

MODEL AND STATIC ANALYSIS OF STANDARDIZED STRUCTURE SPAN OF THE ROAD BRIDGE MADE OF PREFABRICATED ELEMENTS

Ević, E.; Anton, H. & Čilić, D.

Abstract: At the times of intensive renewal and construction of the state roads net within the territory of the Republic of Croatia, there appeared a need of standardization of road facilities. Depending on the sort and size, this document describes computer-made model of reinforced structure span of the road bridge appropriate for static analysis of the most unfavourable position of continuous and concentrated load, as well as calculation of relevant internal forces, based on which subsequent profile sectioning takes place. The calculation is done upon the model for the final phase of loading, once the continuity on bearings had been achieved and also once the pressure slab being composite with pre-fabricated girders. The model has been worked out as combined with member and surface final elements upon which there had been simulated loading for bridges, all according to DIN 1072 (SLW 60). The calculation was done by implementation of the STAAD-III computer programme.

Key words: Construction span, reinforced concrete pre-fabricated element, computer-made model, continuous and movable load, static analysis.



Authors' data: Ević, E.[rnest], B. Sc. (Civ. Eng.), Civil Engineering Institute of Croatia, Branch Office Osijek, Drinska 18, Osijek, Croatia, email: ernest.evic@igh.hr; Anton, H.[rvoje], B. Sc. (Civ. Eng.), Civil Engineering Institute of Croatia, Branch Office Osijek, Drinska 18, Osijek, Croatia, email: hrvoje.anton@igh.hr; Čilić, D.[ijana], B. Sc. (Civ. Eng.), Civil Engineering Institute of Croatia, Branch Office Osijek, Drinska 18, Osijek, Croatia, email: dijana.cilic@igh.hr.