Editorial

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This issue presents one briefing and four papers which, while treating a range of topics, all share the common theme of identification of safety solutions within their different contexts.

The first is a Briefing paper by Tariq Umar (2017), which reviews the literature to identify the key elements of safety leadership and offers a detailed definition of this as it applies to a construction environment. Its importance is emphasised, as a lack of clarity on what effective safety leadership looks like is seen to have a negative impact on rates of injury in the workplace.

The next three papers relate to aspects of road safety and avoiding traffic casualties. The first of the three (Das and Burger, 2017) looks at road safety improvement on suburban arterial roads, using a case study approach in Blomfontein city, South Africa. Data collection involved different primary surveys – of households, traffic and road geometrics – combined with secondary traffic accident data. Influential road-geometry-related parameters on traffic accidents include road width, number of lanes and median width. The paper concludes that the number of accessible roads linking residential and arterial roads is the major variable in the cause of road traffic accidents.

The second paper (Abdi *et al.*, 2017) offers an analysis of traffic-calming measures to reduce speed and improve road safety. Speed profiles and traffic modelling were undertaken on a particular one-way street with three passing lanes. Shortening the distance between speed humps was found to have a direct impact on speed reduction; however, street capacity was also reduced. It is therefore recommended that appropriately distanced speed humps be used to maintain the desired level of service.

The paper by Dündar (2017) is the third on the theme of road safety, this time relating to accidents involving pedestrians on street crossings. Individual pedestrian behaviour and their

activities while crossing the street were analysed using video footage in combination with an examination of the significance of the different cross walk design features and environmental conditions such as the weather. Significant variables for crossing time were found to be pedestrian sex and age, activities such as cell phone use, time of day, temperature and motor vehicle density. Again this leads to useful insights and planning recommendations.

Finally, Ko and Standing (2017) present two new risk methods to assess the likelihood of structural damage to buildings by trees, based on an assessment of likely physical damage to structures and ground settlement in shrinkable clay soils. Risk rating systems comprise a hazard model, a consequence model and a risk model. Results lead to guidelines for planting different sized trees near man-made structures, suitable for use by laymen rather than those with specialist knowledge of trees.

Common features of all the papers in this issue are that they identify specific safety concerns that directly impact on people's lives. They also all develop recommendations for planning interventions, however the target stakeholders vary. The three transport papers cover a range of planning levels, from extensive road planning to specific aspects of services for use by drivers and pedestrians, in relation to speed humps and street crossings. The findings of Das and Burger (2017), Abdi *et al.* (2017) and Dündar (2017) have relevance at a policy and decision-making level for implementation by practising urban and transportation planners. Results from Ko and Standing (2017) are also relevant to the general public, as well as professional tree specialists. Although the papers vary in their level of technical focus, data and analysis, they all have clear implications for the interface between aspects of design and the user.

This concern about the impacts of infrastructure on the public comes more directly under the lens in a forthcoming themed issue of *Municipal Engineer* – “Leave no one behind”: equity

and inclusion in engineering for sustainability’ – for which abstracts are invited. The impacts of civil engineering on a range of technical, social, cultural, economic, institutional or environmental factors are essential dimensions of sustainable development and are part of an integrated and balanced approach to the provision of infrastructure. Papers are invited on equity and inclusion issues within the civil engineering profession; for example, representation and anti-discriminatory work policies and practices at all professional levels, policy, planning and practice including representation, consultation, design, construction and operation of inclusive and sustainable infrastructure, for example buildings, transport, urban planning and utilities. To submit an abstract, visit <https://goo.gl/forms/uchIOGDJcMKoCsaw2> or contact Claire Robinson (T: +44 (0)20 7665 2241; E: claire.robinson@icepublishing.com).

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