



## Dry season kicks in for Civil project at Darwin

**idec** has been contracted by JKC Australia Pty Ltd to complete the Remote Radar Station (RRS) Project, which forms part of the greater Ichthys Onshore LNG Project. The RRS is to be established in the East Arm Industrial Area on top of "Ben's Hill", Darwin in the Northern Territory.

### The scope of works includes the:

- Civil construction works required for the site development including construction of an access road, drainage and security fencing;
- Concrete footing works for the 30m high telecommunications tower, equipment shelter, generator, etc;
- Erection of a 30m high telecommunications tower along with radar, microwave dishes, cameras, etc;
- Installation of Equipment Shelter and standby generator along with connection of services and cabling from the telecommunications tower;
- Earthing of all works involving 35m deep earth rods; and
- Pre-commissioning and commissioning works.

Once construction is complete, the site will be utilised as a radar and telecommunication site.

### Highlight of local Trades –

- **Civil Subcontractor** – Northern Australia Civil (NAC) has been engaged to carry out the civil works for the RRS project. NAC is a local company and managed by Chris Wilson (born and bred Darwinite). NAC successfully started clearing and earthworks on-time and have managed to make a difficult earthworks project look easy whilst maintaining a high level of safety for all.
- **Electrical Subcontractor** – Molloy Electrical Contracting (MEC) has recently been engaged to undertake the electrical works onsite. MEC is another Darwin local company and started onsite in June with the earthing works.
- **Equipment Shelter Vendor** – ICS are both the designers and the fabricators for the Equipment Shelter required for the RRS project. ICS is a Melbourne based company and is one of Australia's finest in fabrication of portable telecommunication shelters.

## From the desk

### Welcome to the Winter edition of *insite*.

In line with the season, a cool wind has been blowing through the construction industry with the increased use of non-compliant products. As can be expected, this in turn has led to increased negative consequences for project stakeholders.

We are proud to support and advocate locally fabricated steel, ensuring our clients do not face potential safety issues and risk associated with inferior quality imported steel. The qualified tradespeople on our Workshop team ensure every product is compliant with Australian Standards and will stand the tests of longevity and safety.

In spite of the headwinds, idec has continued to grow throughout 2014-2015 and cement our reputation as a premier integrated-solutions provider. Our 'one stop shop' philosophy has meant our clients benefit from services in engineering and architectural design, steel fabrication, construction as well as remote vertical infrastructure.

I am proud of the major projects currently underway at Wheatstone and Darwin and our team members who are tackling these projects.

Our values and enablers continue to propel idec into what will undoubtedly be a challenging 2015-2016.

Let us join with you to make your next project a success.

*I hope that you enjoy this edition.*

*Glenn Gibson,*  
**CEO idec**

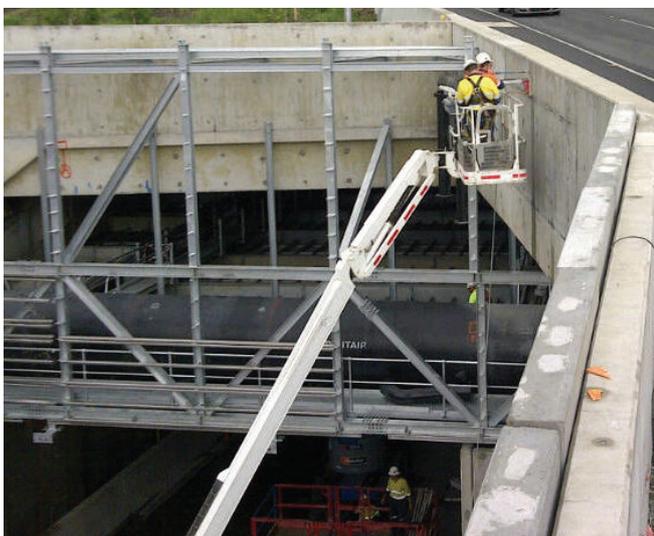


# TRANSCITY PROJECT IS PART OF IDEC LEGACY



idec is proud of their involvement in this project having been involved from concept through to completion.

Legacy Way was built using two tunnel boring machines (TBMs), each 12.4 metres in diameter and approximately 110 metres in length. Construction involved tunnelling beneath Toowong, Auchenflower, Paddington, Red Hill and Kelvin Grove. Surface works were also undertaken at Toowong, to create the tunnel's connection to the Western Freeway, and Kelvin Grove, where Legacy Way connects to the Inner City Bypass.



The project team was constantly liaising with TJV, changing our work face and working night shift when required, given the site was very congested with numerous trades and tunnel construction traffic. The site team performed very well overcoming many challenges on a complex project within a very busy and congested site with limited room for access equipment and cranes.

idec was responsible for the provision of labour, supervision, plant, equipment, materials, consumables and QA documentation required to supply and install the structural steel at the TJV on the following aspects of the project including:

## 1) Tunnel Boring Machine Building

The 6,700m<sup>2</sup> building was designed by the idec team with 2 main functions: 1) to install the components of the Tunnel Boring Machine (TBM) and 2) to provide sound attenuation for the construction works.

The building ultimately was designed so the two (2) TBMs (each made up of 50 large sections with a total weight of 2,800t each) could be lifted into place in readiness for tunnelling. To enable this lift the building incorporated several overhead cranes (260t, 60t, and 40t).

The building on completion consisted of 900 tonne of structural steel.

## 2) Eastern Portal Cut & Cover

The steel work that idec provided and installed forms part of the ceiling support structure for the Eastern Portal. Due to the nature of the site, the majority of steelwork was double handled from the initial laydown area outside the cut & cover to its final location inside the cut & cover.

On top of the 192 tonnes of fabricated steelwork, idec also supplied 30 tonnes (over 7km) of stainless steel purlins and 1.5 tonnes of stainless steel bridging along with 23 tonnes of galvanised grating and hand railing to the project.

## 3) Water Treatment Building

Previous involvement in 2 major portions of the Legacy Way tunnel provided idec with a thorough understanding of the mandatory structural design and reporting requirements, all of which had to be confirmed by the client's Independent Verifier.

idec's scope of works for the design and construction of the Water Treatment Building included:

- Architectural Drawings
- Structural Drawings
- Detail workshop drawings
- Fabrication
- On site Erection
- Supply and Installation of Aluminium purlins, sheeting and louvres.

## Summary of idec's project involvement:

- Value = \$10.2M
- Duration = 4 years
- Tonnage = 1,272
- Man Hours = 48,979
- Lost Time = Zero (0)



## idec delivers D&C facility for major infrastructure project in Sydney

**idec** completed the Design and Construct of a 7,300m<sup>2</sup> Precast Building in Sydney for Impregilo Salini Joint Venture (ISJV) in May 2015.

The structure is a purpose built facility which will be used for the manufacturing of the sky train bridge segments. These segments will form part of the North West Rail Link project in Sydney, which is the largest public transport project and a priority infrastructure investment for the NSW State Government.

The opportunity to secure this project was on the back of idec's outstanding performance on similar D & C projects such as the Tunnel Boring Machine Building for the Legacy Way project in Brisbane and the Superway Precast Building in Adelaide.

The structure is 17m high and is designed to carry up to 4 x 20 tonne over-head cranes. idec's scope of works included design, engineering, structural steel fabrication and cladding.

This building presented a perfect opportunity for idec to employ its 'BUP' tapered frame design, reducing the overall weight of steel in the project. The main frame columns and crane beams were all designed using 'Built up plate' (BUP) welded beams, which were all machine welded in the **idec** workshop in Hemmant, Brisbane and subsequently transported to site in Sydney.



# RECENT PROJECTS



## Birtinya Substation gets new enclosures

**idec** was contracted to fabricate and install two (2) transformer enclosures at the Birtinya Substation for Zinfra. The structures included roofing and FRP grating installation and were completed in and around the existing transformers. The works were completed ahead of schedule and without incident.



## Mater Hospital set for expansion

Cockram has engaged the services of **idec** for the detailing, fabrication and erection of structural steel for the Mater Whitty project in Brisbane.

The refurbishment and resurrection of this 100 year old, heritage listed building will transform the complex into an educational health precinct jointly used by the Mater and University of Queensland health students.

Maintaining the building's external appearance and heritage brickwork skin during the installation of 60 tonnes of structural roof steel is a very delicate and demanding exercise. **idec's** record for error free steel combined with our own experienced rigging teams is the perfect fit for delivering a successful outcome.

## Enroute Radar Replacement Project

**idec** continues its ongoing relationship with Indra following the successful completion of two Enroute Radar Replacement projects in northern Queensland. **idec** has worked closely with Indra and Airservices Australia to ensure that the projects were completed to a high standard, within project program constraints and without incident.

**idec** has been contracted to deliver works at a number of sites across Australia, including those listed below:

- **Mt Alma, QLD** – project completed April 2015;
- **Tabletop, QLD** – project completed May 2015;
- **Mt Macedon, VIC** – **idec** currently undertaking pre-planning and procurement for project; and
- **Hann Tableland, QLD** – **idec** currently undertaking pre-planning and procurement for project.

The scope of works for each project is the replacement of some structural steel members of the existing radar towers, the strengthening of existing towers and supporting structures, and the installation of new antennas.

The fabricated structural steel is detailed to fit each tower from measurements taken by **idec** personnel on site. Rigging works to four of the towers also includes the installation of a 'ring beam', which is the supporting member for the fibreglass Radome built around the antenna.





## Chevron's Wheatstone LNG site under construction

Despite the isolated location of this project in Western Australia, **idec** (located in Queensland) did not consider distance to be a disadvantage. Moreover the distance shows that **idec** has unique skills which enables clients Australia-wide to knock at our door for solutions.

**idec** has been called upon to design and construct a number of camp activity buildings at the Wheatstone site. There are four buildings in total, with each building having different functional and design requirements.

Given the project is located within Australia's highest cyclonic area, the design engineering to be undertaken by **idec** must be rigorous. Couple this with the fact that Wheatstone is a gas production facility and one of Australia's largest resource construction projects worth many billions of dollars, the level of quality control and safety that the managing contractor Bechtel must implement, is extremely high.

**idec's proven track record on LNG projects in Queensland confirms idec as the preferred contractor of choice for projects of this nature.**



# RECENT PROJECTS



## D&C warehouse project begins on Brisbane's southside

**idec** has been engaged to design and construct a warehouse and office complex for Golden Harvest Exports at Cooper Plains.

Golden Harvest Grain Exports has developed a strong reputation in the world markets as a reliable exporter of quality products and service. The new facility includes a 2 storey office with 1,000m<sup>2</sup> of warehouse space for the storage of raw products prior to exporting.

The early works package involved the design and documentation of architectural, structural, engineering and hydraulic requirements and obtaining all local approvals required for the proposed development.

**idec's** in-house resources, lead by a team of designers and structural engineers and in conjunction with our town planner ensured that we not only met the client's project brief but also enable the project to be delivered in a timely manner. This evolved from concept plans through to Issued for Construction (IFC) documentation.

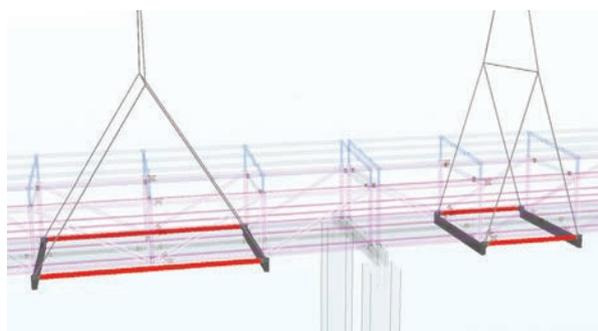
**Site works commenced in June 2015 with the client handover scheduled for October 2015 in readiness for exporting.**

## 65 tonne lift at University Hospital scheduled for July 2015

The Lend Lease Link Bridge project at Sunshine Coast University Hospital consists of fabricating, supplying and installing three bridges (each made of two sections). Each of these sections varies in height, width, length and weight, varying from 16 to 65 tonnes. A 350T Liebherr mobile crane is required to safely lift the larger sections into place at heights of up to 12 metres.

One great challenge for this project was how to physically lift these bridge sections into place. The roof and any wall cladding would already be installed, making access to the structure difficult from above. Simply bolting on lifting brackets to the side walls was not an option as the bridge could not withstand the localised forces. The result was to focus on the bottom and create bespoke cradles in-house to carry the bridge sections into position. This system will help to keep forces into the bridge at a minimum, and increase ease of access once at height.

Another advantage of using a lifting cradle is the method of disconnection from the bridges. By ensuring the lifting chains are long enough, the cradle can be unbolted from the bridge and safely lowered as a whole unit to the ground using the original installation crane. This means the removal of the cradle will be quick, simple and safe.





# WHATS NEW WITH IDEC

## idec's Engineering prowess

To cater to a variety of client requirements and assist in an efficient design and build process, idec has a dedicated in-house structural design team consisting of structural engineers and draftspersons. Immersed in an office of other construction teams, they understand what design solutions are cost effective and practical on site considering both safety and time. Typical projects for the team include:

- Steelwork design of industrial warehouses and buildings, including complexities such as large openings, large gantry cranes, cyclonic regions and remote site considerations.
- Tilt up panel structures with steelwork roofing.
- All design aspects of material handling facilities, including structures, conveyors, walkways, silos, and storage bins.
- Structural auditing services of existing structures, plants and quarries, producing detailed reports and recommendations to help prolong in service lifespans and ensure safety.
- Bespoke Communication Towers to suit any array of antenna and topographical layouts.
- Design checking of 3rd party drafted structures.
- Design Verification of 3rd party critical structural components such as lifting devices.
- Architectural and Structural drafting services utilising Revit, Tekla and AutoCAD modelling.

With experience becoming so difficult to gain for young and upcoming engineers, idec takes responsibility in helping ensure university students get a true taste of the construction industry. idec's design team take on several work experience students each year helping them fulfil work experience course requirements whilst gaining insightful experience and seeing their new found skills are used in application.

## idec Fabrication – Welding procedures

idec's fabrication team consists of apprentices, boilermakers, QA officers, Leading hands and Welding supervisors. We currently have IWS, AS2214 & AS1796 Welding supervisors on the workshop floor, with only the highest quality of welding performed. This is due to the company's strict QA processes and procedures to meet and exceed 'AS1554.1 Welding of steel structures'.

A Weld Procedure is a formal written document that provides direction to a welder to generate sound and quality production welds as per the code or standard requirements. The purpose of this document is to guide welders in acceptable processes so that repeated and trusted welding techniques are used for the client's peace of mind.

idec has a number of current third party approved weld procedures and the qualifications and recourses to create and implement any weld procedure needed.

## Steelwork Compliance Australia certification

idec received Construction Category 2 certification from Steelwork Compliance Australia (SCA) in January 2015. This was the result of an independent assessment of idec's capability and processes to fabricate, supply and erect quality structural steelwork in accordance with relevant Australian Standards.

The attainment of SCA certification reinforces idec's commitment to providing clients with high quality fabricated structural steelwork.

## Transport and Main Roads accreditation– Queensland Government

idec is a "Transport and Main Roads" (TMR) accredited company and recently received an upgrade to the scope of our accreditation.

Bus structures, bridge traffic and balustrade rails, throw screens, sign gantries, grates and noise barriers are now available through idec for TMR projects. Strict control measures are required to undertake TMR work and very few fabrication companies have the QA procedures in place to meet and obtain TMR certification.

## Is your project protected?

In conjunction with Allegiant IRS and McCullough Robertson's Insurance and Corporate Risk group, idec has developed a program designed to balance risk and ensure adequate coverage.

idec believes the strong relationships it builds with its clients and supplying subcontractors is of paramount importance and, in keeping with that belief, extends to them insurance protections that underpin those solid and successful working relationships.

To do this idec has recognized that, because of its "One Stop Shop" approach, it needed a broad program capable of covering all facets of the business along with all its stakeholders. As such, idec has nine very thorough insurance policies with various protections extended to our clients and suppliers. These policies include:

- **Public and Products Liability**
  - Covers, but not limited to structural steel design, fabrication and erection for industrial, commercial and mining applications.
  - Policy extends indemnities to any principal, in respect to their vicarious liability for negligent acts or omissions of idec arising out of its business.
- **Professional Indemnity**
- **Contract Works**
  - Covers, but not limited to structural steel design, fabrication and erection for industrial, commercial and mining applications.
  - Policy names as insured Principals, Head Contractors and Subcontractors under contract for their respective rights and interests.
- **Contractors Plant & Equipment**
  - Covers, but not limited to Plant & Equipment, Tools, Lease costs, Increased Costs of Working, Removal of debris and expediting expenses.
  - Policy extends to Hired in Plant and protects the equipment of others.
- **WorkCover.**

# MEET THE IDEC TOP-END TEAM



idec has expanded into the Northern Territory as part of its strategy for ensuring continual business growth. The idec NT team has been established using predominantly Darwin locals to enable the identification of suitable work opportunities and the effective management of projects through their knowledge of the local market. Our NT team, who are currently managing the Remote Radar Station project for JKC, include:

## Lisa Boal – Project Manager

Our first team member in Darwin, Lisa plays the important role of team leader. She is a delivery focused Project Manager with over 10 years experience. With the motivation to inspire her team and competency to succeed in any task, Lisa's experience guarantees success in all her projects from conception to completion including handover. Born in Darwin, Lisa is an avid bushwalker with a penchant for wilderness hikes.

## Daniel Abbott-Wightman – Project Engineer

Daniel is a dedicated team member who brings enthusiasm and experience to the project. Daniel's great understanding of the project and calm thinking will ensure that the project goals are achieved and delivered on time. After living, studying and working in Darwin his whole life Daniel has built a good reputation with local contractors. Daniel is a keen cross fit trainer and spends most mornings before work at the local box.

## Sean Hillman – Engineer

Sean has over ten years experience in the construction industry as a civil engineer. Sean studied and has worked locally since graduating. He has an eye for detail and a knack for getting the job done in difficult circumstances. Sean has a large contacts base in the NT covering all areas of the construction industry. Sean has a minor dose of perfectionism which is often represented in the high standard of his works.

## Luke Gaffney – Site Supervisor

Luke is our longest serving idec employee in Darwin and our greatest resource for the delivery of the tower construction. His knowledge and expertise is invaluable and second to none. Luke has been with idec Solutions for 8 years and has travelled all over Australia delivering quality work to the highest standards. Luke is the budding photographer for site and has recently purchased a 600mm zoom lens.

## Derek Searle – HSES Advisor

Derek is another long term local, and plays the important role of HSES advisor in our team in Darwin. Derek has worked in the construction industry for 5 years as a safety officer, with 2 years in oil and gas as emergency response manager and 3 years in civil construction. Prior to his career in construction Derek did multiple tours of the Middle East and Asia with the Australian Defence Force.

## Carla Pitt – Site Administrator

Carla has over 10 years experience in the construction industry and is responsible for administration of the NT projects. Originally from Tasmania, she has been in the NT for 3 years and has worked on a number of landmark construction projects. Carla keeps things in order and our subcontractors and suppliers paid.

## It's a girl!

Our Estimator Heather Anderson and her husband Michael are the proud parents of baby daughter Audrey Frances Anderson.

Baby Audrey was born on the 6th of April weighing in at 3.88kg.

Mum and baby are doing very well and super cute. Audrey is winning hearts all over the place.

**Heather would like to thank everyone for their best wishes.**

## Safety – it's no accident

idec has achieved a zero LTI (loss time injuries) for the past three (3) years because of the on going commitment from senior management through to all staff and subcontractors. Everyone has made a concerted effort to make idec one of the safest places to work in Australia.

idec senior management have sought to have a staff member in each area of the company's operations (office, workshop and site) to hold a Certificate IV in Safety. That means that there is a ratio of 1 safety advisor for every 10 workers.

idec's commitment to improve its WH&S system is evident through regular internal/external audits, the constant review of all systems and the development and implementation of WH&S programs that enhance worker safety and exceed legislative requirements.

## idec CEO sleeps out for the homelessness

On Thursday 18 June, idec CEO, Glenn Gibson along with 1,237 other CEO's, took part in the 2015 Vinnies CEO Sleepout where he slept rough on one of the coldest nights of the year to raise funds to support meeting the needs of Australians who are homeless or at risk of homelessness.

Glenn only received a piece of cardboard to sleep on and a cup of soup to eat. While he only had to sleep out for one night, there are over 19,000 Queenslanders, and over 105,000 Australians, who face this harsh reality every night.

**Glenn's involvement assisted in raising over \$6.2 million dollars for the cause.**



**Linked in**

**P:** +61 7 3908 9600 | **F:** +61 7 3908 9699  
**M:** PO Box 100 Cannon Hill Q 4170 | **A:** 58 Anton Road Hemmant Q 4174  
Please visit our website [www.idec.com.au](http://www.idec.com.au)