



**PUBLIC WORKS DEPARTMENT
BUILDING ORGANISATION**

**OFFICE OF THE ENGINEER-IN-CHIEF (BUILDINGS) &
CHIEF ENGINEER (BUILDINGS), PWD, CHENNAI REGION, CHEPAUK, CHENNAI-5**

CIRCULAR MEMORANDUM NO. HDO (A) / 48518 / 2003, dated 31.07.2014

Sub: Buildings – Plinth Area Rates for the preparation of Rough Cost Estimates for building schemes during the year **2014-2015** – Approved – Communication of – Regarding.



The Plinth Area Rates for the purpose of preparation of Rough Cost Estimates for Building Schemes during the year **2014-2015** are approved and furnished in Annexure I, II, III, IV & V. The Chief Engineers, the Superintending Engineers and the Executive Engineers of Building Organisation are requested to adopt the above rates in the preparation of the rough cost estimates for building schemes with effect from **01.08.2014**, until further orders from this office.

The receipt of this circular memo along with its enclosures may be acknowledged.

Encl.: Annexures-I, II, III, IV & V.

H. V. Muthiah
31/7/14
for Engineer-in-Chief (Buildings) &
Chief Engineer (Buildings), PWD,
Chennai Region, Chennai-5

To

The Chief Engineer (Buildings), PWD, Trichy Region, Trichy.
The Chief Engineer (Buildings), PWD, Madurai Region, Madurai.

Copy to the Engineer-in-Chief, Water Resources Department, Chennai-5.

Copy to the All Chief Engineers, Public Works Department and Water Resources Department.

Copy to the Superintending Engineers of Buildings Organisation.

Copy to the Executive Engineers of Buildings Organisation.

Copy to the Superintending Engineer, PWD, P&D Circle, Chennai-5 (with 10 copies).

Copy to the EIC & CE (B), CR's Table.

Copy to the Joint Chief Engineer (Buildings), PWD, Chennai-5.

Copy to the Deputy Chief Engineer (Buildings), PWD, Chennai-5.

Copy to HDO & Assistant Executive Engineers of all Technical Sections in O/o the Engineer-in-Chief (Buildings) & Chief Engineer (Buildings), Chennai Region, PWD, Chennai-5.

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ANNEXURE-I

PLINTH AREA RATES FOR THE YEAR 2014-2015 FOR THE PREPARATION OF ROUGH COST ESTIMATE

Sl. No.	Type of Building	For works in Moffusil (other than Corporation Limits)			For works in Corporation Limits					
		Foundation	Super Structure	Roof Finishing	In Trichy, Salem, Tirunelveli, Thoothukudi, Vellore, Tiruppur and Erode			In Chennai, Colmbatore and Madurai		
					Foundation	Super Structure	Roof Finishing	Foundation	Super Structure	Roof Finishing
(Rate in Rupees per 1 sqm.)										
1.	Residential Load Bearing	2635	6255	955	2765	6570	1005	2835	6715	1035
	Framed	3125	8720	980	3280	9155	1035	3365	9360	1050
2.	Non-Residential Load Bearing	2030	5305	955	2130	5565	1005	2185	5700	1035
	Framed	3125	6550	980	3280	6875	1035	3365	7025	1050
3.	Hospital Load Bearing	2030	5940	955	2130	6620	1005	2185	6380	1035
	Framed	3125	9135	980	3280	9595	1035	3365	9830	1050

Note:-

- For the calculation of Foundation Cost, Plinth area at Ground level of the building is to be taken.
- For the calculation of Super Structure cost, plinth area of respective floor of the building is to be taken.
- For the calculation of Roof finishing cost, Plinth area at Ground level of the building is to be taken.
- For School Buildings – the Super Structure cost will be 80% of Super Structure cost of Non-Residential Buildings.**
- For stilt floor towards Car parking, Garages, Cycle shed, Staircase Head Rooms etc., - the plinth area rate will be 65% of Super Structure cost of Non-residential building.
- For basement floor, an extra 25% over the super structure cost of respective type of building is to be added.
- In framed structure, where dummy columns are to be provided, a rate of Rs.330/m² of plinth area for Residential Building and a rate of Rs.260/m² for Hospital Buildings and Non-residential Buildings is to be allowed.

8. For upper floors, an extra @ Rs.25/m² may be added towards lift charges for each floor.
9. The additional rates allowed in the schedule of rates for works in Jails, Reserve forests, Hills and other Special tracts etc., shall be added to the above plinth area rates for works in respective areas.
10. For works in the belt area of Chennai City, the plinth area rate applicable for Chennai City shall be adopted.
11. For works in coastal area a rate of Rs.90/m² over the basic rate as approved in the table above, (for the total plinth area) shall be added for providing concrete of higher grade.
12. For super structure for Earth-quake prone areas, the rates in Annexure-V shall be adopted.
13. All the above provisions shall be added only on the basic rates as approved in the table above.

14. PROVISIONS INCLUDED IN FOUNDATION RATE:

- (a) The rate given for foundation is applicable for Ground Floor + 2 Floors in the case of Load bearing structure.
- (b) The rate given for foundation is applicable for Ground Floor + 3 Floors in the case of Framed structure.
- (c) The rate given for foundation is to be calculated based on plinth area at Ground Floor of the building only.
- (d) The depth of foundation assumed is 1.8m below G.L. with conventional stepped footing in the case of Load bearing structure.
- (e) The depth of foundation assumed is 2.0m below G.L. with isolated footing in the case of Framed Structure.
- (f) The foundation rate is inclusive of Earth Work, Sand filling, PCC 1:5:10 for Mat Concrete, Brick Work / Random Rubble Masonry in Cement Mortar, Re-filling the sides of foundation, Plinth beam including cost of centering, Cement Concrete, Steel, Damp Proof Course, Sand filling in basement and flooring concrete in Ground Floor in the case of Load bearing structure.
- (g) The foundation rate is inclusive of Earth Work, Sand filling, PCC 1:5:10 for Mat Concrete, Cement Concrete, Centering, Steel for column footing, Pedestal, Column, Re-filling the sides of foundation, Plinth beam, Brick work in Cement Mortar upto basement level, Damp Proof Course, Sand filling in basement and flooring concrete in Ground Floor in the case of framed structure.

- (h) The foundation rates are applicable for building with basement at 0.9m height from ground level.

15. PROVISIONS INCLUDED IN SUPER STRUCTURE RATE:

- (a) This rate is inclusive of Brick work, RCC, Steel, Centering, Plastering, joinery items with steel frames and M.D.F, shutter for doors, steel glazed windows and steel glazed ventilators, Grano flooring 25mm thick in the case of residential & non residential buildings, mosaic tile flooring in the case of Hospital building and Rain water down fall pipe of adequate dia.
- (b) The height of each floor has been taken as 3.30m average.
- (c) This rate is inclusive of provision for Anti skid ceramic tile flooring and glazed tile dadoing in Toilets.
- (d) This rate is inclusive of plastering with Cement Mortar 1:5, 12mm thick, white washing two coats over one coat of white washing for interior walls and colour washing two coats over one coat of white washing for exterior faces.

16. PROVISIONS INCLUDED IN ROOF FINISHING RATE:

- (a) This rate is inclusive of weathering course, finishing with pressed tiles, providing parapet wall with Brick work in Cement Mortar, plastering, white washing for interior faces and colour washing for exterior walls.

17. EXTRA PROVISIONS TO BE ALLOWED OVER THE ABOVE RATE:

(a) IN FOUNDATION:-

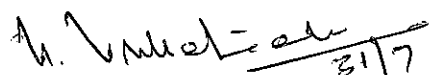
Sl. No.	Type of foundation	Rate in Rupees per one sq.m.	Area to which applicable
(i)	For stub column arrangements for Load bearing structure	805	plinth area at Ground level
(ii)	For combined footing	525	plinth area at Ground level
(iii)	For strip raft	2080	plinth area at Ground level
(iv)	For raft (Floating Raft)	3125	plinth area at Ground level
(v)	For every additional 0.3m basement height	310	plinth area at Ground level
(vi)	For every additional 0.3m depth in foundation	195	plinth area at Ground level

Sl. No.	Type of foundation	Rate in Rupees per one sq.m.	Area to which applicable
(vii)	For every additional floor over initial Ground + 3 floors in case of Framed structure	430	Respective floor area
(viii)	For Anti-termite treatment	80	plinth area at Ground level
(ix)	Pile Foundation		
(a)	Upto 4 storeys for a depth of 15m	6390	plinth area at Ground level
(b)	More than 4 storeys but less than 8 floors	8210	plinth area at Ground level
(c)	More than 8 floors	11180	plinth area at Ground level
(d)	Add extra for every one metre depth, if the depth of pile exceeds 15m	365	plinth area at Ground level
(e)	Deduct extra for every one metre depth, if the depth of pile is less than 15m	175	plinth area at Ground level

(b) IN SUPER STRUCTURE:-


Sl. No.	Description of work	Rate	
(i)	For every additional 1m height over the initial height of 3.30 m	Rs.410/m ²	
(ii)	Flooring:- (Actual area of flooring has to be considered)	In Residential & Non-residential Buildings	In Hospital Buildings
(a)	Grey colour mosaic tiles	Rs.530/m ²	NIL
(b)	Other colour mosaic tiles	Rs.705/m ²	Rs.175/m ²
(c)	Ceramic tiles (not less than 305 x 305 x 6 mm size)	Rs.780/m ²	Rs.250/m ²
(d)	Marble (macrona) (not less than 600 x 600 x 18mm size)	Rs.1520/m ²	Rs.990/m ²
(e)	Marble (White) (not less than 600 x 600 x 18mm size)	Rs.1695/m ²	Rs.1165/m ²

(f)	Marble (Adanga) (not less than 600 x 600 x 18mm size)	Rs.1270/m ²	Rs.740/m ²
(g)	Marbonite tiles (not less than 600 x 600 x 8mm size)	Rs.1250/m ²	Rs.720/m ²
(h)	Rajasthan Kota Stone (Plain)	Rs.905/m ²	Rs.375/m ²
(i)	Rajasthan Kota stone (Laid in combination with marble strips)	Rs.1040/m ²	Rs.510/m ²
(j)	Cuddapah slab	Rs.675/m ²	Not recommended
(iii)	Joinery: (for any joinery like Aluminium (or) any other equivalent types of joineries if proposed) – Add extra	Rs.485/m ² of carpet area	
(iv)	Cement painting if proposed:-		
(a)	For internal faces and External faces	Rs.380/m ² based on plinth area	
(b)	For external faces only	Rs.185/m ² based on plinth area	


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ANNEXURE-II
OPTIONAL ITEMS

Sl. No.	Description of work	Rate in Rupees per one sq.m.	Area to which applicable
1	False ceiling using G.I. Channel Sections etc., (if proposed):-		
(a)	False ceiling with plain Gypsum board	1,010	Ceiling area proposed
(b)	False ceiling with perforated Gypsum board using G.I. channel sections etc.,		
(i)	Without Glass wool	1,160	Ceiling area proposed
(ii)	With Glass wool 50mm thick below A.C. sheet roofing	1,395	Ceiling area proposed
(iii)	With Glass wool 25mm thick below R.C.C. roofing	1,280	Ceiling area proposed
2	Wall Paneling using G.I. Channel Sections etc., (with Gypsum board) if proposed:-		
(a)	Wall paneling with perforated Gypsum board with Glass wool of 25mm thick	1,160	Wall paneling area proposed
(b)	Wall paneling with plain Gypsum board without Glass wool	930	Wall paneling area proposed


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ANNEXURE-III

ELECTRICAL, WATER SUPPLY AND SANITARY ITEMS OF WORKS

Sl. No.	Description of work	Rate in Rupees per one sq.m.	Area to which applicable
1	A.C. Provision for office buildings and in Hospitals, (if proposed):-		
(a)	For non-ductable A.C. units	3,820	Floor area proposed
(b)	For ductable type A.C. plants	5,095	Floor area proposed
Note The above rates are not inclusive of civil works such as construction of plant room, false ceiling, etc.			

2	Lift (if proposed):-	
(a)	Passenger Lift (SS Body) having speed 1m / second including power main	
(i)	8 persons capacity (Upto Ground + Four floors)	Rs.15.00 lakhs
(ii)	10 persons capacity (Upto Ground + Four floors)	Rs.16.00 lakhs
(iii)	13 persons capacity (Upto Ground + Four floors)	Rs.17.00 lakhs
(b)	Bed-cum-Passenger Lift (SS Body) having speed 1m / second including power main	
(i)	15 persons capacity (Upto Ground + Four floors)	Rs.18.00 lakhs
(ii)	20 persons capacity (Upto Ground + Four floors)	Rs.23.00 lakhs
(iii)	26 persons capacity (Upto Ground + Four floors)	Rs.25.00 lakhs
(c)	Dump Lift (Upto Ground + Four floors)	Rs.6.50 lakhs
Note: <ol style="list-style-type: none"> Provision for civil works such as construction of lift pit, shaft, machine room, etc., are not included in the above rates. For passenger lift and bed-cum-passenger lift – For every additional floor over the Ground + Four floors an extra at Rs.1,06,500/ shall be allowed for each floor. For Dump lift – For every additional floor over the Ground + Four floors an extra at Rs.42,600/- shall be allowed for each floor. For lift pit an extra at Rs.11,930/- per sq. mt. of lift well sectional area shall be allowed. 		

Sl. No.	Description of work	Rate
3	High Tension Supply (including erection, testing & commissioning and allied works)	
(i)	With transformer upto 250 KVA	Rs.19.10 lakhs
(ii)	With transformer upto 500 KVA	Rs.31.80 lakhs
(iii)	With transformer upto 1000 KVA	Rs.50.90 lakhs
Note: 1. Rates are inclusive of service connection charges payable to TNEB. 2. Provision for civil works such as, construction of transformer, MV panel room, etc., are not included in the above rates.		

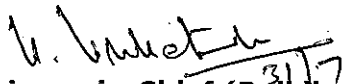
4	Generator Set (including erection, testing & commissioning)	
(i)	100 KVA capacity	Rs.8.00 lakhs
(ii)	125 KVA capacity	Rs.9.50 lakhs
(iii)	160 KVA capacity	Rs.12.50 lakhs
(iv)	250 KVA capacity	Rs.16.00 lakhs
Note: Cost of construction of Generator room not included in the above rates.		

5	Cold storage facilities for Mortuary:	
(i)	9 Bodies capacity	Rs.12.00 lakhs
(ii)	12 Bodies capacity	Rs.15.00 lakhs
Note: Cost of Mortuary building not included in the above rates.		

6	Public Address System: For mini Conference Hall / Meeting Hall	Rs.2.50 lakhs
7	Intercom with EPABX arrangements upto 300 lines	Rs.15.00 lakhs
8	Lightning Arrester (For more than 5 storeys)	Rs.2.52 lakhs
9	Civil Aviation lights for buildings more than 8 storeys	Rs.1.26 lakhs

10	Internal Water Supply, Sanitary Arrangements & Electrical Arrangements			
Sl. No.	Type of Buildings	Water Supply Arrangements	Sanitary Arrangements	Electrical Arrangements
Rate in rupees per one sq.m.				
(1)	Residential	480	375	710
(2)	Non-Residential	375	290	625
(3)	Hospital	480	375	730

11	External Water Supply, Sanitary Arrangements & Electrical Arrangements						
Sl. No.	Type of Building	Water Supply Arrangements		Sanitary Arrangements		Electrical Arrangements	
		Within existing well developed campus	New campus	Within existing well developed campus	New campus	Within existing well developed campus	New campus
		Rate in rupees per one sq.m.					
(1)	Residential	295	570	105	185	240	475
(2)	Non-Residential	295	570	105	185	240	475
(3)	Hospital	295	570	105	185	240	475
Note: <ol style="list-style-type: none"> 1. The above rate is applicable only for ground and first floors on plinth area basis. 2. For every upper floor over the basic ground and first floor, 50% of respective floor area alone shall be taken into account for making provision towards external water supply and sanitary arrangements. 3. For every upper floor over the basic ground and first floor, 20% of respective floor area alone shall be taken into account, for making provision towards external electrification arrangements. 							

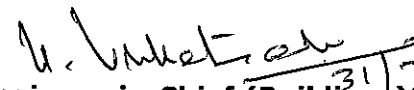

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ANNEXURE – IV
OTHER PROVISIONS

Sl. No.	Description of work	Rate
1	Construction of compound wall to a normal height of 1.50m from ground level with required number of gates, grills, etc.,	
(a)	With stub column, plinth beam, etc.,	Rs.1,730/RM.
(b)	With load bearing foundation with brick work in cement mortar 1:5	Rs.2,525/RM.
2	Approach Road	
(a)	Forming approach road in layers of 450mm thick sand gravel mix of ratio 1:1 as base layer, W.B.M. Laid in two layers of 75 mm thick each (total 150 mm thick) including cost of small culverts come across, forming berms, etc.,	Rs.465/sqm.
(b)	Black topping over WBM including tack coat and seal coat	Rs.135/sqm.
3	Pavement all-round the building	
(a)	For a width of 1.2m	Rs.860/RM.
(b)	For a width of 2.0m	Rs.1,385/RM.
Note:		
<p>1. Pavement all-round the building is to be done for a width of 1.20m if the sub soil is of ordinary nature; and it is to be done for a width of 2.0m, if the sub soil is of expansive soil.</p> <p>2. The above rates include provision for earth work excavation to a depth of 450mm, PCC 1:5:10, sand filling, kerb wall with Brick work in cement mortar at external face of pavement, one impervious layer, cost of precast pavement slab of specified shape with pointing etc.,</p>		
4	Finishing the Elevation	
(a)	For all buildings	Not exceeding 1% of total value of Building
(b)	For prestigious / Heritage Buildings	Not exceeding 2½% of total value of building
5	Soil investigation (minimum)	Rs.27,175/-
Note: If the area is more, higher provision towards soil investigation may be allowed.		

6	Advertisement Charges	Provision is to be made depending on the norms prescribed by Government time to time for publication in Newspapers.
7	Provision for foundation stone laying and inaugural function	To be made only for works costing over Rs.10.00 lakhs at Rs.13,000/- (Rs.3,000/- + Rs.10,000/-)
8	Rain Water Harvesting	Rs.11,555/- per pit
9	Provision for Lawn (optional)	
(a)	Residential	@ 1.5 % of building cost
(b)	Hospital & Non- Residential	@ 3.0 % of building cost
10	Labour Welfare Fund	@ 1.0 % of building cost
11	Unforeseen Items, Petty Supervision Charges and Contingencies	@ 2.5 % of building cost
12	Provision can be included for Price Adjustment Clause for works costing Rs.100.00 lakhs and above	@ 5.0 % of building cost Per ONE year of period of completion


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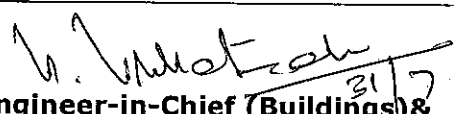
ANNEXURE-V

**PLINTH AREA RATE FOR SUPER STRUCTURE
OF EARTH QUAKE RESISTANT STRUCTURES**

Sl. No.	Type of building	MOFFUSIL	TRICHY, SALEM, ERODE, MADURAI, TIRUNELVELI & THOOTHUKUDI DISTRICTS	CHENNAI, VELLORE, COIMBATORE & TIRUPPUR DISTRICTS
		RATE IN RUPEES PER 1 SQ.M. FOR EVERY FLOOR		
1	RESIDENTIAL			
(a)	Load bearing (upto G + 2)	6715	7065	7400
(b)	Framed Structure			
(i)	Upto Two Floors	8720	9155	9590
(ii)	3 & 4 th Floors	8720	9155	9590
(iii)	5 & 6 th Floors	9590	10065	10540
(iv)	7 & 8 th Floors	9590	10065	10540
(v)	Above 8 th Floor	9590	10065	10540
(vi)	Stilt Floor	6090	6150	6695
2	NON RESIDENTIAL			
(a)	Load bearing (upto G + 2)	5700	5990	6270
(b)	Framed Structure			
(i)	Upto Two Floors	6550	6870	7200
(ii)	3 & 4 th Floors	6550	6870	7200
(iii)	5 & 6 th Floors	7180	7540	7915
(iv)	7 & 8 th Floors	7180	7540	7915
(v)	Above 8 th Floor	7510	7880	8265
(vi)	Stilt Floor	4530	4790	5020
3	HOSPITAL			
(a)	Load bearing (upto G + 2)	6380	6705	7015
(b)	Framed Structure			
(i)	Upto Two Floors	9050	9595	10055
(ii)	3 & 4 th Floors	10065	10570	11075
(iii)	5 & 6 th Floors	10065	10570	11075
(iv)	7 & 8 th Floors	10985	11530	12075
(v)	Above 8 th Floor	10985	11530	12075
(vi)	Stilt Floor	6390	6710	7050

NOTE:

1. For calculating the rates, the respective floor area has to be considered.
2. For works in special tracts like Jails, reserve forest, hill areas etc., the respective extra percentage over the moffusil rate is to be given.


 for Engineer-in-Chief (Buildings) &
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