# BIM Specification with Revit



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# About Us:

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Concept development
Workflow optimization



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# What is the AEC Excellence awards?

- International competition with 162 contributions proposed from 29 countries.
- Norconsults winning contribution, Vamma 12, was in the field Infrastructure, Energy and Natural Resources.
- The award was presented November 17th at the international conference Autodesk University in Las Vegas, USA




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# The Vamma Project

**Norconsult uses reality capture for dynamic visualization of aging hydropower plant in Norway**

**Old structure. New technologies.**




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# Award description part 1

The Vamma hydropower plant is an impressive structure. Located on the River Glomma in Østfold, Norway, it's the largest river hydropower plant in the country. It's also old, built originally in 1915. But a century later—when it came time to add a new turbine, generator, and the associated control system and switchgear— the multidisciplinary consultancy firm

Norconsult relied on some of the newest technologies in Building Information Modeling (BIM) to ensure complete foreknowledge of the finished product, due in 2019.




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# Award description part 2

**Instant insights**

One of the most innovative aspects of using BIM on the Vamma 12 project was the use of reality capture technology, which uses photographs and real-world context and integrates them into 3D conceptual models, given them photorealistic qualities and extremely accurate detail. This process enabled Norconsult to improve their analysis and uncover potential problem areas that, if modeled in the traditional ways, would have been discovered only during the construction phase.

The ability to anticipate issues instantly through BIM simulations was essential to a project as complex as the comprehensive upgrading and expansion of the power plant. Since existing constructions and infrastructure had to be considered while building new ones in close proximity, the technology's ability to show consequences of geometric changes—and in a fraction of the time taken by older methods—was crucial.




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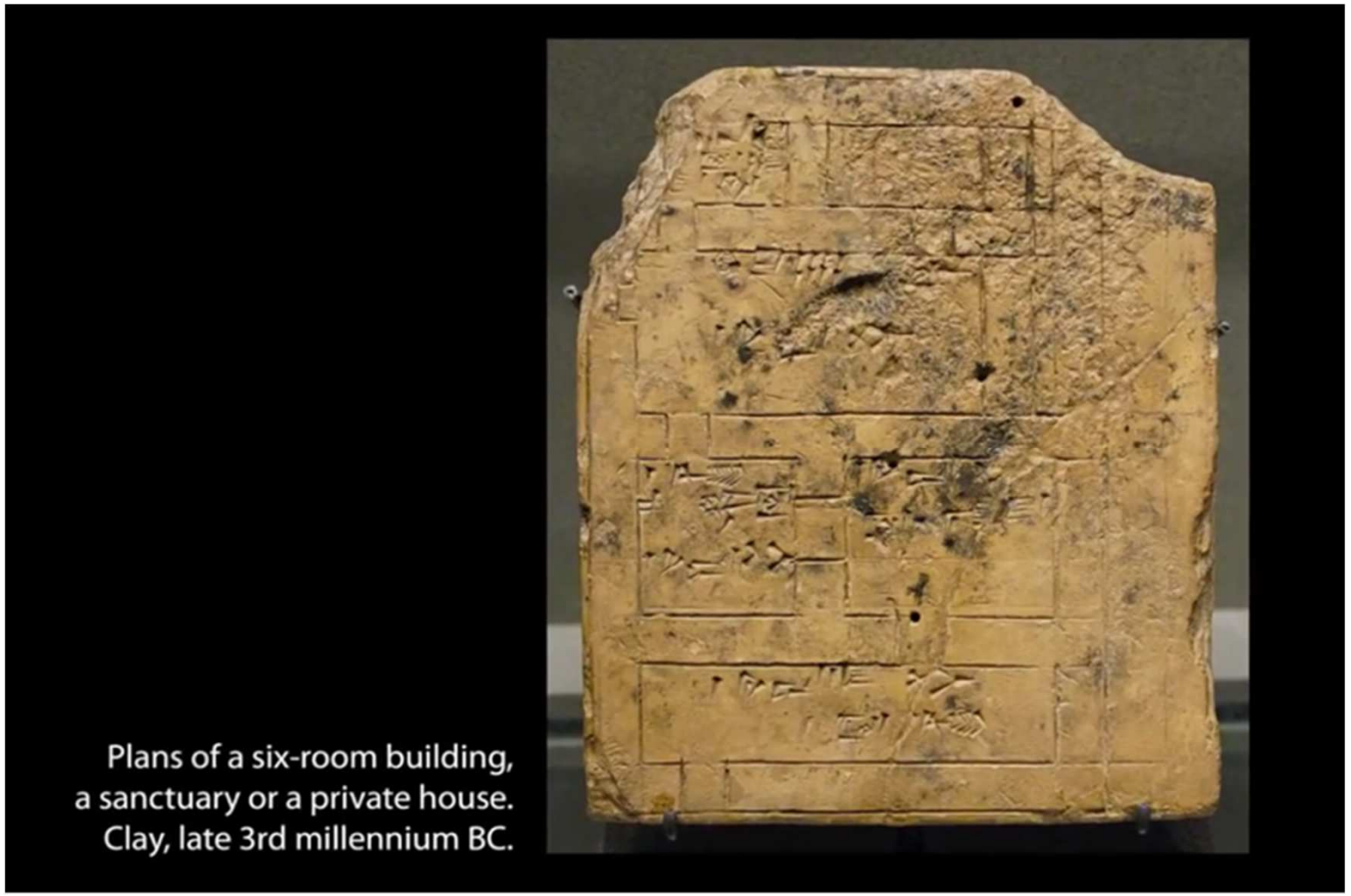
# History of Drafting



# History of Drafting

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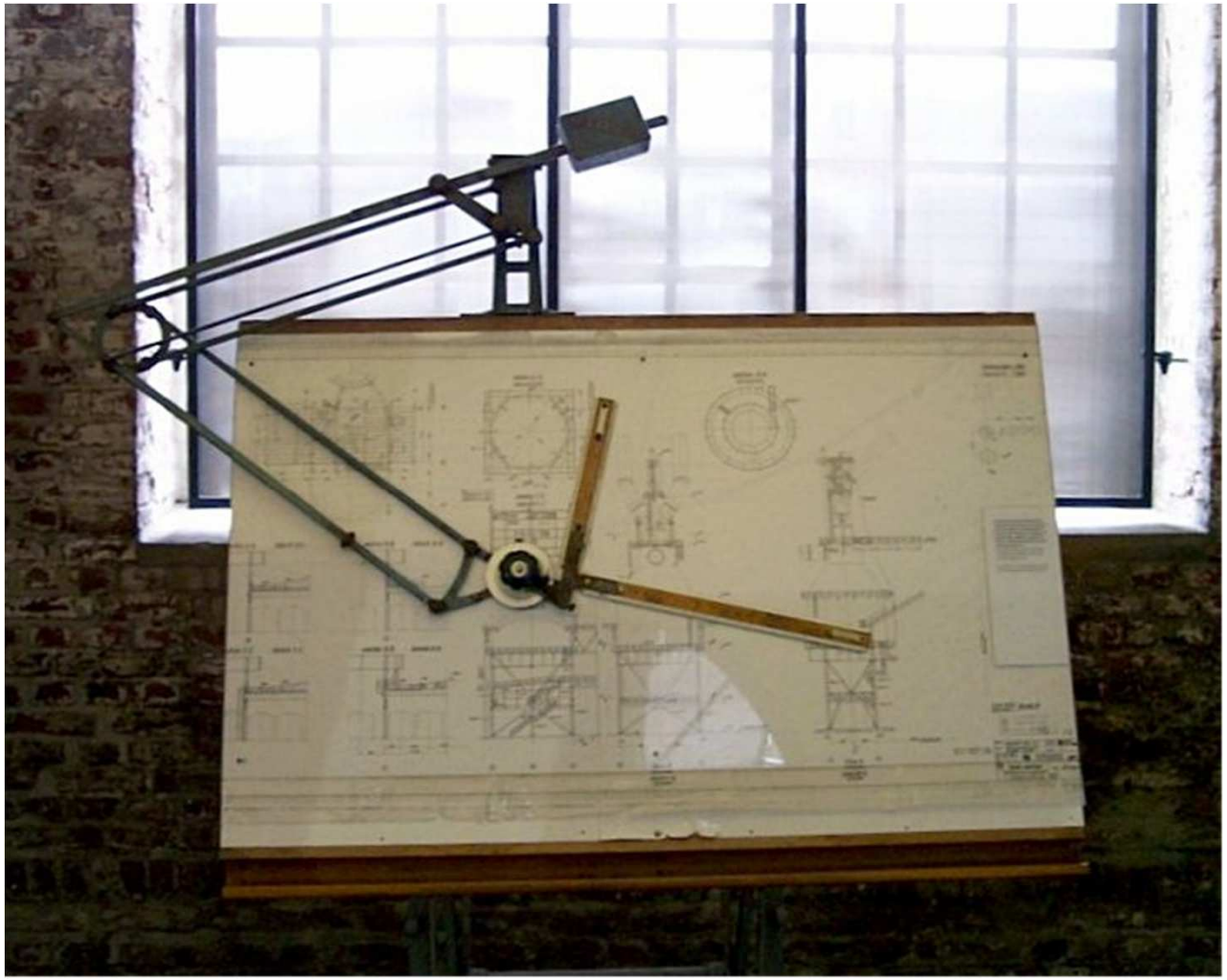
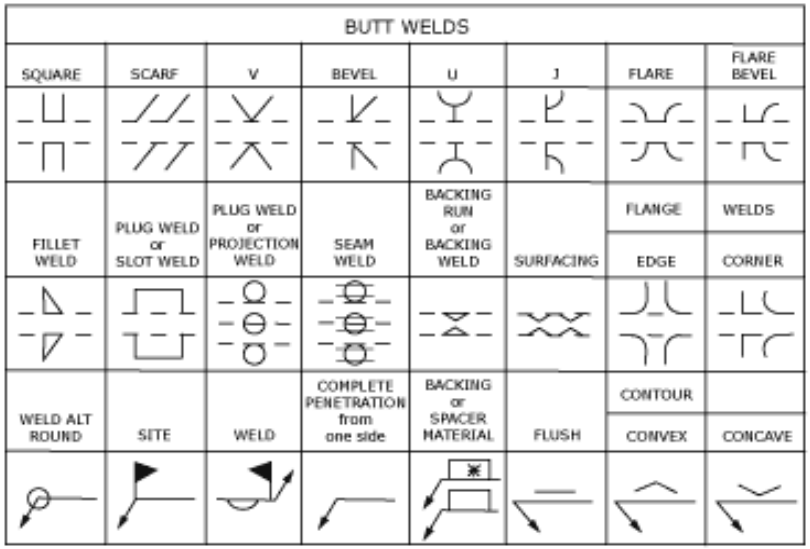


# History of Drafting

# Standardization

| Line Group | Narrow Line | Graphic Symbols | Wide Line | Extra Wide Line |
|---|---|---|---|---|
| 0.25mm | 0.13 mm | 0.18 mm | 0.25 mm | 0.50 mm |
| 0.35mm | 0.18 mm | 0.25 mm | 0.35 mm | 0.70 mm |
| 0.50mm | 0.25 mm | 0.35 mm | 0.50 mm | |
| 0.70mm | 0.35 mm | 0.50 mm | 0.70 mm | |
| 1.00mm | 0.50 mm | 0.70 mm | 1.00 mm | |



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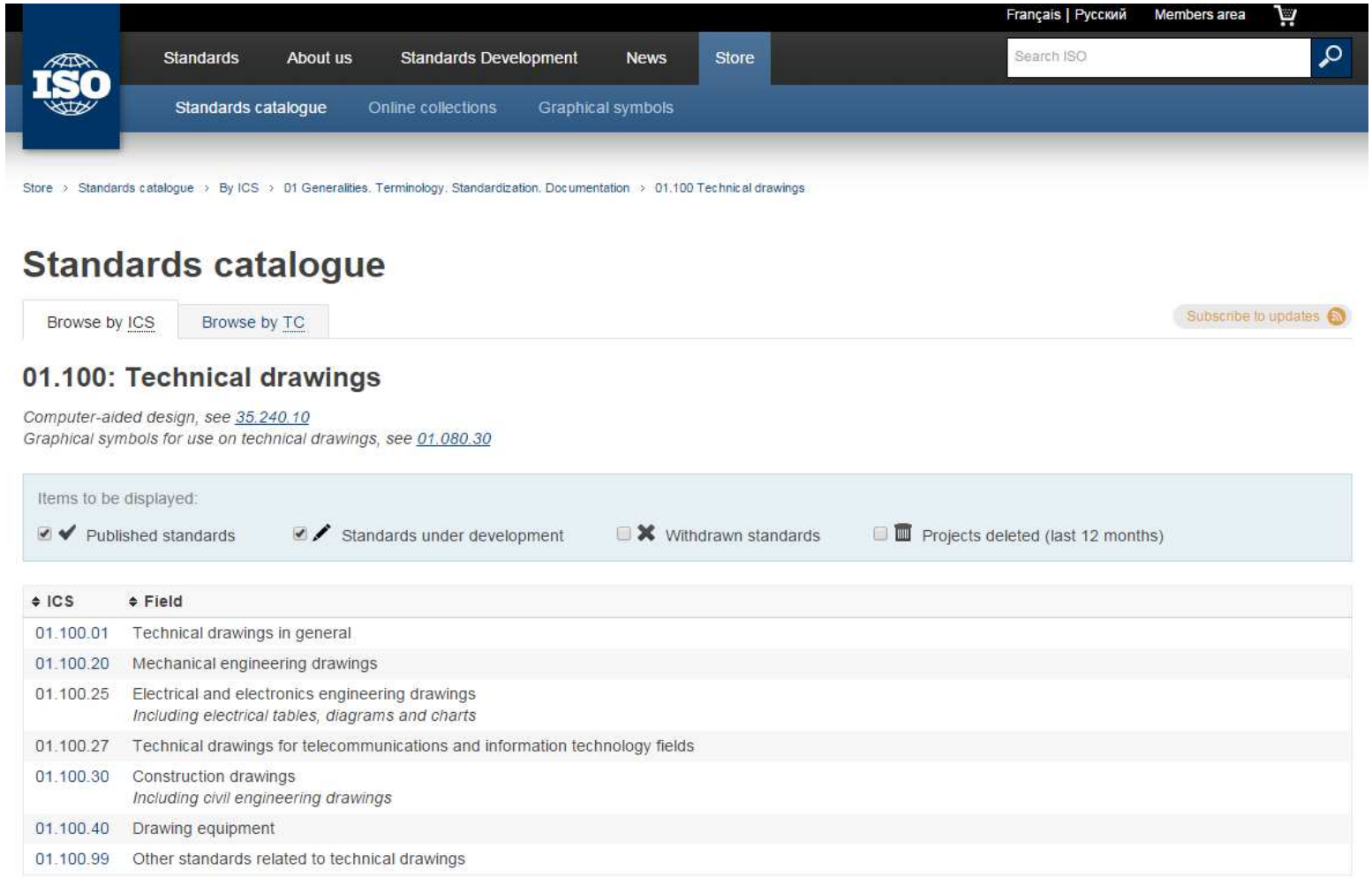
# Standardization



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# Computer Aided Drafting (CAD)




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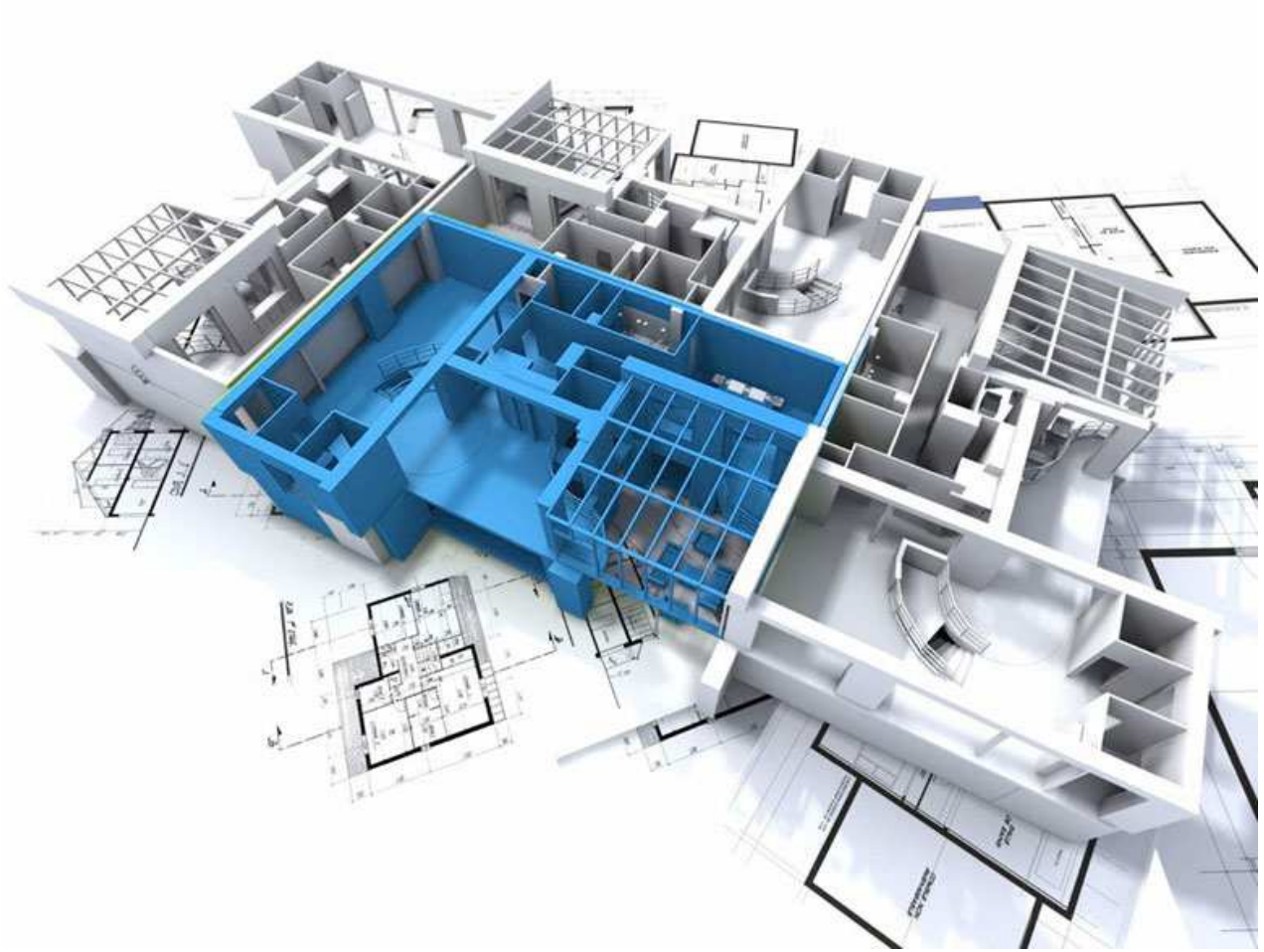
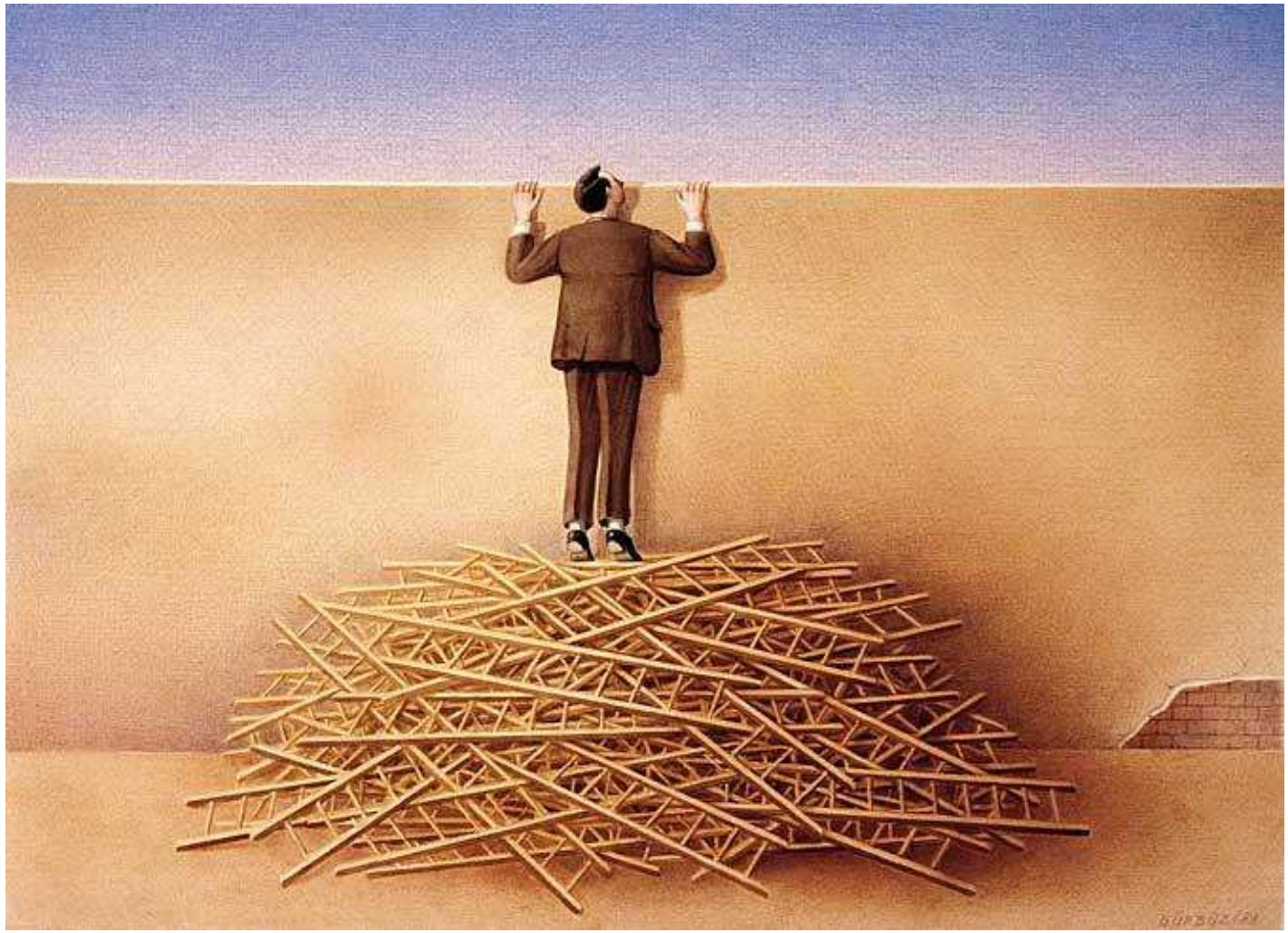
# Building Information Modeling (BIM)



# It’s not enough using the right tools



# It’s not enough using the right tools

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To fully utilize BIM potential, instead of adapting new technologies to current processes, we need to focus on adapting current processes to new technologies.




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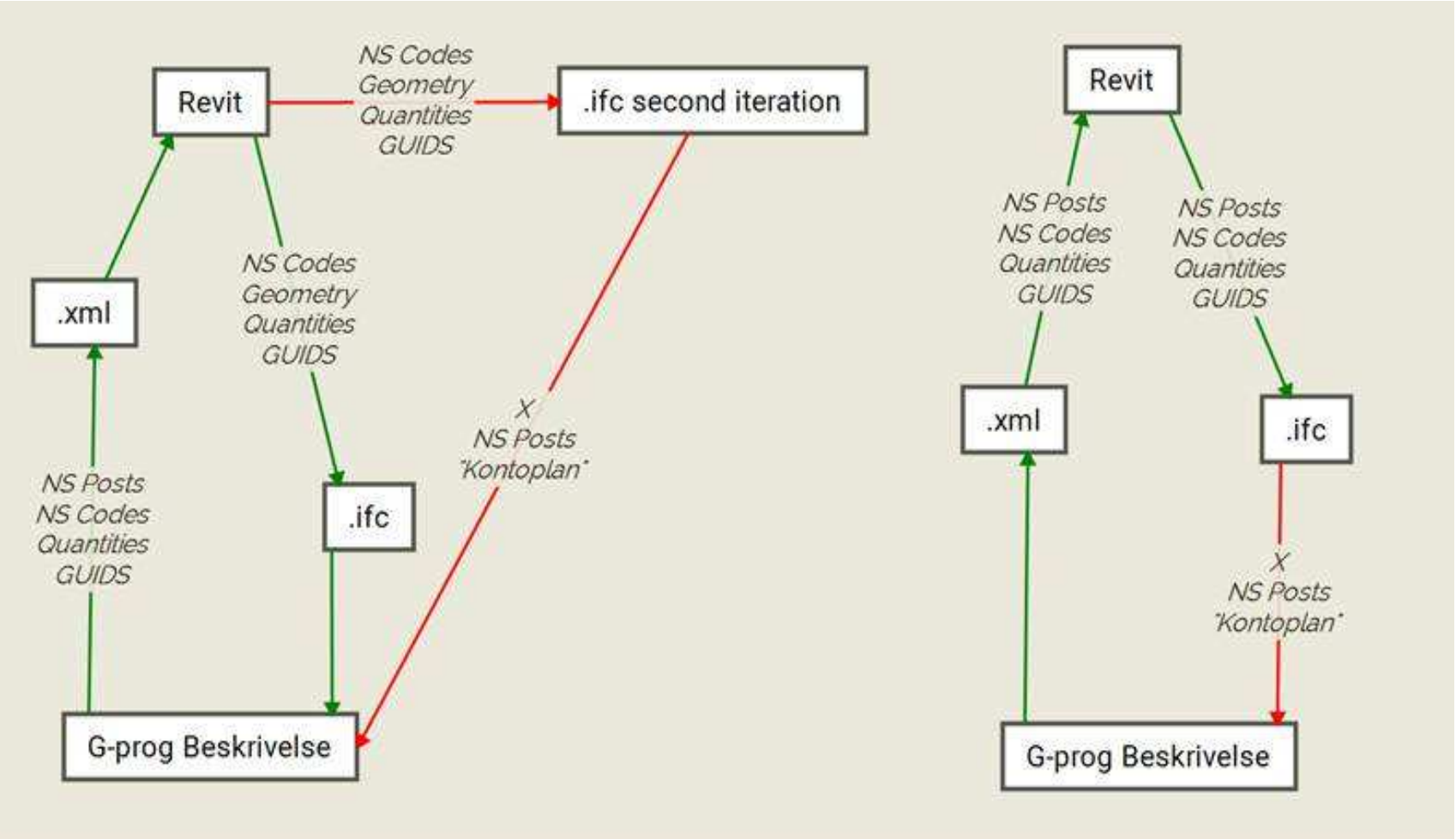
# Information flow between Specification and Revit



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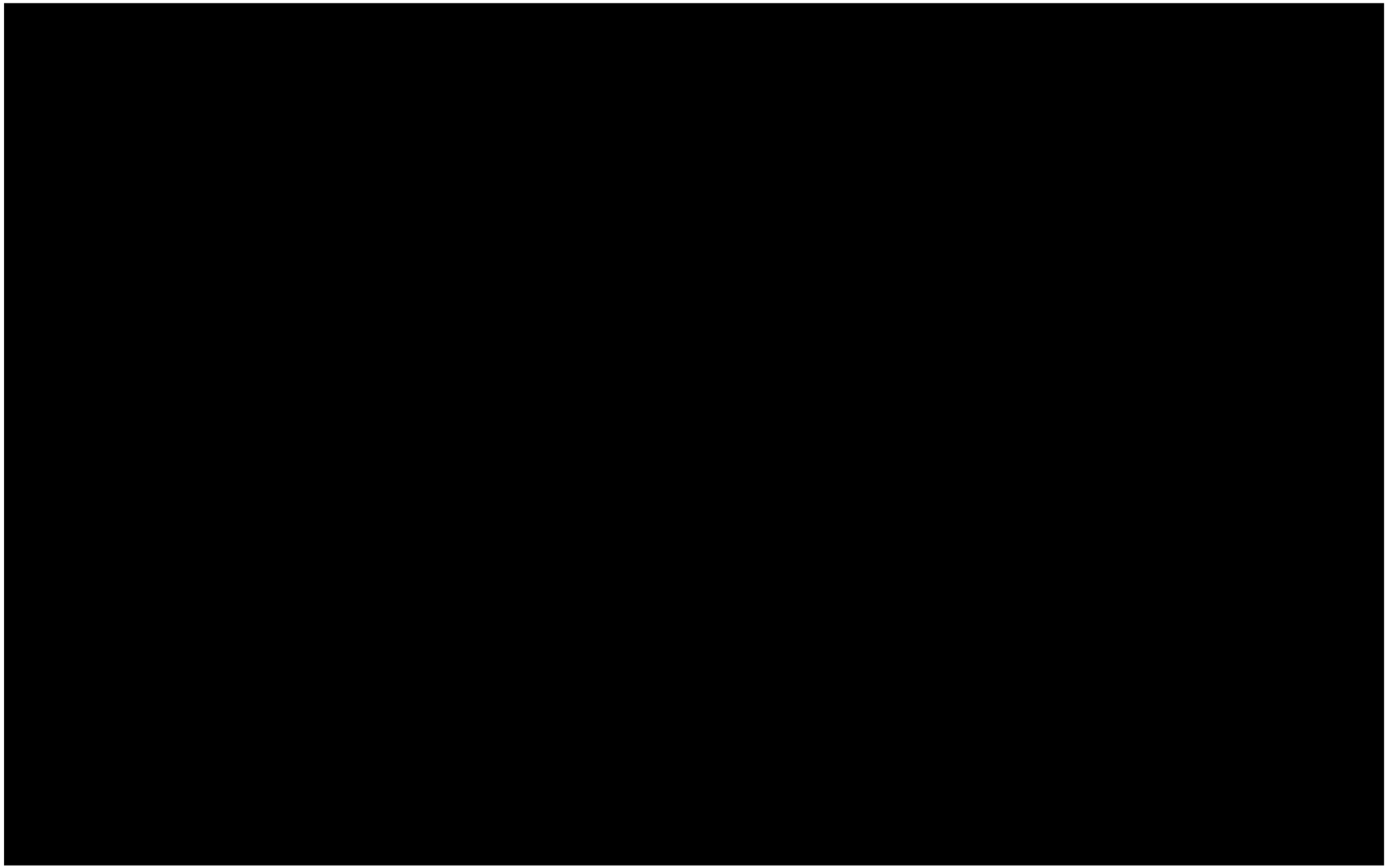
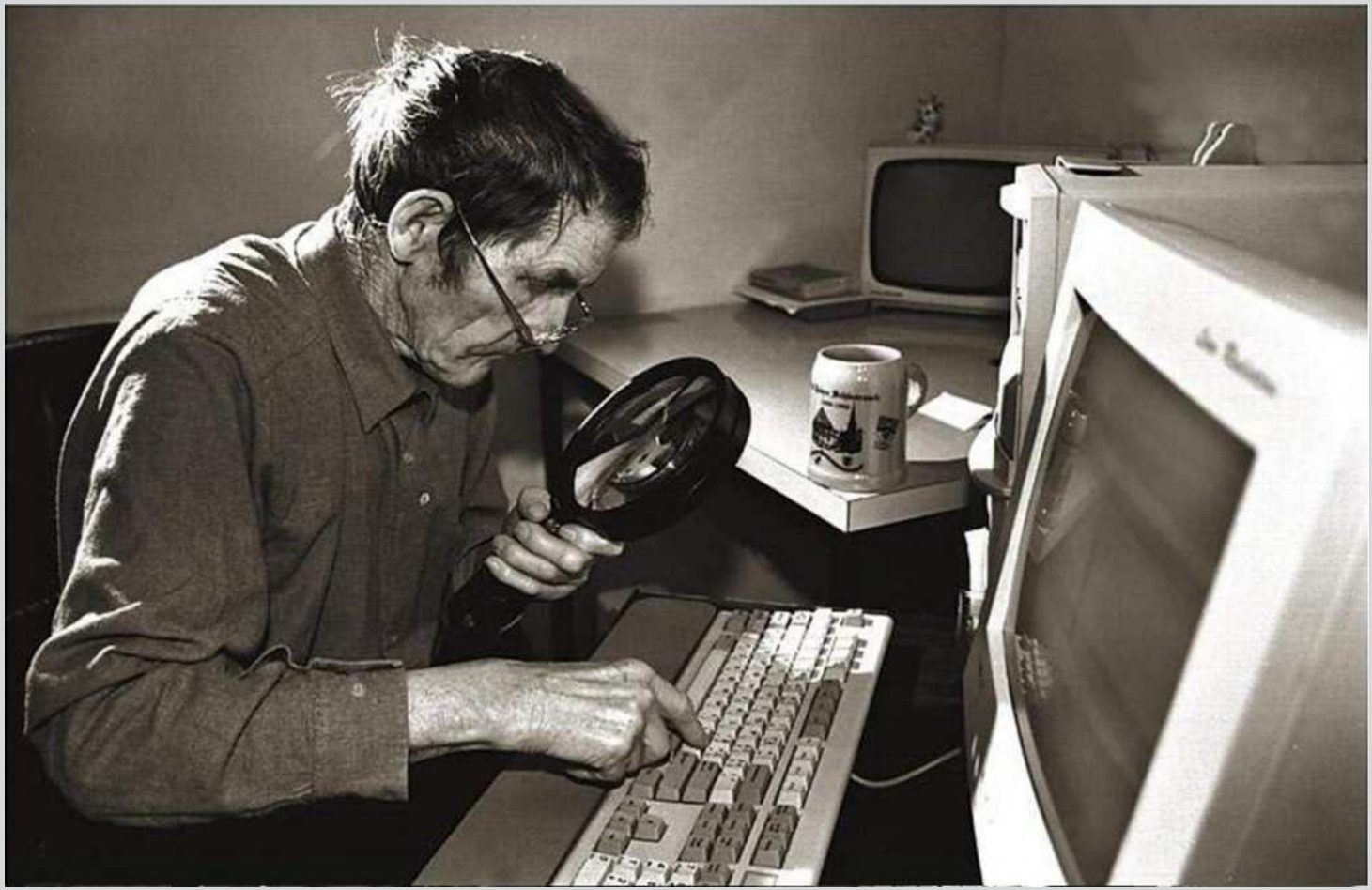
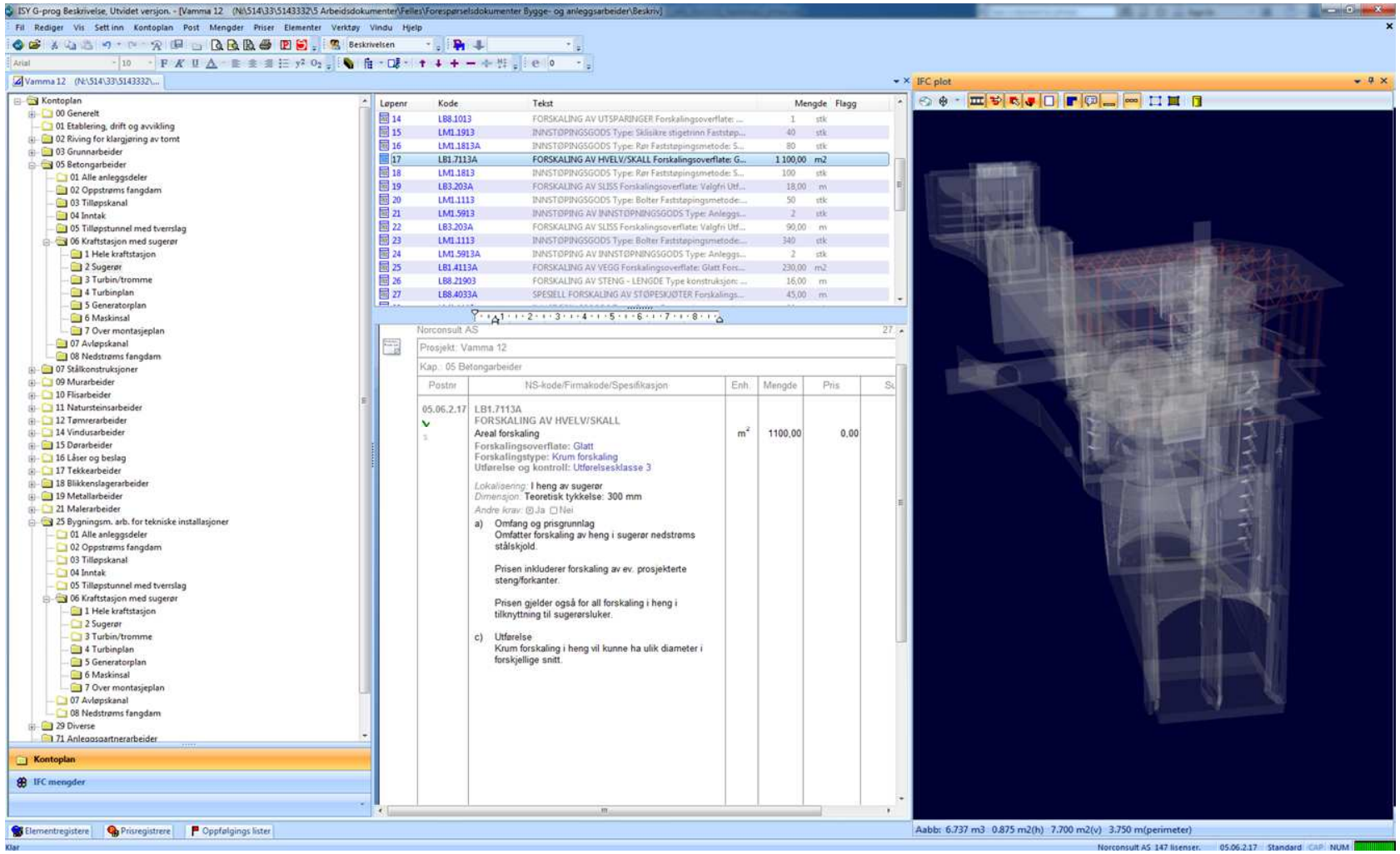
# Vamma 12



# Made in Norconsult



# Integration between Model and "Mengdeliste"



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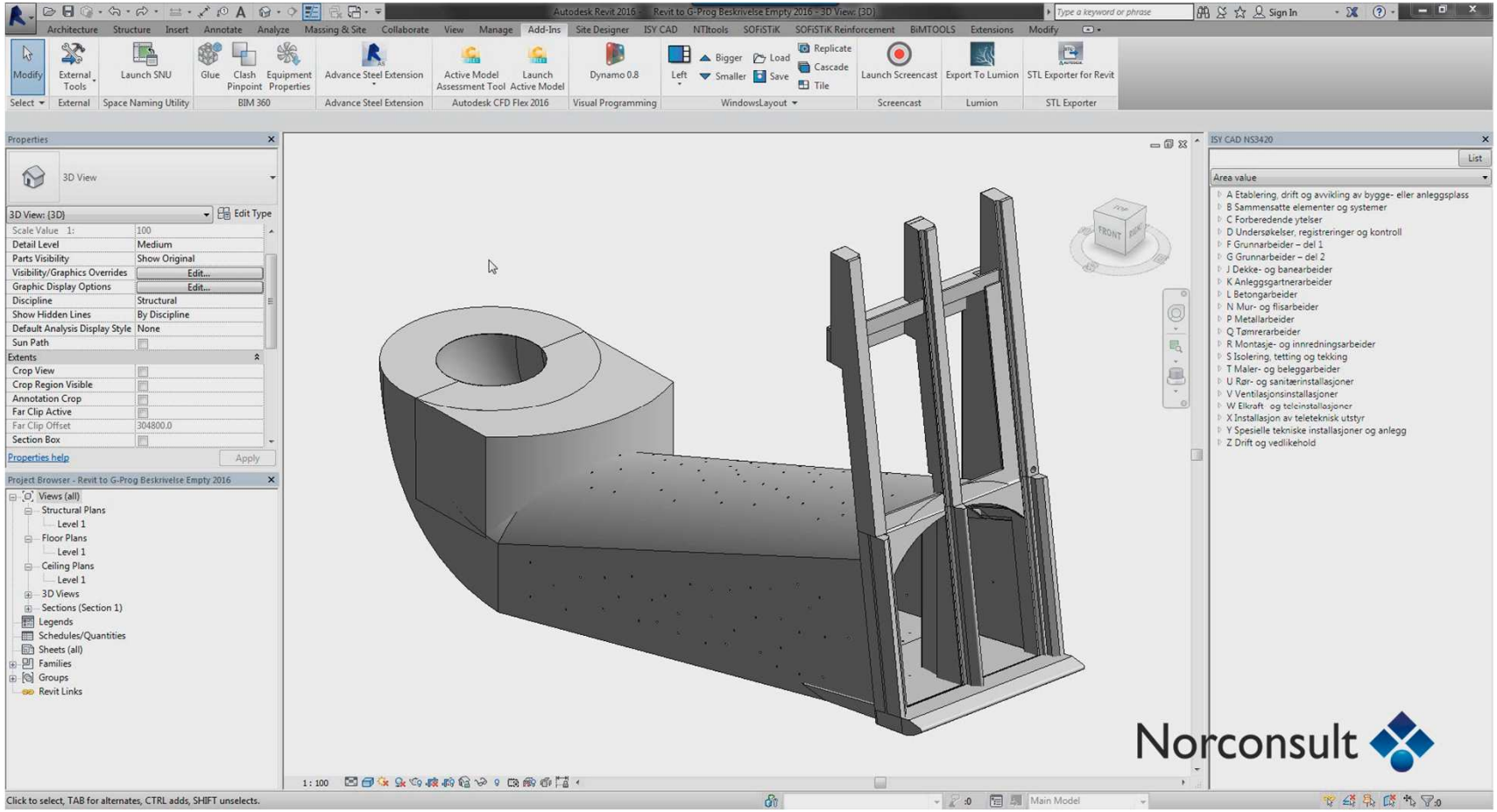
# Quality Checked Data



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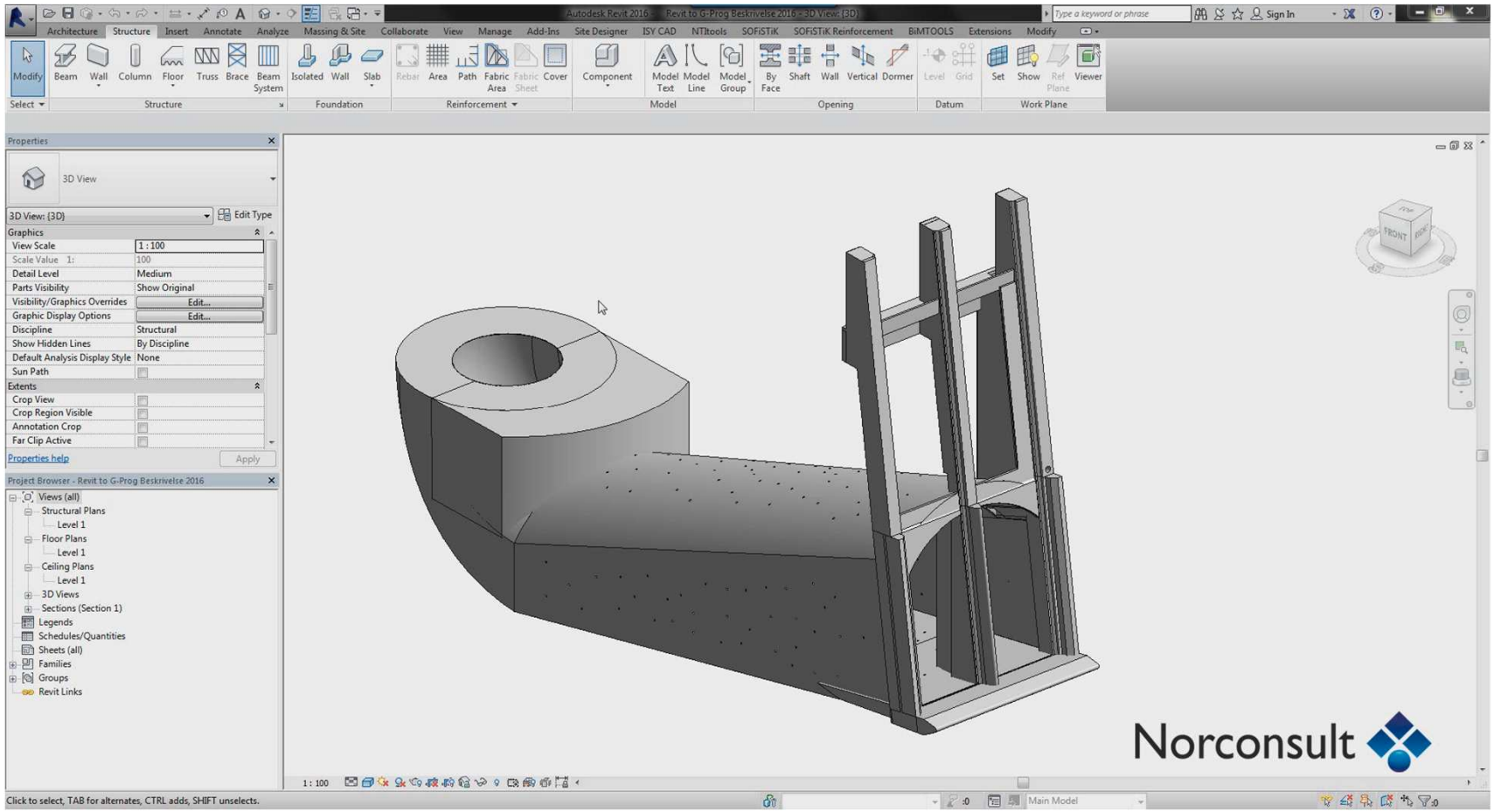
# Let's Take a Look



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# Thank you for your attention

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