



DAFFEL	DAFFPL BOQ FOR CONTROL ROOM & ALLIED WORKS SUPPLY (A)							
DATTE	REV.1 Date							5/2/2018
				UNIT RATE	AMOUNT (Rs.)		GST AMOUNT (Rs.)	17/4/2018 TOTAL AMOUNT
SL. No.	DESCRIPTION OF ITEM	QTY	UNIT	(Rs.)	(a)	GST %	(b)	(Rs.) (c=a+b)
PART - I	CONTROL ROOM							
1	REINFORCEMENT & EMBEDMENTS  Supply of high yield strength deformed bars as per IS: 1786 and 18 SWG annealed wire for all R.C.C	12	Ton					
	works. Thermo Mechanically Treated Bars Fe- 500 grade, Conforming to IS1786 Rebars to be used:							
	i) TISCO ii) SAIL							
	iii) RINL(VIZAG STEEL)							
	iv) ESSAR v) JINDAL STEEL AND POWER							
2	ALUMINIUM DOORS, WINDOWS & Ventilator  Supply of Powder coated Aluminium Panelled door single / double leaf door, windows, ventilators and							
	partitions with extruded built up standard tubular sections/appropriate Z sections and other sections fabricated by standard manufacturer like <b>Jindal Aluminium</b> make along with Door frames conforming							
	to IS: 733 and IS: 1285, fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom & sides with with required							
	EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, aluminium snap beading for							
	glazing/paneling, C.P. brass/stainless steel screws including fixing all complete as per drawing & the directions of Engineer-in-charge. (minimum thickness of powder coating is 50 micron).							
	directions of Engineer-in-charge. (initialization directions of powder coaching is 50 inicion).							
	Door Sizes are as follows:							
ii	1800 X 2400 1200 X 2200	3	Nos Nos					
	900 X 2200 Window of 1000 X 1200	1	Nos Nos					
	Flexible louvered type Ventilator of 1000 X 600 size	1	Nos					
3	Supply of Saint Gobain make glazing glass in aluminium door, window and partitions etc. complete as							
	per the architectural drawings and the directions of engineer-in-charge including aluminium snap beading.							
	With float glass panes of 4.0 mm thickness With float glass panes of 5.5 mm thickness	1 50	Sq.M Sq.M					-
		9						
4	Supply of aluminium handles ISI marked anodized (anodic coating not less than grade AC10 as per IS:1868)transparent or dyed to required colour or shade with necessary screws etc. complete: 125	9	Each					
5	mm Supply of aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per	9	Each					
	IS:1868 )transparent or dyed to required colour or shade with necessary screws etc. complete : 250x10 mm							
6	Supply of chrome plated brass hanging type floor door stopper with necessary screws, etc. complete.	6	Each					
7	Supply of 100mm brass locks (best make of approved quality) for aluminium doors complete	5	Each					
8	Supply of <b>over head hydraulic door closers confirming to IS-3564</b> of approved make & quality as directed by Engineer.	7	Each					
9	Supply of <b>floor mounted Hydraulic door closer</b> confirming to IS-3564 of approved make & quality as directed by engineer	4	Each					
	PVC DOOR							
10	Supply of factory made door frame (single rebate) made out of single piece extruded solid PVC foam	10	RM					
	profile with homogeneous fine cellular structure having smooth outer integral skin having 62mm width and 32mm thickness, frame will be mitred & Jointed with self driven self tapping screws of size 38mm							
	x 4mm & PVC solvent cement, including suitable dia and length anchor fastener as per manufacturer's specification and direction of Engineer-in-charge.							
11	Supply of factory made 30mm thick door shutter made of solid PVC foam profile. The styles & rails	5	Sq.M					
	shall be of size 75mm x 30mm having wall thickness 5mm. The styles and rails shall have one side wall thickness of 15mm integrally extruded on the hinge side of the profile for better screw holding power.		94					
	The styles and rails shall be reinforced with MS tubes of size 33mm x 17mm x 1mm painted with							
	primer, all four corners of reinforcement to be welded or sealed. Solid PVC extruded bidding (push fit type) will be set inside the styles and rails with a cavity to receive single piece extruded 5mm PVC							
	sheet as panel. The styles and rails shall be mitred cut and joint with help of PVC solvent cement and self tapping screws. Single piece extruded solid PVC rail of size 100mm x 30mm with wall thickness							
	5mm & 15 mm integrally extruded in the middle of the lock rail & fixed with styles with the help of PVC solvent cement & self driven self tapping screws of size 100mm x 8mm complete as per							
	manufacturer's specifications and direction of Engineer-in-charge. Non Decorative finish							
	FLOORS & BASES							
12	Supply of fully vitrified floor tiles in different sizes (thickness as per manufacturer) with water absorption's less than 0.08% and conforming to IS: 15622 of approved make in all colours and shades,	47	Sq.M					
13	complete. Size of Tiles 60x60 Cm.  Supply of 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness as specified by the	20	SaM					
13	manufacturer) of approved make in all colours, shades except burgundy, bottle green, black of any	20	Sq.M					
	size as approved by Engineer-in-Charge (including pointing in white cement mixed with pigment of matching shade).							
14	Supply of <b>removable false flooring</b> with fire resistant particle board panels bonded by phenol formaldehyde of size 600x600x35mm with all panel edges finished to a tolerance of +/- 0.2 mm	79	Sq.M					
	including 2 mm thick anti static PVC top and lipping, supporting arrangement as per specification, drawings and engineer in charge.							
15	Supply of chemical resistant (Acid & Alkali) Tiles as per IS 4457 of minimum thickness 25 mm thick	41	Sq.M					
	in flooring/Dado. The tiles shall be abrasion resistant and durable as per specification.							
	SANITARY							
16	European W.C Supply of white vitreous china extended wall mounting water closet (Hindware - Mario - Cat.no.20084	2	Each					
	(P-10.5); Cist.21052 or approved equivalent) including providing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/6 litre (adjustable to 4 litre/8 litres), including seat							
	cover, and cistern fittings, nuts, bolts and gasket etc complete							
17	Wash hand basin	1	Each					
	Supply of wash basin (Jaquar - CNS-WHT-701 or approved equivalent) with C.I. brackets, 15 mm C.P. brass pillar tap (Jaquar - LYR-38051B Single Lever or approved equivalent), 32 mm C.P. brass waste of							
18	standard pattern.  Supply of G.I. inlet connection for flush pipe connecting with W.C. pan.	2	Each			-		
18	Supply of P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.	1	Each					
20	With Flexible pipe of 40 mm dia Mirror	1	Each					
	Supply of mirror of superior glass (of approved quality) & of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape							
24	1500x450 mm	2	-					
21	Toilet paper holder Supply of Toilet paper holder (Jaquar - Bath accessories - Queens - AHS-1553) C.P. Brass	2	Each		<u> </u>	<u>L</u>		





## DAFFPL **BOO FOR CONTROL ROOM & ALLIED WORKS** SUPPLY (A) UNIT RATE AMOUNT (Rs.) GST AMOUNT (Rs.) TOTAL AMOUNT SL. No. **DESCRIPTION OF ITEM** QTY UNIT GST % (Rs.) (Rs.) (c=a+b) Liquid soap containe Supply of PTMT liquid soap container (Jaquar -Bath accessories - AKP-CHR-35735P or approved equivalent) 112mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour. weighing not less than 105 gms. 23 Each Supply of PTMT towel ring (Jaquar - Bath accessories - AKP-CHR-35751P or approved equivalent) with a minimum distances of 37mm from wall face with concealed fittings arrangement of approved quality and colour. Weighing not less than 88 gms. Towel Rail 24 Each Supply of PTMT towel rail (Jaquar - Bath accessories - AKP-CHR-35711P or approved equivalent) 600 mm long. 25 Coat hook EACH Supply of PTMT coat hook (Jaquar - ACN-1161N Double Coat Hook or approved equivalent) with concealed fittings arrangement of approved quality 26 Supply of unplasticised Rigid PVC soil, waste and vent pipes (Prince or equivalent) conforming to IS:13592 Type B including fitting conforming to IS:14735 such as, but not limited to, all type of bends tees, Ys with or without door, couplers, unions, reducers, acess/socket plug, ring, busings, gully, floor, nahni trap with jali,etc., as required, all necessary accessories required for making it water tight, complete in all respect, Single socketed pipes. 75 mm dia nominal bore RM 35 RM ii 110 mm dia nominal bore Supply of G.I. pipes complete with G.I. fittings B class40 mm dia. nominal bore 27 10 RM 28 Supply of G.I. Pipes complete with G.I. fittings and clamps B class 15 mm dia nominal bore R٨ 5 R۸ B class 20 mm dia nominal bore 29 Supply of brass bib cock of approved quality: 15 mm nominal bore (Jaquar- ARI-CHR-39037) 5 Each 30 Supply of brass stop cock of approved quality: 15 mm nominal bore (Jaquar- CON-CHR-053KN) Eacl Supply of gun metal gate valve with C.I. wheel of approved quality (screwed end): 40 mm nominal 31 2 Eacl 32 Supply of gun metal non return valve of approved quality (screwed end): 40 mm nominal bore, Eacl horizontal bore 33 Supply of ball valve (brass) of approved quality, High or low pressure, with plastic floats complete: 15 2 Eacl 34 Supply of polyethylene water storage tank ISI: 12701 marked with cover and suitable Locking No: arrangement. Capacity 1000 Liter 35 Supply of non-pressure NP3 class (light duty) R.C.C. pipes: Light Duty 100 mm dia. R.C.C. pipe R*N* i 150 mm dia. R.C.C. pipe 5 R٨ 36 Supply of unplasticised PVC connection pipe with brass unions: 30 cm length, 15mm nominal bore 2 37 Supply of white vitreous china pedestal for wash basin completely recessed at the back for the Each reception of pipes and fittings MISCELLANEOUS Supply of false ceiling with TRAC 150 F of Interarch (or equivalent) coil coated (Pre painted) steel false ceiling system comprising of 150 mm wide X 17 mm deep roll formed out of 0.50 mm thick polyester coated galvanised steel panels, fixed on steel runner of 34.5 mm width X48 mm deep manufactured out of 0.60 mm thick pre coated galvanised steel with rigid suspension of 20X20X0,5 mm fixed with steel brackets/clips etc. Panel shall be factory cut to provide minimum joints. PART - 2 Power Distribution Board (IP 55): Supply of Weather Proof 125A, 415V, 3Ph & N, 50HZ sheet steel enclosure flush mounting to wall power distribuition board for lighting $\,$ & power load of the following incoming and outgoing feeders including all required hardwares . 1no.-Incomer 125A MCCB with ELCB (100mA Sensitivity). 4Nos 20A TPN & $\,$ 3 Nos DP 32A MCB 6Nos 10A SPN & 9Nos 20A SPN MCB Supply of 300 mm sweep., heavy duty, weather Proof, single phase exhaust fan with Louvers complete with motor, cable gland, shutter, louver, bird catcher, mounting bracket, mounting frame (metallic), ardware etc. and conforming to IS. LIGHTING FIXTURES & ACCESSORIES 41 Supply of Weather proof LED Lighting Fixtures & Accessories . (All Lighting fixtures shall be provided with required no. of single compression nickle plated brass cable glands, stopping plug and all 41.1 Supply of 36 W decorative type mirror optics recessed mounting LED light fixture complete with all its 24 Nos accessories suitable for Recessed type mounting arrangement. 41.2 Supply of 2x18W industrial type LED light fittings stanchion mounting complete with all its accessories 2 Nos SWITCH SOCKET / SWITCH (MODULER TYPE): Lighting ON/OFF Switch, Switch Socket & Switch Board Supply of Modular type switch board-6module box-90x220. having 4Nos switch & 1 Nos 240V 5A/10A 42.2 Supply of Modular type switch board-8 module box-160x150. having 5Nos switch & 1 Nos 240V 5A/10A socket with switch 42.3 Supply of Modular type switch board-4module box having2Nos switch & 1 Nos 240V 5A/10A socket No with switch 42.4 Supply of Modular type switch board, 2no. 10A lighting ON-OFF switch -2 module box-90x95. No 42.5 Supply of 240V, 3Pin metal clad, 20A socket fitted with 20A SP MCB brand type 18119 of "Roma" No make or equivalent make, sw. socket brand type 36165 and 20A metal clad plug top with chain cover 'Roma "brand having code no. 5820 or equivalent make of white colour.for window /split AC-3module-90x120 42.6 Supply of Modular type switch board having 1 no. Modular type switch with 13/15A Modular type 6 PIN Nos socket ROMA type ANCHOR or equivalent make - 90 x 120 MM 42.7 Supply of 6A, 3 pin socket with ISI mark, having code no. 21102 & 6A, 3 pin plug top having code no. 5 No: 21215 of 'ROMA' type of Anchor make or equivalent make, MS box with front plate for exhaust fan. (2 modules - 90 x 95). 42.8 Supply of Flameproof type switch with 13/15A Modular type 6 PIN socket ROMA type ANCHOR or No: equivalent make PVC CONDUIT AND JUNCTION BOX FOR CONDUITING PVC rigid conduit of min. 2 mm thick of wall heavy duty type & as per latest IS (with bends, reducers, couplers etc.) of following sizes:-Supply of 25mm Dia. PVC Rigid Conduit 43 120 Mtr 44 supply of PVC (Rigid) - 4 way Junction Boxes of ISI mark, suitable for 25 mm dia rigid PVC pipe entry. 45 Supply of 1.1KV grade PVC, FRLS/Non FRLS type armoured/unarmoured cable and industrial weatherproof/weatherproof & flameproof double compression cable gland with gland cap for termination of cables for mentioned cable sizes complete with locknuts, sealing washers, shrouds, etc

ncluding suitable crimped type solderless tinned copper lugs as per specifications and drawings.

DAFFPL





## **BOQ FOR CONTROL ROOM & ALLIED WORKS** SUPPLY (A) 5/2/2018 REV.1 Date UNIT RATE AMOUNT (Rs.) GST AMOUNT (Rs.) TOTAL AMOUNT SL. No. **DESCRIPTION OF ITEM** QTY UNIT GST % (Rs.) (c=a+b) 45.1 3CX2.5 sq mm Cu unarmoured cable 150 Mt 150 Mtı 45.2 3.5C x 70 sq mm Al armoured FRLS cable Mtr 45.3 4C x 4 sq mm Cu armoured cable 45.4 Weatherproof Gland with required lugs and accessories suitable for cable mentioned in 7.1 Jnit Rate Nos 45.5 Weatherproof & Flameproof Gland with required lugs and accessories suitable for cable mentioned in 45.6 Weatherproof Gland with required lugs and accessories suitable for cable mentioned in 7.3 Unit Rate Nos Supply of Advance Earthing System (Maintenance free earthing system) along with earth pit cover, Cu 46 No Clamps including all required accessories and indicator plate: 60mmDiax3.0mts long, made from M.S in accrodance to IS 1909 & IS 3043, along with 75 kgs. of premium Ground improving compound as per IS 3043 duly modified for excellent electrical conductivity & moisture retaining capacity. CABLE TRAY 47 Supply of FRP/GRP Ladder / perforated type cable tray with cover of following sizes with all the accessories like bends, tees, reducers, elbow, joints, etc. and fixing hardware including supply of all materials as per specifications, drawings. 47.1 600 mm wide-100mm height-4 mm thick Ladder type cable tray Unit Rate MTR 47.2 300 mm wide-50mm height-4 mm thick Ladder type cable tray 120 Mtrs 47.3 200 mm wide x 50 mm height - 4 mm thick - Perforated type 25 Mtrs Supply of FRP Covers for following sizes FRP Ladder / perforated type cable tray 48.1 600 mm wide-100mm height-4 mm thick Ladder type cable tray MTF **Unit Rate** 48.2 300 mm wide-50mm height-4 mm thick Ladder type cable tray Unit Rate MTF 48.3 200 mm wide x 50 mm height - 4 mm thick - Perforated type 48.4 150 mm wide x 50 mm height-4 mm thick - Perforated type Unit Rate MTF 48.5 100 mm wide x 30 mm height -4 mm thick - Perforated type MTR Unit Rate 48.6 50 mm wide x 30 mm height -3 mm thick - Perforated type Unit Rate Supply of G.I. ladder type Cable Tray with cover 100x30x2mm thick runners, Rungs at 300mi spacing, along with required accessories like bends, tees, reducers, elbow, joints, coupler plate etc with stainless Hard-ware ,Hold on clamps With stainless Hard- ware , suitable for following G.I. Cable Tray and Tray cover 49.1 600mm Wide Heavy Duty Ladder type cable tray and cover Unit Rate MTR 49.2 300mm Wide Heavy Duty Ladder type cable tray and cover Unit Rate MTF 49.3 200mm Wide Heavy Duty Perforated type cable tray and cover Unit Rate MTF 49.4 150mm Wide Heavy Duty Perforated type cable tray and cover Unit Rate MTF 49.5 50mm Wide Heavy Duty Perforated type cable tray and cover Unit Rate MTR Supply of Cu/GI earth strip, lugs of following sizes including handling, transportation to site as pe attached specifications of this tender. 50.1 50 x 6 mm GI Strip Unit Rate MTR 50.2 40 x 5 mm GI Strip Unit Rate MTF 50.3 No.8 SWG Solid GI wire Unit Rate MTF 50.4 50 x 6 mm Cu Strip Unit Rate MTF 50.5 25 x 6 mm Cu Strip MTR Unit Rate 50.6 16 sq.mm Cu. PVC flexible wires MTF Unit Rate 50.7 4 sq.mm Cu. PVC flexible wires **Unit Rate** MTR 50.8 6 sq.mm Cu. PVC flexible wires Unit Rate MTF 50.9 Earthing Lugs (AL) suitable for No.8 SWG Solid GI wire Unit Rate Nos 50.10 Earthing Lugs (AL) suitable for 4 to 16 sq. mm Cu PVC flexible wires Unit Rate Nos

**Unit Rate** 

Unit Rate

Unit Rate

27

Nos

Nos

Nos

Tor

Total Amount (A) including taxes in words:

up to 1.0 meter.

PART - 3

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All supply and work shall be in line withtender specifications, drawings and instructions of the Engineer-in-Charge.

works. Thermo Mechanically Treated Bars Fe- 500 grade, Conforming to IS1786

unit of payment shall be on weight as per final aaproved fabrication drawing.

Supply of high yield strength deformed bars as per IS: 1786 and 18 SWG annealed wire for all R.C.C

Structural bolts and fixtures shall be as per IS:4000, class 8.8 Type-1. No extra payment shaal be made for weight of bolt arrangement and welds and the rates shall be deemed inclusive of these. The

Supply of Foundation Bolt class 4.6 including nuts, washers, plates; diameter upto 20 mm and length

TOTAL

2. Construction power, water, loading and boarding, Site Storage with watch and ward, receipt, unloading, shifting material to store and internal shifting to site shall be included in Vendor's scope

3. The unit rates as quoted to arrive at above total price shall be firm and inclusive of all duties, levies, transportation etc. No separate payment shall be made for site mobilization / demobilization, insurance etc.

4. The Schedule of Rates should be read with all other sections of the tender documents.

Supply of Cu/GI Earth Bus bars of following sizes

Supply of structural steel as per tender specifications

51.1 GI Earth Bus bars (size: 390x50 x12mm thick)

51.2 Cu Earth Bus bars (size: 250x50 x6mm thick)

CABLE TRAY SUPPORT

STRUCTURAL STEEL WORKS

i. The tenderer shall be deemed to have studied the drawings, specifications and the details of work to be done within the time schedule and to have acquainted with the conditions prevailing at site. Site visit is mandatory. . The quantities shown against the various items are only indicative of the quantum of work and it may vary to any extent. Billing will be done as per actual.

Vendor to make measurements at site before dispatch of any material.

The rate quoted shall be inclusive of all work as mentioned in the scope of work in tender documents.

9. In case of any rework due to faulty workmanship or any defects occur or modifications are required no extra claims for such works/supply shall be entertained.

Signature of Bidder along with company seal





DAFFIL	DAFFPL  BOQ FOR CONTROL ROOM & ALLIED WORKS  CONSTRUCTION/ERECTION/INSTALLATION, TESTING & COMMISSIONING (B)							GLOBAL CONSULTANTS
						REV.1 REV.2	Date Date	5/2/2018 17/4/2018
SL. No.	DESCRIPTION OF ITEM	QTY	UNIT	BASIC UNIT RATE (Rs.)	AMOUNT (Rs.) (a)	GST %	GST AMOUNT (Rs.) (b)	TOTAL AMOUNT (Rs.) (c=a+b)
PART - I	CONTROL ROOM							
	CIVIL WORKS A - EARTHWORK							
	a) The prices for all excavations are to include for removing and clearing away all shrubs, bushes, roots etc.							
	b) The prices are also to include for all leveling and ramming foundation beds, trimming of sides and bottom grading to proper level as required.							
	c) Removal and carrying shall include for all loading, unloading and handling as may be necessary and also all necessary means of transport (Mechanical or manual as required).  d) The prices are also to include removal of water accumulated due to subsoil seepage, rains or							
	from any kind of sources, either by pumping or by bailing or by any suitable method like well point dewatering etc. if reqd. No extra payment shall be made for dewatering. This also includes for draining out the pumped water to nearby available drainage system.							
	e) Normally payment of earth work shall be made according to the sizes of PCC for trenches/ pits as contemplated in the working drawings. Extra due to widening or deepening of trenches / pits shall not be paid for except for the cases where water / acid proofing would be accepted as per working drawings in such case the mode of measurement shall be as per IS: 1200							
	f) Nothing extra shall be paid for sorting /screening of excavated materials to obtain good earth for filling.							
	g) Nothing extra shall be paid on account of any lift for disposal of excavated materials/surplus earth.  h) Where excavation are made in excess of the depth required, the contractor shall at his own							
	<ul> <li>n) Where excavation are made in excess of the depth required, the contractor shall at his own expense fill up to the desired level with lean concrete of mix 1:5:10 (1 Cement: 5 Coarse sand: 10 Graded stone aggregate 40 mm nominal size</li> <li>i) Rate shall include Royalty, Taxes, etc., levied by the local authorities, all transportation, loading and unloading, etc., and nothing extra will be paid on this account.</li> </ul>							
	j) Soft / loose soil also includes filled up earth / moorum.							
	k) The filling for earth / morrum or sand shall be done in layers not exceeding 20 cm in thickness (consolidated) with by Suitable means to achieve 90% dry density at Optimum Moisture Content corresponding to standard Proctor test & vibro compactor in confined spaces.							
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means for foundations, trenches, pipelines, storm water drains etc. including setting out, clearing and grubbing, removal of debris, dewatering if required, strutting, shoring, dressing the sides, levelling of grade and ramming the bottom, stacking up to initial lead in & around premises in all types of soil including concrete and boulder work but excluding RCC floor, for all leads and lifts.	268	Cu.M					
2	Filling available excavated earth (excluding rock) under floors and foundations in layers not exceeding 20cm in depth, consolidation each deposited layer by ramming and watering, within premises for all	196	Cu.M					
3	Lift and Lead  Earth work in supply & filling for all works with good quality borrowed earth, free from vegetation, organic matters, boulders with all leads and lifts including cost of transportation, loading/ unloading, breaking clods, watering etc, complete as per directions of Engineer -in- Charge.The measurement shall be made on the basis of calculated compacted volume of earth, based on the contour surveys of level on site before filling and spot level after filling to be taken jointly with contractor after execution	1	Cu.M					
	of work.  CONCRETE WORK/ REINFORCED CONCRETE WORK							
	<ul> <li>a) The prices for concrete in beds and slabs are to include for laying on any type of sub grade, laying to falls, or cambers and for preparing surfaces to receive concrete.</li> </ul>							
	<ul> <li>b) All concrete surfaces shall be finished to a fair face to give a smooth and even surface. Nothing extra shall be paid on this account.</li> </ul>							
	c) The prices are to include leaving pockets, cut outs and holes and to provide wooden boxes or any other suitable arrangements in RCC for bolt holes in slab, beams, walls, foundation of equipments etc. as per approved working drawing. (Nothing extra shall be paid on this account).							
	d) No deduction in RCC quantity shall be made for pockets and nothing extra shall be paid for providing pockets as mentioned in para 'C' above.							
	e) Measurement of opening in concrete work/RCC work: For measurement of openings in concrete work / RCC works, shall be as per IS: 1200 Part-III.							
	f) All pocket holes are to be properly covered by suitable means so that dirt, rain water etc. etc., should not enter the pockets/holes etc. (Nothing extra shall be paid on this account.)  g) Threads of bolts etc. which have already been fixed in the pockets are to be greased and polythene							
	sheet properly covered with gunny bags to protect it from damages from all sources. (Nothing extra shall be paid on this account.)							
	h) The prices shall include for all rebating, trotting, chamfering weathering, molding etc. to accord with the details shown on the approved working drawings i) Nothing extra shall be paid for any intricate concrete work for foundations of equipments and machinery (dynamic/static), RCC wall and other superstructure works or any delay in concreting in							
	small and thin sections in PCC or RCC works.  j) The prices for concrete are to include for hoisting and / or lowering to any height and/or depth							
	required and in any type of form work, packing around reinforcement where required and finishing the surfaces, to fair and even surface.							
	k) The prices shall include working up or hacking of concrete surface for providing keys for further concrete work and shall also include all plane, rebated or grooved constructional and other joints.      l) The design mixes of all controlled concrete of various grades shall be established by the contractor on							
	the basis of weigh batching, at the beginning of work. In all concrete / RCC work graded coarse aggregate shall be used. Any concrete work with honey comb shall be rejected and the work has to be redone by the contractor at his own cost.							
	m) Concrete admixtures for workability if necessary, may be used in RCC if decided by Engineer-in- charge. No extra payment for mixing etc, shall be made on this account.  n) The prices are also to include the removal of water caused by rains/seepage etc. either pumping or							
	by bailing out or by special means like well point dewatering etc. that may accumulate in the trenches and foundation pits etc.  o) The prices are to include the supply of cement by the contractor.							
	p) Anti shrinkage compound used in grouting shall not be paid separately.     q) Desired design mix shall be got approved from Engineer-in charge before commence of casting							
	r) The source of supply for sand and stone chips shall be approved by DAFFPL s) Approved brand of 43 grade cement shall be used for preparing design mix & cement shall be tested as per relevant IS Codes. Cement supply shall be in contractor's scope. Following additional points to be noted for Ready Mix Concrete(RMC)							
	a) Any loss of material shall be contractor's responsibility. b) Desired design mix shall be got approved from Engineer-in charge before Casting.							
	c) Any other taxes as levied by Govt. from time to time shall be deemed to be inclusive in the contract.							
	d) Approved brand shall be used for preparing RMC & Cement shall be tested as per relevant IS Codes. Cement supply shall be in contractor's scope.					-		
	e) The rate includies for using Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. Cement content in RCC shall not be less than 410 kg per Cu. M							





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SL. No.	DESCRIPTION OF ITEM	QTY	UNIT	BASIC UNIT RATE (Rs.)	AMOUNT (Rs.) (a)	GST %	GST AMOUNT (Rs.) (b)	TOTAL AMOUNT (Rs.) (c=a+b)
	a) Cement brand to be used: i) Ultratech Cement iii) J.K. Cement iii) Coromandal King iv) Birla Cement ACC v) Ambuja Cement vi) Dalmia Cement vi) Dalmia Cement							
	B. PLAIN CEMENT CONCRETE							
	Providing and laying Ready Mix Cement Concrete in foundation, footings and base for columns/walls including proportioning, mixing in mechanical mixer, laying vibration by means of mechanical vibrators, curing etc. complete including the cost of shuttering:-							
6	Concrete of mix 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	14	Cu.M					
6	Concrete of mix 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size)	11	Cu.m					
	C. REINFORCED CEMENT CONCRETE IN FOUNDATION & PLINTH:							
7	Providing and laying in position, RMC M-25 grade for reinforced cement concrete work, using cement as per approved design mix, including cost of centering, shuttering but excluding the reinforcement. including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-incharge.  (Note: - Cement content considered in this item is @410 kg/cum.)	53	Cu.M					
8	IN SUPERSTRUCTURE:  Providing and laying in position, machine batched, machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, including floors. Floors are to be cast in the panel of max 3meter x 3meter including integral smooth finish and painting side surfaces with two coats of bitumen paint of approved quality, complete in all respects as per direction of Engineer-in-Charge, using cement as per approved design mix, including pumping of concrete to site of laying and cost of centering, shuttering but excluding the reinforcement. including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete,improve workability without impairing strength and durability as per direction of Engineer-in-charge.  (Note:- Cement content considered in this item is @410 kg/cum.)		Cu.M					
	REINFORCEMENT & EMBEDMENTS  a) Wastage in cutting will not be paid for. Only steel actually fixed in position will be paid by the linear measurement i/c hooks, chairs, dowels and laps. Only authorized hooks and laps approved in bar bending schedule shall be paid. Lapping of bars will be allowed only where the required bar length exceeds the standard lengths available. All other laps provided unless otherwise specified in the drawings shall not be measured and paid for. Weight of binding wire shall not be measured for payment.							
	b) Reinforcement are to be tack welded in addition to binding by 18 SWG annealed wire wherever necessary to impart fixity. Bars of 28 mm dia & above shall also be provided with stitch weld in additions to binding with annealed iron wire and nothing extra will be paid for stitch welding. Stitch welding shall be done as per IS specifications. No extra claim shall be entertained on this account.							
9	Cutting, bending, hoisting, placing in position with proper precast concrete block cover and binding with 18 SWG annealed wire, high yield strength deformed bars as per IS: 1786 for all R.C.C works including all necessary handling at all heights and depths complete in all respects and as per direction of the Engineer-in-Charge.	12	Ton					
	ALUMINIUM DOORS & WINDOWS							
10	Fixing of aluminium doors, windows, ventilators and partitions along with Door frames, fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom & sides with with required EPDM rubber/neoprene gasket etc. aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, aluminium snap beading for glazing/paneling, C.P. brass/stainless steel screws including fixing all complete as per drawing & the directions of Engineer-in-charge.							
	Door Sizes are as follows: 1800 X 2400	1	Nos					
	1200 X 2200 900 X 2200	3	Nos Nos					
	Window of 1000 X 1200 Flexible louvered type Ventilator of 1000 X 600 size	1	Nos Nos					
11	Fixing glazing glass in aluminium door, window, shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-	1	NOS					
	charge including aluminium snap beading. With float glass panes of 4.0 mm thickness	1	Sq.M					
	With float glass panes of 5.5 mm thickness Fixing aluminium handles with necessary screws etc. complete: 125 mm	50	Sq.M Each					
13	Fixing aluminium tower bolts with necessary screws etc. complete: 123 mm	9	Each					
14	Fixing chrome plated brass hanging type floor door stopper with necessary screws, etc. complete.	6	Each					
15	Fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete	5	Each					
16 17	Fixing of over head hydraulic door closers as directed by Engineer. Fixing floor mounted Hydraulic door closer as directed by engineer	7 4	Each Each					
18	PVC DOOR Fixing of factory made door frame (single rebate), frame will be mitred & Jointed with self driven self	10	RM					
	tapping screws of size 38mm x 4mm & PVC solvent cement, including fixing the frame to wall with suitable dia and length anchor fastener as per manufacturer's specification and direction of Engineer-incharge.		IW					
19	Fixing of factory made 30mm thick door shutter made of solid PVC foam profile. The styles & rails shall be of size 75mm x 30mm having wall thickness 5mm. The styles and rails shall have one side wall thickness of 15mm integrally extruded on the hinge side of the profile for better screw holding power. The styles and rails shall be reinforced with MS tubes of size 33mm x 17mm x 1mm painted with primer, all four corners of reinforcement to be welded or sealed. Solid PVC extruded bidding (push fit type) will be set inside the styles and rails with a cavity to receive single piece extruded 5mm PVC sheet as panel. The styles and rails shall be mitred cut and joint with help of PVC solvent cement and self tapping screws. Single piece extruded solid PVC rail of size 100mm x 30mm with wall thickness 5mm & 15 mm integrally extruded in the middle of the lock rail & fixed with styles with the help of PVC solvent cement & self driven self tapping screws of size 100mm x 8mm complete as per manufacturer's specifications and direction of Engineer-in-charge Non Decorative finish	5	Sq.M					
	a) The prices are to include for work at any height / depth and for all necessary scaffolding etc. as required.							
	b) The prices shall also include for making to form key for plaster and for all work in narrow width							
	b) The prices shall also include for making to form key for plaster and for all work in narrow width formed angles, chamfered external angles and for making good the faces.							





	DAFFPL BOQ FOR CONTROL ROOM & ALLIED WORKS							
DAFFPL					ICCIONING (	D)		GLORAL CONSULTANTS
	CONSTRUCTION/ERECTION/INST	<u>ALLATIO</u>	N, IESIIN	IG & COMM	ISSIONING (I	REV.1	Date	5/2/2018
						REV.2	Date	17/4/2018
SL. No.	DESCRIPTION OF ITEM	QTY	UNIT	BASIC UNIT RATE (Rs.)	AMOUNT (Rs.) (a)	GST %	GST AMOUNT (Rs.) (b)	TOTAL AMOUNT (Rs.) (c=a+b)
	c) Plastering shall be measured in sq. metre area of the surface to be plastered, as per IS: 1200 (Part							
	XII). The rate shall include erecting and removal of scaffolding all labour, all materials, equipment, plants, tools and all incidental expenses to complete plastering, pointing, rubbing out joints, cleaning, wetting, filling with cement mortar, troweling etc. and making of drip moulds, grooves, vattas, bands etc. including curing.							
	d) The prices are to include the supply of cement at site by the contractor. e) Water proofing compound in proportion recommended by manufactures shall be used in all Plaster							
	works for which no separate payment will be done.  f) Sand used for plastering shall be from approved sources.							
20	Providing and laying cement plaster on surfaces with Coarse sand including curing etc.  12 mm Cement plaster of mix1:4 (1 cement: 4 coarse sand)	410	Sq.M					
,	20 mm Cement plaster of mix1:4 (1 cement: 4 coarse sand) Providing and applying 20 MM thick cement plaster to all external surfaces and at all levels in two coats with base coat of 12 mm thick in CM 1:5 & finish coat of 8 mm thick in CM 1:3 including finishing the surface to uniform rough texture (sponge finish) by applying neat coat of cement including staging, curing etc complete as per technical specifications and site directions complete. Note:	189	Sq.M					
	a) Hacking of RCC surfaces shall be done when the concrete is green in order to provide key to plaster. b) Plastering shall be done using 1 Kg of water proofing compound to every bag of cement used. c) The above cost includes the rates for making grooves, Plaster Band, Elevation Plaster Treatment etc in any shape & size in plaster or as directed by EIC.							
iii)	Providing and laying 6mm thick cement plaster on surfaces with fine sand including curing etc. 6mm thick plaster of mix 1:3 (1 cement: 3 fine sand)	50	Sq.M					
21	White washing with 3 or more coats with lime to give an event shade. The rate includes for mixing necessary colouring agent, adhesive etc. as per standard specifications all complete	43	Sq.M					
22	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade with two or more coats	340	Sq.M					
23	Finishing walls with Acrylic Smooth exterior paint of required shade with Two or more coat applied @ 1.67 ltr/10 sqm over & including base coat of water proofing cement paint applied @ 2.20kg/10 sqm. with 3 or more coats	189	Sq.M					
24	Providing and laying 3 mm neat cement punning on exposed drain surfaces BRICK WORK	70	Sq.M					
	All brick work (including supply of bricks) shall be with Burnt clay Brick class designation 75 as per CPWD Specification unless otherwise mentioned. The rate includes for special jambs, sill and corners							
25	and other scaffolding, curing etc. including all labour and materials.  Brick work with Class Designation 75 bricks in Cement mortar 1:4 (1 cement : 4 coarse sand) in Drain	11	Cu.M					
26	Works. The rate includes  Brick work with Class Designation 75 bricks in Cement mortar 1:6 (1 cement :64 coarse sand) in	50	Cu.M					
27	superstructure ABOVE PLINTH AND UP TO FLOOR V LEVEL Half brick masonry with Class designation 75 bricks in Cement mortar 1:4 ( 1 cement : 4 coarse sand) IN		Sq.M					
	SUPERSTRUCTURE ABOVE PLINTH & UP TO FLOOR V LEVEL FLOORS & BASES		·					
	a) The prices for hard core are to include for all labour in laying to slopes or camber, hand packing, edges of haunches forming splayed edges, watering and rolling and ramming wherever required to solid compaction etc.      b) The prices are to include for works at all levels/depths							
28	Supply and Laying boulder soling under floors and footing including watering, ramming, Bliding, and well consolidating with broken stone aggregates 90mm to 40mm in layers of maximum compacted thickness of 100mm including filling the voids with smaller stone chip and with bliding materials fine river sand. (Payment shall be made of finished compacted thickness of hard core).	32	Cu.M					
29	Laying fully vitrified floor tile in different sizes, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc., complete. Size of Tiles 60x60 Cm.	47	Sq.M					
30	Fixing 1st quality ceramic glazed wall tiles in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade.	20	Sq.M					
31	Laying of removable false flooring with fire resistant particle board panels including 2 mm thick anti static PVC top and lipping, supporting arrangement as per specification, drawings and engineer in charge.	79	Sq.M					
32	Fixing of chemical resistant (Acid & Alkali) Tiles of minimum thickness 25 mm thick in flooring/Dado. The potassium silicate as per IS 4832,6 mm thick mortar used for setting or for under bed shall be durable strong and chemical resistant epoxy mortar including pointing etc. after laying bitumen primer as per IS 158 and 12 mm thick bitumastic complete as per IS 9510 and IS 412 and as per specification.	41	Sq.M					
33	Providing amd laying 40 mm thick cement concrete flooring in 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) finished with a floating cement slurry topping, all complete.	48	Sq.M					
34	Providing and Laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 ltr/sqm. by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ltr and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under: Joint strength in longitudinal and transverse direction at 23°C as 650/450N/5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D-5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane: 3mm thick Note:- Before laying of APP membrane, surface preparation of top surface shall be done to make the surface smooth & even, by using 1:2:4 screed concerte. Nothing extra shall be paid in this account.	141	Sq.M					
35	DISMANTLING  Demolishing cement concrete manually/ by mechanical means including disposal of material outside							
	premotishing cement concrete manually/ by mechanical means including disposal of material outside premises at unobjectionable and as per direction of Engineer -in - charge.  1:3:6 or richer mix	0.25	Cu.M					
	1:3:6 or richer mix  1:4:8 or leaner mix  Demolishing R.C.C. work manually/by mechanical means including stacking of steel bars & disposal of	0.25 0.25 16.3	Cu.M Cu.M					
	unserviceable material outside site at unobjectionable place& as per direction of Engineer-in-charge.							
37	Demolishing Brick work manually/mechanical means including stacking of serviceable material & disposal of unserviceable material outside site at unobjectionable place & as/direction of Engineer-incharge.	1	Cu.M					
38	Dismantling Steel work in single sections including dismembering and stacking within premises R.S Joists	10	KG.					
	SANITARY	<u> </u>					1	<u> </u>





i c	DESCRIPTION OF ITEM  European W.C  Fixing of white vitreous china extended wall mounting water closet including fixing white vitreous china cistern with dual flush fitting, seat cover, cistern fittings, nuts, bolts and gasket etc complete  Wash hand basin	QTY 2	UNIT	PACIC LIMIT		REV.2	Date	17/4/2018
i c	Fixing of white vitreous china extended wall mounting water closet including fixing white vitreous china cistern with dual flush fitting, seat cover, cistern fittings, nuts, bolts and gasket etc complete  Wash hand basin	2		BASIC UNIT RATE (Rs.)	AMOUNT (Rs.) (a)	GST %	GST AMOUNT (Rs.) (b)	TOTAL AMOUNT (Rs.) (c=a+b)
40		_	Each					
F	Fixing of wash basin with C.I. brackets, 15 mm C.P. brass pillar tap (Jaquar - LYR-38051B Single Lever or approved equivalent) ,32 mm C.P. brass waste of standard pattern, including painting of fittings	1	Each					
42 I	Fixing G.I. inlet connection for flush pipe connecting with W.C. pan.  Fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.  With Flexible pipe of 40 mm dia	1	Each Each					
43	Mirror Fixing mirror of superior glass (of approved quality) & of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm	1	Each					
I	Toilet paper holder Fixing of toilet paper holder (Jaquar - Bath accessories - Queens - AHS-1553) C.P. Brass	2	Each					
1	Liquid soap container Fixing Of PTMT liquid soap container (Jaquar -Bath accessories - AKP-CHR-35735P or approved equivalent) of standard shape with bracket of the same materials with snap fittings of approved quality and colour.	1	Each					
	Towel ring Fixing of PTMT towel ring with concealed fittings arrangement of approved quality and colour.	1	Each					
	Towel Rail Fixing of PTMT towel rail.	1	Each					
F	Coat hook Fixing of PTMT coat hook with concealed fittings arrangement of approved quality.	2	EACH					
1 3 1 5	Fixing on wall face including scaffolding unplasticised Rigid PVC soil, waste and vent pipes including fitting conforming to IS:14735 such as, but not limited to, all type of bends, tees, Ys with or without door, couplers, unions, reducers, acess/socket plug, ring, busings, gully, floor, nahni trap with jali, etc., as required, all necessary accessories required for making it water tight, jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion, complete in all respect, Single socketed pipes. 110 mm diameter.	15	RM					
i i y j	Fixing with clamps i/c cutting chases and making good the wall etc. concealed or embeded under floors unplasticised Rigid PVC soil and waste pipes (Prince or equivalent) conforming to IS:13592 Type B including fitting conforming to IS:14735 such as, but not limited to, all type of bends, tees, Ys with or without door, couplers, unions, reducers, acess/socket plug, busings, gully, floor, nahni trap with jali,etc, as required, all necessary accessaries required for making it water tight. This includes jointing of pipes & fittings with one step solvent cement and testing of joints complete as per direction of Engineer-in-Charge, Single socketed pipes.							
	75 mm dia nominal bore 110 mm dia nominal bore	2 20	RM RM					
	Fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. for WATER and AIR, External work. B class40 mm dia. nominal bore	10	RM					
	Making connection of G.I. Distribution branch with G.I main of following sizes by providing & fixing C class tee, including cutting and threading the pipe etc. complete: 25 to 40 mm nominal bore	10	RM					
j	Fixing G.I. Pipes complete with G.I. fittings and clamps i/c making good the walls etc. concealed pipe including painting with anti corrosive bitumastic paint, cutting chases and making good the wall for WATER and AIR  B class 15 mm dia nominal bore	5	RM					
ii) l	B class 19 mm dia nominal bore Fixing brass bib cock of 15 mm nominal bore	5	RM Each					
<b>—</b>	Fixing brass stop cock of 15 mm nominal bore Fixing gun metal gate valve: 40 mm nominal bore	1 2	Each Each					
57 F	Fixing gun metal non return valve: 40 mm nominal bore, horizontal bore	2	Each					
59	Fixing ball valve (brass) of 15 mm nominal bore  Providing & Fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size(inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design:	2	Each					
	180x150 mm size P type with common burnt clay bricks of classDesignation 75 150x100 mm size P type with common burnt clay bricks of class Designation 75	1 2	Each Each					
61	Painting G.I. pipes & fittings with synthetic enamel white paint over a ready mixed priming coat, both of approved quality for new work: 15 mm diameter pipe  Constructing brick masonry chamber for underground C.I. inspection chamber and bends with 75 class designation bricks in cement mortar 1:4 (1 cement: 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) R.C.C. top slab with 1:2:4 mix (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) foundation concrete 1:5:10 (1 cement: 5 fine sand: 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) finished smooth with a floating coat of neat cement on walls and bed concrete	5	RM					
	etc. complete as per standard design :		51					
(	Inside dimensions 600x 850 mm and 45 cm deep for pipeline with3 or more inlets, with common burnt clay bricks of class designation 75  Placing and Fixing of 1000 Liter capacity water storage tank and making necessary holes for inlet	1	Each No					
	Placing and Fixing of 1000 Liter capacity water storage tank and making necessary holes for inlet, outlet and overflow pipes including necessary fittings and the base support for tank.  Laying of non-pressure NP3 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of	1	No					
	Laying or non-pressure NP3 class (tight duty) N.C.C. pipes with collars jointed with stiff mixture or cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete : Light Duty  100 mm dia. R.C.C. pipe	2	RM					
ii)	150 mm dia. R.C.C. pipe	5	RM					
65 I	Fixing unplasticised PVC connection pipe with brass unions: 30 cm length, 15mm nominal bore Fixing white vitreous china pedestal for wash basin completely recessed at the back for the reception	1	Each Each					
66	of pipes and fittings  Making soak pit 2.5 m diameter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks of class designation 75 and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design.with common burnt clay bricks of class designation 75	1	Each					
67	Cutting, fabrication and installation of false ceiling with TRAC 150 F of Interarch (or equivalent) coil coated (Pre painted) steel false ceiling system comprising of 150 mm wide X 17 mm deep roll formed out of 0.50 mm thick polyester coated galvanised steel panels, fixed on steel runner of 34.5 mm width X48 mm deep manufactured out of 0.60 mm thick pre coated galvanised steel with rigid suspension of 20X20X0,5 mm fixed with steel brackets/clips etc. The suspension system should be meant of exterior use. The carrier shall be suspended at 1 mtr c/c c/c supported fro purlin and suspension angle at 500 mm c/c. Panel shall be factory cut to provide minimum joints. The longitudinal joints shall have additional special GI splice in between two panels. The carrier joint shall have a carrier splice maintaining a module of 150 mm. The ceiling shall be chipped on to the suspended acrriers after they are aligned and leveled. cutting for fixing of light fittings shall be done as per the cutiut required to fit the fixture. The work shall be carried out under a specialised and experienced supervisor.	135	Sq.M					





	DAFFPL  BOO FOR CONTROL POOM & ALLIED WORKS								
DAFFPL	BOQ FOR CONTROL ROOM & ALLIED WORKS  CONSTRUCTION/ERECTION/INSTALLATION, TESTING & COMMISSIONING (B)								
	REV.1 Date					5/2/2018			
						REV.2	Date	17/4/2018	
SL. No.	DESCRIPTION OF ITEM	QTY	UNIT	BASIC UNIT RATE (Rs.)	AMOUNT (Rs.) (a)	GST %	GST AMOUNT (Rs.) (b)	TOTAL AMOUNT (Rs.) (c=a+b)	
68	Diluting and injecting chemical emulsion for POST- CONSTRUCTIONAL anti termite treatment using chemical emulsion @one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement plaster 1:2(1 cement:2 coarse sand) with chlorphyrophos /lindane E.C. 20% with 1% concetration	183	Sq.M						
69	Providing, Cutting, hoisting& fixing in position and applying a priming coat of approved steel primer, all complete on structural steel work in single section fixed with or withiut connecting plate.	200	KG.						
70	Painting with black anti- corrosive bitumastic paint of approved brand and manufacture to give an even shade with 2 or more coats	10	Sq.M						
71	Providing $\&$ Fixing structural steel members in concrete, using cement grout 1:1:2. The rate includes for mixing anti shrinkage compound in grout	0.25	Cu.M						
PART - 2	ELECTRICAL WORKS								
72	INSTALLATION, TESTING & COMMISSIONING OF  Power Distribution Board (IP55)  Installation, testing and commissioning of Weather Proof 125A, 415V, 3Ph & N, 50HZ sheet steel enclosure flush mounting to wall power distribution board for lighting & power load of the following incoming and outgoing feeders including all required hardwares.  1noIncomer 125A MCCB with ELCB (100mA Sensitivity).  4Nos 20A TPN & 3 Nos DP 32A MCB 6Nos 10A SPN & 9Nos 20A SPN MCB	1	Nos						
73	Exhaust Fan  Installation , testing and commissioning of 300 mm sweep., heavy duty, weather Proof, single phase exhaust fan with Louvers complete with motor, cable gland, shutter, louver, bird catcher, mounting bracket, fasteners, hardware etc. and conforming to IS.	5	Nos						
74	LIGHTING FIXTURES & ACCESSORIES  Installation, testing and commissioning of Weather proof LED Lighting Fixtures & Accessories. (All Lighting fixtures shall be provided with required no. of single compression nickle plated brass cable glands, stopping plug and all required hardwares.)								
74.1	36 W decorative type mirror optics recessed mounting LED light fixture complete with all its accessories suitable for Recessed type mounting arrangement.	24	Nos						
74.2	2x18W industrial type LED light fittings stanchion mounting complete with all its accessories SWITCH SOCKET / SWITCH (MODULER TYPE);	2	Nos						
75	installation , testing, commissioning, inspection of Lighting ON/OFF Switch, Switch Socket & Switch Board with all required hardwares								
	Modular type switch board-6module box-90x220. having 4Nos switch & 1 Nos 240V 5A/10A socket with Modular type switch board-8 module box-160x150. having 5Nos switch & 1 Nos 240V 5A/10A socket	1	Nos Nos						
75.3	with switch  Modular type switch board-4module box having2Nos switch & 1 Nos 240V 5A/10A socket with switch	1	Nos						
	Modular type switch board, 2no. 10A lighting ON-OFF switch -2 module box-90x95.	1	Nos						
75.5	240V , 3Pin metal clad, 20A socket fitted with 20A SP MCB brand type 18119 of "Roma" make or equivalent make, sw. socket brand type 36165 and 20A metal clad plug top with chain cover "Roma" brand having code no. 5820 or equivalent make of white colour.for window /split AC-3module-90x120	5	Nos						
75.6	Modular type switch board having 1 no. Modular type switch with 13/15A Modular type 6 PIN socket ROMA type ANCHOR or equivalent make - 90 x 120 MM	3	Nos						
	6A, 3 pin socket with ISI mark, having code no. 21102 & 6A, 3 pin plug top having code no. 21215 of ROMA' type of Anchor make or equivalent make, MS box with front plate for exhaust fan. (2 modules - 90 x 95).	5	Nos						
75.8	Flameproof type switch with 13/15A Modular type 6 PIN socket ROMA type ANCHOR or equivalent make  Installation , testing, commissioning, inspection of PVC CONDUIT AND JUNCTION BOX FOR CONDUITING	1	Nos						
7/	Installation, laying, fixing of PVC rigid conduit of min. 2 mm thick of wall heavy duty type & as per latest IS (with bends, reducers, couplers etc.) of following sizes:-	420							
76	25mm Dia. PVC Rigid Conduit Installation , testing, commissioning, inspection of JUNCTION BOX	120	Mtr						
77 78	PVC (Rigid) - 4 way Junction Boxes of ISI mark, suitable for 25 mm dia rigid PVC pipe entry.  Laying & Termination (horizontally and vertically)of of 1.1KV grade PVC, FRLS type armoured Cable., to be laid in cable tray/conduit including plates, covers, etc and accessories. Cable termination at all required points with industrial weatherproof, flameproof double compression cable glanding & lugging for mentioned cable sizes complete with locknuts, sealing washers, pvc shrouds, etc.	24	Nos						
	3CX2.5 sq mm Cu unarmoured cable 3.5C x 70 sq mm Al armoured FRLS cable	150 150	Mtr Mtr						
78.3	4C x 4 sq mm Cu armoured cable  Cable end termination (glanding & lugging) of cable mentioned in 81.1	50 Unit Rate	Mtr Nos						
78.5	Cable end termination (glanding & lugging) of cable mentioned in 81.2  Cable end termination (glanding & lugging) of cable mentioned in 81.3	2 Unit Rate	Nos Nos						
79	EARTH PIT  Installation, testing & commisioning of Advance Earthing System (Maintenance free earthing system) along with earth pit cover, Cu Clamps including all required accessories and indicator plate: 60mmDiax3.0mts long,made from M.S in accrodance to IS 1909 & IS 3043,along with 75 kgs.of premium Ground improving compound as per IS 3043 duly modified for excellent electrical conductivity & moisture retaining capacity.	4	Nos						
80	Installation, Erection of FRP/GRP Ladder / perforated type cable tray with cover of following sizes with all the accessories like bends, tees, reducers, elbow, joints, etc. and fixing hardware including supply of all materials as per specifications, drawings.								
	600 mm wide-100mm height-4 mm thick Ladder type cable tray 300 mm wide-50mm height-4 mm thick Ladder type cable tray	Unit Rate 120	Mtrs Mtrs						
	200 mm wide x 50 mm height - 4 mm thick - Perforated type Installation, fixing of FRP Covers for following sizes FRP Ladder / perforated type cable tray	25	Mtrs						
81.1	600 mm wide-100mm height-4 mm thick Ladder type cable tray 300 mm wide-50mm height-4 mm thick Ladder type cable tray	Unit Rate Unit Rate	Mtrs Mtrs						
81.3	200 mm wide x 50 mm height - 4 mm thick - Perforated type	Unit Rate	Mtrs						
81.5	150 mm wide x 50 mm height-4 mm thick - Perforated type  100 mm wide x 30 mm height -4 mm thick - Perforated type  50 mm wide x 30 mm height -3 mm thick - Perforated type	Unit Rate Unit Rate	Mtrs Mtrs						
81.6 82	50 mm wide x 30 mm height - 3 mm thick - Perforated type Installation/Erection of G.I. ladder type Cable Tray with cover 100x30x2mm thick runners, Rungs at 300mm spacing, along with required accessories like bends, tees, reducers, elbow, joints, coupler plate etc with stainless Hard-ware ,Hold on clamps With stainless Hard- ware , suitable for following G.I. Cable Tray and Tray cover	Unit Rate	Mtrs						
	600mm Wide Heavy Duty Ladder type cable tray and cover	Unit Rate	Mtrs						
82.3	300mm Wide Heavy Duty Ladder type cable tray and cover 200mm Wide Heavy Duty Perforated type cable tray and cover	Unit Rate Unit Rate	Mtrs Mtrs						
	150mm Wide Heavy Duty Perforated type cable tray and cover 50mm Wide Heavy Duty Perforated type cable tray and cover	Unit Rate Unit Rate	Mtrs Mtrs						





	DAFFPL  BOQ FOR CONTROL ROOM & ALLIED WORKS								
DAFFPL	CONSTRUCTION/ERECTION/INSTALLATION, TESTING & COMMISSIONING (B)    REV.1   Date								
						REV.2	Date	5/2/2018 17/4/2018	
SL. No.	DESCRIPTION OF ITEM	QTY	UNIT	BASIC UNIT RATE (Rs.)	AMOUNT (Rs.) (a)	GST %	GST AMOUNT (Rs.) (b)	TOTAL AMOUNT (Rs.) (c=a+b)	
83	Installation, laying, testing & commissioning of Cu/GI earth strip / laying of earthing cable of following sizes directly buried under ground at depth of 500 mm, including handling, bending, straightening, cutting to size, welding together of earth strips in overlapping manner, chipping in concrete floors/ paved areas for laying the earth strips under floors/ paved areas and making good by cement plastering concrete after laying of the strips; clamping and supporting of earth strips laid above ground, connecting the strips/ wire at both ends to equipment or to earth bus / earth plates or to GI brackets fixed inside earthpit chamber, by bolting etc., Hessian tapes, all necessary GI hardware, Cu/GI clamps, Cu/GI/AI Lugs, civil masonry materials, etc. all work, labour as per attached specifications of this tender and directions of owner/consultant. Rate of excavation and back filling of Cu/GI strip/earthing cable is included. (Nothing extra shall be paid for this account.)								
	50 x 6 mm GI Strip 40 x 5 mm GI Strip	Unit Rate Unit Rate	MTR Mtr						
83.3	No.8 SWG Solid GI wire	Unit Rate	MTR						
	50 x 6 mm Cu Strip 25 x 6 mm Cu Strip	Unit Rate Unit Rate	MTR MTR						
	16 sq.mm Cu. PVC flexible wires 4 sq.mm Cu. PVC flexible wires	Unit Rate Unit Rate	MTR MTR						
83.8	6 sq.mm Cu. PVC flexible wires	Unit Rate	MTR						
	Earthing Lugs (AL) suitable for No.8 SWG Solid GI wire  Earthing Lugs (AL) suitable for 4 to 16 sq. mm Cu PVC flexible wires	Unit Rate Unit Rate	Nos Nos						
84	Installation of Cu/GI Earth Bus bars of following sizes GI Earth Bus bars (size: 390x50 x12mm thick)	Unit Rate	Nos						
84.2		Unit Rate	Nos						
PART - 3	CABLE TRAY SUPPORT								
	CIVIL WORKS								
85	A - EARTHWORK (All points 'a to k' under the same heading of Part-1 are appicable)  Earth work in excavation by mechanical means (Hydraulic excavator) / manual means for foundations, trenches, pipelines, storm water drains etc. including setting out, clearing and grubbing, removal of debris, dewatering if required, strutting, shoring, dressing the sides, levelling of grade and ramming the bottom, stacking up to initial lead of 100 meter in all types of soil including concrete and boulder work but excluding RCC floor, for all leads and lifts.	219	Cu.M						
86	Filling available excavated earth (excluding rock) under floors and foundations in layers not exceeding 20cm in depth, consolidation each deposited layer by ramming and watering, within premises for all Lift and Lead	171	Cu.M						
87	Earth work in supply & filling for all works with good quality borrowed earth, free from vegetation, organic matters, boulders with all leads and lifts including cost of transportation, loading/ unloading, breaking clods, watering etc, complete as per directions of Engineer -in- Charge. The measurement shall be made on the basis of calculated compacted volume of earth, based on the contour surveys of level on site before filling and spot level after filling to be taken jointly with contractor after execution of work.	1	Cu.M						
	CONCRETE WORK/ REINFORCED CONCRETE WORK (All points under the same heading of Part-1 are applicable)								
	B. PLAIN CEMENT CONCRETE								
	Providing and laying Ready Mix Cement Concrete in foundation, footings and base for columns/walls including proportioning, mixing in mechanical mixer, laying vibration by means of mechanical vibrators, curing etc. complete including the cost of shuttering:								
88	Concrete of mix 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	7	Cu.M						
	C. REINFORCED CEMENT CONCRETE								
89	IN FOUNDATION & PLINTH:  Providing and laying in position, RMC M-25 grade for reinforced cement concrete work, using cement as per approved design mix, including cost of centering, shuttering but excluding the reinforcement. including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-incharge.  (Note:- Cement content considered in this item is @410 kg/cum.)	41	Cu.M						
90	Providing and laying in position, machine batched, machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, including floors. Floors are to be cast in the panel of max 3meter x 3meter including integral smooth finish and painting side surfaces with two coats of bitumen paint of approved quality, complete in all respects as per direction of Engineer-in-Charge, using cement as per approved design mix, including pumping of concrete to site of laying and cost of centering, shuttering but excluding the reinforcement. including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge.  (Note:- Cement content considered in this item is @410 kg/cum.)	3	Cu.M						
91	Cutting, bending, hoisting, placing in position with proper precast concrete block cover and binding with 18 SWG annealed wire, high yield strength deformed bars as per IS: 1786 for all R.C.C works including all necessary handling at all heights and depths complete in all respects and as per direction of the Engineer-in-Charge.  Thermo Mechanically Treated Bars Fe- 500 grade, Conforming to IS1786	6	Ton						
	FINISHING (All points 'a to f' under the same heading of Part-1 are appicable) Providing and laying cement plaster on surfaces with Coarse sand including curing etc.								
92	Providing and laying 6mm thick cement plaster on surfaces with fine sand including curing etc. 6mm thick plaster of mix 1:3 (1 cement: 3 fine sand)	7	Sq.M						
93	Finishing walls with Acrylic Smooth exterior paint of required shade with Two or more coat applied @ 1.67 ltr/10 sqm over & including base coat of water proofing cement paint applied @ 2.20kg/10 sqm.	7	Sq.M						
94	with 3 or more coats  Demolishing R.C.C. work manually/by mechanical means including stacking of steel bars & disposal of unserviceable material outside site at unobjectionable place& as per direction of Engineer-in-charge.	19.2	Cu.M						
95	Demolishing Brick work manually/mechanical means including stacking of serviceable material & disposal of unserviceable material outside site at unobjectionable place & as/direction of Engineer-incharge.	1	Cu.M						
96	Dismantling Steel work in single sections including dismembering and stacking within premises R.S Joists	10	KG.						
97	STRUCTURAL STEEL WORKS  Fabricating and Erecting Structural steel work riveted, welded in single/ built up sections in framed work, including providing and applying Anti Corrosive Treatment to structural steel surface, as per below specifications	27	Ton						
	a) Surface preparation by shot blasting conforming to SA 2.5     b) Primer coat of Inorganic Zinc Ethyl Silicate, one coat of 75-80 mm micron DFT								
	c) Intermediate Coat of Two Pack Epoxy Polyamide MIO under coat, one coat of 120-125 micron DFT,								
	d) Final coat of Two Pack Aliphatic Polyuretane Two coats of 25 nicron DFT								





DAFFPL	DAFFPL  BOQ FOR CONTROL ROOM & ALLIED WORKS  CONSTRUCTION/ERECTION/INSTALLATION, TESTING & COMMISSIONING (B)								
						REV.1	Date	5/2/2018	
		I	I			REV.2	Date	17/4/2018	
SL. No.	DESCRIPTION OF ITEM	QTY	UNIT	BASIC UNIT RATE (Rs.)	AMOUNT (Rs.) (a)	GST %	GST AMOUNT (Rs.) (b)	TOTAL AMOUNT (Rs.) (c=a+b)	
	e) Total DFT shall be approx. 230 mm micron. Primer Primer and paint shall be of approved make								
	The rates shall be incusive of preparation of Fabrication drawing by a competent agency and getting approved by DAFFPL/ client,								
	Structural bolts and fixtures shall be as per IS:4000, class 8.8 Type-1. No extra payment shall be made for weight of bolt arrangement and welds and the rates shall be deemed inclusive of these. The unit of payment shall be on weight as per final aaproved fabrication drawing.								
98	Fixing of Foundation Bolt class 4.6 including nuts, washers, plates; diameter upto 20 mm and length up to 1.0 meter.	240	Kg						
	TOTAL								

Total Amount (B) including taxes in words:

## Notes:

- 1. All supply and work shall be in line with tender specifications, drawings and instructions of the Engineer-in-Charge.
- 2. Construction power, water, loading and boarding, Site Storage with watch and ward, receipt, unloading, shifting material to store and internal shifting to site shall be included in Vendor's scope.
- 3. The unit rates as quoted to arrive at above total price shall be firm and inclusive of all duties, levies, transportation etc. No separate payment shall be made for site mobilization / demobilization, insurance etc.
- 4. The Schedule of Rates should be read with all other sections of the tender documents.
- 5. The tenderer shall be deemed to have studied the drawings, specifications and the details of work to be done within the time schedule and to have acquainted with the conditions prevailing at site. Site visit is mandatory.
- 6. The quantities shown against the various items are only indicative of the quantum of work and it may vary to any extent. Billing will be done as per actual. Vendor to make measurements at site before dispatch of any material/installation.
- 7. The rate quoted shall be inclusive of all work as mentioned in the scope of work in tender documents.
- 8. In case of any rework due to faulty workmanship or any defects occur or modifications are required no extra claims for such works/supply shall be entertained.

Signature of Bidder along with company seal