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# THE MORSE

## Osborne Naval Shipyard Project Newsletter

MARCH 2021

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**The Osborne North Development Project (ONDP) is advancing, with the Phase 1 test facilities on track for handover to tenants Lockheed Martin and Naval Group Australia in 2022.**

Piling is also well progressed for the Phase 2 works, which comprises the main production halls and support facilities for the new submarine yard.

At its peak, the ONDP is expected to engage up to 800 people, with more than 350 already working on the project. This influx of workers generates increased patronage to local businesses and shops along the Peninsula and in Port Adelaide, providing opportunities for employment and economic growth in the area.

Tauondi Aboriginal College for instance has a mobile food and coffee van on site, and catering for meetings and staff activities is sourced from nearby shops. Personal Protective Equipment (PPE) such as reflective vests, safety glasses and steel capped boots are sourced from a local supplier, as are workplace medical and nursing support services in the form of first aid supplies, on site first aid support, and drug and alcohol testing. Local service stations are frequented by our workforce and they are also a source of fuel supplies for site vehicles and equipment.

Projects such as the ONDP also provide a perfect opportunity for students and graduates to gain on-the-job experience in the project management, design and construction of major infrastructure. This is made possible through the implementation of various student and training-focused programs by the many businesses involved in the build process.

Australian Naval Infrastructure (ANI) runs an annual intern program for students studying degrees in mechanical, electrical, civil and structural engineering, and in construction management, and some of these students have gained employment with ANI or within the industry whilst they complete their studies.

Managing contractor Laing O'Rourke (LOR) offers internships, a Graduate Program and an in-school STEM program designed to encourage female high-school students into the industry. This year, the program is to be implemented locally at the Le Fevre High School.

Our consultant and subcontractor partners also offer internships, trainee and/or apprenticeships to ensure the continued development of the construction industry's future workforce.

In this issue, we talk about the various programs currently being implemented during the expansion and modernisation of the shipyard, and we ask some of the interns and graduates about their experiences to date.

*Osborne North Development Project looking south*



# Building the next generation workforce

**Several training programs are being implemented on the ONDP and other infrastructure projects at the Osborne Naval Shipyard (ONS).**

## Internships

Many courses require students to undertake practical or industry placements during their studies. Internships are paid industry placements that allow students to cement their academic learning with practical experience, providing an opportunity to develop skills that are difficult to acquire in a lecture theatre – skills such as team integration, project management, safety and quality management, leading and presenting at meetings, project reporting and auditing, etc. As well as providing work experience to add to a CV, internships provide valuable industry contacts and increased chances of finding ongoing employment for students as they complete their degrees.

ANI and LOR offer internships, with more than ten graduate and undergraduate placements provided by ANI over the past three years, and a total of seven engaged by LOR on the ONDP to date. These positions are advertised through university and graduate websites, and students apply and interview for the positions in the same way they would when applying for a permanent job.

On the Osborne South Development Project (OSDP), managing contractor Lendlease ran an intern program called CareerTrackers. This program is aimed at supporting Aboriginal students through university with paid employment, work experience and mentoring.

## Graduate Development Programs (GDP)

Graduate development programs offer recent degree graduates the opportunity to work across a variety of disciplines and projects to further develop knowledge, skills and networks over a broad range of functions and projects.

As owner and developer of the ONS, ANI offers graduates the opportunity to gain an understanding of project management from a client perspective, whilst LOR offers graduates an understanding from a managing contractor perspective.

Lendlease also offers a two-year graduate program and several graduates worked on the OSDP during the construction period.

## Apprenticeships and Traineeships

An apprenticeship or traineeship enables a worker to become qualified in a trade or vocation and be paid a wage while they learn. Training includes a mix of classroom or workshop learning, as well as practical learning on the job.

There are many types of trades and vocations to choose from including boilermaker/welder, electrician, plumber, carpenter and joiner, and many opportunities are available in both the construction and shipbuilding industries.

The [www.sa.gov.au](http://www.sa.gov.au) website provides further information on apprenticeships and traineeships in South Australia.

## In-school Programs

With the aim of increasing interest in both the construction and shipbuilding industries at high school age, there is a growing number of in-school programs being offered in schools, with a particular focus on STEM (Science, Technology, Engineering and Mathematics) subjects.

Such a program is being implemented at Le Fevre High School this year through LOR's STEM+ initiative, supported by ANI. The aim of this "Inspiring STEM+ Program" (IS+P) is to encourage female students into STEM courses at school and into university, and ultimately careers in construction and engineering. This forms part of the long-term strategy to drive change and ensure a balanced representation

of both men and women within the construction industry.

IS+P comprises a series of modules delivered over a two-year period, with a module run each term in coordination with other school activities. Modules run for two hours (out of school hours) and are carefully designed by industry professionals to be accessible, relevant, and engaging for students.

The program kicks off with an introduction to the construction industry and provides students the opportunity to set some personal goals to work towards during the course. Each module has specific learning objectives, which are achieved through a series of activities such as team challenges, panel discussions, presentations, and site tours.

The program concludes with the opportunity for students to present on their learnings before participating in a graduation evening with program contributors, sponsors, partners, faculty and parents.

Beyond IS+P there are opportunities for students to apply for work experience, internships and ultimately, LOR's GDP.

| Module Overview (module order subject to change) |  |
|--|--|
| Module 1   | Introduction to Construction             |
| Module 2   | Laing O'Rourke's Digital Way of Working  |
| Module 3   | Innovation and the Future of Engineering |
| Module 4   | Sustainability in Construction           |
| Module 5   | Safety in Design                         |
| Module 6   | Change Management and Delivery           |
| Module 7   | Practical Completion                     |
| Module 8   | Graduation Evening                       |

## Shipbuilding Programs

Many similar programs are run by current and future shipbuilders at the ONS, and you can find out more about these programs by visiting their websites, or by visiting the Naval Shipbuilding College website at [www.navalshipbuildingcollege.com.au](http://www.navalshipbuildingcollege.com.au).

# What the interns & graduates think....



## **C**aitlin is studying Mechanical Engineering.

I have always liked math and physics and was inspired to become an engineer through my grandpa and sister who are also engineers.

I'm doing an internship with ANI. I applied for the role through the Uni career website however, I was apprehensive initially because I thought the role better suited a civil/structural engineer, but after the interview I was extremely excited about the possibility of working here.

I have been working with the plant and equipment team, focusing on the acoustics of some of the buildings to ensure potential noise emissions meet EPA requirements as there are other businesses and residences nearby.

I was very happy when I was offered the role, because being part of a major and renowned project in South Australia will give me a broad range of experience that will transfer to any other industry I might work in throughout my career.

## **N**athan is doing his honours in Mechanical and Sustainable Energy Engineering.

I chose this discipline because I believe it is a growing sector in which I can have a positive impact.

I'm an intern on ANI's Phase 1 ONDP team and involved in tracking progress on various buildings, requiring regular on-site walks to evaluate and record activity. This data is compared to construction programs to determine possible delays and future progress. The on-site walks also assist with monitoring the quality and safety of the works.

The mix of office and on-site experiences with ANI is providing me with a unique insight into large-scale infrastructure projects. The project management experiences are invaluable, as this is an area I want to be involved in in the future. Exposure to the numerous companies in the Future Submarine Program is also providing a valuable opportunity to interact with different interdisciplinary teams.

It's particularly satisfying to see the intricacies of the 3D models and engineering drawings coming to fruition on-site.



## **J**ack is doing a double degree in civil/structural engineering and computer science. He is in his fourth year with a couple of years to go.

I was born and raised in Adelaide, love sport, particularly cricket and golf, which has provided me with an amazing group of friends. I like to think of myself as a happy person - it's pretty hard to get a smile off my face! Over the summer holidays I completed an internship with ANI as part of my industry placement requirements. I was part of the Phase 2 ONDP team, which focuses on the largest buildings of the project.

I worked on a report relating to sheet pile installations needed for deep equipment service pits. For me, a typical day involved research and walking around the site inspecting the works and learning about what it is like to be on such a large project.

One of the key things I have gained is a better understanding of what must come together for such a large project to be successful. It's not just about the design – you also have to work out how to build it (safely!), how to make sure it is up to standard, and how to finish it on time and on budget!

I felt fortunate to have had the opportunity to work with an amazing group of people all trying to help me succeed, which is setting me up well for my future as an engineer. I believe one of engineering's core principles is about continuous improvement, which I think is why humans can do amazing things. I'm not sure exactly what field I want to go into, but I know I want to be a leader in the workplace and become a chartered engineer.

## **K**iara is participating in Laing O'Rourke's GDP.



I have always had a passion for our natural and built environments, so I undertook a Bachelor of Environmental Science and graduated in 2019. Our world is in a constant state of change and development, and having a positive impact on protecting our environments into the future is what I strive for.

Proactive and positive environmental management of the sensitive environs and surrounding communities is required on the ONDP. I have been very hands on whilst working with the environmental team, ensuring daily activities have no negative impacts on these assets.

Working on a project of this size allows me to gain exposure and experience in a range of functions within the construction industry, and to grasp a deeper understanding of the complexity of large projects. Working in different teams really emphasises the importance of communication to successfully reach common goals and deadlines.

I have gained so much from this project that will help me in future career endeavours, and I'm grateful to have the opportunity to work on a project that is going to benefit our broader community and industry long into the future.

# What the interns & graduates think....



**Sabella is studying Construction Management and this is her first time on a construction project.**

I have always wanted a hands-on career, so a construction-based role seemed to fulfil this interest.

I work for McMahon Services and am based on the Modernisation of Building O2 project in the south yard. My role varies as an undergraduate project administrator, providing exposure to a range of construction disciplines including design, contractor interaction and construction processes.

I began this role as a self-actioned industry placement for my application to honours year. However, after a successful probationary period I was offered a full-time permanent position,

which I'm doing while completing my degree full time so I'm very busy!

My typical day involves the collection and collation of information for site operations, work permits, design information, involvement in site meetings with client and contractors, and quality assurance, along with any necessary supporting tasks for the project team.

This is my first experience in construction and to be on a site of this size has been an amazing opportunity.

McMahon Services' focus on safety and documentation has allowed me to form good habits, and I have also been made to feel comfortable expressing my ideas and opinions to others on the project.



**Thomas is in his final year of Civil & Structural Engineering (Honours).**

I have always been interested in engineering and being able to apply my physics/mathematical skills to real-world problems, so was drawn to the construction industry and the different challenges it faces day-to-day.

I am currently doing an internship with LOR's procurement team, which I found out about through websites such as GradAustralia and GradConnect.

I submitted my resume, underwent a psychometric and behavioural test online, with the final hurdle being an interview via Microsoft Teams.

The procurement team tenders out packages to the market and evaluates the best submission for contract award. I am overseeing six packages right from expression of interest through to receiving and evaluating tender submissions, all the way to contract award. A lengthy process, it involves lots of communication between tenderers and our teams.

## Construction Notification

A reminder that some out-of-hours (between 4am-7am and/or 7pm-9pm) low-impact activities may be required from time-to-time as a result of unforeseen circumstances such as excessive rain or hot weather. Out-of-hours activities only occur if required and only low impact activities are undertaken during these times - eg, site setup and/or concrete pours, etc. Increases to ambient noise during such activities is not expected. Piling is NOT undertaken out-of-hours on the Osborne North Development Project.

All works are undertaken in line with the Council approved Out-of-hours Management Plan, and an exemption for such activities has been received through the Council. Additional control measures, including the use of noise efficient equipment, reduced truck speeds, and 24/7 noise monitoring are implemented during such times.

Should you have any queries or feedback in relation to these works, please contact the ONDP Community Feedback line on **1800 943 022**

I have learnt a lot about how different internal teams communicate and work together to reach certain deadlines and have gained insight into how the industry operates on a massive scale.

My experiences have also provided me with many skills and knowledge that I can't learn at Uni, including a better understanding of technical drawings and drafting concise emails!

Working on the ONDP is a very exciting opportunity to learn how such a complex project is undertaken and how everyone plays an important part in ensuring the project is successful.

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