

User name: China Road and Bridge Corporation, China Highway Engineering Consulting Corporation

Project name: Phnom Penh – Bavet expressway

Location: Phnom Penh, Cambodia

Background:

- The Phnom Penh-Bavet Expressway in Cambodia stretches 138 kilometers and passes through three provinces.
- China Road and Bridge Corporation (CRBC) was tasked with constructing the expressway that would shorten travel times from two hours to 20 minutes.

Challenges:

- Located in a floodplain, with water reaching a maximum of six meters during rainy season.
- Needed to work around Buddhist temples and culture relics.
- Had to find software to implement digital delivery workflows.

Solution:

- CRBC established an open connected data environment using the iTwin Platform, ensuring the team could always access the most up-to-date information at any time and any location.
- MicroStation, OpenRoads, and OpenBridge helped develop models for collaboration.

Outcomes:

- iTwin Platform helped the team collaborate and bring together data at scale, improving infrastructure delivery and performance.
- Shortened design cycle by 20%, reduced earthwork volume by 2 million cubic meters, and eliminated the equivalent of 2.75 million tons of carbon emissions by lowering truck travel.

Quote: "The 3D real-life image model generated by iTwin capture greatly facilitates the field investigation and saves a lot of field time." – *Yulong Liu, Chief Engineer, China Road and Bridge Corporation*

Image caption/courtesy 1: CRBC was tasked with constructing the expressway that would shorten travel times from two hours to 20 minutes. *Image courtesy of China Road and Bridge Corporation, China Highway Engineering Consulting Corporation.*

Image caption/courtesy 2: CRBC established an open connected data environment using the iTwin Platform, ensuring that the team could always access the most up-to-date information at any time and any location. *Image courtesy of China Road and Bridge Corporation, China Highway Engineering Consulting Corporation.*

Image caption/courtesy 3: By using Bentley applications, everyone on the project worked together in a unified environment, shortening the design cycle by 20%. *Image courtesy of China Road and Bridge Corporation, China Highway Engineering Consulting Corporation.*

For more information, please contact Bentley PR at PR@news.bentley.com.