

**NAME OF WORK-** CIVIL AND PLUMBING WORKS FOR THE CONSTRUCTION OF **COMPLEX FOR CONFERENCE & LECTURE HALLS** AT IITM,PUNE.

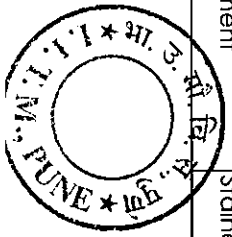
**NAME OF CLIENT-** INDIAN INSTITUTE OF TROPICAL METEOROLOGY,DR. HOMI BHABHA ROAD,PASHAN,PUNE

**NAME OF ARCHITECT-** M/s ARCHIVISTA ENGINEERING PROJECTS PVT. LTD, PUNE.

**NAME OF PROJECT MANAGEMENT CONSULTANT-** M/s ARCHIVISTA ENGINEERING PROJECTS PVT. LTD, PUNE.

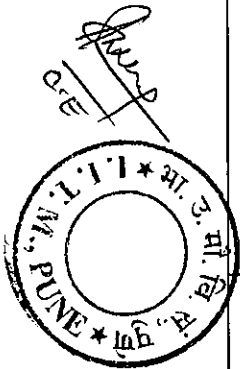
MEENUTES OF PRE BID MEETING HELD AT INDIAN INSTITUTE OF TROPICALMETEOROLOGY, PUNE ON 21/06/2011 AT 11.00AM

SR.NO.	ITEM DESCRIPTION	REFERENCE TO BID DOCUMENT	PRE BID MEETING DECISION
1	The EMD, security deposit and retention money.	Tender Document	No Change in the EMD, security deposit and retention money , it will remain same as per tender document. (Security Deposit can be accepted in the from Bank Guarantee or DD)
2	Approved format of BG and EMD is required	Tender Document	Any Nationalised bank format is accepted.
3	Liquidated damage requested to restrict 5%	Tender Document	No Change in the liquidated damage , it will remain same as per tender document.
4	Contractor required basic rate of cement & steel	Tender Document	No basic rates, as no price escalation.
5	Electrical power supply is requested from the Institute.	Tender Document	No direct electrical supply from institute, contractor has to take separate permission for construction work from MSEB pune.
6	Contractor required space for labour hutment.	Tender Document	Institute will provide space for labour hutment.
7	Completion period	Tender Document	No Change in completion period , it will remain same as per tender document.
8	Clarification on make in BOQ Items	Tender BOQ	Make of Items is mentioned in the Revised BOQ. & contractor shall submit their quotes as per revised BOQ.
9	Final Finish of floor for Conference Hall	Tender Document	Stained concrete



10	Safety officer qualification and certificate is required	Tender Document	Yes, It is as per Tender document.
11	Concrete fly ash can be used in concrete	Tender Document	Yes, provided concrete mix design is got approved by PMC/Architect/Client
12	Can crushed sand be used in the Cement Mortar for masonry work	Tender Document	Yes, but should not be used in any plastering work
13	Can Bank Guaranty used other than Nationalized Bank	Tender Document	Yes, nationalized or scheduled bank are accepted
14	Escalation on material price	Tender BOQ	No price escalation
15	Advance 10% of the contract value as "Interest free Mobilization"	Tender Document	No Mobilization Advance.
16	Neight work are allowed	-	Yes.
17	Bonus	-	Minimum 0.2% per week and maximum 1.5%.
18	Site Barricade	Additional cost in Tender Document	Section VI, Clause no. 21.11, The contractor shall construct Barricade to the site of required height with out any extra cost.
19	Solvency certificate	Tender Document	Instead of 1st July 2011, can accepted effective from 1st April 2011

*[Signature]*  
A.E.



ANNEXURE – I  
MODEL BANK GUARANTEE FORMAT FOR FURNISHING EMD

Whereas.....  
(hereinafter called the “tenderer”)  
has submitted their offer dated.....  
for the supply of .....  
(hereinafter called the “tender”)  
against the purchaser’s tender enquiry No.....  
KNOW ALL MEN by these presents that WE..... of  
..... Having our registered office at  
..... are bound unto..... (hereinafter  
called the “Purchaser”)

In the sum of .....

For which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents, Sealed with the Common Seal of the said Bank this..... Day of ..... 20.....

THE CONDITIONS OF THIS OBLIGATION ARE :

- 1) If the tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.
- 2) If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity :-
  - a) If the tenderer fails to furnish the Performance Security for the due performance of the Contract
  - b) Fails or refuses to accept / execute the Contract

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including 45 days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

.....  
(Signature of the authorized officer of the Bank)

.....  
.....

Name & designation of the Officer

.....  
Seal, Name & Address of the Bank and address of the Branch

## Bill of Quantities for proposed project of conference hall at IITM, Pune

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>A</b>	<b>EXCAVATION AND BACK FILLING</b>				
<b>1</b>	<b>Excavation in soil,soft &amp; hard murum...</b>				
	Excavation for footing, machine foundation, plinth beams , wall footing, gutters, tanks in soil, soft , hard murum, asphalt road & existing murum filling including removing the excavated soil upto a distance of 1500 m beyond battery limit area and staking and / or spreading as directed, shoring, strutting,dewatering wherever required and preparing the bed as directed including back filling in layers etc. complete				
	A) 0.00 - 1.50 m Depth	1601	CUM		
	B) 1.50 – 3.00 m Depth	421	CUM		
	C) 3.00 - 4.50 m Depth	63	CUM		
<b>2</b>	<b>Excavation in soft rock ...</b>				
	Excavation in soft rock, laterite, old cement concrete & lime masonry etc. for footing , machine foundation, plinth beams, wall footing, gutters , tanks including removing the excavated soil upto a distance of 1500 m beyond battery limit area and stacking and / or spreading as directed, shoring, strutting,dewatering wherever required and preparing the bed as directed including back filling in layers etc. complete				
	A) 3.00 – 4.50 m Depth	420	CUM		
	B) 4.50 - 6.00 m Depth	19	CUM		
<b>3</b>	<b>Excavation in hard rock...</b>				
	Excavation for column foundation, machine foundation, plinth beams, wall footing, gutters, tanks in hard rock by pneumatic/hydraulic machinery,(without blasting ) including removing the excavated material any where in the company premises , up to lead of 1500m & spreading as directed , dewatering by pump, preparing the bed for the foundation & necessary back filling with available earth, watering , ramming Including shoring, strutting etc complete as directed				
	A) 4.50 - 6.00 m Depth	16	CUM		
	B) above 6.00 m Depth	16	CUM		

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>4</b>	<b>Filling in plinth with available material...</b>	1080	CUM		
	Filling in plinth and floors with approved material brought from surplus excavated soil including re-excavation of stack wherever required, including filling in layers of 20-30 cm., watering, compaction levelling etc. complete. The proctor density of such compacted fill shall be 95% of standard proctor				
<b>5</b>	<b>Filling in plinth with contractors murum...</b>	201	CUM		
	Same as above, but filling with contractor's locally available filling material with all leads and lifts brought from outside ( material to be approved by engineer in charge ) including all royalties etc. complete.				
<b>6</b>	<b>Carting away surplus excavated earth...</b>	2085	CUM		
	Conveying of surplus excavated earth to outside areas with all royalties and the disposal by mechanical transport etc complete ( Rate including all leads and lifts beyond municipal corporation boundary limit )				
<b>7</b>	<b>Hard core 150 mm thk...</b>	197	SQM.		
	Providing & laying hard core of hand crushed metal 60 mm in two layers of 100 mm each consolidated to 75 mm making total thickness of 150 mm including watering ,ramming with heavy rollers,levelling the surface with murum /gret spreading etc .complete.(The rate shall be for compacted thickness.)				
<b>8</b>	<b>Anti-termite treatment...</b>	1314	SQM.		
	Providing and injecting chemical emulsion for anti- termite treatment and creating a chemical barrier under & around the column pits, walls, foundations, trenches, basement excavation, top surface of murum filling in plinth and rubble soling, junction of wall and floor, along the external perimeter of the building, at expansion joint, surrounding of pipes, conduits etc. complete with chlorophriphos 20% E.C. emulsified concentrates as per latest IS code complete from approved agency.( Plinth area of the building at ground floor is to be considered)				
	Sub Total				

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>B</b>	<b>MASS EXCAVATION AND BACK FILLING</b>				
9	Mass Excavation up to hard rock....	4322	CUM		
	Mass Excavation for the plot levelling in required level up to hard rock (in soil, soft & hard murum & existing murum filling) including removing the excavated soil upto a distance of 1500 m beyond battery limit area and stacking and /or spreading as directed, shoring, strutting, dewatering wherever required & preparing the bed as directed , including backfilling in layers, etc. complete				
10	Mass Filling in plot with approved material brought from surplus excavated murum including re-excavation of murum wherever required, including filling in layers of 20-30 cm., watering, compaction levelling etc. complete. The proctor density of such compacted fill shall be 95% of standard proctor.	1025	CUM		
	all royalties etc. complete.				
11	Mass Filling in plot with approved material brought from outside(contractor's murum) wherever required, including filling in layers of 20-30 cm., watering, compaction levelling etc. complete. The proctor density of such compacted fill shall be 95% of standard proctor.	3297	CUM		
	all royalties etc. complete.				
12	Conveying of surplus excavated earth to outside areas with all royalties and the disposal by mechanical transport etc complete				
	( Rate including all leads and lifts beyond municipal corporation boundary limit )	4322	CUM		
	Sub Total				
<b>C</b>	<b>CONCRETE AND R.C.C. ITEMS -</b>				
13	<b>P.C.C. 1:3:6</b>	161	CUM		
	Providing and laying in situ Plain Cement Concrete 1:3:6 of trap metal for foundation, floor bedding etc. including dewatering, formwork, compacting and curing & placing etc. complete at all depths.				
14	<b>P.C.C. 1:4:8</b>	20	CUM		
	Providing and laying in situ Plain Cement Concrete 1:4:8 ( M 7.5 Grade)of trapmetal for foundation, floor bedding etc. including dewatering, formwork, compacting and curing & placing etc. complete at all depths.				

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>15</b>	<b>Cement concrete M25 grade...</b>				
	Providing and casting in situ cement concrete of M 25grade concrete of trap metal as per detailed designs including dewatering, centering formwork with shuttering ply & steel plates, ompacting with vibrators, placing & fixing inserts (viz. plates, pipes for cutouts, anchors), formation of cutouts, chases etc. as per detail drawing and curing complete. RCC structures shall be Fair Finish.(Rate at all heights & levels and excluding tor / mild steel Reinforcement)				
	A) Footings/ rafts/foundation block/bed block	484	CUM		
	B) Columns / Pedestals	182	CUM		
	C) Plinth / Ground beam/SLAB BEAM	30	CUM		
	D) Slab of all types.	207	CUM		
	E) Beams & lintels.	97	CUM		
	F) Chajja / canopy/ fins/brackets/portals.	4	CUM		
	G) Waistslab,Landings and steps	18	CUM		
	H) Coping.	8	CUM		
	I) Pardi, walls upto 100 mm thickness.	5	CUM		
	J) Pardi, walls 100- 200 mm thickness.	20	CUM		
	K) Pardi, walls 200-300 mm thickness.	49	CUM		
<b>16</b>	<b>TMT Tor / Mild steel bar reinforcement...</b>				
	Providing, fixing and laying in position TMT Tor / Mild steel bar reinforcement of various diameter. for R.C.C. work as per detailed designs, drawings & schedules or as directed including straightening, cutting, bending, hooking the bars, binding with wires or welding and supported as required, providing cover blocks etc. complete (Rate at all heights & levels & including cost of binding wire and / or welding rods )make Sail,Tisco,RINL or equivalent				
	A) TMT Tor steel	89	M.T.		

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
17	<b>MS shear dowel bars...</b>	165	KG		
	Providing and fixing MS shear dowel bars in concrete floor as per detail drawing including cutting, bending, laying in position and applying grease to the exposed bar and covering it with PVC pipe cap properly etc. complete at all heights & levels.(16mm dia.and 900 mm long)				
18	<b>Plum concrete...</b>	335	CUM		
	Providing and laying plum concrete with using PCC 1:3:6 60% and trap rubble not more than 40% as per detailed designs including dewatering ,centering formwork with shuttering ply & steel plates, Compacting with vibrators, placing and curing etc. complete.				
	Sub Total				
<b>D</b>	<b>MASONARY ITEMS -</b>				
19	<b>B.B.M. With Conventional bricks 115 mm thk...</b>	20	SQM.		
	Providing & constructing brick masonry with conventional bricks in half brick thick walls (Min.115 mm thick) in cement mortar 1:4 with RCC bands- Patli at every 1.00 m height as per designs including racking out joints, scaffolding, watering & curing etc.				
20	<b>B.B.M. With Conventional bricks 150 mm thk...</b>	53	SQM.		
	Same as above as per item no.- 19 but for 150 mm thk.BBM.				
21	<b>B.B.M. with conventional bricks in superstructure...</b>	501	CUM		
	Providing and constructing masonry with Conventional bricks in C.M.1:6 in superstructure including constructing in line and level at all depths, racking out joints, scaffolding, watering, curing, striking joints etc. complete.				
22	<b>B.B.M. with conventional bricks in foundation...</b>	52	CUM		
	Providing and constructing masonry with Conventional bricks in C.M. 1:6 in foundation, steps & in plinth including constructing in line and level at all depths, racking out joints, scaffolding, Watering, curing, striking joints etc. complete.				



S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>23</b>	<b>U.C.R. masonry in foundation...</b>	10	CUM		
	Providing & constructing U.C.R. masonry of trap stone in C.M. 1:6 in foundation and plinth of walls including quions, corner stones and headers, constructing in line & level, racking out joints on exposed faces, scaffolding, watering, curing etc.complete.(Headers to be marked with oil paint before use and shall be one per every sqm.)				
	Sub Total				
<b>E</b>	<b>STRUCTURAL STEEL WORK ITEMS -</b>				
<b>24</b>	<b>Structural steelwork in hot rolled sections...</b>	28	M.T.		
	Providing fabricating & erecting structural steelwork in hot rolled sections For columns, tie beams, trusses, purlins, gantry, monorail columns, cable trays, pipe racks, castellated beams, plate girder, staircase & other structural members with all bracing, gusset plates etc. as per detailed drawing or as directed at all heights and levels including removing the scales & burrs, cleaning with phosphoric acid, marking, Cutting, fabrication, hoisting, erecting & fixing in position, making alignment of members making welded / bolted / riveted connections with one coat of approved red-oxide paint etc complete.(Shop drawing for roofing & cladding to be Submitted by Contractor for approval.)				
<b>25</b>	<b>Foundation bolts...</b>				
	Providing & fixing foundation bolts with nuts & washers in RCC columns or foundations at all depths & heights as per detailed drawings including fixing in position with holdfasts, setting it by laser theodolite, welding wherever necessary etc. complete.				
	A) M.S.foundation bolt	810	KG		
<b>26</b>	<b>SS.decorative railing...</b>	23	SQM		
	Design manufacture supply installation of SS pipe railing made out of stainless steel 50 OD tube (Grade AISI:316) type of height 1100 mm, with a vertical balustrade of 50x10 mm SS flat at every 1500mm C/C distance Railing is provided with intermediate two SS support rods of dia 16 & balustrade fixed to floor by SS floor plate 100 x100 x 3 mm mounted flush into flooring finish, floor plates anchor bolted to floor slab, complete railing shall be fixed by anchor fasteners with ss dome nut as per drawing & as approved in mock up				

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
27	<b>M.S.decorative railing with teak wood handrail...</b>	27	SQM		
	Providing and fixing M.S. decorative railing with teak wood handrail of size 100 mm x 75 mm, Teak wood handrail to be continuous at 'L' and 'U' turns and newel posts for staircases, 900 mm high as per detail drawings consisting of MS flats, Square bars, 18 BWG plates including cutting, bending, fabrication, fixing and finishing the steel Work with two coats of synthetic enamel of approved shade and make over a coat of zinc chromate primer and polishing the sill, hand rail and the newel post with clear melamine polish over TW etc. complete. (Weight 35 kg/sqm without TW)				
28	<b>M.S.railing (Wall Hung)</b>	30	RMT		
	Providing and fixing Polished T.W handrail on wall with M.S. fabricated supports at 1 m c/c. 50 x 50 x 6 as per detail drawings including all fabrication supporting steel flat of 50x50x6 mm, running bellow T.W. handrail, the handrail made of seasoned T.W. 100 x 75 shaped as per drawing & as approved in mock up (to be provided by contractor), anchor wall fasteners of approved type & make, clear melamine polishing, enamel painting etc. complete.				
29	<b>S.S.railing (Wall Hung)</b>	9	RMT		
	Providing and fixing Polished SS pipe handrail on wall with SS fabricated supports at 1 m c/c. 50 x 50 x 6 as per detail drawings including all fabrication supporting bellow SS pipe handrail, the SS pipe handrail made of stainless steel 50 OD tube (Grade AISI:316) type, as per drawing & as approved in mock up (to be provided by contractor), anchor wall fasteners of approved type & make, etc. complete.				
	Sub Total				
<b>F</b>	<b>PLASTERING AND WATERPROOFING -</b>				
29	Providing and laying I.P.S. waterproofing with brick bat coba upto 150 mm thk	600	SQM		
	treatment to terrace slab including -				
	1. Washing the existing concrete surface.				
	2. Laying 1:3 cement mortar base & laying brickbat in layer in CM 1:3 to required				
	slope as per drawing. Top coat of 1:3 cement mortar, finishing the top coat with				
	cement slurry.				
	3. Mixing an integral waterproofing compound of approved make (skott no. 1) at				
	1.0 kg per bag of cement at all stages.				

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
	4. Injection grouting with non shrink cementacious grout of approved				
	manufacturer ( FOSROC,SIKKA or equivalent)at construction junctions.				
	5. Item shall include curing, cleaning, giving 7 days pond test and 10 years				
	guarantee.				
	6. Waterproofing shall be carried out upto 300 mm above finished terrace level with				
	terrace level with coving.				
	(Measurement given, is clear plan dimensions)				
<b>30</b>	<b>Internal cement plaster (with neeru finish)...</b>	2575	SQM		
	Providing & applying internal cement plaster to walls (minimum thickness 12 mm) in cement mortar 1:4 with Neeru finish to concrete, stone or brick surface including roughening the concrete surface, applying the base coat in line & level, scaffolding, cleaning & curing etc. complete with grooves, pattas etc, wherever specified at all heights, levels and floors.				
<b>31</b>	<b>External sand faced plaster...</b>	1392	SQM		
	Providing & applying externally sand faced plaster over brick stone or concrete surface in two coats (minimum thickness 20mm) using well graded sand, including roughening the concrete surface, applying base coat in C.M. 1:4 in proper line & level using waterproofing compound of approved manufacturer at 1kg per cement bag, curing the same for not less than two days and keeping the surface of the base coat rough to receive the sand faced treatment, applying second coat in C.M. 1:4, finishing the surface by taking out grains and curing for not less than 14 days etc. at all heights and levels as per drawings including curing, scaffolding, including making of dhar, pani patti, groove etc. complete				
<b>32</b>	<b>Expanded metal mesh...</b>	828	SQM		
	Providing, fixing & placing in position chicken wire mesh over the joint of R.C.C and brickwork, and / or wherever required to hold the extra thickness of plaster, including tightening mesh, scaffolding, etc. complete.				

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>33</b>	<b>Waterproofing treatment to toilet pits...</b>	227	SQM		
	Waterproofing treatment to toilet pits with cleaning the slab surface with wire brush and washing the slab surface thoroughly,applying waterproof plaster in cement mortar 1:3 using approved waterproofing compound to sides and slab surface, finishing necessary laps on walls, watas at junctions of walls etc. including cleaning, watering, curing, giving seven days pond test etc. complete.				
<b>34</b>	<b>Waterproof cement plaster...</b>	227	SQM		
	Providing & applying waterproof smooth finish cement plaster in Cement mortar 1:4 (minimum thickness 12 mm) with waterproofing compound of approved make to concrete, brick or stone masonry surfaces, ceilings including roughening concrete surface, scaffolding, curing, cleaning etc. complete at all heights,. levels & floors				
	Sub Total				
<b>G</b>	<b>FLOORING ITEMS -</b>				
<b>35</b>	<b>Kota flooring...</b>	19	SQM		
	Providing and laying in all position polished kotta stone flooring 25 mm thick of 600 x 600 mm size in plain pattern on a bed of cement mortar 1:6 including laying in required position and in line & level, cement float, filling joints with neat cement slurry, curing, polishing,cleaning etc. compete.(Tiles to be hand dressed & to fit correctly and sluggishly against each other & shall form very fine joint.) Note:-colour of Kotta should be uniform.				
<b>36</b>	<b>Kota skirting....</b>	1	SQM		
	Providing and laying approved quality polished Kota stone 20 mm thk for treads, risers,skirting & cladding as directed on a bed of 1:4 cement plaster including laying in required position and in line & level, filling joints with neat cement slurry, curing,polishing exposed edges ,cleaning etc. complete.				
<b>37</b>	<b>'Pre-polished Indian Juparana' Granite flooring...</b>	590	SQM		
	Providing & laying approved quality 25 mm thick Prepolished Granite flooring in required position & in line and level on a bed of 1:6 cement mortar (50 mm thick) including maintaining the flooring with the layer of POP, cement float, filling joints with matching color cement slurry, polishing, curing and cleaning etc. complete (Basic Rate-180 sqft)				

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>38</b>	<b>'Pre-polished Indian Juparana' Granite skirting....</b>	20	SQM		
	Providing and laying approved quality Prepolished Granite stone 20mm thk for treads, risers,skirting & cladding as directed on a bed of 1:4 cement plaster including laying in required position and in line & level, filling joints with neat cement slurry, curing,polishing exposed edges ,cleaning,maintaining the flooring with the layer of POP etc. complete.(Basic Rate-180 sqft)				
<b>39</b>	<b>Graniteflooring...</b>				
	Providing & laying approved quality 25 mm thick natural stone flooring in required position & in line and level on a bed of 1:6 cement mortar (50 mm thick) including maintaining the flooring with the layer of POP, cement float, filling joints with matching color cement slurry, polishing, curing and cleaning etc. complete				
	A) Granite flooring <b>(Basic Rate-150 sqft)</b>	175	SQM		
<b>40</b>	<b>Granite skirting....</b>	18	SQM		
	Providing and laying approved quality polished Granite stone 20mm thk for treads, risers,skirting & cladding as directed on a bed of 1:4 cement plaster including laying in required position and in line & level, filling joints with neat cement slurry, curing,polishing exposed edges ,cleaning etc. complete.				
<b>41</b>	<b>Flame finished Granite tread &amp; riser</b>	49	SQM		
	Providing and laying approved quality Prepolished granite 20 mm thick for treads(with 15 mm wide flamed friction strip as per design drawing .) & risers in line & level on a bed of 1:6 cement plaster including cement float, filling joints with matching colour cement slurry, curing, edge polishing, complete.(Basic Rate-150 sqft)chamfering ,cleaning, etc.				
<b>42</b>	<b>Vitrified tile flooring...</b>	210	SQM		
	Providing and fixing Vitrified tiles of 597 x 597 mm size of approved make and colour finish for flooring in required position & in line and level as directed, set on a bed of 1:6 cement mortar (min.35 mm thick) including cement float, maintaining the flooring with the layer of POP and filling the joints with matching colour cement slurry, curing, rubbing ,cleaning etc.complete. ( Basic rate of tile - 80/sqft)(make:Kajaria,Nitco,RAK or equivalent)				

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
43	<b>Vitrified tile Skirting...</b>	6.01	SQM		
	Providing and fixing Vitrified tiles skirting of 100 mm high of approved make and colour finish for flooring in required position & in line and level as directed, set on a bed of 1:6 cement mortar, filling the joints with matching colour cement slurry, curing, rubbing ,cleaning etc.complete.(make:Kajaria,Nitco,RAK or equivalent)				
44	<b>Granite platform for counter top basins...</b>	10	RMT.		
	Providing & laying granite platform for counter top basins of 750 mm wide with granite supports for vertical and kadappa below granite as per the detail drawing etc., including fascia patties and rounding or polishing the exposed edges as per drawing, cutting for basin opening, sealing all crevices with silicon sealant, laying Cement mortar 1:6 between granite and kadappa etc. complete.(Basic Rate-150 sqft)				
45	<b>Ceramic tiles flooring...</b>	112	SQM		
	Providing & laying colored antiskid Ceramic tiles of approved size ,make, color & quality for flooring in required position & in line and level on a bed of 1:6 c.m. (min.35 mm thick) including cement slurry, filling joints with matching color cement slurry, curing and cleaning etc. complete( Basic rate of tile - 65/sqft)(make:Kajaria,Nitco,RAK or equivalent)				
46	<b>Dado...</b>				
	Providing and laying colored glazed tiles of approved finish size, make, Color and quality for dado & skirting in required position & in line and level on a leveled plaster bed including cement slurry, filling the joints with matching color cement slurry, curing and cleaning etc. complete(make:Kajaria,Nitco,RAK or equivalent)				
	B) Ceramic glazed tiles (Basic rate-Rs. 75 /sqft)	288	SQM		
47	<b>Urinal partitions...</b>				
	Providing & fixing urinal partitions of size 1200 x 600 mm and 20 mm thk polished on both sides and chamfering on front edge including fixing in position in line and level in cement mortar 1:4,curing,edge polishing, cleaning etc. complete.				
	B) Granite partitions (Basic Rate-150 sqft)	8	SQM		

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
48	<b>Granite window sill,treads &amp; risers...</b>	40	SQM		
	Providing and laying approved quality prepolished granite 20 mm thick for window sill, treads & risers in line & level on a bed of 1:6 cement plaster including cement float, filling joints with matching colour cement slurry, curing, edge polishing, chamfering ,cleaning,nosing etc.complete.(Basic Rate-150 sqft)				
49	<b>Kota window sill,treads &amp; risers...</b>	72	SQM		
	Providing and laying approved quality Kota 20 mm thick for window sill, treads & risers in line & level on a bed of 1:6 cement plaster including cement float, filling joints with matching colour cement slurry, curing, edge polishing,chamfering ,cleaning,nossing etc.complete.(Basic Rate-40 sqft)				
50	<b>IPS Stained Flooring ...</b>	415	SQM		
	[IPS Flooring ] - Providing and Laying IPS flooring, 75 mm thick in Cem:Sand:Aggregate proportion of 1:2:4 (max. 12 mm size Metal aggregate) laid to proper and approved slope & finished smooth with a Tremix vibrator without any marking lines, and stained with approved color stainer of ASIAN PAINTS or equi. brand as per process to approval.				
51	<b>Trimix Flooring</b>				
	Providing and laying plain or reinforced cement concrete 1:1.5:3 for floor in bays (including formwork providing joints and placing inserts, forming pockets if required for m/c legs, columns etc. as per the drawings) including levelling the concrete surface,providing Tremix treatment to the cement concrete floor comprising of screed vibrating and levelling of concrete surface, vacuum dewatering, bull floating and striking off, power floating and power trowelling, curing by ponding for 14 days, cleaning etc. complete.(The tremix concrete surface to be thoroughly cleaned with washing, manual scraping of all the adhered dust, after the curing is over And the concrete surface should be completely dry).				
	A. 150 mm thick concrete.	70	SQM		
	B. 100 mm thick concrete.	40	SQM		
52	<b>Groove cutting...</b>				
	Cutting grooves in concrete floor as per detailed drawings with concrete floor cutter including cleaning etc. complete.				
	( Size - 6 x75 mm )	60	RMT		
	( Size - 12 x75 mm )	10	RMT		

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
53	PU foam sheet for expansion joint...				
	Providing and fixing PU Foam sheet at expansion joint for full length as per instructions of manufacturer,infill for deep joints,making the joint watertight,cleaning etc.complete.				
	A. In R.C.C. work - 25 mm thick	8	SQM		
	B. In Concrete Floor - 12 mm thick	10	SQM		
54	Providing and filling Polysulphide Joint filler				
	Groove filling with polysulphide joint filler... Providing and filling polysulphide joint filler of approved make Flexotex -120 in expansion joints of RCC work, Concrete floor etc. including cleaning the joint with wire brush,providing bond breaker wherever necessary, filling the joint with polysulphide sealant, sanding the same properly to give proper level etc. complete. (Joint filling shall be carried out as per manufacturer's instructions) Manufacturer - M/s. Varunsak. Authorised dealers - Jaison Engineering Technology. (make of material :- Chemtrall Rai )				
	A) Joint Filling size - 12 mm wide X 15 mm deep.	60	RMT		
	B) Joint Filling size – 06 mm wide X 75 mm deep.	10	RMT		
55	Providing and laying PVC sheet of 250 microns thickness below concrete floor including cutting the sheet in required size, laying the sheet, providing laps at the joints etc. complete.	110	SQM		
	Sub Total				
<b>H</b>	<b>PAINTING AND FINISHING -</b>				
<b>56</b>	<b>White wash...</b>	3967	SQM		
	Providing and applying whitewash in two coats on plastered or masonry surface at all heights including scaffolding, preparing the surface by brushing brooming down etc. complete.(make:Berger,Asian or equivalent)				



S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
57	<b>Dry distemper...</b>	20	SQM		
	Providing and applying Dry distemper of approved make and shade on all surfaces & at all heights in three coats including scaffolding,preparing the surface by brushing/grinding the concrete edges and brooming down, applying primer palti etc. complete.(make:Berger,Asian or equivalent)				
58	<b>Acrylic Emulsion (Oil bound distemper)...</b>	20	SQM		
	Providing and applying Acrylic emulsion (oil bound distemper) of approved make and shade on all surfaces & at all heights in three coats including scaffolding, preparing the surface by brushing and brooming down,applying primer, palti and a coat of Birla white putty etc. complete(make:Berger,Asian or equivalent)				
59	<b>Weather Proof Exterior Grade Emulsion...</b>	1392	SQM		
	Providing and applying 100% Weather Proof Exterior Grade Emulsion (Apex Acrylic exterior paint from J & N , Nerolac or equivalent)of approved shade to the plastered or exposed brick or stone or concrete surface in two coats including preparation of the surface, a coat of approved primer, birla white putty scaffolding , curing, cleaning etc. complete.(make:Berger,Asian or equivalent)				
60	<b>Synthetic Enamel paint for structural steel...</b>				
	Providing and applying Synthetic Enamel paint in two coats over structural steel surface as per the manufacturers instructions & of approved shade and make including preparing the surface, applying zink chromate primer ,scaffolding ,cleaning etc. complete(make:Berger,Asian or equivalent)				
	A) For H. R. Sections	28	M.T.		
	B) For C. R. Sections	5	M.T.		
61	<b>Plastic Emulsion...</b>	2535	SQM		
	Providing and applying plastic Emulsion (Luster )of approved make and shade on all surfaces & at all heights in three coats including scaffolding , preparing the surface by brushing and brooming down, applying primer, palti & a coat of Birla white putty etc. complete The dry/wet cleaning of floors/pipes/glass etc after painting is to be carried out.(make:Berger,Asian or equivalent)				
	Sub Total				

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
J	<b>DOORS AND WINDOWS -</b>				
62	Teak wood frame...				
	Providing and fixing C.C.T.W. frame as per detailed drawings with M.S. hold fasts 4 nos. on each side, bar spacer(12mm dia) bolted at the bottom of the frame as per details etc. complete including making the frame, fixing TW cover molding around the frame adjacent to wall and applying two coats of synthetic enamel paint of approved shade and make over a coat of primer on the other faces				
	A) 100 mm x 75 mm	191	RMT.		
63	Flush door...	76	SQM		
	Providing and fixing approved quality factory made solid core flush door in single/double leaf 38mm thick BWR type plywood surface on both sides , TW bidding on all edges ,doors to be of exterior grade as per the detailed drawings including fixing the door and finishing with two coats of synthetic enamel of approved shade and make over a coat of primer etc.complete				
64	S.S.fixtures and fastenings for single leaf door...	34	NO.		
	Providing and fixing S.S. fixtures and fastenings for single leaf door as per following details- Fixtures to be for one door- 1.Dorma/or equivalent make Round knob Handles with cylindrical lock arrangement 1 Set. 2. Hinges 100mm -3 Nos, 3.Door Stoper-1Nos, 4.Door Closer-1Nos				
65	M.S.Rolling shutter...				
	Providing and fixing M.S. Rolling shutter of approved make, fabricated from 18 guage steel laths with side guide bottom rail, brackets, door suspension shaft,housing box at the top, including all approved quality fixtures & fastenings, including 25 mm dia rubber tube at bottom, fabrication, fixing & finishing with two coats of Synthetic enamel of approved shade and make over a coat of primer etc. complete.				
	1. Mechanically (Gear) operated shutters	21	SQM		

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
66	<b>Fully glazed aluminium DOOR...</b>	37	SQM		
	Providing and fixing in position approved make fully glazed aluminium door manufactured out of HE 9 WP high grade aluminium alloy sections of approved make conforming to I.S.specifications of various sizes as per detail drawing including 6 mm clear float glass with mitered shutter joints, with nylon rollers,mastic sealing, sealing the creavices around the frame with sealant, powder coating 50 microns thk. of approved shade from the approved agency, all fixtures such as floor pivots or hinges, handles, locking arrangement, door closers etc. shall be of approved make and type. Cost Includes door closer ' Dorma make'				
67	<b>Acoustical wooden Door...</b>	6	NOS		
	Shutter :- Avg 70 mm thick Solid core Flush door with both faces natural veneer over plyboard; fabricated with skeletal support frame 40 x 40 S.W members @ 600mm C/C, with 12mm marine ply on both faces, avg 40mm thk 1000 gsm micron acoustic wadding infill as approved. Natural veneer to be 3.5 mm thk. of approved type and shade, veneer fleece mounted on BWR grade plyboard skin; finished as double coat of PU Clear matt polish. Shutter to be TW lipped of avg. size 12x75 mm, PU Clear matt polished.				
	Door frame:-				
	Fabricated from 100 x 150 T.W. rebated door frame profile with 4 No. Hold fasteners on each vertical jamb fixing to wall / RCC surface complete as per design, drawings, and acoustic consultant instructions. Polish to be as of shutter above				
	Door Fitings				
	PROVIDING & FIXING				
	INTUMESCENT STRIP – 1 no per shutter, proprietary shielded intumescent smoke stop strip in one rebate on three edges except the bottom.				
	SILICON DOORSEALS: 1 no. per shutter in one rebate on three edges except the bottom.				
	Hinges:-102x102x3 stainless steel Hinges of DORMA or HAFELE make 4 Nos / shutter.				
	Tower Bolts :300 mm long manual flushbolt SS 316 grade of 'brushed steel' finish				
	Door closers etc.complited				

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>68</b>	<b>Fire escape door...</b>				
	Providing fixing FIRE ESCAPE steel door of approved make, single/double leaf with 2 mm thk ms sheet on both sides fitted on internal ms hollow tube framing, duly filled in with PU foam insulation, door frame of pressed ms sheet 2 mm thk, 10mm square bar bracing at bottom, double glass view panel, including all approved type heavy duty fastenings and fixtures comprising of :S.S. hinges, Panic bar handle inside, air seal gaskets between shutter and frame, rubber strip at bottom etc complete. Door to be certified as per CBRI norm.( Supplier : Shaktimate/Seth fabricator)				
	a) D-2000 X 2500 mm	1	NOS		
	b) D -1500 X 2500 mm	1	NOS		
<b>69</b>	<b>Fully glazed aluminium windows...</b>				
	Providing and fixing in position approved make fully glazed aluminum windows manufactured out of HE 9 WP high grade aluminum alloy sections (Zindal make) confirming to I.S. specifications with sub frame framing 100x35 mm, sliding sections of 25 mm series				
	A) Two track two shuttered window with 6 mm thick clear glass of				
	'Modi' make.		SQM		
	B) Fixed glass window with 6 mm thick Float glass.	13	SQM		
	C) Three track three shuttered window with 6 mm thick clear glass of				
	'Modi' make.		SQM		
	D) Louvred window with 6 mm thick float glass of approved make and				
	colour with provision of exhaust fan etc.	6	SQM		
	F) N type window with 6 mm thick float glass.		SQM		
	G) Top hung window with 6 mm thick float glass.		SQM		
	H) With ACP panels		SQM		

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>70</b>	<b>Glass Façade</b>	<b>89</b>	<b>SQM</b>		
	Providing, supplying & fixing in position structural glazing work as per manufacturers' shop drawings- duly approved by architect, inclusive of LAMINATED 6+1.52PVB+6 mm sandwich laminated toughened, low-e inside and clear float glass out side of shade and tint of Saint Gobain or equivalent as approved by Architects/Client, as per drawing. The system to be of Al mullion-transom backer grid frame mounted on the inner side of glazing Al avg. 2mm or more thick, extruded section and external covered extruded profile of 100 x 40 mm fixing on horizontally and vertically in all sides and colour anodised to avg. 25 micron as per approved colour & finish, all SS fixtures & fastenings of approved grade; floor & topmost transom to be matching mullion in depth(avg. size 60 x 100 ) so as to form a peripheral frame. The item to be cross-checked with structural engineering design and calculations for support sections & fixing hardware by the vendor and item to include same alongwith getting part mock-up at site approved from the architects. Item to include all water pressure testing on unit section,fixing brackets, SS fasteners, sashes, cleaning,hardware, fixtures, accessories complete as approved by the architects; fixed installed complete				
	Sub Total				
<b>L</b>	<b>MISCELLANEOUS ITEMS</b>				
<b>71</b>	<b>2X2 Grid false ceiling...</b>	<b>798</b>	<b>SQM</b>		
	Providing & fixing mineral fiber ceiling prima fine fissured or approved with Tegular edge of Armstrong or equivalent make with powder coated grid including cutouts for light fixtures / AC grills, diffusers & necessary framework /support required from the ceiling, etc complete.				
<b>72</b>	<b>Plinth protection...</b>	<b>10</b>	<b>SQM</b>		
	Providing and laying Plinth protection to the outer walls of the building including necessary excavation, metaling of 150mm, laying 100 mm thick PCC 1:4:8 concrete and 100 mm thick reinforced cement concrete 1:2:4 with broom finish including formwork etc complete				
<b>73</b>	<b>Anchor fastner for concrete...</b>				
	Providing and fixing anchor fastner for concrete including drilling holes filling holeswith Nitomorter PE and cleaning. With necessary holes, filling scaffolding etc. complete. Fischer or equiv.approved make )				
	A) 8mm dia	<b>2</b>	<b>NO.</b>		

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
	B) 10mm dia	2	NO.		
	C) 12mm dia	2	NO.		
	D) 16mm dia	2	NO.		
<b>74</b>	<b>Anchor fastner for masonry...</b>				
	Providing and fixing anchor fastner for masonry including drilling holes with nitomorter PE and cleaning . With necessary sacfolding etc. complete. Fischer or equiv.approved make )				
	A) 8mm dia	2	NO.		
	B) 10mm dia	2	NO.		
	D) 12mm dia	2	NO.		
	E) 16mm dia	2	NO.		
<b>75</b>	<b>Making through holes...</b>				
	Making through holes in plain or reinforced cement concrete with Diamond core drilling system by using Bosch power tools.of following diameters. Rate in Dia/mm				
	a) 52 mm	2	NO.		
	b) 82 mm	2	NO.		
	c) 112 mm	2	NO.		
	d) 122 mm	2	NO.		
	e) 152 mm	2	NO.		
	f) 202 mm	2	NO.		
<b>76</b>	<b>Bare"Galvalume/Zincalume" MS sheets for roofing...</b>	600	Sqm		
	Providing and fixing bare"Galvalume/Zincalume" MS sheets0.55mm thick (TCT) for roofing including all approved quality fastenings including all approved quality fastenings, fixings like metal washersNeoprene / EPDM washers,caps,side stiching,riveting,mastic taping etc. complete with all scaffolding and giving watertightness test & guarantee etc. complete. (Depth Of corrugation shall be 40 mm and overlap of sheets shall be 250 mm) (make:Bluescope,Cril,Safintra,Inter Arch)				
<b>77</b>	<b>Precoated sheets flashing...</b>				
	Providing and fixing precoated metal plain sheets 0.5 mm thk.( TCT ) for flashings made out of CR hot dip galvanised with epoxy primer, 275 gsm zinc coating & organic polyster coating on the top and pure polyster coat on back coat including all quality fastenings, fixing with self tapping screws from Buildtex, internal butt strap inlayed gasket,metal washers and Neoprene / EPDM washers etc. complete.(make:Bluescope,Cril,Safintra,Inter Arch)				
	a) Upto 300 mm Girth	70.00	Rmt		

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
	b) Upto 600 mm Girth	20	Rmt		
	Sub Total				
<b>M</b>	<b>SANITATION AND PLUMBING -</b>				
<b>78</b>	<b>Indian WC...</b>	7	NO.		
	Providing and fixing in position INDIAN WATER CLOSET from Duravit/Kohler Sanitary ware including automatic flush tank of 5/10 liter capacity at required line & level including : 1) 575 mm white/color glazed earthenware WC pan of Orissa type. 2) Concelled allied flush valve(Make Hindware)				
<b>79</b>	<b>European WC...( Make-Kohler, Item code K-17647T-5 or equivalent)</b>	8	NO.		
	Providing and fixing in position EUROPEAN WATER CLOSETS from Duravit/Kohler or equivalent Sanitary ware (Floor / Wall mounted) at required line and level including : 1) White/color glazed earthenware WC pan of approved make with integral P or S trap including C.I. connections . 2) Concelled allied flush valve				
<b>80</b>	<b>Sensor operated Urinal...</b>	10	NO.		
	Providing and fixing URINALS at required line and level including : 1) White/colored glazed vitreous Flat back large urinal from Duravit/Kohler or equivalent Sanitary ware as per detailed drg and catalogue no. (make- Kohler -k-5017N - ER010 or equivalent))				
<b>81</b>	<b>Wash basin...</b>	17	NO.		
	Providing and fixing in position WASH BASIN (Under counter) at required line & level including : A) Colored glazed earthenware wash basin from HINDUSTAN Sanitary ware Oval shaped. B) 32mm dia brass CP bottle trap with waste coupling and joints and 32 mm (make- Hindware zen- cat. No. 10049 or equivalent))				
<b>82</b>	<b>Nahani trap...</b>	36	NO.		
	Providing and fixing in position 100 mm dia C.I. NAHANI TRAPS including necessary beddings, up to the outside face of the wall & stainless steel heavy type grating with ring of approved type complete.				

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>83</b>	<b>Gully trap...</b>	22	NO.		
	Providing and fixing in position STONE WARE GULLY TRAP of size 150 x 100 mm including C.I. cover and frame, PCC 1:3:6 in foundation, 230 x 300 mm chamber of brick masonry in C.M.1:5 with neat cement rendering including excavation & refilling etc. complete.				
<b>84</b>	<b>Inspection chamber with Cl...</b>				
	Providing and constructing masonry INSPECTION CHAMBERS up to 1500 mm depth in 230 mm thick conventional brick masonry in C.M. 1:6,including excavation up to 1.5 depth in all kind of strata(excluding Hard rock), 100 mm thick 1:3:6 P.C.C. bedding, plaster in C.M. 1:4.				
	A) 600 mm x 450 mm	1	NO.		
	B) 600 mm x 600 mm	6	NO.		
	C) 600 mm x 750 mm	1	NO.		
	D) 600 mm x 900 mm	6	NO.		
	E) 900 mm x 900 mm	1	NO.		
<b>85</b>	<b>Inspection Chambers with precast...</b>				
	Providing and constructing masonry INSPECTION CHAMBERS up to 1500 mm depth in 230 mm thick conventional brick masonry in C.M. 1:6,including excavation up to 1.5 m depth in all kind of strata(excluding Hard rock), 100 mm thick 1:3:6 P.C.C. bedding, plaster in C.M. 1:4 fro				
	A) 600 mm x 450 mm	1	NO.		
	B) 600 mm x 600 mm	5	NO.		
	C) 600 mm x 750 mm	1	NO.		
	D) 600 mm x 900 mm	5	NO.		
<b>86</b>	<b>RCC hume pipe...</b>				
	Providing, laying and jointing RCC HUME PIPES of NP 2 class with all specials below ground level at all depths including cutting, jointing with hemp yarn & C.M.1:1 and testing including excavation up to Hard rock & refilling, cleaning etc. complete(Note:if required end casing in 1:2:4 Concrete should consider be exta). Excavation in hard work shall be approved and paid extra				
	A) 150 mm dia.	40	RMT.		
	B) 200 mm dia.	20	RMT.		
	C) 300 mm dia.	5	RMT.		



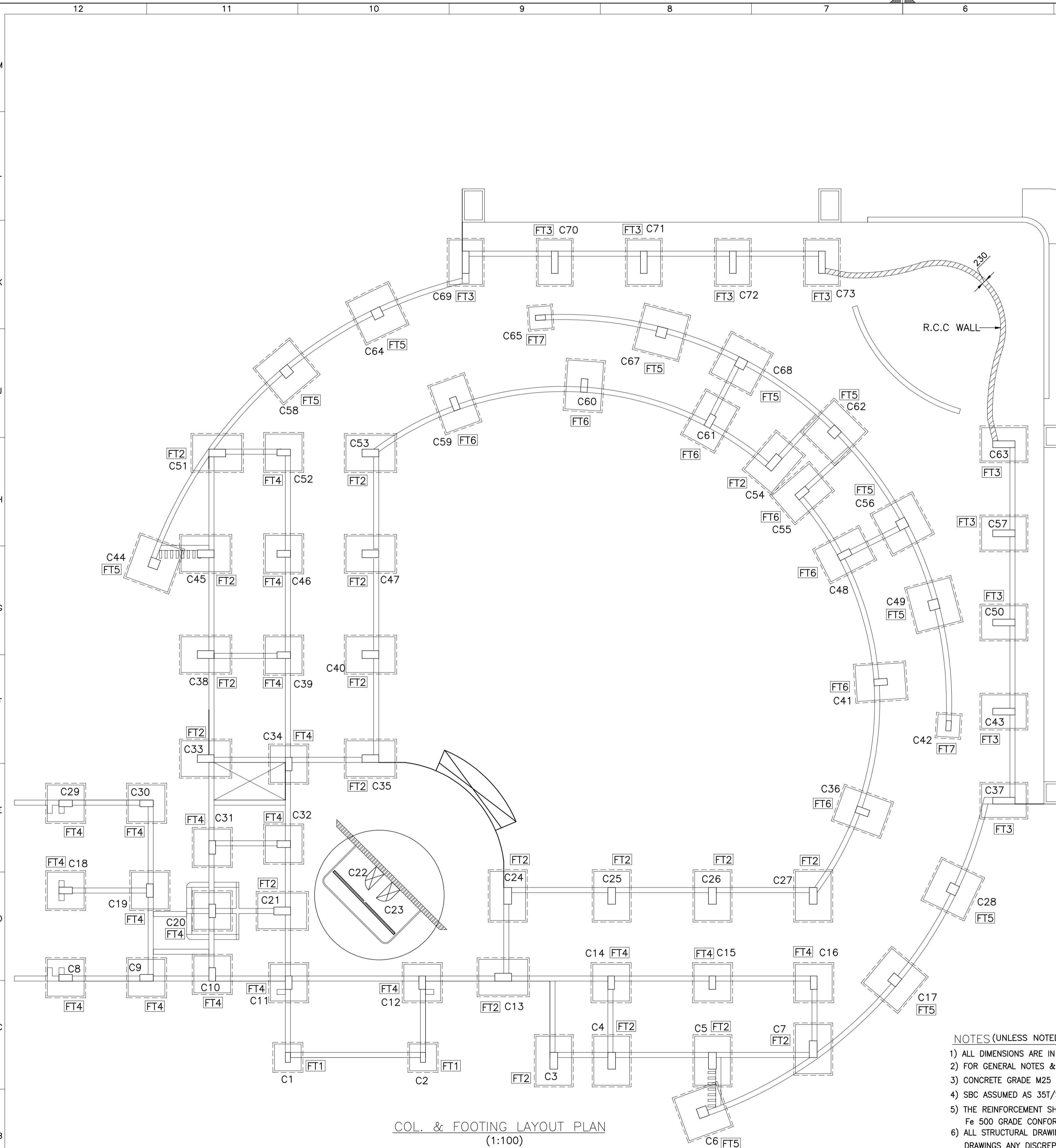
S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>87</b>	<b>CI Pipes...</b>				
	Providing, fixing in position & jointing CI Pipes (Heavy Duty) with all specials such as bends, tees, single junctions, double junctions, offsets, cowls etc. with appropriate jointing, including making holes in walls & floors, testing the line and joints.				
	A) 80 mm dia. waste pipe	10	RMT.		
	B) 100 mm dia. waste pipe	10	RMT.		
<b>88</b>	<b>GI pipe...</b>				
	Providing,laying and jointing 'C' Class G.I. Water Supply Pipes with all specials such as bends ,sockets ,back nuts ,elbows ,tees ,reducers ,clamps etc. including fixing in walls or under floor or ground with necessary excavation and back filling.				
	B) 15 mm dia. Concealed	60	RMT.		
	C) 20 mm dia. open	5	RMT.		
	D) 20 mm dia. concealed	10	RMT.		
	E) 25 mm dia. open	5	RMT.		
	F) 25 mm dia. concealed	60	RMT.		
	G) 32 mm dia. Open	5	RMT.		
	H) 32 mm dia concealed	80	RMT.		
	I) 40 mm dia. open	50	RMT.		
	J) 50 mm dia. open	10	RMT.		
<b>89</b>	<b>Ball Valves...</b>				
	Providing and fixing Heavy Quality Gun Metal Ball Valves with stainless steel ball complete.				
	A) 25 mm dia.	2	NO.		
	B) 32 mm dia.	1	NO.		
	C) 40 mm dia.	2	NO.		
	D) 50 mm dia.	1	NO.		
<b>90</b>	<b>Long body Bib cock...</b>	7	NO.		
	Providing & fixing long body CP bib cock 15 mm dia of approved quality & make with all specials, fittings etc. complete. (make- Jaguar clazion 23107 or equivalent)				
<b>91</b>	<b>Two way Bib cock...</b>	8	NO.		
	Providing & fixing Short body CP bib cock 15 mm dia of approved quality & make with all specials, fittings etc. complete. (make- Jaguar, item code-23041or equivalent)				

S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
92	<b>Stop cock...</b>	44	NO.		
	Providing & fixing brass angular stop cock of 15 mm dia of approved Quality & make with all specials, fittings etc. complete.(make:- clarion 23053 or equivalent)				
93	<b>Pillar cock...</b>	16	NO.		
	Providing & fixing short body CP pillar cock 15 mm dia of approved quality & make with all specials, fittings etc. complete. (make-Jaguar ,PRS -031or equivalent)				
94	<b>Push cock...</b>		NO.		
	Providing & fixing CP push cock 15 mm dia of approved quality & make with all specials, fittings etc. complete. (make-Jaguar or equivalent)				
95	<b>Mirror...</b>	16	SQM		
	Providing and fixing mirrors in toilets including MS powder coated frame, 12mm ply backing and Belgium make mirror with all hardware.				
96	<b>Paper holder...</b>	15	NO.		
	Providing and fixing paper holder of approved make in toilets with all specials etc. complete.( make-Jaguar, Item code-7751 queen's or equivalent)				
97	<b>Towel rod...</b>	17	NO.		
	Providing and fixing towel rod of approved make in toilets with all specials etc. complete. ( make-Jaguar Continental 1111N or equivalent)				
98	<b>Soap dish...</b>	17	NO.		
	Providing and fixing ceramic soap dish in toilets including fixing in position and in line and level with cement slurry, curing,cleaning etc. complete.( approved )				
99	<b>'SINTEX' tank...</b>	4	Nos		
	Providing and fixing "SINTEX" water storage tank of approved make and of required capacity including all connections, accessories, transportation, hoisting, erection etc. complete.(2000 Litre capacity )				
100	<b>Non return valves...</b>				
	Providing and fixing approved make gun metal non return valves etc. complete				

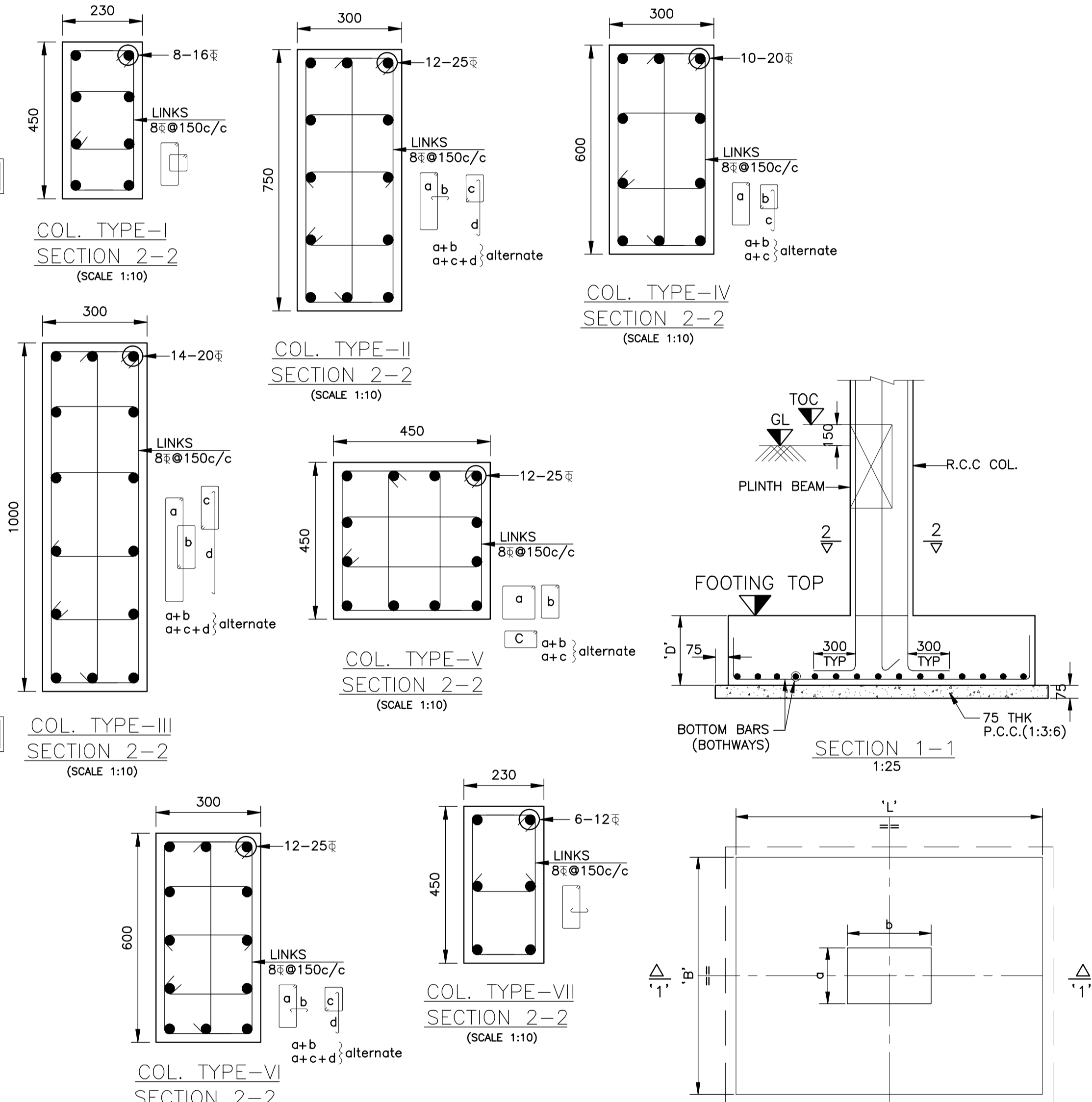
S.NO.	ITEM DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
	A) 50 mm dia.	2	NO.		
	B) 75 mm dia.	1	NO.		
<b>101</b>	<b>Flush valves...</b>				
	Providing and fixing approved make gun metal flush valves etc.complete				
	A) 32 mm dia.	17	NO.		
<b>102</b>	<b>Stone ware pipes...</b>				
	Providing, laying and jointing the best quality stone ware pipes with all specials fittings such as bends, tees, junctions, double junctions etc. below ground at all depths including cutting, jointing with hemp yarn & Cement Mortar.1:1and testing.				
	A) 100 mm dia.	10	RMT.		
	B) 150 mm dia.	10	RMT.		
<b>103</b>	<b>PVC Down take pipes of 200 mm</b>	66	RMT		
	Sub Total				
<b>104</b>	<b>ELECTRICAL (Concealed Conduits)</b>				
	Supply and installation of Surface / concealed 25mm dia Heavy Duty PVC Conduit with spacer saddles and including all necessary accessories required to complete the Job (Coupler,Tees,Bends,Elbows,Sockets ,JBs etc. ).	500	RMT		
	Sub Total				
	<b>Total</b>				

**SCHEDULE OF COLUMNS AND FOOTINGS**

COLUMN Nos.	R.C.C FOOTING SIZE				BOTTOM REINFORCEMENT		COL. TYPE	FOOTING TO TOP SIZE (a x b)	REINFORC.	REMARK
	TYPE	L	B	d	D	SHORT-SPAN				
C1,C2	FT1	1200	1200	--	500	12 $\phi$ @ 150 c/c	12 $\phi$ @ 150 c/c	I	230x450	8-16 $\phi$
C3,C4,C5,C7,C13,C21,C24,C25,C26,C27,C33,C35,C36,C38,C40,C41,C45,C47,C48,C51,C53,C54,C55,C59,C60,C61	FT2	2200	1600	--	500	12 $\phi$ @ 135 c/c	10 $\phi$ @ 135 c/c	II	300x750	12-25 $\phi$
C37,C43,C50,C57,C63,C69,C70,C71,C72,C73	FT3	2000	1500	--	500	10 $\phi$ @ 135 c/c	10 $\phi$ @ 135 c/c	III	300x1000	14-20 $\phi$
C8,C9,C10,C11,C12,C14,C15,C16,C18,C19,C20,C29,C30,C31,C32,C34,C39,C44,C46,C52	FT4	1650	1650	--	500	10 $\phi$ @ 125 c/c	10 $\phi$ @ 125 c/c	IV	300x600	10-20 $\phi$
C6,C17,C28,C44,C49,C56,C58,C62,C64,C67,C68	FT5	2000	2000	--	500	12 $\phi$ @ 115 c/c	12 $\phi$ @ 115 c/c	V	450x450	12-25 $\phi$
C36,C41,C48,C55,C59,C60,C61	FT6	2200	1600	--	500	12 $\phi$ @ 125 c/c	10 $\phi$ @ 125 c/c	VI	300x600	12-25 $\phi$
C42,C65	FT7	1000	1000	--	400	10 $\phi$ @ 150 c/c	10 $\phi$ @ 150 c/c	VII	230x450	6-12 $\phi$



COL. & FOOTING LAYOUT PLAN (1:100)



- NOTES (UNLESS NOTED OTHERWISE) :-
- 1) ALL DIMENSIONS ARE IN MM .
  - 2) FOR GENERAL NOTES & LEGEND REFER DRG. NO. AEPPL/STR-201
  - 3) CONCRETE GRADE M25 UNLESS NOTED OTHERWISE
  - 4) SBC ASSUMED AS 35T/SQ. M DEPTH BELOW FGL AS SHOWN IN DRAWING.
  - 5) THE REINFORCEMENT SHALL BE TMT BARS OF Fe 500 GRADE CONFORMING TO IS:1786.
  - 6) ALL STRUCTURAL DRAWINGS MUST BE READ ALONG WITH ARCHITECTURAL DRAWINGS ANY DISCREPANCY SHALL BE BROUGHT TO THE NOTICE OF ENGR-IN-CHARGE BEFORE EXECUTION.

NO	REFERENCE DRAWINGS	DRAWN BY & DATE	CHECKED BY & DATE	APP/AUTH BY & DATE	ALTERATION	REV	DATE	BY	DATE
06		SUNIL 15/06/11	VJAY 15/06/11	PDM 15/06/11	RELEASED FOR TENDER	06			
05						05			
04						04			
03						03			
02						02			
01						01			
00						00			

NORTH

TITLE:- R.C.C. DETAILS OF COL. & FOOTING

SCALE : AS SHOWN DATE : 15/06/11

STRUCTURAL DRAWING

DRG.NO. STRC/EX-202

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ORIGINAL FRAME SIZE 594x841 mm