LAUD ARCHITECTS

Singapore
Customer Success Story

Autodesk® Revit®

LAUD Architects capitalises on the full potential of Building Information Modeling with Autodesk® Revit® Architecture

Autodesk Revit Architecture was a critical 3D design tool that ensured consistency and efficiency throughout the design and construction of the Revival Center Church. We've enjoyed a good return on our software investment to date, and realised savings in terms of man-hours, and are better able to create winning designs for our clients.

Ho Tzu Yin
Director
LAUD Architects

Project Summary

With a philosophy that emphasizes the appropriate and creative use of technologies, materials, space and forms, LAUD Architects Pte Ltd, saw the opportunity to adopt Building Information Modeling (BIM) using Autodesk Revit Architecture to improve design innovation. In addition, the economic downturn and increased pressures on overheads further served as a compelling reason to invest in staff training to enable the firm's lean team to design in a more resource and time efficient manner.

The Revival Centre Church in Singapore was the first project that LAUD Architects designed fully in 3D using Autodesk Revit Architecture.

"Autodesk Revit Architecture was a critical 3D design tool that ensured consistency and efficiency throughout the design and construction of the Revival Center Church," said Ho Tzu Yin, Director, LAUD Architects. "We've enjoyed a good return on our software investment to date, and realised savings in terms of man-hours, and are better able to create winning designs for our clients."

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The firm was also one of the pilot companies to participate in the Building & Construction Authority of Singapore (BCA)'s first Construction and Real Estate NETwork (CORENET) 3D submission pilot project. using the Revival Centre Church project.

Bringing a Concept to Life

"As architects, we need to be able to convince clients of our designs from across the table," said Ho. "That's why it is important to help clients who are not building professionals to read and visualise 2-dimensional drawings."

With Autodesk Revit Architecture, LAUD Architects was able to create and capture photorealistic design ideas and contextual environments, and enable the church's committee members to picture and understand the many important aspects of the Revival Centre Church's design, both interior and exterior. As a result, the committee was able to experience the project even before it was built, and this greatly strengthened their confidence in the LAUD Architects team.

Acquiring a 3D Advantage

Given the complex design of the Revival Centre Church project, LAUD Architects needed to generate multiple 3D renderings and perspectives of the building, and simulate various design possibilities for the project across a range of scales.

The BIM data provided in the 3D Autodesk Revit Architecture model enabled LAUD Architects to design each functional and aesthetic component of the structure with the highest degree of accuracy possible – from the huge curved walls that flank the two sides of the Church, to the detailing of the building's aero-foiled shaped sun-shading walls.

"Thanks to Autodesk Revit Architecture – a smaller team of architects and technical staff were empowered to generate many versions of coordinated plans, sections, elevations and 3D renderings, which would easily have taken twice the time and staff count," said Ho.

Visualising and Simulating Multiple Design Alternatives

For higher resolution and realism, LAUD Architects also exported the Autodesk Revit

Architecture model directly into Autodesk 3ds Max for in-house rendering. The ease of integration between both Autodesk software systems enabled LAUD Architects to make multiple refinements and last minute changes on-the-fly.

"If we were unsure of a certain material and color for the structure, we could render these almost instantly and make design decisions on the spot," said Ho. "This eliminated many uncertainties and bottlenecks for the team, sped up the end-to-end process, and ensured that we were really able to achieve the full potential of our designs."

Championing BIM Adoption in Singapore

LAUD Architects' positive firsthand experience with BIM also led the firm to partner with BCA and Autodesk to be one of the pilot firms for the CORENET 3D submission pilot project in Singapore.

As a virtual, transparent, one-stop, round the clock service "counter" for the electronic submission of project related documents, the CORENET allows parties in the construction and real estate sector to communicate and exchange information seamlessly and efficiently, leading to faster processing and turnaround time. The system also has the added benefit of improving public service through better efficiency and productivity in managing and processing electronic submissions.

Selected for their forward thinking and confidence in the promise of BIM, LAUD Architects not only played a role in paving the future for the building industry in Singapore, but the firm is also keen to explore the use of 3D BIM tools by Autodesk for environmental studies and buildability score calculations for sustainable design.

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