Ryan Architectural Solutions

Revit® Architecture

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Seán Ryan
Managing Director, Ryan Architectural Solutions

Revit® Architecture Makes Practice Perfect

Just ten years after he graduated as an architectural technologist from Waterford Institute of Technology, Seán Ryan set up his own firm in his native Thurles, Co. Tipperary. That was in 2005 and three years later Ryan Architectural Solutions has grown to a team of four which is doing, a varied range of projects for both private and commercial clients. From the very beginning the company invested in smart technology. This reflects Seán Ryan's own interests both in IT and in new technologies in alternative energy and sustainable construction using advanced materials.

Prior to setting up his own firm, Seán Ryan worked in a range of positions and gained particular expertise in preparing fire safety documents while working in the office of a Senior Fire Officer as well as experience with various forms of alternative energy and energy saving technology. "We have been building up a nicely varied portfolio of project in the last few years," he says. "That includes one-off houses and some interesting structures, urban infill and restoration, with renewable energy and environmentally friendly elements in most projects. On the more bread-and-butter side, we have built a reputation for a thorough Fire Safety Certification service. We take the draft designs from architects and other designers, analyse them from a fire safety point of view and advise on any design revisions or re-configuration required. Because of our experience, that often includes design proposals on how any problems might be solved effectively and economically."

In setting up his firm, the choice of Revit® Architecture software was almost inevitable given his thinking at the time, according to Seán Ryan: "I had been interested in CAD and other professional IT since College and always tried to learn how to use advanced features at a time when many if not most users were simply treating AutoCAD as an e-drawing board. I believe it is simply more natural and less abstract to work in 3D, on design and in fact on all aspects of a project. I was also inclined to think, and have not changed my mind, that Revit is actually more user-friendly than other software tools in the construction sector. So Revit has been the principal software platform for the firm since Day One."

The Ryan Architectural team, now grown to four, has found from the earliest stages that taking off 2D drawings from the Revit model is quick and easy: "A key advantage is that they are dimensionally accurate," Seán Ryan adds. "In similar vein, we have become very accustomed to the speed and ease of generating schedules of doors, windows and other materials. In the Fire Certification work, for example, that includes detailed specification of 30- or 60-minute fire doors and specialist fire-retardant materials."

The team are regularly involved also in importing drawings from professional and other project partners, sometime the original files but also the iterative stages of the design process. Revit readily incorporates the new or revised design information

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into the master model, at the same time revealing any discrepancies for decision or discussion. "This is a key part of the ways in which Revit speeds up the design process and ensures accuracy and consistency of information for all parties involved. Many automation features also help speed and accuracy, such as for example the parametrics that mean changes made to the plan are altered correspondingly in the elevations."

A recent project on which Revit proved particularly valuable was a private urban regeneration development in Thurles. The site combined a number of parcels of land centred on the old Crotty's Bakery in Friar Street, the principal shopping street, with a new pedestrian connection to the municipal car park behind. The overall development is 1,329 sq. metres with an irregular footprint and comprises 769 sq. metres of retail with residential and some office units on the upper levels. Although the old bakery was demolished, various features of it and other structures such as cut stone walls were preserved and incorporated as attractive features in the new development. The old stone arched loading bay with cut stone lintel has become a feature window lighting a staircase, for example. Renewable technologies are significantly represented, including for example water heating by solar panels and rainwater harvesting.

"This was one development that was greatly assisted in the planning stages by Revit visualisation. Urban regeneration in a historic town centre is naturally sensitive and this was also adding a new pedestrian passage between two open spaces. But with a nicely rendered 3D model we were able to show both our client and the urban planners exactly what our proposed design solution would look like, including the walk-through from Friar Street to the car park." A 'medium quality' rendering of visual takes about 30 minutes in Revit, according to Ryan, while fully rendered top quality presentation visuals might take a few hours' work.

As well as the presentation value, Seán Ryan says, 3D visualisation contributes greatly to cutting out potential misunderstanding in the early stages of a project. "Clarity and smooth exchange of design and materials information make for better collaboration, minimal hassle and productivity gains both for ourselves and for the project partners we work with."

There are specific productivity gains for the in-house team, he adds. "Take the submission of the final planning applications with all associated drawings and documentation. Without Revit we estimate that would take about two and a half to three days' work all in. Using Revit, we reckon to get a full planning submission finished in less than a day."

While Seán Ryan is keen to emphasize the ease of use of Revit, he is also convinced that in practice it is essential to undergo training to get the professional benefits. "All of our team have undertaken at least the three-day introductory course. The learning curve is not unduly steep but I estimate it takes between six weeks and a couple of months of regular use to become really proficient." Ryan Architectural has continued its investment in Revit and is now on its third upgrade. It's staff are also regular users of Revit City and its resources, checking out discussion forums for relevant topics and asking questions of their peers as well as downloading resources such as specialist graphics.

"All in all, our initial decision and ongoing Revit investment both in the software and the training has paid off handsomely for us," Seán Ryan declares. "There is no question that compared to other firms in the sector our team can do more with less. In today's economic climate, that is a real strength."

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