

Pervious concrete fill in Pearl-Chain Bridges: Using small-scale results in full-scale implementation - DTU Orbit (08/11/2017)

Pervious concrete fill in Pearl-Chain Bridges: Using small-scale results in full-scale implementation

Pearl-Chain Bridge technology is a new prefabricated arch solution for highway bridges. This study investigates the feasibility of pervious concrete as a filling material in Pearl-Chain Bridges. The study is divided into two steps: (1) small-scale tests where the variation in vertical void distribution and strength properties is determined for 800 mm high blocks cast in different numbers of layers, and (2) full-scale implementation in a 26 m long Pearl-Chain Bridge. With a layer thickness of 27 cm, the small-scale tests indicated homogenous results; however, for the full-scale implementation, the same degree of homogeneity was not shown. (C) 2015 Elsevier Ltd. All rights reserved.

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