

Abstract

Lintel And Stiffener

This invention relates to a lintel and a stiffener for building construction. A lintel is used to support a load over an opening in masonry walls and a stiffener for use to support masonry walls.

The present invention incorporates a steel hollow section encased in lightweight concrete.

The invention comprises:

- (1) An aerated lightweight concrete outer layer made from fly-ash and slag and added gas foam to protect the inner steel hollow section.
- (2) A steel hollow section inner layer to give structural support and efficient transfer of wall board loads and wind loads and to provide needed connection surface between the wall boards.
- (3) An adjustable top and bottom base plate to allow for flexibility to cater to different height configurations, and
- (4) Fibreglass mesh between inner steel hollow section and outer aerated lightweight concrete layer to give added bonding between the lightweight concrete and steel hollow section and strengthen the tensile properties of the lightweight concrete.
- (5) Fire-resistant materials.

A distinguishing feature of this invention is that lightweight, easy installation, affinity well for bonding with other material, excellent fireproof performance and environmental protection.