



# Engineering our coastal waterways **Marine**

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# Building on strong foundations



DELIVERING EXCELLENCE IN COMPLEX MULTI-DISCIPLINARY PROJECTS



**\$7.6B+**

Work in hand



**15,000+**

Employees



**25+**

Countries



**5**

Continents

## Global experience delivered locally

BESIX Watpac is an Australian multi-disciplinary contractor backed by a century of global expertise and financial strength. A wholly-owned subsidiary of the award-winning BESIX Group, we specialise in complex construction across all sectors.

With vast international experience and a robust balance sheet we deliver large-scale complex infrastructure projects across Australia and New Zealand. Combining Watpac's four decades of intimate local knowledge, delivery excellence, and trusted long-standing partnerships, we bring the best of the world's capability together.

Whether it's the tallest residential building in the world, the iconic Burj Khalifa or the Grand Egyptian Museum - from stadiums to hospitals, schools, bridges, resource and industrial projects, port infrastructure, water treatment plants, secure facilities, airports, defence assets and more - *ours is a reputation built on quality.*



Wheatstone LNG Project,  
Onslow, Western Australia



## In-house engineering expertise

Our in-house team of 150+ engineers operates from three global hubs in Brisbane, Dubai and Brussels. We set new standards in construction through expert structural, geotechnical, sustainability, digital and façade engineering as well as rapidly evolving concrete technology. Our specialists are embedded in project teams to interrogate the design; de-risking projects, maximising value and delivering certainty.



## Partner of choice

Leveraging our rich Australian history, we collaborate with our clients and partners to deliver excellence on every project. As genuine relationship contractors, we are invested in our client's success. Proudly, eighty per cent of our business is repeat. A private company with a flat structure, our lean, agile approach guarantees innovative and cost effective solutions.



## Local content specialists

From urban centres to regional Australia, we actively support local jobs and Indigenous participation while building better communities. This is fundamental to our core beliefs and exemplifies our personalised approach to project delivery.

*Experts in marine works >>*



# Complexity made easy



## Future-proofing our national interest with vital marine infrastructure

With 99 per cent of Australian exports relying on shipping, and with domestic freight also heavily reliant on our ports - marine infrastructure and its future expansion has never been more critical to our economy.

Delivering maritime facilities along our expansive coastline requires a careful balance between maximising efficiency, managing challenging weather and protecting sensitive environments.

It's therefore essential to partner with a contractor who understands complex marine infrastructure and has the design and construct experience to resolve challenges well before the project commences.



*We bring a powerful combination of proven expertise in delivering large-scale complex marine projects.*

◀ **Ain Sokhna Product Hub**  
Gulf Of Suez, Egypt

Our capability is led by our unique in-house engineering team which draws on the vast experience of some of the largest and most complex marine projects undertaken in the world like the Ain Sokhna Product Hub, in Egypt.

A collaborative and proactive approach from the outset ensures we deliver forward-thinking solutions and proven construction methodologies to optimise value, de-risk projects and deliver certainty for any maritime project including wharves, quay walls, marinas, jetties, breakwaters and shore protection.

**Our commitment to delivering cutting-edge marine infrastructure includes:**

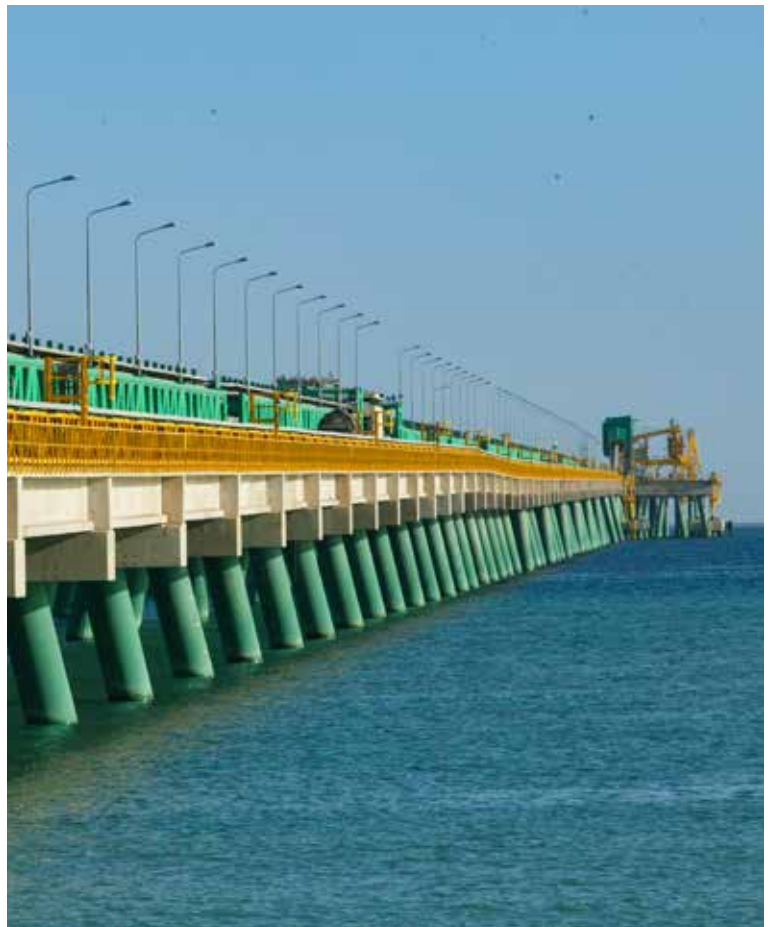
- ✓ Comprehensive planning and methodology to de-risk projects and provide certainty
- ✓ Collaborating with local subcontractors to boost regional employment
- ✓ Establishing highly effective communication with clients and stakeholders
- ✓ A skilled and sophisticated team with proven experience in complex infrastructure
- ✓ An extensive local network of specialist operators and technology partners

# Trusted and proven marine expertise

## Embracing complexity

We approach every design, no matter how complex, as an opportunity to simplify delivery through innovation. The diversity and vast experience of our team allows us to devise on optimal solutions. De-risking marine projects is about formulating the simplest, safest and most cost-effective methodologies through smart engineering. This then dictates the carefully planned and detailed logistics that ultimately drive the success of marine construction. Our in-house team relishes the opportunity to simplify delivery to get each phase of the project right; first time, every time.

Jetty for Wafa Coastal Plant •  
West of Tripoli, Libya





Dubai Water Canal Project

## ✓ Collaborative engagement

Whether deconstructing or upgrading existing facilities, or delivering new greenfield infrastructure, our approach is to identify and engage with all stakeholders to ensure the best possible outcome for our client. We have strong relationships with specialised delivery partners and focus on collaboration to mitigate risks and maximise opportunities.

## ✓ Live environment experts

We have extensive experience working in live operational environments minimising impact to existing operations. Managing a construction project in a live environment can be complex, and through meticulous planning we consistently deliver projects on time with zero unplanned disruption. Our expertise in construction methodology ensures we are able to optimise programming, and we work closely with project stakeholders to ensure business continuity is maintained.

## ✓ Strength and experience

Our highly skilled multi-disciplinary team brings an integrated approach to safely deliver each project. Backed by the financial strength and global expertise of BESIX, we have an extraordinary portfolio of diverse marine projects that showcases both our commitment to innovation and our remarkable legacy of benefiting the communities in which we operate.

Our integrated approach de-risks projects, optimises value and delivers certainty.

- ✓ Design Management
- ✓ Industry leading value engineering capability (access to more than 150 in-house engineers)
- ✓ Fully integrated cost plan incorporating scope and time
- ✓ BIM Modelling, methods and sequencing
- ✓ Services, technology and commissioning
- ✓ Project management excellence
- ✓ Workforce training and development
- ✓ Community and stakeholder engagement.



# Complex engineering

DUBAI, UNITED ARAB EMIRATES



**6 km**

Waterfront recreational area



**15K**

40 tonne concrete blocks used to fortify banks



**3.2M m<sup>3</sup>**

of soil dredged to create the canal

## Dubai Water Canal Project

The Dubai Water Canal is one of the world's biggest urban transformations and the largest infrastructure project delivered in Dubai to date; it has revolutionised travel and leisure throughout the city.

Managing the project's interface with large residential areas and transport arteries was the project's most significant challenge. Carefully considered methodologies and techniques such as directional drilling and micro-tunnelling were used to reduce impacts on neighbours and commuters.



CLIENT

**RTA, Dubai Roads and Transport Authority**



VALUE

**\$420M**



EXPERTISE

**Construct Only**



TIMELINE

**2014 - 2016**






“*By using innovative directional drilling techniques and diverting the canal route for excavation works, we were able to reduce the impact on day-to-day traffic and local residents to a minimum.*”

Hussein Saad - Operations Manager  
BESIX Group

- ✔ Carefully considered methodologies and techniques such as directional drilling and micro-tunnelling were used to reduce impacts on neighbours and commuters
- ✔ Three iconic pedestrian bridges rising over the canal were delivered as part of the overall project
- ✔ Meticulous programming to ensure the project was delivered in time for the formal opening ceremony
- ✔ Improved connections with major transport networks and recreational precincts
- ✔ Innovative methodology and smart engineering enabled construction of the bridges to continue over a marine environment once the canal was flooded.



GDANSK, POLAND

# Giant Baltic Sea container terminal

## Gdansk Deepwater Container Terminal

Despite a harsh environment, complex design process and soil pre-remediation, this impressive large-scale quay wall was delivered four months ahead of schedule thanks to the development and implementation of a meticulous schedule.

- ✓ 656 metre quay wall with a draft of 17 metres as well as 25 hectares of platforms
- ✓ Storage depots, technical installations and workshops also delivered along with an extension of the existing terminal
- ✓ Reclamation 750,000 square metres
- ✓ Cabling 90,000 metres
- ✓ Combi-Wall 8,100 tons
- ✓ 15,000 square metres of concrete and 250,000 square metres of pavement
- ✓ Dredging 212,000 square metres



CLIENT

**Deepwater Container Terminal Gdansk**



VALUE

**\$142M**



EXPERTISE

**Design + Construct**



TIMELINE

**2015 - 2016**



# Parting the sea of Oman

DUQM, OMAN

## Port of Duqm

The acclaimed BESIX engineering team identified an innovative opportunity that would reduce construction time and improve the overall quality of works on this transformative project which allows the Port of Duqm to receive and handle giant container vessels.

- ✓ Sea water was pumped out of the port allowing works to take place on a platform 20 metres below sea level
- ✓ BESIX was the main marine civil works subcontractor as part of a consortium with Royal Boskalis Westminster (RBW)
- ✓ One kilometre Quay wall length



CLIENT

**Special Economic Zone  
Authority in Duqm**



VALUE

**\$699M**



EXPERTISE

**Design + Construct**



TIMELINE

**2017 - 2019**





ONSLow, WESTERN AUSTRALIA

# Open water innovation



20K<sub>m²</sub>

Deck slab



2

Quays



3<sub>month</sub>

Early Delivery

## Wheatstone LNG Project

BESIX, in a joint venture with Thiess, delivered a Material Offloading Facility (MOF) for the Chevron operated Wheatstone LNG Project in Western Australia, as well as a 960-metre breakwater.

The challenge of working in a very remote location, often over open water and under difficult environmental conditions, was overcome through best-practice design and construction methodologies as well as an unwavering focus on safety. This not only achieved an excellent safety result, but also enabled the project to be delivered three months ahead of schedule.



CLIENT

Bechtel for Chevron Australia



VALUE

\$360M



EXPERTISE

Design + Construct



TIMELINE

2011 - 2015





- ✓ Combi-wall retaining structures with anchor walls
- ✓ Two quays  
South quay: 250 metres  
East quay: 175 metres
- ✓ 960 metre rubble mound breakwater protected by concrete armour units
- ✓ 20 thousand square metre deck slab



*Our ability to work proactively with the client to find design solutions along with our safety culture, high performance and reliability have made us one of the most trusted contractors on site. ”*

Jean-Pol Bouharmont  
Chief Executive Officer, BESIX Watpac

# Streamlining delivery through design

PORT HEDLAND, WESTERN AUSTRALIA

## Port Hedland Tug Facilities

This project included the design and construction of marine structures to accommodate FMG's new tug fleet. All design on the project was performed and coordinated by the BESIX in-house engineering department, with assistance from location design consultants. Several design solutions were investigated and developed in relation to the piling design, with consideration to cost-effectiveness, constructability, modularisation, expandability for future operations and ongoing maintenance.

- ✓ Access walkway, with services berth
- ✓ Transformer platform
- ✓ Moorings for each tug during normal operations and cyclonic conditions
- ✓ Onshore infrastructure including a workshop, warehouse, underground hydrocarbon storage, administration office, potable water and fuel tanks
- ✓ Marine fuel system including tanks, pumps, pipework and control systems



CLIENT

**Fortescue Metals  
Group Limited (FMG)**



EXPERTISE

**Design  
+ Construct**



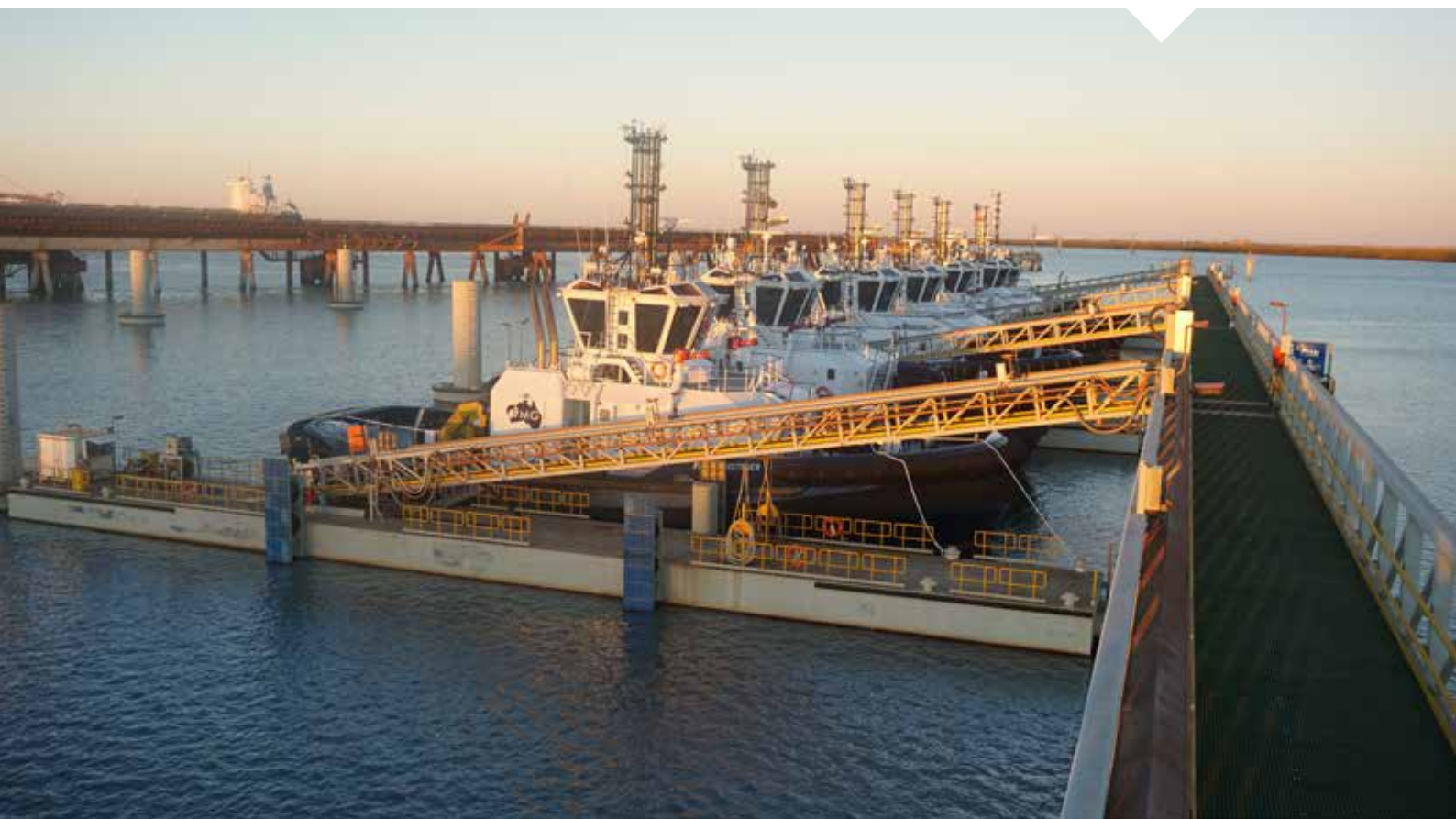
VALUE

**\$33M**



TIMELINE

**2017 - 2018**







DUBAI, UNITED ARAB EMIRATES

## Dubai Maritime City Ship Lifts

### Cost-efficient solution

CLIENT **Nakheel**  
EXPERTISE **Design + Construct**

- ✔ Project consisted of a 2km<sup>2</sup> man-made peninsula providing ship repair facilities which are equipped with two ship lifts of a capacity with up to 6000 ton loads
- ✔ Through our dedicated engineering department, an alternative solution was proposed for the retaining walls to reduce cost and save time. A prefabricated, hot rolled steel sheet piling was installed within only six weeks
- ✔ A cost effective solution was developed in the form of prefabricated anchor material was installed at low tide to mitigate issues with the site location on reclaimed land on the shoreline

GULF OF SUEZ, EGYPT

## Ain Sokhna Product Hub

### Complex engineering solutions

CLIENT **Sumed**  
EXPERTISE **Design + Construct**

- ✔ Delivered in 29 months as a result of thorough planning and meticulous quality checks
- ✔ Luxury finishes including 20,000 square metres of marble imported from Italy, Germany and Greece
- ✔ Five-star 500 room hotel with high-end amenities including a floating Michelin-star restaurant, spa and a water park



# Rejuvenating an icon

SYDNEY, NEW SOUTH WALES

## Overseas Passenger Terminal

A showcase of excellence, the major upgrade to Sydney's Overseas Passenger Terminal delivered increased passenger capacity as well as improved operational efficiencies for the busy terminal.

- ✓ Agile approach to safety management enabled risks to be identified and mitigated regularly throughout the project, resulting in zero lost time injuries
- ✓ Live environment with significant public interfaces requiring the highest standard of collaboration to ensure public safety and minimise impact on terminal operations
- ✓ Programming works around public areas and negotiating temporary changes to Maritime Security Plans
- ✓ 24/7 operations with 1.5 million annual passengers adjacent to the site



### Multi-award Winner

- 2015 National Excellence in Workplace Health and Safety Award  
Office of the Federal Safety Commissioner
- 2015 Site Safety Award for Commercial Projects up to \$50m  
Master Builders New South Wales



#### CLIENT

**Port Authority  
of New South Wales**



#### VALUE

**\$37M**



#### EXPERTISE

**Managing Contractor**



#### TIMELINE

**2014 - 2015**



ABU DHABI, UAE

# Abu Dhabi's finest superyacht marinas

## Yas Island Development – Racetrack Marina

Yas Marina is at the heart of the iconic Yas Island and is bound by the Formula 1 race circuit. The 227 berth marina caters for 600 moorings for boats from eight metres to superyachts up to 175 metres long. Delivering this exclusive piece of infrastructure required the implementation of several proven methodologies.

- ✓ With a diaphragm wall for the pontoon area and block wall for the eastern waterfront
- ✓ The excavation of a basin to four metres below sea level resulted in a temporary earth dam on the seaward side.
- ✓ Quay walls were built along the other three sides of the excavation using precast concrete units
- ✓ To stabilise the backfill to the 6 metre high marina walls, a geotextile filter was installed which was selected for its durability in the marine environment



CLIENT

**Aldar Properties PJSC**

VALUE

**\$96M**

EXPERTISE

**Design + Construct**

TIMELINE

**2007 - 2008**



# Partner in excellence

## OUR PURPOSE

WE EXCEL IN CREATING SUSTAINABLE SOLUTIONS FOR A BETTER WORLD

## OUR VALUES



### Excellence

We are committed to operational excellence, high performance and delivering on our promises safely.



### Co-creation

We collaborate with our clients and partners to drive innovation that makes a difference.



### Respect

We are genuine, considerate and act with integrity and candour.



### Passion

We seek to inspire, going the extra mile to achieve results that exceed expectations.



### Unity

We work as one team to achieve our shared purpose.





### Best for project teams

Our teams are hand-picked specifically for each project. We bring together the best people, consultants, sub-contractors, delivery partners and networks to ensure the right technical skills, cultural fit and client focus to achieve on-time and on-budget project delivery.



### Culture of excellence

By investing in the development and wellbeing of our people, we create a culture focused on safety and exceeding client expectations. This is underpinned by our values and supported by our in-house leadership program, formal continuous improvement processes and structured knowledge sharing across the BESIX Group.



### Flexible, streamlined project delivery

We partner with our clients to deliver projects through various contracting methods, including Public Private Partnerships (PPPs), Managing Contractor, Early Contractor Involvement (ECI), Design and Construct (D&C), or Construct Only. Irrespective of the contract model, we embrace a flat management structure to enable streamlined communication between all project stakeholders to make clear and efficient decisions.



### Building Information Model (BIM)

Building Information Modelling affords numerous benefits to the design, construction and operation of a project. Our dedicated BIM Manager oversees design development and coordination of the BIM datasets. By working closely with the design team and cost planner, efficiencies are fully leveraged and any clash detection identified. This enables constructability issues to be resolved well before construction begins. BIM processes can be further utilised to verify BIM elements to the as-constructed form. Ideally the BIM datasets are then used to optimise asset life and facilities management.



### Safety, quality and sustainability

While our systems are certified to Australian, New Zealand and ISO standards, it is our commitment to continuous improvement that ensures we bring best-practice safety, quality and environmental outcomes to all our projects. We have experience in delivering commercial projects to achieve a minimum 5 Star Green Star Design and As-built Ratings.

***Partnering with an experienced contractor who genuinely collaborates to deliver excellence on every project.***

# Maximising local benefits

SUPPORTING LOCAL JOBS AND PROCUREMENT OPPORTUNITIES

▼ Project activity since 2014



**80%+**

Average portion of total construction hours by local trades and businesses



**500+**

Jobs created for Indigenous people



**2,000+**

Career pathways for apprentices



**2M+**

Training hours achieved across 60 projects

**We believe the benefits of social procurement should flourish during construction and long after the project is completed. This places jobs, diversity, training and skills development front of mind at every step of project delivery.**

With strong local connections, particularly through regional Australia, we are committed to maximising local jobs, Indigenous participation, social benefit and homegrown content.

Partnering with clients and community leaders, we inject millions of dollars into local economies through the creation of career pathways and apprenticeships and by enhancing local business capability.

Engaging early with local industry, we evaluate supply chain capability, training and skills development opportunities - delivering long-term economic and social benefits to the community.



^ Indigenous smoking ceremony at a BESIX Watpac project site - held within a designated safety exclusion zone with all works ceased.





*BESIX Watpac has taken a really personal approach with our local community. They have responded to anything the community wanted to talk about. Nothing has been too difficult.”*

Client feedback



^ Meet the contractor barbecue



## Our blueprint for vibrant communities

- ✓ Procurement and tendering processes are transparent, fair and locally driven
- ✓ Trade packages are broken down to reduce risk and create local opportunities
- ✓ Sub-contractors are connected with Indigenous people and are supported to succeed
- ✓ Training pathways are established through local tertiary institutions including universities and colleges
- ✓ Benefits are created beyond construction such as support for community programs

► BESIX Watpac's Reconciliation Action Plan artwork

# Experience you can count on...

## 1990

Contessa Apartments  
Gold Coast, Qld

Dockside Residential  
& Hotel Development  
Brisbane, Qld

## 2003

Dundrenan  
Residences  
Brisbane, Qld

## 2008

Yas Island  
Racetrack Marina  
Abu Dhabi, UAE

Sohar Industrial Port  
Sohar, Oman

Beerkanaal Quay  
Wall & Pier

## 2010

New Orleans  
Tower  
Rotterdam,  
NL

## 1998

Couran Cove Resort  
South Stradbroke  
Island, Qld

## 2000

Sheikh Sultan Marina  
Abu Dhabi, UAE

## 2005

Jaddaf Waterfront  
Marine Works  
Dubai, UAE

## 1995

Admiralty  
Towers wharf  
- Stage 1  
Brisbane, Qld



## 1997

Admiralty Towers  
wharf - Stage 2  
Brisbane, Qld

## 2001

Fujairah Naval Base  
Fujairah, UAE

RAK Fish Harbour  
Ras Al Khaimah, UAE

Deepwater Point  
- Stage 1  
Gold Coast, Qld

## 2004

Jetty for Wafa  
Coastal Plant  
West of Tripoli,  
Lb

The Mews  
Brisbane, QLD

Nile City  
Cairo, Eg

Zuara Water  
Intake  
West of Mellitah  
-Zuara, Lb

## 2006

Peninsula  
Apartments  
Airlie Beach, Qld

Riverway Arts  
Centre & Lagoons  
Townsville, Qld

Hartelhaven Quay Wall  
Rotterdam, NL

Montivideo Tower  
Rotterdam, NL

## 2009

Tangiers Med I  
Tangiers, Mar

Maas Towers  
Rotterdam, NL

Birkenhead Point  
Redevelopment  
Sydney, NSW

Nareel Island  
Abu Dhabi, UAE

## 1991

The Inlet  
Gold Coast, Qld

## 1999

Riviera Terraced  
Apartments  
Brisbane, Qld



## 2012

- • • **Das Island**  
Abu Dhabi, UAE
- • • **Museum of Contemporary Art Redevelopment**  
Sydney, NSW



## 2015

- • • **Wheatstone**  
Onslow, WA
- • • **Ochz Quay Wall Zeebrugge**  
Zeebrugge, Be
- • • **Fourth Lock of Lanaye**  
Lanaye, Be
- • • **Overseas Passenger Terminal**  
Sydney, NSW



## 2017

- • • **Ain Sokhna Product Hub**  
Ain Sokhna, Gulf of Suez, Eg
- • • **Herstal Viaducts**  
Herstal, Be
- • • **Bluewaters Bridge**  
Dubai, UAE
- • • **Jumeirah Private Island - 3 Marinas**  
Jumeirah, Dubai, UAE
- • • **Dyke Reinforcement Kinderdijk Schoonhovenseveer**  
Zuid-Holland, NL



## 2019

- • • **Crown Princess Mary's Bridge**  
Frederikssund, Dk
- • • **Prinses Beatrixsluis Beatrix lock**  
Nieuwegein, NL
- • • **Royal Atlantis**  
Dubai, UAE



## 2011

- • • **South Hook LNG Terminal**  
Milford Haven, UK

## 2014

- • • **Hamriyah Power and Desalination Station**  
Hamriyah, Sharjah, UAE
- • • **Tangiers Med II**  
Tangiers, Mar
- • • **Born, Maasbracht & Heel Locks**  
Born, Maasbracht and Heel, NL
- • • **El Ain El Sokhna Thermal Power Plant**  
Sokhna, Eg
- • • **Amazone Harbour A1, A2 and A3**  
Rotterdam, NL
- • • **Ras Laffan Port Expansion EPC of Rehabilitation of Dolphins**  
Doha, Qatar

## 2016

- • • **Dubai Canal Project**  
Dubai, UAE
- • • **Fifth Harbour Dock Antwerp**  
Antwerp, Be
- • • **VLCC Jetty N°1 - Port Of Fujairah**  
Fujairah, UAE
- • • **GdaNsk Deepwater Container Terminal**  
GdaNsk, Pl



## 2018

- • • **Bahrain LNG Import Terminal**  
Muharraq Island, Bh
- • • **Ijzerlaan Bridge & Channel Widening**  
Antwerp, Be
- • • **Limmel Lock - Flood Barrier**  
Limmel, NL
- • • **Port Hedland Tug Facilities**  
Port Hedland, WA

## 2020 & beyond...

- • • **E6 Moelv-Roterud**  
Moelv, No
- • • **Shindagha Bridge**  
Dubai, UAE



