



Construction of the Tugun desalination plant is well underway and on course to deliver drinking water by January 2009.

DESAL PLANT SOMETHING TO DRINK TO

While south-east Queensland still labours under 'Level 6' water restrictions, construction of a desalination plant at Tugun at the southern end of the Gold Coast is underway with the target of producing 125 million litres of drinking water per day by January 2009.

Major Metals Queensland has just completed manufacturing, for the GCD Alliance, two steel casings for the construction of the intake riser, which will collect the seawater to be used for desalination, and for the outlet riser that will disperse the excess water.

Both pipes (see inset) were made from Grade 350 XLERPLATE® steel in 36mm, 40mm and 50mm thicknesses, and constructed in segments before being welded together and encased in concrete.

The intake riser dimension was 3100mm in diameter, 66 metres long and manufactured in three sections of six, 24 and 36 metres.

The outlet riser is shorter in length and manufactured in two sections of 18 metres and 36 metres.



"Our involvement with this infrastructure project was to use XLERPLATE® steel because of its consistent quality and it fitted our design brief," said Major Metals Queensland General Manager Ina Hirovanaa.

"Due to the size of the steel casings, the logistics and transportation from Dalby to Pinkenba in Brisbane were challenging, especially travelling down the Toowoomba Range. The casings weighed up to 115 tonnes so progress was slow and methodical."

The GCD Alliance then barged the steel casings from Brisbane to Tugun to a self-elevating platform

barge two kilometres off the Gold Coast, where they were dropped into 20 metres of tidal waters before being driven 40 metres into the ocean floor by a 100-tonne piling hammer.

From here, the intake riser will be connected to a feedwater intake pipeline tunneled 40 metres beneath the seabed. The pipeline will in turn be connected to the Tugun desalination plant on-shore just west of the Coolangatta Airport. The same process, in reverse, will apply to the outlet tunnel.

Desalination plants work by separating sea water into two different liquids.

One of the separating processes is reverse osmosis, where a pressurised saline solution – sea water – is passed through a membrane which then collects the salt content. The latter is then discharged while the former continues on its journey to become fresh drinking water.

Desalination plants supplying drinking water are already being used in the Middle East, North Africa, Southern Europe and the Caribbean, and projects have recently commenced in China, Singapore and the USA.

SUPPLY & DEMAND

BlueScope Steel has stressed the importance of understanding how market conditions impact demand and prices of steel both in Australia and overseas.

There are three key factors that have influenced the market in 2008: a severe shortage of key raw materials; ongoing strong demand in emerging markets such as India and China; and a steep increase in sea freight costs.

With regard to commodity prices, coking coal contract prices have rocketed by 200 per cent (they are now over US\$300 per tonne), and iron ore prices by 87 per cent. This follows a 65 per cent rise in prices for iron ore fines in February.

Despite these constraints, global crude steel production reached 815 million tonnes in the first seven months of 2008, up a substantial 6.1 per cent compared to the same period in 2007.

The steel supply/demand imbalance that has been experienced in the first half of 2008 has put substantial pressure on global steel prices, with Asia and North America recording the highest price increases. In the US, the weak US dollar and high freight costs have suppressed steel imports. More recently, however, steel prices have corrected due to seasonal factors in both Europe and the Middle East and, to a lesser extent, due to a fall in construction activity in China because of the recent Olympic Games.

Although the slowdown in global GDP growth is likely to impact steel demand to some extent in the second half of '08, economic activity in the emerging economies (which consume about 60 per cent of global steel) remains strong. In fact, industrial production growth averaged a strong 16 per cent per annum in the three months to July 2008 in China, and five per cent per annum in India. Even if the level of growth decelerates to some extent over the next six months, these economies will still be robust.

Over the longer term, the balance of global supply and demand is dependent on the extent which China and India adds additional capacity.

BlueScope Steel's Chief Executive Australian Coated and Industrial Markets, Paul O'Keefe, said that the company's steel output volumes have been steadily increasing for a number of years. Stronger than expected demand and a recent reduction in import volumes has, however, resulted in a supply/demand imbalance in the Australian market.

"BlueScope Steel is working hard to ensure we are maximising our production output, and getting the most out of our supply chain, in an endeavour to meet customer demand," he said.

"While these processes are underway, we ask our customers to remain in close consultation with their BlueScope Steel sales representatives. We will continue to take proactive steps to remain a competitive supplier, and to deliver quality and value to customers. Domestic customers are our focus, so we strive to provide them with a value proposition that underpins their competitive advantage."

RAINPODS™ REVOLUTIONISE RAINWATER TANK DESIGN

Award-winning Queensland manufacturer Rainwater House (a division of Ascent Building Solutions) has released a unique range of steel rainwater tanks which it hopes will revolutionise the industry.

The Rainpod™ range of tanks has been designed to provide an alternative to the traditional oblong-styled tanks, which require internal bracing in order to retain their shape.

By curving the side of the Rainpod™ to create a waist, Rainwater House has increased rigidity while also creating a modern, aesthetically-pleasing tank.

Made from AQUAPLATE® steel from BlueScope Steel, Rainpod™ tanks are available in four configurations – single, double and triple in-line pods, and a triple pod designed to wrap around the corner of a house – a world-first for tank design.

"Our 'pod' design effectively mimics the inherent strength of round tanks, while allowing us to replicate a number of pod storage sections in the one vessel," Rainwater House director Terry Styles said.

"This new design has eliminated almost all the internal bracing while minimising the number of penetration points required to brace traditional oblong tanks."

Rainpods™ can be positioned against internal or external walls, and range in capacity from 1660 litres to 5360 litres. They also come in several slim widths – 700, 800 and 995 millimetres.



Curved waist design helps distinguish the Rainpod™.

"We understood that every home is different," said Mr Styles. "Our design has allowed home owners to install tanks without blocking views, breezes or access points to their houses."

Rainwater House has also developed the Poolpod™, a Rainpod™ tank designed specifically for pool owners wishing to top up their pools during drought conditions.

"Owners can connect their tanks and know exactly how much water is being fed into their pools," fellow director Jared Hinkley said. "We've achieved this by having regular tap fittings connected up the tank side, allowing rainwater to only empty to that point."

Rainwater House recently won the Entrepreneurial Business of the Year award at the 2007 Sunshine Coast Business Excellence Awards in recognition of the company's innovative designs and business success.

POLE POSITION IN THE ILLAWARRA

BlueScope Steel provided flexible supply arrangements in the manufacture and delivery of non-standard pole specifications to help an electricity service provider complete a challenging project in the Southern Highlands of New South Wales.

BHP Billiton Illawarra Coal commissioned Transelect to establish a new sub-station near Douglas Park to transform a 66kV line down to 11kV. The line was then transferred below ground to the Appin Mine Area 7 development via vertical bores and high voltage dropper cables.

Transelect addressed the short delivery times available by using BlueScope Steel SURELINE® steel power poles to keep the project on schedule.

Made from SL6000, a high-strength grade of steel specifically designed for the electricity industry, SURELINE® steel power poles are lightweight and robust – ideal for the rough terrain many power lines often traverse.



"It soon became apparent that the timber poles on which the design was originally based wouldn't be available for six months," Transelect Business Manager John Duck said.

"They also didn't have the strength to carry what we designed, so it was clear that SURELINE® steel power poles were the best solution.

"BlueScope Steel gave us exactly what we requested," Mr Duck said. "They gave us a very quick turnaround on our pole order, provided a product which met our requirements, and even came out on-site to assist us."

"The short lead times for SURELINE® steel poles were very important to this project's success."

In addition, the 18.5 and 20-metre poles (see inset) were not part of the standard SURELINE® range, which necessitated a custom-built order of 18 poles for the project.

BlueScope Steel used its flexible production systems to help keep the project on schedule.



Automation has paid dividends for Precision Components Australia.

ROBOTS LEAVE STAMP ON AUSSIE CARS

A decision to re-invest in its business and automate its processes back in 2005 is now creating major cost and personnel efficiency benefits for an Adelaide-based company and its automotive customers.

Precision Components Australia Pty. Ltd. (Precision) supplies the big three in the Australian automotive industry – GM Holden, Toyota, and Ford – with a wide variety of stamping capabilities, precision manufacture stamped steel components and sub assemblies. These include closures such as hood assemblies, endgate assemblies, sunroof assemblies, battery trays, front end module components, and seat belt anchor brackets.

Many items the company manufactures use a range of BlueScope Steel products including GALVAFORM® steel and ZINCANEAL® steel, hot and cold rolled in both sheet and coil.

Precision and BlueScope Steel have a long history of working together, not only purchasing and selling but also developing different grades of steel associated with specific customer requirements.

Back in 1983 Precision required a deep drawing GALVABOND® steel to manufacture a steel pallet which went on to win the Prince Philip Prize for Australian Design.

More recently both companies again joined forces to develop a new grade of steel associated



with GM Holden's first front end module stampings (see inset). In 2006 GM Holden took home gold in the annual Automotive Engineering Excellence Awards for the front end module components.

In mid-2006, when its Monaro contract with GM Holden finished, Precision invested heavily in additional robots from KUKA in Germany to manufacture various products associated with GM Holden VE and WM platforms. The robots are used to spot weld, apply adhesives, sealants and more recently form the automation link between presses for the transfer of parts for the company's recently installed 1600-ton "A Class" tandem press line.

"The growth strategy of our factory has allowed Precision to present our business as a serious automotive component supplier and take on more work without increasing our personnel," said Precision Managing Director Darrin Spinks.

"In 2006, we were 125 people, working three

shifts over seven days. In 2008, we are 65 people working one shift over five days. We still have capacity on one shift, with the second shift available for future contracts. It's all about working smarter."

The move is paying dividends in new contracts. The company recently won a contract with Toyota Australia to manufacture and supply 155,000 centre floor panels per year for the Australian-produced Aurion and Camry models.

With automation the key to its growth, Precision Components has created and established positive career opportunities for its employees. Precision's engineering team install, program and service all their press and robotic equipment.

"The development of our people is critical to our future success. We are an efficient, quality tier one supplier to the Australian Original Equipment market and extremely confident we will continue to be globally competitive," Mr Spinks said.

"We've gone the opposite way to our competitors. We have invested in our own business through automation and the development of our people. This we believe will provide the foundation to invest and expand further in the near future.

"We enjoy a professional and loyal relationship with BlueScope Steel which is the foundation for shared success. It has played a major role in our history, and we'll continue to assist each other going forward."

TANKS SUCCEED UNDER PRESSURE

The resources and mining boom is proving good business for a Victorian-based manufacturer of storage cylinders and LPG tanks.

Orders for pressure cylinders produced by Echuca-based Manchester Tank & Equipment have soared by 150 per cent compared with this time last year.

The pressure cylinders form part of the fail-safe airbrake system on freight trains and are made from hot-rolled XTRAFORM® 400 steel and 2mm HA350 and 2.2mm HA300 coated steel.

XTRAFORM® 400 steel is a structural steel suitable for severe bending, while HA350 and HA300 steel possess good ductility and weldability. Each also have good minimum yield strengths which make them ideal for pressure cylinder construction.

"With these products we get the exact steel and chemical mix we need for pressure vessel manufacture," Manchester Tank & Equipment General Manager Mark Inglefinger said.

"The coil comes to us as a 'pickled dry' product, which means it's a clean section of steel and so is easy to put through our processors. It's then cut and formed into the domes which define the shape of the cylinders."

Once completed, the cylinders are heat treated before a sample is X-rayed to ensure it meets stringent pressure testing guidelines.

Manchester Tank & Equipment tensile-tests sections and hydraulically bursts some cylinders to measure tolerances. Only when the tanks have successfully passed through this destructive testing can they receive formal approval from the state workcover authorities.



Manchester Tank & Equipment's range now...

"It's vital to use quality products to store hazardous gases," Mr Inglefinger says. "We use lightweight, high-grade steel from BlueScope Steel to ensure the tank is safe."

The bulk of Manchester Tank & Equipment's business in the past has come from producing BBQ and LPG cylinders, but successfully supplying pressure cylinders for airbrakes has made the company keen to further diversify with its next project.

"It's about keeping in touch with what the various markets are doing, and there is a clear



... includes both BBQ and LPG tanks.

movement towards greener motoring now," Mr Inglefinger said.

"This applies to trucks as well as passenger cars, so we've created a pressure vessel for the conversion of diesel trucks to cleaner-running LPG.

"We use 4mm-thick hot rolled XTRAFORM® 500 steel to create these LPG tanks – it's an exciting area for us."

Manchester Tank & Equipment's Echuca plant is the company's only facility outside the US. It employs approximately 130 people and produces 450,000 to 500,000 pressure vessels per year.

PRE-PUNCHED METAL BLANKS CUT COSTS

Sheet Metal Supplies, a BlueScope Steel distribution company formerly part of Smorgon Distribution, has been tackling production costs head-on with its innovative Uniblanks® system.

A process rather than a product, Uniblanks® works by utilising the latest tool setting and punching technology to supply ready-made, pre-punched metal blanks to customers.

"Put simply, we modify designs to improve the product and make it more cost effective," said Sheet Metal Supplies Market Development Manager Chris Priftis.

"It's a value-added service to help manufacturers manage material supply and sheet metal component production, and help reduce their overall production costs."

By supplying ready-made components 'just in time' for assembly, and by offering a 'design for manufacture' service, Uniblanks® has been able to offer manufacturers savings on components of up to 40 per cent.

Uniblanks® components are commonly found in the industrial and lighting sectors where switchboards feature heavily. They are also



Dunbier brake lights use the Uniblanks® system.

used in other sectors such as furniture and the domestic and commercial buildings markets, and effectively suit any product that requires pre-punched or notched metal blanks as a time-saving production strategy.

Whereas some customers need to utilise two or three different machines, Uniblanks® uses one highly-flexible tooling system which allows metal



blanks to be punched, notched, formed and folded, before being easily slotted into place, thus eliminating the need for dedicated tooling.

Sheet Metal Supplies has most recently provided their Uniblanks® service for Dunbier Marine Trailers' brake lights (see left).

"The savings on labour, production time, overheads, freight and waste would impress any business manager," Mr Priftis said.

"We're also able to pre-punch a number of different products – aluminium, ZINCALUME® steel, GALVABOND® steel, ZINC HI-TEN® G550 steel, many types of grades of cold rolled and hot rolled steel applications, and a range of COLORBOND® steel applications. This makes Uniblanks® a unique service that allows manufacturing and assembly businesses to remain competitive."



Rohan Stocker, General Manager of Marand Precision Engineering (left) receives his Manufacturer of the Year Award from BlueScope Steel's Automotive and Manufacturing National Sales Manager, Steve Gregson.



Joe Camilleri, Co-Director of JNI Pallet Systems.



Ron Clarke of Ron Clarke & Sons.

BLUESCOPE STEEL SUPPORTS AUSTRALIAN MANUFACTURING

Australian manufacturings' elite was out in force at the Manufacturers' Monthly Endeavour Awards in late May, with Federal Minister for Innovation, Industry, Science and Research, Senator Kim Carr, a keynote speaker and BlueScope Steel the principal sponsor for the third year running.

The winner of the 2008 Manufacturer of the Year Award was Melbourne-based Marand Precision Engineering, while NSW-based JNI Pallet Systems came away with the prestigious new Australian Steel Innovation Award. Both awards were presented by BlueScope Steel's Automotive and Manufacturing National Sales Manager, Steve Gregson.

"As Australia's leading steel manufacturer, we are honoured to be the major sponsor of the Endeavour Awards, and proud to recognise and endorse the elite of our local manufacturers," Mr Gregson said.

Senator Kim Carr said the new government took manufacturing "very seriously and intends to bring a lot more energy and focus to industry policy."

Marand Precision Engineering – a leading supplier of automated production solutions, precision tooling solutions and aerospace ground support equipment – competed against a strong field to win 2008 Manufacturer of the Year.

By recognising the need to develop long-term business strategies and through implementing

a number of world-best practices, the company has made the transition from a domestic supplier to a globally recognised provider of innovative automotive and aerospace industry manufacturing solutions.

Marand provides manufacturing industries with a range of solutions for all types of precision production needs.

"As Australia's leading steel manufacturer, we are honoured to be the major sponsor of the 2008 Endeavour Awards"

"We build complete assembly and manufacturing systems for other companies to use. We don't pump out widgets, we're at the smart end – trying to build and develop efficient and cost-effective manufacturing systems that deliver profits for our customers," General Manager Rohan Stocker said.

"The BlueScope Steel products we use form an excellent basis for the products that we design and

manufacture. It's all value-add business. We buy in sheets of steel and turn them into a very high-tech product. We weld and machine them to create innovative tooling and ground support solutions for the aerospace industry."

BlueScope Steel also sponsored a new category this year – the Australian Steel Innovation Award. It was won by a company that designed and built an ingenious collapsible timer pallet converter, the Pallet Safe, which transforms a standard timber pallet into a secure steel mesh storage container.

JNI Pallet Systems Co-Director Joe Camilleri said the Pallet Safe collapses down to just 300mm high but can extend to 910mm. Up to 80 per cent of Pallet Safe is constructed from BlueScope Steel products.

"We're looking forward to continuing our strong relationship with BlueScope Steel and hope to again enter next year's Awards," Mr Camilleri said.

The Australian Steel Innovation Award - Highly Commended winner was Ron Clarke & Sons, for its hand-crafted steel artworks.

Ron Clarke & Sons creates life-like three-dimensional steel sculptures and also artistic steel murals using only an oxy torch and 3mm XLERPLATE® steel made by BlueScope Steel.

His company's original artistic creations are impossible to replicate using computerised steel cutting methods.

ARM ON A ROLL

Australian Rollforming Manufacturers (ARM) took a defining decision in 2001 when it acquired from another business the roll-formers, tooling and designs which allowed it to diversify and deliver to the heavy industrial roll-forming sector.

The company is now a major supplier to the transportation industry. It has built up particular expertise in the fabrication of main structural sections for rail rolling stock, bulk coal wagons and similar transportation applications for Australian and overseas companies.

"Buying the old business was a great opportunity for us," says ARM owner Henry Wolfkamp.

"One of the original bits of tooling we discovered in the old equipment was 'Job Number 88', a section that fitted in the tray of the FJ Holden ute back in 1955, so we inherited some history when we bought the business equipment. In fact, the earliest section dates back to 1938."

ARM is now capable of rolling over 1300 different profiles, allowing the company to complete projects as diverse as a heavy gauge double top-hat batten for BlueScope Steel's facade business in Taiwan, or to roll several hundred tonnes of Void Panel for the bridge beams that Leighton Construction is using in Victoria's Dyonon Rd Overpass and Deer Park Bypass.

This latter project for Leighton Contractors has replaced plywood and eliminated several OH&S issues by replacing elevated site work with installation on the ground level in the manufacturer's yard.

One of ARM's most recent projects has been the manufacture of conveyor frames for Inco Ltd's Goro Nickel mine in New Caledonia.

"We used BlueScope Steel's ZINC HI-TEN® G450 steel – a hot-dipped, zinc-coated structural steel – to manufacture the frames," said Mr Wolfkamp. "This product allows us to manufacture channel sections in a wide range of sizes to suit most applications."

"The frames were then fabricated and assembled in modules and packed into 17 containers – also containing fasteners, mounting bolts and brackets – which were then supplied for assembly on site."

Australian Rollforming Manufacturers is able to roll-form a wide range of materials, including ZINCALUME® steel and COLORBOND® steel, and has been a member of the STEEL BY™ Brand Partnership Program since 2004.

"As we diversified, it made sense to buy locally-produced steel that we could rely on," Mr Wolfkamp said.

"Previously, we'd had trouble with the quality of the imports. By the time we had tooled up, we would then have coil problems – variations in grade meant there were shape control problems such as wavy edges, bow and twist."

"With BlueScope Steel products, however, you have a reliable material and technical support throughout."

"I've always been a firm supporter of locally-manufactured steel, so it was only natural we became a member of the STEEL BY® Brand Partnership Program."



Conveyor frames for the Goro nickel mine.



HOMES UNDER THE HAMRA

South Australian home-builder Hamra Homes is taking advantage of the inherent benefits of steel building frames to cut construction times on its new townhouse development in Adelaide.

The 16 two-storey townhouses in the Hollywood Close development in Salisbury are all built around internal frames made from TRUECORE® steel.

Utilising the dimensional accuracy, straightness and trueness of the ingredient TRUECORE® steel, the patented Supaloc framing system allows for quicker, easier assembly because its unique truss-to-truss connections don't require screw-fixing onsite; the hip and jack trusses simply clip together.

"This allows us to put up two-storey houses three to four days quicker than traditional timber-framed houses," Hamra Homes General



The Hollywood Close development with frames made from TRUECORE® steel.

Manager of Construction Mark Booth said.

In addition, steel building frames allow for more innovative internal layouts – its high strength-to-weight ratio enables longer roof spans, creating larger and more open-plan living areas.

Mr Booth said customer recognition of the

distinctive blue frames made from TRUECORE® steel was increasing, in part due to its termite resistance and 50-year warranty*.

"Home owners are more aware than ever before of the type of products that go into building their homes," he said. "Given the prevalence of termite activity in Australia, many people won't build with timber frames anymore and prefer to use frames made from TRUECORE® steel instead."

Atop all of the townhouses – each with three bedrooms and two living areas – will be roofs made from COLORBOND® steel

in a wide variety of colours.

The contemporary-styled homes will be completed in July and will offer a range of design features to suit most lifestyles and tastes.

**Warranty subject to terms and conditions*

BIG ORDER, FAST RESPONSE IN TASSIE

One of Tasmania's biggest retail developments has just been completed in a fast-track project using approximately 40,000 square metres of COLORBOND® steel from BlueScope Steel.

Located outside Hobart, 42-hectare Cambridge Park is a joint venture between developers Prudentia Investments and retail giant Harvey Norman and will be home to furniture, hardware and electrical stores, homeware shops and cafés.

Bells Construction, part of the Hazell Bros Group, oversaw the construction of the multi-building site which began in March 2007 and was completed 12 months later.

"One of the most challenging elements to this job was sourcing the materials," Bells Construction's Assisting Project Manager Kevin Gutteridge said.

"The size of such an undertaking created unique circumstances for Tasmania in that the project had to draw from a limited amount of resources and materials.

"For a big order like this, requiring consistent availability, it meant a lot of the materials had to be sourced from the mainland in order to meet our fast-track program."

Construction consisted of precast concrete panels, supported by structural steel on a concrete slab.

Around 37,000 square metres of Stramit Speed Deck® 500 made from hi-tensile COLORBOND®



Cambridge Park is one of Tasmania's biggest retail developments.

steel in the colour Shale Grey™ was used on the roof, and another 3,000 square metres in the colour Windspray® and Woodland Grey® clad the walls.

Hobart's Independent Roofing installed the roof and wall cladding material, which was instrumental in speeding up construction and containing costs.

Stramit Speed Deck® 500's wide design made it ideal for such a large commercial application. Added to the site's overall design consistency, this led to an accelerated building process.

"It was certainly the biggest project of its type

in Tasmania," Independent Roofing owner John Roberts said.

"With three main and two secondary buildings plus the smaller central building for cafes and restaurants – and the whole complex completed in 12 months – it was an exciting project to work on."

Harvey Norman and K&D Warehouse were the first retailers to move into the buildings, with the former occupying around 39,000 square metres of goods and retail space. The next phase of tenants is currently finalising internal fit-outs.



LYSAGHT CUSTOM ORB® made from COLORBOND® steel complements the recycled containers.



SHIP-SHAPE STEEL RECYCLING

The innovative use of recycled steel shipping containers continues apace in the shape of a Children's Activity Centre at Skidders Playground in South Melbourne.

Built by Melbourne-based PHOOEY Architects, this project is a and robust solution for the local housing commission.

PHOOEY Architects has recycled four shipping containers by joining them together in a staggered arrangement to create a variety of spaces for

children to study, paint, dance or just lounge about.

Completing the project is LYSAGHT CUSTOM ORB® roofing made from COLORBOND® steel in the colour of Shale Grey™.

"We used a feedback design strategy initially," says PHOOEY's principal architect Peter Ho. "We then used the whole carcass of the COR-TEN® steel shipping containers.

"We sourced four 'Hi-Cube' containers – two 40-footers and two 20-footers. All steel waste was designed to go back into the building as

structural balustrades and awnings, as well as decorative cladding on the adjoining sheds."

Both the City of Port Phillip and Speller Constructions played a crucial role in the pursuit of the zero waste goal. Inside, the windows, carpet tiles and joinery are all also either recycled or reclaimed, as is the decking on the centre's roof.

Completed late last year, the activity centre recently received an award for emerging architecture in 2007 from the UK's *Architectural Review* magazine.

DOGS DIG NEW HOME

Two hundred dogs are finding a new home in a medium-density two-storey facility surrounded by "Zen" gardens in an innovative approach to the redevelopment of the RSPCA Victoria Headquarters in Burwood, Victoria

Each kennel faces tranquil gardens rather than another kennel in a bid to promote a more relaxed environment for the canines.

NHArchitecture recently oversaw completion of the first stage of a three-phased redevelopment.

"When the dogs first arrive they have to go through nine days of quarantine," NHArchitecture project architect Barbara Bamford said.

"Naturally, this can sometimes be a distressing experience for them, so it was our intention to keep the dogs as calm as possible – hence the access to natural light, limited view of other dogs and the views to open, Zen-like gardens."

A dog's mood, like a human's, is affected by daylight, so each kennel receives year-round sunlight and is designed to be naturally ventilated. Shower towers – where air and water descend to provide cool air – are used for cooling, and in-slab pipes for heating.

Given the canine environment, acoustics also



Paws for thought: "Zen"-like gardens help the dogs relax.

had to be carefully considered. NHArchitecture used Venturi caps and windscoops on the roof to displace and divert noise, and placed special acoustic mats to 'absorb' sound at entry and exit points, and on all the ventilation paths.

The exterior design of the buildings also factored in a dog's needs.

"Despite having limited blue and yellow visual registration, dogs see mainly in black and white," Ms Bamford said. "This is why the building is primarily black and white, as it's stimulating for dogs."

"It also coincides with the passive thermal

design of the building. For example, we use COLORBOND® steel in the lighter colour of Surfsmist® where we want the facades to stay cool and reflect light."

The materials used included LYSAGHT SPANDEK® made from COLORBOND® steel on the roof and walls, offset with small sections of LYSAGHT PANELRIB® made from COLORBOND® steel in the colour Surfsmist®.

"It was the ideal application to use, not least because of our budgetary commitments to the project. The \$6.4 million it cost was funded entirely by RSPCA donations."

The next two stages of the development will consolidate a series of connected buildings, all sharing the same design architecture and branding.

When complete in 2010, the RSPCA Headquarters will provide a range of services including animal welfare, doggy daycare and adoption services, and administration offices for marketing and fundraising.

"It's been an interesting project," Ms Bamford said. "The RSPCA shelter facilities haven't been upgraded for nearly 50 years."

"The final result will be a model of excellence in animal care which will also attract more people to the site, promoting higher animal adoption rates."



1800 800 789

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www.bluescopesteel.com

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EDITOR: Oliver Peagam
DESIGN: Natasha Krncevic
CORRESPONDENCE:

bluescopeeditorial@imadvertising.com.au
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STEEL ART A STAND-OUT

A radical change in career direction has resulted in an innovative use of steel as an art form.

Sara Haddad grew up around steel, thanks to her father's steel fabrication business Kaydee Engineering in Toongabbie, NSW.

"The business had a plasma machine, and when I saw what it could do I thought I could make pictures out of steel," remembers Ms Haddad. "So we launched the company Kahaus in July 2007."

Kahaus uses Grade HA250 XLERPLATE® steel from BlueScope Steel in 3mm and 5mm widths to create screens, steelscapes, coffee tables, hanging racks and pot screens (see inset).

"It's been an encouraging start," says Ms Haddad. "Our customer base includes architects, interior designers and landscape architects, as well



as individuals who are looking for something a little different. We also offer a bespoke service whereby customers can choose their own design.

"We have some interesting projects coming up including a residential development in Kirribilli in Sydney, and a restaurant fit-out in Melbourne."

For further info log on to www.kahaus.com.au.

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We are offering Steel Edge readers the chance to join the ever-growing STEEL BY™ Brand Partnership Program, which allows your company to align itself with the BlueScope Steel brand and enjoy a range of benefits.

To be eligible to join – and to protect the exclusive benefits provided to participants of



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