

One of the main imperatives for Hutchinson Builders on the Northpoint Shopping Centre project in Toowoomba was delivering the high standards of finish and quality design required. Developer Hallmark Property wanted a centre which looked very well-established, with a high level of detailing and landscaping incorporating mature trees.

Northpoint comprises two levels, with Coles as an anchor tenant, a medical centre and pathology, chemist, newsagent and twenty specialty shops including a butcher, cafes, a barber, a florist and a bakery.

The upper level extends out over the ground floor by a full third, which created a structural challenge. The result however is deep shade over the entrance which cools the interior and allowed for extensive glazing adjacent to and above the main entry.

Hutchinsons started on site in April 2013, with weather throwing the odd curveball at the program during the early works stage. Despite this, the organisational skills of the Hutchinsons team kept the project on track, with handover in February 2014 and the official opening of the \$17 million retail centre planned for March.

Bulk earthworks involved two levels – the basement which extends across the rear of the centre, the ground floor and carpark. Once this had been done, foundations were completed, tilt panels erected and the structural steel for the Coles box erected. Suspended slabs were constructed for the first floor, which comprises the bulk of the building due to the extension of the floor plate over the ground floor level.

Approximately 5,000m<sup>2</sup> of bulk carparking for 300 cars was constructed next, half of which is asphalt sealed, and half concrete surface. An

unusual feature of the carpark area and the general site landscape plan is the installation of Citygreen Structural soil modules under the asphalt and around the mature trees which are a major feature of the centre. These allow the trees to continue to grow without risk of them affecting the asphalt. In addition, a series of shade structures have been constructed for the car park area.

Stormwater systems for the project needed to be robust, well-designed and have a large capacity, to cater for heavy rain events. A three-cell system for collected rainwater and a bioretention system have been installed on the western side of the carpark, which will produce a considerable volume of runoff due to its size. At the rear of the main building's services area, spoon drains were constructed – this proved something of a challenge due to the location and the restricted area for their construction.

Delivering projects to exceptional standards of quality is something Hutchinson Builders have been doing for just over a century. The company has a strong focus on teamwork, safety and continual development both of their own staff and future builders, with the company opening its own school, the Gold Coast School of Construction, an award-winning RTO based at Hutchinson's modular construction yard in Yatala.

Currently, Hutchinson Builders have projects underway from the Far North of Queensland down to Tasmania, including multi-million dollar retail, tourism, residential, education, commercial office and health centre projects.

Formore information contact Hutchinson Builders, phone 07 3335 5000, fax 07 3335 5005, website www.hutchinsonbuilders.com.au

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Neil Mansell Concrete Toowoomba take quality very seriously, which is why the company has an on-site NATA-accredited laboratory for testing of batches. For the Northpoint Shopping Centre project, the lab proved a vital asset, as the variety of coloured concrete mixes which formed part of Mansell's scope required extensive trials and testing to perfect, due to the extremely demanding aesthetic specifications required by the client.

Mansell's Toowoomba batch plant also produced all of the structural concrete for the project – approximately 5,000m³ – liaising closely with Hutchinson Builders and their team to ensure deliveries were timely and well-coordinated with the program.

And that was a pretty straight-forward assignment for an experienced company with a batch plant capacity of up to 700m<sup>3</sup> a day and a fleet of 20 concrete trucks - the coloured concrete however, now that was tricky.

In total, Mansell needed to produce 500m³ of coloured concrete with coloured aggregates in it, for exposed polished concrete terrazzo areas. The complexity was the number of colours and the variety of coloured stones required for the effects the developer of Northpoint was looking for.

"It was a very high quality mix," said Neil Mansell Concrete Toowoomba General manager, Shane Smith.

"All the coloured concretes had pigment in the mix, and there were several different types of coloured pebbles went into the coloured mixes.

"We poured a lot of 1m<sup>3</sup> samples for the client to look at and in the end we had seven different colours of concrete with seven different colours of pebbles to produce. It involved a lot of work."

Even sourcing the pebbles wasn't simple, with some coming from as far away as Emerald, Yuleba and Thallon. Then they had to be experimented with – for example trying 20% of Thallon and 80% Emerald pebbles, then adding the pigment from the CCS pigment range of up to 40 colours.

That's where Mansell's technical manager, Rod Evans, provided much needed expertise, supervising and testing each batch and ensuring accurate quantities were noted so the successful mixes could be replicated many times over.

The issue was keeping it consistent – we were mixing concrete with three to four different stones in the mix, so you have to be very accurate with the weighing so the mixes can be consistent," said Shane.

Some of the mixes included Sparta, a mixture of 90% black stones and 10% red stones in a Gothic Charm coloured mix; Casa Blanca, 100% red stones with caramel pigment; and Blue Gold, containing 90% honey-coloured stones and 10% black stones with CCS Blue Gum pigment.

Rod Evans is also responsible for all the compressive strength testing of each mix of concrete Mansell produces to ensure it meets AS1379 requirements. Testing for strength is especially important for projects like Mansell's recent supply of high strength concrete for the precast false ceiling panel sections for Brisbane's Legacy Way tunnel. Mansell's concrete was used in 2,000 of the project's 4,000 prestressed concrete units, comprising over 7,000m<sup>3</sup> of concrete.

The lab is audited biannually by NATA to maintain accreditation, and is also audited regularly for their Queensland Main Roads certification.

In addition to Northpoint, in terms of major commercial projects they have supplied projects as diverse as 2,000m<sup>3</sup> for an indoor pistol range in Toowoomba and all the concrete for a new BP Service Station.

Civil projects, including the recent flood reconstruction works, are a significant share of the company's business, and they also supply substantial amounts of concrete for residential projects in the Toowoomba area for builders including Fallon Homes, Hotondo Homes, Swish Homes and Ray Weston Construction.

With their willingness to innovate, high level of technical expertise and high-capacity plant, Neil Mansell Concrete Toowoomba is building a solid reputation as certified quality suppliers who can meet any challenge.

For more information contact Neil Mansell Concrete Toowoomba, 550A Alderley Street, Toowoomba 4350, phone 07 4613 6120, fax 07 4613 6131, website www.mansell.com.au/home-premix.html









Wagners Steel Reinforcing has an advantage when it comes to meeting the needs of a major project program like the North Point Shopping Centre – their scheduler, Jeff Lodder. His ability to interpret engineering drawings and industry experience means he ensures the details are correct so the steel is ready to roll out to site on a daily basis, according to Wagners Steel Reinforcing General Manager, Mark Harland.

Wagners Steel Reinforcing supplied Hutchinson Builders with 350 tonnes of mesh and bar reinforcing steel for slabs, footings, decks and columns between April 2013 and February 2014, all shaped, cut and bent to specification at the company's Toowoomba facility and trucked to site by Wagners transport division.

For over 20 years Wagners Steel Reinforcing have been meeting the needs of projects throughout Toowoomba and surrounds, including commercial, civil, residential, industrial, retail and mining developments. Their expertise includes fabrication of strip footing cages, pad footing assemblies, piers and columns, and their workforce includes technical personnel, welders, production and administration.

Currently Wagners Steel Reinforcing are involved with a range of projects including Wagners Wellcamp Airport and Business Park projects, Surat Basin LNG projects and numerous residential projects in Toowoomba.

For more information contact Wagners Steel Reinforcing, phone 07 4637 7811, email steel@wagner.com.au, website www.wagner.com.au



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## A SOLID REPUTATION FOR HARD **WORK AND GREAT RESULTS**

Being busy on a number of high stakes projects is a good indication a company is doing something right, or in the case of Dalziel Earthworks and Construction (DEC), doing many things right. Their recent projects have included the Northpoint Shopping Centre for Hutchinson Builders, where they undertook the bulk earthworks, Ergon conduit works, directional drilling and vacuum excavation for services location.

The program took eight months, and according to company founder Brad Dalziel, the civil works were fairly straightforward. The conduit runs for the Ergon infrastructure were extensive, running the entire perimeter of the block, and a high level of detail was achieved in their excavation.

The real surprises came during the vacuum excavation, as there were assets found which were not on the Telstra Dial Before You Dig drawings. These assets turned out to be completely unknown to the telco and it took testing to establish they were part of the existing Toowoomba phone network.

DEC documented everything found during the asset location process, including Ergon, gas, power, water and telecommunications, and undertook extensive liaison with Telstra during the process of locating all the services and resolving the issues which arose.

The project was completed LTI-free, thanks to the excellent safety management and risk management practices Brad Dalziel instils in his

team. As a hands-on manager who is out on site and sharing the workload, he ensures everyone follows the safest possible work practices.

DEC also employs 100% direct labour for all their projects, creating a tight team with shared values and a strong commitment to integrity and diligence.

The company owns and operates two quarries to provide materials for projects, and has 35 items of plant including excavators, dozers, graders, rollers, truck and dog, semi-tipper, semi-float, water carts, directional drill rigs and vacuum excavation plant. All staff are properly ticketed across all the plant items, and ongoing training is a priority.

DEC has been in operation for 20 years, and has substantial experience in underground asset works. They have Telstra accreditation for cable locations and pit and pipe construction, as well as NBN accreditation.

Currently, the majority of DEC's projects are in the civil sector, including numerous subdivisions in Toowoomba, and multiple assignments directional drilling for road underbores for Ergon assets in locations including Tara, Miles and Goondiwindi. Recently they also fixed a road at Ravensbourne which had been blocked for three years by a washout, shifting 20,000T of material to the site to fill the hole and repair the road.

For more information contact Dalziel Earthworks and Construction, phone Brad Dalziel 0429 965 413, email dalzielearthworks@bigpond.com