World Academy of Science, Engineering and Technology International Journal of Structural and Construction Engineering Vol:8, No:10, 2014

Suggestion of Reasonable Analysis Model for T-Girder Modular Bridge

Authors: Soonwon Kang, Jinwoong Choi, Sungnam Hong, Seung-Kyung Kye, Sun-Kyu Park

Abstract : The modular bridge is to be constructed by assembling standardized precast segments. This bridge is classified as a slab type and T-girder type. The T-girder bridge has transverse joint. However, it did not perform the verification on the transverse joint, but the slab type was done on the analytic study on the joint. Therefore, it is necessary for precast modular T-girder bridge that has a transverse joint to propose an appropriated model. In this study, specimens and analysis models compared integrated type with segmented type. Results of the integrated and segmented specimens, each of the deflection was 98.40mm and 74.66mm when the maximum load was 269.71kN and 248.29kN, in case of the modeling the specimens, each of the deflection was 84.04mm, 69.39mm when the maximum load was 269.71kN, 248.29kN, therefore, the precast T-girder modular bridges form the analytic model proposed appropriate.

Keywords: precast, T-girder modular bridge, finite element analysis, joint

Conference Title: ICSECM 2014: International Conference on Structural Engineering, Construction and Management

Conference Location : Osaka, Japan Conference Dates : October 12-13, 2014