

COMPANY

JJ Rhatigan & Company

LOCATION

Ireland

SOFTWARE

Autodesk® BIM 360™

Autodesk® BIM 360™ Docs

Autodesk® BIM 360™ Field

Autodesk® BIM 360™ Glue®

Autodesk® Dynamo Studio

Autodesk® Navisworks®

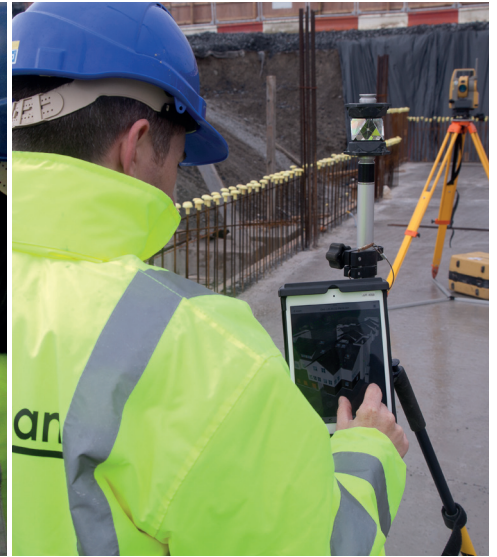
Autodesk® Revit®

Building a BIM strategy to stay ahead of the game in Ireland

JJ Rhatigan & Company helps drive a new era in Irish construction

“We are saving over 75% of time in some instances by digitising our process for issue management. For example, an RFI workflow that would typically take five days for the sub-contractors to create, now takes less than a quarter of the time thanks to BIM 360 Field.”

– **Celine O’Connor**
BIM Manager
 JJ Rhatigan & Company



Autodesk BIM 360 in action – Collaboration is made easy with all this data accessible at the click of a button.

Identifying BIM as the future of construction

With over 65 years’ experience, JJ Rhatigan & Company is one of Ireland’s leading general building contractors with offices in Galway, Dublin, Cork, Sligo and London. It aims to set the standards in the industry and prides itself on delivering high quality, sustainable construction projects. In 2013, it kicked off its Building Information Modelling (BIM) journey after recognising it could deliver further value to its business and clients. It has since built on initial results by incorporating cloud-based BIM tools into processes.

Building blocks to BIM

While Irish firms have no central government BIM mandate to comply with, as there is in the UK, adoption is spreading quickly with many organisations and clients realising the benefits of BIM to drive efficiency in construction. Wanting to stay ahead of the curve and recognising BIM as a key tool in the future of construction, JJ Rhatigan & Company began incorporating BIM processes into all its projects, from residential and industrial builds, to those in the healthcare, retail and education sectors. “The benefits BIM could deliver to our teams

and overall business were a real driving force behind our adoption. Beyond this we also saw, and are still seeing, increased demand from our clients to use it to provide greater collaboration and clarity throughout projects. It’s clear that BIM is an integral part of the future of construction and we want to be leading the way,” says Michelle Fahey, BIM Implementation Manager, JJ Rhatigan & Company.

BIM and model-based design were new to many of JJ Rhatigan & Company’s employees and the company worked with the Department of Building & Civil Engineering in Galway-Mayo Institute of Technology to help up-skill its staff. Training programmes were designed to accelerate the adoption of BIM and, to date, the company has trained over 130 of its employees in different aspects of the BIM process, including design, quantifications, clash detections and on-site snagging. Each employee also undertakes regular training and workshop talks to ensure their knowledge and skills are up-to-date with the latest developments in BIM.

Celine O’Connor, BIM Manager, JJ Rhatigan & Company comments: “We pride ourselves on

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being very BIM aware and adaptive. From site technicians, through to Director level, we have put a lot of effort into developing their skills, which has really helped drive BIM adoption across the company. We have also worked very closely with Autodesk® to ensure we're getting the most out of working with BIM tools."

The company initially integrated Autodesk® Revit® and Autodesk® Navisworks® into its processes, seeing improved collaboration, better accuracy and savings in its construction projects. However, to ensure it remained at the forefront of BIM, JJ Rhatigan & Company proactively invested in the cloud-based software to keep up-to-date with the tools and improve collaboration across stakeholders. Building on its work with Revit and Navisworks, the company selected Autodesk® BIM 360™ as the tool to use across all future construction projects and invested in a BIM 360 Enterprise License.



Dungraven Primary Care Centre. BIM helps to improve the customer experience.

Collaborating in the cloud to streamline projects

The cloud-based nature of BIM 360 means office-based documents and data can be viewed on the construction site using an iPad, with all 3D objects also hyperlinked to allow quick access to submittals, O&M's, warranty information and shop drawings, for example. Operatives and consultants can also access information about on-site elements such as machinery because JJ Rhatigan & Company has digitised these assets via QR codes and barcodes.

With all this data accessible at the click of a button, collaboration is made easy between stakeholders involved in the build, from design teams and contractors, to subcontractors and consultants, which has helped JJ Rhatigan & Company reduce bottlenecks, streamline project coordination and improve overall project delivery. Using the common data environment, JJ Rhatigan can immediately see the status of a drawing or model. This means that the team can instantly mark-up drawings and models in the digital space and relay the mark-ups to subcontractors and consultants. All invited personnel can collaborate their respective items seamlessly with the assurance that they are working on the most up to date information.

To further streamline projects, the company also uses BIM 360™ Glue to identify potential clashes, running weekly critical clash detection sets on the latest merged models to help remove any issues which may cause delays on the project. JJ Rhatigan & Company also uses BIM 360™ Field to provide a portal where sub-contractors can view any issues assigned to their company, allowing them to take immediate action rather than waiting for feedback. This means that less time is spent on resolving minor clashes at project coordination meetings, making the meetings much more productive. An example would be an RFI workflow that would typically take five days for the sub-contractors to create, by walking through the project, capturing imagery, raising issues and typing up the report. With BIM 360 Field, once the issues are captured on site using the iPad, the synced report can be accessed by the contractor in less than a quarter of the time.

3D modelling delivers further benefits

BIM is also helping improve customer experience. The company uses 3D models generated in BIM 360 to supply a visual walkthrough of projects so that all parties are fully informed of the build and clients are reassured of what their final project will look like. Clients also receive added-value because they can use COBIE data from the BIM 360 environment to gain a detailed breakdown of the model asset metadata to use within their own facility management software which helps with maintenance and repairs.

It's not just customers that benefit from this additional insight suppliers, such as precast concrete companies, are also more confident in their own drawings when they can refer to a 3D BIM model. Health and safety is also enhanced thanks to 3D modelling, which is used to visualise information such as the layout of the construction site and traffic management plans, to identify key logistical challenges and devise and initiate practices to ensure construction sites are safe.

BIM now and beyond

JJ Rhatigan & Company are currently working on numerous BIM Level 2 projects, including 14 Primary Care units across Ireland (€120m), DCU – St. Patrick's College Dublin (€14m), Trinity Business school Dublin (€50m), Project Trinity Residential Dublin, NUI Galway (€30m) and Chiswick Community School London (GBP£5m).

Further building on its BIM capabilities and relationship with Autodesk, JJ Rhatigan & Company are using the Revit add-on Autodesk® Dynamo on its projects, which is helping to improve its model outputs by running scripts to automate processes such as importing room data. A process which would typically take three to four days

"We adopted BIM 360 Docs as a Common Data Environment to improve the transparency, collaboration and efficiency on all of our projects. It acts as a single source of truth for document storage, speeding up the creation of RFIs and reviews of drawings and mark ups, while reducing the likelihood of error."

– Ger Ronayne
Operations & Construction Director
JJ Rhatigan & Company

to create views and sheets can now be performed in 20 to 30 minutes. The company also use BIM 360 Docs, to further increase collaboration between different design teams and stakeholders by giving them easy access to the latest project information in one central location, and has already seen a marked improvement when using it in projects.

Commenting on the future, Ger Ronayne, Operations & Construction Director, JJ Rhatigan & Company said, "To deliver more efficiency in our projects and to our clients, we will continue to advance our BIM implementation and explore opportunities to innovate through Autodesk's software and BIM processes. Although we don't currently have a mandate in place, we view BIM as a key enabler for staying at the top of our game and delivering on our promise of 'Setting Standards' in the speed and quality of our construction."

Showing further commitment to BIM, the company is also a key member of the BIM Western Steering Committee, helping to promote BIM in the West of Ireland and sharing the company's experience and knowledge to a wider community across the construction sector.

JJ Rhatigan were proud winners of the CitA Irish BIM innovation Awards (Construction Category) 2016 and in early 2017 was formally verified by the British Standards Institution (BSI) as a Tier 1 Lead Contractor which include Design Management, Construction Management and Project Management complying with Building Information Modeling (BIM) Level 2 in accordance with PAS 1192-2-2013, BS 1192-4-2014 and BS 1192-2007. Looking to the future, JJ Rhatigan will continue to explore leaner processes to improve project delivery.