applied when the previous coat is touch dry, 20mm cement plaster of mix 1:4 (1 cement :4 coarse sand) mixed with liquid waterproofing admixture MasterPal 707 or equivalent & finally embedding with 12mm size stone aggregate @ 8cudm per sqm complete as per manufacturer's specifications & as directed. (Work to be got executed through a specialized agency and covered by a 10 years guarantee by the main contractor.)					
i			262.50	sqm			
3	22.3	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of :					

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
		(i) 1st course of applying cement slurry @ 4.4 Kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface. (ii) 11nd course of 20mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface. (iii) 111rd course of applying blown or residual bitumen applied hot at 1.7 Kg. per sqm of area. (iv) 1Vth course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 Kg/sqm.)	58.26	SQM			
4	22.7	Providing & laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations: a) Applying a slurry coat of neat cement using 2.75kg/sqm of cement admixed with water proofing compound confirming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300mm height including cleaning the surface before treatment. b) Laying brick bats with mortar using broken bricks/brick bats 25mm to 115mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound confirming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement of 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound confirming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the					

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
		adjoining walls upto 300mm height including rounding of junctions of walls and slabs. c) After two days of proper curing applying a second coat of cement slurry using 2.75kg/sqm of cement admixed with water proofing compound confirming to IS : 2645 and approved by Engineer-in-charge. d) Finishing the surface with 20 mm thick jointless cement mortar 1:4 (1 cement : 4 coarse sand) admixed with water proofing compound confirming to IS : 2645 and approved by Engineer-in-charge including laying glass fibre cloth of approved quality in top layer and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3mm deep. e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-charge:					
i	22.7.1	With average thickness of 120mm and minimum thickness at khurra as 60mm.	217.62	sqm			
		TOTAL					
M		ROAD WORKS & MISC					
1	16.1	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres.	300.00	sqm			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
2	16.2	Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (proctor density).	300.00	cum			
3	16.68	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction and of approved size and design/shape laid in required colour and pattern over and including 50 mm thick compacted of coarse sand, filling the joints with coarse sand etc. all complete as per direction of engineer-in-charge.	100.00	sqm			

Addition
 Deletion.....
 Correction.....
 Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
4	16.91	Providing and laying factory made coloured chamfered edge cement concrete paver blocks of required strength, thickness & size / shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50 mm thick compacted bed of fine sand, compacting & proper embedding/ laying of inter locking paver blocks into sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with river sand and cutting of paver blocks as per required size & pattern, finishing & sweeping extra sand in footpath, parks, lawns, driveways or light traffic parking etc. complete as per manufacturer's specifications & direction of Engineer-in-charge. 60 mm of M-30 grade made by block making machine with strong vibratory compaction and of approved size and design/shape laid in required colour and pattern over and including 50 mm thick compacted of coarse sand, filling the joints with coarse sand etc. all complete as per direction of engineer-in-charge. 60mm thick CC paver block of M-35 grade with approved colour, design & pattern.	120.00	sqm			
5	16.69	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement in position to the required line, level and curvature jointed with cement mortar 1:3 (1 cement : 3 coarse sand) including making joints with or without grooves (thickness of joints except sharp curve shall not be more than 5mm) including making drainage opening wherever required complete etc. as per direction of engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by engineer-in-charge).	2.00	cum			

Addition

Deletion

Correction

Over Writing

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
6	11.20	Chequerred precast cement concrete tiles 22 mm thick in footpath & courtyard, jointed with neat cement slurry mixed with pigment to match the shade of tiles including rubbing and cleaning etc. complete, on 20 mm thick bed of cement mortar 1:4 (1 cement: 4 coarse sand).					
	11.20.4	Medium shade using 50% white cement and 50% Grey Cement	40.00	sqm			
7	1.1	Disposal of Malwa / building rubbish by mechanical transport including loading, unloading and stacking complete.					
i	1.1.1	upto 30 km	200.00	cum			
8	2.29	Ploughing the existing ground to a depth of 15 cm to 25 cm and watering the same.					
(i)	2.29.1	All kinds of soil	50	Sqm			
9	23.2	Supplying and stacking of good earth at site including royalty and carriage up to 1 km (earth measured in stacks will be reduced by 20% for payment).	5	Cum			
10	23.5	Rough dressing the trenched ground including breaking clods.	50	Sqm			
11	23.7	Fine dressing of the ground	50	Sqm			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
12	NDSR	Supplying and stacking of 'Selection No.1' grass of approved quality at site for grassing as per direction of Engineer-in-Charge.	50	Sqm			
13	23.10	Grassing with selection No.1 grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth, if needed (the good earth shall be paid for separately).					
(i)	23.10.1	In rows 5 cm apart in both directions	50	Sqm			
14	16.75	Providing and laying C.C. pavement of mix M-25 with ready mixed concrete from batching plant. The ready mixed concrete shall be laid and finished with screed board vibrator, vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-incharge. (The panel shuttering work shall be paid for separately).(Note:- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/ recoverable separately).	6	Cum			
		Total					
		GRAND TOTAL					

Addition

Deletion.....

Correction.....

Over Writing.....

BILL OF QUANTITIES							
Internal Plumbing & Sanitary works							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
SUBHEAD-I : SANITARY INSTALLATIONS							
1	17.78	Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/6 litre (adjustable to 4 litre/8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete.	15	Each			
2	17.7	Providing and fixing wash basin with C.I.brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls where required :					
a	17.7.1	White vitreous china flat back wash basin size 630 x 450 mm with a pair of 15 mm C.P. brass pillar taps.	11	Each			
3	17.10	Providing and fixing Salem Stainless Steel A ISI 304 (18/8) kitchen sink as per IS: 13983 with CI brackets and stainless steel waste with plug 40mm including painting of fittings and brackets, cutting and making good the walls wherever required.					
a	17.10.1	Kitchen sink with drain board					

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
	17.10.1.3	510X1040mm bowl depth 200mm.	1	Each			
4	17.32	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :					
a	17.32.4	Rectangular shape 1500x450 mm	11	Each			
5	18.49	Providing and fixing C.P. brass bib cock of approved quality confirming to IS:8931					
a	18.49.1	15mm nominal bore	15	Each			
6	18.51	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.					
a	18.51.1	15mm nominal bore	1	Each			
7	18.53	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS 8931 a) 15 mm nominal bore.					
a	18.53.1	15 mm nominal bore	37	Each			
8	17.34	Providing and fixing toilet paper holder :					
a	17.34.1	C.P. brass	15	Each			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
9	8.10	Providing & fixing stone slab table rubbed, edges rounded and polished of size 75 X 50cm deep and 1.8 cm thick fixed in urinal patitions by cutting chase of appropriate width with chase cutter and embedding the stone in chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregste 6mm nominal size) as per Engineer-in-charge and finished smooth					
a	8.10.1	White Agaria Marble Stone	4	sqm			
10	17.80	Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge..	4	Each			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
11	NDSR	Supplying, storing, handling, shifting, installation, testing and commissioning of CP flexible hose, spray, wall flange etc. complete. Of approved make	15	Each			
12	NDSR	Providing and fixing C.P brass central hole basin mixture complete in respects of approved make	11	Each			
13	NDSR	Providing and fixing C.P brass central hole Shower mixer complete in respects of approved make	1	Each			
14	NDSR	Providing and fixing 15mm dia C.P. brass Sink Mixer with Swinging Casted Round Shape Spout (Table Mounted Model) with 450mm Long Braided Hoses of approved make and quality with all fittings and accessories etc. complete of approved make	1	Each			
15	NDSR	Supplying, storing, handling, shifting, installation, testing and commissioning of Bottle Trap (with Internal Partition) 32mm Size with 250mm & 190mm Long Wall Connection Pipes & Wall Flange etc. approved make	16	Each			

Addition
Deletion.....
Correction.....
Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
16	NDSR	Providing and fixing CP liquid soap container complete in respects of approved make	11	Each			
17	NDSR	Providing & fixing CP towel ring Round with Round Flange complete in respects of approved make.	11	Each			

Addition
 Deletion.....
 Correction.....
 Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
SUBHEAD-II: INTERNAL DRAINAGE INSTALLATIONS							
1		Providing and fixing cast iron trap of self cleansing design with cast iron screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors.					
a	17.60.1	100 mm inlet and 100 mm outlet centrifugally cast (spun) iron S&S.	16	Each			
2	12.22	Making khurras 45x45cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement:2 coarse sand: 4 graded stone aggregate 20 mm nominal size) over PVC sheet 1m x 1m x 400 micron, finished with 12mm cement plaster 1:3 (1 cement:3 coarse sand) and a coat of neat cement, rounding the edges, making and finishing the outlet complete	4	Each			
3	12.44	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams.	168	Each			
4	17.35	Providing and fixing soil, waste, vent and rain water pipes					
		Centrifugally cast (spun) iron S&S pipe					
a	17.35.1.2	100mm dia cast (spun) iron S&S pipe	80	Rm			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
5	17.37	Providing and fixing MS holder bat clamps of approved design to cast iron (spun) pipe embedded in and Including cement concrete blocks 10 x10 x10cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including cost of cutting holes and making good the walls etc.					
a	17.37.1	For 100mm dia. Pipe	114	Each			
6	17.38	Providing and fixing bend of required degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete.					
a	17.38.1	100x100x100mm					
	17.38.1.2	Centrifugally cast (spun) iron pipe S&S	23	Each			
7	17.39	Providing and fixing plain bend of required degree.					
a	17.39.1	100mm dia					
	17.39.1.2	Sand cast iron S&S as per IS : 3989	16	Each			
8	17.40.1.2	Providing and fixing heel rest sanitary bend, in 100mm Centrifugally cast (spun) iron pipe S&S	10	Each			
9	17.42	Providing and fixing double equal plain junction of required degree.					
a	17.42.1	100x100x100x100 mm					
	17.42.1.2	Sand cast iron S&S as per IS - 3989	32	Each			
10	17.43	Providing and fixing single equal plain junction of reqd. degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete.					
a	17.43.1	100x100x100mm					

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
	17.43.1.2	Standard cast (spun) iron pipe IS-3989	36	Each			
11	17.44	Providing and fixing single equal plain junction of required degree :					
a	17.44.1	100X100X100mm					
	17.44.1.2	Sand cast iron S&S as per IS - 3989	24	Each			
12	17.48	Providing and fixing single unequal plain junction of required degree					
a	17.48.1	100x 100x75 mm					
	17.48.1.2	Sand cast iron S&S as per IS -3989	28	Each			
13	17.55	Providing and fixing door piece, insertion rubber washer 3mm thick, bolts & nuts complete :					
a	17.55.1	100 mm					
	17.55.1.2	Providing and fixing door piece, insertion rubber washer 3mm thick, bolts and nuts complete, in 100mm Centrifugally cast (spun) iron pipe S&S	28	Each			
14	17.56	Providing and fixing terminal guard:					
a	17.56.1	100mm					
	17.56.1.2	Sand cast iron S&S as per IS - 3989	10	Each			
15	17.57	Providing and fixing collar.					
a	17.57.1	100mm					
	17.57.1.2	Centrifugally cast (spun) iron pipe S&S	10	Each			
16	17.65	Painting sand cast iron / centrifugally cast iron(spun) iron soil, waste and vent pipes and fittings with paint of any colour such as chocolate, grey or buff etc. over a coat of primer (of approval quality) for new work					

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
a	17.65.1	100mm dia cast (spun) iron S&S pipe	176	Rm			
17	18.28	Providing lead caulked joints to spun iron or C.I. pipes and specials, including testing of joints but excluding the cost of pig lead :					
a	18.28.1	100 & 150 mm diameter pipe	79	Each			
18	18.58	Providing and fixing PTMT grating of approved quality and colour					
a	18.58.1	Circular type					
	18.58.1.2	125 mm nominal dia with 25 mm waste hole	28	Each			
19	19.2	Providing and laying cement concrete 1:5:10 (1 cement: 5 coarse sand: 10 graded stone aggregate 40 mm nominal size) around SW including bed concrete as per standard design					
		Note: This work shall be done all-round CI pipe at ground floor's toilet.					
a	19.2.1	100mm diameter	72	Rm			
20	DSR Item 18.10	Providing and fixing G.I. pipes complete with GI fittings and clamps including cutting and making good the walls etc.					
a	18.10.5	40 mm dia, nominal bore	38	Rm			
b	18.10.6	50 mm dia, nominal bore	25	Rm			
21	DSR Item 18.40	Painting GI pipes and fittings with two coats of anti corrosive bitumastic paint of approved quality					
a	18.40.5	40 mm dia, nominal bore	38	Rm			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
b	18.40.6	50 mm dia, nominal bore	25	Rm			
21	24.9	Providing and fixing factory made precast RCC perforated drain covers, having concrete of strength not less than M-25, of size 1000 x 450x50 mm, reinforced with 8 mm dia four nos longitudinal & 9 nos cross sectional T.M.T. hoop bars, including providing 50 mm dia perforations @ 100 to 125 mm c/c, including providing edge binding with M.S. flats of size 50 mm x 1.6 mm complete, all as per direction of Engineer-in-charge.	55	Each			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
22	NDSR	Providing and fixing G.I. Inlet fitting of suitable size with 2 & 3 Nos. G.I. Socket 32 & 40 welded G.I. pipe and dipped in hot bitumen complete in all respect.					
a		100 mm diameter pipe (Hopper)	24	Each			
23	M.R	Providing and fixing floor drain & balcony drain made of 100 x 50 dia elbow / tee as applicable connected with 50 dia GI pipe painted with primer, two coats of black bituminastic paint,wrapping 1 mm thick PVC tape and final coat of black bituminastic paint B109 complete in all complete including cutting and making good the walls and floor wherever required	12	Each			
24	NDSR	Providing and fixing flanged cleanout plug with M.S. flanged tail pieces, blind flange, 6mm dia nut & bolts, gasket and washers fixed to C.I. Pipe with drip seal joint complete in all complete including cutting and making good the walls and floor wherever required					
a		with 100 mm dia. Pipe	16	Each			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
SUBHEAD-III: WATER SUPPLY INSTALLATIONS							
1	17.30	Providing and fixing in position 25 mm diameter mosquito proof coupling of approved municipal design.	2	Each			
2	18.7	Providing and fixing CPVC pipes having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamps at 1.00 mt spacing. this includes jointing of pipes and fittings with one step CPVC solvent cement and testing of joints complete as per direction of engineer in charge.					
		Internal work -Exposed on Wall					
a	18.7.1	15 mm nominal outer dia pipes	47	Rm			
b	18.7.2	20 mm nominal outer dia pipes	29	Rm			
c	18.7.3	25 mm nominal outer dia pipes	78	Rm			
d	18.7.4	32 mm nominal outer dia pipes	44	Rm			
e	18.7.5	40 mm nominal outer dia pipes	61	Rm			
f	18.7.6	50 mm nominal outer dia pipes	50	Rm			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
3	18.8	Providing and fixing CPVC pipes having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamps at 1.00 mt spacing. this includes jointing of pipes and fittings with one step CPVC solvent cement and the cost of cutting chases and making good the wall same including testing of joints complete as per the direction of engineer incharge					
		concealed work including cutting chases and making good the wall etc.					
a	18.8.1	15 mm nominal outer dia pipes	151	Rm			
b	18.8.2	20 mm nominal outer dia pipes	21	Rm			
c	18.8.3	25 mm nominal outer dia pipes	10	Rm			
4	DSR Item 18.10	Providing and fixing G.I. pipes complete with GI fittings and clamps including cutting and making good the walls etc. (internal work) exposed on wall.					
		Exposed on wall					
a	18.10.1	15 mm dia, nominal bore	5	Rm			
b	18.10.2	20 mm dia, nominal bore	5	Rm			
c	18.10.3	25 mm dia, nominal bore	10	Rm			
d	18.10.4	32 mm dia, nominal bore	55	Rm			
e	18.10.5	40 mm dia, nominal bore	25	Rm			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
f	18.10.6	50 mm dia, nominal bore	40	Rm			
g	18.12.7	65 mm dia, nominal bore	25	Rm			
5	DSR Item 18.40	Painting GI pipes and fittings with two coats of anti corrosive bitumastic paint of approved quality					
a	18.40.1	15 mm dia, nominal bore	5	Rm			
b	18.40.2	20 mm dia, nominal bore	5	Rm			
c	18.40.3	25 mm dia, nominal bore	10	Rm			
d	18.40.4	32 mm dia, nominal bore	55	Rm			
e	18.40.5	40 mm dia, nominal bore	25	Rm			
f	18.40.6	50 mm dia, nominal bore	40	Rm			
g	18.40.7	65 mm dia, nominal bore	25	Rm			
6	18.17	Providing and fixing of gun metal gate valve with CI wheel of approved quality (screwed ends)					
a	18.17.1	25mm dia, nominal bore	2	Each			
b	18.17.2	32 mm dia, nominal bore	4	Each			
c	18.17.3	40 mm dia, nominal bore	2	Each			
d	18.17.4	50 mm dia, nominal bore	2	Each			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
7	18.19	Providing and fixing gun metal non- return valve of approved quality (PN 1.6)					
a	18.19.5.2	65 nominal bore	1	Each			
8	18.16.2	Providing and fixing brass stop cock of approved quality	18	Each			
9	10.2	Structural steel work welded in built up sections, trusses and framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	25	kg			
10	18.46	Providing and fixing G.I. union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (new work)					
a	18.46.1	15mm nominal bore	2	Each			
b	18.46.2	20mm nominal bore	2	Each			
c	18.46.3	25mm nominal bore	2	Each			
d	18.46.4	32mm nominal bore	2	Each			
e	18.46.5	40mm nominal bore	2	Each			
f	18.46.6	50mm nominal bore	2	Each			
11	18.49	Providing and fixing C.P. brass bib cock of approved quality confirming to IS:8931					
a	18.49.1	15mm nominal bore	10	Each			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
12	18.48	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	2,000.00	per litre			
13	18.33.1	Constructing masonry chamber 60x60x75 cm, inside with 75 class designation brick work in cement mortar 1:4 (1 cement:4 fine sand) for sluice valve, with C.I. surface box 100mm, to diameter, 160mm bottom diameter and 180mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand: 4 graded stone aggregate 20mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement:5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design.	2	Each			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
14	NDSR	Providing and fixing brass ball valve with SS 304 Stem and ball, teflon seat complete (PN-16).					
a	NDSR	15 mm dia nominal bore	12	Each			
b	NDSR	20 mm dia nominal bore	24	Each			
c	NDSR	25 mm dia nominal bore	24	Each			
15		Providing, fixing, testing and commissioning of motorised butterfly valve of following dia for filling of overhead water tank complete with high and low level control switches to control tanks. The level controllers shall be installed in iverhead tanks. The level switch will close the valve when water level is high in overhead tank and open the valve when overhead water tank level is low. The system should be complete in all respects with accessories 220 V AC / 2 V DC, IP67 electrical water level control unit, copper control wiring in whether proof casing etc. (Make: Belimo/Audco/Advance/AIP)					
a	NDSR	50 mm dia NB Float Valve	1	Set			
16	NDSR	Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. PN 1.6					
a		65 mm dia nominal bore	1	Each			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
17	NDSR	Solar Water Heaters					
		Providing, fixing, testing and commissioning of solar water heater panels with automatic thermostatic control, pressure release valve, storage tank complete including cutting and making good the floors / walls wherever required.					
		Capacity : 600 LPD with SS storage tank of 600 litres with proper insulation, electrical element and control panel including all interconnecting SS 304 piping and accessories.	1	ITEM			
		TOTAL AMOUNT IN RS.					

Addition
 Deletion.....
 Correction.....
 Over Writing.....

BILL OF QUANTITIES							
(EXTERNAL SEWERAGE, DRAINAGE AND WATER SUPPLY SYSTEM)							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
[1]		EXTERNAL SEWERAGE SYSTEM					
		SEWERAGE NETWORK					
1		Providing laying and jointing glazed stoneware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete.					
a	19.1.1	100 mm diameter	2.00	metre			
b	19.1.2	150 mm diameter	5.00	metre			
2		Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) around SW pipes including bed concrete as per standard design.					
a	19.2.1	100 mm diameter	2.00	metre			
b	19.2.2	150 mm diameter	5.00	metre			
3		Providing and laying Non pressure NP 2 class (light duty) RCC pipe with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1cement : 2 fine sand) including testing of joints etc. complete.					
a	19.6.2	150 mm. dia. RCC Pipes	10.00	metre			
b	19.6.3	250 mm. dia. RCC Pipes	40.00	metre			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
4		Constructing brick masonry manhole with F.P.S. bricks in cement mortar 1 : 4 (1 cement : 4 coarse sand) RCC top slab with 1 : 2 : 4 mix (1 cement : 2 coarse sand : 4 grade stone aggregate 20mm nominal size); foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) inside plastering 12 mm thick with cement mortar 1:3 (1cement 3 coarse sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 (1cement : 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) finishd with a floating coat of neat cement complete as per standard design					
a	19.7.1.1	Inside size 90 x 80 cm & 45 cm deep including CI cover with frame (light duty) 455 x 610mm internal dimension total wt. of cover & frame to be not less than 38 kg (wt. of cover 23 kg and wt. of frame 15 kg)	2.00	each			
b	19.7.2.1	Inside size 120 X 90 cm. and 90 cm. deep including CI cover with frame (medium duty) 500 mm internal diameter, total weight of cover and frame to be not less than 116 kg (wt of cover 58 kg and wt. of frame 58 kg.)	4.00	each			
5		Extra for depth for manhole with F.P.S. bricks					
a	19.8.1.1	size 90 X 80 cm	1.00	m			
b	19.8.1.2	size 1.2m X 90 cm	2.00	m			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
6	19.16	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910, on 12 mm dia steel bar conforming to IS : 1786, having minimum cross section as 23 mmx25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	15.00	each			
7		Providing and fixing square mouth SW gully trap grade 'A' complete CI grating brick masonry chamber with bricks of class designation 75 and water tight CI cover with frame of 300 x 300 mm size (inside) the weight of cover to be not less than 13.00 kg and frame to be not less than 5 kg. as per standard design. (COVER MIN. 4.5 KG & FRAME MIN.2.7 KG)					
a	19.4.3.1	180x150 mm size P type With FPS bricks	4.00	each			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
8	19.21.1	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1cement: 2 coarse sand : 4 graded stone aggregate 20mm nominal size) cement plastered on both sides with cement mortar 1:3 (1cement : 3 coarse sand) finished with a floating coat of neat cement and making necessary channels for the drain etc. complete for pipes 100 to 230mm dia.	1	Item			
[2]		EXTERNAL DRAINAGE SYSTEM					
		DRAINAGE NETWORK					
1	19.6	Providing and laying non-pressure NP2 class (light duty) RCC pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete. (for storm drainage)					
a	19.6.2	150 mm dia RCC pipe	10.00	Meter			
2		Constructing brick masonry road gully chamber 50x45x60 cm with bricks of class designation 75 in cement mortar 1:5 (1 cement : 5 fine sand) including 500 x 450 mm (heavy duty) precast RCC horizontal grating with frame complete as per standard design:					
a	19.27.1	with FPS bricks	5.00	Each			
		RAIN WATER HARVESTING					
		DESILTING CHAMBER (1 No.)					
3	19.1	Providing, laying and jointing glazed stoneware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement: 1 fine sand) including testing of joints etc. complete:					
a	19.1.3	200 mm diameter	3.00	R.M.			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
4	24.7	Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer –in-charge.	1.50	Cu.M			
5	19.19	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality					
a	19.19.1	L D- 2.5					
	19.19.1.1	Rectangular shape 600x450mm internal dimensions	2.00	Each			
		<u>RECHARGE PIT (1 No.)</u>					
6	19.1	Providing, laying and jointing glazed stoneware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement: 1 fine sand) including testing of joints etc. complete:					
a	19.1.3	<u>200 mm diameter</u>	3.00	R.M.			
7	24.7	Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer –in-charge.	1.50	Cu.M			

Addition
 Deletion.....
 Correction.....
 Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
8	24.1	Boring/drilling bore well of required dia for Casing/strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer –in-charge, upto 90 metre depth below ground level.					
a	24.1.1	All types of soil					
	24.1.1.1	300 mm dia.	20.00	R.M.			
9	24.3	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer –in-charge.					
a	24.3.2	150 mm nominal size dia.	25.00	R.M.			
10	24.6	Supplying, filling, spreading & leveling gravels of size range 4.6 mm to 4.8 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	4.90	Cu.M			
11	24.5	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	4.90	Cu.M			
12	19.19	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality					

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
	19.19.1	L D- 2.5					
a	19.19.1.1	Rectangular shape 600x450mm internal dimensions	2.00	Each			
13	9.50	Providing and fixing hard drawn steel wire fabric 75x25 mm mesh of weight not less than 7.75 Kg per sqm to window frames etc. including 62x19 mm beading of second class teak wood and priming coat with approved steel primer all complete.	9.42	Sq.M			
14	NDSR	Providing, fixing, testing and commissioning of uPVC waste pipe conforming to IS : 4985-2000 class IV (6 Kg/Sq.cm) including all moulding fittings conforming to IS : 7834 (Part I to Part-7) 1987 such as tees, bends, reducers, coupling, adaptor etc. solvent welded joints as per manufacturer recommendation including cutting and making good the walls, floors, R.C.C. work etc. (For OVER FLOW).					
		210 mm OD UPVC Pipe	10	metre			
[3]		EXTERNAL WATER SUPPLY SYSTEM					
		DISTRIBUTION NETWORK FOR FRESH WATER SUPPLY					
1	18.12	Providing and fixing G.I. pipes complete with G.I. fittings including ,trenching and refilling etc.					
		external works					
a	18.12.1	20mm nominal bore	5	RM			
b	18.12.2	50mm nominal bore	20	RM			
c	18.12.6	65mm nominal bore	10	RM			
2		Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :					
		external works					

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
a	18.17.4	50mm nominal bore	2	Each			
b	18.17.5	65mm nominal bore	2	Each			
3		Providing and filling sand of grading zone V or coarser grade all-round the G.I. pipes in external work.					
a	18.41.2	20mm nominal bore	5	RM			
b	18.41.6	50mm nominal bore	20	RM			
c	18.41.7	65mm nominal bore	10	RM			
4	18.59	Providing and fixing C.I. double acting air valve of approved quality with bolts, nuts, rubber insertions etc. complete (The tail pieces, tapers etc if required will be paid separately) :					
a	18.59.1	50 mm dia	2	Each			
5	18.31.1	Providing & Fixing C.I.slucie valve(with cap) complete with bolts,nuts,rubber insertions etc.(the tail pieces if required will be paid separately)					
a	18.31.1.1	100 mm dia.pipe	1	Each			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
6	18.32.1	Constructing masonry chamber 30x30x50 cm, inside with 75 class designation brick work in cement mortar 1:4 (1 cement:4 coarse sand) for stop cock complete with C.I. surface box 100x100x75mm (inside) with locking arrangement and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand: 4 graded stone aggregate 20mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement:5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design.	1	Each			
7	DSR 18.33	Constructing masonry Chamber 60X60X75 cm, inside with 75 class designation brick work in cement mortar 1:4 (1 cement: 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with channel lid and RCC top slab 1:2:4 mix (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement : 5 fine sand: 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement: 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design:					
a	18.33.1	With F.P.S. bricks	1	Each			
8	18.13.2	Making connection of GI distribution branch with GI main of 50-80mm nominal bore by providing and fixing tee, including cutting and threading the pipe etc. complete.	2	Item			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
9		Providing & fixing of Garden hydrant outlet consisting 1 No. 20mm dia. Ball valve, Bib cock (Brass) for connecting rubber hose, pipes & fittings including brick masonry chamber 300x300x500mm.					
a	18.15	Bib Cock - 20mm	2	Each			
b	18.18	Ball Valve - 20mm	2	Each			
10	NDSR	Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. PN 1.6					
a		65 mm dia nominal bore	4	Each			
11	NDSR	Providing and fixing gun metal non- return valve of approved quality (PN 1.6)					
a		100 mm dia nominal bore	1	Each			
12	NDSR	Providing & fixing schedule puddle flanges made of heavy class M.S. pipe minimum 700 mm long, both side threading upto 50 mm dia pipe and one side threaded and other side flanged for 63dia and above sizes with epoxy coating. M.S. Plate 230 x 230 x 6 mm shall be used for pipe size upto 50 mm dia, 300 x 300 x 6 mm M.S. plate shall be used upto 80 mm dia pipe, 400 x 400 x 6 mm M.S. plate shall be used upto 250 mm dia pipe, 450 x 450 x 6 mm M.S. plate shall be used upto 350 mm dia pipe. (Length of pipe shall be increase in some cases).					
a		25 mm dia nominal bore	6	Each			
b		50 mm dia nominal bore	2	Each			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
c		65 mm dia nominal bore	2	Each			
d		80 mm dia nominal bore	2	Each			
e		100 mm dia nominal bore	12	Each			
		PUMPS					
13	NDSR	Water Transfer Pump set	2	Set			
		Providing, fixing, commissioing and testing package vertical Treated water Transfer pumps, comprising of Electrical Driven inline pumping with all accessories, Pumps shall be with C.I. Base, S.S 304, impeller, shaft, mechanical seal, S.S. Shaft directly coupled to motor suitable for operation on 400/440 volts, 3 phase 2900 RPM. TEFC electronic motor mounted on a common channel baseplate 150mm dia pressure gauge, GM isolation cock and cement concrete foundation with plaster with dunlop cushy foot mountings with all accessories such as NRVs, valves, pressure guage bourden type, common suction and delivery header, bellows on sucton and delivery side , including starter cum panel etc. complete in all repsects.					
		Pumps shall be suitable for 415 ± 10% volts 3 phase 50 Hz A.C supply & shall be having the following requirement complete with foundation and associated civil works.					
		Suction & Delivery Header - SS 304					
		Control Valve On suction and Delivery - Ball Valve Only (No Butterfly Valve Accepted).					
		Flow Prevention - Only Check Valve					

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
		Suction & delivery header including all pipes, suction & delivery sides valves, NRV, Pressure gauges & accessories complete.					
		Flow Rate : 1.5 LPS (1 working + 1 stand by)					
		Head : 40 M					
		Min. Motor HP : 2.0 H.P. (Each)					
		Starter Cum Panel					
14	NDSR	Sump Pumps					
		Supply & Installation, testing and commissioning of centrifugal non clogging submersible sump pumps for plant room drainage including its starter cum control panel. Pump capable capable of handling 25 mm dia soft solids. Motor suitable for 415 + 10% volts, 3 phase, 50 Hz AC Power supply. Pumps shall be suitable for automatic/manual operation (Overall depth of sump – 1.5 M). Submersible sump pump shall be provided with dry running protection. Inclusive of supporting arrangement for stationary type.					
		Two nos. of pump installed in one sump pit 1 working & 1 standby with automatic/manual operation as required.					
		Waste Water Drainage Sump Pump	2	Each			
		Flow rate : 2 LPS					
		Head : 10 Mtrs.					
		Min. Motor HP : 1.0 (Each)					
		Starter cum Control Panel					
		ELECTRICAL WORKS					
1		POWER & CONTROL CABLING					

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
15	DSR 5.3	Supplying and Earthing with GI earth plate 600mm x 600 mm x 6mm thick including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc, with coke and salt) as required.	2.0	Set			
16	5.11	Supplying and laying 25 mm x 5 mm. G.I. strip in 40 mm dia. G.I. Pipe from earth electrode, as required.	40.0	Rm			
17	5.15	Providing & fixing 25mm x 5mm G.I. strip on surface or in recess for connections etc. as required.	50.0	Rm			
18	5.18	Providing and Fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing alongwith existing surface/ recessed conduit/ submain wiring/ cable as required.	100.0	Rm			
19	4.1	Supplying, fabricating and installing following size of perforated M.S. cable trays, including horizontal and vertical bends, reducers, tees, cross members and other accessories as required and duly suspended from the ceiling with M.S. suspenders and including paint					
a	4.1.1	100 mm width X 50 mm depth X 1.6 mm thickness	20.0	Rm			
b	4.1.4	300 mm width X 50 mm depth X 1.6 mm thickness	10.0	Rm			
20	7.7.1	Laying and fixing of One number PVC Insulated and PVC Sheathed/XLPE power cable of 1.1 kV grade of size not exceeding 25 sqmm on surface as required.	25.0	RM			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
21	7.7.3	Laying and fixing of One number PVC Insulated and PVC Sheathed/XLPE power cable of 1.1 kV grade of size exceeding 25 sqmm but not exceeding 120 sqmm on surface as required.	50.0	RM			
22		Supplying of all materials and making terminations of 1.1 KV grade aluminium multicore cables of the following sizes. The work includes cable glanding using brass plated double compression glands, sizing the core leads, removing insulation, fixing suitable crimping type copper lugs/ thimbles by using hydraulic crimping tools with correct size of the dies, shaping the leads and neatly connecting the same to the equipment terminals.					
a	9.1.21	3.5 Core 35 sq. mm. Armoured Aluminium cable.	10.0	Nos			
		Control Cabling (PVC insulated and PVC sheathed, armoured, Copper Conductor of 1.1 KV grade on existing cable trays).					
23	NDSR	5C x 1.5 Sq. mm	150.0	RM			
		BORE WELL INSTALLATIONS					
24	24.1	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer -in-charge, upto 90 metre depth below ground level.					
a	24.1.1	All types of soil					
	24.1.1.2	350 mm dia	40	metre			
b	24.1.2	Rocky strata including Boulders					
	24.1.2.2	350 mm dia	15	metre			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
25	24.4	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (RMS) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer -in-charge.					
a	24.4.2	150mm nominal size dia	40	metre			
26	24.8	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge.	9	cum			
27	24.10	Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 mild steel screwed and socketed/ plain ended casing pipes of required dia, conforming to IS: 4270, of reputed & approved make, including painted with outside surface with two coats of anticorrosive paint of approved brand and manufacture, including required hire & labour charges, fittings & accessories, all complete, for all depths, as per direction of Engineer-in-charge.					
a	24.10.2	150 mm nominal size dia having minimum wall thickness 5.00 mm.	40	metre			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
28	24.11	Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 plain slotted (having slot of size 1.6/3.2 mm) mild steel threaded and socketed / plain bevel ended pipe (type A) of required dia, conforming to IS:8110, of reputed and approved make, having wall thickness not less than 5.40 mm, including painted with outside surface with two coats of anticorrosive bitumestic paint of approved brand and manufacture, including hire & labour charges, fittings & accessories, all complete, for all depths, as per direction of Engineer -in-charge.					
a	24.11.2	150 mm nominal size dia	8	metre			
29	24.12	Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.	12	hour			

Addition

Deletion.....

Correction.....

Over Writing.....

Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
30	NDSR	Supplying & Installation of suitable Hp submersible pump B.S or K.S.B or equivalent make with Cu cable 1x3x4.0 squmm(upto 75mtr) of approved make with flexible conduit 25mm dia, electrical out door pannel with required electrical fitting such as MCB of 0-25Amp (Havell or Indocopp or MDS make), Volt & Ampere meter (AE make), single phase preventer (Minilac or VSP -1 make) starter etc of approved make, 40mm HDPE Pipe (25 mtr) and all accessories including starter cum control panel, complete as per requirement of site.	1	Each			
		NOTES					
		a) Contractor shall include the rate of electrical control panels complete with all accessories & controls, all Electrical/Mechanical items as required to operate the system automatic/manual.					
		b) Contractor to select suitable HP of pumps .					
		c) Level Controller with sufficient nos. of low / high level alarms, contacts with electrodes and control wiring for the automatic operation of water supply pumps, Submersible Sump Pumps, to achieve the functional requirement shall be provided. Control wiring between these pumps and water tanks shall be provided. Domestic water pumps must start at low water level in overhead domestic water tank & stop at high level in that water tank. Dry running protection shall be provided for all the pumps. Sequencing shall be provided for each set of pumps.					
		Total Amount in Rs.					

Addition

Deletion.....

Correction.....

Over Writing.....

BILL OF QUANTITIES FOR SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE AT LUCKNOW**SUMMARY OF COST - INTERNAL ELECTRICAL WORKS**

S.NO.	SUB-HEAD	DESCRIPTION	AMOUNT (RS.)	
			Quoted Amount in Figures (Rs.)	Quoted Amount in Words (Rs.)
1	SUB-HEAD - I	INTERNAL WIRING		
2	SUBHEAD-II	FANS & LIGHT FIXTURES		
3	SUBHEAD-III	M.V. PANELS/ DISTRIBUTION BOARD		
4	SUBHEAD-IV	L.T. CABLES		
5	SUBHEAD- V	EARTHING		
6	SUBHEAD- VI	T.V., TELEPHONE SYSTEM & LAN SYSTEM		
7	SUBHEAD- VII	FIRE DETECTION SYSTEM		
8	SUBHEAD-VIII	UPS SYTEM		
9	SUBHEAD-IX	LIGHTNING PROTECTION SYSTEM		
		TOTAL AMOUNT IN RS.		

Addition
 Deletion.....
 Correction.....
 Over Writing.....

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
		SUB-HEAD - I : INTERNAL WIRING					
		Note:					
		Rates of only ISI marked PVC conduit, FR PVC insulated multi-stranded copper conductor single core cables, modular plate type switches and socket outlets in M.S. box of 18 SWG and earth wire have been taken in the following items unless and otherwise specified, only such conduits, cables switches and socket outlets shall be used in the work as per list of approved makes attached with tender documents.					
1		Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FR PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FR PVC insulated copper conductor single core cable etc as required.					
a)	DSR-2014-1.10.3	Group -C	Point	250			
	NDSR	Loop Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FR PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with 1.5 sq.mm. FR PVC insulated copper conductor single core cable etc as required.	Point	100			
2	DSR-2014-1.14.2	Wiring for Light plug 2 x 2.5 sq.mm FR PVC insulated multi-stranded copper conductor, single core cable in recessed ISI marked PVC conduit along with 1 No. 2.5 sq.mm FR PVC insulated copper earth wire for loop earthing as required.	Meter	2081			

Addition

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Correction.....

Over Writing.....

BILL OF QUANTITIES							
<u>SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW</u>							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
3	DSR-2014-1.12	Wiring for light/ power plug with 2X4 sq. mm FR PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit alongwith 1 No 4 sq. mm FR PVC insulated copper conductor single core cable for loop earthing as required.	Meter	2260			
4	DSR-2014-1.14.4	Wiring for power plug with 2 x 6 sq.mm FR PVC insulated multi-stranded copper conductor single core cable in surface / recessed PVC conduit along with 1 No. 6 sq.mm FR PVC insulated copper earth wire for loop earthing as required.	Meter	120			
5	DSR-2014-1.14.9	Wiring for power plug with 4 x 6 sq.mm FR PVC insulated multi-stranded copper conductor single core cable in surface / recessed PVC conduit along with 2 Nos. 6 sq.mm PVC insulated solid copper earth wire for loop earthing as required.	Meter	100			
6	DSR-2014-1.14.10	Wiring for power plug with 4 x 10 sq.mm FR PVC insulated multi-stranded copper conductor single core cable in surface / recessed PVC conduit along with 2 Nos. 10 sq.mm PVC insulated solid copper earth wire for loop earthing as required.	Meter	400			
7	DSR-2014-1.31	Supplying and fixing of M.S. box of 18 SWG in recessed including providing and fixing modular plate type 5 pin 6 Amp modular socket outlet, 6 Amp modular switch including connections, an painting etc. as required. (Light Plug).	Each	115			

Addition

Deletion.....

Correction.....

Over Writing.....

BILL OF QUANTITIES							
<u>SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW</u>							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
8	DSR-2014-1.32	Supplying and fixing of M.S. box of 18 SWG in recessed including providing and fixing modular plate type Universal 6 pin 16 Amp. Modular Socket outlet, 16 Amp modular switch including connections, and painting etc. as required. (Power Plug).	Each	113			
9	NS-INEL-1A	Supplying and fixing of M.S. box of 18 SWG in recessed including providing and fixing modular plate type 2 Nos. 5 pin 6 Amp modular socket outlet, 1 No. 6 Amp modular switch including connections, an painting etc. as required.	Each	95			
10	DSR-2014-1.31	Supplying and fixing of M.S. box of 18 SWG in recessed including providing and fixing modular plate type 5 pin, 6 Amps socket outlet without switch with plug top complete including connections, and painting etc. as required. (Exit / Emergency Light Points).	Each	6			
11	DSR-2014-1.14.2	Wiring for circuit wiring with 2 x 2.5 sq.mm FR PVC insulated multi-stranded copper conductor single core cable with 1 x 2.5 sq.mm. FR PVC inculcated earth wire in recessed PVC conduit as required.	Meter	833			
12	DSR-2014-1.14.2	Wiring for group light points with 2 x 2.5 sq.mm FR PVC insulated multi-stranded copper conductor single core cable in recessed PVC conduit with accessories like junction boxes, bends, socket and connectors including continuous running of 1 No. 1.5 sq.mm FR PVC insulated solid copper conductor earth wire complete with earthing the fixtures and outlet boxes as per specification and drawings (basements, staircase and lift, well light point wiring).	Meter	200			

Addition

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Over Writing.....

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
13		Providing, fixing, testing and commissioning of under noted rating flush type industrial socket outlet with plug top controlled by ELCB/MCB all mounted in M.S. sheet steel box duly painted in recess / surface complete as required (excluding, wiring and conduit)					
a)	NS-INEL-1	20 Amps 3 pin socket outlet controlled by DP ELCB (30 mA)	Each	2			
14	DSR-2014-2.18	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 2 pole and earth, metal enclosed plug top alongwith 20 amps "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	Each	2			
15		Supplying and fixing of following sizes of PVC conduit along with the accessories in surface / recess including cutting the wall and making good the same in case of recessed conduit as required as per specification.					
a)	DSR-2014-1.21.1	20mm dia PVC conduit	Meter	200			
b)	DSR-2014-1.21.2	25mm dia PVC conduit	Meter	200			
c)	DSR-2014-1.21.3	32mm dia PVC conduit	Meter	100			
		TOTAL RS.					
		SUB-HEAD II - FANS & LIGHT FIXTURES:					

Addition

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BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
1	NS-INEL-12B	Supplying, fixing, connecting, testing and commissioning of 3 x 14 watt T-5 recessed type direct indirect luminaire complete with electronic ballast, lockable holders and fluorescent lamp including connection etc. as required similar to Philips. Xtend TBS 669	Each	154			
2	NS-INEL-12A	Supplying, fixing, connecting, testing and commissioning of 1 x 28 watt fluorescent luminaire complete with electronic ballast, lockable holders and fluorescent lamp including connection etc. as required similar to Philips. Adreno	Each	10			
3	NS-INEL-12C	Supplying, fixing, connecting, testing and commissioning of recessed type light fitting complete with , wire guard, holder, electronic ballast 1 x 18 W lamp including connections etc. as required similar to Philips.FBT 150 EBS	Each	40			
4	NS-INEL-12H	Supplying, fixing, connecting, testing and commissioning of recessed type light fitting complete with frosted glass cover, wire guard, holder, electronic ballast 2 x 18 W lamp including connections etc. as required similar to Philips. Philips.FBT 150 EBS	Each	100			
5	NS-INEL-12K	Supplying, fixing, connecting, testing and commissioning of Bulkhead type light fitting complete with , wire guard, holder, electronic ballast 1 x 9 W lamp including connections etc. as required similar to Philips. NXC 101	Each	12			
6		Supplying, erection, connecting, testing and commissioning of following size exhaust fan complete with gravity louver and connection with 3 core flexible wire as required.					
	NS-INEL-13E	a) 305mm 1400 RPM	Each	20			

Addition

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BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
7		Supplying, erection, connecting, testing and commissioning of wall bracket fan 400 mm sweep with step speed regulator complete as required. (Havells).					
	NS-INEL-1F	b) 400 mm sweep	Each	5			
8		Supplying, erection, connecting, testing and commissioning of following ceiling fan complete with blades, down rod, shackle insulator, canopy etc. including providing of electronic step regulator with faceplate matching the existing modular switches as required similar to Havells velocity					
	NS-INEL-1G	a) 1200 mm sweep	Each	5			
9	NS-INEL-12E	Supplying, fixing, connecting, testing and commissioning of mirror light luminaire with 1 x 14 watt complete with electronic ballast, lamp including connection etc. complete as required similar to Philips Cat. No. FWZ 300 or equivalent	Each	15			
10	NS-INEL-12F	Supply, installation, connecting, testing and commissioning of illuminated exit sign with 1 x 3 watt LED lamp including providing maintenance free batteries & charger capable of working for 2 hr duration mounted on ceiling/wall complete with the approved EXIT self adhesive labels as per site requirement as required similar to Prolite or equivalent	Each	6			
11	NS-INEL-12L	Supply, installation, connecting, testing and commissioning of Motion sensor including all wiring in the existing conduits required similar to Philips cat no: photosensor or equivalent.	Each	42			
		TOTAL RS.					
		SUBHEAD- III: M.V. PANELS/ DISTRIBUTION BOARD					

Addition

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Correction.....

Over Writing.....

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
1		Supplying, fixing, connecting, testing and commissioning of TP&N distribution board with double door with vertical bus bars, totally enclosed and concealed type complete with 200 Amps rating phase copper bus bars, suitable for incorporating single pole MCB's neutral link (special type) and earth links etc. as required as per specifications.					
A.		TP&N D.B. (4- WAY)					
i)		1 No. 40 Amps 4P MCB isolator as incomer with RCCB (300mA)					
ii)	NS-INEL-2	12 Nos. 6-32 Amps SP MCB for outgoing	Nos.	2			
B.		TP&N D.B. (6- WAY)					
i)		1 No. 40 Amps 4P MCB isolator as incomer with RCCB (300mA)					
ii)	NS-INEL-3	18 Nos. 6-32 Amps SP MCB for outgoing	Nos.	6			
C.		TP&N D.B. (8- WAY)					
i)		1 No. 63 Amps 4P MCB isolator as incomer with RCCB (300mA)					
ii)	NS-INEL-4	24 Nos. 6-20 Amps SP MCB	Nos.	12			
D.		TP&N D.B. (12- WAY)					
i)		1 No. 63 Amps 4P MCB isolator as incomer with RCCB (300mA)					
ii)	NS-INEL-5	36 Nos. 6-20 Amps SP MCB	Nos.	1			

Addition

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BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
2		Supplying, installation, testing and commissioning of L.T. panel fully compartmentalized cubical type sheet clad floor mounted totally enclosed , extensible on both sides, switch board suitable for use on 415 Volts 3-phase, 4 wire, 50 Hz system having required fault capacity, housed with incoming and outgoing, Aluminium bus bars with current rating of 0.8 Amp/sq.mm, interconnection etc. with indication lamps, accessories etc, as required as per specification and schematic diagram as required. (SDB – Light & power)					
		INCOMER:-					
		1 Nos. 200 Amps. TPN MCCB (25 KA) with electronic releases.					
		1 Set phase indication lights (R, Y, B)					
		1 No. Multi function meter (digital type) Amperes, Voltage, KWH					
		BUS BARS:-					
		200 Amps. TP&N Aluminium bus bars (25 KA)					
		OUT GOINGS:-					
		2 Nos. 63Amps. 4P MCCB (25 KA) with electronic releases.					
		8 Nos. 63A TPN, MCB (10KA).					
	NS-INEL-14A	8 Nos. 40A TPN, MCB (10KA).	Set	1			
3		Same as above item no. - 2 but following mountings. (Lift Panel)					
		INCOMER:-					
		1 Nos. 100 Amps. TPN MCCB(25 KA) with electronic releases.					
		1 Set phase indication lights (R, Y, B)					
		1 No. Volt Meter (digital type) with inbuilt VSS & control fuses.					
		1 No. 0-100 Amp. Ammeter (digital type) with inbuilt ASS					
		BUS BARS:-					

Addition

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BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
		200 Amps. TP&N Aluminium bus bars					
		OUT GOINGS:-					
		3 Nos. 63 Amps. TPN MCCB(25 KA) with electronic releases.					
	NS-INEL-14C	2 Nos. 32A TPN, MCB (10KA).	Set	1			
4		Same as above item no. - 2 but following mountings. (UPS panel)					
		INCOMER:-					
		2 Nos. 63 Amps. 4P MCCB (25 KA) with electronic releases.					
		2 Set phase indication lights (R, Y, B)					
		2 No. Multi funtion meter (digital type) Amperes, Voltage, KWH					
		BUS BARS:-					
		200 Amps. 4P Copper bus bars (25 KA)					
		OUT GOINGS:-					
	NS-INEL-14B	9 Nos. 40A 4P, MCB (10KA).	Set	1			
5		Same as above item no. - 2 but following mountings. (UPS incomer)					
		INCOMER:-					
		1 Nos. 63 Amps. 4P MCCB (25 KA) with electronic releases.					
	NS-INEL-14D	1 Set phase indication lights (R, Y, B)	Set	2			
6	DSR-2014-2.21	Providing and fixing MV danger plate of 200 x 150mm of mild steel at least 2mm thick and vitreous enameled white paint on both side and with inscription in signal red colour on front side as required.	Each	10			
		TOTAL RS.					
		SUB-HEAD -IV : L.T. CABLES					

Addition

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Over Writing.....

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
1		Supply, laying and testing of undernoted sizes of aluminium conductor XLPE insulated PVC sheathed & sleeved armoured and overall PVC sleeved 1.1 KV grade power distribution cables conforming to relevant IS code and as per specification in ground (in existing trenches) through pipe or on wall / racks cable trays including dressing and clamping the cable with MS zinc passivated clamps etc. as required.					
a)	NS-INEL-6H	3.5 x 50 sq.mm	Meter	100			
b)	NS-INEL-6K	4.0 x 16 sq.mm	Meter	300			
c)	NS-INEL-6L	4.0 x 10 sq.mm	Meter	300			
2		Supply and making end termination with brass double compression gland including providing and crimping of aluminium solderless lugs / ferrules for XLPE armoured power aluminium conductor cable 1.1 KV grade of following sizes:-					
a)	DSR-2014-9.1.22	3.5 x 50 sq.mm	Set	8			
b)	DSR-2014-9.1.33	4 x 16 sq.mm	Set	12			
c)	DSR-2014-9.1.32	4 x 10 sq.mm	Set	12			
3		Supply and laying of under noted sizes of hume pipe NP-2 grade under the road including 1:3:6 cement concrete bed at 750-1200 depth cutting and making good the same as required as per technical specifications.					
a)	DSR-2014-14.14.1	100mm dia	Meter	20			
b)	DSR-2014-14.14.3	250mm dia	Meter	50			

Addition

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Over Writing.....

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
4	NS	Supply and fixing of steel work in position including clamps, frame work of flats, angle iron, channel with fabrication work including cutting, bending, welding, drilling bolting etc. as per design as required. One coat of primer and 2 coats of enamel paint of approved shade shall be provided.	Kg.	1000			
5		Supply and fixing of perforated 1.6 mm thick CRCA sheet steel power coated cable tray of following sizes complete with bend/tee joints, coupling plate & nuts bolts etc. including providing and fixing of M.S. painted hanger etc. as required.					
a)	DSR-2014-4.1.4	300mm wide 50mm depth	Meter	50			
6		Fabricating supplying to site, installation in ceiling 2.0 mm thick M.S. Powder coated raceways of height 50 mm and 2 mm thick openable cover, totally enclosed, seam welded. Two lengths of channel / channel and junction box shall be seam welded together to make it dust and water proof.					
a)	NS-INEL-18A	150mm wide 50mm depth	Meter	200			
b)	NS-INEL-18B	300mm wide 50mm depth	Meter	20			
7		Fabricating supplying to site of installation, 2.5 mm thick M.S. Powder coated sheet steel 5 sided junction boxes with 3 mm thick G.I. sheet steel duly polished providing rubber gasket between the cover and the junction box, brass screws height as per site condition and totally enclosed, seam welded. the channel and junction box shall be seam welded together to make it dust and water proof. Proper cutouts shall be made in the side walls for raceway entry.					

Addition

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Correction.....

Over Writing.....

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
a)	NS-INEL-18C	225mm x 225mm wide 60mm depth	Nos.	50			
b)	NS-INEL-18D	350mm x 350mm wide 60mm depth	Nos.	6			
4		Supply of under noted sizes of copper conductor insulated PVC sleeved 1.1 KV grade power distribution industrial flexible cable/wires heavy duty conforming to relevant IS code and as per specification in ground (in existing trenches) through pipe or on wall / racks cable trays including dressing and clamping the cable with MS zinc passivated clamps etc. as required.					
a)	NS-INEL-6P	1 x 35 sq.mm PVC insulated flexible copper conductor cables	RM	250			
5		Supply and making end termination with brass double compression gland including providing and crimping of copper solderless lugs / ferrules for XLPE armoured power copper conductor cable 1.1 KV grade of following sizes:-					
b)		1 x 35 sq.mm PVC insulated flexible copper conductor cables	set	20			
		TOTAL RS.					
		SUB-HEAD -V : EARTHING					
1	DSR-2014-5.4	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Each	2			

Addition

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Over Writing.....

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
2	DSR-2014-5.6	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Each	6			
3	DSR-2014-5.8	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	Metre	60			
4	DSR-2014-5.9	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	Metre	60			
5	DSR-2014-5.10	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.	Metre	30			
6	DSR-2014-5.11	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	Metre	20			

Addition

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Over Writing.....

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
7	DSR-2014-5.12	Providing and laying earth connection from earth electrode with 6 SWG dia G.I. Wire in 15 mm dia G.I. pipe from earth electrode including connection with G.I. thimble excavation and re-filling as required.	Metre	500			
8	DSR-2014-5.14	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	Metre	40			
9	DSR-2014-5.15	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Metre	40			
		TOTAL RS.					
		SUB HEAD-VI : T.V. , TELEPHONE SYSTEM & LAN SYSTEM					
1		Supplying and drawing following pair 0.5 sq mm FR PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.					
a)	DSR-2014-1.18.2	2 Pair (4 core)	Meter	6000			
2		Providing, laying, connecting and testing of multi-core telephone armoured cable of conductor size 0.63mm dia annealed copper conductor PVC insulated PVC sheathed jelly filled (as per DOT specification) cable along wall or ceiling or through existing pipe.					
a)	NS-INEL-7G	100 Pair telephone cable	Meter	100			
b)	NS-INEL-7C	20 Pair telephone cable	Meter	180			

Addition

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Over Writing.....

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
3		Providing, fixing connecting and testing of under noted size of solderless telephone tag block Krone make in surface/recess in wall required size of M.S. box with hinged lockable cover duly stove enamel painted.					
a)	NS-INEL-11C	30 pair tag block	Each	6			
b)	NS-INEL-11F	200 pair tag block	Each	1			
4		Supplying and fixing of following sizes of PVC conduit along with the accessories in surface / recess including cutting the wall and making good the same in case of recessed conduit as required as per specification.					
a)	DSR-2014-1.21.1	20mm dia PVC conduit	Meter	200			
b)	DSR-2014-1.21.2	25mm dia PVC conduit	Meter	200			
c)	DSR-2014-1.21.3	32mm dia PVC conduit	Meter	100			
5	DSR-2014-14.13.2	Providing and laying of 80mm dia medium class GI pipe including all fixing accessories concealed or surface as required.	Meter	40			
6	DSR-2014-1.22.1	Supplying and fixing M.S. box of size 75x75mm in wall furniture etc as required for installing data voice outlets	Each	70			
7	NS-INEL-17A	Supplying and fixing testing and commissioning of modular type data/ voice (RJ-45) outlet with faceplate 2-port/ 4-port complete as required.	Each	70			
8	NS-INEL-17B	Providing, laying, connecting and testing of data/ computer Cat-6 cable along wall or ceiling or through existing pipe, including pentad scanning documentation etc as required.	Meter	2800			

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Over Writing.....

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
9	NS	Providing, laying, connecting and testing of Cat-6 patch cords of 7 feet length (red, blue & yellow color)	Each	200			
10	NS	Supplying and fixing testing and commissioning of 24-port loaded modular jack panel, 1U (for voice & data) complete as required.	Each	6			
11	NS	Supplying and fixing testing and commissioning of 42U rack with front glass, back steel door and side panels, with casters, fan housing units with fans, cable manager, AC main channel with required outlets, earthing kit, Mounting hardware, Stationery shelf complete as required.	Each	1			
12	NS	Supply , installation, testing & Commissioning of EAPBX System comprising of PRI card – 5 digital channel, 200 extension card, 4 digital extension, digital operator console, UGW card, MRC card, CLI facility for internal & external line, 200 port MDF with protection module, champ cable, SMPS, Float cum boost charger, battery back for 1 hr backup, complete as required.	Set.	1			
13	DSR-2014-1.24.7	Supplying and fixing M.S. box with modular type coaxial outlet for TV antenna complete as required.	Each	0			
14	DSR-2014-1.19	Providing, laying, connecting and testing of unarmoured TV cable RG-6 PVC insulated cable along wall or ceiling or through existing pipe.	Meter	0			
15	NS	Supplying and fixing M.S. box with Phenolic laminate plate 4-way splitter box for TV antenna complete as required.	Each	0			

Addition

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Correction.....

Over Writing.....

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
16	NS	Supplying and fixing of 450 x 450 x 150 M.S. box with Phenolic laminate plate of 16 SWG M.S. Sheet with hinged door cover for mounting TV amplifier including wooden base plate complete as required.	Each	1			
		TOTAL RS.					
		SUB-HEAD -VII : FIRE DETECTION SYSTEM					
1	NS-INEL-15A	Supply, installation, testing and commissioning of microprocessor based UL/EN54 compliant analog addressable intelligent fire alarm control panel (2) loop complete with central processing unit. Network communication card RS-485 port, 80 Characters LCD display with primary power supply at 230V with 24/36 volts. Sealed maintenance free (SMF) batteries backup (as per IS) complete with solid state boost/trickle automatic battery charger. The panel shall support Graphics package for central monitoring of all field devices.	Set	1			
2	NS-INEL-15B	Supply, installation, testing and commissioning of Multi Cooperative Sensing Analog addressable Photoelectric smoke detector with hard addressing from 0 to 99 addresses, mounting based LED, complete as required.	Each	124			
3	NS-INEL-15C	Supply, installation, testing and commissioning of Analog addressable Rate of Rise Cum Fixed temperature detector with hard addressing from 0 to 99 addresses, mounting based LED, complete as required.	Each	6			
4	NS-INEL-15E	Supply, installation, testing and commissioning of hard addressable type manual call point, 1 stage with in-built LED, lighting up automatically to confirm its actuation complete as per specification as required.	Each	6			

Addition

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Correction.....

Over Writing.....

BILL OF QUANTITIES							
<u>SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW</u>							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
5	NS-INEL-15F	Supply, installation, testing and commissioning of UL/EN listed wall mounted hooter with strobe (100 dba) complete as per specification as required.	Each	6			
6	NS-INEL-15G	Supply, installation, testing and commissioning of UL/EN listed surface type mounted directly on ceiling/ recessed 1/4-1/2 tap changer speakers with line matching transformer complete as per specification as required.	Each	57			
7	NS-INEL-15H	Supply, installation, testing and commissioning of addressable input/output control module for shutting down AHU's, lifts and controlling lift pressurization fans and ventilation fans etc. including power supply for driving the control module as per requirement.	Each	10			
8	NS-INEL-15I	Supplying, fixing, testing and commissioning of UL listed telephone talk back units (fire fighter telephone hand set) compatible to MFACP complete as required.	Each	6			
10	NS-INEL-15J	Supply, fixing, testing and commissioning of PA/Voice Evacuation System to be coupled with Fire Alarm Control Panel, Microphone with floor selector switch, Controller with Amplifier of suitable capacity with accessories, recorded voice player, change over for fire detection panel & PA System with mounting rack to house amplifiers & controller.	Each	1			
11	NS-INEL-15K	Supply, fixing, testing and commissioning of Graphics user interface package for central monitoring of status of all the detectors and field devices complete with accessories as required. (Include PC of suitable configuration along with Printer)	Each	1			

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BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
12	NS	Supplying, laying, testing and commissioning of point wiring for following sensors and devices with 2 x 1.5 sq.mm FRLS PVC insulated multi-stranded single core copper conductor wire in M.S. conduit with conduit accessories including loop circuit from main fire alarm panel located at ground floor in fire control room complete as required.					
		Wiring for smoke/heat detectors.					
		Wiring for Input/Output modules.					
		Wiring for manual call point.					
			RM	2190			
13	NS	Supplying, laying, testing and commissioning of point wiring for hooters with strobe circuits with 2 pair 1.5 sq.mm copper conductor flexible wire (1 pair shielded and 1 pair unshielded) including loop wiring from MFCP in M.S. conduit with conduit accessories complete as required.					
			RM	180			
14	NS	Supplying, wiring, testing and commissioning of point wiring for speakers with 2 core 1.5 Sq.mm cu. Twisted copper conductor wire including loop wiring from MFCP in M.S conduit with conduit accessories complete as required.					
			RM	855			
15	NS	Supplying, wiring, testing and commissioning of point wiring for telephone talk back units with 2 pair (4 core) 0.61mm dia annealed copper conductor PVC insulated PVC sheathed telephone cable in M.S. conduit with conduit accessories complete as required.					
			RM	120			
		TOTAL RS.					
		SUB-HEAD -VIII: UPS SYSTEM					

Addition
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BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
1	NS-INEL-19	Supply, Installation, testing & commissioning of 1x 30KVA UPS system configuration with 3Phase Input and 3 Phase Output True On Line Double Conversion UPS including Battery Circuit Breaker for Each Module CRCA housing with all required fixing accessories and hardware, Inbuilt/ external Galvanic Isolation Transformer, Inbuilt Static switch bypass and inverter in each UPS module, In-Built Manual Maintenance by-pass, Sealed Maintenance free batteries for 30 Min back up, Battery Racks MS Powder Coated , Interlinking cables etc etc complete as required.	Set	2			
		TOTAL RS.					
		SUBHEAD-IX - LIGHTNING PROTECTION SYSTEM					
1	DSR-2014-6.2	Providing and fixing of lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	Each	1			
2	DSR-2014-6.4	Jointing copper / G.I. tape (with another copper/ G I tape, base of the finial or any other metallic object) by riveting / nut bolting/ sweating and soldering etc as required.	Each	1			
3	DSR-2014-6.7	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For horizontal run)	Metre	150			
4	DSR-2014-6.8	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For vertical run)	Metre	60			

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BILL OF QUANTITIES							
<u>SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW</u>							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
5	DSR-2014-6.12	Providing and fixing testing joint, made of 20 mm X 3 mm thick G.I. strip, 125 mm long, with 4 nos. of G.I. bolts, nuts, chuck nuts and spring washers etc. complete as required.	Each	1			
6	DSR-2014-6.14	Providing and laying G.I. tape 32 mm X 6 mm from earth electrode directly in ground as required.	Metre	10			
7	DSR-2014-5.2	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	Each	1			
		TOTAL RS.					

Addition
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 Over Writing.....

BILL OF QUANTITIES FOR SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE AT LUCKNOW

SUMMARY OF COST - EXTERNAL ELECTRICAL WORKS

S.NO.	SUB-HEAD	DESCRIPTION	AMOUNT (RS.)	
			Quoted Amount in Figures (Rs.)	Quoted Amount in Words (Rs.)
1	SUBHEAD-I	L.V. PANELS BOARD		
2	SUBHEAD-II	L.V CABLES		
3	SUBHEAD-III	EARTHING		
4	SUBHEAD- IV	D.G. SETS		
5	SUBHEAD-V	SUB-STATION EQUIPMENTS		
6	SUBHEAD- VI	MV CABLES		
7	SUBHEAD- VII	EXTERNAL LIGHTING		
		TOTAL		

Addition

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Over Writing.....

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE AT LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
		SUBHEAD- I: L.V. PANEL BOARD					
		MAIN LT PANEL					
1		Supplying, installation, testing and commissioning of L.T. panel fully compartmentalized cubical type sheet clad floor mounted totally enclosed , extensible on both sides, switch board suitable for use on 415 Volts 3-phase, 4 wire, 50 Hz system having 50KA fault capacity, housed with incoming and outgoing, Aluminium bus bars with current rating of 0.8 Amp/sq.mm, interconnection etc. with indication lamps, accessories etc, as required as per specification and schematic diagram as required.					
		Note:					
		The incoming of Transformer feeder & DG feeder as shown on drawing shall be connected through bus duct. The suitable adopter box shall be provided on top only.					
		TRANSFORMER INCOMER [1 Nos.] shall be equipped as: (400					
		1 Nos. 800A 4P MCCB (80 KA) with electronic releases					
		1 No. 800 Amp. Ammeter (digital type) with inbuilt ASS					
		1 Set of CTs 800 A/ 5A class-1 for metering					
		1 No.Volt Meter (digital type) with inbuilt VSS & control fuses.					
		1 No. P.F. meter (digital type)					
		1 No. KWH meter (digital type)					
		1 No. C.T.800 / 5A Class-1 for Capacitor panel.					
		1 Set of phase indication lights R,Y,B.					
		1set of ON-OFF-TRIP ckt. Healthy. indication lights					

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE AT LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
		D.G. SET INCOMERS [2 Nos.] shall be equipped as: (180 KVA)					
		1 Nos. 315A TPN MCCB (50 KA) with electronic releases					
		1 Set of CTs 315 A/ 5A class-1 for metering					
		Digital Tri-Vector meter with KVAR, KW, KWH, PF, Ampere, Volts, Frequency metering					
		Three phase differential relay					
		1 Set of phase indication lights R,Y,B.					
		1set of ON-OFF-TRIP ckt. Healthy. indication lights					
		D.G. SET INCOMERS [1 Nos.] shall be equipped as: (62.5 KVA)					
		1 Nos. 125A TPN MCCB (50 KA) with electronic releases					
		1 Set of CTs 125 A/ 5A class-1 for metering					
		Digital Tri-Vector meter with KVAR, KW, KWH, PF, Ampere, Volts, Frequency metering					
		Three phase differential relay					
		1 Set of phase indication lights R,Y,B.					
		1set of ON-OFF-TRIP ckt. Healthy. indication lights					
		SOLAR POWER PLANT INCOMERS [1 Nos.] shall be equipped as: (3 KVA)					
		1 Nos. 63A TPN MCCB (25 KA) with electronic releases					
		1 Set of CTs 100 A/ 5A class-1 for metering					
		Digital Tri-Vector meter with KVAR, KW, KWH, PF, Ampere, Volts, Frequency metering					
		1 Set of phase indication lights R,Y,B.					
		1set of ON-OFF-TRIP ckt. Healthy. indication lights					

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE AT LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
		BUS BARS:-					
		1250 Amps. 4P aluminium bus bars (50 KA)					
		BUS COUPLER:-					
		1 No. 315A 4P MCCB (50 KA) with electronic releases					
		1 Sets of phase indication lights R,Y,B.					
		Interlocking: Transformer incomers and bus couplers shall be electrically and mechanically interlocked so that no different source can be parallel at any point of time. Logic: The rate shall include mini PLC for controlling breakers of DG/ transformer automatically					
		OUTGOINGS:-					
		1 Nos. 315A TPN MCCB (25 KA) with electronic releases					
		4 Nos. 200A TPN MCCB (35 KA) with electronic releases					
		1 Nos. 160A TPN MCCB (25 KA) with electronic releases					
	NS-EXEL-6A	6 Nos. 100A TPN MCCB (25 KA) with electronic releases	Set	1			
		Note:					
		All outgoing feeders shall have ON/OFF indication lights.					

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE AT LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
3		Supplying, installation, testing and commissioning of free standing, front operated cubical type capacitor control panel with aluminium bus bars of current density 0.8Amps/sq.mm.& rupturing capacity (35KA), LED indicating lamps interconnections with under noted switch gears as per technical specifications and drawings complete as required. All MCCB shall have rotary operating handles. (capacitor control panel)					
a.		140 kvar capacitor control panel					
		1 No.315A ,TPN ,MCCB with electronic releases					
		1 No. Ammeter (digital type) with inbuilt ASS					
		1 No.Volt Meter (digital type) with inbuilt VSS & control fuses.					
		1 No.12 step A.P.F.C.Relay (digital type)					
		3 Nos. CTs- 315/5 Amps. CI-1					
		1 Set phase indication lights (R, Y, B)					
		400 Amps. TP&N aluminium bus bars (50 KA)					
		2 No. 40 Amps. TPN MCB Capacitor duty					
		2 No. 20 KVAR TP Shunt capacitor with discharge register and 7% D-tuned Harmonic reactor filter					
		2 No.40 Amps. TP capacitor duty contactors.					
		10 No. 20 Amps. TPN MCB Capacitor duty					
		10 No. 10 KVAR TP Shunt capacitor with discharge register and 7% D-tuned Harmonic reactor filter					
		10 No. 20 Amps. TP capacitor duty contactors.					
		1 No. Auto-Off-Manual selector switch.					
	NS-EXEL-6B	12 Sets self illuminated Red-Green ON-OFF push buttons.	Set	1			
		TOTAL RS.					
		SUB-HEAD -II : L.V. CABLES					

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE AT LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
1		Supply, laying and testing of undernoted sizes of aluminium conductor XLPE insulated PVC sheathed & sleeved armoured and overall PVC sleeved 1.1 KV grade power distribution cables conforming to relevant IS code and as per specification in ground (in existing trenches) through pipe or on wall / racks cable trays including dressing and clamping the cable with MS zinc passivated clamps etc. as required.					
a)	IN-EXEL-1A	3.5 x 300 sq.mm	Meter	50			
b)	IN-EXEL-1B	3.5 x 240 sq.mm	Meter	150			
c)	IN-EXEL-1C	3.5 x 185 sq.mm	Meter	100			
d)	IN-EXEL-1F	3.5 x 70 sq.mm	Meter	50			
e)	IN-EXEL-1I	4 x 25 sq.mm	Meter	200			
f)	IN-EXEL-1N	3 x 10 sq.mm	Meter	200			
g)	IN-EXEL-1O	3 x 6 sq.mm	Meter	200			
2		Supply and laying of undernoted sizes of hume pipe NP-2 grade under the road including 1:3:6 cement concrete bed at 750-1200 depth cutting and making good the same as required as per technical specifications.					
a)	DSR-2014-14.14.1	100mm dia	Meter	20			
b)	DSR-2014-14.14.1	250mm dia	Meter	30			

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE AT LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
3		Supply and making end termination with brass double compression gland including providing and crimping of aluminium solderless lugs / ferrules for XLPE armoured power aluminium conductor cable 1.1 KV grade of following sizes:-					
a)	DSR-2014-9.1.30	3.5 x 300 sq.mm	Set	8			
b)	DSR-2014-9.1.29	3.5 x 240 sq.mm	Set	2			
c)	DSR-2014-9.1.27	3.5 x 185 sq.mm	Set	4			
d)	DSR-2014-9.1.24	3.5 x 70 sq.mm	Set	2			
e)	DSR-2014-9.1.34	4 x 25 sq.mm	Set	4			
f)	DSR-2014-9.1.6	3 x 10 sq.mm	Set	20			
g)	DSR-2014-9.1.6	3 x 6 sq.mm	Set	20			
4		Supplying, laying, connecting, terminating, testing & commissioning of under noted sizes of PVC insulated, PVC sheathed unarmoured and overall PVC sleeved 1.1 KV grade control cables in pipe, wall, racks, cable trays, including, dressing, clamping with M.S Zinc passivated clamps etc as required conforming to relevant IS code and technical specifications.					
a)	NS	8C x 1.5 sq.mm	Meter	50			
b)	NS	10C x 1.5 sq.mm	Meter	50			
c)	NS	14C x 1.5 sq.mm	Meter	20			

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE AT LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
5	NS	Supply and fixing of cable tray/steel work in position including clamps, frame work of flats, angle iron, channel with fabrication work including cutting, bending, welding, drilling bolting etc. as per design as required. One coat of primer and 2 coats of enamel paint of approved shade shall be provided.	Kg.	500			
6		Supplying and installing following size of perforated pre-painted M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.					
a)	DSR-2014-4.1.2	150 mm width X 50 mm depth X 1.6 mm thickness	Meter	0			
b)	DSR-2014-4.1.8	300 mm width X 62.5 mm depth X 2.0 mm thickness	Meter	20			
c)	DSR-2014-4.1.10	450 mm width X 62.5 mm depth X 2.0 mm thickness	Meter	0			
d)	DSR-2014-4.1.14	600 mm width X 75 mm depth X 2.0 mm thickness	Meter	10			
7	DSR-2014-7.10	Supplying and fixing cable route marker with route indication on 150mm dia cast iron disc bolted to 40x40x3mm angle iron grouted in 1:3:6 concrete block 150x150x300mm deep	Each	5			
		TOTAL RS.					
		SUB-HEAD -III: EARTHING					

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE AT LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
1	DSR-2014-5.6	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Each	6			
2	DSR-2014-5.4	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7	Set	4			
3		Supply and fixing of following sizes of copper/GI strip in GI pipe from earth electrode including cost of GI pipe 'B' class as required.					
a)	NS	50mm x 6mm copper	Meter	60			
b)	NS	50mm x 6mm GI	Meter	40			
4		Supply and fixing of following of copper/GI strip on surface or in recess for connections etc. as required.					
a)	DSR-2014-5.20	50mm x 6mm copper	Meter	30			
b)	NS	50mm x 6mm GI	Meter	30			
c)	DSR-2014-5.15	25mm x 6mm GI	Meter	50			
5	DSR-2014-5.18	Providing and fixing of 6 SWG GI wire on surface or in recess for loop earthing alongwith the existing surface/recessed conduit for submain wiring / cable as required.	Meter	1900			

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE AT LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
		TOTAL RS.					
		SUB HEAD-IV: D.G. SETS					
1	IN-EXEL-4A	Design, supply at site, installation, testing & commissioning of 3-phase, 415 volt, 1500 RPM, 50 HZ, Diesel generator set of 180KVA at 0.8 pf lagging diesel engine alternator set mounted on common base frame in outdoor type acoustic enclosure , day tank capacity of 990 litres,m with AMF Panel,battery, batter charger, return fuel cooler, anti vibration mounting pads including residential silncer, engine alternator, pcc based auto start & synchronization set, safeties with acceccories as per specification complete as required. Diesel engine shall conform to IS:10000 and alternator shall be self excited complete with AVR to IS:4722.	Set.	1			
2		Supplying and fixing of undernoted 'B' class MS pipe for DG exhaust complete with bends, elbow, flanges etc. as required.					
a	NS	200 mm dia pipe	Meter	30			
3		Supply and fixing of 50mm thick compressed mineral wool insulation (Rock wool) for D.G. exhaust pipe with 22 gauge aluminium sheet cladding etc. as required for the under mentioned dia pipe.					
a	NS	200 mm dia pipe	Meter	30			
4	NS	Fabrication of supports for exhaust pipe, fuel pipe or for any other purpose out of M.S. structural steel including supplying and applying of enamel paint of approved shade after one	Kg.	1000			

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE AT LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
5		Supplying, Laying, terminating, testing, commissioning of following sizes of Copper Conductor PVC insulated, PVC sheathed armoured cable 1100 V grade. On surface the cable run shall be fixed on G.I. clamps etc of suitable size or as directed by the E-I-C complete in all respects. Supply and providing cable identification markers. The armouring of the cable shall be properly connected with the earth conductor by clamps etc. as per specifications complete as required.					
a.	IN-EXEL-1O	3 C x 6 sq.mm	Meter	50			
b.	IN-EXEL-1P	3 C x 4 sq.mm	Meter	50			
c.	IN-EXEL-1Q	3 C x 2.5 sq.mm	Meter	50			
7		Making end termination with brass double compression gland including crimping of copper solderless lugs/ferrules for armoured power copper conductor cables of 1.1 KV grade of following sizes.					
a.	NS	3 C x 6 sq.mm (Copper)	Set	4			
b.	NS	3 C x 4 sq.mm (Copper)	Set	10			
c.	NS	3 C x 2.5 sq.mm (Copper)	Set	4			
		TOTAL RS.					
		SUB HEAD-V: SUB-STATION EQUIPMENTS					
1		METERING PANEL					

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE AT LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
		Supply, Installation, testing and commissioning of 11 KV HT metering panel board suitable for indoor installation for use on 11 KV 50 C/S earthed system including CTs and PTs complete with connections etc as required.					
		3 - Nos. PT's 11KV /Rt.3 /110V/Rt 3 cast resin type.					
		3 - Nos. CTs – 200/5A class -1or as per state electricity board					
		2 sets of HRC fuses with fuse base (H.T. fuse - 1 A & LT fuse 2-6 A)					
		Bus link Fuses with fuse base					
		2 Nos. indoor cable end box for 3C x 240 Sq.mm. 11 KV aluminium conductor XLPE cable (Incoming & outgoing Cables)					
		1 No. Electronic Digital trivector meter 200/5A accuracy class-1.0 or as per state electricity board	Set	1			
		Note:					
		The supplier/ contractor shall get tested and get approvals of the metering panels as well as equipments including their sealing etc. from state electricity board as required.					
2		TRANSFORMER					

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE AT LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
		Supply , Installation, testing & commissioning of 400 KVA copper wound 11/0.433 KV, 50 C/S, Delta star connected oil immersed outdoor type transformer with ON load circuit tap changer unit range, minus 10% to plus 5% on HT side in steps of 2.5% complete with first filling of oil along with complete accessories as per specifications including supply & fixing of MS channel of size 100x50x6 mm, drying/ filtration of oil etc as required.	Each	1			
3		HT PANEL BOARD					
		Supply Installation testing and commissioning of extendable type HT panel board suitable for indoor installation for use on 11 KV 50 C/S earthed system having a symmetrical breaking capacity of 350MVA for 1 Sec. at 11 KV comprising triple pole VCB. Panel shall be equipped with following accessories as per specifications and schematic drawing.					
		1 Panel board each Panel shall be comprising of:					
		1- Metal Clad housing with track having 630A TP integral VCB with Electric operated draw out type mechanism (spring charged motor - 230 VAC).					
		1- Set of air insulated copper bus bar & chamber.					
		1- Set of isolating plug and receptacle.					
		1- Set of Automatic safety shutter.					
		1- Set of breaker control switch (TNC)					
		2- Sets of CT's					
		CT- I -100/5A class 5P-10(15 VA)					
		CT- II – 100/5A class -1(15 VA)					
		1- Digital Ammeter, selector switch. (Built-in)					

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE AT LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
		3 - Nos. PT's 11KV /Rt.3 /110V/Rt 3 of (100 VA) cast resin type.					
		1 - H.T. Cable box for 3C x 240 sq.mm aluminium conductor XLPE cable (11 KV earthed system).					
		1 - No. Tripping coil & closing Coil 24V DC/110V A.C.					
		1 - Set of ON/OFF/Trip & circuit healthy and phase indicating lights.					
		1- 3 element O/C, EF & SC relay (IDMTL & Hi - set) with required setting.					
		1- set Auxiliary relay.					
		1- Master trip relay					
		1-set Trip circuit supervision					
		1-Restricted Earth fault relay	Set	1			
4	NS	Supplying and fixing of non-skid rubber mat 16 mm thick and 900mm width as required including cutting to required lengths of approved make with Test Certificates for L.T. panels.	Metre	10			
5	NS	Supplying and fixing of fire bucket painted red and duly filled with sand conforming to IS: 2546-1974.	Each	12			
6	NS	Supplying and fixing of MS stand suitable for supporting two buckets (Pedestal type)	Each	2			
7	NS	Supplying and fixing of MS stand suitable for supporting four buckets (Pedestal type)	Each	2			
8	NS	Supplying and fixing of shock restoration chart written in English and Hindi duly framed in as required.	Each	2			

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE AT LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
9	NS	Supplying and fixing of carbon dioxide fire extinguisher type 4 kgs. Capacity of approved make with wall mounting bracket as required conforming to IS: 2878/1976 (Push type).	Each	4			
10	NS	Supplying and fixing of first aid box as approved complete with standard kit as prescribed by Indian Red Cross.	Each	1			
13	DSR-2014-2.22	Supply and fixing of H.T. Danger notice plate of 250x200mm made of mild steel at least 2mm thick and vitreous enameled white on both side with inscription in signal red colour on front side as required.	Each	6			
		TOTAL RS.					
		SUB HEAD-VI : MV CABLES					
1		Supplying, laying, of following sizes XLPE, 11 KV earthed cable in existing open structure/ hume pipe including in vertical formation as per technical specification and complete as required. (The payments of cable length shall only be made upto gland in panel on both sides not for loop and connection cables of approximate length upto 2 metres either sides.)					
a.	IN-EXEL-2A	3Cx185 Sq.mm.	Meter	50			
2		Supplying and making indoor cable end termination with cast resin coumpound, including lugs and other jointing materials complete with all accessories for following sizes of 3 core, XLPE aluminium conductor cable of 11 KV grade as required.					
a.	DSR-2014-10.1.3	3Cx185 Sq.mm.	set	4			

BILL OF QUANTITIES							
SUPPLY, ERECTION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS FOR PROPOSED HLF PPT OFFICE AT LUCKNOW							
Sl. No.	Ref. DSR 2014	DESCRIPTION	QTY.	UNIT	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
3		Supplying and making outdoor cable end termination withcast resin coumpound, including lugs and other jointing materials complete with all accessories for following sizes of 3 core XLPE aluminium insulated cable of 44.14/ sq.mm.					
a.	DSR-2014-10.2.3	3Cx185 Sq.mm.	set	2			
4		Providing and fixing UPVC pipes as per IS:13592 suitable for 6 Kg/ sq cm pressure, including all fittings with accessories i.e bends, junctions, cowls, offsets, PVC pipe clips/holders etc. and jointing with rubber rings and cement solvent complete as per manufacturer's specifications with excavation, refilling and disposal of surplus earth, including cutting holes in walls					
a.	NS	110 sq.mm outer dia	Meter	30			
b.	NS	200 sq.mm outer dia	Meter	30			
		TOTAL RS.					
		SUB HEAD-V : EXTERNAL LIGHTING					
1	NS	Supply, fixing, testing & commissioning of the Gate Lighting Fixture equivalent to Philips cat no. metromonis including 1 no. 150 watt MH lamp along with ignitor, necessary brackets, including connections as required.	Each	6			
		TOTAL RS.					

BILL OF QUANTITIES FOR FIRE FIGHTING WORK OF PROPOSED HLPPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW, (UP)			
SUMMARY			
		AMOUNT (RS.)	
S. No.	Description	Quoted Amount in Figures (Rs.)	Quoted Amount in Words (Rs.)
I.	Fire Pump Works (Sprinkler + Hydrant)		
II.	Piping For Fire Fighting System (Sprinkler+ Hydrant)		
III.	Sprinkler System		
IV	Fire Extinguishers		
V.	Electrical Works - Fire		
	Total Amount in Rs.		

Addition
 Deletion.....
 Correction.....
 Over Writing.....

BOQ FOR FIRE FIGHTING WORKS_ PROPOSED HLPPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW, (UP)							
SL. NO.	(DSR-2014)/ NSR	DESCRIPTION	UNIT	QTY	Rate in Rs.	Amount in Rs.	Amount in Rs. (in words)
SUBHEAD-I(A): FIRE PUMP WORKS (NON SCHEDULED ITEMS) FOR HYDRANTS & SPRINKLER SYSTEM							
1.1	NDSR	FIRE PUMPS - ELECTRICAL					
		Supply, installation, testing and commissioning of vertical single stage centrifugal type fire pumps suitable for automatic operation at synchronous speed of 2900 rpm, Eff -1 motor, TEFC conforming to IP-55 & flexible coupling guard mounted on a common structural base plate with 150mm dia gun metal pressure gauges with isolation cock and piping, suitable vibration elimination pads of approved design for pump foundation, motor to be suitable for 415 volts, 3 phase 50 cycles AC. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.					
1.1.1	NDSR	Capacity 2280 LPM at 7Kg/cm ² delivery pressure for Fire Hydrant & Sprinkler Network.	Set	1			
1.1.2	NDSR	Capacity 180 LPM at 7 Kg/cm ² (Jockey Pump).	Set	1			
1.2	NDSR	FIRE PUMPS - DIESEL					
		Supply, installation, testing and commissioning of vertical single stage centrifugal pumping set with CI volute and bronze impeller with mechanical seals directly coupled to automatic Diesel Engine complete with all accessories like self starting by means of Battery powered electric starter motor of EFF-1 class, Paper Filter type air cleaner, exhaust silencer etc. complete in all respects. The engine & the pump will be mounted on common base plate on anti-vibration mountings. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.					
1.2.1	NDSR	Capacity 2280 LPM at 7 KG/cm ² delivery pressure for Fire Hydrant & Sprinkler Network.	Set	1			
1.3	NDSR	Oil Tank					

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Over Writing.....

SL. NO.	(DSR-2014)/ NSR	DESCRIPTION	UNIT	QTY	Rate in Rs.	Amount in Rs.	Amount in Rs. (in words)
		Supplying, fixing and commissioning 500 ltrs. capacity including first fill of 500 ltrs high speed diesel oil in 16 SWG MS steel oil tank with manhole cover, glass gauge, inlet and outlet connections with gate valves, drain plug, GI piping between tank and engine vent pipe with wire mesh etc. duly painted and mounted on suitable MS angle staging to maintain gravity flow of oil. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.	Set	1			
1.4	NDSR	Exhaust piping					
		Providing & fixing 150 mm diameter M.S. Class 'C' diesel pump exhaust pipe includings all fittings, like bends, tees etc. clamps / structural steel supports. The pipe shall be provided with 75mm thick fiberglass insulation & covering the insulation with 500 g polythene sheet giving proper overlaps & sealing the joints with suitable adhesive compound. The pipe shall be provided with 24 gauge aluminium sheet cladding. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.	Rmt	15			
1.5	NDSR	Pressure Switch					
1.5.1		Supplying, installing, testing and commissioning 0 to 12 Kg/ cm2 ON/OFF pressure switch in delivery line of pump along with control wiring for auto starting and auto stopping of hydrant / spinkler and jockey pumps. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.	Nos.	3			

Addition
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Correction.....
Over Writing.....

SL. NO.	(DSR-2014)/ NSR	DESCRIPTION	UNIT	QTY	Rate in Rs.	Amount in Rs.	Amount in Rs. (in words)
1.6	NDSR	Pressure Vessel Providing, fixing, testing and commissioning of pressure vessel (450 mm dia & 1000 mm height) for pressurization of fire system complete with pressure switches with isolation valves, pressure gauge with isolation valve, valves at outlet / drain to operate as per operating sequences including 25 mm dia drain valve, air release valve with stop cock on the top Duly painted from inside and outside complete as required. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.	No.	1			
1.7	NDSR	Providing, fixing, testing & commissioning of resilient rubber lined single arch vibration eliminators suitable for raw water up to 45 deg. C temperature, working pressure 8.8 Kg/cm ² and test pressure 14 Kg/cm ² . It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.					
1.7.1	NDSR	150 mm dia	Nos.	4			
1.7.2	NDSR	80 mm dia	Nos.	2			
1.8	NSR	Supply, installation, testing, trial run and commissioning of hydrants. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.					
1.8.1	NDSR	Internal hydrants/landing valves generally as specified and all complete with:	Set	6			
		Supply, Installation, Testing & Commissioning of Double headed, Gunmetal ISI marked oblique pattern hydrant landing valve with 80 mm dia flange inlet and 63 mm dia instantaneous type female out let complete with gunmetal cap and G.I chain twist release type plug and all accessories as per IS:5290-1983					
		Providing & fixing swinging type First Aid hose reel in red colour with 36 mts long and 20 mm dia heavy duty rubber water hose, 20 mm dia globe valve stop cock, terminating with G.M. coupling & nozzle of 5mm outlet with shut off valve conforming to IS 8090 - 1976 complete with drum and brackets for fixing on wall, bolts & nuts conforming to IS:884-1969 complete as required.					

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SL. NO.	(DSR-2014)/ NSR	DESCRIPTION	UNIT	QTY	Rate in Rs.	Amount in Rs.	Amount in Rs. (in words)
		Providing & fixing Non per colating flexible hose (RRL type – A) ISI marked (IS:636 Type A) 63 mm dia x 15 m long complete with ISI marked Male and female coupling (IS:903) bound and riveted to hose pipe with copper rivets and 1.5 Sq.mm.copper wire.brusting pressure not less than 22 Kg/Sqcm. (two nos. for each hydrant-valve)					
		Providing & Fixing of standard short size 63mm dia. Stainless Steel branch pipe with gun metal nozzle of 20 mm nomnal bore outlet with instaneous type 63 mm dia coupling complete & confirming to IS:903					
		Providing and fixing standard firemans axe with heavy rubber handle.					
		Providing & Fixing of MS door made up of 16 gauge MS Sheet capable of accommodating fire hose reel, landing valve, hose pipes, fittings, 1 No. CO2 & 1 No. Dry podwer type portable fire extinguishers & accessories. The door shall have a front glass with lock and key arrangement & shall be painted with one coat of primer & two coat of finished stove enamelled post office red colour paint & "FIRE HOSE" written on front. (Approx. size of door: 1200 mmx2100 mm)					
1.8.2	NDSR	External hydrant valve, IS marked of gunmetal with generally as specified and as required all complete.	Set	1			
		Supply, Installation, Testing & Commissioning of Double headed, Gunmetal ISI marked oblique pattern hydrant landing valve with 80 mm dia flange inlet and 63 mm dia instantaneous type female out let complete with gunmetal cap and G.I chain twist release type plug and all accessories as per IS:5290-1983					
		Providing & fixing Non per colating flexible hose (RRL type – A) ISI marked (IS:636 Type A) 63 mm dia x 15 m long complete with ISI marked Male and female coupling (IS:903) bound and riveted to hose pipe with copper rivets and 1.5 Sq.mm.copper wire.brusting pressure not less than 22 Kg/Sqcm. (two nos. for each hydrant-valve)					
		Providing & Fixing of standard short size 63mm dia. Stainless Steel branch pipe with gun metal nozzle of 20 mm nomnal bore outlet with instaneous type 63 mm dia coupling complete & confirming to IS:903					

Addition
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SL. NO.	(DSR-2014)/ NSR	DESCRIPTION	UNIT	QTY	Rate in Rs.	Amount in Rs.	Amount in Rs. (in words)
		Providing & Fixing of M.S. fire hose cabinet (750x600x250mm) made out of 16 gauge M.S. sheet capable of accommodating landing valve, hose pipes, fittings & accessories. The box shall have a front glass door with lock and key arrangement & shall be painted with one coat of primer & two coat of finished stove enamelled post office red colour paint & "FIRE HOSE" written on front.					
1.9	NSR	Supply, installation, testing and commissioning brass orifice plates in pipelines to reduce pressure from 8 kg. to 3.5 kg/sq.cm. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.	Nos.	12			
1.10	NSR	Providing, installing, testing & commissioning of fire brigade inlet connection (fire department connection) consisting of 4 Nos. 63 mm dia instantaneous inlet arranged on a 50 mm dia header, 1 No. 150 mm diameter sluice valve, 1 No. 150mm dia. Non-return valve and wall mounted box of M.S. construction made out of 16 gauge MS Sheet with glass door to house the above mentioned components. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.	Set	1			
1.11	NDSR	Providing, installing, testing & commissioning of fire brigade draw out connection (fire department connection) with suction pipe MS class 'C' 100 mm dia. & 100 mm dia. foot valve & steel chain including wall mounted box M.S. construction made out of 16 gauge MS Sheet with glass door to house the above mentioned components. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge. (to be connected to static water tank)	Set	1			
		TOTAL C/F TO SUMMARY					
SUBHEAD-I(B): PIPING FOR FIRE FIGHTING SYSTEM FOR HYDRANT & SPRINKLER SYSTEM (AS PER DSR-2014)							
1.12	18.59	Providing and fixing C.I. double acting air valves of approved quality with bolts, nuts, rubber insertions etc. complete (The tail pieces, tapers etc. if reqd. will be paid separately)					
1.12.1	18.59.1	50 mm dia.	Nos.	2			
		TOTAL C/F TO SUMMARY					

Addition

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Over Writing.....

SL. NO.	(DSR-2014)/ NSR	DESCRIPTION	UNIT	QTY	Rate in Rs.	Amount in Rs.	Amount in Rs. (in words)
SUBHEAD-II(A):PIPING FOR FIRE FIGHTING FOR HYDRANT & SPRINKLER SYSTEM SYSTEM (NON SCHEDULED ITEMS)							
2.1	NDSR	Supply, fabrication , laying, testing & commissioning of heavy grade IS marked & as approved make list black mild steel piping confirming to IS 1239/3589 complete with all fittings, pipe supports, clamps etc. as approved with weleded jointing for external hydrant system in ground including excavation, refilling the trench & providing cement concrete blocks as supports, not exceeding 3 meters centre to centre. These pipes shall be provided with 2mm thick weather proof anti corrosive treatment (pypkote tape) as per IS 10221. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.					
2.1.1	NDSR	150 mm nominal bore	Rmt	25			
2.2	16.11	Supply, fixing, testing and commissioning of following valves, gauges and stariners for condenser water circulation as per specifications:-					
	16.11.1	Butterfly valve (manual) with C.I body SS disc nitrile sheet & O ring & PN 16 Pressure rating as specified 100 mm nominal bore					
2.2.1	16.11.1.4	100 mm dia.	Nos.	1			
2.2.2	16.11.1.2	150 mm dia.	Nos.	5			
2.2.3	16.11.1.5	80 mm dia.	Nos.	2			
2.2.4	NDSR	25 mm dia.	Nos.	6			
2.2.5	16.11.1.1	200 mm dia.	Nos.	1			
2.3	16.11.2	Non - return valve with dual plate of CI Body SS plates vulcanized NBR seal flanged end & PN 16 rating as specified.					
2.3.1	16.11.2.4	100 mm dia.	Nos.	1			
2.3.2	16.11.2.2	150 mm dia.	Nos.	2			
2.3.3	16.11.2.5	80 mm dia.	Nos.	1			

Addition
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Correction.....
Over Writing.....

SL. NO.	(DSR-2014)/ NSR	DESCRIPTION	UNIT	QTY	Rate in Rs.	Amount in Rs.	Amount in Rs. (in words)
2.4	NDSR	Supply, installation testing & commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.					
2.4.1	NDSR	Size 200 mm dia.	Nos.	1			
2.5	NDSR	Supply, fabrication & laying heavy grade IS marked & as per approved make list black mild steel piping confirming to IS 1239/3589 complete with all fittings, pipe supports, clamps & painting with one coat of primer & two coat of finished stove enamelled post office red colour paint etc. as approved with threaded /welded jointing for Wet Riser/Sprinkler System. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.					
		Note:					
		Threaded joint upto 50mm diameter pipe.					
		Welded joint above 50mm diameter pipe.					
2.5.1	NDSR	200 mm nominal bore	Rmt	10			
2.5.2	NDSR	150 mm nominal bore	Rmt	79			
2.5.3	NDSR	100 mm nominal bore	Rmt	30			
2.5.4	NDSR	80 mm nominal bore	Rmt	52			
2.5.5	NDSR	65 mm nominal bore	Rmt	120			
2.5.6	NDSR	50 mm nominal bore	Rmt	10			
2.5.7	NDSR	40 mm nominal bore	Rmt	60			

Addition
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Correction.....
Over Writing.....

SL. NO.	(DSR-2014)/ NSR	DESCRIPTION	UNIT	QTY	Rate in Rs.	Amount in Rs.	Amount in Rs. (in words)
2.5.8	NDSR	32 mm nominal bore	Rmt	90			
2.5.9	NDSR	25 mm nominal bore	Rmt	249			
2.6	NDSR	Providing and fixing dial type pressure gauge with isolation cock and copper pipe on main header Dial diameter 100 mm celebration 0-14 / sq. cm.	No.	9			
		TOTAL C/F TO SUMMARY					
SUBHEAD-III(A): SPRINKLER SYSTEM (NON SCHEDULED ITEMS)							
3.1	NDSR	Supply, installation, testing and commissioning of 150 mm dia Installation Control Valve inclusive of 2 nos 150 mm dia Butterfly Valve, strainer, Alarm Valve with Water Motor Gong, Pressure Gauges, Test Lines with Ball Valves with necessary MS Class "C" piping with threaded fittings of required sizes. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.	Set	1			
3.2	NDSR	Supply, installation, testing and commissioning of 150 mm dia Zonal Control Valve inclusive of 1 nos 150 mm dia butterfly valve, 150mm diam. non return valve, Flow Switch, water pressure gauges & 25 mm dia. Auxillary Drain valve with sight glass with necessary MS Class "C" piping with threaded fittings of required sizes. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.	Set	6			
3.3	NDSR	Providing, fixing, testing and commissioning of quick response 15 mm dia. gunmetal quartz bulb type sprinkler head to operate at 68 degree centigrade including two piece of adjustable C.P. Rosset complete as required. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.					
3.3.1	NDSR	Side wall type	Nos.	6			
3.3.2	NDSR	Pendent / Upright type	Nos.	180			
		TOTAL C/F TO SUMMARY					

Addition
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Correction.....
Over Writing.....

SL. NO.	(DSR-2014)/ NSR	DESCRIPTION	UNIT	QTY	Rate in Rs.	Amount in Rs.	Amount in Rs. (in words)
SUBHEAD-IV(A): FIRE EXTINGUISHER (NON SCHEDULED ITEMS)							
4.1	NDSR	Providing, storing, handling, shifting, installation, testing and commissioning of halon free portable fire Extinguishers as described below:					
4.1.1	NDSR	4.5 kg carbon dioxide extinguisher, IS marked, with high pressure discharge tube, horn, control valve, CCE approved cylinder	Nos.	10			
4.1.2	NDSR	6 kg Mono Ammonium Phosphate (ABC) type cartridge operated extinguishers	Nos.	4			
4.1.3	NDSR	9 kg Mono Ammonium Phosphate (ABC) type cartridge operated extinguishers	Nos.	1			
4.2	NDSR	Providing and fixing signages printed on photoluminescent U1000 aluminium sheet of 1.0 mm (+-10%) containing Lumigen II as base chemical, covered under UV stablized coating and of appropriate size including fixing on wall, door, ceiling etc. with proper clamps, hangers, cleats, anchor fasteners etc. complete in all respects as directed by Engineer-in-charge.	Square Inch	750			
TOTAL C/F TO SUMMARY							

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Correction.....
Over Writing.....

SL. NO.	(DSR-2014)/ NSR	DESCRIPTION	UNIT	QTY	Rate in Rs.	Amount in Rs.	Amount in Rs. (in words)
SUBHEAD-V (A): ELECTRICAL WORKS (NON SCHEDULED ITEMS)							
5.1	NDSR	CUBICAL FIRE PANEL BOARD					
		Supply, installation, testing and commissioning of fire fighting panel suitable for 415V, 3 phase, 4 wires, 50 HZ power distribution system. The panel shall be floor mounted sheet metal sheet enclosed, dust and vermin proof conforming to IP-52, Compartmentalized design, fabricated out of 14SWG sheet steel, painting, earthing numbering, danger plate as per specifications and drawings, flush front with Aluminium busbars, separate earthing to be provided throughout the length of the panel. The incoming and outgoing feeder breakers, fuses, indicating lamps etc shall be accommodated in modular multitier arrangement. The painting shall be done as per relevant IS codes/as specified in the specifications. Adequate size cable alley shall be provided all round the panel and in the back for each cable bending and termination. The panel shall be fabricated by TAC/Fire authority approved vendor. The outgoing feeders inside the panel shall be connected through solid bus bars. It should be complete as per manufacturer's	Set	1			
		Bus bars shall be provided with heat shrinkable sleeves and shall be colour coded . The panels shall be suitable for cable entry from bottom/ top. The minimum fault rupturing of all incoming and outgoing switches/breakers shall be 35KA. The panels shall be fabricated after the approval of fabrication drawings.					
		i) For 1 x 70 HP Wet Riser /Sprinkler Pump or suitable as per the actual pump capacity as defined above					
		ii) For 1 x 7.5 HP Jockey Pumps or suitable as per the actual pump capacity as defined above					

Addition
Deletion.....
Correction.....
Over Writing.....

SL. NO.	(DSR-2014)/ NSR	DESCRIPTION	UNIT	QTY	Rate in Rs.	Amount in Rs.	Amount in Rs. (in words)
		Supply, installation, testing and commissioning of non draw out Cubical type sectionalised floor standing powder coated switch board of 31 MVA fault capacity at 415 V complete with 4 strip, 400 A capacity Aluminium Bus - Bar Electrolytic grade, cable alley & supplying & fixing of following switchgears as per specifications including connections & interconnections.					
A)		INCOMER					
(i)		One (1) No. 250 A TPN MCCB (35KA).					
(ii)		One set of 250 Amps Aluminium TPN bus bar shall be insulated with heat shrinkable sleeves and shall be coded.					
(iii)		Three (3) Nos. current transformer (300/5A).					
(iv)		One (1) No. ammeter (0-300) Amps with selector switch.					
(v)		One (1) No. (0-500V) voltmeter with selector switch with 3 Nos 2A SP MCB.					
(vi)		1 Set (3 Nos.) of phase indication lamps with HRC fuses.					
(vii)		Indication for control supply 'healthy'.					
B)		OUTGOINGS					
(i)		Main Pump: 1 No. - 200A TPN MCCB (36 KA) with HRC fuses with suitable HP fully automatic star/delta starter with over load protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual OFF operation.					
(ii)		Jockey Pump: 2 Nos. - 40A TPN MCCB (16 KA) with suitable HP fully automatic star/delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual OFF operation. (One No. Spare)					
(iii)		Dewatering Pump: 2 No. - 16A TPN MCCB (16 KA) with suitable HP fully automatic star/delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual OFF operation.					
(vi)		Three No. pressure Switch or as required					
(v)		Wiring from pressure switch to starter - Lot					
(viii)		electrical hooter with ON/OFF switch for the above pumps running indication					

Addition

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Correction.....

Over Writing.....

SL. NO.	(DSR-2014)/ NSR	DESCRIPTION	UNIT	QTY	Rate in Rs.	Amount in Rs.	Amount in Rs. (in words)
(ix)		Wiring from pressure switch to starter -1 Lot					
(x)		Suitable rating TPN MCCB for Diesel Engine Control panel					
(xi)		Set of control system to make the system automatic /BMS compatible as per functionl as requirements.					
C		Control Panel for Diesel Engine comprising:					
		(a) Auto/Manual selector switch & 3 attempt starting device, timers and relays as required, push buttons, start/stop in manual mode.					
		(b) Indication lamp for High/Low Lub.oil pressure, High Water Temp. and Engine ON Indication.					
		(c) Battery charger suitable for 24V DC with boost and trickle selector switch, with digital panel meter for AC, DC voltage and Ammeter for battery charging current					
		(d) necessary potential free contact for indication of diesel engine driven fire pump running/fault in the addressable fire alarm panel/BMS Panel.					
		(e) All standard relays and accessories for automatic operation of diesel engine.The diesel engine driven fire pump shall start automatically in the event of pressure drop beyond preset limit or mains failure or failure of electrical driven pumps to start					
		One (1) No. pressure Switch.					
		Wiring from pressure switch to Diesel engine control panel.					
		One (1) No. 150A TPN MCCB (35KA).					
		Note:- CABLE CONNECTION					
(i)		Control Scheme as per specification					
(ii)		Following provisions to be made in the fire panel:					
a		Audio visual alarm & indications having disconnect/reset facility with a range of 1/2 km. Annunciator to be provided in the Fire panel with hooter and acknowledge, test and reset buttons as required. The indication shall come on when electrical driven pump set fails to start on pressure drop or when there is power failure during pressure drop.					
b		Facility for mode selection ie auto or manual test & local/remote.					

Addition
Deletion.....
Correction.....
Over Writing.....

SL. NO.	(DSR-2014)/ NSR	DESCRIPTION	UNIT	QTY	Rate in Rs.	Amount in Rs.	Amount in Rs. (in words)
c		Protection failure & control cabling.					
d		Panel shall be interlocked in such a way when fire pump starts on pressure drop in the header, supply to working chiller A/c panel is disconnected. Necessary Control wiring upto A/c panel , relevant relays & contactors etc. as required complete in all respect shall be in the scope the Fire contractors.					
e		Remote indication of ON/OFF/TRIP shall be provided through potential free contact.					
f		Provision of remote starting/stopping (manuals) of the engine shall be made.					
g		All pumps operation shall be controlled by flow switches.					
h		The logic of control panel based on specifications described above TS.					
i		All pumps shall be working automatically or manually.					

Addition
Deletion.....
Correction.....
Over Writing.....

SL. NO.	(DSR-2014)/ NSR	DESCRIPTION	UNIT	QTY	Rate in Rs.	Amount in Rs.	Amount in Rs. (in words)
5.2	NDSR	POWER, CONTROL CABLING & EARTHING					
		Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.					
5.2.1	NDSR	Power Cabling (XLPE) insulated and PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on existing cable trays).					
5.2.1.1	NDSR	3.5C x 120 Sq. mm	Rmt	30			
5.2.1.2	NDSR	4C x 16 Sq. mm	Rmt	30			
5.2.1.3	NDSR	4C x 10 Sq. mm	Rmt	20			
5.2.1.4	NDSR	3C x 6 Sq. mm	Rmt	20			
5.2.2	NDSR	Control Cabling (PVC insulated and PVC sheathed, armoured, Copper Conductor of 1.1 KV grade on existing cable trays).					
5.2.2.1	NDSR	5C x 1.5 Sq. mm	Rmt	90			
5.2.2.2	NDSR	Supplying and making end termination with brass compression gland & Al. lugs for following sizes of PVC insulated, PVC sheathed/XLPE Al. Conductor cables of 1.1 KV grade as required.					
a		(a) for main pump cable(3.5C x 120 Sq. mm)	Sets.	2			
b		(b) for jockey pump cable(4C x 16 Sq. mm)	Sets.	4			
c		(c) for dewatering pump cable(3C x 6 Sq. mm)	Sets.	4			
5.3	NDSR	Earthing Strip / Wires.					
5.3.1	NDSR	Supply and fixing of vertical down conductor 32 x 6 mm copper strip etc. on approved surface for earthing complete in all respects	Rmt	30			
		TOTAL C/F TO SUMMARY					

Addition
Deletion.....
Correction.....
Over Writing.....

BILL OF QUANTITIES-LIFTS						
<u>CONSTRUCTION OF HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW</u>						
SR. NO.	PARTICULAR	UNIT	QTY	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
1	Supplying, installation, testing and commissioning of 8 Passenger (544 Kg) Gearless lifts having contract speed of 1.5 MPS serving different floors in the lift shaft as per detailed specifications and as under:					
	Floor: 2B+G+3					
	Travel : 24 Meters (approx.)					
	Stops and Opening : 6 Stops & 6 Opening					
	Controller: AC Variable voltage and variable frequency					
	Automatic rescue device complete with dry maintenance free batteries as required					
	Operation: Microprocessor based single automatic push button / duplex selective collective/ with/ without attendant					
	Power: 415V 3phase 50 HZ, 4-wire system					
	Type of door: a. Car: power operated center opening horizontal sliding, stainless steel scratch proof (Hairline finish) b. landing doors: stainless steel scratch proof (hairline finish) with 2hr fire rating					
	A hand rail not less than 600mm long at 900 mm above floor level to be fixed adjacent to control panel in the lift car					
	Voice announcement system in the car to announce the position of the elevator in the hoist-way as the car passes or stops at a floor served by the elevator					
	Lift as per Above description complete as required.	Set	2			

Addition

Deletion.....

Correction.....

Over Writing.....

BILL OF QUANTITIES-HVAC							
CONSTRUCTION OF HLF PPT OFFICE BUILDING AT HARDOI ROAD LUCKNOW							
Sr.No.	DSR Code/ NDSR	Description	Qty	Unit	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
	Items						
1	NDSR	6+					
1.1		Outdoor Unit					
i)	NDSR	54 H.P	1	No.			
1.2	NDSR	Indoor units					
i)	NDSR	(Round Flow) Cassette Type Units (1130 cfm/4.0HP)	9	Nos.			
ii)	NDSR	(Round Flow) Cassette Type Units (742 cfm/3.2HP)	7	Nos.			
ii)	NDSR	(Round Flow) Cassette Type Units (530 cfm/1.6HP)	4	Nos.			
iii)	NDSR	(Round Flow) Cassette Type Units (459 cfm/1.25HP)	6	Nos.			
iv)	NDSR	(Round Flow) Cassette Type Units (459cfm/1.0HP)	4	Nos.			
v)	NDSR	Casette Panel	30	Nos.			
2	NDSR	Supply,Installation,testing and commissioning of corded remote controls as per drawing and specifications. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.	30	Nos.			
3	NDSR	Supply,Installation,testing and commissioning of centralised remote controlers as per drawing and specifications. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.	1	set			

Addition

Deletion.....

Correction.....

Over Writing.....

Sr.No.	DSR Code/ NDSR	Description	Qty	Unit	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
4	NDSR	Supply,installation,testing and commissioning of copper refrigerant piping for the above indoor and outdoor units copper piping shall be properly supported and it shall include the cost of all the fitting,insulation,UV coating and all required fittings,joints etc. as per drawings of the following sizes (the insulation shall be 13/19mm thick closed cell nitrile rubber tubular insulation and all internal and external pipes shall run on proper cable trays). It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.					
i)	NDSR	41.3mm OD(insulation 19 mm thickness)	20	Rmt			
ii)	NDSR	34.9mm OD(insulation 19 mm thickness)	5	Rmt			
iii)	NDSR	28.6mm OD(insulation 19 mm thickness)	35	Rmt			
iv)	NDSR	22.2mm OD(insulation 13 mm thickness)	25	Rmt			
v)	NDSR	19.1mm OD(insulation 13 mm thickness)	40	Rmt			
vi)	NDSR	15.9mm OD(insulation 13 mm thickness)	55	Rmt			
vii)	NDSR	12.7mm OD(insulation 13 mm thickness)	45	Rmt			
viii)	NDSR	9.5mm OD(insulation 13 mm thickness)	85	Rmt			
xi)	NDSR	6.4mm OD(insulation 13 mm thickness)	25	Rmt			

Addition

Deletion.....

Correction.....

Over Writing.....

Sr.No.	DSR Code/ NDSR	Description	Qty	Unit	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
5	NDSR	Supply,installation,testing and commissioning of 2core X 1.5 mm2 copper wire in PVC conduit as per specifications (for transmission). It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.	750	Rmt			
6	NDSR	Supply,installation,testing and commissioning of 2core X 1.5 mm2 copper wire in PVC conduit as per specifications (for remotes). It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.	150	Rmt			
7	NDSR	Supply,installation,testing and commissioning of double earthing GSS between panel & equipment. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.	1	Lot			
8	DSR1.14	Wiring for citcuit / submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/recessed medium class PVC conduit as required.					
a)	1.14.2	2 x 2.5 sqmm + 1 x 2.5 sqmm earth wire	340	Rmt			

Addition

Deletion.....

Correction.....

Over Writing.....

Sr.No.	DSR Code/ NDSR	Description	Qty	Unit	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
9	NDSR	Supply,installation,testing and commissioning of Heat exchanger units (HRV) in double skin construction,constructed out of extruded Aluminium section frame with puf insulated panels,blowers,plate to plate type Aluminium heat exchanger and filters.The unit will have two separate passages one for supply of fresh air and the other for exhaust of cool air from the rooms after the recovery of energy. Efficiency of these heat exchangers shall be 60-65%.The plate to plate heat exchanger shall be rigid thermally bonded seamless Aluminium channels separated by extruded aluminium spacers of the following capacity.The unit shall be complete with its electrical panel as per drawings and specifications. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.					
a)	NDSR	500 cfm	4	Nos.			
	DSR code	Rectangular ductwork					
10	16.12.1	Supply,installation,balancing and commissioning of site fabricated GSS sheet metal rectangular ducting complete with neoprene rubber gaskets,elbows splitter,dampers,vanes,hangers,supports etc.as per approved drawings and specifications of following sheet thickness complete as required. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.					
a)	16.12.1.1	24 Gauge (thickness 0.63 mm sheet)	165	Sqm			
b)	16.12.1.2	22 Gauge (thickness 0.80 mm sheet)	30	Sqm			
c)	16.12.1.3	20 Gauge (thickness 1 mm sheet)	10	Sqm			

Addition

Deletion.....

Correction.....

Over Writing.....

Sr.No.	DSR Code/ NDSR	Description	Qty	Unit	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
11	NDSR	Supply,installation,testing and commissioning of VFLs (Volume flow limiters) complete with its body,dampers,regulator/setting arrangement for regulating the fresh air into rooms in round shape as per drawings and specification. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.					
a)	NDSR	6" dia	9	Nos.			
b)	NDSR	4" dia	21	Nos.			
		Grille/Louvers :					
12	NDSR	Supply,installation,testing and commissioning of AL. powder coated grilles with dampers,louvers etc for fresh air intake. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.	0.25	Sqm			
13	NDSR	Supply,installation,testing and commissioning of MS powder coated Exhaust Louvers without dampers but with wire mesh jali for exhaust. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.	0.25	Sqm			
14	NDSR	Supply,installation,testing and commissioning of fire retardant non porous double layer flexible connection as per drawings and specifications. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.	1	Sqm			

Addition

Deletion.....

Correction.....

Over Writing.....

Sr.No.	DSR Code/ NDSR	Description	Qty	Unit	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
15	NDSR	Supply,installation,testing and commissioning of CPVC drain pipe with 6 mm nitrile rubber insulation specifications of below sizes. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.					
a)	NDSR	25 mm dia	150	Rmt			
16	16.15	Supply,installation,testing and commissioning of Supply air grilles with dampers in extruded Aluminium construction and powder coated finish as per specifications. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.	1.5	Sqm			
17	16.16	Supply,installation,testing and commissioning of Return/Exhaust air grilles without dampers in extruded Aluminium construction and powder coated finish as per specifications and drawings	1.5	Sqm			
18	NDSR	Supply,installation,testing and commissioning of MS powder coated Exhaust Louvers without dampers but with wire mesh jali for exhaust.	1	Sqm			
19	NDSR	Supply,installation,testing and commissioning of MS powder coated grilles with dampers,louvers for Fresh air intake.	1	Sqm			
		XLPE Cables:					

Addition
 Deletion.....
 Correction.....
 Over Writing.....

Sr.No.	DSR Code/ NDSR	Description	Qty	Unit	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
20	NDSR	Supply,installation,testing and commissioning of PVC insulated sheathed 1.1 KV grade armoured undernoted sizes of Al/Cu conductor XLPE insulated PVC sheathed & sleeved armoured and overall PVC sleeved 1.1 KV grade power distribution cables confirming to relevant IS codes and as per specifications in ground/trenches through pipe or on wall/racks cable trays including dressing and clamping the cable with MS zinc passivated clamps etc as required. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.					
a)	NDSR	3 C X 70 mm ² Aluminium Cable	50	Rmt			
21	NDSR	Supply,installation,testing and commissioning of perforated 2mm thick CRCA sheet steel powder coated cable trays of following sizes complete with bendtree joints,coupling plate and nuts bolts etc.including providing and fixing MS hangers etc as required as per drawings and specifications. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.					
a)	NDSR	150mm wideX50 mm deep	50	Rmt			
		Earthing :					
22	NDSR	Supply,installation,testing and commissioning of following double earthing continuity conductor of Cu from Panels torespective equipment on surface or recess as per drawings and specifications. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.					
a)	NDSR	25 mm X 5 mm strip	25	Rmt			
		Basement Exhaust ventilation / Staircase /Lifts Pressurisation Centrifugal Fan sections :					

Addition

Deletion.....

Correction.....

Over Writing.....

Sr.No.	DSR Code/ NDSR	Description	Qty	Unit	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
23	NDSR	Staircase And Lifts Pressurisation Fan Sections Supply,installation,testing and commissioning of DIDW centrifugal AMCA certified fans type fan section with motor,drives,set mounting frame,GI sheet casing of 16 Gauge and its fans shall be AMCA certified the units shall be complete as per specifications and drawings of below capacities for staircase,lifts and lift lobby pressurisation. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.					
a)	NDSR	1,400 cfm at 25 mm static for Lifts	2	Nos.			
		Axial Flow Fans For Smoke Management In Case of Fire :					
24	NDSR	Supply,installation,testing and commissioning of Axial flow type Fans complete with fire rated fan and motor suitable for operation in case of fire and smoke as per fire regulations and guidelines. It should be complete as per manufacturer's specifications. All Axial Fans shall be AMCA certified and of the following capacities : It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.					
a)	NDSR	5850 cfm at 30 mm static (610 mm Dia)Emergency Working	3	Nos.			
b)	NDSR	3900 cfm at 30 mm static (483 mm Dia)Normal Working	3	Nos.			

Addition

Deletion.....

Correction.....

Over Writing.....

Sr.No.	DSR Code/ NDSR	Description	Qty	Unit	Rate in Rs.	Amount in Rs. (in figures)	Amount in Rs. (in words)
25	NDSR	Control Panel for exhaust fan, staircase lift pressurisation : Supply, installation, testing and commissioning of the following cubicle type openable front ,sheet steel wall mounted control panels sleeve type Al. bus bar including anchoring into the wall. These panels shall be complete in all respects as per the drawings and the specifications. The panels shall include the following accessories :MPCBs as per rating given below. Terminal block for power distribution. Single Phase Preventor. Phase indicating lights and indicating lights for ON/TRIP status Digital type Ammeter and suitable size CT and selector switch. Time delay relay for automatic restart of Fan motors. Auto/Manual stop selector switch shall be provided in each Fan Panel The number of El. Panels shall be as detailed below : The number of El. Panels shall be as detailed below : 16 amps TPN MCB with 1 Nos upto 1 to 3HP DOL Starter It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.	8	Set			
		TOTAL AMOUNT IN RS.					

Addition
Deletion.....
Correction.....
Over Writing.....