

Clay Brickwork - An Alternative Material for New Highway Structures

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Abstract:

Although clay brickwork was used extensively in the past for the construction of large civil engineering structures such as earth retaining walls, bridges, viaducts and tunnel linings, it is now used mainly as a non-structural cladding. In the last twenty years, many structurally efficient forms of reinforced and prestressed brickwork have been developed; full scale testing of such structures has demonstrated that they can resist the large magnitude lateral loads produced by vehicle impact, earth pressure and the longitudinal loads generated by traffic on bridge decks. Thus, taking into account the aesthetic appeal and proven long-term performance of many existing clay brickwork structures, reinforced and prestressed brickwork may be a viable alternative to brick clad reinforced concrete for the construction of new earth retaining walls, bridge piers, abutments, wingwalls and parapets.

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