

# LinQed



## News from the Gold Coast light rail

Welcome to the March edition of LinQed, the first Gold Coast light rail project newsletter for 2013. The GoldLinQ consortium has hit the ground running with work forging ahead across the 13-kilometre corridor early in 2013.

In this edition of LinQed you will find details about the consortium's Love Learning Curriculum Episode series to be launched on YouTube this year. We take a look at the changing streets of the Gold Coast where several intersections now have vehicles crossing light rail tracks, and the great opportunities for trainees on the Gold Coast light rail project.

We profile a recent recipient of a Gold Coast Light Rail Community Grant, Little Souls Taking

Big Steps, and look at the great work they are doing in the community. We check in with Bombardier Transportation (BT), suppliers of the light rail trams, and report on the progress of the first tram.

This edition of LinQed also brings you news on construction progress and a look ahead for a busy 2013. GoldLinQ is building a world-class public transport system for the Gold Coast, with operations due to commence in 2014.

You can keep up-to-date with the progress of construction through the website at [www.goldlinq.com.au](http://www.goldlinq.com.au) or call the project hotline 1800 967 377.

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Smith St Bridge, Southport

# Construction on track in 2013

## Update on progress...

To date, the Gold Coast light rail team has:

- Poured 4,777 cubic metres of concrete.
- Laid 3,852 metres of track.
- Installed 626 piles.
- Crossed eight intersections.

### Southport

Works to date or now underway include:

- Bridge spans in place for the 800m Smith Street bridge connecting to the Depot, where construction of the control centre is underway.
- Track work has been completed with track laid across multiple intersections including:
  - High and Nerang Streets.
  - Queen and Nerang Streets.
  - Engineering and Parklands Drives.
  - Wardoo and Queen Streets.
  - Davenport and Nerang Streets.
- Future proofing work is underway at the intersection of Lawson and Scarborough Streets with substantial stormwater and underground services upgrades.
- Track laying along Queen and Nerang Streets from Wardoo Street through to Davenport Street.

Works over the next six months:

- Construction of stations including Queen Street will commence.
- Construction from Queen Street to the new Light Rail Vehicle (LRV) bridge across the Nerang River will commence.
- Scarborough Street underground services and drainage works will continue.

### Surfers Paradise

Works to date or now underway include:

- Construction has commenced in four key areas along Surfers Paradise Boulevard:
  - Ferny to Ocean Avenues.
  - Elkhorn to Cavill Avenues.
  - Clifford to Thornton Streets.
- Construction at the intersection of Elkhorn Avenue and Surfers Paradise Boulevard is nearing completion.
- More than one kilometre of track has been laid in Paradise Waters.
- Piling and structure installation of the LRV bridge at Macintosh Island North is nearing completion and works have commenced on the bridge at Macintosh Island South.

→ Works to construct the LRV bridges over the Nerang River are underway.

Works over the next six months:

- Works to lay track along Surfers Paradise Boulevard will progress.
- Works to build stations will commence.
- Ferny Avenue underground services and drainage works will commence.

### Broadbeach

Works to date or now underway include:

- More than one kilometre of track has been laid along the Gold Coast Highway.
- Relocating underground services and preparations for track to be laid between Australia Avenue and Pacific Fair.
- Track has been laid across the intersection of Remembrance Drive and Surfers Paradise Boulevard.

Works over the next six months:

- Works to lay track in the centre median of the Gold Coast Highway continue.
- Construction of stations will commence.
- Underground services works continue along the Gold Coast Highway.

## Light rail Science Tram episodes

In an Australian first, the GoldLinQ consortium has partnered with Queensland teachers to develop an educational video package that uses the Gold Coast light rail and its construction as a learning tool to demonstrate science functioning in practical situations.

Being Queensland's first contemporary light rail and one of only three in Australia, the project and its delivery provides a unique educational opportunity for students, and

Love Learning was developed to capitalise on this educational potential.

Design and Construction Joint Venture (D&C JV) partner, McConnell Dowell, worked closely with teachers from Benowa State School to marry elements of construction with specific science units in the school curriculum with an aim to have the video package of episodes available to schools nationally. The videos examine conservation, environmental management, water recycling,

gravity, electricity, movement and many other science topics and will be launched on YouTube later this month.



# Tracking through intersections

The Construction team has been very busy in recent months, working day and night to lay track through some of the busiest intersections on the Gold Coast.

Tens of thousands of Gold Coast motorists each day now drive over tracks laid for the light rail system at five intersections across the 13-kilometre corridor.

Laying track through major intersections is a complex job demanding expert planning and execution. Crews worked for more than 100 hours over two weekends to not only achieve the required work, but also to minimise impact on surrounding traffic, businesses and residents.

Gold Coast light rail D&C JV Project Director, Simon Bradbury, said minor intersections can be crossed in three nights, however major intersections, such as the Nerang and High Street intersection in Southport, require additional construction efforts, making two-stage shutdowns the best approach. "Weekends represent the optimum time

window for intersection shutdowns as there is reduced traffic flow, reduced peak periods and therefore minimal disruption and delays," Mr Bradbury said.

Two teams within GoldLinQ are involved when laying track through intersections, the Civils and Rail teams. The first weekend shutdown allows Civils to prepare the intersection for track form construction including excavating the area and installing conduits for track form power supply.

Temporary road base and pavement materials are put in place and temporary line markings are made for the intersection to be reopened to traffic. The second weekend works begin with the Civils team removing the temporary road base and pavement. The Rail team then installs edge form work and lays the steel reinforcement for the rail pavement. Track, and its noise and vibration reducing rubber boot, are then laid in lengths of 18 metres on the steel reinforcement and precision aligned in preparation for welding.



Nerang and High Street intersection, Southport

Once the track is laid, aligned and welded, the concrete is poured and filled to be level with the track.

Once the concrete has cured sufficiently the road is reinstated by the Civils team, permanent line markings are made and the intersection is opened to traffic. Each weekend involves more than 60 hours of straight construction with teams working in shifts through the day and night to minimise construction impacts.

# Trams on track Next stop...

At the factory in Bautzen, Germany, the first Flexity 2 Gold Coast trams are currently being tested on the test track facility, where the vehicles can travel at up to 60km/h.

## Gold Coast temperatures tested

The second tram is assembled and is being prepared for transfer to a special climatic testing chamber in Vienna, Austria to test different systems, particularly the air-conditioning.

The complete tram will be put into the chamber and the ambient air temperature increased to replicate Gold Coast conditions.

## Mini model

Last year the first 'tram' arrived in Southport, a 1:20 scale model which is displayed at the GoldLinQ offices and used for publicity at events around the region. It was produced at BT's Brisbane office using a rapid prototyping machine that 'prints' out 3D parts which were assembled into the final model. The model is very detailed, including surf boards stored in the special racks in the passenger areas.



The 1:20 scale model tram currently on display



Construction of the trams in Bautzen, Germany

# Driver trainers in training

GoldLinQ's Operations and Maintenance partner, KDR Gold Coast Pty Ltd (KDR), has commenced recruitment for the team which will operate the Gold Coast light rail. Training is currently being planned for our operational management team at various tramway systems overseas, which are similar the Gold Coast system.

The group will be trained to drive light rail vehicles, work in the operations control centre and understand operating procedures of light rail systems. They will also see how inter-modal public transport can work as an integrated system in Bordeaux and will travel to the manufacturing facility in Bautzen, Germany to see the trams bound for the Gold Coast first-hand. The team will bring back best-practice methods and knowledge and train our drivers and operational staff as they begin to come on board towards the end of 2013.

# Upskilling the Gold Coast

The GoldLinQ consortium is committed to local industry participation and combating the national skills shortage by training locals and equipping them with valuable qualifications and industry experience through the construction of the Gold Coast light rail.

There are currently more than 50 rail workers on the project, ranging in age from their 20s to 40s who are undertaking Certificate II Rail Infrastructure. The certificates provide them with skills that are not only useful in their current roles on the Gold Coast light rail but are transferrable to heavy rail and other light rail work across the country.

Almost 40 blue collar trainees are undertaking Certificate III Civil, providing them skills in

road construction and maintenance, bridge construction and maintenance, pipe laying, and foundations.

The Gold Coast light rail project also offers learning opportunities in the white collar sector, with trainees undertaking Diploma of Project Management, Certificate IV Project Management, human resources training, and business qualifications. Enthusiastic trainers have established a culture of further learning on the project, with all training conducted on-site and the project's storage yard for rail on the northern Gold Coast employed as a live training facility.

Both blue collar and white collar trainees have direct access to skills and experience of their colleagues, some of whom make up the best



*Trainee Jarrod Solway on site*

and brightest in construction and management from Australia and overseas. Overall, there are 302 participants in training on the Gold Coast light rail who are taking full advantage of the learning opportunities the project offers.

## Community grants applications now open



*Little Souls excited about their new laptops*

The Design and Construction Joint Venture partner of GoldLinQ, McConnell Dowell Constructors Pty Ltd (MacDow) and Bombardier Transportation (BT), is once again demonstrating its commitment to the Gold Coast with the launch of the second round of the Gold Coast Light Rail Community Grants.

Aimed at delivering financial and social benefits to the communities in which the Gold Coast light rail is being constructed, the Community

Grants program offers up to \$2,000 per applicant per round. D&C JV Project Director, Simon Bradbury, said the program seeks applications from projects and groups that will provide lasting community benefit in the areas of healthy and active living; community; safety; youth; environment and public transport.

"We had more than 20 applications and in the first round awarded almost \$12,000 to the seven successful groups," Mr Bradbury said.

"We want to support community operations through funding programs for infrastructure or equipment." One successful applicant of the first round of Community Grants was childcare and early intervention centre for children with Autism, Little Souls Taking Big Steps.

The specialist childcare centre used the Grant to increase its IT support, by purchasing new computer equipment to be used as part of its one-on-one therapy.

"Helping groups such as Little Souls purchase much-needed equipment is one way the light rail project can give back to the community we are working in and a little help can go a long way with community groups," Mr Bradbury said.

Little Souls is one of Australia's only dedicated one-on-one Applied Behavioural Analysis (ABA) therapy centres for autistic children and the use of the latest technologies is an important part of its integrated learning.

Round two for Gold Coast Light Rail Community Grants is now open with applications closing 28 March 2013. For more information visit [www.goldlinq.com.au](http://www.goldlinq.com.au).



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