

Field Investigation on Slab-on-Girder Steel Bridges Over Intersections in Thailand

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Summary

This paper overviews the recent project launched by the Bangkok Metropolitan Administration (BMA) as a part of the maintenance program to investigate the safety, remaining fatigue life, and serviceability of steel bridges over many intersections in Bangkok. A total of eleven steel bridges, which belong to the slab-on-girder type, were inspected and a full-scale nondestructive load test was conducted to investigate the bridge actual behaviors and validate the three dimensional finite element modeling. The remaining service life is based on the fatigue life assessment which consists of continuous measurement of traffic and strain data for about one week.

Keywords: slab-on-girder steel bridges, truck testing, inspection, finite element analysis, fatigue life assessment.