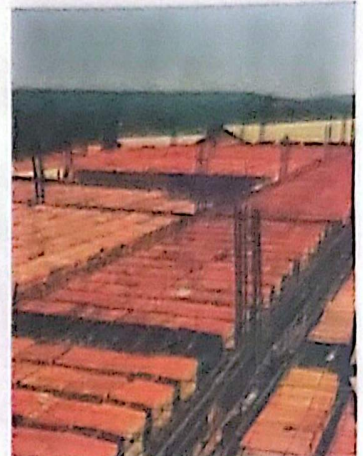


CONSTRUCTION

Slabs will determine the durability of the structure



Residential houses do not need concrete slabs



Slab types that suit your house

BY RITAH MUKASA

Just like the foundation, the upper slab, which is supported by beams on a storeyed house, is important in determining the durability of the structure. If installed carelessly, it can tear the building apart. According to Muhammad Nsereko, an architect, a slab provides the proper support to keep the house strong.

In Uganda, there are two forms of slabs mainly used on residential and commercial buildings. These are solid concrete and hollow (maxi span) slabs.

However, Nsereko notes that it is paramount to know every bit of both slabs in order to make the best choice that suits your budget, without compromising the strength of the structure.

Solid concrete slab

Nsereko explains that a solid slab is purely made of solid concrete and steel bars, which is why it is costly.

Due to its strength, the slab is commonly used on busy commercial structures such as skyscrapers, arcades, buildings which hold heavy machinery, vehicles and people.

"For safety, it should have a thickness of 0.15 metres, 15cm or 250mm and level of strength of 25cm," he says.

Nsereko adds that depending on the functions the structure is to serve, civil engineers usually increase the depth of the concrete to 200cm and above.

For example, a structure with parking lots

will have a thicker solid slab compared to one with none.

"The slab, once cast, is given 28 days to settle and dry, after which it can serve any purpose it is designed for," Nsereko says.

He affirms that apart from supporting any load, a solid slab is a reliable insulator of sound, heat and fire. In busy structures, the upper solid slab acts as a strong ceiling for the storey below and also a divider or privacy for the occupants.

"The construction of a solid slab does not take long and it can be designed in customised shapes, depending on the client's taste and nature of the structure," he asserts.

Pros and cons

According to Nsereko, the strength of a solid slab is unbeatable, which is why it should be considered for every busy commercial building such as factories, hospitals as well as printing malls like those along Nasser and Nkrumah roads in Kampala.

He adds that no slab holds heavy weight for long durations like the solid one. This includes heavy trucks and machinery.

Nevertheless, when it comes to maintenance, concrete is easy to maintain compared to other building materials.

Meanwhile, Nsereko is of the view that since homes do not have too much heavy weight, installing a solid slab may be wastage of resources to homeowners. Though durable, the solid slab is expensive to those with limited budgets. You can instead consider the cost-effective, but equally reliable options like the hollow slab.

USAGE

Experts say hollow slabs are popular for homes, schools, recreational facilities, apartments and hotels. In the same way, if installed appropriately by experts, a maxi pan slab boasts durability and low maintenance. It also takes 28 days for this slab to mature. "The standard thickness is 5cm which can increase up to 75cm and more depending on the nature of the structure," expert Muhammad Nsereko notes.

Did you know?

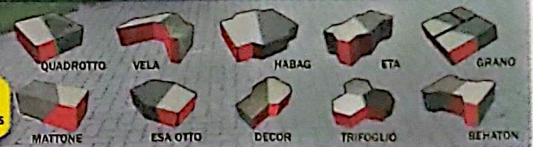
Just like the solid concrete, the hollow slab should be installed in one go in order to achieve the best results. "If you let the bars rust, they will reduce the strength of the concrete. It is safer to gather all materials on time and set the slab at once," Muhammad Nsereko, an architect, says.

QUALITY CONCRETE PRODUCTS AT AFFORDABLE PRICES

- Pavers
- Blocks
- Culverts
- Kerbstones

CONCRETE PAVERS

MANUFACTURED & TESTED TO BRITISH STANDARDS



CONCRETE BLOCKS



CONCRETE CULVERTS



CONCRETE KERBSTONE

Visit us today at:

Builder'sYARD
BUILDING MATERIALS YOU CAN TRUST

Plot M417, Kinawataka Link Nakawa Industrial Area - Kampala
P.O. Box 20166, Kampala, Tel: 0200 999 888 / 777
Email: sales@buildersyard.co.ug HOTLINE: 0752 914 029

www.buildersyard.co.ug

EXPERT ADVICE



Muhammad Nsereko

A hollow slab can also be called a voided, hollow core, maxi span or simply a concrete plank slab.

The reinforcing system contains a large number of hollow bricks, steel

Hollow slab

bars distributed evenly across the entire width with concrete on top.

Its components include: steel bars, maxi span or hollow bricks at different intervals, timber, BRC or anti-crack to hold the concrete.

"Steel bars or ribs are laid in between the maxi

spans and concrete is cast on top (topping) for extra strength," Muhammad Nsereko, an architect with 3m Design and Construction, says.

He adds that this kind of slab is also supported by beams and bearing walls that help it to stay stable.