

Building Information Modelling

The Kuala Lumpur-Singapore High Speed Rail (KL-SG HSR) is a transformative transportation project that aims to facilitate seamless travel between Bandar Malaysia, Sepang-Putrajaya, Seremban, Melaka, Muar, Batu Pahat, Iskandar Puteri in Malaysia and Jurong East in Singapore.



Building Information Modelling (BIM), is a design tool that allows planners, designers, builders, and operators to plan, design, construct, and operate through the visualization of a realistic model of an entire project. BIM allows for coordination of design, not only within itself, but also with existing structures, utilities and infrastructure, foreseeing problems before they may arise, and being able to carefully plan, quantify, and sequence the works, reducing the chance of damage and interference to the environment and stakeholders.

BIM Levels



3D BIM

Allows planners and designers to produce a coordinated 3-dimensional design, as well as merge 3D maps of existing conditions.



4D BIM

An increment to the 3D BIM, allowing developers, planners and builders to add a time dimension, to schedule projects and track them.



5D BIM

An increment to the 4D BIM, allowing developers, planners and builders to add a cost dimension, to accurately quantify the project reducing cost over-runs.



6D BIM

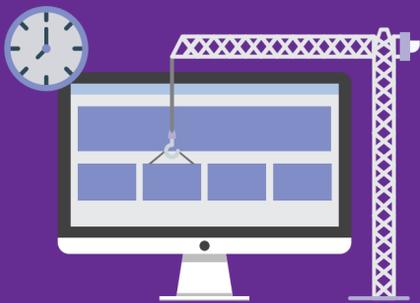
Allows planners and builders to use the model for simulations, including structural, energy, acoustic, alignments, etc., thereby ensuring integrity and the best economic design.



7D BIM

Allow for the model to be used for operations and maintenance of the assets.

Benefits Of BIM



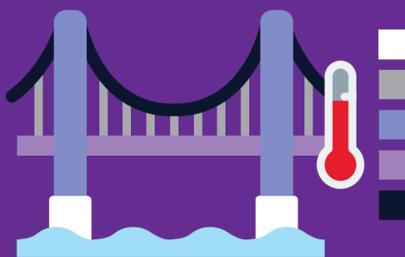
Design & Construction Coordination

International studies have found that using BIM to coordinate and quantify the design prior to construction can save up to 10% of the value of construction, and up to 7% reduction in project time, adding to the sustainability and efficiency of the project.



Operations & Maintenance

The digital train concept allows for the best optimization of the train operation and safety by 80%, faster recovery from reducing in-service failures by over 40%, and increasing train availability by over 20%, as well as reducing maintenance costs by over 50%.



Structural and Energy Analysis

BIM will be used to run full structural and energy as well as other analysis, thereby optimizing the design and ensuring integrity and safety.



Clash Detection

Carrying out clash detection and having a coordinated design reduces the chances of reworks and cost overruns.

MyHSR Corp's Targets In The Use Of BIM?

The HSR project aims to be one of the world's leading users of BIM technologies in terms of planning, design, construction coordination and operations. Working closely with the Malaysian Construction Industry Development Board (CIDB), MyHSR Corp aims to enhance the knowledge and use of BIM in Malaysia, ensuring that the HSR project is coordinated and implemented efficiently through all project life cycles.

For more information, please contact:

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