

The WORKS

Summer Edition 2018

McMAHON
SERVICES

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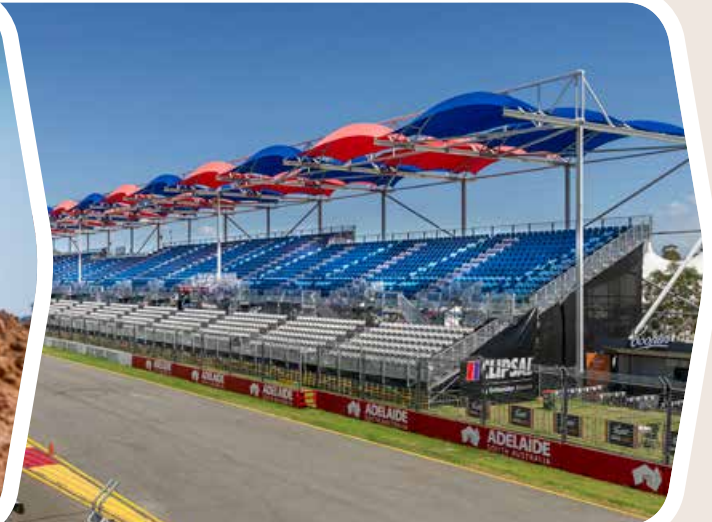
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Directors MESSAGE



Above: Managing Director, David McMahon and Director, Andrew McMahon

LOOKING BACK ON 2017, IT HAS BEEN OUR BUSIEST YET AND WE HAVE COMPLETED SOME OF THE HIGHEST RISK CLASSIFICATION PROJECTS EVER UNDERTAKEN IN OUR 27-YEAR HISTORY.

Most notable of these would be the work we are undertaking for Flinders Power for the Port Augusta Power Stations Decommissioning. Eighteen months of demolition and remediation works for a combined 824MW of power station assets came together on the 9th November with the felling of two 10,000t structures – one of the largest explosive charge felling events ever to be undertaken in Australia.

2017 saw the formation of McMahon Services' Road and Infrastructure Group, our newest operating unit established to respond to transport sector projects, predominately in road construction. The Road and Infrastructure team will operate as a distinct service line within the Civil Group, complementing McMahon Services' extensive portfolio of civil construction projects.

The Asbestos team led several of our high-risk works for blue chip companies in the petrochemical, mining and heavy industry sectors, and completed our first New Zealand project for Auckland's Museum of Transport and Technology (MOTAT).

Early in the year we established a permanent office in Sydney consolidating our operations in New South Wales. During an extremely busy twelve-month period, we delivered significant works for local clients in the Defence, food and beverage, education and utilities markets, and our local team has grown from five to thirty employees as a result.

We also opened a Melbourne office to support the consistent pipeline of work we have serviced in Victoria for many years, predominately for companies operating in high-risk industries. The establishment of our Victorian office came at a good time, allowing us to enter into a partnership with our Indigenous civil and building sister company Intract Australia, to deliver housing maintenance services for 1,370 properties for Aboriginal Housing Victoria.

Intract Australia also experienced growth in 2017 securing a significant number of new projects for the Department of Defence in South Australia and the Northern Territory.

A key growth area for the business has been the food and beverage sector, where McMahon Services has completed several challenging and complex projects for clients across Australia. Our outstanding delivery in this area resulted in the formation of our national Strategic Alliance Delivery Model with Lion, to provide construction management services for future and ongoing capital upgrade projects.

Of critical importance to our company and the industries we work in is the health and safety of our employees, our clients, the public and the communities where we work. Our Work, Health, Safety, Environmental and Quality (WHSEQ) team implemented some great initiatives and delivered outstanding results this year. Amongst their many achievements, WHSEQ finalised our Federal Safety Commission Scheme certification for McMahon Services' Northern Territory operations, brought our Melbourne, Townsville and Karratha offices into our AS/NZS and ISO accreditation umbrella, and our Safety Focused Personal

Assessment tool, SLAM, was also rolled out to great success across all operations.

2017 has been another year of significant investment in the business with a \$15 million expansion in our plant and equipment fleet. This has included an expanding, industry leading plant management and maintenance team and workshop facilities. Technology has been a key focus with over 25 major items in our earthmoving fleet being fitted with total station automated machine control systems.

An important focus for the company in 2018 is to improve our performance in terms of gender inequality. We are taking practical steps to combat our industry's gender inequality challenges as we strive to create a diverse and inclusive work culture.

In summation, we are proud of our achievements in 2017. We can attribute this success to our growing workforce which has never been bigger, that currently sits at 630 and this number is growing every week. Our people work hard, sharing the goal of achieving exceptional outcomes for our organisation and our clients.

Lastly, we thank our clients for their support and opportunities this year, and look forward to strengthening our relationships and continuing to achieve great things in the year ahead.

David McMahon
Managing Director

Andrew McMahon
Director



60 YEARS OF FAMILY CONTRACTING TRADITION



of family contracting tradition

THIS YEAR, MCMAHON SERVICES AUSTRALIA CELEBRATES 60 YEARS OF FAMILY CONTRACTING TRADITION.

It all started on Monday, 30th January 1957, when Norwood Football Club ruck-rover Glen McMahon and wife Barb formed the G.F. McMahon Transport company, specialising in logistics and storage services.

In its early days, the family-owned business delivered local haulage operations to and from Port Vincent and Adelaide, and quickly grew to support much of the Yorke Peninsula.

In 1970, Glen and his wife Barb moved from Port Vincent to Adelaide where Glen started a waste collection company called McMahon Waste.



Glen decided to expand into demolition in 1974 and established G.F. McMahon Demolitions. The business grew rapidly and quickly became one of the larger demolition and asbestos removal companies in South Australia.

In keeping with family traditions, Glen's sons David and Andrew McMahon founded McMahon Services in 1990.

Starting with just 12 employees, McMahon Services have grown to over 630 employees with offices in South Australia, Queensland, Western Australia, Northern Territory, New South Wales and Victoria.

Today the company delivers projects in every state and territory in Australia, from remote outback regions to city centres and have completed projects with a combined value of more than \$3 billion.

Managing Director David McMahon said, "The event marks a significant milestone in our family's history. Our values stem from our beginnings as a small family business and our traditions have remained constant over the years, irrespective of growth."

"Tough times brought us together and united us. I see this as a great achievement because the same family traditions that pulled us together then are still strong today. Our family business heritage sets us apart, enabling consistent, exceptional project delivery. Construction services are in our blood."

Three generations of the McMahon family are employed across the businesses, with David's and Andrew's sons Tom and Hugh McMahon also working at times for the company between study.

Glen McMahon said of the 60-year milestone, "My approach has always been to be tough but fair. I fostered this attitude in my sons and the people that worked for me. You just had to get the job done, no matter what, and understand that your people are everything."

'Starting with just 12 employees, McMahon Services have grown to over 630 employees'



GAWLER CAMPUS ASBESTOS REMOVAL TAKES FLIGHT

**GAWLER AND DISTRICT
COLLEGE IS A BIRTH
TO YEAR 12 (B-12)
GOVERNMENT SCHOOL
CATERING FOR OVER
1,200 STUDENTS.**

The College identified Corella birds were damaging the asbestos roofing of one of the school buildings and associated plant room, containing Category 2 asbestos materials. They quickly engaged with the Department for Education and Child Development to remediate the situation, placing critical importance on protecting staff and children from any potential asbestos exposure that might occur.

Spotless Facility Services promptly engaged McMahon Services to undertake the remediation works. A team was required on site within one week to remediate all asbestos within a two-week period during the upcoming school holidays. McMahon Services responded immediately and mobilised to commence work one week later in time for the term break.

McMahon Services' scope of work included the asbestos removal of 1600m² of roofing and 100m² of cladding containing non-friable asbestos. Before works commenced the internal surfaces of the building were encapsulated in protective 200µm plastic sheeting. The plant room was physically connected to the school building so remediation works were undertaken on both facilities simultaneously.

Electrical systems were isolated during the works except for a server, which had to remain operational during the remediation works. A timber frame was construction around the server and it too was encapsulated. A negative air fan with a HEPA filter attachment ensured that the air inside heated by the server operations was forced out ensuring that the server operated within its design temperature ranges at all times. Fire services remained operational in both buildings and all works were conducted around this live system.

Both the school building and plant room asbestos roofs were removed and replaced with new roof sheeting, and cleaned of asbestos containing materials. Cladding and the ceiling in the plant room were also replaced and cleaned. Works were fast-tracked by stacking removed sections on the roof and encapsulating them in protective 200µm plastic sheeting, work that would normally be conducted on the ground. This allowed for a single crane movement lifting the encapsulated asbestos sheeting directly into bins. All asbestos was trucked to EPA licenced asbestos receiving stations.

All McMahon Services roofing and cladding specialists are qualified asbestos technicians, and therefore were licenced to deliver roofing works concurrently with asbestos removal works, significantly reducing the delivery program time frames and adding flexibility to the program.

Workforce peaked at 25 personnel with an average workforce of 12 required to deliver the works over a two week period. Approximately 95% of the works were self-performed by local McMahon Services personnel with the only subcontracted work being crane hire and air monitoring.

'95% of the works were self-delivered'



SHOWCASE FIT-OUT FOR PROMINENT TOYOTA SHOWROOM

**McMAHON SERVICES
WERE SELECTED BY
PROJECT SUPERINTENDENT,
MATTHEWS ARCHITECTS,
TO DELIVER THE FIT-OUT
WORKS AT THE CMI TOYOTA
GROUPS NEW SHOWROOM
ON WEST TERRACE, IN THE
ADELAIDE CBD.**

Fit-out works covered the purpose-built new vehicle delivery area within a three level car park, which allowed for the CMI Toyota Group to provide a showroom environment to deliver and present new cars to existing clients and prospective buyers.

Project scope comprised of five main elements:

- ▶ Reconfiguration of the existing fire services
- ▶ New Hunter Douglas 'Luxalon' baffle ceiling grid
- ▶ Floor coverings
- ▶ Electrical and data services
- ▶ Painting.

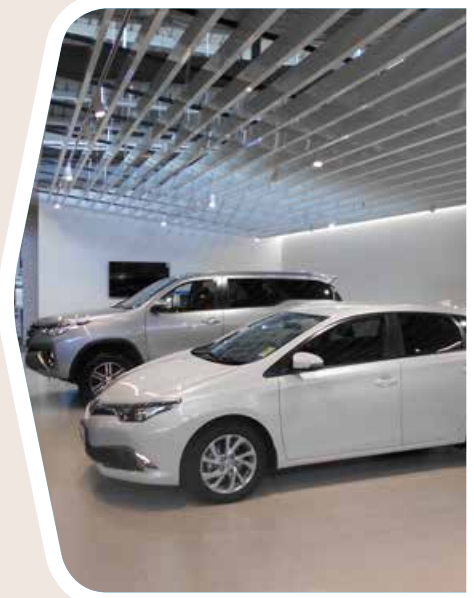
Works included the relocation of the existing fire detectors and sprinklers to suit the new layout of the ceiling. The sprinkler droppers were extended in order to protrude below the baffle ceiling grid in accordance with Australian Standards. New fire extinguishers were supplied and installed to each of the new partitions of the delivery area.

The new vehicle delivery area incorporated a specialised ceiling to cover the existing exposed roof sheeting. The Hunter Douglas 'Luxalon' baffle ceiling grid was installed, with the raked ceiling grid supported by ceiling hangers that were attached to the existing z-section roof purlins. The ceiling composed of racked square hollow section louvers, located 300mm apart with strip lighting and spot lights located between them.

'Toyota White Soda' floor tiles were installed to match the ground floor showrooms, with a threshold strip installed at all junctions between the existing concrete floor and the new tiled area. It was further enclosed with new partition walls, painted white to match the downstairs showroom. The project team also installed three large television screens, linked to the central data network, enhancing the presentation area.

Daily meetings with the CMI Toyota's Facility Manager ensured all works onsite were in accordance with CMI requirements. In order to minimise disruptions to the CMI Toyota daily operations, all works were carried out whilst maintaining free access to the adjacent driveway.

McMahon Services coordinated the delivery of materials to site between the hours of 7:00am and 8:00am to avoid conflicting schedules with CMI Toyota and affecting their 'rush' periods.







27,000 SEATS IN NINETY DAYS AT ADELAIDE 500 V8 SUPERCARS AND AUSTRALIAN GRAND PRIX FORMULA 1 EVENTS

OUR NEWEST DIVISION, MCMAHON SERVICES EVENTS, HAS RAPIDLY TAKEN TO THE TEMPORARY EVENTS INFRASTRUCTURE MARKET, SECURING NUMEROUS CONTRACTS FOR SOME OF AUSTRALIA'S LARGEST SPORTING AND ENTERTAINMENT EVENTS.

Two of those events are the Adelaide 500 (formerly Clipsal 500) V8 Supercars for the South Australian Tourism Commission and the 2017 Formula 1® Rolex Australian Grand Prix in Melbourne. In just a few months, McMahon Services Events installed over 27,000 seats in nine grandstands in under 90 days, all of which had to be quickly disassembled again when the events were complete.

Chris Plumb, Manager of the Events Division, said he was proud of the achievements of the teams on both sites. "Works were conducted in the heat of summer, with tight timeframes, access and traffic management conditions. Despite these challenges, builds on both sites were completed well ahead of the events official openings. They achieved the equivalent production rate of installing one seat every two and a half minutes.

"For Adelaide 500, the temporary seating structures were dismantled two weeks early. No supplier before us has ever achieved that.

"Works for the 2017 Formula 1® Rolex Australian Grand Prix were conducted simultaneously with the Adelaide 500 event. Our Melbourne team of seven completed works four days ahead of schedule which saw them secure a variation order to erect an additional grandstand."

Chris noted that these events have presented an additional opportunity for other McMahon Services divisions. "We are well positioned to set up our own corporate stands at these events for both clients and staff, directly showcasing what we are capable of, because the structures we build are right in front of our client's eyes."

The scaffolding and seating structures are fully dismantlable, and can be quickly and easily transported to any location in Australia.

"For much of the summer months McMahon Services' Events team is committed in delivery of major events and for many years with long term contracts secured," said Chris. "We're now investigating other events across the country so we can provide full coverage for our seating assets for all seasons.

"Considering that the Events division only started late last year, we are extremely proud with progress to date, securing other major contracts such as Melbourne Comedy Festival, the Credit Union Christmas Pageant, Australian Motorcycle Grand Prix, Apia International Tennis, the Santos Tour Down Under, and the Supercars Championship events in Hidden Valley, Phillip Island and Symmons Plains."

The McMahon Services Events team are currently gearing up for their second debut at the Adelaide Christmas Pageant, with 2018 set to be a big one for the team with the second installment of the Santos Tour Down Under in January and the Adelaide 500 in March.



AUGUSTA POWER STATIONS DECOMMISSIONING



The Augusta Power Stations are located on the tip of the Spencer Gulf, and have provided the South Australian and National Electricity Market with power since 1954. The stations included the 90MW Playford A Power Station, the 240MW Playford B Power Station, and the 544MW Northern Power Station. Generation was secured through the sole supply of coal from the Leigh Creek Coalfields. Coal was delivered to the power stations via a 250km dedicated rail line.

On 9th May 2016, the Augusta Power Stations generated power for the last time and was then disconnected from the power network, ready to commence the demolition and decommissioning of the facilities.

The decision to close the Augusta Power Stations was made at the conclusion of a detailed Alinta Energy Board strategic review. During this process Flinders Power consulted extensively and investigated a range

of options with key stakeholders, including the South Australian Government.

In September 2015, Flinders Power entered into an eight month collaborative planning period with McMahon Services on how best to demolish, asset salvage and decommission the three power stations and associated assets.

The two companies then entered into a formal alliance contracting arrangement to create a single team working unanimously, collaboratively, cooperatively and acting in good faith to make best-for-project decisions. Early works documentation and planning was undertaken between October 2015 and May 2016 working with Flinders Power during the final operations and shutdown period.

McMahon Services mobilised to site in June 2016 and the first demolition works commenced shortly thereafter.

Scope of Work

Scope of works comprises the decommissioning, asset salvage and demolition of the Playford A, Playford B and Northern Power Stations and associated infrastructure.

Playford A and Playford B Power Stations deconstruction works include isolation of power, hazardous materials removal, demolition of conveyor structure, fell protection and charged felling of stacks, office internal strip out and demolition, maintenance workshop internal strip out and demolition, mechanical demolition of the power stations and basement backfills.

Northern Power Station deconstruction works include de-energising and make safe, hazardous materials removal, asset reclamation, local and international auctions, explosive charge felling and mechanical demolition. Two 270MW turbine



generators were progressively dismantled using overhead gantry cranes with lifts ranging up to 60t. The station demolition included seven planned explosive charge felling events including the two 10,000t hanging boilers and the adjacent 200m high stack. The 102t 275kV transformer will be the largest single reusable asset to be salvaged, relocated and re-commissioned.

Once demolished, the Augusta Power Stations will produce approximately 50,000t of ferrous and non-ferrous scrap metals which will be sold as lotted assets on open national and international markets. An anticipated 35,000m³ of concrete will be demolished, pulverised, tested and approved by an independent environmental audit and recycled across the project.

Charge felling

Felling works include the Playford A, Playford B and Northern Power Station Stacks ranging in height from 80m to 200m, two 80m high hanging boilers and structural steel columns up to 2m in section. Appropriate land and sea exclusion zones were established and are strictly enforced by the SA Police and security contractors, ensuring personnel and public safety.

A major charged felling sequence involved two 10,000t structures demolished on 9th November 2017 using charge-cutting explosives, one of the largest explosive charge felling events ever to be undertaken in Australia.

Community and Stakeholder Engagement

The Alliance provides regular project updates to workforce and local community in the form of newsletters, regular face-to-face meetings with local Government authorities and emergency services, as well as frequent project status reports to stakeholders and regulatory bodies. A detailed Stakeholder Management Plan allows for the open and effective communication between the Alliance and all project stakeholders. Flinders Power also has an established Community Reference Group that meets monthly. Open days for the community provide an opportunity for residents and ex-workers to come and see progress.

ASH STORAGE AREA REHABILITATION WORKS

WHILE THE AUGUSTA POWER STATIONS REMAINED OPERATIONAL, A BY-PRODUCT OF THE POWER GENERATION PROCESS WAS COAL COMBUSTION RESIDUALS OR 'ASH' PRODUCED IN LARGE QUANTITIES.

The ash required ongoing storage and management to minimise its impacts on the local environment and community and to contain the ash within the power station land. Historically ash was mixed with seawater pumped from the Spencer Gulf to form a slurry that was then discharged into a series of retaining basins called the Ash Storage Area. While the Augusta Power Stations were operational, the seawater slurry method ensured that moisture allowed a salt crust to form on the ash surface and therefore prevented dust being generated during windy conditions.

Built progressively since the 1950s, the Ash Dam was designed so slurry would be deposited at its southern end and the particles would progressively deposit as the seawater slurry flowed north.

When the power stations ceased operations on 9th May 2016, the slurry mix no longer 'benefited' from the addition of ash and therefore the levelling salt crust was not developing as effectively. This created the potential for dust generation and the development of erosion. This was a concern to Flinders Power as well as various stakeholders including the Environmental Protection Authority (EPA), particularly because of the site's close proximity to the townships of Port Augusta and Stirling North and the wider Port Augusta community.

Scope of Work

Flinders Power and McMahon Services worked collaboratively to come up with a successful approach to remediating the Ash Dam. The first stage required covering the Ash Dam with a liquid dust suppressing concentrate called Vital

Bon-Matt Stonewall. Diluted in water in concentrations of 10%, the Vital Bon-Matt formed a strong, flexible and long acting surface coating, penetrating and binding the surface of ash. The chemical provides an environmentally sound, immobile formula, free of heavy metals, minerals or solvent.

Application was not possible using traditional water trucks as the geotechnical properties of the ash meant such large vehicles would sink due to their high-ground pressure wheels. McMahon Services engaged aviation contractor Aerotech to provide an Air Tractor (AT) 802 single engine fire-bombing aircraft with a pilot to evenly distribute the suppressant across the Ash Dam. Approximately 3,100L of Vital Bon-Matt solution was distributed with each run. The suppressant was dyed with green food colouring providing a clear indication of areas covered. The process enabled 212ha to be covered in what is believed to be a first in Australia.

The second stage required covering the Ash Dam with 150mm of material composed of a sand and clay blend sourced from a borrow pit approximately 1km from the site. A combination of a D9 dozer with 30t and 45t excavators were used to load up to fourteen articulated dump trucks with the borrow pit material, which was then delivered to the Ash Dam. Several D6 swamped tracked dozers worked together with a D7 dozer concurrently to construct 4.0m wide by 0.5m high embankment fingers into a lattice arrangement across the site, allowing the cover material to be distributed evenly across the Ash Dam.

Like the water cart, ground pressures exerted from standard earthmoving dozers and dump trucks were too high to operate outside of the fingers that were constructed across the Ash Dam. To mitigate this, McMahon Services purchased a PistenBully 600 snow plough from the German manufacturers and then modified the wide-tracked, low ground-pressure vehicle to evenly spread out the soil clay blend across the site, reaching areas other plant and equipment could not. Additional low ground pressure,

swamp tracked D6 dozers were utilised together with the PistenBully to spread the borrow pit material using GPS inbuilt controls to a uniform depth of 150mm across the Ash Dam. Over 470,000m³ of borrow pit fill material covers the Ash Dam preventing future dust generation and providing a growing medium for vegetation to establish as part of the seeding works.

The final project stage was the seeding of the Ash Storage Area and Borrow Pit with Poaceae (grasses), Zygophyllum (arid and semi-arid flowering plants) and Chenopodium (non-woody stem flowering plants). Seeding was carried out in the winter of 2017 using mechanical broadcasting methods. Once established, the plant root systems will provide additional binding to the soil particles while the foliage will provide ground surface protection from the impacts of rain and erosion.



'Over 470,000m³ of borrow pit fill material covers the Ash Dam'

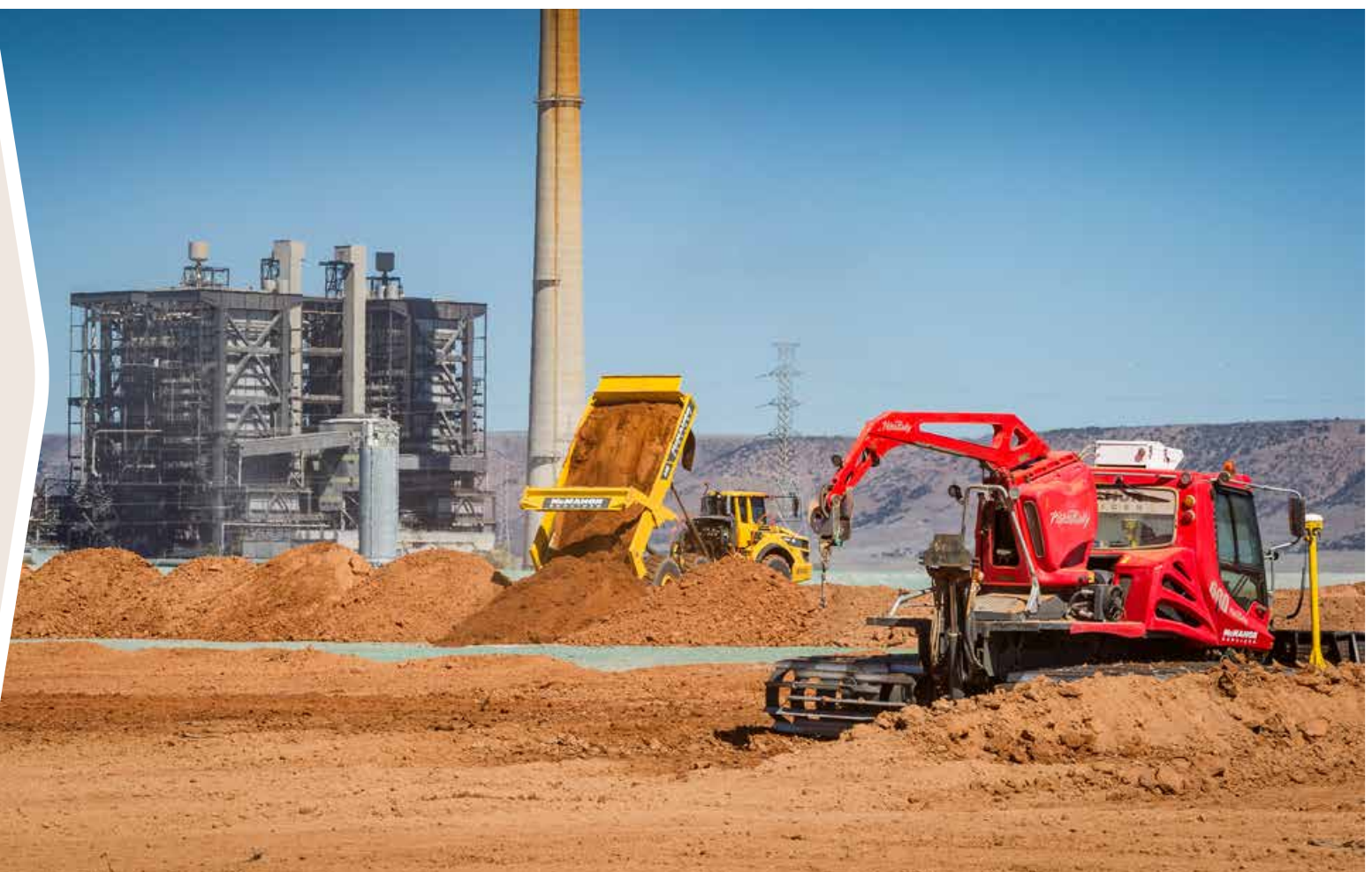


212HA

REHABILITATED

25,000

WORK HOURS
COMPLETED





BALLESTRIN

GOING FROM STRENGTH TO STRENGTH

THE PAST 12 MONTHS HAVE BEEN A GREAT SUCCESS FOR BALLESTRIN, MCMAHON SERVICES' CONCRETE CONSTRUCTION AND REMEDIAL SERVICES COMPANY, WITH UNPRECEDENTED GROWTH AND POSITIVE FEEDBACK FROM CLIENTS ACROSS A MULTITUDE OF PROJECT SITES.

Clifford Byrne, Ballestrin's Construction Manager, stated he was proud of his team's achievements over the last year. "The Ballestrin team have consolidated and achieved exceptional outcomes for our clients under challenging situations.

"I'm certain our exponential growth is because of the excellent client relationships we have achieved in this time, based on the quality of our project delivery."

Ballestrin has grown from 25 to 70 employees, who are delivering a multitude of projects predominately in South Australia with significant works in Victoria and Queensland. The

core management team has grown to eight, who are busy everyday providing operational and logistic support to all sites.

"We've had some great success stories at Port of Brisbane, the Department of Defence's Air 7000 project in Adelaide, and at the Nyrstar Smelter at Port Pirie," said Clifford.

The Port of Brisbane awarded the McMahon Services Queensland team with the contract to replace 600m of dilapidated rail at Wharf 8, with significant technical elements of the works being supported by Ballestrin. The project is ongoing and on track to be completed over a period of approximately six days across five mini-shutdowns.

"The Port of Brisbane deliberately timed shutdowns to minimise impact on port operations and were grateful for our ability to delivery within these constraints," said Clifford. "The positive outcome here may result in additional opportunities for Ballestrin on site."

Meanwhile, on the Air 7000 project located at RAAF Edinburgh in Northern Adelaide, Ballestrin are successfully delivering 12,000m² of exposed

Ballestrin.

aggregate pavements for the non-airside portion of the works, along with other concrete elements including workshops and roads.

"The onsite team came up with the innovation of bunding the pour area to trap spill water. When we presented the concept to the project superintendent, Lendlease, they liked the idea, and went for it immediately. The bund walls allowed for our Industrial Services team, led by Tony Beevor, to quickly and easily clean the water used in the exposure."

Further north, building on a 30 year relationship with Nyrstar, Ballestrin recently completed a fast-tracked project for concrete works at the Slag Caster in their Port Pirie Lead Smelter. Twenty highly-skilled concreters and formwork specialists worked day and night to achieve high quality finishes and met all program milestones requested by the client.

Feedback from Nystar's Project Superintendent, Peter King is that Ballestrin's work is exceptional.

FIRST BIG STEPS INTO VICTORIA

2017 saw the establishment of McMahon Services' first permanent office in the State of Victoria. Building off the back of several, demolition, remediation, building and civil projects for blue chip companies operating in the State, and Federal Government, and works such as those undertaken within Australian Defence Force facilities, we established a new office and warehouse in the suburb of Brooklyn, approximately 10km west of the Melbourne's central business district.

The Victorian office, headed up by State Manager David Smulders, also provides storage facilities for the extensive scaffolding and associated equipment utilised by McMahon Services' Events and Scaffolding Business. Through Events and Scaffolding, we provide temporary seating and grandstand infrastructure for prominent events throughout the year including the Formula 1® Rolex Australian Grand Prix, the Melbourne Comedy Festival, the Australian Motorcycle Grand Prix, and the Supercars Championship events in Phillip Island.

Victoria's most recent development is the Aboriginal Housing Victoria where we provide maintenance services for 1,370 homes across the state. This project is run by a rapidly expanding team that are launching our sister company, Intract Australia, in the State as a leading Indigenous civil and building construction and maintenance contractor. Works are being delivered in conjunction with McMahon Services Australia.

'2017 saw the establishment of McMahon Services' first permanent office in the State of Victoria.'

SYDNEY OFFICE TAKES OFF

Although McMahon Services has delivered work in New South Wales for many years, it was decided in early 2016 that if we were serious about promoting our company as a major operator in the state, we would need to establish a permanent office in Sydney.

Operations Manager Mick Merriman had laid the foundations for asbestos removal and demolition works in both New South Wales and the Australian Capital Territory, through the successful delivery of many projects over recent years.

Following this success, Shaun Emery, an 18-year veteran with McMahon Services with extensive experience across all disciplines of building and civil project delivery, volunteered to expand our New South Wales operations. Shaun and his family moved to Sydney in early 2017, and with the support of Mick Merriman and the rest of the team, rapidly grew our presence in the state.

An important early appointment was Construction Manager Paul Maccheroni. He has nearly four decades of experience in the construction industry and a strong background in the food and beverage sector – a key focus for McMahon Services in this growing market.

Today, we have 29 employees, a 400m² office and 1,100m² warehouse shared with our sister company ResourceCo Material Solutions, seven office-based support staff, and a growing fleet of plant and equipment.

"We've worked hard to engage with the market, tendered for as much work as we can, and established our operations base," Shaun said. "New South Wales and particularly Sydney is a tough market. There is significant competition, and many opportunities for subcontractors to pick and choose the clients they want to work for, so establishing long term working relationships is challenging. We are going to market providing a quality service founded on our knowledge, robust systems and an enviable safety record – a strategy that is working."

"New South Wales is Australia's single largest economy. Managing a wide portfolio of work here is not really viable when run out of the Adelaide headquarters, so it was a strategy of get in or get out. We chose to get in, and it has paid off for us," Shaun said.

"The Sydney team is excited at the opportunities that are now presenting themselves to the business as a result of the hard work done by the team this year."



NAIDOC WEEK



NAIDOC (National Aborigines and Islanders Day Observance Committee) Week celebrations are held across Australia each July to celebrate the history, culture and achievements of Aboriginal and Torres Strait Islander people. The Week is celebrated not only in Indigenous communities, but by Australians from all walks of life, who participate in a range of activities and to support the wider Aboriginal and Torres Strait Islander community. The theme of this year's event was "Our Languages Matter."



Northern Territory

Intract's Darwin team was a major sponsor of this year's NAIDOC Official Flag Raising Ceremony and Family Day held in Darwin's Raintree Park. The event was attended by Intract's Northern Australia's General Manager, Michael Rotumah.

The breakfast event showcased, guest speakers including Senior Cultural Educator Mr Richard Fejo, Ms Ngaree Ah Kit MLA and Chief Executive Officer Ms Josephine Crawshaw from Strong Aboriginal Families Together (SAFT), Ms Colleen Rosas, Director of the Northern Territory Aboriginal Interpreter Service, and ABC sports presenter Mr Charlie King. Live entertainment included local Indigenous dance group One Mob.

South Australia

Meanwhile, in South Australia, Intract's team ran a stall at the NAIDOC Family Fun Day Event held in Victoria Square, Adelaide, to show our support and engage with the community. There were 46 stalls in total with approximately 1,500 people in attendance. Entertainment was provided by local Aboriginal acts such as Kineman Karma and the Paitya Dance Group making it a memorable day for all.

ABORIGINAL HOUSING VICTORIA

Aboriginal Housing Victoria is a not-for-profit registered Housing Association and is the largest non-Government Aboriginal housing organisation in Australia. Aboriginal Housing Victoria manages 1,533 properties in Melbourne and regional Victoria, providing affordable housing to over 4,000 low income Aboriginal and Torres Strait Islander Victorians.

In 2017 Intract Australia were contracted by Aboriginal Housing Victoria to provide maintenance services across 1,370 homes across the state, over a three year contract.

The scope of works includes maintenance and repair works to occupied and vacant properties, including movable units, houses, town houses, single storey flats, walk-up flats, multi-storey flats and other buildings.

Maintenance works include mechanical, painting, concreting, plumbing, plastering, carpentry, landscaping and electrical works.

John Briggs, General Manager of Intract Australia's South Region operations, said of the project, "This is a great opportunity for us to build our brand across the state and support Indigenous people in both urban and rural locations.

"As a long-term contract, we are positioned to take on Indigenous trades and apprentices and fully develop these personnel with real work skills for the future. Through this project, Intract have been able to employ 24 personnel, six office staff and 18 personnel on site."

This is an exciting new contract for Intract and required significant resources to get works up and running. Intract purchased ten new Toyota Hiace vans to deliver the works. All vehicles have been installed with new storage racking equipment and tools inside.





INTRACT

'CLOSING THE GAP'

NAIDOC AWARD

INTRACT AUSTRALIA IS COMMITTED TO ENGAGING AND CREATING JOB OPPORTUNITIES FOR INDIGENOUS AUSTRALIANS—'CLOSING THE GAP' ON INDIGENOUS EMPLOYMENT.

This year we wanted to show our appreciation to our clients who have proven their commitment to engaging and creating job opportunities for Indigenous employment.

We developed an award to do just that – Intract's Annual NAIDOC Award.

To be shortlisted for the award, we looked at clients who have demonstrated strong leadership qualities that aligned with Intract's fundamentals. Here at Intract we believe we demonstrate fierce competitiveness when it comes to meeting Indigenous targets such as employment opportunities, providing training outcomes and upholding cultural protocols through every project.

The below criteria captures these elements and this includes:

- ▶ Positive approach to engagement of Indigenous enterprise
- ▶ Providing positive employment outcomes
- ▶ A profitable working relationship
- ▶ Mutual respect Commitment to Closing the Gap
- ▶ Competency
- ▶ Open communication

We are happy to announce this year's winner was the Department of Environment, Water and Natural Resources (DEWNR). Lee Morgan, Manager Drainage Operations, Natural Resources South East for the Water Conservation and Drainage Board, was the recipient of the award and was joined by John Briggs, Intract's General Manager of Southern Australia, and David and Andrew McMahon, Directors of McMahon Services for the presentation at our Dry Creek office.

There were four other clients nominated for the award:

- ▶ Aurecon
- ▶ JLL Augility
- ▶ Lend Lease
- ▶ Defence Housing Australia (DHA)

All four clients were awarded with a Certificate of Recognition during NAIDOC week for their commitment to creating job opportunities for Indigenous employment. Demonstrating that Closing the Gap on Indigenous employment is everyone's responsibility.

Intract would like to congratulate all clients who were nominated and thank their entire team for their ongoing support.

Intract looks forward to presenting the award in 2018.



PORT WAKEFIELD DEFENCE HOUSING UPGRADES

Defence Housing Australia (DHA) provides quality housing and related services for Department of Defence members and their families. They are active in Australian residential housing markets, acquiring and developing land, as well as constructing and purchasing houses.

Intract Australia were contracted by DHA to provide general building works to seven Defence houses in Port Wakefield, South Australia. The purpose of the upgrades was to extend the life of the properties for another 15 years, modernising to market standard and modifying to meet current Defence requirements.

Scope of Work

Works were for the complete refurbishment of the seven Defence Houses included the installation of new joinery, kitchens, tiling, floor coverings, security screens, blinds and appliances. Works also included bathroom renovations, new split ducted reverse cycle air conditioning, solar hot water service, water efficient tapware, auto roller doors, repaint, outdoor covered patios, roof cleaning, re-bedding and repointing roof tiles, stormwater, landscaping with new irrigation, new gardens and garden bed edging.

The project achieved a 25% Indigenous workforce participation. Majority of works were self-performed with the subcontracted works including air conditioning, blinds, plumbing and gas works, all sourced from local companies with the entire workforce being from South Australia.

DELIVERY OF PREVENTATIVE AND REACTIVE MAINTENANCE SERVICES

Intract Australia is contracted by JLL to deliver preventative and reactive maintenance services on behalf of Prime Minister and Cabinet for 97 residential, Government Engagement Coordinator and Regional Services Delivery sites located across the Northern Territory, Queensland, New South Wales and Western Australia.

The 97 properties are a mixture of permanent staff housing and transportable work and accommodation buildings to ensure closer and effective engagement between Government and remote Indigenous communities to improve coordination of government service delivery.

Scope of Work

The preventative maintenance schedules include periodic servicing of air-conditioning units, fire equipment and the inspection, testing and tagging of electrical systems twice per annum at each property.

Works have been delivered by 16 Indigenous subcontractors and 9 non-Indigenous subcontractors

with Indigenous employees. Overall Indigenous participation on the project to date has been 29%.

The reactive maintenance and emergency after hours repairs services are managed by a service level agreement through JLL issued maintenance work orders. All work orders have set agreed time frames based on location of the property and are managed through the third-party workflow, estimating and service delivery online software application, simPRO.

Intract's subcontractor support base includes 16 remote Indigenous businesses which has enabled delivery of cost effective and efficient works to produce an overall 39% Indigenous participation in support of the Australian Government's commitment to Close the Gap on Indigenous Disadvantage.

The 97 properties are located in 40 different regions in four states, many in remote communities, which requires maintaining strong relationships with local subcontractors and detailed service delivery planning.



WOOMERA VILLAGE AND CAMP RAPIER BUILDING MAINTENANCE WORKS

The Woomera Range Complex is a military testing range covering approximately 122,000km², situated 450km northwest of Adelaide. It is the largest land testing range in the world, used for aerospace and systems testing under the control of the Royal Australian Air Force.

The Woomera Township is part of the Woomera Test Range that provides accommodation and services to personnel working at the Woomera Range Complex, and can house up to 500 people.

The Department of Defence required significant upgrade and repair works to several buildings in the township of Woomera and Camp Rapier that had been deteriorating for some time. The upgrades were required in part due to the reopening of Woomera Camp Rapier, a secure garrison support and specialised training compound within the Woomera prohibited area.

Aurecon as the Project Superintendent, engaged Intract Australia to undertake the works comprising of structural and architectural delivery over multiple fronts. Works were undertaken in the Woomera Medical Clinic, Theatre, Operations Centre, the Executive Officer Magazine Building, the Cool Room at Camp Rapier, and the Woomera Village Accommodation Block comprising of 41 units.

The project scope included carpentry, roofing and cladding, painting, structural works, concrete works, installation of wall panels, electrical and mechanical cool room works, demolition works, asbestos removal, general maintenance and repairs.

Tenants were living in several units and the Medical Clinic and Operations Centre were operational while works were underway, requiring open and regular communications to ensure minimal impacts on the occupants.

Works were delivered by four full-time Indigenous and two full-time non-Indigenous personnel. Major subcontractors were all sourced from regional businesses and were engaged predominately to deliver electrical, carpentry, air conditioning and refrigeration works.

**OVER 12
INDIGENOUS
TRADES ON
THE PROJECT,
ACHIEVING A
67% INDIGENOUS
EMPLOYMENT
OUTCOME.**



McMAHON SERVICES CELEBRATES 20 YEARS IN THE NORTHERN TERRITORY



On Friday, 12th May 2017, McMahon Services and their sister Indigenous contracting company Intract Australia, cemented their long-term commitment to the Northern Territory with the opening of newly refurbished joint facilities to support their building, civil and environmental services in Australia's Top End, with the opening also celebrating 20 years of McMahon Services operations in the Territory.

Deputy Chief Minister Nicole Manison, who is also the designated Northern Territory Minister for Infrastructure, Planning and Logistics as well as the Minister for Children was present, officially opening the office with a ribbon cutting ceremony.

McMahon Services directors and company founders, brothers David and Andrew McMahon kicked off the event with an address to the guests. David McMahon, Managing Director said in his address to guests, "Over our 20 year history, Andrew and I have become very attached to the Territory and in particular Darwin.

Andy has called Darwin home for the last six years and we have last year commenced a program of non-construction related investment in Darwin, with the purchase of the retirement villages operated by Masonic Homes, being Tiwi Gardens Village and Tiwi Gardens Villas."

David citing the latest investment to demonstrate how himself and Andrew see it as an important part of their role to invest in the Northern Territory, to play their part in contributing and helping to drive investment and confidence in the local economy.

Andrew McMahon, a Company Director and head of Territory operations went on to say, "McMahon Services started working in the Northern Territory mid-1997, with our first project being the removal of asbestos and the demolition of the Stokes Hill Power Station, which was the largest asbestos removal and demolition project ever undertaken in the Northern Territory."

David and Andrew described the growth of current local and national operations, citing that their Territory operations today employs over 60 direct and 20 indirect employees – many of them Indigenous – and have established regional offices in Maningrida, Gunbalanya, Katherine and Alice Springs.

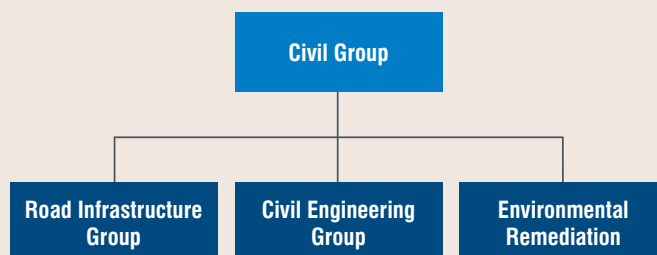
Deputy Chief Minister Nicole Manison concluded the speeches commenting on the incredible work and support McMahon Services and Intract Australia provide to the local workforce and communities in and around Darwin.

Local six-piece band Capricornia set the mood with '50s to '80s rock music entertainment for the opening. Capricornia performs not-for-profit and community work across Darwin and they are supported by McMahon Services and Intract Australia who provide the band with access to the Darwin offices' cyclone shelter as a rehearsal room.



INTRODUCING THE ROAD AND INFRASTRUCTURE GROUP

New Organisation Structure for the Civil Team



2017 SAW THE FORMATION OF MCMAHON SERVICES' ROAD AND INFRASTRUCTURE GROUP, OUR NEWEST OPERATING UNIT ESTABLISHED TO RESPOND TO TRANSPORT SECTOR PROJECTS, PREDOMINATELY IN ROAD CONSTRUCTION.

For many years, the Civil Engineering Group had been delivering road infrastructure as part of the scope of larger civil construction projects. As the years passed, our peoples' skills and capabilities in road construction grew. It didn't take long to identify that it would be a logical step to create a group dedicated to delivering projects in this space.

The Road and Infrastructure Group was officially formed after McMahon Services within our organisation achieved R3 B1 F100 rating in AusRoads' National Prequalification Scheme for Civil (Road and Bridge) Construction, significantly expanding the types and complexity of road infrastructure projects we could tender for.

Construction Manager Mark Polec, who was tasked with founding the unit, said, "We built upon the resources already established. Specialists in the road construction sector were brought into our company and now include Senior Project Manager Luke Luey, Senior Project Engineer Paolo Poggio, Senior Estimator Rudy Ferraro, Site Manager Jim Radford and Site Supervisor Wayne Abbatista. New plant and equipment was procured and included graders, rollers and water trucks fitted with GPS controls."

Since the founding of the group, Mark and the team have secured the Sturt Highway Shoulder Sealing project in South Australia's Riverland region where we will deliver up to 200km of road works. In outback South Australia, the Woomera Range Safety and Control System Remediation works for the Department of Defence will include significant road upgrade works, and will be delivered in with our Indigenous sister company, Intract Australia.

Mark noted, "The Road and Infrastructure joins the Environmental Remediation and Civil Engineering Groups forming one of now three streams delivering civil works across Australia. The national road infrastructure construction market is estimated to be worth more than \$16 billion annually, offering significant opportunities for the Road and Infrastructure Group in the future."

We wish Mark and the team the very best in growing and developing the new team.



UPGRADE TO THE HEART OF PORT PIRIE

PORT PIRIE REGIONAL COUNCIL IS SITUATED ON THE UPPER REACHES OF THE SPENCER GULF IN THE SOUTHERN FLINDERS RANGES OF SOUTH AUSTRALIA. THE 1,761KM² COUNCIL'S BOUNDARY IS HOME TO 17,000 RESIDENTS, 10,000 PROPERTIES AND 1,300KM OF ROADS.

The Port Pirie Central Business District Upgrade project was designed to revitalise the Port Pirie City Centre and its environs with the aim being to revitalise the public realm and retail environment to support local businesses and the community.

McMahon Services was awarded the contract to deliver Stage 1 of the works which occurred predominately on Alexander and Florence Streets. Initial works included demolition and appropriate disposal of existing kerbing, footpaths, spoon drains, ramps, trees, vegetation, street furniture and asphalt. Demolished waste included 6,300m² of bitumen and 1,000m³ of concrete.

Stormwater works included 400m of reinforced concrete pipe 300mm to 900mm in diameter, the installation of over 300m of 100mm to 225mm diameter PVC pipe, 12 double side entry pits, two single side entry pits, six junction boxes and the installation of twenty pits.

Concrete kerbing works totalled over 2,000 lineal metres and included the construction of kerbs, gutters, concrete plinths, flush kerbs, median kerbs, semi-mountable kerbs, driveway crossovers, spoon drains and 27 pram ramps.

Over 5,600m² of asphalt was laid, of which 3,500m² was deeplift. 1,650t of asphalt was used on the project and more than 3,500m² of footpaths were constructed.

Street furniture included the supply and installation of 24 seats, 37 bollards, six bins, eight bike racks, six banner poles, one drinking fountain, new signage and the reinstatement of existing signage, laser cut street signs applied to roundabouts, and stonset tree surrounds with aluminium edge frames.



Landscape works totalled 1,000m² and included the planting of over 3,500 plants, 47 trees and 13 palm trees with an average height of 5m. Over 2,000m of irrigation piping with five control boxes were installed to regulate the supply of water to the plants.

Other works included service locations, line marking, installation of ten new light poles and one switchboard, and the laying of 300m of electrical conduits.

A staged approach was adopted to maximise traffic and pedestrian access. All affected businesses were provided with advanced communications and notice of works at all times.

Community and Stakeholder Engagement

Key to the success of the project was the collaborative approach adopted between Port Pirie Regional Council and McMahon Services on strategies and plans for engaging with and managing community and stakeholder expectations. Project Manager Gary Fitzpatrick presented to all key stakeholders on how the works would be conducted and staged, and how disruptions to traffic and pedestrians would be minimised.

Project updates were communicated on an ongoing basis, and included planned road closures and night works. These were communicated with Port Pirie Regional Council during weekly coordination meetings, who then broadcast this information to the public via various mediums including local radio, local television advertising and through the Council's Facebook page.

'Planting of over 3,500 plants, 47 trees and 13 palm trees with an average height of 5m.'

WORLD'S LARGEST DEMOLITION MACHINE COMMISSIONED IN ADELAIDE

EARLIER IN 2017, MCMAHON SERVICES COMMISSIONED THE LARGEST, HEAVIEST AND MOST POWERFUL MOBILE DEMOLITION SHEAR CURRENTLY IN OPERATION, WORLDWIDE!

Combining a 400t Komatsu Excavator with the world's largest heavy duty cutting shear, the machine has a massive physical presence. The steel shear was custom fabricated in the United States, capable of piercing through 80mm high grade steel with a cutting force pressure of 38MPa.

The \$5 million heavy duty demolition machine was assembled at McMahon Services' Adelaide facility. A team of specialist Mechanical Engineers and hydraulic experts spent over eight weeks commissioning the machine, ready for its first demolition project, which commenced in late April.

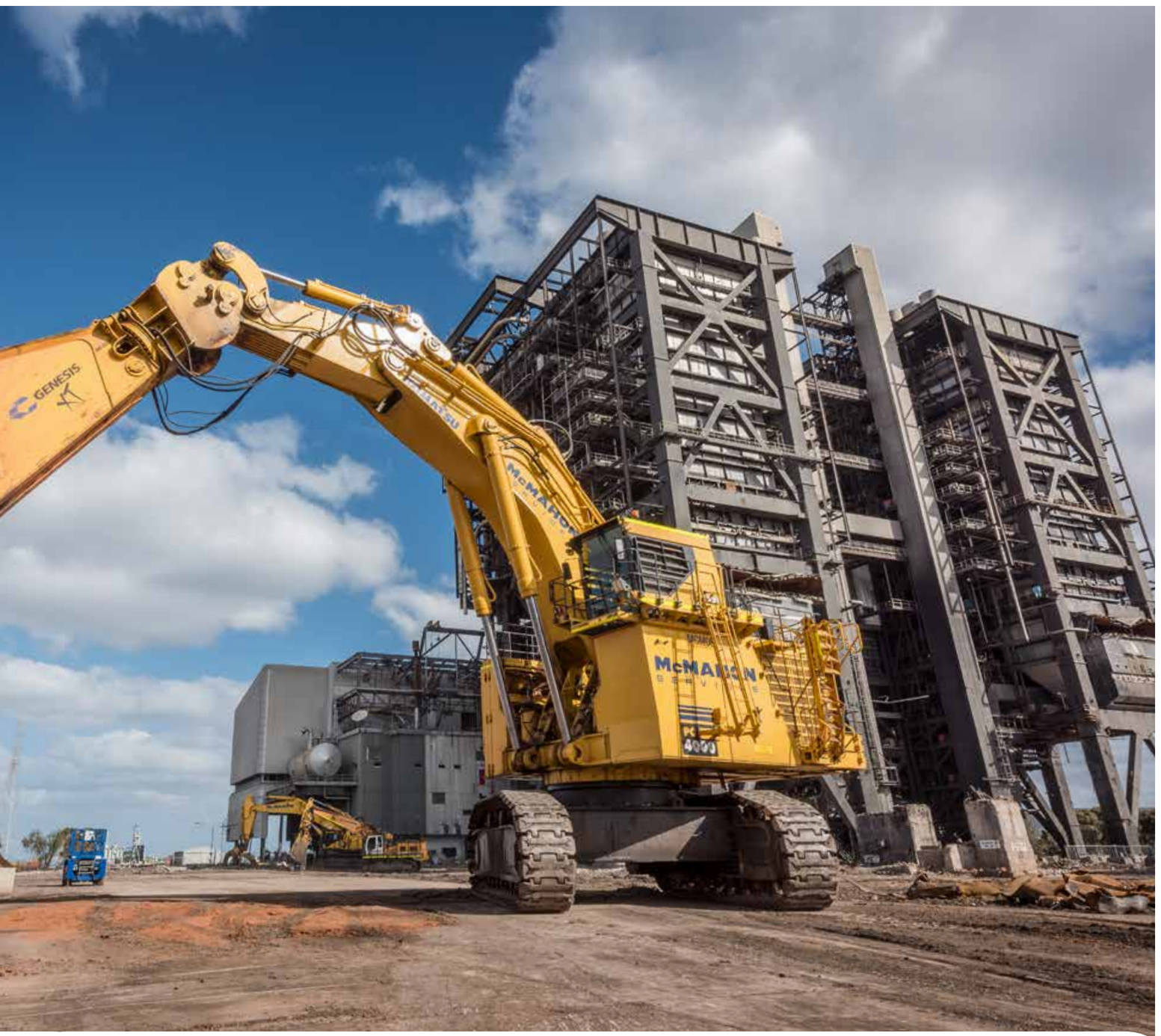
The machine was disassembled into eight sections and moved via road transport to a major iron ore facility in Port Hedland in the Pilbara region of Western Australia. Once it completed its work there, the machine was transported back to South Australia where the beast continued its work at the Port Augusta Power Station.

The machine performs two key functions including a significant amount of mechanical demolition followed by scrap processing and recycling activities. The addition of this machine into our fleet of high performance demolition excavators at McMahon Services, consolidates our position and reputation as one of Australia's leading demolition companies.

A special mention to all involved, especially the plant and maintenance team for their outstanding effort and dedication to get the machine up and running in time for its first project in Western Australia.

L A R G E S T ,
H E A V I E S T A N D
M O S T P O W E R F U L
M O B I L E
D E M O L I T I O N
S H E A R
W O R L D W I D E







HIGH POWERED CLEANUP IN SOUTH EAST QUEENSLAND

ENERGEX IS A SUBSIDIARY OF ENERGY QUEENSLAND LIMITED, A STATE GOVERNMENT-OWNED CORPORATION. ENERGEX BUILDS, OPERATES AND MAINTAINS THE ELECTRICITY DISTRIBUTION NETWORK IN THE GROWING REGION OF SOUTH EAST QUEENSLAND.

Energex's property portfolio included a 6.4ha site located in Banyo, Queensland. Since the 1950s until 2007, had been used as an electrical transformer refurbishment facility. The Queensland Environmental Protection Authority (EPA) listed the property on its Environmental Management Register as a site that required treatment because of its use for oil storage over its five-decade operational history.

Energex had since relocated their operations and facilities to other premises and the existing site had become redundant. Energex engaged McMahon Services to remediate the site for sale and development, and ultimate removal from the EPA Register.

'The multi-disciplinary project required extensive works in asbestos and hazardous waste remediation, mechanical demolition, earthworks and soil remediation'

Scope of Work

The multi-disciplinary project required extensive works in asbestos and hazardous waste remediation, mechanical demolition, earthworks and soil remediation, with a particular emphasis on transformer remediation.

Initial works involved the removal of all buildings, pavements and services. All buildings were first internally stripped. As the buildings contained both friable and non-friable asbestos, building structures were fully encapsulated and remediated under friable asbestos conditions where required. 7t of friable and 170t of non-friable asbestos, 500m of high voltage and low voltage cabling, all transformers and electrical equipment, 500L of paints, thinners and solvents, and 5,000L of waste oil from an underground storage tank was removed and transported offsite to approved EPA waste receiving stations.

After the strip out, the five buildings with a combined floor area of 24,500m² were mechanically demolished. This included a former factory, administration, calibration and testing buildings. Six excavators equipped with a variety of demolition shears, grabs and pulverising attachments performed the demolition. The tallest building was 18m in height requiring high-reach excavators for mechanical demolition. Along with the pavements and timber structures, 122,000t of concrete was pulverised and 1,100t of steel, aluminium and copper was recycled.

When building demolition works were completed in each area, ground remediation works commenced. Approximately twenty separate areas on site were identified as containing contaminated soils totalling 55,000m³. Hazardous materials remediated included heavy metals, recoverable hydrocarbons, polynuclear aromatic hydrocarbons, tetrachloroethene, arsenic and 9,000m³ of asbestos containing soils. All contaminated soils were transported to EPA approved landfill facilities.

Bulk and detailed earthworks included the reinstatement of excavated areas with imported clean fill material and compacting to 95% dry density standard under Level 1 Geotechnical sampling and supervision. A significant number of foundation piles were demolished to 1.5m below ground level and the underground oil storage tank was also removed. In total, 160,000m³ of earthworks were required to remediate the site.

The project was completed over 45,000 work hours. With a peak workforce of 32 including labour hire and one Indigenous participant. Works were completed on time and on budget to a revised program, extended predominately due to the multitude of unknown ground conditions including arsenic identified soils, and operational and redundant services located across the site.



JAM PACKED FIT-OUT WORKS FOR BEERENBERG

BEERENBERG IS A FAMILY OWNED BUSINESS THAT HAS BEEN OPERATIONAL IN THE ADELAIDE HILLS SINCE 1839 WHICH TODAY PRODUCES PREMIUM QUALITY JAM, SAUCE AND CONDIMENTS.

There are three main operational areas on the farm. First is the farm, which produces strawberries, supporting stock and other agricultural activities. Second is the retail shopfront where the public can directly source product for their enjoyment and also pay to access Beerenberg's 'pick your own strawberry' fields. Third is the food production facility where the processing, preparation, packaging and shipping of the jams, sauces and condiments takes place. The facilities are operational all year round, with some seasonal variation in activity. The production facility in particular, often operates extended hours and shifts to meet the ever-increasing demand by consumers.

Beerenberg has been in the process of expanding their current operations with a focus on the design and delivery of a high quality functional production facility that meets Global Standards for Food Safety.

Stage 1 of the improvement works included a new office, warehouse, and shell for the proposed production and associated areas, and was completed by other contractors. Stage 2 of the works involved the completion of the remaining building and infrastructure to allow Beerenberg's production fit out works to be completed by May 2018.

Scope of Work

McMahon Services was awarded the contract for Stage 2 through a competitive tendering process. Completion works were scoped so Beerenberg's production facility could meet global standards for food safety. Works also had to be designed and delivered to ensure an integrated fit for the future Stage 3 works.

Works for the 2,600m² facility include site demolition, civil works, 500m³ of concrete works, installation of services including new electrical, lighting, hydraulic and mechanical services to suit the new building fit out. Other works included building structural modifications to suit the building design and plant and equipment locations, all joinery works, furniture, fittings and equipment to the quality assurance, laboratory, new product development and maintenance facilities.

Also included were new sandwich panel walls and ceilings throughout the entire facility totalling 3,000m², new epoxy flooring system totalling 2,600m² and painting. Approximately 1,800m² of ISP ceiling engineered to be trafficable for future maintenance purposes. Mechanical equipment installed includes new stainless steel evaporative air-conditioning units in production areas.

All works complied with food hygiene standards, such as concrete detailing, walling linings and epoxy flooring system requirements.

The scope included managing works for the provision of electrical, gas, water and sewer connections with the appropriate authorities.

'Beerenberg is a family owned business that has been operational in the Adelaide Hills since 1839'



HYDROCARBON STORAGE TANK DECONSTRUCTION TURTLE NESTS AND FLOTILLAS IN THE INDIAN OCEAN

AIRLIE IS A REMOTE INDIAN OCEAN ISLAND SITUATED 35KM TO THE NORTH OF ONSLOW, AND IT IS BARELY 800M WIDE BY 400M ACROSS. IT'S FLAT WITH NOTHING ON IT EXCEPT FOR SAND, SCRUB AND A FORMER CRUDE OIL STORAGE AND PROCESSING FACILITY BUILT IN THE 1980S AND ABANDONED IN 2002 FOR ECONOMIC REASONS.

In 2007 the Western Australian Department of Environment Regulation classified the facility under the Contaminated Sites Act 2003 as a "Contaminated Site – Remediation required". This was due to the presence of active contamination in the vicinity of the two tanks identified during ground water monitoring. The deterioration of the tank roof drains allowed water to mix with the stored hydrocarbons, and the structural integrity of the tanks had also deteriorated.

Phil Bubner, State Manager Western Australia and Project Director for the tank deconstruction project said, "McMahon Services were contracted by Quadrant to remove the oily water and sludge from the two tanks, demolish the tanks and supporting infrastructure, and later as a variation to the contract, remove the contaminated soil from below the tanks.

"To achieve this, we had to bring everything we needed with us to the island, including power, accommodation, plant and equipment, food and water because there is literally nothing there."

All required equipment and resources were transported from Karratha to site. "We utilised landing craft tanks, or LCTs, to transport equipment over water because of their bow ramps. Low draft gave them the ability to discharge their cargo onto a beach."

The two tanks to be demolished were 18m high and 46m diameter, with approximately 200mm of hydrocarbon sludge overlayed with approximately 700mm of oily water in one and a smaller quantity in the other.

"Due to the toxic air qualities inside each tank and their unknown structural integrity, it was unsafe to send personnel inside for cleaning. Due to the highly flammable nature of the hydrocarbons, only cold shear attachments could be used for manual deconstruction of the tanks," said Phil.

The first step was to drain 733m³ of oily water from the tanks. The water was pumped into the storage tanks on the underside of the landing craft tanks for shipment to the mainland for treatment and disposal.



Once the oily water was removed, two intrinsically safe remote controlled mini tracked bobcats were used to clean the majority of the sludge from the floor of the tanks. The sludge was pumped into 9,000L intermodal containers and loaded onto the landing craft tanks for transport to Karratha for treatment and final disposal.

An 85t excavator with long reach capability and cold shear attachment was then utilised to manually deconstruct the tanks using a top down approach to 1.5m above the floor level. The next step was to manually remove the floating roofs to allow access for the final clean. Once the final clean was complete and the tanks cleaned with high pressure hot water, the remainder of the tank walls and floor were demolished.

Roof and wall elements were sheared into 1.5m by 1.0m sections for ease of transport. All scrap steel and contaminated sand excavated from under the tanks were each separately loaded into 1.2m high covered intermodal containers which were then loaded onto landing craft tanks for transport to Karratha for further processing. Scrap steel was processed at McMahon Services' facilities in Karratha for later export overseas.

Phil said of the project when it was complete, "98% of the 2,500t of materials demolished and shipped to the mainland were recycled. You couldn't ask for a better project outcome considering the challenging conditions."

98%
OF
2,500T
OF
MATERIALS
WERE
RECYCLED



LTI FREE FOR OVER 143,000 WORKHOURS

*AS AT 17/11/17



WETHERILL PARK

BUILDING WORKS FOR LION

DAIRY AND DRINKS



IN 2016 LION DAIRY & DRINKS (LION) ANNOUNCED A SIGNIFICANT INVESTMENT IN ITS DAIRY SITE AT WETHERILL PARK IN NEW SOUTH WALES TO BUILD A MILK BASED BEVERAGES MANUFACTURING HUB FOR THE EASTERN SEABOARD.

The existing manufacturing plant was originally constructed around 1985 and has had numerous extensions over the past 30 years, but a major overhaul was required to modernise the facility. The investment at Wetherill Park went towards processing and packaging upgrades and supporting logistics improvements.

McMahon Services' New South Wales team led by State Manager Shaun Emery was engaged to engineer, procure and construction manage the new additions to the existing facility. Works have included an extension to the South West portion of the existing facility for cool room housing packaging and palletising, additional building works for milk processing plants, a new packaging and warehouse upgrade, an additional 15m high 150,000L raw milk silo on the Western side of the facility adjacent to two existing milk silos, and numerous processing and services upgrades.

Several internal areas have been refurbished to house the upgraded milk based beverage process plant, packaging equipment and storage of raw materials and finished goods.

Other works have included the demolition of existing structures, painting, signage, epoxy flooring, new stormwater and testing and commissioning of completed electrical and mechanical works. Mechanical equipment included pumps, chillers, cool rooms, fire services, heating, air conditioning and ventilation (HVAC).

Project Manager Mohammad Zreika said of the project, "It has been full-on since we've started. We've now delivered nearly \$13 million in upgrade works, with each major element delivered as a 'mini-project'. Significant recently completed projects include the cold room new build, the packaging room and site wide epoxy flooring works."

One of the biggest challenges faced on the project is working in a constrained site. The facility has continued to operate as a dairy manufacturing site producing fresh milk and extended shelf life products 7-days a week, and it was imperative that construction works did not affect production.

"Producing fresh milk products requires a lot of truck movements to ship it to customers," said Mohammad. "That provides a challenge to maintain hygiene walls between production and construction, yet we've met this requirement and maintained food standards at every step."

As of the 17th November, the project has delivered 80,000m³ of earthworks, 150t of steel structures, 21,000m² of epoxy flooring, 2,000m² of roofing, 450m of stormwater piping, 13 bored piles, 900m³ of cast in place concrete and installed 17 precast concrete panels.

Shaun Emery noted that the project achieved some exceptional safety outcomes. "So far, we have completed 498 days Lost Time Injury Free over 143,000 workhours not including subcontractor hours. In that time Site Manager Mark Roberts received four safety awards from Lion, while Site Supervisor Josh Smith received two and Mohammad picked up an award for his on-going support to the project team."

Shaun said the project has been successful for the relationship between both Lion and McMahon Services. "We understand each other's needs in terms of operational and construction requirements. We know how to keep out of the way of milk production and they understand how we plan and stage project delivery. They were happy with how we've separated the two and still get the job done."

Shaun noted that a significant outcome was Lion's trust in McMahon Services to take on the responsibility for the project's permit to work system. "McMahon Services has issued a large number of permits on site on a daily basis to both company personnel and subcontractors. Lion trust and know that McMahon Services adhere to all site conditions and demand safety from our contractors."

"We couldn't ask for a better project and client to work collaboratively with. Now that we've proven that we can deliver on our commitments, Lion has requested that we operate as their managing contractor for all future capital works projects on site. A significant achievement all round."



HEALTHY APPETITE FOR LE CORDON BLEU FITOUT WORKS

TAFE SA IS SOUTH AUSTRALIA'S LARGEST VOCATIONAL EDUCATION AND TRAINING PROVIDER, AND A REGISTERED HIGHER EDUCATION PROVIDER. THEIR REGENCY CAMPUS LOCATED 9KM NORTH OF ADELAIDE'S CENTRAL BUSINESS DISTRICT INCLUDES SPECIALIST FACILITIES FOR COMMERCIAL COOKERY, HOSPITALITY AND RECREATION, A MICRO-BREWERY, AN AUTOMATED BOTTLING MACHINE, ASSOCIATED PLANT AND LABORATORIES.

Founded in Paris in 1895, Le Cordon Bleu is an international network of culinary and hospitality schools with more than 35 institutes in 20 countries where 20,000 students with over 100 nationalities are trained every year.

Both TAFE SA and Le Cordon Bleu have been working in partnership to deliver culinary and hospitality courses at the Regency Campus. In 2017 Le Cordon Bleu decided to relocate their administrative offices inside the TAFE SA

Scope of Work

McMahon Services were engaged by Spotless acting on behalf of Le Cordon Bleu to provide refurbishment and fit out of the new Le Cordon Bleu administration offices on level three of the Regency Campus' Building three and four.

Initial works included internal demolition of existing walls and operable wall panels, kitchenette, floor and ceiling covers, and asbestos remediation. Asbestos totalled 70m² of flooring and 160 lineal metres of window sills, all removed and disposed at an EPA licenced waste receiving station.

Building works were diverse and included 760m² of ceiling refurbishment and tile replacement, 160m² of new feature ceiling installation in a prominent corridor, a new kitchen and kitchenette joinery with induction cooktops and integrated appliances, 25 aluminium window partitions, 22 aluminium door installations, new window graphene and film, refurbishment of 13 existing doors, supply and installation of over 500m² of partitioned walls, and 2,400m² of paintwork.

Joinery works included Carvan benchtops and inset sinks with 4-in-1 sink tap units, a feature wall with a 'ripple' effect in the boardroom,



a service counter and reception with remote control roller shutter, and the coordination of all work station installations.

Service alterations and upgrades included hydraulics, mechanical, fire, electrical, security and communication systems.

McMahon Services provided several product alternatives to Le Cordon Bleu for the lighting, door furniture, reception counter roller shutter and feature ceiling. These alternatives were ultimately selected and brought savings in the order of \$80,000 to the project.

The project also took into consideration that the works were occurring during school term, therefore requiring well marked demarcation of the site, and noise and dust control so not to affect staff and student daily activities.



NEW HOME IN DARWIN FOR GLOBAL IT SOLUTIONS PROVIDER



SRA INFORMATION TECHNOLOGY IS A LEADING GLOBAL PROVIDER OF QUALITY BUSINESS SOFTWARE SOLUTIONS AND ENVIRONMENTAL DATA MANAGEMENT SYSTEMS.

In early 2017, the company identified a need for a new and larger office space to meet their growing business needs. SRA is a well-established and reputable local business and therefore required the fitout to be completed to the highest standards with modern fixtures and details.

Scope of Work

McMahon Services delivered the construction and office fitout for a boardroom, office space, bathrooms, kitchen and entertainment areas. Works were required to be delivered within a tight schedule and with limited access, driven predominately by the looming lease expiry date on SRA's old offices, therefore program management and progress monitoring was crucial for project success.

McMahon services completed an entire office fitout within an office space of 700m² total floor area. The office layout included four offices separated by floor to ceiling glass partitioning, a large boardroom, restrooms, kitchen and dining area, banks of desks connected with data and communications cabling, and an entertainment area for staff.

Ceilings were suspended grid throughout except bathrooms which were solid gyprock. Flooring throughout was a mixture between carpet tiles, vinyl plank and vinyl roll flooring. Cladding totalled 500m² of plasterboard. Electrical and mechanical works include the installation of commissioning of five air conditioning units, wet and dry fire systems, emergency systems and all electrical works.

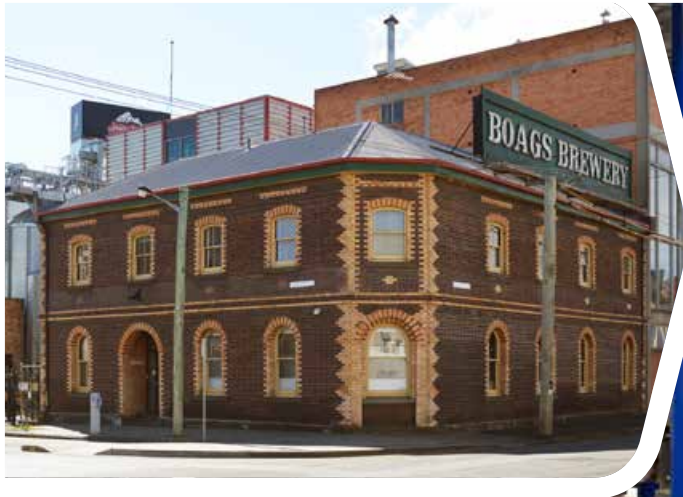
A safety risk for the project was in the delivery of materials to site, as the office was located on the second level and there was no allowance for contractors to use the elevators to transport building materials. After a meeting with the building corporate, an agreement was met that larger items could be brought up using the service lift. This made the transportation of materials to and from the site easier to manage and significantly reduced trip and working at heights hazards.

The major environmental hazard facing the project was the construction noises to neighbouring residential apartments. Working closely with the building corporate, it was agreed that noisy works could only occur between 8:00am and 6:00pm to minimise impacts on residents.

Workforce peaked at ten personnel and all were local employees to the Darwin area. All subcontractors were similarly sourced locally.

'McMahon services completed an entire office fitout within an office space of 700m² total floor area.'





JAMES BOAG BREWERY RAISES A GLASS TO A NEW TRADE WASTE RECOVERY SYSTEM

THE JAMES BOAG BREWERY WAS ESTABLISHED ON THE BANKS OF THE NORTH ESK RIVER IN LAUNCESTON, 1881.

In 2004 the Brewery underwent a major expansion to occupy the block enclosed by William, Tamar and Shield Streets and The Esplanade. In 2007 the Brewery was sold to Lion Co. who now own and operate the Brewery and all associated brands.

In 2016 Lion was approached by TasWater in regards to their James Boag Brewery, to review their existing trade waste discharge agreement. TasWater requested significant changes to this agreement including separation of all current discharge flows. Lion identified that the James Boag Brewery various trade waste streams required significant works to comply with TasWater requirements.

Based on the success of past projects delivered by McMahon Services at Lion's West End Brewery in Adelaide and the Wetherill Dairy facility in Sydney, Lion selected McMahon Services to co-ordinate, scope, plan, procure and construction manage this project to meet these objectives.

Scope of Work

McMahon Services were engaged to deliver a range of civil and building construction works on site to upgrade the existing trade waste system. A key delivery requirement for all works was that the Brewery remained fully operational throughout the construction period. The project was delivered in three stages:

- ▶ Stage 1 involved the separation of the various existing site discharges channels so they are funnelled into either to stormwater, sewer or trade waste systems as appropriate.
- ▶ Stage 2 comprised the construction of a buffering infrastructure, a tank farm, various sumps, pumps and associated piping to control the rate of and cool discharge waste, and systems to adjust the pH of the waste accordingly. Various telemetry systems were installed to measure and monitor trade waste flows.
- ▶ Stage 3 included the installation and commissioning of a full water treatment system incorporating all aspects delivered in Stage 2.

Associated works to all three stages included building demolition, internal and external excavation, installation of new pipes and sumps, sewer and stormwater tie-ins to TasWater networks both new and existing, construction of a tank bund 50m by 20m that houses the tank farm, construction of the tank plinth that required 26m by 8m deep concrete piles, construction of an enclosed 11m diameter by 8m high stainless steel holding tank, enclosed control dosing tank, tank access staircase, raised steel platform and associated stairs, odour control system, discharge controls, monitoring and water treatment equipment, pumps and piping.

THE JAMES BOAG BREWERY IN TASMANIA HAS CONTINUOUSLY EXPANDED OVER 136 YEARS, SINCE 1881

NEW ADDITIONS TO FLEET

MCMAHON SERVICES OPERATES AND MAINTAINS ONE OF AUSTRALIA'S LARGEST FLEETS OF CONSTRUCTION AND DEMOLITION PLANT AND EQUIPMENT. OUR \$80 MILLION NETWORK OF COMPANY-OWNED PLANT AND EQUIPMENT IS CAPABLE OF SERVICING PROJECTS IN URBAN, RURAL AND REMOTE LOCATIONS ANYWHERE IN AUSTRALIA.

Over 400 major plant items comprise of dozers, excavators, graders, rollers, loaders, dump trucks, batching plants, service truck, water trucks, soil blending machines, prime movers, hook lift bin trucks, low loaders, semi tippers and cranes.

Light Vehicles	
Hilux Utes	27
Hiace Vans	10

Trucks and Trailers	
Isuzu Flat Top	3
Mack Trident Rigid Tipper and 4 Axle Dog Trailer	2
Isuzu 6t Tipper	1
Isuzu Custom Concreters Truck	1
15,000L Water Trucks	3
48' Tilt 'N Slide Semi Trailer	1
Drake 2 Rows of 4 Low Loader Dolly	1
8 x 5 Tradies Tandem Trailer	2

Specialised	
3400D Bobcat All Terrain Vehicle	2
Genesis GXT2555R Demolition Shear	1
Copex CVM630 Scrap Shear and Baler	1

Materials Handling Equipment	
Manitou MT-X 625T Telehandler	2
Manitou MT1335H Telehandler	1
Manitou MTX 1030ST Telehandler	3
Manitou MH 25-4T Rough Terrain Forklift	

Earthmoving Equipment	
PC4000 Excavator	1
PC450 Excavator	1
PC300 Excavator	2
PC220 Excavator	1
S650 Bobcat High Flow Skidsteer	1
Caterpillar 14M Grader	1
Pistenbully 600SCR Winch Snow Grooming Machine	1
D6K 2 LGP Dozer	1
D6T LGP Dozer	1
824G Wheeled Dozer	1
825H Soil Compactor	1
LD100 Tracked Dump Truck	1
John Deere 9630 Tractor	1
E85 Bobcat Excavator	1
E20 Bobcat Excavator	1
A45G Articulated Dump Truck	2
6t Swivel Site Dump Truck	2
216B Skidsteer Loader	3

Access Equipment	
Genie 3369 Rough Terrain Scissor Lift	1
Genie 4390 Rough Terrain Scissor Lift	3



Copex CVM 630 Scrap Shear and Baler

In early 2017, McMahon Services procured the Copex CVM 630, a mobile scrap shear and baler easily transportable by truck to any construction or demolition site. The powerful scrap metal processing machine brought to Australia from France is capable of producing 630t of cutting force and 120t of hold-down cylinder and longitudinal force, all powered by a 252kW diesel engine. The 5.6m pre-compression bin allows for continuous feed of scrap metal with an output of 10 tonnes per hour. All operational functions can be controlled remotely via radio communications.

McMahon Services' is currently utilising the Copex CVM 630 on the Augusta Power Stations Decommissioning project in South Australia, where approximately 50,000t of ferrous and non-ferrous scrap metals will be sheared and processed for recycling. The use of the Copex machine is providing significant program efficiencies and ultimately creates a safer working environment on site.



MCMAHON SERVICES

MAKES THEIR DEBUT IN NEW ZEALAND FOR THE MUSEUM OF TRANSPORT AND TECHNOLOGY

MOTAT, AUCKLAND'S MUSEUM OF TRANSPORT AND TECHNOLOGY, IS NEW ZEALAND'S LARGEST TRANSPORT, TECHNOLOGY AND SOCIAL HISTORY MUSEUM SPREAD ACROSS A 16HA SITE. MOTAT'S ROAD COLLECTION HIGHLIGHTS THE DEVELOPMENT OF NEW ZEALAND'S ROAD TRANSPORT, FROM THE HORSE-DRAWN CART TO THE MODERN CAR.

The collection includes over 100 motor cars, horse-drawn vehicles, road building vehicles, motorcycles and bicycles, commercial vehicles and various other items such as cutaway engines, tools, petrol pumps and car parts.

MOTAT vehicles not on display were stored in an offsite facility clad with asbestos roof sheeting. Over time asbestos dust had settled on and contaminated 14 of the stored vehicles. Asbestos also got into the linings, seats, dashboards and other interiors of the heritage vehicles dating from the 1910s to the 1960s.

Golder Associates provided MOTAT with a third-party hazardous materials report and decontamination solution. Golder then contacted McMahon Services seeking a contractor with the systems and track record of asbestos remediation. Within two months of the initial contact, McMahon Services were engaged to undertake the works and had mobilised to site from its Adelaide headquarters.

Scope of Work

The first stage of the works included the construction of a 480m² asbestos containment structure with a volume of 3400m³ complete with a five-stage decontamination enclosure, a friable asbestos enclosure, and water treatment facilities. The structure was built within an existing MOTAT facility. No building fabric was modified during the works and on the completion of the project the building was restored to its original condition without any residual contamination from the process.

Key to the success of the project was that McMahon Services trained the museum curators and archaeologists – who were already experts in conserving artefacts – on how to clean and remove asbestos contamination under Class A and B conditions. All MOTAT personnel were provided with full-face respirator masks and respirator battery packs for the duration of project, and all other appropriate personal protective equipment. McMahon Services undertook the supervisory roles for the project.

All waste was treated as asbestos, packaged in double layer 200µm plastic wrap and disposed of at an approved waste facility receiving station. Vehicles were relocated to another storage facility upon their decontamination.

Works finished early due to MOTAT's fast uptake of the training. With the completion of the works, MOTAT's archaeologist and curators are now able perform the removal of asbestos but are not licenced to supervise asbestos remediation. This will provide them with significant cost savings for any future works if and when required.



**'ASBESTOS
CONTAINING DUST
(ACD) IS A GROWING
PROBLEM ON
AGEING ASBESTOS
ROOF BUILDINGS'**





HEALTH AND SAFETY

ALL JOBS ARE ASSOCIATED WITH SOME LEVEL OF RISK, BUT IN OUR INDUSTRY THE RISKS CAN BE PARTICULARLY SIGNIFICANT. THE POTENTIAL FOR SERIOUS INJURY OR EVEN DEATH OCCURRING WHILE WORKING AT HEIGHTS, WORKING IN CONFINED SPACES, HANDLING HAZARDOUS MATERIALS, OR WORKING ADJACENT TO PLANT MOVEMENTS ON A CONGESTED SITE – TO NAME A FEW – ARE EVER PRESENT, EVERY DAY.

McMahon Services' Work, Health, Safety, Environmental and Quality (WHSEQ) team understand these risks. Therefore, fundamental to everything the team does is to ensure that every employee, everyone in a client's team and every public person we interact with goes home safely, every day.

McMahon Services WHSEQ team is led by Craig Rutjens, who provides strategic, operational and cultural direction on the company's safety performance. He is supported at a corporate level by WHSEQ advisors James Stockdale, Tim Cotton and Kevin Seery, and at a project level by site safety supervisors in all States and Territories, everywhere The McMahon Group of Companies operates.

2017 has been a busy year for the WHSEQ team with many safety improvement initiatives being achieved in the last 12 months.

Certification

A key role undertaken by the corporate team is maintaining compliance with our various accreditations. McMahon Services and associated operating companies have long been certified to the Federal Safety Commission Scheme, AS/NZS 4801:2001 Occupational Health & Safety Management Systems, ISO 9001:2008 Quality Management Systems, ISO 14001:2004 Environmental Management Systems and Achilles.

In 2017, the team expanded our accreditation coverage achieving Federal Safety Commission Scheme certification for McMahon Services' Northern Territory operations, while our Melbourne, Townsville and Karratha offices were similarly incorporated into our AS/NZS and ISO accreditation umbrella.

The corporate team also implemented a regular audit schedule to assess the WHSEQ performance of projects across the country. Working in partnership with site teams, they identify any gaps in meeting accreditation compliance, and then develop and implement action plans for project personnel to undertake filling those gaps.

Maintaining accreditation is critical to our business. Without these certifications we would be unable to tender for and deliver almost all the work we currently perform for our existing client base.

SLAM

The biggest initiative to come out of 2017 is the Safety Focused Personal Assessment tool, otherwise known as SLAM.

SLAM is an informal risk management process designed to assess a task prior to its commencement for the purpose of identifying and controlling hazards associated with the risk.

Astute readers will notice that SLAM is not an acronym for Safety Focused Personal Assessment, rather it is an acronym for the four steps each worker should go through in their mind before starting a task:

- ▶ **STOP** and think, look at each step
- ▶ **LOOK** before, during and after the task
- ▶ **ASSESS** for the right equipment to perform the task safely
- ▶ **MANAGE** and take action to eliminate or minimise any hazards.

SLAM cards were first trialled in the high-risk Demolition Division where it proved to be a valuable initiative. SLAM cards were then issued to all site personnel across all projects, while training on how to apply SLAM was delivered to all site and office based personnel.

To the best of our knowledge, our SLAM system is a first for any construction company anywhere in Australia. It was created by the WHSEQ Team after observing similar systems around the world.

On McMahon Services sites, crews are not expected to record anything, but there is an expectation that they use the SLAM process all day every day. SLAM chats are also occurring on a daily basis on all sites, where teams focus on site relevant hazards, past, present and future. Crews are issued with a lanyard hosting their own SLAM card so they can refer to it at all times.

Since the introduction of SLAM, there has been a noticeable reduction in incidents and near-misses across all projects nationwide, as well as an increase in the frequency of reporting and addressing identified hazards with this process.

'To the best of our knowledge, our SLAM system is a first for any construction company anywhere in Australia'



Jamie Kirk at the Augusta Power Stations Decommissioning site, presenting the donation made to Mates In Construction on behalf of McMahon Services.



Site BBQ at Augusta Power Station for Mates In Construction, to promote awareness of R U OK Day.



CEO SLEEPOUT



'St. Vinnies raised an incredible \$5.6 million'

On the 29th of June, John Briggs along with other like-minded business leaders gathered in the grounds of Government House to sleep there for the night to raise awareness for the St. Vinnie's CEO Sleepout.

The latest figures released by the Australian Bureau of Statistics show that 105,237 people in Australia are experiencing homelessness, with 60% of those under the age of 35.

Perhaps surprising to many people is that 44% of these are women and 13% are under the age of 12.

On his journey John raised an excellent \$2,463, whilst South Australia as a whole raised an incredible total of \$603,000. A total of \$5.6 million was raised throughout Australia, trying to fight homelessness around our country.

Every dollar the St. Vinnies CEO Sleepout has raised helps provide crucial assistance to people experiencing homelessness, with the aim of breaking the cycle of homelessness.

Thank you to all that donated!



REAL MEN WEAR PINK!

THIS YEAR MCMAHON SERVICES, INTRACT AUSTRALIA AND BALLESTRIN GOT INVOLVED IN A BIG WAY WITH THE REAL MEN WEAR PINK! SPONSORSHIP DRIVE TO RAISE MONEY FOR LIFE-CHANGING BREAST CANCER RESEARCH FOR THE NATIONAL BREAST CANCER FOUNDATION.

The Foundation was aiming to raise \$1.5 million to fund research that harnesses the powerful data from genetic testing so that all women and men with a high risk of inheriting breast cancer have information and choices that could prevent them being affected by breast cancer.

Breast cancer is a disease of the genes; when genes go wrong they can cause cancer. A greater understanding of the genetic factors in the development of breast cancer is key to preventing and ultimately eradicating breast cancer.

In Australia, 17,500 women and 175 men will be diagnosed with breast cancer this year.

McMahon Services Real Men Wear Pink! participants included Craig Bond, Brenton Vogelsang and Nigel Sutton in South Australia, Phil Bubner in Western Australia, Adam Breen in Queensland, Mel Hudson in New South Wales and Mick Laidler in the Northern Territory. Ballestrin was represented by Brett Ordner in South Australia and Intract by Michael Rotumah in the Northern Territory. All participants wore pink branded shirts and other variations of pin clothing during the fundraiser period of 12th to 18th of June.

Their efforts and drive for this cause were outstanding and we commend them all.

'The McMahon Services, Intract and Ballestrin team raised an incredible \$29,358'



MASTER BUILDERS SA BUILDING EXCELLENCE AWARDS

THE MASTER BUILDERS SA BUILDING EXCELLENCE AWARDS SHOWCASE AND AWARD DISTINCTION IN BUILDING AND CONSTRUCTION IN THE SOUTH AUSTRALIAN RESIDENTIAL AND COMMERCIAL SECTORS.

During the awards evening held at the Adelaide Convention Centre on Friday 11th August 2017, McMahon Services won the Civil / Engineering Construction category for the Port Lincoln Parnkalla Waters Stage 1 Development project constructed for Sarin Group Property.

The project was an extensive residential subdivision project for 34 residential blocks totalling approximately 26,400m².

The key challenge distinguishing Parnkalla from a normal subdivision project was marine engineering components of the works, transforming a low-lying swamp into a marina subdivision complete with essential infrastructure, asphalt roads and concrete footpaths.

The key project feature was the limestone block retaining walls with steps down to the new constructed sand beach and water reserve.

The event was attended by over 40 McMahon Services personnel from the Civil Construction, Building Construction, Asbestos and Hazardous Waste and Roofing and Cladding divisions, and key representatives from client Sarin Group Property.

MCMAHON SERVICES LARGEST DEMOLITION CONTRACTOR IN THE SOUTHERN HEMISPHERE!



McMahon Services have taken another step above the rest being named as one of the top contractors in the D&RI – Demolition and Recycling International Magazine.

"Top 100 Largest Demolition Contractors" list recognises the world's leading demolition contractors based on a turnover. This year McMahon Services

placed number 15, five positions up from last year! There was only one other Australian company that placed in the list, which speaks volumes for our place in the industry.

McMahon Services also featured in the "Top 10 increase in turnover US\$" category placing number six with a 17.19 turnover increase.

In addition to those lists McMahon Services also highlighted in the "Top 10 percentage revenue increase" placing number eight with a percentage increase of 21.6%.

This was the 11th time McMahon Services have placed in the Top 100 listing, and last year we were awarded the 'World Demolition Award' for our project BHP Nelson Point Yard Decommissioning, for the Industrial Project category.

MILESTONE ACHIEVEMENT



ON THE 17TH JULY 2017, WELL KNOWN AND LONG-TIME EMPLOYEE, PHIL BUBNER CELEBRATED AN IMPRESSIVE 40 YEARS WITH THE MCMAHON FAMILY BUSINESSES.

Phil started his employment with David and Andrew McMahon's father - Glen McMahon, joining GF Demolition Pty Ltd, with Phil then going on to join McMahon Services in 1990 when the company was founded.

During his career, Phil has been instrumental in developing many of McMahon Services demolition methodologies and techniques and led much of the work in creating the specialised demolition plant and equipment used across the company. Phil's expertise was soon recognised outside of the company when he found himself acting as an advisor and mentor to many throughout the demolition industry.

His other achievements include managing McMahon Services' industrial relations functions where he was instrumental achieving our exemplary track record in this space, and establishing and growing our business in Western Australia.

In 2016, Phil's achievements were recognised internationally when McMahon Services took out the 'World's Best Industrial Demolition Project Award' at the World Demolition Summit held in Miami, Florida for the Nelson Point North Yard Decommissioning project for BHP. Phil undertook the role of Project Director.

40 years is a huge milestone for Phil and McMahon Services, and it speaks volumes for the commitment Phil has shown to the McMahon family for the majority of his working life.

The whole McMahon Services team would like to take this time to congratulate Phil on this incredible achievement.



RAFTING RAY'S RIVER RUN

IN LATE 2017, McMAHON SERVICES AND INTRACT WERE PROUD SUPPORTERS OF 'RAFTING RAY'S RIVER RUN'. AN EVENT IN PARTNERSHIP WITH THE LITTLE HEROES FOUNDATION THAT INVOLVED A 240KM JOURNEY DOWN THE MURRAY RIVER - ALL TO HELP SERIOUSLY ILL CHILDREN.

'Rafting Ray' set out to raise \$100,000 for the Little Heroes Foundation, by rafting his way 240km from Morgan to Wellington in South Australia from the 30th October to 5th November 2017.

Ray Ashenden has been a friend to the McMahon family, having a long standing working relationship and friendship for over 25 years. Ray is an extremely hard worker, and an asset to the community, and his good deeds are endless.

Ray was drawn to help the Little Heroes Foundation after he heard about the amazing work they were achieving for seriously ill children living with neurological disorders and injuries.

Ray said about the Centre and the Little Heroes Foundation;

"I have little needs and today's children are tomorrow's future. I have been a long-time supporter of the foundation because they really do change children's lives"

David and Andrew McMahon on behalf of McMahon Services and Intract proudly agreed to match every donation that Ray received from our workforce during the fundraiser, dollar for dollar. This culminated in a \$21,300 donation from the McMahon family, workforce and clients.

David and Andrew McMahon presented Little Heroes Foundation founding member and Chairman, Chris McDermott with the donation on behalf of all who helped raise the funds.



OPERATION DEMOLITION AT THE HEART OF SYDNEY'S WESTMEAD HOSPITAL

RECYCLED
MATERIALS FOR THE
PROJECT TOTALLED
13,000
TONNES.

NEW SOUTH WALES' LARGEST HOSPITAL – THE WESTMEAD HOSPITAL HAS BEEN UNDERGOING A MASSIVE REDEVELOPMENT, BEING COMPLETED IN STAGES, SINCE 2015.

McMahon Services were engaged by head contractor, Hansen Yuncken to undertake the structural demolition of the existing multi-level staff carpark, and the adjoining Neonatal and paediatric Emergency Transport Services (NETS) building.

The demolition was the start of the main works to build a new central acute services building, which will be purpose built for services to manage severe injury or illness, urgent medical conditions, recovery from surgery and other critical and complex conditions.



Scope of Work

The existing carpark consisted of post tensioned slabs over five levels. The four lower levels were designed to supply car parking facilities, and the fifth level utilised as the rescue helicopter landing pad.

The adjoining NETS building consisted of post tensioned slabs over four levels. The three lower levels were the functioning levels with the upper fifth level utilised to house the rescue helicopter within a portal framed steel design hangar. The maximum height of this structure was 27m.

The demolition works were carried out within a shared working environment with close proximity to sensitive areas of laboratory research and pedestrian and public egress.

At completion, 16,000m² of building with 1,450m² of cladding was demolished, including a pedestrian link bridge producing over 13,000t of steel which was later recycled. 100m³ of asbestos contaminated soil, 500L of hydraulic oil and 1,000L of residual aviation fuel was remediated at licenced EPA receiving stations.

Detailed Deconstruction Methodology

As works were undertaken inside a hospital precinct requiring strict environmental controls, tight access in heavily traffic areas, and works occurring adjacent to operational medical facilities, a detailed and comprehensive deconstruction methodology was developed in advance of works commencing.

The first works included manual and mechanical separation of the carpark and NETS building from operational facilities. Key to this was the removal of the pedestrian link walkway, with one end spanning an operational road. The walkway required full structural support supplied through the erection of load bearing scaffold to the underside, allowing for segmentation prior to removal by crane. This was carried out by forming a series of core hole penetrations for crane chain attachment and cutting into sections with a concrete saw. Once released, the sections were hoisted away piece-by-piece, in the reverse order of their original construction.

Scaffold was then attached to elevations that were exposed to the public and shared zones. This provided both a working deck for the external removal of the fibre cement sheeting and the containment of loose materials generated during demolition. The scaffold was progressively dismantled as the structures reduced in height and mass.

Environmental Performance

The western and northern elevation garden beds were discovered to have broken pieces of bonded asbestos sheeting present within the plant bases. Excavation of the top 200mm of soil was undertaken, under asbestos controlled conditions and transported from site to an approved disposal facility. Clean fill was imported and relayed over a blinding layer of geo-fabric to create a trafficable surface for demolition equipment and prevent cross contamination of demolition waste. In total 100m³ asbestos soil was disposed.



ON GROUND INFRASTRUCTURE TAKES OFF AT AIR 7000 PHASE 2B

IN 2014, THE AUSTRALIAN DEPARTMENT OF DEFENCE ANNOUNCED THEIR PLANS TO REPLACE THE AGING AP-3C ORION MARITIME SURVEILLANCE AIRCRAFT WITH A FLEET OF BOEING P-8A POSEIDON AIRCRAFT.

THE P-8A WILL BECOME A FUNDAMENTAL ELEMENT OF AUSTRALIA'S FUTURE MARITIME PATROL AND RESPONSE STRATEGY.

THE NEW AIRCRAFT USES ADVANCED SENSORS AND MISSION SYSTEMS, INCLUDING AN ADVANCED MULTI-ROLE RADAR, HIGH DEFINITION CAMERAS, AND AN ACOUSTIC SYSTEM TO MONITOR AUSTRALIAN WATERS.

The new aircraft required new on ground support infrastructure and therefore the Air 7000 Phase 2B project was initiated by the Department of Defence. The project was to deliver facilities, infrastructure and airfield works to support for the introduction of the Boeing P-8A Poseidon aircraft to four RAAF Bases and one Naval Base across Australia.

The five bases for upgrades are RAAF Base Edinburgh in South Australia, RAAF Base Darwin in the Northern Territory, RAAF Base Pearce and HMAS Stirling in Western Australia, and RAAF Base Townsville in Queensland. Lendlease was awarded the Managing Contractor role for the Main Operating Base located at RAAF Edinburgh, South Australia and McMahon Services was awarded the non-airside civil works package for RAAF Base Edinburgh.

The McMahon Services scope of works consisted of the construction of the Non-Airside Building Area including upgrades to the Main Apron, Fisher Boulevard and the Northern and Southern Carparks. Works included:

- ▶ Demolition, clearing and stripping works of all existing services and structures
 - ▶ Site build up and construction of all works to the underside of the concrete slabs of all buildings, including set-downs in the formation
 - ▶ Pavement works totalling 30,600m²
 - ▶ Light duty and heavy duty footpaths all exposed aggregate concrete finish totalling 11200m²
 - ▶ Construction of 6km of new roads including temporary access and haul roads
 - ▶ Drainage works including open swale, detention basin, concrete structure drainage, drainage infrastructure, and associated works
 - ▶ Installation of guard railing, wire rope and road signage
 - ▶ All soft and hard landscaping including footpaths.
- ▶ Earthworks totalling 130,000m³ and included haul road construction, bulk excavation, the break up of existing asphalt surfaces, cut to fill, and stockpiling of both clean and contaminated soils



Asphalts included apron pads, blast pavements, high strength bound pavements. Base and subbase materials included fine crushed rock up to 150mm depth, and select fills up to 750mm. Heavy duty pavements included 5mm of aggregate size primer seals.

Extensive drainage works were undertaken and include 3km of reinforced concrete pipes and 170 pits in the building pads and 1600m of reinforced concrete pipes and 50 pits in the carparks. Existing service identification and relocation was achieved using a combination of ground penetrating radar, hydro-excavation and survey pick-up, then liaising with service line operators for appropriate relocations.

Materials Classification and Management

A major contributor to McMahon Services being awarded the project was our offering to manage all excavated materials and classifying all spoil in terms of the types and quantities of contamination they contained. This offering extended beyond just McMahon Services operations to included Lendlease's spoil management and the management of all other spoil produced by all other contractors operating on the larger Air 7000 Edinburgh Base project.

McMahon Services constructed a 50,000m² stockpile area complete with a temporary weighbridge to collect, classify and store all spoil material. The Department of Defence specified that contaminated spoils could not be removed from site and thus must remain stockpiled. To date 100,000m³ of spoil has been stockpiled and all spoil has been tracked by a sophisticated spoil management system.

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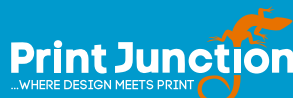
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