

# PLC PERFORMING ARTS CENTRE

DEVELOPER : Presbyterian Ladies College  
 MAIN CONSTRUCTION COMPANY : Kane Constructions  
 ARCHITECT : Cox Architecture  
 STRUCTURAL ENGINEER : Wood & Grieve Engineers



## A GRAND PERFORMANCE

The new PLC Performing Arts Centre will provide an iconic state-of-the-art music and drama facility, incorporating a 550-seat auditorium, three large rehearsal rooms, drama classroom, and multiple studio teaching spaces. The PLC Performing Arts Studio will allow students to reach their full potential within an architecturally inspiring environment, that is like no other.

**Kane Constructions has been working on the PLC Performing Arts Centre in Melbourne, a 550-seat auditorium project that is significant in scope and size says Contract Manager, Andrew Winn.**

“Having an orchestra lift is pretty rare for a school. That’s something you’ll find in premier performance spaces in the city with international performances. We’re building an international standard acoustic space.”

Even before the contract was signed, the team went through the value management stage to try to meet the needs of the client.

“In the end we put forward about 150 elements including alternate design, materials and construction methods, of which, approximately half were incorporated into the project. That’s not unusual – we’re doing that a lot lately right before we win a project,” he said.

“I don’t believe we won it purely on one particular facet. It was a combination of price, our system and the quality of previous builds that also include specialist auditoriums and music halls,” said Andrew.

Soon after winning the PLC construction contract it was down to work with the shop drawing process and engaging temporary works engineers to formulate how they were going to build the job.

“With the initial design, they expected we’d be using tower cranes, but to expedite the project, we built it using mobile cranes and accessible equipment which was done throughout our construction methodology. We used the time before we started onsite to get as much engineering and contract letting as possible so we could hit the ground running.”

Kane continued to be involved in the structural design during the shop process and the same for the architectural design to work out the joint and façade layouts.

“For us it’s not full on design, but discussing so we can tweak details that will still look great, but might function better.”

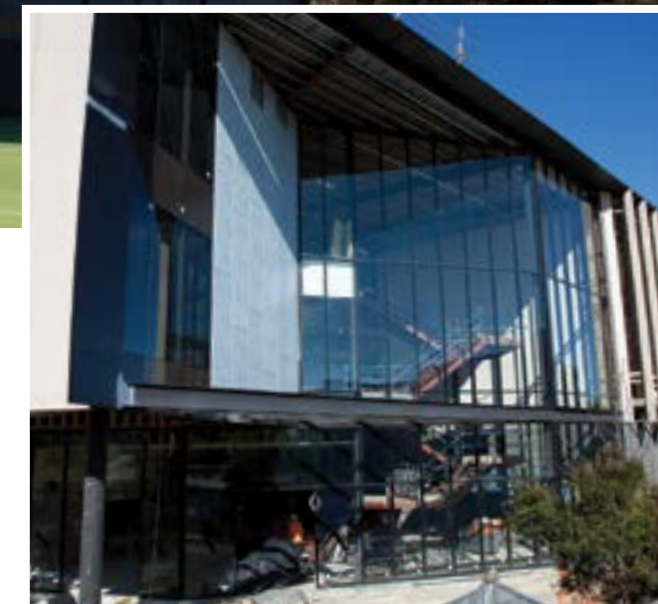
Kane drew on 15 of its 330 management and structure foremen from January 2015 until November 2016.

Challenges included very wet and windy weather which meant 280 hours of delay recorded by mid-September, so outdoor trades struggled. Precast panels were used for some of the structure, but the rest of the cladding had to be done on site.

“The job’s very tight physically in amongst the school building, hockey pitches were not allowed to go on, netball and tennis court we can only go on certain times of the year. We’ve had to use some very large cranes to put in very small items, 50m from the nearest access point,” said Andrew.

“There were many bespoke acoustic details including an auditorium within the building that had to be built separately to the main building structure to ensure no sound transfers in or out of the auditorium. Concrete floors were jacked up post pouring to have a 100mm acoustic gap between the structural slab and the final floor slab,” he said.

Founded in 1973, Kane Constructions is a multi-award winning and privately owned commercial construction company highly achieving in all sectors of the industry. With a turnover in excess of \$600 million,



Kane operates throughout the east coast of Australia and overseas from offices in Melbourne, Sydney and Brisbane. Its strengths are taking a team approach highlighting collaboration.

Marquee jobs Kane have completed include the Geelong Library and Heritage Centre, RACV Torquay Resort, University Hospital Geelong, Epworth Richmond Lee Wing Main Works, University of Melbourne Arts West Redevelopment and Aquanation. They are now working on RACV Cape Schanck Resort, Simonds Stadium Stage 4 Redevelopment Main Works and Melbourne Grammar School Science and Technology Hub.

**For more information contact Kane Constructions Pty Ltd, Level 1, 658 Church Street, Richmond VIC 3121, phone 03 8420 1200, fax 03 8420 1201, website [www.kane.com.au](http://www.kane.com.au)**





## CASTING THE VISION

Vision Precast was established seven years ago to specialise in precast concrete forms, supplying to a wide range of Victorian and interstate clients. They range from small builders to first-tier contractors on some of the largest projects Australia-wide.

Its two directors and key management have more than a century of experience specialising in architectural panels.

“We work with numerous architects and developers to design and come up with new building methods and concepts for prefabricated concrete,” said Joe Pinto, a Director of Vision Precast.

“We achieve planning requirements, for example, we achieve heritage requirements from our heritage in brick snaps – bricks that we imprint into our precast panels which gives you 99% of a brickwork-look and achieves all structural requirements, without the labour issue and scaffolds.”

The company employs 27 people, all of whom worked on the PLC Performing Arts Centre project from November 2015 until the end of August 2016. Vision Precast was invited to tender for the work and hadn't worked for Kane before.

About 150 architect-designed concrete panels, each weighing about 12 tonnes and measuring 1,500mm wide by 11m high, were manufactured in Vision Precast's Brooklyn plant. Each panel took about eight hours to make.

“They're each a one piece construction, especially hand-boxed. We didn't use machines to box these up. They have aggregate stone and pink, white and beige colours and we had to achieve either a sandblast finish or a normal finish,” said Joe.

Vision Precast designed a lifting system then worked with the principal contractor to supervise another subcontractor who installed the panels.

The most challenging part was to 'achieve the architect's end result.'

“The precast panels have what we call an arrow head on one side. We had to fabricate a special mould on one side and had to come up with 10 different moulds for the architect to choose one. It took a lot of planning and design to come up with what they needed,” said Joe.

For more information contact Vision Precast, 18 Jones Road, Brooklyn VIC 3012, phone 03 9314 6939, fax 03 9593 1780, email enquiries@visionprecast.com, website www.visionprecast.com



## SWITCHING IT ON

CR Electrical Services is a specialist electrical services business for the education and aged care sectors.

Their services cover electrical repairs, maintenance and setup, CCTV and security systems, fire systems, exit and emergency systems, thermography, compliance, auditing, data and fibre, integration and energy efficiency, infrastructure, lighting control and audio/visual systems.

Director, Chris Richardson set up the company 15 years ago and now employs 16 people, 10 of whom are working on the PLC Performing Arts Centre project.

“We're doing all of the internal and external lighting, theatrical cabling, theatrical lighting, communications (data cabling), fire alarm, security system, access control system, main switchboard, distribution boards and general power,” said Chris.

“Labelling is crucial as there's hundreds of cables for the intercom, lighting, amplifiers for the auditorium and we're thorough. We've done work like this before, but this is by far the most complex.”

For more information contact CR Electrical Services, 241 Hendersons Road, Hastings VIC 3915, phone 03 9571 0049, (Chris) mobile 0417 389 258, email chris@crelectrical.com.au

