WELCOME TO THE

Era of Connection

CONSTRUCTION





Everything changing



- 1. Project teams are using the cloud to approach planning and field execution in new ways.
- 2. Easier access to complex and offsite production methods is bringing cost and schedules down and pushing quality and value up.
- Consumers are more connected than ever and more educated about the 3. products and services they purchase. Aesthetics, personalization, sustainability, and location have enormous impact.
- 4. Technology is shrinking the boundaries between the virtual and physical worlds.

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Are you ready?

We will see the larger impact of each decision we make—in design, in construction, in handover, and in operations and maintenance.

In the future, buildings and infrastructure will generate streams of data throughout their lifetimes. The ideas and objects you create today become connected insight.

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smooth sailing

It may not all be This is an industry that has been defined for too long by the phrase "high risk, low margin." Obstacles to improvement exist across all phases of the construction process as long as siloed ways of working remain the norm. 2. Build 3. Operate Once the project is released to Handover can happen rather abruptly Designers design, specialty engineers construction, packages are procured, for the operational phase of the asset and subcontractors analyze and detail fabricated, installed, tested, or lifecycle. into a build-ready set of documents. commissioned. Contractors frequently miss Siloed collaborative approaches Design revisions are happening so fast opportunities to help owners realize the create version control nightmares as operating potential of their buildings that contractor change information is multiple parties provide key data at with model-based deliverables that always behind. various points in the process. integrate with facilities management. The contractor spends significant resources processing RFIs, submittals, and change orders. 0 0 0 0 0 0 0 0 0 0 0 0

1. Plan

But, ready or not the work you do is changing

A new era of connected technology is disrupting the way buildings and infrastructure are designed, built, and used.

For contractors, the era of connection provides new opportunities for higher profits and greater resilience as the market evolves.

And because compute power is nearly infinite and a massive amount of information is available and connected, these opportunities will be available to any company, regardless of type, size, or location. The barriers to access will be low.

Success depends on how you set course toward the future.



And, the future is amazing!

Agile teams will better collaborate to deliver more efficient, data-driven projects through processes like model-based fabrication, lean construction, and even 3D printing of building components.

Owners and occupants will have more insight and control from virtually any place, at anytime, to help make buildings operate more efficiently and effectively.

We can all develop our social ambitions in more responsive spaces.



Embrace the future

Are your current processes ready for the era of connection?



Smooth collaboration of talent and **connected teams** across geographies and platforms.



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Access to **connected insight** that helps reduce risk and support access to capital and alternative funding.

Faster, higher-que execution comes **projects** — that build processes.

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There are no silos the era of connection...

Architects no longer "just design," engineers no longer "just engineer," builders no longer "just construct"

The roles of designers and builders will be more closely linked, with rapid feedback loops and merging of project delivery stages.

Technology is the vehicle that makes this change possible, opening doors for contractors to extend their services.



Technology is charting a course to the future

Project phases will become more connected as technology becomes more connected.

EVALUATE - How ideas are simulated, tested, and analyzed for implications: Includes analysis tools, scripting, optimization, benchmarking, and dashboarding, which will enable generative and iterative processes.

REPRESENT - How ideas are defined, documented, and memorialized for use: Includes models, materials, documents, and reality capture for refinement.

REALIZE - How ideas are translated from abstraction to physical reality: Includes products for commissioning, 3D printing, reality computing, and robotics to produce more efficient buildings. **COLLABORATE** - How ideas are captured, managed, and shared by teams for better decision making: Includes data management, storage, viewing, workflows, and social context.

BIM in the Era of Connection

Now is the time to embrace Building Information Modeling (BIM).

The intelligent model-based design process is a critical foundation that will help designers, builders, and owners gain competitive advantage with the ability to access, share, and effectively use enormous amounts of information throughout the lifecycle of building and infrastructure projects.



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Your Fu	uture is	Connec	ted					
Autodesk offers a full portfolio of workflows help keep 2D and 3D c preplanning, field execution, and k	products and services to address the e onstruction information coordinated f nandover.	evolving needs of the construction inc from design to detailing and fabrication	dustry. Interoperable on, and through to					
- Autodesk [®] Revit [®] Create building models for architectural, structural, and mechanical, electrical, and plumbing (MEP).	Autodesk [®] BIM 360 [™] connect project teams and data in the office or in the field.	 Autodesk[®] Point Layout Bring the design to the field, marking critical building component locations spatially and managing QA and QC during installation. 	 Autodesk[®] Building Ops help realize building operating potential with mobile first. 					
Autodesk [®] Advance Steel, Advance Concrete, Fabrication CADmep [™] , and CAMduct [™] are part of a seamless workflow that more accurately realizes design and construction intent for MEP and structural detailing, estimating, and fabrication.	 Autodesk[®] Navisworks[®] Use for modeling, coordination, and quantification. Autodesk[®] BIM 360[™] Glue[®] software, Navisworks, and Revit. Use together to help improve predictability 	– Autodesk [®] BIM 360 [™] Layout interact with the model and drive surveying and layout hardware directly.	Autodesk [®] BIM 360 [™] Field collect, share, and report on critical field execution tasks at the point of construction, and manage building equipment commissioning in real time.					
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Connect to your future

Take advantage of connected BIM workflows from Autodesk to help you innovate, collaborate, deliver added value, and open doors to new business—and the future.



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Connect to Autodesk

Autodesk helps people imagine, design, and create a better world. Everyone from design professionals, engineers, and architects to digital artists, students, and hobbyists—uses Autodesk® software to unlock their creativity and solve important challenges.

With Autodesk BIM solutions, connected teams of architects, engineers, contractors, and owners can realize building projects with better environmental, economic, and social impact.

Learn more about Autodesk, BIM, and our connected solutions for construction at: www.autodesk.com/BIM

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