WELCOME TO THE

Era of Connection

CONSTRUCTION
Project teams are using the cloud to approach planning and field execution in new ways.

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 products and services they purchase. Aesthetics, personalization, sustainability, and location have enormous impact.

Technology is shrinking the boundaries between the virtual and physical worlds.
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.
It may not all be smooth sailing

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.

1. Plan
Designers design, specialty engineers and subcontractors analyze and detail into a build-ready set of documents.

Siloed collaborative approaches create version control nightmares as multiple parties provide key data at various points in the process.

2. Build
Once the project is released to construction, packages are procured, fabricated, installed, tested, or commissioned.

Design revisions are happening so fast that contractor change information is always behind.

The contractor spends significant resources processing RFIs, submittals, and change orders.

3. Operate
Handover can happen rather abruptly for the operational phase of the asset lifecycle.

Contractors frequently miss opportunities to help owners realize the operating potential of their buildings with model-based deliverables that integrate with facilities management.
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.

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

Intelligent digital connectivity within and between assets to deliver better connected outcomes.

Faster, higher-quality, lower-impact execution comes from connected projects — that integrate design and build processes.
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.
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.
Autodesk offers a full portfolio of products and services to address the evolving needs of the construction industry. Interoperable workflows help keep 2D and 3D construction information coordinated from design to detailing and fabrication, and through to preplanning, field execution, and handover.

**BIM + Autodesk. Your Future is Connected**

Autodesk Revit®
Create building models for architectural, structural, and mechanical, electrical, and plumbing (MEP).

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.

Point Layout requires a license of an Autodesk® AutoCAD®, Revit, or Navisworks product, versions 2011–2016.

Autodesk® BIM 360™
Connect project teams and data in the office or in the field.

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.

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.
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.

Innovate  Collaborate  Deliver added value

To learn more, visit www.autodesk.com/bim
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

Join the conversation:

@AutodeskAEC