

**International centre for Theoretical Sciences.
Tata Institute of Fundamental Research**

Name of work : External development for Medical centre, Dining area and between Campus housing and Medical centre at ICTS Campus, Shivakote Village, Bangalore.

Schedule of Quantities

Item no	Description	Unit	Qty	Rate	Amount
1	Earth work excavation over areas for foundation by mechanical means (Hydraulic excavator)/ manual means to required profile, level, grade, camber etc. in all soils (exceeding 30 cm in depth, 1.50 m in width as well as 10 sqm on plan area) including dressing of excavated area, refilling the low spots/ areas with approved excavated materials in layers not exceeding 150 mm watering, consolidation etc. disposing surplus earth within a lead of 500m including spreading and levelling all complete as per specifications, drawings & as directed by the Engineer in Charge.				
a	For all soil other than soft rock and hard rock.	Cum	120		
2	Disposal of debris and construction waste laying inside the campus using mechanical means including loading and unloading outside the campus at designated areas as per the statutory authorities. Note:1. Truck or Tractor volume will be considered after deducting 20% as void for making the payment. 2. All debris shall be stocked at one location before disposal for measurements.	Cum	80		
3	Plain Cement Concrete/Reinforcement Cement Concrete of following grade conforming to IS 456:2000 at all levels, using 20mm maximum size and down graded aggregate, including machine mixing, conveying, placing in position, mechanical consolidation, finishing, curing , formwork etc. complete as per specification, drawings and as directed by the Engineer in Charge.				
a	PCC of grade 1:4:8	Cum	65		
b	M20 or 1:1.5:3	Cum	15		
4	Providing and constructing at all levels concrete block walls with CEMENT CONCRETE SOLID BLOCKS using 400x200x200/400x150x200 with approved quality and confirming to a crushing strength of not less than 50Kgs/Sqcms in CM 1: 6 to correct line, level and plumb including racking out joints, curing scaffolding, at all levels/ floors , lead, lifts and height for walls , platforms and packing the junction of wall with ceiling with 1:3:6 mix and plant required for the execution of the work etc. Complete as per specifications, & as directed by EIC.	Cum	75		
5	Providing and Laying 230mm dry rubble stone hard core soling consolidated thickness in sub base to floor and driveway subgrade with 150-90mm size stone aggregate, stones screeding of 12.5mm max. size in layers as specified below, each layer of 150mm thick laid loose and consolidated to 115mm thickness including breaking stone if required, screening, sorting, spreading to regular line, level, template and supplying and blinding with stone dust, watering, consolidating including cost labour, finishing to proper gradient, camber and including mechanical vibration etc. complete as per specifications & as directed by the Engineer-in-Charge.	Sqm	340		

6	Providing and laying precast form finish chamfered kerb M30 grade of M/s. Besant Betons or at par quality of approved manufacture of size 600mm length x 375mm high x 150mm thick as shown in the drawing with laid vertically/ horizontally for parking approach etc., laid over 20mm thick CM 1:4 with a gap of 6-8mm and pointing the gap with 1:4 CM neatly finished with cement punning matching with kerb etc., sub-base mortar, pointing etc., complete as detailed in drawing and as directed by Engineer-in-charge.	RM	240		
7	Supply and installing Rectangular block/grey pavers of M/s Basant Baton or equivalent elganza grey/black colour or as approved sizes with min 60mm thick concrete paver blocks for heavy traffic as detailed on the plans including all labour, materials, testing, submittals, tools and equipment necessary to install the blocks to the lines and grades shown on the plans including any incidentals thereto etc. complete all as per specifications, drawing and as directed by the Engineer in charge.	Sqm	340		
	i)The paver blocks shall be with different dimensions with minimum load bearing capacity of 40 MT.				
	ii) The interlocking concrete block should be of crushing strength not less than 250 Kg/Sq.Cm, approved type (60 + or - 3mm thick).				
	iii) Additional cement mortar required to maintain, line, level, camber, gradient etc. shall be included in quote rates.				
8	Cement plaster in single/double coat at all floors and locations to correct line, level, plan at all locations, heights, lead, and plumb for the following, including cleaning, preparing the surface, scaffolding, double height /multi level staging etc., curing etc. all complete as per specifications and as directed by the EIC.				
a	Sand face plaster of 20 mm thick in two coats in C.M 1:4 for brick/ concrete surfaces (external/ internal). Back coat of 12mm thick and finishing coat of 8mm thick etc., complete.	Sqm	650		
b	15mm plaster with neat cement finish.	Sqm	60		
9	Providing and laying 30mm uniform thick machine cut 3 line dressed Sadhahalli stone slabs of following size in 20mm thick CM 1:4 with paper joints as per design including transportation, cutting, labour, wastage, acid wash etc. complete all as per specifications, drawing and as directed by the Engineer in charge. Note: Quoted rate shall hold good for all geometric shape in straight and curvilinear.				
a	Approximately 1500mm to 2000mm length x 600mm width or actual site measurement.	Sqm	86		
10	Providing rigid and water tight centering and shuttering using best quality wood/ plywood/ steel forms and centering with steel props, acro tubes etc., includingstrutting, propping, bracing, staging etc., complete for all RCC items fixed in position as required including labour for careful removal of form work etc., complete all as per specifications at all heights for all geomeritic shapes and sizes at all leads and lifts.				
	For all RCC works	Sqm	20		
11	Reinforcement for RCC work using Thermo Mechanically Treated bars of grade Fe-500 manufactured by SAIL/TATA STEEL/RINL only as per the following including loading, unloading, transporting, decoiling, straightening, cutting, bending, placing in position and binding with 18 gauge, soft drawn annealed steel binding wire including carrying out various tests as required etc. all as per specifications, drawings & as directed by the EIC.				

	1.Quoted rate shall include for removing the rust/scaling, dust over the surface thoroughly before put into use as directed by the EIC. 2. Cost of binding wire shall be borne by the contractor & shall not be measured for payment.	MT	1.5		
12	Supply & fixing all types of Structural steel fabrication work for the following using M.S/S.S of M/s. Sail OR M/s.Tata welded, riveted, bolted in built up sections, trusses , space frame spiral stair case, railings, ladder and framed work , suspenders, supports, portals frames, raceways to support PH pipes of various dia, etc., for the following at all floors and locations, heights, including scaffolding, bracing, multi level staging, lead etc., in grills, guard bars for windows, frames, covers, gazettes plate, base plate, cover bracket for slanting chajja etc. Using specified structural steel sections like angles, tees, flats, bars, chequered plates, sheets Channel/I sections,M.S tubes section/pipes, joists, bolts & nuts,M.s rods, threaded U/J bolts, washers, suitable size anchor fasteners of M/s Hilti or approved make for concrete and masonry, drilling holes in concrete & masonry etc., including supplying, cutting, fabricating,				
	welding, bending to shape,(curved), wastages, hoisting/erecting, fixing in position, making holes/chases wherever required and fixing /embedding in position in concrete/brick work with necessary hold fasts/ supporting plates, cleats, gazette plate, screws & rawl plugs and finishing the concrete/ brick work after fixing/ embedding including painting one coat Zinc chromate primer over shop coat of approved anticorrosive primer and two coats of synthetic enamel paint of approved make and colour on all exposed surfaces over a coat of approved steel primer etc. Complete as per specifications, drawings and as directed.	MT	0.5		
13	Supplying and fixing following size uPVC UV-Stabilised soil / waste quality pipes and fittings for soil, waste, vent, antisiphonege, rain water pipe lines consisting following items of work:-				
	i) Providing and fixing uPVC UV-Stabilised Soil / waste pipe as per IS:13592 and IS:14735 Grade-B laid in floor & on Exposed faces of wall of Supreme make				
	ii) Fixing the pipeline vertically by Metal clamps with rubber seal of Supreme make Cat. No. SWRMCR 1 to 6.				
	iii) Fixing the pipeline Horizontally with specified slope below the ceiling by Metal clamps with rubber seal and GI hanger rods not less than 5mm dia at specified spacing, including all required hardware.				
	iv) Providing and fixing uPVC cowl at the top of soil, waste water & vent pipe line.				
	v) Laying the pipe below floor / ground to proper slope and gradient for making connections of soil pipe line with inspection chamber or Manhole, waste water connection with Gully trap Chamber including the cost of cement mortar, cement concrete, water proofing compound etc.				
	vi) Jointing the pipe with Solvent Cement & Rubber ring gasket with making holes in walls / floor grooving and redoing the same and brick support etc. Giving water-tightness test for the pipes laid as per codal provisions. Providing Ring Joint pipes at verticals and solvent cement jointed pipes at concealed locations.				
	vii) Necessary cutting to the required length including short pieces, fittings with & without door, assorted fittings such as plugs, tees, couplers, reducers, cross tees, reducing tees, elbows, bends, cleaning pipe, single & double Y, vent cowl, WC connectors & gaskets, offsets etc.				

	viii) Dewatering the pit / trench if necessary, till completion of work.				
	ix) Including all Specials to connect the existing waste water line as specified and directed by EIC.				
	For Soil & waste and Vent pipe lines				
a	110 mm dia.	RM	48		
14	Supply and filling Red earth compacting etc. complete all as per specifications, drawing and as directed by the Engineer in charge.	Cum	500		
15	Supply & installation of medium mechanical stress (HMS) rigid PVC conduit having ISI marked IS 9537 Part - 3, including fixing accessories & hardware concealed /exposed in slab/wall or on 5mm. thick G.I. spacers fixed with no. 10 nettle fold wood screws with nylon plug complete with all conduit accessories 20 SWG G.I. Saddles, PVC pull out boxes, PVC junction boxes, couplers, bends binding wires etc. as per site condition & as per instructions of E-I-C and of following sizes :-				
a	25 mm dia	RM	110		
16	Supplying and fixing circular / rectangular cast iron frame and cover of size HD Rectangular 600 x 600mm, HD Circular 560mm consisting following items of work. i) Supplying single / double seal cast iron LD/MD/HD (Light duty / medium duty / heavy duty) circular / rectangular frame and cover conforming to IS 1726 with ISI mark and approved make including transportation. ii) Fixing the frame to correct level and alignment in cement concrete 1:2:4 for bearing course and capping, including form work, finishing, curing etc. all as per specification, drawing and as directed by the Engineer in Charge. iii) Plastering the exposed faces of bearing course and capping in cement mortar 1:2, 15 mm thick with a floating coat of neat cement including finishing, curing etc. all complete. iv) Painting the frame and cover with two coats of anticorrosive black bitumastic paint of approved make and shade over a coat of primer.	Kgs	100		
			Total Rs.		

- Note:** 1. Rate inclusive of all WCT, Labour cess and taxes if any.
2. Water and electricity will be provided by department free of cost.
3. Quoted rate shall hold good for cutting the stones to any geometric shape in plain and curve and wastage at all lead and lift etc.
4. Quoted rate shall be inclusive of removing all debris generated and disposing at a designated place as per the statutory authorities.
5. Damage to any existing installations, underground, PH and electrical services lines shall be restored without any additional cost to department.

(Rupees

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Contractor's Seal with Signature