

STUDENT INDUSTRIAL TRAINING PRESENTATION

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AT

BRIEF HISTORY OF SIWES

The Student Industrial Work Experience Scheme (SIWES) is a program that provides students with practical experience in the workplace. It is an initiative of the Nigerian government aimed at bridging the gap between theoretical knowledge acquired in the classroom and the practical skills needed in the workplace.

SIWES is a mandatory program for all students in tertiary institutions in Nigeria who are studying courses in engineering, science, agriculture, and technology. The program requires students to undergo a six-month industrial training in an industry or organization relevant to their course of study.



OBJECTIVES OF SIWES

The primary objectives of SIWES (Students Industrial Work Experience Scheme) are:

1. Practical Skill Acquisition: Provide students with hands-on experience in their field of study, bridging the gap between theoretical knowledge and practical application.
2. Industrial Familiarization: Expose students to industrial practices, procedures, and culture, preparing them for the workforce.
3. Career Development: Enhance students' employability and career prospects by providing them with relevant work experience.
4. Problem-Solving and Critical Thinking: Encourage students to develop problem-solving skills, critical thinking, and creativity in a real-world setting.
5. Networking and Collaboration: Foster relationships between academia, industry, and students, promoting collaboration and mutual benefit.



SIWES
Students Industrial Work
Experience Scheme

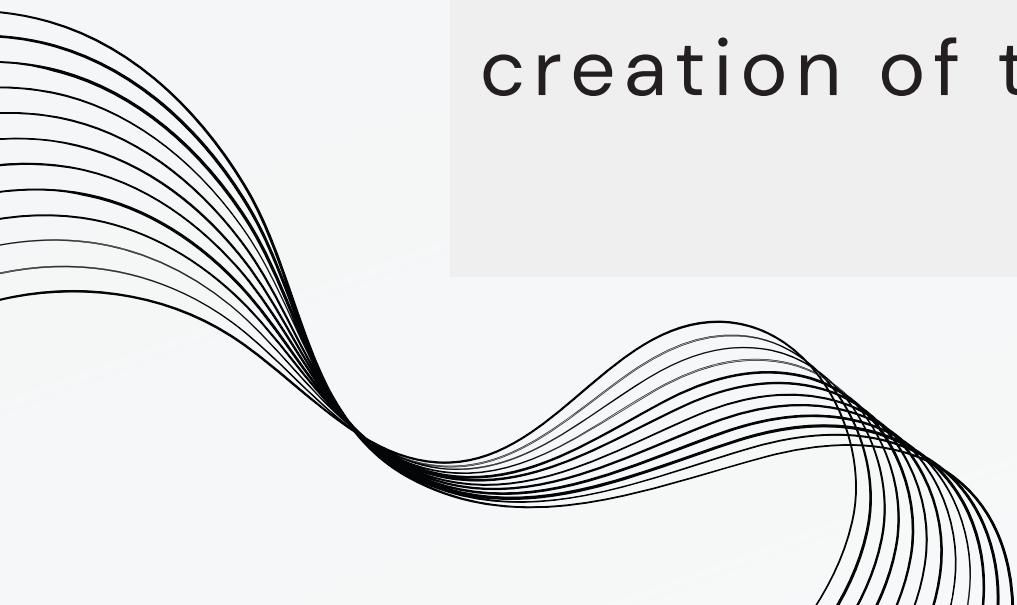
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INTRODUCTION

This presentation comprises a summary of my internship experience, focusing on foundation layouts, general arrangement drawings, slab design, and slab detailing.

It highlights the key steps involved in the process of creation of these drawings.



OBJECTIVES

Objective n° 1

To illustrate the application of theoretical knowledge to real-world construction projects.

Objective n° 2

To provide an evaluation of the design and detailing process in civil engineering projects.

Objective n° 3

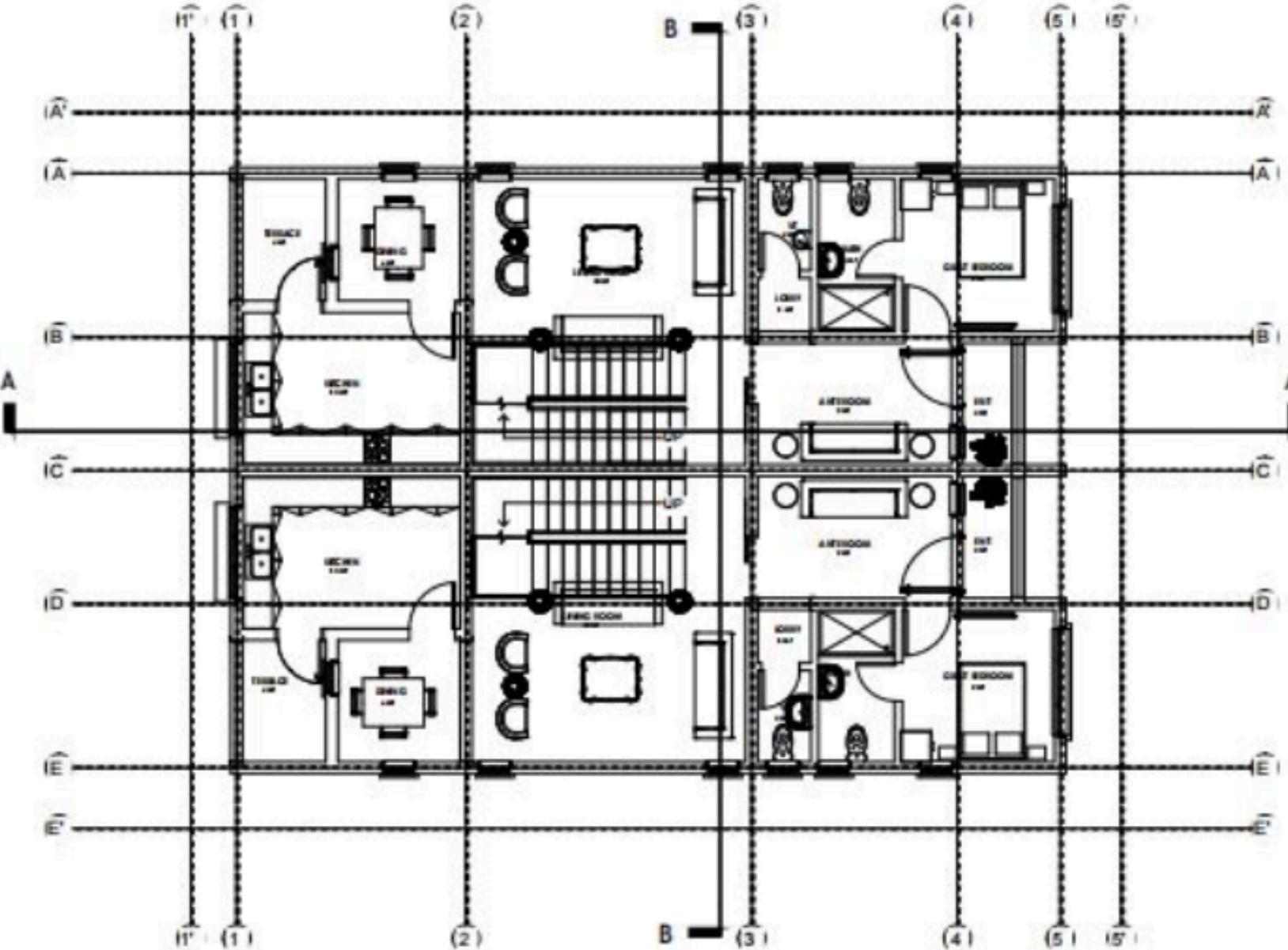
To convey the importance of precision and accuracy in engineering drawings and designs.

COMPANY OVERVIEW

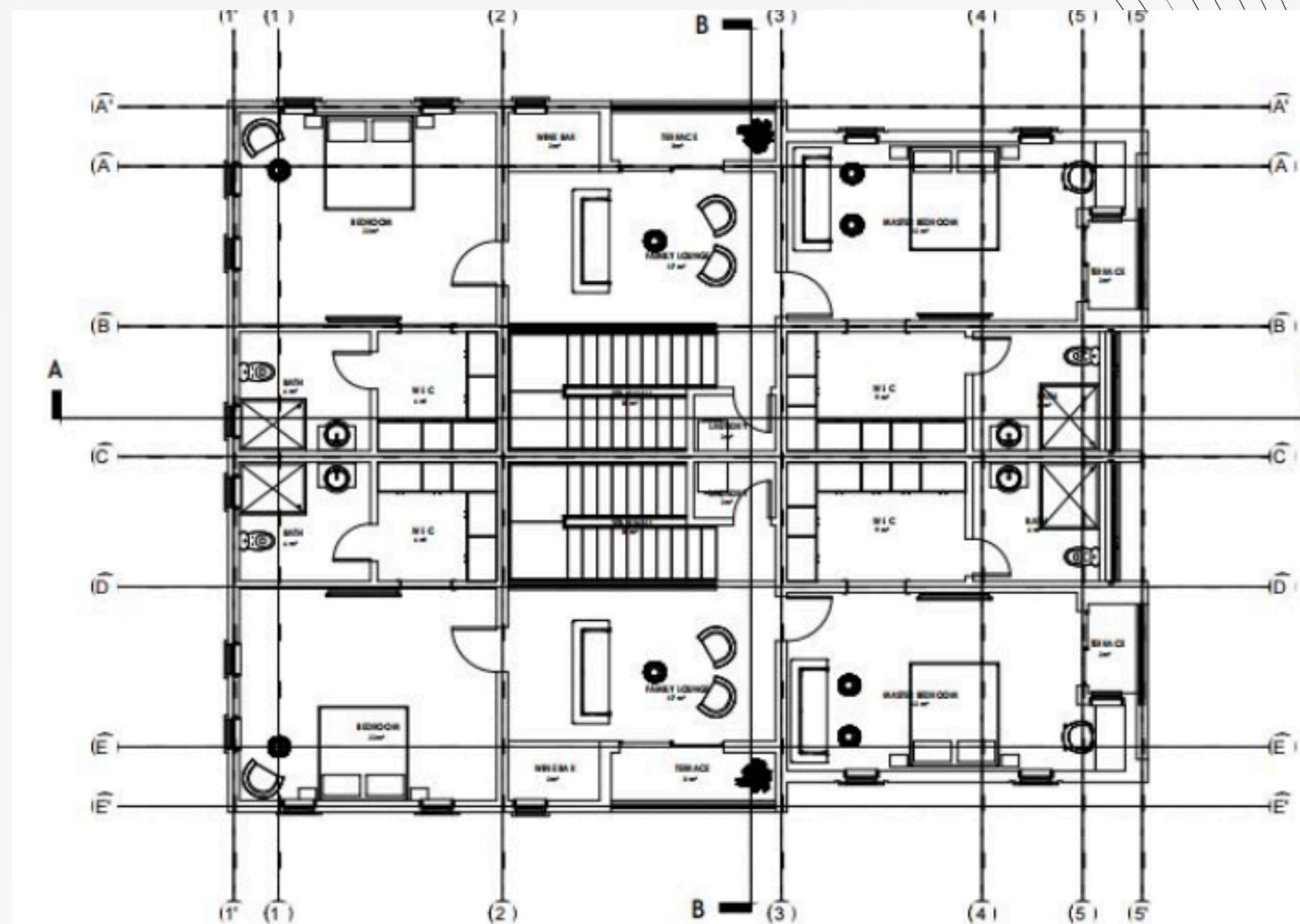
This presentation highlights activities carried out at TROPAEDS ENGINEERING LIMITED

- TROPAEDS ENGINEERING LIMITED is located at 81, N.U.D Road, Okeyeke, Sapon, Abeokuta.
- it is a prominent engineering and construction firm that provides comprehensive services in civil and structural engineering. With a diverse portfolio of projects.

ARCHITECTURAL DRAWINGS USED IN DETAILED PROCESS



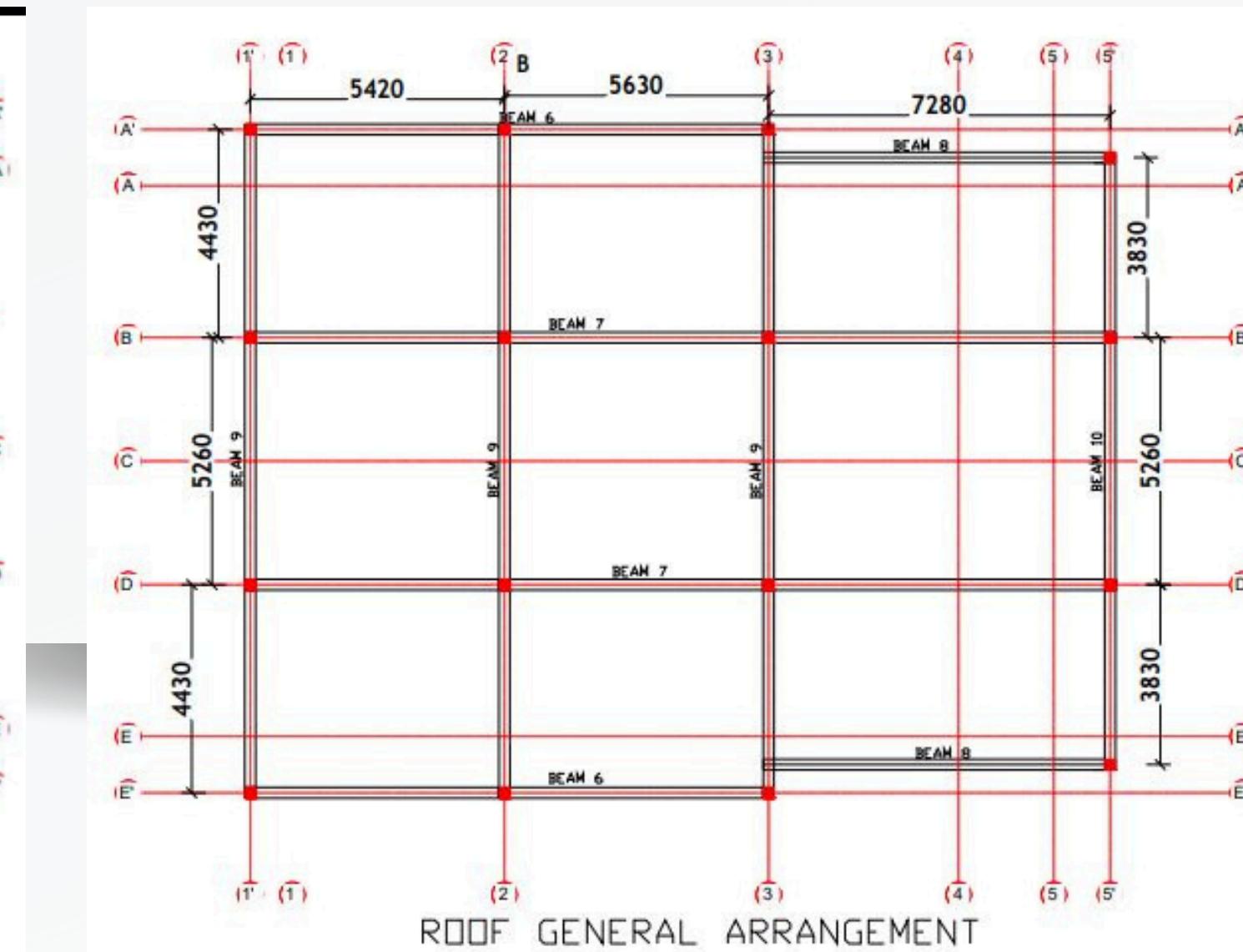
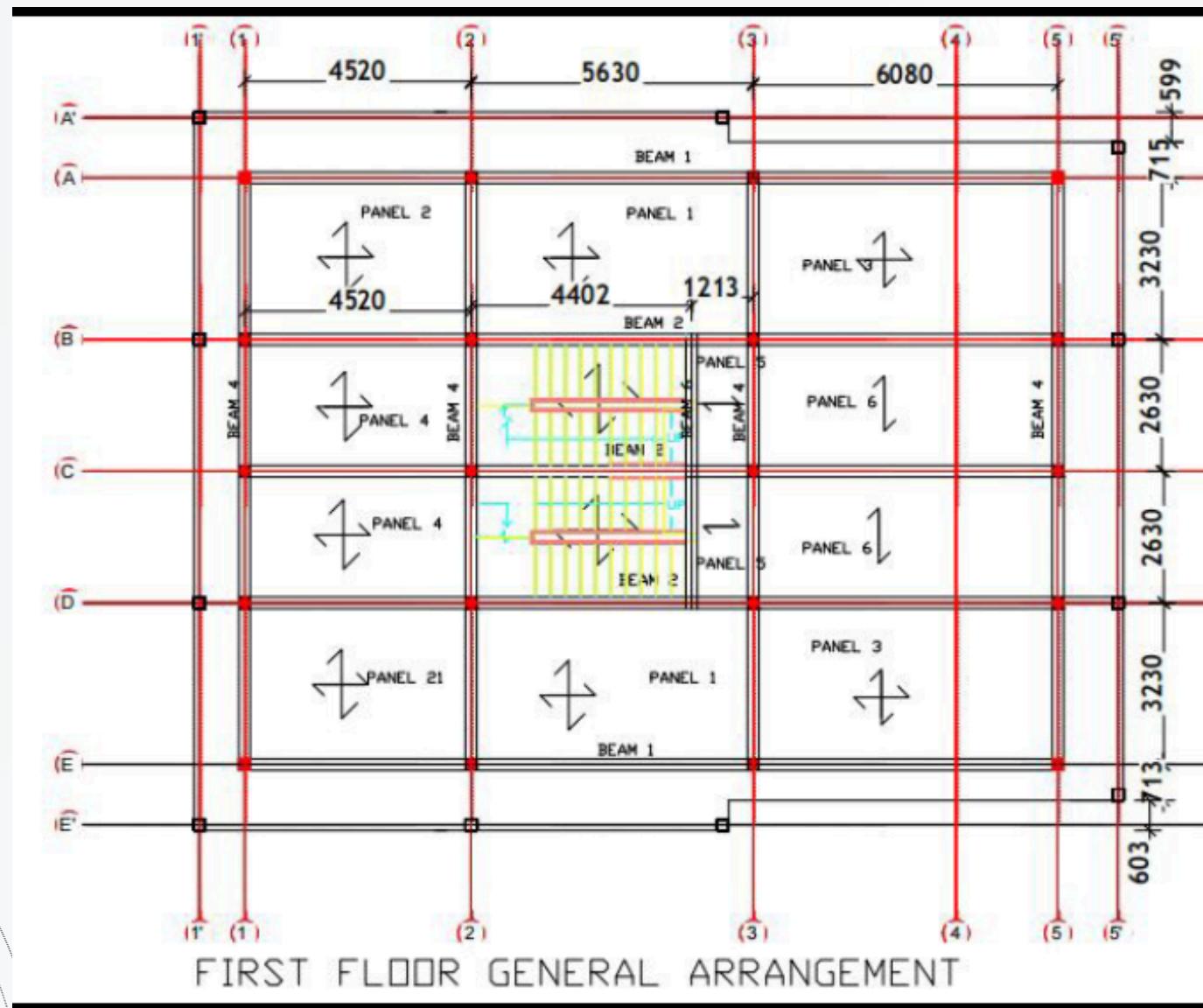
GROUND FLOOR PLAN



FIRST FLOOR PLAN

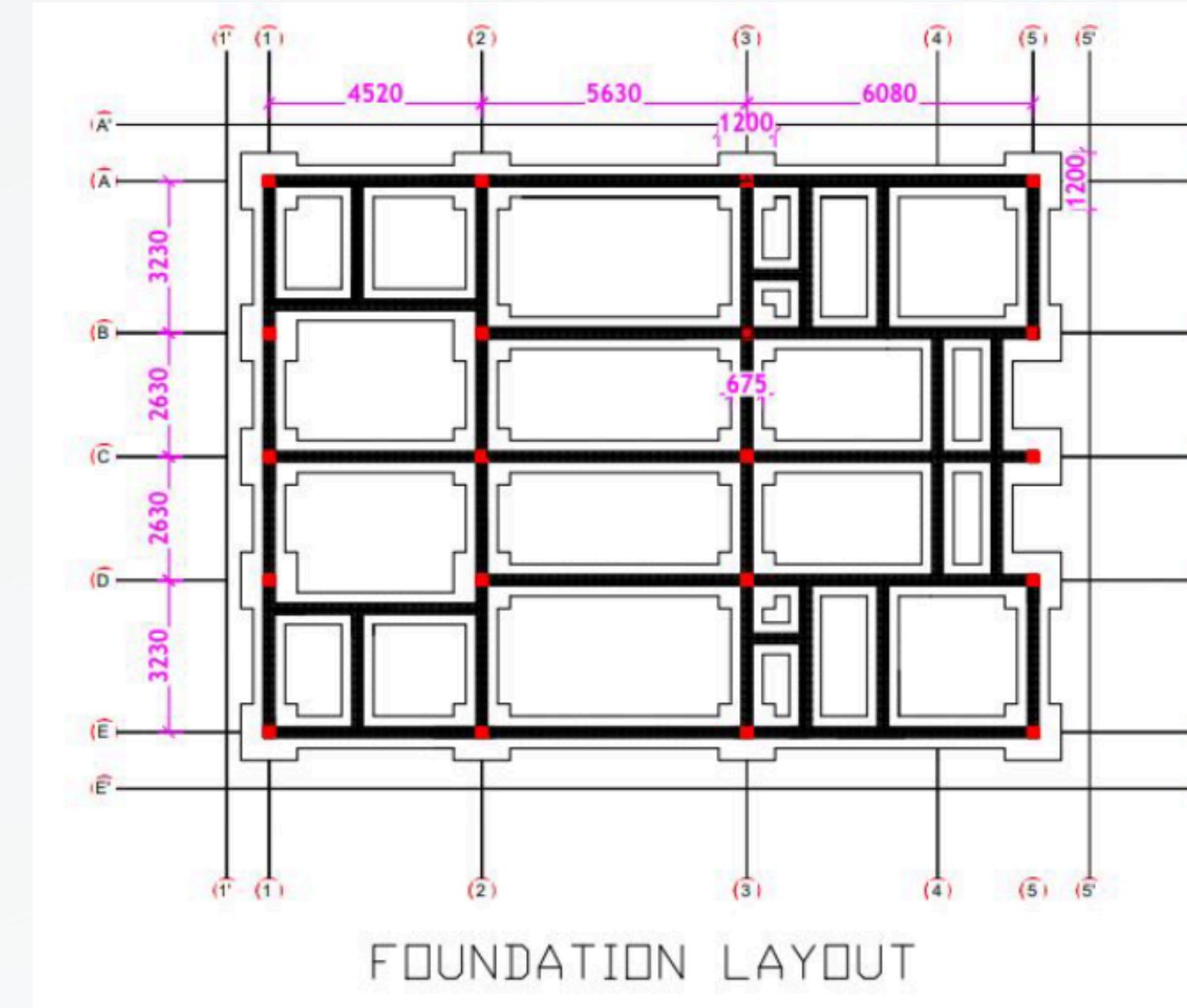
GENERAL ARRANGEMENT DRAWINGS

- General arrangement drawings show the overall layout of structural members in a building or structure.



FOUNDATION LAYOUT DRAWINGS

- Foundation layout drawings illustrate the positioning and configuration of the foundation elements.



MANUAL DESIGN OF SOLID ONE-WAY AND TWO-WAY SLABS

TWO-WAY SLAB

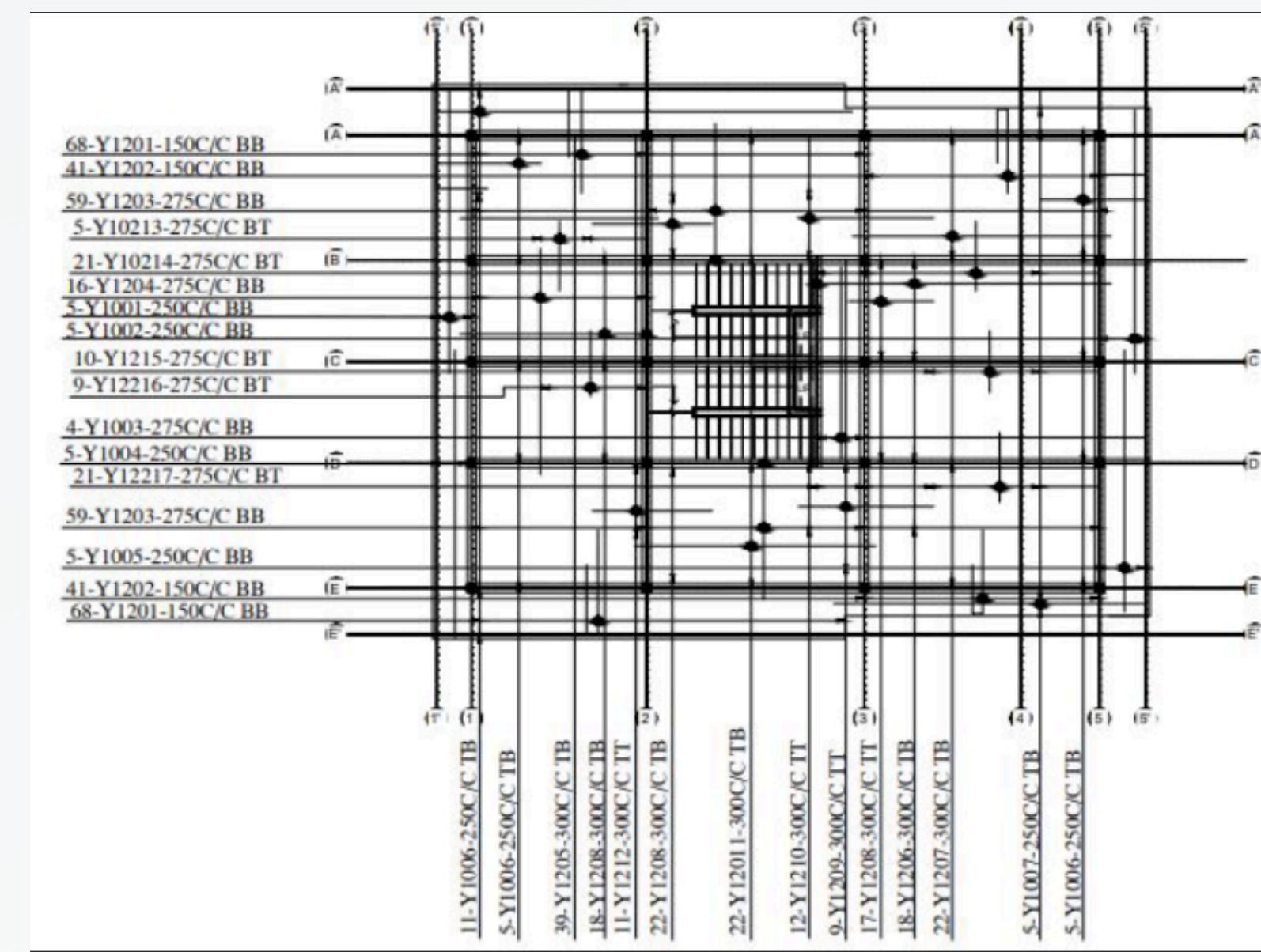
- 1.Determine the ultimate load**
- 2.Determine the I_y/I_x ratio**
- 3.Determine the appropriate case to use**
- 4.Obtain the appropriate moment coefficients from Table 3.14 of the Code(BS8110)**
- 5.Calculate for various moments from:=
 $Bwlx^2$**
- 6.Determine the area of reinforcements and Check for deflection**

ONE-WAY SLAB

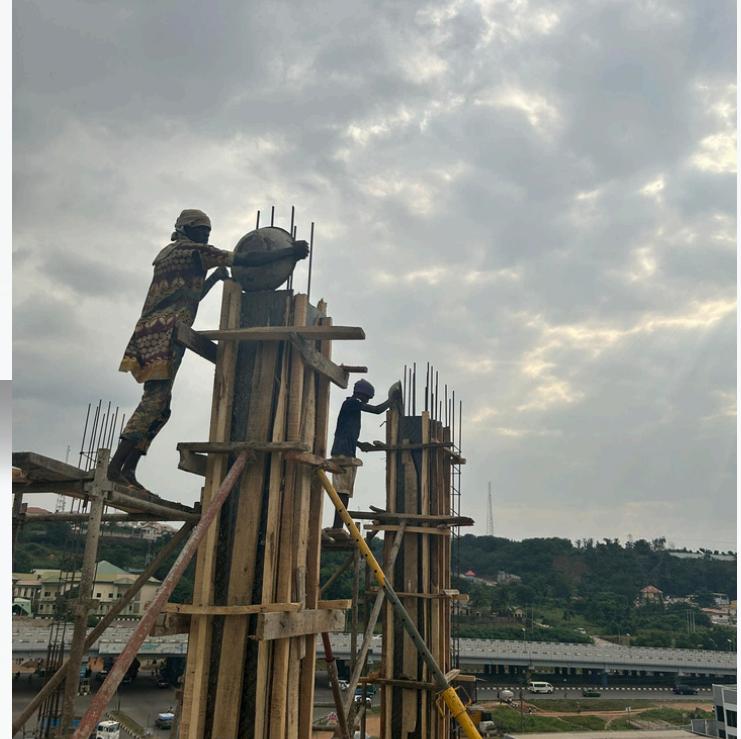
- 1. Calculate the imposed bending moment**
- 2. Estimate the effective depth**
- 3. Calculate the value of K**
- 4. Calculate area of steel from**
- 5. Calculate distribution bars and choose appropriate reinforcements from the BS code**
- 6. Check for deflection**

SLAB DETAILING DRAWINGS

- Slab detailing drawings specify the size, type, and placement of reinforcement bars, as well as the layout and connections of the slab

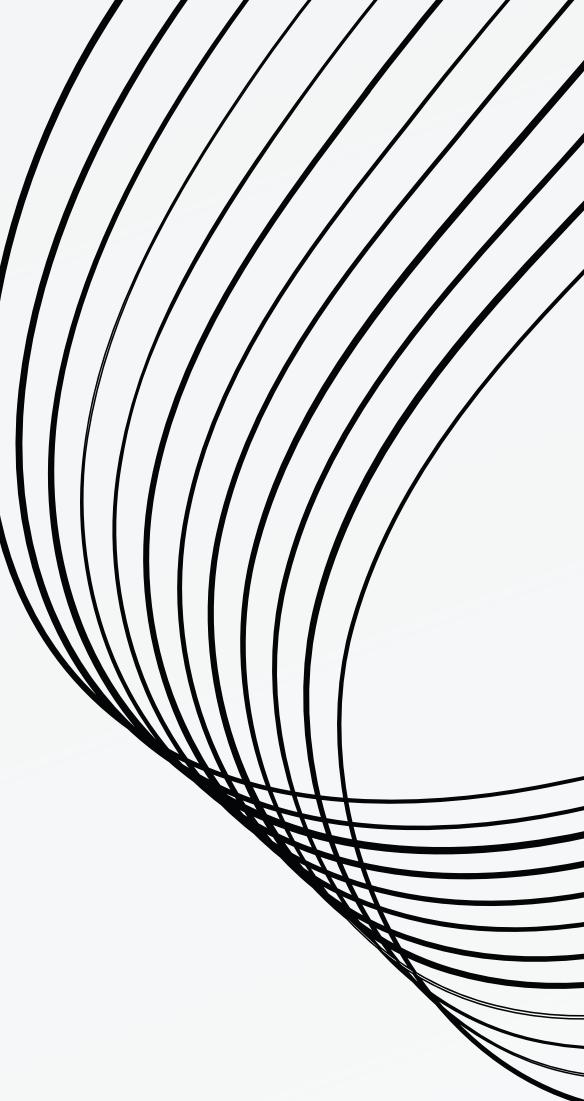


CONSTRUCTION OF SLAB, BEAMS AND COLUMNS



CONCLUSION

This presentation has highlighted the key aspects of foundation layout, general arrangement drawings, slab design, slab detailing and construction as experienced by me at TROPAEDS ENGINEERING LIMITED.



THANK YOU!

