

We creatively design,  
advise and build for  
safety, durability,  
cost-effectiveness and  
ecological excellence.

We utilise the potential of earth, timber,  
masonry, concrete and steel in  
innovative and balanced ways which  
make a significant climate, cost and  
buildability solution aware that the  
challenge is achieving the right balance  
across these materials.

Timber.

Post-Tensioning.

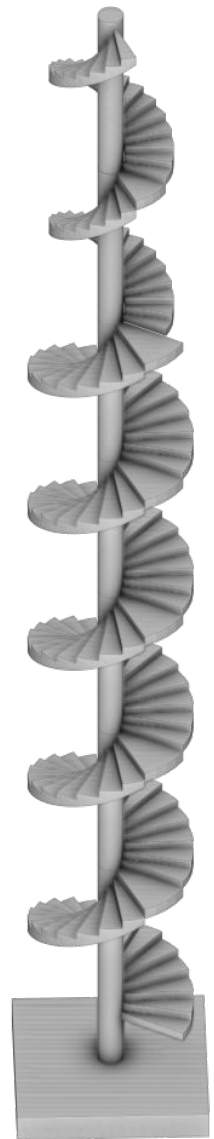
Earthen Structures.

Civil—Structural and

Construction Engineering.

**lotino**  
engineering

# Portfolio



Spiral staircase,  
House in Lamu Kenya — 2023

Kenya | iBizAfrica Centre Strathmore University  
P.O. Box 25520, 00603 | Nairobi | +254 713 068 937

Uganda | Lweza Zone B Wakiso  
P.O. Box 21706 | Kampala | +256 762 043 339

hello@lotino.africa | www.lotino.africa

We excel in traditional civil, structural and construction engineering for the built environment.

# Capabilities

## Timber | Design + Build

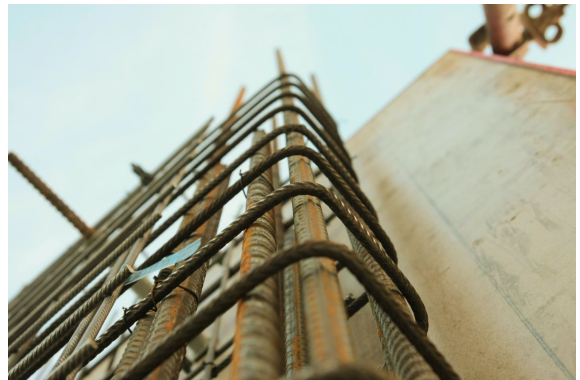
We specialize in designing and constructing timber structures for various purposes, including framing, trusses, and incorporating mass timber elements such as cross-laminated timber (CLT), glulam beams, decking, and flooring.



## Structural Engineering | Design + Advice

We excel in structural analysis, design, appraisal, supervision and advice for projects of any scale.

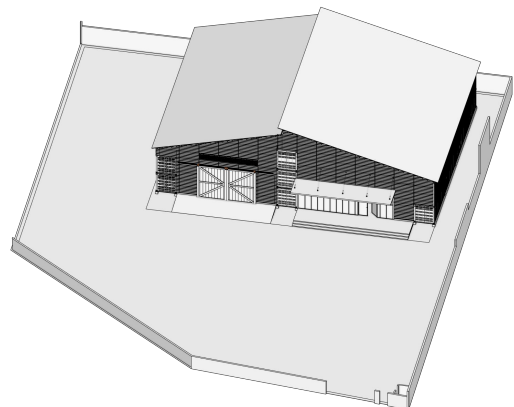
- Structural analysis and design
- Structural appraisal
- Structural construction supervision
- Structural peer review
- Structural expert witness
- Renovation or repair Design



## Civil Engineering | Design + Advice

We provide holistic civil engineering solutions for sustainable and efficient outcomes.

- Road system design
- Stormwater and wastewater management solutions
- Integrated site development services (grading, drainage, hardscape, cut-and-fill)



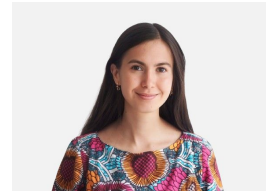
# About

We are designers, engineers, carpenters and artisans who joyfully share a passion for a built environment which works using the best combination of structural forms, materials, and options.

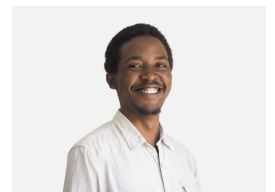
Roderick Obeja (Kenya EBK A4041, Uganda ERB 1345) with a master's in timber construction from the Technical University of Madrid, Spain and a Bachelor of Civil Engineering, Makerere University Uganda) is a licensed civil engineer and currently provides business and engineering oversight in a limited role because he is full time with **AECOM Spain** in the Madrid office as one more structural engineer.



Kenneth Kimari Kahura (Bachelor of Science in Civil Engineering, Jomo Kenyatta University of Agriculture and Technology, Kenya) is one more of our civil/structural engineers.



Sara Mehrgut Palenzuela (PhD in Aesthetics and Philosophy, Universidad Nacional de Educación a Distancia, Spain, Master's degree in Philosophy, Universidad de Navarra Spain and a Bachelor's degree in Fine Arts, Universidad de Salamanca Spain) is our People and Marketing Director.



We use Autodesk Revit, AutoCAD and SketchUp for digital documentation. Structural analysis involves classical hand computations especially with Python and Autodesk Robot or RISA's ADAPT PT/RC / ADAPT Builder. Civil works are executed using Civil 3D. Project management is handled with MS Project.

## Our culture.

Client-Centered.  
Reliability.  
Responsibility.  
Precision.  
Deep Knowledge.  
Local.  
Truth.  
Grit.  
Creativity.  
Curiosity.

Founded in 2019, our solutions have consistently delivered positive ecological, social, and economic impact.



# Projects

## The Nairobi West Hospital, Kenya

The Nairobi West Hospital expanded with a 162-bed specialty wing in a 17-storey structure. The wing features a linear accelerator bunker for cancer treatments, MRI spaces, operating theatres, wards, consultation rooms, restaurant, parking, helipad, and related hospital amenities.

Location: **Nairobi, Kenya**

Client: **The Nairobi West Hospital**

Service: **Civil—Structural Engineering**

Area: **13,470 m<sup>2</sup>**

Architect: **Questworks Architecture**

Contractor: **Parklane Construction**

Duration: **2017 - 2019**



## Avana Apartments Nairobi, Kenya

Efficient solution for a 12-story, 84-unit building with scenic views on the 12th floor and a ground-floor pool for Avana Apartments. Nestled in serene Riara Road, Avana is a 0.75-acre masterpiece with distinct 2-bed apartments, each 107 sq meters. Capturing urban essence, it includes integrated amenities, a zen garden, and leafy tranquility.

Location: **Nairobi, Kenya**

Client: **Riara Five Two One + Hass Consult**

Service: **Civil—Structural Engineering**

Architect: **Insight Architecture and Design**

Contractor: **Questworks**

Area: **9,500 m<sup>2</sup>**

Duration: **2017 - 2021**





# Projects

## Alkira Residences Nairobi, Kenya

Situated in the middle-class suburb of Kileleshwa, the development comprises a block of 56 three-bedroom apartments designed and constructed with cost-efficient Post-Tensioning technology, offering modern and efficient living spaces.

Location: **Nairobi, Kenya**

Client: **Radstock**

Service: **Civil—Structural Engineering,  
Post-Tensioning (design + build)**

Architect: **Questworks Architecture**

Contractor: **Questworks**

Area: **17,000 m<sup>2</sup>**

Duration: **2018 - 2024**



## Origen Fresh EPZ Athi River, Kenya

As Phase I, a world-class processing plant for avocados and other vegetable oils was built on 2.5 acres of land, with future development plans for a solvent plant extraction facility at an adjacent property.

Location: **Athi River Machakos, Kenya**

Client: **Origen Fresh EPZ**

Service: **Civil—Structural Engineering,  
Post-Tensioning (design + build)**

Contractor: **Questworks**

Area: **10,500 m<sup>2</sup>**

Duration: **2021 - 2022**



# Projects

## Playon Padel Tennis Nairobi, Kenya

Situated in Lavington within the Nairobi Jafferys Sports Club, the first padel tennis court in Kenya was meticulously designed and constructed. This court serves to enhance the comprehensive sports facilities available at the premises, offering an exceptional addition to the club's recreational offerings.

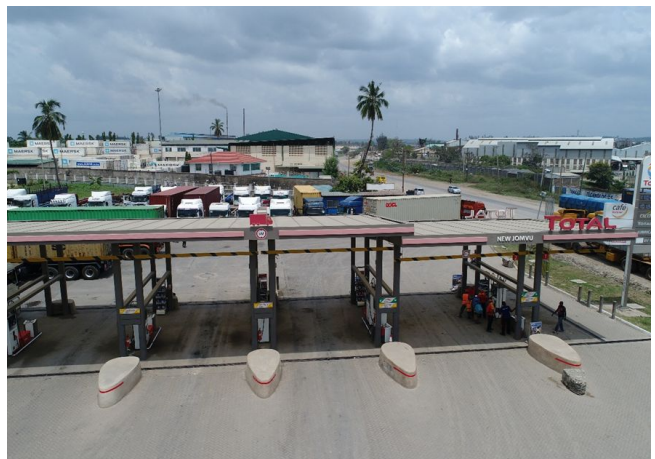
Location: **Nairobi, Kenya**  
Client: **Three Stripe Ventures**  
Service: **Civil—Structural Engineering, Post-Tensioning (design + build)**  
Architect: **Calibre Architects**  
Area: **350 m2**  
Completion: **2022**



## Total Energies Solarisation, Kenya

Structurally appraising and enhancing 25 service stations in Kenya to accommodate solar PV installations demanded rigorous assessments. This included detailed restoration guidance and finite element analysis for the additional loads within the Eurocode structural code of practice framework.

Location: **Throughout Kenya**  
Client: **Total Energies Kenya**  
Service: **Structural Engineering Appraisal**  
Contractor: **Questworks**  
Duration: **2019 - 2020**



# Projects

## Parallel Four Hostels Nairobi, Kenya

New nine-storey student hostel designed and built with cost-efficient Post-Tensioning concrete, prioritizing modernity, sustainability and efficiency. The foundations designed and built were a raft foundation especially due to the expansive clay soils at site and proximity to the Nairobi River.

Location: **Nairobi, Kenya**  
Client: **Eubilia Investments**  
Service: **Civil—Structural Engineering, Post-Tensioning (design + build)**  
Architect: **Questworks Architecture**  
Contractor: **Questworks**  
Area: **9,500 m<sup>2</sup>**  
Duration: **2019 - 2021**



## The Stop at Rhapsa Nairobi, Kenya

A new retail facility in Westlands, covering one acre, now features a padel tennis court at the rear (implemented in 2024, replacing the astro turf). The design harmoniously integrates shopping spaces, offices, and shops. To adhere to a quick turnaround timeline, the entire superstructure is exclusively designed and constructed using structural steel, enabling prefabrication and prompt delivery.

Location: **Nairobi, Kenya**  
Client: **Three Stripe Ventures**  
Service: **Civil—Structural Engineering**  
Architect: **Calibre Architects**  
Contractor: **Ominet Enterprises**  
Area: **2,600 m<sup>2</sup>**  
Duration: **2019 - 2020**





# Projects

## Bar Aviation Entebbe Airport, Uganda

Conducted a structural appraisal in preparation for the solar PV installations. This required meticulous assessments to account for the additional loads. The evaluations adhered to the Eurocode structural code of practice framework, ensuring comprehensive consideration of the structural integrity within the project scope.

Location: **Bar Aviation Entebbe International Airport, Uganda**  
Client: **Bar Aviation + Afresco**  
Service: **Structural Engineering Appraisal**  
Completion: **2024**



## MPESA Foundation Academy Thika, Kenya

A 350kWp solar plant was needed, prompting a comprehensive solar PV pre-installation structural appraisal. The assessment confirmed the safety and feasibility of proceeding with the installation of the solar PV panels.

Location: **Thika Kiambu, Kenya**  
Client: **MPESA Foundation Academy**  
Service: **Structural Engineering Appraisal**  
Contractor: **Questworks**  
Completion: **2013**





# Projects

## CKL Africa Factory Tatu City, Kenya

The client, a prominent animal health company in East and Central Africa, sought a new animal feed supplement plant featuring a Post-Tensioned slab-on-ground for cost efficiency, speed, and durability. Additionally, the design and construction included the installation of solar PV panels on the roof.

Location: **Tatu City Kiambu, Kenya**

Client: **CKL Africa**

Service: **Post-Tensioning (design + build)**

Area: **9,500 m<sup>2</sup>**

Architect: **Boogertman + Partners**

Completion: **2019**



## Questworks Place Nairobi, Kenya

A cost-effective and swiftly built office block and a construction storage yard, designed with minimalism in mind, incorporates stacked shipping containers around construction equipment. The utilisation of a Post-Tensioned slab on the ground enhances cost efficiency.

Location: **Madaraka Nairobi, Kenya**

Client: **Questworks + Beth Mobility**

Service: **Civil—Structural Engineering (design + advice + supervision),  
Post-Tensioning (design + build)**

Contractor: **Questworks**

Architect: **Questworks Architecture**

Completion: **2019**



## Project Highlights

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**Summits Education Schools Haiti** | 2023 - 2024 | Civil engineering integrated site development with grading, drainage, hardscape, and cut-and-fill designs.

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**Tasiast Solar Generation Plant Delivery Station Mauritania** | 2023 | Structural engineering analysis and design for the Delivery Station to prepare for 42.5 MW - 33 kV solar generation plant for a gold mine for Kinross in Tasiast, Mauritania.

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**Parallel Four Hostels Nairobi** | 2016-2020 | Civil—Structural engineering analysis, design, detailing and construction supervision and Post-Tensioning design-build for a seven storey, one basement and 8,000 square meter student hostel facility for Eubilia Investments.

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**Tanga Residential House Tanzania** | 2023 - 2024 | Structural engineering analysis, design and detailing for a private residential house.

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**Tewa Training Centre Kilifi Kenya** | 2022 - 2023 | Civil—Structural engineering analysis, design, detailing and construction supervision for a conference hall, residential houses and related amenities for the Kianda Foundation at their technical school Tewa Training Centre in Kilifi.

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**Tudor Nora Apartments Mombasa Kenya** | 2022 - 2023 | Civil—Structural engineering analysis, design and detailing for an eighteen level residential apartment block for Ultra Modern Homes.

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**Paul and Regina House Nairobi** | 2023 | Civil—Structural engineering analysis, design and detailing for a private residential house.

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**Silverpool Apartments Nairobi** | 2023 | Structural and construction engineering appraisal ahead of restoration works

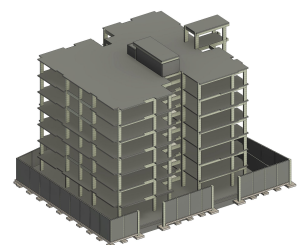
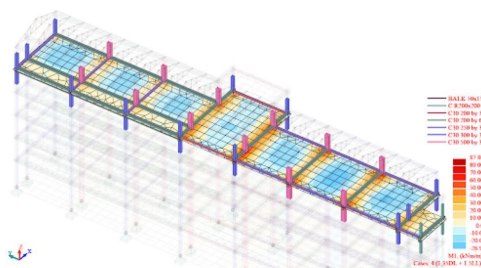
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**Alkira Residences Nairobi** | 2017- 2021 | Civil—Structural engineering analysis, design, detailing and construction supervision and Post-Tensioned design-build for a fifty six apartment block.

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**Cooper Kenya Brands Animal Feed Factory Tatu City Kiambu Kenya** | 2019 | Civil—Structural engineering analysis, design, detailing and construction supervision and Post-Tensioning design-build for an animal feed factory for Cooper Kenya Brands plant.

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## Project Highlights

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**The Stop at Rhapta Nairobi** | 2019- 2020 | Civil—Structural engineering analysis, design, detailing and construction supervision for a two thousand six hundred square meter mixed use development with retail shops, an astroturf sports facility and offices.

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**Playon Padel Nairobi** | 2022 | Civil—Structural engineering analysis, design, detailing and construction supervision for a three hundred and twenty square metre Padel Court.

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**Solarisation of Weetabix East Africa factory Nairobi** | 2021 - 2022 | Structural engineering analysis, appraisal ahead of solar PV installations at the factory.

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**Solarisation of Tropikal Brands Afrika factory Nairobi** | 2021 | Structural engineering analysis, appraisal ahead of solar PV installations at the factory.

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**Modern Heights Bukasa Residential Apartments Kampala** | 2023 - 2024 | Civil—Structural engineering analysis, design, detailing and construction supervision for a seven level, eight thousand square metre residential apartment block.

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**MPESA Foundation Academy Thika Kenya** | 2023 | Structural engineering analysis, appraisal ahead of solar PV installations at the school campus.

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**Madaraka Primary School Nairobi** | 2023 | Structural engineering appraisal of the entire school

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**Nairobi West Hospital Nairobi** | 2017 - 2019 | Civil—Structural engineering analysis, design, detailing and construction supervision for a 162-bed, speciality hospital with 13,470 square metres built up, thirteen storeys with four basements and helipad at rooftop.

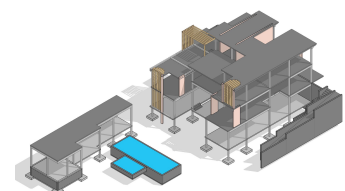
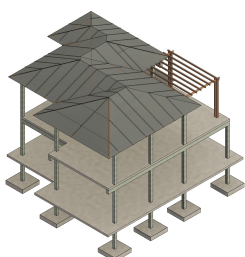
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**Avana Apartments Nairobi** | 2023 - 2024 | Civil—Structural engineering analysis, design, detailing and construction supervision for an eighty four unit eleven level residential apartment block, with club house and swimming pool.

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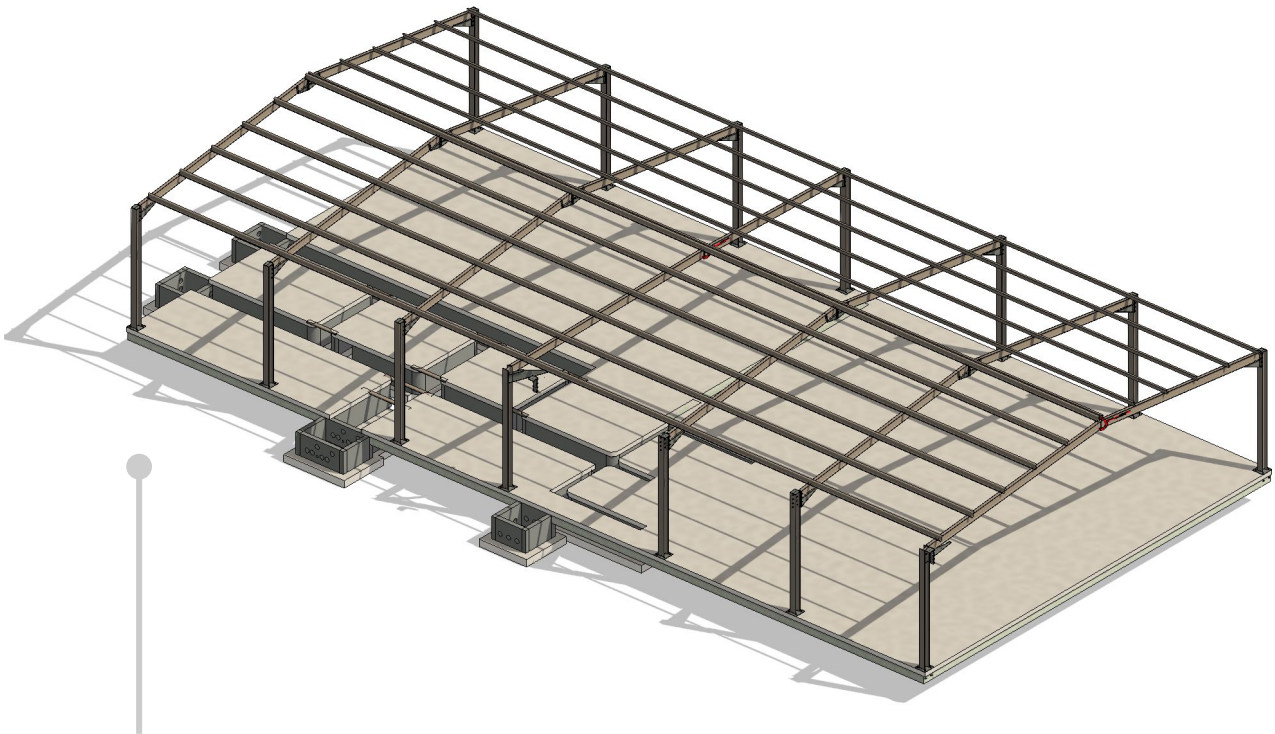
**Coastal Bottlers Mombasa Kenya** | 2021 | Structural engineering analysis, appraisal ahead of solar PV installations at the factory.

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# Together — let's design and build.



Delivery Station at the Inchiri  
Goldmine in Tasiast Mauritania,  
designed and built in 2023

## Kenya

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## Uganda

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