

BUSINESS REVIEW 2016



ECAS Consultants Pte Ltd

Welcome to ECAS' 2016 Business Review!



This year we celebrated our 20 years anniversary of excellence. This milestone means a lot not only to me, but also to all employees and clients of our

company. What started as a modest company in 1996 has now grown to over 120 professionals. And from civil and structural engineering services, we have since extended our offerings to areas of mechanical, environmental and geotechnical engineering with some of the best engineers in the region.

As we grow internally and externally, we also focus on innovation and productivity. Fully adopting BIM in our practices is something that we are working on. Moreover, we are looking into new technologies like PPVC. With the number of consultants offering engineering services, innovating and adding services is what keeps up competitive.

We have also unveiled the new ECAS brand; a brand that will represent us through new business endeavours in Singapore and the region. The brand embeds our values of excellence, commitment, assurance, and safety on all our staff and representatives. I invite you to read about the changes we had this year on page 2 of this newsletter.

Kind Regards,
Er. Chan Ewe Jin
Managing Director



BIM to Improve Productivity

ECAS has been proactively adopting technologies that improve efficiency and add value to its service offerings in the last twenty years. In 2011, ECAS began adopting BIM in support of BCA's target to raise the productivity of the built environment sector by 25% by 2021. Since then, the company has been actively developing its internal BIM policies and investing in formal BIM training and certification courses.

To raise a BIM-competent workforce, ECAS draftsmen and engineers are enrolled to BCA Academy's certification courses in BIM Modelling and BIM Management on top of regular BIM software trainings being carried out by BIM vendors to build up the company's internal BIM capabilities and expertise. These trainings and certification courses allow for better awareness in software functionalities, and more importantly, on practical applications.

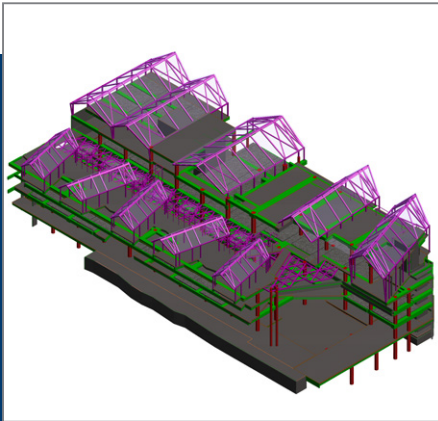
Internally, BIM helps the company avoid and detect design problems through visualisation and simulation thus reducing the time from the design process to the construction stage. Externally, it also provides

the backdrop for contractors to efficiently conduct planning works and visualisations, while clients are provided with a better understanding of the project prior to construction. The developed models may be used for further cost saving with the implementation of visual clash detection, therefore reducing re-designs and re-works. Overall, BIM allows the company to place more emphasis on effective collaboration among its stakeholders. Early resolution of potential issues led to valuable time and cost savings for project stakeholders. The company alone was able to save 10-20% on manpower time spent on design documentation.

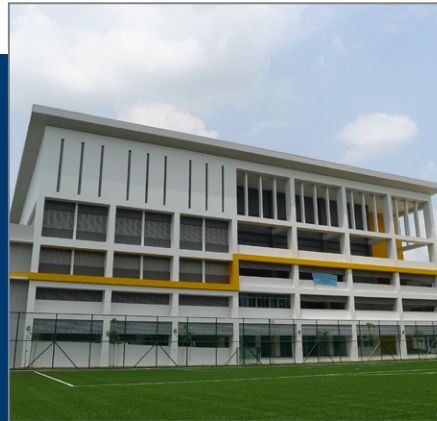
While the implementation of BIM at the early stages brings a number of challenges, the company has been able to overcome them. Since then the company's efforts have been prolific, as it has successfully seen through the completion of Spectra Secondary School and Nanyang Primary School, which have received the BCA Construction Excellence Awards in 2015 and BCA Construction Productivity Award in 2016, respectively. These schools were designed using BIM solutions. ECAS has already taken its BIM adoption a step further by

using BIM for the Wisma Geylang Serai design.

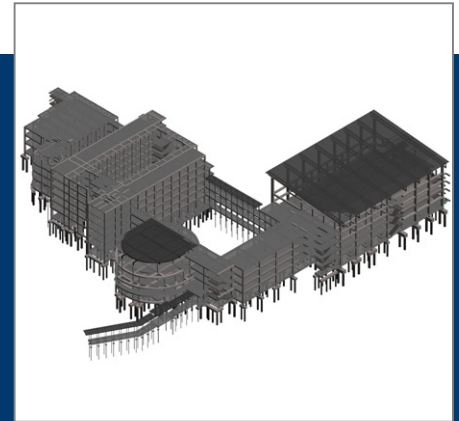
ECAS has plans to fully implement BIM in all aspects from the design to the output, streamlining the process to have a seamless transfer from Engineer to Drafter, and later to the Contractor and Clients. In 2016, the company began offering BIM as a value-added pre-construction solution. This new service, coupled with the other service offerings, make ECAS a one-stop engineering consulting firm for any scope of project.



Wisma Geylang Serai BIM drawings



Completed Spectra Secondary School



Spectra Secondary School BIM drawings

A new brand

2016 marked ECAS' 20th anniversary in business. With the celebration came a new look that represents ECAS' new position and journey into the future. The new name (ECAS Consultants Pte Ltd) and the new fresh identity better represents the company and where it wants to position itself for the next 20 years. In fact, ECAS represents its core values: Excellence, Commitment, Assurance, and Safety. The firm hopes to keep excelling in all those areas so that the clients receive the highest level of service.

For the next 20 years, ECAS' collective vision is to continue to innovate and provide more efficient engineering solutions to Singapore and other countries

as it expands its geographic reach. ECAS has also expanded its service offerings to better cater to clients. It now provides expertise in Mechanical and Environmental Engineering. Now that the firm has strong roots in Singapore, ECAS is looking into other areas in the region, especially to countries which are in need of its professional capabilities.

The new brand shows that ECAS' roots and values have not changed. It still offers a high-quality service and is still committed to every job, but the new brand also signifies the firm's adaptability to new times and its ability to grow beyond borders.



20th Anniversary Celebration



New Logo, Secondary Logo, and 20 Years Logo

Projects Completed in 2016



Ubi to Bedok Town Park: DTL

Construction and completion of civil defence Bedok Town Park station and tunnels to Ubi Station



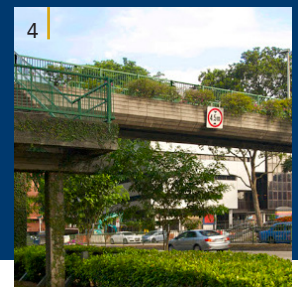
Geylang Methodist School (Primary)

4-storey learning block with outdoor learning area, an indoor sports hall, and enhanced rooms



Cathedral of Good Shepherd

A&A to the preserved Cathedral 2-storey Rectory, and new erection 3-storey annex block



One North Pedestrian Bridge

One-North covered pedestrian linkages (linkways, gateways, and pedestrian overhead bridges)



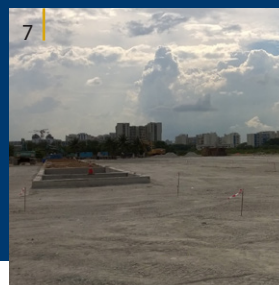
Nursing Home at Margaret Drive

Multidisciplinary services for the erection of a 290-bed facility with care centre for 100 seniors



Jurong Island Checkpoint Expansion

Checkpoint expansion including demolition, site clearance, and new infrastructure works



Infrastructure at Lorong Halus

Construction of a 800m 4-lane road with trunk sewers, minor sewers, roadside drains and box culverts



Jurong Industrial Waterworks

Demolition of JIW including land restoration, mains removal, and services and pipelines diversion

2016 Awards

Church of St. Peter and Paul



SIA Design Award



URA Heritage Award

Nanyang Primary School



SIA Design Award



BCA Award Gold

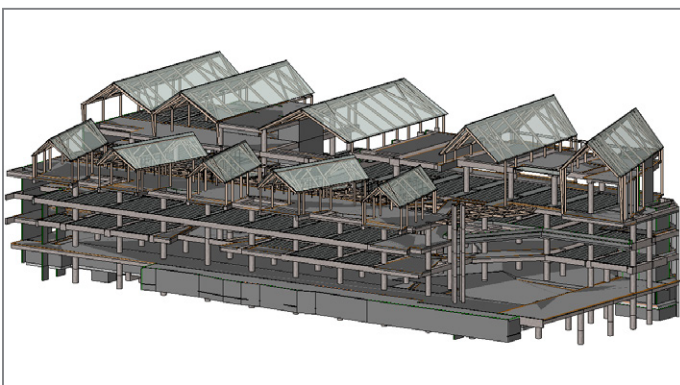
Project to be completed in 2017: Wisma Geylang Serai

The Wisma Geylang Serai will be a Lifestyle Hub providing space for community activities and services. The design was influenced by the Malay Heritage with pitched roofs and stilt-like features.

The 5-storey, 10,000m² development will contain a pedestrian mall of shops and cafes. It will contain a public plaza which will house performances and other events. And will have a community club and a Malay Heritage Gallery.

ECAS was appointed to be the Civil and Structural Consultant for the project. The firm has been working closely with the architect Design-Environment Group Architects and other parties involved.

Wisma Geylang Serai will incorporate energy efficient, water efficient and environmentally friendly design, technologies and practices aiming for a BCA Green Mark award.



New Marketing Materials

With the new brand came new marketing materials to better represent our company. All materials can be found at our Publications page www.ecas.com.sg/category/publications/ or for a print copy please contact Amica Paulino at ampaulino@ecas.com.sg



Company Brochure and Track Record

Real Estate | Industrial | Institutional | Utilities
Transportation | Infrastructure



Other Materials

Business Card | Notepad | Pen

About ECAS Consultants Pte Ltd

ECAS Consultants Pte Ltd is a leading multidisciplinary engineering firm offering design consultancy, accredited checking, construction supervision, and inspection services to clients of the public and private sector for a range of projects in Singapore. The company is ISO 9001 certified for Quality, ISO 14001 certified for Environment protection, and OHSAS 18001 certified and bizSAFE STAR for Safety in the workplace. ECAS counts on Professional Engineers and more than 120 employees to support our clients in their projects.

Capabilities

Road and Bridge Engineering | Rail Engineering | Building Engineering | Tunnel Engineering | Infrastructure Engineering
Geotechnical Engineering | Structural Engineering | Environmental Engineering | Mechanical Engineering

Services

Design Consulting Services | Construction supervision | Assessment and investigation | Design Review | Design for Safety
Building Information Modelling (BIM) | Steel and Rebar Detailing | Project Management

Industries

Real Estate | Industrial | Utilities | Transportation | Infrastructure | Institutional

For more information on ECAS Consultants Pte Ltd, please check our website at www.ecas.com.sg or send us an email to info@ecas.com.sg

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