ECO CONCRETE LTD

Building Environmentally

BEAM AND BLOCK CONCRETE FLOORING SYSTEM

ECO CONCRETE
P.O. Box 66143, 00800
Nairobi, Kenya
Mobile: 0722 882088,
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www.somerseng.com

Beam & Block System

- **Preliminaries**

  Beam and Block allows massive savings on preliminaries as there are savings on storage , security, space, time and labor.

- **No Shuttering / Formwork Required**

  The Beam and Block system is a precast and designed product and does not require formwork for the soffit as does conventional slabs .This saves on costs.

- **No Reinforcement Required**

  The Beams are made of Class 60 concrete, prestressed with high tensile steel, and manufactured to BS EN 15037, meaning there no need for additional reinforcement. This makes Beam and Block flooring economical.

- **Reduction in Concrete Works**

  A 50mm to 75mm Fibre reinforced Screed or topping is required only.

- **Fast and Easy Installation**

  The Beam and Block system is very quick and easy to install. Approximately 100 m^2 of the system can be installed manually in a day. For conventional slab, it takes about 28 days for the slab to be completed from concreting, vibrating and curing. This can save about 90% of time. Minimal machinery is required on site. (No Concrete pump, No Poker Vibrator, No raking or levelling required)

- **All Weather Construction**

  Installation can begin on delivery and is not influenced by weather conditions.

- **Minimal Labour / Machinery required**

  A competent site supervisor and a few unskilled labour are required to install the system . This saves on costs. The beams can be carried and placed by hand , no lifting equipment required.

- **Reduced Theft / loss of Materials from site**

  The Beam and Block system is uniquely designed for each build, it cannot be used on another site . It is stored in the open. The risk of theft / loss is minimal compared to steel and cement etc. as used in a conventional slab.

- **Minimum Site Preparation for ground floor foundation.**

  Only excavation of trenches for foundation walling or columns is required. No removal, cartage and fill and compaction of the ground floor slab as Beam and block is suspended. A minimum Void of 150mm (or 225mm in Black cotton) is required between underside of floor and ground surface. Saving costs and reducing site activity .

- **Early working Platforms and quick progression of works**

  The floor itself becomes a working platform as soon as it is laid , allowing other works and walling to continue as soon as it is laid. Plumbing and electrical can be done upon completion of the structure saving time.

Beam & Block

Advantages

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Assorted Uses of Beam & Block


Beams & Blocks placed to slope as per the Architectural & Structural drawings provided. The landing done to receive a topping of 75mm to completion.


Beams & Blocks placed to provide a Ramp. Provide a Fibre reinforced topping of 50 mm to receive the final Architectural finish.


Ecoconcrete offers use of Beam & Block in casting of Underground Water tanks / Septic tanks Covers. No shuttering / No formwork required.


A twist in Constructing wash hand basins/ Laundry basins! Beam & Block placed to give a unique easier methodology in construction.


Prestressed Beams used as a Lintel as an alternative to casting. No Formwork / No Shuttering required.

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Church for Catholic Mission

Church for Catholic Mission-Ruaraka

Client: The Catholic Mission
Architect: Iris Architects
Engineer: Somers Engineering

Church for Catholic Mission

Post tensioning of beams to increase spans by removing some supporting columns. 625 SM of Beam & Block for the Church Hall.

Manually transporting the Beams to the point of Installation.

On-Site technical assistance provided during the installation of beams & blocks.

Flats in Naivasha Town

Proposed Residential Flats in Naivasha Town
First Floor slab 273 SM; Roof Slab 173 SM.

Supplied 93.0 Tones of Beam & Block system for the First Floor slab and Roof Slab.

Onsite Technical assistance by Ecoconcrete Team. Installation of beam & block system for the first floor slab completed within Two days.

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Burinda Chief Camp Complex

Proposed Burinda Chief and DO's Camp Complex in Busia

First Floor slab 270. Supplied 64 Tonnes of Beam and Block

Proposed Burinda Chief and DO's Camp Complex in Busia

Beam and Block ready to receive grouting and screed.

Cement slurry applied to grout the blocks and beams. The cement slurry is 3.1 sand/ cement mix . This should be brushed with a stiff broom, into the pre wetted and cleaned floor

Residential House Miroreni

Proposed Residential House in Miroreni Nakuru
First Floor slab 160 SM; Roof Slab 165 SM.

Proposed Residential House in Miroreni Nakuru
Supplied a total of 37.0 Tones of Beam &

Onsite Technical assistance by Ecoconcrete Team. Installation of beam & block system for the first floor slab completed within Two days.

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Villas In Diani

Proposed Villas in Diani

Fist Floor slab 270 SM. Supplied 70 Tonnes of Beam & Block System to Diani from Athi River.

Cement slurry applied to grout the blocks and beams. The cement slurry is 3.1 sand/ cement mix . This should be brushed with a stiff broom, into the pre wetted and cleaned floor

AIPCA Church School Dandora

Proposed AIPCA Church School in Dandora

First Floor slab 340 SM

Proposed AIPCA Church School in Dandora

Supplied 79.0 Tones of Beam & Block

Onsite Technical assistance by Ecoconcrete Team. Installation of beam & block system for the first floor slab completed within Two days.

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Ole-Sereni Project

Ole-Sereni Hotel

Client: Ole-Sereni
Architect: Cadplan Architects
Engineer: Engplan Consulting

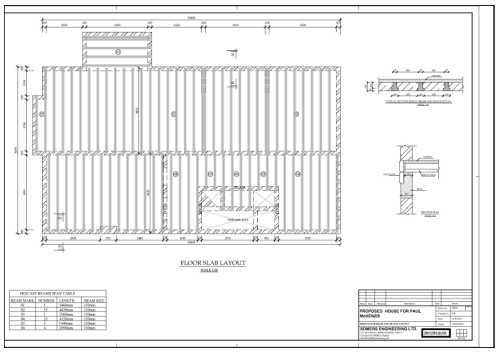
Ole-Sereni Hotel

300 SM Mezzanine extension . Steel decking replaced by 150 mm Block & Beam System supported by Steel I Beams

Installation of Beam & Block System on the Mezzanine at Second Floor

Reinforcement bars welded onto the top flange of the Universal Beam steel section.

Villas in Rosslyn Valley



Engineering Drawings and Technical support during the installation of beam and block .

On-Site technical assistance provided during the installation of beams.

Block & Beam grouted Screed Laid to provide an immediate working platform.

Immediate working platform for Second Floor . Walling works started off without any delay.

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Maisonette in Eastern Bypass

Maisonette in Eastern Bypass
100 SM first floor slab

Beams filled with Blocks to create complete slab awaiting grouting

Electrical Conduiting laid on the block & Beam system for the first floor slab

Ready floor to receive the 50 mm concrete fiber screed

Extension of Shree Ram Mandir

Mandir Temple in Parklands
Client: Shree Ram Mandir
Engineer: Somers Engineering Ltd.

70 SM Extension of Second Floor Slab by use of 150 mm Deep Block & Beam System supported on Steel I Sections..

Cement slurry to be applied to grout the blocks and beams. The cement slurry is 3:1 Sand/ Cement mix. This should be brushed with a stiff broom , into the pre wetted and cleaned floor. 50 MM Fiber Reinforced Screed to complete the Flooring.

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3 Storey Apartment, Kimende

3 Storey Apartment in Kimende.

190 SM of First Floor, 189 SM of Second Floor and 190 SM of Third Floor.

3 Storey Apartment in Kimende.

Casting of ring beam by main contractor to receive beam and block floor.

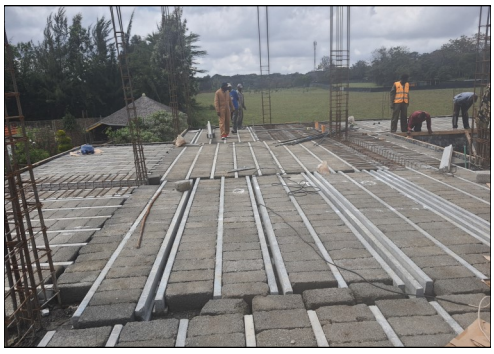
Installation of Beams and Blocks to flooring system.

Bottom Slab ready to receive 20 mm plaster

Residential House in Karen

On-Site technical assistance provided during the installation of beams.

Filling of blocks and beams in progress



Beams filled with Blocks to create complete slab awaiting grouting.

Electrical Conduiting laid on the Beam and Block System

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Project Listing

- Nanyuki Municipal Town Hall
- Our Lady of Peace School in Karen - Over head Water tank tower.
- Residential House in Thika Greens
- Residential House in Kimende
- Residential House in Kitengela
- Maisonette in Ruiru
- Aero Club at Wilson Airport
- Flats in Naivasha
- Apartment in Narok
- PCEA Church Classrooms in Loresho
- House in Roslyn Valley
- Sports Complex at Jaffery Academy, Lavington
- House in Tigoni
- The Nest, Mother & Babies,Runda
- Cotteges in Diani
- Kakuzi Cold Stores
- German School, Cafeteria, Gigiri.
- House in Mwingi
- Residential House in Kasarani
- Flats in konza
- Church for Catholic Mission– Auditorium Hall, Ruaraka
- Propack Kenya– Underground Water tank slab
- House in Kwale
- School in Migori
- Godown in Industrial Area
- School for AIPCA Church, Dandora
- Cheifs Camp in Bumela, Busia
- Good Shepherd School, Riruta
- Service Station , Donholm
- Residential Houses in Karen
- Residential Houses in Lari, Umoja,Ruiru,Outering etc

Beam & Block

Projects

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