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DIGITALLY VERIFIED RECORD

Er. P.RAMAN,B.E.,(CIVIL)M.E.,(Struct)
STRUCTURAL ENGINEER.
No.24, Ground Floor,
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Date: 08.09.2026

STABILITY CERTIFICATE

1. The detailed engineering and structure design of the proposed building comprising of High Rise Building (HRB) with 36.0m Height (Fgl to Top of Terrace) Consisting of Extended Basement Floor (Multi Level Puzzle Car Parking- 3 Level) + Ground Floor + 9 Floors of Commercial Office Building At Door No.140, Poonamallee High Road, Koyambedu, Chennai 600107 In Old S.No.149/2, T.S.No.6/2, Block No.36 of Koyambedu Village within The Limit Of Greater Chennai Corporation has been done by me/us based on the report of geotechnical investigation (soil test) done by T.J.Engineers Report No. TJE/001766/2020 Dated 05.01.2021 and considering the functional requirement of the building.

2. It is certified that among other factors, the proposed building has been designed to resist earthquake. I/We have checked various parameters and found that the proposed building would be safe.

3. I/we further certify that:

(i) The Minimum grade of concrete is M40

(ii) The Design and analysis has been done using the code of practice for plain and reinforced concrete as per IS 456, Design loads as per IS codes No IS 875 (PART-2) and design of earthquake structure as per IS Code No 1893

4. The Building will be safe and sound when used for the purpose for which it is designed.

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Stamp and Signature

Encl: Structural Design Calculation

STRUCTURAL DESIGN CHECK REPORT

PROJECT

Proposed Construction ofMuilty storeyed building for commercial use at koyambedu, Chennai

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A. PROJECT TITLE:

Plan Showing The Proposed Construction Of Bf (Mechanical Parking) + Gf + 9 Floors Office Building At Door No.140, Poonamallee High Road, Koyembedu,Chennai - 600 107, Comprised In Old S.No. 149/2, T.S No. 6/2 , Block No.36 Of Koyambedu Village.Greater Chennai Corporation Division - 127 Zone – 10

B. STRUCTURAL SYSTEM AND BASIC DESIGN REPORT:

The structural system adopted is as below, based on preliminary analysis &design. The building is basically a R.C.C framed structures comprising of Bf (Mechanical Parking) + Gf + 9 Floors.

As earthquake induced lateral forces are proportional to the mass, the resultant force due to earthquake passes through the centre of mass of the floor. This corresponds to the centre of gravity and is given in the calculations.

Shear stress requirement- the nominal shear should not exceed the maximum allowable beam shear given in IS 456 (2000) though max =0.63squareroot of (fck).

Shear strength of construction joints- the design shear forces at the construction joints must be less than the shear forces that can be resisted by the vertical reinforcement and the friction of the concrete. The shear capacity of the joint can be taken as follows:

Structural Analysis and Design

a) <u>Elastic Analysis</u>:

A three dimensional structural analysis is employed to obtain stress resultants and deflections. Standard software namely Staad Pro V8i was employed to analyse and design the structure.

The elements used in model are beams and column elements with 6 degrees of freedom at each node.

The foundation system probably is Pile Foundation based on soil test report and also our past experience.

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C. MATERIAL SPECIFICATION:

1) CONCRETE AND REINFORCEMENT STRENGTHS

(a) Proposed Concrete grades:

* Concrete structures shall have characteristic cube strength of 40 N/mm^2 for column, beam and slab.

* Levelling course of plain cement concrete shall have characteristic cube strength of 10N/mm^2 at 28 days (M10).

(b) Proposed Reinforcement grades

All main reinforcement, stirrups & ties

High yield strength deformed bars of Fe 500 N/mm^2 shall be used for all R.C.C members. Bars of diameter 8, 10, 12, 16, 20, 25 & 32 (yield strength of 500N/mm2) shall be used.

D. LOAD DATA:

a. DEAD LOADS (DL):

Weight of materials shall be calculated on the basis of unit weights given in I.S:875-PART 1.

* Unit weight of reinforced cement concrete = 25 kN/m^3
* Unit weight of plain cement concrete = 24 kN/m^3
* Unit weight of steel = 78.5 kN/m^3
* Filling material of sunken floors = 20 kN/m^3
* Water load = 10 kN/m^3
* Lime concrete with burnt clay aggregates = 19.2 kN/m^3

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b. OTHER LOADS CONSIDERED FOR DESIGN (SDL):

* Floor finishes	= 1.50 kN/m2

c. LIVE LOAD (LL):

On the basis of intended occupancy & use, the loading shall be based on I.S: 875-PART 2.

* For Room floors	= 4	kN/m2
* Stair case	= 4	kN/m2
* Toilets	= 2	kN/m2
* Corridor	= 4	kN/m2
* Terrace	= 2	kN/m2

E. LOAD COMBINATIONS USED:

The proposed building is designed using the limit state method with appropriate factors as per IS:456-2000.The load combinations are as follows.

BASIC LOADS

1) DL
2) LL
3) 25%LL
4) SL(+X)
5) SL(+Z)

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LOAD COMBINATIONS

6) DL+LL

7) DL+25%LL+SL(X)

8) DL+25%LL-SL(X)

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9) DL+25%LL+SL(Z)

10) DL+25%LL-SL(Z)

11) DL+SL(X)

12) DL-SL(X)

13) DL+SL(Z)

14) DL-SL(Z)

15) 1.5(DL+LL)

16) 1.2(DL+25%LL+SL(X))

17) 1.2(DL+25%LL-SL(X))

18) 1.2(DL+25%LL+SL(Z))

19) 1.2(DL+25%LL-SL(Z))

20) 1.5(DL+SL(X))

21) 1.5(DL-SL(X))

22) 1.5(DL+SL(Z))

23) 1.5(DL-SL(Z))

24) 0.9DL+1.5SL(X)

25) 0.9DL-1.5SL(X)

26) 0.9DL+1.5SL(Z)

27) 0.9DL-1.5SL(X)

Where, DL-Dead Load, LL-Live Load
WL(X), WL(Z)-Wind Load in X and Z directions
SL(X), SL(Z)-Seismic Load in X and Z directions

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SEISMIC LOADS:

Seismic Loads for design of structure shall be considered as per IS 1893-2002.

Zone: III

Zone Factor (Z):0.16

Importance Factor (I): 1.5

Response Reduction Factor(R):5.0

$\frac{ZI}{2R} = 0.024 \frac{2}{3} \frac{ZI}{2R} = 0.016$

WIND LOADS:

The Wind pressure shall be calculated in accordance with IS: 875 (Part-3) 2015.

Basic wind speed for Chennai is 50m/s.

Basic Wind Speed Vb : 50 m/s

Terrain Category: 4

Risk Coefficient k1 :1.00(k1 corresponds to 50years Mean Probable Design Life of Structure)

Terrain Factor k2 : Variation of wind speed with heights in different terrains as per Table-02.

Topography factor k3:1.00

Importance factor Cyclone region k4: 1.00

Design wind speed Vz:Vb×k1×k2 ×k3X k4

H=36m H/W=2.61

L=52.86m L/w=2.61

W=13.78

0	0.7	0.4	0.7	0.7
90	0.5	0.5	0.8	0.1

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Vz=50.45m/s

Pz=1.52Kn/m^2

Design wind pressure; Pd=Kd×Ka×Kc×Pz

Kd=0.9

Ka=0.8

Kc=0.9

Pz=1.52 Kn/m^2

S.NO	HEIGHT(m)	Pd(Kn/m^2)
1	10	0.8
2	15	0.91
3	20	0.99
4	30	1.09
5	42	1.17

STRUCTURAL BRIEF FOR SUB-STRUCTURE & PROTECTION SYSTEM BASED ON SOIL INVESTIGATION REPORT & SITE SURVEY PLAN

For the structural safety of adjoining structure any of the following precautionary temporary measures shall be implemented while excavating for basement subject to the recommendations and design philosophy from the soil consultant.

1. Sloped cutting at an angle of 1:2

2. Contiguous concrete piles, if required only

3. Steel Micro piles, if required only

4. Soil nailing, if required only

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FIRE SAFETY OF BUILDINGS:

For the FIRE SAFETY OF BUILDINGS vide IS CODE 1641-1988 buildings have been classified based on occupancy, School building comes under the heading Institutional building. General requirement of fire resistance code IS 1642.

Vide TABLE 1, under heading fire resistance ratings of structural elements in hours, the proposed structure falls under 2 hours rating for load bearing and 1 hour for non-load bearing.

Vide IS 456-2000 under heading 21 FIRE-RESISTANCE. The minimum thickness should be as follows.

TABLE 1

Fire resistance in hours	Minimum beam width	Rib width of slabs	Minimum thickness of floors	Column dimensions			Min wall thick		
				Fully exposed	50% exposed	One face exposed	P< 0.4%	0.4%≤1 %	P>1%
2 hours	200	125	125	300	200	160	-	160	100

TABLE 2 (Nominal cover to meet specified period of fire resistance)

Fire resistance in hours	Beams		Slabs		Ribs		Columns
	s.sup	cont	s.sup	cont	s.sup	cont	
2 hours	40	30	35	25	45	35	40

Vide IS 456-2000 21.3, the reinforcement detailing should reflect the changing pattern of structural sections & ensure that both individual elements & structure as a whole contain adequate support; bonds & anchorages for the required resistance.

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ADDITIONAL CRITERIA

1. The structure is idealized as Special RC-Moment Resisting Frame(SMRF) and analyzed using software package (STAAD PRO) for both vertical and lateral loads.
2. The lateral load includes earthquake load, Seismic load of medium and moderate intensity of ZONE-III considered is for design and analysis purpose.
3. The Superstructure members will be designed for actual flexure, shear and forces.
4. The structure will be analyzed for specific loads (Dead and Live Loads) and for the load combinations given in relevant loads.

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STRUCTURAL STABILITY CERTIFICATE

Name of work : The proposed building comprising of High Rise Building (HRB) with 36.0m Height (Fgl to Top of Terrace) Consisting of Extended Basement Floor (Multi Level Puzzle Car Parking- 3 Level) + Ground Floor + 9 Floors of Commercial Office Building At Door No.140, Poonamallee High Road, Koyambedu, Chennai 600107 In Old S.No.149/2, T.S.No.6/2, Block No.36 of Koyambedu Village within The Limit Of Greater Chennai Corporation

Preamble :

1. I hereby certify that the structural design sheet is done for column, Foundation, Slab and beam.

2. The usage of the building is BF (Mechanical Parking) + Gf + 9 Floors

3. The Super Structure is built on outer 200mm walls and inner 100mm walls.

4. All concrete for RCC members in BF (Mechanical Parking) + Gf + 9 Floors are M40 concrete.

5. The structural design includes the Earth quake Criteria as per IS: 1893(part 1)-latest revision.

This is to certify that the Structural Design of the proposed construction of residential building at above said site has been DESIGNED on the basis of EARTHQUAKE RESISTANT DESIGN OF STRUCTURES IS 1893 (Part1): 2002 General Provisions & Buildings, with latest declaration of Seismic Zone III, Zone factor 0.16 and according to I.S. Loading standards I.S. – 875. All precautions have been taken as per the CONTENTS OF REPORT FOUNDATION ANALYSIS. This Report has recommendations for effect of Seismic Condition for this Soil.

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CALCULATION OF SEISMIC CO-EFFICIENT

Name of city	: Chennai
Type of Building	: Commercial Building
Building Frame System	: Special RC-Moment resisting frame (SMRF)
Fundamental Natural Period (Ts)	: (0.075)h ^3/4 =1.192sec.
Soil conditions	: medium
Zone Factor (Refer Table:2) (Z)	: 0.16 (moderate)
Importance Factor (Refer Table:6) (I)	: 1
Response Reduction (Refer Table:7)	: 5.0
Average response acceleration Co-efficient (Sa/g)	: 2.35

EARTH QUAKE ANALYSIS:

Horizontal Seismic Co-efficient (Ah)	= (Z/2)(I / R)(Sa/g) = (0.16/2) (1/5.0) (2.35) = 0.038
Design value of Ah	= 0.038
Type of Foundation	: Pile Foundation

1. GENERAL LOADING CONDITIONS:

(a) Imposed loads on Roof	- 1.50kN/m^2
(b) Imposed loads on Office	- 3.00kN/m^2
(d) Dead weight of R.C.C	- 25kN/m^3
(e) Dead weight of Brick Work	- 20kN/m^3

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2. LOADING ON SLABS:

2.1 Loading on Roof slab:

Roof finished with lime concrete terracing	=(0.10)(20)	=2.000kN/m^2
S/W of slab 175mm thick	=(0.175)(25)	=4.375kN/m^2
Dead load	=6.375kN/m^2	
Live load	=1.50kN/m^2	
Total load on Roof	= 7.875kN/m^2	

2.2 Loading on Floor slabs:

Floor finish	= 1.50kN/m^2
S/w of slab 175mm thick	= 4.375kN/m^2
Dead load	=5.875kN/m^2
Live load	=3.00kN/m^2
Total load on Roof	= 8.875kN/m^2

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3 DESIGN:

3.1 COLUMN DESIGN

Grade of Concrete			M 40	
Characteristic Strength of Reinf.		N/mm^2	500	
Width of Column	b	mm	750	
Depth of Column	D	mm	750	
Unsupported Length of Column	l_x	mm	3000	
Unsupported Length of Column	l_y	mm	3000	
Clear Cover to Reinf.		mm	40	
Diameter of Bar		mm	32	
Load		T		
Moment	M_{xx}	T.m		
Moment	M_{zz}	T.m		
Factored Load	P_u	kN	9416.224	1
Factored Moment	M_{ux}	kN.m	18.633	1
Factored Moment	M_{uz}	kN.m	7.640	1
Effective Length of Column	l_{ex}	mm	3600	1.2
	l_{ez}	mm	3600	1.2
	l_{ex}/D		4.8	0
			<12- Short Column	
	l_{ey}/b		4.8	0
			<12- Short Column	
Additional Moment due to Slender	M_{ax}	kN.m	0	
Additional Moment due to Slender	M_{az}	kN.m	0	
Percentage of Reinf.	p		3.4	
Gross Area of Cross Section	A_g	mm^2	562500	
Ultimate Axial Load	P_{uz}	kN	14507.438	
d'/D (about x-x axis)			0.075	0.1

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d'/D (about y-y axis)			0.075	0.1
(Table 60)	k1		0.207	
	k2		0.328	
	P_{bx}	kN	4120.425	
	k1		0.207	
	k2		0.328	
	P_{bz}	kN	4120.425	
	k_x		0.490	
	k_y		0.490	
Minimum Eccentricity	e_x	mm	31	
	e_y	mm	31	
Moments due to min. eccentricity	M_{ex}	kN.m	291.90	>
			18.633	kN.m
Moments due to min. eccentricity	M_{ez}	kN.m	291.90	>
			7.640	kN.m
Total Moments for which the column is to be designed are				
	M_{ux}	kN.m	291.903	
	M_{uz}	kN.m	291.903	
The section is to be checked for biaxial bending				
	$P_u/f_{ck}bD$		0.558	
	p/f_{ck}		0.1133333	
Referring (d'/D is 0.1)	$M_u/f_{ck}bD^2$		0.160	
	M_{ux1}	kN.m	2025.000	
Referring to (d'/D = 0.1)	$M_u/f_{ck}bD^2$		0.160	
	M_{uy1}	kN.m	2025.000	
	M_{ux}/M_{ux1}		0.144	
	M_{uy}/M_{uy1}		0.144	
	P_u/P_{uz}		0.650	
		a	1	1.75
				< 1
Mux/Mux1 + Muy/Muy1			0.067	OK
Area of Reinforcement	As	mm^2	19125	
Minimum no of to be provided			12	
No of Bars to be provided	Nos.		24	
Provide 24 Nos of 32 Diameter				

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3.2 FOUNDATION DESIGN

3.2.1 PILE CAP DESIGN

Concrete Grade:	M40
Steel :	Fe 500

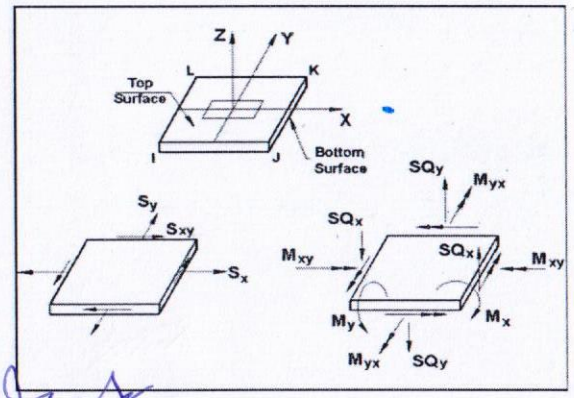
BASE SLAB

Bending moment (Mu) (kN-m/m)		Req.depth (D) (mm)	Total depth (D) (mm)	Bar dia. (mm)	Clear cover (mm)	Effect. depth (d) (mm)
Mx (+) =	5677.00	1945.42	2000	25	25	1962.5
Mx (-) =	9.29	78.70	2000	25	50	1937.5
My (+) =	5186.35	1859.45	2000	25	50	1937.5
My (-) =	16.44	104.69	2000	25	50	1937.5

Width (b) (mm)	Mu/bd^2	p_t required (%)	Ast required (mm^2/m)	S required mm c/c	S provided mm c/c	p_t provided (%)	Remarks
1000	1.474	0.355	6966.88	70	125	0.200	25Y @ 125
1000	0.002	0.170	3293.75	149	125	0.203	25Y @ 125
1000	1.382	0.332	6432.50	76	125	0.203	25Y @ 125
1000	0.004	0.170	3293.75	149	125	0.203	25Y @ 125

Check for Shear stresses :

Shear stress (τ_v) (N/mm^2)		p_t provided (%)	τ_c table 19, IS:456 (N/mm^2)	Remarks
SQx =	0.294	0.203	0.342	safe
SQy =	0.210	0.203	0.342	safe



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3.3 BEAM DESIGN

Beam Design

Beam Data

width	600 mm
depth	600 mm
clear cover to main reinf.	30 mm
Slab Thickness	150 mm

d' = 51 mm .= cc+ sdia + mdia/2

eff depth = 550 mm .= d - d'

Material Grades

Concrete	40 MPa
Steel	500 MPa

	Span Moment	Support Moment
Mu/bd²	2.59	1.60
xumax	251	251
Mulim	964	964
Mulim/bd²	5.32	5.32

Span Moment	470 KN-m	
Support Moment	290 KN-m	290 KN-m
		0 KN-m

Span Reinforcement
Beam is designed as
Singly Reinforced Beam

Area of Steel	Tension (Ast)	Compr (Asc)
Percentage	0.649 %	------
Area of Steel	2141 sqmm	

Refer Table 2 SP 16 pg 48

760 KN-m

Tension Reinforcement

Type	Bar dia	Nos	Area of Steel
Layer 1	25 mm	6	2945 sqmm
Layer 2	25 mm	6	2945 sqmm
Layer 3	-		
	Total Steel Provided		5890 sqmm

1.787 %

2205 sqmm

Provided Steel OK

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Compression Reinforcement

Type	Bar dia	Nos	Area of Steel
Layer 1	-	-	
Layer 2	-		
Layer 3			
Total Steel Provided			#VALUE!

Support Reinforcement
Beam is designed as
Singly Reinforced Beam

Area of Steel	Tension (Ast)	Compr (Asc)	
Percentage	0.387 %	------	*Refer Table 2 SP 16 pg 48*
Area of Steel	1275 sqmm		

3.57324005185372
-1.137271300644930

Tension Reinforcement

0.262578084077285

Type	Bar dia	Nos	Area of Steel	
Layer 1	**25 mm**	**6**	2945 sqmm	
Layer 2	**25 mm**	**6**	2945 sqmm	
Layer 3	-			
Total Steel Provided			5890 sqmm	1.787 %
Provided Steel OK				1995 sqmm
				1636 sqmm

Compression Reinforcement

2677 sqmm

Type	Bar dia	Nos	Area of Steel	
Layer 1	-	-		
Layer 2	-	-		
Layer 3				
Total Steel Provided				#VALUE!

Shear Force (Vu)	203 KN		
ζv	0.615	*=Vu / (b * d)*	
ζc	0.845	*Refer Table 61 SP 16 pg 179*	*or =(0.85*√(0.8*fck)*√(1+5β)-1)) / (6β)*
ζcmax	4	*Refer Table J SP 16 pg 175*	

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Type	Bar Dia	Nos	Area of Steel
Layer 1	12 mm	0	0 sqmm
Layer 2	25 mm	0	0 sqmm
Layer 3	20 mm	0	0 sqmm
			0 sqmm

0.000 %

Sectional Dimensions OK
Shear Check OK

Provide Nominal Shear Reinforcement

Steel	**415 MPa**	Vus/d	-1.382 kN/cm	2.400
Type of stirrup	**2 legged**			
Stirrup diameter	**8 mm**			
Spacing	182 c/c	Safe		

3.4 TWO WAY SLAB DESIGN

Slab Design S4 (Two Way slab)

Slab thickness	t	175 mm
Concrete	fck	30 MPa
Steel	fy	500 MPa

Sunken Depth: 0 mm

Loading

Slab Load

Dead Load	DL	3.750 KN/m
Live Load	LL	3.000 KN/m
Finishes Load	WL	1.000 KN/m
Total Load	Ws	7.750 KN/m
Factored Load	Wsu	12 KN/m

Sunken Slab Load

Dead Load	DL	3.750 KN/m
Filler Load	FL	0 KN/m
Live Load	LL	2.0 KN/m
Finishes Load	WL	1.0 KN/m
Total Load	Wsk	6.75 KN/m
Factored Load	Wsku	10 KN/m

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Slab Data

Slab Type	Regular
Load	12 KN/m
Longer Span (ly)	6.25 m
Shorter Span (lx)	5.15 m

ly/lx ratio	1.21
Slab type	+

Loading on edges		*one way*	*two way*
W_{longer}	**23 KN/m**	*.=w*lx/2*	*.=(w*lx/2) + (1-(1/3)*(lx/ly)²)*
$W_{shorter}$	**20 KN/m**		*.=w*lx/3*

Moments		*one way*	*two way*
Mx	22 KN-m	*.=w*lx²/ 8*	*.=αx * w*lx²*
My	17 KN-m		*.=αy * w*lx²*

Thickness Check	OK	*.=Mulim > Mux or Muy*
Deflection	30 mm	*.= 5*W*l⁴/(384EI)*

Area of Steel	Astx	Asty	*Refer Chart 4 SP 16 pg 21*	*or*
	421 sqmm	**318 sqmm**	*Refer Table 5-44 SP 16 pg 51-80*	

Spacing required in mm

8#		10#		12#		16#	
x	y	x	y	x	y	x	x
120 c/c	**158 c/c**	**187 c/c**	**247 c/c**	**269 c/c**	**355 c/c**	**478 c/c**	**632 c/c**

*.=ast of bar*1000/ast req*

Final Ast provided	x	y
	10# @ 150c/c	**10# @ 150c/c**

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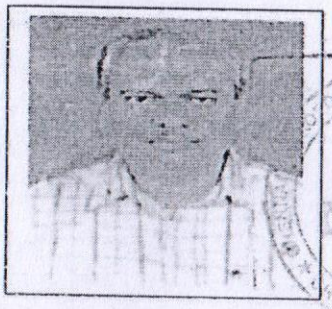
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PROFESSIONAL REGISTRATION CERTIFICATE

This is to certify that the **Thiru P. RAMAN** has enrolled as **Registered Structural Engineer Grade-I (SE)** with Chennai Metropolitan Development Authority (CMDA) who has the qualification of **M.E.,(Structural Engg.)** and experience in the relevant field for **18years.**

He has been given the Registration No.**SE/GR-I/2024/02/006** on **27.02.2024.** He shall be required to comply with the duties and responsibilities prescribed by the Government of Tamil Nadu in Part-V, "Registration of Professionals", Tamil Nadu Combined Development and Building Rules, 2019 approved vide G.O.(Ms) No.18 MAWS (MA1) Dept. dated 04.02.2019.

This Registration is valid upto **26.02.2029.**



22/2/24

(A. MEGANATHAN)
Superintendent

Attested

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THE LANDLENS SUITE

Eight ways to know a piece of land before you pay for it.

This report covers one part of the picture. These cover the rest, drawn from the same government records, for any property in Tamil Nadu.

LandLens One
Ask anything about a property and get an answer grounded in live government records, with the sources shown.
/landlens/one

Verify My Land
Every record check run on one property and returned as a single report.
/landlens/verify-my-land

Legal Opinion
An advocate's written opinion on the title, built on the records we pull for it.
/landlens

One Map
Every layer on one map: the parcel, its boundary, zoning, water bodies and what sits around it.
/landlens/one/map

PriceMap
What land actually changed hands for around this plot, taken from the registered deeds.
/landlens/pricemap

Build Scope
What you are allowed to build here: floor space, height, coverage and setbacks.
/landlens/build-scope

Property Tracker
Watch a property and hear about it when something new is registered against it.
/landlens/property-tracker

Deal Room
Run the transaction in one place: documents, stamping, signatures and the parties.
/landlens/deal-room

FREE TOOLS · NO ACCOUNT NEEDED

Twenty-four checks you can run yourself, at no cost.

Records and verification

The registers themselves, read for you.

- Encumbrance Certificate
- Patta and Chitta
- Field Measurement Sketch
- EC Analyzer
- Bank charge check
- Court case search
- Seller background check
- Approval check by survey

Value and duty

What it is worth and what it costs to register.

- Guideline value by street
- Guideline value by survey
- Stamp duty and registration fees
- Capital gains
- Floor space index
- Area unit converter

Zoning and land use

What the plan says can happen on this land.

- Land use zone finder
- CMDA land use check
- Coastal regulation zone
- Master plan check
- Water bodies finder
- Airport height clearance

Registers and directories

Who holds it, and which office keeps the record.

- Find your registering office
- Temple property check
- Waqf property check
- RERA register

Every free tool
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Services we run for you
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The LandLens suite
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- Legal opinions, due diligence and title verification
- Building plan, layout and sub-division approvals
- Completion and occupancy certificates, regularisation
- Escrow, negotiation and NRI property management
- Land survey, soil testing, architecture and construction

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Prepared from the registers named on the page each finding sits on. Where a register could not be read, this document says so in its place rather than leaving the gap to be read as a clean result.