STRUCTURAL ENGINEERING DRAWINGS

FOR

A 4 BEDROOM DUPLEX

APRIL, 2026.

TriscoTech

GENERAL NOTES

1. DO NOT SCALE THIS DRAWING

2. ALL DIMENSIONS ARE IN S.I. UNITS UNLESS OTHERWISE STATED

3. ALL DRAWINGS TO BE READ IN CONJUCTION WITH ARCHITECT'S DRAWINGS AND OTHER SPECIALIST DRAWINGS WHERE HOLES, FIXING ETC. ARE REQUIRED.

4. REINFORCING BARS MAY BE SLIGHTLY DISPLACED TO ACCOMMODATE OTHER SERVICES BUT SHOULD NEVER BE CUT OR REMOVED

5. ALL DIMENSIONS TO BE CHECKED AND CONFIRMED ON SITE.

6. REMOVE ALL TOP VEGETABLE SOILS UNDER THE GROUND FLOOR SLAB

7. ALL EARTHFILL TO BE GRANULAR MATERIALS SUCH AS RIVER SHARP SAND AND GRAVELLY SOIL. ALL FILL TO BE COMPACTED IN LAYERS NOT EXCEEDING 150mm THICK.

8. WHERE BAD SOIL IS ENCOUNTERED WITHIN THE FOUNDATION, IT SHOULD BE COMPLETELY SCOOPED OUT AND REPLACED WITH MASS CONCRETE

9. ALL EXTERNAL WALL FOOTINGS TO HAVE A MINIMUM DEPTH OF 1 METRE BELOW THE EXISTING GROUND LEVEL OR FINAL GROUND LEVEL WHICH EVER IS LESS.

CONCRETE

1. MINIMUM CUBE STRENGTH OF ALL STRUCTURAL CONCRETE AT 28 DAYS TO BE 25N/mm2

2. ALL CONCRETE BLINDING AND MASS CONCRETE TO BE OF GRADE 15

3. MINIMUM CONCRETE COVER TO ALL REINFORCEMENTS TO BE AS FOLLOWS :

SLAB/STAIRCASE	20mm
BEAM	25mm
COLUMN	40mm
COLUMN BASE	50mm

4. LAP: FOR ALL STEEL REINFORCEMENTS AS SHOWN ON DRAWING BUT A MINIMUM OF 750mm

5. MAXIMUM SIZE OF AGGREGATE AT SUBSTRUCTURE TO BE 20mm WHILE AT SUPERSTRUCTURE THE MAX1MUM SIZE OF AGGREGATE TO BE 12mm

6. ALL STEEL REINFORCEMENTS TO BS 4449 AND BS 4461

Y -------- DENOTES HIGH YIELD STEEL BAR

R -------- DENOTES MILD STEEL BAR

T -------- DENOTES TOP BAR

B ------- DENOTES BOTTOM BAR

7. ALL CONSTRUCTION JOINT POSITIONS TO BE APPROVED BY THE ENGINEER PRIOR TO CASTING

8. AN ADMIXTURE OF A PROPRIETY BRAND EMPLOYED MUST BE APPROVED BY THE ENGINEER AND ITS APPLICATION TO BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

STRUCTURAL STEEL WORK

1. ALL STRUCTURAL STEELWORK SHALL BE MILD STEEL TO BS 4360 GRADE 43.

2. WELDING FABRICATION AND ERECTION OF STRUCTURAL STEELWORK SHALL CONFORM TO BS 5950 PART 1.

3. UNLESS WHERE OTHERWISE NOTED, ALL BOLTS SHALL BE BLACK BOLTS TO BS 4190 AND WASHERS TO BS 4320 SHALL BE PROVIDED FOR ALL BOLTS.

4. ALL WELDS ARE TO BE 6mm THICK FILLET CONTINOUS WELD UNLESS WHERE OTHERWISE INDICATED.

5. THE FIRST BAY OF ERECTED STEELWORK IS TO BE LINED AND LEVELLED BY MEANS OF TEMPORARY BRACING BEFORE FURTHER ERECTOIN SHALL CONTINUE.

6. ALL BOLTS IN TENSION SHOULD BE PROVIDED WITH EITHER DOUBLE COILED SPRING WASHERS OR LOCK NUTS.

7. UNLESS NOTED OTHERWISE THE COMPOSITION OF THE PROTECTIVE SYSTEM SHALL BE :

(a) SURFACE TREATMENT	--- D
(b) METAL COATING	--- NONE
(c) PRE-TREATMENT	--- NONE
(d) PRIMING PAINT	--- 1H
(e) FINISHING PAINT	--- 2T

AS CLASSIFIED IN TABLE 4 KEY TO TREATMENT CP 2008 1966.

8. ALL STEEL SURFACES IN CONTACT WITH ALUMINIUM SHEETING ARE TO BE GIVEN TWO COATS OF AN APPROVED BITUMASTIC PAINT BEFORE FIXING SHEETING.

BLOCKWORK

1. ALL HOLLOW BLOCKWALLS BELOW GROUND FLOOR SLAB LEVEL ARE TO BE FILLED SOLID WITH GRADE 10 CONCRETE.

2. BACKFILLING OF EARTH IS TO BE CARRIED OUT SIMULTENEOUSLY ON BOTH SIDES OF THE WALL

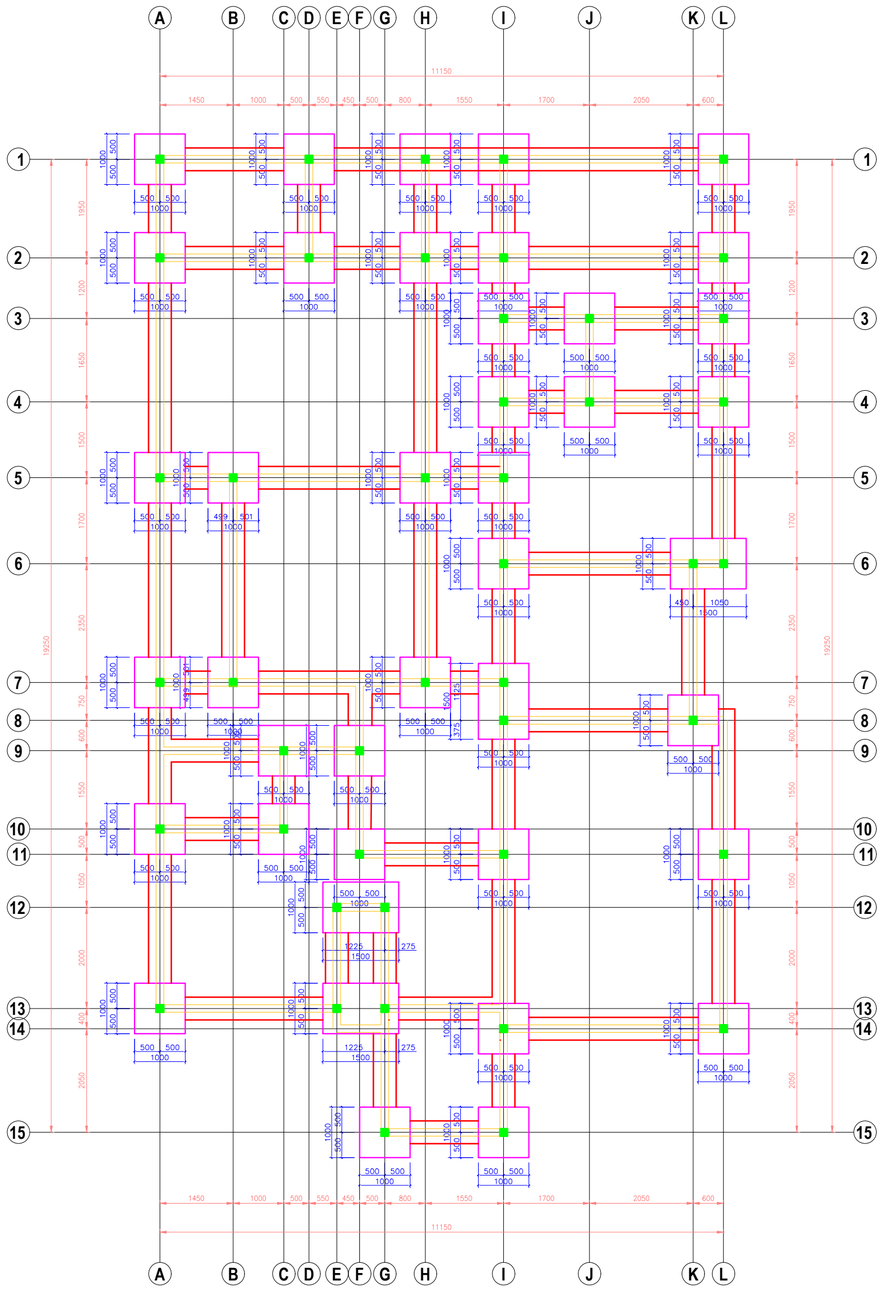
3. WHENEVER THERE ARE MORE THAN THREE COURSES OF BLOCK ABOVE THE EXISTING GROUND LEVEL, DOUBLE BLOCKWALL SHOULD BE INTRODUCED. OR THE HEIGHT IS BROKEN BY STIFFNER BEAM.

4. ALL BLOCKWORK TO BE OF STRENGTH 3.0N/mm² AT 28 DAYS.

5. THE MORTAR FOR BLOCKWORK ERECTION SHOULD BE OF 25mm MINIMUM THICKNESS.

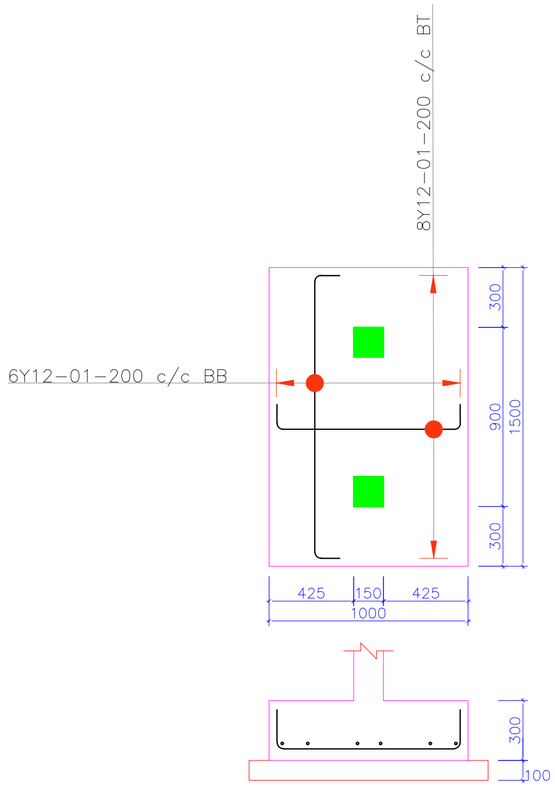
6. FLETCHER BONDS FOR BLOCKWORK SHOULD ALWAYS BE OBSERVED.

7. AT ANY GIVEN INSTANCE, MAXIMUM OF TWO COURSES OF BLOCK SHOULD BE FILLED AT A TIME.

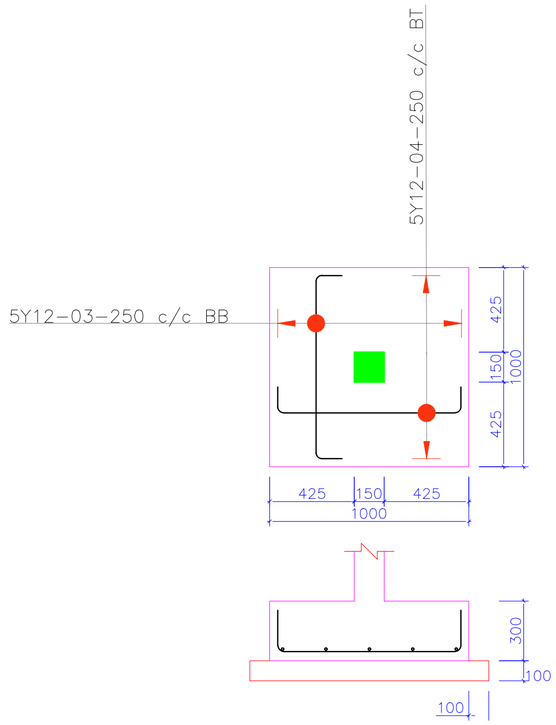


+2348146264223	All dimensions are in metric 'mm' except otherwise indicated All dimensions are to be checked on site We will not be held resposible for Jobs not supervised by us	Project:	4 Bedroom Duplex	Designed by:	TriscoTech Studio
		Location:	Along Old Ashaka Road,Umusedeli Quarter, Utagba Ogbe, Kwale, Ndokwa West L.G.A Delta State	Drawn by:	TriscoTech Studio
				Checked by:	TriscoTech Studio
		Client:	Mr. Ugbini Kome Augustine	Date:	April, 2026

Sheet Title:	
Foundation Layout	
Scale:	Sheet NO:
1:100	01



BASE TYPE 1
(4 Nos)



BASE TYPE 2
(37 Nos)

BASES		
TYPE	SIZE	No.
BT1	1000 X 1500 X 300	04
BT2	1000 X 1000 X 300	37

+2348146264223

All dimensions are in metric 'mm' except otherwise indicated

All dimensions are to be checked on site

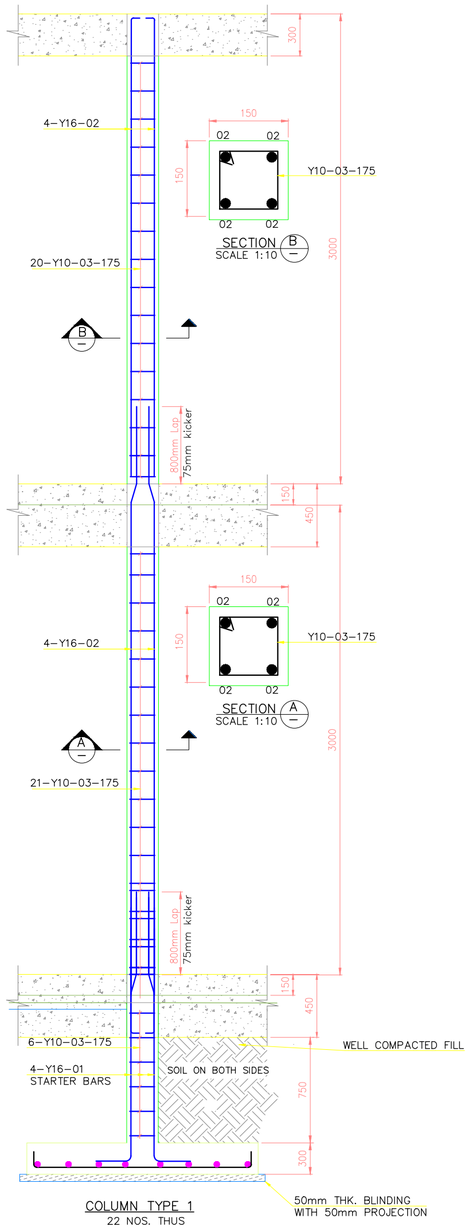
We will not be held resposible for Jobs not supervised by us

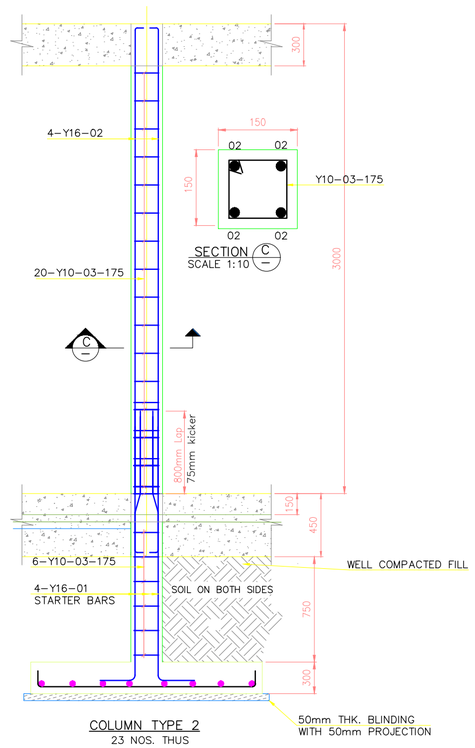
Project:	4 Bedroom Duplex	Designed by:	TriscoTech Studio
Location:	Along Old Ashaka Road,Umusedeli Quarter, Utagba Ogbe, Kwale, Ndokwa West L.G.A Delta State	Drawn by:	TriscoTech Studio
		Checked by:	TriscoTech Studio
Client:	Mr. Ugbini Kome Augustine	Date:	April, 2026

Sheet Title: Foundation Details

Scale: 1:100

Sheet NO: 02





+2348146264223

All dimensions are in metric 'mm' except otherwise indicated

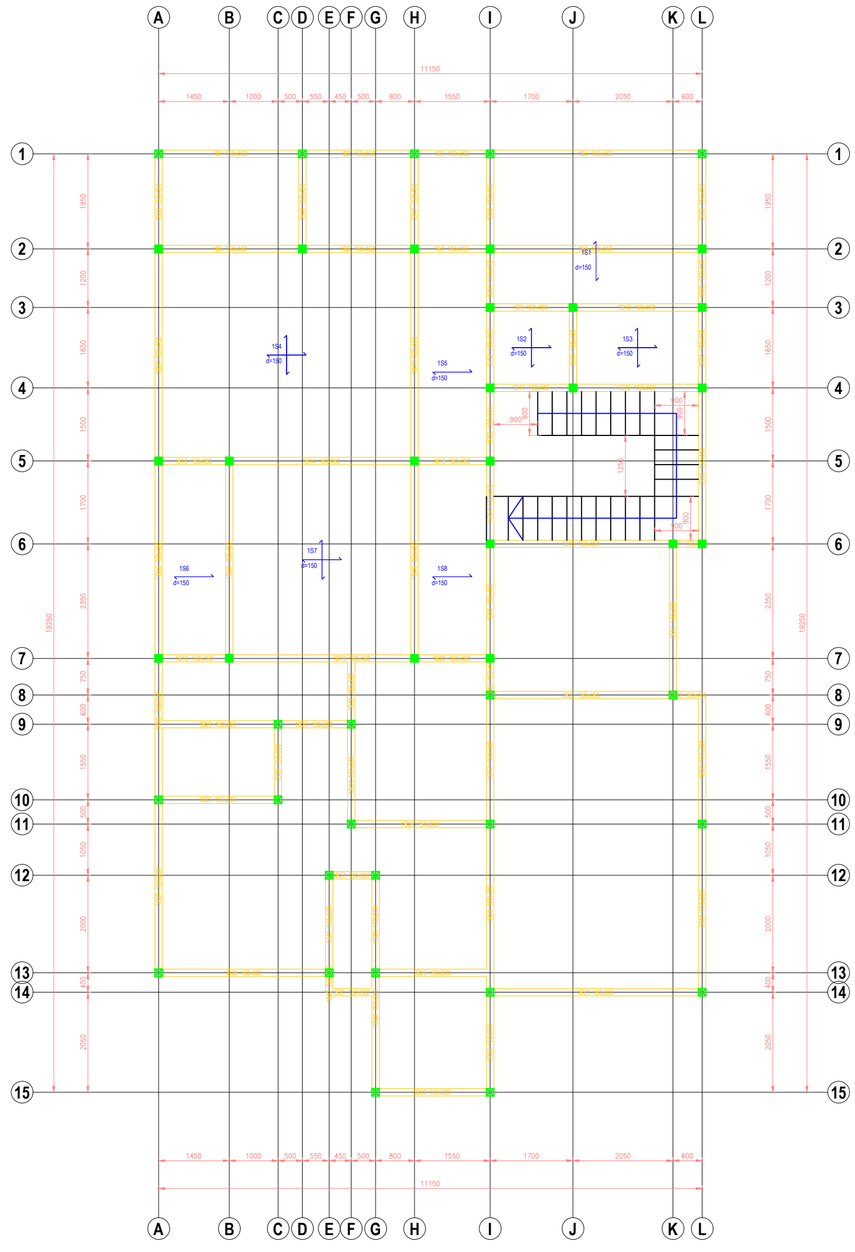
All dimensions are to be checked on site

We will not be held resposible for Jobs not supervised by us

Project:	4 Bedroom Duplex	Designed by:	TriscoTech Studio
Location:	Along Old Ashaka Road,Umusedeli Quarter, Utagba Ogbe, Kwale, Ndokwa West L.G.A Delta State	Drawn by:	TriscoTech Studio
		Checked by:	TriscoTech Studio
Client:	Mr. Ugbini Kome Augustine	Date:	April, 2026

Sheet Title: **Column Details**

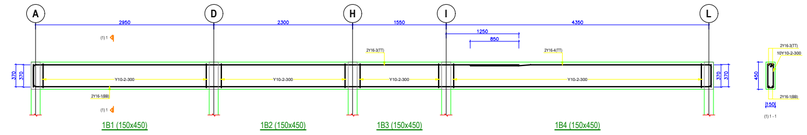
Scale:	Sheet NO:
1:100	03



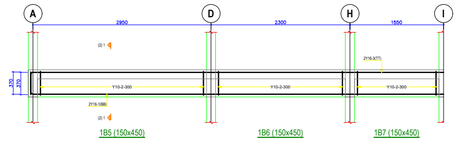
+2348146264223	All dimensions are in metric 'mm' except otherwise indicated All dimensions are to be checked on site We will not be held resposible for Jobs not supervised by us	Project:	4 Bedroom Duplex	Designed by:	TriscoTech Studio
		Location:	Along Old Ashaka Road,Umusedeli Quarter, Utagba Ogbe, Kwale, Ndokwa West L.G.A Delta State	Drawn by:	TriscoTech Studio
				Checked by:	TriscoTech Studio
		Client:	Mr. Ugbini Kome Augustine	Date:	April, 2026

Sheet Title: First Floor General Arrangement

Scale:	Sheet NO:
1:100	04



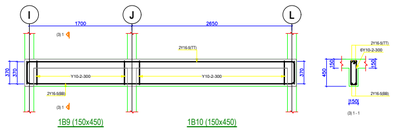
1B1 (150x450) 1B2 (150x450) 1B3 (150x450) 1B4 (150x450)



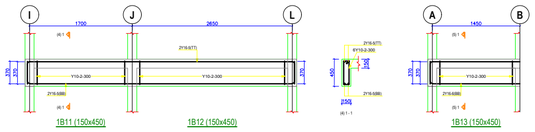
1B5 (150x450) 1B6 (150x450) 1B7 (150x450)



1B8 (150x450)

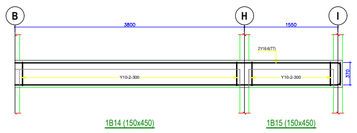


1B9 (150x450) 1B10 (150x450)



1B11 (150x450) 1B12 (150x450)

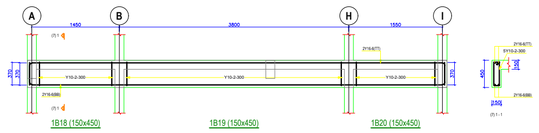
1B13 (150x450)



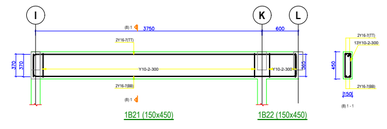
1B14 (150x450) 1B15 (150x450)



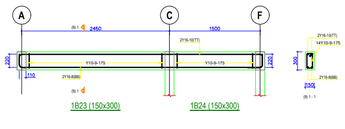
1B16 (150x450) 1B17 (150x450)



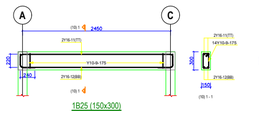
1B18 (150x450) 1B19 (150x450) 1B20 (150x450)



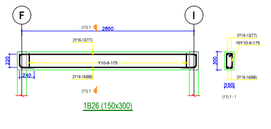
1B21 (150x450) 1B22 (150x450)



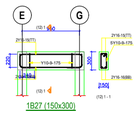
1B23 (150x300) 1B24 (150x300)



1B25 (150x300)



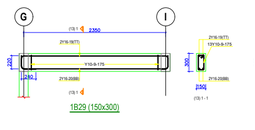
1B26 (150x300)



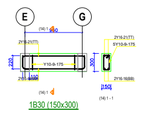
1B27 (150x300)



1B28 (150x300)



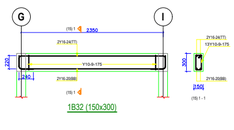
1B29 (150x300)



1B30 (150x300)



1B31 (150x300)



1B32 (150x300)

+2348146264223

All dimensions are in metric 'mm' except otherwise indicated

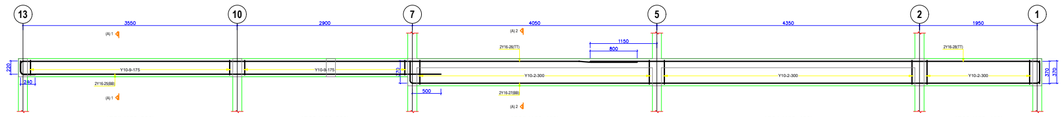
All dimensions are to be checked on site

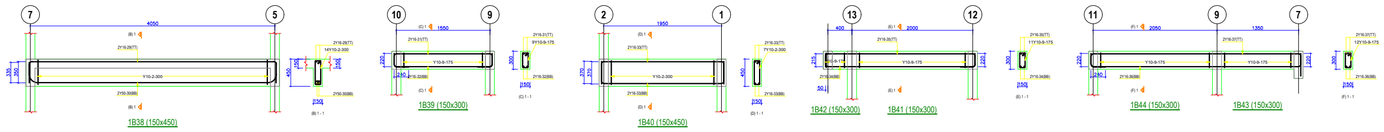
We will not be held resposible for Jobs not supervised by us

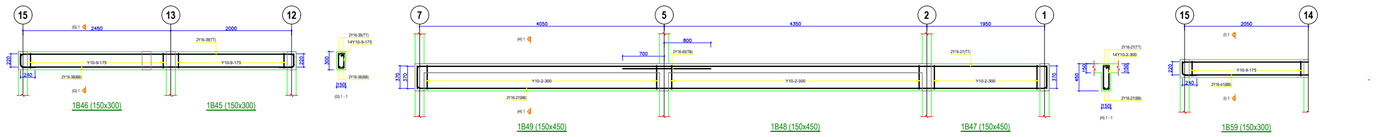
Project:	4 Bedroom Duplex	Designed by:	TriscoTech Studio
Location:	Along Old Ashaka Road,Umusedeli Quarter, Utagba Ogbe, Kwale, Ndokwa West L.G.A Delta State	Drawn by:	TriscoTech Studio
		Checked by:	TriscoTech Studio
Client:	Mr. Ugbini Kome Augustine	Date:	April, 2026

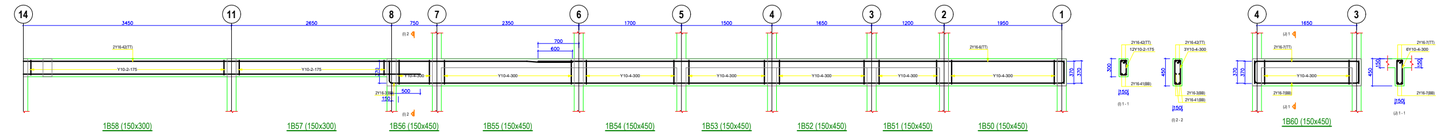
Sheet Title: First Floor Beam Details

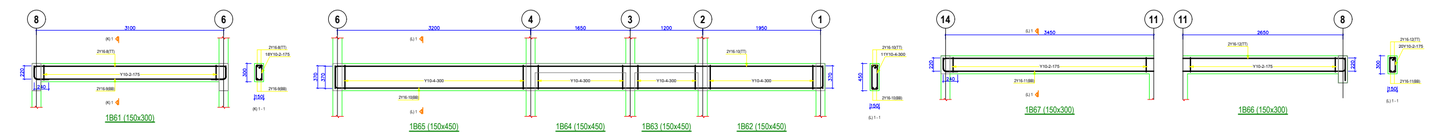
Scale:	Sheet NO:
1:100	05





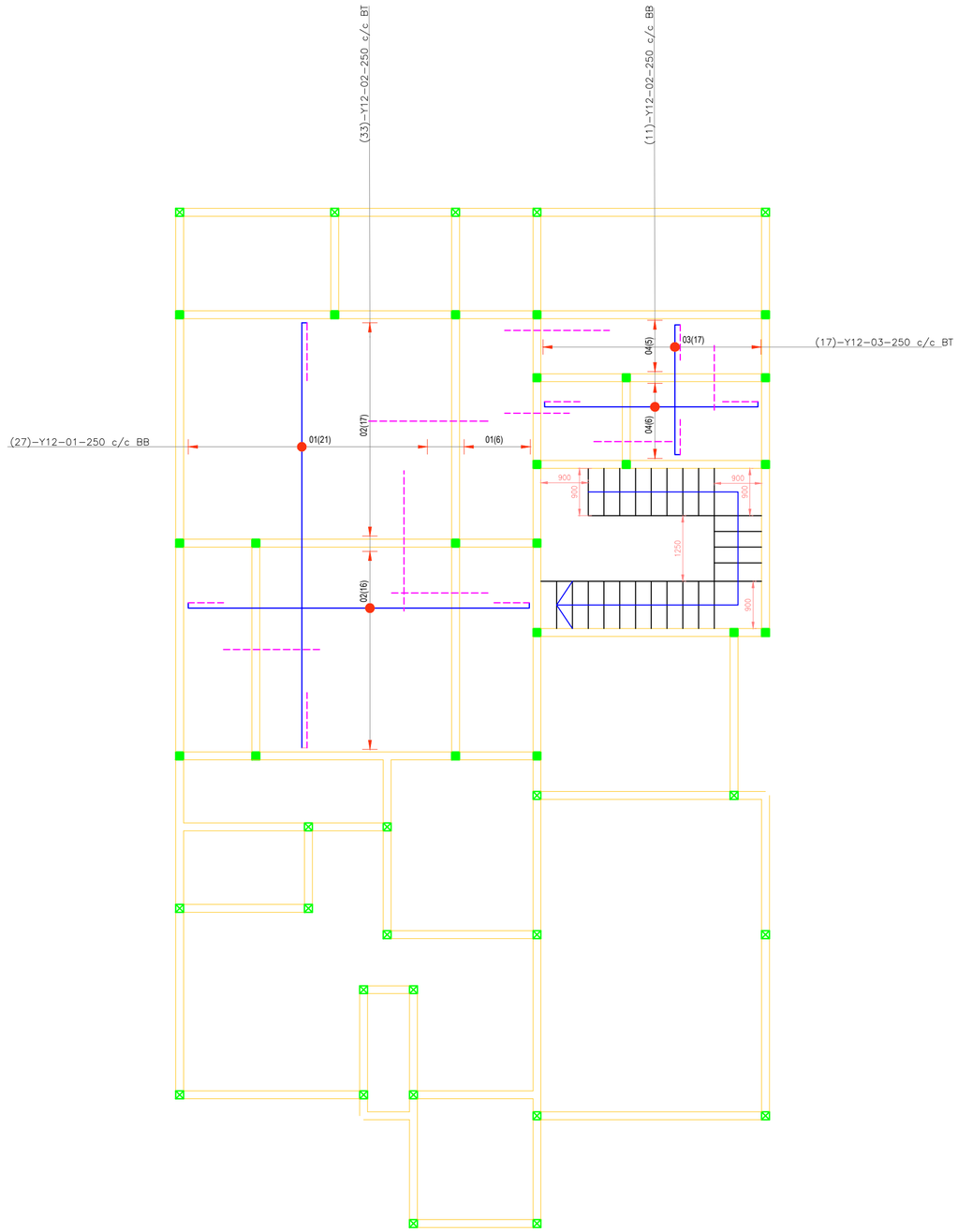




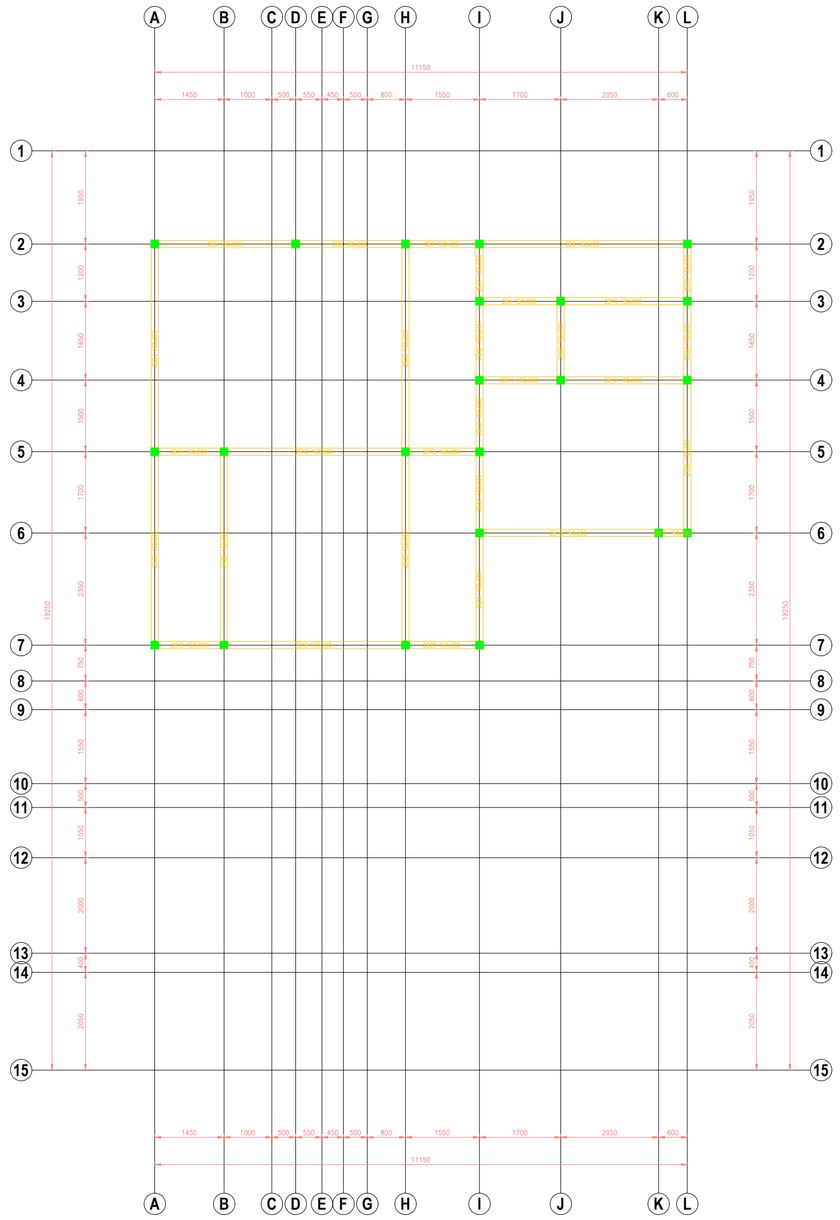


+2348146264223	All dimensions are in metric 'mm' except otherwise indicated All dimensions are to be checked on site We will not be held resposible for Jobs not supervised by us	Project:	4 Bedroom Duplex	Designed by:	TriscoTech Studio
		Location:	Along Old Ashaka Road,Umusedeli Quarter, Utagba Ogbe, Kwale, Ndokwa West L.G.A Delta State	Drawn by:	TriscoTech Studio
				Checked by:	TriscoTech Studio
		Client:	Mr. Ugbini Kome Augustine	Date:	April, 2026

Sheet Title:	
First Floor Beam Details II	
Scale:	Sheet NO:
1:100	06



+2348146264223	All dimensions are in metric 'mm' except otherwise indicated All dimensions are to be checked on site We will not be held resposible for Jobs not supervised by us	Project:	4 Bedroom Duplex	Designed by: TriscoTech Studio	Sheet Title: First Floor Slab Details
		Location:	Along Old Ashaka Road,Umusedeli Quarter, Utagba Ogbe, Kwale, Ndokwa West L.G.A Delta State	Drawn by: TriscoTech Studio	
				Checked by: TriscoTech Studio	Scale: 1:100 / Sheet NO: 07
		Client:	Mr. Ugbini Kome Augustine	Date: April, 2026	



All dimensions are in metric 'mm' except otherwise indicated

All dimensions are to be checked on site

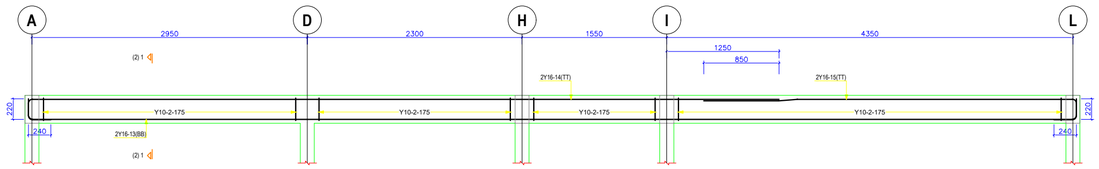
We will not be held resposible for Jobs not supervised by us

+2348146264223

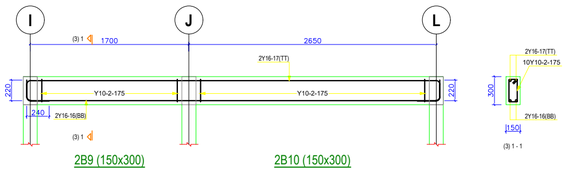
Project:	4 Bedroom Duplex	Designed by:	TriscoTech Studio
Location:	Along Old Ashaka Road,Umusedeli Quarter, Utagba Ogbe, Kwale, Ndokwa West L.G.A Delta State	Drawn by:	TriscoTech Studio
		Checked by:	TriscoTech Studio
Client:	Mr. Ugbini Kome Augustine	Date:	April, 2026

Sheet Title: Roof Beam Level General Arrangement

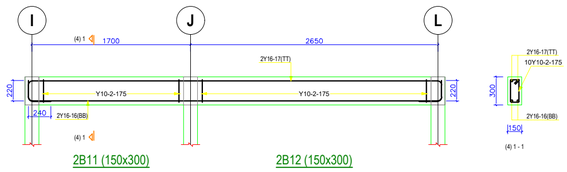
Scale:	Sheet NO:
1:100	08



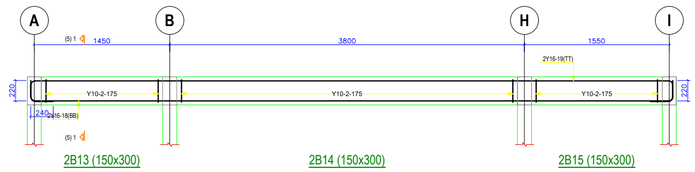
2B5 (150x300) 2B6 (150x300) 2B7 (150x300) 2B8 (150x300)



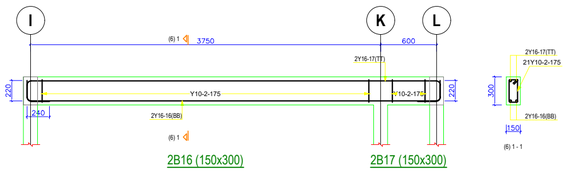
2B9 (150x300) 2B10 (150x300)



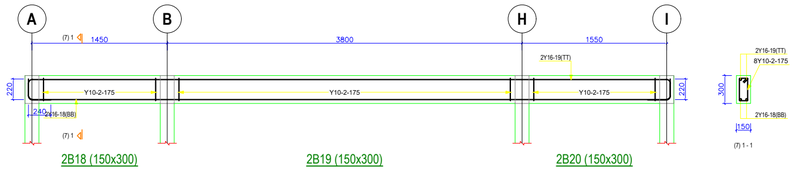
2B11 (150x300) 2B12 (150x300)



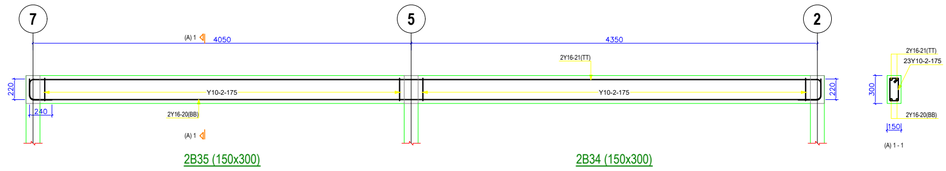
2B13 (150x300) 2B14 (150x300) 2B15 (150x300)



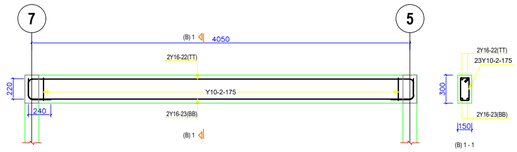
2B16 (150x300) 2B17 (150x300)



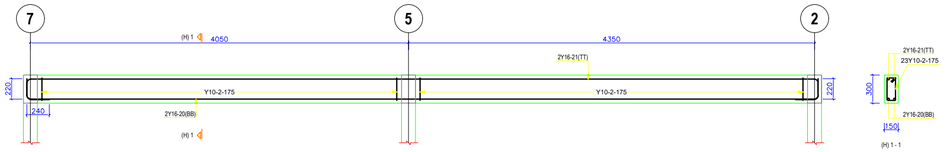
2B18 (150x300) 2B19 (150x300) 2B20 (150x300)



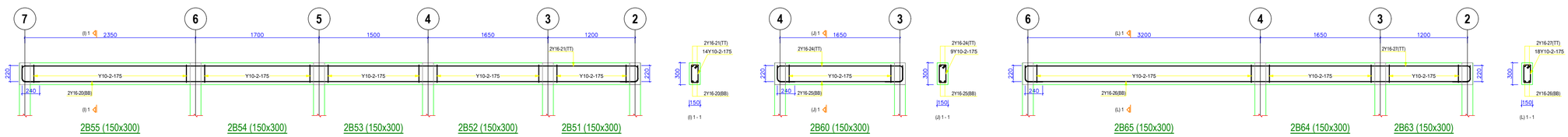
2B35 (150x300) 2B34 (150x300)



2B38 (150x300)



2B49 (150x300) 2B48 (150x300)



2B55 (150x300) 2B54 (150x300) 2B53 (150x300) 2B52 (150x300) 2B51 (150x300) 2B60 (150x300) 2B65 (150x300) 2B64 (150x300) 2B63 (150x300)

+2348146264223

All dimensions are in metric 'mm' except otherwise indicated

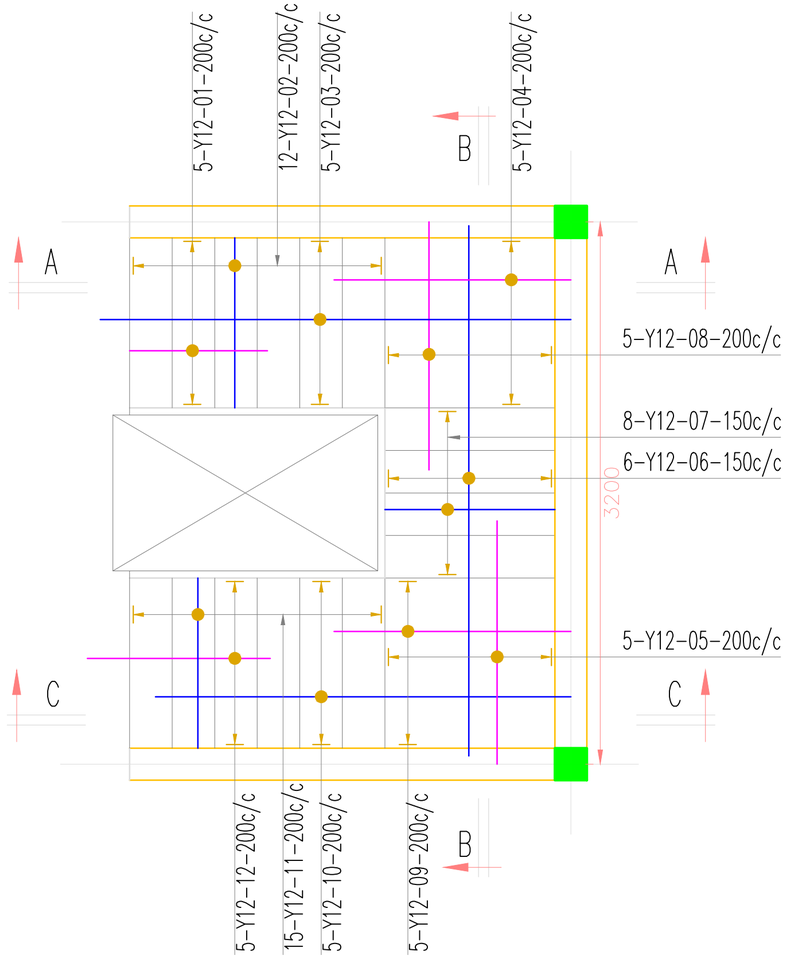
All dimensions are to be checked on site

We will not be held resposible for Jobs not supervised by us

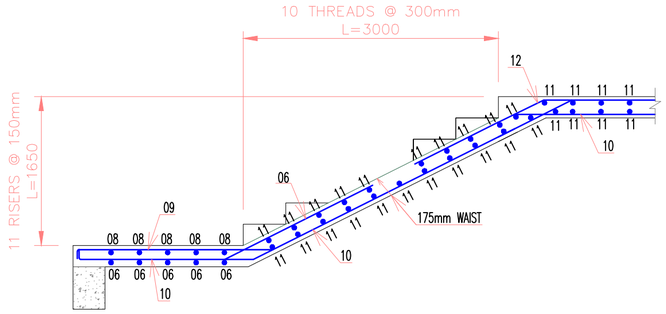
Project:	4 Bedroom Duplex	Designed by:	TriscoTech Studio
Location:	Along Old Ashaka Road,Umusedeli Quarter, Utagba Ogbe, Kwale, Ndokwa West L.G.A Delta State	Drawn by:	TriscoTech Studio
		Checked by:	TriscoTech Studio
Client:	Mr. Ugbini Kome Augustine	Date:	April, 2026

Sheet Title: Roof Beam Level Beam Details

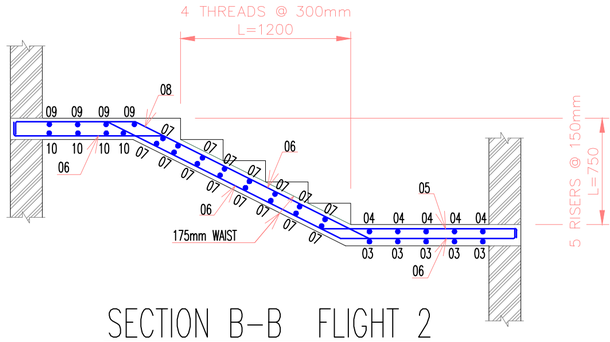
Scale:	Sheet NO:
1:100	09



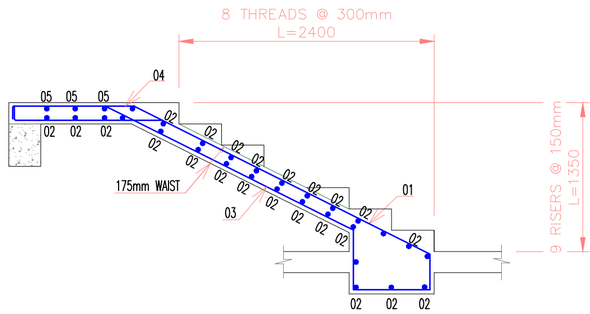
STAIRCASE PLAN



SECTION C-C FLIGHT 3



SECTION B-B FLIGHT 2



SECTION A-A FLIGHT 1

+2348146264223

All dimensions are in metric 'mm' except otherwise indicated

All dimensions are to be checked on site

We will not be held resposible for Jobs not supervised by us

Project:	4 Bedroom Duplex	Designed by:	TriscoTech Studio
Location:	Along Old Ashaka Road,Umusedeli Quarter, Utagba Ogbe, Kwale, Ndokwa West L.G.A Delta State	Drawn by:	TriscoTech Studio
		Checked by:	TriscoTech Studio
Client:	Mr. Ugbini Kome Augustine	Date:	April, 2026

Sheet Title: Staircase Details

Scale:	Sheet NO:
1:100	10