



When building a house on a slope, work with qualified professionals right from buying of the land

How to construct on hilly terrain

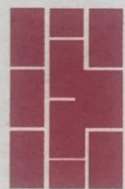
BY UMAR NSUBUGA

Although building on a hill can be quite a challenge, the property market has opened up a lot of hilly areas for construction. Abdu-Wahab Nyanzi, an architect, says building on a hill involves specific detail on certain technicalities.

"Concrete floors, hard landscaping, stepping the foundation, retaining walls, drop manholes, access routes, management of run-off water, risk of landslides, appropriate house positioning and management of sewerage are some major aspects to consider before you start the construction," Nyanzi says.

He adds that the property owner should engage the services of qualified professionals in the business right from the purchase of the land on a hill.

"The most cost-effective way of building on a hill is by having a split level floor plan. As a matter of principle, all architects believe in the



Work with architects to exploit the good views that hilly areas provide

fact that 'every site deserves a design and every design deserves a site'; this comes to life especially with hilly sites," Nyanzi says.

Site preparation

Fred Lukoda, a construction engineer, says technical people should guide this process closely.

One might want to flatten the site by either cutting or filling. The other option is to design the house to flow with the terrain of the landscape.

Lukoda says sometimes during the process of construction, soil is removed. In some instances, part of a slope on a hill is graded "to fit" a building.

There are cases when trenches with channels are dug to drain water away. According to Nyanzi, channels that have been dug

to drain water are prone to erosion before grading an area. It is important to consider the type of soil. Some soils are loose while others contain ground water. These can make the soil to collapse.

David Kireli, a civil engineer, says the more time the graded slope remains bare, the greater the chances of the soil being washed away.

The weather conditions during the period of construction also matter. It is not advisable to do this during the rainy season.

Controlling soil erosion

According to Kireli, for slopping sites there are various methods used to protect the soil on the slopes.

Plant grass and trees on the sides of the slope to hold the soil. The green will make a

beautiful compound. This also helps the slopping surface to absorb the same amount of water when it rains.

The use of the stones to cover the slanting areas is another alternative.

The stones can be set up on the bare ground of the slopping surfaces.

In other instances, retaining walls constructed out of blocks or bricks are used to keep the soil from being washed away. With these, special care should be taken as most of the walls are vertical and if not properly designed, they could collapse.

Access to services

If the site is slopping, access by service providers might also be difficult. For example, running a water pipe uphill for supply might cause low pressure in the taps.

Nyanzi says the architect has to advise the client on what has to be done to keep the pressure good.

For example, in some cases, construction of on-site sewerage can expose the site to possible landslides.