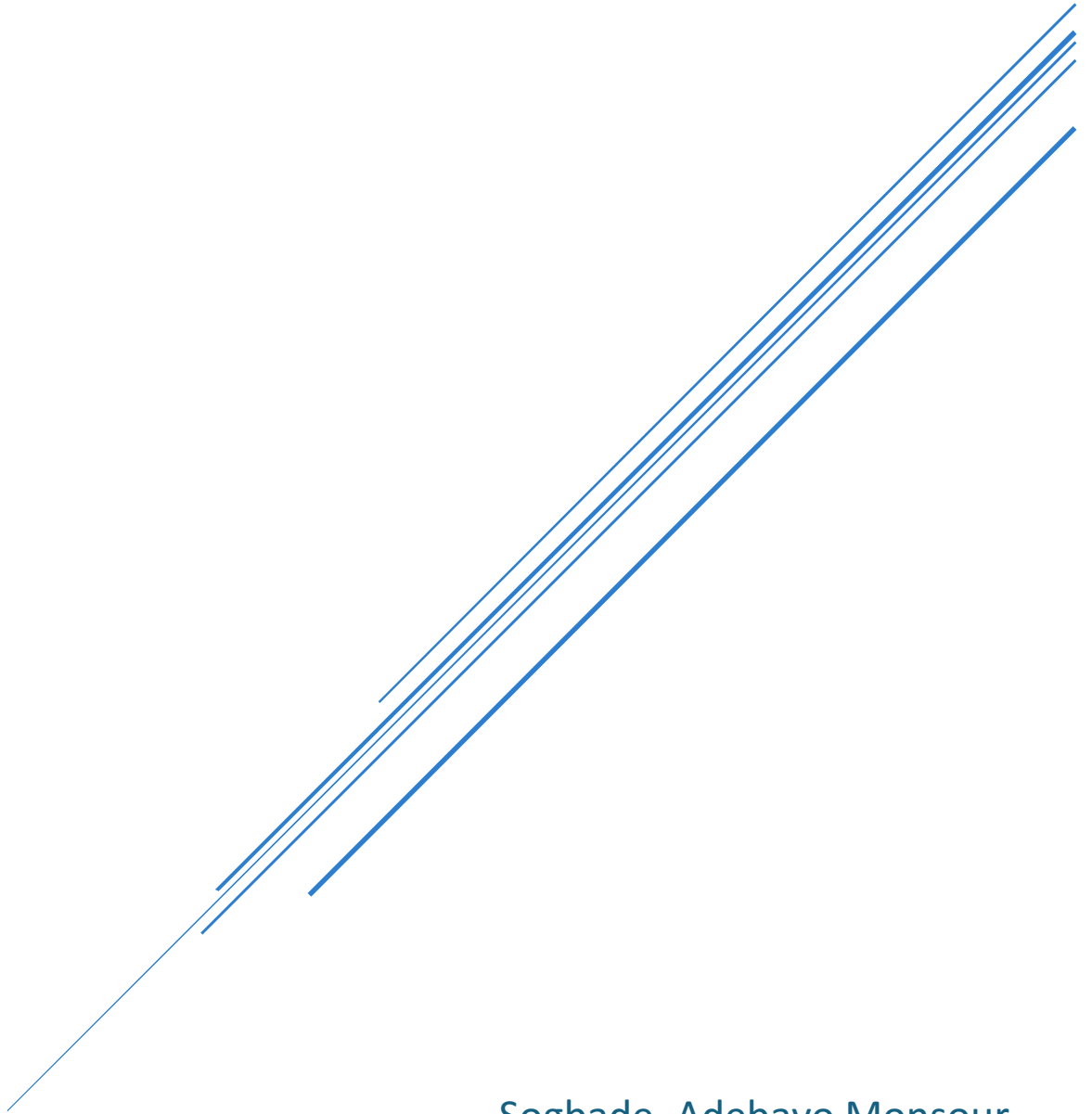


# PROFESSIONAL CASE STUDY REPORT

PROJECT TITLE: THE MULTI - LEVEL APARTMENT AT NR. 33, ISAAC JOHN STREET / NR. 2 OBA DOSUNMU STREET, IKEJA GOVERNMENT RESERVED AREA (GRA), LAGOS STATE.



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Sogbade, Adebayo Monsour  
P00567S

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## 1. Executive Summary

The Multi-Level Apartment located at **Nr. 33 Isaac John Street / No. 2 Oba Dosunmu Street, Ikeja Government Reserved Area (GRA), Lagos State**, represents a significant private real estate investment undertaken through a joint venture arrangement between two private entities. The project was conceived to develop a modern residential apartment complex designed to meet the increasing demand for high-quality residential accommodation within Ikeja GRA, one of the most prestigious residential districts in Lagos State.

The development consists of a **multi-storey reinforced concrete structure comprising one basement floor, a ground floor, and five upper floors including a penthouse floor**, situated on approximately **1,700 square meters of land**. The building was designed with modern architectural features, reinforced concrete structural framing, and high-quality mechanical and electrical installations intended to enhance the long-term marketability of the property.

The project adopted a **Management Construction procurement strategy**, which involved engaging specialist contractors for various trade packages while the project management team coordinated overall construction activities. This approach allowed flexibility in contractor selection while maintaining direct client control over cost and project delivery.

The **initial cost estimate prepared in mid-2019 was ₦980,545,280.00**, which served as the basis for determining the financial viability of the development and the joint venture sharing formula between the development partners. However, due to prevailing economic conditions within Nigeria—including inflation, exchange rate volatility, and increases in construction material prices—the contract sum was revised to **₦1,330,800,340.00 in October 2021**.

At completion, the total project cost reached **₦2,104,565,660.00**, resulting in a **cost overrun of ₦773,765,320.00** and a **time overrun of approximately six months beyond the original 36-month construction schedule**.

Despite these challenges, the project was successfully delivered through effective cost monitoring, contract administration, and proactive management of construction activities. This report presents a comprehensive review of the project, including the procurement strategy adopted, the professional services provided throughout the project lifecycle, financial performance of the project, risk factors encountered, and key lessons learned



## 2. Introduction

The real estate sector in Lagos State has experienced significant growth over the past two decades, driven by increasing urbanization, population expansion, and the growing demand for high-quality residential and mixed-use developments. Ikeja Government Reserved Area (GRA), in particular, has emerged as one of the most desirable residential and commercial districts within Lagos due to its strategic location, well-planned infrastructure, and proximity to key commercial and administrative centers.

The **Multi-Level Apartment Development at Nr. 33 Isaac John Street / Nr. 2 Oba Dosunmu Street, Ikeja GRA** was conceived as a high-end residential development aimed at providing premium accommodation within this prestigious neighborhood. The project was initiated under a **joint venture arrangement between two private entities**, combining land ownership from one partner with development expertise and financial investment from the other.

The primary objective of the development was to create a **modern residential complex incorporating high-quality architectural design, robust structural engineering, and advanced mechanical and electrical services**, thereby delivering a property capable of competing within the premium residential property market of Lagos.

The project also represented a significant financial investment requiring careful planning, detailed cost forecasting, and effective procurement strategies to ensure financial viability. Due to the dynamic nature of the Nigerian construction industry—characterized by inflation, foreign exchange volatility, and fluctuating material costs—projects of this scale require strong professional oversight to mitigate risks and maintain cost efficiency.

This report provides a detailed overview of the project, including its development background, procurement strategy, structural features, financial performance, and the professional services rendered throughout the project lifecycle. Particular emphasis is placed on the role of **Quantity Surveying and Construction Management services** in ensuring effective cost planning, contract administration, and project delivery.

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### 3. Project Overview

#### Project Title

A Multi-Level Apartment Development at Nr. 33 Isaac John Street / Nr. 2 Oba Dosunmu Street, Ikeja GRA, Lagos.

#### Nature of Development

Joint Venture Real Estate Development between two private entities.

#### Site Area

Approximately **1,700 square meters**.

**Procurement Strategy** Management Construction Procurement Method.

**Initial Project Estimate (Mid-2019)** ₦980,545,280.00

**Contract Award Sum (October 2021)** ₦1,330,800,340.00

**Projected Construction Duration** 36 Months

**Actual Time Overrun** 6 Months

**Project Cost at Completion** ₦2,104,565,660.00

**Total Cost Overrun** ₦773,765,320.00

The upward revision of the contract sum and eventual cost overrun were largely influenced by several macroeconomic factors, including:

- High inflation within the Nigerian economy
- Significant depreciation of the Nigerian Naira
- Rising cost of imported construction materials
- Supply chain disruptions during the project lifecycle

These factors had a direct impact on the financial performance of the project and required careful cost monitoring and management throughout the construction phase.



#### 4. Project Description

The development consists of a **multi-level mixed-use residential apartment complex** designed to maximize land use efficiency while providing high-quality living spaces within the limited land area available.

The building configuration includes:

- One basement level
- Ground floor
- Five upper floors
- Penthouse level

The basement level was designed primarily to accommodate **vehicular parking, mechanical installations, and service areas**, thereby maximizing usable space on the upper floors for residential purposes.

The building structure adopts a **reinforced concrete framed structural system**, consisting of:

- Reinforced concrete columns
- Reinforced concrete beams
- Reinforced concrete suspended floor slabs

This structural arrangement allows the building to efficiently carry all **dead loads, live loads, and imposed loads**, ensuring structural stability and long-term durability.

The architectural design incorporates **non-load bearing partition walls**, allowing flexibility in internal space configuration without compromising structural integrity.

To enhance the building's marketability and long-term value, high-quality finishes and modern building services were incorporated throughout the development.

#### 5. Foundation and Substructure Works

Due to the multi-storey nature of the development and the soil conditions within the Ikeja axis of Lagos, a **deep foundation system** was required to ensure adequate load transfer to stable soil strata.

The foundation system consists of:



- **116 reinforced concrete replacement piles**
- **Pile diameter:** 600mm
- **Pile depth:** 18 meters

These piles were designed to safely transmit structural loads to deeper soil layers capable of supporting the building.

The substructure also includes:

- Reinforced concrete pile caps
- Raft beams
- Reinforced concrete ground slabs
- Basement retaining walls

Given the presence of a basement level, special attention was given to **basement waterproofing and tanking systems** to protect the structure from groundwater infiltration and seasonal flooding.

The waterproofing system incorporated:

- Waterproof membranes
- Reinforced retaining walls
- Drainage provisions
- Protective screeds

These measures were necessary to mitigate potential risks associated with **groundwater pressure and rising water tables**.

## 6. Mechanical, Electrical and Plumbing Systems

Modern Mechanical, Electrical, and Plumbing (MEP) systems were integrated into the development to ensure comfort, safety, and operational efficiency.

### Mechanical Systems

The mechanical installations include:

- Centralized water supply system



- Water treatment and storage facilities
- Fire detection and suppression systems
- Mechanical ventilation systems

### **Electrical Systems**

The electrical infrastructure includes:

- Main power distribution systems
- Standby generator installation
- Lighting and power outlets
- Security and surveillance systems
- Earthing and lightning protection



### **Plumbing Systems**

The plumbing installations include:

- Potable water supply network
- Wastewater drainage systems
- Sewage disposal systems
- Storm water drainage systems

These installations were designed in accordance with engineering standards to ensure **operational reliability, energy efficiency, and environmental sustainability.**

## **7. Procurement Strategy**

The project adopted the **Management Construction Procurement Method**, which involves dividing the project into multiple trade packages managed by a central construction management team.

This procurement method was selected for several reasons:

1. It allows for **greater flexibility in contractor selection.**
2. It enables **specialist contractors to handle specific aspects of the work.**
3. It improves **cost transparency and control.**

4. It allows certain work packages to commence earlier, thereby reducing potential delays.

Under this approach, contractors were engaged for various work sections, including:

- Piling works
- Framed Structural works
- Block settings
- Aluminium windows and curtain walls
- Mechanical installations
- Electrical installations
- Finishing trades



The construction management team coordinated the activities of these contractors to ensure smooth project execution.

## 8. My Professional Involvement

My involvement in the project began at the **conceptual stage**, working directly with the landowner and the development partner.

I led the **Quantity Surveying team from my organization**, providing comprehensive **Pre-Contract and Post-Contract services** throughout the development.

My responsibilities included:

- Project cost planning
- Procurement management
- Contract administration
- Cost control and financial reporting
- Contractor negotiations
- Project coordination

This role required active collaboration with architects, structural engineers, mechanical engineers, and other project stakeholders.



## 9. Pre-Contract Services Provided

### 9.1 Cost Estimate and Feasibility Study

One of the most important tasks undertaken during the early stage of the project was the preparation of a **detailed cost estimate and financial feasibility analysis**.

This exercise was critical because it helped determine whether the project was financially viable.

The cost estimate played a major role in the following:

#### **Determining Project Viability**

The estimate allowed the development partners to compare the projected construction cost with expected revenue from property sales or leasing.

This analysis helped determine whether the project would generate an acceptable return on investment.

#### **Determining the Joint Venture Sharing Formula**

The financial relationship between the development partners was partly based on the **estimated cost of construction**.

The estimate therefore served as a reference point for determining the **profit-sharing structure of the joint venture**.

#### **Cash Flow Planning**

The estimate also served as the basis for preparing **project cash flow forecasts**, which helped the development partners plan the timing of financial contributions and funding arrangements.

### 9.2 Preparation of Bill of Quantities

A detailed **Bill of Quantities (BOQ)** was prepared to support the procurement process and cost management.

Given the procurement method adopted, a **hybrid BOQ structure** was developed consisting of:

- **Sectional Bills** for piling and specialized works

- **Trade Bills** for general construction activities

The BOQ served several purposes including:

- Providing a basis for contractor tendering
- Facilitating cost comparison between contractors
- Supporting work valuation during construction

### **9.3 Contract Documentation**

Customized contract documents were prepared for each trade package.

These contracts defined:

- Scope of work
- Contractor obligations
- Client responsibilities
- Payment mechanisms
- Variation procedures
- Liquidated damages for delay
- Dispute resolution procedures



This ensured clarity of expectations and minimized contractual disputes.

### **9.4 Contractor Negotiation and Selection**

Contractors were carefully evaluated and selected based on:

- Technical capability
- Financial stability
- Past performance
- Competitive pricing

Negotiations were conducted to ensure **value for money while maintaining quality standards.**

## 10. Post-Contract Services Provided

### 10.1 Cost Monitoring and Control

During construction, strict cost monitoring procedures were implemented.

This involved:

- Tracking project expenditure
- Monitoring cost variations
- Implementing cost-saving measures where necessary

Periodic **financial reports** were submitted to the development partners to keep them informed of the project's financial status.

### 10.2 Payment Certification

Contractor payments were based on **milestone achievements and measured work completed**.

This involved:

- Site inspections
- Measurement of completed work
- Issuance of valuation certificates
- Recommendation of interim payments



### 10.3 Project Coordination

Due to the multiple trade contractors involved, strong coordination was required to ensure smooth workflow on site.

Responsibilities included:

- Coordinating work schedules
- Resolving conflicts between trades
- Monitoring construction progress
- Preparing progress reports

### 10.4 Materials Procurement

Material procurement was carefully planned based on the BOQ breakdown.

This allowed the client to:

- Obtain competitive material prices
- Avoid delays due to material shortages
- Reduce wastage and unnecessary expenditure



## 11. Financial Performance and Cost Overrun Analysis

The project experienced a significant cost increase from the initial estimate of **₦980 million to a final completion cost of ₦2.1 billion.**

The major factors responsible for the cost escalation include:

- Inflation in construction material prices
- Exchange rate depreciation affecting imported materials
- Variations in project scope
- Increase in labor costs
- Delays in material supply

Continuous financial monitoring helped mitigate the impact of these factors and allowed the development partners to make informed financial decisions during the construction process.

## 12. Risk Identification and Management

Several risks were encountered during the project lifecycle, including:

### **Economic Risks**

Inflation and exchange rate volatility significantly increased construction costs.

### **Contractor Performance Risks**

Variations in contractor performance required close monitoring.

### **Supply Chain Risks**

Delays in the delivery of construction materials affected project timelines.

Proactive management of these risks was necessary to ensure project completion.

Several risks were encountered during the project lifecycle.

### **Inflation Risk**

Rapid inflation significantly increased construction costs.

### **Foreign Exchange Risk**

Depreciation of the Naira increased the cost of imported materials.

**Contractor Performance Risk**

Variations in contractor performance required active monitoring.

**Supply Chain Risk**

Delays in material delivery affected project timelines.

These risks contributed to both **cost and time overruns** experienced during the project.

**13. Lessons Learned and Professional Reflection**

The project provided several valuable lessons that contributed to professional development.

One key lesson is the importance of incorporating **adequate contingency allowances** in project budgets to accommodate economic fluctuations.

Another lesson is the need for **early procurement planning for imported materials**, which are often vulnerable to exchange rate volatility.

The experience also highlighted the importance of **effective communication and coordination among project stakeholders**, particularly when multiple contractors are engaged under a management procurement system.

From a professional perspective, the project strengthened the candidate's skills in **cost control, contract administration, project coordination, and risk management**, all of which are essential competencies for a practicing quantity surveyor.

**14. Conclusion**

The Multi-Level Apartment Development at **Isaac John Street / Oba Dosunmu Street, Ikeja GRA** represents a significant residential development project delivered through effective collaboration between the development partners and the professional project team.

Despite challenges associated with **inflation, exchange rate fluctuations, and supply chain disruptions**, the project was successfully executed through strong cost management, effective procurement strategies, and active project coordination.

The project demonstrates the critical role played by **Quantity Surveyors and Construction Managers** in ensuring that complex real estate developments are delivered efficiently while maintaining financial discipline and quality standards.

The project was named **Pavilion Heights** upon final completion.



## 15. Recommendations

For similar projects in the future, the following recommendations are suggested:

1. Inclusion of larger contingency allowances in project budgets.
2. Early procurement of imported materials to mitigate exchange rate risks.
3. Use of digital project management tools for improved coordination.
4. Greater emphasis on risk management during project planning.

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## APPENDIX

### PROJECT'S PROGRESS PHOTOGRAPHS



Pic. 1 & 2 – Pile load testing



Pic. 3 - Construction of pile caps



Pic. 4 - Reinforcement of the retaining walls





Pic. 5 – Reinforcement of ground beam and column at the basement



Pic. 6 - Formworks for basement retaining wall



Pic. 7 & 8 – Columns' reinforcement and formwork.



Pic. 9 - Pumping of concrete of the second floor by Lafarge Cement



Pic. 10 - Concrete framed structure up to the pent house floor level

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Pic. 11 – Blockwalls ready for rendering

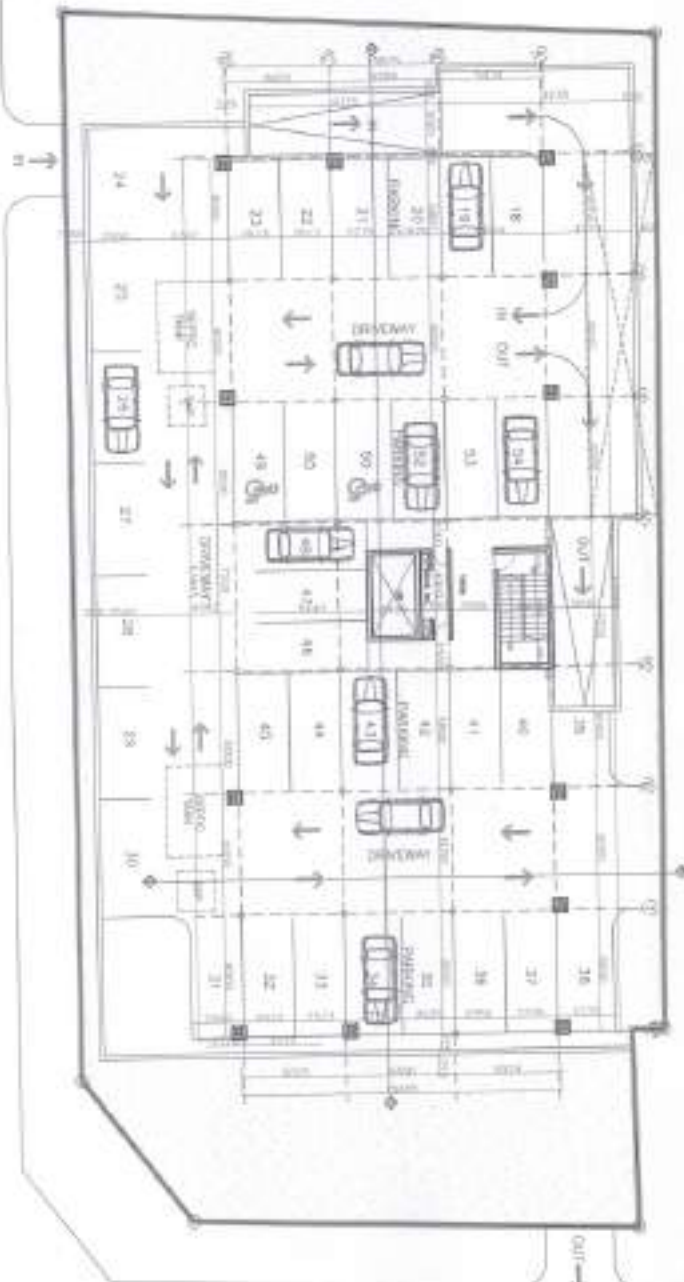


Pic.12 - Final stage



Pic.13 & 14 – Beginning and the end of project.



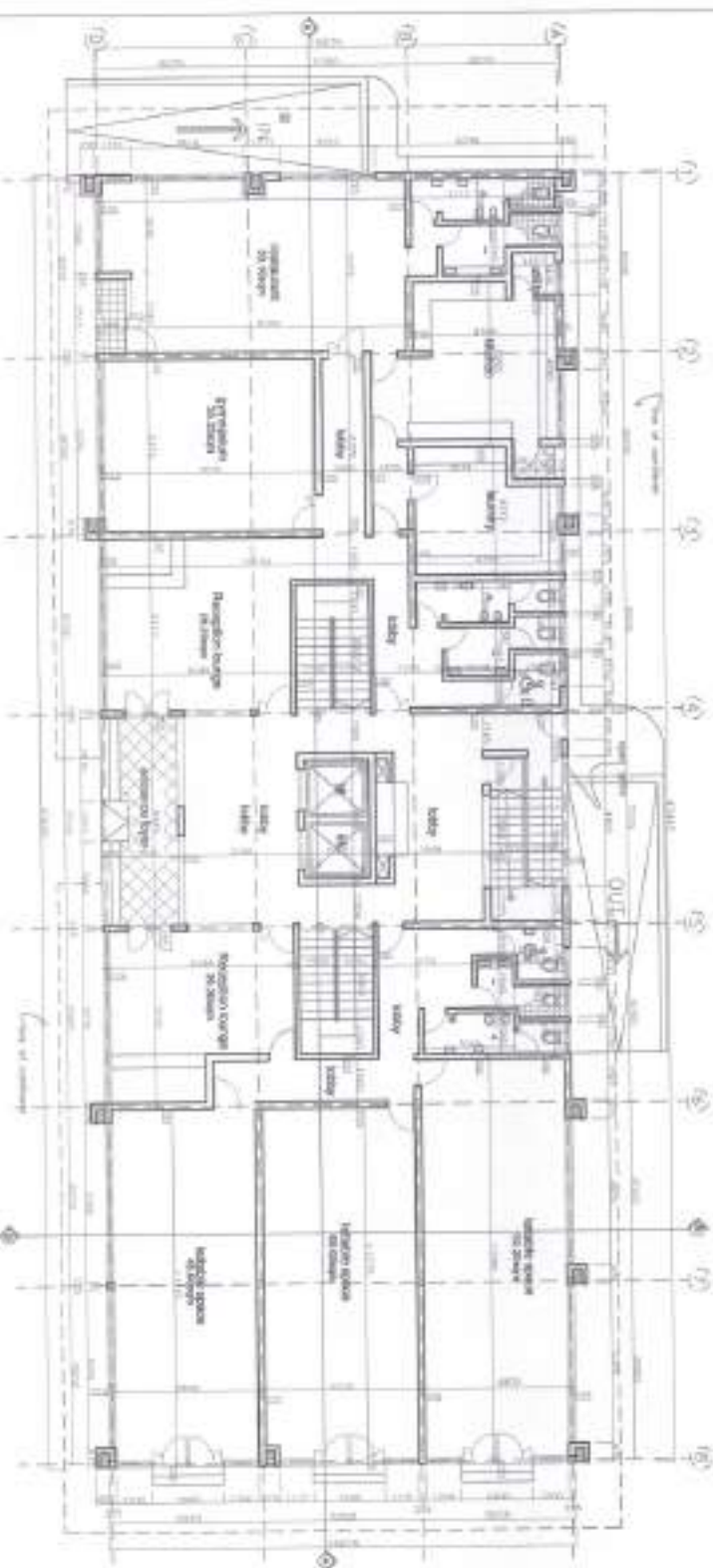


094 DECEMO STREET

ISAAC JOHN STREET

PROPOSED DEVELOPMENT

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	PROJECT TITLE	PROPOSED MIXED-USE DEVELOPMENT PART OF LAND WITHIN PLOT 158 G.R.A. KEJIA, LAOSOI/ NO. 2, OUA DOUENI STREET, O.R.A. KEJIA, KEJIA LOCAL GOVERNMENT AREA, LAOSOI STATE			
DESIGNED	CLIENT	ANTHONY QUAYENI FASIFE	DATE	FEBRUARY 2021	SHEET NO. <b>01B</b>
	DESCRIPTION	BASEMENT FLOOR PLAN	DATE		



GROUND FLOOR PLAN

NOTES

1. ALL WORK SHALL BE DONE WITHIN THE SPECIFIED TIME FRAME AND TO THE SATISFACTION OF THE CLIENT.

2. ALL WORK SHALL BE DONE WITHIN THE SPECIFIED TIME FRAME AND TO THE SATISFACTION OF THE CLIENT.

3. ALL WORK SHALL BE DONE WITHIN THE SPECIFIED TIME FRAME AND TO THE SATISFACTION OF THE CLIENT.

PROJECT TITLE  
 PROPOSED MIXED-USE DEVELOPMENT  
 PART OF LAND WITHIN PLOT 1, 2 & 3, IBEJA, LAGOS /  
 NO. 2, OBA DODDENDI STREET, G.R.A. IBEJA,  
 FEDERAL LOCAL GOVERNMENT AREA,  
 LAGOS STATE.

CLIENT  
 ANTHONY OLUSEYI FAGBIRE

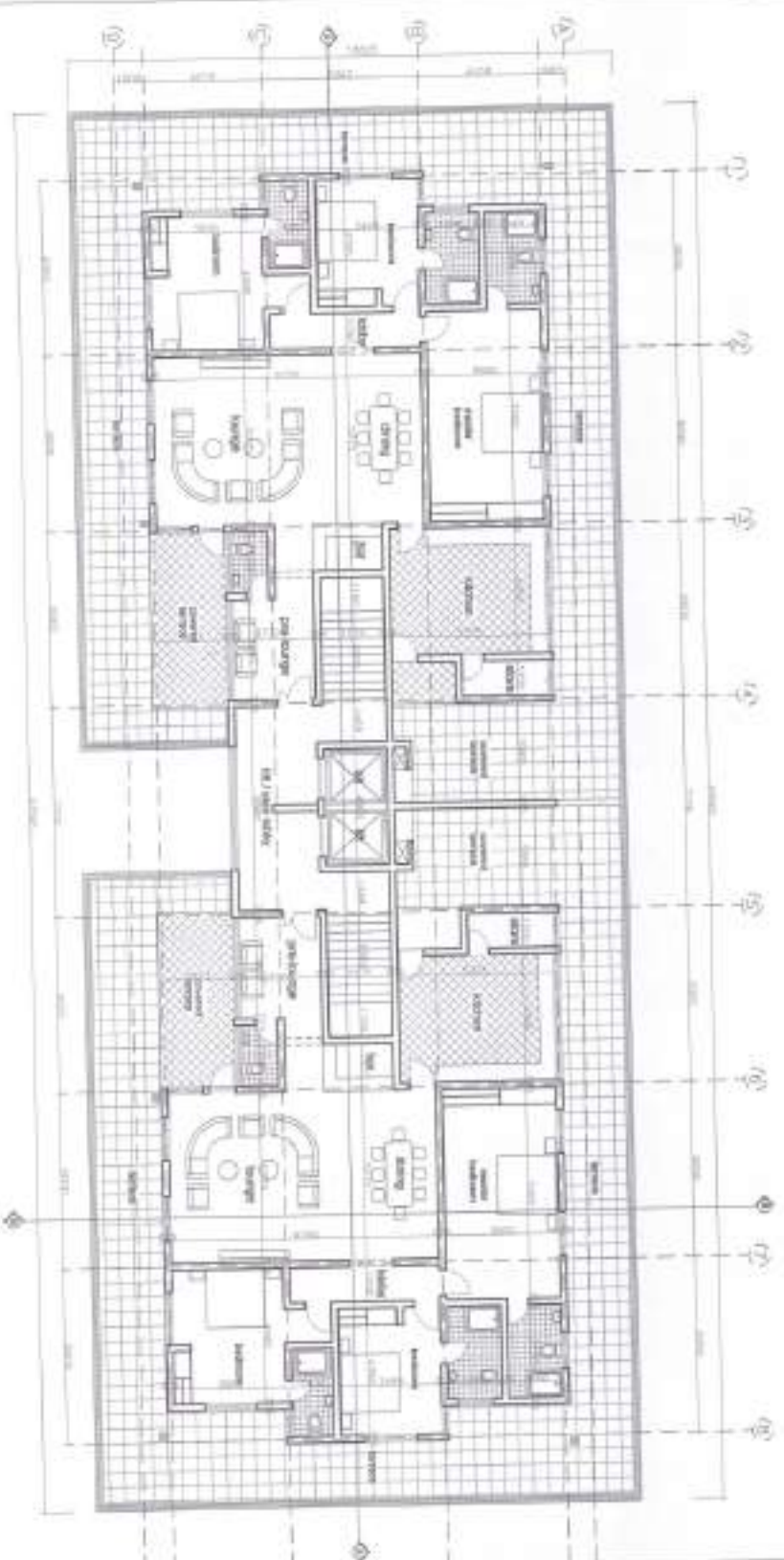
PREPARED BY  
 GROUND FLOOR PLAN

DATE  
 FEBRUARY 2007

SCALE  
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SHEET NO.  
 02

ARCHITECTS  
**LINARC ASSOCIATES.**  
 11, ADEOLA OLUYI STREET, LAGOS, NIGERIA  
 TEL: 01-2612345  
 FAX: 01-2612346  
 WWW.LINARCASSOCIATES.COM



**NOTES**

1. DO NOT SCALE THE DRAWING. ALWAYS REFER TO THE DIMENSIONS SHOWN.

2. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

**PROJECT TITLE**  
 PROPOSED DEVELOPMENT AT  
 OBA DECIMO STREET / ISAAC JOHN STREET,  
 KEJA G.R.A,  
 KEJA LOCAL GOVERNMENT AREA,  
 LAGOS STATE.

**CLIENT** ANTHONY OLUSEMI FASPE

**DESCRIPTION** PENT FLOOR PLAN

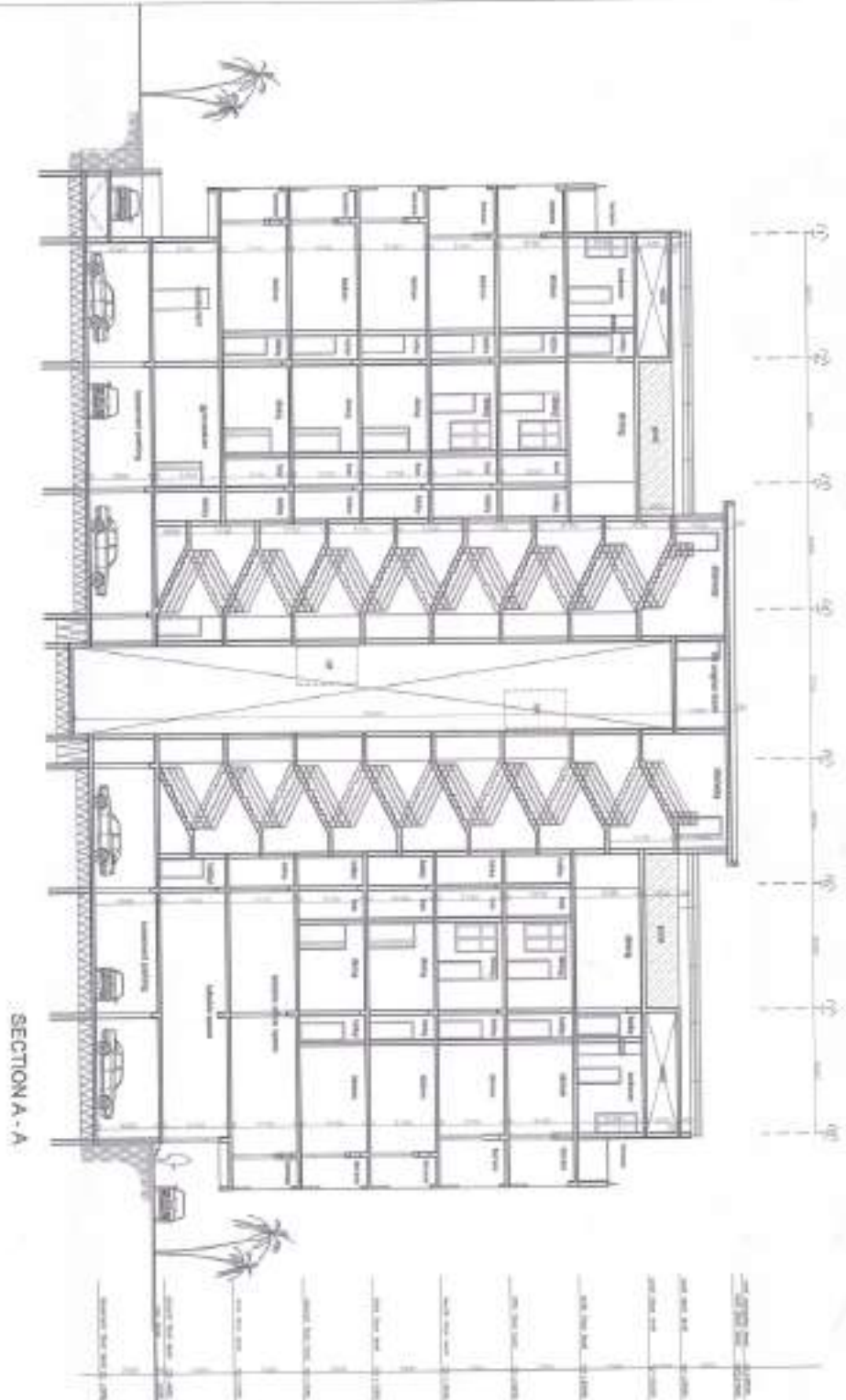
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**DATE** FEBRUARY 2021

**ARCHITECTS**  
**LINARO ASSOCIATES.**  
 ARCHITECTS



PROFESSIONAL SEAL



NOTES

1. BE SET BACK 10M FROM THE ROAD AND 5M FROM THE PROPERTY LINE.  
 DESIGNER: M. A. OLUSENI, ARCHITECT

2. ALL DIMENSIONS ARE IN METERS AND SHALL BE TO FACE UNLESS OTHERWISE SPECIFIED.  
 SCALE: AS SHOWN

3. REVISIONS SHALL BE APPROVED BY THE ARCHITECT AND ENGINEER.

PROJECT TITLE

PROPOSED MIXED-USE DEVELOPMENT  
 PART OF LAND WITHIN PLOT 1, 96 O.S.A. WELA LAGOS/  
 NO. 2, OBA DOGEMO STREET, O.S.A. WELA  
 WELA LOCAL GOVERNMENT AREA,  
 LAGOS STATE

CLIENT

ANTHONY OLUSENI TRADING

SHEET NO

09

DATE

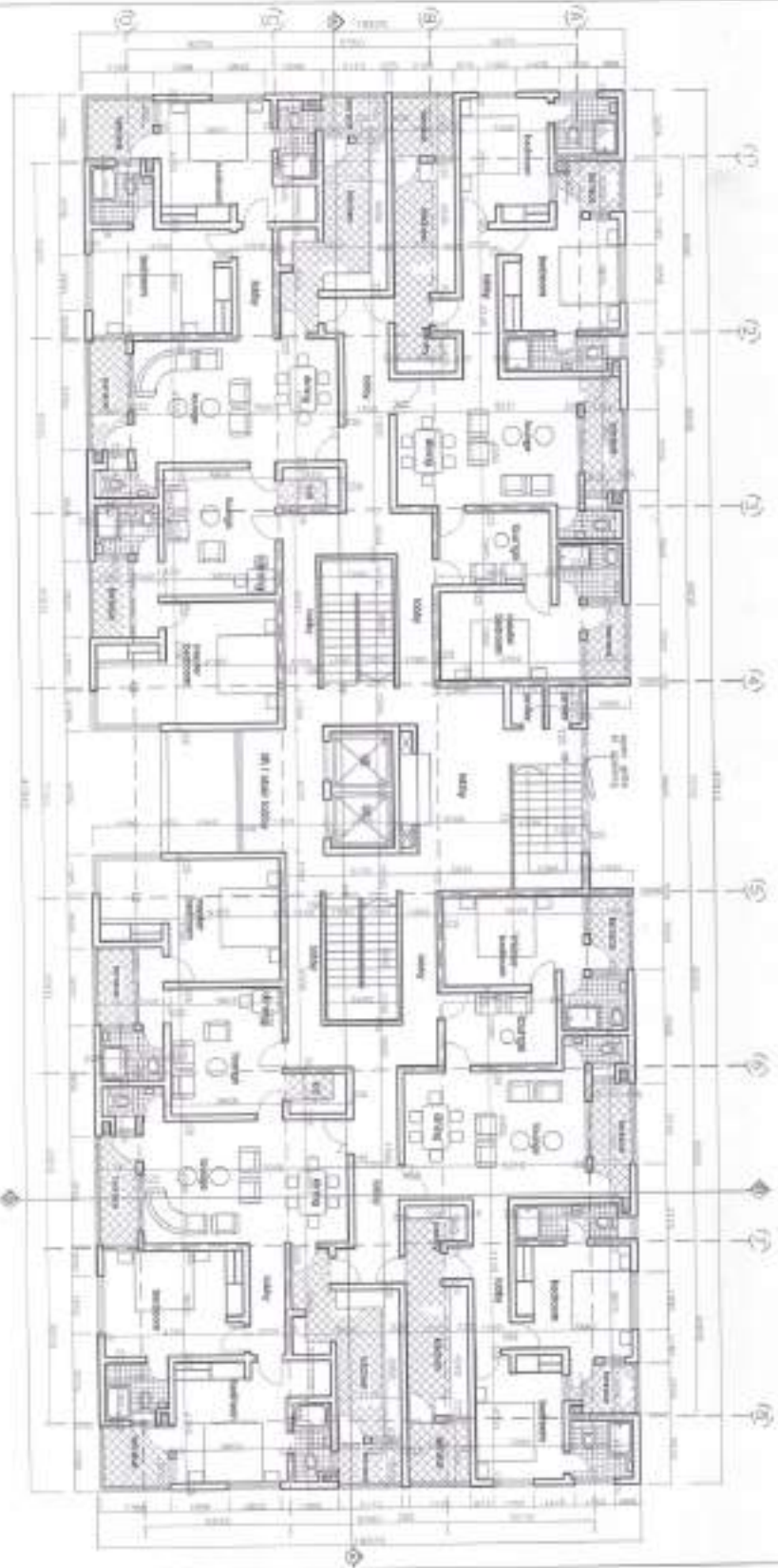
SCALE

FEBRUARY, 2021

DESIGN

1 2 3 4 5 6 7 8 9 10 11 12

ARCHITECTS  
**LINARC ASSOCIATES.**  
 ARCHITECTS & ENGINEERS  
 10, OBA DOGEMO STREET, O.S.A. WELA  
 WELA LOCAL GOVERNMENT AREA,  
 LAGOS STATE



TYPICAL FLOOR PLAN (2ND-STH)

NOTES

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2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE STATED. DIMENSIONS FROM FACE UNLESS OTHERWISE STATED.

3. APPROVED COPY OF ARCHITECTURE FOR REVIEW AND APPROVAL BY THE LOCAL AUTHORITY.

REVISIONS

PROJECT TITLE

PROPOSED MIXED-USE DEVELOPMENT  
PART OF LAND WITHIN PLOT J 50 Q.R.A. WELLA, LAGOS /  
NO. 2, OBA DOCEMO STREET, O.S.A. WELLA,  
IKERA LOCAL GOVERNMENT AREA,  
LAGOS STATE

CLIENT

ANTHONY OLUSEMI FASIFE

SHEET NO

04

DESIGNER

TYPICAL FLOOR PLAN (2ND-STH)

DATE

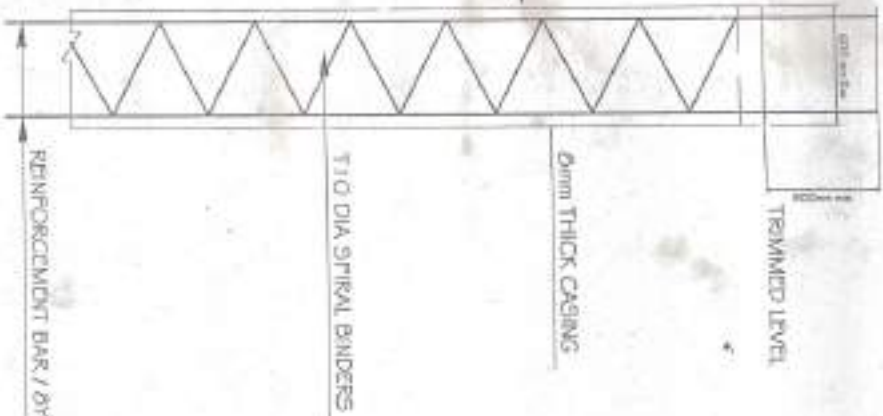
FEBRUARY 2021

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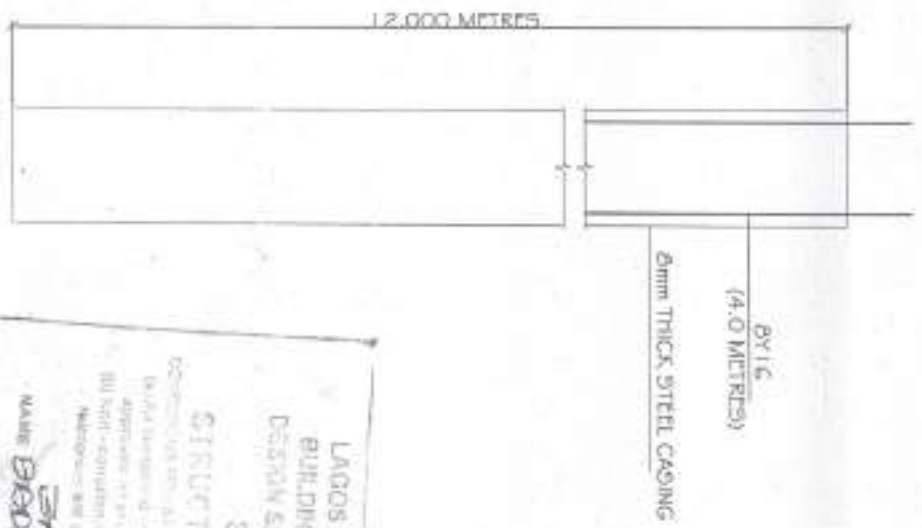


**UNARC ASSOCIATES.**

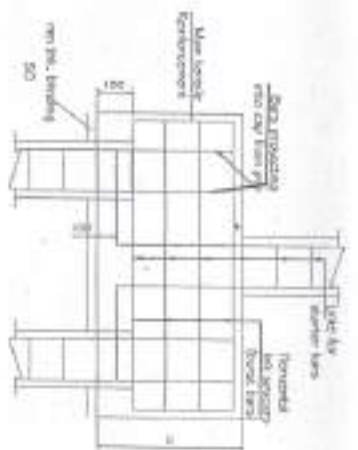
ARCHITECTS  
10, THE BELLEVUE  
LAGOS STATE



TYPICAL BORED PILE SECTION



TYPICAL BORED PILE DETAILS FOR 600 mm Dia.



TYPICAL PILE/PILECAP CONNECTION SECTION (NON-MONOPILES)

LAGOS STATE GOVERNMENT  
BUILDING CONTROL DEPARTMENT  
DESIGN SERVICES DIVISION

STRUCTURAL  
SCREENED  
REINFORCED  
CONCRETE

DATE: 14/10/2014  
BY: [Signature]

MAKE BORED PILE/PILECAP CONNECTION SECTION

SCALE: 1/10

CLIENT	PROJECT	DRINGS TITLE	NOTES	SCALE
ANTHONY OLUSEVI FASIPPE	LAGOS STATE GOVERNMENT BUILDING CONTROL DEPARTMENT	FILE DETAILS - FOR LIFT AREA	1. This drawing is to be read in conjunction with all relevant schedules and engineering drawings. 2. Concrete to be given 28 days curing at 28 days. 3. Cover to main reinforcement to be as follows: Reinforcement Ømm, 40mm; Reinforcement Ømm, 25mm; Reinforcement Ømm, 12mm. 4. High clear bars provided 100mm V-meshing 100mm. 5. All reinforcement shall be at 100mm dia. 450. 6. The Engineer bears no responsibility for works not supervised by them.	1:20 1:20 DATE: APRIL 2021

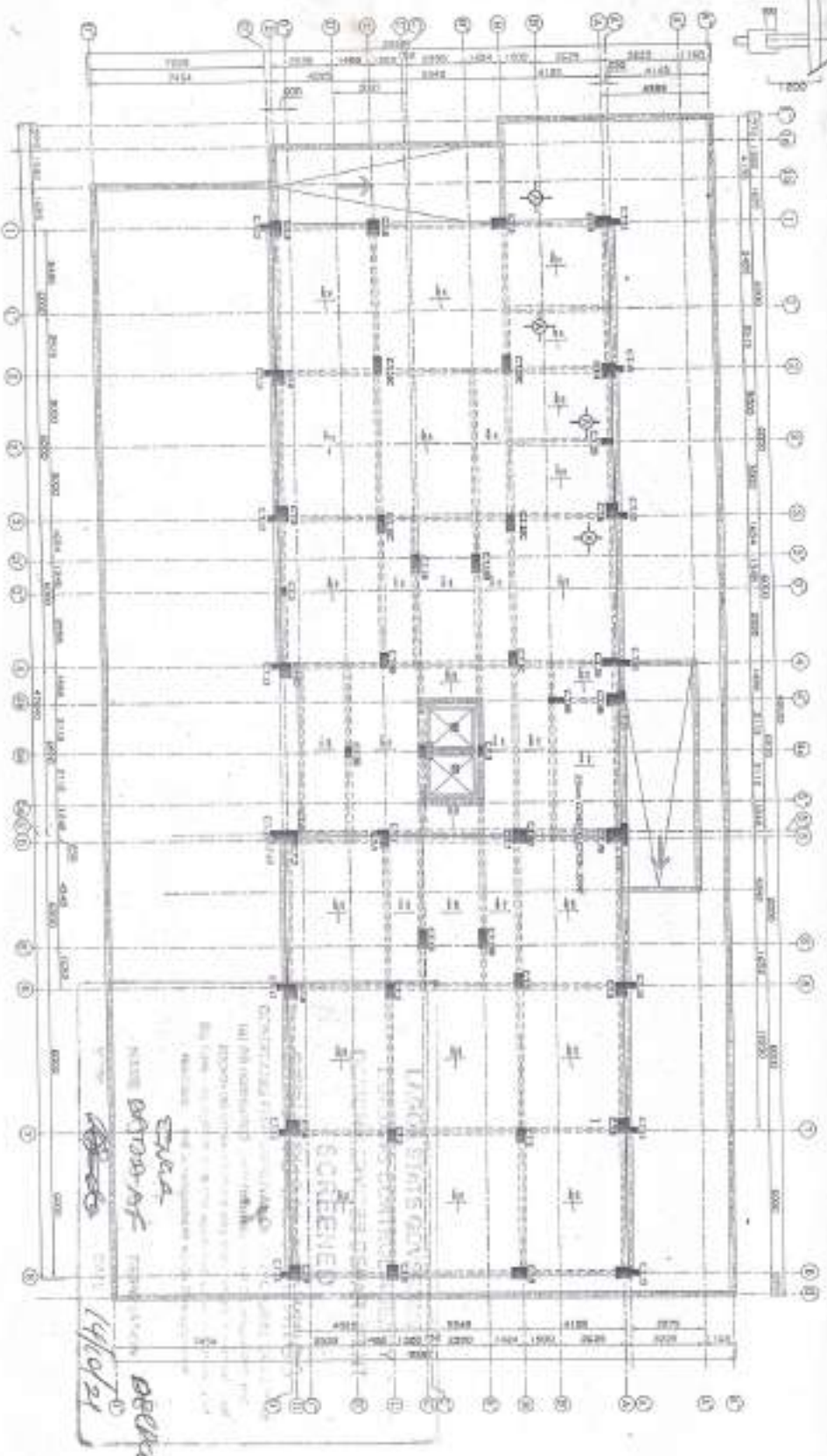
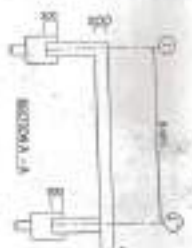
AGRA PROJECTS INTERNATIONAL LTD  
23, Agba Road, Yaba District, Lagos State  
LAGOS - NIGERIA  
TEL: 0813 008681  
www.agraprojects.com

LOCATION: LAGOS STATE GOVERNMENT BUILDING CONTROL DEPARTMENT

PROJECT NO: 02

[Handwritten signature]





CLIENT

ANTHONY OLUSEYI FASAIPE

ENGINEERS

DR. ANTHONY OLUSEYI FASAIPE  
 22, Adaji Road, Yaba, Lagos State  
 ALAPERE, AGILE  
 LAGOS STATE  
 TEL: 09-11100000

PROJECT

PROPOSED RESIDENCE DEVELOPMENT

LOCATION  
 22, Adaji Road, Yaba, Lagos State

DRAWING TITLE

BASEMENT FLOOR SLAB LAYOUT

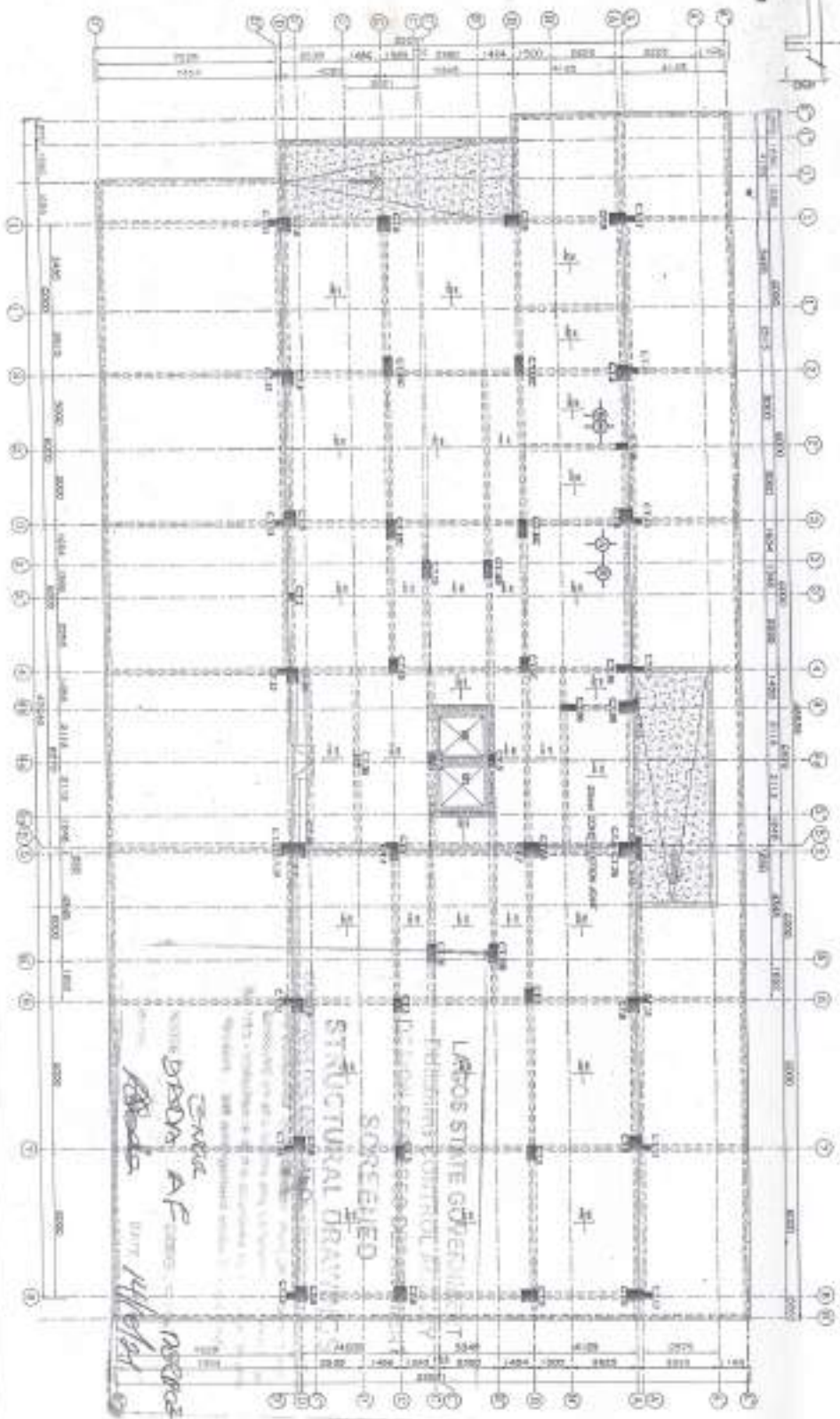
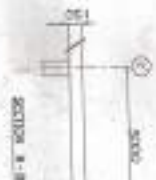
Designed	GR. OLUSEYI	Date	
Drawn	ADAMS	Date	
Scale	1:50 (1:20)	Apr 20, 2011	

NOTES

- This drawing is to be used in conjunction with relevant sections and engineers drawings
- Concrete to be grade 20 (f<sub>cu</sub> = 25N/mm<sup>2</sup>) at 20 days
- Clear to meet next to be as follows: Foundation 50mm/100mm, Wall 20mm, Slab 20mm, Floor 20mm, Ceiling 10mm, All recesses are to be 10mm
- High steel bars diameter 16mm 'V' - minimum fy = 470N/mm<sup>2</sup>
- All steelwork shall be to BS 4360 Grade 50A
- The Engineers bear no responsibility for works not supervised by them

SCALE

DATE: 14/07/21  
 DRAWN BY: ADAMS  
 CHECKED BY: OLUSEYI  
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CLIENT  
ANTHONY OLUSEVI FASIFE

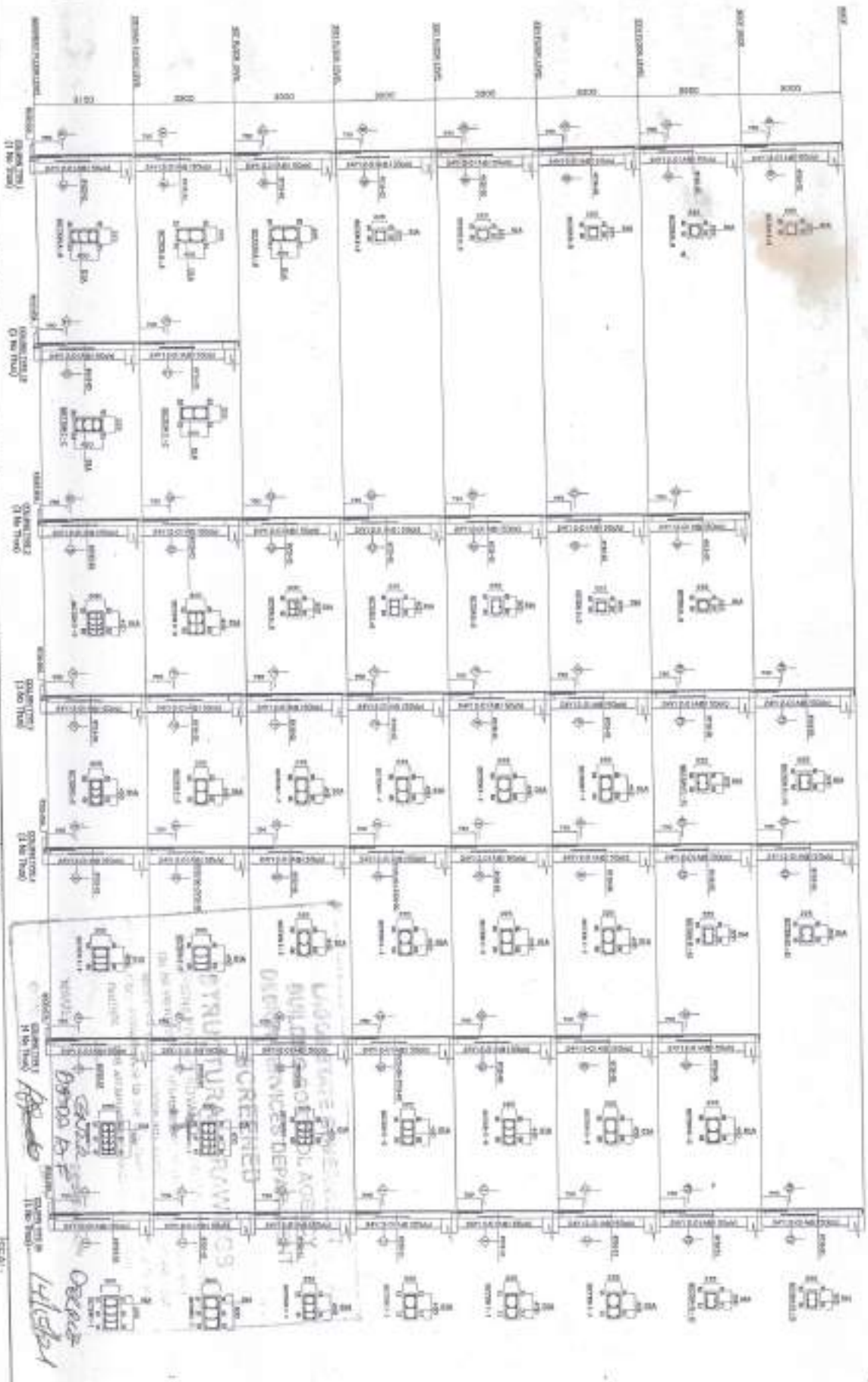
ENGINEERS  
M&S CONSULTANTS ENGINEERING LTD  
23, Ngai Road, Nukuunono, Apia  
ALBERTA, WEST  
SAMOA  
TEL: (685) 210 0001

PROJECT  
PROPOSED RECYCLIST DEVELOPMENT  
LOCATION  
LOT 17, 'The Recyclists' (S/S) (S/S) (S/S)  
LOT 18, 'The Recyclists' (S/S) (S/S) (S/S)  
LOT 19, 'The Recyclists' (S/S) (S/S) (S/S)

DRAWING TITLE  
GROUND FLOOR SLAB LAYOUT  
Designed BY: BDO/AMM  
Drawn BY: ADAMS  
Scale: 1:50 (30)  
DATE: APRIL 2014  
DRAWING NO: 06A

- NOTES
1. This drawing is to be read in conjunction with all relevant specifications and engineering drawings.
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  4. High steel bars provided that Y - modulus  $F_y = 420 \text{ N/mm}^2$ .
  5. All work shall be to BS 4880 Grade 40A.
  6. The Engineer bears no responsibility for works not approved by them.

SEAL



CLIENT

ANTHONY OLUSEYI FASIFE

ENGINEERS

ENG PROJECTS INTERNATIONAL LTD  
 21, Agidi Road, Ybeke Bus 8100,  
 ALABERE, KETU,  
 LAJOOS - STATE  
 TEL: 08131028881

PROJECT

PROPOSED ROADSIDE DEVELOPMENT

LOCATION

21, Agidi Road, Ybeke Bus 8100,  
 ALABERE, KETU,  
 LAJOOS - STATE

DRAWING TITLE

COLUMN DETAILS

Drawn: **SAWALE**

Scale: 1:30 (30)

DATE: APRIL, 2021

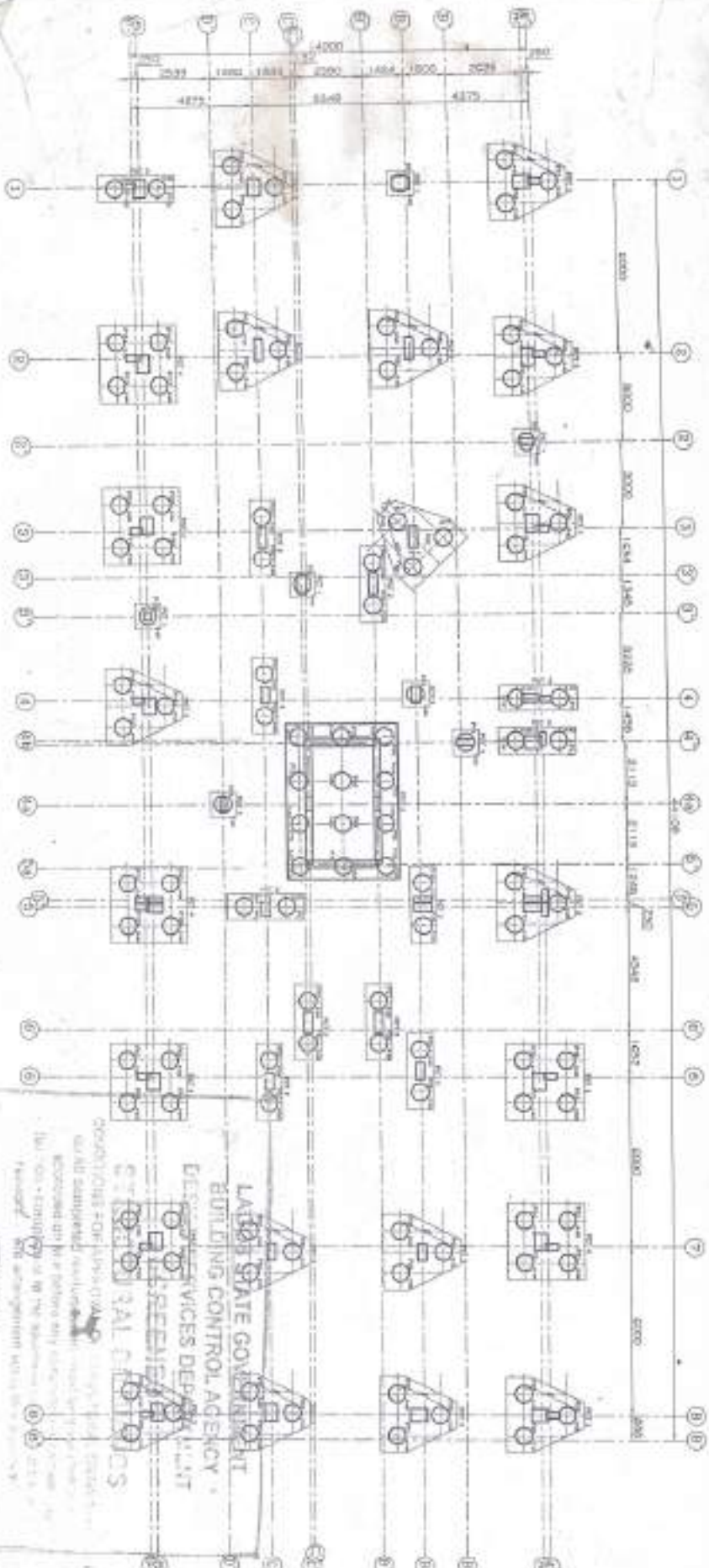
NOTES

1. This drawing is to be used in conjunction with all relevant drawings and engineering drawings.
2. Concrete to be grade 20 fcu = 25N/mm<sup>2</sup> at 28 days.
3. Cover to main rebar to be as follows - Foundation: 50mm; Column: 25mm; Slab: 20mm; Beam: 25mm. All measurements are in mm.
4. High Steel bars denoted 'HSL' - refer to BS-4469.
5. All steels used to be BS-4469 Grade 50A.
6. The Engineer bears no responsibility for works not supported by them.

SCALE

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**CLIENT**  
ANTHONY OLUSEYI FASIPPE

**EMPLOYERS**  
BIG PROJECTS INTERNATIONAL LTD  
23, Agid Road, Ibeju-Lekki, Lagos State  
TEL: 08131082891

**PROJECT**  
PADOSSO HIGH-RISE DEVELOPMENT  
**LOCATION**  
PADOSSO HIGH-RISE DEVELOPMENT  
23, Agid Road, Ibeju-Lekki, Lagos State

**DRAWING TITLE**  
PILECAP LAYOUT  
**DESIGNED** OBIOLAWH  
**DRAWN** P. BARTIS  
**DATE** APRIL, 2021

**NOTES**  
1. This drawing is to be read in conjunction with all relevant architecs and engineers drawings  
2. Concrete to be grade 20 Full - 25mm? at 25 days  
3. Cover to main earth to be as below: Foundation: 50mm; Slab: 20mm; Column: 25mm; Beam: 25mm; Wall: 25mm; Floor: 25mm; Roof: 25mm  
4. High steel bars deformed than Y - minimum Fy - 410N/mm<sup>2</sup>  
5. All steelwork shall be to BS 4360 Grade S275  
6. The Engineers bear no responsibility for errors and omissions by them.

LABOR STATE GOVERNMENT  
BUILDING CONTROL AGENCY  
DESIGN SERVICES DEPARTMENT  
GENERAL DIRECTOR'S OFFICE  
P.O. BOX 10000, LAGOS STATE  
DATE: 14/04/21  
NAME: OBIOLAWH  
SIGNATURE: [Handwritten Signature]

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