Verified RealEstate™

RE REGULATORY RECORD

RERA Document

The document as the regulator published it, reproduced in full behind this page.

Published for reference. The authority's own register is the operative record.

Verified RealEstate™
3/350/2 Mettukuppam,
OMR Thoraipakkam,
Chennai 600 097, India

hello@verified.realestate
+91 9996 12 9996
verified.realestate

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 proposed building comprising of Villa Nos: 66, 70, 71, 72, 74, 75, 76, 81, 83, 84, 85 and 86 (Ground + 1 floor) at Survey Nos: 215/2D, 3B, 6C, 7A3, 7B, 8, 9A, 10A, 216/1A1C, 1A2, 1B1, 4C and 5C in Valarpuram Village, Sriperumbudhur Taluk, Kancheepuram District has been done by us based on the report of Geotechnical investigation (soil test) done by Nagadi Consultants Pvt. Ltd. Report No: G(C) 8718 dated 9th July 2015 and considering the functional requirement of the building.

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

We further certify that:

(i)The minimum grade of concrete is M20

(ii) The design and analysis has been done using the code of practice for plain and reinforced concrete as per IS 456, design loads as per IS Codes No IS-875 Pat I, II and design of earthquake resistant structure as per IS Code No IS 456.

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

Coimbatore
30.04.2026

For Sankar & Associates

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

Encl.: Structural Design Calculation

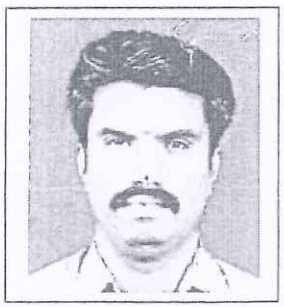
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
'Thalamuthu Natarajan Building', No.1, Gandhi Irwin Road,
Egmore, Chennai-600 008.

PROFESSIONAL REGISTRATION CERTIFICATE

This is to certify that **Thiru. MURUGESH. S** has enrolled as **Registered Structural Engineer Grade-I (SE)** with Chennai Metropolitan Development Authority (CMDA) who has the qualification of **M.E., (Structural Engg.)** and experience in the relevant field for **25 years**.

He has been given the Registration No.**SE/GR-I/2022/05/320** on **16.05.2022.** He shall be required to comply with the duties and responsibilities prescribed by the Government of Tamil Nadu in Part-V, "Registration of Professionals", Tamil Nadu Combined Development and Building Rules, 2019 approved vide G.O.(Ms) No.18 MAWS (MA1) Dept. dated 04.02.2019.

This Registration is valid upto **15.05.2027.**



CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY * CHENNAI-600 008. *

16.5.2022
T. ARIVALAGAN
SUPERINTENDENT
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
EGMORE, CHENNAI-600 008.

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

STRUCTURAL DESIGN BRIEF

THE PROPOSED CONSTRUCTION OF RESIDENTIAL VILLAS OF SHRIRAM ONE CITY IN 215/2D, 3B, 6C, 7A3, 7B, 8, 9A, 10A, 216/ 1A1C, 1A2, 1B1, 4C & 5C, AT PLOTNO: 66, 70, 71, 72, 74, 75, 76, 81, 83, 84, 85 & 86, DTCP APPROVED LAYOUT NO.236/13, VALARPURAM VILLAGE, SRIPERUMBUDHUR TALUK, KANCHEEPURAM DISTRICT.

"SHRIRAM ONE CITY - EWS VILLAS CORE I TO IV"

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

CLIENT:	M/S SHRIRAM PROPERTIES	DESIGN:	G + 1 Floor	ARCHITECT & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR, COIMBATORE.
STRUCTURE NAME :	RESIDENTIAL VILLAS	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	AT VALARPURAM, CHENNAI.			

Name of Project:		Name of the Structure:
SHRIRAM ONE CITY		RESIDENTIAL GROUP DEVELOPMENT
Report by:	**Checked by:**	**Approved by:**
N.GOWDAMAN	S.MURUGESH	V.P.PONNUSWAMI

DESCRIPTION OF THE PROJECT:

The Proposed structure belongs to M/s Shriram Properties. Purpose of this structure is to house "Residential Villas in Shriram One City". The Structure is designed for the current scheme comprises of Villas in EWS – CORE I TO IV (66, 70, 71, 72, 74, 75, 76, 81, 83, 84, 85 & 86) with Ground + One floor. The structural design was carried out as per IS 456-2000. The dead load and live load are calculated based on IS 875: Part I & II.

STRUCTURAL DESIGN CALCULATION

I DESIGN PARAMETERS:

1. This structure is designed for Ground floor + One Upper floor.
2. SBC Adopted : 125 KN/sqm.
3. Concrete grade adopted:
   For Footing & Columns : M20
   For Beams & Slabs : M20
   Grade of steel adopted : Fe 415.
4. Floor height : 3.20m (Typical)

II LOAD DETAILS:

DEAD LOAD:

1. Self weight of slab (Assumed as 115mm Tk.) - 2.875 KN/m^2.
2. Self weight of slab (Assumed as 140mm Tk.) - 3.500 KN/m^2.

SUPER IMPOSED DEAD LOAD:

1. Floor finish - 1.5 KN/m^2.
2. Unit wt. of brick * Tk of wall * Ht of wall
   (19 x 0.23 x (0.80 x (3.20-0.23)) - 10.50 KN/m.

SUPER IMPOSED LIVE LOAD:

1. All Rooms and Kitchen - 2 KN/m^2
2. Terrace Floor - 1.5 KN/m^2

SANKAR & ASSOCIATES COIMBATORE

III LOAD COMBINATION

Load case:

- 1.0(Dead load + Live Load)
- 1.5(Dead load + Live Load)

Location and thickness of walls as depicted in the architectural drawings were considered for loads at appropriate locations in the analysis.

IV DESIGN OF STRUCTURE:

The footing, column and plinth beams were designed for the factored gravity loads as per IS456-2000.

V STRUCTURAL ARRANGEMENT:

Columns are terminated at Plinth Beam level & Slabs are rested over masonry wall and slabs are designed as restrained slabs. Typical Design Calculation for Column, footing, Plinth Beam and Slab were added in Annexure (I). The Detailed Drawings are enclosed herewith for reference in Annexure (II).

SANKAR & ASSOCIATES COIMBATORE

ANNEXURE – I

TYPICAL DESIGN CALCULATIONS

TYPICAL COLUMN DESIGN

Breadth	b	=	200.00	mm
Depth	D	=	200.00	mm
Clear cover	cc	=	40.00	mm
Effective cover	d'	=	54.00	mm
Effective Breadth	b'	=	146.00	mm
Effective Depth	D'	=	146.00	mm
Length of column	L	=	3.20	m
Depth of Beam/Slab framing into coln (Major)	Bd	=	0.38	m
Depth of Beam/Slab Framing into coln (Minor)	Bd	=	0.38	m
Clear length in major axis	Lc or Lo	=	2.82	m
Clear height in minor axis	Lc or Lo	=	2.82	m
Effective length factor	β	=	0.80	
Effective length of column	Leff (x-dir)	=	2.26	m
Effective length of column	Leff (y-dir)	=	2.26	m
Axial Load (Factored)	N	=	345.00	KN
Moment about major axis (Factored)	Mx	=	1.00	KN-m
Moment about minor axis (Factored)	My	=	1.00	KN-m
Characteristic strength of concrete	fck	=	20.00	N/mm^2
Characteristic strength of steel	fy	=	415	N/mm^2

Design Calculations:

Step1:	Check for Slenderness ratio :	Leff/D	=	11.28	<12
	Check for Slenderness ratio :	Leff/b	=	11.28	<12
	Design as Short Column				
		eax	=	0.00	mm
		eay	=	0.00	mm
	Slenderness limits for column Lo < 60 b	2.82 m	<	12.00	m

Step:2 Check for moment due to minimum eccentricity

Minimum Eccentricity (L/500 + d or b/30) or 20 (whichever	ex	=	12.31	mm
	ey	=	12.31	mm
A.) Moments due to Min eccentricity	Mex	=	4.25	KN-m
	Mey	=	4.25	KN-m

Step:3 Calculation of Additional Moments

Assume Percentage of Reinforcement	p	=	1.40	%
Reinforcement Equally Distributed on	Two Face			
	Puz	=	534.30	KN
d'/d along x-dir		=	0.20	
d'/b along y-dir		=	0.20	
Along x-direction				
	k1	=	0.184	
	k2	=	-0.022	
Along y-direction				
	k1	=	0.184	
	k2	=	-0.022	
Pb=(k1 + k2 p/Fck)Fck b d)	Pbx	=	145.97	KN
	Pby	=	145.97	KN
k = (Puz - Pu)/(Puz - Pb)	Kx	=	0.49	
	Ky	=	0.49	
B.) Additional Moments	Max	=	0.00	KN-m



CLIENT:	M/S SHRIRAM PROPERTIES	DESIGN:	G + 1 Floor	ARCHITECT & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR, COIMBATORE.
STRUCTURE NAME :	RESIDENTIAL VILLAS	TITLE:	REPORT ON	
PLACE:	AT VALARPURAM, CHENNAI.	STRUCTURAL DESIGN.		

		May	=	0.00 KN-m

Step:4 Total Moments for which the column is to be designed are

D.) Final Moment		**Mux**	=	**4.25** KN-m
		Muy	=	**4.25** KN-m

Step:5

Pu / Fck bd			=	0.43
p/Fck			=	0.07

*Refer CHART 34 From SP 16 : 1980 for red values

Pu / Fck bD= 0.43 p/Fck= 0.07 d'/D = 0.20

Mux1 / Fck bD^2	=	0.085	
Mux1	=	**13.60**	KN-m

*Refer CHART 34 From SP 16 : 1980 for red values

Pu / Fck b 0.43 p/Fck= 0.07 d'/b = 0.20

Muy1 / Fck bD^2	=	0.08	
Muy1	=	**12.80**	KN-m
Mux/Mux1	=	0.31	
Muy/Muy1	=	0.33	
Pu/Puz	=	0.65	
αn	=	1.74	
(Mux/Mux1)^αn + (Muy/Muy1)^αn	=	**0.28**	**<1**

Decrease The Reinforcement Percentag

Step:6 Longitudinal Reinforcement Area of steel Required Asc = 560.00 mm^2

Larger dia		**Smaller dia**		
Select Bar dia	12 mm	Select Bar dia	=	12 mm
No. of bars Req	2.0	No. of bars Req	=	0.0
No. of bars Prov	6	No. of bars Prov	=	0
Area Prov.	678.58	Area Prov.	=	0

Area of Steel Provided Asc (pro) = 678.58 mm^2

Percentage of Steel Provided = 1.70 %

Provide 6Y12 as longitudinal reinforcement

Step:7 Lateral Ties

1. Pitch: (take whichever is lesser)

i. 16x smaller dia of main steel	=	175.00	mm
ii. 200 mm	=	200.00	mm
Pi	=	200.00	mm

2. Diameter (whichever is greater)

i. 1/4 x largest dia of main steel	=	3.00	mm
ii. 8mm	=	8.00	mm
Dia	=	8.00	mm

Therefore provide Y8 @200c/c as Lateral ties.

SANKAR & ASSOCIATES ★ COIMBATORE ★

CLIENT:	M/S SHRIRAM PROPERTIES	DESIGN:	G + 1 Floor	ARCHITECT & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR, COIMBATORE.
STRUCTURE NAME :	RESIDENTIAL VILLAS	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	AT VALARPURAM, CHENNAI.			

TYPICAL FOOTING DESIGN

Grade of Concrete	M	20			
Grade of Steel	Fe	415			
S.B.C of the Soil		125	kN/m^2		
size of the footing (assumed)		1.5	x	1	m
Thickness of Footing		380	mm		d
Dimentions of column		0.2	X	0.2	m
Depth of the footing		2	m		
Density of Soil		18	KN/m^3		
Axial load from the column		280	kN		
Gap between column face and Found		400	mm		

Ecentricity 0.1875 M > 0.166667

Maximum Pressure 113.7777778 kN/m^2

Safe

Footing Contact Length 0.9375 m

Top Reinforcement Required

Moment Mu	16.66666667	kN/m^2
Ast Required	141.2075302	KN-m
Ast Min	456	mm^2
Dia of Bar	10	
Spacing of Bar Required	172.2364393	mm
Spacing of Bar Provided	125	mm
Ast Provided	628.32	mm^2

SANKAR & ASSOCIATES ★ COIMBATORE ★

CLIENT:	M/S SHRIRAM PROPERTIES	DESIGN:	G + 1 Floor	ARCHITECT & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR, COIMBATORE.
STRUCTURE NAME :	RESIDENTIAL VILLAS	TITLE:	REPORT ON STRUCTURAL DESIGN.	
PLACE:	AT VALARPURAM, CHENNAI.			

Check for Shear

load Coming on Footing Due to Soil & Foundation 38.66 Kn/m

Shear at critical face -6.548179 kN

	ζv	-0.029764	N/mm^2
	pt	0.190	
	β	12.20	
	ζc	0.31932	N/mm^2 Safe in Shear

Two Way Shear

	Wu	80	
Stress	Vu	104.524	kN
	ζv	0.25138	N/mm^2
	β	1.5	
	Ks	1	
	ζc	1.11803	N/mm^2 Safe in Shear

SANKAR & ASSOCIATES ★ COIMBATORE ★

CLIENT:	M/S SHRIRAM PROPERTIES	DESIGN:	G + 1 Floor	ARCHITECT & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR, COIMBATORE.
STRUCTURE NAME :	RESIDENTIAL VILLAS	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	AT VALARPURAM, CHENNAI.			

TYPICAL BEAM DESIGN

Input :

Breath of the beam,B	200	mm
Depth of the beam,D	380	mm
Clear cover of the beam	25	mm
Grade of concrete	20	N/mm^2
Grade of steel	415	N/mm^2
Span of the beam	4600	mm
Effective depth, d	347	mm

End Section :

Support moment of the beam,M_u	63	kN m
Shear force at End section of the beam,V_u	50	kN
Mu lim	66.47	kN.m
pt lim	0.96	%
Ast1 req at Top	0.00	mm^2
d' / d	0.10	
Ast2 req at Top	0.00	mm^2
Asc req at Top	0.00	mm^2
Total Ast Required at End Support	**616.89**	mm^2

Reinforcement provided at End Support	No. of Rods	Dia of Rod	
	2	12	ST
	2	16	CTLD

Ast Provided at End Support 628.57 mm^2

Prov > req

Mid Section :

Mid moment of the beam,$M_{u\ Bottom}$	**63**	kN.m
d'/d	0.10	
Total Ast Required at Mid Support	**616.89**	mm^2

Reinforcement provided at Mid Support	No. of Rods	Dia of Rod	
	2	12	ST
	2	16	CTLD

Ast Provided at Mid Support 628.57 mm^2

Prov > req

Check for shear in beams :

Shear force ,Vu	600	kN
ζv	8.65	N/mm^2
ζc	0.6	N/mm^2
ζc max	2.8	N/mm^2
	tau_v> tau_cmax notok	
ζc b d	41.64	kN
Assuming dia of Stirrup	8	mm
No. of Stirrup Legs	2	nos.
Stirrup spacing	170	mm

Check for Deflecion:

Type of Beam	Cont.Beam	
Span of the beam	4600	mm
Actual Span / Effective depth Ratio	13.26	
Allowable Span /Effective depth Ratio	25.61	

===<<< Hence SAFE in Deflection >>>===

SANKAR & ASSOCIATES COIMBATORE

CLIENT:	M/S SHRIRAM PROPERTIES	DESIGN:	G + 1 Floor	ARCHITECT & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR, COIMBATORE.
STRUCTURE NAME :	RESIDENTIAL VILLAS	TITLE:	REPORT ON STRUCTURAL DESIGN.	
PLACE:	AT VALARPURAM, CHENNAI.			

TYPICAL SLAB DESIGN

SLAB : S1

Data

Grade of concrete	f_{ck} =	20.00	N/mm^2
Grade of steel	f_y =	415.00	N/mm^2
Density of concrete	=	25	kN/m^3
Clear cover	=	20.00	mm

Classification of slab

Clear Size of Room/Panel	3.810 m x 6.170 m		
Longer span	6.170 m + 0.230 m	l_y =	6.400 m
shorter span	3.810 m + 0.230 m	l_x =	4.040 m
Aspect ratio		l_y/l_x =	1.584 < 2

Slab to be designed as Two way slab

Assumed Span/effective depth ratio	=	26.00	
Required effective depth of the slab	=	119.53	mm
Overall depth provided	D =	140.00	mm
Effective depth provided	d =	116.00	mm
Effective span	L =	3.926	m

Design load

Self weight of the slab	=	3.500	kN/m^2
Floor finish	=	1.00	kN/m^2
Other loads	=	0.000	kN/m^2
Total dead load	=	4.50	kN/m^2
Live load	=	2.00	kN/m^2
Total load	=	6.50	kN/m^2
Factored load	W_u =	9.75	kN/m^2

Calculation of reinforcement required

Slab End condition :- 8 **One short edge continuous**

		Shorter direction		Longer direction		
		αx(-ve) support	αx(+ve) mid span	αy(-ve) support	αy(+ve) mid span	
Bending moment Coefficient		**0.0960**	**0.0960**	**0.057**	**0.043**	
Bending moment		15.277	15.277	9.071	6.843	kNm
Percentage of reinforcement requ	$P_{t,req}$	0.3	0.338	0.195	0.145	%
Area of reinforcement required	A_{st}	392.32	392.32	225.706	168.47	mm^2
Minimum area of reinforcement	$A_{st,min}$	168.00	168.00	168.00	168.00	mm^2
Area of reinforcement required	$A_{st,req}$	392.32	392.32	225.71	168.47	mm^2
Diameter of Reinforcement	Φ	8.00	8.00	8.00	8.00	mm
Spacing of Reinforcement required		128.12	128.12	222.70	250.00	mm
Spacing of Reinforcement provided		125.00	125.00	170.00	170.00	mm
Area of main reinforcement provid	$A_{st,pro}$	402.29	402.29	295.80	295.80	mm^2
Percentage of reinforcement prov	$P_{t,pro}$	0.347	0.347	0.255	0.255	%



Check for Deflection

Span / effective depth ratio		=	26.00	
Service stress in steel	f_s	=	234.74	N/mm^2
Modification factor		=	1.44	
Effective depth required for deflection limit		=	104.70	mm
Effective depth provided	d	=	116	mm
Overall depth provided	D	=	140.00	mm

Hence the limit state of deflection is satisfied

Check for Shear

Factored Shear force	V_u	=	19.14	kN
Nominal shear stress	τ_v	=	0.165	N/mm^2
Percentage of steel	p_t	=	0.347	%
Designed shear stress	τ_c	=	0.412	N/mm^2

Safe in Shear

Check for Crack width

Modular ratio	m	=	8.94	
Modulus of elasticity of steel	E_s	=	200000	N/mm^2
Tension steel percentage provided	p_t	=	0.347	%
Neutral axis depth factor	k	=	0.220	
Depth of neutral axis	x	=	25.517	mm
Area of steel provided	$A_{st,pro}$	=	402.29	mm^2
Cracked moment of inertia	I_{cr}	=	3.50E+07	mm^4
Service load moment	$M_{(+)}$	=	10.18	kNm/m
Service stress in steel	f_{st}	=	235.52	N/mm^2
Strain in concrete at the level considered	ε_1	=	0.001490	
Average strain in concrete	ε_m	=	0.000890	
Distance of point from surface of reinforcing bar	a_{cr}	=	62.950	mm
Crack width	w_{cr}	=	**0.096**	< 0.2 mm

Crack width is within limit, Hence Safe

SANKAR & ASSOCIATES COIMBATORE

CLIENT:	M/S SHRIRAM PROPERTIES	DESIGN:	G + 1 Floor	ARCHITECT & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR, COIMBATORE.
STRUCTURE NAME :	RESIDENTIAL VILLAS	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	AT VALARPURAM, CHENNAI.			

ANNEXURE – II

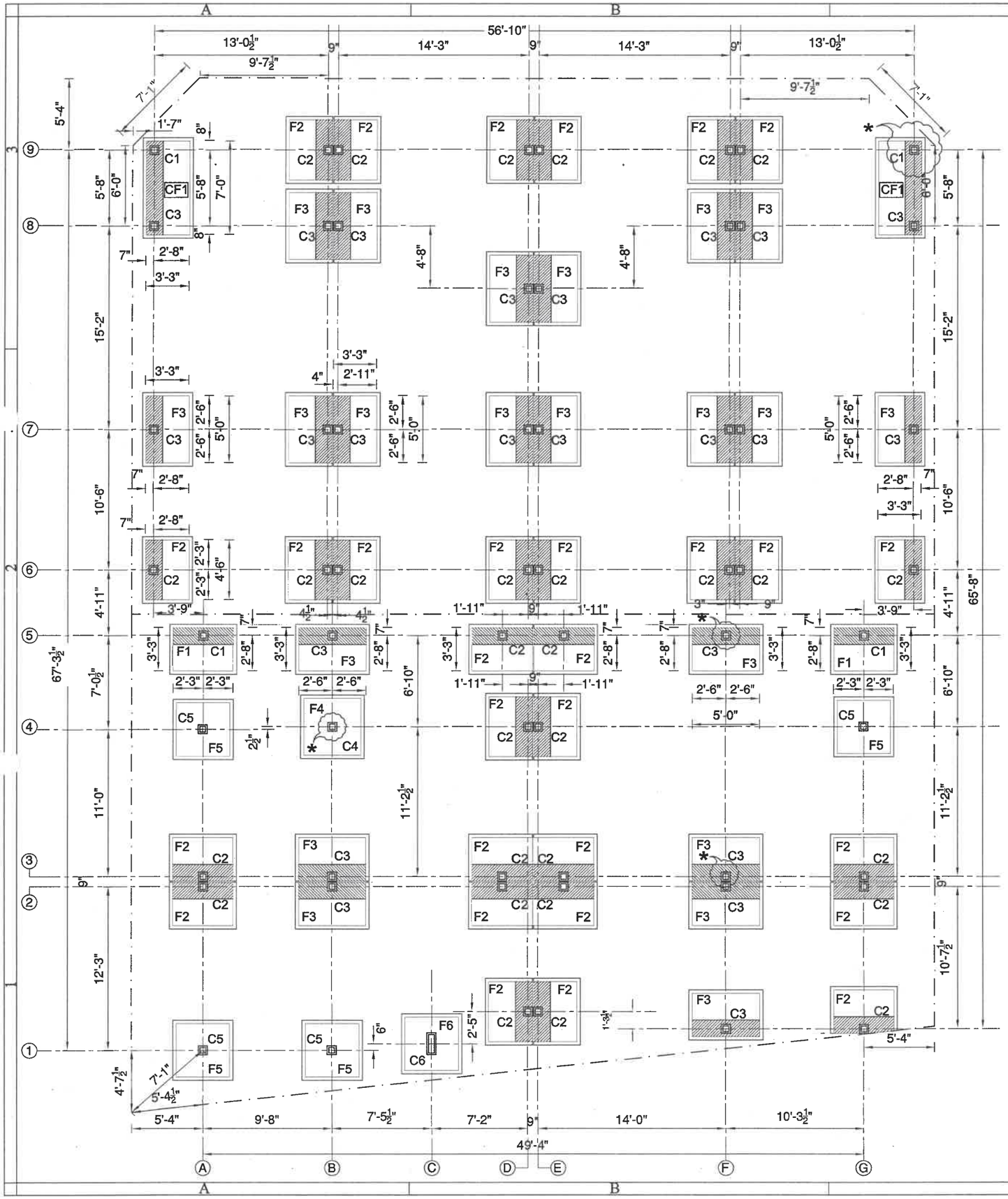
STRUCTURAL DRAWINGS

CLIENT:	M/S SHRIRAM PROPERTIES	DESIGN:	G + 1 Floor	ARCHITECT & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR, COIMBATORE.
STRUCTURE NAME :	RESIDENTIAL VILLAS	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	AT VALARPURAM, CHENNAI.			

EWS - CORE – I

VILLAS – 80 TO 87

CLIENT:	M/S SHRIRAM PROPERTIES	DESIGN:	G + 1 Floor	ARCHITECT & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR, COIMBATORE.
STRUCTURE NAME :	RESIDENTIAL VILLAS	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	AT VALARPURAM, CHENNAI.			



NOTES :

1. THE DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. ℄ - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT (MILD EXPOSURE)
   a) FOR FOOTINGS = 50 mm (ALL AROUND)
   b) FOR COLUMNS = 40 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 48 x DIA OF BAR.
7. ALL ISOLATED FOOTINGS SHALL BE CONCENTRIC WITH COLUMN UNLESS OTHERWISE SPECIFIED
8. GRADE OF CONCRETE IS M 20
9. GRADE OF REINFORCING STEEL IS Fe 415
10. ASSUMED SBC OF SOIL = 125 KN / Sqm.
11. MINIMUM DEPTH OF FOUNDATION = 2.0 m BELOW NGL
12. THIS STRUCTURE IS DESIGNED FOR G+ 1 FLOOR

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILTY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

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

STRUCTURAL ENGINEER

* ALL 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.

M/S SHRIRAM PROPERTIES

AT VALARPURAM, CHENNAI.

CLIENT:-

NOTES:

* GRID NO. B4, F3, F5 AND G9 COLUMNS TO BE RAISED ABOVE PLINTH LEVEL AND OTHER COLUMNS ARE STUB COLUMN TO BE TERMINATED AT PLINTH BEAM LEVEL

SCHEDULE OF COLUMNS & FOOTINGS

Type	Column Size	Type	Footing Size	Pit Size
C1	8" x 8"	F1	3'-3" x 4'-6"	3'-9" x 5'-0"
C2	8" x 8"	F2	3'-3" x 4'-6"	3'-9" x 5'-0"
C3	8" x 8"	F3	3'-3" x 5'-0"	3'-9" x 5'-6"
C4	8" x 8"	F4	4'-3" x 4'-3"	4'-9" x 4'-9"
C5	8" x 8"	F5	4'-0" x 4'-0"	4'-6" x 4'-6"
C6	8" x 1'-8"	F6	4'-0" x 4'-0"	4'-6" x 4'-6"
C1+C3	---	CF1	3'-3" x 7'-0"	3'-9" x 7'-6"

REFERENCE:

This Drg. is Prepared Based On The Source Drg.

1. Drg. no. wd-pl-af-025 Dt. 3.11.15 OF

N

NP

BUILDING: EWS CORE-1

DETAIL: CENTER LINE AND FOOTING LAYOUT

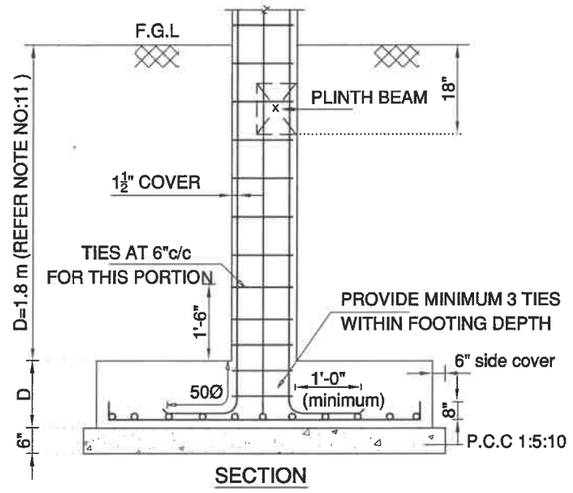
SCALE: 1"=8'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 7.12.15	DRG NO: ST-CL-001		CKD BY: B.JAYARAM
	SHEET NO: 1		APD BY: S.M

sankar & associates
architecture . engineering . interior design
27, Senguptha Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

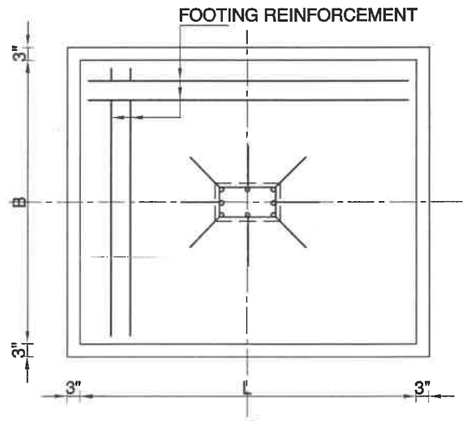
A3 - F

TYPE	COLUMN DETAILS [CLEAR COVER 40 MM]	TIES
C1	8" × 8", 4 # 12 ϕ	8 ϕ @ 8"c/c (1 TIE)
C2	8" × 8", 6 # 12 ϕ	8 ϕ @ 8"c/c (1 TIE)
C3	8" × 8", 6 # 12 ϕ	8 ϕ @ 8"c/c (1 TIE)
C4	8" × 8", 6 # 12 ϕ	8 ϕ @ 8"c/c (1 TIE)
C5	8" × 8", 6 # 12 ϕ	8 ϕ @ 8"c/c (1 TIE)
C6	8" × 1'-0", 8 # 12 ϕ	8 ϕ @ 8"c/c (2TIES)
C1+C3	--	--

TYPE	L	B	D	FOOTING REINFORCEMENT
F1	3'-3"	4'-6"	15"	10 ϕ @ 7" c/c Top & Bottom
F2	3'-3"	4'-6"	15"	10 ϕ @ 6" c/c Top & Bottom
F3	3'-3"	5'-0"	15"	10 ϕ @ 5" c/c Top & Bottom
F4	4'-3"	4'-3"	12"	10 ϕ @ 7" c/c Both ways
F5	4'-0"	4'-6"	12"	10 ϕ @ 7" c/c Both ways
F6	4'-0"	4'-0"	12"	10 ϕ @ 7" c/c Both ways
CF1	3'-3"	7'-0"	15"	10 ϕ @ 7" c/c Top & Bottom



SECTION



FOOTING BASE PLAN

TYPICAL FOOTING DETAILS

NOTES :

1. THE DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. ϕ - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT (MILD EXPOSURE)
   a) FOR FOOTINGS = 50 mm (ALL AROUND)
   b) FOR COLUMNS = 40 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 48 x DIA OF BAR.
7. ALL ISOLATED FOOTINGS SHALL BE CONCENTRIC WITH COLUMN UNLESS OTHERWISE SPECIFIED
8. GRADE OF CONCRETE IS M 20
9. GRADE OF REINFORCING STEEL IS Fe 415
10. ASSUMED SBC OF SOIL = 125 KN / Sqm.
11. MINIMUM DEPTH OF FOUNDATION = 2.0 m BELOW NGL
12. THIS STRUCTURE IS DESIGNED FOR G+ 1 FLOOR

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILTY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

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

STRUCTURAL ENGINEER

* ALL 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.

M/S SHRIRAM PROPERTIES

AT VALARPURAM, CHENNAI.

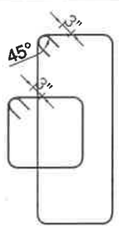
CLIENT:-

REFERENCE:

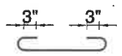
This Drg. is Prepared Based On The Source Drg.

1. Drg. no. wd-pl-af-025 Dt. 3.11.15 OF

NP



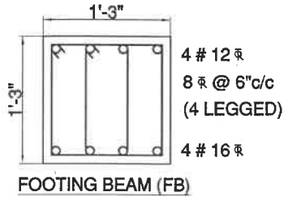
TYPICAL TIE DETAIL



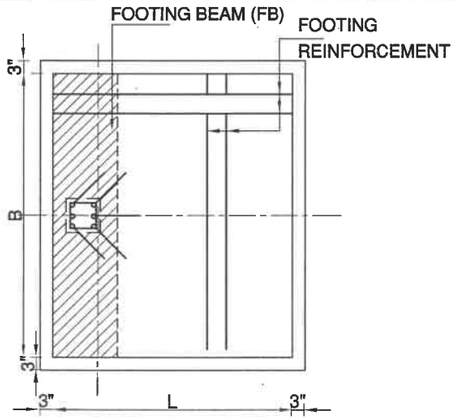
TYPICAL LINK DETAIL

NOTES:

* GRID NO. B4, F3, F5 AND G9 COLUMNS TO BE RAISED ABOVE PLINTH LEVEL AND OTHER COLUMNS ARE STUB COLUMN TO BE TERMINATED AT PLINTH BEAM LEVEL

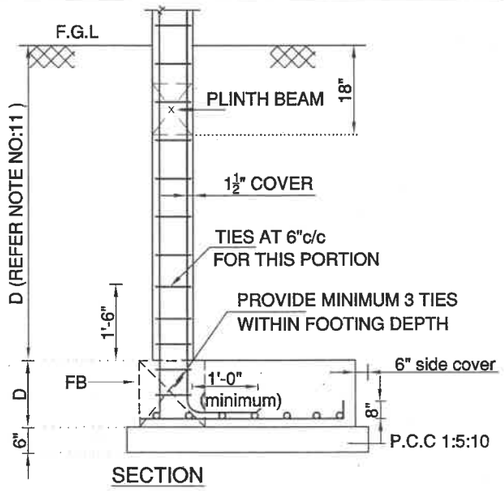


FOOTING BEAM (FB)



FOOTING BASE PLAN

TYPICAL ECCENTRIC FOOTING DETAILS

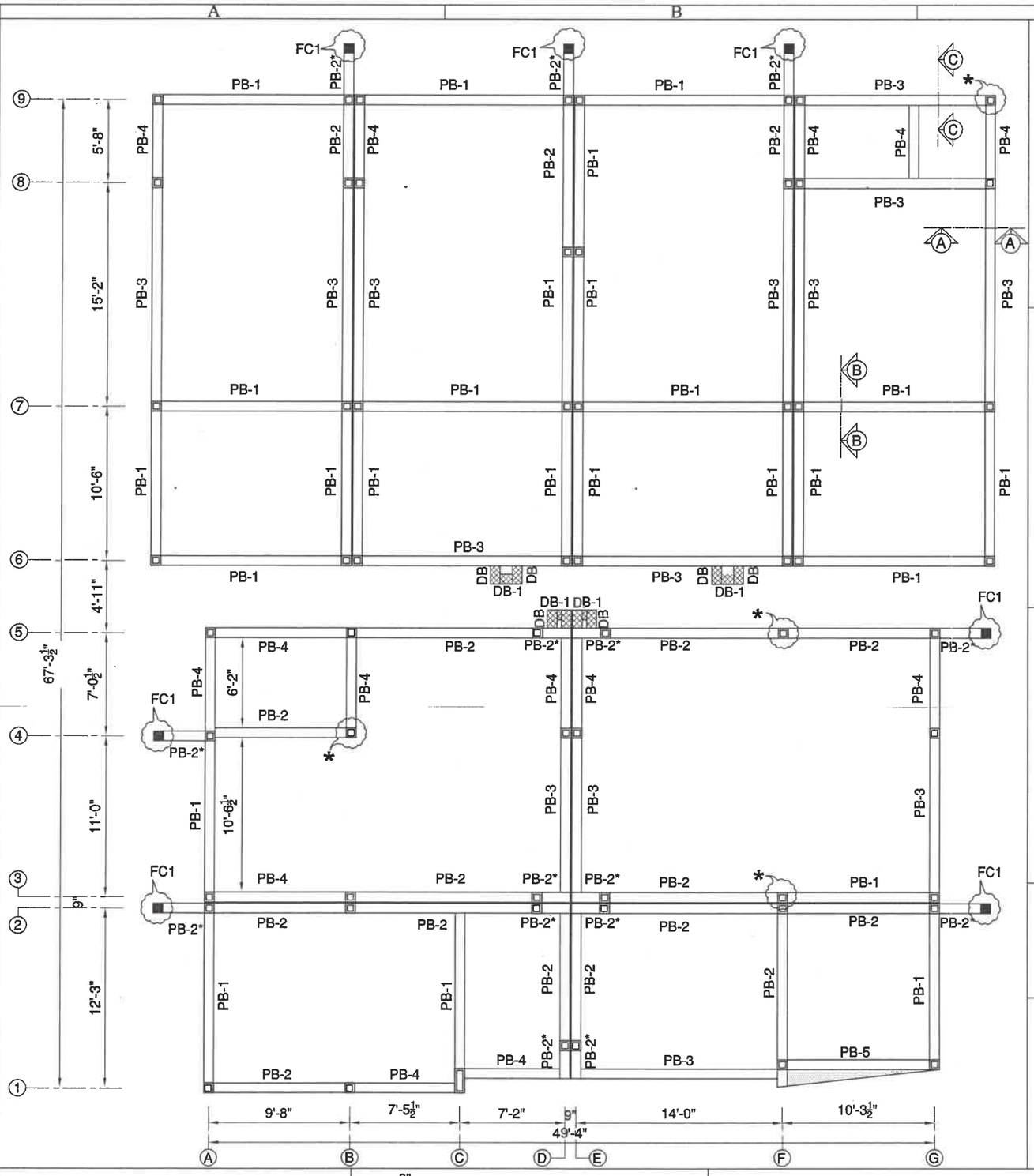


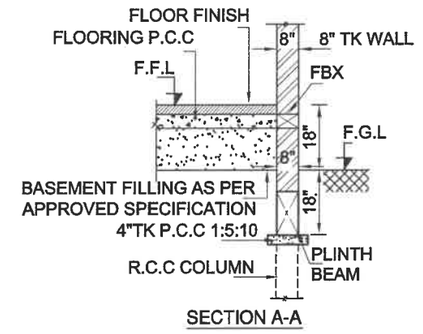
SECTION

BUILDING:	EWS CORE-1		
DETAIL:	COLUMN & FOOTING RFT DETAIL		
SCALE: 1"=8'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 7.12.15	DRG NO: ST-CL-001		CKD BY: B.JAYARAM
	SHEET NO: 1		APD BY: S.M

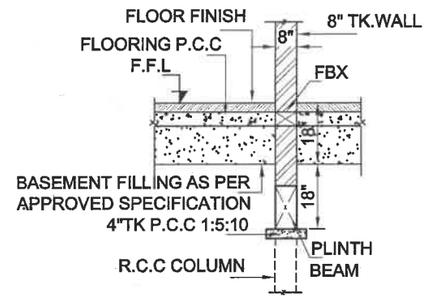
sankar & associates
architecture . engineering . interior design
27, Senguptha Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

A3 - F

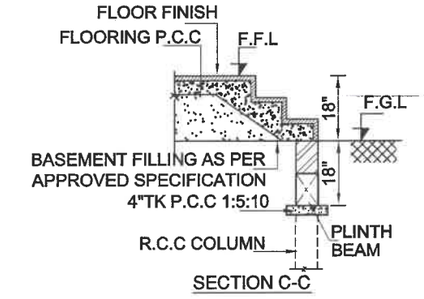




SECTION A-A



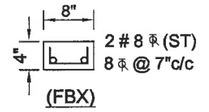
SECTION B-B



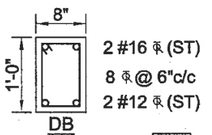
SECTION C-C



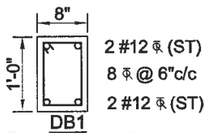
FC-1



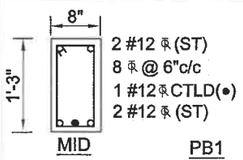
(FBX)



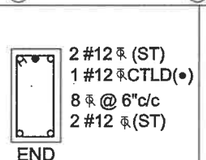
DB
(DUCT BEAM)



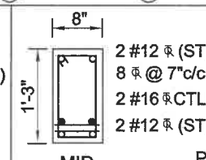
DB1
(DUCT BEAM)



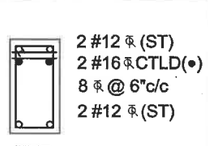
MID PB1



END

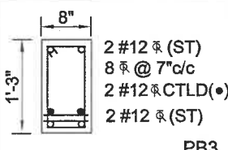


MID PB2

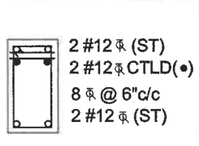


END

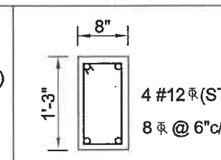
FOR PB2* REFER END SECTION OF BEAM PB2



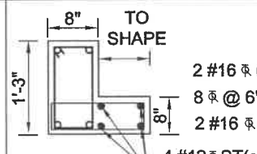
MID PB3



END



PB4



PB5

NOTES :

1. DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. ϕ - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT(MILD EXPOSURE)
   a) FOR BEAMS = 25 mm
   b) FOR SLABS = 20 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 50 x DIA OF BAR.
7. PROVIDE CHAIR RODS WHEREVER NECESSARY
8. PROVIDE SPACER RODS OF 25mm Ø (min) AT 1000mm C/C
9. GRADE OF CONCRETE IS M 20
10. GRADE OF REINFORCING STEEL IS Fe 415
11. ALL THE LEVELS MENTIONED ARE FROM THE F.F.L. OF RESPECTIVE FLOOR

NOTE:

* GRID NO. B4, F3, F5 AND G7' COLUMNS UPTO GROUND FLOOR ROOF
* FOR ALL SLAB/DUCT PROJECTION REFER ARCHITECTURAL DRAWING.

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

* ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
* ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
* ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
* CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
* STRUCTURAL ENGINEER'S RESPONSIBILTY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

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

STRUCTURAL ENGINEER

* ALL 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.

M/S SHRIRAM PROPERTIES

AT VALARPURAM, CHENNAI.

CLIENT:-

REFERENCE:

This Drg. is Prepared Based On The Source Drg.

1. Drg. no. wd-pl-af-025 Dt. 3.11.15 OF

N

NP

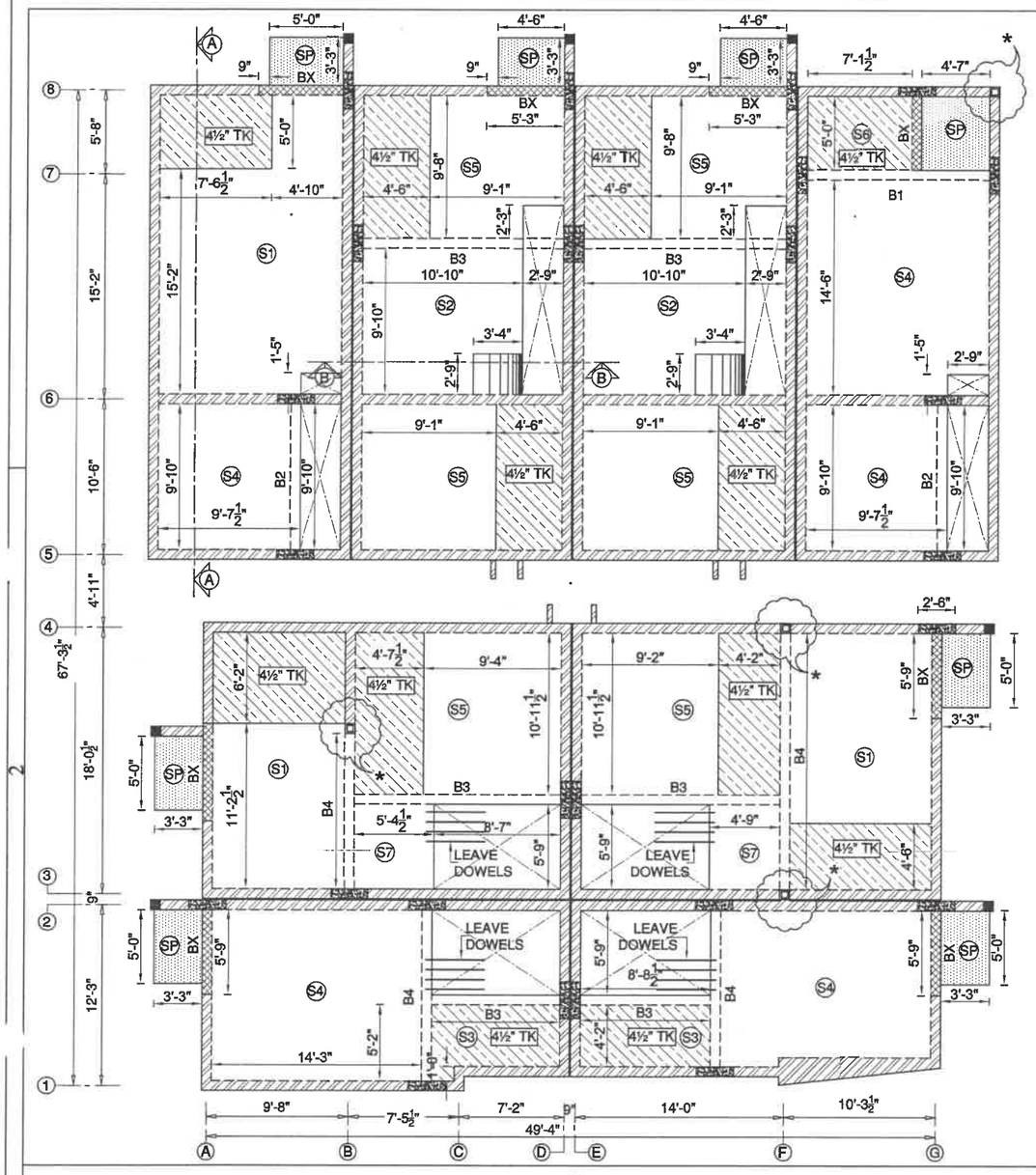
BUILDING: EWS CORE-1

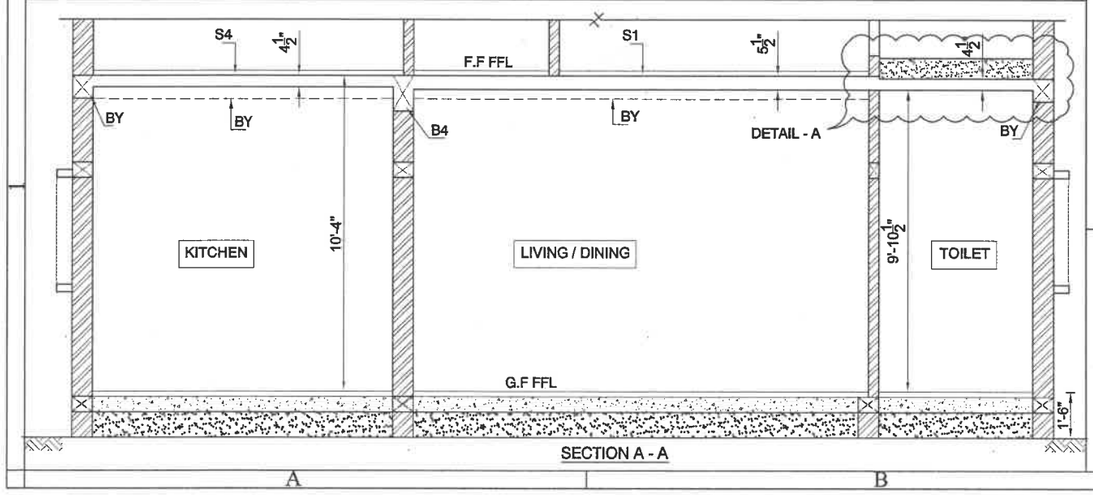
DETAIL: PLINTH BEAM LAYOUT

SCALE: 1"=8'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 7.12.15	DRG NO: ST-CL-001		CKD BY: B.JAYARAM
	SHEET NO: 3		APD BY: S.M

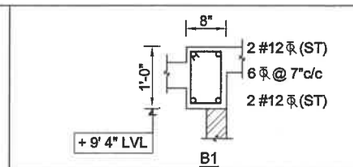
sankar & associates
architecture . engineering . interior design
27, Senguptha Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

A3 - P

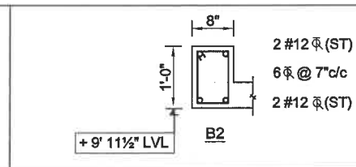




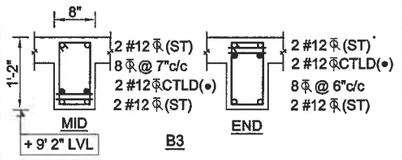
SECTION A - A



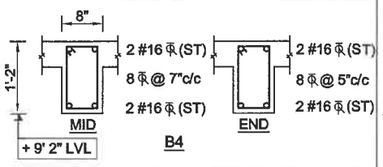
B1



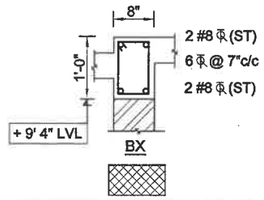
B2



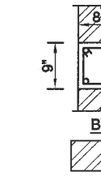
B3



B4

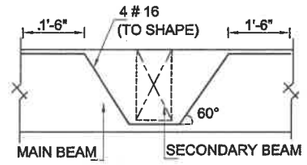


BX

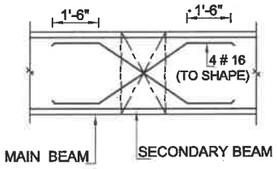


BY

ABOVE 8" TK. WALL



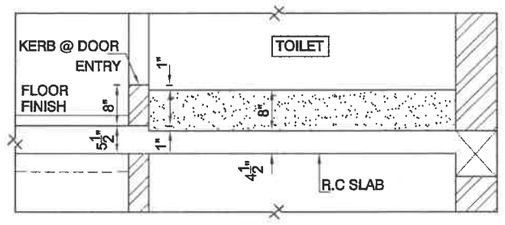
TYPICAL BEAM TO BEAM JUNCTION DETAIL
WHERE THE DEPTH OF SECONDARY BEAM IS LESS THAN MAIN BEAM)



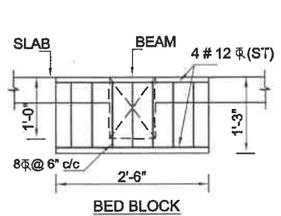
BEAM TO BEAM JUNCTION DETAIL
(WHERE THE DEPTH OF SECONDARY BEAM IS SAME AS MAIN BEAM)

SLAB SCHEDULE:

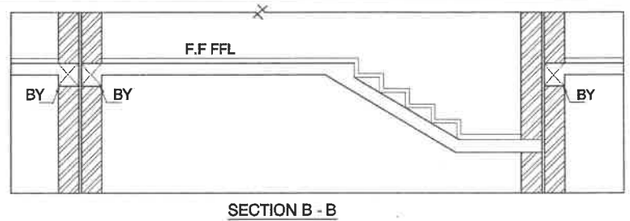
SLAB NO.	SLAB THICKNESS	SLAB BOTTOM LVL	SHORTER DIRECTION	LONGER DIRECTION
S1	5½"	+ 9' 10½"	8 ϕ @ 5" C/C (alt crank)	8 ϕ @ 7" C/C (straight)
S2	4½"	+ 9' 11½"	8 ϕ @ 6" C/C (alt crank)	8 ϕ @ 7" C/C (alt crank)
S3	4½"	+ 9' 10½"	8 ϕ @ 7" C/C (alt crank)	8 ϕ @ 7" C/C (straight)
S4	4½"	+ 9' 11½"	8 ϕ @ 5" C/C (alt crank)	8 ϕ @ 7" C/C (alt crank)
S5	5½"	+ 9' 10½"	8 ϕ @ 7" C/C (alt crank)	8 ϕ @ 7" C/C (straight)
S6	4½"	+ 9' 10½"	8 ϕ @ 7" C/C (Top & Bottom)	8 ϕ @ 7" C/C (Top & Bottom)
S7	4½"	+ 9' 11½"	8 ϕ @ 7" C/C (Top & Bottom)	8 ϕ @ 7" C/C (Top & Bottom)
SP	4½"	+ 9' 8½"	8 ϕ @ 7" C/C (Top & Bottom)	8 ϕ @ 7" C/C (Top & Bottom)



DETAIL - A



BED BLOCK



SECTION B - B

NOTES :

1. DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. ϕ - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT(MILD EXPOSURE)
   a) FOR BEAMS = 25 mm
   b) FOR SLABS = 20 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 50 x DIA OF BAR.
7. PROVIDE CHAIR RODS WHEREVER NECESSARY
8. PROVIDE SPACER RODS OF 25mm Ø (min) AT 1000mm C/C
9. GRADE OF CONCRETE IS M 20
10. GRADE OF REINFORCING STEEL IS Fe 415
11. ALL THE LEVELS MENTIONED ARE FROM THE F.F.L. OF THE RESPECTIVE FLOOR
12. FLOOR FINISH ALLOWANCE SHALL BE 50 / 75 mm FROM THE RAW SLAB AS PER SITE INSTRUCTIONS.
13. REINFORCEMENT FABRICATION SHOULD BE DONE AS PER STANDARD DUCTILE DETAIL PROVIDED VIDE DRG. No.
14. PROVISION OF CONDUITS / SLEEVES / CORECUTS TO BE PROVIDED AS PER SERVICE (ELECTRICAL / PLUMBING / HVAC) CONSULTANT'S DETAIL / DRAWINGS DULY APPROVED BY THE ARCHITECT / STRUCTURAL ENGINEER

NOTE:

* GRID NO. B4, F3, F5 AND G7' COLUMNS UPTO GROUND FLOOR ROOF
* FOR ALL SLAB/DUCT PROJECTION REFER ARCHITECTURAL DRAWING.

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILTY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

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

STRUCTURAL ENGINEER

* ALL 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.

CLIENT:- M/S SHRIRAM PROPERTIES
AT VALARPURAM, CHENNAI.

REFERENCE:
This Drg. is Prepared Based On The Source Drg.
1. Drg. no. wd-pl-af-025 Dt. 3.11.15 OF

N
NP

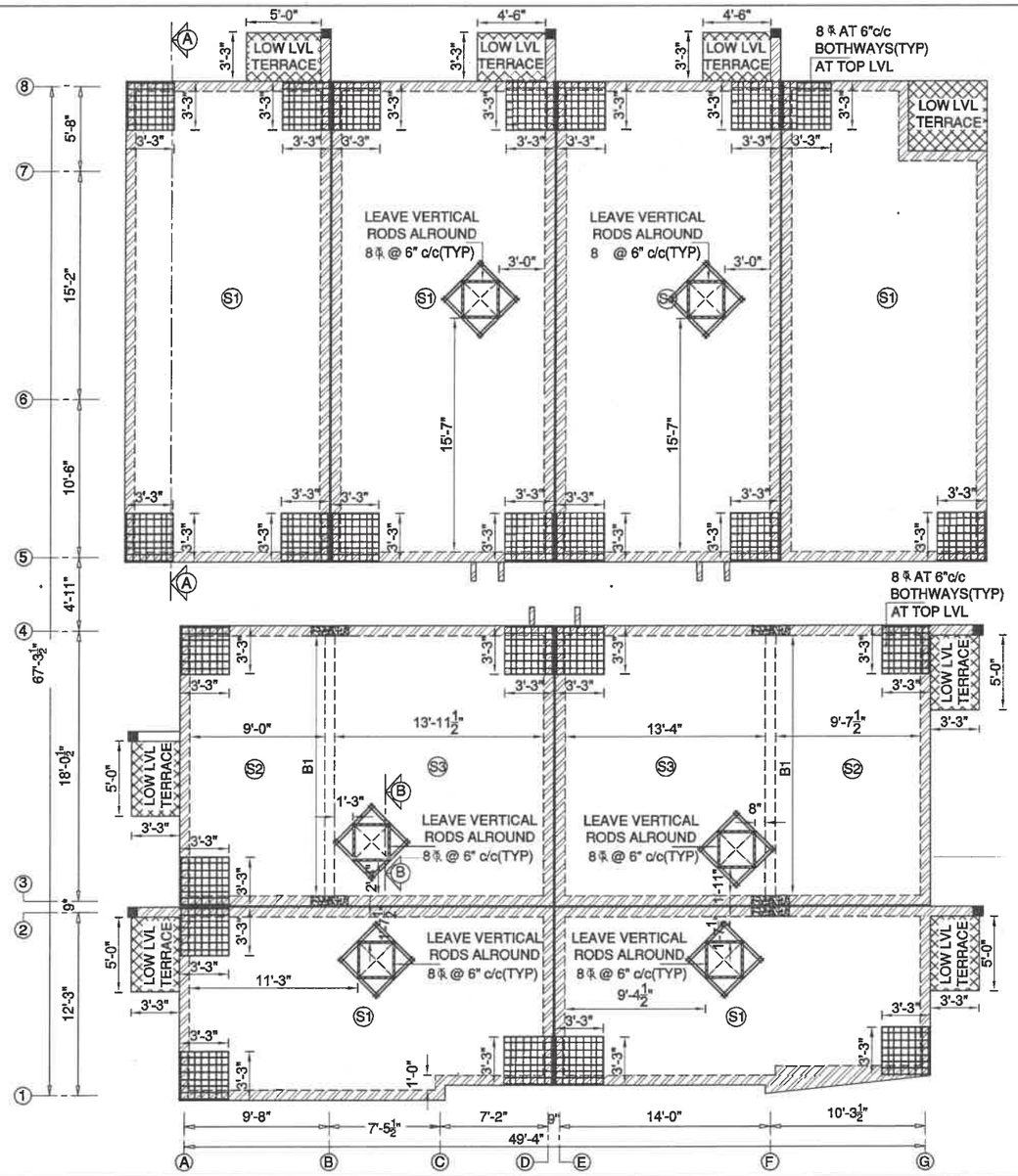
BUILDING: EWS CORE-1

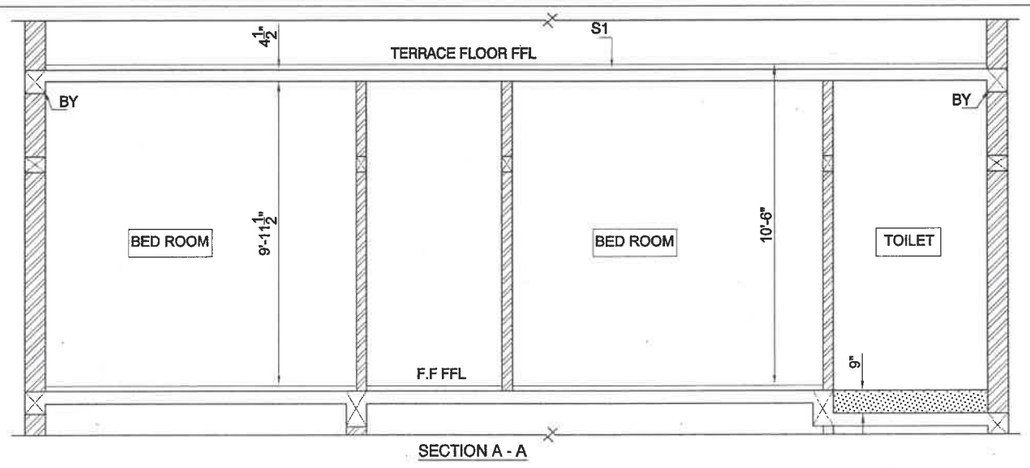
DETAIL: GROUND FLOOR ROOF BEAM & SLAB LAYOUT

SCALE: 1"=8'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 7.12.15	DRG NO: ST-CL-001		CKD BY: B.JAYARAM
	SHEET NO: 5		APD BY: S.M

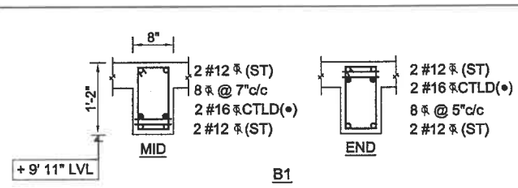
sankar & associates
architecture . engineering . interior design
27, Senguptha Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

A3 - R

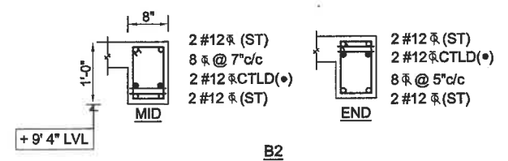




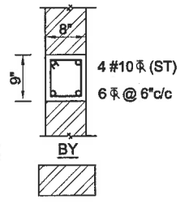
SECTION A - A



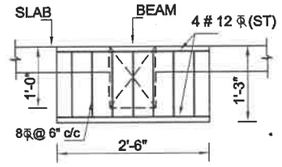
B1



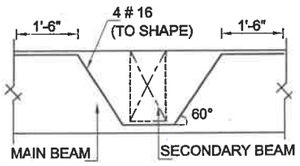
B2



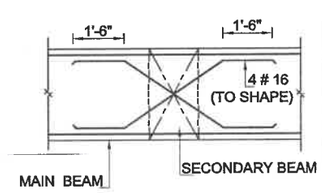
ABOVE 8" TK. WALL



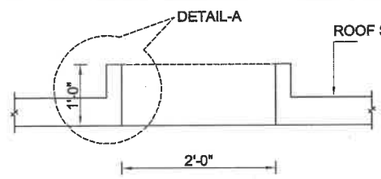
BED BLOCK



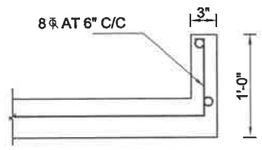
TYPICAL BEAM TO BEAM JUNCTION DETAIL
WHERE THE DEPTH OF SECONDARY BEAM IS LESS THAN MAIN BEAM)



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



SECTION-BB



DETAIL-A

SLAB SCHEDULE:

SLAB NO.	SLAB THICKNESS	SLAB BOTTOM LVL	SHORTER DIRECTION	LONGER DIRECTION
S1	4½"	+ 9' 11½"	8 ϕ@ 5" C/C (alt crank)	6 ϕ@ 7" C/C (straight)
S2	4½"	+ 9' 11½"	8 ϕ@ 6" C/C (alt crank)	6 ϕ@ 7" C/C (straight)
S3	5"	+ 9' 11"	8 ϕ@ 6" C/C (alt crank)	8 ϕ@ 6" C/C (alt crank)

NOTES :

1. DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. ϕ - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT(MILD EXPOSURE)
   a) FOR BEAMS = 25 mm
   b) FOR SLABS = 20 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 50 x DIA OF BAR.
7. PROVIDE CHAIR RODS WHEREVER NECESSARY
8. PROVIDE SPACER RODS OF 25mm Ø (min) AT 1000mm C/C
9. GRADE OF CONCRETE IS M 20
10. GRADE OF REINFORCING STEEL IS Fe 415
11. ALL THE LEVELS MENTIONED ARE FROM THE F.F.L. OF THE RESPECTIVE FLOOR
12. FLOOR FINISH ALLOWANCE SHALL BE 50 / 75 mm FROM THE RAW SLAB AS PER SITE INSTRUCTIONS.
13. REINFORCEMENT FABRICATION SHOULD BE DONE AS PER STANDARD DUCTILE DETAIL PROVIDED VIDE DRG. No.
14. PROVISION OF CONDUITS / SLEEVES / CORECUTS TO BE PROVIDED AS PER SERVICE (ELECTRICAL / PLUMBING / HVAC) CONSULTANT'S DETAIL / DRAWINGS DULY APPROVED BY THE ARCHITECT / STRUCTURAL ENGINEER

NOTE:

* FOR ALL ROOF CUT OUT, SLAB/DUCT PROJECTION REFER ARCHITECTURAL DRAWING.

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

* ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
* ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
* ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
* CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
* STRUCTURAL ENGINEER'S RESPONSIBILTY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

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

STRUCTURAL ENGINEER

* ALL 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.

M/S SHRIRAM PROPERTIES
AT VALARPURAM, CHENNAI.

CLIENT:-

REFERENCE:

This Drg. is Prepared Based On The Source Drg.

1. Drg. no. wd-pl-af-025 Dt. 3.11.15 OF

N

NP

BUILDING: EWS CORE-1

DETAIL: FIRST FLOOR ROOF BEAM & SLAB LAYOUT

SCALE: 1"=8'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 7.12.15	DRG NO: ST-CL-001		CKD BY: B.JAYARAM
	SHEET NO: 7		APD BY: S.M

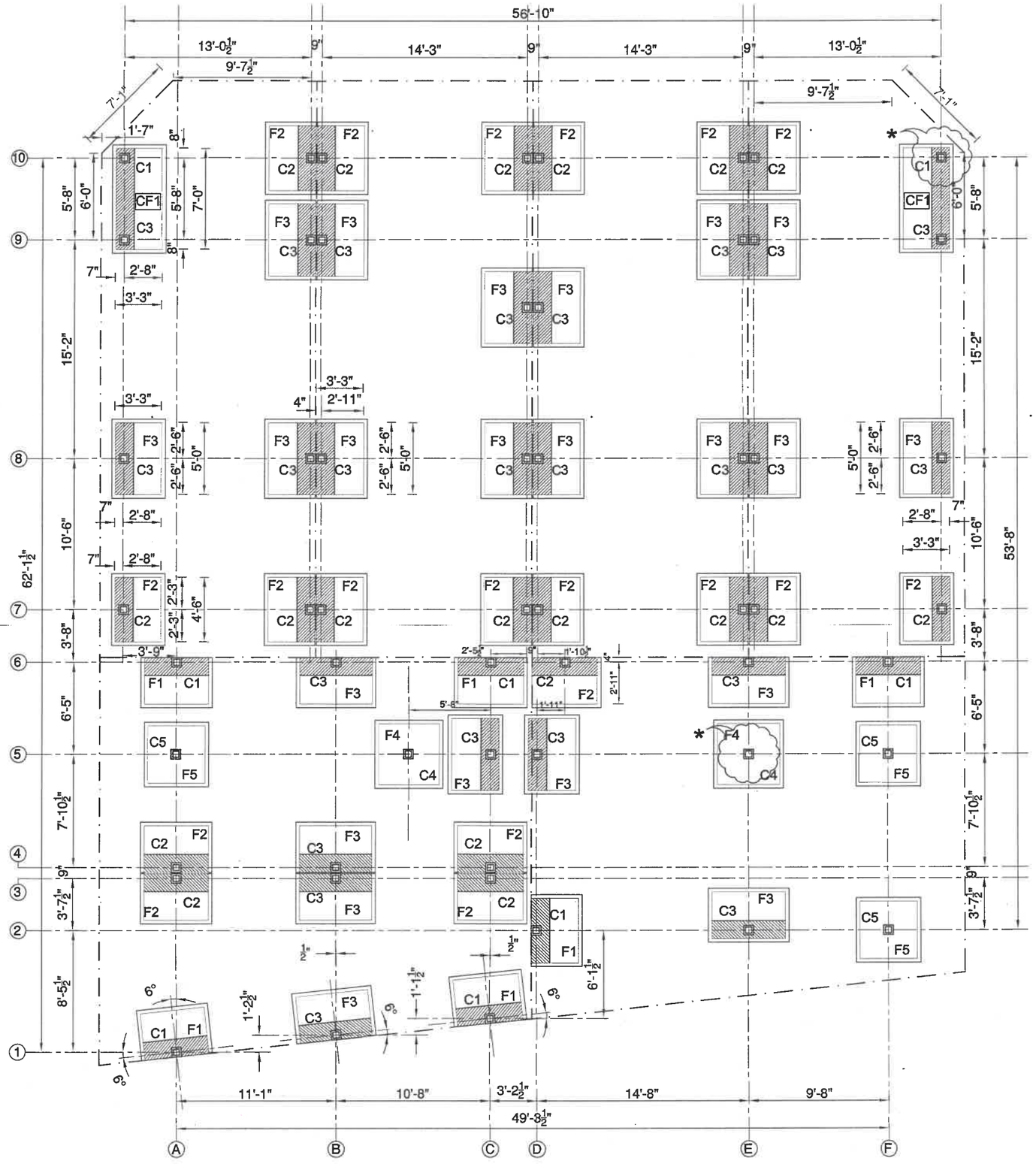
sankar & associates
architecture . engineering . interior design
27, Senguptha Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

A3 - R

EWS - CORE – II

VILLAS – 73 TO 79

CLIENT:	M/S SHRIRAM PROPERTIES	DESIGN:	G + 1 Floor	ARCHITECT & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR, COIMBATORE.
STRUCTURE NAME :	RESIDENTIAL VILLAS	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	AT VALARPURAM, CHENNAI.			



NOTES :

1. THE DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. $\overline{R}$ - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT (MILD EXPOSURE)
   a) FOR FOOTINGS = 50 mm (ALL AROUND)
   b) FOR COLUMNS = 40 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 48 x DIA OF BAR.
7. ALL ISOLATED FOOTINGS SHALL BE CONCENTRIC WITH COLUMN UNLESS OTHERWISE SPECIFIED
8. GRADE OF CONCRETE IS M 20
9. GRADE OF REINFORCING STEEL IS Fe 415
10. ASSUMED SBC OF SOIL = 125 KN / Sqm.
11. MINIMUM DEPTH OF FOUNDATION = 2.0 m BELOW NGL
12. THIS STRUCTURE IS DESIGNED FOR G+ 1 FLOOR

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILTY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

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

STRUCTURAL ENGINEER

* ALL 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.

M/S SHRIRAM PROPERTIES
AT VALARPURAM, CHENNAI.

CLIENT:-

REFERENCE:
This Drg. is Prepared Based On The Source Drg.
1. Drg. no. wd-pl-af-022 Dt. 10.12.15 OF

NP

BUILDING: EWS CORE-2

DETAIL: CENTER LINE AND FOOTING LAYOUT

SCALE: 1"=8'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 21.12.15	DRG NO: ST-CL-003		CKD BY: B.JAYARAM
	SHEET NO: 1		APD BY: S.M

NOTES:

* GRID NO. E5 AND F'10 COLUMNS TO BE RAISED ABOVE PLINTH LEVEL AND OTHER COLUMNS ARE STUB COLUMN TO BE TERMINATED AT PLINTH BEAM LEVEL

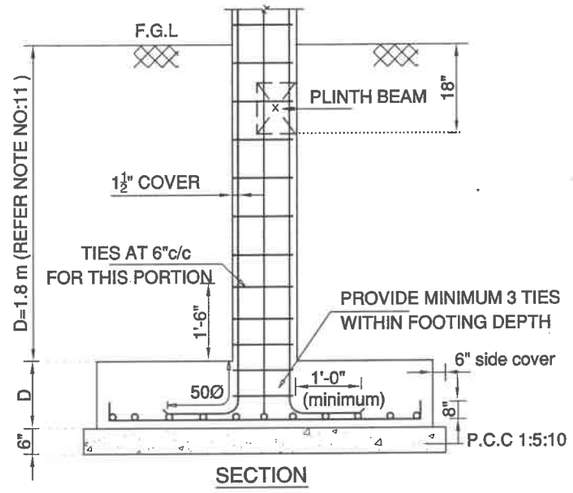
SCHEDULE OF COLUMNS & FOOTINGS

Type	Column Size	Type	Footing Size	Pit Size
C1	8" x 8"	F1	3'-3" x 4'-6"	3'-9" x 5'-0"
C2	8" x 8"	F2	3'-3" x 4'-6"	3'-9" x 5'-0"
C3	8" x 8"	F3	3'-3" x 5'-0"	3'-9" x 5'-6"
C4	8" x 8"	F4	4'-3" x 4'-3"	4'-9" x 4'-9"
C5	8" x 8"	F5	4'-0" x 4'-0"	4'-6" x 4'-6"
C1+C3	---	CF1	3'-3" x 7'-0"	3'-9" x 7'-6"

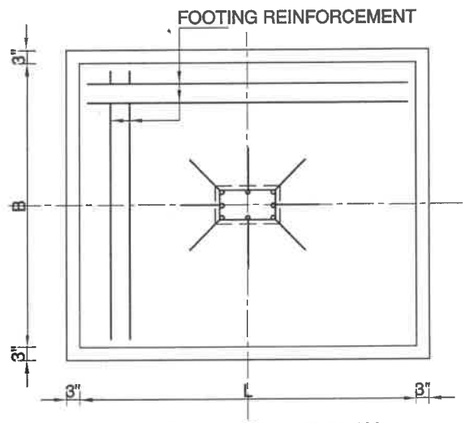
sankar & associates
architecture . engineering . interior design
27, Senguptha Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

A3 - F

TYPE	COLUMN		TYPE	FOOTING			
	COLUMN DETAILS [CLEAR COVER 40 MM]	TIES		L	B	D	FOOTING REINFORCEMENT
C1	8" x 8", 4 # 12	8 @ 8"c/c (1 TIE)	F1	3'-3"	4'-6"	15"	10 @ 7" c/c Top & Bottom
C2	8" x 8", 6 # 12	8 @ 8"c/c (1 TIE)	F2	3'-3"	4'-6"	15"	10 @ 6" c/c Top & Bottom
C3	8" x 8", 6 # 12	8 @ 8"c/c (1 TIE)	F3	3'-3"	5'-0"	15"	10 @ 5" c/c Top & Bottom
C4	8" x 8", 6 # 12	8 @ 8"c/c (1 TIE)	F4	4'-3"	4'-3"	12"	10 @ 7" c/c Both ways
C5	8" x 8", 6 # 12	8 @ 8"c/c (1 TIE)	F5	4'-0"	4'-6"	12"	10 @ 7" c/c Both ways
C1+C3	--	--	CF1	3'-3"	7'-0"	15"	10 @ 7" c/c Top & Bottom



SECTION



FOOTING BASE PLAN

TYPICAL FOOTING DETAILS

NOTES :

1. THE DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT (MILD EXPOSURE)
   a) FOR FOOTINGS = 50 mm (ALL AROUND)
   b) FOR COLUMNS = 40 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 48 x DIA OF BAR.
7. ALL ISOLATED FOOTINGS SHALL BE CONCENTRIC WITH COLUMN UNLESS OTHERWISE SPECIFIED
8. GRADE OF CONCRETE IS M 20
9. GRADE OF REINFORCING STEEL IS Fe 415
10. ASSUMED SBC OF SOIL = 125 KN / Sqm.
11. MINIMUM DEPTH OF FOUNDATION = 2.0 m BELOW NGL
12. THIS STRUCTURE IS DESIGNED FOR G+ 1 FLOOR

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILTY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

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

STRUCTURAL ENGINEER

* ALL 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.

M/S SHRIRAM PROPERTIES

AT VALARPURAM, CHENNAI.

CLIENT:-

REFERENCE:

This Drg. is Prepared Based On The Source Drg.

1. Drg. no. wd-pl-af-022 Dt. 10.12.15 OF

NP

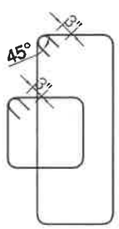
BUILDING: EWS CORE-2

DETAIL: COLUMN & FOOTING RFT DETAIL

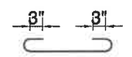
SCALE: 1"=8'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 21.12.15	DRG NO: ST-CL-003		CKD BY: B.JAYARAM
	SHEET NO: 1		APD BY: S.M

sankar & associates
architecture . engineering . interior design
27, Senguptha Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

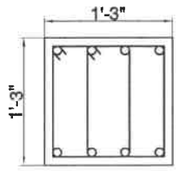
A3 - F



TYPICAL TIE DETAIL



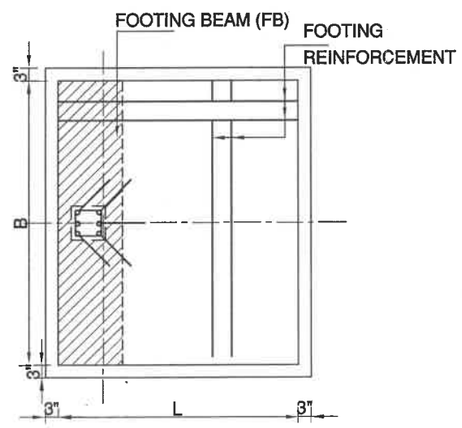
TYPICAL LINK DETAIL



FOOTING BEAM (FB)

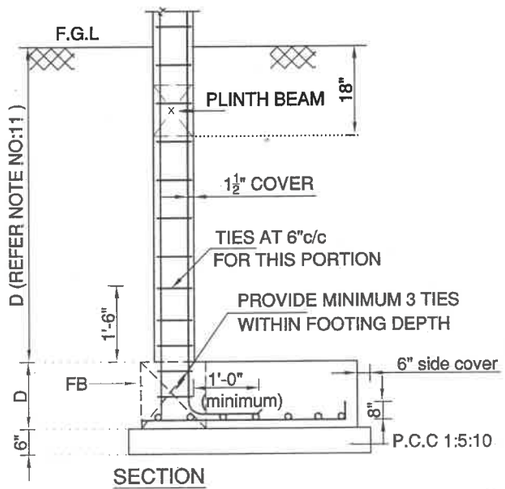
NOTES:

* GRID NO. E5 AND F'10 COLUMNS TO BE RAISED ABOVE PLINTH LEVEL AND OTHER COLUMNS ARE STUB COLUMN TO BE TERMINATED AT PLINTH BEAM LEVEL

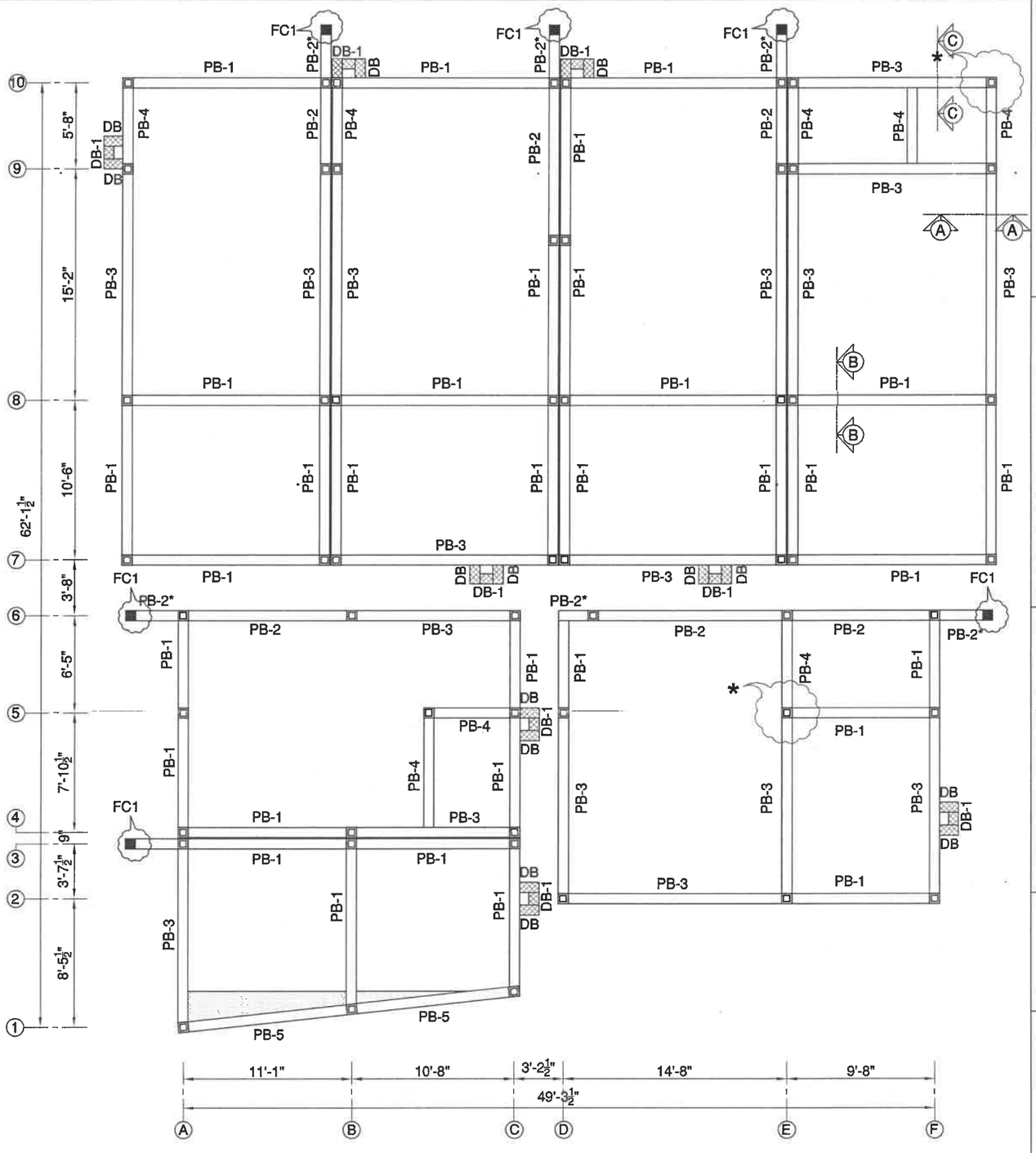


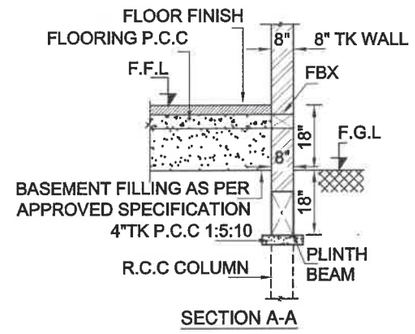
FOOTING BASE PLAN

TYPICAL ECCENTRIC FOOTING DETAILS

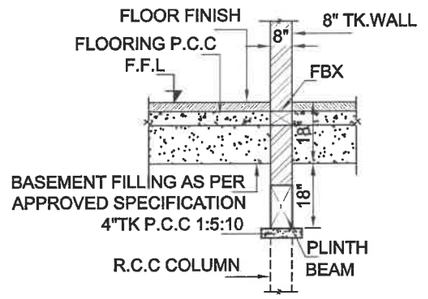


SECTION

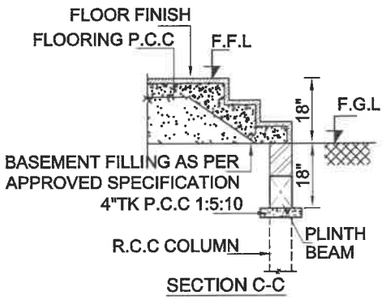




SECTION A-A



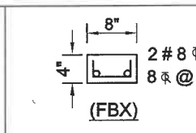
SECTION B-B



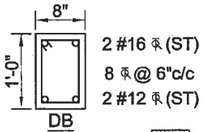
SECTION C-C



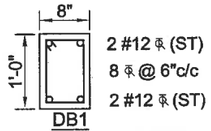
FC-1



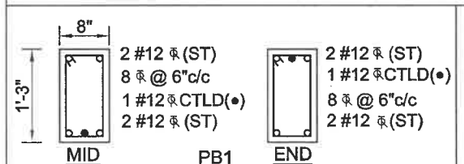
(FBX)



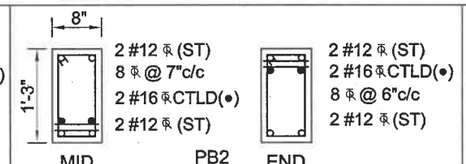
DB
(DUCT BEAM)



DB1
(DUCT BEAM)

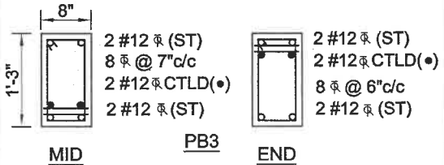


MID PB1 END

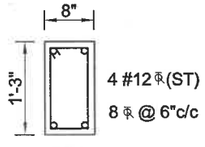


MID PB2 END

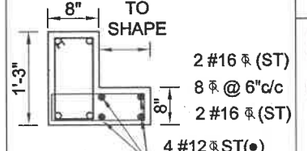
FOR PB2* REFER END SECTION OF BEAM PB2



MID PB3 END



PB4



PB5

NOTES :

1. DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. Ⓣ - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT(MILD EXPOSURE)
   a) FOR BEAMS = 25 mm
   b) FOR SLABS = 20 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 50 x DIA OF BAR.
7. PROVIDE CHAIR RODS WHEREVER NECESSARY
8. PROVIDE SPACER RODS OF 25mm Ø (min) AT 1000mm C/C
9. GRADE OF CONCRETE IS M 20
10. GRADE OF REINFORCING STEEL IS Fe 415
11. ALL THE LEVELS MENTIONED ARE FROM THE F.F.L. OF RESPECTIVE FLOOR

NOTE:

* GRID NO. E5 AND F'10 COLUMNS UPTO GROUND FLOOR ROOF
* FOR ALL SLAB/DUCT PROJECTION REFER ARCHITECTURAL DRAWING.

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILITY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

S. MURUGESH, M.E.,FIE.,
Chartered Engineer F-1279323
Structural Engineer Grade-I
STRUCTURAL ENGINEER CMDA/SE/GR-I/2022/05/320

* ALL 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.

M/S SHRIRAM PROPERTIES

AT VALARPURAM, CHENNAI.

CLIENT:-

REFERENCE:

This Drg. is Prepared Based On The Source Drg.

1. Drg. no. wd-pl-af-022 Dt. 10.12.15 OF

N
NP

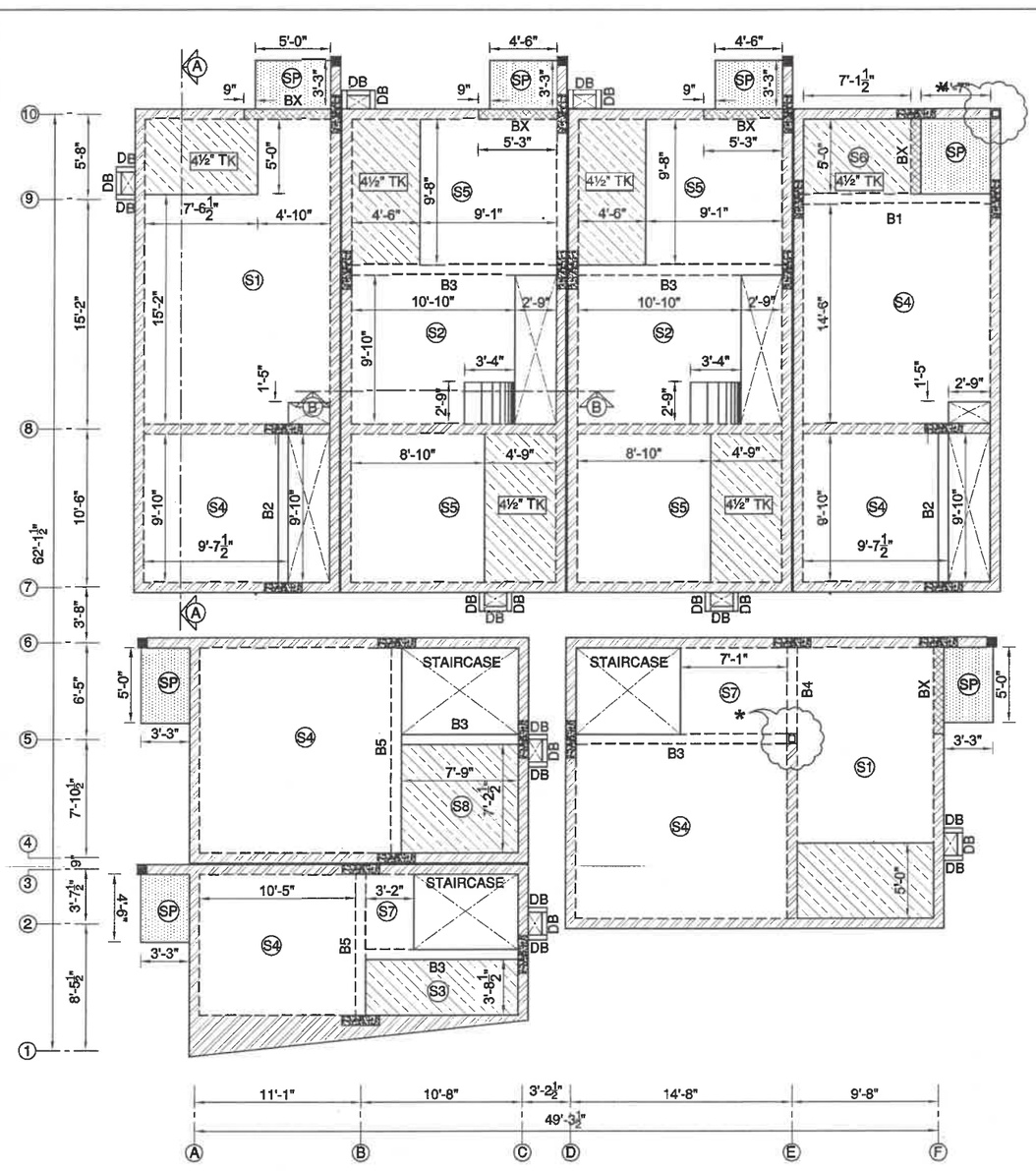
BUILDING: EWS CORE-2

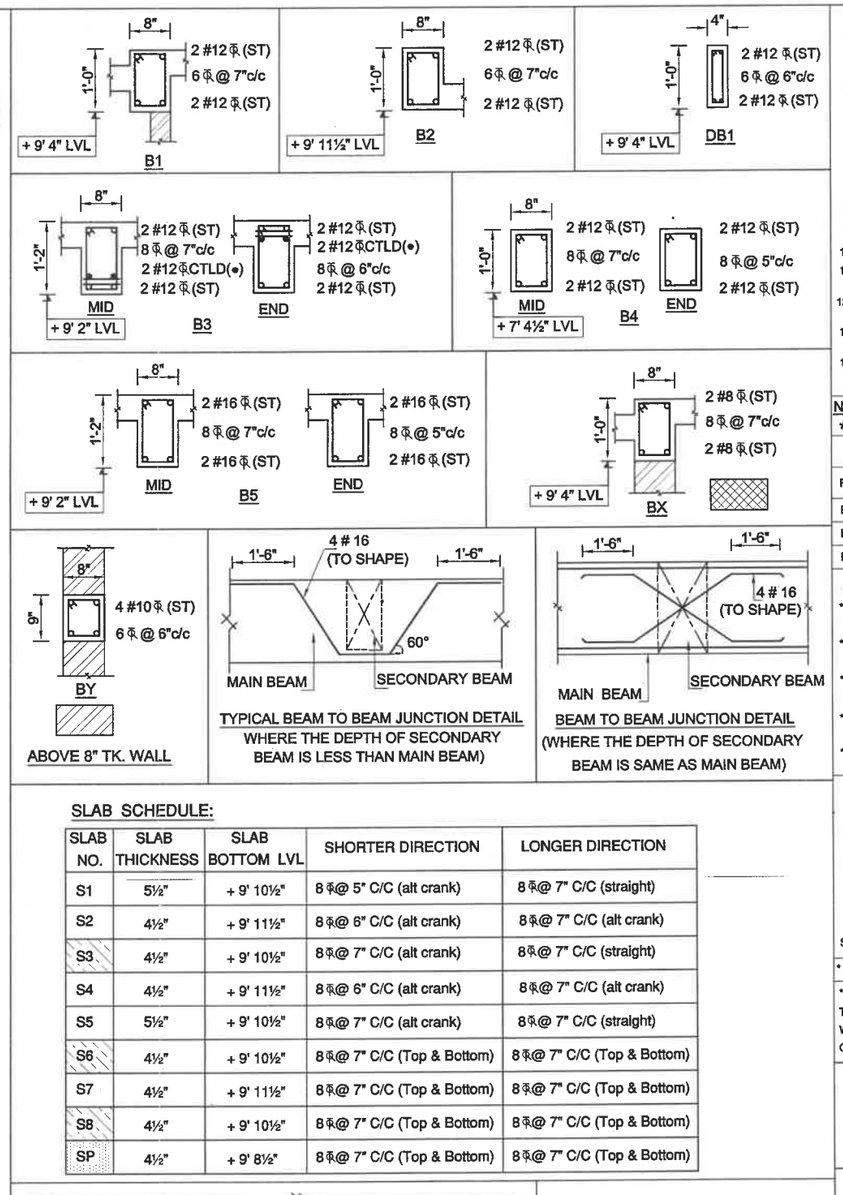
DETAIL: PLINTH BEAM LAYOUT

SCALE: 1"=8'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 7.12.15	DRG NO: ST-CL-001		CKD BY: B.JAYARAM
	SHEET NO: 3		APD BY: S.M

sankar & associates
architecture . engineering . interior design
27, Senguptha Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

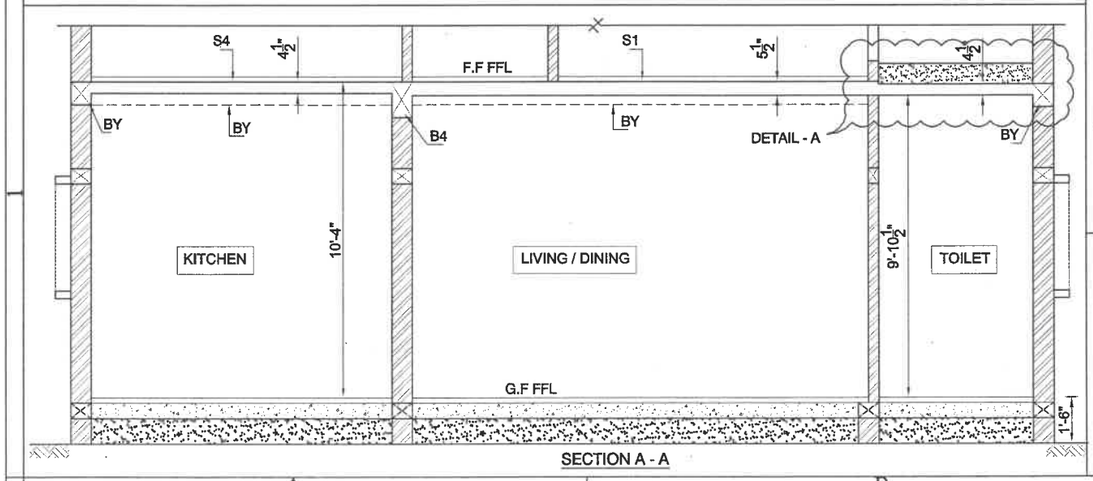
A3 - P



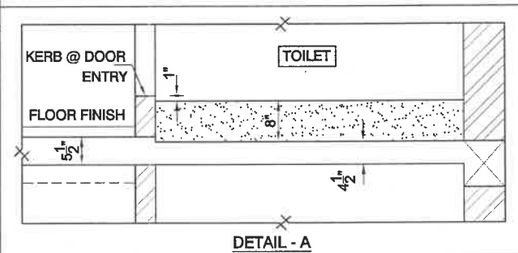


SLAB SCHEDULE:

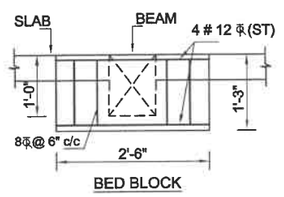
SLAB NO.	SLAB THICKNESS	SLAB BOTTOM LVL	SHORTER DIRECTION	LONGER DIRECTION
S1	5½"	+ 9' 10½"	8 ₹@ 5" C/C (alt crank)	8 ₹@ 7" C/C (straight)
S2	4½"	+ 9' 11½"	8 ₹@ 6" C/C (alt crank)	8 ₹@ 7" C/C (alt crank)
S3	4½"	+ 9' 10½"	8 ₹@ 7" C/C (alt crank)	8 ₹@ 7" C/C (straight)
S4	4½"	+ 9' 11½"	8 ₹@ 6" C/C (alt crank)	8 ₹@ 7" C/C (alt crank)
S5	5½"	+ 9' 10½"	8 ₹@ 7" C/C (alt crank)	8 ₹@ 7" C/C (straight)
S6	4½"	+ 9' 10½"	8 ₹@ 7" C/C (Top & Bottom)	8 ₹@ 7" C/C (Top & Bottom)
S7	4½"	+ 9' 11½"	8 ₹@ 7" C/C (Top & Bottom)	8 ₹@ 7" C/C (Top & Bottom)
S8	4½"	+ 9' 10½"	8 ₹@ 7" C/C (Top & Bottom)	8 ₹@ 7" C/C (Top & Bottom)
SP	4½"	+ 9' 8½"	8 ₹@ 7" C/C (Top & Bottom)	8 ₹@ 7" C/C (Top & Bottom)



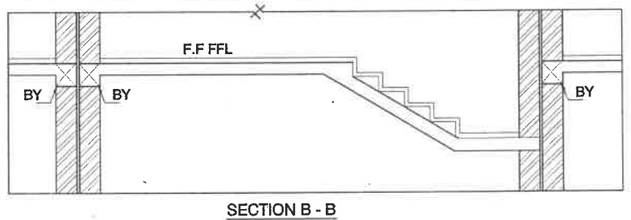
SECTION A - A



DETAIL - A



BED BLOCK



SECTION B - B

NOTES :

1. DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. ₹ - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT(MILD EXPOSURE)
   a) FOR BEAMS = 25 mm
   b) FOR SLABS = 20 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 50 x DIA OF BAR.
7. PROVIDE CHAIR RODS WHEREVER NECESSARY
8. PROVIDE SPACER RODS OF 25mm Ø (min) AT 1000mm C/C
9. GRADE OF CONCRETE IS M 20
10. GRADE OF REINFORCING STEEL IS Fe 415
11. ALL THE LEVELS MENTIONED ARE FROM THE F.F.L. OF THE RESPECTIVE FLOOR
12. FLOOR FINISH ALLOWANCE SHALL BE 50 / 75 mm FROM THE RAW SLAB AS PER SITE INSTRUCTIONS.
13. REINFORCEMENT FABRICATION SHOULD BE DONE AS PER STANDARD DUCTILE DETAIL PROVIDED VIDE DRG. No.
14. PROVISION OF CONDUITS / SLEEVES / CORECUTS TO BE PROVIDED AS PER SERVICE (ELECTRICAL / PLUMBING / HVAC) CONSULTANT'S DETAIL / DRAWINGS DULY APPROVED BY THE ARCHITECT / STRUCTURAL ENGINEER

NOTE:

* FOR ALL ROOF CUT OUT, SLAB/DUCT PROJECTION REFER ARCHITECTURAL DRAWING.

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILTY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

S. MURUGESH, M.E.,FIE.,
Chartered Engineer F-1279323
Structural Engineer Grade-I
CMDA/SE/GR-I/2022/05320

STRUCTURAL ENGINEER

* ALL 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.

M/S SHRIRAM PROPERTIES

CLIENT:- AT VALARPURAM, CHENNAI.

REFERENCE:

This Drg. is Prepared Based On The Source Drg.

1. Drg. no. wd-pl-af-022 Dt. 10.12.15 OF

NP

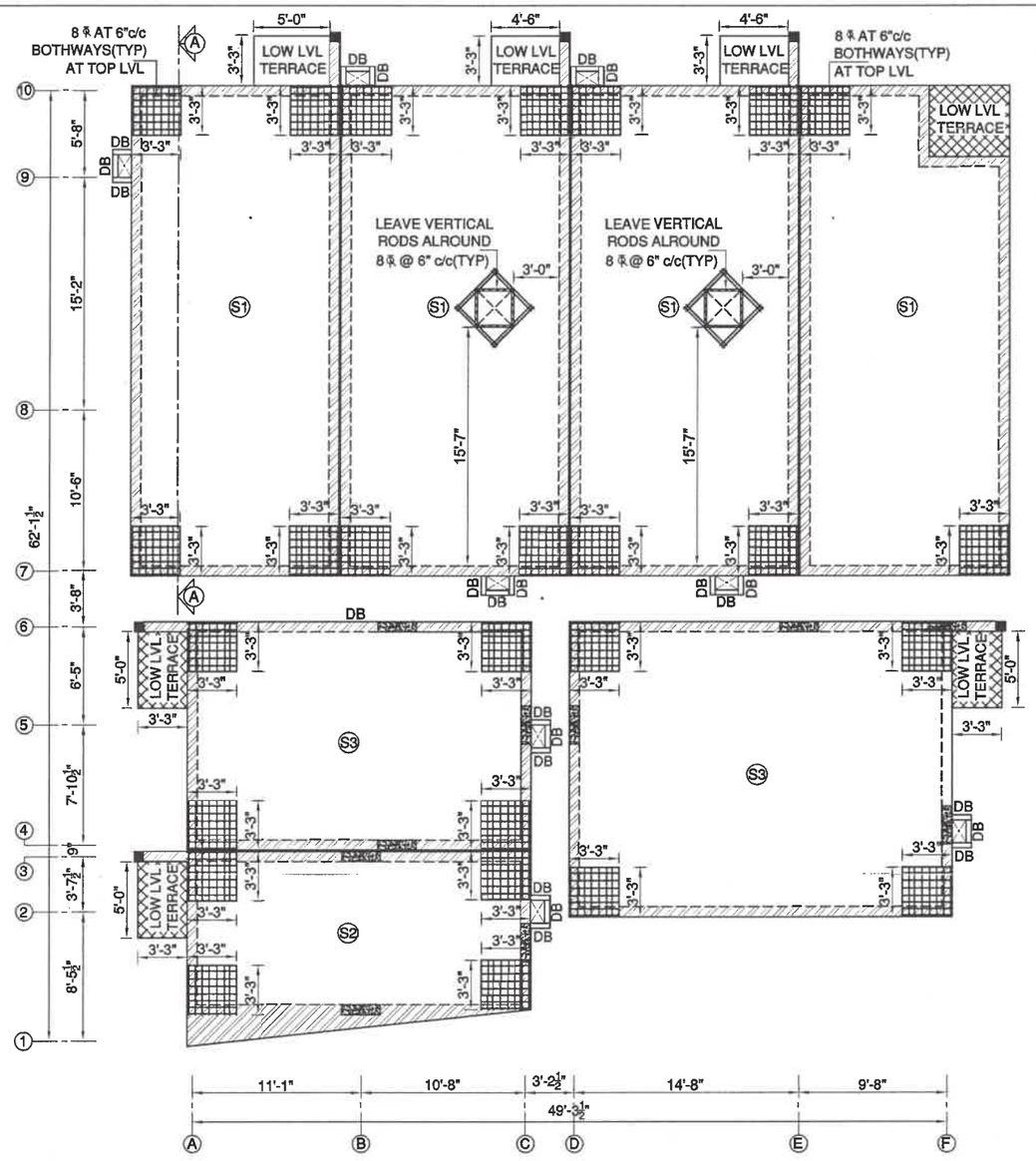
BUILDING: EWS CORE-2

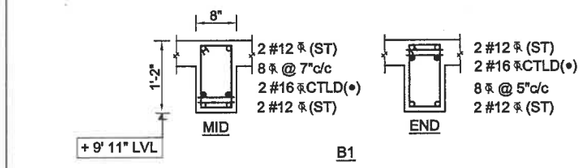
DETAIL: GROUND FLOOR ROOF BEAM & SLAB LAYOUT

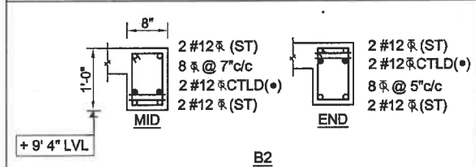
SCALE: 1"=8'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 21.12.15	DRG NO: ST-CL-003		CKD BY: B.JAYARAM
	SHEET NO: 5		APD BY: S.M

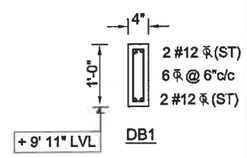
sankar & associates
architecture . engineering . interior design
27, Senguptha Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

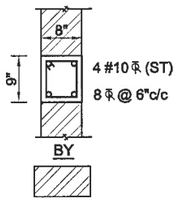
A3 - R



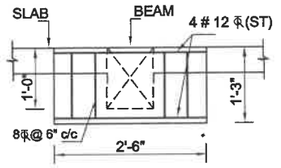




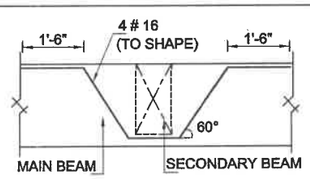




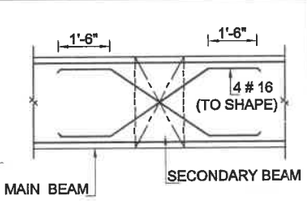
ABOVE 8" TK. WALL



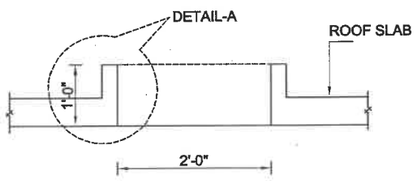
BED BLOCK



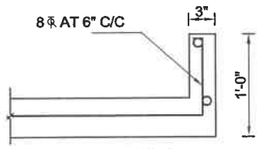
TYPICAL BEAM TO BEAM JUNCTION DETAIL
WHERE THE DEPTH OF SECONDARY BEAM IS LESS THAN MAIN BEAM)



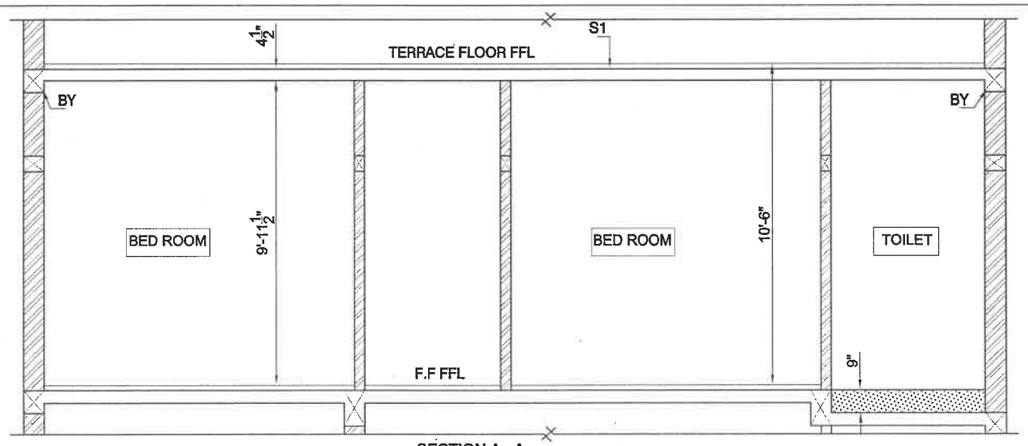
BEAM TO BEAM JUNCTION DETAIL
(WHERE THE DEPTH OF SECONDARY BEAM IS SAME AS MAIN BEAM)



SECTION-BB



DETAIL-A



SECTION A - A

SLAB SCHEDULE:

SLAB NO.	SLAB THICKNESS	SLAB BOTTOM LVL	SHORTER DIRECTION	LONGER DIRECTION
S1	4½"	+ 9' 11½"	8 ϕ@ 5" C/C (alt crank)	8 ϕ@ 7" C/C (straight)
S2	4½"	+ 9' 11½"	8 ϕ@ 6" C/C (alt crank)	8 ϕ@ 7" C/C (straight)
S3	5"	+ 9' 11"	8 ϕ@ 6" C/C (alt crank)	8 ϕ@ 6" C/C (alt crank)

NOTES :

1. DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. ϕ - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT(MILD EXPOSURE)
   a) FOR BEAMS = 25 mm
   b) FOR SLABS = 20 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 50 x DIA OF BAR.
7. PROVIDE CHAIR RODS WHEREVER NECESSARY
8. PROVIDE SPACER RODS OF 25mm Ø (min) AT 1000mm C/C
9. GRADE OF CONCRETE IS M 20
10. GRADE OF REINFORCING STEEL IS Fe 415
11. ALL THE LEVELS MENTIONED ARE FROM THE F.F.L. OF THE RESPECTIVE FLOOR
12. FLOOR FINISH ALLOWANCE SHALL BE 50 / 75 mm FROM THE RAW SLAB AS PER SITE INSTRUCTIONS.
13. REINFORCEMENT FABRICATION SHOULD BE DONE AS PER STANDARD DUCTILE DETAIL PROVIDED VIDE DRG. No.
14. PROVISION OF CONDUITS / SLEEVES / CORECUTS TO BE PROVIDED AS PER SERVICE (ELECTRICAL / PLUMBING / HVAC) CONSULTANT'S DETAIL / DRAWINGS DULY APPROVED BY THE ARCHITECT / STRUCTURAL ENGINEER

NOTE:

* FOR ALL ROOF CUT OUT, SLAB/DUCT PROJECTION REFER ARCHITECTURAL DRAWING.

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILTY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

S. MURUGESH, M.E.,FIE.,
Chartered Engineer F-1279323
Structural Engineer Grade-I
CMDA/SE/GR-I/2022/05/320
STRUCTURAL ENGINEER

* ALL 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.

M/S SHRIRAM PROPERTIES

CLIENT:- AT VALARPURAM, CHENNAI.

REFERENCE:

This Drg. is Prepared Based On The Source Drg.

1. Drg. no. wd-pl-af-022 Dt. 10.12.15 OF

NP

BUILDING: EWS CORE-2

DETAIL: FIRST FLOOR ROOF BEAM & SLAB LAYOUT

SCALE: 1"=8'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 7.12.15	DRG NO: ST-CL-001		CKD BY: B.JAYARAM
	SHEET NO: 7		APD BY: S.M

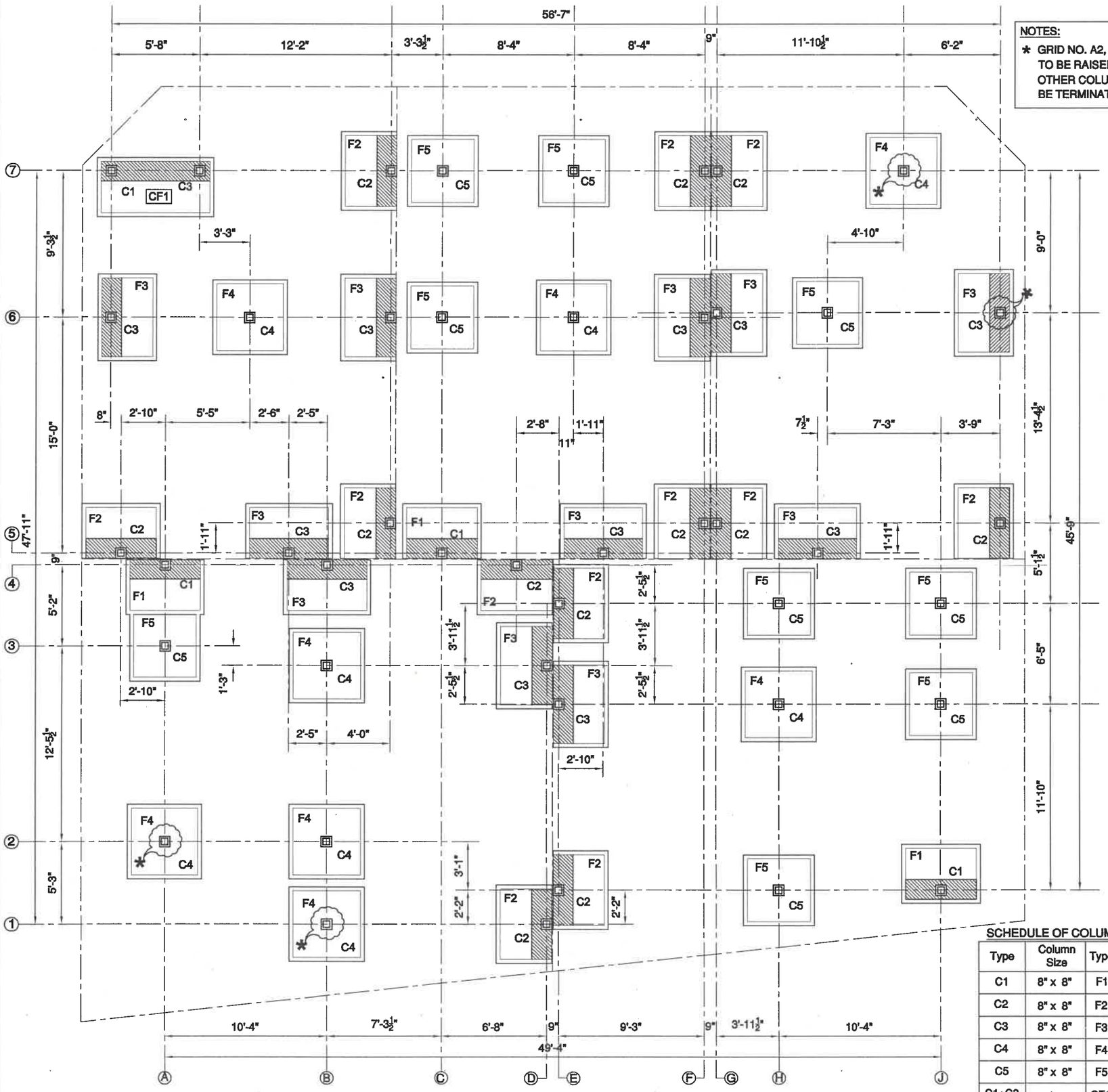
sankar & associates
architecture . engineering . interior design
27, Senguptha Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

A3 - R

EWS - CORE – III

VILLAS – 68 TO 72

CLIENT:	M/S SHRIRAM PROPERTIES	DESIGN:	G + 1 Floor	ARCHITECT & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR, COIMBATORE.
STRUCTURE NAME :	RESIDENTIAL VILLAS	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	AT VALARPURAM, CHENNAI.			



NOTES:

* GRID NO. A2, B1, H'7 AND J'6 COLUMNS TO BE RAISED ABOVE PLINTH LEVEL AND OTHER COLUMNS ARE STUB COLUMN TO BE TERMINATED AT PLINTH BEAM LEVEL

NOTES :

1. THE DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. $\overline{\text{Q}}$ - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT (MILD EXPOSURE)
   a) FOR FOOTINGS = 50 mm (ALL AROUND)
   b) FOR COLUMNS = 40 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 48 x DIA OF BAR.
7. ALL ISOLATED FOOTINGS SHALL BE CONCENTRIC WITH COLUMN UNLESS OTHERWISE SPECIFIED
8. GRADE OF CONCRETE IS M 20
9. GRADE OF REINFORCING STEEL IS Fe 415
10. ASSUMED SBC OF SOIL = 125 KN / Sqm.
11. MINIMUM DEPTH OF FOUNDATION = 2.0 m BELOW NGL
12. THIS STRUCTURE IS DESIGNED FOR G+ 1 FLOOR

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILITY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

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

STRUCTURAL ENGINEER

* ALL 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.

M/S SHRIRAM PROPERTIES

AT VALARPURAM, CHENNAI.

CLIENT:-

REFERENCE:

This Drg. is Prepared Based On The Source Drg.

1. Drg. no. wd-pl-af-027 Dt. 3.02.16 OF

NP

BUILDING: EWS CORE-3

DETAIL: CENTER LINE AND FOOTING LAYOUT

SCALE: 1"=8'-0"	JOB NO: 13-FIMA-3A	REV	DRN BY: ALLEN
DATE: 26.02.16	DRG NO: ST-CL-004		CKD BY: B.JAYARAM
	SHEET NO: 1		APD BY: S.M

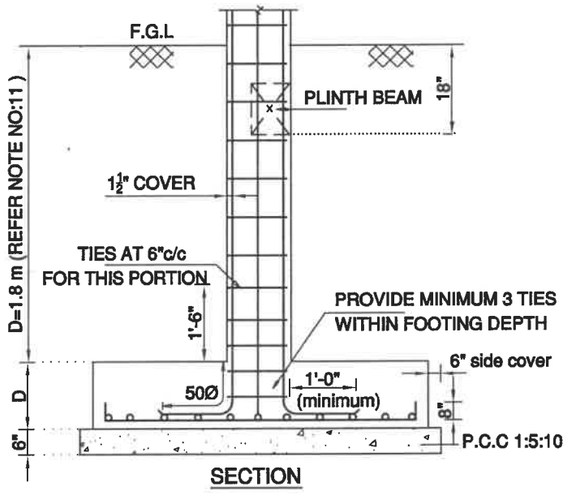
SCHEDULE OF COLUMNS & FOOTINGS

Type	Column Size	Type	Footing Size	Pit Size
C1	8" x 8"	F1	3'-3" x 4'-6"	3'-9" x 5'-0"
C2	8" x 8"	F2	3'-3" x 4'-6"	3'-9" x 5'-0"
C3	8" x 8"	F3	3'-3" x 5'-0"	3'-9" x 5'-6"
C4	8" x 8"	F4	4'-3" x 4'-3"	4'-9" x 4'-9"
C5	8" x 8"	F5	4'-0" x 4'-0"	4'-6" x 4'-6"
C1+C3	-----	CF1	3'-3" x 7'-0"	3'-9" x 7'-6"

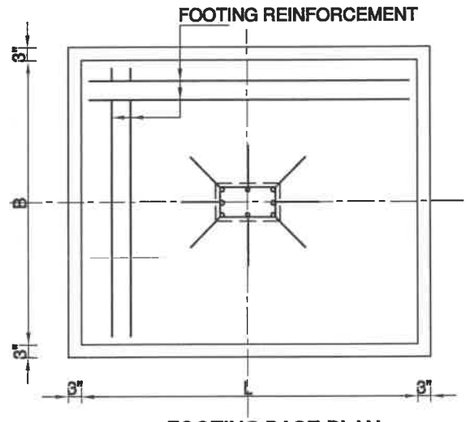
sankar & associates
27, Sengupta Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

A3 - F

TYPE	COLUMN DETAILS [CLEAR COVER 40 MM]	TIES	TYPE	FOOTING L	B	D	FOOTING REINFORCEMENT
C1	8" x 8", 4 # 12 ϕ	8 ϕ @ 8"c/c (1 TIE)	F1	3'-3"	4'-6"	15"	10ϕ @ 7" c/c Top & Bottom
C2	8" x 8", 6 # 12 ϕ	8 ϕ @ 8"c/c (1 TIE)	F2	3'-3"	4'-6"	15"	10ϕ @ 6" c/c Top & Bottom
C3	8" x 8", 6 # 12 ϕ	8 ϕ @ 8"c/c (1 TIE)	F3	3'-3"	5'-0"	15"	10ϕ @ 5" c/c Top & Bottom
C4	8" x 8", 6 # 12 ϕ	8 ϕ @ 8"c/c (1 TIE)	F4	4'-3"	4'-3"	12"	10ϕ @ 7" c/c Both ways
C5	8" x 8", 6 # 12 ϕ	8 ϕ @ 8"c/c (1 TIE)	F5	4'-0"	4'-6"	12"	10ϕ @ 7" c/c Both ways
C1+C3	–	–	CF1	3'-3"	7'-0"	15"	10ϕ @ 7" c/c Top & Bottom



SECTION



FOOTING BASE PLAN

TYPICAL FOOTING DETAILS

NOTES :

1. THE DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. ϕ - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT (MILD EXPOSURE)
   a) FOR FOOTINGS = 50 mm (ALL AROUND)
   b) FOR COLUMNS = 40 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 48 x DIA OF BAR.
7. ALL ISOLATED FOOTINGS SHALL BE CONCENTRIC WITH COLUMN UNLESS OTHERWISE SPECIFIED
8. GRADE OF CONCRETE IS M 20
9. GRADE OF REINFORCING STEEL IS Fe 415
10. ASSUMED SBC OF SOIL = 125 KN / Sqm.
11. MINIMUM DEPTH OF FOUNDATION = 2.0 m BELOW NGL
12. THIS STRUCTURE IS DESIGNED FOR G+ 1 FLOOR

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILITY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

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

STRUCTURAL ENGINEER

* ALL 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.

M/S SHRIRAM PROPERTIES

AT VALARPURAM, CHENNAI.

CLIENT:-

REFERENCE:

This Drg. is Prepared Based On The Source Drg.

1. Drg. no. wd-pl-af-027 Dt. 03.02.16 OF

NP

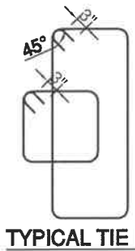
BUILDING: EWS CORE-3

DETAIL: COLUMN & FOOTING RFT DETAIL

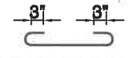
SCALE: 1"=6'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 28.02.16	DRG NO: ST-CL-004		CKD BY: B.JAYARAM
	SHEET NO: 2		APD BY: S.M

sankar & associates
27, Senguptha Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

A3 - F



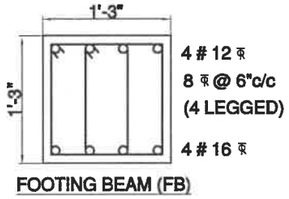
TYPICAL TIE DETAIL



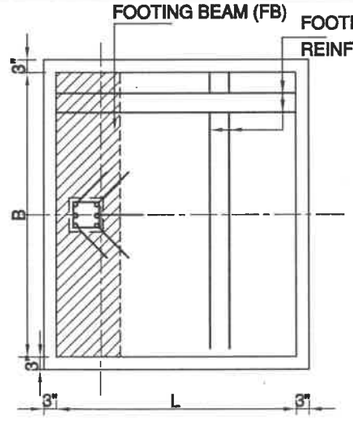
TYPICAL LINK DETAIL

NOTES:

* GRID NO. A2, B1, H'7 AND J'6 COLUMNS TO BE RAISED ABOVE PLINTH LEVEL AND OTHER COLUMNS ARE STUB COLUMN TO BE TERMINATED AT PLINTH BEAM LEVEL

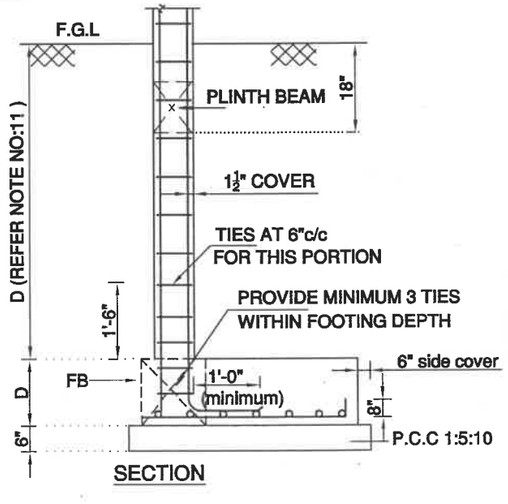


FOOTING BEAM (FB)

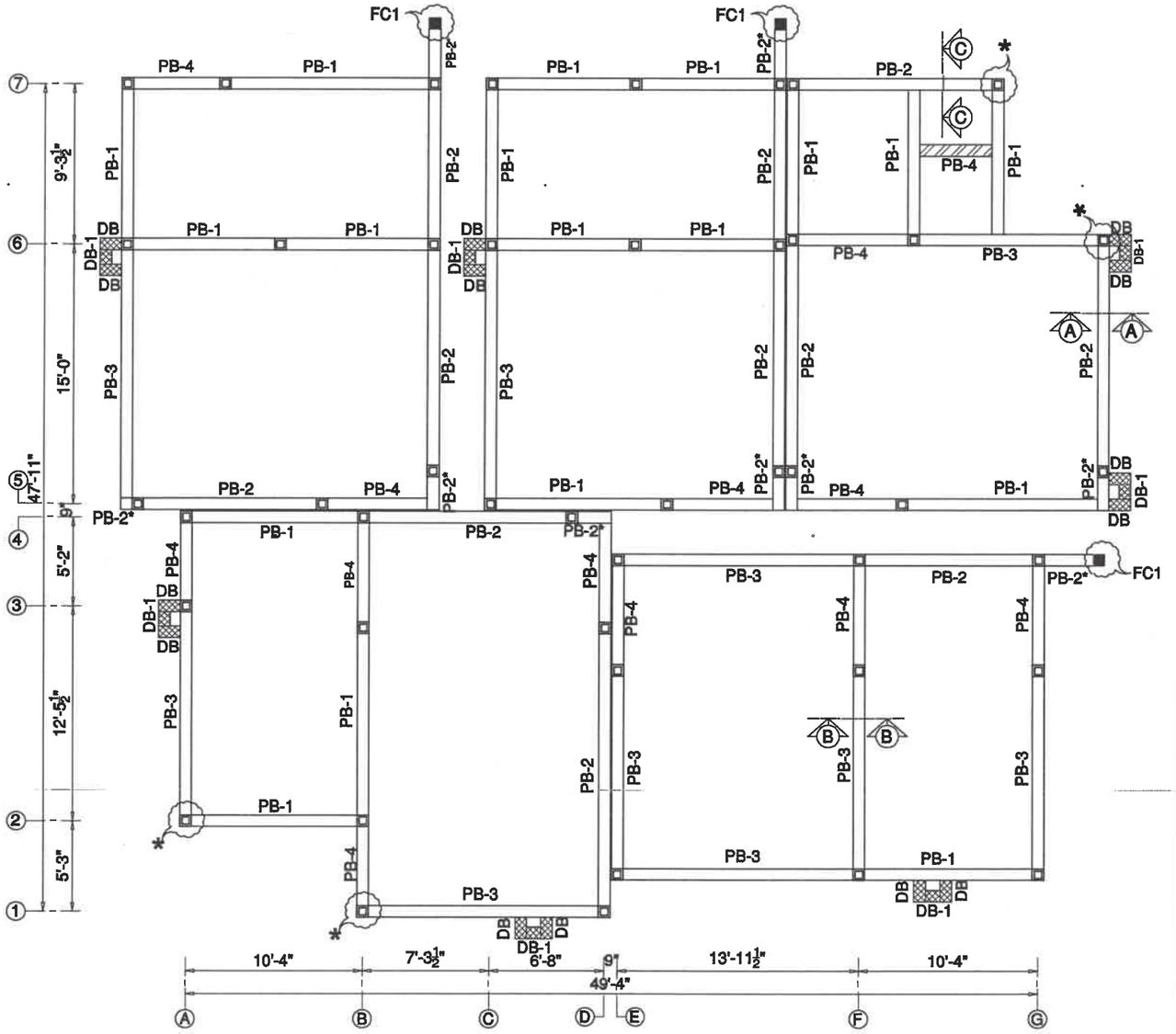


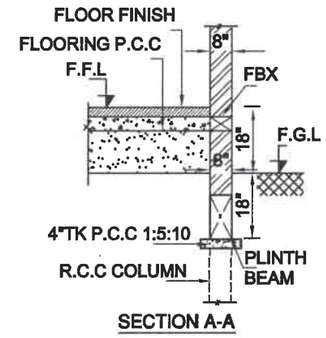
FOOTING BASE PLAN

TYPICAL ECCENTRIC FOOTING DETAILS

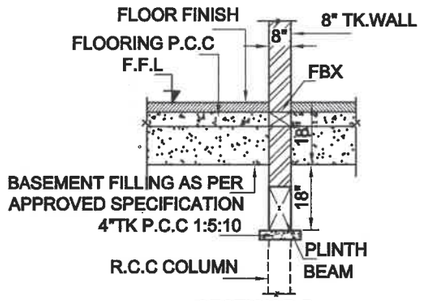


SECTION

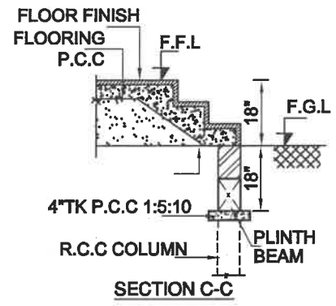




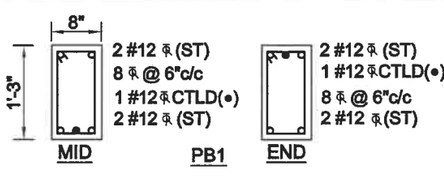
SECTION A-A

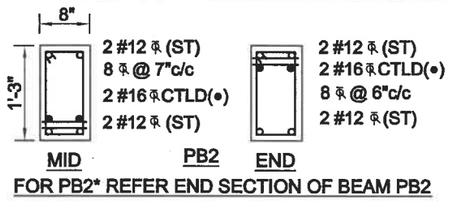


SECTION B-B

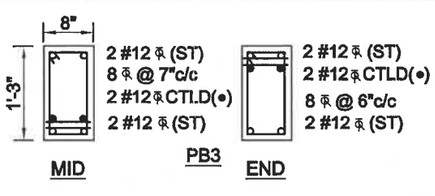


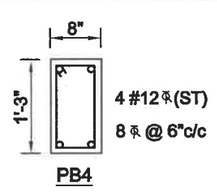
SECTION C-C

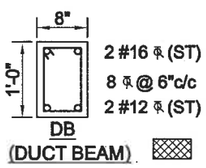


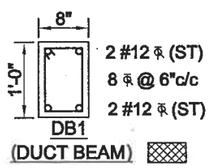


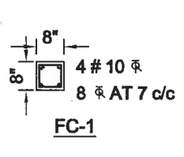
FOR PB2* REFER END SECTION OF BEAM PB2

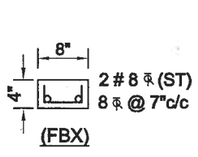


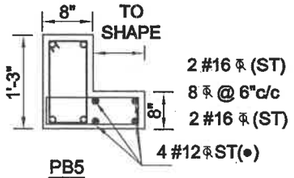


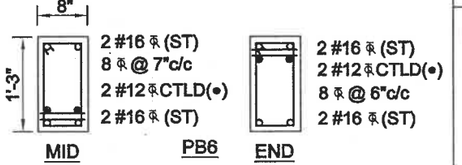












FOR PB6* REFER END SECTION OF BEAM PB6

NOTES :

1. DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. ϕ - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT(MILD EXPOSURE)
   a) FOR BEAMS = 25 mm
   b) FOR SLABS = 20 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 50 x DIA OF BAR.
7. PROVIDE CHAIR RODS WHEREVER NECESSARY
8. PROVIDE SPACER RODS OF 25mm Ø (min) AT 1000mm C/C
9. GRADE OF CONCRETE IS M 20
10. GRADE OF REINFORCING STEEL IS Fe 415
11. ALL THE LEVELS MENTIONED ARE FROM THE F.F.L. OF RESPECTIVE FLOOR

NOTE:

* GRID NO. A2, B1, H7 AND J6 COLUMNS UPTO GROUND FLOOR ROOF.

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILITY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

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

STRUCTURAL ENGINEER

* ALL 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.

M/S SHRIRAM PROPERTIES

AT VALARPURAM, CHENNAI.

CLIENT:-

REFERENCE:

This Drg. is Prepared Based On The Source Drg.

1. Drg. no. wd-pl-af-027 Dt. 03.02.16 OF

N

NP

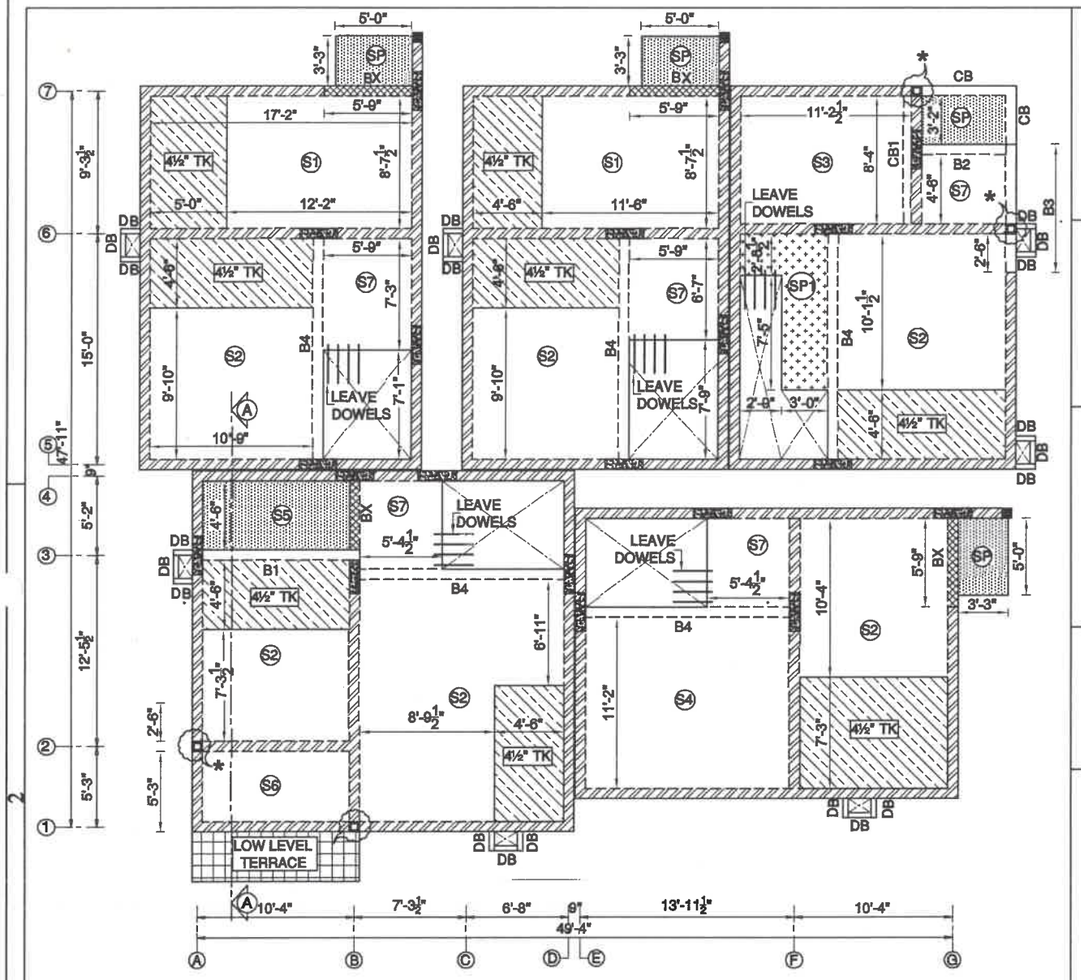
BUILDING: EWS CORE-3

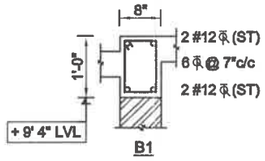
DETAIL: PLINTH BEAM LAYOUT

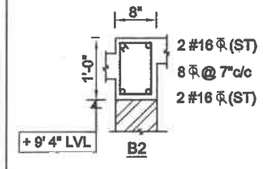
SCALE: 1"=8'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 26.02.16	DRG NO: ST-CL-004		CKD BY: B.JAYARAM
	SHEET NO: 3		APD BY: S.M

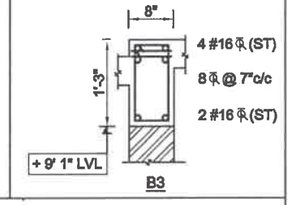
sankar & associates
27, Sengupta Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

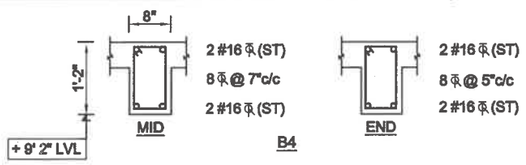
A3 - P

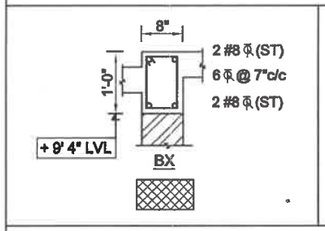


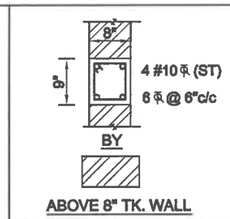


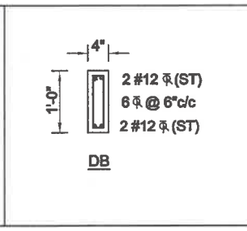


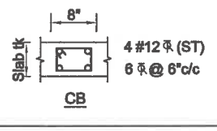


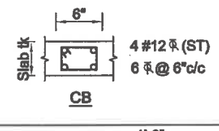


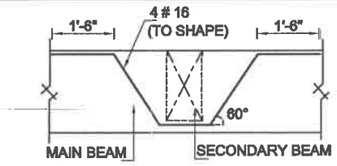




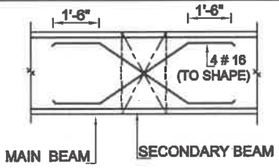




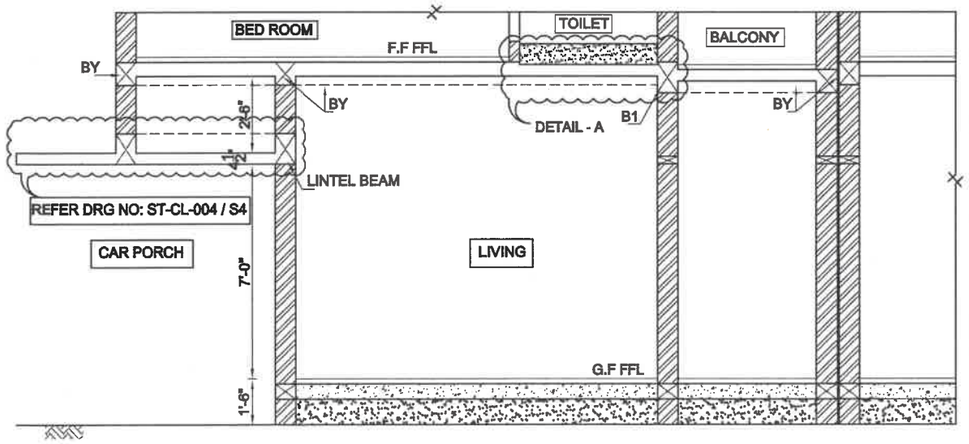




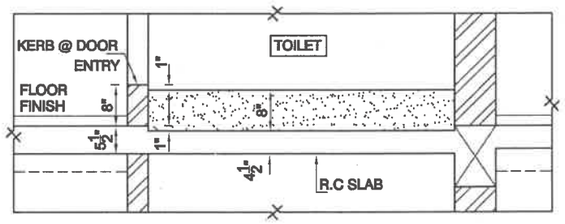
TYPICAL BEAM TO BEAM JUNCTION DETAIL
WHERE THE DEPTH OF SECONDARY BEAM IS LESS THAN MAIN BEAM)



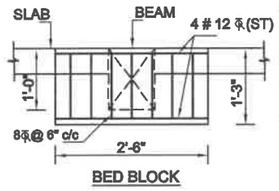
BEAM TO BEAM JUNCTION DETAIL
(WHERE THE DEPTH OF SECONDARY BEAM IS SAME AS MAIN BEAM)



SECTION A - A



DETAIL - A



BED BLOCK

SLAB SCHEDULE:

SLAB NO.	SLAB THICKNESS	SLAB BOTTOM LVL	SHORTER DIRECTION	LONGER DIRECTION
S1	5½"	+ 9' 10½"	8 ϕ @ 5" C/C (alt crank)	8 ϕ @ 7" C/C (straight)
S2	5½"	+ 9' 10½"	8 ϕ @ 6" C/C (alt crank)	8 ϕ @ 7" C/C (alt crank)
S3	4½"	+ 9' 11½"	8 ϕ @ 6" C/C (alt crank)	8 ϕ @ 7" C/C (straight)
S4	4½"	+ 9' 11½"	8 ϕ @ 6" C/C (alt crank)	8 ϕ @ 6" C/C (alt crank)
S5	4½"	+ 9' 8½"	8 ϕ @ 7" C/C (alt crank)	8 ϕ @ 7" C/C (straight)
S6	4½"	+ 9' 11½"	8 ϕ @ 7" C/C (alt crank)	8 ϕ @ 7" C/C (straight)
S7	4½"	+ 9' 11½"	8 ϕ @ 7" C/C (Top & Bottom)	8 ϕ @ 7" C/C (Top & Bottom)
SP	4½"	+ 9' 8½"	8 ϕ @ 7" C/C (Top & Bottom)	8 ϕ @ 7" C/C (Top & Bottom)
SP1	4½"	+ 9' 11½"	8 ϕ @ 6" C/C (Top & Bottom)	8 ϕ @ 6" C/C (Top & Bottom)

NOTES :

1. DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. ϕ - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT(MILD EXPOSURE)
   a) FOR BEAMS = 25 mm
   b) FOR SLABS = 20 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 50 x DIA OF BAR.
7. PROVIDE CHAIR RODS WHEREVER NECESSARY
8. PROVIDE SPACER RODS OF 25mm Ø (min) AT 1000mm C/C
9. GRADE OF CONCRETE IS M 20
10. GRADE OF REINFORCING STEEL IS Fe 415
11. ALL THE LEVELS MENTIONED ARE FROM THE F.F.L. OF THE RESPECTIVE FLOOR.
12. FLOOR FINISH ALLOWANCE SHALL BE 50 / 75 mm FROM THE RAW SLAB AS PER SITE INSTRUCTIONS.
13. REINFORCEMENT FABRICATION SHOULD BE DONE AS PER STANDARD DUCTILE DETAIL PROVIDED VIDE DRG. No.
14. PROVISION OF CONDUITS / SLEEVES / CORECUTS TO BE PROVIDED AS PER SERVICE (ELECTRICAL / PLUMBING / HVAC) CONSULTANT'S DETAIL / DRAWINGS DULY APPROVED BY THE ARCHITECT / STRUCTURAL ENGINEER

NOTE:

* GRID NO. A2, B1, H7 AND J6 COLUMNS UPTO GROUND FLOOR ROOF
* FOR ALL SLAB/DUCT PROJECTION REFER ARCHITECTURAL DRAWING.

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILITY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

S. MURUGESH, M.E.,FIE.,
Chartered Engineer F-1279323
Structural Engineer Grade-I
CMDA /SE/GR-I/2022/05/320
STRUCTURAL ENGINEER

* ALL 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.

CLIENT:- M/S SHRIRAM PROPERTIES
AT VALARPURAM, CHENNAI.

REFERENCE:
This Drg. is Prepared Based On The Source Drg.
1. Drg. no. wd-pl-af-027 Dt. 03.02.16 OF

NP

BUILDING: EWS CORE-3

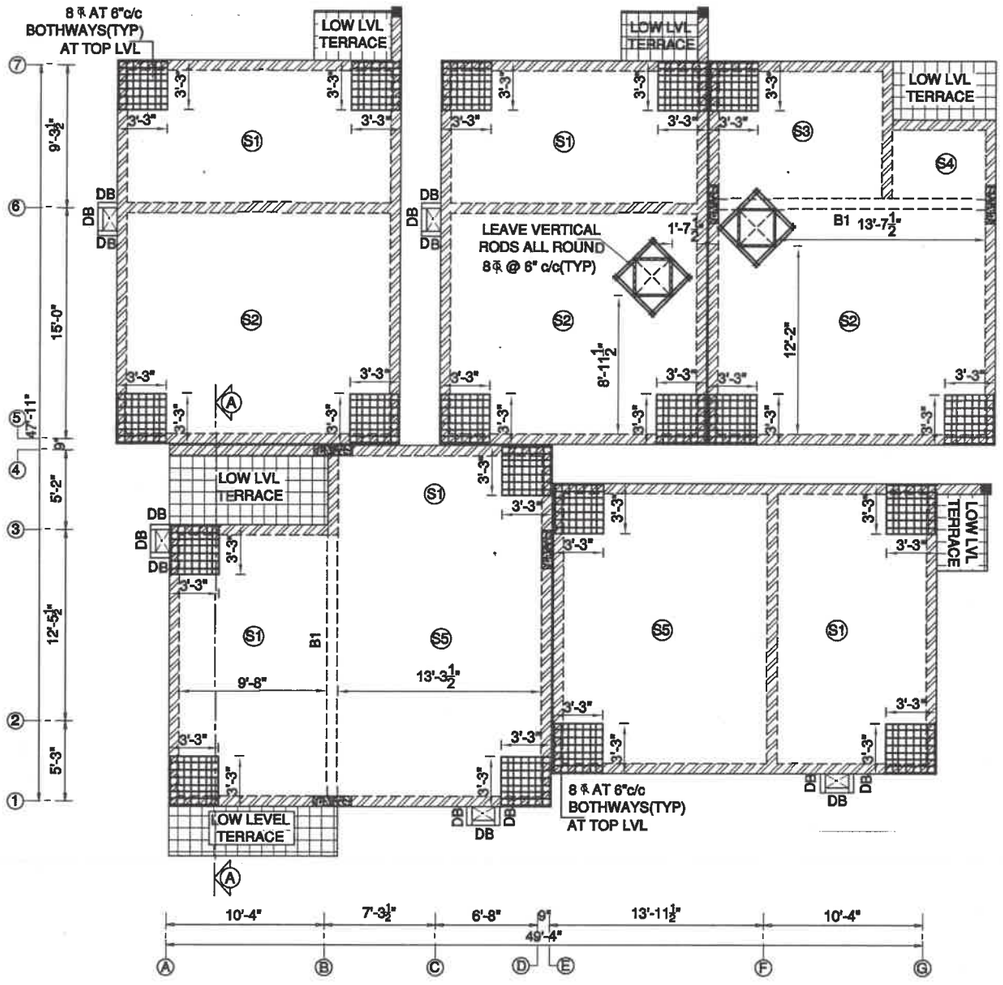
DETAIL: GROUND FLOOR ROOF BEAM & SLAB LAYOUT

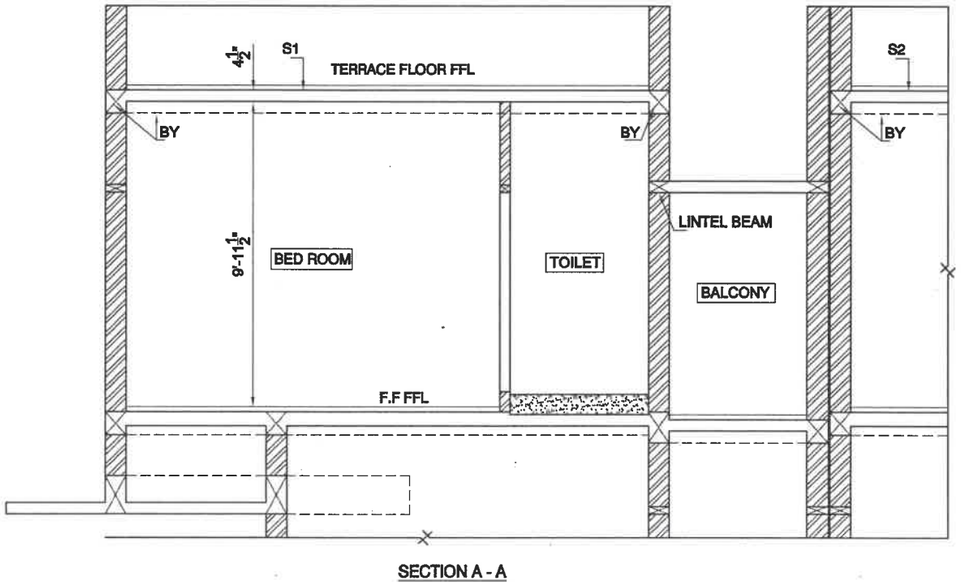
SCALE: 1"=8'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 29.02.16	DRG NO: ST-CL-004		CKD BY: B.JAYARAM
	SHEET NO: 5		APD BY: S.M

sankar & associates
architecture . engineering . interior design
27, Sengupta Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

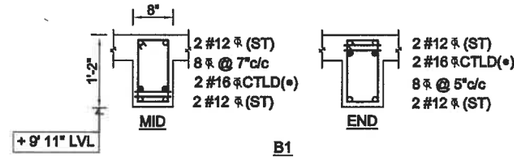
A3 - R

A B C D

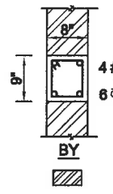




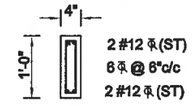
SECTION A - A



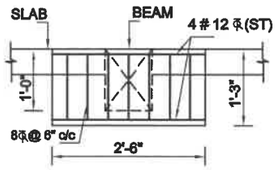
B1



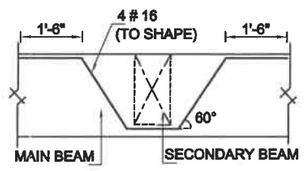
ABOVE 8" TK. WALL



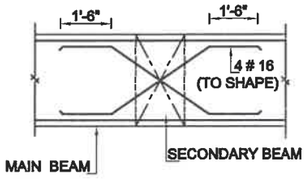
DB



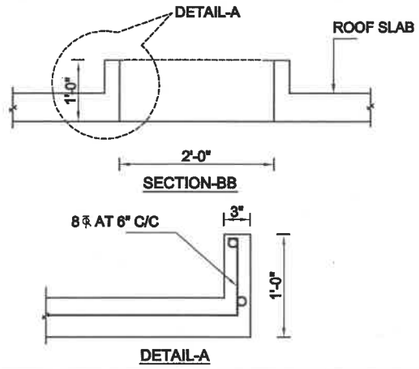
BED BLOCK



TYPICAL BEAM TO BEAM JUNCTION DETAIL
WHERE THE DEPTH OF SECONDARY
BEAM IS LESS THAN MAIN BEAM)



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



DETAIL-A

SLAB SCHEDULE:

SLAB NO.	SLAB THICKNESS	SLAB BOTTOM LVL	SHORTER DIRECTION	LONGER DIRECTION
S1	4½"	+ 9' 11½"	8 ϕ@ 6" C/C (alt crank)	6 ϕ@ 7" C/C (straight)
S2	5½"	+ 9' 11"	8 ϕ@ 5" C/C (alt crank)	8 ϕ@ 5" C/C (alt crank)
S3	4½"	+ 9' 11½"	8 ϕ@ 6" C/C (alt crank)	6 ϕ@ 7" C/C (straight)
S4	4½"	+ 9' 11½"	8 ϕ@ 7" C/C (straight)	8 ϕ@ 7" C/C (straight)
S5	6"	+ 9' 11"	8 ϕ@ 5" C/C (alt crank)	8 ϕ@ 6" C/C (alt crank)

NOTES :

1. DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. ϕ - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT(MILD EXPOSURE)
   a) FOR BEAMS = 25 mm
   b) FOR SLABS = 20 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 50 x DIA OF BAR.
7. PROVIDE CHAIR RODS WHEREVER NECESSARY
8. PROVIDE SPACER RODS OF 25mm Ø (min) AT 1000mm C/C
9. GRADE OF CONCRETE IS M 20
10. GRADE OF REINFORCING STEEL IS Fe 415
11. ALL THE LEVELS MENTIONED ARE FROM THE F.F.L. OF THE RESPECTIVE FLOOR
12. FLOOR FINISH ALLOWANCE SHALL BE 50 / 75 mm FROM THE RAW SLAB AS PER SITE INSTRUCTIONS.
13. REINFORCEMENT FABRICATION SHOULD BE DONE AS PER STANDARD DUCTILE DETAIL PROVIDED VIDE DRG. No.
14. PROVISION OF CONDUITS / SLEEVES / CORECUTS TO BE PROVIDED AS PER SERVICE (ELECTRICAL / PLUMBING / HVAC) CONSULTANT'S DETAIL / DRAWINGS DULY APPROVED BY THE ARCHITECT / STRUCTURAL ENGINEER

NOTE:

✱ FOR ALL ROOF CUT OUT, SLAB/DUCT PROJECTION REFER ARCHITECTURAL DRAWING.

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILITY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

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

STRUCTURAL ENGINEER

* ALL 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.

M/S SHRIRAM PROPERTIES

CLIENT:- AT VALARPURAM, CHENNAI.

REFERENCE:

This Drg. is Prepared Based On The Source Drg.

1. Drg. no. wd-pl-af-027 Dt. 3.02.16 OF

N

NP

BUILDING: EWS CORE-3

DETAIL: FIRST FLOOR ROOF BEAM & SLAB LAYOUT

SCALE: 1"=8'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 01.03.16	DRG NO: ST-CL-004		CKD BY: BJAYARAM
	SHEET NO: 7		APD BY: S.M

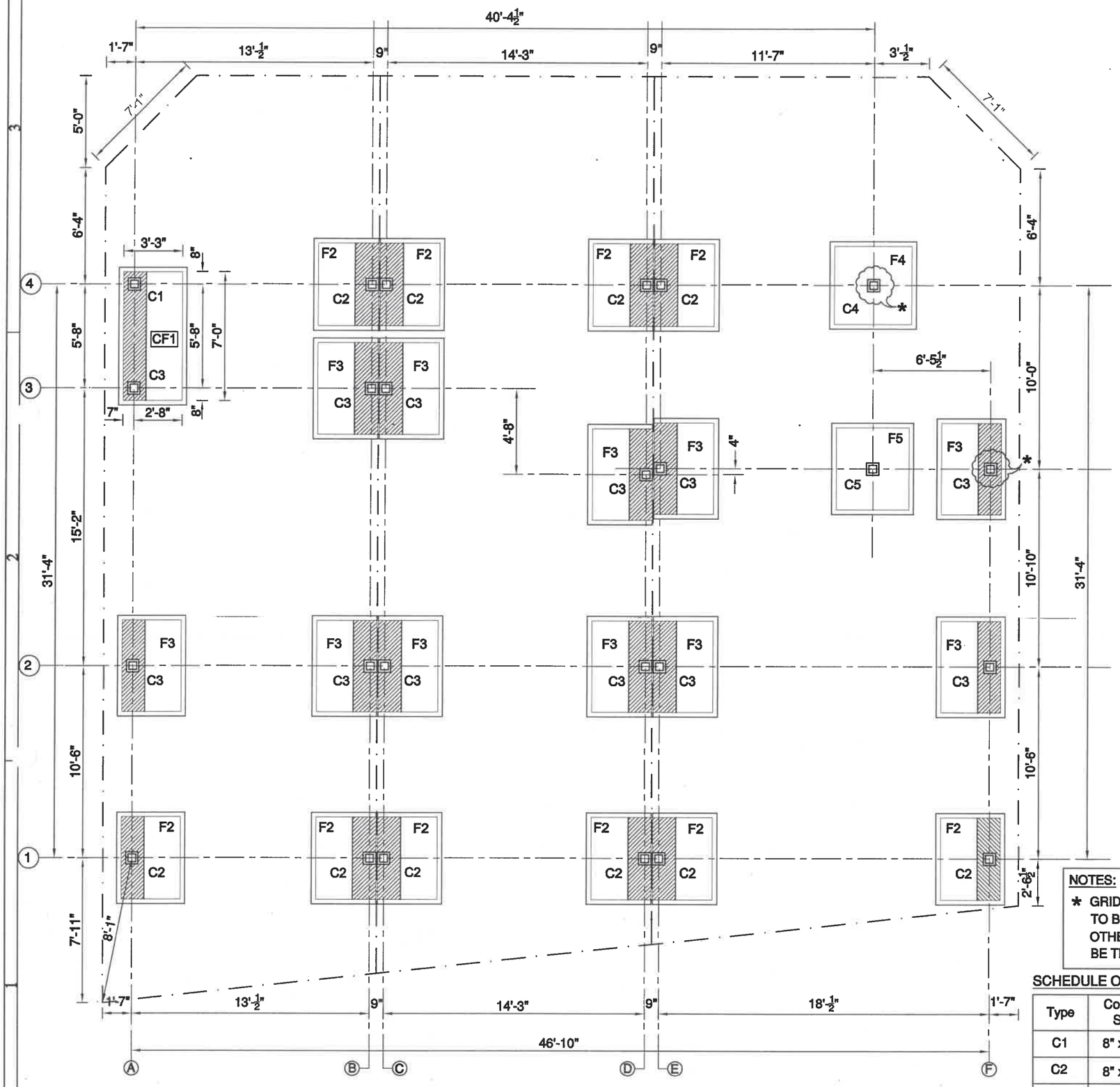
sankar & associates
27, Senguptha Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

A3 - R

EWS - CORE – IV

VILLAS – 65 TO 67

CLIENT:	M/S SHRIRAM PROPERTIES	DESIGN:	G + 1 Floor	ARCHITECT & PLANNERS **SANKAR & ASSOCIATES** 27 SENGUPTA STREET, RAMNAGAR, COIMBATORE.
STRUCTURE NAME :	RESIDENTIAL VILLAS	TITLE: REPORT ON STRUCTURAL DESIGN.		
PLACE:	AT VALARPURAM, CHENNAI.			



NOTES :

1. THE DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. ℄ - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT (MILD EXPOSURE)
   a) FOR FOOTINGS = 50 mm (ALL AROUND)
   b) FOR COLUMNS = 40 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 48 x DIA OF BAR.
7. ALL ISOLATED FOOTINGS SHALL BE CONCENTRIC WITH COLUMN UNLESS OTHERWISE SPECIFIED
8. GRADE OF CONCRETE IS M 20
9. GRADE OF REINFORCING STEEL IS Fe 415
10. ASSUMED SBC OF SOIL = 125 KN / Sqm.
11. MINIMUM DEPTH OF FOUNDATION = 2.0 m BELOW NGL
12. THIS STRUCTURE IS DESIGNED FOR G+ 1 FLOOR

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILTY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

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

STRUCTURAL ENGINEER

* ALL 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.

NOTES:

* GRID NO. E'4 AND F2' COLUMNS TO BE RAISED ABOVE PLINTH LEVEL AND OTHER COLUMNS ARE STUB COLUMN TO BE TERMINATED AT PLINTH BEAM LEVEL

SCHEDULE OF COLUMNS & FOOTINGS

Type	Column Size	Type	Footing Size	Pit Size
C1	8" x 8"	F1	3'-3" x 4'-6"	3'-9" x 5'-0"
C2	8" x 8"	F2	3'-3" x 4'-6"	3'-9" x 5'-0"
C3	8" x 8"	F3	3'-3" x 5'-0"	3'-9" x 5'-6"
C4	8" x 8"	F4	4'-3" x 4'-3"	4'-9" x 4'-9"
C5	8" x 8"	F5	4'-0" x 4'-6"	4'-6" x 5'-0"
C1+C3	---	CF1	3'-3" x 7'-0"	3'-9" x 7'-6"

M/S SHRIRAM PROPERTIES

AT VALARPURAM, CHENNAI.

CLIENT:-

REFERENCE:

This Drg. is Prepared Based On The Source Drg.

1. Drg. no. wd-pl-af-026 Dt. 03.02.16 OF

NP

BUILDING: EWS CORE-4

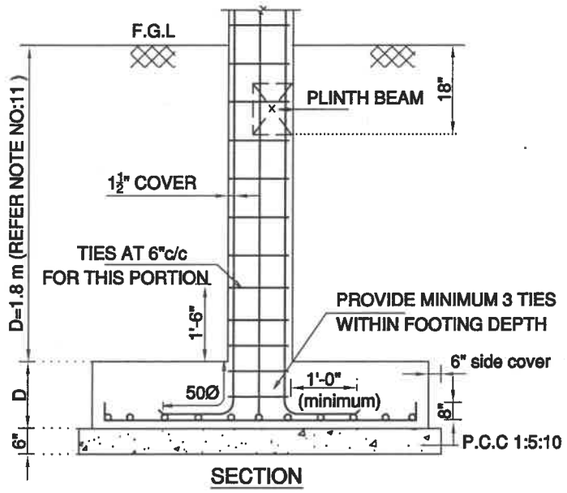
DETAIL: CENTER LINE AND FOOTING LAYOUT

SCALE: 1"=6'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 23.12.15	DRG NO: ST-CL-002		CKD BY: B.JAYARAM
	SHEET NO: 1		APD BY: S.M

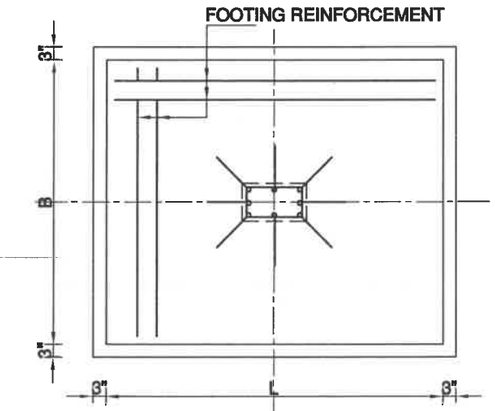
sankar & associates
architecture . engineering . interior design
27, Senguptha Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

A3 - F

TYPE	COLUMN		TYPE	FOOTING			
	COLUMN DETAILS [CLEAR COVER 40 MM]	TIES		L	B	D	FOOTING REINFORCEMENT
C1	8" / 8" — 4 # 12 ϕ	8 ϕ @ 8"c/c (1 TIE)	F1	3'-3"	4'-6"	15"	10ϕ @ 7" c/c Top & Bottom
C2	8" / 8" — 6 # 12 ϕ	8 ϕ @ 8"c/c (1 TIE)	F2	3'-3"	4'-6"	15"	10ϕ @ 6" c/c Top & Bottom
C3	8" / 8" — 6 # 12 ϕ	8 ϕ @ 8"c/c (1 TIE)	F3	3'-3"	5'-0"	15"	10ϕ @ 5" c/c Top & Bottom
C4	8" / 8" — 6 # 12 ϕ	8 ϕ @ 8"c/c (1 TIE)	F4	4'-3"	4'-3"	12"	10ϕ @ 7" c/c Both ways
C5	8" / 8" — 6 # 12 ϕ	8 ϕ @ 8"c/c (1 TIE)	F5	4'-0"	4'-6"	12"	10 ϕ @ 7" c/c Both ways
C1+C3	--	--	CF1	3'-3"	7'-0"	15"	10 ϕ @ 7" c/c Top & Bottom

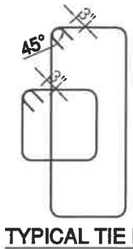


SECTION

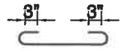


FOOTING BASE PLAN

TYPICAL FOOTING DETAILS



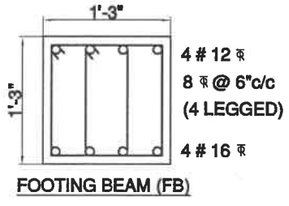
TYPICAL TIE DETAIL



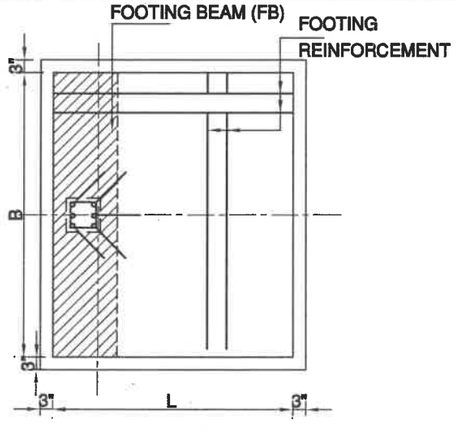
TYPICAL LINK DETAIL

NOTES:

* GRID NO. E'4 AND F2' COLUMNS TO BE RAISED ABOVE PLINTH LEVEL AND OTHER COLUMNS ARE STUB COLUMN TO BE TERMINATED AT PLINTH BEAM LEVEL

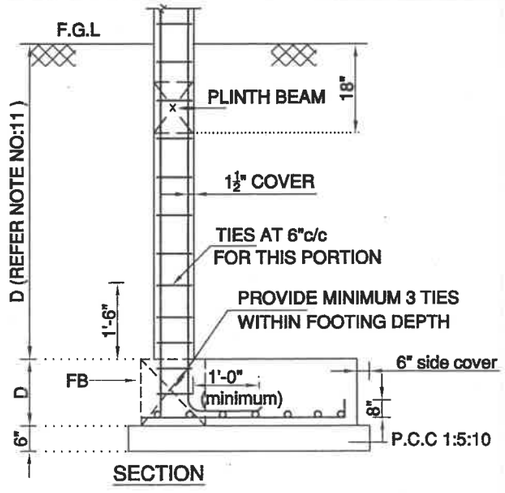


FOOTING BEAM (FB)



FOOTING BASE PLAN

TYPICAL ECCENTRIC FOOTING DETAILS



SECTION

NOTES :

1. THE DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT (MILD EXPOSURE)
   a) FOR FOOTINGS = 50 mm (ALL AROUND)
   b) FOR COLUMNS = 40 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 48 x DIA OF BAR.
7. ALL ISOLATED FOOTINGS SHALL BE CONCENTRIC WITH COLUMN UNLESS OTHERWISE SPECIFIED
8. GRADE OF CONCRETE IS M 20
9. GRADE OF REINFORCING STEEL IS Fe 415
10. ASSUMED SBC OF SOIL = 125 KN / Sqm.
11. MINIMUM DEPTH OF FOUNDATION = 2.0 m BELOW NGL
12. THIS STRUCTURE IS DESIGNED FOR G+ 1 FLOOR

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILITY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

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

STRUCTURAL ENGINEER

* ALL 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.

M/S SHRIRAM PROPERTIES

AT VALARPURAM, CHENNAI.

CLIENT:-

REFERENCE:

This Drg. is Prepared Based On The Source Drg.

1. Drg. no. wd-pl-af-026 Dt. 03.02.16 OF

NP

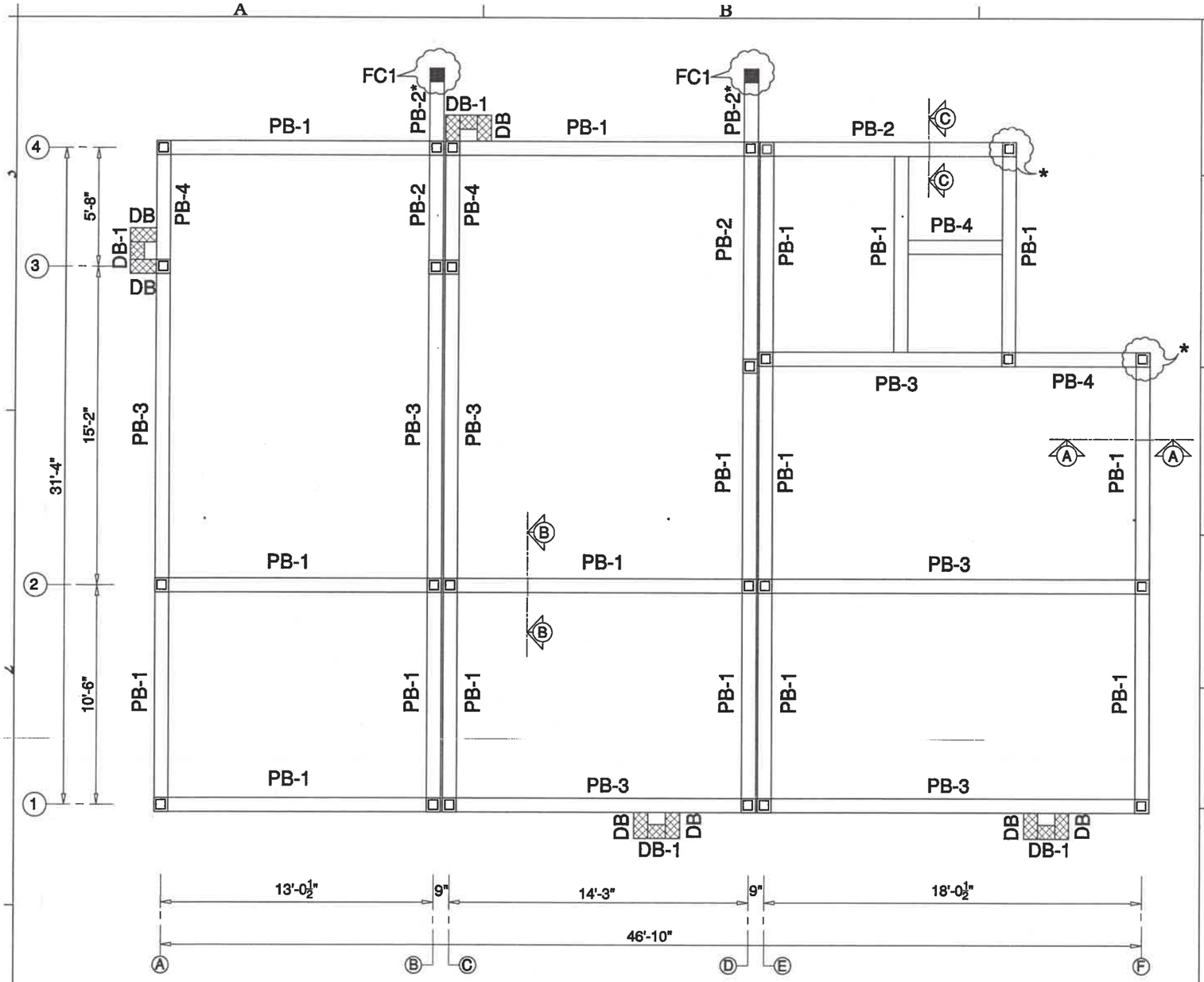
BUILDING: EWS CORE-4

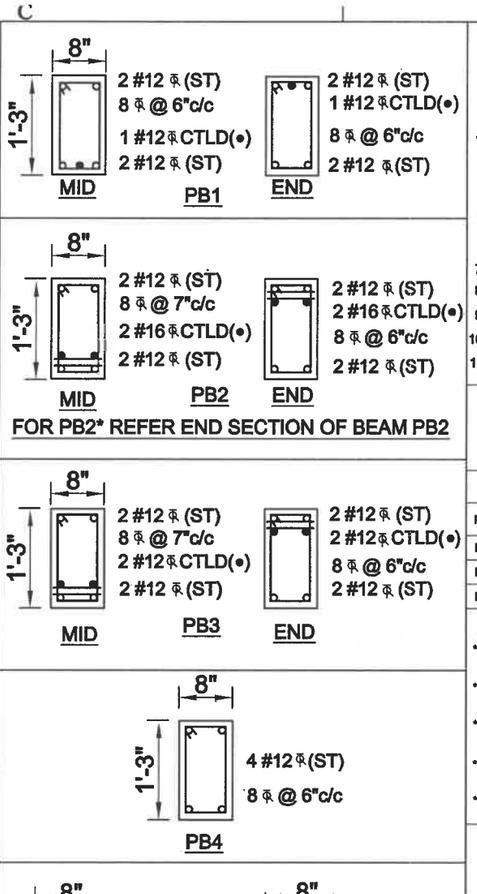
DETAIL: COLUMN & FOOTING RFT DETAIL

SCALE:	1"=6'-0"	JOB NO:	13-RMA-3A	REV	DRN BY: ALLEN
DATE:	21.12.15	DRG NO:	ST-CL-002		CKD BY: B.JAYARAM
		SHEET NO:	1		APD BY: S.M

sankar & associates
architecture . engineering . interior design
27, Senguptha Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

A3 - F





NOTES :

1. DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT(MILD EXPOSURE)
   a) FOR BEAMS = 25 mm
   b) FOR SLABS = 20 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 50 x DIA OF BAR.
7. PROVIDE CHAIR RODS WHEREVER NECESSARY
8. PROVIDE SPACER RODS OF 25mm Ø (min) AT 1000mm C/C
9. GRADE OF CONCRETE IS M 20
10. GRADE OF REINFORCING STEEL IS Fe 415
11. ALL THE LEVELS MENTIONED ARE FROM THE F.F.L. OF RESPECTIVE FLOOR

NOTE:

* GRID NO. E'4 AND F2' COLUMNS UPTO GROUND FLOOR ROOF.

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILITY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

S. MURUGESH, M.E.,FIE.,
Chartered Engineer F-1279323
Structural Engineer Grade-I
CMDA/SE/GR-I/2022/05/320
STRUCTURAL ENGINEER

* ALL 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.

M/S SHRIRAM PROPERTIES
AT VALARPURAM, CHENNAI.

CLIENT:-

REFERENCE:

This Drg. is Prepared Based On The Source Drg.

1. Drg. no. wd-pl-af-026 Dt. 03.02.16 OF

NP

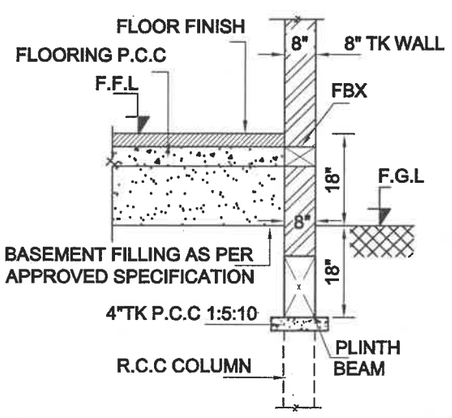
BUILDING: EWS CORE-4

DETAIL: PLINTH BEAM LAYOUT

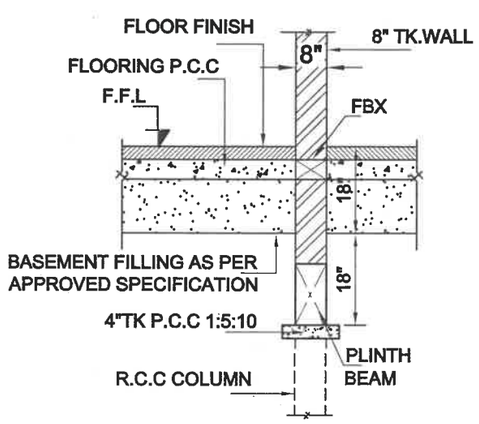
SCALE: 1"=6'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 23.12.15	DRG NO: ST-CL-002		CKD BY: B.JAYARAM
	SHEET NO: 3		APD BY: S.M

sankar & associates
architecture . engineering . interior design
27, Senguptha Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

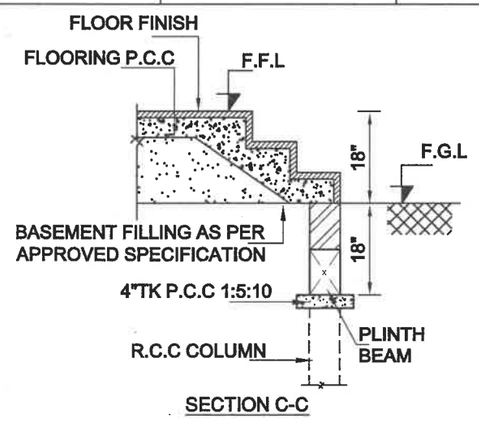
A3 - P



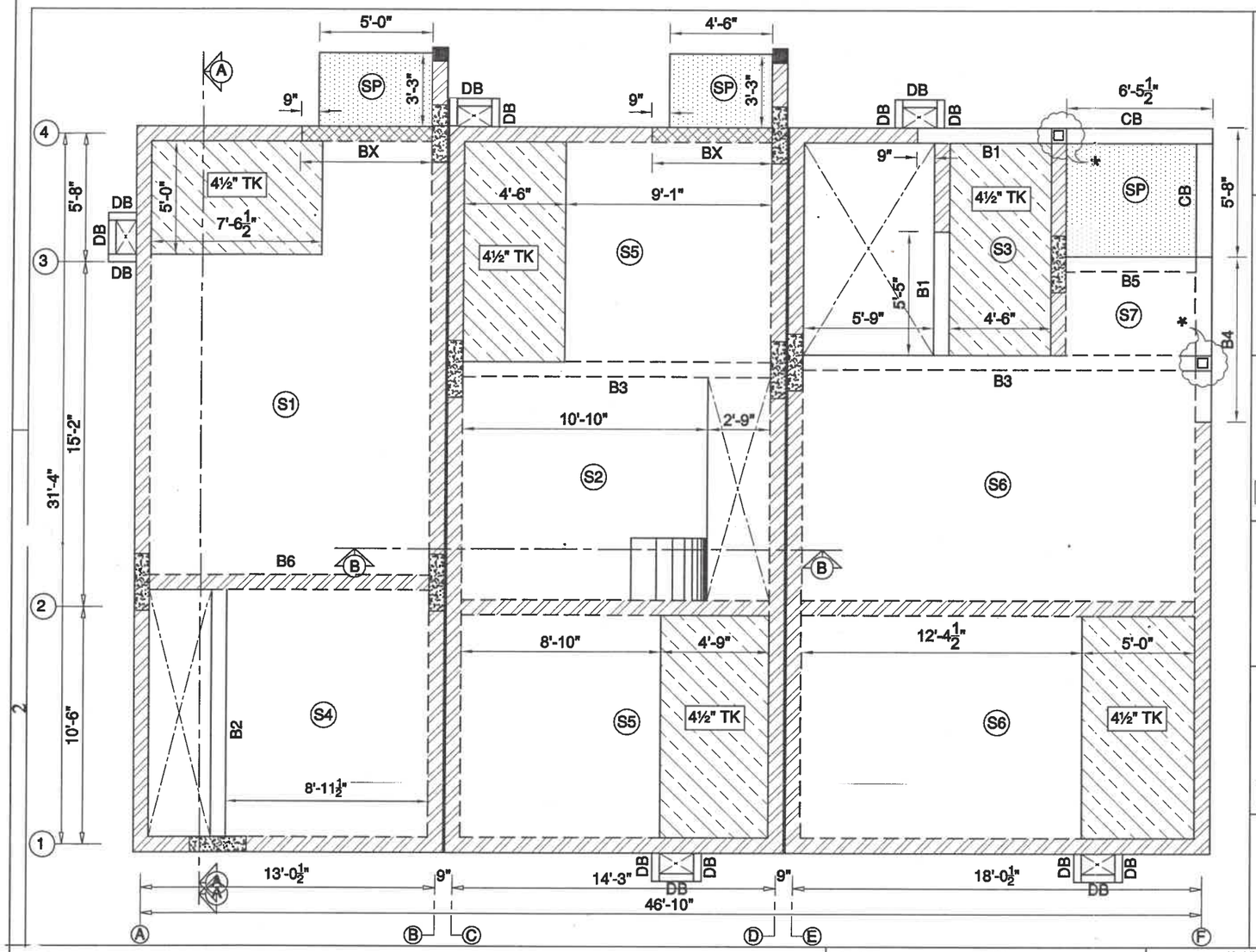
SECTION A-A

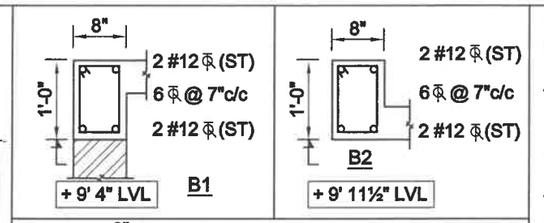


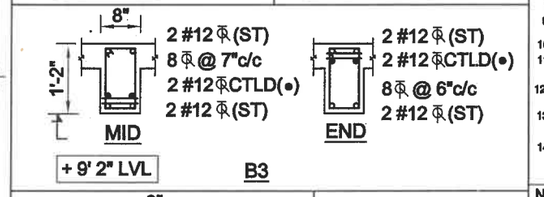
SECTION B-B

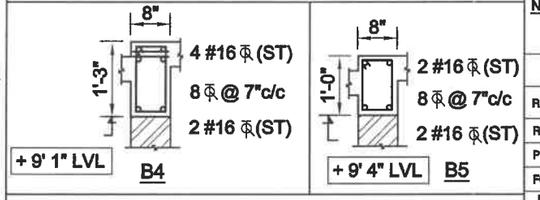


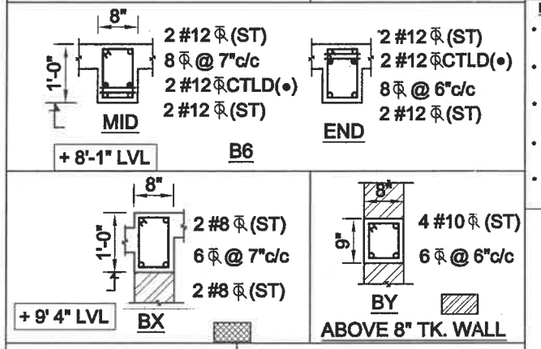
SECTION C-C

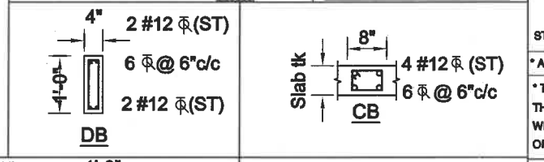


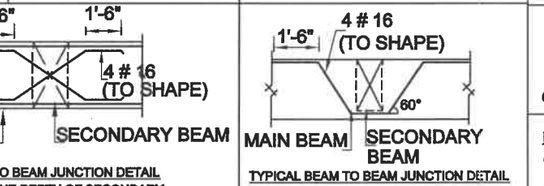


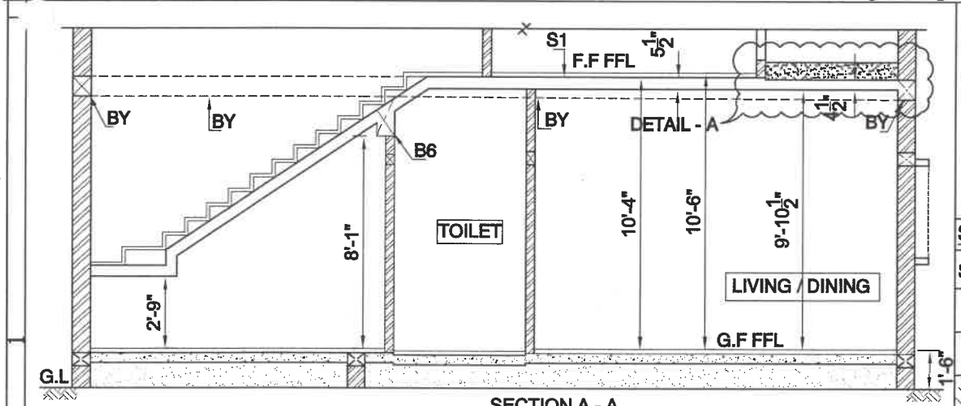




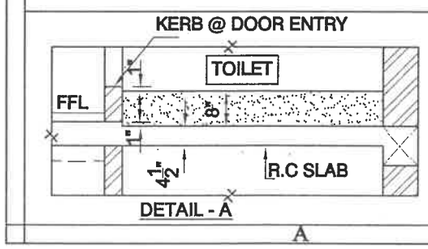




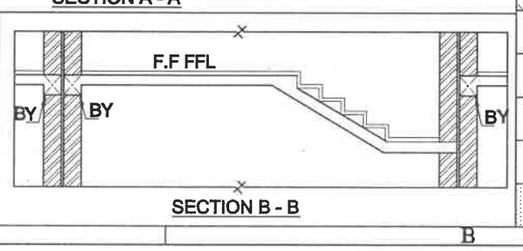




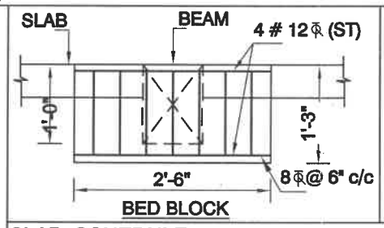
SECTION A - A



DETAIL - A



SECTION B - B



BED BLOCK

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 TK	SLAB BOTTOM LVL	SHORTER DIRECTION	LONGER DIRECTION
S1	5½"	+ 9' 10½"	8 ₹@ 5" C/C (alt crank)	8 ₹@ 7" C/C (straight)
S2	4½"	+ 9' 11½"	8 ₹@ 6" C/C (alt crank)	8 ₹@ 7" C/C (alt crank)
S3	4½"	+ 9' 10½"	8 ₹@ 7" C/C (alt crank)	8 ₹@ 7" C/C (straight)
S4	4½"	+ 9' 11½"	8 ₹@ 5" C/C (alt crank)	8 ₹@ 7" C/C (alt crank)
S5	5½"	+ 9' 10½"	8 ₹@ 7" C/C (alt crank)	8 ₹@ 7" C/C (straight)
S6	5½"	+ 9' 10½"	8 ₹@ 7" C/C (Top & Bottom)	8 ₹@ 7" C/C (Top & Bottom)
S7	4½"	+ 9' 11½"	8 ₹@ 7" C/C (Top & Bottom)	8 ₹@ 7" C/C (Top & Bottom)
SP	4½"	+ 9' 8½"	8 ₹@ 7" C/C (Top & Bottom)	8 ₹@ 7" C/C (Top & Bottom)

NOTES :

1. DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. ₹ DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT(MILD EXPOSURE)
   a) FOR BEAMS = 25 mm
   b) FOR SLABS = 20 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 50 x DIA OF BAR.
7. PROVIDE CHAIR RODS WHEREVER NECESSARY
8. PROVIDE SPACER RODS OF 25mm Ø (min) AT 1000mm C/C
9. GRADE OF CONCRETE IS M 20
10. GRADE OF REINFORCING STEEL IS Fe 415
11. ALL THE LEVELS MENTIONED ARE FROM THE F.F.L. OF THE RESPECTIVE FLOOR
12. FLOOR FINISH ALLOWANCE SHALL BE 50 / 75 mm FROM THE RAW SLAB AS PER SITE INSTRUCTIONS.
13. REINFORCEMENT FABRICATION SHOULD BE DONE AS PER STANDARD DUCTILE DETAIL PROVIDED VIDE DRG. No.
14. PROVISION OF CONDUITS / SLEEVES / CORECUTS TO BE PROVIDED AS PER SERVICE (ELECTRICAL / PLUMBING / HVAC) CONSULTANT'S DETAIL / DRAWINGS DULY APPROVED BY THE ARCHITECT / STRUCTURAL ENGINEER

NOTE:

* GRID NO. E'4 AND F2' COLUMNS UPTO GROUND FLOOR ROOF
* FOR ALL SLAB/DUCT PROJECTION REFER ARCHITECTURAL DRAWING.

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-

- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILTY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

S. MURUGESH, M.E.,FIE.,
Chartered Engineer F-1279323
Structural Engineer Grade-I
STRUCTURAL ENGINEER CMDA/SE/GR-I/2022/05/320

* ALL 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.

M/S SHRIRAM PROPERTIES

CLIENT:- AT VALARPURAM, CHENNAI.

REFERENCE:

This Drg. is Prepared Based On The Source Drg.

1. Drg. no. wd-pl-af-026 Dt. 03.02.16 OF

NP

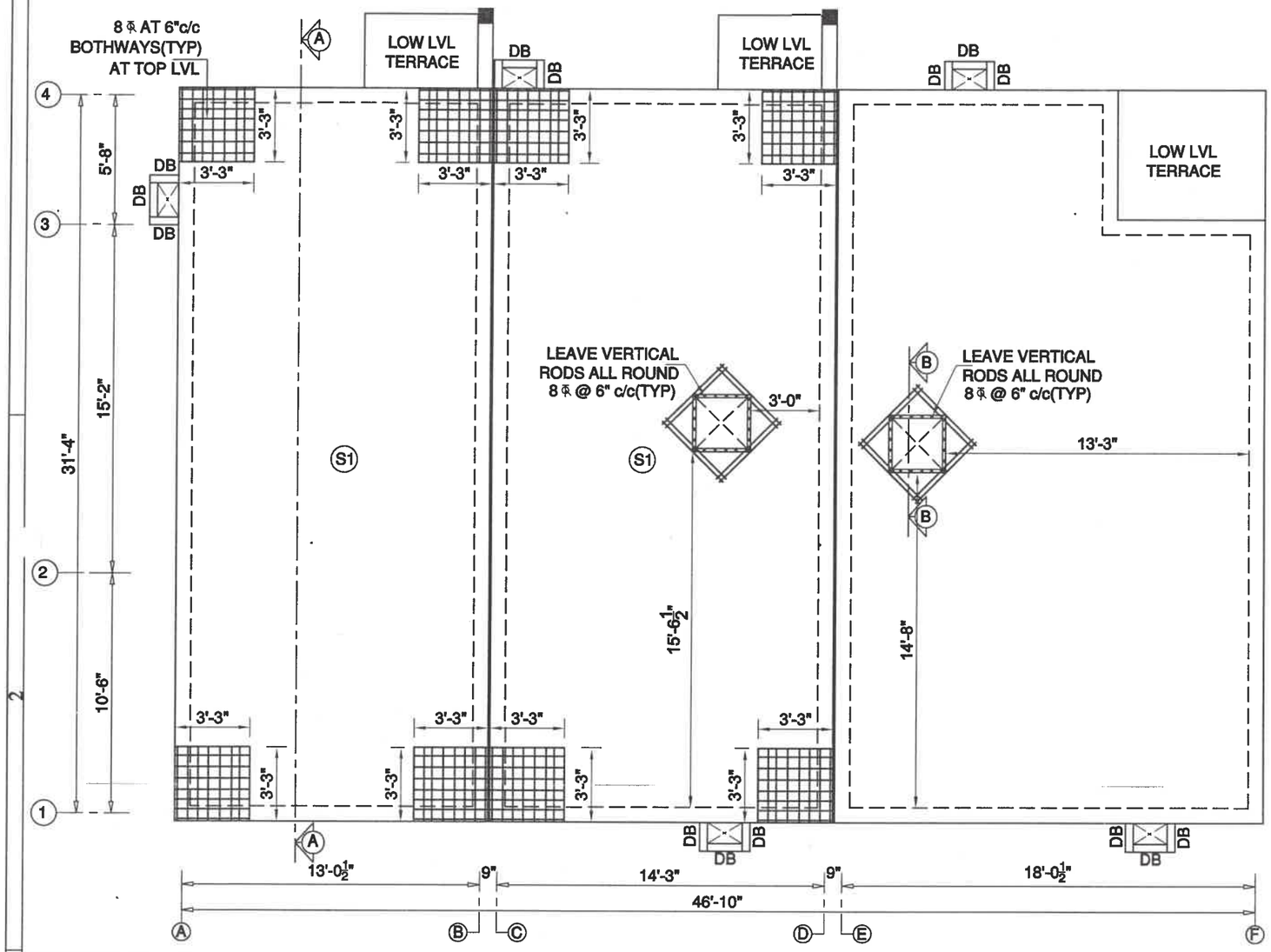
BUILDING: EWS CORE-4

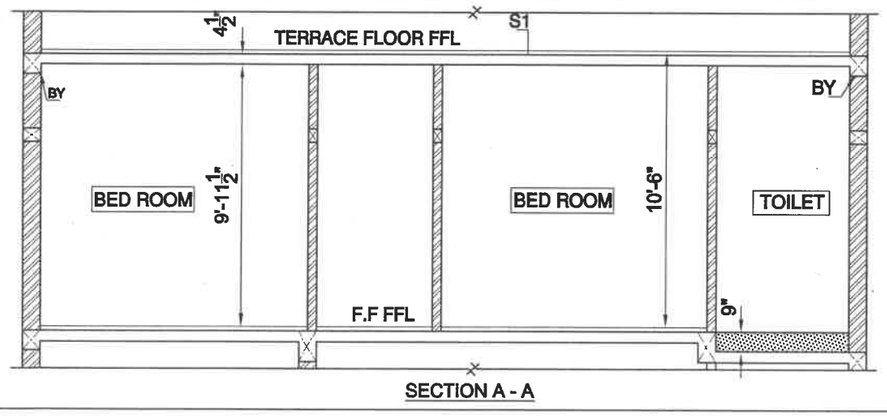
DETAIL: GROUND FLOOR ROOF BEAM & SLAB LAYOUT

SCALE: 1"=8'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 09.02.16	DRG NO: ST-CL-002		CKD BY: B.JAYARAM
	SHEET NO: 5		APD BY: S.M

sankar & associates
architecture . engineering . interior design
27, Senguptha Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

A3 - R

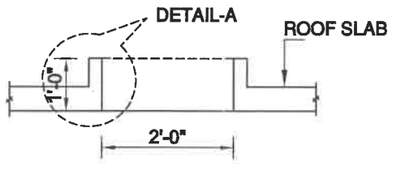




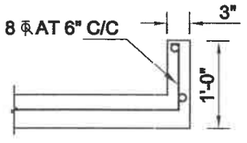
SECTION A - A

SLAB SCHEDULE:

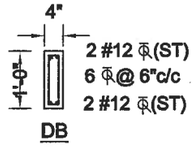
SLAB NO.	SLAB THICKNESS	SLAB BOTTOM LVL	SHORTER DIRECTION	LONGER DIRECTION
S1	4½"	+ 9' 11½"	10ϕ @ 5" C/C (alt crank)	8ϕ @ 7" C/C (straight)



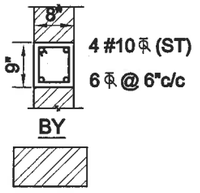
SECTION-BB



DETAIL-A

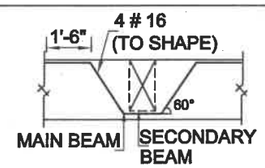


DB

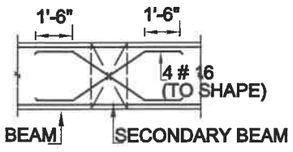


BY

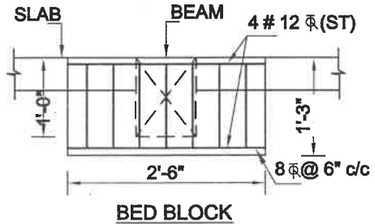
ABOVE 8" TK. WALL



TYPICAL BEAM TO BEAM JUNCTION DETAIL
WHERE THE DEPTH OF SECONDARY
BEAM IS LESS THAN MAIN BEAM)



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



BED BLOCK

NOTES :
1. DIMENSIONS ARE NOT TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE VERIFIED PROPERLY AT SITE.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
4. ϕ - DIA OF TOR STEEL
5. CLEAR COVER TO MAIN REINFORCEMENT(MILD EXPOSURE)
   a) FOR BEAMS = 25 mm
   b) FOR SLABS = 20 mm
6. LAPPING:
   a) LAP LENGTH SHALL BE = 50 x DIA OF BAR.
   b) DEVELOPMENT LENGTH SHALL BE = 50 x DIA OF BAR.
7. PROVIDE CHAIR RODS WHEREVER NECESSARY
8. PROVIDE SPACER RODS OF 25mm Ø (min) AT 1000mm C/C
9. GRADE OF CONCRETE IS M 20
10. GRADE OF REINFORCING STEEL IS Fe 415
11. ALL THE LEVELS MENTIONED ARE FROM THE F.F.L. OF THE RESPECTIVE FLOOR
12. FLOOR FINISH ALLOWANCE SHALL BE 50 / 75 mm FROM THE RAW SLAB AS PER SITE INSTRUCTIONS.
13. REINFORCEMENT FABRICATION SHOULD BE DONE AS PER STANDARD DUCTILE DETAIL PROVIDED VIDE DRG. No.
14. PROVISION OF CONDUITS / SLEEVES / CORECUTS TO BE PROVIDED AS PER SERVICE (ELECTRICAL / PLUMBING / HVAC) CONSULTANT'S DETAIL / DRAWINGS DULY APPROVED BY THE ARCHITECT / STRUCTURAL ENGINEER

NOTE:
* FOR ALL SLAB/DUCT PROJECTION REFER ARCHITECTURAL DRAWING.

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

RELEASE STATUS	DATE	SIGNATURE
PRELIMINARY/ TENDER		
FOR CONSTRUCTION		

IMPORTANT NOTES:-
- ONLY APPROVED DRAWINGS (i.e., SEALED AND DULY SIGNED AS GOOD FOR CONSTRUCTION) MUST BE USED FOR EXECUTION OF WORKS AT SITE.
- ANY DISCREPANCY IN THE DRAWING SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER.
- ANY MODIFICATION IN THE DESIGNER'S STRUCTURAL SYSTEM BEFORE/AFTER COMPLETION OF WORK SHALL BE IMMEDIATELY INTIMATED TO THE CONSULTANT
- CLIENT / BUILDER ENSURES THAT STRICT ADHERENCE TO THE GOOD CONSTRUCTION PRACTICE IS FOLLOWED AT SITE AS PER THE RELEVANT B.I.S. CODES.
- STRUCTURAL ENGINEER'S RESPONSIBILTY IS LIMITED TO DESIGNING & ISSUAL OF STRUCTURAL DRAWINGS ONLY

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

STRUCTURAL ENGINEER

* ALL 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.

M/S SHRIRAM PROPERTIES
AT VALARPURAM, CHENNAI.

CLIENT:-

REFERENCE:
This Drg. is Prepared Based On The Source Drg.
1. Drg. no. wd-pl-af-026 Dt. 03.02.16 OF

NP

BUILDING: EWS CORE-4

DETAIL: FIRST FLOOR ROOF BEAM & SLAB LAYOUT

SCALE: 1"=8'-0"	JOB NO: 13-RMA-3A	REV	DRN BY: ALLEN
DATE: 09.02.16	DRG NO: ST-CL-002		CKD BY: B.JAYARAM
	SHEET NO: 7		APD BY: S.M

sankar & associates
architecture . engineering . interior design
27, Senguptha Street, Ramnagar,
Coimbatore - 641009, India.
Phone : +91-422-2230890
Branch: 8, 34th Street, Near Pudhoor School,
Ashok Nagar, Chennai - 600 083
E-mail : admin@sankarassociates.in
Website : www.sankarassociates.in

A3 - R

THE LANDLENS SUITE

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

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

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

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

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

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

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

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

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

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

FREE TOOLS · NO ACCOUNT NEEDED

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

Records and verification

The registers themselves, read for you.

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

Value and duty

What it is worth and what it costs to register.

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

Zoning and land use

What the plan says can happen on this land.

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

Registers and directories

Who holds it, and which office keeps the record.

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

Every free tool
/tools

Services we run for you
/services

The LandLens suite
/landlens/one

Verified RealEstate™

Every claim in this document traces back to a government record.

- Legal opinions, due diligence and title verification
- Building plan, layout and sub-division approvals
- Completion and occupancy certificates, regularisation
- Escrow, negotiation and NRI property management
- Land survey, soil testing, architecture and construction

Verified RealEstate
3/350/2 Mettukuppam,
OMR Thoraipakkam,
Chennai 600 097, India
hello@verified.realestate
+91 9996 12 9996

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