



A NEW LEASE ON LIFE

MAIN CONSTRUCTION COMPANY : Hutchinson Builders
ARCHITECT : Woods Bagot and SJB Architects
STRUCTURAL ENGINEER : ADG Engineers
CONSTRUCTION VALUE : \$109 million

The historic Howard Smith Wharves site on the Brisbane River has been transformed to a world class riverside precinct with more than 3.4 hectares of public open space, a 166-room Art Series Hotel, exhibition and events centre, a craft brewery, and dining options. The project also included the full restoration and transformation of the existing heritage buildings and wharf for the new landmark entertainment precinct.

The Howard Smith Wharves Revitalisation project has transformed the last parcel of undeveloped land in Brisbane's CBD into a world class waterside entertainment precinct. The historic 3.4 hectare site, spread along almost a kilometre of the Brisbane River connects the New Farm riverwalk to the city and includes a full restoration and transformation of the existing buildings and wharves.

Hutchinson Builders has set a new standard of urban renewal with contemporary structures that are uniquely adapted to the landforms while retaining and enhancing the historic significance of the existing architecture.

The D&C contract awarded to Hutchies in July 2017 involved the development of the precinct with the construction of a 1,500m² events centre with viewing decks, a craft brewery and an overwater bar as well as the restoration of the old wharf buildings. Under the convention centre is a 300m long single storey basement with parking for 359 cars

and 33 employee bike spaces. 30,000m² of landscaping includes a 6m wide path, mass plantings and olive gardens as well as a cycle way with 50 bike parking spaces for visitors. Two glass lifts provide access to and from Bowen Terrace, at the top of the cliffs, to the wharves precinct.

The 5 Star rated hotel is a 6-storey building with function rooms, pool and gym. The brief for the 166-room Art Series Hotel dedicated to Australian artist Vincent Fantauzzo, specified a façade that would blend in with the cliff face by incorporating natural tones and textures. The hotel sports a uniquely jagged façade that mimics the cliffs' surface to provide a simple backdrop to the revitalised heritage buildings in front.

"There were many onsite issues beginning with the geology. We were expecting Brisbane Tuff but found the extent and hardness of the rock foundation insufficient. We redesigned the piles and shotcrete walls that would support the cantilevered walkway and the basement. We used the lightweight solution of precast hollow core planks as a deck for the

cantilevered boardwalk," explained Project manager, Timothy Ferguson. "It was a long thin site, approximately 700m long and 100m at the widest point, bounded by the Brisbane River and the cliffs and required some careful planning. We had up to 300 truck movements per day with only one entry/exit point. We had to saw the ends of the trusses on one of the sheds for the trucks to get past. Added to that was the fact that all the buildings were going up at the same time. The site was congested and very busy."

"It's a well used site, close to the city and many residences. There was lots of interest in the construction and Hutchies maintained a high level of communication with the public. During the build we maintained a safe pathway through the site for use by the by an average of 3,000 members of the public per day. We created a path on the riverside while we spent seven months excavating the basement, then moved the existing path from the back of the site, to the riverside to allow the remaining works to be built."

"Constructing the over water bar directly under the Story Bridge was challenging. We had a 20m x 30m deck that we had to anchor back to land and we sank two piles, in between the bridge pylons. To satisfy Brisbane City Council we had to research the state archives for the original structural drawings of the bridge footings."



The precinct opened in November 2018 and the hotel completed in March 2019. Hutchies finished the \$109 million project in just 88 weeks. The development has certainly benefitted the site. Waterside land has been reactivated for public recreation and night time entertainment.

Established in 1912, Hutchies has completed over 7,000 projects to a value of \$32 billion across Australia and overseas. Hutchies has years of experience of new construction as well as numerous projects where renovation and restoration of heritage structures are incorporated into the design.

For more information contact Hutchinson Builders, 584 Milton Road, Toowong QLD 4066, phone 1300 HUTCHIES, email info@hutchinsonbuilders.com.au, website www.hutchies.com.au

GOING FURTHER IN MANAGING RISK

Greencap specialises in the management of risk and compliance for businesses. They provide a breadth of expert consulting services, online solutions and training programmes through their primary practices; property risk, health & safety, environmental risk and emergency management.

In August 2017, Greencap consultants commenced onsite works at Howard Smith Wharves, carrying out soil and contaminated land investigations, undertaking hazardous materials audits and performing asbestos hygiene works including air monitoring, clearance inspections and associated remediation works.

“The site was challenging due to the fact that it contained ecologically sensitive animal and plant species and care had to be taken during initial sampling and testing of some areas. Also of concern was preventing damage to the structures and finishes of buildings. Some structural elements, such as the timber floors to the wharf

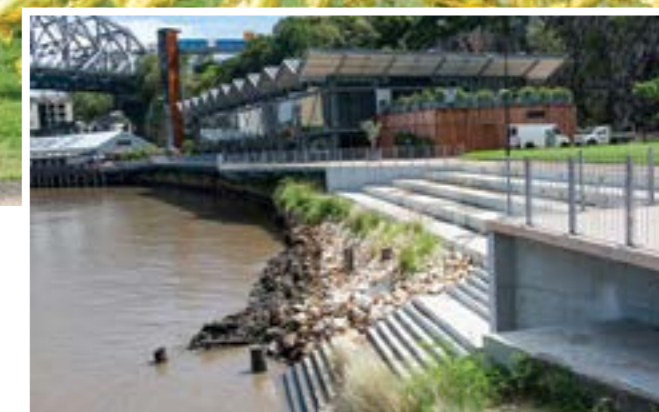
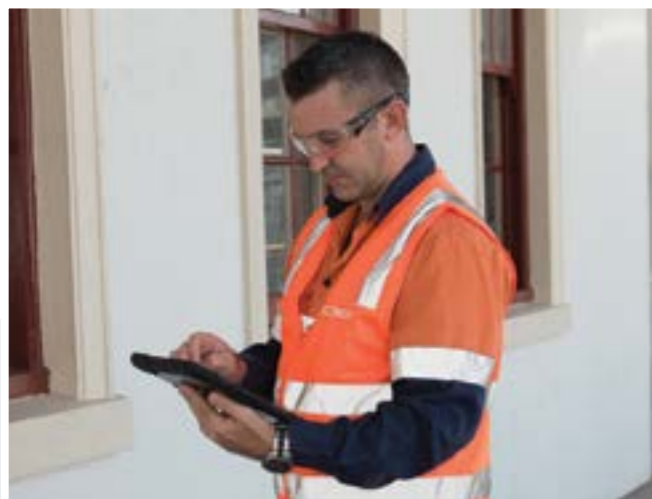
buildings, were to be kept and repurposed around the development so these had to be cleaned and visually inspected prior to removal from site for storage,” said National Operations Manager, Megan Berryman. “During remediation works beneath the wharf building floors, additional safety measures were implemented due to the proximity of the river with some works timetabled according to the tide levels.”

Greencap's team possess the expertise to undertake investigations and remediation work on old industrial sites like the Howard Smith Wharves, and have the practical experience to effectively bring them up to the environmental health and safety standards required for modern developments.

Established in 1984, Greencap employs over 300 professional, technical and engineering staff in 10 offices across Australia and New Zealand. Services provided by Greencap include contractor safety management, fire safety and compliance, health and safety management and occupational hygiene.

Recent projects for Greencap include large scale mould investigation and a remediation scope of works for a multi-level hotel as well as project management services for asbestos removal and associated hygiene works at a major demolition site in the Brisbane CBD.

For more information contact Greencap, (Head Office) Level 1/677 High Street, Kew East VIC 3102, phone 03 9890 8811, email property@greencap.com.au, website www.greencap.com.au



ROCK SOLID FOUNDATIONS

Douglas Partners Pty Ltd (DP) is a wholly Australian owned company of consulting engineers specialising in geotechnical investigation, analysis, design, and reporting for building and civil engineering projects. At the Howard Smith Wharves Revitalisation, DP was the geotechnical and groundwater consultants to Hutchinson Builders, and provided the above mentioned services along with geotechnical design solutions to a number of aspects throughout the project.

In November 2017, a design team of four began work on the geotechnical and groundwater aspects of the new basement structure, comprising temporary and permanent rock slope analysis, rock anchor and basement wall earth pressure design. A conceptual groundwater model was also undertaken to estimate water seepage inflows and pressures on basement walls, and the floor slab for normal and flood conditions in the adjacent Brisbane River.

“The groundwater investigation and modelling required to show the influence of groundwater on the building basement, was especially important considering the site is a thin strip of land located between 25m high cliffs and the Brisbane River,” said Principal Geotechnical Engineer, David Qualischefski. “The permanent rock anchor design for basement walls supporting the 25m high cliff surcharge was also an important element of the new basement design. The information provided by DP on these aspects was used by ADG Engineers, to design and document the basement structure.”

Douglas Partners provided timely advice and expertise on a range of geotechnical challenges which occurred during the fast moving project. “We were also onsite as construction supervisors inspecting footing excavations, foundations and earthworks, and the stability of the cut rock faces during construction. We carried geotechnical investigations for the design and construction of the glass lifts and boardwalk,” said David. “The site had some interesting complexities including two different geological formations of upper volcanic rock and lower older formation rock with a weaker ‘contact’ zone between. DP supplied the experience and specialist knowledge to deal with the unique features throughout both the design and construction phases of the project.”

Established in 1963, DP is one of the largest employee owned geotechnical engineering consultancies in Australia, with over 500 staff in 20 offices, including 16 NATA accredited laboratories. DP works across a range of sectors including buildings and property, roads and civil infrastructure, defence, mining, water and waste management providing geotechnical, environmental, groundwater, rock mechanics and earthworks services.

For more information contact Douglas Partners, 439 Montague Road, West End QLD 4101, phone 07 3237 8900, email brisbane@douglaspartners.com.au, website www.douglaspartners.com.au



The Howard Smith Wharves Revitalisation, Queensland



NO PLACE LIKE HOME

Queensland House Removers specialise in the removal and relocation of homes including the raising, sliding and re-stumping of homes and other structures.

Director John Wright, spent five days in consultation with his engineer planning the job and was onsite by November 2017 to raise one of the wharves' sheds, a heritage listed structure built in 1934 as a wool store. The shed, 75m by 25m, was raised 2.8m by a team of seven.

Over a week Queensland House Removers fitted steel beams through the structure then jacked it up. Hutchinson Builders came in and laid the foundations then Queensland House Removers lowered the building to its new place.

"It was an old building with solid timbers that made the job a very heavy one. We handle the big jobs and we're able to get in and get them done, and Hutchies know that," said John. "Queensland House Removers are proud to have been involved in the transformation of the Howard Smith Wharves and would like to thank Hutchinson Builders for making the raise run so smoothly."

Queensland House Removers is a family company of three generations with a total of 100 years experience in house removing. The company employs 28 staff, operating throughout Queensland and Northern New South Wales.

"Transporting and resiting buildings is a cost effective and environmentally friendly way to restore and revitalise existing structures," said John.

John is a registered builder in Queensland and New South Wales and Queensland House Removers employs a draftsman to manage the necessary architectural plans, engineers' reports and council approvals. Queensland House Removers also transports boats and offers developers a service of buying or removing old homes and providing site clearance, including demolition and asbestos removal.

A successful large project for Queensland House Removers was the moving of the 1880s drill shed including cottage and orderly room at Fortitude Valley in 2016. The 400m² building had to be slid over, raised 2m and re-stumped with approximately 120 stumps.

For more information contact Queensland House Removers, 85 Old Toorbul Point Road, Caboolture QLD 4510, phone 07 5499 2160, email reception@qldhr.net.au, website www.queenslandhouseremovers.com.au