

CONSTRUCTION SKILLS ENERGY EFFICIENCY

BIM CERT

REGULATING SUPPLY CHAINS

TACKLING CLIMATE CHANGE



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 785155





BIMcert Conference

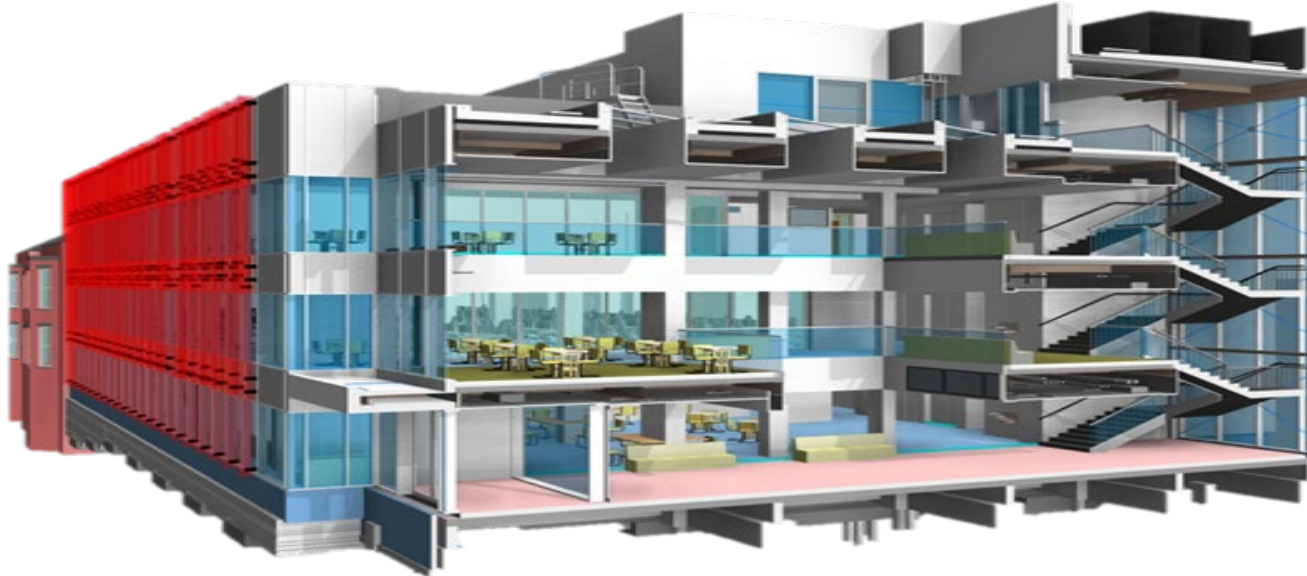
22nd January 2020

***Reducing the energy footprint
in the built environment***

WHY CONSTRUCTION IS EMBRACING BIM

Martin Lennon
Managing Director
OHMG

- Associate Partner
- Developing and implementing BIMCert
- Ensured OHMG has a skilled workforce
 - Capable of delivering complex energy-efficient buildings



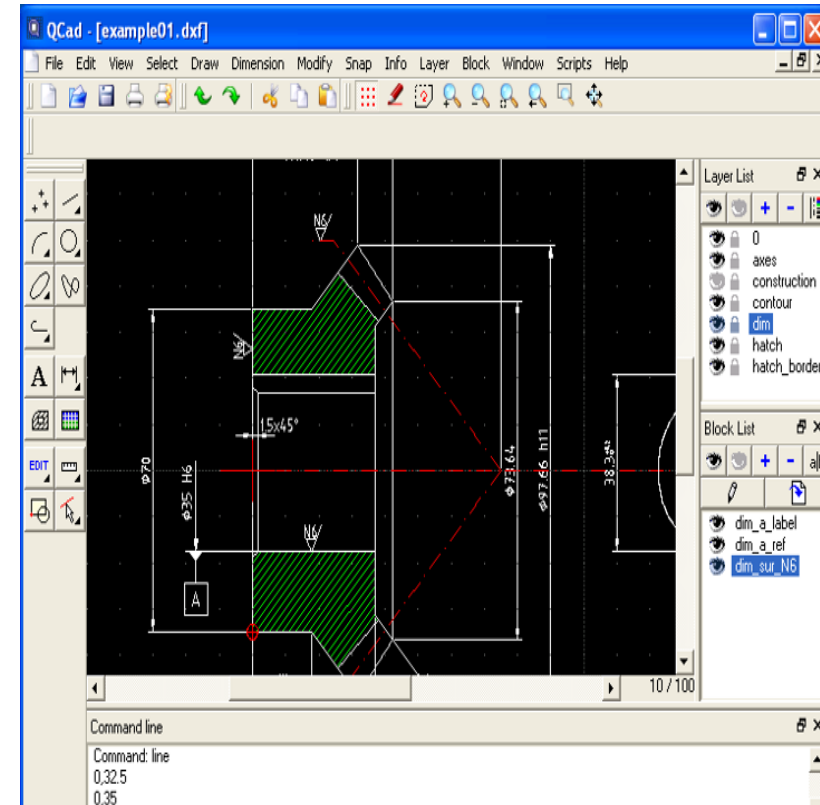
- As a young engineer I was eager to Learn 2D CAD

- 2D CAD

- Time consuming to learn
- Cumbersome to use
- Horizontal & vertical dimensions only

- Model

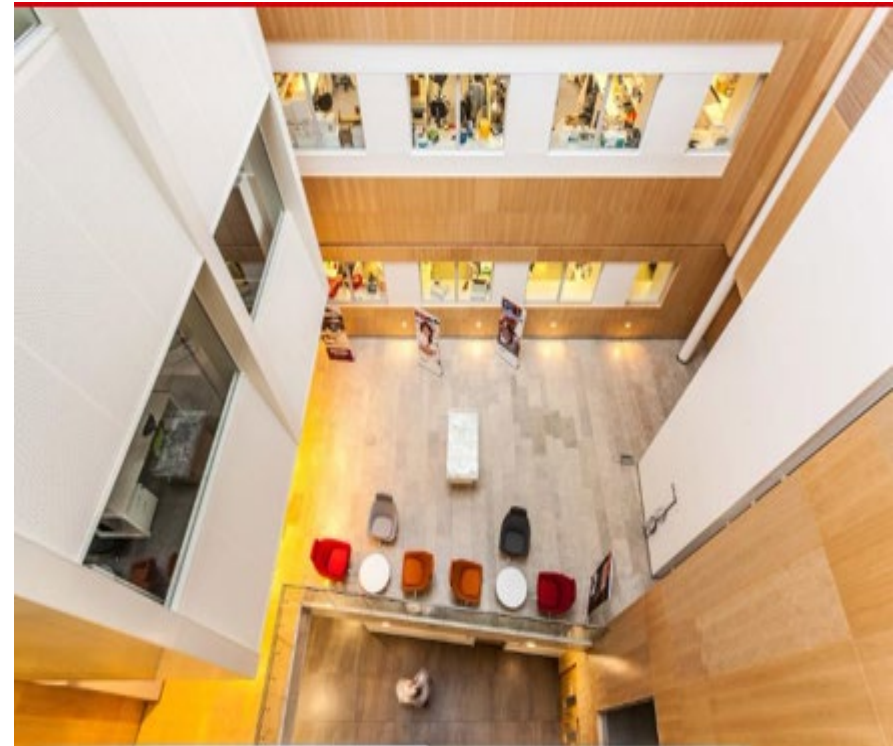
- Easy to learn how to:
 - Navigate
 - Obtain information
 - View clashes





1st BIM Project in N. Ireland

- Wellcome-Wolfson Institute for Experimental Medicine
Queen's University Belfast
- 1st BIM Project in N. Ireland
- Before this project OHMG's staff were mystified by:
 - Acronyms
 - New software
 - Reports in relation to what the Model could achieve

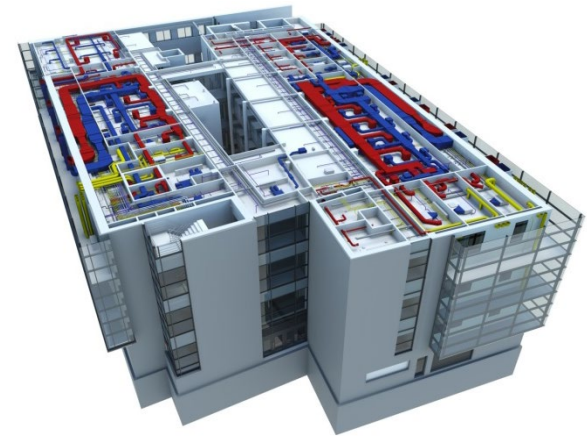


BIM Action Plan

- I decided we needed to train our staff
- Our action plan to implement BIM included:

Multidisciplinary skills approach –

- 27 Staff to Level 3
- 6 staff to Level 4
 - Managing Director/Construction Directors
 - Contracts Managers/Design Manager
 - M & E Managers/Trainee BIM Manager
 - Project Managers/Site Managers
 - PPP Manager
 - Quantity Surveyors/Estimators
 - Planners
 - Health & Safety Manager
 - Quality Manager/Environmental Officers
 - Buyers





BIM Action Plan

- BIM is part of OHMG'S DNA
- BIMCert & experience on five BIM projects
 - Including a major construction project at SRC Banbridge
- Demystified BIM for all disciplines
- Clarified how each discipline can use BIM to be more effective
- Revolutionised the company's ability to develop skills needed to deliver energy-efficient buildings to exceptional high levels of quality



- Effective use of BIM in OHMG
 - 4D Scheduling
- Linking the Model to the Construction programme
- Create 3D simulations of the programming sequence

4D Scheduling

- Simulations to show:
 - Planned Progress

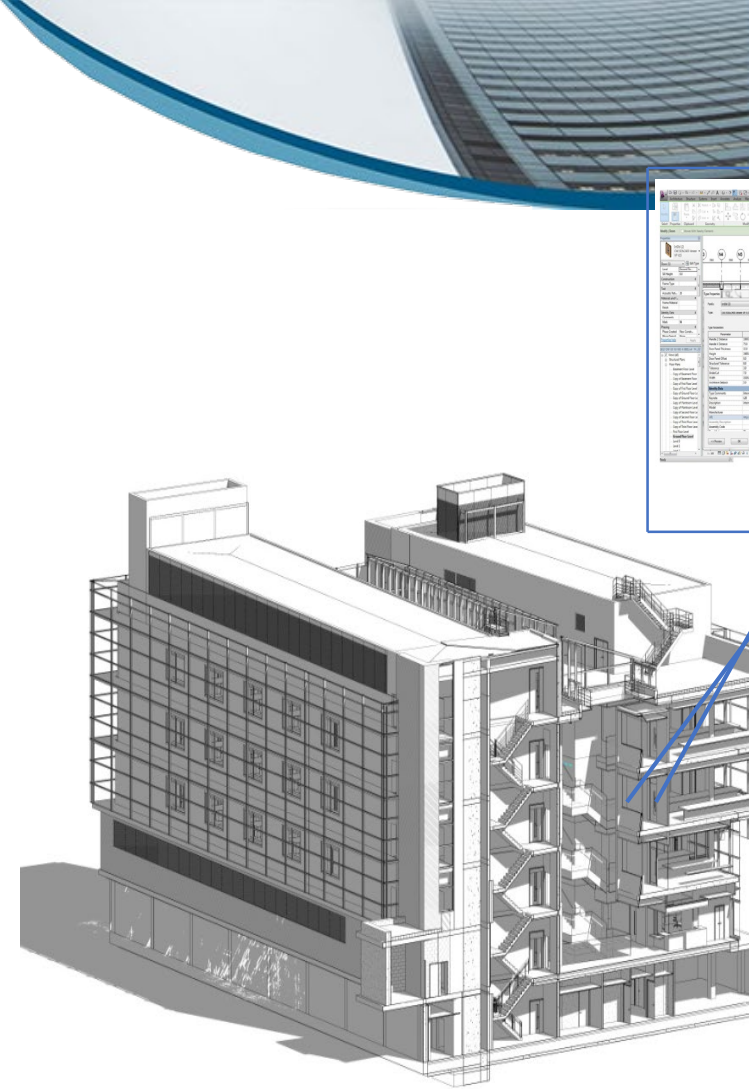
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Actual Progress
- Demonstrate progress to:
 - Clients
 - Supply chain
 - Site team



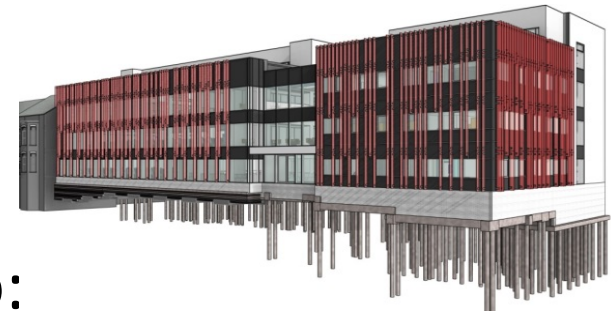
Cost Control

- Our QS & Procurement teams can now:
 - Check Quantities
 - Produce Schedules in real time
- QS's can manage change & implement cost-control more efficiently
- Staff are familiar with BIM & its acronyms such as:
 - *BEP*
 - *MIDP*
 - *CDE*
- Fully understand their function & how they can be used effectively to deliver award winning Buildings



BIM to Field Technologies

- Currently using BIM to Field Technologies on site for:
 - Checking dimensions
 - Specifications
 - Data sheets
 - Quality Control
- Technology has proven beneficial to:
 - OHMG
 - Client
 - Design team
 - Supply chain
- It has improved:
 - Collaborative working
 - Quality of finished buildings





BIM

BIM has revolutionised the way we deliver our projects allowing for the seamless flow of structured data between the project delivery team and stakeholders. It has improved whole life value to our clients.



Looking forward

- Continue to Research technological solutions
 - Innovative, greener buildings
- New dispensation at Stormont opens up exciting opportunities for the Construction Industry
- Hopefully will unlock the capital requirements for much needed building projects
- OHMG at the forefront for the delivery of complex, innovative and greener buildings.