



बिहार राज्य भवन निर्माण निगम, लि० पटना
(बिहार सरकार का उपक्रम)
दर आमंत्रण हेतु कोटेशन आमंत्रण सूचना सं०-50/2018-19

भवन निर्माण विभाग के निबंधित संवेदकों/ख्याति प्राप्त फर्मों/कंपनियों से दिनांक: 05.09.2018 के अपराह्न 3:00 बजे तक मधुबनी जिलान्तर्गत सौराठ में मिथिला चित्रकला संस्थान एवं मिथिला ललित संग्रहालय के निर्माण कार्य में असैनिक कार्य, पी०एच०ई० कार्य, हॉर्टीकल्चर कार्य एवं अन्य कार्यों के गैर अनुसूचित मदों के लिए मुहरबंद कोटेशन उप महाप्रबंधक, पी०आई०यू०, पटना/महाप्रबंधक (उत्तर/दक्षिण)/मुख्य महाप्रबंधक, बिहार राज्य भवन निर्माण निगम लि०, पटना के कार्यालय में प्राप्त किया जाएगा और उसी दिन 3:30 बजे अपराह्न में कोटेशनदाताओं या उनके द्वारा अधिकृत प्रतिनिधियों के समक्ष खोला जायेगा।

- उक्त कोटेशन से संबंधित विस्तृत विवरणी निगम के वेबसाइट www.bsbccl.bih.nic.in पर उपलब्ध है।
- यह कोटेशन दर निर्धारण के लिए आमंत्रित किया गया है।
- विशेष जानकारी हेतु अधोहस्ताक्षरी के कार्यालय में कार्यावधि में सम्पर्क करें।

विशेष शर्तें:-

1. कोटेशनदाताओं को अपना दर अंक एवं अक्षरों में उद्धृत करना है।
2. दर सभी प्रकार के करों को लेकर अंकित किया जायेगा।
3. दर कार्यस्थल पर समानों की दुलाई को लेकर किया जाएगा, उन्हें किसी प्रकार का अतिरिक्त दुलाई दर देय नहीं होगा।
4. कोटेशन के साथ अद्यतन आयकर एवं GST प्रमाण-पत्र देना होगा।
5. विशेष सूचना के लिए सूचनापट्टा या वेबसाइट www.brdbihar.gov.in एवं www.bsbccl.bih.nic.in देखें या अधोहस्ताक्षरी से सम्पर्क करें।

ह०/-

मुख्य महाप्रबंधक,
बिहार राज्य भवन निर्माण निगम लि०, पटना।

ज्ञापांक:- 2417

दिनांक: 10.8.18

प्रतिलिपि:- निदेशक, सूचना एवं जन-सम्पर्क विभाग, बिहार, पटना को e-advertisement के माध्यम से दैनिक समाचार पत्रों में प्रकाशनार्थ समर्पित।

मुख्य महाप्रबंधक,
बिहार राज्य भवन निर्माण निगम लि०, पटना।

	BIHAR STATE BUILDING CONSTRUCTION CORPORATION LIMITED.			
	PROJECT: (A):- CONSTRUCTION "MITHILA CHITRAKALA SANSTHAN", MADHUBANI, BIHAR. & (B):- CONSTRUCTION "MITHILA LALIT SANGRAHALAY", MADHUBANI, BIHAR.			
	Bill of Quantity(Non-schedule Items)			
	(CIVIL+ PHE + Horticulture+ Miscellaneous) WORKS			
	A	"MITHILA CHITRAKALA SANSTHAN"		
Sl. No.	NS	Description	Unit	Rate
		CIVIL WORK		
1	NS	Providing and placing in position 100mm thick factory made machine batched & machine mixed Precast RCC Rectangular Covers on drains of footpath of various sizes, of M-25 grade cement concrete for RCC work, including cost of centering, shuttering, reinforcement of 8mm dia TMT bars of Fe 500 grade @ maximum 100mm c/c on both ways, neat cement punning on finished surface, properly encased on all edges with 1.6 mm thick, 100mm wide MS sheet duly painted over priming coat, reinforcement to be welded at edges with MS sheet and providing 2 Nos. 12 mm dia bar for hooks etc i/c cost of cartage, all leads & lift, handling at site etc. all complete as per direction of Engineer-in-Charge.	Sqm	
2	NS	Brick edging 7cm wide 11.4 cm deep to plinth protection with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 including grouting with cement mortar 1:4 (1 cement : 4 fine sand).	Rmt	
3	NS	Supplying and stacking of Good earth at site	Cum	
4	NS	Providing and fixing factory made uPVC white colour casement/casement cum fixed glazed windows comprising of uPVC multi-chambered frame, sash and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, stainless steel (SS 304 grade) friction hinges, zinc alloy (white powder coated) casement handles, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately)		
	i	Casement window single panel with S.S. friction hinges (300 x 19 x 1.9 mm), made of (small series) frame 47 x 50 mm & sash 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glass pane glazing bead of appropriate dimension. (Area of window upto 0.75 sqm.)	Sqm	

Sl. No.	NS	Description	Unit	Rate
5	NS	Providing and fixing factory made uPVC white colour fixed glazed windows/ ventilators comprising of uPVC multi-chambered frame and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately). Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.		
	i	Fixed window / ventilator made of (small series) frame 47 x 50 mm & mullion 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area upto 0.75 sqm.)	Sqm	
6	NS	Providing and fixing factory made uPVC white colour casement/ Casement cum fixed glazed door comprising of uPVC multi-chambered frame, sash and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, zinc alloy (white powder coated) 3D hinges and one handle on each side of panels along with zinc plated mild steel multi point locking having transmission gear, cylinder with keeps and one side key, G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws, etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately).		
	i	Casement door with top hung ventilator with 3D and S.S. friction hinges (400 x 19 x 1.9 mm) made of (big series) frame 67 x 64 mm, sash 67 x 110 mm & mullion 67 x 80 mm all having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension.(Area of door upto 2.50 sqm)	Sqm	
7	NS	Providing and fixing factory made uPVC white colour sliding glazed window upto 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ±0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads and uPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealant shall be paid separately) Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.		

Sl. No.	NS	Description	Unit	Rate
	i	Two track two panels sliding window made of (small series) frame 52 x 44 mm & sash 32 x 60 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area of window upto 1.75 sqm)	Sqm	
7	NS	Providing and placing in position 100 mm thick factory made machine batched & machine mixed Precast RCC Rectangular Covers on drains of footpath of various sizes, of M-25 grade cement concrete for RCC work, including cost of centering, shuttering, reinforcement of 8 mm dia TMT bars of Fe 500 grade @ maximum 100mm c/c on both ways, neat cement punning on finished surface, properly encased on all edges with 1.6 mm thick, 100 mm wide MS sheet duly painted over priming coat, reinforcement to be welded at edges with MS sheet and providing 2 Nos. 12 mm dia bar for hooks etc i/c cost of cartage, all leads & lift, handling at site etc. all complete as per direction of Engineer-in-Charge.	Sqm	
8	NS	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 25x25 mm made of G.I. wire of dia 3 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.	Sqm	
9	NS	Providing and Laying gang saw cut 18mm thick, Granite Stone (polished) work for wall lining over 12mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/Sqm. including pointing in white cement.	Sqm	
10	NS	Providing and fixing Sedacor JPS VINYL CORK BASE FLOORING of size 1250mm x225mm x 11mm.NATURAL NOISE ABSORBER / RESISTANT / DURABLE / THERMAL	Sqm	
11	NS	Providing and fixing in position Stretch Fabric by using fire resistance acoustically transparent fabric of size approx 1200mm width, abrasion & flame resistant as per approved color. Fabric shall be stretched by using wooden base 28mm thick, rigid vinyl NSA Stretch tracks half wrap/ full wrap 12mm and Midseam 12mm, NSA fibre polyester wadding 1000 GSM, 50mm packed with acoustic board with requisite accessories and tools. Wooden base 28mm is first installed on the wall along the making lines with metal fastners at 300mm centres. Tracks to be installed on wooden base, by first applying stick adhesive on both surfaces for a true and continuous secure grip, and heavy-duty fastners at 15mm centres on one/both sides of Stretch Tracks.	Sqm	
12	NS	Providing and Laying 4mm thick Spacers for Tile Flooring as per design and drawings complete as per Manufacturer specifications and direction of Engineer-in-charge.	Sqm	
13	NS	Providing and laying roof insulation with 40 mm thick impervious sprayed, closed cell free Rigid Polyurethane foam over deck insulation conforming to IS - 12432 Pt. III (density of foam being 40-45 kg/ cum), over a coat of polyurethane primer applied @ 6-8 sqm per litre, laying 400 G polythene sheet over PUF spray and providing a wearing course of 40 mm thick cement screed 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 20 mm nominal size) in chequered rough finish, in panels of 2.5 m x 2.5 m and embedding with 24 G wire netting and sealing the joints with polymerized mastic, all complete as per direction of Engineer-in-Charge.	Sqm	
14	NS	Providing and fixing in position Stretch Fabric by using fire resistance acoustically transparent fabric of size approx 1200mm width, abrasion & flame resistant as per approved color. Fabric shall be stretched by using wooden base 28mm thick, rigid vinyl NSA Stretch tracks half wrap/ full wrap 12mm and Midseam 12mm, NSA fibre polyester wadding 1000 GSM, 50mm packed with acoustic board with requisite accessories and tools. Wooden base 28mm is first installed on the wall along the making lines with metal fastners at 300mm centres. Tracks to be installed on wooden base, by first applying stick adhesive on both surfaces for a true and continuous secure grip, and heavy-duty fastners at 15mm centres on one/both sides of Stretch Tracks.	Sqm	
15	NS	Supplying and Stacking Filling sunken floor with over burnt jhama brick aggregate 120mm to 40mm including compacting of materials complete as specified and directed for all levels.	Cum	

Sl. No.	NS	Description	Unit	Rate
16	NS	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.		
	i	For vertical surface two coats @0.70 kg per sqm	Sqm	
	ii	For horizontal surface one coat @1.10 kg per sqm.	Sqm	
		ROAD WORK :-		
17	NS	Providing, Applying and finishing the top surface of concrete, in accordance with sprinkling of UniStone color hardener at the rate of 0.390 kg. /sq. ft., Floating the surface with different types of floaters, application of release agent at the rate of 0.013 kg. /sq. ft., stamping the concrete with stamping tools, cleaning the surface with water and application of acrylic based sealer for finishing. Complete for parking areas, Compound flooring, Podium, Basement flooring, External roads etc. CONCRETE Providing RMC (Ready Mix Concrete) / Site mixing concrete plain of M30 grade 75mm (3inches) including, curing at the time of stamping at site etc. JOINTS Treatment of Construction Joints by Groove cutting of size 4 mm x 25 mm in panel size approximately 3 mtr x 3 mtr as per site. (Ready mix concrete shall be paid for	Sqm	
18	NS	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 50cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres.	Sqm	
19	NS	Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (proctor density).	Cum	
20		Supplying and stacking at site.		
	i	53 mm to 22.4 mm size stone aggregate	Cum	
	ii	Stone screening 11.2 mm nominal size (Type B)	Cum	
	ii	Good earth	Cum	
21	NS	Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road/ vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density .	Cum	
22	NS	Providing and laying design mix cement concrete of M-30 grade, in roads/ taxi tracks/ runways, using cement content as per design mix, using coarse sand and graded stone aggregate of 40 mm nominal size in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/ camber, finishing with required texture, including steel form work with sturdy M.S. channel sections, curing, making provision for contraction/ expansion, construction & longitudinal joints (10 mm wide x 50 mm deep) by groove cutting machine, providing and filling joints with approved joint filler and sealants, complete all as per direction of Engineer-in-charge (Item of joint fillers, sealants, dowel bars with sleeve/ tie bars to be paid separately). Note:- Cement content considered in M-30 is @ 340 kg/cum. Excess/ less cement used as per design mix is payable/ recoverable separately.		

Sl. No.	NS	Description	Unit	Rate
	i	Cement concrete prepared with batch mixing machine	Cum	
23	NS	Extra for providing and mixing hardening compound of approved quality as per manufacturer's specification in cement concrete.	litre	
24	NS	Providing and fixing in position pre-moulded joint filler in expansion joints.	per cm. depth per cm. width per m length.	
25	NS	Painting runway/taxi track/apron marking with adequate nos of coats to give uniform finish with road marking paint of superior make as approved by the Engineer-in-charge, i/c cleaning the surface of all dirt, scales, oil, grease and other foreign material etc. and lining out complete.		
i	i	New work (Two or more coats)	Sqm	
26	NS	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	Cum	
27	NS	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 25x25 mm made of G.I. wire of dia 3 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.	Sqm	
28	NS	Construction of granular sub-base by providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.		
	i	With material conforming to Grade-II (size range 53 mm to 0.075 mm) having CBR Value-25	Cum	
29	NS	Construction of dry lean cement concrete sub base over a prepared sub-grade with coarse and fine aggregate conforming to IS:383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per specifications, cement content not to be less than 150 Kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, for all leads & lifts, laid with a mechanical paver, compacting with 8-10 tonne vibratory roller, finishing and curing etc. complete as per direction of Engineer-in-	Cum	
30	NS	Providing and fixing , jointing precast concrete Saucer drain including cost of excavation, earth filling,watering ramming consolidation and laying bed concrete to required slope as per approved sample and as per manufacturer's specifications design and drawing complete.	Rmt	
		PHE WORKS		
		SOIL WASTE & VENT PIPES AND FITTINGS		
31	NS	Providing and fixing CP Brass floor cleanout plug as per drawing complete with G.I. Socket jointed to drainage pipe outlet with drip seal joint.		
	i	100mm dia	Each	
32	NS	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :		
	i	32 mm nominal bore	each	
	ii	40 mm nominal bore	each	
	iii	50 mm nominal bore	each	
33	NS	Providing and fixing class-O Kaiflex ST insulation 6mm thick to hot water pipe and fittings and valves as per manufacturer's recommendations complete to satisfaction of Engineer in charge.		
	i	20mm nominal bore (6 mm thick insulation)	Meter	
	ii	20mm nominal bore (32 mm thick insulation)	Meter	
	iii	25mm nominal bore (32 mm thick insulation)	Meter	

Sl. No.	NS	Description	Unit	Rate
34	NS	Providing and fixing 600mm long puddle flanges fabricated out of 6mm thick M.S. plates along with flanges of suitable size properly fixed in walls and top slabs of underground and overhead tanks. The rate includes all taxes, handling, rehandling, lead lift, loading, unloading T&P, Labour Charges etc.		
	i	25mm dia	Each	
	ii	32mm dia	Each	
	iii	40mm dia	Each	
	iv	50mm dia	Each	
	v	65mm dia	Each	
	vi	80mm dia	Each	
	vii	100mm dia	Each	
	viii	150mm dia	Each	
35	NS	Providing and fixing 100mm dia G.I. vent pipe on Under ground and over head tank including cost of 2 Nos. 90° bend and painting with enamel paint complete with in all respect.(100mm Dia)	Each	
36	NS	Supply, installation, testing & commionsing of solar heating system comprising 15 nos. collectors and collector array approx size 2m x 1m each (125 litres/day capacity) complete with insulated 1500 ltrs. capacity SS 304 tank suitable for 2.5 Kg/Scm operating pressure and 5 KG/Scm test pressure with a bundle of heat exchangers SS-304 seensless tubes of 18 gauge mounted on removable flange, RTD temperature sensors, tempering valves, balancing valves, pressure gauges, thermometers, etc including all insulated interconnected piping & valves between solar collectors and SS tank. The scope of work also comprises installation of solar heating system on suitable structure MS frame. The SS heat exchanger tank shall have thickness of 3 mm and Dished end thickness of 5 mm. and shall consist all required accessories and fittings like pressure relief valves, pressured gauge at inlet/outlet with isolation cock, thermometer at inlet/outlet. The tank shall be duly insulated with mineral wool 50 mm thick, density 120Kg/m3 with chicken wire mesh and aluminum cladding 24 SWG. and shall be mounted on M/S saddle with all necessary mountings and accessories with valves and Provision for inlet/outlet, drain, overflow, manhole, air vent system. The rate shall also include cost of re-circulating pumps 2nos (1W+1S) for re-circulation of water from panels to tanks to be fitted with timer of suitable capacity complete with necessary pipes, valves & electrical works including electrical panel for pumps. Solar heating system shall be provided without electrical backup.	Set	
37	N.S.I	Supply, installation, testing & commionsing of solar heating system comprising 10 nos. collectors and collector array approx size 2m x 1m each (125 litres/day capacity) complete with insulated 1000 Ltrs. capacity SS 304 tank suitable for 2.5 Kg/Scm operating pressure and 5 KG/Scm test pressure with a bundle of heat exchangers SS-304 seensless tubes of 18 gauge mounted on removable flange, RTD temperature sensors, tempering valves, balancing valves, pressure gauges, thermometers, etc including all insulated interconnected piping & valves between solar collectors and SS tank. The scope of work also comprises installation of solar heating system on suitable structure MS frame. The SS heat exchanger tank shall have thickness of 3 mm and Dished end thickness of 5 mm. and shall consist all required accessories and fittings like pressure relief valves, pressured gauge at inlet/outlet with isolation cock, thermometer at inlet/outlet. The tank shall be duly insulated with mineral wool 50 mm thick, density 120Kg/m3 with chicken wire mesh and aluminum cladding 24 SWG. and shall be mounted on M/S saddle with all necessary mountings and accessories with valves and Provision for inlet/outlet, drain, overflow, manhole, air vent system. The rate shall also include cost of re-circulating pumps 2nos (1W+1S) fitted with timer of suitable capacity complete with necessary pipes, valves & electrical works. Solar heating system shall be provided without electrical backup.	Set	

Sl. No.	NS	Description	Unit	Rate
38	NS	Providing and fixing solar water heating system complete with solar panels, insulated SS 304 storage vessel with ceramic lining inside & interconnecting pipes and valves complete in all respect as per manufacturer specifications. Tank shall be supplied without electrical boosters.		
i		(The Vendor shall include in this rate cost of all interconnecting pipes and valves & insulations connecting the panels).		
	i	Capacity 180 LPD (comprising 1 no. collector panel and 300 litres SS 304 storage vessel)	Set	
ii	ii	Capacity 300 LPD (comprising 2 no. collector panel and 300 litres SS 304 storage vessel)	Set	
		SANITARY FIXTURES		
39	NS	Providing and fixing white glazed vitreous china wash basins with C.P. pillar tap/mixer, C.P. brass waste 32mm C.P. bottle trap and unions and sealing of joints between wash basins and counter slabs around the wash basins with Silicone rubber cement of approved make of matching colour all complete including cutting and making good the walls and floors where required.		
	i	H.S.I. Rhapsody Wash basin No. 10045 (over counter) (630 x 500mm) or equivalent make with C.P. single level basin mixer , C.P. brass waste & C.P. bottle trap	Each	
40	NS	Providing and Fixing Health Faucet with flexible pipe and wall hook with each European W.C. Pan.	Each	
41	NS	Providing and fixing C.P. brass towel ring (CONTINENTAL SERIES) or complete with C.P. brass brackets fixed to wall plug of approved design with C.P. brass screws.	Each	
42	NS	Providing and fixing S.S. hinged grating , 1.5mm thick with frame (Square Classic)/JAYNA NEW HEAVY GRATINGS including setting in floor with cement mortar 1:3.	Each	
43	NS	Providing and fixing C.P. brass twin robe hooks .	Each	
44	NS	Providing and fixing, Glass Bottle Liquid Soap Dispenser with push lever assembly complete with soap refill -	Each	
45	NS	Providing and fixing CP brass Sink Mixer , mixing fittings	Each	
46	NS	Providing and fixing white glazed vitreous china Division Plates for urinals (H.S.I.) of size 680x 300 mm.	Each	
47	NS	Providing and fixing automatic high pressure electric water heaters with glass lining thermostats with each element and high temperature cut off, necessary insulation, safety valve, etc. all complete.		
	i	15 litres (15GV)	Each	
	ii	25 litres (15GV)	Each	
	iii	35 litres (35GV)	Each	
48	NS	Providing & fixing CP concealed body single lever diverter with 40mm cartige	Each	
49	NS	Providing & fixing CP single lever exposed parts kit of divertor	Each	
50	NS	Providing & fixing CP brass shower rose with shower arm	Each	
51	NS	Providing & fixing CP brass bath spout with wall flange (Bath Spouts)	Each	
52	NS	Providing and fixing C.P. brass soap dish including cutting and making good the walls wherever required complete to the satisfaction of Engineer in charge.	Each	
53	NS	Providing and fixing C.P. brass Towel Rail 24"	Each	

Sl. No.	NS	Description	Unit	Rate
		PHE		
		SEWERAGE SYSTEM		
54	NS	Providing and fixing 600mm long puddle flanges fabricated out of 6mm thick M.S. plates along with flanges of suitable size properly fixed in walls and top slabs of underground and overhead tanks. The rate includes all taxes, handling, rehandling, lead lift, loading, unloading T&P, Labour Charges etc.		
	i	25mm dia	Each	
	ii	32mm dia	Each	
	iii	40mm dia	Each	
	iv	50mm dia	Each	
	v	65mm dia	Each	
	vi	80mm dia	Each	
	vii	100mm dia	Each	
	viii	150mm dia	Each	
	ix	200mm dia	Each	
	x	250mm dia	Each	
55	NS	Providing, Laying, Jointing and Testing of HDPE Pipes complete with fittings & saddles where required. (The cost shall including provision of markers plates at a regular distance of 30m centre to centre).		
		The work shall be done as per specifications and in general shall include:		
		a) Providing HDPE pipes (of PE 80 grade as per IS 4984-1995). The pipes shall have a working pressure of PN 10.		
		b) Providing fabricated and moulded fittings of same or higher grade and upto 63 mm OD shall be rated PN 16 and 75 mm OD and above shall be rated for PN 10.		
		Providing, laying and fixing HDPE compression type fittings (as required, adaptor fittings, saddles, etc. including jointing, testing etc. all complete. The compression fittings upto 63 mm OD shall be rated PN 16 and 75 mm OD and above shall be rated for PN 10.		
		c) Excavation of trenches and refilling including thrust blocks		
		d) Laying in position in excavated trenches.		
		e) Jointing by heat fusion technique.		
		f) Encasing the laid pipe with river sand of grading zone V or coarser, 150 mm all around.		
	i	75mm OD- 6.0 kg/cm ²	Metre	
	ii	50mm OD- 6.0 kg/cm ²	Metre	
	iii	40mm OD- 6.0 kg/cm ²	Metre	
	iv	32mm OD- 10.0 kg/cm ²	Metre	
	v	25mm OD- 10.0 kg/cm ²	Metre	
56	NS	Providing and fixing mosquito proof /vent/ overflow brass coupling of an approved design.		
		100mm dia	Each	
		RAIN WATER HARVESTING CHAMBER		
57	NS	Providing and fixing single / multistage submersible tubewell pump suitable for 150mm bore with stainless steel casing, NORYL impeller, stainless steel shaft and built in non return valve coupled with submersible squirrel cage motors suitable for 145V ± 10% volts. 3 phase, 50 cycles AC supply.		
		Capacity 200 lpm		
	i	Head 50m to 60m	No.	
	NS	Head may vary depending upon depth of aquafire of site. The agency to quote accordingly		
58	i	50mm dia GI column pipe of heavy class duly flanged.	mtr.	
59	NS	Providing and fixing gunmetal pressure gauge (100mm dia) of rating (0-10 kg/cm ²) with gunmetal isolating cock and connecting pipe.	No.	
60	NS	Providing and fixing 50mm cable clips with nuts & bolts.	Nos.	
61	NS	Providing and fixing 50mm dia supporting clamps with nuts and bolts.	Pair	
62	NS	Providing and fixing 3C - 6 sq.m submersible cable . (Quantity of cable may vary depding upon the the depth of water aquafire at site.)	M	
63	NS	Providing and fixing Butterfly valve of cast body with stainless steel disc and stainless steel stem, teflon bushing and niterite o'rings.		

Sl. No.	NS	Description	Unit	Rate
	i	50mm dia	No.	
64	NS	Providing and fixing steel wire rope 6mm dia complete with wire rope clamps for safety of pump set.	M	
65	NS	Supplying & laying 1.1KV grade aluminium conductor PVC insulated and PVC sheathed armoured cables including 8 SWG GI earth wire on surface/cable trays as required.		
	i	3 Core - 6sq.mm	M	
66	NS	Providing, installation, testing & commissioning of dust and vermin proof motor control panel fabricated from 14 SWG MS sheet with stove enamelled paint and comprising of: Outdoor type.		
		63 amps incoming MCB (1 No.)		
		One no fully automatic Dol starter with push buttons and indicating lights.5.5 KWs		
		One panel type volt meter 96mm square with Rotary selection switch for reading voltage between phase and neutral or incoming feeder.		
		Three Neon Phase indicating lights on the incoming Main.		
		One Ampere meter 96mm square panel type of appropriate range.		
		Etched plastic identification plates for all switch gears.		
		Space for liquid level controller.		
	i	All internal wiring should be colour coded from incoming main to switchgear, starters, meters, indicating lights.	No.	
		HORTICULTURE AND LANDSCAPING WORKS		
		TREES		
67	NS	Supplying and planting below mentioned best quality container- grown healthy trees of species as specified. All trees to be approved before planting. Digging holes 1.2 m dia and 1.2 m deep in ordinary soil and refilling the same with the exca-vated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately): Inclusive of maintenance as specified for ONE years after planting and handing over.		
		Tree Names		
	i	MANGIFERA INDICA	Nos.	
		MANGO		
		Minimum 1.8/2.1m overall height		
		Minimum 20-30mm caliper		
		Multibranching at 2.0m from collar		
	ii	TABEBUIA ARGENTEA	Nos.	
		Minimum 1.8/2.1m overall height		
		Minimum 20-30mm caliper		
		Multibranching at 2.0m from collar		
	iii	LAGERSTROEMIA SPECIOSA	Nos.	
		Minimum 1.8/2.1m overall height		
		Minimum 20-30mm caliper		
		Multibranching at 3.5m from collar		
	iv	CASSIA FISTULA	Nos.	
		Minimum 1.8/2.1m overall height		
		Minimum 20-30mm caliper		
		Multibranching at 2.0m from collar		
	v	BAUHINIA ACUMINATA	Nos.	
		Minimum 1.8/2.1m overall height		
		Minimum 20-30mm caliper		
		Multibranching at 2.0m from collar		
	vi	ERYTHRINA INDICA	Nos.	
		Minimum 1.8/2.1m overall height		
		Minimum 20-30mm caliper		
		Multibranching at 2.0m from collar		
	vii	ANTHOCEPHALUS KADAMB	Nos.	
		Minimum 1.8/2.1m overall height		

Sl. No.	NS	Description	Unit	Rate
		Minimum 20-30mm caliper		
		Multibranching at 3.0m from collar		
	viii	MICHELIA CHAMPACA	Nos.	
		Minimum 1.8/2.1m overall height		
		Minimum 20-30mm caliper		
		Multibranching at 2.0m from collar		
	ix	SCHLEICHERA OLEOSA	Nos.	
		Minimum 1.8/2.1m overall height		
		Minimum 20-30mm caliper		
		Multibranching at 2.0m from collar		
	x	MADHUCA LONGIFOLIA VAR. LATIFOLIA/MAHUA/MAHULA	Nos.	
		Minimum 1.8/2.1m overall height		
		Minimum 20-30mm caliper		
		Multibranching at 2.5m from collar		
	xi	TECTONA GRANDIS TEAK/SAGWAN/SHEGAUN	Nos.	
		Minimum 1.8/2.1m overall height		
		Minimum 20-30mm caliper		
	xii	PLUMERIA ALBA	Nos.	
		Minimum 1.8/2.1m overall height		
		Minimum 20-30mm caliper		
		Multibranching at 1.5m from collar		
	xiii	JACARANDA MIMOSIFOLIA	Nos.	
		Minimum 1.8/2.1m overall height		
		Minimum 20-30mm caliper		
		Multibranching at 1.5m from collar		
	xiv	BAUHINIA PURPUREA	Nos.	
		Minimum 1.8/2.1m overall height		
		Minimum 20-30mm caliper		
		Multibranching at 2.0m from collar		
	xv	DELONIX REGIA	Nos.	
		Minimum 1.8/2.1m overall height		
		Minimum 20-30mm caliper		
		Multibranching at 3.0m from collar		
	xvi	SPATHODEA CAMPANULATA	Nos.	
		Minimum 1.8/2.1m overall height		
		Minimum 20-30mm caliper		
		Multibranching at 2.0m from collar		
	xvii	MIMOSOPS ELENGI	Nos.	
		Minimum 1.8/2.1m overall height		
		Minimum 20-30mm caliper		
		Multibranching at 2.0m from collar		
	xviii	NYCTANTHES ARBOR TRISTIS	Nos.	
		Minimum 1.8/2.1m overall height		
		Minimum 20-30mm caliper		
		Multibranching at 2.0m from collar		
		SHRUBS		
68	NS	Supplying and planting below mentioned best quality container- grown healthy shrubs of species as specified. All shrubs to be approved before planting. Digging holes (60 cm dia, and 60 cm deep) in ordinary soil and refilling the same with the exca-vated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately). Inclusive of maintenance as specified for ONE years after planting and handing over.		
	i	TABERNAEMONTANA CORONARIA	Nos.	
		Minimum 600mm height@900mmc/c		

Sl. No.	NS	Description	Unit	Rate
		Bushy, Multibranching, Flowering		
	ii	FICUS BENJAMINA	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching, Flowering		
	iii	CESTRUM NOCTURNUM	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching, Flowering		
	iv	HIBISCUS SNOWFLAKE	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching, Flowering		
	v	THEVETIA NERIFOLIA	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching, Flowering		
	vi	CASSIA BIFLORA	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching, Flowering		
	vii	HIBISCUS ROSA SINENSIS	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching, Flowering		
	viii	GARDENIA JASMINOIDES	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching		
	ix	TECOMA GAUDI CHAUDI	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching, Flowering		
	x	JASMINUM HUMILE	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching, Flowering		
	xi	THYALLIS GLAUCA	Nos.	
		Minimum 600mm height@1200mmc/c		
		Bushy, Multibranching, Flowering		
	xii	MUSSAENDRA PHILIPPICA	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching, Flowering		
	xiii	RAVENIA SPECTABILIS	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching, Flowering		
	xiv	MURRAYA PANICULATA	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching, Flowering		
	xv	RONDELETIA	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching, Flowering		
	xvi	JATROPHA PANDURAEFOLIA	Nos.	
		Minimum 600mm height@1200mmc/c		
		Bushy, Multibranching, Flowering		
	xvii	FICUS LONGISLAND	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching, Flowering		
	xviii	JASMINUM PUBESCENS	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching, Flowering		
	xix	NERIUM OLEANDER	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching, Flowering		
	xx	CALLIANDRA EMARGINATA	Nos.	
		Minimum 600mm height@1200mmc/c		
		Bushy, Multibranching, Flowering		

Sl. No.	NS	Description	Unit	Rate
	xxi	ACALYPHA WILKESIANA	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching, Flowering		
	xxii	CESTRUM ELEGANS	Nos.	
		Minimum 600mm height @900mmc/c		
		Minimum 3 runners per plant		
	xxiii	CESTRUM DIURNUM	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching		
	xxiv	GRAPTOPHYLLUM PICTUM	Nos.	
		Minimum 600mm height@1200mmc/c		
		Bushy, Multibranching		
	xxv	EUPHORBIA PULCHERRIMA	Nos.	
		Minimum 600mm height@900mmc/c		
		Bushy, Multibranching, Flowering		
		HEDGES		
69	NS	Supplying and planting below mentioned best quality pot-grown healthy HEDGE plants species has specified,inclusive of preparation and cultivation of hedges beds as specified. All hedges to be approved before planting. Digging holes for hedges (600mm dia 600mm deep) in ordinary soil and refilling the same with the exca-vated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately): Inclusive of maintenance as specified for ONE years after planting and handing over.		
		HEDGES NAME		
	i	JASMINE SAMBAC	RMT	
		Minimum 450mm height@150mmc/c		
		Bushy, Multibranching, Flowering		
	ii	FICUS PANDA	RMT	
		Minimum 600mm height@150mmc/c		
		Bushy, Multibranching, Flowering		
	iii	GOLDEN DURANTA	RMT	
		Minimum 300mm height @150mmc/c		
		Minimum 3 runners per plant		
	iv	IXORA DWARF	RMT	
		Minimum 450mm height@150mmc/c		
		Bushy, Multibranching, Flowering		
	v	HAMELIA PATENS DWARF	RMT	
		Minimum 1200mm height@150mmc/c		
		Bushy, Multibranching, Flowering		
	vi	MURAYA EXOTICA	RMT	
		Minimum 300mm height @150mmc/c		
		Minimum 3 runners per plant		
	vii	CLERODENDRUM INERME	RMT	
		Minimum 300mm height @150mmc/c		
		Minimum 3 runners per plant		
	viii	CLERODENDRUM CLIMATOSON	RMT	
		Minimum 300mm height @150mmc/c		
		Minimum 3 runners per plant		
		GROUND COVERS		

Sl. No.	NS	Description	Unit	Rate
70	NS	Supplying and planting below mentioned best quality healthy ground covers species has specified,inclusive of preparation and cultivation of ground cover beds as specified. All ground covers to be approved before planting. Digging holes for ground covers (0.30 dia 0.250m deep) in ordinary soil and refilling the same with the exca-vated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately): Inclusive of maintenance as specified for ONE years after planting and handing over. All plants to be approved before planting.		
		GROUND COVERS NAME		
	i	RUSSELIA JUNCEA	sqm	
		Minimum 150mm height @600mmc/c		
		Minimum 3 runners per plant		
	ii	TECOMARIA CAPENSIS	sqm	
		Minimum 300mm height @600mmc/c		
		Minimum 3 runners per plant		
	iii	RUELLIA ROSEA	sqm	
		Minimum 150mm height @600mmc/c		
		Minimum 3 runners per plant		
	iv	PLUMBAGO CAPENSIS	sqm	
		Minimum 300mm height @600mmc/c		
		Minimum 3 runners per plant		
	v	WEDELIA TRILOBATA	sqm	
		Minimum 300mm height @200mmc/c		
		Minimum 3 runners per plant		
	vi	IPOMEA GOLDEANA	sqm	
		Minimum 150mm height @200mmc/c		
		Minimum 3 runners per plant		
	vii	LAL SAAG	sqm	
		Minimum 150mm height @300mmc/c		
		Minimum 3 runners per plant		
	viii	ASPARAGUS SPRENGIRI	sqm	
		Minimum 150mm height @300mmc/c		
		Minimum 3 runners per plant		
	ix	LANTANA SELOWIANA	sqm	
		Minimum 150mm height @300mmc/c		
		Minimum 3 runners per plant		
		SIGNAGE WORK		
71	NS	BRANDING BUILDING SIGNAGE, WALL MOUNTED: 56'.9	Each	
72	NS	BUILDING WALL MOUNTING SIGN: Height of 1st letter will be 24", remains in ratio.		
i	i	HOSTEL BLOCK	Each	
ii	ii	ACADEMIC & ADMIN BLOCK	Each	
iii	iii	FACULTY RESIDENCE	Each	
iv	iv	MULTIPURPOSE HALL	Each	
v	v	DIRECTOR RESIDENCE	Each	
73	NS	Pylon signage:	Each	
		Internal signage:		
74	NS	Fire Exit (12x6)" in MS Box, with battery backup:	Each	
75	NS	Toilets; size (18x12)":	Each	
76	NS	Floor sign wall mounted 18" x 18":	Each	
77	NS	Ceiling Suspended Double Side; DIRECTIONAL SIGN 36" x 12", non lit	Each	
78	NS	Departmental Plate; wall mounted; 18" x 12":	Each	

Sl. No.	NS	Description	Unit	Rate
		SPORTS WORK		
79	NS	A Typical Asphalt Base Consists of a 5.5" inch pavement which consists of : *Compaction of the sub-base will be by Heavy Roller *Layer of Upto 4" compacted WBM/WMM. *Layer of Upto 30mm compacted thick Hot Mix asphalt BM course. *Layer of Upto 20mm compacted thick Hot Mix A.C. course *Seal Coat with Stone Dust *Soil Filling work if any shall be on charged extra as per actual	Sqm	
80	NS	*9" Thick Surrounding Toe wall with a Total Height of 12" to 15" (From Bottom to Top)	Rmt	
81	NS	*Open Saucer 6" Width Drainage (One Side)	Rmt	
82	NS	*International basket ball & badminton Federation Certified *Durable & Required Minimal Maintenance, All weather suitable /Friendly, Protective Against UV Rays,(1st layer of Primer to improve bonding of acrylic paint with subfloor, 2nd layer Acrylic Resurfacer 367-30 for filling and smoothing subfloor, 3rd & 4th layer 100 % acrylic Latex based textured tennis base color coat & 5th Finished Top Color coat to protect flooring against UV Rays with Overline Marking with Acrylic Paint)	Sqm	
83	NS	*5 Layer Installation Cost	Sqm	
84	NS	*Chain Linked Fencing * 2" Dia Vertical MS Pipes in 14 gz *1.5" Dia horizontal MS pipes in 14 gz *3 mm Thick 2"x2" GI Fence Net *Height of the Fence 10' with 2' grouting of the pipes, *Placement of vertical pipes with a distance of 10' width, central support in horizontal pipes *Standard Green Colour *1 Nos Gates each having size 7'x 3' for basket ball & badminton court	Sqm	
85	NS	*30 MM Thick SBR with EPDM Insitu Rubber Flooring for Outdoors *100% Hygienic and Safer for Children *An unmatched range of creative design possibilities & Long Life with Minimal Wastage possibilities & Long Life with Minimal Wastage *Resistance to abrasion, slipping, indentation & ignition & Virtually Maintenance Free *Multi Colored Graphic and Design Options *No Hidden Hazards *No Joints for Vandals to crack *Ebaco EPDM flooring Surface depths varies in thickness. 15 to 36 mm thickness is the 'Industry Standard' incorporating a 2 layer system with a 9/19/30mm SBR base layer and 6mm EPDM wearing top. *All depths can be accommodated. "If one keeps thickness of floor 25 MM, It means, if a child falls from height of approx 1 Meter it won't hurt himself."	Sqm	
86	NS	Installation Charges of Playground Flooring	Sqm	
	B	"MITHILA LALIT SANGRAHALAYA"		
S.N.	NS	DESCRIPTION OF ITEM	UNIT	
		CIVIL WORK		
1	NS	Providing and laying autoclaved aerated cement blocks masonry with 150mm/230mm/300 mm thick AAC blocks in super structure above plinth level up to floor V level with RCC band at sill level and lintel level with approved block laying polymer modified adhesive mortar all complete as per direction of Engineer-in-Charge. (The payment of RCC band and reinforcement shall be made for separately).	Cu.M	

Sl. No.	NS	Description	Unit	Rate
2	NS	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement,water tanks, roofs,roof slabs,podiums, reservoir ,sewage & water treatment plant,tunnels/subway and bridge deck etc., prepared by mixing in the ratio of 5:2 (5 parts integral crystalline slurry :2 parts water) for vertical surface and 3:1 (3 parts integral crystalline slurry :1 part water) for horizontal surface and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.r by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self -healing of cracks upto a width of 0.50mm. The work shall be carried out the engineer-in-charge. The product performance shall carry guaranteed for 10 years agaiith chicken wire		
	i	For vertical surface two coats @ 0.70kg per sqm per coat.	SQM	
	ii	For horizontal surface one coat @ 1.10kg per sqm	SQM	
3	NS	Diluting and injecting chemical emulsion for PRE-CONSTRUCTIONAL Anti-termite treatment and creating a continous chemical barrier , wall trenches, top surface of plinth filling, along the external perimeter of building, over the top surface of consolidated earth of which apron is to be laid, surroundings of pipes and conduits etc. complete as per specification. (Plinth area of the building at ground floor only shall be measured for payment). Chlorpyriphos Emulsifiable concentrate of 20% with 1% Concentration.	SQM	
4	NS	Providing and Fixing Antiskid Vitrified pavement /Floor tiles 300x300mm and 10mm thick laid on 20mm thick cement mortar 1:4 (1 cement: 4 coarse sand) and jointing with all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as direction of Engineer-in-Charge.	SQM	
5	NS	Supply & fixing of structural glazing at Façade using glazing section of which mullion & transom to be aluminum grade of 6063 T5 / T6 and ISI 7733 and ID 1258 section size 114.10x50x2mm. (S-4428) Make - Jindal Aluminium Electro colour anodized 20 micron or pure polyester powder coated 50 micron of approved shade and colour using AIS (Asahi India)- 6mm thick Toughened double glazed (Insulated Glass) reflective high performance offline coated AIS ecosence exced green vision glass. having light transmission minimum 34% solar factor maximum 22% External reflection 19%,Internal Reflection 13% and U value of maximum 1.7 W/m2. DGU glass in configuration 6+12+6mm. Glass shall be fixed by Tuggal method with help of 12mm x 6 mm both side rubber spacer & structural silicon of Dow Corning 995 grade. The Weather /water sealing of glass joints shall be done with 12 mm to 16 mm wide Dow Corning make weather sealant of grade 789 or its equivalent. The Mullion of Aluminum structure is to be fastened with R.C.C. Slab/beam with help of Powder coated/ Galvanized MS Brackets of 75 mm length with help of M12 x 100 mm Mechanical tempered Dash Fasteners. The job Includes all necessary hardware, cleat, Screws, nut washers etc. Complete job with all material and labor etc. complete as directed by Engineer-in-charge.	SQM	

Sl. No.	NS	Description	Unit	Rate
6	NS	Providing and fixing Glass Reinforced Concrete (G.R.C) Screens in approved size, pattern, design, shade and thickness of 50mm on frame and design element in 30mm thick have weight approximately between 3.5 – 4 Kg per Sq. Ft. and color of M/S UniStone make or equivalent. The above weight and thickness is considering dimensions of screens up to 2133mm in height and 1219mm in width and having at least 50% void space. The screens should be made from '53 grade' White Portland Cement manufactured by 'JK Cement' or equivalent, Quartz, Fine Silica Sand, Alkali Resistant Glass Fiber manufactured by 'N.E.G. JAPAN / Owens Corning' or equivalent, Super Plasticizers manufactured by 'Silk Root – South Korea' or equivalent, Polymers manufactured by 'Pidilite' or equivalent and U.V resistant Synthetic inorganic pigments should be used for pigmentation manufactured by 'Lanxess' or equivalent. The material casting should take place in FRP Mould or equivalent. The fixing of Screens should be done with 'Dry fixing' methodology i.e. to be done with M.S. Galvanized 'L' shaped Clamps, dash fasteners and pins, as per approved shop drawings from Engineers in charge.	SQM	
7	NS	Providing & Fixing of 16 mm thick (with minimum 1040mm wide) multicell polycarbonate sheet with standing seam on both sides & double tooth snap on locking system to ensure maximum uplift capability. The panels will be UV protected and antiglare/softlight. The cross section of one cell should not be more than 4mmX4mm & weight of single panel shall not be less than 3250 per square metre including M.S works. The system will be fitted on purlins with spacing as specified by manufacturer.	SQM	
8	NS	Providing & fixing of Compact Laminate 12mm thick Cubicals with Stainless Steel fitting complete as per design & approved by Engineer in Charge.	EACH	
9	NS	Providing and fixing ISI marked Stainless Steel (304 grade) Aldrop size of 16mm dia & 300mm long with necessary screws etc. complete as per design & approved by Engineer in Charge.	EACH	
10		Providing and fixing ISI marked Stainless Steel (304 grade) Aldrop size of 16mm dia & 250mm long with necessary screws etc. complete as per design & approved by Engineer in Charge.	EACH	
11	NS	Providing of SS finish (304/202 grade) Tower Bolt with necessary screws etc. complete as per design & approved by Engineer in Charge.		
	i	300mm Long	EACH	
	ii	200mm Long	EACH	
12	NS	Providing and fixing of Stainless Steel (304 grade) Handles size of 250 mm long with necessary screws etc. complete as per design & approved by Engineer in Charge.		
	i	250mm Long	EACH	
13	NS	Providing & fixing S.S.Door Stopper SS matt finish with necessary Screws etc., complete.	EACH	
14	NS	Providing of SSS finish (304/202 grade) Cross Locking Strike Handles size 25x600mm long with necessary screws etc. complete as per design & approved by Engineer in Charge.	EACH	
15	NS	Providing of SSS finish (304/202 grade) H Type Handles size 25mmx 300mm with necessary screws etc. complete as per design & approved by Engineer in Charge.	EACH	
16	NS	Providing of SSS finish (304/202 grade) H Type Handles size 25mmx 600mm with necessary screws etc. complete as per design & approved by Engineer in Charge.	EACH	
17	NS	Providing of SS finish (304/202 grade) cabinet Handles size 10mmx128mm with necessary screws etc. complete as per design & approved by Engineer in Charge.	EACH	
18	NS	Providing & laying of Madubani painting on exterior walls	Sq.M	

Sl. No.	NS	Description	Unit	Rate
19	NS	Providing and laying broken AAC Block / fly ash in sunken portion of W.C. & kitchen. These broken Block mixed with cement mortar 1:5:10 (1 cement : 5 coarse sand: broken AAC / fly ash) laid and compacted properly including supply of labour, material, and tools and plant etc. as per instruction of Engineer-in-charge.	Cu.M	
20	NS	AUTO GLOW SIGNAGE Providing and fixing Auto Glow Signage having 3mm thick sunboard, Autoglow vinyl. Colour viny or print with necessary screws or double sided tape as per specification and diction of Engineer-in-charge. For Lift, FHC & Fire Exit	1 Board	
21	NS	CLIPON SIGNAGE Providing and fixing clipon signage comprising of 1" or 0.5" folde 22 or 24 gauge thick aluminium clipon frame vinyl print, cover with PVC sheet, fixing with S.S wire or screws for IT net working, Energy Efficient Lab, Building automation & Solar Energy, Lift Lobby, Automation lab, Class Room, Additive Technology lab, Store Room, Faculty Room, Toilet, Drinking Water Multi purpose Hall, Cabin 1 & Cabin 2, Pantry, Staff Room, Mechatronics Lab, Directional, Welding Lab, Green Room, Electrical Room, Automobile Lab, Conventional Machine Lab, CNC Lab, Engineering Design Lab, as per specification and diction of Engineer in-	Sq.inch	
22	NS	ACRYLIC LETTER WITH LED SIGNAGE (EXTERNAL) Providing & fixing Acrylic letter with LED Signage (External) 18" height comprising of 3mm thick 2" raising colour acrylic letters 3mm sunboard chanel letters on back of the letters to hold LED's LED modules, water proof power supply & necessary electrical fittings as per specification and diction of Engineer-in-charge.	Ltrs	
		PHE WORK		
		SANITARY INSTALLATIONS		
23	NS	Supply, installation, testing and commissioning ABS health spray unit comprising of CP flxible hose, spary, wall flange etc. complete.	Each	
24	NS	Providing and fixing 15mm dia C.P. brass wall-mounted central hole sink mixer with swinging spout of approved make and quality with all fittings and accessories etc. complete.	Each	
25	NS	Providing and fixing Hand dryer with C.P brackets with C.P brass screws and PVC rawl plugs complete in all respects including cutting and making good the wall where required.	Each	
		WATER SUPPLY- INTERNAL WORK		
26	NS	Providing and fixing brass ball valve with SS 304 Stem and ball, teflon seat complete (PN-16).		
	i	15 mm dia nominal bore	Each	
	ii	20 mm dia nominal bore	Each	
	iii	25 mm dia nominal bore	Each	
27	NS	Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. PN 1.6		
	i	65 mm dia nominal bore	Set	
	ii	80 mm dia nominal bore	Set	
28	NS	Providing and fixing G.I. pipes complete with GI fittings and clamps including cutting and making good the walls etc. (internal work) exposed on wall.		
	i	65 mm dia, nominal	Rm	
	ii	80 mm dia, nominal	Rm	
	iii	100 mm dia, nominal	Rm	

Sl. No.	NS	Description	Unit	Rate
HORTICULTURE & LANDSCAPE WORK				
29	NS	Trenching in ordinary soil up to a depth of 60cm including removal and stacking of serviceable materials and then disposing of surplus soil, by spreading and neatly leveling within a lead of 50m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or/and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure).		
	i	1850*0.60	Cu.M	
30	NS	Supplying and stacking of good earth at site including royalty and carriage complete (by mechanical transport upto 5Km lead) (earth measured in stacks will be reduced by 20% for payment).	Cu.M	
31	NS	Supplying and stacking sludge at site including royalty and carriage up to 5 km (sludge measured in stacks will be reduced by 8% for payment).		
	i	1110@ 6%	Cu.M	
32	NS	Supplying and stacking at site dump manure from approved source, including carriage complete (by mechanical transport upto 5Km lead) (manure measured in stacks will be reduced by 8% for payment):		
	i	Screened through sieve of I.S. designation 16mm	Cu.M	
33	NS	Rough dressing the trenched ground including breaking clods.	Sq.M	
34	NS	Uprooting weeds from the trenched area after 10 to 15 days of its flooding with water including disposal of uprooted vegetation.	Sq.M	
35	NS	Uprooting weeds from the trenched area after 10 to 15 days of its flooding with water including disposal of uprooted vegetation.	Sq.M	
36	NS	Spreading of sludge, dump manure or/and good earth in required thickness as per direction of officer-in-charge (Cost of sludge, dump manure or/and good earth to be paid separately).	Cu.M	
37	NS	Mixing earth and sludge or manure in the required proportion specified or directed by the officer-in-charge.	Cu.M	
38	NS	Grassing with selection No.1 grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn free from weeds and filth for mowing including supplying good earth if needed (the grass and good earth shall be paid for separately).		
	i	In rows 5 cm apart in both direction	Sq.M	
39	NS	Preparation of beds for hedging and shrubbery by excavating 60cm deep and trenching the excavated base to a further depth of 30cm. refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20%: one part of stacked volume of sludge or manure after reduction by 8%) flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, with in a lead of 50m lift up to 1.5 m complete (cost of sludge, manure of extra earth to be paid for separately).		
	i	Around Outer & Inner Length of Bondary Wall	Cu.M	

Sl. No.	NS	Description	Unit	Rate
40	NS	Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1 part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately):		
	i	Holes 1.2 m dia and 1.2 m deep.	Each	
	ii	Holes 90 cm dia, and 90 cm deep.	Each	
41	NS	Providing and fixing M.S. flat iron tree guard 60 cm dia. and 2 m high, above ground consisting 4 nos. 25 x 6 mm, 2.25 m long and 8 nos. 25 x 3 mm 2 m long verticals M.S. flats, riveted to 3 nos. 25 x 6 mm M.S. flat iron rings in two halves, fixing together at site with required six numbers of 8 mm dia. and 30 mm long bolts, including painting two coats with synthetic enamel paint of approved brand and manufacture over a coat of primer. One name plate of 1 mm thick M.S. sheet of size 250x100 mm shall be welded to the tree guard near the middle height and lettered CPWD / PWD/ any other approved name. The tree guard shall be suitably fixed to the ground by embedding four legs of tree guard in pits of suitable dia and to a depth of 25 cm, refilling the pits with soil and ramming, complete in all respect as per satisfaction and direction of Officer-in-charge.	Each	
42	NS	Supply and stacking of Azadirachta indica (Neem) plant of height 120-130 cm. in big polybags of size 25 cm as per direction of the officer-in-charge.	Each	
43	NS	Supply and stacking of Bassia latifolia (Mahua) plant of height 90-105 cm. in big polybags of size 25 cm as per direction of the officer-in-charge.	Each	
44	NS	Supply and stacking of Bauhinia blakeana (Kanchar) plant of height 120-150 cm. in big polybags of size 25 cm as per direction of the officer-in-charge.	Each	
45	NS	Supply and stacking of Delonix regia (Gulmohar) plant of height 150-165 cm. in big polybags of size 25 cm as per direction of the officer-in-charge.	Each	
46	NS	Supply and stacking of Michelia Champa (Golden Champa) plant of height 90-105 cm. in big polybags of size 25 cm as per direction of the officer-in-charge.	Each	
47	NS	Supply and stacking of Mimosa elengi (Maulsri) plant of height 150-165 cm. in big polybags of size 25 cm as per direction of the officer-in-charge.	Each	
48	NS	Supply and stacking of Nauclea Cadamba (Kadam) plant of height 150-165 cm. in big polybags of size 25 cm as per direction of the officer-in-charge.	Each	
49	NS	Supply and stacking of Washingtonia filifera palm plant stem height 90-105 cm with 6-7 healthy leaves lush green leaves well developed in big size HDPE Bags as per direction of the officer-in-charge.	Each	
50	NS	Supply and stacking of plant Tabernaemontana coronaria (Chandni single of height 90-105 cm, bushy in big size HDPE bag as per direction of the officer-in-charge.	Each	

Sl. No.	NS	Description	Unit	Rate
51	NS	Supplying and planting below mentioned best quality container- grown healthy trees of species as specified. All trees to be approved before planting. Digging holes 1.2 m dia and 1.2 m deep in ordinary soil and refilling the same with the exca-vated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately): Inclusive of maintenance as specified for ONE years after planting and handing over.		
	i	MANGIFERA INDICA	Each	
	ii	CASSIA FISTULA	Each	
	iii	Minimum 1.8/2.1m overall height Minimum 20-30mm caliper Multibranching at 2.0m from collar	Each	
	iv	DELONIX REGIA Minimum 1.8/2.1m overall height Minimum 20-30mm caliper Multibranching at 3.0m from collar	Each	
52	NS	Supplying and planting below mentioned best quality container- grown healthy shrubs of species as specified. All shrubs to be approved before planting. Digging holes (60 cm dia, and 60 cm deep) in ordinary soil and refilling the same with the exca-vated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : apart of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately). Inclusive of maintenance as specified for ONE years after planting and handing over.		
	i	FICUS BENJAMINA	Each	
	ii	MURRAYA PANICULATA Minimum 600mm height@900mmc/c Bushy, Multibranching, Flowering	Each	
	iii	RONDELETIA Minimum 600mm height@900mmc/c Bushy, Multibranching, Flowering	Each	
53	NS	Supplying and planting below mentioned best quality healthy ground covers species has specified,inclusive of preparation and cultivation of ground cover beds as specified. All ground covers to be approved before planting. Digging holes for ground covers (0.30 dia 0.250m deep) in ordinary soil and refilling the same with the exca-vated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately): Inclusive of maintenance as specified for ONE years after planting and handing over. All plants to be approved before planting.		
	i	WEDELIA TRILOBATA Minimum 300mm height @200mmc/c Minimum 3 runners per plant	Each	
	ii	LANTANA SELOWIANA Minimum 150mm height @300mmc/cMinimum 3 runners per plant	Each	