

# THE MORSE

## Osborne Naval Shipyard Project Newsletter

APRIL 2020

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**R**estrictions put in place to minimise the spread of COVID-19 have impacted every corner of the world, including our own small corner on the Lefevre Peninsula.

Whilst construction of the new shipyards and ships continues, multiple measures have been implemented to minimise the risk of exposure and ensure the safety of all workers at the Osborne Naval Shipyard (ONS).

Working from home for personnel not required on site, additional cleaning of surfaces throughout the day, and social distancing where practical have become daily practices across the shipyard.

A number of initiatives have been developed to provide additional support to staff during this time. For instance, graduates from ANI's construction partner on the new submarine yard, Laing O'Rourke, implemented a program to help workers with home schooling by providing homework marking and tutoring for primary to early senior school aged children.

The project teams have also committed to purchasing lunches and platters for meetings from cafes and shops located on the Peninsula to help support local businesses.

Despite the challenges COVID-19 has presented, ANI and its tenants have achieved a number of milestones in recent weeks and whilst celebrating these achievements together was not possible, we were still able to acknowledge the achievements by sharing them via live streaming and social media.

This included the handover to the ANI Operations Team of the Steel Fabrication and Unit Hall and associated facilities on the Osborne South yard, as well as the construction and subsequent move for final consolidations works of the first Offshore Patrol Vessel.

We have also reached an agreement between ANI, Flinders Ports, the City of Port Adelaide Enfield Council and the Department of Environment and Water to jointly fund an investigation and planning process into the potential remediation of the Mutton Cove Conservation Reserve.

We share some of those milestones and achievements here.



*The Osborne Naval Shipyard lights up the Lefevre Peninsula as work commences for the day*

# Osborne South Development Project



**D**espite the additional challenges COVID-19 is presenting, ANI and its project partners Lendlease, OMT, Aurecon and supplier and trade subcontractors have commenced a staged handover of the new shipyard facilities, with the southern elements of the Osborne South Development Project (OSDP) officially handed over to ANI's Operations Team in April.

Representing an important step in the Federal Government's Naval Shipbuilding Program, the completed elements include the Steel Fabrication and Unit Assembly Hall, the state-of-the-art facility that enables a **Steel In... Ships Out** capability for the production of the Hunter class Frigates. Ancillary buildings such as offices, administration, storage, staff amenities and lunchrooms have also been handed over.

The remaining halls and facilities are also substantially complete and will be handed over to the ANI Operations Team over the coming weeks.

It is expected that ANI and its shareholders will welcome ASC Shipbuilding into the new yard in July 2020.



Raw steel is taken on a journey through the hall using magnets, conveyor belts and automated flat-bed tables



Staff amenities were also handed over

## Steel Fabrication and Unit Assembly Hall

**W**e've made quite a fuss over our new Steel Fabrication and Unit Assembly Hall over the past 12 months because it's this Hall that enables a 'Steel in...Ships Out' capability for the first time at the ONS. Outfitted with the latest in steel fabrication equipment from around the world, this hall will greatly improve on Australia's sovereign capability in the design and construction of ships.

State-of-the-art equipment in the Hall has been set up in a series of stations and lines that take raw steel on a journey through the more than 14,000m<sup>2</sup> hall using magnets, conveyor belts and automated flat-bed tables to move the steel from machine to machine.

Fitted with scanners and cameras, 3D modelling capability and robotic welding arms, these machines bend and cut the steel into curved and straight shapes, plates and profiles that are then used to construct large blocks in the Block Assembly Hall next door. These blocks come in all shapes and sizes and are consolidated and welded together to form the vessels.

The new milling machine installed in the hall can grind the edges of a steel plate to a mirror finished edge at an exact angle to create a perfect seam when two plates are welded together.

And whilst the steel plates and profiles are spot welded together manually, our robotic equipment uses fine-tuned cameras and scanners to produce 3D models of the pieces placed under it. An operator inputs additional information into the computer about what the camera is seeing, then robotic arms move in to do the main welding work, creating seamless welds for everything that is produced in the hall.

The equipment is so exact and efficient that workers could manually tack plates and profiles together during a morning shift, then move them under the scanners for a single operator to complete the main welding tasks during a second shift in the afternoon.

The completed Steel Fabrication and Unit Assembly Hall was handed over to ANI's Operations Team on the 28th April 2020 – a significant achievement, particularly given the recent impacts of COVID-19 restrictions.



The latest in steel fabrication equipment has been installed

# Osborne North Development Project



**A**NI's Project Team and managing contractor for the Osborne North Development Project (ONDP), Laing O'Rourke, continue with the construction of Phase 1 facilities. This yard will be home to the new Attack-class submarines.

Piling, civils and underground services works for the first building, a Combat System Physical Integration Facility (CS-PIF), are now complete and concrete foundation pours commenced on 9 April 2020.

Foundation works are underway on the second

building, the Platform Land Based Test Facility (PLBTF), and piling for this building is expected to commence in late May.

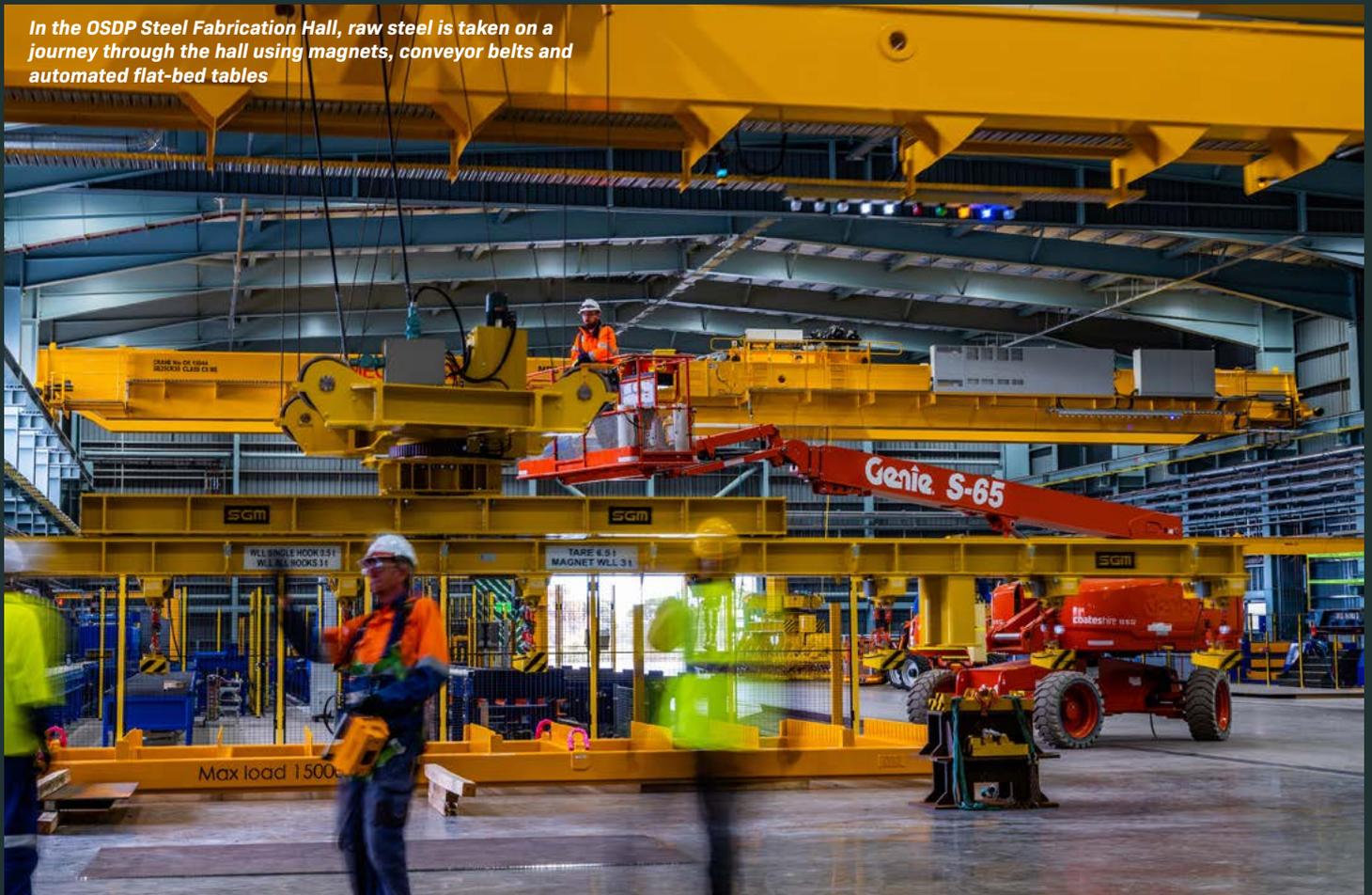
Civil works for a high voltage substation and fire tanks for the new submarine construction yard have also commenced.

For companies looking to tender for work on this project, work packages are being advertised through the Industry Capability Network Gateway at <https://gateway.icn.org.au/project/4155/osborne-naval-shipbuilding-precinct-future-subs-program-infrastructure-development>



Concrete pours are underway for the first of two land-based test facilities for the new submarine yard

*In the OSDP Steel Fabrication Hall, raw steel is taken on a journey through the hall using magnets, conveyor belts and automated flat-bed tables*



# Construction Works Information

The ONDP continues with the construction of the Phase 1 facilities for the new submarine yard. Piling for the first building is complete and concrete pours for this facility have commenced.

Piling for the second building, the PLBTF, is scheduled to commence in the week of 25 May 2020. This work is expected to continue for eight (8) weeks.

Piling will only occur during standard construction hours of Monday to Saturday between 7am and 7pm.

Similar to the Osborne South construction works, unforeseeable events such as unfavourable weather conditions means some out of hours work may be required on occasion to undertake low level noise activities such as concrete pours. This will only be done on an 'as needs' basis and we do not envisage an increase to current out-of-hours noise levels in the area during these times.

A notification with more information about these works is being circulated separately to nearby residents.

For further information about the project and the upcoming works, please contact the ONDP Team at

[ONDP@laingorourke.com.au](mailto:ONDP@laingorourke.com.au)

# Shipyard Announcements

**A**NI's Operations Team recently achieved the largest ever block manoeuvre at the ONS as it transported the fore and aft megablock sections of the first Offshore Patrol Vessel (OPV) through the yard.

As shipyard owners, ANI has undertaken significant expansion work and is advancing modernisation of the ONS, which is now more than 100 hectares in size. This has involved the purchase, installation and commissioning of state-of-the-art equipment to equip the shipyard as a world-class shipbuilding facility.

Newly acquired self-propelled modular transporters (SPMTs) were used by ANI's Operations Team to manoeuvre the megablocks - the aft being 970t, 13m wide and 45.5m long, the fore being 564t and 32m long - through a series of turns to the dry dock for final consolidation works. Remotely controlled by a single operator and placed together with only millimetres between them, the manoeuvre required

detailed planning and weeks of training in the lead up to the move.

Built by Luerssen Australia and ASC, the megablocks were constructed inside existing work sheds - another first at the ONS - enabling improved production times and a glimpse into the future of shipbuilding at the yard. The move to undercover construction was made possible due to the smaller size of the vessels and through the flexibility offered by ANI's new SPMTs.

Another key milestone in the Australian Government's Naval Shipbuilding Program saw a ceremonial keel laying of the second OPV live streamed from the ONS. The keel laying ceremony is an important shipyard and naval tradition that brings good luck to the build of the ship and the life of the vessel by placing a coin under the keel.

These OPVs will undertake maritime patrol and response duties for the Australian Defence Force and will be known as the Arafura class when they begin service from 2022.



ANI's SPMT operator, Chris, remotely controls the transfer of OPV1 megablocks through the yard to the dry dock

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