



Creating an engineering marvel **Bridges**

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 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.*



◀ Dubai Canal Bridge



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.

Bridge building experts >>



Bringing an icon to life

Bridges, connecting all the right elements

We take great pride in delivering time-honoured monuments.

Like no other infrastructure, a bridge is at the heart of well-connected towns and cities. Smart engineering is needed to ensure it delivers on its intended purpose whether it be to improve arterial flow, enhance the pedestrian experience or encourage greener and more active communities.

BESIX Watpac's in-depth local knowledge and long-established partnerships are backed by international experience in major infrastructure, meaning we understand what is required to build and deliver even the most complex structure while creating a connected community in Australia. Our technical capability is led by our acclaimed in-house engineering team which has delivered some of the world's most iconic structures and buildings. We apply strategies that not only garner world-leading innovations that achieve best value - but importantly, mitigate program, geotechnical, structural and safety risks.



Much more than a piece of well-built infrastructure, a bridge is an engineering marvel that reflects a city's personality and becomes a time-honoured monument to the region and people it serves.

• **Dubai Water Canal - Bridge 2**
Dubai, United Arab Emirates

Collaboration at every step ensures we deliver our client's vision by thoroughly considering each unique requirement. From pedestrian and vehicle safety features and height clearance imperatives to seamlessly integrate with surrounding infrastructure and active transport networks.

With our strong local experience and technical knowledge, we understand that Australia's often unforgiving elements such as floods, storms and winds are all critical factors to be addressed to ensure the integrity of the design and the experience of the users.

We understand that for our clients, building a landmark is a once in a decade or generation event. That's why we prioritise transparent communication and close collaboration, becoming the trusted partner you can count on to bring your vision to life.

Building better infrastructure

Our highly skilled multi-disciplinary team brings an integrated approach to safely deliver each project, drawing on our proven experience while remaining flexible and adaptive.

Embracing complexity

We approach every project, no matter how complex, as an opportunity to simplify delivery through innovation and value-engineering. The diversity and vast experience of our in-house team allows us to devise solutions that others might miss. This includes value engineering and de-risking initiatives such as formulating the simplest and most cost-effective methodologies, that not only fast-track delivery but also ensure we get each phase of the project right, first time, every time.

Dubai Water Canal - Bride 3
Dubai, United Arab Emirates





▲ Dubai Bluewaters Bridge



Collaborative engagement

Every new project starts with understanding the objectives and unique social and economic drivers of the local community. 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.



Procurement strength

The specialised and bespoke nature of materials required for bridge construction means these are a limited number of suppliers. While local procurement is always preferred, the scale of our global reach means we can confidently plan, source and deliver all necessary materials, to ensure the project is delivered on time and within budget.



Building landmarks

Creating an iconic project starts with thoroughly understanding our client's vision. Inspiration is drawn from local cultural, environmental and community influences, which often feature elements that require meticulous planning and execution-methodologies. Our team undertakes rigorous testing, modelling and engineering to ensure even the most technical project is delivered to the highest standard and in the most cost-effective manner.



Live environment expertise

Our proven approach to safely delivering major construction projects within demanding live environments has been finely tuned by decades of experience working in built-up and constrained sites.

Our detailed approach to our laydown areas, logistics management and materials handling reduces impact to both the project and surrounding stakeholders.



Elegant in design excellence in construction

DUBAI, UNITED ARAB EMIRATES

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.

Rising above the canal are three iconic pedestrian bridges that showcase intelligent design and compliment the unique aesthetic appeal of Dubai. The three bridges connect residents and visitors with recreational precincts and major transport networks.

Construction of these bridges took place both before and after the three-kilometre canal was flooded, requiring innovative methodology and smart engineering to ensure works could be carried out over land as well as marine environments.



CLIENT

**RTA, Dubai Roads
and Transport Authority**



VALUE

\$420M



EXPERTISE

Construct Only



TIMELINE

2014 - 2016

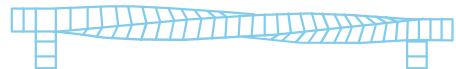


“ In terms of complex infrastructure, bridges are unique. Achieving the design intent and realising the aesthetic vision, particularly when working within challenging environments, requires a great deal of competency and experience. The three iconic bridges delivered as part of the Dubai Water Canal are a prime example of how we adapted to the environment by developing new methodologies – to ensure a successful transition from construction to marine, once the canal was flooded. ”

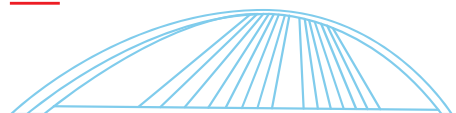
Jean-Pol Bouharmont
Chief Executive Officer
BESIX Watpac

- ✓ Carefully considered methodologies and techniques such as directional drilling and micro-tunnelling were used to reduce impacts on neighbours and commuters
- ✓ Our in-house engineering team expertly overcame complex challenges such as efficiently removing temporary bridge structures over a marine environment
- ✓ Meticulous programming ensured the project was delivered in time for the formal opening ceremony
- ✓ Delivered improved connections with major transport networks and recreational precincts

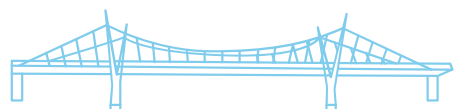
Bridge 1.



Bridge 2.



Bridge 3.



Dubai Water Canal Project

Bridge 1

122m long | **6m** wide | **35m** high | **90t** Y-shaped antennas

The first pedestrian bridge is supported by two 90 tonne Y-shaped antennas that were installed inside the canal before it was flooded. Temporary towers enabled deck segments to be lifted and welded into place before installation and tensioning of the steel cables.





Bridge 2

Dubai Water Canal Project

Bridge 2

Tolerance Bridge

205m long | **6.7m** wide | **1,700t** steel cables

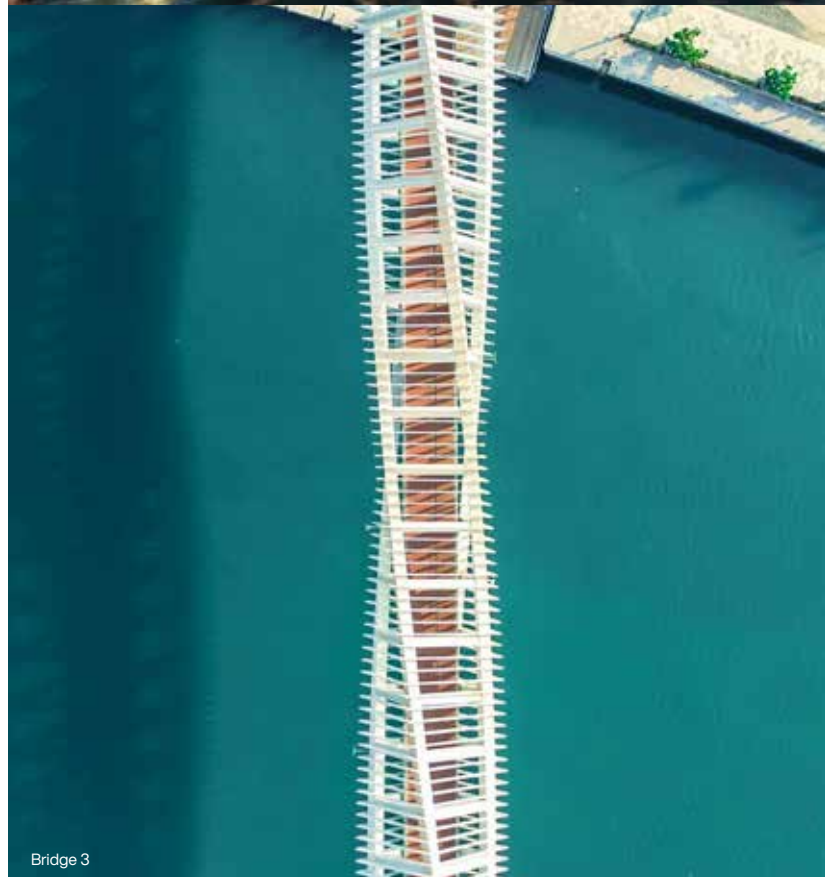
The S-shaped deck of the second pedestrian bridge appears to float above the water suspended by a 1,700 tonne arch and steel cables. A series of temporary steel towers were used as intermediate supports while the 205-metre long arch was lifted into place by two 600 tonne cranes.



Bridge 2



Bridge 3



Bridge 3

Dubai Water Canal Project

Bridge 3

141m long | **3.5m** wide

A showcase in complex engineering, the third pedestrian bridge features a twisted Vierendeel truss structure. A temporary steel structure platform was installed under the deck to allow works to continue once the canal was flooded. Once complete, a barge was used to remove the structure at high tide.

Exceptional quality

TOWNSVILLE, QUEENSLAND

Queensland Country Bank Stadium Pedestrian Bridge

Delivered in conjunction with the iconic 25,000 seat Queensland Country Bank Stadium, associated external infrastructure included a network of promenades, bridges and walkways linking the stadium to the city and other precincts.

- ✓ A 230-tonne single span structural steel truss bridge over a live rail corridor
- ✓ Extensive engagement with rail operators and other stakeholders to ensure works were delivered safely with no disruption to rail operations
- ✓ Built to AS5100 standards with a structural life of 100 years, double that of a typical bridge
- ✓ Smart concrete curing methodologies ensured quality standards were met
- ✓ An engineered shoring box solution protected workers from unstable and contaminated grounds during excavation works



CLIENT

**Queensland Government /
Townsville City Council**



VALUE

\$30M



EXPERTISE

Design + Construct



TIMELINE

2018 - 2020





ANTWERP, BELGIUM

IJzerlaan Bridge

Creating a cycle highway

CLIENT **BAM nv**
EXPERTISE **Design + Construct**

- ✓ A cycle bridge built over the Albert Canal to replace the original bridge
- ✓ Designed to accommodate the passage of 18,000 tonne freight vessels below
- ✓ Diligent planning to lift the 85-metre long, 250 tonne structure into place in one piece using a pontoon and two 500 tonne cranes
- ✓ 450 LED lights installed along the bridge

DUBAI, UNITED ARAB EMIRATES

Dubai Marina Precinct

Revolutionised city centre

CLIENT **Dubai Roads and Transport Authority**
EXPERTISE **Construct Only - Design + Construct**

- ✓ Three pedestrian bridges built in the heart of Dubai to improve pedestrian safety, traffic flow and connection between commercial centres
- ✓ Careful planning of works around peak times to minimise disruption to commuters
- ✓ The curved design of the bridges provides coherence with surrounding buildings
- ✓ 71-metre deep excavations



Fast-tracked delivery

DUBAI, UNITED ARAB EMIRATES



350 m

pedestrian and
light vehicle bridges

77 m

span

Dubai Bluewaters Bridge

The bridge was originally envisaged by the client to be a cable-stayed footbridge, however this was not a viable option due to budget constraints. Close collaboration with Meraas Development ensured the design solution respected the original vision while meeting cost requirements.

Early involvement in the design phase enabled the project to be de-risked and value engineered, resulting in a high-quality outcome that was delivered within a fast-tracked 12-month program.



CLIENT

Meraas Development



VALUE

\$25M



EXPERTISE

Design + Construct



TIMELINE

2016 - 2017



- ✔ The bridge's lightweight design and widely positioned pillars have maintained views of the Gulf as well as providing adequate passage for marine vessels below
- ✔ 350 metre pedestrian and light vehicle bridge that connects the tourist centres of Jumeirah Beach and Bluewaters
- ✔ Glass-bottomed platforms and generous terraces have transformed the bridge into a tourist attraction
- ✔ The deck was installed in three segments using a crane barge and strand jacking method

“ Only **BESIX** could have managed to preserve the geometry of the bridge as imagined by the client, within the required budget, whilst preserving the quality of the structure and adding something to the landscape.”

Pierre Sironval
Chief Operating Officer
BESIX Group



World's longest timber bridge

MOELV, NORWAY

E6 Moelv-Roterud Bridge

The world's longest structural timber bridge is designed to traverse one of Norway's largest and deepest lakes, and will set a benchmark for using sustainable materials in major infrastructure projects.

- ✔ Timber offers a considerably lighter superstructure compared to traditional bridges, and is a more sustainable option
- ✔ A leading joint venture partnership between BESIX and Rizzani de Eccher
- ✔ 1.4 kilometre four-lane road bridge built over Lake Mjosa
- ✔ Upgrades to 11 kilometres of the four-lane E6 motorway including road widenings along with the construction of other smaller bridges and culverts



CLIENT

Nye Veier



EXPERTISE

Design + Construct



PARTNER

Rizzani de Eccher



TIMELINE

2020 - 2025

DUBAI, UNITED ARAB EMIRATES

Shindagha Bridge

Iconic design

CLIENT **Dubai Government**

EXPERTISE **Construct Only**

- ✓ The iconic design features an architectural arched shape in the form of the infinity symbol
- ✓ 42 metres at its highest point
- ✓ 2,400 tonnes of steel used in the bridge's construction
- ✓ Six lanes in each direction
- ✓ Designed to accommodate 24,000 vehicles per day



ABU DHABI, UNITED ARAB EMIRATES

Sheikh Zayed Bridge

Precision planning

CLIENT **Abu Dhabi Municipality**

EXPERTISE **Construct Only**

- ✓ Complex temporary structures enabled the unique superstructure to be erected within extremely tight timeframes
- ✓ Exceptional coordination was required to manage the activities of a 2,300-strong workforce
- ✓ Meticulous planning for the mobilisation of heavy plant including 22 cranes and 11 marine barges
- ✓ Engineered and constructed to last 120 years

Innovative collaboration

FREDERIKSSUND, DENMARK



1.4 Km

long



8.2 Km

four-lane highway project

Crown Princess Mary's Bridge

Precision planning and collaboration ensured the first cantilevered bridge built in Denmark in over 50 years was delivered three months ahead of schedule. This development has provided a more efficient alternative to the previous bridge built in 1935, significantly reducing traffic congestion.

Our innovative collaborative model was adopted by all stakeholders and involved regular LEAN planning sessions that improved overall engagement as well as ensured all parties had a deep understanding of project requirements. This optimised productivity, improved decision-making, and streamlined delivery.



CLIENT

Danish Road Directorate



VALUE

\$220M



EXPERTISE

Design + Construct



TIMELINE

2016 - 2019



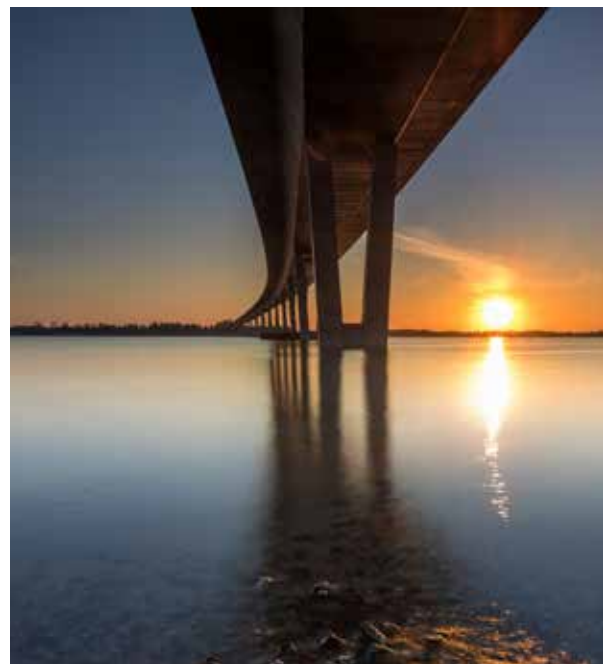
PARTNERS

**Rizzani de Eccher and
Acciona Infraestructuras**



The in-house Engineering Department of BESIX makes the difference in Design & Build projects such as this one. It offers integrated expertise which enables us to coordinate the design and the execution in the best way possible, guaranteeing significant added value for the client.”

Jean Polet
General Manager
BESIX Group



I would like to thank the representatives for the three companies in the RBAI JV for their contribution to achieving such a tremendous result at the Fjord Link project. It is a spectacular project which will benefit the Danish society for many years to come.”

Erik Stoklund Larsen
Director,
Danish Road Directorate

- ✔ BESIX partnered with Rizzani de Eccher and Acciona Infraestructuras to form the RBAI joint venture
- ✔ Innovative methodologies were applied to streamline construction including the commissioning of a purpose-designed horizontal crane to install precast deck segments
- ✔ Constructed within a declared EU Natura 2000 zone requiring considered planning throughout the project lifecycle to ensure environmental and social requirements were continually met
- ✔ 1.4-kilometre four-lane dual passageway over the Roskilde Fjord
- ✔ The overall project incorporated 11 smaller civil engineering works including bridges, tunnels, wildlife crossings, and a three-kilometre acoustic barrier

Harnessing existing infrastructure

ELANG-PONT, CAMEROON

Pont de l'Enfance

Essentially a major refurbishment project, the old bridge was deconstructed and rebuilt as a new two-lane vehicle structure. Smart engineering and construction methodologies were applied to ensure the previous bridge's footings could safely be reused.

- ✓ Thorough inspection and analysis of existing foundations including magnetic and seismic investigations
- ✓ Refurbishment works included reinforcing existing footings and rehabilitation of abutments and pillars
- ✓ Unsalvageable elements were dismantled
- ✓ Minimal use of watercraft by timing works around the seasonal changes in the river's water level as well as utilising the existing structure as a work platform
- ✓ The 550-tonne metal structure of the new bridge was pre-assembled then hoisted into place in one piece
- ✓ 240-metre vehicle bridge with eight spans at 30 metres each



CLIENT

Ministry of Public Works Cameroon



VALUE

\$28M



EXPERTISE

Design + Construct



TIMELINE

2010 - 2012





Environmental excellence

ABU DHABI, UNITED ARAB EMIRATES

Al Maryah Island Bridges

Our environmental approach throughout construction to safeguard both marine ecosystems and the project's neighbours was adopted by the local government as an exemplary model for future infrastructure projects.

- ✓ Maritime engineering methods and innovations included silt curtains and capless piles to protect marine ecosystems
- ✓ Careful planning and regular monitoring ensured turbidity, noise and dust levels were minimised with no complaints received throughout construction
- ✓ Four bridges ranging from 200 to 430 metres in length have revolutionised access to the business district of Al Maryah Island, which includes the Cleveland Clinic's emergency department
- ✓ All bridges have been designed to carry the weight of light rail infrastructure



CLIENT

Abu Dhabi Municipality



EXPERTISE

Design + Construct



TIMELINE

2013 - 2017

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.



Crown Princess Mary Bridge
Denmark





Crown Princess Mary's Bridge
Frederikssund, Denmark



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, collaborative contractor is essential for a high-quality, future-proofed asset; delivered with excellence.

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...

2007

... **Mungo River Bridge**
Cameroon, Af

2009

Al Garhoud Bridge widening
Dubai, UAE

National Trunk Road A2 Extension
Haarrijn, NL

2011

... **Sheikh Zayed Bridge**
Abu Dhabi, UAE

Bridge Connecting Abu Dhabi and Umm Al Nar
Abu Dhabi, UAE

Gaardeniers Bridge
Ghent, Be

Ecoduct
Wuustwezel, Be

2013

... **Adelaide Airport Landside Infrastructure Project**
Adelaide, SA

North Manama Causeway Bridge
Manama, Bh

Oyala Cable Stayed Bridge
GNQ

2015

Malabo Bridges
GNQ

Oyala Cable Stayed Bridges
GNQ



Pre-2005

... **Al Habal Bridge**
Dubai, UAE

Millars Creek Bridge
Bunbury, WA

Ord River Bridge
Kununurra, WA

Drummond Range Rail Bridge
Emerald, Qld

Kimberley Bridge Refurbishment
Kimberley Region, WA

2010

Riaba Bridges
GNQ

Interchange Ekkersrijt
Eindhoven, NL

Yas Island Freeway Crossing
Abu Dhabi, UAE

2012

... **Melbourne Park Redevelopment Pedestrian Link Bridge**
Melbourne, VIC

Bicycle Bridge A2
Haarrijn, NL

Pont de l'Enfance bridge
Cameroon, CAR

2014

... **Haren Viaduct**
Haren, Be

R4 South Ghent
Ghent, Be

2016

... **Dubai Water Canal Bridges 1,2 & 3**
Dubai, UAE

Al Maryah Island Bridges
3, 4, 10 & 11
Abu Dhabi, UAE



1.

2.

2017

- • • Dubai Bluewaters Bridge
Dubai, UAE



2019

- • • Crown Princess Mary's Bridge
Frederikssund, Dk
- • • Dubai Marina Precinct
Dubai, UAE



2021

- • • E6 Moelv-Roterud
Moelv, No



2020

- • • Queensland Country Bank Stadium External Infrastructure Works
Townsville, Qld
- • • Herston Quarter Sky Bridge Link
Brisbane, Qld

2018

- • • Ijzerlaan Bridge
Antwerp, Be

2022 & beyond...

- • • Shindagha Bridge
Dubai, UAE

