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A: Part of the problem is that they don't know where everything is. Procurement of the information is always a challenge, and is not always reliable.

Q: How will the K-bridge as-built models be stored?

A: The final deliverable will be Synchro 4D model, as well as 3D files compatible with NYSDOT's current CADD platform, which is Bentley MicroStation SS3 with InRoads SS2.

Q: How does an engineer sign & seal a digital model?

A: Some states have a digital signature law. New York does not have a system, and there is no consensus. Digital signatures were discussed in Webinar 5. Those states that have implemented digitally signed and sealed drawings have limited it to 2D PDFs. Utah has explored digitally signed and sealed MicroStation files, as discussed in Webinar 5, but it caused technical issues so is now only used for standard drawings.

Q: Would it have been cost-prohibitive to use GPR for utilities?

A: In Region 11 (New York City) it hasn't been valuable, especially in Manhattan where historic and abandoned utilities are common and there are so many utilities in the ground.

Q: How much additional time is needed to develop the 3D/4D model?

A: It's an interesting question; there's no real answer. It depends on how you approach it. If your project starts in 3D, it's very easy. The ROI is hard to find as well, but the value is there. It's hard to say what the value is. Until the industry comes up with a standard practice, we can't come up with a meaningful number. For now, it takes a little extra money at the start.

A: Remember design costs are small compared to construction costs; even if you spend more on up-front modeling, you gain larger benefits in construction where costs are an order of magnitude greater.

Q: Does NYSDOT use MicroStation/Civil 3D or a combo?

A: NYSDOT uses MicroStation and InRoads with ProjectWise.

Q: How is construction inspecting work on the K-bridge without 2D plans?

A: There are plans, but they are still determining what they are. The contractors submits work plans for each operation. They are verifying tolerances and positions, but they don't have to measure quantities.

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