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19.04.2025

Design of Structure:

The structure has been modeled in software "ETABS". The columns and beams have been modeled as per plan. The slab has been given as plate model and loadings are applied as per IS Codal regulations. The wall load has been applied on beams as per plan.

The structure has been analysed as three dimensional structure. The earthquake forces are applied as per IS 1893-2002. The ductile detailing has been followed as per IS 13920-1993.

The loads on columns are taken and foundation is designed as per IS Code. Beams and columns are designed by ETABS. The floor slab is designed manually using IS Codal regulations.

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DESIGN OF SLAB

Data:

Concrete	M25	fck	=	25	N/mm²
Steel	Fe 500	fy	=	500	N/mm²
Shorter Span		Lx	=	2.93	m
Longer Span		Ly	=	3.65	m
Assuming Depth of Slab		D	=	150	mm
Assuming Dia of reinf.			=	10	mm
Clear Cover			=	20	mm
Eff. Depth of Slab		d	=	125	mm
Eff.Shorter Span		l_x	=	3.06	m
Eff. Longer Span		l_y	=	3.78	m

1. Load Calculations:

Self weight of slab	0.15	x	25.00	=	3.75	kN/m²
Floor Finish load	0.075	x	20.00	=	1.50	kN/m²
Live load				=	2.00	kN/m²
Total load				=	7.30	kN/m²
Load Factor				=	1.50	
Factored Load	2			=	10.95	kN/m²
Span Ratio			ℓ_y/ℓ_x	=	3.78 / 3.06	
				=	1.24	

2. Bending Moment Calculation:

Support Condition **2** One Short Edge Discontinuous

From IS 456-2000 Table 26 2

α_{Nx}	=	0.049	
α_{Px}	=	0.037	
α_{Ny}	=	0.037	
α_{Py}	=	0.028	

Shorter Span:

Negative Moment (Support) M_{Nx} = $\alpha_{Nx} \times w_u \times l_x^2$

= 0.049 x 10.95 x 3.06² = 5.01 kN.m

Positive Moment (Mid span) M_{Px} = $\alpha_{Px} \times w_u \times l_x^2$

= 0.037 x 10.95 x 3.06² = 3.79 kN.m

Longer Span :

Negative Moment (Support) M_{Ny} = $\alpha_{Ny} \times w_u \times l_x^2$

= 0.037 x 10.95 x 3.06² = 3.78 kN.m

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Positive Moment (Mid span)		M_{Py}	=	$\alpha_{Py} \times w_u \times l_x^2$
			=	0.028 x 10.95 x 3.06²
			=	2.86 kN.m

Reinforcement:

Required in Shorter Span	Reinf Required		Reinf Provided
Support	10Ø @ 375mm c/c	-	10 dia @ 150 mm c/c
Mid span	10Ø @ 375mm c/c	-	10 dia @ 150 mm c/c
Required in Longer Span			
Support	10Ø @ 375mm c/c	-	10 dia @ 150 mm c/c
Mid span	10Ø @ 375mm c/c	-	10 dia @ 150 mm c/c

3. Check for Shear:

As per BS:8110 Shear coefficients

Max Shear coeff. for continuous edge in short direction	γcx =	0.43
Shear coefficient for discontinuous edge in short direction	γdcx =	0.00
Shear coefficient for continuous edge in long direction	γcy =	0.36
Shear coefficient for discontinuous edge in long direction	γdcx =	0.24

S.F for continuous edge in short direction	Vcx	=	$\gamma cx * \ell x * W$
Maximum Shear Force	Vu	=	0.43 x 3.055 x 10.95
		=	14.29 kN
S.F for discontinuous edge in short direction	Vdcx	=	$\gamma dcx * \ell x * W$
		=	0.00 x 3.055 x 10.95
		=	0.000kN
S.F for continuous edge in long direction	Vcy	=	$\gamma cy * \ell x * W$
		=	0.36 x 3.055 x 10.95
		=	12.043kN
S.F for discontinuous edge in long direction	Vdcy	=	$\gamma dcy * \ell x * W$
		=	0.24 x 3.055 x 10.95
		=	8.029kN

S.F for continuous edge in short direction	Vu	=	14.289	
Design Shear stress τv	Vu/bd	=	14289 / (1000 x 125)	
		=	0.114	N/mm²

Reinforcement provided in the slab is		=	10Ø @ 150 mm c/c
% of reinforcement provided	pt	=	0.419
IS:456 Table 19			
Allowable shear stress	τc	=	0.45 N/mm²
As per IS:456 cl. 40.2.1.1 k value for slab		=	1.30

Design shear stress for concrete	k x τc	=	1.30 x 0.454
		=	0.591 N/mm²

Actual Shear Stress < Design Shear Stress 0.114 < 0.591

SAFE

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4. Check for deflection

Allowable span / depth Ratio		l/d	=	26	
% of Tension reinforcement		pt	=	0.419	
Corresponding Compression reinf.		Bar dia	=	0	mm
		spacing	=	150	mm
% of Compression reinforcement		pc	=	0.000	
Modification factor for Tension reinf.	F1	=	2.00	(From Fig 4 in IS 456 - 2000)	
Modification factor for Comp. reinf.	F2	=	1.00	(From Fig 5 in IS 456 - 2000)	
Modified span/depth ratio		=	l/d x F1 x F2		
		=	26 x 2.00 x 1.00		
		=	**52.00**		
Actual span/depth ratio		=	3055 / 125		
		=	**24.44**		

Actual span/depth ratio < Modified span/depth ratio 24.44 < 52.00

SAFE

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DESIGN OF BEAM

Data:

Effective span		=	4.88 m
		=	4880 mm
Breadth of beam		=	230 mm
Overall depth (assumed)		=	450 mm
Characterstic strength of steel			
	fy	=	500 N/mm²
	fck	=	25 N/mm²
Cover		=	25 mm

Total load

Dead load from slab		=	3.75 kN/m²
Floor finish		=	1 kN/m²
Partition		=	1 kN/m²
Total dead load		=	5.75 kN/m²
Live load		=	4 kN/m²
	Total load	=	9.75 kN/m²

Effective depth = **d** = 450 - 25 - $\frac{25}{2}$

= 412.5 mm

Distance of centroid of Compression reinforcement from the extreme compression fibre =

d' = 25 + (25/2)

= 37.5 mm

$\frac{d'}{d'}$ = $\frac{37.5}{41.25}$

= 0.9

Minimum Reinforcement

The min. area of tension reinforcement shall not be less than the given,

$\frac{As}{bd}$ = $\frac{0.85}{fy}$

Where ,

As	=	Min. area of tension reinforcement
b	=	Breadth of the beam or breadth of web of T-beam
d	=	Effective depth

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fy = Characterstic strength of reinforcement

$$As = \frac{0.85 \times b \times d}{fy}$$

$$= \frac{0.85 \times 230 \times 412.5}{500}$$

$$= 161.29 \text{ mm}^2$$

Refering Design Aids **IS:456**, The reinforcement as shown in the sketch

Overall depth of beam = $\frac{1}{12}$ to $\frac{1}{20}$ of the span

Provide over all depth = 450 mm

Width of rib = $\frac{2}{3}$ (depth of rib) = $\frac{2}{3}$ (450 - 150)

= 200 mm

Loading on the beam

From the slab = $\frac{9.75 \times 4.880}{3}$

= 16 kN/m

D.L of the rib = 0.23 x 0.3 x 25 kN/m

= 1.8 kN/m

Total = 17.8 kN/m

Provide 20 mm dia bars at clear cover 25 mm

Effective cover = 25 + 10

= 35 mm

Effective depth d = 415 mm

Center to Center bearing = 4.88 m

Effective span = 4.88 m

Max. BM = $\frac{17.8 \times 4.880 \times 4.880}{8}$

= 53 kN.m

Req.depth **d** = $\left\{ \frac{1.5 \times 53 \times 10 \text{ ^ } 6}{2.76 \times 230} \right\}^{1/2}$

= 354 mm

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Provided depth, D = 450 mm

$$\frac{Mu}{bd^2} = \left[\frac{1.5 \times 53 \times 10 \wedge 6}{230 \times 415 \times 415}\right]^{1/2}$$

$$= 1.4$$

$$pt = \frac{fck}{2 \times fy}\left[1 - \left(SQRT\left[1 - \frac{4 \times (Mu/b \times d^2)}{0.87 \times fck}\right]\right)\right] \times 100$$

$$= 0.35\ \%$$

$$Ast = \left[\frac{0.35 \times 230 \times 415}{100}\right]$$

$$= 334\ mm^2$$

Provided 3 - Y16

Check for Shear

$$V = \frac{1.5 \times 17.8 \times 4.880}{2}$$

$$= 65\ kN$$

τ_c = 0.54 N/mm²

$$Vuc = \frac{0.54 \times 230 \times 412.5}{1000}$$

$$= 51.2\ kN$$

Vuc > Shear at support

Provide Y8 @ 150 c / c (stirrups)

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DESIGN OF COLUMN

Data :

Total No. of floors		=	5
Total No. of Roof		=	6
Storey height		=	3.05 m
Breadth of column	b	=	300 mm
		=	0.3 m
Depth of column	D	=	530 mm
			0.53 m
	fck	=	25 N/mm²

Total axial load

Dead load & live load from one floor		=	137 kN
Total axial load all floors		=	822 kN
Column dimension		=	300 x 530 mm
Self weight of column		=	0.3 x 0.53 x 6 x 25 x 3.1
		=	73 kN
Total load		=	(822 + 73) x 1.5
	Pu	=	1342.5 kN

Area of Reinforcement

	$\frac{d'}{D}$	=	0.1
	d'	=	53 mm
	$\frac{Pu}{fck.b.D}$	=	$\frac{1,343 \times 10^{3}}{25 \times 300 \times 530}$
		=	0.34
	$\frac{Mu}{fck.b.D^2}$	=	$\frac{1.7 \times 1.5 \times 15.4 \times 10^{6}}{25 \times 300 \times 530 \times 530}$
		=	0.02

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Refering to chart in SP:16 for values

$\frac{Pu}{fck.b.D} = 0.34$; $\frac{Mu}{fck.b.D^2} = 0.02$

The value of $\frac{P}{fck}$ = 0.08

$$p = 0.08 \times 25$$
$$= 2$$

$$As = \frac{p \times b \times D}{100}$$

$$= \frac{2.00 \times 300 \times 530}{100}$$

$$= 3180 \text{ mm}^2$$

Provide 8 - Y25 bars

Design of Lateral Ties

Dia of lateral ties = $\frac{1}{4} \times 25 = 6$ mm

Hence 8 dia bar is adopted

Pitch is min. of the following - (as per IS:456)

a. Least lateral dimension = 300 mm
b. 16 x dia of main reinforcement = 16 x 25 = 400mm
c. 300mm

Hence provide Y8 @ 200 c/c
Similarly other columns are calculated.

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DESIGN OF PILE FOUNDATIONS

Design of Pile Foundation for Intermediate Column

Axial load on column	=	895 kN
Column Size	=	300x525

Capacity of Pile as per soil report

450 dia	=	610	KN
500 dia	=	700	KN
600 dia	=	900	KN
750 dia	=	1220	KN
900 dia	=	1590	KN

Provide 900 dia Pile

1590 KN >895 KN

Depth of Pile 26 m

Pile Reinforcement

Minimum Ast	=	0.4 % of Area of Pile
	=	0.4 % x ((3.14/4) x 900^2)
	=	2543 sq.mm

Provide 8 nos. of 16 mm dia bar

Ast Provided	=	(8 x 314)+(8 x 201)
	=	4120 sq.mm
	>	2543 sq.mm

Hence Safe

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DESIGN OF PILE CAP

Centre line of column passes through the centre line of pile as only one pile is provided for each column. No eccentricity or no moments are produced in the pile cap.

Hence minimum reinforcement is provided for pile cap

Minimum reinforcement	=	0.12 %
Width of pile cap	=	Dia. Of pile + 150mm + 150 mm
	=	900 + 150 + 150
	=	1200 mm
Depth of pile cap provided	=	900 mm
Minimum reinforcement	=	0.12/100 x 1200 x 900
	=	1296 sq.mm

Required Y12 @ 116 mm c/c
Provided Y12 @ 100 mm c/c

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EARTH QUAKE ANALYSIS

1. Calculation of horizontal seismic Coefficient

As per IS 1893 - 2002

$$Ah = \frac{z \cdot I}{2 \cdot R} \frac{Sa}{g}$$

Zone factor, Z = 0.16
Importance factor, I = 1
Response reduction factor, R = 5
(As per table 7)

$$\frac{sa}{g} = 2.5$$

Natural period, Ta = 0.075 h ¾
(Clause.7.6) = 0.075 x 18.3 ^0.75
= 0.66 sec

h = height of the building

$$Ah = \frac{0.16 \times 1 \times 2.5}{2 \times 5}$$

= 0.04

2. Calculation of Base shear & seismic forces

Base shear V = An ∑ Wi
= 0.040 x 895
= 35.8 kN

Total no of columns = 22

Shear per column = $\frac{35.8}{22}$

= 1.63

Seismic moment per column = $\frac{1.63 \times 3}{4}$

= 1.2 T-m

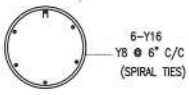
Column Provided = 300 x 530 mm with 8 - Y25

Hence safe

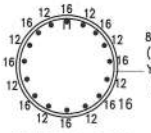
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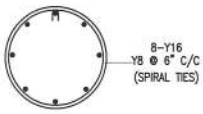
SETION A-A - PLAN
DETAIL OF PILE - P1
(600 DIA) (24" DIA)
(UPTO 11 metres)



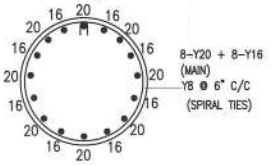
SETION B-B - PLAN
DETAIL OF PILE - P1
(600 DIA) (24" DIA)
(BELOW 11 metres)



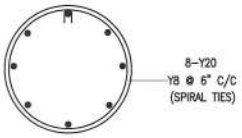
SETION A-A - PLAN
DETAIL OF PILE - P2
(750 DIA) (30" DIA)
(UPTO 11 metres)



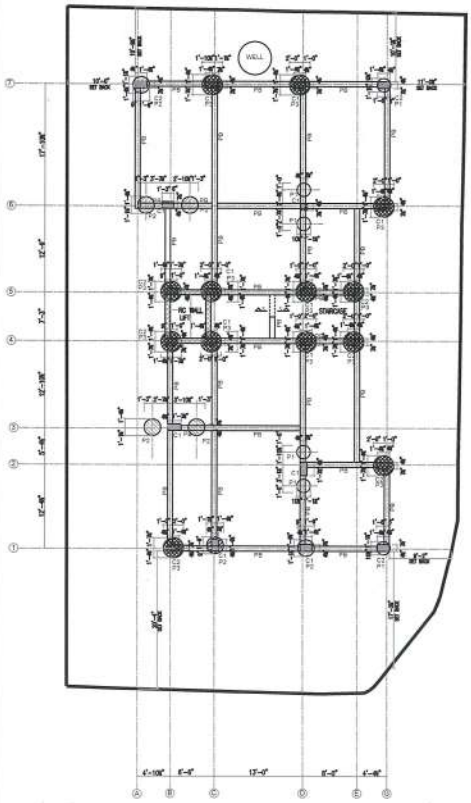
SETION B-B - PLAN
DETAIL OF PILE - P2
(750 DIA) (30" DIA)
(BELOW 11 metres)



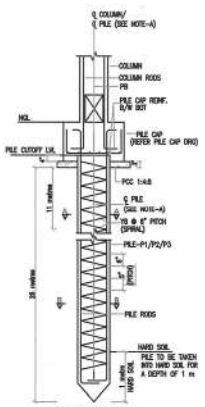
SETION A-A - PLAN
DETAIL OF PILE - P3
(900 DIA) (36" DIA)
(UPTO 11 metres)



SETION B-B - PLAN
DETAIL OF PILE - P3
(900 DIA) (36" DIA)
(BELOW 11 metres)



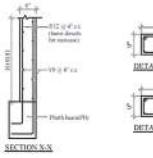
LAYOUT OF PILE FOUNDATION
(ALL END DIAGGONS SHALL BE CHECKED WITH ARCHITECTURAL DRG.)

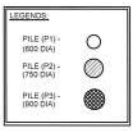


SECTION THRU PILE
(FOR SINGLE PILE SYSTEM COLUMN ONLY)

NOTE:A – (FOR SINGLE PILE SYSTEM COLUMN ONLY)
CENTRE LINE OF PILE AND CENTRE LINE OF COLUMN SHOULD BE ALONG THE SAME LINE.
IF CENTRE LINE OF COLUMN AND CENTRE LINE OF PILE ARE NOT ALONG THE SAME LINE, IT SHOULD BE INTIMATED TO THE STRUCTURAL CONSULTANT FOR CHANGING THE DESIGN OF PILE CAP

PILE SHOULD PENETRATE INTO PILE CAP BY ATLEAST 4"







C.S OF PLINTH BEAM-PB

REV	DESCRIPTION	DATE
00	FOR APPROVAL	13.01.2025

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PRIYA	PRAK	VRR	IB APPROVAL		
DRAWN	CHKD	APPD.	CHKD		APPD.

NOTES :
1. Foundation has been designed for STILT + FIVE FLOORS ONLY
2. This drawing should be read along with Architectural drawing.
3. The building has been designed for Earthquake forces(Zone-3)

NOTES ON CONCRETE WORKS :
1. Grade of Concrete & Steel : M-25 & Fe 550-S.
2. Clear Cover to Reinforcement : Pile : 2" Column : 1½"
3. For other notes, refer to General notes on concrete works.

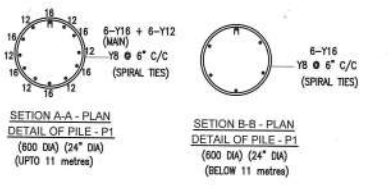
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TITLE :
MAGIZHCHI THARANGINI – LAYOUT & DETAILS OF PILE FOUNDATION

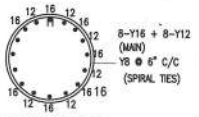
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DATE : 13.01.2025	REV.DATE :
DESIGN : DILIP	NO OF REVISIONS : 00

FILE: VRPC2025/INDIA BUILDERS/MAGIZHCHI THARANGINI/PILE DRG

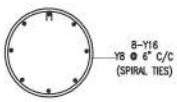


SETION A-A - PLAN
DETAIL OF PILE - P1
(600 DIA) (24" DIA)
(UPTO 11 metres)

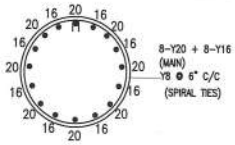
SETION B-B - PLAN
DETAIL OF PILE - P1
(600 DIA) (24" DIA)
(BELOW 11 metres)



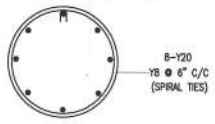
SETION A-A - PLAN
DETAIL OF PILE - P2
(750 DIA) (30" DIA)
(UPTO 11 metres)



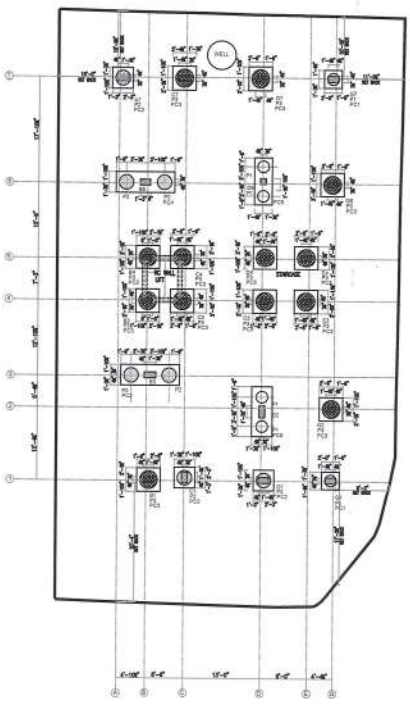
SETION B-B - PLAN
DETAIL OF PILE - P2
(750 DIA) (30" DIA)
(BELOW 11 metres)



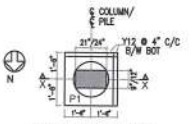
SETION A-A - PLAN
DETAIL OF PILE - P3
(900 DIA) (36" DIA)
(UPTO 11 metres)



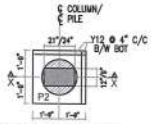
SETION B-B - PLAN
DETAIL OF PILE - P3
(900 DIA) (36" DIA)
(BELOW 11 metres)



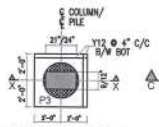
LAYOUT OF PILE FOUNDATION
(ALL END DIMENSIONS SHALL BE CHECKED WITH ARCHITECTURAL DRG.)



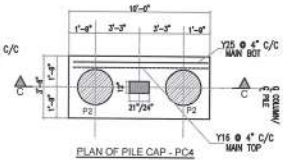
PLAN OF PILE CAP - PC1



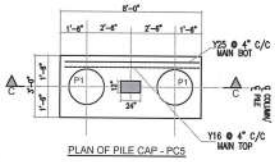
PLAN OF PILE CAP - PC2



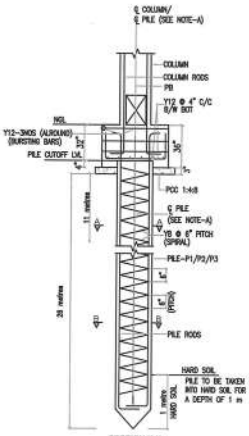
PLAN OF PILE CAP - PC3



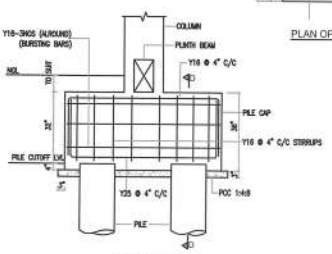
PLAN OF PILE CAP - PC4



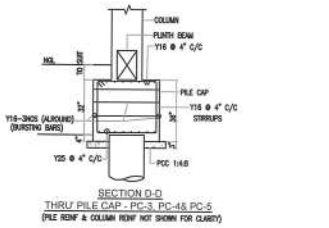
PLAN OF PILE CAP - PC5



SECTION X-X
SECTION THRU' PILE - P1,P2 & P3
(FOR SINGLE PILE SYSTEM COLUMN ONLY)



SECTION C-C
THRU' PILE CAP -PC-4 & PC-5
(PILE REINF & COLUMN REINF NOT SHOWN FOR CLARITY)



SECTION D-D
THRU' PILE CAP - PC-3, PC-4& PC-5
(PILE REINF & COLUMN REINF NOT SHOWN FOR CLARITY)



00	FOR APPROVAL	13.01.2025
REV	DESCRIPTION	DATE

STRUCTURAL CONSULTANT SIGN & SEAL :

V.R. RAVINDRAN, M.E.,M.I.E.,
Structural Consultant
CMDA Reg.No: SE/GR-I/19/04/105
Chennai Corpn. Reg.No: RSE 101812023
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Web: www.vrpconsultants.com

				IB APPROVAL	
PRADEEP	PRIYA	PRAK			
DRAWN	CHKD	APPD.	CHKD		APPD.

NOTES :
1. This drawing should be read along with Architectural drawing.
2. The building has been designed for Earthquake forces(Zone-3)

NOTES ON CONCRETE WORKS :
1. Grade of Concrete & Steel : M-25 & Fe 550-D.
2. Clear Cover to Reinforcement : Pile Cap : 2" Column : 1½"
3. For other notes, refer to General notes on concrete works.

PROMOTERS:

M/S.INDIA BUILDERS
44-36,3rd MAIN ROAD,
3rd STREET, ANNA NAGAR,
CHENNAI - 600 040.
Ph# +91-98401 30500

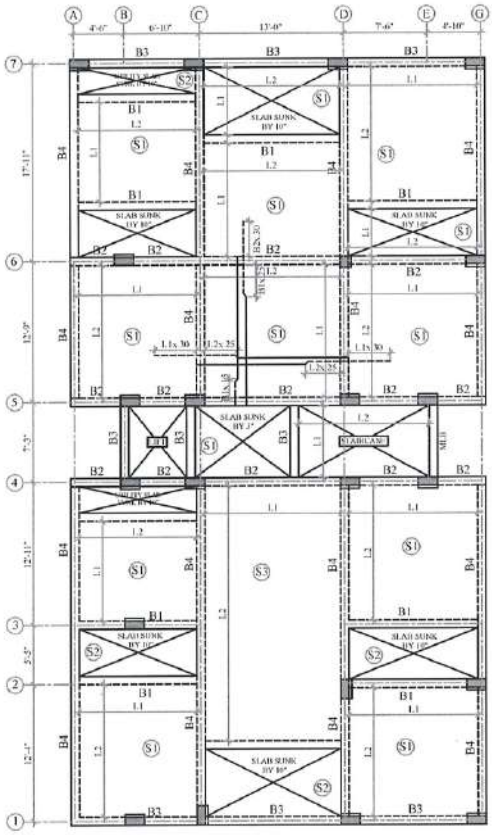
STRUCTURAL CONSULTANT :

V.R.P. CONSULTANTS
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#18, GROUND FLOOR, SHYAM'S ANUGRAHA,
VATHIYAR THOTTAM MAIN ROAD, RANGARAJAPURAM,
KODAMBAKKAM, CHENNAI-24.
E-MAIL : mail@vrpconsultants.com
WEB : www.vrpconsultants.com

TITLE :
MAGIZHCHI THARANGINI - LAYOUT & DETAILS OF PILE CAP

SIZE	: A1	PROJECT NO :	8320125/02
DWG NO	:	/MAGIZHCHI THARANGINI/PILE CAP/	
DATE	: 13.01.2025	REV.DATE	:12.01.2025
DESIGN	: DILIP	NO OF REVISIONS	: 00

FILE: VRPC2022/INDIA BUILDERS/MAGIZHCHI THARANGINI/PILE CAP DRG



LAYOUT OF TYPICAL ROOF SLAB & BEAMS

ALL GRID DIMENSIONS SHALL BE CHECKED WITH ARCHITECTURAL DRG'S

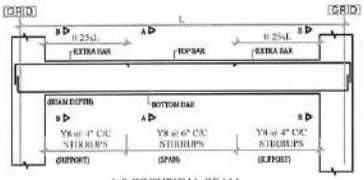
ALL SLABS ARE OF 6" THICKNESS

BEAM REINFORCEMENT DETAIL

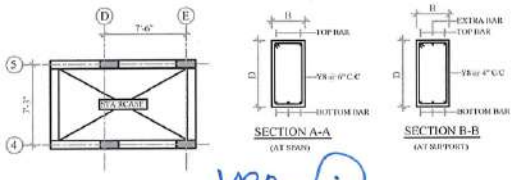
BEAM MKD	BEAM SIZE (B X D)	TOP BAR		BOTTOM BAR
		AT SUPPORT	AT SPAN	
B1	9" X 21"	2-Y20+1-Y16	2-Y20	2-Y20+1-Y16
B2	9" X 24"	2-Y20+1-Y25	2-Y20	2-Y20+1-Y25
B3	9" X 21"	2-Y20+1-Y20	2-Y20	2-Y20+1-Y20
B4	9" X 18"	2-Y16+1-Y16	2-Y16	2-Y16+1-Y20

SLAB REINFORCEMENT DETAIL

BEAM MKD	BEAM SIZE	SHORTER SPAN	LONGER SPAN
S1	6"	Y8 @6" C/C	Y8 @6" C/C
S2	6"	Y8 @8" C/C	Y8 @6" C/C
S3	6"	Y8 @4" C/C	Y8 @6" C/C



L.S OF TYPICAL BEAM



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Web: www.vrpconsultants.com

GENERAL NOTES :

1. Grade of Concrete and steel : M-25 & Fe-500.
2. Mix of Concrete shall be designed as per IS 456 – 2000.
3. Cement shall be generally be of 43 Grade – unless otherwise specified.
4. Clear cover to reinforcement shall be as follows:
   Floor beam – 1"
   Floor slab – 3/4"
5. Lapping shall be 50 times diameter of smaller bar
6. Lapping shall be staggered.
7. For beams, lapping of bars shall be avoided at bottom at center of beam (i.e) at span.
8. For beams, lapping of bars shall be avoided at top of beam at Column – Beam joint (i.e) at support.
9. For Slabs–Chair rods shall be provided to keep Top reinforcement in place.
10. For Slabs–Provide Y8 @ 8" C/C wherever bars are not shown.

STRIPPING TIME FOR FORMWORK

	Time duration
1. Vertical Formwork to Columns, Walls and Beams	1 day
2. Soffit Formwork to Slabs	3 days
3. Soffit Formwork to Beams	7 days
4. Props to Slabs	
a. Spanning upto 4.5m(15'-0")	7 days
b. Spanning over 4.5m(15'-0")	14 days
5. Props to Beams	
a. Spanning upto 6m(20'-0")	14 days
b. Spanning over 6m(20'-0")	21 days

Props to be refixed immediately after removal of formwork at soffit of slabs and beams.

SPECIFICATION FOR SHUTTERING :

Shuttering of adequate strength with necessary props, bracing and struts shall be provided as per IS 456:2000 & IS 14687.

NOTES:

1. This drawing should be read along with Architectural drawing.
2. All dimensions are in feet & inches.

Structural Consultants :

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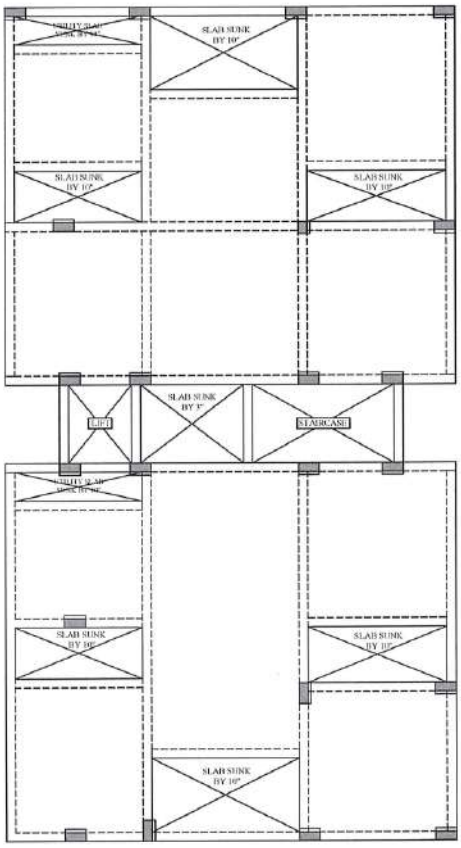
PROPOSED CONSTRUCTION OF STILT + 5 FLOORS RESIDENTIAL BUILDING..BLOCK NO:93, MAGIZHCHI COLONY, T.S.KRISHNA NAGAR, ANNA NAGAR WESTERN EXTENSION, CHENNAI-600101

LAYOUT & DETAILS OF ROOF SLAB & BEAMS OVER TYPICAL FLOOR , SHR & LMR

DATE : 13.01.2023

DWG NO : 03

FILE:ND/YB/MAGIZHCHI TYPICAL FLOOR



LAYOUT OF TYPICAL ROOF SLAB & BEAMS

GENERAL NOTES :

1. Grade of Concrete and steel : M-25 & Fe-500.
2. Mix of Concrete shall be designed as per IS 456 - 2000.
3. Cement shall be generally be of 43 Grade - unless otherwise specified.
4. Clear cover to reinforcement shall be as follows:
   - Floor beam - 1"
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6. Lapping shall be staggered.
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8. For beams, lapping of bars shall be avoided at top of beam at Column - Beam joint (i.e) at support.
9. For Slabs-Chair rods shall be provided to keep Top reinforcement in place.
10. For Slabs-Provide T8 @ 8" C/C wherever bars are not shown.

STRIPPING TIME FOR FORMWORK

	Time duration
1. Vertical Formwork to Columns, Walls and Beams	1 day
2. Soffit Formwork to Slabs	3 days
3. Soffit Formwork to Beams	7 days
4. Props to Slabs	
a. Spanning upto 4.5m(15'-0")	7 days
b. Spanning over 4.5m(15'-0")	14 days
5. Props to Beams	
a. Spanning upto 6m(20'-0")	14 days
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Props to be refixed immediately after removal of formwork at soffit of slabs and beams.

SPECIFICATION FOR SHUTTERING :

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NOTES:

1. This drawing should be read along with Architectural drawing.
2. All dimensions are in feet & inches.

Structural Consultants :

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PROPOSED CONSTRUCTION OF STILT + 5 FLOORS RESIDENTIAL BUILDING,BLOCK NO:93, MADHIRCHI COLONY, T.S.KRISHNA NAGAR, ANNA NAGAR WESTERN EXTENSION, CHENNAI-600101

LAYOUT & DETAILS OF ROOF SLAB & BEAMS OVER TYPICAL FLOOR

DATE : 21.09.2023

DWG NO : 03

FILE:/D:/VRP/IMAGES/NCAT-TDM/JUNGLI/PDF/R.DOC



our services doesn't just end there

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Zoning & Land Use Analysis

Land Use Zone Finder, CRZ Zone Check, Aquifer Zone Check, CBA Check, EWS Check, Road Width Check, Proposed Road Widening Check, FSI Calculator

Property Documentation & Workflow Tools

Forms & Templates, Document Generator, Document Translation, Dictionary

Vastu & Property Management Tools

Home Vastu Shastra, Plot Vastu Shastra, Property Management

Verified RealEstate™

We're honored to be part of your real estate journey

3/350/2 Mettukuppam,
OMR Thoraipakkam,
Chennai, India

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