

ENVIRONMENTAL MANAGEMENT PLAN (EMP) REPORT

FOR THE PROPOSED CONSTRUCTION OF A

SHIP-DESIGN RESIDENTIAL FLATS WITH PENTHOUSE

UMUEJIOFOR STREET, OFF HIGH CHIEF EMEKA OKONKWO STREET, AGBEANI EZEAWULU, NIBO, AWKA
SOUTH LOCAL GOVERNMENT AREA, ANAMBRA STATE



PROPONENT:
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PREPARED BY:
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SUBMITTED TO:
ANAMBRA STATE MINISTRY OF ENVIRONMENT

MAY, 2026

CERTIFICATION

We certify that this Environmental Management Plan (EMP) for the proposed ship-design residential flats with penthouse, located at Umuejiofor Street, off High Chief Emeka Okonkwo Street, Agbeani Ezeawulu, Nibo, in Awka South Local Government Area, Anambra State, was prepared in accordance with professional practice and the guidelines of the Anambra State Ministry of Environment.

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We, the undersigned members of the report preparation team, certify that we have prepared this Environmental Management Plan in accordance with professional standards, regulatory requirements and ethical guidelines. We confirm that the findings, conclusions and recommendations in this report are accurate and based on the field visit, measurements and consultations carried out for this project.

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DISCLAIMER

This Environmental Management Plan has been prepared by Stellovate Limited in good faith and to the best professional standard available at the time of preparation. It draws on information supplied by the proponent, a site visit and field observation carried out in May 2026, on-site instrument readings and published secondary data relevant to Nibo, Awka South Local Government Area. Stellovate Limited does not accept liability for any decision taken by a third party on the basis of this report outside its intended purpose, which is regulatory submission to the Anambra State Ministry of Environment. No part of this document should be copied, distributed or used for any other purpose without the written consent of the consultant and the proponent.

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LIST OF ABBREVIATIONS

Abbreviation	Meaning
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
ASWAMA	Anambra State Waste Management Authority
BSc	Bachelor of Science
CCTV	Closed-Circuit Television
CO	Carbon Monoxide
CO₂	Carbon Dioxide
dBA	A-weighted Decibel
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
GIS	Geographic Information System
HCHO	Formaldehyde
LAeq	Equivalent Continuous A-weighted Sound Pressure Level
LCpeak	Peak C-weighted Sound Pressure Level
LFN	Laws of the Federation of Nigeria
LGA	Local Government Area
Lmax	Maximum Sound Pressure Level
MSc	Master of Science
NESREA	National Environmental Standards and Regulations Enforcement Agency
NO₂	Nitrogen Dioxide
NSDWQ	Nigerian Standard for Drinking Water Quality
PM₁₀	Particulate Matter (10 micrometres or less)
PM_{2.5}	Particulate Matter (2.5 micrometres or less)
ppm	Parts Per Million
PPE	Personal Protective Equipment
TVOC	Total Volatile Organic Compound
VOC	Volatile Organic Compound
WHO	World Health Organization

EXECUTIVE SUMMARY

Mrs. Theresa Okoli (nee Oliagba) is developing a plot of land measuring 487.559 square metres at Umuejiofor Street, off High Chief Emeka Okonkwo Street, Agbeani Ezeawulu, Nibo, Awka South Local Government Area, Anambra State, into a residential flats with a penthouse level. The building is designed around a curved, ship-like outline that gives it a distinct, boat-shaped appearance quite different from the conventional rectangular houses found around it, and it will sit on a footprint of about 283.53 square metres, leaving roughly 204.03 square metres of open compound for parking, drainage, water and power infrastructure and general movement within the site.

This report is the Environmental Management Plan (EMP) prepared for the project in line with Part 8 of the Anambra State Environmental Management, Protection and Administration Law, 2024, and the Environmental Impact Assessment Act, 1992, together with its Procedures and Charges Regulations, 2021. It covers the site as it currently stands under construction, describes the surrounding environment, and sets out the practical steps the proponent and site workers should follow to keep the project's effect on neighbours, farmland and the immediate environment as low as reasonably possible from now until the building is completed and occupied.

The site sits in a sparsely built, semi-agrarian part of Nibo where empty plots under active cultivation flank the property on two sides and a neighbouring bungalow with a small backyard poultry shares the rear boundary. The access road leading to the site is untarred and turns muddy after rainfall. Construction is being carried out largely with manual tools, and a petrol generator is presently used to pump water from the site borehole. These conditions, along with the unfenced front of the compound, form the main points of attention addressed through this EMP, and later chapters of this report set out baseline readings for air quality, noise and other parameters, together with a full mitigation and monitoring plan tied to each identified impact.

Baseline air-quality monitoring recorded particulate levels well within NESREA limits at all four stations, but identified an elevated carbon dioxide reading of 1,278 ppm at the rear boundary close to the neighbouring poultry pen with the highest of the four stations and above the 1,000 ppm ASHRAE indoor comfort reference. This is treated in this EMP as the most significant air-quality finding and is addressed through the rear-boundary dust, odour and ventilation measures in Chapter 4.

CHAPTER ONE

INTRODUCTION AND REGULATORY FRAMEWORK

1.1 Background and Purpose of This EMP

Mrs. Theresa Okoli, nee Oliagba, owns a plot of land at Umuejiofor Street, off High Chief Emeka Okonkwo Street, Agbeani Ezeawulu, in Nibo, Awka South Local Government Area, Anambra State. The plot lies at approximately 6°10'48.1"N, 7°03'03.8"E and measures 487.559 square metres. Architectural drawings prepared by (Engr.) Chekwubest Nig. Ltd. and approved by the Awka Capital Territory Development Authority in October 2025 describe the project as a flats with a penthouse, and the building presently rising on the site follows a curved, ship-like outline, quite unlike the rectangular houses common in the neighbourhood, giving it the distinctive boat-shaped form from which this report takes its working name of the Boat House project.

The building will occupy a footprint of about 283.53 square metres, leaving roughly 204.03 square metres of free compound space. Construction is being carried out with manual tools, and the site currently has short boundary block walls on some sides, though the front of the compound is presently open, without a gate. Water for the site is drawn from an on-site borehole and lifted using a generator-powered pump, and an overhead tank, soakaway pit and septic tank are also part of the facility. This report has been prepared while the shell of the building is already standing, and it looks both backward, at what has happened on site so far, and forward, at what remains to be done before the building is completed, fitted out and occupied.

This document is the Environmental Management Plan (EMP) for the project, prepared to satisfy Part 8 of the Anambra State Environmental Management, Protection and Administration Law, 2024, and to comply with the Environmental Impact Assessment Act, 1992, and its Procedures and Charges Regulations, 2021. It covers the remaining construction period and the operational phase once the house is occupied. The proponent is expected to register the project in the Public Registry maintained by the Anambra State Ministry of Environment and to allow the statutory period for public comment provided under Part 8 of the 2024 Law before further major works, particularly finishing and fitting-out activities, proceed.

1.2 Project Need and Justification

Nibo is one of the communities within Awka South Local Government Area that has continued to attract residential development as Awka, the Anambra State capital, expands outward. The area around Umuejiofor Street and High Chief Emeka Okonkwo Street still carries much of its original agrarian character, with farmland, palm trees and scattered bungalows, but it is gradually being built up as individual landowners put up houses on their plots, in the same way this project is doing. A large flats with a penthouse responds to a genuine demand in this corridor for spacious, private residential accommodation within reach of Awka's institutions, markets and health facilities, several of which, including a nearby orthopaedic hospital and a primary health centre, sit only a short distance from the site.

The choice of a ship-inspired architectural form is, on its own, a matter of the proponent's taste and does not raise an environmental objection, but it is noted here because an unusual, eye-catching structure of this kind is likely to draw visitors and onlookers once complete, and this has a bearing on traffic along the access road and on how the compound's front boundary should eventually be secured. The 204.03 square metres of free compound space is adequate, once development is complete, to accommodate parking, a properly built drainage system, the recommended solar installations and general landscaping, provided these are planned for rather than left to chance as finishing works proceed.

1.3 Scope and Structure of This EMP

This EMP covers the site as found at the time of the environmental site visit, that is, a partly completed structure under active construction, through to the point of occupation. It is organised into five chapters, summarised in Table 1.1 below.

Table 1.1: EMP Report Structure and Chapter Summary

Chapter	Subject Matter
Chapter 1: Introduction and Regulatory Framework	Project background, need and justification, the legal and regulatory framework guiding this study, the objectives of the EMP and its Terms of Reference.
Chapter 2: Project Description and Site Setting	The proposed building, its design and infrastructure, construction method and sequence, site location, topography, surrounding land uses and sensitive receptors.
Chapter 3: Baseline Environmental and Social Conditions	Measured air quality, noise, groundwater and soil data, climate and geology of the area, and the social baseline including land use, neighbours and consultation with the community.

Chapter 4: Impact Mitigation and Monitoring Plan	The main technical chapter, covering likely impacts at each project phase, their significance, mitigation measures, and a monitoring schedule with responsible parties.
Chapter 5: Implementation Arrangements	Roles and responsibilities, record of community consultation, grievance redress procedure, emergency response arrangements and the implementation schedule.

1.4 Legal and Regulatory Framework

The instruments listed in Table 1.2 govern this project and have shaped the content of this EMP. The mitigation and monitoring measures set out in Chapter 4 are written with compliance against each of these in mind.

Table 1.2: Legal and Regulatory Framework

Regulatory Instrument	Relevance to This Project
Anambra State Environmental Management, Protection and Administration Law, 2024	Primary governing law. Part 8 requires this EMP and registration in the Public Registry before further construction work continues. Part 9 covers nuisance, including noise, dust and odour, which is directly relevant given the poultry pen at the rear boundary and the general residential character of the area. Part 10 governs solid waste and requires the use of an ASWAMA-licensed collector once occupied. Part 11 places drainage upkeep duties on the occupier. Sections 79 and 80 require perimeter landscaping and setback from any drainage feature. Section 315 requires notification and consultation with the affected community before work proceeds further.
Environmental Impact Assessment Act, Cap E12, LFN 2004 and the EIA Procedures and Charges Regulations, 2021	Federal framework for environmental assessment. A single residential duplex of this size falls under Category III of the Fifth Schedule to the 2021 Regulations, a class of project expected to have essentially beneficial impacts, for which an EIA certificate may be requested upon application. The Second Schedule to the Regulations sets minimum content requirements for the EMP, which this report has been structured to meet.
NESREA Act, 2007, and NESREA National Environmental (Sanitation and Wastes Control) Regulations, 2009	Sets the national ambient air quality and noise standards used as reference points in this report, and requires waste segregation at source with disposal through a licensed collector. Open burning of construction or domestic waste on site is prohibited.
NESREA National Ambient Air Quality and Noise Standards	PM10: 116 micrograms per cubic metre; PM2.5: 25 micrograms per cubic metre; NO2: 0.085 milligrams per cubic metre; CO: 50 milligrams per cubic metre, all as 24-hour averages. Daytime

	noise for residential and mixed-use areas: 50 to 60 dBA. These figures are the reference points against which the baseline readings in Chapter 3 and the monitoring targets in Chapter 4 are checked.
WHO Guidelines for Drinking Water Quality and the Nigerian Standard for Drinking Water Quality (NSDWQ), 2015	Reference standard for assessing the water quality from the site borehole, and a guide for how the borehole head and casing should be protected from surface contamination while construction is ongoing.
National Environmental (Electrical/Electronic Sector) Regulations, 2011	Applies to the eventual disposal of the solar panels, batteries, inverter and CCTV components recommended for this project. Spent units and batteries must be returned to a licensed e-waste recycler and must not go into the ordinary waste bin.

The numerical standards applicable to this project are drawn together in Table 1.3 for ease of reference.

Table 1.3: Applicable Environmental Standards and Numerical Limits

Parameter	Standard / Limit	Source
PM10 (24-hour average)	116 ug/m3	NESREA National Ambient Air Quality Standards
PM2.5 (24-hour average)	25 ug/m3	NESREA / WHO
Nitrogen Dioxide, NO2	0.085 mg/m3	NESREA
Carbon Monoxide, CO	50 mg/m3	NESREA
Daytime noise (residential / mixed-use)	50 to 60 dBA	NESREA National Ambient Noise Standard
Night-time noise (residential)	35 to 45 dBA	NESREA National Ambient Noise Standard
Drinking water pH	6.5 to 8.5	WHO / NSDWQ 2015
E. coli in drinking water	Must be absent (0 cfu/100 mL)	WHO / NSDWQ 2015
Soil pH	6.0 to 8.0	NESREA Interim Soil Quality Reference Values

1.5 Objectives of This EMP

1. Impact Identification. To identify the environmental and social effects that this project is likely to have, given its stage of construction, the poultry pen and bungalow at the rear

boundary, the farmland on the flanking plots, the untarred and rain-prone access road, and the currently open front of the compound.

2. Mitigation. To recommend workable measures for each impact identified, measures that the proponent and site labourers can carry out with materials and skills reasonably available in Nibo, calling in licensed specialists only where the law requires it.

3. Monitoring. To set a simple monitoring routine that can be followed for the rest of the construction period and into occupation, so that problems are caught early rather than after they have affected a neighbour or the surrounding farmland.

4. Regulatory Compliance. To show that the project conforms with the Anambra State Environmental Management, Protection and Administration Law, 2024, the Federal EIA Procedures and Charges Regulations, 2021, and the other instruments listed in Table 1.2.

5. Stakeholder Accountability. To record the outcome of consultation with the immediate neighbours, particularly the household keeping poultry at the rear boundary, and to put in place a grievance channel that anyone affected by the project can use.

1.6 Terms of Reference

This EMP has been prepared according to a Terms of Reference derived from Part 8 of the Anambra State Environmental Management, Protection and Administration Law, 2024, and the Second Schedule to the Federal EIA Procedures and Charges Regulations, 2021, covering a proposed ship-design residential flats with penthouse at Umuejiofor Street, Agbeani Ezeawulu, Nibo, Awka South Local Government Area, Anambra State.

The Terms of Reference includes:

- a) A description of the proposed building, its unusual curved design, construction method to date and the infrastructure planned for the compound, including the borehole, overhead tank, soakaway pit, septic tank and the solar-powered upgrades recommended for water pumping, security lighting and surveillance.
- b) Baseline environmental and social conditions at the site and its immediate surroundings, supported by field measurement of air quality and noise, and by observation of soil, drainage and the general character of the neighbourhood.
- c) Identification of the impacts likely at this stage of construction and through to occupation, with particular attention to the neighbouring poultry pen and bungalow at the rear boundary, the flanking farmland, the open compound front and the condition of the access road.

- d) Mitigation measures for each impact that are realistic for a project of this size and can be carried out by the proponent and site workers without undue cost.
- e) A monitoring framework stating what should be checked, how often, and who is responsible.
- f) A record of consultation with affected neighbours, in line with Section 315 of the Anambra State Environmental Management, Protection and Administration Law, 2024.
- g) A grievance mechanism open to anyone affected by the project during the rest of construction and after occupation.
- h) A statement of institutional responsibilities and an outline implementation schedule.
- i) An assessment of the project's conformity with applicable national and state environmental standards.

CHAPTER TWO

PROJECT DESCRIPTION AND SITE SETTING

2.1 Project Overview

The project assessed for this report is a residential flats with a penthouse, under construction on a 487.559 square metre plot at Umuejiofor Street, off High Chief Emeka Okonkwo Street, Agbeani Ezeawulu, Nibo, Awka South Local Government Area, Anambra State. Table 2.1 sets out the key facts about the project as confirmed from the approved architectural drawings, the site plan and direct observation made during the site visit.

Table 2.1: Summary of Project Attributes

Attribute	Detail
Proponent	Mrs. Theresa Okoli (nee Oliagba)
Job Title (per approved drawings)	A flats with penthouse
Address	Umuejiofor Street, off High Chief Emeka Okonkwo Street, Agbeani Ezeawulu, Nibo, Awka South LGA, Anambra State
Coordinates	6°10'48.1"N, 7°03'03.8"E; elevation approximately 350 ft (107 m) above sea level
Plot area	487.559 square metres
Building footprint	Approximately 283.53 square metres (58.2% of plot area)
Free compound space	204.03 square metres (41.8% of plot area)
Building height	Ground floor, first floor and second floor, topped by a penthouse level set beneath a pitched roof
Architectural theme	Curved, ship-like footprint and facade, tapering to a bow-shaped front, unlike the rectangular houses common in the neighbourhood
Design and approval	Designed by (Engr.) Chekwubest Nig. Ltd. and approved by the Awka Capital Territory Development Authority, October 2025
Construction method	Predominantly manual labour, with a small petrol generator used to run the borehole pump
Status at time of assessment	Block superstructure complete up to roof/parapet level on most faces, with roof formwork and carpentry in progress; compound and finishing works outstanding

What sets this project apart from the typical residential development in Nibo is its form. Rather than the box-like, rectangular outline common to houses in the area, the building is being raised on a curved, tapering footprint that mimics the hull of a ship, complete with a rounded bow-like front and a stepped profile rising to a pitched-roof penthouse. This design choice was confirmed on the approved site layout, which shows the building set well back from the road frontage in a lens-shaped outline, and on the front and side elevation drawings, which show balconies at the upper floors and a pitched roof enclosing the top-most, penthouse level. The nine bedrooms are distributed across the ground, first and second floors, with the penthouse providing further living space at roof level.

At the time of the assessment, block walling on the building had reached roof or parapet level on most faces, timber formwork and props for the roof structure were in place on parts of the building, and electrical conduit had already been chased into a number of the external and internal walls in readiness for wiring. External rendering had been completed in patches but was not yet finished across the whole building. No roofing sheets had been fixed. Compound works, including the perimeter fence, gate, drainage, borehole superstructure and the overhead tank support, had not yet been completed.

2.2 Site Location and Physical Setting

The site lies at approximately 6°10'48.1"N, 7°03'03.8"E, at an elevation of about 350 feet (107 metres) above sea level, within Agbeani Ezeawulu village in Nibo, Awka South Local Government Area. It sits off Umuejiofor Street, which links into High Chief Emeka Okonkwo Street, one of the more established roads in this part of Nibo. The wider area lies within the outward growth corridor of Awka, the Anambra State capital, and mapping of the neighbourhood places the site within a few hundred metres of a number of community facilities, listed later in Table 3.3 of this report.

The plot itself is rectangular in survey terms, though the building on it follows the curved outline described above. The approved site layout drawing shows the compound bounded by the major road to one side and by an informally named local street to the other, with the overhead tank positioned within the free space at the rear of the building footprint. The land is flat, with no notable slope across the plot or in the immediate neighbourhood, and the soil at

the surface is a sandy-loam typical of the Awka-Nibo axis, which drains reasonably well in dry conditions but softens and becomes muddy along footpaths and the access road after rainfall.

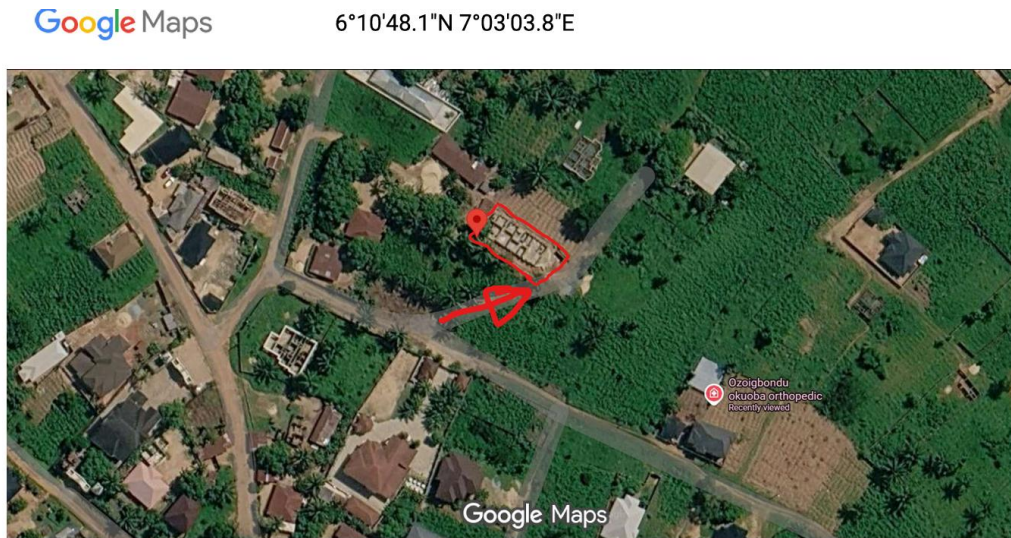


Figure 2.1: Google Map of the location

2.3 Site Surroundings and Sensitive Receptors

The compound is flanked on both of its longer sides by undeveloped plots that are under active cultivation, principally with cassava, along with scattered plantain, banana and palm. These plots are put to informal, small-scale farming by persons resident in the neighbourhood and are not built upon at present, although each is a private parcel awaiting future development in the same manner as the subject plot.

The rear of the compound shares a boundary with a residential bungalow, whose occupant keeps a small backyard poultry pen positioned close to the shared block boundary wall. This poultry pen is the most immediate sensitive receptor identified for this project, both because of its proximity, no more than a few metres from the rear wall of the building under construction, and because of the two-way nuisance potential it represents: dust, noise and vibration from the remaining construction work can affect the birds and the household keeping them, while odour and organic waste from the pen can affect air quality at the rear of the subject compound. A pile of mixed general waste, including plastics, wood fragments and material bearing the scorch marks of previous open burning, was also observed along the same rear boundary, immediately outside the poultry pen. This is an existing condition of the neighbourhood rather than a product of this project, but it forms part of the baseline this EMP has to work with and is addressed further in Section 3.8.

Beyond the immediate boundaries, the neighbourhood is sparsely built, with detached bungalows and a small number of storey buildings spaced well apart from one another across farmland and undeveloped plots. No school, health facility, place of worship or market sits directly adjacent to the site; the nearest such facilities, identified from site mapping, lie several hundred metres away and are listed in Table 3.3. The access road serving the site is untarred, single-lane in practice, and shared with pedestrians, motorcycles and the occasional tricycle. It connects, after a short distance, to High Chief Emeka Okonkwo Street, a wider through road.

2.4 Construction Activities and Sequence

Construction to date has proceeded through site clearing, setting out, foundation work, and block walling of the ground, first and second floors, all carried out with manual tools, head-pans, mixing by shovel and hand-operated equipment rather than heavy plant. A generator is kept on site for the sole purpose of running a pump that draws water from the borehole for mixing concrete and mortar; it is not used to power any tool or machine. Timber scaffolding and props, typical of small building sites in the area, have been used throughout and remain in place around sections of the building at the time of this assessment.

The remaining sequence of work, on which the mitigation measures in Chapter 4 are built, is expected to include completion of the roof structure and penthouse enclosure, roofing, external and internal plastering, installation of doors, windows and finishes, completion of electrical and plumbing works including connection of the already-chased conduit, construction of the perimeter fence and gate to fully enclose the compound, construction of the drainage and stormwater catchment pit, installation of the overhead tank, solar equipment and CCTV, paving or graveling of the parking area, and general landscaping of the free compound space.

2.5 Key Infrastructure Features

The following compound infrastructure features form part of the project design and are addressed individually because each carries its own environmental or safety consideration.

2.5.1 Perimeter Wall and Front Access

Short block boundary walls have been raised on some sides of the compound, but the front of the plot, facing the access road, remains open with no gate at the time of this assessment. This is an active safety and security gap: it leaves the site accessible to livestock, unsupervised children and casual passers-by, and it removes the dust and noise containment that a completed

perimeter would otherwise provide. Chapter 4 treats the completion of the front wall and gate as a priority item.

2.5.2 Overhead Tank and Water Reticulation

The approved drawings include a purpose-built overhead tank stand with a steel access ladder fitted with a guard rail, an overflow pipe, a cold water pipe feed and a booster pump station at ground level. This tank will receive water pumped from the borehole and will supply the building by gravity once installed.

2.5.3 Borehole and Water Supply System

A borehole has been sunk on site and is presently the sole source of water for construction, lifted by a petrol generator-powered pump. This arrangement is adequate for construction purposes but is not the long-term solution recommended for the operational phase, addressed in Section 4.5.

2.5.4 Soakaway Pit and Septic Tank

A soakaway pit and septic tank are provided for in the design, with the sanitary fittings, including the water closet detail, drawn to standard specification on the approved plumbing drawings. These will serve the nine-bedroom building once fitted out and connected.

2.5.5 Solar-Powered Upgrades

Given the reliance on a generator for water pumping and the currently unfenced compound, this report recommends, and the proponent has indicated willingness to adopt, a set of solar-powered upgrades: a solar water pump paired with battery storage sized to keep the overhead tank filled for at least three days without sunshine, solar-powered CCTV cameras, and solar LED security lighting around the compound perimeter. These are addressed as recommended mitigation and design measures in Chapter 4 rather than as already-installed features.

2.5.6 Stormwater Catchment Pit

A catchment pit for stormwater is recommended for construction within the free compound space, to collect roof and compound run-off and reduce the volume of surface water leaving the plot onto the untarred access road, which already suffers from mud and standing water after rainfall.

2.5.7 Waste Bin Container

A covered waste bin container is recommended for siting at the front of the compound, close to the eventual gate, to hold domestic and construction waste awaiting collection and to discourage the kind of informal open dumping observed at the rear boundary of the neighbouring plot.

2.5.8 Electrical Installation and Conduit

The proponent has specifically requested that electrical conduit be installed in a manner that gives strong physical protection to the wiring while still allowing the conduit to be opened, refixed or replaced without difficulty. This has already begun, with conduit visibly chased into several external and internal wall faces ahead of plastering. This approach is sound and is carried through into the electrical safety recommendations of Chapter 4.

2.5.9 Parking Area

Space for vehicle parking is provided for within the free compound area and should be demarcated, and ideally graveled or paved, once the perimeter and drainage works are complete, so that vehicles are not parked on bare, erodible soil close to the building.

CHAPTER THREE

BASELINE ENVIRONMENTAL AND SOCIAL CONDITIONS

3.1 Introduction and Approach

This chapter sets out the environmental and social conditions found at and around the project site during the assessment, against which the impacts discussed in Chapter 4 are judged. The baseline was established through a physical walkover of the site and its immediate surroundings, direct instrument readings of air quality and noise taken at multiple points on the site, observation of soil, drainage, vegetation and existing waste management practice, and engagement with persons connected to the neighbourhood.

On the question of community consultation, written notices describing the proposed development and inviting the surrounding neighbours to a stakeholder consultation meeting were delivered ahead of the site visit to the identifiable households and facilities around the project, including the household occupying the bungalow at the rear boundary, in line with Section 315 of the Anambra State Environmental Management, Protection and Administration Law, 2024. None of the invited neighbours honoured the invitation on the scheduled date. Rather than treat this as a closed matter, the assessment team proceeded to engage directly with persons found on and around the site, including the occupant of the rear bungalow, farm workers on the adjoining plots and individuals encountered along the access road, through informal one-on-one discussion in the course of the site visit. The consultation record in this chapter is therefore built on this direct, on-the-spot engagement rather than on a formal group meeting, and it is recommended in Chapter 5 that a further, better-publicised consultation round be held before the building is occupied.

3.2 Climate and Meteorology

Nibo lies within the tropical climate belt of southeastern Nigeria, characterised by a wet season running roughly from April to October and a dry season from November to March, with a short spell of Harmattan dust haze typically felt between December and early February. At the time of the site visit, the area had experienced recent rainfall, which had settled surface dust and left the untarred access road soft and, in places, muddy. Ambient temperatures in this part of Anambra State typically range from the low twenties to low thirties in degrees Celsius across the year, with relative humidity generally high, particularly during the wet season.

3.3 Geology, Topography and Soils

The site and its surroundings sit on flat ground, with no meaningful gradient observed within the plot or the immediately adjoining plots. The area falls within the sedimentary geology typical of the Awka-Nibo axis of Anambra State, and the surface soil observed on site and on the flanking farmland is a sandy-loam, consistent with the wider geology of the area. This soil type drains reasonably well once compacted but is loose and prone to erosion when freshly disturbed, which is the condition of much of the compound at present given the ongoing construction.

3.4 Ambient Air Quality

Air quality readings were taken at four points during the site visit using a calibrated handheld air quality detector: within the open, free space of the compound; within the shell of the building under construction; at the rear boundary close to the neighbouring poultry pen; and at the site frontage facing the access road. The results are set out in Table 3.2, alongside the relevant regulatory or reference limit for each parameter. Carbon dioxide is included in the table because it is a useful indicator of ventilation adequacy and organic decomposition, and it proved to be the most informative parameter at the rear boundary station, where it exceeded the ASHRAE comfort reference.

Table 3.2: Ambient Air Quality Baseline Readings

Parameter	Station 1: Open Compound	Station 2: Within Building	Station 3: Rear by Poultry	Station 4: Site Frontage	Applicable Standard
PM2.5 ($\mu\text{g}/\text{m}^3$)	0.10	0.11	0.12	0.10	25 (NESREA/WHO, 24-hr)
PM10 ($\mu\text{g}/\text{m}^3$)	0.14	0.15	0.18	0.15	116 (NESREA, 24- hr)
Formaldehyde, HCHO (mg/m^3)	0.014	0.145	0.013	0.061	0.100 (WHO indoor guideline, 30-min)
Total VOC (mg/m^3)	0.047	0.406	0.050	0.182	0.500 (WHO/indicative comfort reference)

Carbon Monoxide, CO (ppm)	0	0	0	0	9 (WHO 8-hr guideline)
Carbon Dioxide, CO ₂ (ppm)	464	444	1,278	816	1,000 (ASHRAE indoor comfort reference)

All four stations returned particulate matter readings far below the NESREA limits for PM_{2.5} and PM₁₀, confirming the proponent's own observation that the air on site is generally clean, helped by recent rainfall that had settled dust ahead of the visit. Two results stand out. The first is the formaldehyde and total VOC level recorded inside the building shell (HCHO 0.145 mg/m³; TVOC 0.406 mg/m³), both markedly higher than at the other three stations. The formaldehyde figure exceeds the WHO 30-minute indoor guideline of 0.100 mg/m³, while the TVOC figure remains below the 0.500 mg/m³ indicative comfort reference. This elevated reading is consistent with curing cement, timber formwork, adhesives and other construction materials within a partially enclosed structure with limited cross-ventilation, and it is expected to fall once the building is fully enclosed, ventilated and finished.

The second, and more important for the neighbouring household, is the carbon dioxide reading at the rear boundary close to the poultry pen, which at 1,278 ppm is the highest of the four stations and exceeds the 1,000 ppm ASHRAE indoor comfort reference by a clear margin. The same station also recorded the highest PM_{2.5} (0.12 µg/m³) and PM₁₀ (0.18 µg/m³) readings of the four stations, though both remain far below NESREA limits. The elevated CO₂ is a direct indicator of inadequate ventilation and of the organic decomposition load from poultry litter at the pen, and it is the single most significant air-quality finding of this baseline. It is an existing condition of the neighbouring property rather than a product of this project, but it means the rear boundary requires particular attention in the mitigation and monitoring measures set out in Chapter 4, and it reinforces the value of the rear-boundary dust, odour and ventilation controls recommended there.

3.5 Ambient Noise Environment

Noise levels were measured with a calibrated sound level meter application at two points during the visit, one during a quiet period with no active tool use nearby and one during a busier period coinciding with a passing motorcycle and manual construction activity. The readings are

presented in Table 3.3 against the NESREA daytime noise limit for residential and mixed-use areas.

Table 3.3: Ambient Noise Baseline Readings

Station / Condition	Instantaneous Level, dB(A)	LAeq, dB	Lmax, dB	LCpeak, dB	NESREA Daytime Limit (Residential), dBA
Compound interior, background period	46.4	64.6	85.0	107.5	50 to 60
Site frontage, active period	78.4	64.5	85.0	104.1	50 to 60

The instantaneous readings show how quickly noise levels swing on this site: from 46.4 dB(A), close to the site's natural quiet, up to 78.4 dB(A) once a motorcycle passed and manual tools were briefly in use, with an equivalent continuous level, LAeq, sitting at roughly 64.5 to 64.6 dB(A) across both readings. This average figure exceeds the upper end of the NESREA daytime residential limit of 60 dBA, and the peak level, LCpeak, of up to 107.5 dB confirms that individual noise events on this site, such as a hammer strike, a dropped block or a passing motorcycle at close range, are sharp and momentarily loud even though the general background is otherwise quiet. This matches the proponent's own account of a site that is silent apart from worker conversation, the intermittent use of manual tools, the generator during water pumping and occasional poultry noise from the neighbouring pen.

3.6 Water Resources

The only water source on site is the borehole sunk for construction purposes. At the point of use, the water drawn from this borehole was observed to be clear, colourless and free of odour, with no visible sediment or discolouration. No laboratory analysis of the borehole water had been carried out as at the time of this assessment. Given that the same borehole is intended to supply the building once occupied, it is recommended in Chapter 4 that a full physicochemical and bacteriological analysis be conducted before the water is put to domestic use, and that the wellhead be protected from surface run-off and construction contamination in the meantime. No natural water body, stream or wetland was observed within the immediate vicinity of the site.

3.7 Land Use and Vegetation

Land use in the immediate vicinity of the site is a mix of active subsistence farming and low-density residential development, reflecting a neighbourhood still in transition from agrarian use to planned residential building. The plots flanking the subject site on both sides are under cultivation, principally with cassava, along with scattered plantain and banana. Palm trees are common across the neighbourhood, both as remnants of older farmland and as boundary markers between plots, and a mature mango tree stands close to the rear of the subject building, near the shared boundary with the neighbouring bungalow. No protected, rare or otherwise ecologically sensitive species of flora or fauna was observed on or around the site during the visit. The vegetation present is common secondary bush and farmland growth typical of periurban Anambra State, and its clearance for the remaining compound works is not expected to have any impact of ecological significance beyond the plot itself.

3.8 Waste Management Baseline

Two waste streams were evident at the site during the assessment. The first is construction waste generated by the building works to date, consisting mainly of block and mortar offcuts, timber formwork trimmings and empty cement bags, scattered around the building rather than gathered at a single point. The second, and the more significant from a baseline standpoint, is a quantity of mixed general waste, including plastic sachets and bottles, wood scraps and material bearing visible scorch marks from previous open burning, piled along the rear boundary wall immediately outside the neighbouring poultry pen. This dumping and burning practice predates the current construction and reflects the informal waste management common in this part of Nibo, where no organised kerbside collection presently reaches the neighbourhood. It is not a consequence of this project, but its presence immediately behind the site means that any waste management plan for this project must also avoid adding to that pile, and should instead model the more orderly, collector-based practice recommended in Chapter 4.

3.9 Social and Economic Baseline

3.9.1 Community Character and Population Pattern

Agbeani Ezeawulu, within Nibo, presents as a sparsely built, semi-agrarian community in the early stages of residential infill. Houses are spaced well apart, separated by farmland and undeveloped plots, and the population density along Umuejiofor Street and the immediate neighbourhood is low compared to the more built-up parts of Awka. Development in the area

is happening plot by plot, as individual landowners, in the same way as the proponent of this project, build on land previously used for farming.

3.9.2 Livelihoods and Economic Activities

Small-scale farming, principally cassava cultivation, is the most visible economic activity in the immediate neighbourhood, carried out on the plots flanking the subject site and on similar undeveloped land nearby. Backyard livestock keeping, represented here by the poultry pen at the rear boundary, is a second common household-level economic activity. Beyond the immediate vicinity, the wider Nibo area supports a more diverse local economy, including trading at the Nibo Road market, hospitality businesses such as the hotels and a lodge identified in Table 3.4, and services connected to the steady residential growth of the area, including building material supply and construction labour, the latter of which this project itself currently draws on.

3.9.3 Land Tenure

The subject plot is held by the proponent under a title recognised by the Awka Capital Territory Development Authority, which has approved the building plan. The flanking farm plots are understood, from on-site engagement, to be privately owned parcels under informal cultivation by persons other than the registered owners, a common arrangement in peri-urban Anambra State pending the owners' own development plans. No party raised any land ownership or boundary dispute connected with the subject site during the site visit.

3.9.4 Sensitive Receptors and Nearby Facilities

Table 3.4 lists the community facilities identified within reasonable distance of the site from available mapping. None sits directly adjacent to the site, but their presence within a few hundred metres means that construction noise, dust and site traffic should be kept within the limits and hours recommended in Chapter 4, particularly given the presence of a health facility close to the same road.

Table 3.4: Nearby Sensitive Receptors and Community Facilities

Facility	Approximate Distance and Direction from Site	Relevance
Ozoigbondu Okuoba Orthopedic Clinic	About 100 m, along the same road	Nearest health facility; sensitive to dust and noise

Christ Holy Church International, Nibo	About 180 m, southwest	Place of worship; periodic gatherings
MCAN Lodge, Awka South	About 450 m, northwest	Guest lodge; noise-sensitive at night
City Landmark Hotels / Fabrics by Beth	About 500 m, northwest	Commercial premises
Nibo Primary Health Centre	About 550 m, east	Public health facility
Local market, Nibo Road	About 650 m, east	Community trading centre
St. Joseph's Catholic Church, Nibo	About 750 m, northeast	Place of worship
Pontoon Hotel and Suites	About 800 m, northeast	Commercial lodging
King David Hospital	About 900 m, southwest	Secondary health facility

3.9.5 Transportation and Access

The site is reached by an untarred access road that turns soft and muddy after rainfall, used by pedestrians, motorcycles and occasional tricycles, and joining High Chief Emeka Okonkwo Street a short distance from the plot. This road is the same route that will carry construction traffic, including material deliveries, for the remainder of the project, and its condition is a direct factor in the dust and mud management measures set out in Chapter 4.

3.9.6 Utilities and Services

The nearest electricity supply to the site is provided by the Enugu Electricity Distribution Company (EEDC), with distribution lines observed passing through the wider neighbourhood, though the site itself was not connected to grid power at the time of the assessment, construction power needs being met instead by the on-site generator used for water pumping. There is no piped water supply serving the area; the borehole sunk on site is the household's own water source, a pattern typical of the neighbourhood generally.

3.9.7 Community Consultation Findings

As described in Section 3.1, the planned stakeholder meeting did not achieve the attendance intended, despite notices having been delivered to the identifiable neighbouring households and facilities. The on-the-spot discussions that followed, held with the occupant of the rear bungalow, with farm workers encountered on the adjoining plots and with other individuals met along the access road, did not raise any objection to the project proceeding. The most

consistent point raised, informally, concerned the condition of the access road and the hope that construction traffic would not worsen the existing mud and rutting after rainfall. The proximity of the poultry pen to the rear boundary was not raised as a concern by the neighbour during this informal engagement, but it is treated in this report as a material issue regardless, given its potential for two-way nuisance between the two properties. A further, more widely publicised consultation session is recommended in Chapter 5 to secure a fuller record of neighbourhood views before the building is occupied.

CHAPTER FOUR

IMPACT MITIGATION AND MONITORING PLAN

4.1 Introduction

This chapter is the working core of the EMP. It identifies the environmental and social impacts likely at the proposed ship-design residential flats with penthouse, Umuejiofor Street, Nibo, rates each impact, and sets out the specific mitigation measure to apply. A monitoring programme accompanies each impact, stating what is to be checked, how often, and who is responsible.

Three site-specific conditions shape the priority given to different measures in this chapter, all established in Chapters Two and Three. The first is the poultry pen and bungalow sharing the rear boundary, sited only a few metres from the building, which makes dust, noise and general neighbourliness toward that boundary a standing priority rather than a routine one. The second is the currently open front of the compound, with no gate yet fixed, which is treated here as an active security and containment gap rather than a finished feature. The third is the compact 204.03 square metre free compound space, which limits how far any activity, stockpile or drainage feature can be kept from a boundary and therefore calls for more discipline than a larger plot would require.

4.2 Impact Significance Rating

Table 4.1: Impact Significance Rating Scale

Rating	What It Means	Management Expectation
LOW	Short-term, localised and reversible effect, manageable through ordinary good site practice.	Standard measures are sufficient. Confirm through routine monitoring.
MODERATE	Medium-term effect that could reach the rear boundary neighbour, the flanking farm plots or the access road if left unmanaged. Needs consistent, specific attention.	Specific mitigation measures put in place and actively checked throughout the relevant phase.
HIGH	Real potential for harm to people, particularly workers at height or the neighbouring household, or to the environment, if not brought under control at once.	Priority action. Work in the affected area stops until the hazard is controlled and the measure is confirmed effective.

4.3 Pre-Construction Phase

The pre-construction phase covers everything that should be in place before work on site resumes following submission of this EMP. Confirming approvals, briefing the rear neighbour and the farm plot users, prioritising the front boundary wall, organising the stockpile zones correctly and checking the borehole-to-soakaway separation are all addressed here, ahead of the construction-phase measures in Section 4.4.

Table 4.2: Pre-Construction Phase Impact Mitigation and Monitoring

Activity / Aspect	Potential Impact and Rating	Mitigation Measure	Responsible Party	Monitoring Frequency
Regulatory and administrative preparation	Legal exposure if approvals are absent when work resumes. Rating: MODERATE if not managed.	Submit this EMP to the Anambra State Ministry of Environment and register the project in the EIA Public Registry, observing the public comment period under Part 8 of the 2024 Law. Confirm the Awka Capital Territory Development Authority building approval remains current. Keep original copies of all approvals in a waterproof folder on site.	Proponent	Once, before further major works
Notification of the rear boundary neighbour, the poultry pen owner and the flanking farm plot users	Antagonism and avoidable complaint if neighbours are not personally briefed before work resumes. Rating: MODERATE, elevated given the shared rear fence and the poultry kept there.	Proponent to visit the rear bungalow occupant in person, explain the remaining work programme, working hours and the contact number for the site supervisor. Extend the same courtesy to whoever farms the two flanking plots, given that materials, debris or dust could reach their crops. Post a site notice board at the eventual gate location showing the proponent's name, the supervisor's name and both phone numbers.	Proponent	Once, before works resume; notice board in place from Day 1

Completion of the front perimeter wall and gate	Unauthorised access, material theft, livestock straying in, and loss of dust and noise containment while the front remains open. Rating: HIGH until the wall and gate are complete.	Treat completion of the front boundary wall and a lockable gate as a first-priority item in the remaining works programme, ahead of finishing works where practicable. Until the gate is fixed, mark the compound frontage with visible barrier tape or a temporary timber barrier, and post warning signage. Engage a night watchman for the site until the permanent gate is installed and lockable.	Proponent / Site Supervisor	Immediately; daily check until complete
Material stockpile layout in the 204.03 sq m free compound space	Blockage of drainage paths and encroachment on the rear boundary working corridor if materials are not organised in the limited free space. Rating: MODERATE.	Mark out designated zones on the compound ground for blocks, sand, cement, steel and timber, sited away from the rear boundary fence and the intended catchment pit location. Cover sand and cement with tarpaulin at all times when not in use. Size deliveries to match no more than one to two weeks of work to avoid stockpile overflow.	Proponent / Site Supervisor	Before each delivery; reviewed weekly
Material deliveries on the untarred, rain-prone access road	Delivery vehicles becoming stuck or rutting the access road during or shortly after rain, worsening an already soft surface. Rating: MODERATE.	Schedule deliveries only when the access road is dry and firm, and never within 24 hours of significant rainfall. Keep a basic road repair kit on site: sharp sand, shovels and a hand rammer. Repair any rutting or damage caused by a delivery vehicle before the end of the same working day.	Site Supervisor	Before each delivery

Borehole-to-soakaway separation in a compact compound	Risk of groundwater contamination if the septic tank and soakaway pit are not kept an adequate distance from the borehole, a real constraint given the small 204.03 sq m free space. Rating: MODERATE to HIGH if not checked before excavation.	Measure and confirm the borehole-to-soakaway separation by tape before any further soakaway excavation, aiming for the recommended minimum of 15 metres wherever the compound layout allows. Where the full 15 metres cannot be achieved because of the compact plot, use an impermeable lined or sealed septic tank and soakaway construction, and commit to more frequent borehole water testing during operation, as set out in Section 4.5. Do not begin soakaway excavation until this check is recorded in the site logbook.	Proponent / Site Supervisor	Once, before soakaway excavation
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4.4 Construction Phase

The construction phase covers all remaining building activity from the present stage through to finishing. It is organised into the topic areas below. Given the proximity of the rear boundary neighbour and the compact compound, dust and drainage management toward that boundary are treated as the highest-priority environmental concerns, and fall protection during roofing is the highest-priority worker safety concern.

4.4.1 Air Quality and Dust

Cement and cutting dust reaching the poultry pen and bungalow at the rear boundary, and settling on the cassava and plantain crops on the flanking plots. The baseline CO₂ reading of 1,278 ppm at the rear boundary already exceeds the 1,000 ppm ASHRAE comfort reference, indicating a ventilation and organic-load concern at the poultry pen; construction dust and odour would compound this. Rating: MODERATE, elevated to HIGH during the November to March harmattan period given the rear boundary's proximity.

Table 4.3: Air Quality and Dust Impact Mitigation and Monitoring

Activity / Aspect	Potential Impact and Rating	Mitigation Measure	Responsible Party	Monitoring Frequency
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Cement and mortar mixing, block cutting and general surface disturbance	Cement and cutting dust reaching the poultry pen and bungalow at the rear boundary, and settling on the cassava and plantain crops on the flanking plots. Rating: MODERATE, elevated to HIGH during the November to March harmattan period given the rear boundary's proximity.	Position the mixing board as far from the rear boundary fence as the compound allows, and wet it before use. Open cement bags by cutting with a knife rather than tearing, to avoid a visible dust plume. Water the compound surface, particularly the rear half nearest the poultry pen, at least twice daily during the dry season and harmattan. Workers handling or mixing cement to wear dust masks and safety goggles at all times. Do not cut or chisel blocks within three metres of the rear boundary fence or the side boundaries adjoining the farm plots. Cover sand stockpiles with anchored tarpaulin at all times when not in active use.	Site Supervisor	Daily; increased frequency in harmattan
Rear-boundary air quality, including poultry-related CO ₂ and odour	Elevated CO₂ (1,278 ppm baseline, above the 1,000 ppm ASHRAE reference) and organic odour at the rear boundary, compounded by construction dust and emissions. Rating: MODERATE, elevated to HIGH during harmattan.	Position the generator exhaust and any cement mixing away from the rear boundary fence. Avoid stockpiling organic or food waste near the rear boundary. Where practicable, maintain a clear, planted buffer strip along the shared rear wall to intercept dust and odour. Report any noticeable worsening of odour or air quality at the rear boundary to the proponent and, if the poultry pen owner agrees,	Site Supervisor / Proponent	Daily visual and olfactory check at rear boundary; log any complaint

		discuss simple ventilation improvements to the pen.		
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4.4.2 Noise and Working Hours

The rear boundary neighbour makes working hours discipline the single most useful noise management tool available on this site. The noise readings in Section 3.5 already show peak levels of up to 107.5 dB during ordinary activity, so the timing of that activity, more than its intensity, is what determines whether it becomes a nuisance.

Table 4.4: Noise and Vibration Impact Mitigation and Monitoring

Activity / Aspect	Potential Impact and Rating	Mitigation Measure	Responsible Party	Monitoring Frequency
Manual construction sounds: hammering, block laying, cutting	Noise clearly audible to the rear bungalow occupant and capable of disturbing the poultry kept there, given the short distance across the shared fence. Rating: MODERATE if working hours are not respected; LOW within permitted hours.	Limit all construction work to 08:00 to 17:00, Monday to Saturday. No work on Sundays or public holidays. Avoid scheduling the noisiest tasks, such as sustained hammering or chiselling, for early morning or late afternoon. Site supervisor to be present at the site by 07:45 to confirm no worker begins before 08:00, and to see workers off by 17:10.	Site Supervisor	Daily, morning and evening check

Generator use for borehole water pumping	Generator noise carrying to the rear bungalow and to farm workers on the adjoining plots during pumping sessions, the loudest single noise source measured on this site (Section 3.5). Rating: MODERATE.	Position the generator as far from the rear boundary fence and the road frontage as the compound allows, with the exhaust directed away from the neighbouring bungalow. Limit each pumping session to the minimum time needed to fill the overhead tank. Do not start the generator before 08:00 or run it after 17:00. Switch off immediately after pumping; no idling.	Site Supervisor	At each use, log start and stop times
Elevated work: roofing and second-floor and penthouse construction	Sounds from higher-floor work carry further and travel more directly to the rear boundary and the road frontage, with no fence height to act as a barrier. Rating: MODERATE.	The working hours limit above is the primary control. Workers at height to use hand tools at a normal working pace without unnecessary additional hammering.	Site Supervisor	Daily observation

4.4.3 Surface Water Drainage and Soil Erosion

The compact free compound space means construction run-off has a short path to both the rear boundary and the access road, the latter already prone to standing water after rain, as recorded in Section 3.3. The catchment pit recommended in Section 2.5.6 should be treated as a priority item rather than a finishing touch.

Table 4.5: Surface Water Drainage and Soil Erosion Impact Mitigation and Monitoring

Activity / Aspect	Potential Impact and Rating	Mitigation Measure	Responsible Party	Monitoring Frequency
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Stormwater run-off across the compact, largely bare compound	A short path exists between the working area and both the rear boundary and the untarred access road, which already holds standing water after rain. Rating: MODERATE, HIGH if the catchment pit is not commissioned before further large-scale soil disturbance.	Excavate and commission the stormwater catchment pit recommended in Section 2.5.6 before any further significant disturbance of the compound surface. Grade the compound so surface flow is directed toward the catchment pit and away from the rear boundary fence and the road frontage. After every rain event, walk the rear boundary and frontage to check for pooling or a new erosion channel, and correct it before the next rain.	Proponent / Site Supervisor	Before further earthworks; after every rain event
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4.4.4 Solid Waste Management

Section 3.8 recorded an existing, informal dumping and burning practice immediately behind the rear boundary of the site. This project's own waste discipline is addressed here in a way intended to avoid adding to that condition rather than to correct it, since it lies outside the subject plot and outside the proponent's control.

Table 4.6: Solid Waste Management Impact Mitigation and Monitoring

Activity / Aspect	Potential Impact and Rating	Mitigation Measure	Responsible Party	Monitoring Frequency
Construction waste: block and mortar offcuts, timber trimmings, empty cement bags	Waste scattered around the building rather than gathered adds to the general untidiness of the site and risks being blown or washed toward the rear boundary, where an existing informal dump was already observed (Section 3.8). Rating: MODERATE.	Gather waste at a single, designated point within the compound daily, not left scattered around the building. Collect empty cement bags immediately after use; do not allow loose packaging to accumulate. Reuse sound block and timber offcuts where possible; remove the remainder to an LGA-approved dumpsite, never to the rear boundary or any informal dump nearby. Under no circumstance should site waste be burned on the compound. Open burning is prohibited under the NESREA Sanitation and Wastes Control Regulations, 2009, and is already an existing problem immediately behind the site that this project must not add to.	Site Supervisor / All workers	Daily

4.4.5 Occupational Health and Safety

Construction on this site is carried out almost entirely with manual tools and labour, which keeps mechanical hazards low but places the emphasis squarely on manual handling practice, fall protection during elevated work on the second floor and penthouse, and safe handling of the generator kept for borehole pumping.

Table 4.7: Occupational Health and Safety Impact Mitigation and Monitoring

Activity / Aspect	Potential Impact and Rating	Mitigation Measure	Responsible Party	Monitoring Frequency
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Manual lifting, block laying and general ground-level work	Strain injury, cuts and falling material during manual handling, the dominant mode of work on this site. Rating: MODERATE.	All workers handling blocks, cement or steel to wear closed, toe-capped footwear and work gloves. No single worker to lift a load beyond reasonable manual handling limits; team-lift heavier items.	Site Supervisor	Daily
Scaffolding, elevated block work and roofing at second-floor and penthouse level	Fall from height is the most serious hazard on this site, given the building's three floors and pitched penthouse roof. Rating: HIGH.	Inspect all scaffolding and props for stability before each day's elevated work; do not use any scaffold section showing movement, a loose tie or a missing board. Hard hats mandatory for every person on or beneath elevated work. A minimum of two workers on the roof at any time, with the site supervisor present throughout the roofing phase without exception. No elevated task to be performed alone.	Site Supervisor	Daily before elevated work; continuous during roofing
Electrical conduit chasing into walls ahead of plastering	Cuts from chasing tools, and damage to already-chased conduit before wiring is complete, given the proponent's specific request for conduit that gives strong physical protection to the wiring. Rating: LOW to MODERATE.	Workers chasing walls to wear safety goggles and gloves. Chased conduit runs to be protected from accidental damage or water ingress until plastering closes them in; mark visibly if left exposed overnight. A licensed electrician to confirm conduit routing and protection standard before final wiring, consistent with the proponent's request.	Site Supervisor / Licensed Electrician	As activity occurs

Generator refuelling near the borehole headworks	Fuel spillage reaching the borehole casing or surrounding soil. Rating: MODERATE.	Refuel only when the generator is switched off and cool. Maintain a clear exclusion zone of at least eight metres between the generator's operating and refuelling position and the borehole headworks. Keep dry sand on hand to contain any spill immediately.	Site Supervisor	At each refuelling
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4.4.6 Borehole and Groundwater Protection

Table 4.8: Borehole and Groundwater Protection Impact Mitigation and Monitoring

Activity / Aspect	Potential Impact and Rating	Mitigation Measure	Responsible Party	Monitoring Frequency
Borehole headworks protection	Contamination of the water supply intended for domestic use once the building is occupied. Rating: MODERATE	Keep the borehole cap sealed and the headworks elevated above surrounding ground level. Maintain the eight-metre exclusion zone free of cement handling, waste storage and generator refuelling. Commission a full physicochemical and bacteriological analysis of the borehole water, as recommended in Section 3.6, before it is used for domestic purposes.	Proponent / Site Supervisor	Weekly visual check; laboratory test before occupation

4.4.7 Relations with the Rear Neighbour, the Poultry Pen and the Flanking Farm Plots

This section draws together the neighbour-facing measures scattered through the sections above into a single place, because the rear boundary relationship in particular runs through nearly every other topic in this chapter.

Table 4.9: Neighbour and Community Relations Impact Mitigation and Monitoring

Activity / Aspect	Potential Impact and Rating	Mitigation Measure	Responsible Party	Monitoring Frequency
Two-way nuisance between the site and the	Dust, noise and vibration from the remaining works can disturb the birds and the	Apply the dust and noise measures in Sections 4.4.1 and 4.4.2 with particular care along the rear boundary.	Proponent / Site Supervisor	Ongoing; courtesy visit at start of each

rear boundary poultry pen	household keeping them, while odour, flies and organic waste from the pen can affect air quality at the rear of the subject compound. The baseline CO ₂ reading of 1,278 ppm at this boundary, above the 1,000 ppm ASHRAE reference, confirms that poultry-related air quality is already a measurable condition. Rating: MODERATE, elevated to HIGH because the baseline already shows a poultry-related air-quality load at the shared boundary, making this the most immediate neighbour relationship on this project.	Maintain open, respectful communication with the rear bungalow occupant throughout the remaining works, including a courtesy visit at the start of each new major activity, such as roofing. Do not encroach on or disturb the neighbouring poultry structure at any point. Do not add construction waste to the existing informal dump observed immediately behind the rear boundary; the project's own waste discipline should if anything set a better example for the shared boundary area.		major activity
Effects on the flanking cassava and plantain farm plots	Dust settling on crops, or debris, offcuts or spillage crossing onto the neighbouring farmland during material handling close to the side boundaries. Rating: LOW to MODERATE.	Keep material stockpiles and mixing activity away from the side boundaries wherever the compound layout allows. Clear any debris that crosses onto the flanking plots the same day it occurs. Extend the same notification and courtesy shown to the rear neighbour to whoever farms the two flanking plots.	Site Supervisor	Ongoing
Curiosity and foot traffic drawn by the building's unusual ship-like design	The distinctive curved form of the building is likely to attract onlookers and visitors once complete, which has a bearing on site security and on traffic along the narrow access road during the	Discourage casual entry to the site by unrelated visitors until the perimeter and gate are complete, using the interim barrier and signage described in Section 4.3. Once complete, consider simple boundary signage indicating the property is private, to manage	Proponent / Site Supervisor	Ongoing

	remaining construction period. Rating: LOW.	the interest the finished building is likely to draw.		
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4.5 Operational Phase

The operational phase begins once the building is fitted out and the household takes occupation. Environmental responsibility shifts from the site supervisor to the proponent as owner-occupier. A single household of this size does not carry the same ongoing management burden as a multi-tenant building, but the rear boundary relationship, the septic and soakaway system, the borehole, and the recommended solar equipment all still require regular attention.

Table 4.10: Operational Phase Impact Mitigation and Monitoring

Operational Aspect	Potential Impact and Rating	Management Measure	Responsible Party	Monitoring Frequency
Domestic waste from the household	Waste accumulating at the compound frontage or being burned on site if no collection arrangement is in place. Rating: MODERATE.	Engage an ASWAMA-licensed or licensed private waste collector before first occupation. Keep the covered waste bin container recommended in Section 2.5.7 at the compound frontage, accessible without a collection vehicle entering the compound. No open burning of household waste at any time.	Proponent (Landlord)	Weekly inspection; collection at least weekly

Septic tank and soakaway management, with particular attention to the borehole separation constraint	Odour or slow drainage if the system is misused or not desludged, with an elevated risk profile given the compact free space discussed in Section 4.3. Rating: MODERATE to HIGH if neglected.	Submit the Wastewater Clearance application under Section 216(1) of the Anambra State Environmental Management, Protection and Administration Law, 2024, before first occupation. Engage a licensed cesspit emptier to desludge the tank at least once every two years, or sooner if odour or slow drainage appears. Given the compact compound, commission a borehole water test at least once a year during operation rather than the longer interval that would suit a more spacious plot.	Proponent	Annual inspection; desludge every 2 years minimum; annual water test
Stormwater catchment pit and compound drainage	Silting or blockage causing water to pool toward the rear boundary or the road frontage. Rating: MODERATE.	Desilt the catchment pit at least once a year before the rainy season. Clear compound gutters and drainage paths monthly and after every significant rain event, as required of premises occupiers under Part 11 of the Anambra State Environmental Management, Protection and Administration Law, 2024.	Proponent	Monthly; after every heavy rain
Solar water pump, CCTV and security lighting maintenance	Water supply or security failure if the recommended solar system is not serviced. Rating: MODERATE.	Engage the licensed solar installer under an annual maintenance contract. Clean panel surfaces quarterly. Check CCTV recording and security light operation weekly after dark.	Proponent	Quarterly panel clean; weekly security check
Ongoing relationship with the rear boundary neighbour	Any residual friction from the construction period carrying into occupation if not actively	Maintain a courteous, responsive relationship with the rear bungalow household. Respond to any concern raised about noise, drainage or the	Proponent	Ongoing

	managed. Rating: LOW once construction measures have been properly closed out.	shared boundary within 48 hours. Keep household generator use, if any, to reasonable hours out of consideration for the same shared fence.		
Landscaping and perimeter setback	Non-compliance with Sections 79 and 80 of the Anambra State Environmental Management, Protection and Administration Law, 2024, if the compound perimeter is left unlandscaped. Rating: LOW if addressed before occupation.	Complete landscaping of the compound perimeter, including the parking area demarcation recommended in Section 2.5.9, before or shortly after first occupation. Keep the frontage clean and presentable at all times, including on state Sanitation Days.	Proponent	Before occupation; annual check thereafter

4.6 Decommissioning Phase

Decommissioning is not an immediate concern for a building still under construction, but a properly prepared EMP should still record what is expected whenever the structure is eventually taken out of residential use, whether for renovation, structural failure, redevelopment of the plot, or any other reason. For a private residence of this kind, that point may be decades away, and the person managing it then may not be the current proponent. This section is accordingly written as a framework rather than a detailed operational schedule.

For the purposes of this EMP, decommissioning means any deliberate cessation of the building's residential use followed by partial or full structural demolition, removal of installed systems, or clearance of the site. It does not cover ordinary vacancy or renovation that leaves the structure standing.

4.6.1 Key Considerations at Decommissioning

- I. Notification of the rear boundary neighbour and other adjoining occupants before any demolition work begins, in the same spirit as the pre-construction notification in Section 4.3.

- II. Safe capping or removal of the borehole, and proper closure of the septic tank and soakaway to avoid leaving an open or contaminated void on the plot.
- III. Controlled demolition of the building's curved reinforced sections, which may require more careful sequencing than a conventional rectangular structure given the shape of the load-bearing walls.
- IV. Segregation and lawful disposal of demolition waste, including any remaining electrical, solar or CCTV components, through licensed handlers, consistent with the waste provisions of Part 10 of the Anambra State Environmental Management, Protection and Administration Law, 2024.
- V. Restoration or stabilisation of the cleared plot to prevent erosion or dust nuisance to the same neighbours who were considered throughout the construction and operational phases.

4.6.2 Transfer of EMP Obligations

Should ownership of the property change before decommissioning becomes relevant, the outgoing owner is expected to make this EMP, or its operational-phase provisions at minimum, available to the incoming owner, so that the standard of care toward the rear boundary neighbour and the wider neighbourhood established during construction is not lost at the point of sale.

4.7 Consolidated Environmental Monitoring Summary

Table 4.11 draws together the monitoring requirements from across this chapter into a single checklist for regular use by the proponent and site supervisor.

Table 4.11: Consolidated Environmental Monitoring Summary

Aspect	Target / Standard	Indicator Checked	Frequency	Responsible Party
Dust toward rear boundary	No visible dust cloud at rear fence; no complaint from neighbour	Visual check at rear boundary	Daily	Site Supervisor
Working hours	08:00 to 17:00, Mon to Sat only	Start/stop time in logbook	Daily	Site Supervisor

Generator use	Pumping only; off after use; within working hours	Generator log	At each use	Site Supervisor
Front boundary wall and gate	Complete and lockable; interim barrier in place until then	Visual inspection	Weekly until complete	Proponent
Catchment pit and drainage	Functional; no run-off toward rear boundary or road	Visual inspection	After every rain; weekly	Site Supervisor
Borehole headworks	Cap sealed; 8 m exclusion zone clear	Visual inspection	Weekly	Site Supervisor
Borehole-soakaway separation	15 m target, or lined/sealed tank if not achievable	Measured distance in logbook	Once before excavation	Proponent
Elevated work / roofing safety	Hard hats worn; scaffolding checked; min. 2 workers on roof	Physical check	Daily when applicable	Site Supervisor
Solid waste	No loose waste overnight; no burning on site	Compound walk-through	Daily	Site Supervisor
Rear neighbour relations	No complaint unresolved beyond 48 hours	Grievance logbook	Ongoing	Proponent
Access road condition	No unrepaired vehicle damage	Visual road check	After each delivery	Site Supervisor
Operational: waste collection	Licensed collector engaged	Collection records	Weekly	Proponent
Operational: septic/soakaway	No odour; desludged on schedule	Annual inspection	Annual; desludge every 2 yrs	Proponent
Operational: borehole water quality	Within NSDWQ/WHO limits	Laboratory test	Annual	Proponent

Rear-boundary air quality (CO ₂ and odour)	No worsening beyond the 1,278 ppm baseline; no complaint from poultry owner	Visual and olfactory check at rear boundary; complaint log	Daily	Site Supervisor
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CHAPTER FIVE

IMPLEMENTATION ARRANGEMENTS

5.1 Introduction

This chapter sets out who carries which obligation under this EMP, records how the community consultation for this project was actually carried out, describes how a complaint from the rear boundary neighbour or any other party is to be handled, sets out emergency response procedures, and closes with the report's overall conclusion. The arrangements are sized to a manual residential construction project of this scale and are written to be followed without specialist environmental staff on site.

5.2 Institutional Roles and Responsibilities

Table 5.1: Institutional Roles and Responsibilities

Party	Responsibilities Under This EMP
Mrs. Theresa Okoli (nee Oliagba), Proponent	Overall accountability for the environmental performance of this project through the remaining construction period and into occupation. Submit this EMP to the Anambra State Ministry of Environment and register the project in the EIA Public Registry. Personally notify the rear boundary neighbour and the flanking farm plot users of the remaining work programme. Prioritise completion of the front perimeter wall and gate. Procure PPE, the first aid kit, the waste bin container, the site notice board and the recommended solar equipment. Review the grievance record regularly and personally respond to any complaint from the rear neighbour within 48 hours. Confirm the borehole-to-soakaway separation before further soakaway excavation. Submit the Wastewater Clearance application before first occupation. Engage a licensed waste collector and a licensed solar maintenance contractor before or shortly after occupation.

Site Supervisor	Day-to-day management of the site in accordance with Chapter 4. Present on site by 07:45 each working day to confirm no work begins before 08:00, and to see workers off by 17:10. Daily walk of the compound checking dust at the rear boundary, waste discipline, borehole headworks and drainage condition. Present on site throughout the entire roofing phase without exception. Record injuries, generator use, rain events, deliveries and any complaint in the site logbook on the day it occurs. Report any matter that cannot be resolved at site level to the proponent the same day.
Construction Workers	Compliance with the site rules in Chapter 4 and the Worker Code of Conduct at Appendix E. Wear the PPE required for each task. Use only the designated toilet facility and waste points. Work only between 08:00 and 17:00, Monday to Saturday. Report any hazard, injury or neighbour concern to the supervisor immediately. Treat the rear neighbour, the farm plot users and all other neighbours with courtesy at all times. Never perform an elevated task alone.
Licensed Electrician	Confirm the routing and physical protection standard of the already-chased conduit before final wiring, consistent with the proponent's specific request for well-protected, serviceable conduit. Certify the completed electrical installation before energisation.
Licensed Solar Installer	Professional installation of the recommended solar water pump, battery storage, CCTV and security lighting. Route all cabling in protective conduit and install the battery bank in a ventilated, secured position. Brief the proponent on system operation and maintenance before handover, and provide an annual maintenance contract.
Licensed Borehole and Water Testing Contractor	Carry out the physicochemical and bacteriological analysis of the borehole water recommended in Section 3.6 before domestic use begins, and repeat annually during operation as set out in Section 4.5.
Awka South LGA Environmental Health Department	Regulatory oversight at local government level, with authority under Parts 9 and 11 of the Anambra State Environmental Management,

	Protection and Administration Law, 2024, to inspect the site, receive complaints and issue enforcement notices. The proponent is to cooperate fully with any inspection and make this EMP and the site logbook available on request.
Anambra State Ministry of Environment	State-level approval and enforcement authority to which this EMP is submitted. Receives escalated grievances and any environmental compliance report the proponent submits during and after construction.

5.3 Community Consultation Record

As set out in Section 3.1 of this report, the consultation planned for this project did not proceed as originally intended. Written notice and a meeting invitation were delivered to the identifiable neighbouring households and facilities around the site, in line with Section 315 of the Anambra State Environmental Management, Protection and Administration Law, 2024, but no invited neighbour attended on the scheduled date. Table 5.2 records this attempt and the fallback approach the assessment team then adopted, and it is presented here in full rather than as a formal meeting register, in the interest of an accurate account.

Table 5.2: Consultation Attempt and Engagement Record

Date of Notice	Ahead of the site visit conducted for this EMP, May 2026
Method of Notice	Written notice describing the proposed development, delivered to the identifiable neighbouring households and facilities, together with an invitation to a stakeholder consultation meeting at the project site
Parties Invited	The occupant of the rear boundary bungalow and poultry pen; other identifiable neighbouring households along Umuejiofor Street and the immediate vicinity
Attendance at Scheduled Meeting	None of the invited neighbours attended the scheduled meeting
Fallback Engagement Method	Informal, one-on-one, on-the-spot discussion carried out by the assessment team with persons found on and around the site during the same visit
Persons Engaged On the Spot	The occupant of the rear boundary bungalow; farm workers encountered on the two flanking plots; other individuals met along the access road
Convened By	STELLOVATE LIMITED, on behalf of Mrs. Theresa Okoli (nee Oliagba)

5.3.1 Issues Raised Informally and Proponent's Response

The points below reflect what came out of the informal, on-the-spot conversations described in Table 5.2, together with one issue the assessment team itself judged material regardless of whether it was raised.

Table 5.3: Issues Raised Informally and Responses

Issue Raised Informally	Proponent's Commitment	Where Addressed in This EMP
Condition of the untarred access road, and the hope that construction traffic would not worsen the existing mud and rutting after rainfall	Agreed to schedule deliveries only when the road is dry and firm, never within 24 hours of rain, and to repair any rutting caused by a delivery vehicle before the end of the same day	Section 4.3, pre-construction delivery scheduling; Section 4.11, consolidated monitoring
General courtesy and notice of remaining work, raised informally by more than one person met along the road	Agreed to post a site notice board with contact numbers and to keep neighbours informed ahead of any major activities	Section 4.3, notification; Section 5.4, grievance mechanism
Proximity of the poultry pen to the rear boundary (identified by the assessment team as a material issue even though not raised as a concern by the neighbour during informal engagement)	Agreed to apply dust and noise measures with particular care along the rear boundary and to maintain open communication with the household throughout the remaining works	Section 4.4.1, dust; Section 4.4.2, noise; Section 4.4.7, neighbour relations

5.3.2 Community Position

No objection to the project proceeding was raised by any person engaged during the site visit. The turnout for the planned stakeholder meeting was low, effectively nil, and this report does not overstate that outcome as a full community endorsement. What can fairly be said is that the informal engagement carried out did not surface opposition, and it did surface the access road concern addressed in Table 5.3. Given the limited turnout, it is recommended below, and again in Section 5.6, that a further, better-publicised consultation session be held before the building is occupied, ideally timed around a period when neighbours are more likely to be available, and advertised more than once ahead of the date.

5.4 Grievance Redress Mechanism

A site notice board will be placed at the compound frontage, in the interim fixed to the temporary barrier described in Section 4.3 until the permanent gate is installed. It will show, in large print, the name and telephone number of Mrs. Theresa Okoli and the name and number of the site supervisor, together with an invitation to call or speak directly to either of them with any concern about the project. A concern may be raised by phone or text, by speaking to the site supervisor during working hours, by leaving a written note at the site notice board, or by speaking to any worker and asking to be connected to the supervisor. Concerns raised without a name attached are accepted and treated with the same priority as named ones.

Table 5.4: Grievance Redress Step-by-Step Procedure

Step	Action	Maximum Timeframe
Step 1	Site supervisor, or the proponent directly while the compound remains without a gate, receives the concern and records it in the grievance logbook with the date, nature of concern and complainant's details if provided.	Same day as received
Step 2	Where the supervisor received the concern, it is reported to the proponent by phone or in person.	Within 24 hours
Step 3	Proponent contacts the complainant directly to acknowledge the concern and explain the action being taken. For the rear boundary neighbour, this contact should be in person given the shared fence.	Within 24 hours of Step 2
Step 4	Concern resolved at site level and the resolution recorded in the grievance logbook. Complainant notified where possible.	Within 5 working days
Step 5	If unresolved after 5 working days, the proponent refers the matter to the Awka South LGA Environmental Health Department and informs the complainant.	By end of Day 5
Step 6	If still unresolved after 10 further working days, the proponent refers the matter to the Anambra State Ministry of Environment.	By end of Day 15

5.5 Emergency Response Procedures

Emergency contact numbers, including the proponent, the site supervisor, the nearest health facility identified in Section 3.9.4, the Anambra State Fire Service and the nearest police post, are to be posted on the site notice board before further major works resume.

Table 5.5: Emergency Response Procedures

Emergency Type	Immediate Actions	Follow-up Actions
Worker fall from first or second floor, or from the penthouse roof level	Call out to all workers. Do not move the fallen worker if spinal or neck injury is possible. Assign one calm worker to stay with the person. Call the proponent and the nearest health facility, Ozoigbondu Okuoba Orthopedic Clinic, immediately, given its proximity to the site. Clear other workers from the immediate area.	Transport to the health facility accompanied by a colleague. Record in the first aid log before the end of the day. Halt elevated work; re-inspect scaffolding before it resumes.
Roofing material or tool falling toward the rear boundary	Stop all roof work immediately. Shout a warning to anyone in the neighbouring compound. Check whether anyone or any property at the rear boundary has been struck or damaged. Call the proponent immediately.	Visit the rear neighbour in person within the hour, assess any damage, and commit to making it good. Do not resume work on that section of roof until reviewed. Brief all workers at the next safety talk.
Worker cement burn: skin or eye contact	Skin: wash immediately with clean water for at least five minutes. Eye: flush continuously with clean water for fifteen minutes; do not allow rubbing. Call the proponent and arrange transport to the health facility if the eye is affected.	Record in the first aid log. Restock eye wash supply. Reinforce correct PPE use at the next safety talk.
Generator fuel spillage near the borehole	Switch the generator off immediately. Keep any spark or open flame away from the spill. Cover the spill with dry sand from the stockpile.	Remove contaminated sand into a sealed drum for licensed disposal. Inspect the borehole headworks seal to confirm no fuel entry. Review refuelling procedure with all workers.
Drainage overflow toward the rear boundary	Stop open work in the compound. Clear the catchment pit inlet screen immediately.	After the rain subsides, inspect and clear all drainage paths.

or the access road during heavy rain	Hand-grade the compound surface to direct water away from the rear boundary while the rain is still manageable.	If water reached the neighbouring compound, visit in person the same day to check for damage. Record the incident and corrective measures taken.
Fire from cooking, waste burning, generator or electrical fault	Evacuate all workers from the compound. Use sand or a dry-powder extinguisher for a small fire. Never use water on an electrical fire. If not controlled within two minutes, call the Anambra State Fire Service and the proponent.	Account for all workers. Engage a licensed electrician before any electrical system is re-energised. Reinforce the no-burning rule at the next safety talk.

5.6 Conclusion

This Environmental Management Plan has been prepared for the proposed construction of a ship-design residential flats with penthouse at Umuejiofor Street, off High Chief Emeka Okonkwo Street, Agbeani Ezeawulu, Nibo, Awka South Local Government Area, Anambra State, on behalf of Mrs. Theresa Okoli (nee Oliagba).

Three features of this project have shaped every significant measure in this report. The first is the poultry pen and bungalow sharing the rear boundary, which sits close enough to the building that dust, noise, drainage and general neighbourliness toward that boundary have been treated as a standing priority throughout Chapters Four and Five, ahead of measures that would apply on a more isolated plot. The second is the compound's currently open front, without a gate, which this report has treated as an active gap to be closed as a priority rather than a detail to finish later. The third is the compact 204.03 square metre free compound space, which limits how far any activity can realistically be kept from a boundary and has shaped the mitigation measures accordingly, particularly around the borehole-to-soakaway separation addressed in Sections 4.3 and 4.4.6.

Baseline conditions recorded in Chapter Three show a site that is, in most respects, clean and quiet: particulate air quality at all four measured stations sits well within NESREA limits, and noise, while capable of sharp peaks during active work, has a background close to the site's natural quiet outside those moments. The one air-quality exception is the elevated carbon dioxide reading of 1,278 ppm recorded at the rear boundary close to the neighbouring poultry

pen, the highest of the four stations and above the 1,000 ppm ASHRAE indoor comfort reference. This is an existing condition of the neighbouring property rather than a product of this project, but it is treated in this EMP as the most significant air-quality finding and is addressed through the rear-boundary measures in Chapter Four.

Two baseline conditions of real concern stand out. The first is the elevated carbon dioxide reading of 1,278 ppm at the rear boundary close to the poultry pen, which exceeds the 1,000 ppm ASHRAE comfort reference and indicates a ventilation and organic-load issue at the shared boundary. The second is the informal waste dumping and burning observed immediately behind the rear boundary. Both predate this project and lie outside the subject plot, but this EMP has been written throughout to ensure the project's own air-quality and waste practice does not add to them.

The community consultation for this project did not go entirely to plan. The scheduled stakeholder meeting drew no attendance, and this report has been honest about that rather than presenting the informal, on-the-spot conversations that followed as a substitute for it. Those conversations did not surface objection to the project, and they did surface a genuine, practical concern about the access road, which this EMP addresses directly. A further, more widely publicised consultation round before occupation is recommended as the single most important outstanding action item from this report, alongside completion of the front perimeter wall and gate.

It is concluded that this project, carried out and managed in line with the measures set out in this EMP, presents no significant or lasting danger to the environment or to the immediate neighbourhood of Agbeani Ezeawulu, Nibo. This report, together with Part One (Chapters One to Three), is submitted to the Anambra State Ministry of Environment in support of the proponent's environmental compliance obligations for this project.

REFERENCES

- Anambra State Government. (2024). Environmental Management, Protection and Administration Law, 2024. Awka: Anambra State Government.
- Federal Ministry of Environment. (2021). Environmental Impact Assessment Procedures and Charges Regulations, 2021 (S.I. No. 109 of 2021). Lagos: Federal Government Printer.
- Federal Republic of Nigeria. (2004). Environmental Impact Assessment Act, Cap E12, Laws of the Federation of Nigeria 2004. Abuja: Federal Government of Nigeria.
- National Environmental Standards and Regulations Enforcement Agency. (2007). National Environmental Standards and Regulations Enforcement Agency (Establishment) Act, 2007. Abuja: Federal Government of Nigeria.
- National Environmental Standards and Regulations Enforcement Agency. (2009). National Environmental (Sanitation and Wastes Control) Regulations, 2009. Abuja: NESREA.
- National Environmental Standards and Regulations Enforcement Agency. (2011). National Environmental (Electrical/Electronic Sector) Regulations, 2011. Abuja: NESREA.
- Standards Organisation of Nigeria. (2015). Nigerian Standard for Drinking Water Quality (NSDWQ), 2015. Abuja: Standards Organisation of Nigeria.
- World Health Organization. (2022). Guidelines for drinking-water quality: Fourth edition incorporating the first and second addenda. Geneva: World Health Organization.
- World Health Organization. Indoor Air Quality Guidelines: Selected Pollutants. Geneva: World Health Organization.

APPENDICES

Appendix A: Regulatory Compliance Cross-Reference

Table A.1: Regulatory Compliance Cross-Reference

Environmental Component	Standard / Limit	Regulatory Source	EMP Compliance Action
Ambient PM10	116 µg/m ³	NESREA	Rear boundary watering; dust masks; harmattan protocol (Section 4.4.1)
Ambient PM2.5	25 µg/m ³	NESREA / WHO	Wet mixing board; wind-aware mixing position (Section 4.4.1)
Daytime noise	50 to 60 dBA	NESREA Noise Standard	08:00-17:00 Mon-Sat working hours; generator log (Section 4.4.2)
Drinking water: E. coli	0 cfu/100 mL	WHO / NSDWQ 2015	Borehole headworks sealed; 8 m exclusion zone; annual water test (Section 4.4.6, 4.5)
Borehole-soakaway separation	15 m recommended minimum	Engineering standard / NESREA	Measured by tape before soakaway excavation; sealed tank if not achievable (Section 4.3)
Wastewater clearance	Required before first occupation	Anambra State Env. Law 2024, s.216(1)	Application to be submitted before occupation (Section 4.5)
Public Registry registration	Required before further construction	Anambra State Env. Law 2024, Part 8	EMP submitted; registration and comment period to be observed (Section 4.3)
Landscaping and setback	Perimeter landscaping required	Anambra State Env. Law 2024, ss.79-80	Landscaping completed before/at occupation (Section 4.5)
Solid waste disposal	Licensed collector; no burning	Anambra State Env. Law 2024, Part 10; NESREA Regs 2009	Licensed collector from occupation; no burning at any stage (Section 4.4.4, 4.5)
Community notification and consultation	Required before commencement	Anambra State Env. Law 2024, s.315	Notice delivered; further consultation round recommended (Section 5.3, 5.6)
Spent battery / e-waste disposal	Licensed recycler required	National Env. (Electrical/Electronic Sector) Regs 2011	Spent solar batteries returned to installer/recycler only (Section 2.5.5)

Appendix B: Consultation Notice and Engagement Record Template

The text below reflects the notice delivered to neighbouring households and facilities ahead of the site visit, and the record template used to capture the informal on-site engagement that followed when the scheduled meeting drew no attendance.

B1. Sample Notice of Proposed Development

To:

Dear Sir/Ma

NOTICE OF PROPOSED DEVELOPMENT AND INVITATION TO CONSULTATION

This is to notify you that Mrs. Theresa Okoli (nee Oliagba) is developing the plot at Umuejiofor Street, off High Chief Emeka Okonkwo Street, Agbeani Ezeawulu, Nibo, into a residential flats with penthouse. As a close neighbour, you are invited to a short meeting at the project site to learn more about the remaining work and to raise any concern you may have.

If you are unable to attend, you may contact the numbers below at any time.

Date and time of meeting: [to be inserted].

Venue: the project site.

Contact: Mrs. Theresa Okoli / Site Supervisor.]

Figure B: Consultation Sample

B2. On-Site Engagement Record Template

Date of Engagement	
Person(s) Engaged	
Relationship to Site (e.g. rear boundary neighbour, farm plot user, passer-by)	
Points Raised	
Response Given	
Recorded By	

This template is to be used for any further consultation carried out for this project, including the wider, better-publicised session recommended in Section 5.6.

Appendix C: Waste Management Plan

Table C.1: Construction and Operational Waste Management Plan

Waste Category	Phase	Disposal / Reuse Route	Removal Frequency
Block offcuts and concrete rubble	Construction	Reused for compound levelling and the parking area base where possible. Excess removed to an LGA-approved dumpsite, never to the rear boundary.	Weekly gathering; final removal within 14 days of completion
Cement bags and packaging	Construction	Empty bags sold to local traders where possible; remainder in the covered waste bin.	Daily collection
Timber formwork offcuts	Construction	Sound pieces reused; remainder to LGA-approved dumpsite. Never burned on site.	Weekly
Scrap steel: rod offcuts, wire, nails	Construction	Dedicated container; sold to a scrap dealer.	Weekly
Spent generator oil and oil-soaked materials	Construction	Sealed drum kept away from the borehole; removed by a licensed waste oil collector.	As accumulated; quarterly disposal
Plastering and finishing waste	Construction	Designated pile; removed to LGA dumpsite.	Bi-weekly during finishing
Domestic household waste	Operational	Licensed collector via the covered waste bin container at the compound frontage.	At least weekly
Spent solar batteries at end of life	Operational	Returned to the solar installer or a licensed battery recycler only. Never in general waste.	At end of battery service life

Appendix D: Occupational Health and Safety Plan

D1. Personal Protective Equipment Requirements

Table D.1: Personal Protective Equipment Requirements by Task

Task	Minimum PPE Required	Who Provides
Cement handling and mortar mixing	Dust mask, safety goggles, rubber gloves	Proponent
Block laying at first, second floor and penthouse level	Hard hat, safety footwear with toe cap	Proponent
Roofing at penthouse roof level	Hard hat, non-slip footwear, work gloves; no loose clothing	Proponent, mandatory for every person on the roof
Electrical conduit chasing	Safety goggles, work gloves	Proponent
Soakaway and catchment pit excavation	Safety footwear, work gloves	Proponent
General ground-level work	Sturdy closed, toe-capped footwear	Each worker; proponent provides where needed
Generator refuelling	Rubber gloves; refuel only when cool and switched off	Site supervisor enforces

D2. Site Photograph



Plate D1: Site picture



Plate D2: Side picture of the project



Plate D3: access picture of the site



Plate D1: Front picture of the site

Appendix E: Worker Code of Conduct

Every worker engaged on this site is expected to follow the rules below for the remainder of the construction period.

- Arrive and begin work only within the approved hours of 08:00 to 17:00, Monday to Saturday. No work on Sundays or public holidays.
- Wear the personal protective equipment required for the task being performed, as set out in Appendix D.
- Use only the designated toilet facility. Open defecation anywhere on or near the site is strictly prohibited.
- Place all waste in the designated collection point. Never burn waste on the compound.
- Never perform an elevated task alone, and never remove or bypass scaffolding, guard rails or edge protection.
- Treat the rear boundary neighbour, the farm plot users and every other neighbour with courtesy and respect at all times.
- Do not enter, disturb or damage the neighbouring poultry structure or any property beyond the site boundary.
- Report any hazard, injury, spill or neighbour complaint to the site supervisor immediately.
- Do not allow unauthorised visitors onto the site, particularly while the front boundary remains without a permanent gate.
- Handle the generator only as instructed: refuel when switched off and cool, and never leave it running unattended.
- Keep alcohol and illicit substances off the site at all times during working hours.

Any worker who breaches these rules is subject to a documented warning on the first occasion and may be dismissed for a repeat or a serious breach, at the discretion of the site supervisor and the proponent.

Appendix F: Environmental Monitoring Checklist / Site Logbook Template

The following checklist is to be completed by the site supervisor each working day and reviewed by the proponent at least weekly.

Item Checked	OK (Y/N)	Time	Remarks / Action Taken
No work started before 08:00			
Rear boundary free of visible dust			
Borehole headworks sealed and exclusion zone clear			
Catchment pit clear and functional			
Waste gathered at designated point; none burned			
Scaffolding and elevated work areas inspected			
Generator log updated (if used)			
Front boundary barrier / gate secure			
Any neighbour complaint received			
All workers off site by 17:10			

Appendix G: Summary of Approved Architectural Drawings Referenced in This EMP



Plate G1: Drawing of side view

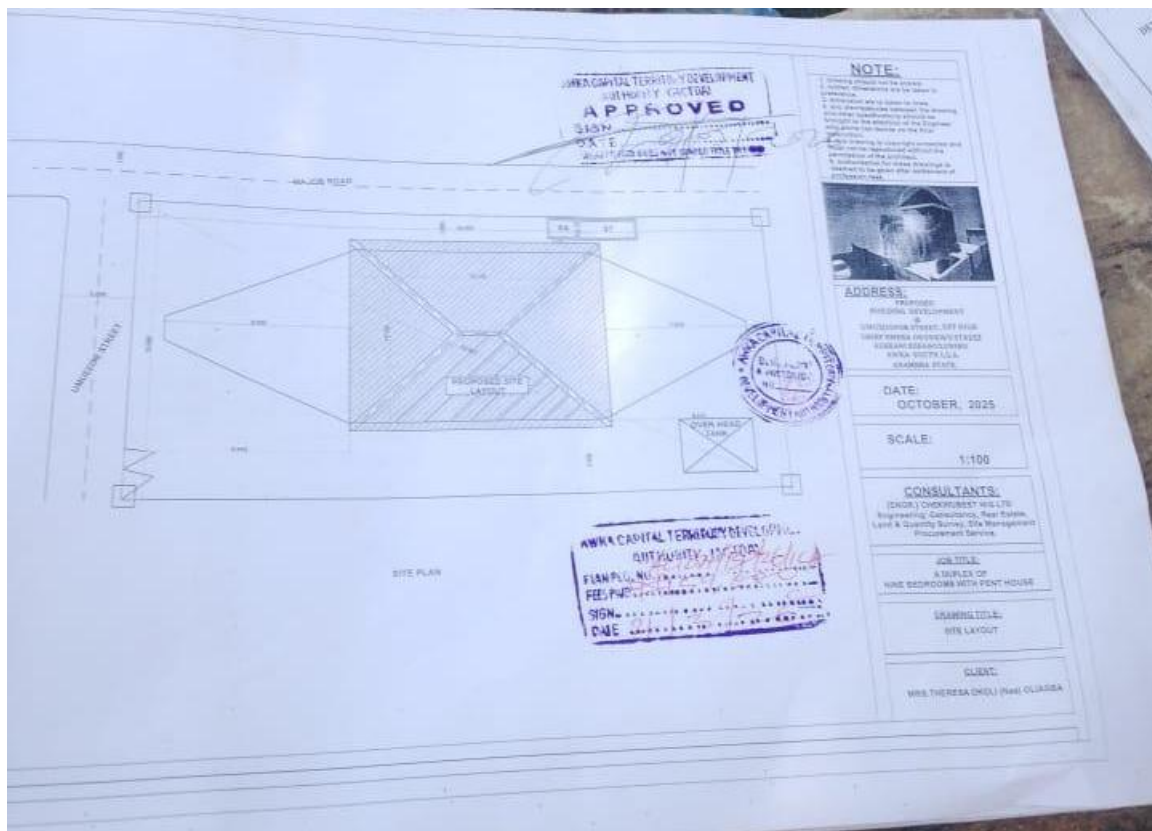


Plate G1: Drawing of plan view