REVITALISING CENTRAL DANDENONG

CLIENT : Places Victoria CONSTRUCTOR : Civilscape Pty Ltd PROJECT MANAGERS : Prendergast Projects Pty Ltd PROJECT END VALUE : \$30 Million COMPLETION : April 2012 URBAN DESIGNERS : Aspect Studios ENGINEER : Arup SPECIALIST CIVIL ENGINEERING DESIGN AND ADVICE : Argot Consultants Pty Ltd

DRIVING MAJOR LONG-TERM URBAN RENEWAL PROJECTS

P laces Victoria is the State Government's Urban Renewal Authority that facilitates large-scale urban renewal, for residential and mixed use purposes, within established areas of Melbourne and strategic locations in regional Victoria.

Driving major long-term urban renewal projects and promoting housing affordability and diversity, the organisation is committed to the principles of community engagement and works closely with the private sector and Government to deliver appropriate land use outcomes and homes throughout Victoria. In addition, they are committed to creating opportunities for the realisation of Victorian Government policy and private sector investment, by making urban renewal sites ready for development.

Given their wealth of experience in regards to master planning, land preparation and site acquisition, land development and partnering with land owners, developers and builders, Places Victoria have worked on a range of significant projects.

Some of these include one of Australia's largest urban renewal projects, Docklands in the heart of Melbourne, a major renewal project in central Wodonga, the proposed development of the 128 hectare Maribyrnong Defence Site and more recently, the Revitalising Central Dandenong (RCD) Initiative.

In 2006, Places Victoria, in partnership with City of Greater Dandenong, commenced the RCD project as the master planners and developers, with a vision to transform seven hectares of land in the heart of the city, over the next 20 years.

To date, the Government's investment in Dandenong, a city heralded as the heart of Melbourne's growing south-east corridor, has already reaped rewards through the delivery of \$320 million worth of private investment, 700 jobs, 400 homes and the creation of a fresh, new face for the region.

Dominic Arcaro, Chief Development Officer, Places Victoria, said that all of the \$290 million of State Government funded infrastructure for delivering the RCD initiative has been either allocated for future expenditure, or spent in Dandenong on site preparation, infrastructure delivery and promotion of the region through events such as the Melbourne Food and Wine Festival.

"Furthermore, some of this expenditure and major infrastructure included the Lonsdale Street upgrade, a number of other streetscape upgrades, Stockmans Bridge, Station North Plaza works, the acquisition of land, as well as general works to prepare the various Revitalising Central Dandenong sites for future development," Mr Arcaro said.

Of the RCD sites allocated for development, the Government Services Office was the first site to be completed, which will then be closely followed by the City of Dandenong's Civic Site. There are also currently another two sites in the market place that are being offered to potential office tenants, with the remaining RCD development sites going to market over the next decade, in line with market demand.



With astute expertise in overseeing the management and planning of various projects, regardless of their scope or size, the team from Places Victoria have delivered the various phases of design and construct of the RCD initiative in an efficient manner that has adhered to tight project timeframes and has been within the allocated budget.

In fact, given their unique approach to ensuring their urban renewal and housing projects contain a variety of well-designed housing options, employment opportunities and are all located within close proximity to community infrastructure, transport and amenities, it is without a doubt Places Victoria will deliver the successful revitalisation of the Central Dandenong area, making it a vibrant and exciting precinct to live.

For more information on the Revitalising Central Dandenong Initiative: http://www.revitalisingcentraldandenong.com

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CIVIL WORKS CONTRACTOR & CONSULTANT

C ivilscape is an award winning civil works contractor and consultant to Victorian state and local government, VicRoads, and commercial developers. Given the company's technical expertise, defined areas of specialisation and breadth of project experience, Civilscape has a renowned reputation as an industry leader in the provision of electrical civil works, council road works, streetscapes and tram stop construction.

As both a commercial and preferred council contractor, Civilscape has partnered with government and business across a range of civil construction and urban renewal design projects. Some of these have included award-winning tram platforms, car parks, roads, underground service installation, lighting, traffic signal installation, and the significant Revitalising Central Dandenong (RCD) upgrade.

Commencing involvement three years ago, Civilscape have been largely responsible for carrying out the extensive street scaping works that have incorporated parts of Lonsdale St, the upgrade of Walker Street, Mason Street, Ruddock Street, Thomas Street, and the current City St/Robinson Street project.

As part of Places Victoria's initiative to revitalise Central Dandenong, the City Street works, valued at \$9 million, are approximately 450 metres long, with a construction width of 20 metres and also include the construction of the Station North Plaza, with an approximate area of 2000 square metres.

The project also incorporates the construction of one of Victoria's largest precinct wide thermal reticulation networks. This particular network includes high quality components and fittings installed to exacting requirements and tolerances. Typically the network includes 2 x 400mm diameter insulated steel pipes, in stepped trenches up to four metres deep, with water being transported through the pipe work, under high pressure and at temperatures as extreme as 97°C.

Throughout their extensive involvement, the experienced team from Civilscape needed to ensure the project works incorporated a range of stateof-the-art design elements, such as Disability Discrimination Act access requirements, flora and fauna, extensive water sensitive urban treatments, rigid pavements with granite pavers and kerbs for the entire project, cast in-situ wave walls, architectural art, timber decking, water harvesting, irrigation, sculptures, services installation and relocation, special steel fabricated furniture, fencing, pit lids, as well as the supply and construction of a 28 metre high light tower and associated public street lighting.

Applying a 32 tonne structural point load on roadways and tree pits dramatically increased concrete thickness and reinforcement strength in comparison to conventional roads and footpaths. In addition to the complexities of the underground structural elements, works had to be achieved within tight surroundings with carefully planned and maintained management of the surrounding public. Civilscape committed a great deal of money into the manufacture, supply, and installation of custommade steel forms, and as a result successfully achieved the unusual shapes required for the project.

In addition, the RCD upgrade encompassed the conventional type challenges expected on civil infrastructure projects, such as very soft ground, utility services installation and relocations, excavations, shoring, environmental management and OH&S management. However, given Civilscape's quality workmanship, timely progress and consistent liaisons with the client and other contractor's onsite, they delivered their

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outstanding streetscape works and results to the project, within the tight time and budget.

According to Mr Hayes Heffer, Company Director, "Civilscape's ability to co-ordinate and construct multifaceted works to exacting tolerances and a high quality level, was once again demonstrated on the RCD Upgrade," Mr Heffer said.

"Places Victoria Revitalising Central Dandenong project team are a professional group of people who demand high quality results, in a timely manner and with value for money. We have more than satisfied their demands and throughout the process, have thoroughly enjoyed working with them to achieve these excellent results."

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A GREAT IDEA INTO REALITY

S pecialising in precinct and district scale tri-generation projects, as well as innovative delivery of built form projects, Prendergast Projects provides efficient and deliberate delivery strategies to its Melbourne and Sydney clients.

Prendergast Projects has recently been engaged to assist City of Sydney in their next stage of their tri-generation project, which is master-planned to be the equivalent of taking the entire CBD off the electricity grid. Prendergast Projects also provided a range of leading services on the Places Victoria Revitalising Central Dandenong (RCD) Precinct Energy Project.

These projects represent a new, more effective and carbon efficient way of providing electricity, heating and cooling. Unlike typical buildings that rely on coal generated electricity and gas grids for energy, electricity will be generated on-site, eliminating transmission losses and capturing wasted heat, which is then used to provide heating and cooling to the buildings.

Although this approach is common in Europe, it is a technology first in Australia as it involves transmission of energy under public roads and will also service several different building owners and tenants from the same point of generation.

Throughout their involvement, Prendergast Project's has provided a range of services such as client representation, technical and sustainability advice, project development and procurement, project and design management.

Jonathan Prendergast, Company Director, said one of the major engineering challenges faced on the Dandenong project was the installation of an large underground pre-insulated pipe system, used to carry thermal energy from the point of generation to the buildings. However, this obstacle was resolved by the procurement of a leading Danish system that arrived ready for installation on-site and also minimised construction time and installation costs for the client. Furthermore, the system allowed for straight runs of pipe, which significantly reduced the cost compared to typical thermal pipe systems that require expensive expansion loops.

As a result of their range of efficient procurement strategies, a commitment to selecting the most suitable tenderers, as well as removing the need of any unnecessary design or construction processes, Prendergast Projects will continue to meet project budgets and exceed customer expectations.

PRENDERGAST PROJECTS Pty Ltd

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Incorporating the upgrade of City Street and Walker Street, as well as the Lonsdale Street Upgrade and associated realignment works, this project has played a key role in connecting the station to Dandenong's city streets.

Responsible for the delivery of the engineering services for the Revitalisation Project, Argot Consultants provided their innovative and cost efficient solutions to a range of issues related to the project. The



Specialising in core areas of services such as Transport, Urban Complexities such as space constraints, existing utility services, abutting Development, Water and Environment, Argot Consultants is a team landholders, traffic and parking were all challenges the dedicated team from Argot Consultants needed to overcome.

of professional engineers, with strong technical expertise. Along with an astute understanding of the construction and maintenance phases of projects, who are dedicated to delivering outstanding design results, every time.

Argot Consultants have worked for a number of high profile clients on

a range of projects throughout Australia. The projects have included







Revitalising Central Dandenong Project also incorporated Australia's first district wide cogeneration heating project, of which Argot Consultants were the pipeline network distribution engineers.

However, their extensive experience in planning, design and management of all land based modes of transport, along with the effective integration of these various modes, allowed them to ensure tailor made project solutions were reached throughout the various phases of construction and ensured optimum results for both the community and the environment.

As a result, Argot Consultants completed their extensive engineering services for the client, within the tight project timelines and budget and once again demonstrated their ability to deliver innovative and cutting-edge civil engineering expertise to the Australian building and construction industry.

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The Revitalisation of Central Dandenong project, Victoria

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FURNISHING THE STREETS OF VICTORIA

T RJ Engineering has been manufacturing street furniture for more than ten years and is an expert in taking a project concept from design, through to manufacturing and if necessary, the final installation process. Given their diverse expertise and professional approach, they have been involved in a number of significant projects for developers and councils throughout Victoria.

With a renowned reputation within the industry as being a one-stop shop for the delivery of furniture and general engineering services, TRJ Engineering has also been tendering a range of tailor-made street furniture for the Revitalising Central Dandenong project.

As part of Places Victoria's initiative to revitalise Central Dandenong, the City Street works, valued at \$9 million, are approximately 450 metres long, with a construction width of 20 metres and include the construction of the Station North Plaza, with an approximate area of 2000 square metres.

This significant project has also incorporated parts of Lonsdale St, the upgrade of Walker Street, Mason Street, Ruddock Street, Thomas Street, and the current City St/Robinson Street project.

Initially involved in the design and manufacture of the specific furniture required for the project, TRJ Engineering also carried out a range of larger construction and formwork design works that were required for the concrete tree pits.

While working on the formwork, the knowledgeable project team used leading design software that accurately produces 3D models and is also able to send the drawings through to the client, Civilscape, for approval, prior to manufacture.

Not only did this software technology ensure the job met the client's expectations, but it also minimised any potential project disruptions or cost inefficiencies.

Furthermore, TRJ Engineering's ability to deliver the street furniture, from design through to the final installation, as well as their close working relationship with Civilscape, ensured a successful completion of their project responsibilities and a more than satisfied client.

In fact, this revitalisation project is yet another display of the craftsmanship TRJ Engineering have established a reputation for delivering, and it is without a doubt they will continue to work on further developments with Dandenong in the future.

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