Digital Project Delivery

for Local Government Construction Projects

What is
digital project delivery?

Digital project delivery is the digitization of all aspects of construction, from planning and design through completed construction and asset handover. With digital project delivery, paper-based, manual processes are replaced with cloud-based, connected workflows that improve productivity, data access, and decision-making throughout the project. It goes beyond merely adopting technology. It's a collaborative approach to sharing data and handing off tasks between disparate teams.
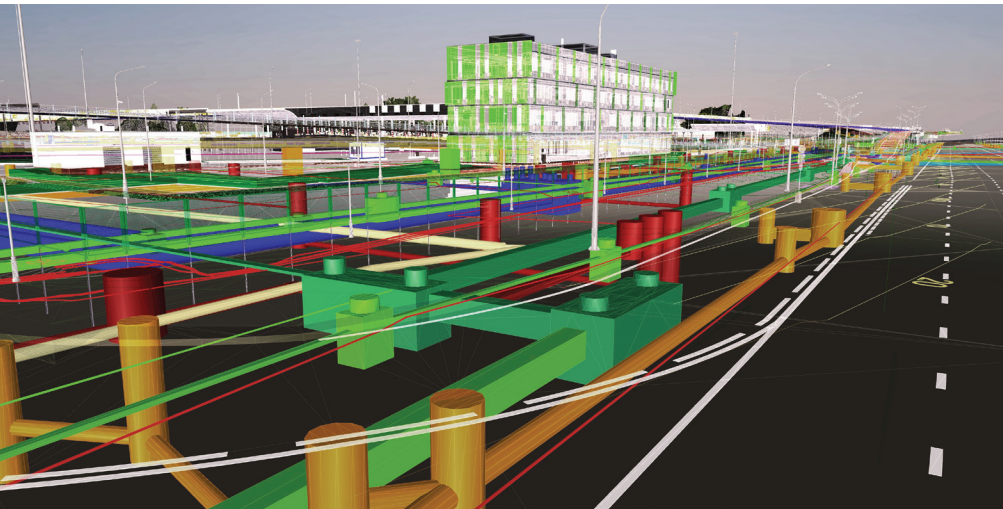
Elements of digital project delivery

+ **Standards:** Guidelines ensure that disparate teams approach technology with the same digital strategy and standards that support interoperability.

+ **Technologies:** Connected platforms centralize project data, connect the office to the field, and preserve data for future use.

+ **Data:** 3D models, along with existing conditions and as-built data, empower everyone with information to work smarter, faster, and better.

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Why go digital?

Infrastructure budgets are large and complex, raising the risk associated with each project. Inflation and a neverending labor shortage threaten to eat into budgets and cast a negative shadow over the positive impacts of high-profile, high-impact construction projects.

Digital project delivery empowers you to minimize many of the common pitfalls of infrastructure construction. It also allows you to be more transparent to your stakeholders about progress, costs, and outcomes.

One study found that using BIM and digital delivery saves roughly

15%

in change orders.

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Key benefits of digital project delivery

These benefits...	Increased efficiency and productivity	Better decision-making	Improved transparency and accountability	Expanded application of BIM
Enable you to...	Reduce the errors and miscommunications that lead to rework and waste.	Make data accessible and actionable to assess risk, allocate funds, and evaluate bids more effectively.	Get real-time visibility into the costs and impacts of each project.	Move beyond individual BIM deliverables to shared models and 4D/5D data.
	Minimize the time teams spend hunting down information, managing permit processes, and making corrections.	Empower teams to collaborate with shared data to solve complex challenges, like reducing waste and emissions.	Zero in on the root causes of delays, overruns, and communication errors.	Encourage designs to be made with a higher level of detail, which helps to define model deliverables, milestones, and handoffs.

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How to
get started

The first step to implementing digital project delivery is digitizing your business processes by leveraging technologies that foster efficiency gains. As part of the evaluation of those technologies, make sure they are interoperable with other critical systems within your organization so that data can be leveraged by all stakeholders.

Next, mandate that project teams agree to principles that ensure the continuity and accuracy of data and processes. Here are a few example policies to consider:

+ **New technologies should use standards that support interoperability, which allows you to share information regardless of the technology vendor.**

+ **3D models should be geo-located to provide additional context to the design.**

+ **Project teams may use the technology of their choice as long as they are able to meet the requirements of their phase of the project.**

+ **All stakeholders should play a role in deciding which technologies are used and how data is shared between teams.**

+ **Participants agree to use automation that supports efficient workflows.**

Technology alone isn't a solution. In addition to these policies, it's important to seek out technology partners who think about the big picture. Seek out technology vendors who work in collaboration with consulting firms and industry organizations to establish digital project delivery best practices.

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Local Governments Can
Build Public Trust
by Delivering On-Time, On -Budget Construction Projects

Years of deferred maintenance have created a massive

$1 trillion

backlog in infrastructure repairs, according to some reports. The Infrastructure Investment and Jobs Act (IIJA) gives local government construction owners and asset managers an opportunity to mitigate those losses and turn ideas for their projects into reality. However, you face immense pressure to identify the right projects and execute them successfully.

Infrastructure Project Challenges

+ **Project Failure**

Avoidable project failures in the form of cost and/or schedule overruns damage the agency's reputation.

+ **Surprise Changes**

Poor visibility into change orders makes project budgets less predictable, which leads to unplanned requests for additional funds to complete projects.

+ **Limited Data Access**

Without access to timely and trustworthy data, agencies have limited capacity to make informed decisions.

Local governments that take on these challenges can leverage funding to unlock new opportunities.

Opportunities

+ **Improved Public Perception**

By avoiding cost and schedule surprises with accurate, real-time monitoring and forecasting, the agency is able to protect its reputation.

+ **Budget Predictability**

Leverage connected construction data to gain better visibility into all change orders and plan for realistic contingencies

+ **Better Project Insights**

Build confidence in program delivery with reliable, on-demand data that allows for better decision-making.

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Connecting data and workflows can
fast-track your success

To navigate these challenges and opportunities, local governments need to replace traditional construction processes with interoperable systems that streamline workflows and open data to all stakeholders. The key is to use data to inform decision-making from the earliest planning stages through the hand-off to operations and maintenance.

Digital project delivery allows you to connect data throughout the construction project lifecycle so you can:

+ **Predict costs and deliver projects on time and on budget.**

+ **Identify the root causes of overruns.**

+ **Empower executives, oversight boards, and partners to self-serve data.**

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Advance your
digital transformation journey

Each infrastructure project comes with intense pressure to spend funds wisely, improve asset sustainability, and increase construction efficiency — all while navigating the realities of rising material costs and labor shortages.

Owners are in a unique position to lead digital transformation and help drive the adoption of digital project delivery across the ecosystem. You can be the catalyst for frequent collaboration among stakeholders and ensure teams are maximizing their impact and efficiency during the project.

You can reduce risk, increase visibility, and gain greater control over schedules and budgets by helping everyone involved work together more effectively and efficiently.

To continue learning about digital project delivery,

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The bigger picture:
Asset Lifecycle Management

Once you digitize your construction project management, you can begin to connect all phases of the asset lifecycle, from design and construction through operations and maintenance. This strategic, holistic approach to infrastructure construction, management, and maintenance is known as asset lifecycle management.

Implementing digital project delivery in conjunction with enterprise asset management enables you to share data throughout the continuum of the asset lifecycle. By connecting data, technology, and processes across all phases of the asset lifecycle, you can improve project outcomes and lower total asset costs.

Learn more about asset lifecycle management.

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