

Glass and Its Relation in The Bridge Design at Tourist Villages in Egypt

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Abstract:

The glass was used for the first time on the bridges in 1995 to be given a complete and different start in the design of bridges and to be highlighted as one of the most important aspects of tourism and the most important thing that characterizes the country where the bridge was established. Glass bridges are one of the most important modern architectural methods used in place of historical built bridges, first in the form of arches of stone or wood, then in the form of metal and reinforced concrete, with ordinary armament or prestress armament.

Increasingly sophisticated bridging methods, and the nature of bridges has changed from purely functional objectives to fully designed structures that encompass technological and esthetic aspects, with the development of materials used having a major impact on bridge design in size and shape. With advances, technological development, the discovery of advanced technological and engineering technologies, new and rapid building materials based on scientific discoveries of building materials and techniques, the bridges of our modern times are changing with electronic technology and its revolution of modern information, technology and advanced systems now used in bridges, taking into account the environmental and technological factor.

The environment has had a major impact on design elements, necessitating a reconsideration of bridge designs using the maximum utility of the surrounding environment and utilizing their impact on design through architectural formation, which is the product of several factors that vary from time to time and from place to place depending on the environment, whether it be site or climate Glass is an important element in the materials used in these bridges and therefore the aim of the search was to study the most important types of glass that can be used in the design and implementation of bridges in accordance with the surrounding environment, to give strength and security to this bridge while controlling the absorption and reflection of light rays.

Key Words:

Design- Bridges – Glass – Environment