

a central courtyard, 140-person lecture space, stand-alone roof top plant, and sound masking system for the offices.

Housing a combination of schools under the College of Arts and Social Sciences, the sophisticated project includes teaching spaces, a central courtyard, a 140-person lecture space, stand-alone rooftop plant, two lifts, three stair cores, a sound masking system installed to all offices, and an impressive entrance lobby.

"Construction Control were awarded the contract following a competitive tender in the local market," said Sam Bond, Development Project Manager for Construction Control. "As a company we have extensive experience in delivering buildings for the ANU, and provide an experienced team to best achieve their end goals." The project reunites the schools disciplines from a dozen buildings spread across the ANU campus, back under one roof for the first time in over 50 years.

"The architect Hassell, inspected all the buildings that the school sits in, taking notice of the finishes, design and how they interact with the site," Sam said. "What this has resulted in is several nods to the campus, whether it be the balustrade design, the use of spotted gum or the finish to the can-light fittings."

Working closely with Hassell, Construction Control were able to enhance key elements to ensure they fit the function and aesthetic, including the use of a high gloss electro powder coat for the external facade.

"Originally specified to be polished stainless steel, the capital and maintenance cost for the material was high. Our proposed and visual mock up process resulted in a highly reflective, easily maintainable, on other projects they are specifying."

Working to a staggered timeframe allowed for a staged approval process; demolition of the existing building commenced in 2017 and main construction began in September 2018. Despite hurdles faced throughout the build - bushfires, hailstorms and COVID-19 - the site team of seven grew to a work force peak of 160 people, equating to 202,406 man hours overall.

Construction Control used a number of innovations to deliver a great building with an exceptional user experience. Prefabricated service risers were utilised to allow for one day installation instead of six weeks and a reduced risk to workers.

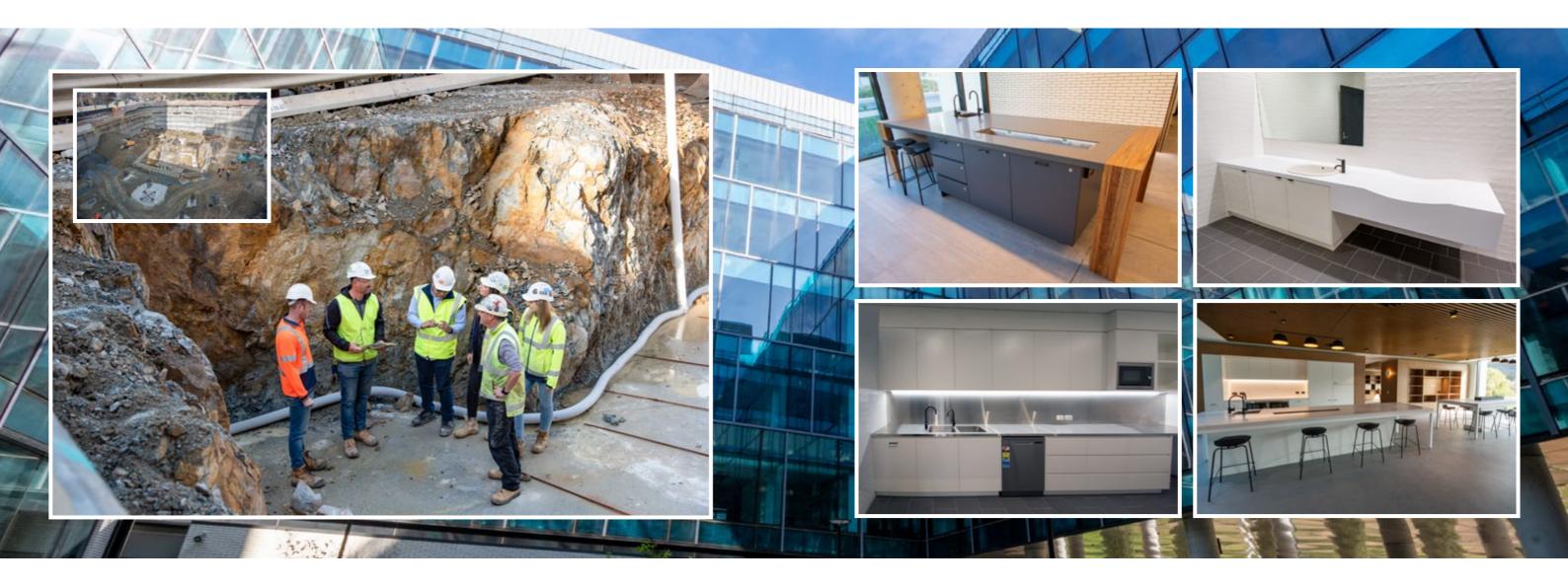
A sound masking system was also installed in all offices which produces white noise and limits the ability for someone to hear or understand conversations in the next room.

"The system uses microphones to determine the sounds and adjusts the white noise to suit. This service allowed us to remove all full height walls to the offices, improving construction efficiency but also allows for future occupant flexibility to remove walls," Sam said.

Foresight, collaboration and communication are central to the way Construction Control approaches project delivery and by rigorous reviews and focusing on the end user at RSSS, they were able to make efficiencies throughout development. "This project provided great opportunities for innovation and construction expertise. We explored numerous opportunities on this project and were able to deliver them within the tight project budget," Sam said.

For more information contact Construction Control, Unit 124, Level 1, 24 Lonsdale Street, Braddon ACT 2612, phone 02 6257 4775, website www.ccontrol.com.au

**Below** ACT Geotechnical Engineers conducted geotechnical investigations and provided specialist geotechnical advice and certification during construction.



The certainty of strong foundations is priceless when it comes to beginning a new building project. The team at ACT Geotechnical Engineers have been providing geotechnical engineering services to construction developments in the Australian Capital Territory and southern New South Wales with expert assurance since they began operations in 1994.

Specialising in conducting geotechnical investigations and providing specialist geotechnical advice and certification during construction, they were involved with the recent ANU Research School of Social Science build with a team of five staff undertaking the work.

"For this project we first conducted a geotechnical investigation as part of the design process," said Director and Senior Geotechnical Engineer, Jeremy Murray. "This was done to determine the ground conditions so that footings could be designed to suit the site."

The team drilled cored boreholes up to 10m in depth using a drill rig. It took around half a day to drill each borehole, with the full investigation taking about a week to complete. "We were trying to establish what the ground conditions were. Specifically, the presence of uncontrolled fill, soil profile, depth and strength of bedrock,

and the depth to groundwater," Jeremy said. With no concerns, the build was able to proceed and the team's focus turned towards supervision of the earthworks and ongoing certification that the footings were founded in suitable bedrock.

"Throughout construction, we supervised and certified all phases of earthworks, including verifying geotechnical conditions, inspection and approval of soldier pile footings, pad/strip footings, proof-roll for road sub-grades, inspecting excavation batters for stability, assessing foundation for concrete pumps and mobile cranes and more," he said.

With a vast portfolio of commercial and residential projects in Canberra and surrounds under their belts, ACT Geotechnical Engineers are now expanding into Sydney through a new company called Fortify Geotech. Providing the same reputable level of service and expertise, Fortify Geotech will tailor practical engineering solutions to residential, commercial and industrial developments.

For more information contact ACT Geotechnical Engineers, phone 02 6285 1547, website www.actgeoeng.com.au

For Sydney contact Fortify Geotech, phone 02 9188 4033, email Jeremy@fortifygeotech.com.au, website www.fortifygeotech.com.au

Capital Veneering specialises in commercial and residential joinery, as well as stunning custom made furniture and veneer pressing.

With 20 years in business and a huge team of more than 70 staff, Capital Veneering has a wealth of knowledge and experience to draw from.

Known for a focus on innovation and attention to detail, their involvement on the ANU development was also due to a reputation for meeting schedules without compromising on quality.

"Our scope was to supply and install custom joinery for the new Research School of Social Science," explained Ben Madden, Managing Director of Capital Veneering. "Over the course of around 16 months, we met the needs of the project thanks to our team of skilled craftsmen and a commitment to exceptional outcome delivery."

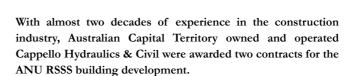
Employing state-of-the-art software and first class machinery allowed the team to produce ground breaking joinery solutions for the huge development, but this extends to all their clients: builders and architects, as well as private, government and commercial customers. Innovation centring around unique design and bespoke installations was evident in the ANU build. "We used materials including steel, Corian and recycled timber throughout," Ben said, which adhered to the design aesthetic of raw textures and burnished materials for the private and open plan offices and communal spaces featuring shelving, cabinets and storage options.

Capital Veneering are an award-winning firm recognised throughout the industry for their work. Some of their accolades include the Master Builders Excellence Awards in 2019 for Best Kitchen Project over \$30,000 and in 2018 for Best Bathroom Project over \$30,000. They have also been recognised at the HIA-CSR ACT Southern NSW Housing Awards in 2018 for the Kitchen of the Year.

Other current projects they are working on include the contemporary Republic Apartments in Belconnen with Geocon, and the impressive Adina Apartment Hotel Grand at Constitution Place with Construction Control.

For more information contact Capital Veneering, Unit 3-4, 67-71 Bayldon Road, Queanbeyan NSW 2620, phone 02 6299 1557, email info@capitalveneering.com.au, website www.capitalveneering.com.au





The first was for bulk and detailed excavation including external civil works, and the other was for the landscaping package. Both contracts had multiple facets that needed completion.

"The bulk and detailed excavation component involved excavation of the site to the required level and preparing it for the installation and construction of the building's structural system," said Cappello Civil Operations Manager, Alex Paunovic. "It also included the coordination of a temporary access and material handling zone, detailed excavation and construction of an apron hardstand slab to the ActewAGL substation."

External civil works involved the improvement of Ellery Crescent and the driveway ramp to Melville Hall, while the landscaping side of the project incorporated the installation of concrete pavers and bleachers; garden beds and plants; tree pits and trees; footpaths; grassing and turfing; as well as an irrigation system.

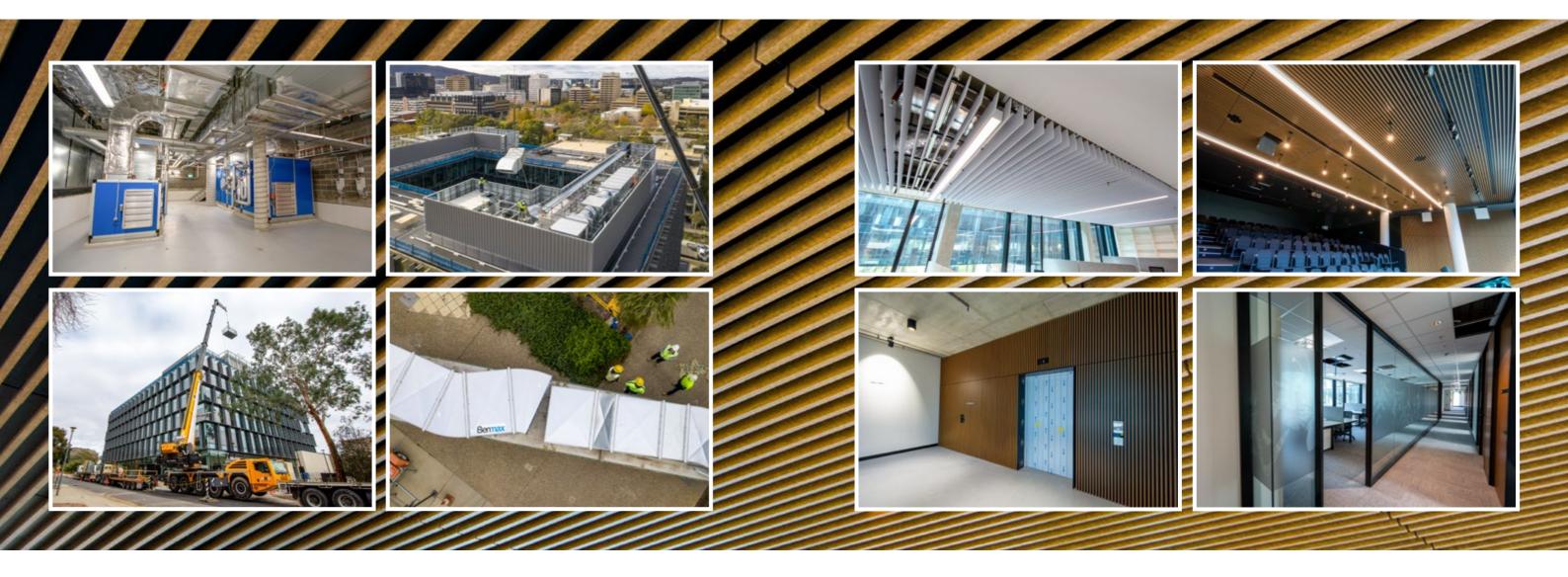
Cappello completed excavation works in 2018 and came back for landscaping in 2019 through to July 2020. "Over that time we had to implement traffic control and management along Ellery Crescent as students were always near the site," Alex explained. "We also brought in dust, noise and vibration mitigation devices to minimise the impact on any neighbouring occupied buildings. This was ramped up to cope with COVID-19 measures during site works."

Due to site constraints throughout the build, the delivery of materials, plant and truck movements needed to be properly managed and coordinated with the client and other trades. Safe working systems are a priority at Cappello. "Our health and safety policies, our high quality assurances, as well as our environmental policies are always integral to the way we do business," Alex said.

Boasting an extensive client base covering government and private sectors, the Cappello staff are also supported by a highly experienced team of subcontractors to ensure reliability and success every time.

For more information contact Cappello Hydraulics & Civil, 3/57 Dacre Street, Mitchell ACT 2911, phone 02 6242 9420, email admin@cappello.com.au, website www.cappello.com.au

**Below** Benmax designed, manufactured and installed 7-floors of HVAC services with an exposed rooftop plant room.



Benmax provided heating, ventilation and airconditioning (HVAC) to the new ANU Research School of Social Sciences facility. Benmax started works on the project in March 2019, however planning and design was taking place well before this date, and it was these preparations and planning that enabled Benmax to supply a high quality service to the project.

"Our scope was to provide 7-floors of HVAC services with an exposed rooftop plant room," said Benmax Site Supervisor, Alex Lawder. "We had the pleasure of pushing prefabrication inside our company for this project. Two of the large modules were built in separate pieces and joined together onsite, each totalling 4,500mm in width, 2,250mm in depth and 24m in length. This equates to 7 tonnes worth of duct, pipe and frame."

The team installed seven completely different riser modules through the building, including duct risers, pipe risers and multi-service risers.

"The best part was that not one of our workers entered an open riser, minimising the risk of injury to our team." With a crew of Benmax staff and subcontractors as high as 25-30 onsite at any time, this is testament to the value they place on safety and stability.

Through a combination of offsite construction in controlled environments and innovative practices, the team were able to cut back on the number of hours onsite for installation, improve delivery time frames, as well as provide a higher level of productivity and quality control.

"Benmax pride ourselves on delivering an immaculate product for all of our clients," Alex said. "We are most definitely proud of the bulk prefabrication and innovation we've had the pleasure of installing on this project. We have continually pushed the boundaries with what we are capable of and proved ourselves each time."

The main challenge faced was a huge hailstorm which smashed through the precinct in January 2020, meaning they had to disassemble the exposed rooftops plant rooms for replacement of any damaged equipment and roof structure, but it was nothing the Benmax team couldn't overcome.

For more information contact Benmax, 33 Hincksman Street, Queanbeyan East NSW 2620, phone 02 6122 3800, email tenders@benmax.com.au, website www.benmax.com.au

Once an external build tops out, it turns to the contractors completing the interiors to really bring the project to life. Quattro Building Services completed the huge task of installing the internal fitout including the partitions, feature ceilings and wall linings, as well as doors and hardware.

Working from the architectural finishes schedule, Quattro procured the specified material via local suppliers throughout Canberra and New South Wales, then set about completing the installation for the entire 7-storey building.

"We started in March 2019 but throughout the project there was so much going on. We had bushfires where we had to monitor the air for smoke and exit the site, as well as a hail storm which caused some damage to our products," said Quattro Building Services Director, Sean Taylor.

"We pushed the numbers of the onsite crew up when we were under the pump after the delays – around 30 workers at the peak – but we knew we could meet that need and we got the job done."

It was the company's adaptability and out of the box thinking that also helped reduce costs for the client along the way.

"The original product for doors was way too expensive, so we provided an alternative and used a stain to darken to colour it to what they wanted. We were able to give them an alternative that they were happy with," explained Sean. They also opted for medium density fibreboard for the perimeter bulkheads instead of plaster to assist with the installation of blindfolds. "It was a quick switch and everyone was happy," Sean said.

Founded by two brothers qualified in commercial carpentry, Sean and Daniel Taylor, Quattro Building Services specialises in commercial spaces and pride themselves on superior service.

"For each project that we take on board, we feel a responsibility to deliver 100%. The buck stops with Daniel and myself, even though the name says Quattro. We take it personally and strive to do the best we can to get the job over the line."

For more information contact Quattro Building Services (ACT), 34 Stephens Road, Queanbeyan NSW 2620, phone 02 6299 3613, email admin@quattrobuilding.com.au





The new ANU RSSS building provides an environment to teach, research and study for over 700 staff and students, and for this reason a robust audio-visual system was required. MNGD specialises in the design, installation and maintenance of AV technology and was engaged to supply, install and program the systems needed throughout the learning and teaching spaces in the new building.

"In collaboration with consultants Learning By Experience (LBE) and head contractor Construction Control, MNGD were able to successfully deploy systems for three large teaching spaces, 14 meeting spaces, a breakout space, and six digital signage displays," said MNGD Director, Josh Chircop.

A combinable lectorial space was given alternate floor box locations, allowing the lectern and other portable equipment to be relocated and adaptive to the teaching environment required. The multipurpose auditorium was also given alternate floor boxes for manoeuvrability. Smaller meeting spaces support BYOD connectivity through wired or wireless capabilities, as well as video conferencing. "The audio-visual systems installed include an impressive 61 speakers, 26 Panasonic displays and projectors, 29 Crestron NVX devices and 18 user control interfaces," Josh said.

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Many external forces required the project timeline to be responsive and adapt, resulting in a constantly changing project timeline, as well as warranty knock-on effects. Josh and his team enforced high level communication between all stakeholders to coordinate through the changing timelines. Each situation was assessed, and a strategic plan was put in place to ensure complete transparency to minimise further delays.

"This allowed MNGD to act in an agile manner, able to pivot at short notice with the project's changing lifecycle," Josh explained. "MNGD's policies for procuring equipment early and use of local offsite storage facilities allowed for the ease of installation when appropriate opportunities of time opened. MNGD's extensive network of AV technicians allowed for an 'all hands on deck' approach to ensure equipment was installed efficiently during these short timeframes."

Their adaptation and ability to action items in a constantly moving environment instilled confidence and allowed each stakeholder to focus on the larger tasks at hand. As a result, the client's expectations were exceeded even with the delays.

For more information contact MNGD, phone 1800 717 474, email hello@mngd.tech, website www.mngd.tech.