



Analysis of the State of the Art of Precast Concrete Bridge Substructure Systems

Description

Meta Fields

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Key Words : Prefabricated, Substructure, Precast Concrete, ABC

Abstract :

Precasting of bridge substructure components holds potential for accelerating the construction of bridges, reducing impacts to the traveling public on routes adjacent to construction sites, improving bridge durability and hence service life, and reducing the environmental impacts that are associated with cast-in-place construction operations. Use of precast concrete substructures has been limited in the United States; only recently have state departments of transportation (DOTs) developed and implemented technologies that speed construction through the use of prefabricated columns, cap beams, and footings. In this research, the author gathered relevant information on the use of precast substructures by state DOTs, and analyzed existing technologies for appropriateness of use on typical bridges within Arizona. Drawing from the collected literature, the author makes recommendations for implementing precast substructures.

Subject : Substructure

Group : Substructure

Category : Completed Projects