

Digital engineering for local government infrastructure planning and management

A Shah¹

¹Logan City Council, Brisbane, QLD

Local Government Infrastructure stakeholders prepare and adopt digital engineering concepts and enhances their capabilities through pilot projects for new and existing assets, Logan City Council Road Asset Program implemented digital engineering elements for life cycle management and optimisation for Red Bridge restoration and major culvert renewal projects. Red Bridge is an iconic steel structure that had to be both structurally repaired and repainted as the coating effectiveness was fading. Another major culverts was very critical asset to understand the whole of life cycle management with BIM/ Digital Engineering.

These projects allowed us to explore Digital Engineering context from Asset Data configuration, model reuse, and Asset Management (renewal, future inspections and maintenance) perspective. The Author believes that utilisation of this technology could greatly benefit the process in which existing bridge, major culverts and similar structures are analysed and maintained for whole of life. The vital lessons learned on data and system interoperability will also be shared.

The presentation also covers proposed guidelines suitable for LG infrastructure and knowledges sharing of similar initiatives with aim of collaboration and joint efforts among stakeholders and beneficiaries.