

BILL OF QUANTITIES

(FOR TENDER)

PROJECT:-
MULTILEVEL PARKING
AT MEERUT

DEVELOPED BY:-
MEERUT DEVELOPMENT
AUTHORITY

PROJECT: MULTILEVEL PARKING AT TOWN HALL, MEERUT

DEVELOPED BY : MEERUT DEVELOPMENT AUTHORITY MEERUT

GRAND SUMMERY

Sr. No.	Description	
		Amount (Rs.)
A	CIVIL WORKS	
1	Parking Building	
2	UG Tank and Pump room	
B	ELECTRICAL WORKS	
	Parking building	
C	PLUMBING WORKS	
	Parking building	
D	FIRE FIGHTING WORKS	
	Parking building	
	Total A+B+C+D =	

GRAND TOTAL

BILL OF QUANTITY

(FOR TENDER)

CIVIL WORK

PROJECT: MULTILEVEL PARKING AT TOWN HALL, MEERUT		
BUILDING NAME : PARKING BUILDING		
<u>ABSTRACT OF COST - CIVIL WORKS</u>		
Sl. No.	DESCRIPTION	AMOUNT (Rs.)
SCH P.W.D (2013-14)		
A	EARTH WORKS	
B	CONCRETE WORKS	
C	BRICK WORK	
D	MILD STEEL AND IRON WORK	
E	FLOORING & DADO WORK	
F	FINISHING WORK	
H	MISCELLANEOUS	
	TOTAL : (SCH P.W.D)	
DSR-2014		
A	BRICK WORK	
B	MARBLE & GRANITE WORK	
C	STEEL WORK	
D	FLOORING WORK	
E	ROOF WORK	
F	FINISHING WORK	
G	STRUCTURAL GLAZING WORK	
H	WATER PROOFING	
	TOTAL : (DSR)	

NON SCHEDULE ITEM		
A	WATER PROOFING	
B	FINISHING WORK	
		TOTAL : (NSI)
		TOTAL : (SCH P.W.D + DSR + NSI)

PROJECT: MULTILEVEL PARKING AT TOWN HALL, MEERUT						
DEVELOPED BY : MEERUT DEVELOPMENT AUTHORITY MEERUT						
PARKING BUILDING , BOQ - CIVIL WORKS						
Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
<u>SCH P.W.D (2013-14)</u>						
A		<u>EARTH WORKS</u>				
1	251* (4.1.1)	Excavation in foundations in Ordinary Soil (Loam Clay or sand) including lift upto 1.5m. (5 fts.) and lead upto 30 m. (100 fts.) & including filling, watering and ramming of excavated Earth into the trenches or into the Space between the building and sides of foundation trenches or into the space between the building and the sides of foundation trenches or into the plinth and removal and disposal of surplus earth as directed by the engineer-incharges upto a distance of 30m. (100fts.) from the foundation trenches.	Cum	11045.34	63.00	
2	252* (4.13)	Same as in item No. 251 above but excavation in soil mixed with Moorum,, shingle kanker etc, requiring the use of special T&P such as pickaxes : sabbals etc.	Cum	2552.05	68.00	
3	254* (4.3)	Add to item 251 for every additional 30m. (100 fts.) lead or part of 30m. (100 fts.) or for every additional 1.5 m. (5fts.) lift or part of 1.5m. (5fts.).	Cum	7069.02	7.00	
4	231*(a)	Cartage of Ballast, Kankar, coal,Grit or Sand etc., including loading and unloading but excluding stacking on pucca roads. 5th km.	Cum	12844.40	159.65	
5	255* (4.4)	Sand filling in plinth including Supply of necessary quantity of sand from a distance not exceeding 8 km. (5 miles) from the site of work and including watering, ramming,dressing etc. rate to include cost of all materials, labour and T & P etc. required for proper completion of the work.	Cum	404.73	350.00	
6	259*	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.	Sqm.	4088.70	2.70	
		TOTAL (Carried Over to Summary of Civil Works)				
B		<u>CONCRETE WORKS</u>				
1	281*	Providing & Laying Cement concrete 1:4:8 (1 cement :4 coarse sand : 8 graded stone ballast 40mm. Nominal size.) including supply of all materials, labour and T & P etc. required for proper completion of the work and curing complete, also including cost of formwork in foundation and floors.	Cum	408.87	4050.00	
		<u>REINFORCED CEMENT CONCRETE WORK</u>				

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
2	282*	Cost cement concrete door sills, chaukhats boundary post, shelves and similar small work with cement, approved coarse sand and 2 cm. (3/4") gauge approved stone ballast in the proportion of 1:2:4, excluding supply of reinforcement and its binding but including its fixing and binding the same with 24 B.W.G.I binding wire and including the cost of binding wire, moulds and all other materials, labour and T & P etc. required for proper completion of work.	Cum	2.00	5450.00	
3	283*	R.C.C work with cement approved coarse sand and 2 cm. (3/4") gauge approved stone grit in the proportion of 1:1.5:3 (so as to achieve a strength of M25)in lintels of doors and windows excluding supply of reinforcement and its binding but including its fixing and binding the same with 24 B.W.G.I binding wire and including necessary centering and shuttering etc. and also including supply of all materials ,labour and T & P etc. required for proper completion of work. Binding wire of supplied by the contractor free of cost.	Cum	2.00	6300.00	
a)	284*	As in item no.283 but RCC for Slabs.	Cum	2206.64	6700.00	
b)	285*	As in item no.283 but R.C.C in lighter beam i.e having spans up to 6m.	Cum	141.42	6900.00	
c)	286*	As in item no.283 but R.C.C in heavier beam i.e having spans up to 6m.	Cum	801.38	6900.00	
d)	287*	As in item no.283 but RCC in Raft foundation and footing with 4cm gauge stone ballast.	Cum	2434.76	5500.00	
e)	289*	As in item no.283 above but in RCC T-beam, slab, roof and column.	Cum	710.99	6850.00	
f)		Additional for achieving a strength of M30 in foundation,raft, columns , beams and slabs	Cum	2.00	7200.00	
		TOTAL (Carried Over to Summary of Civil Works)				
C		<u>BRICK WORK</u>				
1	303*	First Class - 150 brick work in 1:6 cement and fine sand of 1.25 fineness modulus mortar in foundation and plinth including supply of all materials, labour and tools and plants etc.required for proper completion of the work.				
i	305*(b) (6.1.3)	As in item (303) above, but in 1:4 cement and Coarse sand mortar.	Cum	274.82	4200.00	
2	309* (6.19) (6.1.6)	As in item (303) to (307) above but in super structure above including necessary cutting and moulding of brick work as required and also including honey combed brick in thickness of wall not to be less than 1. 1/2 brick thick. Add For Extra labour to above items.	Cum	274.82	180.00	

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
i	310*	As in item (309) above, but for wall of one brick thick add for extra labour.	Cum	273.67	150.0	
ii	310*(a)	As in item (309) above, but for wall of half brick (4. 1/2") thick. Add for extra labour over item no. 310	Cum	1.15	185.0	
		TOTAL (Carried Over to Summary of Civil Works)				
<u>D</u>		<u>MILD STEEL AND IRON WORK</u>				
1	502* (10.21)	Mild steel or iron work of small sizes and section such as holding down bolts, hold fasts. tie. rods, grating etc. (when not including in an over all rates) wrought to required form including supply of steel, bolts, nuts and wastage etc. and their fixing required for proper completion of the work.	Qtl.	0.50	6000.00	
2	503* (10.22)	Mild Steel & Iron Work in heavy sizes such as trusses, built up gates, door frames, record racks, roof work,gates etc, wrought to required form including drilling holes, rivetting or welding where necessary and also including supply of steel, bolts, nuts etc. & their fixing required for proper completion of the work.	Qtl.	0.50	6200.00	
3	504* (10.3.1)	Mild Steel (tor steel or plain) in plain work such as R.C.C or R.B Work including bending for proper shape and including supply of steel & its wastage, bend, hooks, and authorised overlapping shall be measured and including cost of binding wire.	Qtl.	11915.38	5900.00	
		TOTAL (Carried Over to Summary of Civil Works)				
<u>E</u>		<u>FLOORING & DADO WORK</u>				
1	601* (14.6.1)	2.5cm (1") thick 1:2:4 plain cement concrete floor with cement ,approved coarse sand and 2 cm.(1") graded approved stone grit ,laid in panels finished with 3mm. (1/8") floating coat of neat cement of cement and marble dust in ratio 5:1 as specified over and including 8 cm (3") thick base concrete consisting of cement, fine sand of 1.25 fineness modules and brick ballast 4cm. (1/1/2") gauge in the propoation of 1:4:8 and removing any overlapping mortar at the joints of the panels if any and giving them a uniform finish, including supply of all materials, labour, tools & plants etc. required for proper completion of the work.				
i	605* (14.5)	As in item (601) above but floor shall be 4 cm (1.5") thick instead of 2.5 (1") thick and without base concrete.	Sqm.	50.00	280.00	

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
14.26	New Item 1	Supply & fixing of Kota stone in flooring 20mm thick and joint filled with 1:2 cement and coarse sand with approved colouring materials to be given an even shade with 12mm base coat (bedding) of 1:2 cement & coarse sand mortar and polished by hand or machine and finally finished with french manson polish or other approved polish including supply of all materials, labour, Tools & plants etc. required for proper completion of the work.				
	New Item 2	As in item no New item (1) above but 25 mm thick	sqm	300.76	900.00	
		TOTAL (Carried Over to Summary of Civil Works)				
E		<u>FINISHING WORK</u>				
1	582*	12 mm thick Plaster with cement mortar and fine sand 1.25 fineness modules in 1:3 over brick work minimum thickness not to be less than 1 cm. including supply of all materials, labour, tools & plants etc. required for proper completion of the work.	Sqm	50.00	130.00	
2	586*	12 mm thick Plaster with cement mortar and fine sand 1.25 fineness modules in 1:6 over brick work minimum thickness not to be less than 1 cm. including supply of all materials, labour, tools & plants etc. required for proper completion of the work.	Sqm	1453.48	105.00	
3	587*	Add for extra labour to all items of plaster if done in ceiling.	Sqm	50.00	12.00	
4	596*	Add for extra labour and materials for plater over rough face of one brick wall.	Sqm	50.00	12.00	
5	599*	Providing and mixing approved water proofing materials in cement mortar for plastering or in concrete work in the proportion recommended by the manufacturers.	Per Ltr.	112.00	90.00	
6	600*	Making drip coarse in sun shades or facia with 1:3 cement and fine sand mortar as per direction of engineer-in-charge including supply of all materials, labour, tools & plants etc. required for proper completion of the work.	Per R.M	236.25	20.00	

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
	649+650	Distempering (first coat) with oil bound distemper of approved brand and manufacture and of required shade of undecorated wall surface to give an even shade over and including a priming coat with cement primer of approved brand and manufacture such as Berger,J&N, Shalimar, Asian Paint after throughly brushing the surface free from mortar dropping and other foreign matters and also including the surface even with plaster of Paris or approved synthetic materials and sand papered smooth including supply of all materials, labour, Tools & plants etc. required for proper completion of the work. As in item (649) above but for every coat after the first coat.	Sqm	13966.93	60.00	
7	660*	Finishing wall with waterproof cement Paint of approved make and quality on new work with two coats to give an even shade, including supply of all materials,labour and T & P etc. required for proper completion of the work.	Sqm	150.00	45.00	
i	661*	Same as in item no. 660 but for each coat of water proof cement paint after the first two coats to give an even shade.	Sqm	150.00	18.00	
		TOTAL (Carried Over to Summary of Civil Works)				
6	19	MISCELLANEOUS				
19.02	New Item	Providing and injecting chemical for preconstruction antitermite treatment and creating and chemical barrier under and around the column pits wall trenches basement excavation top surface in plinth filling junction of wall and floor, along the external per meter of binding expansion joints surrounding or pipes and conduit etc. complete (plinth area of the building at ground floor only shall be measured as per I.S 6313 (part II 1981) Aldrine emulsifiable concentrate or any other approved material such as heptachlor or chlordane will be used. The rate of application of chemical emulsion shall be as follows:- 1. Treatment for masonry and foundation 5 litres per sqm. 2.Backfill in immediate contact with foundation 7.5 litres per sqm. 3. Treatment of surface of plinth filling 5 litres per sqm 4. Treatment of soil along external parameter of Building 7.5 litres per sqm. 5. Treatment of soil under external parameter 5 litres per sqm.	sqm	4246.83	110.00	
		TOTAL (Carried Over to Summary of Civil Works)				

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
ALL SCH P.W.D SUB- HEAD TOTAL :						
DSR-2014						
A	6.0	BRICK WORK				
1	6.15	Extra for providing and placing in position 2 Nos. 6mm dia. M.S. bars at every third course of half brick masonry (with F.P.S. bricks).	Sqm	10.00	69.50	
TOTAL (Carried Over to Summary of Civil Works)						
B	8.0	MARBLE & GRANITE WORK				
1	8.11	Providing and fixing machine cut, mirror / eggshell polished , Marble stone work for wall lining (vener work) including dado, skirting, risers of steps etc., in required design and pattern wherever required, stones of different finished surface texture, on 12 mm (average) thick cement mortar 1:3 (1 cement : 3 coarse sand) laid and jointed with white cement slurry @ 3.3 kg/sqm including pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing, polishing etc. all complete as per Architectural drawings, and as directed by the Engineer-in-Charge. a.18 mm thick Italian Marble stone slab,Perlato, Rosso verona, Fire Red or Dark Emperadore etc.	Sqm.	1475.91	7022.60	
2	8.8	Providing and fixing expansion hold fasteners on C.C. /R.C.C./Brick masonry surface backing including drilling necessary holes and the cost of bolt etc complete.				
i	8.8.1.2	Fastener with threaded dia 10 mm.	each	10331	28.35	
ii	8.8.1.3	Fastener with threaded dia 12 mm.	each	4428	43.80	
3	16.9	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 .50 sqm.	Sqm.	55.99	3148.55	
TOTAL (Carried Over to Summary of Civil Works)						
C	10.0	STEEL WORK				

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
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)	10.25.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works.	Kg	732.4	90.10	
2	10.15	Providing and fixing M.S. Tubular frames for doors, windows, ventilators and cupboard with rectangular/ L-Type sections, made of 1.60 mm thick M.S. Sheet, joints mitred, welded and grinded finish, with profiles of required size, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.				
i	10.15.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately)	Kg	1410.6	130.40	
3	10.27	Providing and fixing carbon steel galvanised (minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm ²), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge.				
i	10.27.2	10 x 80 mm	each	50	70.75	
ii	10.27.3	10 x 120 mm	each	412.0	86.75	
4	10.11	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side /top /centre hung, with beading and all members such as F7D, F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer, but excluding the cost of other fittings, complete all as per approved design, (sectional weight of only steel members shall be measured for payment).				
i	10.11.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	kg	17.6	114.15	
5	10.30	Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with :				
i	10.30.1	4.0 mm thick glass panes	Sqm	59.9	764.45	
		TOTAL (Carried Over to Summary of Civil Works)				
D	11.0	FLOORING WORK				

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
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 :				
i	4.1.3	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20	Cum	1087.78	5466.30	
2	11.8	Extra for making chequers of approved pattern on cement concrete floors, steps, landing, pavements etc.	Sqm	10877.76	33.25	
		TOTAL (Carried Over to Summary of Civil Works)				
E	12.0	<u>ROOF WORK</u>				
1	12.21	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10mm and down gauge) including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design.				
i	12.21.1	In 75x75mm deep chase.	Rmt.	262.50	143.10	
2	12.22	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1mx1mx400micron, finished with 12mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	each	102.00	186.65	
		TOTAL (Carried Over to Summary of Civil Works)				
E	13.0	<u>FINISHING WORK</u>				
1	13.26	Providing and applying plaster of paris putty of average thickness 2 mm over the plastered wall surface to prepare the surface even and smooth complete	Sqm	13966.93	110.95	
2	13.43.1	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface. Water thinnable cement primer.	Sqm	13966.93	35.85	
3	13.48	Finishing walls with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :				
i	13.48.3	Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/ 10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved brand and manufacture	Sqm	221.11	90.00	
4	13.80	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete	Sqm	1453.48	89.65	

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
		TOTAL (Carried Over to Summary of Civil Works)				
<u>6</u>	26.0	STRUCTURAL GLAZING WORK				
		External Structure Glazing				
<u>1</u>	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).	Kg	2065	338.25	
<u>2</u>	26.2	Designing, fabricating, testing, protection, installing and fixing in position semi (grid) unitized system of structural glazing (with open joints) for linear as well as curvilinear portions of the building for all heights and all levels including:				
		(a) Structural analysis, design and preparation of shop drawings for the specified design loads conforming to IS 875 part III (the system must passed the proof test at 1.5 times design wind pressure without any failure), including functional design of the aluminum sections for fixing glazing panels of various thicknesses, aluminium cleats, sleeves and splice plates etc. gaskets, screws, toggles, nuts, bolts, clamps etc., structural and weather silicone sealants, flashings, fire stop (barrier)-cum-smoke seals, microwave cured EPDM gaskets for water tightness, pressure equalisation & drainage and protection against fire hazard including:				
		(b) Fabricating and supplying serrated M.S. hot dip galvanised / Aluminium alloy of 6005 T5 brackets of required sizes, sections and profiles etc. to accommodate 3 Dimensional movement for achieving perfect verticality and proper fixing of structural glazing system with the RCC/ masonry/structural steel framework of building structure, using stainless steel anchor fasteners/ bolts, nylon seperator to prevent bimetallic contacts with nuts and washers etc. of stainless steel grade 316, of the required capacity and in required numbers.				

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
		(c) Providing and filling, two part pump filled, structural silicone sealant and one part weather silicone sealant compatible with the structural silicone sealant of required bite size in a clean and controlled factory / work shop environment , including double sided spacer tape, setting blocks and backer rod, all of approved grade, brand and manufacturer, as per the approved sealant design, within and all around the perimeter for holding glass.				
		(d) Providing and fixing in position flashings of solid aluminium sheet 1 mm thick and of sizes, shapes and profiles, as required as per the site conditions, to seal the gap between the building structure and all its interfaces with curtain glazing to make it watertight.				
		(e) Making provision for drainage of moisture/ water that enters the curtain glazing system to make it watertight, by incorporating principles of pressure equalization, providing suitable gutter profiles at bottom (if required), making necessary holes of required sizes and of required numbers etc. complete.				
		This item includes cost of all inputs of designing, labour for fabricating and installation of aluminium grid, installation of glazed units, T&P, scaffolding and other incidental charges including wastages etc., enabling temporary structures and services, cranes or cradles etc. as described above and as specified. The item includes the cost of getting all the structural and functional design checked and all the shop drawings vetted by the Principals of the structural glazing system.				
		The item also includes 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 working structural glazing as specified, cleaning and protection till the handing over of the building for occupation. In the end, the Contractor shall provide a water tight structural glazing having all the performance characteristics etc. all complete as required, 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.	Sqm	640	2556.15	

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
<u>3</u>	26.3	Providing, assembling and supplying vision glass panels (IGUs) comprising of hermetically-sealed 6-12-6 mm insulated glass (double glazed) vision panel units of size and shape as required and specified, comprising of an outer high performance heat strengthened float glass 6mm thick, of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade, an inner Heat strengthened clear float glass 6mm thick, spacer tube 12mm wide, dessicants, including primary seal and secondary seal (structural silicone sealant) etc. all complete for the required performances, as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer-in-Charge. The IGUs shall be assembled in the factory/ workshop of the glass processor. (Payment for fixing of IGU Panels in the curtain glazing is included in cost of item No.1) For payment, only the actual area of glass on face # 1 of the glass panels (excluding the areas of the grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm.				
<u>i</u>		(i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, + 12mm Airgap + 6mm Heat Strengthened clear Glass of approved make having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m2 degree K etc.	Sqm.	640	4090.95	
<u>3</u>	26.4	Extra for openable side / top hung vision glass panels (IGUs) including providing and supplying at site all accessories and hardwares for the openable panels as specified and of the approved make such as heavy duty stainless steel friction hinges, min 4 -point cremone locking sets with stainless steel plates, handles, buffers etc. including necessary stainless steel screws/ fasteners, nuts, bolts, washers etc. all complete as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer-in-Charge.	Sqm.	640	3062.25	
		TOTAL (Carried Over to Summary of Civil Works)				
<u>H</u>	22.0	WATER PROOFING				

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
1	22.7	Providing and 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 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300 mm height including cleaning the surface before treatment. b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge. d) Finishing the surface with 20 mm thick				
		jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3 mm 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 65mm.	Sqm	3748.50	1019.05	3819908.93
		TOTAL (Carried Over to Summary of Civil Works)				
		ALL DSR SUB- HEAD TOTAL :				
<u>NON SCHEDULE ITEM</u>						
A		<u>WATER PROOFING</u>				

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
1	NSI	Providing & Applying cementitious crytalline waste. Water proffing for concrete, raft, walls, watertank, slabs, sunk area, concrete floors etc. with crystal T1 system. The application to be done from positive side on a wet open pore concrete surface with broush @ of 1 kg / sqm as per manufacture specification.	Sqm.	5116.55	600.00	
		TOTAL (Carried Over to Summary of Civil Works)				
B		<u>FINISHING WORK</u>				
1	NSI	Providing and fixing GI hexagonal chicken wire mesh of size 12mm x22g at the junction of disimilar surfaces of brick masonry wall and R C C column by beams and the like including necessary nails for fixing etc, complete all as per specification and direction of Engineer -in -charge for all floor at all heights.	Sqm	157.50	44.00	
2	NSI	Providing and applying two or more coats of approved texture paint on wall surfaces over a coat of primer including surface preparation scaffolding etc complete and top surface finished as per requirement of Architect and Project Manager.	Sqm	50.00	375.00	
		TOTAL (Carried Over to Summary of Civil Works)				
		ALL SUB- HEAD TOTAL : NSI				
		TOTAL : SCH P.W.D + DSR + NSI				

BUILDING NAME : UG TANK & PUMP ROOM

ABSTRACT OF COST - CIVIL WORKS

Sl. No.	DESCRIPTION	AMOUNT (Rs.)
SCH P.W.D (2013-14)		
A	EARTH WORKS	
B	CONCRETE WORKS	
C	BRICK WORK	
D	MILD STEEL AND IRON WORK	
E	FLOORING & DADO WORK	
F	FINISHING WORK	
G	MISCELLANEOUS	
	TOTAL : (SCH P.W.D)	
DSR-2014		
A	EARTH WORK	
B	CONCRETE WORK	
C	STEEL WORK	
D	FLOORING WORK	
E	ROOF WORK	
F	FINISHING WORK	
G	WATER PROOFING	
	TOTAL : (DSR)	
NON SCHEDULE ITEM		
A	WATER PROOFING	
B	FINISHING WORK	
	TOTAL : (NSI)	
	TOTAL : (SCH P.W.D + DSR + NSI)	

PROJECT: MULTILEVEL PARKING TOWN HALL, MEERUT						
DEVELOPED BY : MEERUT DEVELOPMENT AUTHORITY MEERUT						
UG TANK & PUMP ROOM , BOQ - CIVIL WORKS						
Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
<u>SCH P.W.D (2013-14)</u>						
A		<u>EARTH WORKS</u>				
1	251* (4.1.1)	Excavation in foundations in Ordinary Soil (Loam Clay or sand) including lift upto 1.5m. (5 fts.) and lead upto 30 m. (100 fts.) & including filling, watering and ramming of excavated Earth into the trenches or into the Space between the building and sides of foundation trenches or into the space between the building and the sides of foundation trenches or into the plinth and removal and disposal of surplus earth as directed by the engineer-incharges upto a distance of 30m. (100fts.) from the foundation trenches.	Cum	217.00	63.00	
2	252* (4.13)	Same as in item No. 251 above but excavation in soil mixed with Moorum,, shingle kanker etc, requiring the use of special T&P such as pickaxes : sabbals etc.	Cum	37.94	68.00	
3	254* (4.3)	Add to item 251 for every additional 30m. (100 fts.) lead or part of 30m. (100 fts.) or for every additional 1.5 m. (5fts.) lift or part of 1.5m. (5fts.).	Cum	127.16	7.00	
4	231*(a)	Cartage of Ballast, Kankar, coal,Grit or Sand etc., including loading and unloading but excluding stacking on pucca roads. 5th km.	Cum	214.63	159.65	
5	255* (4.4)	Sand filling in plinth including Supply of necessary quantity of sand from a distance not exceeding 8 km. (5 miles) from the site of work and including watering, ramming,dressing etc. rate to include cost of all materials, labour and T & P etc. required for proper completion of the work.	Cum	10.00	350.00	
6	259*	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.	Sqm.	60.00	2.70	
		TOTAL (Carried Over to Summary of Civil Works)				
B		<u>CONCRETE WORKS</u>				
1	281*	Providing & Laying Cement concrete 1:4:8 (1 cement :4 coarse sand : 8 graded stone ballast 40mm. Nominal size.) including supply of all materials, labour and T & P etc. required for proper completion of the work and curing complete, also including cost of formwork in foundation and floors.	Cum	6.54	4050.00	
		<u>REINFORCED CEMENT CONCRETE WORK</u>				

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
2	282*	Cost cement concrete door sills, chaukhats boundary post, shelves and similar small work with cement, approved coarse sand and 2 cm. (3/4") gauge approved stone ballast in the proportion of 1:2:4, excluding supply of reinforcement and its binding but including its fixing and binding the same with 24 B.W.G.I binding wire and including the cost of binding wire, moulds and all other materials, labour and T & P etc. required for proper completion of work.	Cum	1.50	5450.00	
3	283*	R.C.C work with cement approved coarse sand and 2 cm. (3/4") gauge approved stone grit in the proportion of 1:1.5:3 in lintels of doors and windows excluding supply of reinforcement and its binding but including its fixing and binding the same with 24 B.W.G.I binding wire and including necessary centering and shuttering etc. and also including supply of all materials ,labour and T & P etc. required for proper completion of work. Binding wire of supplied by the contractor free of cost.	Cum	0.25	6300.00	
a)	284*	As in item no.283 but RCC for Slabs.	Cum	10.23	6700.00	
b)	285*	As in item no.283 but R.C.C in lighter beam i.e having spans up to 6m.	Cum	0.25	6900.00	
c)	286*	As in item no.283 but R.C.C in heavier beam i.e having spans up to 6m.	Cum	1.44	6900.00	
d)	287*	As in item no.283 but RCC in Raft foundation and footing with 4cm gauge stone ballast.	Cum	20.38	5500.00	
e)	288*	As in item no.283 above but in RCC T-beam, slab, roof and column.	Cum	41.68	6850.00	
		TOTAL (Carried Over to Summary of Civil Works)				
C		<u>BRICK WORK</u>				
1	303*	First Class - 150 brick work in 1:6 cement and fine sand of 1.25 fineness modulus mortar in foundation and plinth including supply of all materials, labour and tools and plants etc.required for proper completion of the work.				
i	305*(b) (6.1.3)	As in item (303) above, but in 1:4 cement and Coarse sand mortar.	Cum	14.64	4200.00	
2	309* (6.19) (6.1.6)	As in item (303) to (307) above but in super structure above including necessary cutting and moulding of brick work as required and also including honey combed brick in thickness of wall not to be less than 1. 1/2 brick thick. Add For Extra labour to above items.	Cum	14.64	180.00	
i	310*	As in item (309) above, but for wall of one brick thick add for extra labour.	Cum	14.64	150.0	

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
ii	310*(a)	As in item (309) above, but for wall of half brick (4. 1/2") thick. Add for extra labour over item no. 310	Cum	0.58	185.0	
		TOTAL (Carried Over to Summary of Civil Works)				
D		<u>MILD STEEL AND IRON WORK</u>				
1	502* (10.21)	Mild steel or iron work of small sizes and section such as holding down bolts, hold fasts. tie. rods, grating etc. (when not including in an over all rates) wrought to required form including supply of steel, bolts, nuts and wastage etc. and their fixing required for proper completion of the work.	Qtl.	0.50	6000.00	
2	503* (10.22)	Mild Steel & Iron Work in heavy sizes such as trusses, built up gates, door frames, record racks, roof work,gates etc, wrought to required form including drilling holes, rivetting or welding where necessary and also including supply of steel, bolts, nuts etc. & their fixing required for proper completion of the work.	Qtl.	0.50	6200.00	
3	504* (10.3.1)	Mild Steel (tor steel or plain) in plain work such as R.C.C or R.B Work including bending for proper shape and including supply of steel & its wastage, bend, hooks, and authorised overlapping shall be measured and including cost of binding wire.	Qtl.	118.30	5900.00	
4	4.73(P.W.D)	Approximate cost of ISI marked oxidized iron fitting with screws for door & windows etc. (for estimating purpose only)				
i	4.74(P.W.D)	As Above item no 473 Aluminium Fitting ISI marked.	sqm	6.21	340.00	
		TOTAL (Carried Over to Summary of Civil Works)				
E		<u>FLOORING & DADO WORK</u>				
14.26	New Item 1	Supply & fixing of Kota stone in flooring 20mm thick and joint filled with 1:2 cement and coarse sand with approved colouring materials to be given an even shade with 12mm base coat (bedding) of 1:2 cement & coarse sand mortar and polished by hand or machine and finally finished with french manson polish or other approved polish including supply of all materials, labour, Tools & plants etc. required for proper completion of the work.				
	New Item 2	As in item no New item (1) above but 25 mm thick	sqm	5.00	900.00	
		TOTAL (Carried Over to Summary of Civil Works)				

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
E		<u>FINISHING WORK</u>				
1	582*	12 mm thick Plaster with cement mortar and fine sand 1.25 fineness modules in 1:3 over brick work minimum thickness not to be less than 1 cm. including supply of all materials, labour, tools & plants etc. required for proper completion of the work.	Sqm	65.96	130.00	
2	586*	12 mm thick Plaster with cement mortar and fine sand 1.25 fineness modules in 1:6 over brick work minimum thickness not to be less than 1 cm. including supply of all materials, labour, tools & plants etc. required for proper completion of the work.	Sqm	199.32	105.00	
3	587*	Add for extra labour to all items of plaster if done in ceiling.	Sqm	65.96	12.00	
4	596*	Add for extra labour and materials for plater over rough face of one brick wall.	Sqm	83.39	12.00	
5	599*	Providing and mixing approved water proofing materials in cement mortar for plastering or in concrete work in the proportion recommended by the manufacturers.	Per Ltr.	24.05	90.00	
6	600*	Making drip coarse in sun shades or facia with 1:3 cement and fine sand mortar as per direction of engineer-in-charge including supply of all materials, labour, tools & plants etc. required for proper completion of the work.	Per R.M	15.00	20.00	
	649+650	Distempering (first coat) with oil bound distemper of approved brand and manufacture and of required shade of undecorated wall surface to give an even shade over and including a priming coat with cement primer of approved brand and manufacture such as Berger,J&N, Shalimar, Asian Paint after thoroughly brushing the surface free from mortar dropping and other foreign matters and also including the surface even with plaster of Paris or approved synthetic materials and sand papered smooth including supply of all materials, labour, Tools & plants etc. required for proper completion of the work. As in item (649) above but for every coat after the first coat.	Sqm	181.89	60.00	
7	660*	Finishing wall with waterproof cement Paint of approved make and quality on new work with two coats to give an even shade, including supply of all materials,labour and T & P etc. required for proper completion of the work.	Sqm	75.00	45.00	

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
i	661*	Same as in item no. 660 but for each coat of water proof cement paint after the first two coats to give an even shade.	Sqm	75.00	18.00	
		TOTAL (Carried Over to Summary of Civil Works)				
G	19	MISCELLANEOUS				
19.02	New Item	Providing and injecting chemical for preconstruction antitermite treatment and creating and chemical barrier under and around the column pits wall trenches basement excavation top surface in plinth filling junction of wall and floor, along the external per meter of binding expansion joints surrounding or pipes and conduit etc. complete (plinth area of the building at ground floor only shall be measured as per I.S 6313 (part II 1981) Aldrine emulsifiable concentrate or any other approved material such as heptachlor or chlordane will be used. The rate of application of chemical emulsion shall be as follows:- 1. Treatment for masonry and foundation 5 litres per sqm. 2. Backfill in immediate contact with foundation 7.5 litres per sqm. 3. Treatment of surface of plinth filling 5 litres per sqm 4. Treatment of soil along external parameter of Building 7.5 litres per sqm. 5. Treatment of soil under external parameter 5 litres per sqm.	sqm	32.00	110.00	
		TOTAL (Carried Over to Summary of Civil Works)				
		ALL SCH P.W.D SUB- HEAD TOTAL :				
<u>DSR-2014</u>						
A	2.0	<u>EARTH WORK</u>				
1	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.	Cum	40.32	112.40	
		TOTAL (Carried Over to Summary of Civil Works)				
B	4.0	<u>CONCRETE WORK</u>				
1	4.12	Extra for providing and mixing water proofing material in cement concrete work @ 1kg per 50kg of cement.	per bag of 50KG of cement	50.00	115.00	

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
2	4.17	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement :3 coarse sand : 6graded stone aggregate 20mm nominal size) over 75mm bed by dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth	SQM	14.60	450.00	
		TOTAL (Carried Over to Summary of Civil Works)				
C	10.0	<u>STEEL WORK</u>				
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)	10.25.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works.	Kg	273.7	90.10	
2	10.13	Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitred and welded, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.				
i	10.13.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	Kg	114.6	83.70	
3	10.27	Providing and fixing carbon steel galvanised (minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm ²), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge.				
i	10.27.2	10 x 80 mm	each	10	70.75	
ii	10.27.3	10 x 120 mm	each	10.0	86.75	
3	10.5	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer.				
i	10.5.1	Using M.S. angels 40x40x6 mm for diagonal braces	sqm	1.89	3073.85	
5	10.30	Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with :				
i	10.30.1	4.0 mm thick glass panes	Sqm	4.3	764.45	
5	19.19	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality				
i	19.19.3.1	Circular shape 560 mm internal diameter	each	2.00	1511.55	

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
6	19.15	Providing M.S. foot rests including fixing in manholes with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) as per standard design :				
i	19.15.1	With 20x20 mm square bar	each	56.00	275.50	
		TOTAL (Carried Over to Summary of Civil Works)				
D	11.0	FLOORING WORK				
1	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.	sqm	44.46	535.25	
2	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	sqm	3.66	377.25	
3	11.14	Extra for laying terrazo flooring on staircase treads not exceeding 30 cm in width, including cost of forming, nosing etc.	sqm	44.46	36.85	
4	11.36	Providing and fixing 1st quality <i>ceramic glazed wall tiles</i> 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	sqm	180.69	836.65	
5	11.38	Providing and laying <i>Ceramic glazed floor tiles 300x300 mm</i> (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in all colours, shades, expect 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.	sqm	26.43	904.45	
		TOTAL (Carried Over to Summary of Civil Works)				
E	12.0	ROOF WORK				
1	12.21	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10mm and down gauge) including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design.				
i	12.21.1	In 75x75mm deep chase.	Rmt.	32.00	143.10	

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
2	12.22	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1mx1mx400micron, finished with 12mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	each	2.00	186.65	
3	12.20	Providing and laying pressed clay tiles (as per approved pattern 20 mm nominal thickness of approved size) on roofs jointed with cement mortar 1:4 (1 cement : 4 coarse sand) mixed with 2% integral water proofing compound laid over a bed of 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) and finished neat complete.	sqm	60.00	487.85	
		TOTAL (Carried Over to Summary of Civil Works)				
<u>F</u>	13.0	<u>FINISHING WORK</u>				
1	13.43.1	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface. Water thinnable cement primer.	Sqm	181.89	35.85	
2	13.48	Finishing walls with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :				
i	13.48.3	Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/ 10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved brand and manufacture	Sqm	44.07	90.00	
3	13.80	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete	Sqm	181.89	89.65	
		TOTAL (Carried Over to Summary of Civil Works)				
<u>G</u>	22.0	<u>WATER PROOFING</u>				

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
1	22.15	Providing and laying in situ seven course water proofing treatment with APP (Atactic poly-propylene) modified Polymeric memberane over roof consisting of first coat of bitumen primer @ 0.40Kg per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 Kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 1.5mm thick of 2.25 Kg/sqm weight consisting of five layers prefabricated with centre core as 20micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 10 grouted with cement mortar 1:3 (1cement:3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat (item of laying brick tiles shall be paid for separately).	SQM	60.00	526.25	
		TOTAL (Carried Over to Summary of Civil Works)				
		ALL DSR SUB- HEAD TOTAL :				
<u>NON SCHEDULE ITEM</u>						
<u>A</u>		<u>WATER PROOFING</u>				
1	NSI	Providing & Applying cementitious crytalline waste. Water proffing for concrete, raft, walls, watertank, slabs, sunk area, concrete floors etc. with crystol T1 system. The application to be done from positive side on a wet open pore concrete surface with broush @ of 1 kg / sqm as per manufacture specification.	Sqm.	394.94	600.00	
		TOTAL (Carried Over to Summary of Civil Works)				
<u>B</u>		<u>FINISHING WORK</u>				
1	NSI	Providing and fixing GI hexagonal chicken wire mesh of size 12mm x22g at the junction of disimilar surfaces of brick masonry wall and R C C column by beams and the like including necessary nails for fixing etc, complete all as per specification and direction of Engineer -in -charge for all floor at all heights.	Sqm	75.00	44.00	

Sl. No.	Schedule Item No.	Description of Work	Unit	Qty.	Rate in Rs.	Amount
2	NSI	Providing and applying two or more coats of approved texture paint on wall surfaces over a coat of primer including surface preparation scaffolding etc complete and top surface finished as per requirement of Architect and Project Manager.	Sqm	83.39	375.00	
		TOTAL (Carried Over to Summary of Civil Works)				
		ALL SUB- HEAD TOTAL : NSI				
		TOTAL : SCH P.W.D + DSR + NSI				

BILL OF QUANTITY

(FOR TENDER)

ELECTRICAL WORK

**SUMMARY OF COST FOR ELECTRICAL WORKS OF PROPOSED MULTILEVEL
PARKING AT TOWN HALL, MEERUT, U.P.**

SI.NO	NAME OF SUB-HEAD	AMOUNT	
		PWD SCHE. 2014	NON-SCHE.
I	SUBHEAD I- WIRING POINTS		
II	SUBHEAD II-INSTALLATION OF LIGHT FIXTURES AND FANS		
III	SUBHEAD III-DISTIBUTION BOARD		
IV	SUBHEAD IV-EARTHING SYSTEM		
V	SUBHEAD V-CABLES		
VI	SUBHEAD VI-EXTERNAL LIGHTING		
VII	SUBHEAD VII-MAIN L.T. PANELS		
VIII	SUBHEAD VIII-MISCELLENEOUS		
	TOTAL		
	GRAND TOTAL		

SCHEDULE OF QUANTITIES FOR ELECTRICAL WORKS						
PROJECT						
PROPOSED MULTILEVEL PARKING AT TOWN HALL, MEERUT, U.P.						
PART (A): SCHEDULE ITEMS (AS PER PWD SCHE. 2014)						
SL.No.	DESCRIPTION	S.No.	QTY.	UNIT	RATE	AMOUNT
<u>SUBHEAD I- WIRING POINTS</u>						
1	Wiring points for light with 1 sqmm.FR PVC insulated multistrand single core copper conductor cable in PVC conduit pipe partly concealed in wall and partly laid in slab along with the reinforcement before concreting, complete with 1.5 sqmm.FR PVC insulated multistrand copper conductor cable as earth continuity wire and piano type switch etc. complete in all respects.	138©	320	Each	446.00	
2	Same as item No.(1) but for two way light Points.	139 ©	3	Each	579.00	
3	Same as item No.(1) but for fan and light duty exhaust fan.	140©	2	Each	530.00	
4	Same as item No.(1) but for 5 Amp plug point	141©	4	Each	240.00	
5	Supply & wiring of submains with 2 nos. 2.5 sq.mm & with 1 no. earth wire of 1.5 sq.mm FR PVC insulated 1100 V grade single core multistrand copper conductor cable in existing PVC conduit complete, including supply of all material, labour and T&P etc. required for proper completion of the work as directed by Engineer I/C.	1307©	540	Rmt	103.00	
6	Supply and wiring of submain 2 number 4 sqmm . FR PVC insulated 1100 V grade multistranded single core copper conductor cable in heavy duty 20mm dia PVC conduit partly concealed in wall and partly laid in slab along with one number 2.5 sqmm FR PVC insulated multistranded copper conductor cable as earth continuity wire etc. complete in all respects.	221©	230	Rmt	132.00	
7	Supply and wiring of submain 2 number 6 sqmm . FR PVC insulated 1100 V grade multistranded single core copper conductor cable in heavy duty 20mm dia PVC conduit partly concealed in wall and partly laid in slab along with one number 4 sqmm FR PVC insulated multistranded copper conductor cable as earth continuity wire etc. complete in all respects.	222©	150	Rmt	184.00	
8	Supply and wiring of submain 4 number 10 sqmm . FR PVC insulated 1100 V grade multistranded single core copper conductor cable in heavy duty 32mm dia PVC conduit along with two numbers 6 sqmm FR PVC insulated multistranded copper conductor cable as earth continuity wire etc. complete in all respects.	278 (c)	285	Rmt	504.00	
9	Supply and wiring of submain 4 number 16 sqmm . FR PVC insulated 1100 V grade multistranded single core copper conductor cable in heavy duty 40mm dia PVC conduit along with two numbers 10 sqmm FR PVC insulated multistranded copper conductor cable as earth continuity wire etc. complete in all respects.	279 (c)	40	Rmt	824.00	
TOTAL OF SUB-HEAD I						

SUBHEAD II-INSTALLATION OF LIGHT FIXTURES AND FANS					
10	Erection and testing of ceiling fan and regulator for room height upto 3.5mts. including supply of 3mm thick G.I. down rod 19mm dia duly painted, complete in all respects.	1116	2	Each	118.00
11	Erection and testing exhaust fan on the existing hole with suitable size of rag bolts nuts and washers etc. complete in all respects.	1120	23	Each	108.00
12	S/F of hexagonal fan box with hexagonal side of approx 80mm in length fabricated from 16SWG M.S. sheet incorporating 10mm dia, M.S. round bar duly bent for supporting fan hanger duly painted with red oxide and screwing arrangement with wiring conduit laid in the R.C.C. roof before concreting along with supply of all materials, labour T & P etc., for proper completion of work.	1149	2	Each	112.00
13	Supply & fixing of electronic fan regulator 120-280 V. ISI marked, on the existing switch board including making connection, required material, labour T/P etc for proper completion of work to the satisfaction of Engineer in charge of work.	1203 (A)	2	Each	286.00
14	Supply & fixing of ceiling fitting fixed on matching M.D.F.E.G. Board base including connections with existing outlet. The base of ceiling fitting shall be fabricated from 22 gauge CRCA sheet in square shape finished with black matt surface complete with 3mm thick export quality acrylic moulded cover and heavy duty brass holder of Kinial/or any other approved make complete in all respects Category A	415 (A)	313	Each	517.00
15	Supply & fixing of single wall light bracket made of brass on matching polished MDFEG board brass including connection etc. as required.	412	2	Each	651.00
16	Supply & fixing of factory wired HPF box type fluorescent tube light fitting suitable for following fluorescent tube including tubes etc. complete as required.				
a)	1x40 Watt.	453	8	Each	798.00
TOTAL OF SUB-HEAD II					
SUBHEAD III-DISTRIBUTION BOARD					
17	Construction of recess distribution board of all sizes including cutting of brick work providing lintel of suitable size & thickness plastering etc. with supply of all materials, labours, T & P etc. required for proper completion of work.				
a)	600x480x200 mm. size	1141(B)	11	Each	433.00
18	Supply and fixing of factory fabricated M.S. box in existing sunk with Godrej type almirah cover with handle etc. fabricated from 18 SWG M.S. sheet duly painted with red oxide primer followed by two coats of synthetic enamel paint complete with necessary conduit entry and DP/TPN; fixing arrangement and provision for compartment for loose wires, openable housing on the top and hold fast etc. including supply of all material, labour and T & P etc. required for proper completion of the work.				

a)	600x480x200 mm. size	1147	11	Each	1319.00	
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19	Supply and fixing of flush/surface mounting distribution boards (Legrand Lexic) without MCB with additional metal door complete in all respects.					
a)	6 Way TPN	1027 (A)	8	Each	2573.00	
20	Supply and fixing of 240 volts 'L' series miniature circuit breaker 6 Amp. To 32 Amp. (10 K A) in existing MCB, DB complete with connections as required.					
a)	6 - 32 amps.	1002	96	Each	143.00	
21	Supply fixing and making connection of following MCBS complete in all respects as per direction and satisfaction of engineer-in-charge.					
a)	40 Amp. 4P MCB (10 KA)	1020	7	Each	1029.00	
b)	63 Amp. 4P MCB (10 KA)	1021	1	Each	1091.00	
22	Supply and fixing of power plug with 15A/250 V flush type switch and 5 Pin 15 A/250V flush type universal socket in suitable M.S. box of 175mmx100x50mm size with phenolic laminated bakelite sheet cover 3mm thick fixed with brass machine screws and cup washer.	1139	7	Each	244.00	
23	Supply and fixing Single Pole MCBS Blanking Plate complete in all respects.	1034(B)	64	Each	7.00	
TOTAL OF SUB-HEAD III						
SUBHEAD IV-EARTHING SYSTEM						
UPPWD-2014						
24	Supply and burying of 600mm x 600 mmx6mm G.I. plate, vertically for earthing with its top atleast 3 mts. below ground level complete with 20mm G.I.pipe and funnel for watering and two earthing leads of No.8to10SWG G.I.wire in 15mm diaG.I. pipe upto switch board (from apron to switch board the cost of G.I. pipe and G.I. wire will be extra) 30cm. square C.I. frame with hinged cover, masonry housing, alternate layers/of charcoal/ coke and salt at least 150mm thick alround etc. complete in all respects.	703	2	Each	4339.00	
25	Supply and laying of 25mm x 3mm G.I. strip from earth electrode directly in the ground as required complete in all respects.	716	50	Metre	75.00	
26	Supply and fixing of two number 8 SWG G.I. wire in 15mm dia. G.I. pipe for earthing, laid in ground or in wall duly concealed including the cost of cement, sand, labour, T&P other material required for proper completion of work as directed at side.	723	100	Metre	154.00	
TOTAL OF SUB-HEAD IV (UPPWD-2014)						
SUBHEAD V-CABLES						
27	Supply and laying of aluminium conductor, PVC insulated armoured, served, sheeted cable 1100 Volts grade at a depth of 750mm below ground level over a cushion of 75mm thick sand alround and protected with burnt bricks on sides and top on surface, the cable run shall be fixed on M.S. clamps etc. of suitable size.as per direction of Engineer-Incharge.complete in all respect The armouring of the cable shall be properly connected with the earth conductor by clamps etc.					

a)	240 sqmm 3.5 core	501(r)	100	Rmt.	1789.00	
b)	70 sqmm 3.5 core	501(m)	50	Rmt.	730.00	
c)	50 sqmm 3.5 core	501(l)	50	Rmt.	595.00	
d)	35 sqmm 3.5 core	501(k)	100	Rmt.	408.00	
e)	16 sqmm 4 core	501(i)	75	Rmt.	345.00	
28	Supply & fixing of brass nickle plated compression gland for PVC insulated & armoured served sheathed, underground cable including rubber ring etc. complete in all respects. The armouring of the cable shall be properly connected with the earth as per direction of Engineer-Incharge.					
a)	240 sqmm 3.5 core	503(r)	2	Each	329.00	
b)	70 sqmm 3.5 core	503(m)	2	Each	151.00	
c)	50 sqmm 3.5 core	503(l)	2	Each	151.00	
d)	35 sqmm 3.5 core	503(k)	4	Each	139.00	
e)	16 sqmm 4 core	503(i)	2	Each	90.00	
29	Supplying and fixing of Palm / pin type copper tin plated cables sockets (lugs) to the cable leads, insulating with tape and making of connections etc. complete in all respects as per direction of Engineer-Incharge.					
a)	240 Sq.mm	504(m)	6	Each	338.00	
b)	120 Sq.mm	504(j)	2	Each	139.00	
c)	70 Sq.mm	504(h)	6	Each	80.00	
d)	50 Sq.mm	504 (g)	6	Each	51.00	
e)	35 Sq.mm	505 (f)	14	Each	29.00	
f)	25 Sq.mm	504 (e)	2	Each	26.00	
g)	16 Sq.mm	504 (d)	8	Each	19.00	
TOTAL OF SUB-HEAD V						
SUBHEAD VI -EXTERNAL LIGHTING						
30	Supplying and fixing of Factory wired, sodium vapour lamp street lighting luminaries single piece cast ' Aluminium' body flat glass with IP 65 protection suitable for 70 watt S.V. lamp including integral control gear, 70 watt S.V. lamp on G.I. Pipe bracket complete in all respect on wall..	485(I)	4	Each	4317.00	
TOTAL OF SUB-HEAD VI						
PART B - NON - SCHEDULED ITEMS (AS PER MARKET RATES)						
SUBHEAD VII-MAIN L. T. PANELS						

31	Supply, installation, testing and commissioning of electrical panel, modular type, front accessible only, free floor standing conforming to Minimum IP:43 degree of protection. The panel sheet structure shall undergo seven tank pre-treatment process before painting. The sheet steel shall be all of 2.0mm thick CRCA sheet. All the openable compartments of the panel shall be completely shrouded and provided with padlocking arrangement on all compartments including bus bar and cable alley chambers. The panel height shall not exceed 2200mm and the maximum operating height for any switchgear shall not be more than 1700mm. The panel shall be provided with minimum 75mm base channel frame fabricated from ISMC sections. All bus bar links in the panel shall be solid bus bars with coloured PVC shrinkable sleeves, no wires will be acceptable. Continuous earth bus shall run around the panel with earthing studs provided at minimum 2 places. The control wiring shall be carried out with minimum 1.5/2.5 sqmm copper wir						
	adequate number of NO/NC, potential free contacts incorporated for remote operation of the starters. Proper sized cable termination gland plates shall be provided on cable alleys and knockouts for same shall be provided during fabrication stage itself. The panel shall be provided with a thermostatically controlled heating arrangement (200 W) to take care of high humidity conditions. A 5A socket service outlet (single phase) shall be provided in one of the compartments as service outlet in the panel. Panel shall be so designed as to have minimum 20% spare feeders/space. Panel shall undergo epoxy powder coated paint, colour as per IS:5 requirement. All cable terminations shall be from top. The complete panel shall be fuse less type, for control circuits 2A/6A MCB's to be used.						
	All bus bars shall be of aluminium, electrolytic grade only. Maximum design density shall not exceed 1 Amps/Sqmm. All bus bars shall be insulated with coloured heat shrinkable PVC sleeved. All bus bar supports shall be non hygroscopic DMC/SMC supports.						
	The panel shall be manufactured in conformance to requirements of local electrical inspector and it shall be contractors responsibility to get initial approval of drawings and also final approval of complete electrical works related to this section.						
	The minimum clearances between bus bars shall be as follows :						
	Phase to phase - minimum 20mm						
	Phase to neutral-minimum 15mm						
	a) Main L.T. Panel						
	Incoming :						
	One (1) No 320 Amp. 4P MCCB of 25 KA Breaking capacity						
	Metering :						
	One (1) No. (0-500V) 96 x 96 Sqmm voltmeter with control fuse & selector switch.						
	One (1) No. (0-320A) 96 x 96 Sqmm CT operated Ammeter with selector switch, CTs etc.						

	One (1) Set of Phase Indication Lamp.					
	Bus Bar :					
	One (1) No. 400 A, TPN aluminium bus bar of suitable length.					
	Outgoing :					
	Phase indication lamps on each outgoing to be provided.					
	200Amps TP MCCB of 25 KA (Ics=Icu) Breaking Capacity-1 No.					
	125Amps TP MCCB of 25 KA (Ics=Icu) Breaking Capacity-1 No.					
	100Amps TP MCCB of 25 KA (Ics=Icu) Breaking Capacity-2 No.					
	63Amps TP MCB of 10 KA (Ics=Icu) Breaking Capacity-3 No.					
	32Amps DP MCB of 10 KA (Ics=Icu) Breaking Capacity-1 No.					
	200 Amps TP MCCB of 25 KA (Ics=Icu) Breaking Capacity - 1 Nos Spare					
	125 Amps TP MCCB of 25 KA (Ics=Icu) Breaking Capacity- 1No. Spare					
	63 Amps TP MCB of 10 KA (Ics=Icu) Breaking Capacity- 1No. Spare	N.S	1	Set	158200.00	
	MAIN DISTRIBUTION BOARD					
32	Supplying, installation, testing and commissioning of surface/ recess mounting, vertical type, 415 volts, TPN distribution board of sheet steel, dust protected, duly phosphatized and powder painted, inclusive of 125 Amps tinned copper busbar, common neutral link, earth bar, din bar for mounting MCB's, detachable gland/ knock out plate, and with 100/125 Amps, MCCB as incomer interconnection between incomer MCB/MCCB and busbars of following ways :					
a)	MAIN DISTRIBUTION BOARD-1					
	4Way Vertical Type Distribution Board					
	Incomer :-125Amp. TPN. MCCB					
	Outgoing					
	40Amp. TP. MCB -4 No.					
	63Amp. TP. MCB -1 No.Spare					
	40Amp. TP. MCB -1 No. Spare	N.S	1	Set	35300.00	
b)	MAIN DISTRIBUTION BOARD-2					
	4Way Vertical Type Distribution Board					
	Incomer :-100Amp. TPN. MCCB					
	Outgoing					
	63Amp. TP. MCB -1 No.					
	40Amp. TP. MCB -1 No.					
	63Amp. TP. MCB -1 No.Spare					
	40Amp. TP. MCB -1 No. Spare	N.S	1	Set	26200.00	
c)	MAIN DISTRIBUTION BOARD-3					
	4Way Vertical Type Distribution Board					
	Incomer :-100Amp. TPN. MCCB					
	Outgoing					
	40Amp. TP. MCB -2 No.					
	63Amp. TP. MCB -1 No.Spare					
	40Amp. TP. MCB -1 No. Spare	N.S	1	Set	26200.00	
	TOTAL OF SUB-HEAD VII					
	SUBHEAD VIII-MISCELLNEOUS					

BILL OF QUANTITY

(FOR TENDER)

PLUMBING WORK

&

FIRE FIGHTING WORK

PROPOSED MULTI LEVEL PARKING AT TOWN HALL, MEERUT		
<u>COMBINED ABSTRACT OF COST</u>		
S.NO	DESCRIPTION OF ITEM(NAME OF SUB-HEAD)	AMOUNT (IN LACS)
I	INTERNAL WATER SUPPLY & SANITATION WORKS	
II	COST OF INTERNAL & EXTERNAL FIRE FIGHTING AND ALARM SYSTEM	
III	COST OF RAIN WATER HARVESTING	
IV	COST OF EXTERNAL WATER SUPPLY WORKS	
V	COST OF SEWERAGE WORKS	
	GRAND TOTAL	

SCHEDULE OF QUANTITIES FOR PLUMBING WORKS						
PROPOSED MULTI LEVEL PARKING AT TOWN HALL, MEERUT						
INTERNAL PLUMBING WORKS						
SL. NO	DSR 2014	DESCRIPTION	UNIT	QTY	RATE (in Rs)	AMOUNT (in Rs)
I SANITARY INSTALLATIONS & C.P FITTINGS						
Sanitary Instalations						
1	17.78	Providing and fixing white vitreous china extended wall mounting water closed 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 fitting, nuts, bolts and gasket etc complete.	each	3.00	10100.90	
2	17.7	Providing & fixing white vitreous china wash basin with C.I. brackets painted white, 15 mm C.P. brass pillar taps, C.P. brass chain with rubber plug, 32mm C.P. brass waste of standerd pattern including cutting & making good the walls wherever required.				
	17.7.3	a)White Vitreous China Flat back wash Basin size 550x400 mm with a pair of 15 mm C.P. brass pillar tap.	each	4.00	2127.90	
3	17.31	Providing and fixing 600x450mm bevelled edge mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	each	4.00	793.95	
4	17.70	Providing and fixing PTMT Bottle Trap for Wash basin and sink				
	17.70.1	Bottle trap 31mm single piece moulded with height of 270mm effective length of tail pipe 260mm from the centre of the waste coupling 77mm breadth with 25mm minimum water seal weighing not less than 263 gms	each	4.00	494.90	
5	17.73	Providing and fixing PTMT Towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour.				
	17.73.1	450mm long towel rail with total length of 495mm 78mm wide and effective height 88mm weighing not less than 170ams.	each	1.00	483.45	
CP Brass fittings						
6	18.21	Providing and fixing unplasticised PVC connection pipe with brass unions				
	18.21.2	45 cm length				
	18.21.2.1	15 mm nominal bore	each	7.00	68.60	

7	18.49	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931				
	18.49.1	a) 15 mm nominal bore	each	3.00	459.50	
8	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.				
	18.51.1	a) 15 mm nominal bore	each	1.00	610.65	
9	18.53	Providing and fixing C.P. brass angle valve for basin mixer and gyser points of approved quality conforming to IS:8931				
	18.53.1	a) 15 mm nominal bore	each	4.00	507.70	
					TOTAL [I]	
II SOIL WASTE & VENT PIPES AND FITTINGS						
1	12.22	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over PVC sheet 1m x 1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, punning, rounding the edges and making and finishing the outlet complete.	Each	36.00	186.65	
					TOTAL [II]	
III INTERNAL & EXTERNAL WATER SUPPLY WORKS						
1	18.9.	Providing and fixing chlorinated polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge.				
		Internal work (exposed on wall)				
	18.9.4	d) 32mm dia nominal outer dia pipes	Rm.	30.00	262.35	
	18.9.3	e) 25mm dia nominal outer dia pipes	Rm.	15.00	209.50	
2		Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testiang of joints complete as per direction of Engineer in Charge.				
		Concealed work including cutting chases and making good the walls etc.				

	18.8.2	a) 20mm dia nominal outer dia pipes	Rm.	35.00	296.40	
	18.8.3	b) 25mm dia nominal outer dia pipes	Rm.	15.00	351.30	
3	18.17	Providing and fixing gun metal gate valve with wheel of approved quality.				
	18.17.1	a) 25mm dia nominal bore	Each	1.00	428.85	
	18.17.2	b) 32mm dia nominal bore	Each	2.00	501.50	
	17.17.3	c) 40mm dia nominal bore	Each	3.00	585.50	
						TOTAL[III]
	NON SCHEDULED ITEMS					
	IV SANITARY INSTALLATIONS & C.P FITTINGS					
1	NSR(AR-06)	Providing and fixing in floor and wall face unplasticised Rigid PVC soil and waste water pipes conforming to IS : 13592 Type B including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion . (i) Single socketed pipes.				
		a) 110mm dia P.V.C. pipe	Rm	25.00	525.00	
		b) 90mm dia P.V.C. pipe	Rm	25.00	420.00	
2	NSR(AR-03)	Providing & fixing PVC Floor trap of self cleansing design with CP Jali complete in all respects. (Make : Supreme / Finolex / Prince)	Nos.	5.00	405.00	
3	NSR(AR-02)	Providing & fixing of medium class G.I.spout (Class B) up to 300 mm. length including cutting and making good the walls and floors etc. as required.	Each	5.00	235.00	
4	NSR(AR-01)	Providing and fixing clean out plug				
		110 mm dia.	Each	2.00	245.00	
5	NSR(AR-05)	Providing and fixing on wall face unplasticised - PVC moulded fittings/accessories for unplasticised Rigid PVC pipes including jointing with seal ring leaving 10 mm gap for thermal expansion.				
		110mm bend	Each	7.00	170.00	
		90 mm bend	Each	3.00	150.00	
		Coupler				
		110mm	Each	10.00	115.00	
		90mm	Each	10.00	105.00	
		Single tee with door				
		90x90x90 mm	Each	3.00	195.00	
		110x110x110 mm	Each	3.00	230.00	

6	NSR	Providing and fixing M.S. structural work fabricated from standard sections e.g. M.S. pipes, angles, channels, GI 'U' clamps including cutting to size, drilling, welding to insert plates or fixed to "HILTI"fasteners of required specification in RCC structural/masonry members as directed by Engineer-in-Charge including cutting and making good the walls and floors and painting with two coats of enamel paint over primer coat after rubbing and cleaning (for pipe supports, clamps, M.S. ladder and tank manholecovers, etc). wherever required after rubbing and cleaning.	KG	5.00	70.00	
7	NSR(AR-11)	Providing and fixing pvc Inlet fitting with 2 inlets 80 mm size fabricated from 110 mm dia PVC pipes(approx. length=150mm to 300mm) and fixed to PVC trap with joint and set in cement concrete as per standard drawing complete.	Each	1.00	620.00	
8	NSR(AR-12)	Providing C.P. Brass health faucet for ablution with 1 meter long PVC tube, hand shower, couplings, wall hook and other accessories.	Each	3.00	700.00	
9	NSR(AR-06)	Providing and fixing in floor and wall face unplasticised Rigid PVC soil and waste water pipes conforming to IS : 13592 Type B including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion with fittings etc complete				
		160mm dia	Metre	235.00	905.00	
10	NSR(AR-07)	Providing and fixing in position vent connection to water storage tanks comprising two elbows of 50 mm dia. And mosquito proof brass wire mesh fixing in frame and welded to upstand pipe complete as required. (Length of pipe involved shall be measured seperately under item piping).	Each	2	385.00	
11	NSR(QUO)	Supply, installing, testing and commissioning of non clog submersible type drainage / dewatering pumpset				
		Model : STS 50/13 - F (1 working + 1 Standby) = 2 Set				
		Discharge in LPH : 6000-18000 LPH				
		Head in Mtrs. : 11 - 5 Mtr				
		HP : 1.0 HP				
		Free Passage : 35 mm				
		Outlet : 50 mm				
		Price of Pumpset : 82278.00(2Set)	Set	2	82278.00	
					TOTAL [IV]	
		TOTAL [I+II+III+IV]				

**PROPOSED MULTI LEVEL PARKING AT TOWN HALL, MEERUT
(COST OF RAIN WATER HARVESTING WORKS)**

S.N	DESCRIPTION	DSR14	UNIT	QTY.	RATE	AMOUNT
	D.S.R. ITEMS					
[I]	FOR RAIN WATER HARVESTING					
1	Excavating trenches in all kinds of soil of required width for pipes. including excavation for sockets and dressing of sides, ramming of bottoms, including getting out the excavated soil & then returning the soil as required, in layers not exceeding 20 cm in depth including consolidating each deposited layer by ramming, watering, etc & disposing of surplus excavated soil as directed within a lead of 50m. up to 1.50 m depth					
	Pipes 80 mm to 300 mm diameter	2.10.1.2	metre	285.00	208.30	
2	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.					
	250 mm. dia. RCC Pipes	19.6.3	metre	285.00	468.60	
3	Providing and laying cement concrete 1:5:10 (1 cement: 5 coarse sand : 10 graded stone aggregate 40mm nominal size) upto the haunches of pipes including bed concrete as per standard design					
		19.3.2	metre	285.00	456.45	

4	Constructing brick masonry manhole in cement mortar 1:4 (1 cement :4 coarse sand) RCC top slab with 1:2:4 mix (1 cement :2 coarse sand :4 graded stone aggregate 20mm nominal size), foundation concrete 1:4:8 mix (1 cement :4 coarse sand :8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement :3 coarse sand) finished with floating coat fo neat cement and making channels in cement concrete 1:2:4 (1 cement :2 coarse sand :4 graded stone aggregate 20mm nминаl size) finished with a floating coat of neat cement complete as per standard design.	19.7				
	Inside size 90x80cms and 45cms deep including CI cover with frame (light duty) 455x610mm internal diamensions total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15kg).					
	With common burnt clay FPS (non modular) bricks of class designation 75	19.7.1				
	(i) For Sewer Line	19.7.1.1	each	28.00	8507.00	
	Extra for depth for manholes:					
	Size 90x80cm with With common burnt clay FPS (non modular) bricks of class designation 7.5	19.8.1.1	metre	7.00	5638.20	

5	Providing orange colour safety foot rests 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 mm x 25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm thread 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.	19.16	each	20.00	311.60
				TOTAL [I] D.S.R. 2014	
[II]	<u>RAIN WATER HARVESTING</u>				
	<u>DSR ITEMS</u>				
	<u>DESILTING CHAMBER</u>				
1	Earth work In excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30cm in depth. 1.5m in width as per as 10 sq.m on plan) including disposal of excavated earth, lead up to 50m and lift up to 1.5m, disposed earth to be levelled and neatly dressed.	2.6			
	All kinds of soil	2.6.1	9.00	Cu.M	155.60
2	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 up to 1.5m.	2.25	5.30	Cu.M	112.40
	Extra for every additional lift of 1.5 m or part there of in:	2.26			
	All kinds of soil.	2.26.1	6.90	Cu.M	46.25

3	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level.	4.1				
	1:4:8 (1 cement :4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	4.1.8	0.90	Cu.M	4301.15	
	1:2:4 (1 cement :2 coarse sand : 4 graded stone aggregate 40 mm nominal size)	4.1.4	0.05	Cu.M	5335.25	
4	Centring and shuttering including strutting, proppintg etc. and removal of form for:	5.9				
	Suspended floors,roofs, landings, balconies and access platform.	5.9.3	2.00	Sq.M	401.65	
	Edges of slabs and breaks in floors and walls,	5.9.16				
	Under 20 cm wide	5.9.16.1	6.00	R.M.	116.40	
5	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.	5.22				
	Thermo Mechanically Treated bars.	5.22.6	106.00	Kg.	68.10	
6	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements excluding the cost of centring, shuttering, finishing and reinforcement. including Admixtures in recomended proportions. (as per IS 9103) to accelerate, retard setting of concrete improve work ability without impairing strength and durability as per directio of Engineer in charge M-25 grade reinforced cement concrete. by using 410kg. of cement per cum. of concrete. All work up to floor V level	5.33	0.90	Cu.M	6296.15	
7	Brick work with F.P.S. bricks of class designation 75 in foundation and plinth in:	6.1				
	Cement mortar 1:4 (1 cement: 4 coarse sand)	6.1.1	7.84	Cu.M	4918.65	
	12 mm thick cement plaster of mix 1:4 (1 cement : 4 fine sand).	13.1.1	19.80	Cum	163.35	

8	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:	19.1				
	<u>200 mm diameter</u>	19.1.3	3.00	R.M.	462.15	
RECHARGE PITS						
1	Earth work in excavation in trenches for foundations and for pipes cables etc. in ordinary soil(loam clay or sand) including lift upto 1.5 m and dressing of sides and ramming of bottom sand disposal of surplus excavated earth as directed by the Engineer i/c with in a lead of 50m.					
	In all kind of soil upto 1.5m depth	2.6.1	Cum	14.720	155.60	
	In all kind of soil upto 1.5m to 3.0m. depth	2.6.1&2.2 6	Cum	14.720	201.85	
	In all kind of soil upto 3.0m to 4.5m. depth	2.6.1&2.2 6	Cum	14.72	248.10	
2	Providing and laying in cement concrete 1:2:4 (1 cement :2 coarse sand :4 graded Stone aggregate 20 mm nominal size) and curing complete,including cost of form-work,in foundation and floors.	4.1.3	Cum	0.925	5466.30	
3	Class M-150 brick work in 1:4 cement coarse sand mortar in foundation & plinth including supply of all materials, labour, tools and plants etc. required for proper completion of the work.	6.1.1	Cum	19.913	4918.65	
4	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	5.3	Cum	1.36	6778.2	

5	Providing & Fixing Mild steel or iron in plain work such as reinforced concrete or reinforced, brick work (when not included in over all rates) wrought to required shape as necessary including bending for proper completion of the work and including supply of steel its wastage bend hooks and authorised over lapping shall be measured upto floor two level.	5.22.1	Kg	160	64.95	
6	15mm cement plaster on rough side of single or half brick wall mix 1:4 (1 cement : 4 coarse sand)	13.5.1	Sqm	46.185	200.05	
7	Providing M.S. foot rests including fixing in manholes with 20x20x10 cm cement concrete blocks 1:3:6 (1cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) as per standard design: With 20x20mm square bar	19.15 19.15.1	Nos.	12	275.50	
8	Providing and fixing in position precast RCC manhole cover and frame of required shape and approved quality. M.D. -10- Circular shape 500mm internal diameter	19.19.2.2	No.	2	909.25	
9	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-incharge, upto 90 metre depth below ground level. Drilling of 300mm dia bore hole manually.	24.1 24.1.1.1	M	25	407.10	

10	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge.	24.4				
	150 mm nominal size dia	24.4.2	M	25	528.95	
11	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	24.5	cum	2.45	504.15	
12	Supplying, filling, spreading & leveling gravels of size range 5 mm to 10mm, 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.	24.6	cum	2.45	910.65	
13	Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer-in-charge.	24.7	cum	2.45	852.60	
14	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/medium/coarse, in required grading & size as per actual requirement, all complete as per direction of Engineer-in-charge.	24.8	Cum	1	987.85	
Total						
Total For 2 Pits (Section II)						
NON D.S.R. ITEMS						

1	Constructing brick masonry open surface drain with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 fine sand) including earth excavation, 10cm thick bed concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) and 25mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5mm nominal size) for filling haunches including 12mm cement plaster 1:4 (1 cement : 4 coarse sand) with a floating coat of neat cement inside the drain, its top and exposed side including disposal of surplus earth complete as per standard design:					
	Drain 300 wide average. Depth 45 cm with R.C.C. Slab	A.R.09	metre	500.00	3435.00	
		Total				
TOTAL COST OF RAIN WATER & DRAINAGE						

**PROPOSED MULTI LEVEL PARKING AT TOWN HALL, MEERUT
(COST OF SEWERAGE WORKS)**

Sl. No.	DESCRIPTION	DSR.14	UNIT	QTY.	RATE	AMOUNT
COST OF SEWERAGE WORKS						
1	Excavating trenches in all kinds of soil of required width for pipes. including excavation for sockets and dressing of sides, ramming of bottoms, including getting out the excavated soil & then returning the soil as required, in layers not exceeding 20 cm in depth including consolidating each deposited layer by ramming, watering, etc & disposing of surplus excavated soil as directed within a lead of 50m.					
	up to 1.50 m depth					
	Pipes 80 mm to 300 mm diameter	2.10.1.2	metre	45.00	208.30	
	1.50 m to 3.00 m depth					
	Pipes 80 mm to 300 mm diameter	2.11	metre	30.00	491.59	
2	Open timbering in trenches including shuttering and shoring complete. (Measurement to be taken of the face area timbered)					
	Depth not exceeding 1.5 meter	2.20.1	Sqm	45.00	55.80	
	Depth 1.5 to 3.00 meter	2.20.2	Sqm	30.00	59.55	
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.					
	150 mm. dia. RCC Pipes	19.6.2	metre	75.00	348.30	
4	Providing and laying cement concrete 1:5:10 (1 cement: 5 coarse sand : 10 graded stone aggregate 40mm nominal size) upto the haunches of pipes including bed concrete as per standard design					
		19.3.2	metre	75.00	456.45	

5	Constructing brick masonry manhole in cement mortar 1:4 (1 cement :4 coarse sand) RCC top slab with 1:2:4 mix (1 cement :2 coarse sand :4 graded stone aggregate 20mm nominal size), foundation concrete 1:4:8 mix (1 cement :4 coarse sand :8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement :3 coarse sand) finished with floating coat fo neat cement and making channels in cement concrete 1:2:4 (1 cement :2 coarse sand :4 graded stone aggregate 20mm nминаl size) finished with a floating coat of neat cement complete as per standard design.	19.7				
	Inside size 90x80cms and 45cms deep including CI cover with frame (light duty) 455x610mm internal diamensions total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15kg).					
	With common burnt clay FPS (non modular) bricks of class designation 7.5	19.7.1				
	(i) For Sewer Line	19.7.1.1	each	5.00	8507.00	
	Extra for depth for manholes:					
	Size 90x80cm with With common burnt clay FPS (non modular) bricks of class designation 7.5	19.8.1.1	metre	2.50	5638.20	

5	<p>Providing orange colour safety foot rests 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 mm x 25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm thread 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.</p>	19.16	each	10.00	311.60	
TOTAL COST OF SEWERAGE WORKS						

**PROPOSED MULTI LEVEL PARKING AT TOWN HALL, MEERUT
(COST OF EXTERNAL WATER SUPPLY WORKS)**

S.N.	DESCRIPTION	DSR14	UNIT	QTY	RATE	AMOUNT
I	DISTRIBUTION SYSTEM (FROM EXISTING SOURCE TO U./G. TANK & O.H.T.)					
1	Providing & fixing G.I. pipes complete with G.I. fittings including tenching and refilling etc. (external work)					
	80mm nominal bore.	18.12.8	Rm.	50	637.05	
	65mm nominal bore.	18.12.7	Rm.	0	524.25	
	50mm nominal bore.	18.12.6	Rm.	25	399.50	
2	Supplying and fixing of specials for pressure pipe.					
	10% of item no.8					
3	Providing and fixing gate valve (with cap complete with bolts, nuts, rubber insertion etc.)					
	80mm nominal bore.	18.17.6	Nos.	3	1920.60	
	65mm nominal bore.	18.17.5	Nos.	0	1287.75	
	50mm nominal bore.	18.17.4	Nos.	2	750.75	
4	Constructing brick masonry chamber 900 x 900 x 1000 mm inside with F.P.S. 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 chained lid and RCC top slab with 1:2:4 mix (1 cement: 2 coarse sand:4 grade stone aggregate 20mm nominal size); necessary excavation, foundation concrete 1:5:10 (1 cement :5 fine sand: 10 graded stone aggregate 40mm 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					
		18.34.1	Each	5.00	11672.35	
	TOTAL COST OF EXTERNAL WATER SUPPLY WORKS					

**PROPOSED MULTI LEVEL PARKING AT TOWN HALL, MEERUT
Fire Fighting and Fire Alarm System (Addressable)**

S No	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
FIRE FIGHTING SYSTEM					
A	Internal Hydrant System				
1	Providing and fixing MS Pipes conforming to IS:1239 (Medium- B class) including all fittings like anchor fasteners, brick masonry supports, couplings, bends, elbows, tees and flanges etc. welded or screwed joints as required, cutting holes and chases in brick or RCC walls and making good complete. (For Riser)				
a)	150 mm dia	RMT	52	2,100.00	
b)	80mm dia	RMT	6	950.00	
c)	25 mm dia	RMT	6	340.00	
2	Supply, installation, testing and commissioning of Fire Hydrant Valve , bearing to IS:5290 mark, S.S. , IS: 318-LTB2 Grade, 63mm. (Landing Valves)	No.	6	6,050.00	
3	Supply, installation, testing and commissioning of Branch Pipe, S.S. , short type, with 63mm. male instantaneous inlet, male threaded outlet, fitted with 16mm bore nozzle.	No.	6	2,050.00	
4	Supply, installation, testing and commissioning of Fire Hose , RRL hose jacketed with circular woven synthetic fibre. conforming to IS: 636:88, 63mm.dia.x15Mtr.long.	No.	12	5,050.00	
5	Supply, installation, testing and commissioning of Manual Swing Type First aid Fire Hose Reel conforming to IS: 444 complete with heavy duty reel, 19mm. dia.x30Mtr.	No.	6	7,100.00	
6	Providing and fixing weather proof standard Fire Duct Door/box , complete in all respect for internal.	No.	6	7,500.00	
7	Providing and fixing weather proof standard Fire Man Axe .	No.	6	650.00	
8	SITC of Ball Valve.25 mm	No.	8	750.00	
9	SITC of Air Release Valve .	No.	2	2,550.00	
10	SITC of Air Cushion Tank 200 mm x 1000 height complete in all respect .	No.	2	6,000.00	
11	Supply, Installation, Testing & Commissioning of Pressure Gauge with gauge cock	No.	8	784.00	

12	Supply, Installation, Testing & Commissioning of Fire brigade inlet with 63 MM dia instantaneous inlet complete with all necessary fittings and MS enclosure with glass door made of 18/16 SWG sheet.				
a)	2 way	Set	1	12,750.00	
13	Supply, Installation, Testing & Commissioning of Butterfly Valve PN 1.0 complete with flanges, gasket, nut bolts. 100 mm dia	No.	1	3,600.00	
14	Supply, Installation, Testing & Commissioning of Non Return Valve complete with flanges, gasket and nut bolts. 100 mm dia.	No.	1	4,050.00	
	TOTAL (Internal Hydrant System)			RS.	
B	Pump House Equipment				
1	SITC of Main Fire Pump 1620 LPM, 70 Mtr. Head, 2900 RPM, complete in all respects. (Make:- Kirloskar/ Mather & Platt)	Set.	1	300,000.00	
2	SITC of Diesal Fire Pump 1620 LPM, 70 Mtr. Head, 1500/1800 RPM, complete in all respects. (Make:- Kirloskar/ Mather & Platt)	Set.	1	695,000.00	
3	SITC of Jockey Pump 180 LPM, 70 Mtr. Head, 2900 RPM, complete in all respects. (Make:- Kirloskar/ Mather & Platt)	Set.	1	86500	
4	Supply, Installation, Testing & Commissioning of Motor Control Center for fire pumps . The motor center will have auto controls for operation of main pump, jockey pump, engine driven pump and battery charger.	Set	1	265,000.00	
5	Supply, Installation, Testing & Commissioning of Pressure Switch with gauge cock	No.	3	2,500.00	
6	Supply, Installation, Testing & Commissioning of Pressure Gauge with gauge cock	No.	5	850.00	
7	Supply, Installation, Testing & Commissioning of MS Pipe confirming to IS 1239 B Class upto 150 mm dia and IS 3589 for size 200 mm dia and above with painting, fitting and necessary support.				
a)	250 mm	RMT	6	2,920.00	
b)	200 mm	RMT	12	2,410.00	
c)	150 mm	RMT	30	1,900.00	
d)	100 mm	RMT	12	1,300.00	
e)	80 mm	RMT	6	900.00	
f)	25 mm	RMT	6	340.00	

S.N	ITEM DISCRIPTION	UNIT	QTY.	RATE	AMOUNT
C	SPRINKLER SYSTEM				
1	Supply, Installation, Testing and Commissioning of M.S. Pipe 'B' Class as per IS:1239 including cutting, jointing and welding etc., and providing suitable flanges alongwith necessary fittings like Bends, Tees, Reducers etc. and coating of Primer and P.O. Red Paint. Make : QST/Jindal Gzb.				
	150 mm	Mtr.	40	1920	
	100 mm dia	Mtr.	250	1310	
	80 mm dia	Mtr.	180	900	
	65 mm dia	Mtr.	280	790	
	50 mm dia	Mtr.	320	760	
	40 mm dia	Mtr.	390	610	
	32 mm dia	Mtr.	130	360	
	25 mm dia	Mtr.	2300	340	
3	Supply, Installation, Testing & Commissioning of Butterfly Valve Complete in all respects.(Make : SIR/Kartar)				
	150 mm dia.	Nos.	6	6500	
	50 mm dia.	Nos.	6	2500	
4	Supply, Installation, Testing & Commissioning of Flow Switch, complete in all respects. (Make:- System Sensor)				
	150 mm dia	Nos.	6	6000	
5	SITC of Sprinkler 68° deg, complete in all respects. (Make:- OMEX/ Life Guard/Safex)				
	Pendent Type	Nos.	1215	335	
6	Supply and Laying of Armoured Cable 2x1.5 Sqmm. (Make:- Relison/ Paradise/ Polycab/Pirelli)				
		Mtr.	130	125	
7	SITC of Main Control Annunciation panel 8 Zone. .				
		Set	1	18500.00	
	TOTAL (SPRINKLER SYSTEM)			Rs	
D	Fire Alarm System				
1	Providing, installing, connecting, testing and networkable logic driven analogue addressable Main Fire Alarm Control and indicating panel.The panel shall be coupled to the PA system complete in all respect. 4 loop Panel(Morley/Edward)				
		Set	1	225000.00	
2	Supply, installation, testing and commissioning of Analogue addressable Photo Smoke Detectors based with LED shall be visible from 360deg, complete as required. (Make :/ GST/Morley)				
		Nos.	230	3,740.00	

3	Supply, Installation, Testing and Commissioning of Fault Isolator (GST/Morley)	Nos.	10	3999.00	
4	Supply, Installation, Testing and Commissioning of Monitor Module. (GST/Morley)	Nos.	6	4320.00	
5	Supply, Installation, Testing and Commissioning of Control Module. (GST/Morley)	Nos.	2	5060.00	
6	SITC of Manual call point with mounting box complete as required.	No.	9	4,968.00	
7	Sitc of Electronic hooter 6 watt output TAC approved with a range of 25-30 mtr.	No.	9	5,975.00	
8	Supplying and laying of Copper Conductor Armoured Cable , complete in all respect.				
	2 X 1.5 sq. mm	RMT	4500	125.00	
	TOTAL (Fire Alarm System)			RS.	
E	Fire Extinguishers & Signage				
1	Supply and fixing of ABC type (5 kg.) ISI Marked	No	9	2,650.00	
2	Supply and fixing of CO2 gas type (4.5 kg.) ISI Marked	No	9	6,500.00	
3	Supply and fixing of self glow type exit signage	No	6	1,350.00	
	TOTAL (Fire Extinguishers & Signage)			RS.	
S U M M A R Y					
A	Hydrant System				
B	Pump House Equipment				
C	Sprinkler System				
D	Fire Alarm System				
E	Fire Extinguishers & Signage				
				GRAND TOTAL RS.	