



Impacts of BIM Implementation on Bridge projects

Ahmed Waheed

Keywords: BIM infrastructure management

【Background】

Bridge engineering and delivery methods are usually very complex and always associated problems and disputes between all parties related to the engineering and the delivery methods. This leads to delaying the delivery of the bridge, reduction of quality, and over costs. The traditional approach is time consuming along with the errors associated with manual data re-entry, difficult coordination; and no support for production.

【Objective】

This study aims to identify the impacts and potential benefits of utilizing BIM on real-world transportation infrastructure construction which will inform related parties about potential opportunities related to CIM adoption. Additional and possibly significantly greater benefits may be available throughout the operation and maintenance of such infrastructure and hopefully provide a valuable first step to motivate the implementation of BIM within and throughout infrastructure asset management

【Approach】

By designing a bridge using BIM Tools and a new system for Crane location optimization in terms of site management then assessing the impact of the results. After that, we conduct surveys throughout the design and construction phases with Construction and project managers, Engineers, Supervisors, Schedulers, Designers and Architects. Assess the impact by creating scenarios and analysing the data.

【Publication plan】

• KKHTCNN Annual Conference

【Results】

By designing the bridge and developing lift status assessment using a mitigated lift scores and values we were able to decide the best crane location for the specific construction site.

