

CLASS OF ITS OWN

The \$190 million New Preston Depot is part of the Victorian Government's \$809 million Tram Procurement Program, delivered by Yarra Trams.

PRINCIPAL CONTRACTOR : Coleman Rail Pty Ltd
DELIVERY PARTNER : Yarra Trams
ARCHITECT : Kyriacou Architects
ENGINEER : AECOM and Geotech Engineering
PROJECT VALUE : \$190 million

The biggest tram depot redevelopment in Australia's history is taking place in Melbourne with Yarra Trams managing the delivery of the project on behalf of Public Transport Victoria. Yarra Trams appointed Coleman Rail as the Principal Contractor to help make the vision a reality. Established in 2002, Coleman Rail is an integral part of the Geotech Group, and are known for their Metro, Freight, Heavy Haul and Light Rail infrastructure work.

The comprehensive redevelopment project will see the current facility transformed into a state of the art maintenance workshop for 50 next Generation E-Class trams, as well as the entire Melbourne fleet. Tram stabling, operational and maintenance facilities are also being catered for in the new facility.

The 18-acre New Preston Depot site on St Georges Road is a heavy maintenance and servicing facility and as such has remained open during the redevelopment project, causing a few challenges to arise along the way. Coleman Rail is working closely with Yarra Trams to maintain their

workshop and depot functionality, uninterrupted use of services and continuity of fleet access throughout the many stages of the project. Specialised teams on site ensure fencing and walls are placed appropriately to ensure maximum safety at all times.

Using their expertise in the delivery of projects in live rail environments, Coleman Rail has a large scope of works for the major tram workshop redevelopment. Included in this is the laying of 7km of tram tracks within the workshops themselves.

Coleman Rail reconfigured the heavy maintenance facilities, as well as creating new tram servicing and sanding facilities. Storage buildings on site were extended to assist with housing the new E-Class trams, and new administration, operations and training facilities along with workshop amenities.

A new substation and a project workshop were also constructed and an automatic wheel measuring facility was installed, to ensure

proper maintenance of wheels. The redevelopment also included the installation of a tram wash.

As the original Preston Workshops were constructed in the mid 1920s, careful attention has to be paid to integrate heritage listed features into the redevelopment, and Coleman Rail are using their extensive experience to ensure this is occurring.

The work that Coleman Rail is completing on the New Preston Depot is complex, and entails a series of coordinated and staged sub projects, with some work being completed outside the site in surrounding streets. Each stage has a progressive handover of agreed ideas along with transferring of existing maintenance and operational functions.

Yarra Trams carries more than 180 million tram passengers a year in Melbourne. The redevelopment of the site will provide state-of-the-art maintenance facilities to help improve service and support the ongoing introduction of the new E-Class trams.



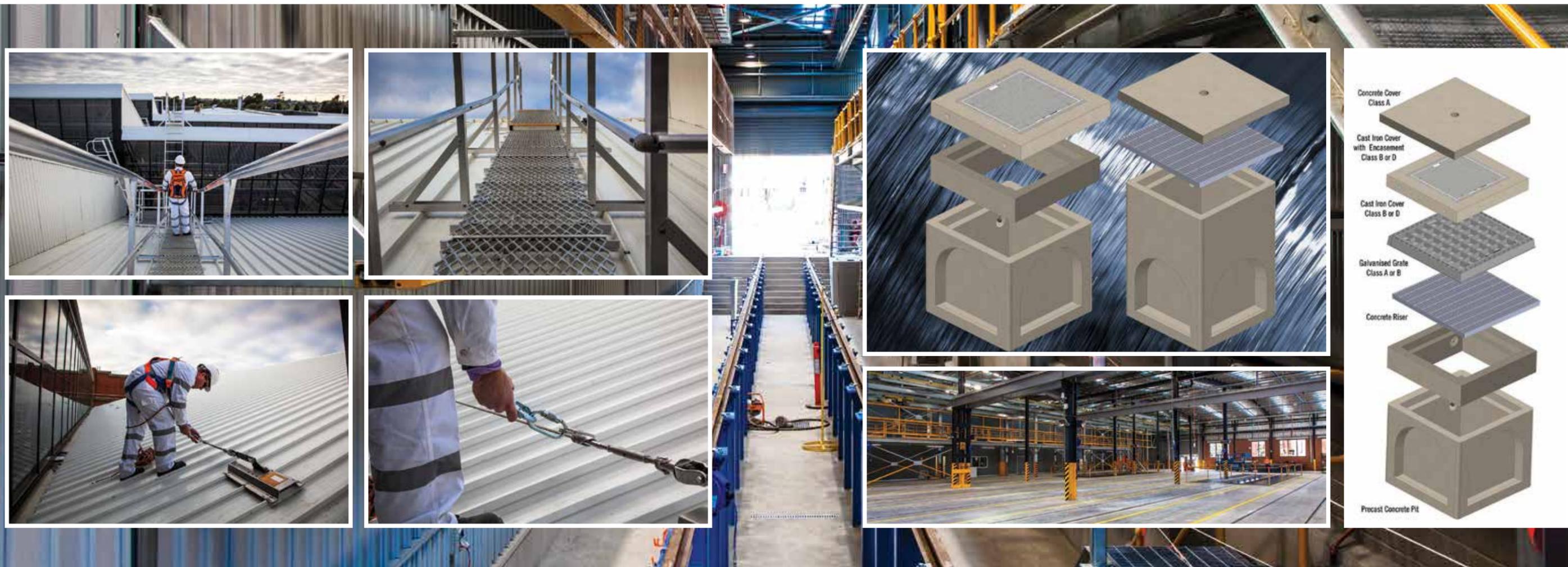
The New Preston Depot complements the \$1.7 million world-class full-cabin tram simulator that will be used in the E-Class tram driver training program. This 2.5 tonne, full-cabin replica simulates 25km of the tram network in high detail and allows trainees to practice driving and situational awareness techniques before progressing to on-road training.

Coleman Rail is proud to be associated with this major historical redevelopment, one which is steering the trams of Melbourne towards a brighter future.

For more information contact Coleman Rail, 174 Turner Street, Port Melbourne VIC 3207, phone 03 9335 1644, fax 03 9335 4633, email chris@colemanrail.com.au, website www.colemanrail.com.au

Below Sayfa Group provided access and fall protection systems for the New Preston Depot.

Below BVCI supplied over 150 precast concrete stormwater pits for the New Preston Depot.



When it comes to workplace safety and compliance, Sayfa Group is reaching new heights with its innovative modular height safety and fall protection systems.

Established in 2002, the Australian owned company ensures its products and services support construction and building maintenance safety compliance, in line with Occupational Health and Safety Standards. With their knowledge of workplace safety and compliance Sayfa Group has been able to establish itself as the leader in roof access and fall protection systems across industrial, commercial and domestic markets.

The tram depot redevelopment saw Sayfa Group provide a range of access and fall protection systems for ongoing roof maintenance. The Sayfa Group team, customised and provided the equipment needed for the large scale project.

Equipment used on the project included harness gear and accessories, static line systems, guardrail and walkway systems, modular ladder systems, roof access hatches as well as signage, fixings and hardware. Sayfa design consultants worked in with the construction team and were available to assist with the documentation of a compliant roof access and fall arrest system.

Work on the project was not without its difficulties, with the steep skillion roof pitches creating challenges for the install teams. Incorporated in the installation were fall arrest static lines, fixed platforms, walkways, stairways and ladders. With Sayfa's hallmark modular systems, delivery and installation whilst challenging was able to meet tight construction lead times.

In addition to the roof access and fall protection systems, Sayfa Group also provided the Raptor overhead rigid rail fall arrest system, which is designed as a fall arrest system for workers engaged in the maintenance of trams and trains whilst working at heights.

Other projects Sayfa Group are currently working on include, SE Water Frankston, Victorian Comprehensive Cancer Centre (VCCC) in Parkville, City West Police Complex in Melbourne and Werribee Plaza.

For more information contact Sayfa Group, 1029 Mountain Highway, Boronia VIC 3155, phone 1300 301 755, fax 03 8727 9099, email sales@sayfa.com.au, website www.sayfa.com.au

With BVCI's expertise in design and engineering, and an extensive product range, supported by three manufacturing facilities and distribution networks, BVCI was the obvious choice when it came to supplying stormwater pits for the \$190 million New Preston Depot in Melbourne.

The company established in 1967 as Ballarat Vibrated Concreted Industries, has grown to become a trusted industry leader and one that can be counted on to supply a wide range of electrical and communication pits, including precast concrete and rotationally moulded plastic products.

Working closely with Coleman Rail, the construction and design company for the project, BVCI supplied over 150 precast concrete stormwater pits for the major tram depot redevelopment.

The pits, supplied in both 450mm x 450mm and 600mm x 600mm sizes, also included concrete risers as well as featuring multi fit entries for pipes. Cast iron frames and cast iron class D covers were also supplied for the stormwater pits, the heavy duty covers enabling trucks and trams to travel safely over them. In addition to supplying the stormwater pits and covers from their standard range, BVCI

also provided custom made concrete bases for the electrical control panels that will be used at the tram depot.

BVCI's ability to design and manufacture a variety of products certainly sets them apart in the field. Other specialisations include plastic cable pits; precast concrete cable pits and manholes; precast concrete cable pit covers; galvanised pit covers; large HV and LV cable pits, and SCEC endorsed special pit designs and cover assemblies.

BVCI Pty Ltd are continuing to work on large scale projects, currently carrying out significant work in the telecommunication (NBN), rail, infrastructure, defence, ports and high security fields.

For more information contact BVCI Pty Ltd, 73 Carngham Road, Ballarat West VIC 3155, phone 03 5335 8741, email troyw@bvci.com.au, website www.bvci.com.au



Innovative Smart Covers from Terra Firma Industries are helping our trams run to schedule. As part of network wide improvements to the Melbourne tramways, all trams are now fitted with RFID tags to electronically identify and track trams, allow automatic track allocation and streamline maintenance and stabling.

At the Preston Workshops redevelopment in Melbourne this brings massive operational efficiencies by identifying trams before they reach the workshop and automatically routing them to the correct track or stable. This eliminates queuing and traffic congestion and removes the need for tram identification personnel.

The equipment to read the tags and transmit the information to the control system, the TransCore AA3233-004 915 MHz Heavy Rail Antenna, needs a safe place to be housed. As a result, the antennas were placed in pits between the tracks. However traditional metal or concrete pit covers could not be used as they interfere with the transmission of the radio signals. A cover was required that was both strong enough for traffic but also transparent to radio signals. Terra Firma Lightweight Composite pit lids provided the solution. The composite structure is transparent to radio waves allowing transmission of signals between the ID antennas mounted on trams and the readers in the pits below.

Another exceptional quality of the pit lids is their high structural performance. Independently tested up to Class E load ratings, they have also been endorsed by VICROADS, their strength and durability long outlasting their concrete counterparts. Their light weight structure also means that installation, maintenance and removal can be done by a single person presenting a much better work health and safety solution. As well as being secure and lockable, there's no need for additional lifting equipment.

Established in 1994, Melbourne based, Terra Firma Industries have created an alternative to heavy concrete and metal covers that is not only lighter, safer and stronger but smarter as well. The composite materials' radio transparency allows smart devices to transmit and receive signals from within the pit removing the need for cabling. These clever covers are now being utilised together with a new generation of smart devices doing everything from monitoring water quality and flow to directing trams.

Terra Firma's Composite Pit Lids provide brilliant solutions for a myriad of projects around the country making them a transparent choice.

For more information contact Terra Firma Industries, 257 Holt Parade, Thomastown VIC 3074, phone 03 9464 6169, fax 03 9464 0522, email ashley@terrafirmapitlids.com, website www.terrafirmapitlids.com

A large scale project such as the New Preston Depot calls for quality tools, and K & P Dean Distributors were on hand to deliver exactly this.

With over 35 years of experience, K & P Dean Distributors used their expertise and specialised knowledge to provide an assortment of essential tools to the biggest tram workshop development in Melbourne's history.

Established in 1984, K & P Dean Distributors is one of the leading distributors of industrial supplies to industry in and around Melbourne, having a vast knowledge of products along with supreme customer support services.

With a fleet of in house service vehicles, K & P Dean Distributors can offer efficient delivery therefore keeping projects running smoothly without loss of work time.

It was this exceptional service that they delivered to the New Preston Depot. Specialised tools such as sledgehammers, shovels, cold chisels, grinders, crowbars, drills, and specialised rail cutting blades all made their way to the site, care of the prompt K & P Dean Distributor delivery service.

Welding equipment was also supplied for the extensive redevelopment project, comprising electrodes, aprons, gloves and helmets, all meeting the strict safety standards needed for this particular type of work.

Keeping in line with work, health and safety requirements, K & P Dean Distributors also supplied safety equipment to the workers on the New Preston Depot site. This equipment included safety glasses, hardhats and vests, ensuring that the workers Personal Protective Equipment needs were met.

K & P Dean Distributors objective is to achieve total customer satisfaction in all areas of their business, and they are certainly achieving this. With their ability to offer competitive pricing, a vast product range, reliable product distribution and elite customer service, their service vehicles will sure to be seen in and around Melbourne for a long time to come.

For more information contact K & P Dean Distributors, 104 Miller Street, West Melbourne VIC 3003, phone 03 9328 1977, fax 03 9326 5496, email kpdean@ozemail.com.au, website www.kpdean.com.au



Advanced Plumbing and Drainage have used their expertise in hydraulic design and installation on the New Preston Depot in Melbourne. The company, located in Bacchus Marsh and formed in 2012, used a team of tradesmen on the project that has transformed the New Preston Depot into a state of the art facility for new E Class trams.

Advanced Plumbing and Drainage performed specialised hydraulic work both below and above ground including gas lines, sewage (including installation of the HDPE drainage pipes), trade waste, potable and non-potable water, pumps, chambers and interceptors.

Work was also carried out on the fire services, comprising of the fit out of suction lines, hydrant lines, sprinkler links and booster lines. All these specialised services were integrated into the project and met with the strict specifications of the developers.

Whilst Advanced Plumbing and Drainage completed these essential services on the New Preston Depot, they also offer a lot more in their company portfolio, servicing the state of Victoria. They provide plumbing services with an emphasis on complete customer satisfaction including but not limited to design and implementation of cost saving

options, completing tasks ahead of schedule, sound communication and high quality workmanship.

Hydraulic, civil and architectural roof and cladding work can all be provided by Advanced Plumbing and Drainage. All work is completed to Australian standards, following strict Work Health and Safety procedures, and with the latest tools and techniques.

As well as large scale jobs and residential developments, Advanced Plumbing and Drainage have used their expertise in the medical, sport, school, fuel, food and entertainment industries, with work also having been carried out in warehouse and factory environments.

For more information contact Advanced Plumbing & Drainage, 10 Simons Drive, Bacchus Marsh VIC 3340, phone 0421 370 317, email jordan@advancedpd.com.au, website www.advancedpd.com.au



Earthtrack Solutions has been providing rail and civil maintenance and construction services since 2007. Starting as a small business with just one truck and a small excavator, today the company has grown to boast 15 excavators in its fleet, working on numerous rail projects in Victoria and New South Wales.

One of the latest projects that Earthtrack Solutions has lent it's expertise to has been the \$190 million New Preston Depot, the biggest tram depot redevelopment in Melbourne's history. Working closely with Coleman Rail, Earthtrack Solutions supplied state of the art excavators for the project, ranging in size from 5 to 22 tonnes. Earthtrack Solutions were also on hand to supply operators for the specialised machinery as required.

With proven expertise in track maintenance and restoration, rail construction, project management and engineering, earthworks and civil and pipe works, Earthtrack Solutions has fast become a leading name in the Australian rail industry.

For more information contact Earthtrack Solutions, 12A Newry Drive, New Gisborne VIC 3438, phone 03 5420 7833, email admin@earthtracksolutions.com.au, website www.earthtracksolutions.com.au