

# DESIGN BASIS REPORT FOR CIVIL WORKS



- APPLICANT :** M/s.VISHWAKARMA BUILDERS ,
1. Site Details : Proposed Construction of Residential Building in Plot No.A-2, &A-3,S.NO.11/4 &11/5,Rangopanditha Agraharam Village,Onnalvadi PAnchayath, Hosur Tk. Krishnagiri Dt.
2. Location (Street number, Ward number Name of the Place, i.e. Corporation/ Municipality/ Panchayat Union/Township /Cantonment : Plot No.A-2, &A-3,S.NO.11/4 &11/5,Rangopanditha Agraharam Village,Onnalvadi PAnchayath, Hosur Tk. Krishnagiri Dt.
- Year of Construction : Proposed New building
3. Approximate Cost of Construction  
as per current rates :Rs. 1500/ Sft.  
Total Built up area :37009.77 Sft
4. Purpose for which the Building is being used for or proposed to be used : Residential Building
5. No. of Blocks : 1



## **1.0 GENERAL**

- 1.1** Introduction
- 1.2** Site Information

## **2.0 REFERENCES, CODES AND STANDARDS**

- 2.1** BIS Codes and References

## **3.0 LOADS AND LOAD COMBINATIONS**

- 3.1** Dead loads
- 3.2** Imposed Loads
- 3.3** Wind load
- 3.4** Seismic Loads
- 3.5** Earth Pressure Loads
- 3.6** Temperature Loads
- 3.7** Other Loads
- 3.8** Basis Load cases
- 3.9** Load Combinations

## **4.0 DESIGN CRITERIA**

- 4.1** Reinforced Concrete Structures
- 4.2** Foundation and Under ground structures
- 4.3** Paving / Grade slab
- 4.4** Plinth Protection

## **5.0 DAMP PROOFING**

## **6.0 WALLS**

- 6.1** Plastering
- 6.2** Cement mortar

## 1.0 GENERAL

### 1.1 Introduction

The proposed project is construction of RCC building for Rangopanditha Agraharam village and Onnalvadi Panchayat, Hosur Taluk, Krishnagiri Dt.

This document covers the applicable design codes and standards, specific design criteria, design loads and combinations, and recommended design characteristics of construction materials to be used for the civil works associated with the material handling system in this project. The mean probable design life of structure is assumed as 100 years as per Table 1 of IS 875 (part 3) - 2015.

### 1.2 SITE INFORMATION

#### 1.2.1 Site Location

The plant site is located in Rangopanditha Agraharam village and Onnalvadi Panchayat, Hosur Taluk, Krishnagiri Dt. The proposed location is well connected with National highway. The nearest airport is Bengaluru International airport and the nearest railway station is Hosur railway station.

#### 1.2.3 Soil Condition and Ground Water Level

The detailed Geotechnical Investigation is carried out in the proposed area by the Owner M/S Vishwakarma Builders and based on the borelog data furnished at building locations, the soil strata at site can be generalized as having three layers: Medium to fine sandy soil on top followed by clay/sandy clay/silt and then rock. Top sandy layer extended about 4 to 7m depth, followed by clay/sandy clay and then rock. The entire site has the same soil layers throughout.

From the soil investigation report, isolated foundation is recommended.

However, the type of foundation may change during detailed Engineering as per the design requirement.

The water table will be considered up to the Finish grade level for the design purpose.

#### 1.2.4 Seismic Location

The project site lies in **Zone III** as defined in IS: 1893 (Part 1). All the structures will be designed complying with the requirements specified in IS: 1893 (Part-1) and IS: 1893(Part 4).

#### 1.2.5 Wind Pressure

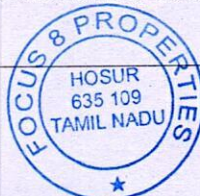
Wind force on structures will be considered as per the provisions of IS: 875-2015 (Part-3). The basic wind speed of **39m/sec** at a height of 10m above the ground level and wind will be assumed to blow in any direction and the most unfavourable condition will be considered for design.

## 2.0 REFERENCES, CODES AND STANDARDS

The design will be developed on the basis of the latest standard codes and documents listed below.

### 2.1 BIS CODES AND REFERENCES

The analysis, design and construction for civil works will be in accordance with the BIS codes/standards or equivalent International codes, applicable at the time of design.



All the Bureau of Indian Standards referred to will be the latest revision (including all amendments issued thereto).

Where British / American / DIN or other codes and standards are referred to in this document, equivalent Indian Standards will be substituted if available.

### 2.1.1 Earthwork

- a) IS-1498 : Classification and identification of soils for General Engineering purposes.
- b) IS-3764 : Safety Code for excavation work.
- c) IS-7293 : Safety Code for working with construction machinery.

### 2.1.2 Reinforced Cement Concrete

- a) IS-269 : Specification for 33 grade ordinary Portland cement.
- b) IS-383 : Coarse and fine aggregate from natural sources for concrete.
- c) IS-432 : Mild Steel and medium tensile steel bars and hard drawn steel wire for concrete reinforcement.
- d) IS-455 : Portland Slag Cement.
- e) IS-456 : Code of Practice for Plain and reinforced concrete.
- f) IS-460 : Test Sieves (all parts).
- g) IS-516 : Methods of test for strength of concrete.
- h) IS-1199 : Methods of sampling and analysis of concrete.
- i) IS-1566 : Hard drawn steel wire fabric for concrete Reinforcement.
- j) IS-1786 : High strength deformed steel bars and wires for concrete reinforcement.
- k) IS-1834 : Hot applied sealing compounds for joints in concrete.
- l) IS-2386 : Methods of test for aggregates for concrete (all parts).
- m) IS-2502 : Code of practice for bending and fixing of bars for concrete reinforcement.
- n) IS-3370 : Code of practice for concrete structures for storage of liquids (all parts).
- o) IS-3414 : Code of practice for design and installation of joints in buildings.
- p) IS-4948 : Welded steel wire fabrics for general use.
- q) IS-6452 : High Alumina Cement for Structural use.
- r) IS-7320 : Concrete slump test apparatus.
- s) IS-7861 : Code of practice for extreme weather concreting (all parts).
- t) IS-8041 : Rapid Hardening Portland Cement.
- u) IS-8112 : Specification for 43 grade ordinary Portland cement.
- v) IS-10262 : Recommended guidelines for concrete mix design.



- w) IS-11384 : Code of practice for composite construction in structural steel and concrete.
- x) IS-11682 : Criteria for design of RCC staging for overhead water tanks.
- y) IS-13920 : Code of practice for ductile detailing of reinforced concrete structures subjected to seismic forces.

#### 2.1.3 Foundations

- a) IS-1080 : Code of practice for design and construction of shallow foundation on soils (other than raft, ring and shell).
- a) IS-1904 : Code of practice for design and construction of foundations in soils general requirement.
- b) IS-2950 : Code of practice for design and construction of raft foundations.
- c) IS-2974 : Code of practice for design and construction of Machine foundations (all parts).
- d) IS-8009 : Code of practice for calculation of settlement of foundations (all parts)
- e) IS-11089 : Code of practice for design and construction of ring foundation.
- f) IS-13301 : Guidelines for vibrations isolation of machine foundations.
- g) IS-2911 : Code of practice for design and construction of Pile foundations  
(all parts)

#### 2.1.4 Loading

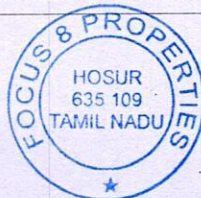
- a) IS-875 : Code of practice for Structural safety of buildings - loading standards.
- c) IS-1893 : Criteria for earthquake resistant design of structures.

#### 2.1.5 Masonry

- a) IS-712 : Building limes.
- b) IS-2572 : Specification for Laterite stone block for Masonry.
- c) IS-2185 : Concrete masonry units.  
(all parts - Hollow and Solid concrete blocks).
- d) IS-2250 : Code of practice for preparation and use of masonry mortars.
- e) IS-2572 : Code of practice for construction of hollow & solid concrete block masonry.
- f) IS-4860 : Acid Resistant Bricks.

#### 2.1.6 Soil Engineering

- a) IS-1498 : Classification and identification of soils for general engineering purposes.
- b) IS-1892 : Code of practice for sub-surface investigation for foundations.
- c) IS-2131 : Method for standard penetration test for soils.
- d) IS-2720 : Methods of test for soils (all parts).



### 2.1.7 Paving and Road works

- a) IS-73 : Paving bitumen
- b) IS-702 : Industrial Bitumen
- c) IS-1201 : Method of testing tar and bituminous materials. thru' 1220
- d) Practice followed by Indian Road Congress (all parts).

### 2.1.8 Miscellaneous

- a) IRC-37 : Guidelines for design of flexible pavements.
- b) IRC-73 : Geometric design of roads.
- c) IS-1038 : Specification for Steel doors, windows and ventilators.
- d) IS-1172 : Code of basic requirements for water supply, drainage and sanitation.
- e) IS-1346 : Code of practice for water proofing of roofs with bitumen felts.
- f) IS-1742 : Code of practice for building drainage.
- g) IS-1905 : Code of practice for structural use of unreinforced masonry.
- h) IS-2470 : Code of practice for installation of septictank:
  - 1. Part 1 – Design criteria and construction
  - 2. Part 2 – Secondary treatment and disposal of septic tank effluent.
- i) IS-3067 : Code of practice for general design details and preparatory works for damp proofing and water proofing of buildings.
- j) SP-6 : Handbook of structural engineers(all parts)
- k) SP-7 : National Building Code of India.
- l) SP-16 : Design Aids for reinforced concrete to IS: 456-1978.
- m) SP-20 : Handbook on masonry design and construction.
- n) SP-22 : Explanatory Handbook on codes on earthquake engineering.
- o) SP-24 : Explanatory Handbook on Indian Standard code of practice – For plain and reinforced concrete.
- p) SP-25 : Handbook on causes and prevention of cracks in buildings.
- q) SP-32 : Handbook on functional requirements of industrial buildings (Lighting and Ventilation)
- r) SP-34 : Handbook of concrete reinforcement and detailing.

### 3.0 LOADS AND LOAD COMBINATIONS

The building will be designed for the most critical combinations of dead loads, Imposed loads, wind loads, seismic loads, temperature loads and any other loading condition which can occur during the design life of the facility.

#### 3.1 DEAD LOADS (DL)

Dead loads consist of the weights of the structure complete with floors, roofs, finishes, fixtures, partitions, wall panels, etc.

The following unit weight of material will be considered for computation of loads. Loads given in IS: 875 (part-I) will be made use of for material not listed below.

| Materials                  | Unit weight              |
|----------------------------|--------------------------|
| Plain cement concrete      | 24 kN/m <sup>3</sup>     |
| Reinforced cement concrete | 25 kN /m <sup>3</sup>    |
| Density of Soil            | 16.09 kN /m <sup>3</sup> |
| Structural steel           | 78.5 kN /m <sup>3</sup>  |
| Cement plaster             | 21 kN /m <sup>3</sup>    |
| Floor Finish               | 24 kN /m <sup>3</sup>    |

Following will be considered for evaluation of dead loads:

- ☐ Load of RCC slab wherever concrete floors are provided
- ☐ A uniform floor finish of 75 mm laid over RCC Slab
- ☐ Other area flooring will consist of removable grating/chequered plate
- ☐ Beams & Columns as per actual size
- ☐ Wall cladding loads.
- ☐ Self weight of supporting structure/facilities

The vertical and lateral pressures of liquids and soil surcharge will be treated as dead loads.

#### 3.2 IMPOSED LOADS (IL)

Imposed loads are considered as uniformly distributed loads. The loads considered shall not be less than that specified in IS: 875 (Part II).

- a) Stairs, Landings, Balconies and Corridors : 4.0 kN/m<sup>2</sup>
- b) RCC floors of Junction towers : 5.0 kN/m<sup>2</sup>
- c) Toilets : 3.0 kN/m<sup>2</sup>
- d) Roof : 1.5 kN/m<sup>2</sup>

Live loads reduction shall be in accordance with the provisions of IS: 875 & IS: 1893 in case of seismic analysis.

#### 3.3 WIND LOAD

The building will be designed to resist the pressures due to wind in any direction in accordance with IS: 875 (Part-3) and as specified in this document.

The evaluation of the design wind speed and pressures will be made on the basis of the following parameters:

As per IS 875 (Part – 3) the basic wind speed ( $V_b$ ) at the proposed site location shall be considered as 39 m/sec at a height of 10m above general ground/graded level for design.

Design wind pressure will be calculated as per latest IS 875 (Part – 3):2015.

Risk coefficient, K1 from Table 1 of IS 875(Part-3):2015 shall be taken as 1.06.  
Terrain will be considered as Category 2, and factor K2 will vary with height and referred from Table 2.  
Topographic factor K3 shall be taken as unity.  
Importance factor K4 shall be taken as one.

Design wind speed  $V_z = V_b \times K_1 \times K_2 \times K_3 \times K_4$  and corresponding wind pressure  $P_z = 0.6V_z^2$ .

Design wind pressure  $P_d = K_d \times K_a \times K_c \times P_z$

Where, Wind directionality factor,  $K_d$  is considered as 0.9.  
Area averaging factor,  $K_a$  is considered as per Table 4.  
Combination factor,  $K_c$  is considered as 0.9.

The Wind analysis shall consider the wind direction relative to the structure and both external and internal pressures as applied to the windward and leeward sides of the structure.

### 3.4 SEISMIC LOADS

All buildings will be designed for earthquake loads considering the Importance Factor and Response Spectra as per IS: 1893 (Part-4) -2005, to compute the base shear coefficient.

The non-plant buildings of generally regular configuration seismic forces and distribution of base shear will be carried out as per relevant clauses of IS 1893 without performing dynamic analysis.

### 3.5 EARTH PRESSURE LOADS

Earth pressure means the horizontal pressure of the soil acting on the underground structure and foundation. Earth pressure for all underground structures will be calculated using coefficient of earth pressure at rest, coefficient of active or passive earth pressure (whichever is applicable). A surcharge load of 20kN/m<sup>2</sup> will be considered for the design of underground structures including sumps, cable and pipe trenches etc to take into the vehicular traffic in the vicinity of the structure wherever required.

The earth pressure including the surcharge load will be calculated as follows:

$$p = K (h + q)$$

Where,

- = Unit soil weight (kN/m<sup>3</sup>)
- $h$  = position of earth pressure  $p_0$  from ground surface (m)
- $q$  = surcharge load (kN/m<sup>2</sup>)
- $K$  = Earth pressure coefficient
- $K_a$  =  $\tan^2 (45^\circ - \Phi/2)$  for active earth pressure
- $K_p$  =  $\tan^2 (45^\circ + \Phi/2)$  for passive earth pressure
- $K_o$  =  $1 - \sin(\Phi)$  for earth pressure at rest

Where,  $\Phi$  is the internal friction angle which is considered as 31' from soil report.

For design of substructure of pump house and underground liquid storage tanks earth pressure at rest will be considered.

### 3.6 TEMPERATURE LOADS

All RCC buildings will be provided with expansion joints if so required as per codal requirements. Hence as per clause 2.1 of IS:875 (Part-5)-1987 stress analysis due to temperature is not required.

### 3.9 OTHER LOADS

Apart from the specified live loads any other equipment load or possible overloading during construction / erection / maintenance will also be considered in the design.  
Design of all structures will also consider any other relevant and consequential load / stress imparted to the structure.  
All building/structures will be designed to resist the worst combination of the above loads.

### 3.10 BASIC LOAD CASES

For Design of RCC Buildings and Foundations

|                           |       |
|---------------------------|-------|
| DEAD LOAD                 | DL    |
| IMPOSED LOAD              | LL    |
| WIND LOAD IN +X DIRECTION | W(+X) |
| WIND LOAD IN -X DIRECTION | W(-X) |
| WIND LOAD IN +Z DIRECTION | W(+Z) |
| WIND LOAD IN -Z DIRECTION | W(-Z) |
| SEISMIC LOAD IN X DIR     | SLX   |
| SEISMIC LOAD IN Z DIR     | SLZ   |

### 3.11 LOAD COMBINATIONS

The load combinations are taken as per IS: 875 (part-V) and other relevant IS codes and as below;

- Wind and seismic loads will not be considered to act simultaneously.
- Load combinations to be considered for the design of RCC building superstructure and substructure are given below:
  - 1.5 DL + 1.5 LL
  - 1.5 DL  $\pm$  1.5 WLX
  - 1.5 DL  $\pm$  1.5 WLZ
  - 1.2 DL + 1.2 LL  $\pm$  1.2 WLX
  - 1.2 DL + 1.2 LL  $\pm$  1.2 WLZ
  - 1.5 DL  $\pm$  1.5 SLX
  - 1.5 DL  $\pm$  1.5 SLZ
  - 1.2 DL+1.2 LL  $\pm$  1.2 SLX
  - 1.2 DL+1.2 LL  $\pm$  1.2 SLZ
  - 0.9 DL  $\pm$  1.5 WLX
  - 0.9 DL  $\pm$  1.5 WLZ
  - 0.9 DL  $\pm$  1.5 SLX
  - 0.9 DL  $\pm$  1.5 SLZ
- Serviceability Load combinations for RCC structures
  - DL + LL
  - DL + LL  $\pm$  WLX
  - DL + LL  $\pm$  WLZ
  - DL + LL  $\pm$  SLZ
  - DL + LL  $\pm$  SLX
  - DL  $\pm$  SLX
  - DL  $\pm$  SLZ
  - DL  $\pm$  WLX
  - DL  $\pm$  WLZ
  - 0.9 DL  $\pm$  SLX
  - 0.9 DL  $\pm$  SLZ
  - 0.9 DL  $\pm$  WLX

13. 0.9 DL  $\pm$  WLZ

#### 4.0 DESIGN CRITERIA

The structure will be analysed as framed structure using 'STAAD PRO' for the loads and their combinations specified in the above section. The design will be done using STAAD PRO or validated in-house software or spreadsheets.

#### 4.1 REINFORCED CONCRETE STRUCTURES

##### General

Reinforced concrete structures will be moment resisting frames along both longitudinal & transverse directions. The suspended slab will be considered as continuous over secondary beam and will not form part of the framing system. RCC structures/members will be designed as per the provisions of IS: 456 using limit state method, unless use of working stress method is specifically mentioned elsewhere in this document.

Ductile detailing will be provided for reinforced concrete structures as per IS 13920.

Design strength of materials and design loads will be calculated using appropriate partial safety factors over characteristic strength and characteristic loads as per IS: 456.

Deflection criteria will be in accordance with IS: 456.

The Minimum grade of concrete for various structures will be as follows:

- i) M-30 : All RCC members in superstructure, foundations including pile foundations, substructures, storm water drain, Trenches, grade slab, paving and all water retaining structures.
- ii) M-20 : Plinth protection work.
- iii) M-15 : 100 THK. PCC below foundations, pilecap, base slab, grade slab and mass filling.

However the minimum grade of concrete will be increased to the next higher grade based on the design requirement.

Minimum cement content, maximum water cement ratio and minimum grade of concrete will be considered for severe exposure condition as per IS: 456-2000 for structures not mentioned above.

Reinforcement steel will be CRS TMT bars of grade Fe 500D conforming to IS: 1786.

Minimum cover to reinforcement will be as per IS: 456-2000. Minimum fire rating of 2 hours will be considered where fire hazard is expected and accordingly minimum cover will be increased if required to meet the requirements as per Table 16A of IS: 456-2000 and are listed below.

| Sl.No. | ITEM                         | TOP (mm) | BOTTOM (mm) | SIDE (mm) |
|--------|------------------------------|----------|-------------|-----------|
| 1      | Footings (Raft and Isolated) | 50       | 50          | 50        |
| 3      | Grade beam                   | 45       | 45          | 45        |
| 4      | Grade slab                   | 30       | 35          | -         |
| 5      | Columns and Pedastals        | 45       | 45          | 45        |
| 6      | Beams above ground level     | 45       | 45          | 45        |
| 7      | Lintel beams                 | 25       | 25          | 25        |
| 8      | RCC slabs and staircases     | 30       | 30          | 30        |

The following minimum thickness of structural elements will be followed:

|     |                                           |                |
|-----|-------------------------------------------|----------------|
| i)  | Floor slabs                               | : 150mm        |
| iv) | All footings (including raft foundations) | : 300mm        |
| v)  | Parapets                                  | : 100mm        |
| vi) | Sunshades                                 | : 75mm at edge |

#### 4.8 PLINTH PROTECTION

All buildings will be provided with 750 mm wide and 75mm thick plain cement concrete M 20 paving all around on the outside. The plinth protection will be laid over prepared sub-grade and base formed with 100 mm thick compacted sand bed with broken bricks, or rubble laid to a thickness of 75 mm. RCC peripheral drains by the side of plinth protection for catering the storm water from roofs and adjacent area will be provided.

#### 5.0 DAMP PROOFING

Damp proof course in a thickness of 50mm and consisting of cement concrete 1:1.5:3 with admixture of approved water proofing compound will be provided at plinth level for masonry walls in super structure.

#### 6.0 WALLS

All walls will be Laterite stone walls in accordance with IS:2572 and other relevant IS codes as applicable.

All external masonry walls shall be 230mm thickness except for fire walls. All walls will be non-load bearing infilled panel walls.

All internal and partition walls shall be 100mm thickness solid block masonry.

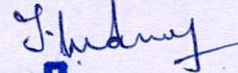
#### 6.1 Plastering

- 12mm thick cement plaster in 1:4 on internal faces of all walls.
- 18mm thick sand face plaster in 1:6 in two coats on all external faces of walls.
- 6mm thick plaster in 1:3 in ceiling.

#### 6.2 Cement mortar

All masonry work will be constructed in cement sand mortar 1:6 cement sand mortar, 100thk partition walls which will be constructed in 1:4 cement sand mortar with two numbers of 6mm diameter MS bars provided at every fourth course properly anchored with cross walls or columns.

Signature of Structural Engineer



**Focus8 PROPERTIES**

**Er. J. ANAND SUBASH, M.Tech (Structures)**

**Consulting Civil Engineer & Contractor**

Govt. Regd. Engineer Grade -1, (RE), HNTDA No. 03/2019.

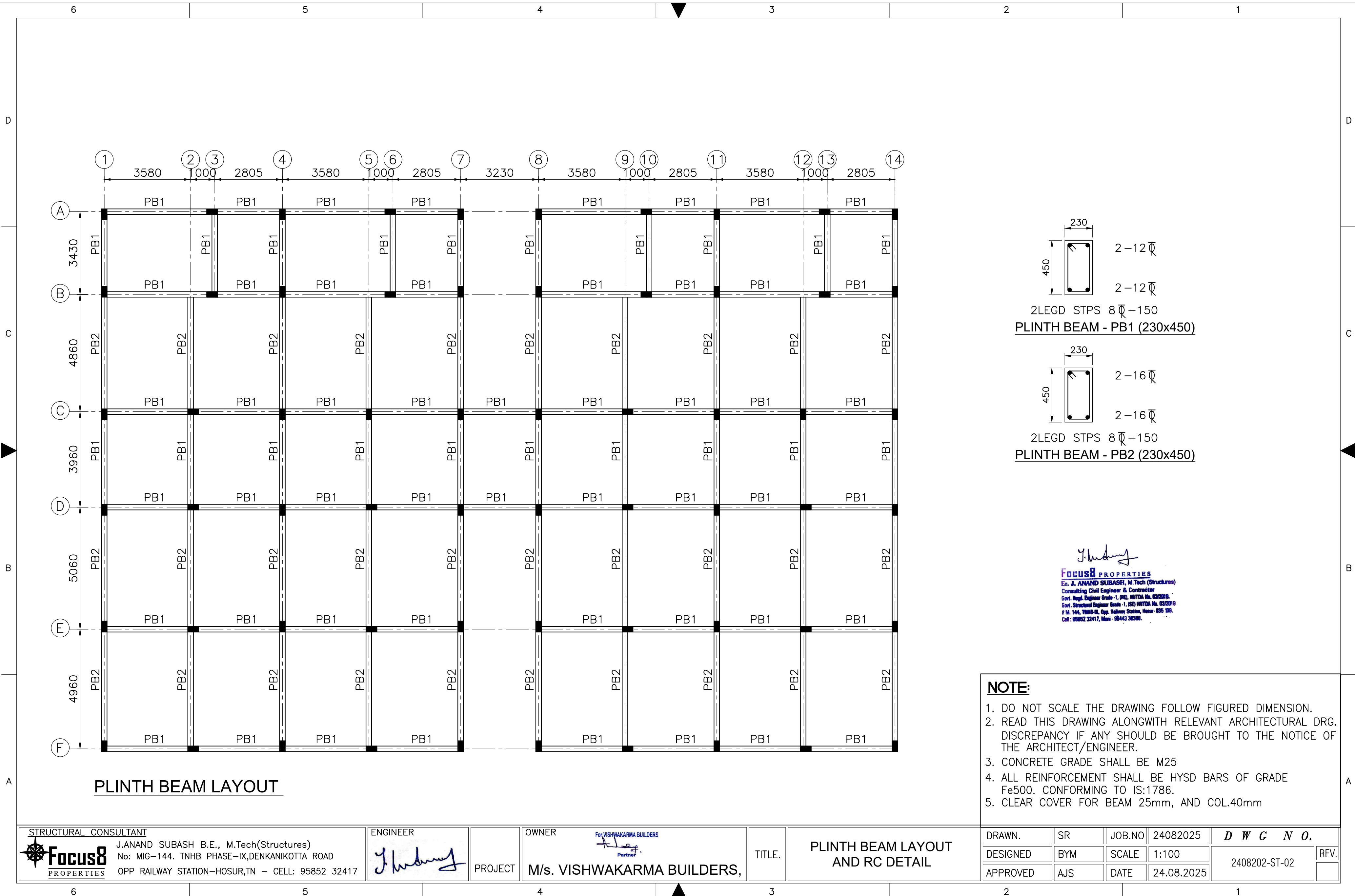
Govt. Structural Engineer Grade -1, (SE) HNTDA No. 03/2019.

# M. 144, TN-8-IX, Opp. Railway Station, Hosur - 6

Cell - 95852 32417, Mob - 99443 36388.





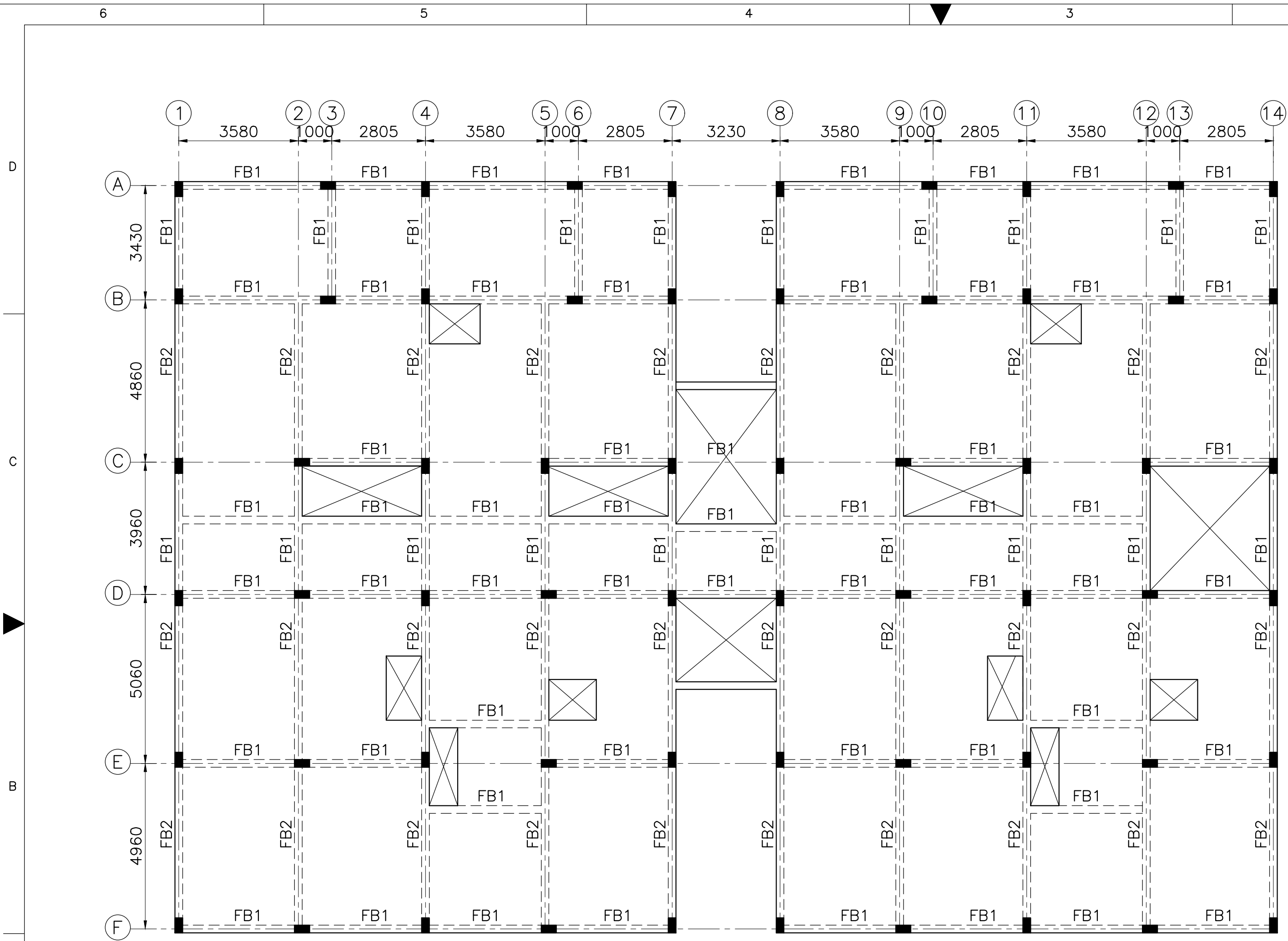


PLINTH BEAM LAYOUT

- NOTE:**
- DO NOT SCALE THE DRAWING FOLLOW FIGURED DIMENSION.
  - READ THIS DRAWING ALONGWITH RELEVANT ARCHITECTURAL DRG. DISCREPANCY IF ANY SHOULD BE BROUGHT TO THE NOTICE OF THE ARCHITECT/ENGINEER.
  - CONCRETE GRADE SHALL BE M25
  - ALL REINFORCEMENT SHALL BE HYSD BARS OF GRADE Fe500. CONFORMING TO IS:1786.
  - CLEAR COVER FOR BEAM 25mm, AND COL.40mm

*J. Anand Subash*  
**Focus8 PROPERTIES**  
Er. J. ANAND SUBASH, M.Tech (Structures)  
Consulting Civil Engineer & Contractor  
Govt. Regd. Engineer Grade - I, (RE), HMTDA No. 03/2019,  
Govt. Structural Engineer Grade - I, (SE) HMTDA No. 03/2019  
# M. 144, THIRU-26, Opp. Railway Station, Hosur - 550 010.  
Cell : 95852 32417, Home - 98443 36388.

|                                                                                                                                                                                                     |  |                                    |                                                                                                                          |                                                   |                                |                  |                         |                                 |                                                           |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------|------------------|-------------------------|---------------------------------|-----------------------------------------------------------|--|
| STRUCTURAL CONSULTANT<br><b>Focus8 PROPERTIES</b><br>J. ANAND SUBASH B.E., M.Tech(Structures)<br>No: MIG-144. TNHB PHASE-IX, DENKANIKOTTA ROAD<br>OPP RAILWAY STATION-HOSUR, TN - CELL: 95852 32417 |  | ENGINEER<br><i>J. Anand Subash</i> | OWNER<br>For <b>VISHWAKARMA BUILDERS</b><br><i>V. Lakshmi</i><br>Partner<br>PROJECT<br><b>M/s. VISHWAKARMA BUILDERS,</b> | TITLE.<br><b>PLINTH BEAM LAYOUT AND RC DETAIL</b> | DRAWN.<br>DESIGNED<br>APPROVED | SR<br>BYM<br>AJS | JOB.NO<br>SCALE<br>DATE | 24082025<br>1:100<br>24.08.2025 | <b>D W G N O.</b><br>2408202-ST-02<br>REV.<br><div></div> |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------|------------------|-------------------------|---------------------------------|-----------------------------------------------------------|--|



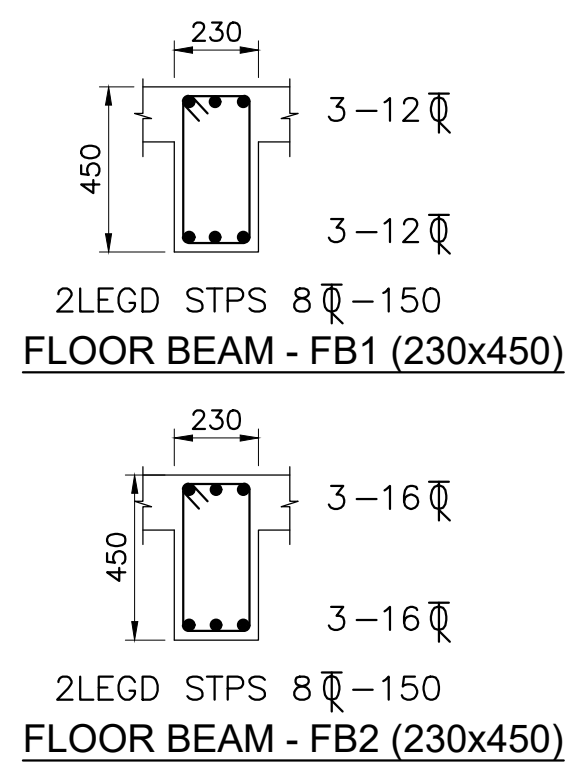
**TYPICAL FLOOR BEAM LAYOUT**  
ALL SLABS ARE 150THK

**SLAB BOTTOM REINFORCEMENT DETAIL**

| LONGER DIRECTION | SHORTER DIRECTION |
|------------------|-------------------|
| 8 $\Phi$ -175    | 8 $\Phi$ -175     |

**SLAB TOP REINFORCEMENT DETAIL**

| LONGER DIRECTION | SHORTER DIRECTION |
|------------------|-------------------|
| 8 $\Phi$ -250    | 8 $\Phi$ -250     |



**Focus8 PROPERTIES**  
Er. J. ANAND SUBASH, M.Tech (Structures)  
Consulting Civil Engineer & Contractor  
Govt. Regd. Engineer Grade -1, (RE), HNTDA No. 03/2019,  
Govt. Structural Engineer Grade -1, (SE) HNTDA No. 03/2019  
# M. 144, TNHB-IX, Opp. Railway Station, Hosur - 635 109.  
Cell : 95852 32417, Mani - 98443 36388.

**NOTE:**

- DO NOT SCALE THE DRAWING FOLLOW FIGURED DIMENSION.
- READ THIS DRAWING ALONGWITH RELEVANT ARCHITECTURAL DRG. DISCREPANCY IF ANY SHOULD BE BROUGHT TO THE NOTICE OF THE ARCHITECT/ENGINEER.
- CONCRETE GRADE SHALL BE M25
- ALL REINFORCEMENT SHALL BE HYSD BARS OF GRADE Fe500. CONFORMING TO IS:1786.
- CLEAR COVER FOR BEAM-25mm, AND SLAB-20mm

|                                                                                                                                                                                                         |     |                     |                                                                                              |                                                          |                                                                                                                                                                                                                                                                                    |        |    |        |          |                                    |          |     |       |       |          |     |      |            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----|--------|----------|------------------------------------|----------|-----|-------|-------|----------|-----|------|------------|
| <b>STRUCTURAL CONSULTANT</b><br><b>Focus8 PROPERTIES</b><br>J.ANAND SUBASH B.E., M.Tech(Structures)<br>No: MIG-144. TNHB PHASE-IX,DENKANIKOTTA ROAD<br>OPP RAILWAY STATION-HOSUR,TN - CELL: 95852 32417 |     | <b>ENGINEER</b><br> | <b>OWNER</b><br>For VISHWAKARMA BUILDERS<br><br>Partner<br><b>M/s. VISHWAKARMA BUILDERS,</b> | <b>TITLE.</b><br><b>PLINTH BEAM LAYOUT AND RC DETAIL</b> | <table><tr><td>DRAWN.</td><td>SR</td><td>JOB.NO</td><td>24082025</td><td rowspan="3"><b>D W G N O.</b><br/>2408202-ST-03</td></tr><tr><td>DESIGNED</td><td>BYM</td><td>SCALE</td><td>1:100</td></tr><tr><td>APPROVED</td><td>AJS</td><td>DATE</td><td>24.08.2025</td></tr></table> | DRAWN. | SR | JOB.NO | 24082025 | <b>D W G N O.</b><br>2408202-ST-03 | DESIGNED | BYM | SCALE | 1:100 | APPROVED | AJS | DATE | 24.08.2025 |
| DRAWN.                                                                                                                                                                                                  | SR  | JOB.NO              | 24082025                                                                                     | <b>D W G N O.</b><br>2408202-ST-03                       |                                                                                                                                                                                                                                                                                    |        |    |        |          |                                    |          |     |       |       |          |     |      |            |
| DESIGNED                                                                                                                                                                                                | BYM | SCALE               | 1:100                                                                                        |                                                          |                                                                                                                                                                                                                                                                                    |        |    |        |          |                                    |          |     |       |       |          |     |      |            |
| APPROVED                                                                                                                                                                                                | AJS | DATE                | 24.08.2025                                                                                   |                                                          |                                                                                                                                                                                                                                                                                    |        |    |        |          |                                    |          |     |       |       |          |     |      |            |