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Editorial

The lead article in this issue of *Bridge Structures* is a paper by Itani *et al*. on the ''Analysis of R/C decks in box girder bridges under rational wheel load distributions''. The deck bending moments were investigated for typical box girder bridges with various overhang widths and girder spacings. The study concludes that the effective widths specified in the AASHTO specifications are the main cause of the large difference between the finite element analysis and the AASHTO deck transverse moments. Integral abutment construction represents a feasible mechanism to transfer the temperature and traffic-induced horizontal loading of bridges. In ''A survey of current issues on the use of integral abutment bridges'', Hassiotis and Roman summarize the developments in the design criteria, as well as ongoing laboratory and full-scale experimental work on integral abutments. Also on the theme of integral abutments, William *et al*. report on the use of data collected from an instrumented integral abutment bridge. The field measurements were used to evaluate the performance of integral abutment bridges and to check the validity of the design assumptions. The data collected indicated that integral abutments resist the expansion of the bridge superstructure during summer time, and this leads to excessive axial compressive forces in the steel girders. In the United States, trucks are typically allowed unrestricted operation and are generally considered 'legal' provided that they meet the weight guidelines of the Federal Bridge Formula B. The Federal Bridge Formula calculates the maximum allowable load that can legally be imposed on the bridge by any group of two or more consecutive axles on a vehicle or combination of vehicles. The trucking industry has recently introduced Specialized Hauling Vehicles with new axle configurations that satisfy the Federal Formula, but may be severely overstressing some non-posted bridges. The new axle configurations initiated a federally funded research project to investigate the recent developments in specialized truck configurations and state legal loads, and to recommend revisions to the legal loads for posting as depicted in the AASHTO bridge evaluation manuals. In his paper, ''Recommendations of a new truck model for bridge evaluation'', Sivakumar discusses the preliminary findings of the research project.

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