# CESSNOCK CORRECTIONAL CENTRE

The Cessnock Correctional Centre involved the construction of a new 250 bed maximum security facility contained within the site of the existing Cessnock Correctional Centre.

CESSNOCK NEW SOUTH WALES / **NSW PUBLIC WORKS**


**Main Image** Inside the new section of the Cessnock Correctional Centre facility, NSW.

**The new Cessnock Correctional Centre will be able to accommodate 250 maximum security inmates.** Lindsay Charles, Project Manager with NSW Public Works for the 1000 Inmate beds project, came to the job having already managed the South Coast Correctional Centre project in Nowra for which she was awarded Project Manager of the Year (2011) by the Australian Institute of Project Management,the 2010 Premier's Award and most recently Project Manager of the Year for the Asia Pacific region from the APFPM in Hong Kong on 17 March 2012. Her work engaging the participation of local Aboriginal communities has been particularly applauded.

The 1000 Inmate beds project was announced in the 2005/06 budget to provide an additional 1000 beds throughout the NSW correctional system - with a budget of $300 million. The first part to be delivered was the 600 bed centre at Nowra, the South Coast Correctional Centre, completed in 2010. The second part is the 250 bed maximum security centre at Cessnock due to complete in early 2012 and a further 150 beds which at the time of writing had not been allocated.

Ms Charles spoke of an early tender process used both at Nowra and Cessnock, achieving Savings of up to $20 million and $7 million respectively.

NSW Public Works were in charge of the 1000 Inmate Beds projects from conception to hand over. The lack of maximum security beds in the Hunter/New England region meant that in the past, inmates who received the greater sentences had to be sent to other regions. This separation made family visiting difficult, impacting on their rehabilitation.

The new centre has two layers of fence around it, a five metre concrete wall and a five metre expanded mesh wall with cameras, anti climb barriers and alarmed wiring. The security is both to prevent escape and to enhance security for inmates and staff within the centre.

NSW Public Works trialled a new system in Aboriginal involvement. Ms Charles again; 'In consultation with the construction industry and the local Aboriginal community, we drafted the Aboriginal participation plan and that plan was written directly into the contract - all the tenderers had to do was agree that they would abide by that Aboriginal participation plan.'

In Nowra, 10% of the jail construction workforce came from the local Aboriginal community - 92 jobs in total. When the jail opened and the jobs were advertised, the same process began including getting people job-ready before the jobs were advertised. 20% of the new correctional staff who started in the new South Coast Correctional Centre were from the local Aboriginal community.

The process was repeated at Cessnock with over 12% of the workforce from the local Aboriginal community. Ms Charles; 'It's achieved remarkable success, and although it's managed by committee and chaired by NSW Public Works, it has real community involvement and the community choose who should come forward for the jobs and who should be interviewed. The contractors and subcontractors don't have to employ anybody, there are no targeted jobs, they just have to interview from the list of Aboriginal participants first before they do anything else... Almost the whole process of Aboriginal participation including all the training, all the equipping of participants, all the mentoring and support is funded by the federal government so it's not a cost to contractors or subcontractors or even to the state government.'

From such a highly awarded start, it's hoped that the 1000 Inmate Beds Project including the Cessnock Correctional Centre will continue to achieve the best possible outcome for both inmates and the local communities.

***For more information contact NSW Public Works,*** Level 20 East, 2-24 Rawson Place Sydney NSW 2000, phone 02 9372 8575, fax 02 9372 8566, website www.services.nsw.gov.au

**Image** HK Joinery Design made and installed all the joinery items for the Cessnock Correctional Centre feature.

**Commitment underpins every job HK Joinery Design undertake – a commitment to quality, ensuring their joinery is fit for purpose and meets the highest standards, and a commitment both to the future of their trade and the Australian timber products industry.** This focus is exemplified by their work on the Cessnock Correction Centre.

HK Joinery Design made and installed all the joinery items for the project, including prisoner processing areas, visitor entry and processing areas, stairs for the maximum security wing and all joinery items including desks, benches and cabinets for staff tea rooms, offices, control room, monitoring area, storage areas and staff facilities.

All the joinery produced complies with both the applicable Australian standards, and the tight standards of the Department of Correctional Services. This required an extra degree of attention to detail in workmanship and in sourcing products such as pick-proof silicone.

Director of HK Joinery Design, Fred White, is unequivocal in his position on standards both for his own company's products and more broadly. As Chair of the Furniture Association of Australia, he stressed the importance of using materials which comply with Australian standards and are where possible also of Australian origin, to ensure products supplied for major developments are of appropriate quality. This prevents the need for costly rectifications or replacements, and can also, on a project like this, improve safety for facility users.

"The Cessnock Correctional Centre was a site with a lot of control points we had to meet, both the Correctional Services Standards, and the builders. Everything had to be utterly durable," he said.

"For example, the timber stair treads we supplied for the high security facility. We had to use a hydraulic rivet gun to secure the treads to the steel, to prevent anyone being able to remove them. We supplied in excess of 400 solid blackbutt treads, using around 3m3 of timber, shaped on our CNC machines to comply dimensionally.

"This project required a complete attention to detail and extreme robustness of our products, and we were complying with standards that were a lot tighter than standard commercial projects, because we are talking about protecting lives.

"This is a very high security facility. For the visitor entry X-ray areas, where all visitors pass through the x-ray scanner, we built all the frameworks out of Tasmanian oak and installed the glazing. For the prisoner processing areas, we manufactured and installed benchtops with very durable vinyl, with all the danger points taken away. The laminate products we built all have hidden fixings, so they are really secure. There is nothing a person can pick out.

"We learned so much from working on this project with a major company like John Holland."

Everything HK Joinery Design produce is made onsite at their Tuggerah workshop, which has been creating high quality joinery on the Central Coast since 1980, employing numerous local people and training up an ongoing number of apprentices. While their Tuggerah workshop staff worked on the manufacture and compliance-checks for six months, so that nothing left the workshop which was not up to standard and fit for purpose, a team of up to four of their cabinetmakers worked on site, with at least two onsite every day of the six months completing installations.

The company has 29 full-time employees including not only the trade qualified workforce, but also commercial estimators, a drafting team and a financial management team. HK Joinery Design has also invested in the latest digital-enabled design and fabrication technology, with the designs produced by the drafting team then sent to the CNC machines in the workshop.

HK Joinery Design also meet the compliance standards for Indigenous employment set by the Government for the project, with their existing workforce including trade-skilled Indigenous persons, and they tick the compliance box for training, with five guilded (adult) apprentices currently employed, and three youth apprentices. The company's team culture can be seen in the long service of many of their staff, with several having over 20 years with the company, and many apprentices staying on once qualified.

HK Joinery Design has completed a broad variety of projects throughout the Greater Sydney, Central Coast, ACT and Hunter Valley regions. Other recent projects include fit out for two student accommodation buildings at ANU in Canberra; ongoing joinery projects for Wyong Rugby Leagues Club Group; fit-out for an aged care project at Hamlyn Terrace, Wyong; a new double story science block for University of Newcastle Ourimbah Campus; joinery for Bluetongue Brewery; joinery for the Newcastle Conservatorium of Music and joinery for the John Hunter Hospital refurbishment project.

When quality workmanship counts, HK Joinery Design will deliver results that can meet the most discerning and stringent of standards.

***For more information contact HK Joinery Design,*** 14 Mildon Road, Tuggerah, NSW, 2259, phone 02 4353 5111

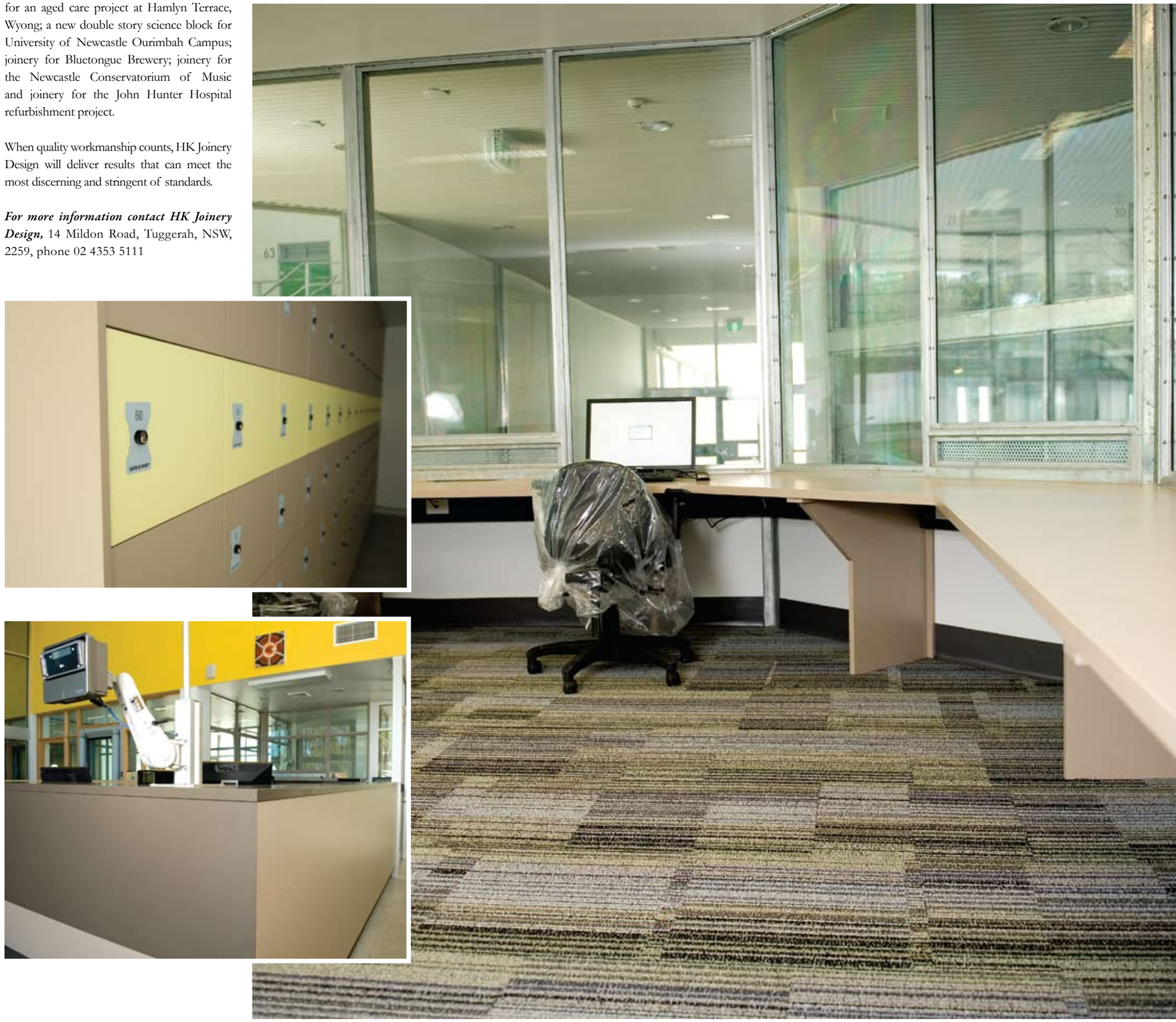


**Image** Moultrie Survey recently finished 18 months work surveying the Cessnock Correctional Centre, setting out the parameters for the 14 new buildings.

**Moultrie Survey and C.R. Hutchison & Co. Pty. Ltd have amalgamated, combining many years of surveying experience and a shared vision to be the leading provider of surveying services to the mining and construction sectors.** They recently completed 18 months of operationally-challenging work surveying the parameters for fourteen new buildings at the Cessnock Correctional Centre in New South Wales.

Moultrie Survey was on the job from the outset when demolition commenced on the existing building. Bryce Stoddart, the company's Senior Engineering Surveyor with more than twenty years' experience led the project. "The major difference between this job and others I've worked on before has been the security and police clearances required to access the site."

Stoddart explains that one of the more challenging aspects related to Cessnock's location on a flood plain. "In this instance, the vertical angles were even more critical than the horizontal." The site surveyors also introduced the control points required for setting out the buildings and post erection validated the final positioning and heights using state of the art equipment.

Long committed to a culture of cutting edge innovation, Moultrie Surveys amalgamation with C.R.Hutchison & Co. Pty Ltd puts the joint entity in a stronger position to capitalise on opportunities within the New South Wales market. With both companies sharing a vision to be the leading provider of surveying services to the mining and construction sectors, the merger was a logical decision.

**Equipment**

As a major division of Moultrie Group, Moultrie Survey views innovation as a key business driver, crucial towards the continued provision of highly competitive and revolutionary solutions to its clients. In keeping with the focus on innovation, Moultrie Survey deploys a range of state of the art equipment including total station theodolites, fixed laser scanners, GPS receivers, gyroscopic theodolites, CAD software and GIS systems. This includes the recent acquisition of an industry leading Leica C10 Terrestrial Laser Scanner. The group is currently evaluating a number of mobile laser scanners, including models currently not operational in Australia for eventual acquisition.

**Industry recognition**

A swag of industry awards is also testament to Moultrie Survey's determination to lead Australia into the next decade of technology. Key staff members are highly regarded as innovators in the field of surveying and spatial information and have been responsible for the delivery of ground-breaking solutions for large mining, infrastructure and construction projects. These staff members have achieved outstanding recognition in the form of a number of national and international awards including an Asia Pacific Spatial Excellence Award for Innovation and four NSW Excellence in Surveying and Spatial Information awards.

Recently, Moultrie Survey recruited Stanley Tan, a Business and Product Development Manager with a strong innovation focus to ensure that the organisation has a continuous and defined innovation road map.

"The Group," Tan says, "is researching and evaluating a number of pioneering technologies and solutions including spatially-contextual virtual reality platforms, subsurface utilities engineering, augmented reality and advanced remote-sensing equipment."

Essentially the Group's aim is to have a spectrum of acquisition technologies that will allow them to obtain underground, terrestrial and aerial data.

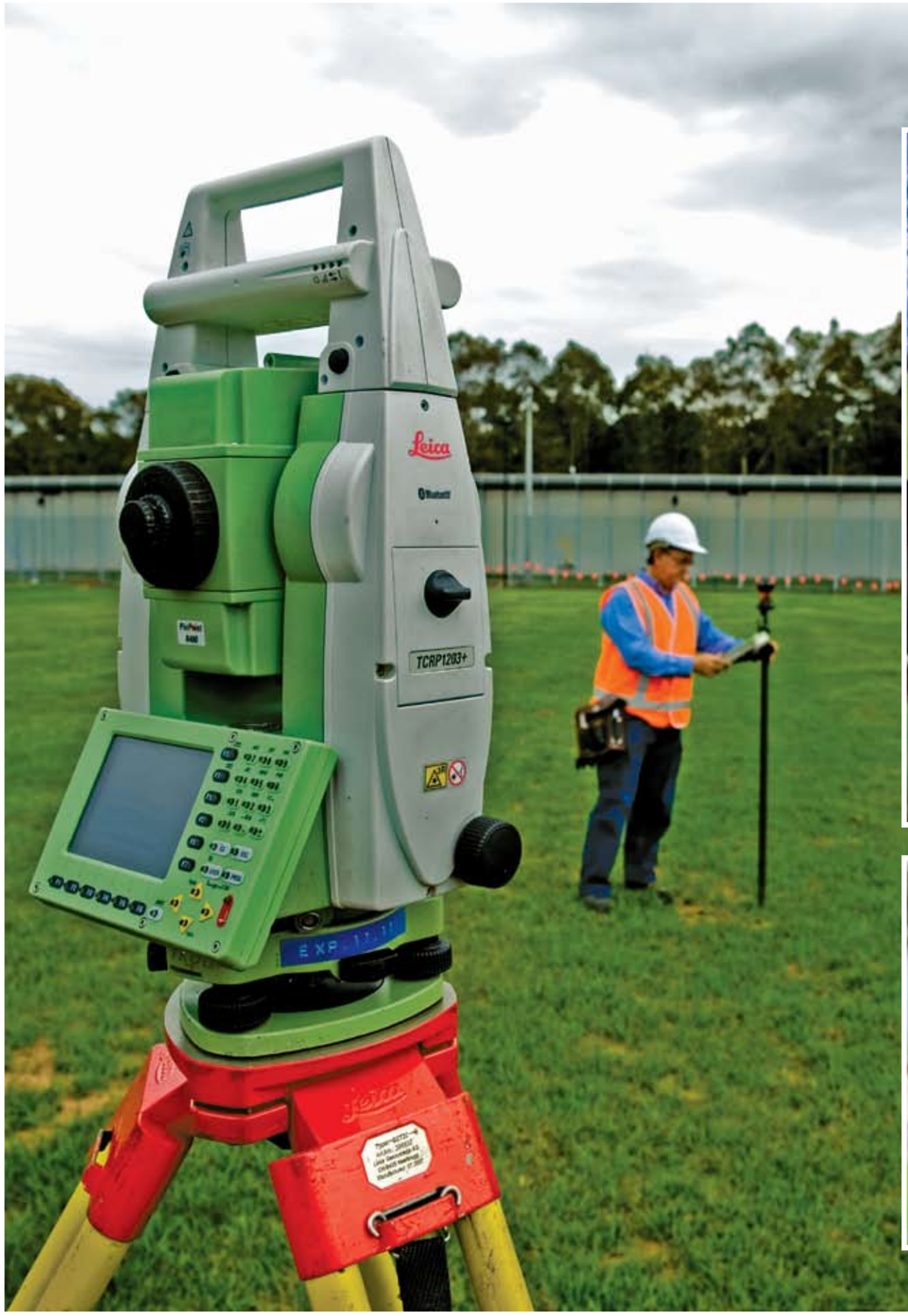
Currently, the organisation's specialist kit boasts two DMT Gyromat 2000 gyroscopes to support tunnelling and underground mine survey operations. Moultrie Survey's Operations Manager Andrew McNamara states that theirs is the only company in Australia to operate these units.

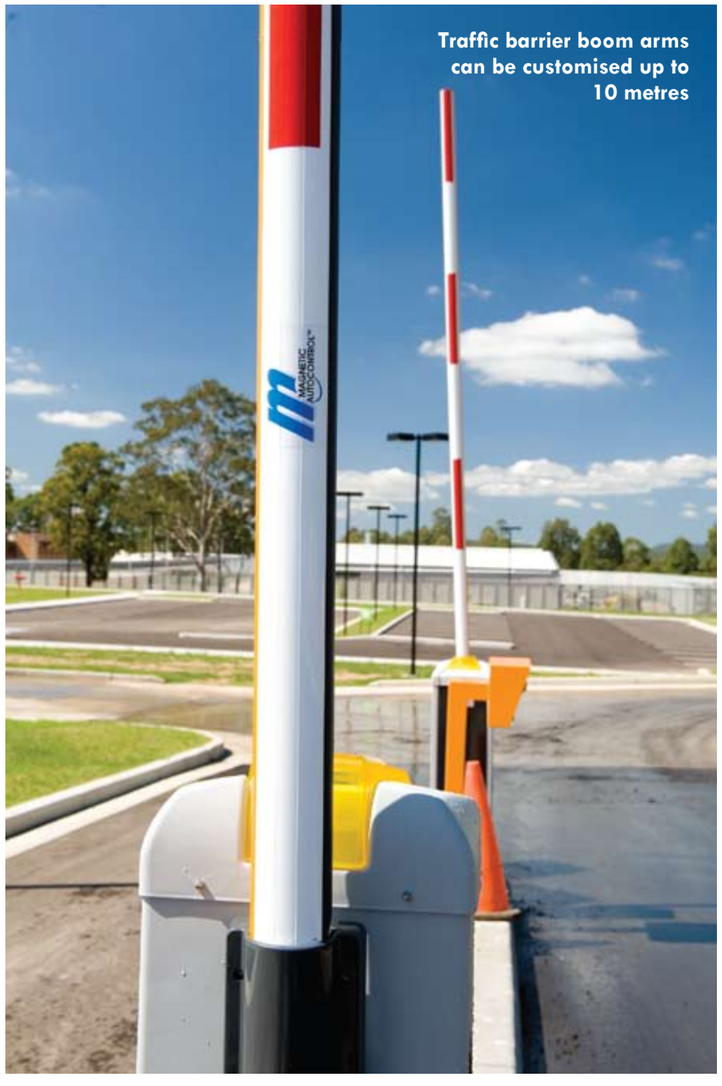
Since the merger with C.R. Hutchison & Co, Moultrie Survey is now able to offer technical and professional services to exploration, mining and infrastructure organisations.

Moultrie Survey operates throughout Queensland and New South Wales and is a division of Moultrie Group which collectively employs a workforce in excess of four hundred. As the company looks to the future, they acknowledge that qualified, experienced people will continue to be in great demand, as will a roll-out of advanced technology that keeps Moultrie Survey ahead of the game at all times.

Moultrie Survey specialises in the provision of services to the mining sector and is increasingly diversifying into infrastructure developments. In addition to their recent engagement on the Cessnock Correctional Centre in New South Wales, the group is also contracted to the RMS (Roads & Maritime Services) and have worked on projects such as the Pacific Highway upgrade between Port Macquarie and Grafton. Moultrie Survey also provides calibration and specialist consulting services to the Australian Defence Force.

***For more information contact C.R. Hutchinson and Co Pty Ltd,*** Tonella Centre Suite 11/125 Bull Street, Newcastle, NSW 2300, phone 02 4935 9700, website www.hutchinsonandco.com.au




# PERIMETER PROTECTION BY MAGNETIC AUTOMATION - RISING STEP & TRAFFIC BARRIER INSTALLATION

**Global company Magnetic Automation are specialists in perimeter security.** They manufactured, supplied and installed a rising step barrier at the Cessnock Correctional Centre as well as two traffic barriers in the car park.

Kevin Wills, Project Manager of the NSW branch for Magnetic Automation said that the rising step barrier was "what we called our MRS, which is a Magnetic Rising Step. The barrier rises from road surface level from a concrete pit in the ground. The barrier is designed to prevent a ram raid either in or out and it will stop an unauthorised vehicle penetrating the prison".

This kind of security measure is imperative at a Correctional Centre, 'Different prisons do it different ways' says Wills, 'Sometimes they've been set-up to prevent a ram-raid out, sometimes it's set-up to prevent a ram-raid in'.

The Magnetic Rising Step (MRS) is built to be quick and dependable. Built from heavy gauge steel and welded before being galvanised, they are rust-resistant and are capable of stopping high impact loads. Operated by high speed hydraulic cylinders, the electrical controls, including an accumulator and motor-pump assembly are kept in a lockable enclosure. Loop detectors, safety beams and traffic signals are optional, depending on the application.





**Images** Magnetic Automation supplied and installed a rising step barrier on the project as well as two boom gates in the car park

Installation of the MRS took three days by two Magnetic Automation employees, "It was a pretty straight forward job, said Wills. The foundation work is quite detailed and this is something that Magnetic Automation can coordinate or carry out where required. The traffic barriers were installed and completed at a different stage of construction than the MRS and is a very simple procedure for Magnetic Automation." The work took a little longer than usual due to heavy rain and related hold ups on site.

Magnetic Automation is very familiar with this kind of work, having installed perimeter security systems at many correctional centres around the country, including centres at Kempsey, Wellington, Parklea and Townsville Women's Correctional.

"We supply and install a lot of slide gates, swing gates and other products for industrial properties and security providers" says Wills. "We manufacture and install turnstiles and pedestrian barriers for government projects and customs at airports. We also work with the RTA – most of the major roads in Sydney have our traffic barriers at the entry and exits to the tunnels or bridges"

Magnetic Automation manufacture security gates, turnstiles and parking systems. 30 years experience together with motor and drive engineering expertise keep the company at the top of their game. As well as being at the cutting edge of technological advancement, Magnetic Automation products are stylish and comprehensively maintained.

Magnetic Automation have a global reputation for custom-made slide gates, they work with cantilever and track security systems and can also provide a light-weight track gate. Different sized swing gates can be manufactured for vehicle, pedestrian or railway usage - they are vandal resistant and can be fitted with a variety of drive motors.

Full or half height turnstiles made by Magnetic Automation can be fitted with bi-directional access, card-reader (or other remote device) activation and an electro-mechanical locking system. Retractable barriers such as those found in train stations, can feature aluminium triangular wings, acrylic wings, or glass doors.

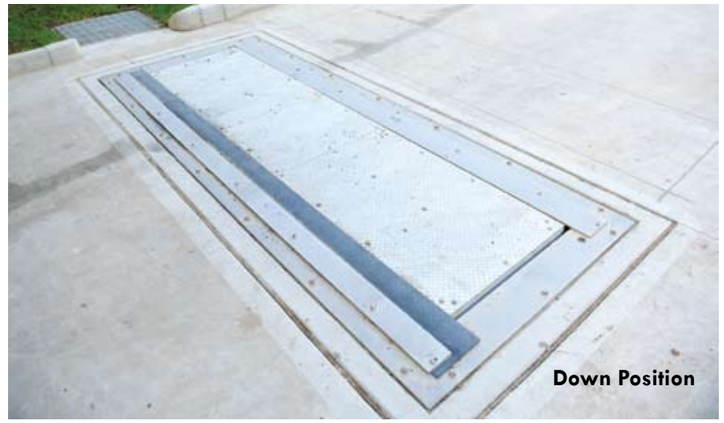
One of the newest traffic barrier technology's that Magnetic Automation offer is the MHTM™ MicroDrive. Easily configured with a simple user interface, the MHTM™ MicroDrive features 75% less power consumption, superb connectivity and customisable contemporary design.

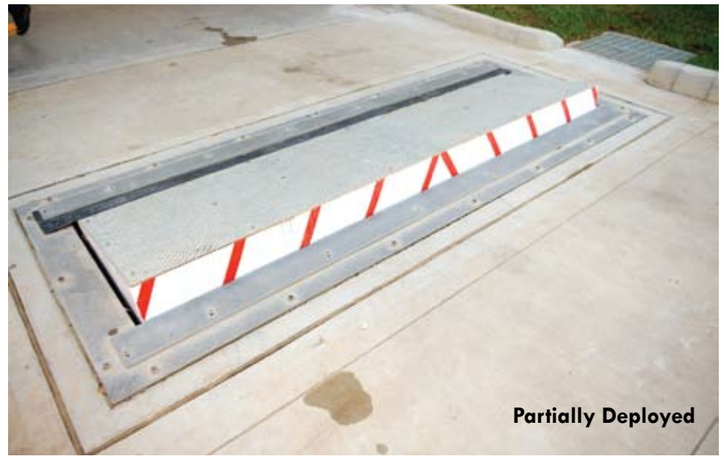
The classic traffic barrier is still Magnetic Automation's most popular product, being an efficient solution to regulate traffic. Variously articulated boom arm lengths are available for all models.

Magnetic Automation are world leaders in their field, with headquarters in Germany and international subsidiaries in China, India, Brazil, Malaysia and the USA. The Australian head office is in Melbourne with branches in Sydney, Brisbane and Perth.

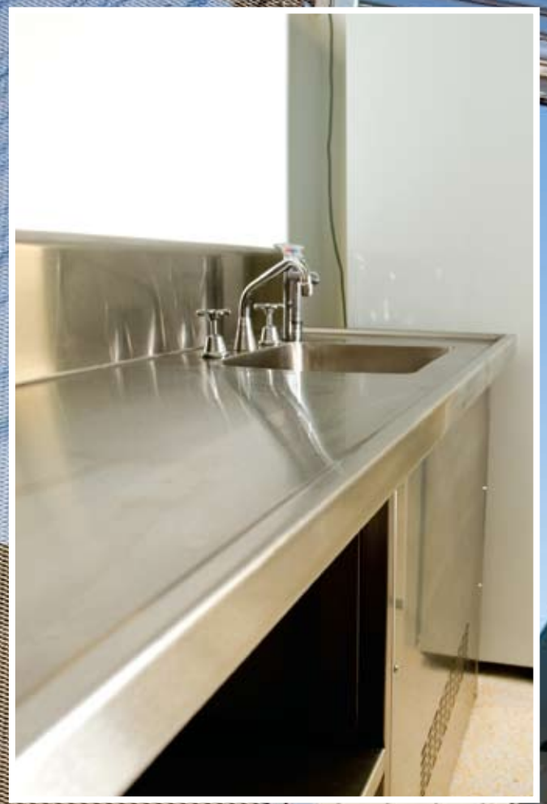
***For more information on Magnetic Automation Pty Ltd,*** phone 1300 364 864 or visit our website at www.magneticautomation.com.au

## MRS Rising Barrier Step Sequence




**Below** Hunter Stainless Steel provided the light metal fittings in the Cessnock Correctional Centre.



**Below** Planelec Services upgraded the high voltage underground and overhead power supply.

**Hunter Stainless Steel were responsible for the light metal fittings in the new Cessnock Correctional Centre.** As a small business employing ten local people (including two apprentices), all hands were on deck for this project, administrating, manufacturing at the workshop and installing on site.

Hunter Stainless Steel started in 1994, they work with light metals of up to 5mm thickness including stainless steel, mild steel and aluminium. Their workshop can manufacture a one-off unique item or turn out repetitively produced products.

The Cessnock Correctional Centre will feature work from Hunter Stainless Steel in every building. Items include tea making/kitchenette benches, non contact visitor benches, servery benches, mirrors, disabled handrails for toilets and showers (both ordinary and anti ligature styles), door brackets, pipe covers, foot washes, door stop blocks for the centre and many miscellaneous items.

Phillip Foote, Director of Hunter Stainless Steel said they worked on the project for around four months and it was a pretty standard job in terms of metal fabrication; 'All the items were made with stainless steel, a lot of them were the same, but they were all over the place – it was a big job for us'. They were often called upon towards the end of the project to tidy up various bits and pieces of the building as it neared completion.

Working with companies either as a subcontractor or directly with the clients, Hunter Stainless Steel use local suppliers wherever possible and can work from architectural designs or find design solutions in-house.

They work mainly in the Hunter Valley, with some work on the Central Coast and in Sydney. Hunter Stainless Steel are a member of the Master Builders Association and past work includes the Family Planning Clinic renovations in Newcastle, Aldi at Umina and the Singleton Army Camp. They are currently working on the Lingard Private Hospital extension.

***For more information contact Hunter Stainless Steel,*** 19 Glenwood Drive Thornton NSW 2322, phone 02 4966 3155, fax 02 4964 1616

**Planelec Services were contracted to upgrade the Ausgrid high voltage power supply at the Cessnock Correctional Centre (CCC).** They are a leading provider of Level 1 ASP works in the Hunter Valley region. The high voltage underground and overhead reticulation work enabled the Correctional Centre to significantly expand. Proficiency and planning resulted in a smooth transitioning from the existing supply to the new high voltage supply.

The CCC had a surprisingly small high voltage power supply, the new buildings and expansion required additional power and the supply was upgraded by installing 3 kiosk substations across the site. Planelec worked on site over 12 months, staged between the installations of the kiosks. The CCC can now reticulate 11000 volts from different points across the site.

Planelec Services had to carefully plan and ensure a smooth transfer/changeover from the existing power supply to the new. The CCC had a blackout only two weeks before the power changeover was scheduled, which resulted in an escape, so it was crucial the changeover went smoothly.

Planelec Services were able to accurately minimise the planned down time to 30 minutes at either end of the power change over, temporarily powering the entire CCC site on an EVZ diesel generator during the night for the 15 hours in between. Both the CCC and Ausgrid were extremely pleased with the smooth and trouble free transition to the new Ausgrid high voltage power supply.

Planelec Services have a new pole standing truck and insulated bucket truck giving them the capacity to perform all facets of Level 1 ASP works including overhead works, digging and underground reticulation. They are currently on site upgrading the HV reticulation system at Singleton Army base and seven schools for the Department of Education. Previous works include installation of HV Chamber substations and Ausgrid power supply to the Charlestown Square Shopping Centre upgrade and various subdivisions and hi rise apartment blocks within the Newcastle and Charlestown CBD's.

***For more information contact Planelec Services Pty Ltd,*** 40 Enterprise Drive Beresfield NSW 2322 phone 02 4964 4711, email planelec@planelec.com.au

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