sankar & associates
architecture . engineering . interior design

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STABILITY CERTIFICATE

The detailed engineering and structure design of the **M/s. Shriprop Structures Private Limited,** Proposed building comprising of **Tower No-8 (LIG) -Stilt + 7 Floors with 112 Dwelling Units** the project at S.F.No. 16/4A, 16/4B, 65/4, 65/5A, 65/5B, 76/4, 76/5, 77/1A, 77/1B, 77/2B, 77/2C1A, 77/2C1B, 77/2C1C, 77/2C1D, 77/2C1E, 77/2C1F, 77/2C2, 77/3A 77/3B, 78/1, 78/2, 79/1, 79/2, 80/1, 80/2, 81/1, 81/2, 82, 83,85, 86/1B, 86/1C, 86/2A, 86/2B, 87/1A, 87/1B1, 87/1B2, 87/2A, 87/2B, 87/2C, 88/1, 88/2, 88/3, 89/2, 89/3A, 89/3B, 89/3C, 89/4A, 89/4B, 90, 95/4, Perumattunallur village, Chengalpattu District.has been done by me/us based on the report of geotechnical investigation (soil test) done by Tower No-08, Report No. GM- SHRIRAMPROP STRUCTURES PVT LTD-GUDUVANCHERI-JC-GT-2202, Dated: 18.02.2014 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

For Foundation	-	M20
For Superstructure	-	M25

(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 IS 875 Part 2 & Part 3 and Design of Earthquake Resistant Structure and Detailing as per IS Code IS 1893 & IS 13920

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

Signature of the Promoter with Seal

Date: 17/11/2025

Signature of Design Engineer

Name: S. MURUGESH, M.E., FIE
Chartered Engineer F-1279373
Structural Engineer Grade I
CMIE [illegible]

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Sheet No. .....

STABILITY CERTIFICATE		
Client : Shriram Properties (P) Ltd., Chennai.		
Name Of The Building : Tower - 8		
"The Building under Construction in S.F. No's:-. 16/4A, 16/4B, 65/4, 65/5A, 65/5B, 76/4, 76/5, 77/1A, 77/1B, 77/2B, 77/2C1[A,B,C,D,E,F], 77/2C2, 77/3A, 77/3B, 78/1, 78/2, 79/1, 79/2, 80/1, 80/2, 81/1, 81/2, 82, 83, 85, 86/1B, 86/1C, 86/2A, 86/2B, 87/1A, 87/1B1, 87/1B2, 87/2A, 87/2B, 87/2C, 88/1, 88/2, 88/3, 89/2, 89/3A, 89/3B, 89/3C, 89/4A, 89/4B, 90 & 95/4 Perumattunallur Village, Chengalpattu Taluk, Kanchipuram District."		
01	No. of stories - Height above ground level	8 Stories
02	No. of basement floors / Depth below ground level	No Basement Floors (Stilt + 7 typical Floors)
03	Regularity of the Building - Regular / Irregular building in plan Aspect Ratio	Irregular
04	Horizontal floor system 1) Beam and Slab 2) Grid Floor 3) Others	RCC Beam, RCC Slab
05	Reference codes adopted for 1) Dead, Live & Wind Load 2) Concrete & Steel Design 3) Foundation Design 4) Earthquake & Detailing	IS 875 PART2 & PART 3 IS 456 & IS 800 IS 1904 – 1986 IS 1893 & IS 13920
06	Concrete Grade 1) Foundation 2) Superstructure	M20 M25
07	Concrete Type RMC / Design Mix / Volumetric Batching	Design Mix
08	Steel Grade 1) Rebar 2) Tendon Wire Diameter / No. of Strands	Rebar, Fe415 (As per drawing)
09	Clear Cover Footing / Column / Beam / Slab	50 mm / 40 mm / 25 mm /15 mm
10	Quality of water used for Construction	Good
11	Soil Terrain Liquefaction / Land Slide	As SDR - soil report
12	Soil Type N<10 / 10<N<30 / N>30	As per the soil report N>30
13	Safe Bearing Capacity	400 KN/sqm
14	Ground Water Chloride / Sulphate Content	No Presence
15	Type of foundation adopted Column footing / Raft / Pile	Isolated Footing
16	System of Interconnectivity in foundation	Grade beam
17	Maximum load for Footing Design (Design Calculation And Detailing Enclose Separately)	1486 KN

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Sheet No. .....

18	Presence of Diaphragm discontinuity	No
19	Presence of Vertical discontinuity	No
20	Presence of Vertical irregularity	No
21	Presence of Mass irregularity	No
22	Presence of Soft Storey	No
23	Design for frame in soft storey	No soft storey is provided
24	Torsion Moment	Considered
25	Seismic Zone	Zone III (As per IS1893: Part 1–2002)
26	Importance Factor	1.0 (As per IS1893: Part 1–2002)
27	OMRF / SMRF	SMRF
28	Fundamental Natural period of Vibration	0.72 sec.(As per IS1893: Part 1 – 2002, Clause 7.6.2, $0.075h^{0.75}$)
29	Design of Horizontal acceleration Coefficient (Sa/g)	Hard soil Site,Sa\g = 1+15T; 0.00≤T≤0.10
30	Design of Seismic Base Shear	Yes, as per IS1893
31	Distribution of Base shear SRSS / CQC	SRSS
32	Type of Analysis Static / Dynamic	Static
33	Method of Analysis Response Spectrum / Time History / Push Over Analysis	Equivalent static load method as per IS1893
34	No. of Modes	As per IS 1893 (Part I) Clause 7.8.4.2, 33Hz – 3 no's
35	Drift as per analysis (Member No.1786 from STAAD ProV8i)	1 mm
36	Allowable Drift (As per IS1893: Part 1 – 2002, Clause 7.11.1)	0.004 x 2900 = 11.60 mm
37	Width of Expansion Joint	25.4 mm
38	Design for Maximum capacity column 1) Unfactored Dead Load 2) Unfactored SuperImposed Dead Load 3) Unfactored Live Load 4) Unfactored Wind Shear 5) Unfactored Wind Moment 6) Unfactored Earth Quake Shear 7) Unfactored Earth Quake Moment	 1247 KN (1+2) 239 KN Not Considered Not Considered 25.5 KN 80.09KN m
39	Type of infill wall	Block Wall
40	Influence of infill wall in the Design	Not Considered
41	Design of Shear wall (enclose separately)	No Shear wall provided

Signature of Architect
Name : SIDDARTH GOPALA SANKAR, M.ARCH.,F.I.I.A.,
Registered Architect As
L.B.S. GRADE-I
L.S. ARCHITECT No. CA/2005/36220
Coimbatore LPA/RA/GR-I/19/04/016

Date: 01.11.2025

Signature of Design Engineer
Name : S. MURUGESH, M.E.,FIE.,
Chartered Engineer F-1279323
Structural Engineer Grade-I
CMDA/SE/GR-I/2022/05/320

Signature of the Promoter with Seal

REPORT ON STRUCTURAL DESIGN

"THE BUILDING UNDER CONSTRUCTION IN S.F. No's:- SF.Nos. 16/4A, 16/4B, 65/4, 65/5A, 65/5B, 76/4, 76/5, 77/1A, 77/1B, 77/2B, 77/2C1[A,B,C,D,E,F], 77/2C2, 77/3A, 77/3B, 78/1, 78/2, 79/1, 79/2, 80/1, 80/2, 81/1, 81/2, 82, 83, 85, 86/1B, 86/1C, 86/2A, 86/2B, 87/1A, 87/1B1, 87/1B2, 87/2A, 87/2B, 87/2C, 88/1, 88/2, 88/3, 89/2, 89/3A, 89/3B, 89/3C, 89/4A, 89/4B, 90 & 95/4 Perumattunallur Village, Chengalpattu Taluk, Kanchipuram District."

"TOWER -8"

CLIENT:	SHRIRAM GREEN MEADOWS	DESIGN:	STILT + 7 TYPICAL FLOORS	ARCHITECTS & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR,COIMBATORE.
STRUCTURE NAME :	TOWER – 8	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	PERUMATTUNALLUR - CHENNAI.			

SANKAR & ASSOCIATES, ARCHITECTS & PLANNERS, COIMBATORE-641 009

REPORT ON STRUCTURAL DESIGN

Name of Project:		**Name of the Structure:**
"The Building under Construction in S.F. No's:-. 16/4A, 16/4B, 65/4, 65/5A, 65/5B, 76/4, 76/5, 77/1A, 77/1B, 77/2B, 77/2C1[A,B,C,D,E,F], 77/2C2, 77/3A, 77/3B, 78/1, 78/2, 79/1, 79/2, 80/1, 80/2, 81/1, 81/2, 82, 83, 85, 86/1B, 86/1C, 86/2A, 86/2B, 87/1A, 87/1B1, 87/1B2, 87/2A, 87/2B, 87/2C, 88/1, 88/2, 88/3, 89/2, 89/3A, 89/3B, 89/3C, 89/4A, 89/4B, 90 & 95/4 Perumattunallur Village, Chengalpattu Taluk, Kanchipuram District."		SHRIRAM GREEN MEADOWS TOWER – 8
Report by: B.JAYARAM	**Checked by:** S.MURUGESH	**Drawing Ref. Nos:** SD-01

DESCRIPTION OF THE PROJECT:

The Proposed structure belongs to "M/S. SHRIPROP STRUCTURES PVT. LTD. at Perumattunallur - Chennai." Purpose of this structure to house "SHRIRAM GREEN MEADOWS TOWER - 8".

The structure is designed for Stilt + 7 typical floors. The location of the proposed structure is in Seismic zone III {As per IS1893: (Part 1)–2002-(annex-E)} in India. The structural design was carried out as per IS456-2000. The dead load and live load are calculated based on IS 875: Part I & II. Seismic loads are considered as per IS 1893:2002. The structure was analyzed using the software STAAD V8i.

STRUCTURAL DESIGN CALCULATION

I DESIGN PARAMETERS:

1) This structure is designed for Stilt + 7 typical floors.
2) SBC adopted is 400 KN/sqm.
3) Concrete grade adopted: Column, Beam & Slab - M25 and Footing - M20.
4) Grade of steel adopted: Fe 415.

II LOAD DETAILS:

DEAD LOAD:

1) Self weight of slab (Assumed as 120mm Tk.) - 3.0 KN/m^2
2) Floor finish - 1.0 KN/m^2
3) Partition loads - 1.0 KN/m^2
4) Unit wt. of brick * Tk of wall * Ht of wall - 9.28 KN/m (Openings Detected)

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LIVE LOAD:

1) RCC - Live load (As per IS 875 Part II) - 2 KN/m^2
2) For Corridor and Staircase - 3 KN/m^2

III SLAB SIZE:

1) Maximum Panel along One way direction – 1.675m x 9.55m (assumed tk 0.12m)
2) Maximum Panel along Two way direction- 3.05m x 4.88m (assumed tk 0.13m)

IV BEAM SIZE:

(1) Maximum Length of Beam - 5.95 (assumed size 0.2 m x 0.450m)
(2) Minimum Length of Beam – 1.675 m (assumed size 0.20 m x 0.30 m)

V ANALYSIS:

The analysis is performed using software STAAD V8i.

VI LOAD COMBINATION

- 1.0(Dead load + Live Load)
- 1.5(Dead load + Live Load)
- 1.2(Dead load + Live load + E.Q)

VII STRUCTURAL ARRANGEMENT:

Column arrangements, Column-Footing reinforcement details, Beam & Slab layout and Reinforcement details were presented as below,

- Annexure (II) - As per drawing enclosed here for reference

VIII DESIGN OF STRUCTURE:

From analysis the columns and beams were grouped as shown in centerline drawing depending on the forces. The footing, column and beams were designed for the maximum forces in-group as per IS456-2000. Illustrate design calculation for Column, Footing, Beam and Slab enclosed below for reference,

- Annexure (I) – Extract of Design Output (Typical).

IX DRAWINGS:

Following drawings showing the dimension of structural member and reinforcement details are enclosed here with for reference

(1) Column and Footing - (Reinforcement details).
(2) Beam and Slab - (Reinforcement details).

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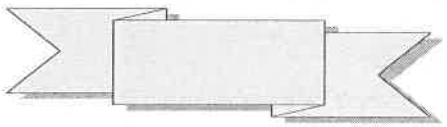
ANNEXURE – I



CLIENT:	SHRIRAM GREEN MEADOWS	DESIGN:	STILT + 7 TYPICAL FLOORS	ARCHITECTS & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR,COIMBATORE.
STRUCTURE NAME :	TOWER – 8	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	PERUMATTUNALLUR - CHENNAI.			

TYPICAL DESIGN OF COLUMN

(Column no: 149 - refer to Staad V8i Results)

TYPE: C7

COLUMN SIZE – 200mm x 900mm

Pu = 2229 KN

Mu = 1.38 KNm

Slenderness Ratio in Span Direction (0.65*2.9) / 0.90 = 2.10<12, and it is assumed that the Column is tied at each floor levels.

Slenderness Ratio in Span Direction (0.65*2.9) / 0.20 = 9.425<12, and it is assumed that the Column is tied at each floor levels.

Therefore the column shall be designed as Short one in both directions.

$Pu/f_{ck}bd = [(2229*1000)/ (25*200*900)]$ = 0.495

$Mu/f_{ck}bd^2 = [(1.38*10^6)/ (25*200*900*900)]$ = 0.001

For Fe415 Steel & M25 Concrete Grade From Chart No 31 of Sp16

p/f_{ck} = 0.075

Percentage of Steel required (%) = 1.84 %

Ast req = 4220 mm^2

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CLIENT:	SHRIRAM GREEN MEADOWS	DESIGN:	STILT + 7 TYPICAL FLOORS	ARCHITECTS & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR,COIMBATORE.
STRUCTURE NAME :	TOWER – 8	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	PERUMATTUNALLUR - CHENNAI.			

DESIGN OF FOOTING:

(Reaction from Staad V8i)

TYPE: F7 (Support No: 12)

LOADCASE: III

Load from column	= 1486 KN
Add: for self wt of footing add 10% load	= 148.6 KN
Total Design load	= 1635.26 KN
SBC Adopted	= 400 KN/m^2
Area required	= 4.17m^2
Area Provided (2.0m x 2.50m)	= 5.00m^2
Net Upward pressure	= 284<400 KN/m^2
Assume depth of footing	= 800 mm
Effective depth	= 775 mm
Maximum bending moment	= 79.93 KNm
Mu/bd^2	= 0.033 N/ m^2

To find: Ast

$$A_{st} = \frac{0.5 f_{ck}}{f_y}\left[1-\sqrt{1-\frac{4.6 M_u}{f_{ck} bd^2}}\right]bd$$

Ast = 890.40 mm^2

Hence provided rft 16Tor steel @ 200mm c/c

CHECK FOR PUNCHING STRESS

Punching stress = 0.137 < 0.26 N/ m^2

Therefore Footing thickness provided is safe against Punching Stress.

The detailed drawings for all Columns and Footings were enclosed for reference.

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CLIENT:	SHRIRAM GREEN MEADOWS	DESIGN:	STILT + 7 TYPICAL FLOORS	ARCHITECTS & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR,COIMBATORE.
STRUCTURE NAME :	TOWER – 8	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	PERUMATTUNALLUR - CHENNAI.			

TYPICAL DESIGN OF SLAB

Design of One-way Slab

(Refer drg: Grid No: E1' to E5)

OneShortEdgeDisContinuous:

Basic dimensions of slab		=	Lx: 1.675	Ly: 9.55
Basic Ly/Lx ratio		=	5.701 >2	
			Hence designed as an one way slab	
Clear cover to reinforcement	d'	=	15	mm
Provided overall depth	D	=	120.00	mm
Effective depth	d	=	101.00	mm
Diameter of bar	ϕ	=	8	mm
Select Grade of Concrete	fck	=	25	N/mm²
Select Grade of Steel	fy	=	415	N/mm²

Load calculation :

Dead load of the slab	DL	=	3.000	kN/m²
Floor finish(Roof finish)	FF	=	2.5	kN/m²
Live load	LL	=	2	kN/m²
Total load	TL	=	7.500	kN/m²

Moment and Area of Steel calculations:

Mu kN.m	Mu/bd² N/mm²	Pt %	Ast reqd mm²	Min Ast mm²	Dia of ba mm	Spacing mm	Ast pro mm²	
3.95	0.08	0.11%	110.19	121.2	8	130	386.66	safe

Check for Deflection

The effective depth provided		=	101.000 mm
From figure 3 of I.S 456:1978 modification factor is			
Modification factor		=	1.28
Required depth under deflection consideration		=	49.43 mm
			HENCE SAFE

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CLIENT:	SHRIRAM GREEN MEADOWS	DESIGN:	STILT + 7 TYPICAL FLOORS	ARCHITECTS & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR,COIMBATORE.
STRUCTURE NAME :	TOWER – 8	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	PERUMATTUNALLUR - CHENNAI.			

Design of Two-way Slab

(Refer drg: Grid No: E4 G4 to E5 G5)

OneLongEdgeDisContinuous:

Basic dimensions of slab		=	Lx: 3.05	Ly: 4.88
Basic Ly/Lx ratio		=	1.600 <2	
			Hence designed as two way slab	
Clear cover to reinforcement	d'	=	15	mm
Provided overall depth	D	=	130.00	mm
Effective depth	d	=	111.00	mm
Diameter of bar	ϕ	=	8	mm
Select Grade of Concrete	fck	=	25	N/mm²
Select Grade of Steel	fy	=	415	N/mm²

Load calculation :

Dead load of the slab	DL	=	3.250	kN/m²
Floor finish(Roof finish)	FF	=	2.5	kN/m²
Live load	LL	=	2	kN/m²
Total load	TL	=	7.750	kN/m²

Moment and Area of Steel calculations:

Span	Moment Coefficient		Mu kN.m	Mu/bd² N/mm²	Pt %	Ast reqd mm²	Min Ast mm²	Dia of bar mm	Spacing mm	Ast pro mm²	
shorter	$\alpha_{x\,neg}$	0.077	8.31	0.67	0.19%	214.19	133.2	8	125	402.12	safe
	$\alpha_{x\,pos}$	0.058	6.23	0.51	0.14%	159.29	133.2	8	125	402.12	safe
longer	$\alpha_{y\,neg}$	0.037	3.97	0.32	0.09%	100.45	133.2	8	175	287.23	safe
	$\alpha_{y\,pos}$	0.028	2.97	0.24	0.07%	75.05	133.2	8	175	287.23	safe

Check for Deflection

The effective depth provided		=	111.00 mm
From figure 3 of I.S 456:1978 modification factor is			
Modification factor		=	1.44
Required depth under deflection consideration		=	54.35 mm
			HENCE SAFE

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CLIENT:	SHRIRAM GREEN MEADOWS	DESIGN:	STILT + 7 TYPICAL FLOORS
STRUCTURE NAME :	TOWER – 8	TITLE: REPORT ON STRUCTURAL DESIGN.	
PLACE:	PERUMATTUNALLUR - CHENNAI.		

ARCHITECTS & PLANNERS
SANKAR & ASSOCIATES
27 SENGUPTA STREET,
RAMNAGAR,COIMBATORE.

TYPICAL DESIGN OF BEAM:

(Grid D2 TO D4; Refer beam no: 715 - refer to Staad V8i results.)

Beam Section:

Span of beam = 5.95 m

Assume width of beam as 200 mm

Assume depth of beam as 450 mm

Therefore, size of beam = 200 x 450 mm

Considering 20 mm bar as main reinforcement

Self weight of beam = 0.2x0.45x25 = 2.25 KN/m

Load on the beam:

Total Load / metre = 22 KN/m

The beam is designed as rectangular section for both +ve and -ve bending moment

Bending Moments from Analysis result.

Bending moment @ end section = 75 KN-m

Bending moment @ mid section =60 KN-m

b = 200, d = 450mm

End Section

Mu/bd2 = $75*10^6 / 200 (425)^2 = 2.07$ N/mm^2

For Pt, refer Table 51

Pt = 1.038; Pc = 0.48

Area of reinforcement (Asc) = (1.038/100) x 200 x 425 = 882 mm^2 (Tension Reinforcement)

Area of reinforcement (Ast) = (0.48/100) x 200 x 425 = 408mm^2 (Compression Reinforcement)

Mid Section

Mu/bd2 = $60*10^6 / 200 (425)^2 = 1.66$ N/mm^2

For Pt, refer Table 51

Pt = 0.21. ; Pc = 1.0

Area of reinforcement (Ast) = (0.21/100) x 200 x 425 = 178 mm^2 (Tension Reinforcement)

Area of reinforcement (Asc) = (1.0/100) x 200 x 425 =850 mm^2 (Compression Reinforcement)

Design for Shear

Refer TABLE 13 of IS: 456 – 2000 for shear coefficient for maximum shear force

SF = 105 KN

Provide 8 Tor @ 130mm c/c (Mid section)

Provide 8 Tor @ 130 mm c/c (End section)

CHECK FOR DEFLECTION

Actual deflection from STAAD Analysis = 9.8 mm

Permissible deflection = L/325 = 18.31 mm > 9.8 mm

- **Hence Safe.**

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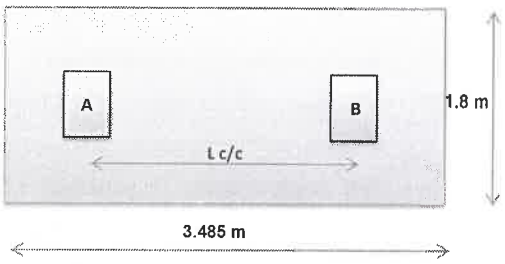
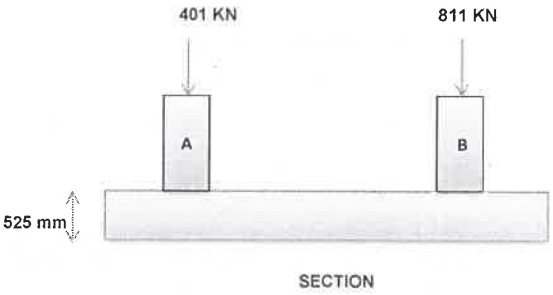
CLIENT:	SHRIRAM GREEN MEADOWS	DESIGN:	STILT + 7 TYPICAL FLOORS	ARCHITECTS & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR,COIMBATORE.
STRUCTURE NAME :	TOWER – 8	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	PERUMATTUNALLUR - CHENNAI.			

Design of Combined Footing (CF1)				
GRID A2,B2				
Column A	b	=	0.2	m
	d	=	0.5	m
Ultimate load	Pu	=	401	kN
Column B	b	=	0.2	m
	d	=	0.8	m
Ultimate load	Pu	=	811	kN
C/C of column	Lc/c	=	1.495	m
depth of footing	Df	=	0.6	m
SBC	η	=	400	kN/sq.m
let B	B	=	1.8	m
Area of footing req	Af	=	2.0	m^2
	Lreq	=	1.1	m
	L	=	3.485	m
cg of load from column A	C1	=	1.00	
	C2	=	0.49	
cantilever span Lm1		=	(1.8 - b) / 2	
		=	0.80	m
cantilever span Lm2		=	L / 2 - C2 - b / 2	
		=	1.15	m
Net soil reaction	pu	=	193.21	kN/sq.m
max BM	M	=	229.11	kNm
max hog BM		=	-126.83	kNm
asume	D	=	600.00	mm
depth req	d	=	214.8	mm
therefore	d	=	525.0	mm
design onw way shear(transverse shear)				
critical section at d from face of column				
shear span	Ls	=	Lm1-d	
		=	0.62	
nominal shear stress		=	0.229	mPa
actual shear capacity		=	0.292	mPa
hence safe				
design for diagonal tension (two way shear)				
the critical shear plane of punching thru digonal tension at .5d from face of column				
Max shear around column		=	625.3986131	kN
nominal shear stress		=	0.2905	mPa
Shear strength for				
diagonal failure		=	1.12	mPa
hence safe				
Area of pos reinforcement		=	1465.931211	mm2
Area of neg reinforcement		=	797.3009995	mm2
provide main rod dia	12		13.0	
provided %			0.2	%
spacing			140	
min area of steel		=	1134	mm2
hence safe				
Provide12mm dia bars @140 C/C bothways(B)				





Tway punching shear	
P	606
Df	0.6
b	1
D	0.6
bea A	1.92
pun A	3.36
pr	400
tv	-0 048
tv req	1.12
hence safe	

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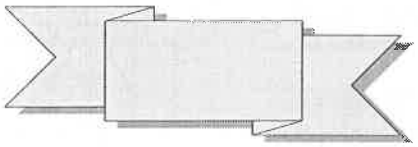
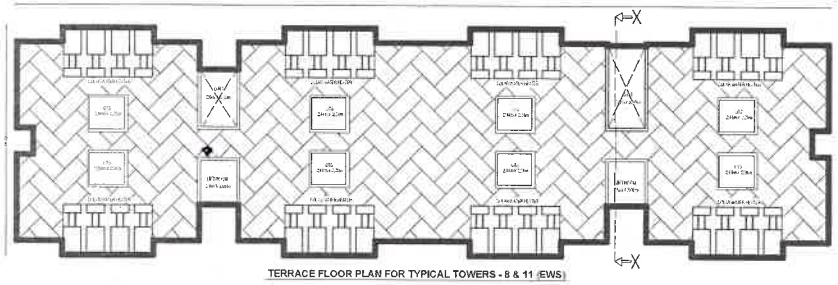
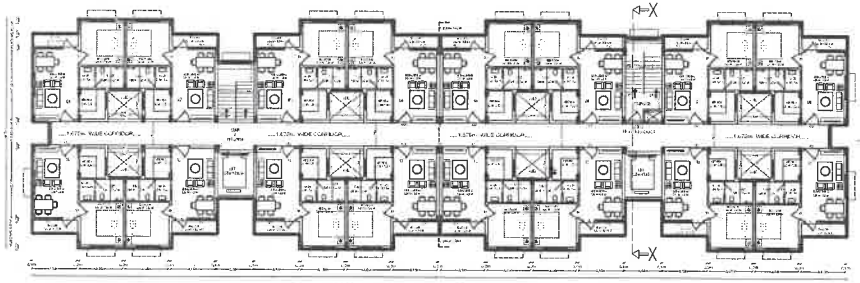
ANNEXURE – II



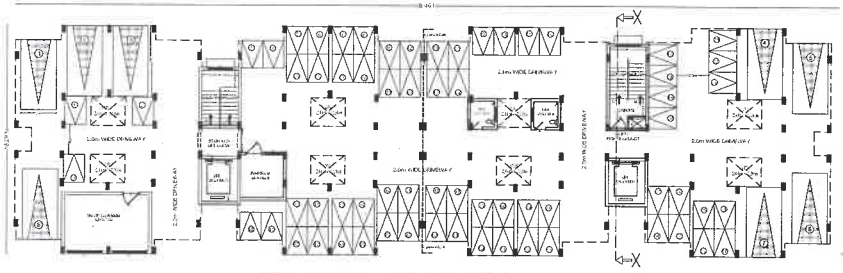
CLIENT:	SHRIRAM GREEN MEADOWS	DESIGN:	STILT + 7 TYPICAL FLOORS	ARCHITECTS & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR,COIMBATORE.
STRUCTURE NAME :	TOWER – 8	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	PERUMATTUNALLUR - CHENNAI.			



TERRACE FLOOR PLAN FOR TYPICAL TOWERS - 8 & 11 (EWS)

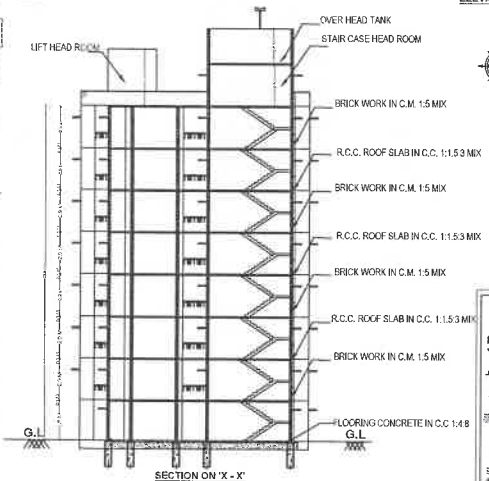


TYPICAL PLAN FOR FIRST, SECOND, THIRD, FOURTH, FIFTH, SIXTH & SEVENTH FLOOR FOR TYPICAL TOWERS - 8 & 11 (EWS)

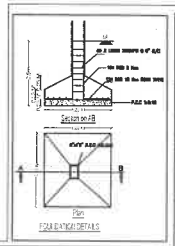


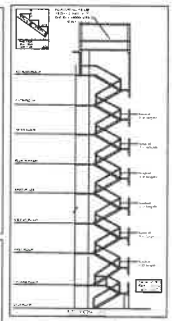
STILT FLOOR FOR TYPICAL TOWERS - 8 & 11 (EWS)

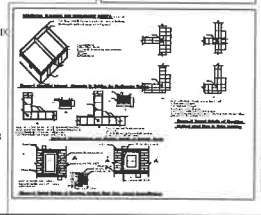
ELEVATION



SECTION ON 'X - X'







JOINERY DETAILS:	METRE
ED-ENTRANCE DOOR	1.07 x 2.13
D-DOOR	1.09 x 2.13
FW- FRENCH WINDOW	2.44 x 2.13
FW1- FRENCH WINDOW	1.79 x 1.80
W1-WINDOW	1.79 x 1.48
W2-WINDOW	1.22 x 1.48
V-VENTILATOR	0.91 x 0.91
JW - JOLLY WORK	2.44 x 1.26

SHEET NO: 17/31

PLAN SHOWING THE REVISED PROPOSAL FOR RESIDENTIAL GROUP DEVELOPMENT IN S.F. Nos : 16/4A, 16/4B, 65/4, 65/5A,65/5B, 76/4,76/5, 77/1 A, 77/1B,77/2B, 77/2C1[A,B,C,D,E,F] , 77/2C2 , 77/3A , 77/3B, 78/1, 78/2, 79/1, 79/2, 80/1, 80/2, 81/1, 81/2, 82, 83, 85, 86/1B, 86/1C, 86/2A, 86/2B,87/1A, 87/1B1,87/1B2, 87/2A, 87/2B, 87/2C, 88/1, 88/2, 88/3, 89/2, 89/3 A, 89/3B,89/3C, 89/4 A, 89/4B, 90, 95/4 , PERUMATTUNALLUR VILLAGE, CHENGALPATTU TALUK, KANJIPURAM DISTRICT.

(Revision sought for DTCP Approval in Roc No.: 15502 / 2006 /SC dt:07-12-2009 and Chengalpattu RDO Roc No.: 1585 / 09 CR 7 dated 26-02-2010).

PROPOSED APARTMENT COMPLEX -Typical Towers 8 & 11 (EWS)

ALL MEASUREMENTS ARE IN METRE

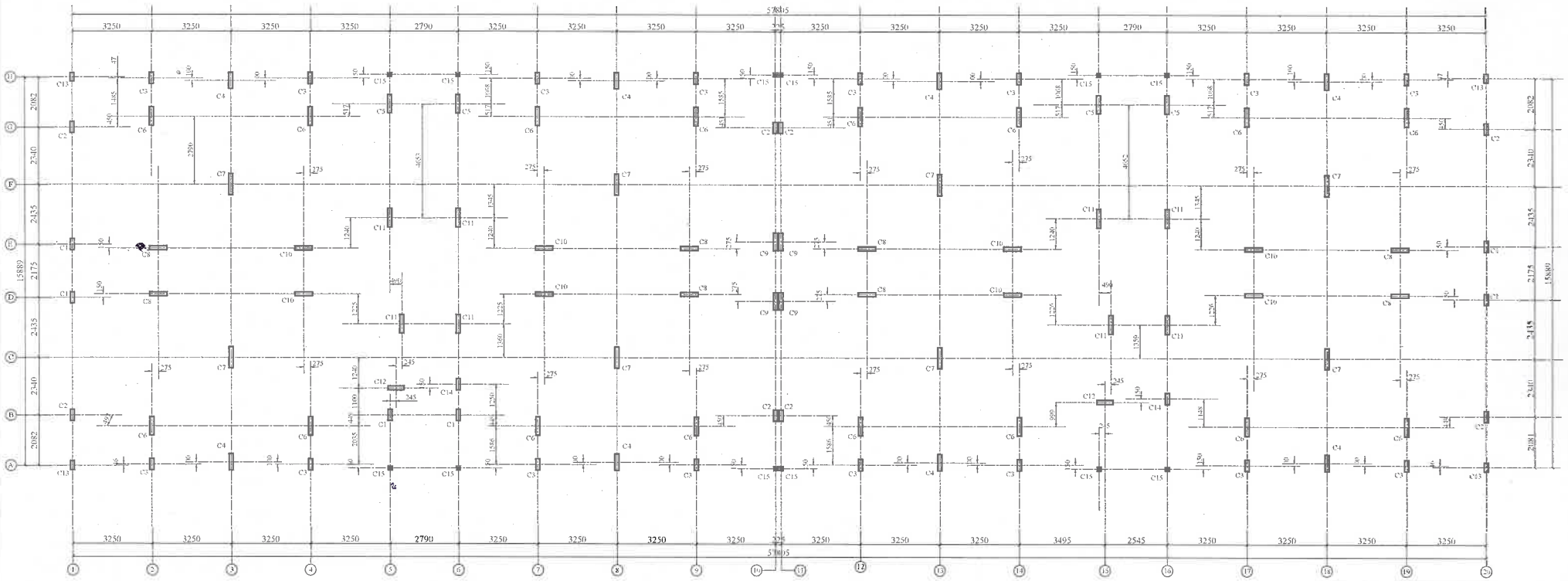
FLAT AREA DETAILS:

DESCRIPTION	TYPICAL TOWERS 8 & 11 (EWS)		
	No. of flats	Area in Sq m	Car Parking Reqd.
FLATS IN FIRST FLOOR - 1 TO 16	16 x 2	42.21	Each: Nil
FLATS IN SECOND FLOOR - 1 TO 16	16 x 2	42.21	Each: Nil
FLATS IN THIRD FLOOR - 1 TO 16	16 x 2	42.21	Each: Nil
FLATS IN FOURTH FLOOR - 1 TO 16	16 x 2	42.21	Each: Nil
FLATS IN FIFTH FLOOR - 1 TO 16	16 x 2	42.21	Each: Nil
FLATS IN SIXTH FLOOR - 1 TO 16	16 x 2	42.21	Each: Nil
FLATS IN SEVENTH FLOOR - 1 TO 16	16 x 2	42.21	Each: Nil
TOTAL	224 Flats		
COVERED CAR PARKING :	Nil		
PROVIDED (One to one Parking)	6 x 2 = 16 Nos	Two Wheeler Parking - 57 x 2 = 114 Nos	

AREA DETAILS:

DESCRIPTION	TOWER 8 (EWS)		TOWER 11 (EWS)		TOTAL	
	F.S.I. AREA	NON - F.S.I. AREA	F.S.I. AREA	NON - F.S.I. AREA	F.S.I. AREA	
STILT FLOOR	------	783.7	------	783.7	------	1567.4
FIRST FLOOR	783.7	------	783.7	------	1567.4	------
SECOND FLOOR	783.7	------	783.7	------	1567.4	------
THIRD FLOOR	783.7	------	783.7	------	1567.4	------
FOURTH FLOOR	783.7	------	783.7	------	1567.4	------
FIFTH FLOOR	783.7	------	783.7	------	1567.4	------
SIXTH FLOOR	783.7	------	783.7	------	1567.4	------
SEVENTH FLOOR	783.7	------	783.7	------	1567.4	------
TERRACE FLOOR	------	52.1	------	52.1	------	104.2
TOTAL	5485.9	835.8	5485.9	835.8	10971.8	1671.6
TOTAL No. OF FLATS	224 Flats					

SANKAR & ASSOCIATES
CHENGALPATTU



COLUMN SCHEDULE:

S.NO	COLUMN TYPE	COLUMN SIZE	S.NO	COLUMN TYPE	COLUMN SIZE
1	C1	200 x 500	9	C9	200 x 750
2	C2	200 x 500	10	C10	200 x 750
3	C3	200 x 500	11	C11	200 x 800
4	C4	200 x 700	12	C12	200 x 690
5	C5	200 x 800	13	C13	200 x 400
6	C6	200 x 800	14	C14	200 x 500
7	C7	200 x 900	15	C15	200 x 200
8	C8	200 x 750			

REV.	DESCRIPTION	REV BY.	DATE	APP BY.

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY TENDER		
FOR CONSTRUCTION		

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PROPOSED APARTMENT BUILDING
"SHRIRAM SANKARI" FOR
M/S. SHRIPROP STRUCTURES PVT. LTD.
AT PERUMATTUNALLUR - CHENNAI.

CLIENT:

REFERENCE.

N

BUILDING: TOWER - 8, 11

DETAIL: COLUMN LAYOUT

SCALE: 1:100	JOB NO: 14-SPC-04	REV	DRN BY: P.ANANTHI
DATE: 24-06-2014	DRG NO: ST-CL-001	–	DESN BY: B.JAYARAM
			CKD BY: S.MURUGESH

NOTES:

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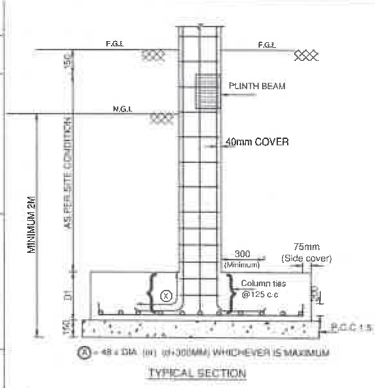
4. ALL MEASUREMENTS ARE REFERED FROM GRID LINES (CENTER OF 200 BLOCK MASONARY WALL) AS PER WORKING DRAWING
5. ALL GRID JUNCTIONS REFERS TO COLUMN CENTRE

SANKAR & ASSOCIATES ★ COIMBATORE ★

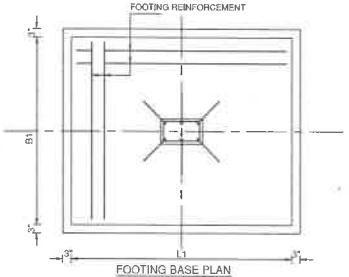
ARCHITECTS & PLANNERS
SANKAR & ASSOCIATES
27, SENGUPTHA STREET,
RAMNAGAR,
COIMBATORE - 641009, INDIA.

TYPE	COLUMN		TYPE	FOOTING			
	COLUMN DETAILS (CLEAR COVER 40 MM)	TIES		L1	B1	D1	FOOTING REINFORCEMENT
C1	200 / 500 — 4 # 20 ϕ, 4 # 16 ϕ (●)	8 ϕ @ 175mm c/c (2-TIES)	F1	1500	1800	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 150 mm c/c (ALONG SHORTER DIRECTION)
C2	200 / 500 — 8 # 20 ϕ	8 ϕ @ 175mm c/c (2-TIES)	F2	1500	1800	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 175 mm c/c (ALONG SHORTER DIRECTION)
C3	200 / 500 — 8 # 16 ϕ	8 ϕ @ 175mm c/c (2-TIES)	F3	1400	1800	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 150 mm c/c (ALONG SHORTER DIRECTION)
C4	200 / 700 — 4 # 25 ϕ, 6 # 20 ϕ (●)	8 ϕ @ 175mm c/c (2-TIES+1LINK)	F4	1800	2000	700	16 ϕ @ 250 mm c/c (ALONG LONGER DIRECTION) 16 ϕ @ 250 mm c/c (ALONG SHORTER DIRECTION)
C5	200 / 800 — 8 # 20 ϕ, 4 # 16 ϕ (●)	8 ϕ @ 175mm c/c (3-TIES)	F5	1800	2000	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 125 mm c/c (ALONG SHORTER DIRECTION)
C6	200 / 800 — 10 # 20 ϕ	8 ϕ @ 175mm c/c (2-TIES+1LINK)	F6	1800	2000	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 150 mm c/c (ALONG SHORTER DIRECTION)
C7	200 / 900 — 6 # 25 ϕ, 4 # 20 ϕ (●)	8 ϕ @ 175mm c/c (2-TIES+1LINK)	F7	2000	2500	800	16 ϕ @ 200 mm c/c (ALONG LONGER DIRECTION) 16 ϕ @ 150 mm c/c (ALONG SHORTER DIRECTION)
C8	200 / 750 — 12 # 20 ϕ	8 ϕ @ 175mm c/c (3-TIES)	F8	1830	2000	750	12 ϕ @ 125 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 125 mm c/c (ALONG SHORTER DIRECTION)
C9	200 / 750 — 10 # 20 ϕ	8 ϕ @ 175mm c/c (2-TIES+1LINK)	F9	1830	2000	750	12 ϕ @ 125 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 100 mm c/c (ALONG SHORTER DIRECTION)
C10	200 / 750 — 4 # 25 ϕ, 6 # 20 ϕ (●)	8 ϕ @ 175mm c/c (2-TIES+1LINK)	F10	1830	2000	750	12 ϕ @ 125 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 100 mm c/c (ALONG SHORTER DIRECTION)

TYPE	COLUMN		TYPE	FOOTING			
	COLUMN DETAILS (CLEAR COVER 40 MM)	TIES		L1	B1	D1	FOOTING REINFORCEMENT
C11	200 / 800 — 6 # 25 ϕ, 4 # 20 ϕ (●)	8 ϕ @ 175mm c/c (2-TIES+1LINK)	F11	1800	2000	700	16 ϕ @ 250 mm c/c (ALONG LONGER DIRECTION) 16 ϕ @ 250 mm c/c (ALONG SHORTER DIRECTION)
C12	200 / 600 — 4 # 25 ϕ, 4 # 20 ϕ (●)	8 ϕ @ 175mm c/c (2-TIES)	F12	1400	1750	530	12 ϕ @ 200 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 150 mm c/c (ALONG SHORTER DIRECTION)
C13	200 / 400 — 8 # 16 ϕ	8 ϕ @ 175mm c/c (2-TIES)	F13	1250	1500	400	10 ϕ @ 200 mm c/c (ALONG LONGER DIRECTION) 10 ϕ @ 150 mm c/c (ALONG SHORTER DIRECTION)
C14	200 / 500 — 4 # 20 ϕ, 4 # 16 ϕ (●)	8 ϕ @ 175mm c/c (2-TIES)	F14	1400	1750	500	10 ϕ @ 150 mm c/c (ALONG LONGER DIRECTION) 10 ϕ @ 125 mm c/c (ALONG SHORTER DIRECTION)
C15	200 / 200 — 4 # 16 ϕ	8 ϕ @ 175mm c/c	F15	1400	1400	400	10 ϕ @ 150 mm c/c (ALONG LONGER DIRECTION) 10 ϕ @ 150 mm c/c (ALONG SHORTER DIRECTION)
		C3+C6	CF1	1800	3485	600	12 ϕ @ 140 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 140 mm c/c (ALONG SHORTER DIRECTION)
		C2+C2	CF2	1725	1800	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 150 mm c/c (ALONG SHORTER DIRECTION)
		C8+C8	CF3	1725	1800	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 150 mm c/c (ALONG SHORTER DIRECTION)
		C10+C10	CF4	2000	3705	750	12 ϕ @ 150 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 125 mm c/c (ALONG SHORTER DIRECTION)
		C1+C12	CF5	1870	2700	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 150 mm c/c (ALONG SHORTER DIRECTION)
		C9+C9	CF6	1830	2925	750	12 ϕ @ 150 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 125 mm c/c (ALONG SHORTER DIRECTION)
		C14+C14	CF7	1500	3025	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 150 mm c/c (ALONG SHORTER DIRECTION)
		C5+C15	CF8	1800	2920	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 125 mm c/c (ALONG SHORTER DIRECTION)
		C15+C15	CF9	1400	1625	530	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 150 mm c/c (ALONG SHORTER DIRECTION)

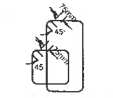


TYPICAL SECTION



FOOTING BASE PLAN

TYPICAL FOOTING DETAILS



TYPICAL TIE DETAIL

TYPICAL LINK DETAIL

STRUCTURE DESIGNED FOR STILT + 7 FLOORS
SBC ADOPTED IS 100 KN/m²

NOTES :

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
2. DIMENSIONS ARE NOT TO BE SCALED.
3. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
4. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
5. ANY DISCREPANCY IN THE DRG.SHALL BE BROUGHT TO CONSULTANTS NOTICE BEFORE EXECUTION.
6. GRADE OF CONCRETE
   FOR FOOTINGS - M20(fck, 28 DAYS = 20 N/mm²)
   FOR COLUMNS - M20(fck, 28 DAYS = 20 N/mm²)
7. GRADE OF REINFORCING STEEL fy = 415 N/mm²
8. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 48 x DIA OF BAR.
9. CLEAR COVER -
   FOR COLUMN : 40 mm
   FOR FOOTING BOTTOM : 50 mm
   FOR FOOTING SIDES : 75 mm
10. ALL ISOLATED FOOTINGS SHALL BE CONCENTRIC WITH COLUMN/PEDESTAL UNLESS OTHERWISE SPECIFIED
11. DEPTH OF FOUNDATION SHOULD NOT BE LESS THAN 2.0 M FROM NGL. IF ANY VARIATION FOUND IN THE SOIL PROFILE IT SHALL BE INFORMED TO THE ARCHITECTS BEFORE PROCEEDING FURTHER.

REV.	DESCRIPTION	REV BY.	DATE	APP BY.

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/TENDER		
FOR CONSTRUCTION		

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"SHRIRAM SANKARI" FOR
M/S. SHRIPROP STRUCTURES PVT. LTD.
AT PERUMATTUNALLUR - CHENNAI.

CLIENT :

REFERENCE :

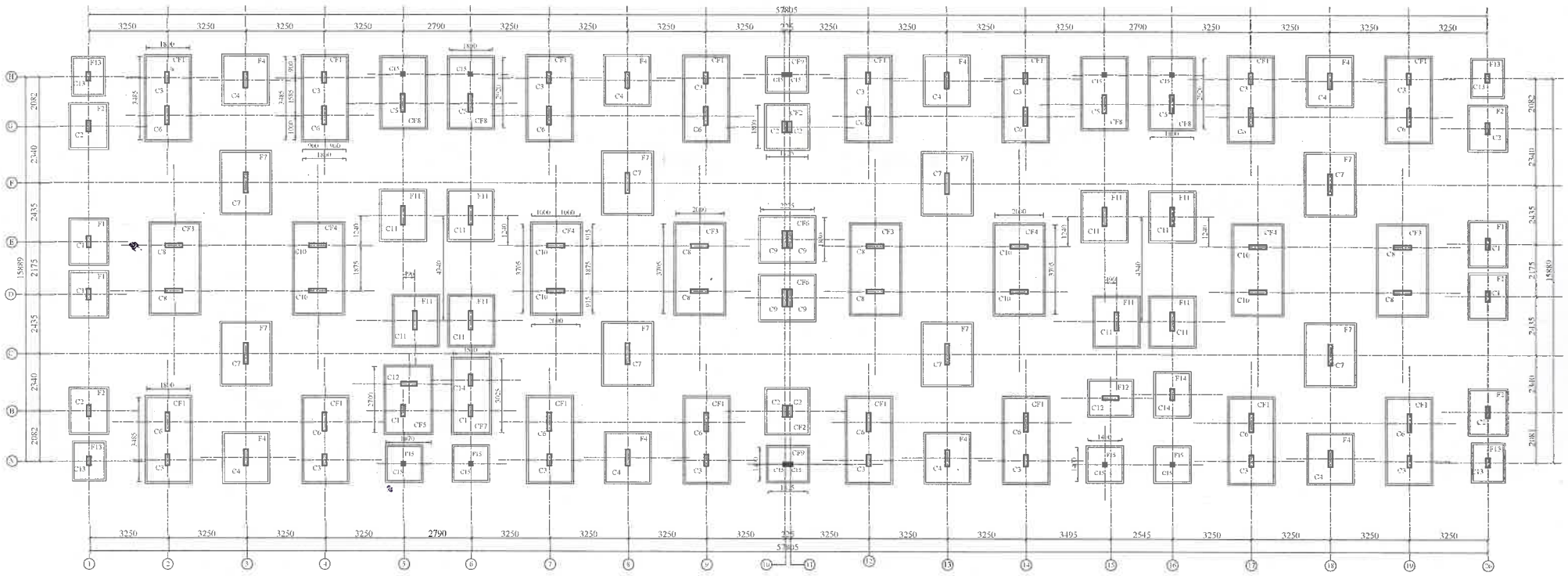
BUILDING : TOWER - B, 11

COLUMN & FOOTING REINFORCEMENT DETAILS

SCALE 1:25	JOB NO. MJPC/24	REV	DRN BY. P.ASWATHI
DATE 24-06-2014	DRG NO.ST-PL-302	—	DES BY. S.PARVIN
			CHCKD BY. S.M.JAGE

ARCHITECTS & PLANNERS
SANKAR & ASSOCIATES
27, SENGUPTHA STREET,
RAMNAGAR,

SANKAR & ASSOCIATES COIMBATORE



COLUMN SCHEDULE:

S.NO	COLUMN TYPE	COLUMN SIZE	S.NO	COLUMN TYPE	COLUMN SIZE
1	C1	200 x 500	8	C8	200 x 750
2	C2	200 x 500	9	C9	200 x 750
3	C3	200 x 500	10	C10	200 x 750
4	C4	200 x 700	11	C11	200 x 800
5	C5	200 x 800	12	C12	200 x 690
6	C6	200 x 800	13	C13	200 x 400
7	C7	200 x 900	14	C14	200 x 500

FOOTING SCHEDULE:

S.NO	FOOTING TYPE	COLUMN TYPE	FOOTING SIZE	PIT SIZE	S.NO	FOOTING TYPE	COLUMN TYPE	FOOTING SIZE	PIT SIZE
1	F1	C1	1500 x 1800	1650 x 1950	10	CF2	C2 + C2	1725 x 1800	1875 x 1950
2	F2	C2	1500 x 1800	1650 x 1950	11	CF3	C8 + C8	2000 x 3705	2150 x 3855
3	F4	C4	1800 x 2000	1950 x 2150	12	CF4	C10 + C10	2000 x 3705	2150 x 3855
4	F7	C7	2000 x 2500	2150 x 2650	13	CF5	C1 + C12	1870 x 2700	2020 x 2850
5	F11	C11	1800 x 2000	1950 x 2150	14	CF6	C9 + C9	1830 x 2225	1980 x 2375
6	F12	C12	1400 x 1750	1550 x 1900	15	CF7	C1 + C14	1500 x 3025	1650 x 3175
7	F13	C13	1250 x1500	1400 x 1650	16	CF8	C5 + C15	1800 x 2920	1950 x 3070
8	F15	C15	1400 x1400	1550 x 1550	17	CF9	C15 + C15	1400 x 1625	1550 x 1775
9	CF1	C3 + C6	1800 x 3485	1950 x 3635					

REV.	DESCRIPTION	REV BY.	DATE	APP BY.

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PROPOSED APARTMENT BUILDING
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M/S. SHRIPROP STRUCTURES PVT. LTD.
CLIENT:- AT PERUMATTUNALLUR - CHENNAI.

REFERENCE:

N

BUILDING: TOWER - 8, 11

DETAIL: FOOTING LAYOUT

SCALE: 1:100	JOB NO: 14-SPC-04	REV	DRN BY. P.ANANTHI
DATE: 24-06-2014	DRG NO: ST-FL-001	--	DESN BY B.JAYARAM
			CKD BY. S.MURUGESH

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5. ALL GRID JUNCTIONS REFERS TO COLUMN CENTRE

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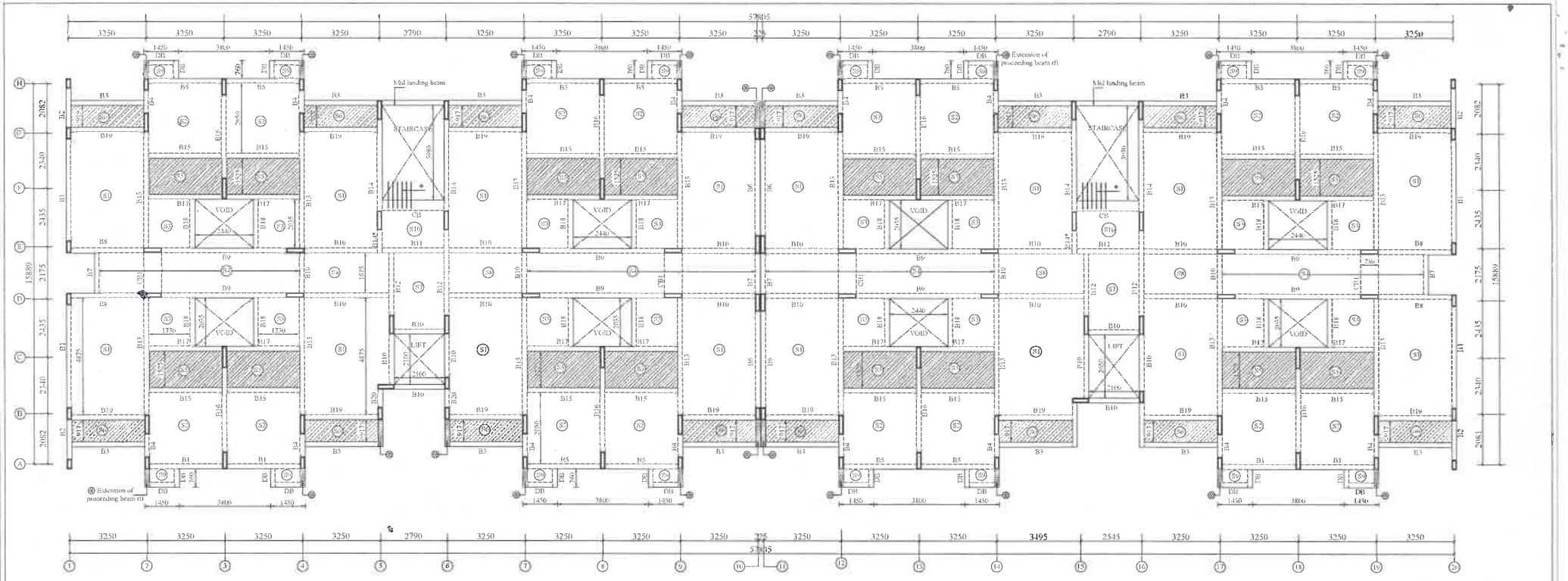


BEAM GROUP	BEAM SIZE	BEAM BOTTOM LVL	BEAM GROUP	BEAM SIZE	BEAM BOTTOM LVL	BEAM GROUP	BEAM SIZE	BEAM BOTTOM LVL	BEAM GROUP	BEAM SIZE	BEAM BOTTOM LVL
B1	200 × 350	+ 2550	B7	200 × 300	+ 2600	B13	200 × 500	+ 2400	B18	200 × 300	+ 2600
B2	200 × 350	+ 2550	B8	200 × 350	+ 2550	B14	200 × 450	+ 2450	B19	200 × 380	+ 2520
B3	200 × 300	+ 2600	B9	200 × 450	+ 2450	B14*	200 × 450	+ 2450	B20	200 × 300	+ 2600
B4	200 × 350	+ 2550	B10	200 × 300	+ 2600	B15	200 × 380	+ 2520	CB	450 × 130	+ 2770
B5	200 × 300	+ 2600	B11	200 × 450	+ 2450	B16	200 × 400	+ 2500	CB1	750 × 120	+ 2780
B6	200 × 400	+ 2500	B12	200 × 350	+ 2550	B17	200 × 380	+ 2520			

SLAB SCHEDULE:

SLAB NO.	SLAB THICKNESS	SLAB BOTTOM LVL	SLAB NO.	SLAB THICKNESS	SLAB BOTTOM LVL
S1	130	+2770	S7	120	+2780
S2	120	+2780	S8	120	+2780
S3	120	+2780	S9	110	+2790
S4	120	+2780	S10	130	+2770
S5	130	+2695			
S6	130	+2695			

* -- LEAVE DOWELS FOR STAIRCASE [10 ϕ @ 150 mm c/c]

* DUCTS & SLAB PROJECTION TO BE VERIFIED ALONG WITH WORKING DRAWING

⊛ EXTENSION OF PROCEEDING BEAM RFT

- SUNK BY 75mm (TOILET)
- SUNK BY 75mm (BALCONY)
- SUNK BY 230mm (UTILITY)
- SLAB PROJECTION FOR ELECTRICAL CABLE TRAY

NOTES

1. ϕ - DIA OF TORSTEEL
2. ALL DIMENSIONS ARE IN MILLIMETERS
3. DIMENSIONS ARE NOT TO BE SCALED.
4. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL WORKING AND OTHER RELEVANT DRAWINGS
5. ANY DISCREPANCY IN THE DRG SHALL BE BROUGHT TO CONSULTANTS NOTICE BEFORE EXECUTION
6. GRADE OF CONCRETE : BEAM &SLAB - M20
7. CLEAR COVER : a) BEAM = 25 mm, b) SLAB = 15 mm
8. ALL LEVELS MENTIONED ARE FROM THE RESPECTIVE FFL

REV.	DESCRIPTION	REV BY.	DATE	APP BY.
RELEASE STATUS	DATE	SIGNATURE		
PRELIMINARY TENDER				
FOR CONSTRUCTION				

* ALL METRIC DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.

* THE COPYRIGHT OF THIS DRAWING AND OF ALL ENCLOSURES ENTRUSTED TO THE RECIPIENT PERSONALLY REMAINS THE EXCLUSIVE PROPERTY OF THE FIRM WITH OUT OUR WRITTEN CONSENT THEY SHOULD NOT BE COPIED OR REPRODUCED OR DELIVERED OR MADE KNOWN TO THIRD PARTY.

PROPOSED APARTMENT BUILDING
"SHRIRAM SANKARI" FOR
M/S. SHRIPROP STRUCTURES PVT. LTD.
AT PERUMATTUNALLUR - CHENNAI.

CLIENT -

REFERENCE

N

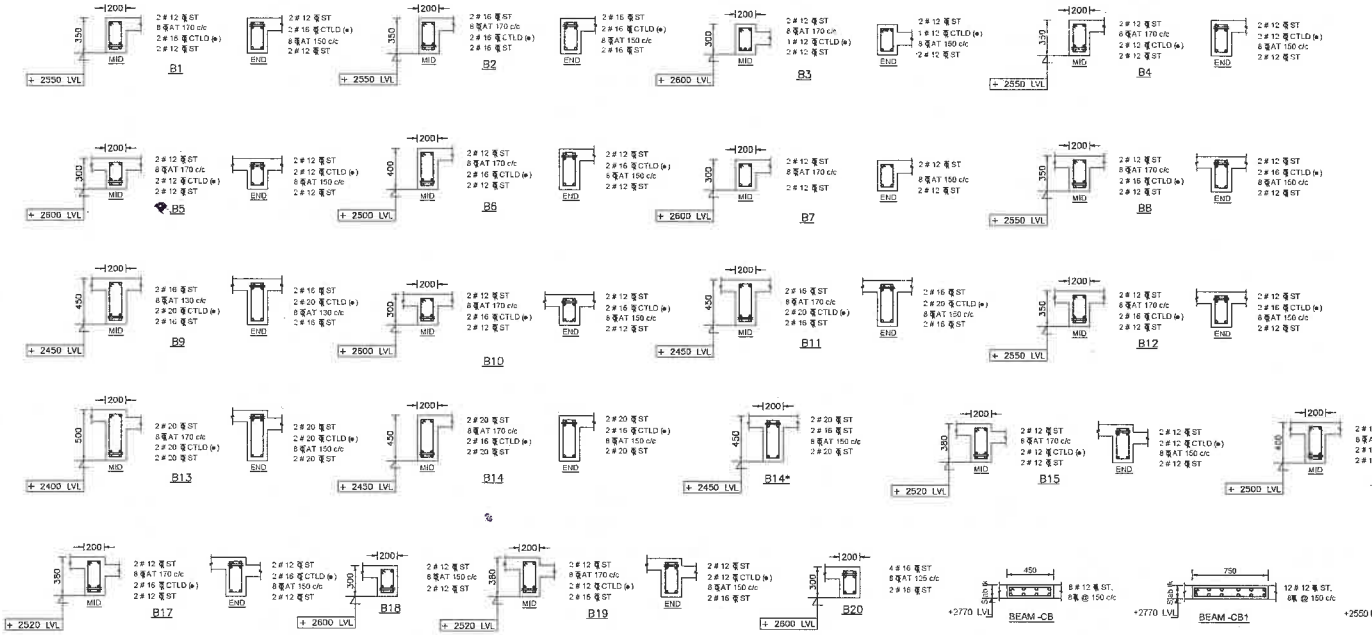
BUILDING: TOWER - 8, 11

DETAIL: TYPICAL ROOF BEAM LAYOUT

SCALE 1:100	JOB NO: 14-SPC-04	REV	DRN BY: P.ANANTHI
DATE 24-06-2014	DRG NO: ST-PF-01F-501	--	DES'R BY S.JAYARAM
			CHD BY: S.MURUGESH

ARCHITECTS & PLANNERS
SANKAR & ASSOCIATES
27, SEVENTH STREET,
NANDANAM,
COIMBATORE - 641009, INDIA.

SANKAR & ASSOCIATES ★ COIMBATORE ★



SLAB SCHEDULE:

SLAB NO.	SLAB THICKNESS	SLAB BOTTOM LVL	RFT IN SHORTER DIRECTION	RFT IN LONGER DIRECTION
S1	130	+2770	8 Φ @ 125 c/c (ALTERNATE CRANK)	8 Φ @ 175 c/c (ALTERNATE CRANK)
S2	120	+2780	8 Φ @ 140 c/c (ALTERNATE CRANK)	8 Φ @ 140 c/c (ALTERNATE CRANK)
S3	120	+2780	8 Φ @ 140 c/c (STRAIGHT)	8 Φ @ 125 c/c (STRAIGHT)
S4	120	+2780	8 Φ @ 130 c/c (ALTERNATE CRANK)	8 Φ @ 150 c/c (STRAIGHT)
S5	120	+2780	8 Φ @ 140 c/c (ALTERNATE CRANK)	8 Φ @ 170 c/c (STRAIGHT)
S6	130	+2795	8 Φ @ 150 c/c (ALTERNATE CRANK)	8 Φ @ 170 c/c (STRAIGHT)
S7	120	+2780	8 Φ @ 150 c/c (ALTERNATE CRANK)	8 Φ @ 170 c/c (ALTERNATE CRANK)
S8	120	+2780	8 Φ @ 140 c/c (ALTERNATE CRANK)	8 Φ @ 170 c/c (STRAIGHT)
S9	110	+2790	8 Φ @ 170 c/c (STRAIGHT)	8 Φ @ 170 c/c (STRAIGHT)
S10	130	+2770	10 Φ @ 170 c/c (ALTERNATE CRANK)	10 Φ @ 170 c/c (ALTERNATE CRANK)

NOTES

1. Φ - DIA OF TORSTEEL
2. ALL DIMENSIONS ARE IN MILLIMETERS
3. DIMENSIONS ARE NOT TO BE SCALED.
4. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL WORKING AND OTHER RELEVANT DRAWINGS.
5. ANY DISCREPANCY IN THE DRG.SHALL BE BROUGHT TO CONSULTANTS NOTICE BEFORE EXECUTION.
6. GRADE OF CONCRETE
   BEAM & SLAB - M20
7. CLEAR COVER
   a) BEAM - 25 mm, b) SLAB - 15 mm
8. ALL LEVELS MENTIONED ARE FROM THE RESPECTIVE FLOOR FINISH LEVELS.
9. PROVISION FOR SANITARY LINES / i.e.) SLEEVES BEAM OPEN TO BE NEED AS PER PLUMBING LAYOUT

REV.	DESCRIPTION	REV BY.	DATE	APP BY.

PROPOSED APARTMENT BUILDING "SHRIRAM SANKARI" FOR M/S. SHRIPROP STRUCTURES PVT. LTD. AT PERUMATTUTHALLUR - CHENNAI.

CLIENT:-

REFERENCE:

BUILDING: TOWER - B, 11

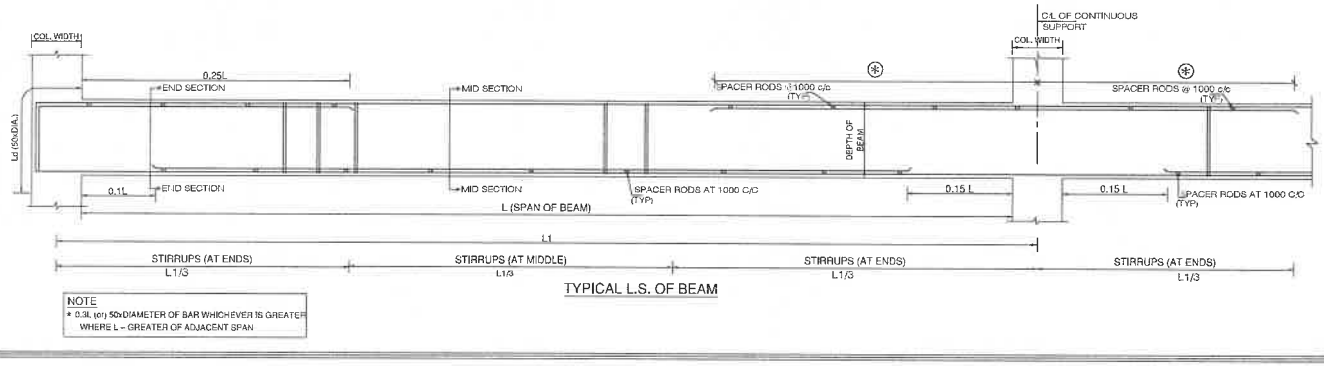
DETAIL: TYPICAL FLOOR ROOF SLAB & BEAM CROSS SECTION DETAILS

SCALE: 1:25 | JOB NO: 24-SSC-04 | REV: | DRN BY: P.MARUTHI

DATE: 24-06-2024 | DRG NO: ST-SR-024-106 | — | DES'N BY: S.KANNADHASAN

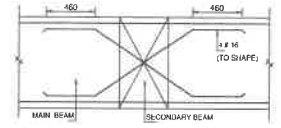
CHD BY: S.MURUGESH

ARCHITECTS & PLANNERS
SANKAR & ASSOCIATES
25, SENGUNTHA STREET,
KUNIAMUTHUR,
COIMBATORE - 641008. INDIA.



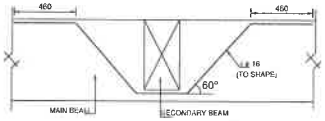
TYPICAL L.S. OF BEAM

NOTE
* 0.3L or 50xDIAMETER OF BAR WHICHEVER IS GREATER WHERE L – GREATER OF ADJACENT SPAN



BEAM TO BEAM JUNCTION DETAIL

(WHERE THE DEPTH OF SECONDARY BEAM IS SAME AS MAIN BEAM)



TYPICAL BEAM TO BEAM JUNCTION DETAIL

(WHERE THE DEPTH OF SECONDARY BEAM IS LESS THAN MAIN BEAM)

SANKAR & ASSOCIATES COIMBATORE

sankar & associates
architecture . engineering . interior design

Head Office
27, Sengupta Street, Ramnagar, Coimbatore – 641 009 India.
Phone: +91 422 223 0690 | 223 0790 | 223 0890
E-mail: admin@sankarassociates.in | website: www.sankarassociates.in

STABILITY CERTIFICATE

The detailed engineering and structure design of the **M/s. Shriprop Structures Private Limited,** proposed building comprising of **Tower No-27-Stilt + 7 Floors with 112 Dwelling Units** project at S.F.No. 16/4A, 16/4B, 65/4, 65/5A, 65/5B, 76/4, 76/5, 77/1A, 77/1B, 77/2B, 77/2C1A, 77/2C1B, 77/2C1C, 77/2C1D, 77/2C1E, 77/2C1F, 77/2C2, 77/3A 77/3B, 78/1, 78/2, 79/1, 79/2, 80/1, 80/2, 81/1, 81/2, 82, 83,85, 86/1B, 86/1C, 86/2A, 86/2B, 87/1A, 87/1B1, 87/1B2, 87/2A, 87/2B, 87/2C, 88/1, 88/2, 88/3, 89/2, 89/3A, 89/3B, 89/3C, 89/4A, 89/4B, 90, 95/4, Perumattunallur village, Chengalpattu District.has been done by me/us based on the report of geotechnical investigation (soil test) done by Tower No-27, Report No. GM- SHRIRAMPROP STRUCTURES PVT LTD-GUDUVANCHERI-JC-GT-2202, Dated: 18.02.2014 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

For Foundation	-	M20
For Superstructure	-	M25

(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 IS 875 Part 2 & Part 3 and Design of Earthquake Resistant Structure and Detailing as per IS Code IS 1893 & IS 13920

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

Signature of the Promoter with Seal

Date: 17/11/2025

Signature of Design Engineer

Name: S. MURUGESH, M.E., F.I.E.,
Chartered Engineer (I) F-1279323
Structural Engineer Grade-I
CMDA/SE/GR-1/2022/05/320

sankar & associates
architecture . engineering . interior design

Sheet No. .....

STABILITY CERTIFICATE

Client : Shriram Properties (P) Ltd., Chennai.

Name Of The Building : Tower - 27

"The Building under Construction in S.F. No's:-. 16/4A, 16/4B, 65/4, 65/5A, 65/5B, 76/4, 76/5, 77/1A, 77/1B, 77/2B, 77/2C1[A,B,C,D,E,F], 77/2C2, 77/3A, 77/3B, 78/1, 78/2, 79/1, 79/2, 80/1, 80/2, 81/1, 81/2, 82, 83, 85, 86/1B, 86/1C, 86/2A, 86/2B, 87/1A, 87/1B1, 87/1B2, 87/2A, 87/2B, 87/2C, 88/1, 88/2, 88/3, 89/2, 89/3A, 89/3B, 89/3C, 89/4A, 89/4B, 90 & 95/4 Perumattunallur Village, Chengalpattu Taluk, Kanchipuram District."

01	No. of stories - Height above ground level	8 Stories
02	No. of basement floors / Depth below ground level	No Basement Floors (STILT + 7 typical Floors)
03	Regularity of the Building - Regular / Irregular building in plan Aspect Ratio	Irregular
04	Horizontal floor system 1) Beam and Slab 2) Grid Floor 3) Others	RCC Beam, RCC Slab
05	Reference codes adopted for 1) Dead, Live & Wind Load 2) Concrete & Steel Design 3) Foundation Design 4) Earthquake & Detailing	 IS 875 PART2 & PART 3 IS 456 & IS 800 IS 1904 – 1986 IS 1893 & IS 13920
06	Concrete Grade 1) Foundation 2) Superstructure	 M20 M25
07	Concrete Type RMC / Design Mix / Volumetric Batching	Design Mix
08	Steel Grade 1) Rebar 2) Tendon Wire Diameter / No. of Strands	Rebar, Fe500 (As per drawing)
09	Clear Cover Footing / Column / Beam / Slab	50 mm / 40 mm / 25 mm /15 mm
10	Quality of water used for Construction	Good
11	Soil Terrain Liquefaction / Land Slide	As SDR - soil report
12	Soil Type N<10 / 10<N<30 / N>30	As per the soil report N>30
13	Safe Bearing Capacity	400 KN/sqm
14	Ground Water Chloride / Sulphate Content	No Presence
15	Type of foundation adopted Column footing / Raft / Pile	Isolated Footing
16	System of Interconnectivity in foundation	Grade beam
17	Maximum load for Footing Design (Design Calculation And Detailing Enclose	1716 KN

	Separately)	
18	Presence of Diaphragm discontinuity	No
19	Presence of Vertical discontinuity	No
20	Presence of Vertical irregularity	No
21	Presence of Mass irregularity	No
22	Presence of Soft Storey	No
23	Design for frame in soft storey	No soft storey is provided
24	Torsion Moment	Considered
25	Seismic Zone	Zone III (As per IS1893: Part 1–2002)
26	Importance Factor	1.0 (As per IS1893: Part 1–2002)
27	OMRF / SMRF	SMRF
28	Fundamental Natural period of Vibration	0.793 sec.(As per IS1893: Part 1 – 2002, Clause 7.6.2, $0.075h^{0.75}$)
29	Design of Horizontal acceleration Coefficient (Sa/g)	Hard soil Site,Sa\g = 1+15T; 0.00≤T≤0.10
30	Design of Seismic Base Shear	Yes, as per IS1893
31	Distribution of Base shear SRSS / CQC	SRSS
32	Type of Analysis Static / Dynamic	Static
33	Method of Analysis Response Spectrum / Time History / Push Over Analysis	Equivalent static load method as per IS1893
34	No. of Modes	As per IS 1893 (Part I) Clause 7.8.4.2, 33Hz – 3 no's
35	Drift as per analysis (Member No.3733 from STAAD ProV8i)	3 mm
36	Allowable Drift (As per IS1893: Part 1 – 2002, Clause 7.11.1)	0.004 x 2900 = 11.60 mm
37	Width of Expansion Joint	40 mm
38	Design for Maximum capacity column 1) Unfactored Dead Load 2) Unfactored SuperImposed Dead Load 3) Unfactored Live Load 4) Unfactored Wind Shear 5) Unfactored Wind Moment 6) Unfactored Earth Quake Shear 7) Unfactored Earth Quake Moment	 1395 KN (1+2) 321 KN Not Considered Not Considered 34.79 KN 55.53 KN m
39	Type of infill wall	Block Wall
40	Influence of infill wall in the Design	Not Considered
41	Design of Shear wall (enclose separately)	No Shear wall provided

Signature of Architect
Name :

SIDDARTH GOPALA SANKAR, M.ARCH.,F.I.I.A.,
Registered Architect As
L.B.S. GRADE-I
L.S. ARCHITECT No. CA/2005/36220
Coimbatore LPA/RA/GR-I/19/04/016

Date: 01.11.2025

Signature of Design Engineer
Name :

S. MURUGESH, M.E.,FIE.,
Chartered Engineer No. F-1279323
Structural Engineer Grade-I
CMDA/SE/GR-I/2022/05/320

Signature of the Promoter with Seal

REPORT ON STRUCTURAL DESIGN

"THE BUILDING UNDER CONSTRUCTION IN S.F. No's:- SF.Nos. 16/4A, 16/4B, 65/4, 65/5A, 65/5B, 76/4, 76/5, 77/1A, 77/1B, 77/2B, 77/2C1[A,B,C,D,E,F], 77/2C2, 77/3A, 77/3B, 78/1, 78/2, 79/1, 79/2, 80/1, 80/2, 81/1, 81/2, 82, 83, 85, 86/1B, 86/1C, 86/2A, 86/2B, 87/1A, 87/1B1, 87/1B2, 87/2A, 87/2B, 87/2C, 88/1, 88/2, 88/3, 89/2, 89/3A, 89/3B, 89/3C, 89/4A, 89/4B, 90 & 95/4 Perumattunallur Village, Chengalpattu Taluk, Kanchipuram District."

"TOWER - 27"

CLIENT:	SHRIRAM GREEN MEADOWS	DESIGN:	STILT + 7 TYPICAL FLOORS	ARCHITECTS & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR,COIMBATORE.
STRUCTURE NAME :	TOWER – 27	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	PERUMATTUNALLUR - CHENNAI.			

SANKAR & ASSOCIATES, ARCHITECTS & PLANNERS, COIMBATORE-641 009

REPORT ON STRUCTURAL DESIGN

Name of Project:		**Name of the Structure:**
"The Building under Construction in S.F. No's:-. 16/4A, 16/4B, 65/4, 65/5A, 65/5B, 76/4, 76/5, 77/1A, 77/1B, 77/2B, 77/2C1[A,B,C,D,E,F], 77/2C2, 77/3A, 77/3B, 78/1, 78/2, 79/1, 79/2, 80/1, 80/2, 81/1, 81/2, 82, 83, 85, 86/1B, 86/1C, 86/2A, 86/2B, 87/1A, 87/1B1, 87/1B2, 87/2A, 87/2B, 87/2C, 88/1, 88/2, 88/3, 89/2, 89/3A, 89/3B, 89/3C, 89/4A, 89/4B, 90 & 95/4 Perumattunallur Village, Chengalpattu Taluk, Kanchipuram District."		SHRIRAM GREEN MEADOWS TOWER – 27
Report by: B.JAYARAM	**Checked by:** S.MURUGESH	**Drawing Ref. Nos:** SD-01

DESCRIPTION OF THE PROJECT:

The Proposed structure belongs to "M/S. SHRIPROP STRUCTURES PVT. LTD. at Perumattunallur - Chennai." Purpose of this structure to house "SHRIRAM GREEN MEADOWS TOWER - 27".

The structure is designed for Stilt + 7 typical floors. The location of the proposed structure is in Seismic zone III {As per IS1893: (Part 1)–2002-(annex-E)} in India. The structural design was carried out as per IS456-2000. The dead load and live load are calculated based on IS 875: Part I & II. Seismic loads are considered as per IS 1893. The structure was analyzed using the software ETABS.

STRUCTURAL DESIGN CALCULATION

I DESIGN PARAMETERS:

1) This structure is designed for Stilt + 7 typical floors.
2) SBC adopted is 400 KN/sqm.
3) Concrete grade adopted: Column, Beam & Slab - M25 and Footing - M20.
4) Grade of steel adopted: Fe 500.

II LOAD DETAILS:

DEAD LOAD:

1) Self weight of slab (Assumed as 120mm Tk.) - 3.0 KN/m^2
2) Floor finish - 1.0 KN/m^2
3) Partition loads - 1.0 KN/m^2
4) Unit wt. of brick * Tk of wall * Ht of wall - 9.28 KN/m (Openings Detected)

LIVE LOAD:

1) RCC - Live load (As per IS 875 Part II) - 2 KN/m^2
2) For Corridor and Staircase - 3 KN/m^2

III SLAB SIZE:

1) Maximum Panel along One way direction – 1.69m x 6.75m (assumed tk 0.12m)
2) Maximum Panel along Two way direction- 3.475m x 3.58m (assumed tk 0.12m)

IV BEAM SIZE:

(1) Maximum Length of Beam - 6.30m (assumed size 0.2 m x 0.60m)

(2) Minimum Length of Beam – 1.295 m (assumed size 0.20 m x 0.30 m)

V ANALYSIS:

The analysis is performed using software STAAD V8i.

VI LOAD COMBINATION

- 1.0(Dead load + Live Load)
- 1.5(Dead load + Live Load)
- 1.2(Dead load + Live load + E.Q)

VII STRUCTURAL ARRANGEMENT:

Column arrangements, Column-Footing reinforcement details, Beam & Slab layout and Reinforcement details were presented as below,

- Annexure (II) - As per drawing enclosed here for reference

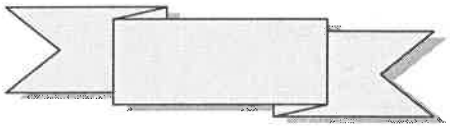
VIII DESIGN OF STRUCTURE:

From analysis the columns and beams were grouped as shown in centerline drawing depending on the forces. The footing, column and beams were designed for the maximum forces in-group as per IS456-2000. Illustrate design calculation for Column, Footing, Beam and Slab enclosed below for reference,

- Annexure (I) – Extract of Design Output (Typical).

SANKAR & ASSOCIATES * COIMBATORE *

ANNEXURE – I



CLIENT:	SHRIRAM GREEN MEADOWS	DESIGN:	STILT + 7 TYPICAL FLOORS	ARCHITECTS & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR,COIMBATORE.
STRUCTURE NAME :	TOWER – 27	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	PERUMATTUNALLUR - CHENNAI.			

TYPICAL DESIGN OF COLUMN

TYPE: C23

COLUMN SIZE – 300mm x 900mm

Pu = 1892 KN

Mu = 38.734 KNm

Slenderness Ratio in Span Direction (0.65*2.9) / 0.90 = 2.10<12, and it is assumed that the Column is tied at each floor levels.

Slenderness Ratio in Span Direction (0.65*2.9) / 0.30 = 6.28<12, and it is assumed that the Column is tied at each floor levels.

Therefore the column shall be designed as Short one in both directions.

$Pu/f_{ck}bd = [(1892*1000)/ (25*300*900)]$ = 0.28

$Mu/f_{ck}bd^2 = [(22.402*10^6)/ (25*300*900*900)]$ = 0.007

For Fe415 Steel & M25 Concrete Grade From Chart No 31 of Sp16

p/f_{ck} = 0.1

Percentage of Steel required (%) = 1.05 %

Ast req = $2496mm^2$

SANKAR & ASSOCIATES * COIMBATORE *

CLIENT:	SHRIRAM GREEN MEADOWS	DESIGN:	STILT + 7 TYPICAL FLOORS	ARCHITECTS & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR,COIMBATORE.
STRUCTURE NAME :	TOWER – 27	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	PERUMATTUNALLUR - CHENNAI.			

DESIGN OF FOOTING:

TYPE: F8

Load from column	= 1393 KN
Add: for self wt of footing add 10% load	= 139 KN
Total Design load	= 1532 KN
SBC Adopted	= 400 KN/m^2
Area required	= 3.83m^2
Area Provided (1.80m x 2.2m)	= 3.96m^2
Net Upward pressure	= 359<400 KN/m^2
Assume depth of footing	= 680 mm
Effective depth	= 630 mm
Maximum bending moment	= 75.70 KNm
Mu/bd^2	= 0.191 N/ m^2

To find: Ast

$$A_{st} = \frac{0.5 f_{ck}}{f_y}\left[1 - \sqrt{1 - \frac{4.6 M_u}{f_{ck} b d^2}}\right] bd$$

Ast = 1236 mm^2

Hence provided rft 16Tor steel @ 160mm c/c

CHECK FOR PUNCHING STRESS

Punching stress = 0.33 < 0.72 N/ m^2

Therefore Footing thickness provided is safe against Punching Stress.

The detailed drawings for all Columns and Footings were enclosed for reference.

SANKAR & ASSOCIATES ★ COIMBATORE ★

CLIENT:	SHRIRAM GREEN MEADOWS	DESIGN:	STILT + 7 TYPICAL FLOORS	ARCHITECTS & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR,COIMBATORE.
STRUCTURE NAME :	TOWER – 27	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	PERUMATTUNALLUR - CHENNAI.			

TYPICAL DESIGN OF SLAB

Design of One-way Slab

(Refer drg: Grid No: C5D5 toC7 D7)

Basic dimensions of slab		=	Lx: 1.69, Ly: 6.75
Basic Ly/Lx ratio		=	3.994 >2
			Hence designed as an one way slab
Clear cover to reinforcement	d'	=	20 mm
Provided overall depth	D	=	120.00 mm
Effective depth	d	=	96.00 mm
Diameter of bar	ϕ	=	8 mm
Select Grade of Concrete	fck	=	25 N/mm²
Select Grade of Steel	fy	=	500 N/mm²

Load calculation :

Dead load of the slab	DL	=	3.000 kN/m²
Floor finish(Roof finish)	FF	=	2 kN/m²
Live load	LL	=	3 kN/m²
Total load	TL	=	8.000 kN/m²

Moment and Area of Steel calculations:

Mu kN.m	Mu/bd² N/mm²	Pt %	Ast reqd mm²	Min Ast mm²	Dia of ba mm	Spacing mm	Ast pro mm²	
4.28	0.08	0.11%	104.88	115.2	8	160	314.16	safe

Check for Deflection

The effective depth provided	=	96.000 mm
From figure 3 of I.S 456:2000 modification factor is		
Modification factor	=	1.36
Required depth under deflection consideration	=	40.31 mm
		HENCE SAFE

SANKAR & ASSOCIATES ★ COIMBATORE ★

CLIENT:	SHRIRAM GREEN MEADOWS	DESIGN:	STILT + 7 TYPICAL FLOORS	ARCHITECTS & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR,COIMBATORE.
STRUCTURE NAME :	TOWER – 27	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	PERUMATTUNALLUR - CHENNAI.			

Design of Two-way Slab

(Refer drg: Grid No: B'5' B7' to B''5 B'7'')

Interior panel:

Basic dimensions of slab		=	Lx: 3.475	Ly: 3.58
Basic Ly/Lx ratio		=	1.030 <2	
			Hence designed as two way slab	
Clear cover to reinforcement	d'	=	20	mm
Provided overall depth	D	=	120.00	mm
Effective depth	d	=	96.00	mm
Diameter of bar	ϕ	=	8	mm
Select Grade of Concrete	fck	=	25	N/mm²
Select Grade of Steel	fy	=	500	N/mm²
Load calculation :				
Dead load of the slab	DL	=	3.000	kN/m²
Floor finish(Roof finish)	FF	=	2	kN/m²
Live load	LL	=	2	kN/m²
Total load	TL	=	7.000	kN/m²

Moment and Area of Steel calculations:

Span	Moment Coefficient		Mu kN.m	Mu/bd² N/mm²	Pt %	Ast reqd mm²	Min Ast mm²	Dia of bar mm	Spacing mm	Ast pro mm²	
shorter	$\alpha_{x\,neg}$	0.033	4.23	0.46	0.11%	103.53	115.2	8	160	314.16	safe
	$\alpha_{x\,pos}$	0.025	3.17	0.34	0.08%	77.21	115.2	8	160	314.16	safe
longer	$\alpha_{y\,neg}$	0.032	4.06	0.44	0.10%	99.21	115.2	8	160	314.16	safe
	$\alpha_{y\,pos}$	0.024	3.04	0.33	0.08%	74.01	115.2	8	160	314.16	safe

Check for Deflection

The effective depth provided		=	96.00 mm
From figure 3 of I.S 456:2000 modification factor i:			
Modification factor		=	1.50
Required depth under deflection consideration		=	79.41 mm
			HENCE SAFE

SANKAR & ASSOCIATES ★ COIMBATORE ★

CLIENT:	SHRIRAM GREEN MEADOWS	DESIGN:	STILT + 7 TYPICAL FLOORS
STRUCTURE NAME :	TOWER – 27	TITLE: REPORT ON STRUCTURAL DESIGN.	
PLACE:	PERUMATTUNALLUR - CHENNAI.		

ARCHITECTS & PLANNERS
SANKAR & ASSOCIATES
27 SENGUPTA STREET,
RAMNAGAR,COIMBATORE.

TYPICAL DESIGN OF BEAM:

(Grid C4 TO D4)

Beam Section:

Span of beam = 6.30 m

Assume width of beam as 200 mm

Assume depth of beam as 600 mm

Therefore, size of beam = 200 x 600 mm

Considering 20 mm bar as main reinforcement

Self weight of beam = 0.2x0.6x25 = 3 KN/m

Load on the beam:

Total Load / metre = 71.50 KN/m

The beam is designed as rectangular section for both +ve and -ve bending moment

Bending Moments from Analysis result.

Bending moment @ end section = 220 KN-m

Bending moment @ mid section =184 KN-m

b = 200, d = 600mm

End Section

Mu/bd2 = $220*10^6 / 200 (575)^2 = 3.33$ N/mm^2

For Pt, refer Table 51

Pt = 1.197; Pc = 0.002

Area of reinforcement (Asc) = (1.197/100) x 200 x 575 = 1377 mm^2 (Tension Reinforcement)

Area of reinforcement (Ast) = (0.002/100) x 200 x 575 = 2.3mm2 (Compression Reinforcement)

Mid Section

Mu/bd2 = $184*10^6 / 200 (575)^2 = 2.78$ N/mm^2

For Pt, refer Table 51

Pt = 1.197; Pc = 0.002

Area of reinforcement (Ast) = (1.197/100) x 200 x 575 = 1377 mm^2 (Tension Reinforcement)

Area of reinforcement (Asc) = (0.002/100) x 200 x 575 = 2.3 mm2 (Compression Reinforcement)

Design for Shear

Refer TABLE 13 of IS: 456 – 2000 for shear coefficient for maximum shear force

SF = 158 KN

Provide 8 Tor @ 140mm c/c (Mid section)

Provide 8 Tor @ 140 mm c/c (End section)

CHECK FOR DEFLECTION

Actual deflection from Analysis = 5.27 mm

Permissible deflection = L/325 = 18.77 mm > 5.27 mm

- **Hence Safe.**

SANKAR & ASSOCIATES COIMBATORE

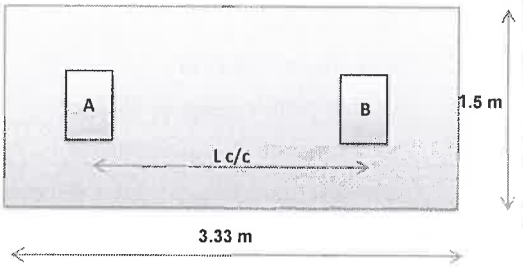
CLIENT:	SHRIRAM GREEN MEADOWS	DESIGN:	STILT + 7 TYPICAL FLOORS	ARCHITECTS & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR,COIMBATORE.
STRUCTURE NAME :	TOWER – 27	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	PERUMATTUNALLUR - CHENNAI.			

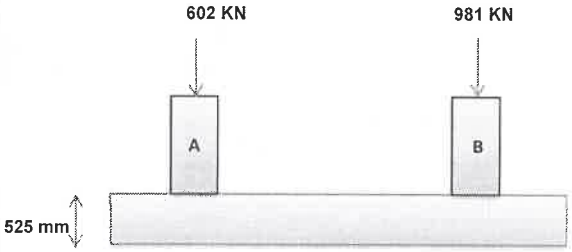
Design of Combined Footing (CF1)

GRID B1,A'2

Column A	b	=	0.2	m
	d	=	0.5	m
Ultimate load	Pu	=	602	kN
Column B	b	=	0.3	m
	d	=	0.6	m
Ultimate load	Pu	=	981	kN
C/C of column	Lc/c	=	1528	m
depth of footing	Df	=	0.6	m
SBC	η	=	400	kN/sq.m
let B	B	=	1.5	m
Area of footing req	Af	=	2.6	m^2
	Lreq	=	1.8	m
	L	=	3.33	m
cg of load from column A	C1	=	946.92	
	C2	=	581.08	
cantilever span Lm1		=	(1.5 - b) / 2	
		=	0.65	m
cantilever span Lm2		=	L / 2 - C2 - b / 2	
		=	-579.57	m
Net soil reaction	pu	=	316.92	kN/sq.m
max BM	M	=	100.42	kNm
max hog BM		=	569384.50	kNm
asume	D	=	600.00	mm
depth req	d	=	155.7	mm
therefore	d	=	525.0	mm
design onw way shear(transverse shear)				
critical section at d from face of column				
shear span	Ls	=	Lm1-d	
		=	0.13	
nominal shear stress		=	0.075	mPa
actual shear capacity		=	0.306	mPa
hence safe				
design for diagonal tension (two way shear)				
the critical shear plane of punching thru digonal tension at from face of column			.5d	
Max shear around column		=	686.8614865	kN
nominal shear stress		=	0.3355	mPa
Shear strength for				
diagonal failure		=	1.12	mPa
hence safe				
Area of reinforcement		=	630.6269297	mm2
provide main rod dia	12		12.0	
provided %			0.2	%
spacing			175	
min area of steel		=	945	mm2
Provide12mm dia bars @175 C/C bothways(B)				

Tway punching shear	
P	791.5
Df	0.6
b	1
D	0.55
bea A	1.84
pun A	3.3
pr	400
tv	0.017
tv req	1.12
hence safe	

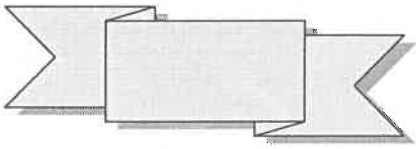




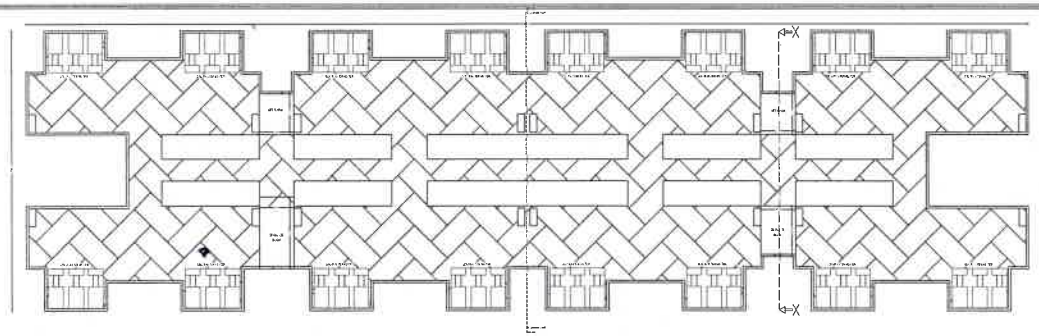
SECTION

SANKAR & ASSOCIATES ★ COIMBATORE ★

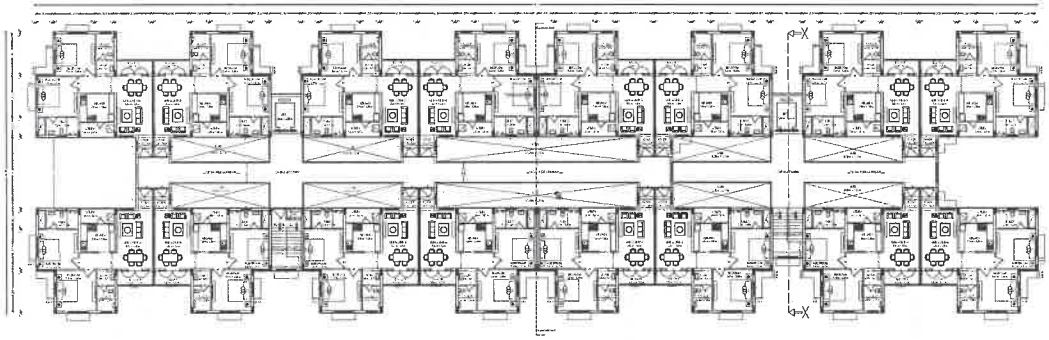
ANNEXURE – II



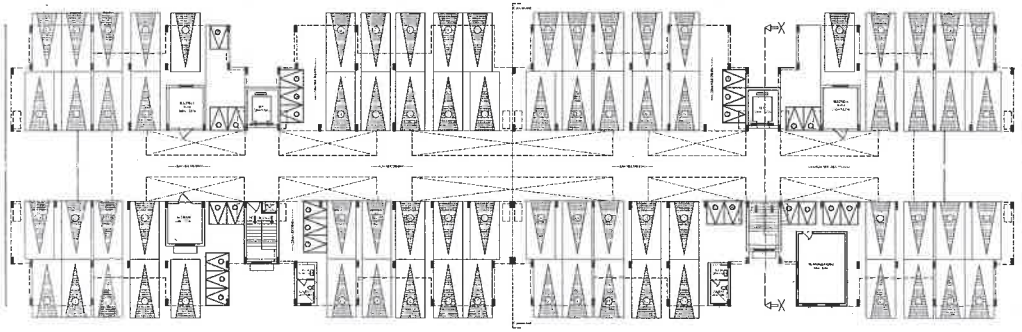
CLIENT:	SHRIRAM GREEN MEADOWS	DESIGN:	STILT + 7 TYPICAL FLOORS	ARCHITECTS & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR,COIMBATORE.
STRUCTURE NAME :	TOWER – 27	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	PERUMATTUNALLUR - CHENNAI.			



TYPICAL TERRACE FLOOR PLAN FOR TOWERS - 22,26 & 27

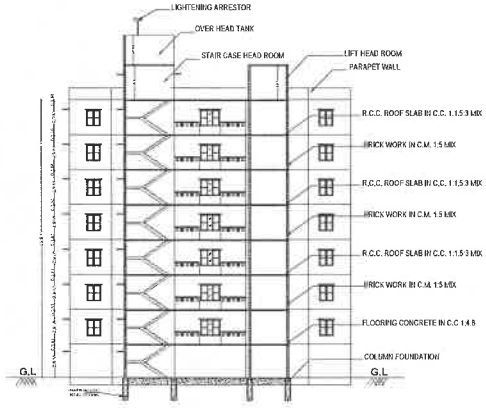


TYPICAL PLAN FOR FIRST, SECOND,THIRD,FOURTH, FIFTH , SIXTH & SEVENTH FLOOR FOR TOWERS - 22,26 & 27



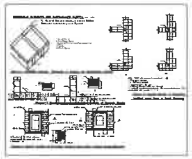
TYPICAL STILT FLOOR FOR TOWERS - 22,26 & 27

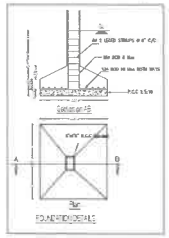
ELEVATION

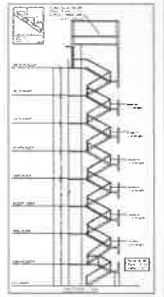


SECTION ON 'X -X'

JOINERY DETAILS	METRE	Sq.m
ED- ENTRANCE DOOR	1.07 x 2.13	2.28
D- DOOR	1.22 x 2.13	2.60
D1- DOOR	0.91 x 2.13	1.90
D2-DOOR	0.79 x 2.13	1.78
FVA- FRENCH WINDOW	2.43 x 2.13	5.20
FW1- FRENCH WINDOW	1.73 x 2.13	3.78
FW2- FRENCH WINDOW	1.29 x 2.13	2.70
W-WINDOW	1.63 x 1.45	2.56
W1-WINDOW	1.73 x 1.40	2.48
W2-WINDOW	1.30 x 1.40	1.82
W3 - WINDOW	0.91 x 1.40	1.30
V-VENTILATOR	0.91 x 0.91	0.83
JW - JOLLY WORK	1.20 x 1.20	1.44







PLAN SHOWING THE REVISED PROPOSAL FOR RESIDENTIAL GROUP DEVELOPMENT IN S.F. Nos : 16/4A,16/4B, 65/4 65/5A,65/5B, 76/4, 76/5, 77/1 A, 77/1B,77/2B, 77/2C1[A,B,C,D,E,F] ,77/2C2 ,77/3A ,77/3B, 78/1,78/2, 79/1,79/2, 80/1, 80/2, 81/1, 81/2, 82, 83, 85, 86/1B,86/1C, 86/2A, 86/2B,87/1A, 87/1B1,87/1B2, 87/2A, 87/2B, 87/2C, 88/1,88/2, 88/3, 89/2, 89/3 A, 89/ 3B, 89/3C, 89/4 A, 89/4B, 90, 95/4 , PERUMATTUNALLUR VILLAGE, CHENGALPATTU TALUK, KANJIPURAM DISTRICT.
(Revision sought for DTCP Approval in Roc No.: 15592 / 2009 /SC dt 07-12-2009 and Chengalpattu RDD Roc No.: 1586 / 09 CR 7 dated 26-02-2010).

PROPOSED APARTMENT COMPLEX (Tower 22,26 & 27 -Typical)

ALL MEASUREMENTS ARE IN METRE

FLAT AREA DETAILS FOR TOWER 22, 26 & 27 :

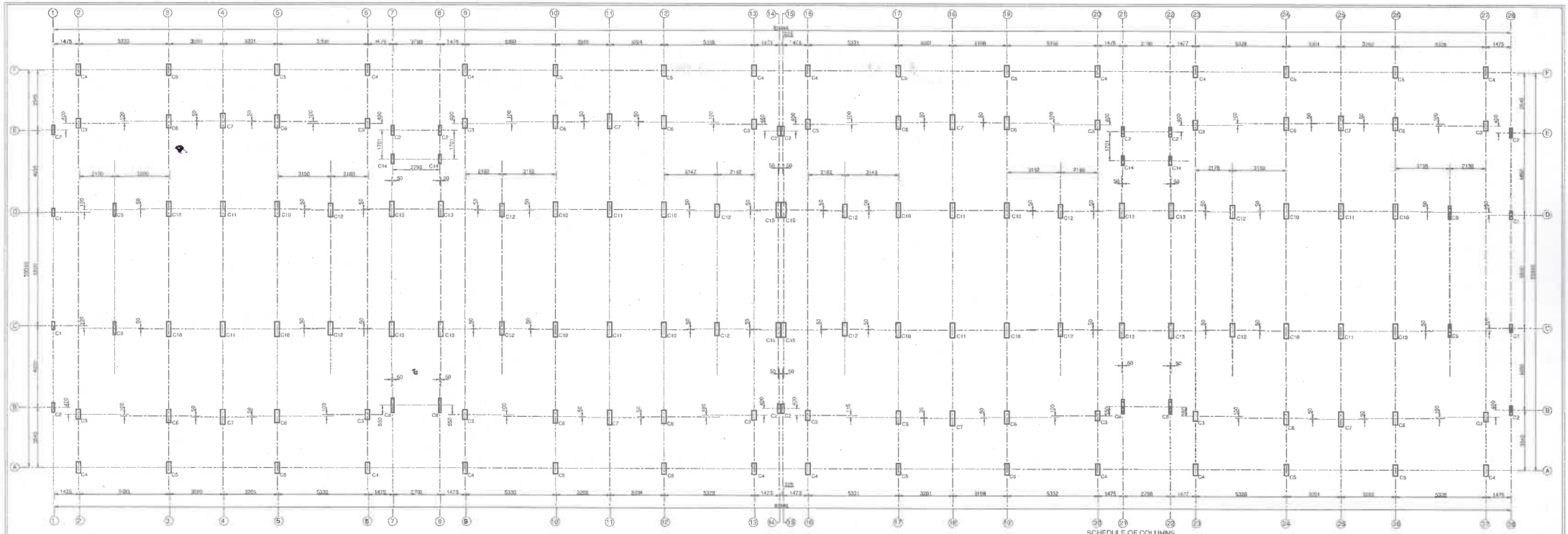
DESCRIPTION	TOWER 22		TOWER 26		TOWER 27		TOTAL
	No. of flats	Area in Sqm	No of flats	Area in Sqm	No. of flats	Area in Sqm	
FLATS IN FIRST FLOOR (1 - 16)	16	80.56	16	80.56	16	80.56	
FLATS IN SECOND FLOOR (1 - 16)	16	80.56	16	80.56	16	80.56	
FLATS IN THIRD FLOOR (1 - 16)	16	80.56	16	80.56	16	80.56	
FLATS IN FOURTH FLOOR (1 - 16)	16	80.56	16	80.56	16	80.56	
FLATS IN FIFTH FLOOR (1 - 16)	16	80.56	16	80.56	16	80.56	
FLATS IN SIXTH FLOOR (1 - 16)	16	80.56	16	80.56	16	80.56	
FLATS IN SEVENTH FLOOR(1 - 16)	16	80.56	16	80.56	16	80.56	
TOTAL No. OF FLATS	112		112		112		336 Nos
Required Car Parking	112		112		112		336 Nos
Provided (Covered car parking)	75		75		75		225 Nos

TWO WHEELER PARKING : 26 X 3 floors = 78 Nos — OPEN CAR PARKING : 111 Nos

AREA DETAILS FOR TOWER 22, 26 & 27 :

DESCRIPTION	TOWER 22		TOWER 26		TOWER 27		TOTAL	
	F.S.I. AREA	NON F.S.I. AREA	F.S.I. AREA	NON F.S.I. AREA	F.S.I. AREA	NON F.S.I. AREA	F.S.I. AREA	NON F.S.I. AREA
STILT FLOOR	-------	1421.8	-------	1421.8	-------	1421.8	-------	4265.4
FIRST FLOOR	1421.8	-------	1421.8	-------	1421.8	-------	4265.4	-------
SECOND FLOOR	1421.8	-------	1421.8	-------	1421.8	-------	4265.4	-------
THIRD FLOOR	1421.8	-------	1421.8	-------	1421.8	-------	4265.4	-------
FOURTH FLOOR	1421.8	-------	1421.8	-------	1421.8	-------	4265.4	-------
FIFTH FLOOR	1421.8	-------	1421.8	-------	1421.8	-------	4265.4	-------
SIXTH FLOOR	1421.8	-------	1421.8	-------	1421.8	-------	4265.4	-------
SEVENTH FLOOR	1421.8	-------	1421.8	-------	1421.8	-------	4265.4	-------
TERRACE FLOOR	-------	53.6	-------	53.6	-------	53.6	-------	160.8
SUB TOTAL		1475.4		1475.4		1475.4		
TOTAL No. OF FLATS							336 Flats	
TOTAL	9952.6		9952.6		9952.6		29857.8	4426.2

APPLICANT



SCHEDULE OF COLUMNS

COLUMN TYPE	COLUMN SIZE
C1	200 x 500
C2	200 x 600
C3	300 x 600
C4	300 x 700
C5	300 x 700
C6	300 x 800
C7	300 x 900
C8	200 x 900
C9	200 x 800
C10	300 x 900
C11	300 x 900
C12	300 x 800
C13	300 x 900
C14	200 x 600
C15	300 x 900

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
2. DIMENSIONS ARE NOT TO BE SCALED.
3. ANY DISCREPANCY IN THE DRG.SHALL BE BROUGHT TO CONSULTANTS NOTICE BEFORE EXECUTION.
4. ALL MEASUREMENTS ARE REFERED FROM GRID LINES (CENTER OF 200 BLOCK MASONARY WALL) AS PER WORKING DRAWING
5. ALL GRID JUNCTIONS REFERS TO COLUMN CENTRE

REV.	DESCRIPTION	REV BY.	DATE	APP BY.

RELEASE STATUS	DATE	SIGNATURE	
PRELIMINARY SENSOR			
FOR CONSTRUCTION			

* ALL METRIC DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.

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PROPOSED
"SHRIRAM SANKARI"
APARTMENT FOR
M/S. SHRIPROP STRUCTURES PVT. LTD.
CLIENT: AT PERUMATTUNALLUR - CHENNAI.

REFERENCE:

BUILDING: PHASE -IV - TOWER - 22,26,27

DETAIL: CENTRE LINE & COLUMN LAYOUT

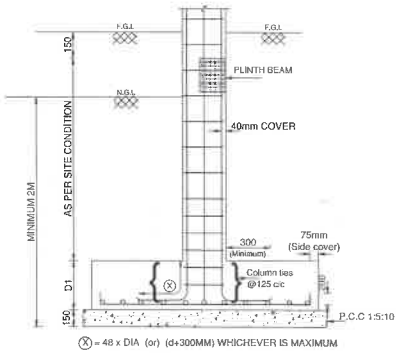
SCALE: 1:100	JOB NO: 11-SPC-28	REV	DRN BY: [illegible]
DATE: 05-11-2013	DRG NO: —		DESN BY: [illegible]
			CKD BY: [illegible]

ARCHITECTS & PLANNERS
SANKAR & ASSOCIATES
27, SENGUPTHA STREET,
RAMNAGAR,
COIMBATORE - 641009, INDIA.

SANKAR & ASSOCIATES ★ COIMBATORE ★

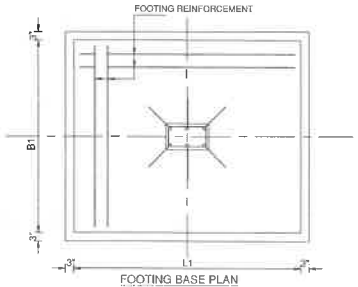
TYPE	COLUMN		TYPE	FOOTING			
	COLUMN DETAILS (CLEAR COVER 40 MM)	TIES		L1	B1	D1	FOOTING REINFORCEMENT
C1	200 / 500 / 8 # 16 ϕ	8 ϕ @ 175 mm c/c (2-TIES)	F1	1500	1800	500	12 ϕ @ 200 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 150 mm c/c (ALONG SHORTER DIRECTION)
C2	200 / 600 / 10 # 20 ϕ	8 ϕ @ 175mm c/c (2-TIES+1LINK)	F2	1500	1800	500	12 ϕ @ 200 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 175 mm c/c (ALONG SHORTER DIRECTION)
C3	300 / 600 / 10 # 16 ϕ 2 # 12 ϕ (•)	8 ϕ @ 175mm c/c (2-TIES+1LINK)	F3	1800	2000	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 125 mm c/c (ALONG SHORTER DIRECTION)
C4	300 / 700 / 4 # 20 ϕ 4 # 16 ϕ (•) 2 # 12 ϕ (•)	8 ϕ @ 175 mm c/c (2-TIES)	F4	1600	2000	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 150 mm c/c (ALONG SHORTER DIRECTION)
C5	300 / 700 / 8 # 20 ϕ 2 # 12 ϕ (•)	8 ϕ @ 175 mm c/c (2-TIES)	F5	1600	2000	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 125 mm c/c (ALONG SHORTER DIRECTION)
C6	300 / 800 / 12 # 20 ϕ 2 # 12 ϕ (•)	8 ϕ @ 175 mm c/c (4-TIES)	F6	1800	2200	680	16 ϕ @ 250 mm c/c (ALONG LONGER DIRECTION) 16 ϕ @ 200 mm c/c (ALONG SHORTER DIRECTION)
C7	300 / 900 / 8 # 20 ϕ 2 # 16 ϕ (•) 2 # 12 ϕ (•)	8 ϕ @ 175mm c/c (2-TIES+1LINK)	F7	1500	1800	530	12 ϕ @ 200 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 100 mm c/c (ALONG SHORTER DIRECTION)
C8	200 / 900 / 8 # 20 ϕ	8 ϕ @ 175 mm c/c (2-TIES)	F8	1500	1800	500	12 ϕ @ 200 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 150 mm c/c (ALONG SHORTER DIRECTION)
C9	200 / 800 / 4 # 25 ϕ 4 # 20 ϕ (•)	8 ϕ @ 175 mm c/c (2-TIES)	F9	1600	2000	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 100 mm c/c (ALONG SHORTER DIRECTION)

TYPE	COLUMN		TYPE	FOOTING			
	COLUMN DETAILS (CLEAR COVER 40 MM)	TIES		L1	B1	D1	FOOTING REINFORCEMENT
C10	300 / 900 / 8 # 20 ϕ 4 # 16 ϕ (•) 2 # 12 ϕ (•)	8 ϕ @ 175 mm c/c (4-TIES)	F10	1600	2000	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 125 mm c/c (ALONG SHORTER DIRECTION)
C11	300 / 900 / 4 # 25 ϕ 6 # 20 ϕ (•) 2 # 12 ϕ (•)	8 ϕ @ 175mm c/c (2-TIES+1LINK)	F11	1800	2200	680	16 ϕ @ 275 mm c/c (ALONG LONGER DIRECTION) 16 ϕ @ 150 mm c/c (ALONG SHORTER DIRECTION)
C12	300 / 800 / 10 # 20 ϕ 2 # 12 ϕ (•)	8 ϕ @ 175mm c/c (2-TIES+1LINK)	F12	1600	2000	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 125 mm c/c (ALONG SHORTER DIRECTION)
C13	300 / 900 / 4 # 25 ϕ 8 # 20 ϕ (•) 2 # 12 ϕ (•)	8 ϕ @ 175 mm c/c (3-TIES)	F13	1830	2200	680	16 ϕ @ 275 mm c/c (ALONG LONGER DIRECTION) 16 ϕ @ 175 mm c/c (ALONG SHORTER DIRECTION)
C14	200 / 600 / 8 # 16 ϕ	8 ϕ @ 175 mm c/c (2-TIES)	F14	1350	1600	500	12 ϕ @ 200 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 175 mm c/c (ALONG SHORTER DIRECTION)
C15	300 / 900 / 12 # 16 ϕ 2 # 12 ϕ (•)	8 ϕ @ 175 mm c/c (4-TIES)	F15	1800	2000	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 100 mm c/c (ALONG SHORTER DIRECTION)
CF1	C2 + C3		CF1	1500	3330	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 125 mm c/c (ALONG SHORTER DIRECTION)
CF2	C3 + C8		CF2	1800	3375	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 125 mm c/c (ALONG SHORTER DIRECTION)
CF3	C15 + C15		CF3	2000	2125	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 100 mm c/c (ALONG SHORTER DIRECTION)
CF4	2 # C3 + 2 # C4		CF4	2300	4970	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 100 mm c/c (ALONG SHORTER DIRECTION)
CF5	C3 + C2		CF5	2300	3125	600	12 ϕ @ 175 mm c/c (ALONG LONGER DIRECTION) 12 ϕ @ 125 mm c/c (ALONG SHORTER DIRECTION)



ⓧ = 48 x DIA (or) (d+300MM) WHICHEVER IS MAXIMUM

TYPICAL SECTION



FOOTING BASE PLAN

TYPICAL FOOTING DETAILS

TYPICAL TIE DETAIL

TYPICAL LINK DETAIL

SANKAR & ASSOCIATES COIMBATORE

STRUCTURE DESIGNED FOR STILT + 7 FLOORS
S.B.C ADOPTED IS 400 KN / m²

NOTES :

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
2. DIMENSIONS ARE NOT TO BE SCALED.
3. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
4. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
5. ANY DISCREPANCY IN THE DRG.SHALL BE BROUGHT TO CONSULTANTS NOTICE BEFORE EXECUTION.
6. GRADE OF CONCRETE
   FOR FOOTINGS - M20(fck, 28 DAYS = 20 N/mm²)
   FOR COLUMNS - M20(fck, 28 DAYS = 20 N/mm²)
7. GRADE OF REINFORCING STEEL fy = 415 N/mm²
8. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 48 x DIA OF BAR.
9. CLEAR COVER -
   FOR COLUMN : 40 mm
   FOR FOOTING BOTTOM : 50 mm
   FOR FOOTING SIDES : 75 mm
10. ALL ISOLATED FOOTINGS SHALL BE CONCENTRIC WITH COLUMN/PEDESTAL UNLESS OTHERWISE SPECIFIED
11. DEPTH OF FOUNDATION SHOULD NOT BE LESS THAN 2.0 M FROM NGL. IF ANY VARIATION FOUND IN THE SOIL PROFILE IT SHALL BE INFORMED TO THE ARCHITECTS BEFORE PROCEEDING FURTHER.

REV.	DESCRIPTION	REV BY.,	DATE	APP BY.,

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/TENDER		
FOR CONSTRUCTION		

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PROPOSED APARTMENT BUILDING
"SHRIRAM SANKARI" FOR
M/S. SHRIPROP STRUCTURES PVT. LTD.
AT PERUMATTUNALLUR - CHENNAI.

CLIENT -

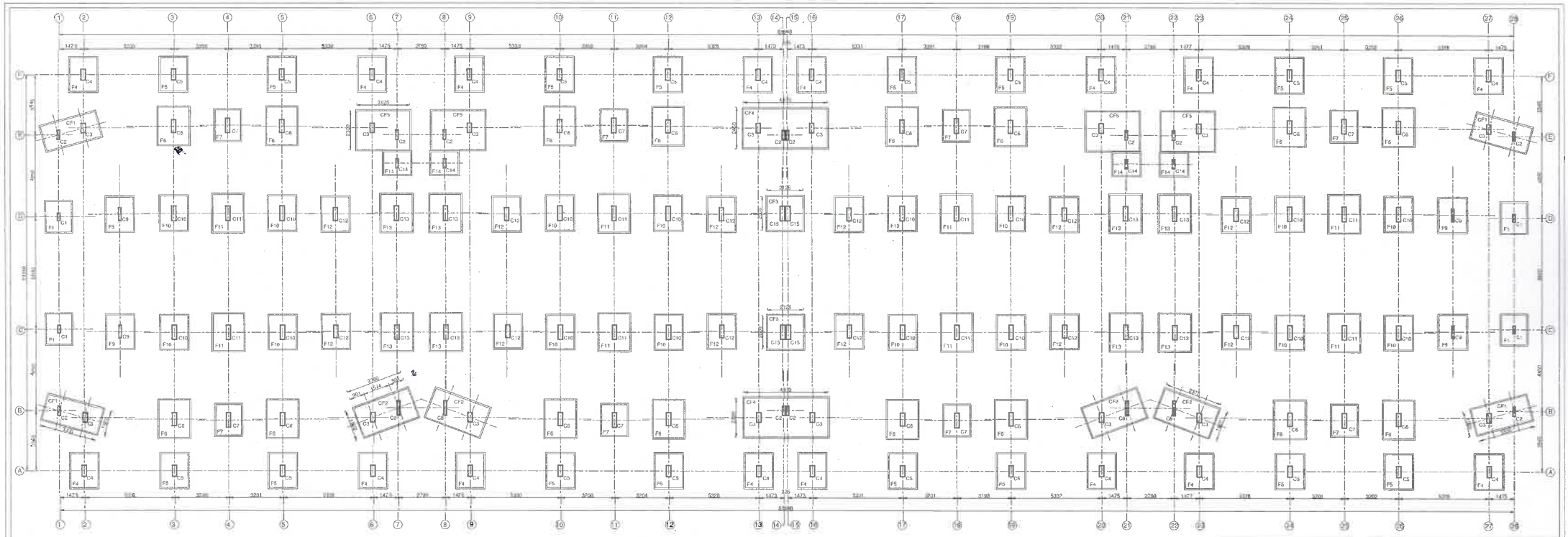
REFERENCE

BUILDING: PHASE -IV - TOWER - 22,26,27

COLUMN & FOOTING REINFORCEMENT DETAILS

SCALE: 1:25	JOB NO: 11-SPC-3B	REV	DRN BY: P.ANANTHI
DATE: 25-06-2014	DRG NO: ST-FL-0	...	DESN BY: B.JAYAPRAM
			CKD BY: S.MURUGESH

ARCHITECTS & PLANNERS
SANKAR & ASSOCIATES
27, SENGUPTHA STREET,
RAMNAGAR.



SCHEDULE OF COLUMNS

COLUMN TYPE	COLUMN SIZE	FOOTING SIZE	COLUMN TYPE	COLUMN SIZE	FOOTING SIZE
C1	200 x 600	1500 x 1800	C14	200 x 600	1350 x 1600
C2	200 x 600	1500 x 1800	C15	300 x 900	1800 x 2000
C3	300 x 600	1800 x 2000	CF1	C2 + C3	1500 x 3330
C4	300 x 700	1600 x 2000	CF2	C3 + C8	1800 x 3375
C5	300 x 700	1600 x 2000	CF3	C15 + C15	2000 x 2125
C6	300 x 800	1800 x 2200	CF4	2#C3 + 2#C4	2300 x 4970
C7	300 x 900	1500 x 1800	CF5	C3+ C2	2300 x 3125
C8	200 x 900	1500 x 1800			
C9	200 x 800	1600 x 2000			
C10	300 x 900	1600 x 2000			
C11	300 x 900	1800 x 2200			
C12	300 x 800	1600 x 2000			
C13	300 x 900	1830 x 2200			

SANKAR & ASSOCIATES ★ COIMBATORE ★

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2. DIMENSIONS ARE NOT TO BE SCALED.
3. ANY DISCREPANCY IN THE DRG.SHALL BE BROUGHT TO CONSULTANTS NOTICE BEFORE EXECUTION.
4. ALL MEASUREMENTS ARE REFERED FROM GRID LINES (CENTER OF 200 BLOCK MASONARY WALL) AS PER WORKING DRAWING
5. ALL GRID JUNCTIONS REFERS TO COLUMN CENTRE

REV.	DESCRIPTION	REV BY.	DATE	APP BY.

	DATE	SIGNATURE
FILE/LATE SIG.TIME		
PRELIMINARY TENDER		
FOR CONSTRUCTION		

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PROPOSED
"SHRIRAM SANKARI"
APARTMENT FOR
M/S. SHRIPROF STRUCTURES PVT. LTD.
AT PERUMATTUNALLUR - CHENNAI.

CLIENT:-

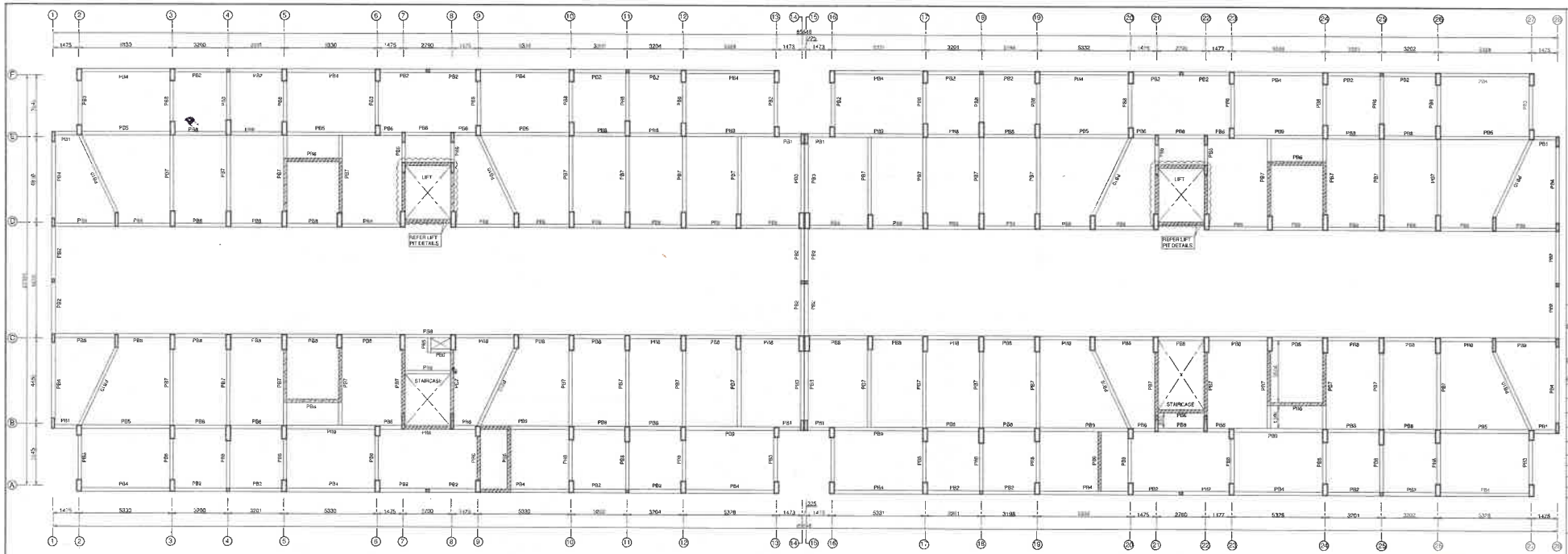
REFERENCE:

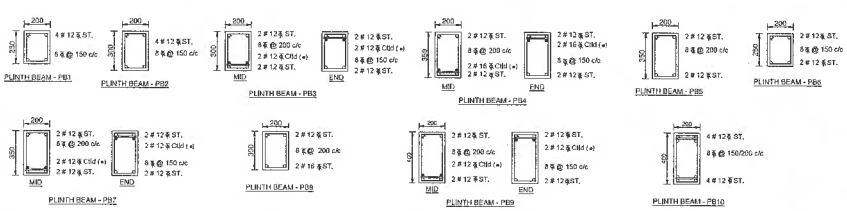
BUILDING: PHASE -IV - TOWER - 22,26,27

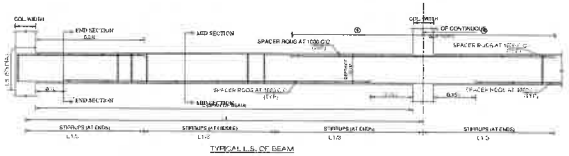
DETAIL: FOOTING LAYOUT

SCALE 1:100	JOB NO: 15-SPC-06	REV	DRN BY: KOLEN
DATE: 25-06-2014	DRG NO: —		DESIGNED BY: S.JAYAPRAKASH
			CHECKED BY:

ARCHITECTS & PLANNERS
SANKAR & ASSOCIATES
27, SEMBUPTHA STREET
RAMNAGAR
COIMBATORE - 641009. INDIA.







NOTE
* 9.9L (or) 56xDIAMETER OF BAR WHICHEVER IS GREATER
WHERE L = GREATER OF ADJACENT SPAN

NOTES:
1. - DIA BAR FOR STEEL
2. CLEAR COVER : 25mm FOR BEAM
3. DEVELOPMENT LENGTH SHALL BE = 48 x DIA OF BAR
4. USE M25 CONCRETE
5. USE FE 415 STEEL FOR REINFORCEMENT

SPECIFICATION:
1. FLOORING FINISHED WITH GLS 1.2.3 60MM THICK COLOUR DEMARCATING STRIPS 10MM YELLOW SIZE CHIPS WITH REINFORCEMENT AT 6 kg/ 200mm c/c B.W.A. CENTER & GROOVE CUTTING IN EQUAL MARKING & SAND DEPTH 1 TO 4 IN AS PER AMERATED SLAB
2. FLOORING WITH CEMENT CONCRETE 1:4:8 MIXED 20MM THICK 40MM SIZE GRANITE HARD BROKEN STONES OF 100MM THICK 1:2 RATIO
3. COMPACTED EARTH FILLING

REV.	DESCRIPTION	REV BY.	DATE	APP BY.

PROPOSED
"SHRIRAM SANKARI"
APARTMENT FOR
M/S. SHRIPROP STRUCTURES PVT. LTD.
AT PERUMATTUR,ALLUR - CHENNAI.

CLIENT:

REFERENCE:

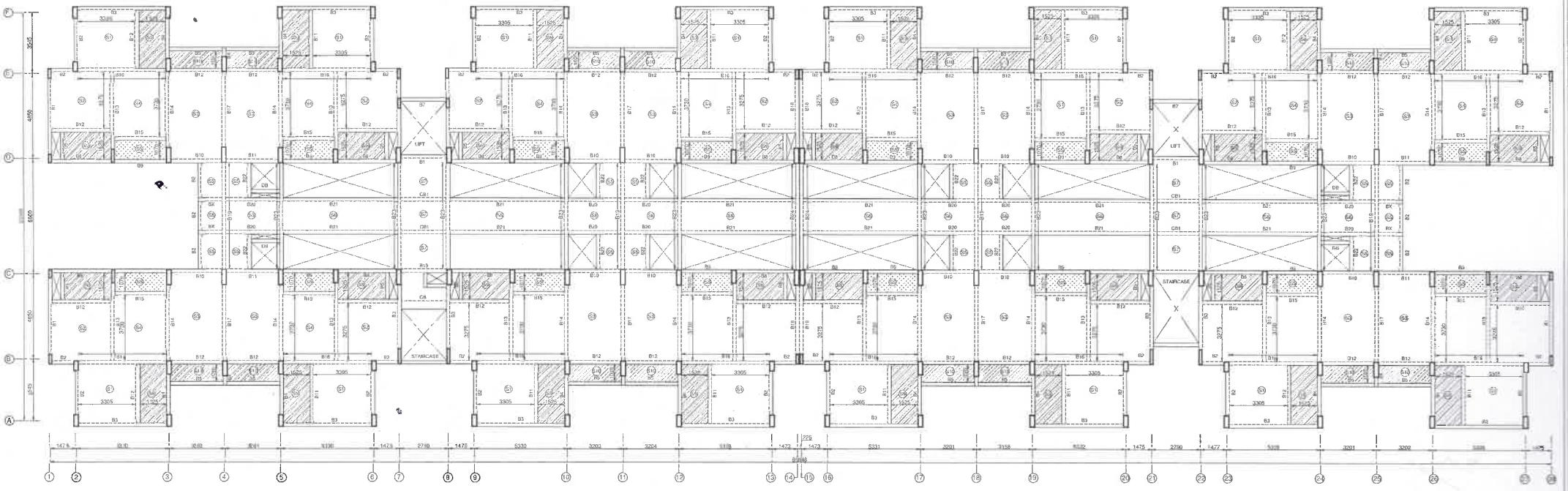
BUILDING : PHASE -IV - TOWER - 22,26,27

DETAIL : PLINTH BEAM LAYOUT AND DETAILS

SCALE: 1:100	JOB NO: SA-SPC-06	REV	DRN BY: ALGN
DATE: 19-08-2014	DRG NO: ----	--	DSN BY: S.A
			CKD BY:

ARCHITECTS & PLANNERS
SANKAR & ASSOCIATES
23, SENGUPTHA STREET,
RAMNAGAR
COIMBATORE - 641009, INDIA.

SANKAR & ASSOCIATES ★ COIMBATORE ★



BEAM GROUP	BEAM SIZE	BEAM BOTTOM LVL	BEAM GROUP	BEAM SIZE	BEAM BOTTOM LVL	BEAM GROUP	BEAM SIZE	BEAM BOTTOM LVL	BEAM GROUP	BEAM SIZE	BEAM BOTTOM LVL	BEAM GROUP	BEAM SIZE	BEAM
B1	200 / 350	+ 2550	B7	200 / 320	+ 2600	B13	200 / 450	+ 2450	B18	200 / 450	+ 2450	B23	200 / 600	+ 2300
B2	200 / 300	+ 2600	B8	200 / 350	+ 2550	B14	200 / 450	+ 2450	B19	200 / 600	+ 2300	B24	200 / 600	+ 2300
B3	200 / 350	+ 2550	B9	200 / 275	+ 2625	B15	200 / 350	+ 2550	B20	200 / 600	+ 2300	DB1	200 / 350	+ 2550
B4	200 / 350	+ 2550	B10	200 / 400	+ 2500	B16	200 / 500	+ 2400	B21	200 / 600	+ 2300	DB2	200 / 350	+2550
B5	200 / 275	+ 2550	B11	200 / 400	+ 2500	B17	200 / 450	+ 2450	B22	200 / 300	+ 2900	CB1	200 / Slab lk.	+2770
B6	200 / 350	+ 2550	B12	200 / 350	+ 2550									

SLAB NO.	SLAB THICKNESS	SLAB BOTTOM LVL
S1	120	+2780
S2	120	+2780
S3	120	+2780
S4	120	+2780
S5	120	+2550
S6	120	+2780
S7	130	+2770
S8	120	+2780
S9	110	+2715
S10	110	+2715
S11	110	+2790

- SUNK BY 75mm (TOILET)
- SUNK BY 75mm (BALCONY)
- SUNK BY 230mm (UTILITY)

NOTES

1. ⌀ - DIA OF TORSTEEL
2. ALL DIMENSIONS ARE IN MILLIMETERS
3. DIMENSIONS ARE NOT TO BE SCALED.
4. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL WORKING AND OTHER RELEVANT DRAWINGS.
5. ANY DISCREPANCY IN THE DRG.SHALL BE BROUGHT TO CONSULTANTS NOTICE BEFORE EXECUTION.
6. GRADE OF CONCRETE
   BEAM &SLAB - M20
7. CLEAR COVER
   a) BEAM = 25 mm b) SLAB = 15 mm
8. ALL LEVELS MENTIONED ARE FROM THE RESPECTIVE FLOOR FINISH LEVELS.
9. PROVISION FOR SANITARY LINES (i.e.) SLEEVES/ BEAM OPEN TO BE NEED AS PER PLUMBING LAYOUT

SANKAR & ASSOCIATES ★ COIMBATORE ★

REV.	DESCRIPTION	REV BY.	DATE	APP BY.

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AGREED DATA FOR		

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APARTMENT FOR
M/S. SHRIPROP STRUCTURES PVT. LTD.
AT PERUMATTUNALLUR - CHENNAI.

CLIENT -

REFERENCE

N

BUILDING: PHASE -IV - TOWER - 22,26,27

DETAIL: TYPICAL FLOOR ROOF SLAB & BEAM LAYOUT

SCALE 1:100	JOB NO 14-SPC-05	REV	DRN BY: ALLEN
DATE 18-06-2014	DRG NO ST-RF-STF-001		DESN BY: B.JAYARAM
			CKD BY: MURUGESH

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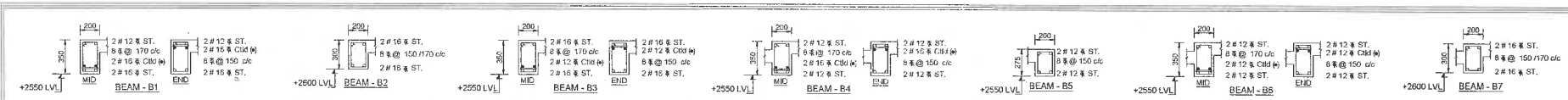
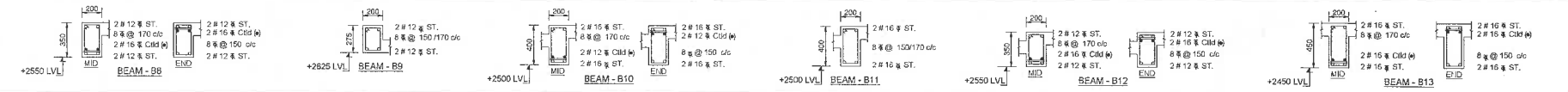
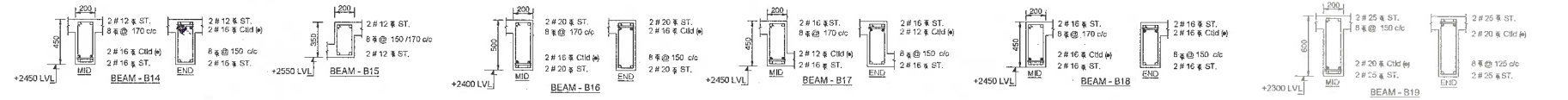
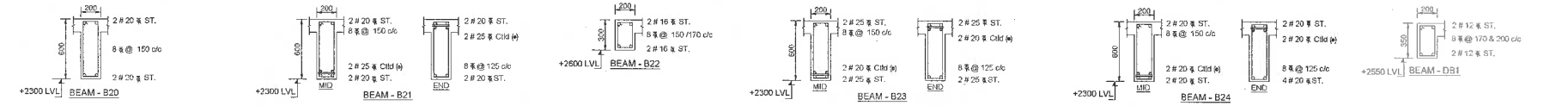
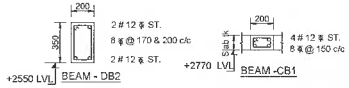
27, SENGUPTHA STREET
RAMNAGAR
COIMBATORE - 641009. INDIA.

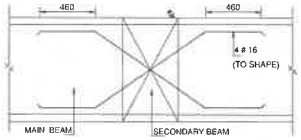






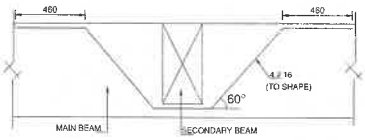






BEAM TO BEAM JUNCTION DETAIL

(WHERE THE DEPTH OF SECONDARY BEAM IS SAME AS MAIN BEAM)

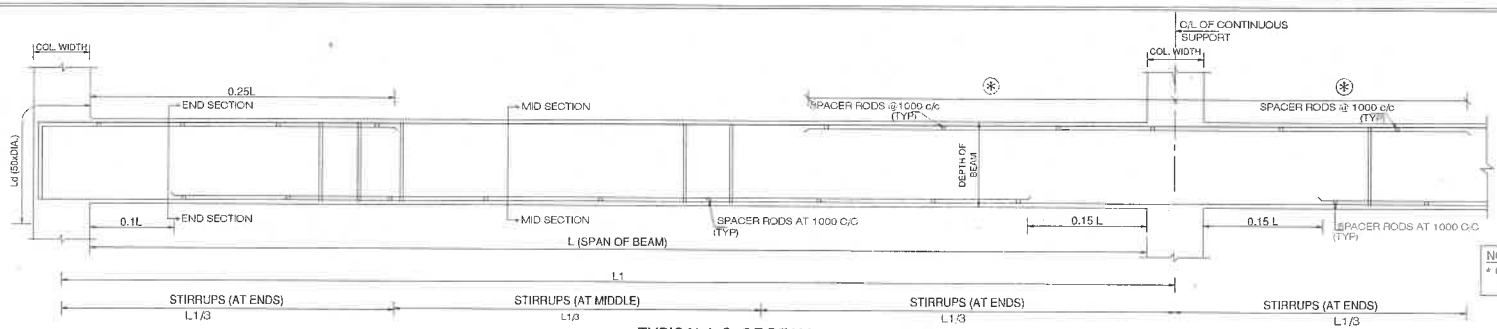


TYPICAL BEAM TO BEAM JUNCTION DETAIL

(WHERE THE DEPTH OF SECONDARY BEAM IS LESS THAN MAIN BEAM)

SLAB SCHEDULE:

SLAB NO.	SLAB THICKNESS	SLAB BOTTOM LVL	SHORTER DIRECTION	LONGER DIRECTION
S1	120	+2780	8 ϕ@ 150 c/c (alternate crank)	8 ϕ@ 150 c/c (alternate crank)
S2	120	+2780	8 ϕ@ 140 c/c (alternate crank)	8 ϕ@ 140 c/c (alternate crank)
S3	120	+2780	8 ϕ@ 150 c/c (alternate crank)	8 ϕ@ 170 c/c (straight)
S4	120	+2780	8 ϕ@ 140 c/c (alternate crank)	8 ϕ@ 150 c/c (straight)
S5	120	+2550	8 ϕ@ 140 c/c (alternate crank)	8 ϕ@ 170 c/c (straight)
S6	120	+2780	8 ϕ@ 130 c/c (alternate crank)	8 ϕ@ 170 c/c (straight)
S7	130	+2770	8 ϕ@ 140 c/c (alternate crank)	8 ϕ@ 180 c/c (straight)
S8	120	+2780	8 ϕ@ 140 c/c (alternate crank)	8 ϕ@ 140 c/c (alternate crank)
S9	110	+2715	8 ϕ@ 125 c/c (alternate crank)	8 ϕ@ 170 c/c (straight)
S10	110	+2715	8 ϕ@ 125 c/c (alternate crank)	8 ϕ@ 150 c/c (alternate crank)
S11	110	+2790	8 ϕ@ 150 c/c TOP & BOTTOM (straight)	



TYPICAL L.S. OF BEAM

NOTE

* 0.3L (or) 50xDIAMETER OF BAR WHICHEVER IS GREATER WHERE L = GREATER OF ADJACENT SPAN

NOTES

1. ϕ - DIA OF TORSTEEL
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   a) BEAM - 25 mm, b) SLAB - 15 mm
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9. PROVISION FOR SANITARY LINES (i.e.) SLEEVES - BEAM OPEN TO BE NEED AS PER PLUMBING LAYOUT

SANKAR & ASSOCIATES ★ COIMBATORE ★

REV.	DESCRIPTION	REV BY.	DATE	APP BY.

	DATE	SIGNATURE
RELEASE STATUS		
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APARTMENT FOR
M/S. SHRIPROP STRUCTURES PVT., LTD.,
AT PERUMATTUPALLUR - CHENNAI.

CLIENT:-

REFERENCE:

BUILDING: PHASE -IV - TOWER - 22,26,27

DETAIL: TYPICAL FLOOR ROOF SLAB & BEAM CROSS SECTION DETAILS

SCALE: 1:25	JOB NO: 14-SPC-05	REV	DRN BY: ALLEN
DATE: 19-06-2014	DRG NO: ST-BF-01F-004	--	DESN BY:
			CKD BY:

ARCHITECTS & PLANNERS
SANKAR & ASSOCIATES
27, SENGUPTHA STREET,
RAMNAGAR,
COIMBATORE - 641009, INDIA.