



WAVERLEY PARK

MIRVAC
MULGRAVE VIC

SUSTAINABLE LIVING

Once renowned for its famous football stadium, Melbourne's Waverley Park is now a thriving new residential community with its own local retail and leisure centre within the historic grandstand. This community has been designed and built by Mirvac to offer lifestyle, community and quality homes featuring sustainable energy saving initiatives.

Mirvac is a leading integrated real estate group with more than 36 years experience. Listed on the ASX, Mirvac's activities encompass Australian and international residential and commercial property development, design and management of a diverse portfolio of investment assets, including commercial offices, retail centres, industrial properties, hotels and car parks.

Mirvac's Development division manages large scale residential, commercial, retail, industrial and hotel developments, and currently has approximately 31,000 lots under its control that will be progressively developed over the next 8-10 years. The company has produced some of Australia's most renowned residential projects including Magenta Shores on the Central Coast, NSW; Ephraim Island on the Gold Coast, QLD; Yarra's Edge, VIC; and The Peninsula at Burswood in Perth, WA.

The Waverley Park development in Melbourne is Mirvac Victoria's largest residential project and an example of Mirvac's commitment to delivering innovative and quality communities. Each home is individually designed by Mirvac's award winning architects, to offer style, flexibility and function. Internally, the homes feature quality fittings, European appliances, imported mixer tapware and co-ordinated colour schemes. A range of facade treatments are designed to create a diverse streetscape, mixing classic and contemporary styles.

Mirvac's innovative Oval Front Homes include the use of CSR Hebel party wall system, installed using a tailor-made hydraulic lifting device. In addition to being a light weight material, further benefits of the CSR Hebel party wall system include excellent sound and heat insulation and a high level of materials handling safety.

Sustainability is essential in the planning, designing, building and managing of residential property, and Mirvac is committed to developing new technologies and practical measures to reduce greenhouse gas emissions and promote energy and water saving practices.

Waverley Park's newest range of easy-living 6 + star Harmony Homes provide their owners with the tools to reduce energy use. Appropriate application of insulation, double glazing, energy efficient light fittings, heating, cooling and kitchen appliances improves energy efficiency, helping to save on household bills and greenhouse gas emissions. The homes come complete with 3 star WELS water fittings, drought tolerant native plants, solar hot water and rain tanks used to flush dual cistern toilets. Mirvac homes are also built using renewable plantation timber, supplied from sustainable plantation sources.

For further details on homes at Waverley Park, visit the Sales Centre at Waverley Park Stadium (Melways Map 80 J2). The Sales Centre is open from 12 - 5pm daily. Currently available are 3 bedroom terraces, 3, 4 and 5 bedroom family homes and the exclusive Oval Front Homes.

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A WALK IN THE PARK

TG M Group has been providing full civil engineering design and supervision services for Mirvac's Waverley Park development, including site surveying, subdivision and full house set-out for all Mirvac-built homes.

The 80 hectare site, which was purchased by Mirvac for about \$80 million, is being developed in 11 stages, six of which are already completed or under construction. Mirvac is building homes on every subdivided lot, except stage four, which was designed to be sold as vacant housing lots. The average development cost per lot is estimated at \$53,000.

In all some 1,200 residential lots are to be developed. TGM Group's role commenced early in 2002 and is planned to extend until 2011. So far, their work has included full house slab set-out on approximately 700 lots.

For a project of this scale, TGM Group was able to dedicate a team of 15 professional engineers, plus support staff. David Grant of TGM Group said that the size of the firm's professional team and their scope of experience were important considerations when undertaking such a project.

"We have more than 120 in our full professional team," said David. "That enables us to keep several large projects on the go at the same time. We can devote a core team to just one large project. The client can deal directly with the same core team members throughout the project, which helps us to build the communication you need to identify problems and opportunities early in the piece and as the project moves along. But our size also means that individual team members develop detailed skills in specialised areas, which can be applied to several projects at any one time."

The broad-field Waverley Park project has presented some interesting challenges for TGM Group, calling for some innovative survey and civil design techniques.

"Some significant wetlands design was required," said David. "For one five hectare area, we used a state-of-the-art Water Sensitive Urban Design (WSUD) approach".

"In principle, what you are trying to do is to manage the storm water run-off from the site," said David. "The aim is to capture and retain storm

water from the site, on the site, rather than let it run directly into the natural waterways in one great muddy rush. Some pretty sophisticated filtration, treatment and sedimentation techniques are applied, so that when the water is eventually released into the natural waterway it will be clean and clear and rubbish-free. To achieve that requires some very detailed survey work and hydraulic analysis."

The WSUD approach applied much of the expertise developed by TGM Group over many years' experience in hydraulic surveying and engineering design. The professional team for the Waverley Park project brought together previous project experience in hydraulic analysis, storm water management, water reticulation, sewerage reticulation, pipeline design, option evaluation and analysis, storage design and contingency planning for major storm events.

TGM Group uses the latest data collection and processing technologies to provide service, advice and information for all its clients. Their expertise and experience, in the surveying field alone, encompasses a very broad range, including satellite surveying (GPS), data capture, mapping services,

geodetic control survey, computer calculation of earthworks volumes, topographic surveys, feature surveys, contouring, and environmental surveys. This enables them to provide a complete suite of services, including assistance with rezoning applications, planning permits, estate planning, construction set out, title re-establishment and title checks.

For Mirvac, TGM Group is already providing professional services towards other potential, major subdivision and development projects. For example, due diligence studies and preliminary work for planning have already been performed for the possible redevelopment of the Austral Brick site on Stud Road, Scoresby, in outer suburban Melbourne.

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WAVERLEY PARK REBUILT WITH BORAL



EXPERIENCE ACROSS THE BOARD

The Melbourne based firm of GSR Plaster (since 1988) have been doing first-rate things as a prime sub-contractor on the Waverley Park Residential Project.

The 20-year old company with strong family ties has been responsible for the supply and installation of plasterboards and cornices on many of the homes at Waverley Park including the 3-storey Oval Homes.

This has been their largest project to date, and continues their close relationship with Mirvac which was formed by demonstrating their ability and workmanship over many years on numerous past projects such as Beacon Cove, Kingston, and Waterways (current) where they carried out a similar role.

With between 15-25 (maximum) employees working on the project, Geoff Robertson and his talented team have completed roughly 35-50% of the Oval Homes by late 2008.

One of the biggest challenges faced by GSR Plaster during this massive and ongoing project has been the access to some of the oval homes around the perimeter of the Football ground at the centre of the development.

Plasterboard had to be delivered with a large crane truck which allowed effective delivery of the rather bulky 6m X 1.35m wide sheets of plasterboard for insertion into the modern contemporary oval homes.

With 20 employees working on the project, the plasterboard would be loaded into the house, fixed to the wall and ceilings and trowelled to achieve the high quality finish.

Some homes within the development have had two layers of sound and fire-resistant plasterboard (13mm -16mm thick) installed to specific areas to increase the acoustic ratings and insulation sustainability of the homes.

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The redevelopment of the former Waverley Park football stadium in Melbourne's eastern suburbs continues, with construction using bricks especially created for the project by Boral.

Once the jewel in the crown of the Australian Football League, Waverley Park was sold to the developer, Mirvac in 2001 to be reinvented as a vibrant housing community.

John Eckert, the project architect from Mirvac Design says they were seeking something new and striking for the landmark development and turned to Boral for the solution. With exhaustive feedback from Mirvac, Boral's new range of bricks was debuted at Waverley Park. "We were trying to find a fresh look for the project, something no-one had seen before and Boral took all our feedback on board in the creation of the new range of bricks," he says. "We were really excited by what we saw when the range was being developed and we're thrilled with the end result."

The bricks in the Horizon range, released shortly after the Waverley Park development got underway, features the Mocha, Ember Glow and Gypsy Rose varieties.

Sam Cimino, Customer Development Manager from Boral Bricks, says the company is delighted to be associated with such an important project.

"They were looking for something new and different and we are very proud to be connected with this project," he said. "We worked with Mirvac to develop the range of bricks used at Waverley Park, and the Mocha brick we created with them is now one of our biggest sellers."

The 80 hectare site will house over 4000 residents in more than 1500 homes. Designs range from traditional to contemporary, with some townhouses constructed where the old grandstands once stood. Due for completion in 2014, the site will be Victoria's largest fully planned community. It will also include shops, restaurants, cafes, a gymnasium, a lake and expansive parklands.

The original playing surface from the old football ground, and a section of the original grandstand have been retained and now house the administrative and training headquarters of the Hawthorn Hawks AFL team.

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INNOVATIVE PRODUCTS, TRADITIONAL SERVICE

Australian company Slattery & Acquroff have been manufacturing staircases and balustrades since 1920. The company is well situated to service the east coast of Australia from its two bases in Melbourne and on the Gold Coast. Over the last 12 months their expertise has been called on to complete major projects as far away as Townsville, Rockhampton and Launceston.

Slattery & Acquroff has extensive experience in the fields of design and manufacture, and is at the forefront with developments in staircase building techniques and material usage. By using modern equipment and machinery such as Computer Aided Design (CAD) and Computer Assisted Machining (CAM), high accuracy can be achieved well still producing the high volumes needed to complete major projects.

Dependability and quality are two reasons why Slattery & Acquroff have a close relationship with large respected corporations such as Mirvac. With the positioning statement 'best stairs on time', Slattery & Acquroff understands the importance of delivering an excellent product when it is needed. Staircases play a critical role in the construction process by allowing access for subsequent works to be carried out. So it is essential to have a reliable staircase provider.

Slattery & Acquroff have the technical expertise to tailor designs and stairbuilding techniques, and hence save builders time and money. For the Waverley Park residential development, Mirvac particularly drew upon the company's resources for the challenges presented by the construction of the development's three story houses.

The long standing reputation of Slattery & Acquroff to deliver a top shelf product at a reasonable price has ensured recognition in the domestic sector over 87 years. Add to this Slattery & Acquroff offer a comprehensive selection of staircase and balustrading systems.

Slattery & Acquroff has a keen interest to promote quality Australian workmanship long into the future. Two of the company's directors Robert Acquroff and Robert Beard, are on the board of the Stair and Balustrade Association of Australia (SABAA). So, clients of Slattery & Acquroff can be sure that the company is also abreast of latest building codes and requirements. In addition, they employ the largest number of apprentices in the stair building trade which will see them delivering the best stairs, on time long into the future. For more information go to www.stairking.com.au.

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SOPHISTICATED FIREPLACE SYSTEMS

Jetmaster is well known for its extensive range of solid fuel, gas and electric fireplaces. For over 25 years, Jetmaster has been supplying stylish heating systems for virtually any application.

Jetmaster are proud to be offering the latest advances in innovative fireplace technology, which combine cutting edge design and classic timeless style. Jetmaster's heating solutions add ambience to any room, with minimal emissions.

The professional team from Jetmaster can install units in either new or existing fireplaces. When simply inserted into existing fireplaces, the wood burning units will provide around 5 times the heat of a standard open fireplace. New fireplaces require minimal or no brickwork with zero clearance models. Jetmaster also offer the VRTIKL freestanding gas fireplace, the newest in the range of balanced flue fireplaces from Heat & Glo.

The company has the capacity to supply units across the board from large scale residential and commercial markets to small builders and domestic retail. Jetmaster has numerous showrooms in NSW as well as Victoria, SA, WA, Queensland and Canberra.

Jetmaster has a strong and well established working relationship with Mirvac. Jetmaster has installed both the Jetmaster range of open gas fireplaces and the Heat & Glo balanced flue SL-550 fireboxes on the Waverley Park residential project.

Balanced flue fireplaces have an airtight firebox that draw all combustion air from outside the home and exhaust all combustion byproducts back to the outside, with no effect on indoor air quality. The Heat & Glo product range now also features the cutting edge 'IntelliFire Ignition System'. This system provides increased efficiency, fuel savings plus ease of operation with the full function remote control.

An advantage of Jetmaster fires is high heat output and efficiency. This is the result of a design which utilizes convected as well as radiant heat. Jetmaster fires burn both wood and gas and can be easily converted from one to the other at any stage.

Jetmaster also stock the Kemlan range of slow combustion solid fuel fireboxes, the new Horizon range of open gas fires and a very modern range of electric fireplaces.

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STEPS TO SUSTAINABILITY

Stair Lock is arguably Australia's foremost manufacturer of quality, low cost staircases and balustrade systems. In 20 odd years of business, Stair Lock has grown to be the largest provider of residential and commercial staircases.

Using moisture resistant HMR board, Stair Lock is able to complete installation of their staircases pre roof. This offers a huge advantage to construction by allowing access to upper floor levels earlier in the building process, speeding up construction and eliminating potential OH & S risks.

Part of the company's success lies within its own patented and CSIRO approved design for component manufacture. By using dovetailed joints on panels rather than the common glue block and wedge system, treads and risers locate together with precision. The result is a neat and solid staircase with a long life expectancy. Where glue blocks and wedges can work loose over time, a Stair Lock structure, with its limited moving parts, is inherently stable.

All components are manufactured in a centralised factory, near the company's head office in Adelaide. This arrangement facilitates swift delivery and installation and at a modest price.

When you add the company's unequalled level of environmental commitment, it becomes clear why Stair Lock is an industry leader. Stair Lock backs up its environmental claims with certification by the independent environmental body the Good Environmental Choice Australia (GECA) and is backed by the Green Building Council of Australia.

Stair Lock exclusively uses E0-MR MDF, which is new from the Laminex group. It is safer as well as greener, resulting in fewer toxic emissions in new homes. The stair products not only have a green outcome, but are made in a sustainable manner under ISO14000 environmental standards.

The benefits of a Stair Lock product become hugely significant when engaged on a project of such magnitude as the Mirvac Corporation's development at Melbourne's Waverley Park. By choosing Stair Lock for its homes, Mirvac has made significant savings in cost, as well as reducing the development's environmental footprint. Construction has been aided by the ability to have staircases fitted prior to installation of the roof.

As Green Building requirements for residential development expand, products from responsible companies such as Stair Lock are likely to be in even higher demand for such projects.

Stair Lock is based in Adelaide, with offices in Melbourne, Sydney and Brisbane. While products and installation are provided in all of these areas, Stair Lock will also happily deliver their product anywhere in Australia.

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CRYSTAL CLEAR

Crystal Interior Concepts is a young but experienced company. Established in 1997 under the creative direction of a team with more than 100 years industry experience, Crystal now have 72 staff across Victoria. They are experts when it comes to adding the finishing touches to both residential homes and commercial projects.

Crystal Interior Concepts specialises in the manufacture and installation of shower screens, glass splashbacks, mirrors, wardrobe doors and internal wardrobe fittings - shelves and rails. Their clients are mostly large volume developers.

Crystal's unique range of custom built shower screens, splashbacks, mirrors, and built in robes offer economically sound solutions to satisfy the most demanding standards of quality and lifestyle. Skilled craftsmen and minute attention to detail ensure superb fit and finish.

The company's experience and expertise assures you of complete satisfaction in the finished product.

There is much to consider when designing bathrooms, kitchens and storage solutions. Crystal understood this and invested in an extensive product range and expert staff.

The variety of glass and solid materials in Crystal's product range ensures the final result is only limited by your imagination. But with so many products to choose from clients also need expert advice, that's why Crystal employ only the best people in the business.

Crystal are versatile. Their made-to-measure products deliver the flexibility to build whatever the imagination dictates. They also make

clever use of technology to design and install innovative solutions to maximise even the smallest spaces.

Crystal use only quality materials and the best tradespeople, allowing them to offer a guarantee on all products. So whether a simple wardrobe fit-out or a breathtaking bathroom is needed, superb results are guaranteed. That's why so many cutting-edge architects, interior designers and builders specify Crystal.

Crystal Interior Concepts was pleased to work with Mirvac on its Waverley Park development.

The company's Fred Heavey said Mirvac is a preferred developer for Crystal. "We find Mirvac systems and disciplines very good," he said. "We have a minimum of problems with their systems and seem to iron out any problems in the beginning of their projects. They are an extremely good company to work with.

"As the largest supplier to the major contract housing companies in Victoria, our systems have been developed to suit this part of the market," he said.

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