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Dear Members

Welcome to our first Winter 2025 edition. If I'm not mistaken, this appropriately chilly scene was snapped in Elizabeth Street, Melbourne.

Our June activities kicked off with an Occasional Lunch at Doncaster Shopping Town Hotel. These highly enjoyable social gatherings have been a long-standing tradition with the Association, and Kelvin York, who now hosts them, provides an interesting insight into their beginnings in this edition.

On 11 June about 40 members and friends visited the Koonung Creek offices of the North East Link project at Bulleen. Without taking away from Jim Webber and Jill Earnshaw's detailed account in this issue, I can say that both the hospitality extended to us by the Project's Director – Delivery, Sebastian Motta, and the presentation delivered by eight of his fellow directors and managers was truly amazing.

Some of those who attended would have been involved in the planning and construction of major road projects - from the King Street Bridge in the late 1950's to the many major metropolitan and rural projects that have followed. All of us were 'blown away' by the immense scope and complexity of this project and the systems and technologies being used to design, integrate and manage its many components.

We were privileged to be able to peek (onscreen) into the workings of the tunnel operations, and given a fascinating glimpse into construction challenges, technologies and management tools we could barely have imagined in the not-so-distant past.

We were saddened to hear of the passing of Merv Williams on 28 May. He joined us in 1958 and was well-known to many people who worked on our major projects. We present a eulogy to him in this edition.

Also in this edition we present the second and final instalment of Lance Midgley's fine article highlighting the notable achievements of the Materials Research Division; and the stories of two of the CRB's earlier female employees - Joan Tucker and Lillian Moon.

WHAT'S COMING UP?

Our 2025 event calendar

Date	Event	Contact Person
Monday 14 July	9.45 am for a 10 am TAC introduction and tour of Road to Zero Education Centre at Melbourne Museum followed by lunch at La Spaghettata restaurant in Lygon Street.	Jill Earnshaw jillmearnshaw@gmail.com
Monday 4 August	From 12 noon. Occasional Lunch, Doncaster Shoppingtown Hotel	Just turn up
Monday 25 August	Guided tour of the Hellenic Museum at 280 William Street in the city followed by lunch at the Mint Hotel	Patsy Kennedy Kennedp54@hotmail.com
Monday 15 September	French Impressionism Exhibition at NGV, 180 St Kilda Road, Melbourne, followed by lunch at Young and Jacksons Hotel.	Jim Webber. jameswebber1717@gmail.com
Monday 6 October	12 noon. Occasional Lunch, Doncaster Shoppingtown Hotel	Just turn up
Thursday 9 October - Friday 10 October	Regional Visit to Ballarat with a roads presentation on Thursday afternoon followed by dinner at the Ballarat Leagues Club. Friday presentation and tour of Alstom Train factory in Ballarat followed by dinner at the Ballarat Golf Club.	Jill Earnshaw jillmearnshaw@gmail.com
Friday 31 October	Annual Golf Day Green Acres Golf Club, East Kew	Jim Webber jameswebber1717@gmail.com
Monday 3 November	From 12 noon. Occasional Lunch, Doncaster Shoppingtown Hotel	Just turn up
Thursday 11 December	From 12 noon. Christmas lunch at Waverley RSL	Ken Vickery kenvickery@tpg.com.au

TAC Introduction and Tour of its Road to Zero Facility at the Melbourne Museum – Monday 14 July

Please note this event will take place on Monday 14 July (as listed in the Newsletter Calendar not Wednesday as listed in our recent email of upcoming events).

Road to Zero is a world first road safety education complex, developed by the Transport Accident Commission (TAC) in partnership with Melbourne Museum. Aimed at reducing road trauma in pre-learner drivers, it is an immersive exploration of the ways we can all work together towards a future with zero lives lost on our roads.

Members will gather downstairs in the Melbourne Museum at 9.45 am (use the escalator to the left of the main Museum entrance to reach the lower ground floor) before a 10.00 am start

for an introductory talk from a senior TAC educator. Attendees will then get to explore the exhibition space and learning studios.

The program is informal and relaxed with plenty of opportunities to ask questions and get involved. Only part of this TAC facility is occasionally open to the general public so this will be an excellent opportunity to understand how the TAC undertakes its road safety education work with school age children.

The Melbourne Museum is located at 11 Nicholson Street, Carlton; immediately opposite the Exhibition Building and easily accessible by trams along Victoria Street or Nicholson Street. There is a commercial carpark under the Museum offering paid parking (card only). The carpark has entrances off either Rathdowne Street or Nicholson Street. On-street parking around Carlton may also be available.

This visit will be followed by an a la carte lunch at La Spaghetтата Restaurant in nearby Lygon Street, Carlton. Please register with Jill Earnshaw, jillmearshaw@gmail.com, and also advise whether you will be joining us for lunch.

WHAT'S BEEN HAPPENING?

North East Link (NEL) Presentation – 11 June 2025. By Jim Webber and Jill Earnshaw

Forty members and friends were very privileged to have a visit to the North East Link on Wednesday 11 June. The completion of this complex project will result in a connection between the Eastern Freeway and the Metropolitan Ring Road, thus completing the circumferential route around the city. It is currently one of the largest civil engineering projects in Australia.

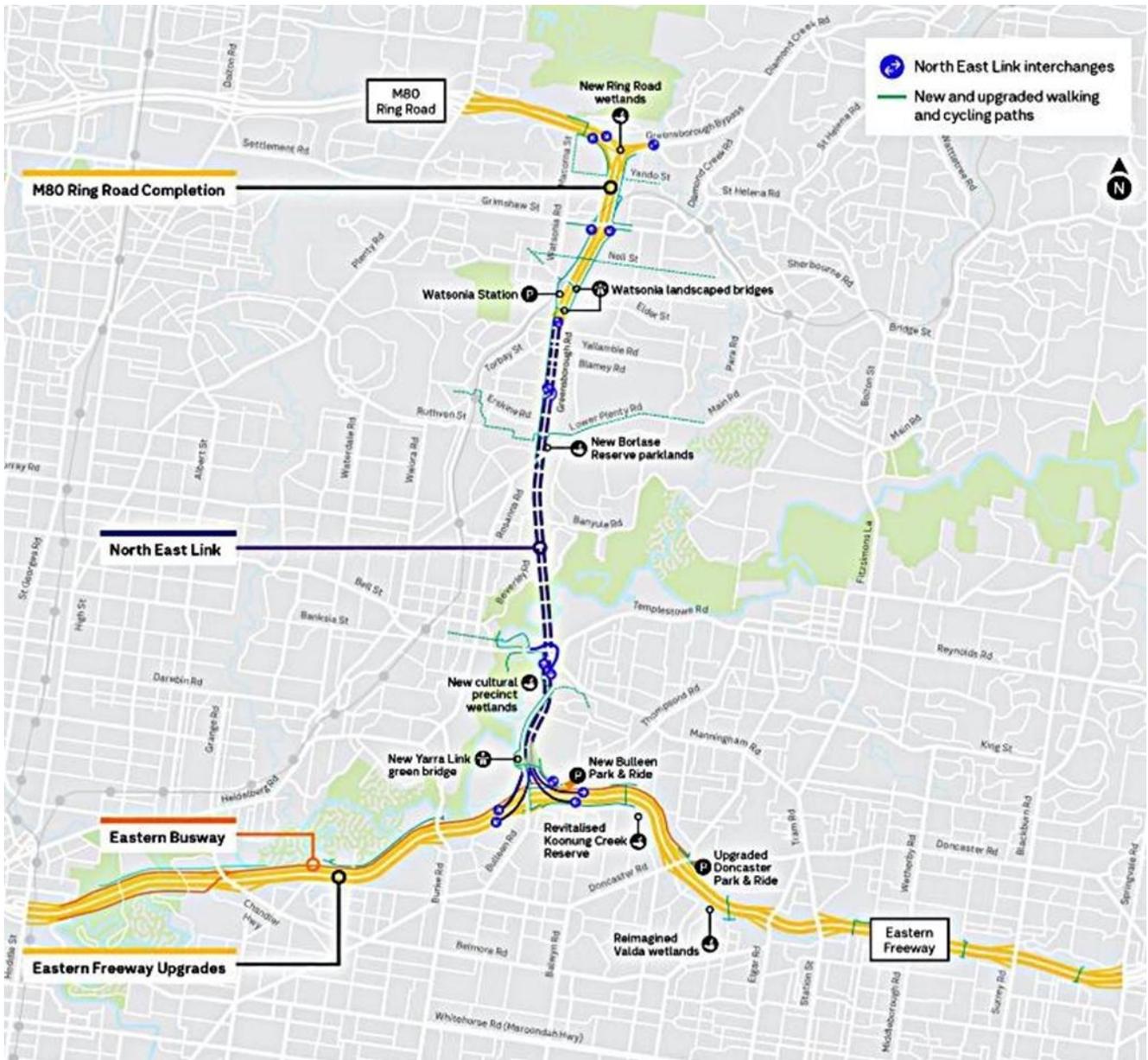
Because of the complexity of the project, the Project Team arranged for our group to meet at the Manningham Hotel where we were taken by coach to the Project Office adjacent to the Eastern Freeway in North Balwyn. We were then given a very comprehensive presentation on all aspects of this massive project. The speakers were:

1. Introduction: Sebastian Motta- Director Delivery Freeways Packages
2. Overarching Program Update: Angelo Duarte- Director Design, Operations, Integration
3. South Package Program Update: Matthew Hill- Package Director South & Michael Dicarlo
4. Tunnelling: Paul Thomas- Director Central Package D & C
5. Traffic Management: Justin Allen-Senior Traffic Manager
6. New Technical Initiatives: Brett Tiag- Digital Engineering Manager
7. Environmental Considerations: Rob Harper- Sustainability Manger
8. Working with Residents and Business Communities: Shayne Garrett- Deputy Director Community and Stakeholder Relations
9. Next Stages: Matthew Hill- Director South Package

Our Association is in the unique position of receiving such a comprehensive overview of this and similar projects, something not available to the general public. I held a similar view after our visit to Snowy 2.0 earlier this year. The North East Link Project is part of Major Road Projects, Victoria, which has Duncan Elliott as its CEO.

Duncan reports to the Director General of the Victorian Infrastructure Delivery Authority (VIDA), Kevin Devlin.

The project has an estimated cost of \$26 billion and involves about 10,000 workers.



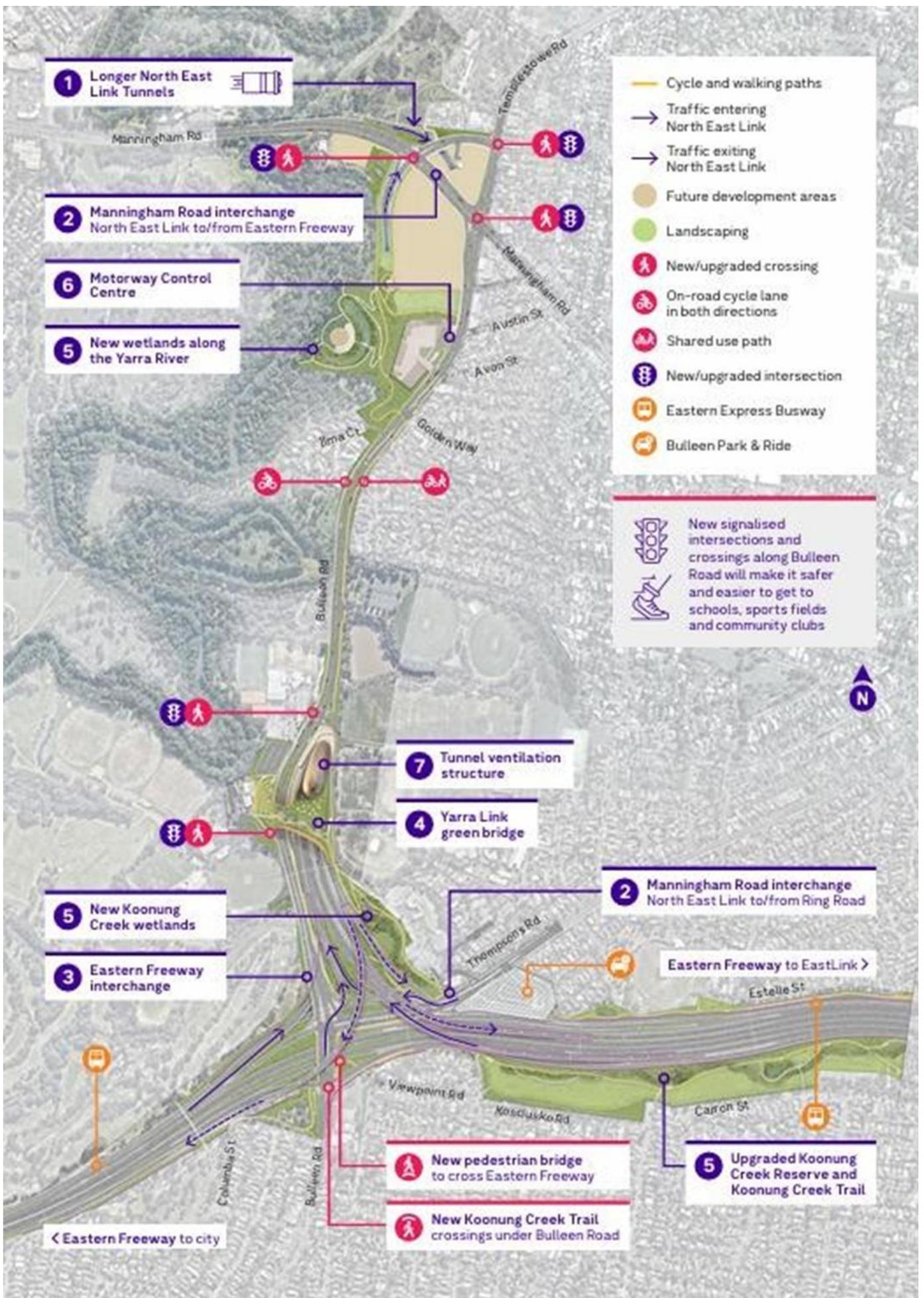
It commenced in 2017, with the first construction package let in August 2019. The last two construction packages are about to be awarded. Overall completion is scheduled for the end of 2028, the project currently being about at the half way mark. Given its complexity, it was described as a 10-year program, rather than just a project.



Proposed Bulleen Park and Ride station

Contractors are separated into Tier 1 and Tier 2 depending on their capacity to undertake works.

There will be 11 km of express bus lanes on the Eastern Freeway, Victoria's first dedicated busway. The project is also building 34 km of walking and cycling paths - the existing cycling network has to be kept open at all times during construction. Multi-story car parks for park-and-ride users of the busway are proposed at Doncaster and Bulleen.



A partview of the project between Manningham Road and the Eastern Freeway, showing the 22 Eastern Freeway lanes east of Bulleen Road, the express bus lanes and the Bulleen Park& Ride facility on Thompson Road

The project involves collector-distributor lanes on the Eastern Freeway to separate through traffic in express lanes from local movements, resulting in 22 lanes of traffic opposite the Project Office in North Balwyn. Extensive advanced signage will be required to enable drivers to choose the appropriate carriageway. The section of the works on the Eastern Freeway will remain toll free.

The 6.5 km tunnel, the longest in Melbourne, passes under the Yarra River is estimated to cost \$11.2B. Very favourable ground conditions have been found for the tunnel, which is now 50% completed. Safer, more efficient working arrangements with less human involvement have been employed.



The removal of spoil from the tunnel has been a major logistics challenge - some is reused, some is dumped. About 1,000 design packages have been needed for the tunnel. Some elements of the Tunnel Boring Machines (TBMs) have a buy-back arrangement. The project has a central traffic management plan, with a separate strategy for each package. The strategy aims to maintain capacity, minimize unnecessary disruptions, utilize innovations across packages, and track travel times across the project. Managing rail and road disruptions is an important element of the project.

The project has an Urban Design Strategy prepared by an Urban Design Panel which includes urban designers from the Office of the Victorian Government Architect and the Department of Transport and Planning. The Panel assesses each Contractors' design against the requirements of the Strategy. The project takes a holistic view of sustainability, based on 47 objectives and targets, which are built into the contracts. Significant reporting is required, for both the Project Team and the community.

The project aims to protect public open space as much as possible. About 70% of the extensive parkland on the south side of the Eastern Freeway in North Balwyn that existed prior to the commencement of works will be replanted on the completion of the roadworks. Across the project about 16,000 trees have been removed and 30,000 new trees will be planted. The works also involve the restoration of sports facilities.



Paul Thomas – tunnel expert and Director, Central Package

The focus of the engagement with stakeholders has been on noise, dust, light, vibration, traffic disruptions, property access, open space impacts, perceived loss of amenity, landscaping and shared walking and bicycle paths. Staff are available 24/7 to take telephone calls from the community. A community education phase is planned for 2027, ahead of opening.

Some safety innovations on the project include traffic cones being placed mechanically to redirect traffic, automated removal of existing line marking which also eliminated ‘ghost



On the observation deck at the Koonung Project office, overlooking the Bulleen Road Interchange works

marking’, and rumble strips aimed at keeping vehicles in their lanes. Perhaps the major innovation has been the cloud based digital communications across the project which is critical to its success. The project has involved over 400,000 files to date which have to be shared - including design, data, costs, etc. On any one day about 1,000 files are exchanged. This element of the Project was probably the biggest initiative since most of our members were involved in construction.



Lunch at the Manningham Hotel following the presentation. From L to R. Noel Osborne, Graeme Newman, David Harris, David Williamson, Bruce Thompson, Warren Blandy, Nick Szwed, Martin Habgood

It has been a massive success story for the project, as it has been estimated that it has saved the project millions of dollars. – Jim Webber and Jill Earnshaw.
[Also thanks to Nick Szwed for the great photos – Ed]



Manningham Hotel lunch. From L to R. Allison Pinto, Jill Earnshaw, Ian Thiele, Grahame Stone



Manningham Hotel lunch. From L to R. Greg Kemp, David Jellie, Graham Gilpin PSM, Ross Gordon, Geoff Symons, Jim Webber, Alan Mackinlay, Iris Whittaker, Russell Meehan



Manningham Hotel. From L to R. John Seward, Joan Gilmer, John Wright, Rosslyn Wright, Claire Flowers

Vale Mervyn (Merv) Williams. By John Wright



On 28 May 2025, Merv Williams, one of our notable construction engineers and project managers, passed away.

In company with former colleagues I attended a memorial service at which his friends and family spoke warmly of Merv's achievements, his contributions to the community, and his lifelong devotion to his wife, family and friends. The service was held on 12 June. Merv would have been 94 on the following day, and all present sang 'Happy Birthday' for him.

It is a sad fact that we often only get to appreciate the richness of an individual's life from the testimonies that are given after they have gone.

I was an 18-year-old junior draftsman at the Exhibition Building when Merv Williams joined the CRB late in 1958 at age 27. He had come from the Commonwealth Department of Works in Darwin and was soon allocated

the task of supervising roadworks and maintenance in the high country between Alexandra, Woods Point and Warburton.

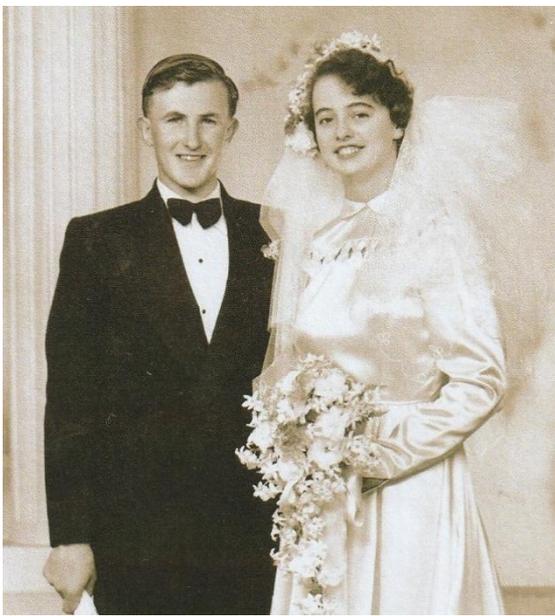
I accompanied Merv on several overnight visits to this area and, given the short time he had been with us, I was impressed with his knowledge of its geology, history and people. It was as if he had been there for 20 years. Even then, Merv possessed self-confidence and ability in abundance. He seemed imbued with a very comfortable certainty that what he was doing (or about to do) was the best and most appropriate thing to do – and this was frequently the case. Jim Webber, who worked under him on the Mulgrave Freeway, commented, 'He always seemed to be one step ahead'.

Merv's confidence was occasionally misplaced. One morning in 1959, Merv and I were on foot in rugged country near Jamieson, investigating an alternative route to a flood-prone section of the Mansfield-Woods Point Road. After walking some distance along an old mine track, we came to a dead end near Mount Terrible. To avoid retracing our steps, Merv decided to take a short cut - straight up a steep spur and then along a high ridge to return to our 4WD.

It was late afternoon when Merv judged (correctly, this time) that we were walking along the wrong ridge, and that we would need to cross over to an adjoining ridge, where we could find a fire track that would lead us to our vehicle. It was an exhausting task and by the time we got to the opposite ridge it was dark and we couldn't find the track. With steep drops nearby, Merv decided it was too dangerous to proceed further. The search party found us at 2.30 am. Merv's judgement had been nearly spot-on. In pitch darkness, we had missed the fire track by 50 feet.

Born in 1931 and growing up in Rhymney Reef near Ararat, Merv was the second oldest of 5 brothers. He started school at age 3 and later attended Preston Tech. to pursue a growing interest in technical subjects. He told Ray Bridger¹, his close friend, that his aspiration to become a Civil Engineer was sparked in his early teenage years after reading Rudyard Kipling's *The Bridge-Builders*. The narrative, which resonated deeply with him, centred on an engineer supervising the construction of a railway bridge over the Ganges in the late 19th century.

¹ Ray worked for the CRB and moved to Bulleen in March 1973 where he and his wife became neighbours across the road from Merv and his family.



Merv and Helen - 1951

In parallel to his engineering studies, Merv pursued an active sporting life, including participation in soccer where his team were finalists in the under-15s and Shield winners in 1945, and represented Victoria in the under 19s. He was also a brilliant table tennis player².

Attending Swinburne Institute, Merv attained a diploma of Civil Engineering. Around this time he met Helen, who became the love of his life after he turned up too late for church and chose instead to visit Coburg's Silver Bell Milk Bar, run by Helen and her elder sister.

They married in 1951 while he was still studying. Receiving a scholarship to the University of Melbourne, Merv graduated in 1953 with a Degree in Civil Engineering and commenced work with the

Commonwealth Department of Works (Comworks) in Exhibition Street, Melbourne

In 1956, Comworks seconded Merv to Darwin for two years to run a materials laboratory and design and manage the construction of new runways suitable for jet aircraft. Ensuring the design pavement strength was reached, and providing adequate stormwater drainage for the large, flat areas involved (in an area subject to monsoon rains) were major achievements for the newly graduated Merv.

Merv and Helen returned to Melbourne in 1958 where Merv joined the CRB. Merv's nephew told the memorial service that during (or after) Merv's time working in the high country, a lookout near Lake Eildon was named after him. Merv had apparently suggested the provision of a roadside turnout on the Eildon - Jamieson Road, just west of Jamieson, and mentioned it would make a fine scenic lookout. It subsequently became known as *Williams Lookout*.

In the early 60s Merv became involved in the planning, design and construction of the Tullamarine Freeway and its Bell Street Interchange³, which was opened in February 1970 by Sir Henry Bolte.

Throughout Merv's career he remained superbly fit and was involved in an amazing range of sport, including soccer, hockey, cricket, tennis, squash, golf, badminton and table tennis. In 1962, Merv was a member of the both the CRB tennis and cricket teams competing in the inaugural matches against the Public Works Department of Tasmania, a competition that existed for around 25 years. Around 1970, Merv was a project manager in the Works-Sub-



In the CRB Tennis Team, 1962

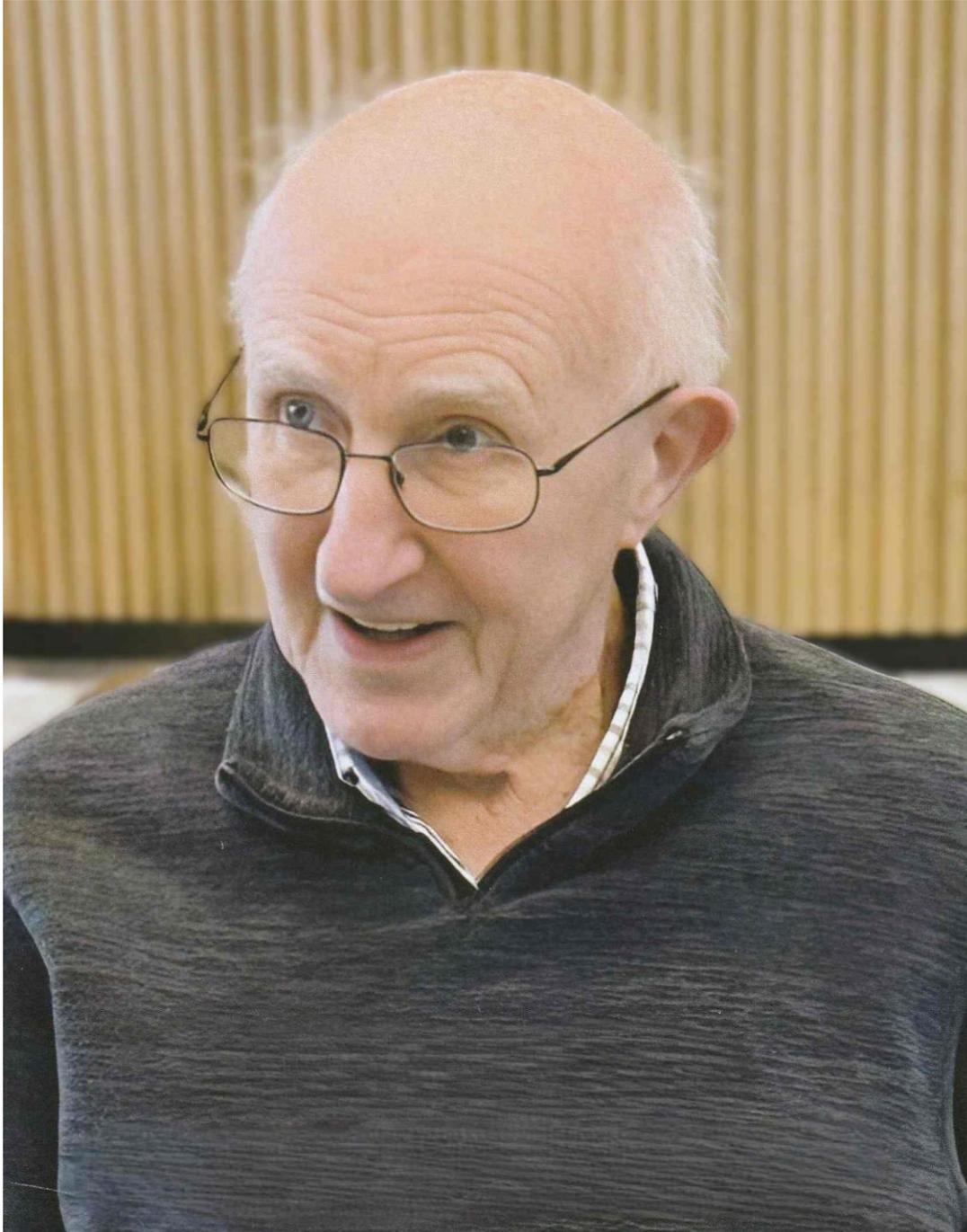
Branch and managed the pre-planning and construction of the first stage of the Mulgrave Freeway (now Monash Freeway) between Stud Road and the Princes Highway at Doveton. He was similarly involved with other sections of the Mulgrave Freeway until 1975 when he was appointed Major Projects Engineer responsible for all freeway construction in Victoria.

² Jim Webber told me that Merv was such a strong table tennis player that he would often play left-handed in CRB lunchtime contests to give his opponents a sporting chance.

³ Merv prepared and presented a paper entitled Strathmore By-pass Road Pre Planning and Construction to the Highways and Traffic Branch of the Victoria Division of the Institution of Engineers Australia at its meeting of 16th April 1969.

At home, Merv and Helen were raising four children - Janis, Brett, Vicki, and Warren, and spending time with friends and family in a Blairgowrie holiday house they had been renovating ever since he and a friend had built it as a shack in 1951.

A constant in Merv's life was his strong Christian faith as a member of the Doncaster Church of Christ. He was also a regular participant in Rotary and inter-church community activities. Merv was also well known for his love of Banjo Patterson verse, which he could recite at length.



Merv also championed innovative technical advancements including the *Autograde* machine, which lowered road pavement construction costs and improved the surface quality. Other changes embraced by Merv are reflected in road construction practice to this day.

Following his retirement from the CRB as Manager, Major Works Branch in 1988, when he was 57, Merv kept active and increased his engagement with the community and his family. He became involved in the construction of 'coffee roads' in New Guinea, where the rugged and mountainous terrain posed significant challenges. He built water tanks in Samoa with the Rotary Group and made yearly winter migrations to Magnetic Island, and several circumnavigations of Australia.

In 1997, Merv and Helen lost their youngest son Warren in a tragic helicopter accident in Canada. He was 26. The death of his beloved wife Helen in 2018 was a further terrible blow. Merv is survived by his children Janis, Brett, and Vicki, and his brother Barry.

MEMBER COMMENTS AND NEWS

From Phil West

[Phil has provided this response to my article about the Motor Registration Board (MRB) in Newsletter 268]

Hi Jill and John,

The attached photo is of the MRB card index of the engine number of vehicles registered in Victoria. The metal filing cabinets are actually set away from the building wall and are hiding another row of boxes containing index cards.



There is a lot of vehicle registration/engine number cards!!! These index cards are at the Jaguar Car Club and Austin Healey Car Club rooms in Springvale. The card information is accessible through AOMC (Association of Motoring Clubs).

<https://www.aomc.asn.au/engine-registration-records>

Regards, Phil West

Our Occasional Lunches. From Kel York

[Kelvin has been hosting our Occasional Lunches for many years. He sent me these notes about their history.]

In 1983, when the CRB became the RCA under Ian Stoney, the organization was remodelled, with positions and titles changing in a major review, commencing with the senior positions.

Noel McFadyen, who was then the Right of Way Engineer, noticed that many of his friends were badly stressed by having to apply for the equivalent position that they had held, in some cases for years.

To encourage mutual support Noel decided to hold a luncheon at the Clifton Hotel in Kew on Friday 18th November 1983. It was attended by Neil Guerin, Bill Thomas, Norm Haylock, Peter Jeffries, Andy McGalliard, Bruce Addis, Geoff Hunt, Dave Nicholson, Roger Gamble and Noel himself.

Thereafter, luncheons were held every 2 months, each with a different organizer. After Noel retired in January 1987, Richard Howland organised the luncheons at the Malaysia Village and the Village Tavern in Kew. By the time the luncheons lapsed, when Richard retired in 1988, there had been about 40 luncheons.

The first Occasional Luncheon, as an activity for members of the CRB Retired Persons Association, was held in September 1989 at the Sentimental Bloke Hotel, Bulleen, hosted once more by Noel McFadyen. The venue was changed to Doncaster Shoppingtown Hotel on 20 July 1990. Luncheons were held six times a year and Noel continued to host them until prevented from so doing by ill health in 2004.

In June 2000, Noel wrote that more than 60 luncheons had been held at Doncaster over nearly 10 years. I estimate that, after allowing for the covid lockdown, the 200th luncheon was sometime in 2024.



A recent Occasional Luncheon. Kel York is standing at the rear.

The luncheons were attended by retirees from the Chief Engineers Branch, mostly from Bridge Division and Materials Division. Some wives attended, and while there was no barrier to those from the Secretary's and Accountants Branches attending; they just didn't.

That did not change until 2011 when Lyn and Geoff Briggs, and Ann and Doug Matthews attended. Nowadays, the attendees come from across the spectrum of the organization.

Joan Tucker – still working at 96. By John Wright

I recently had a phone call from Stan Hodgson, one of the Association's nonagenarians and former Regional Manager, South Eastern Region, when it was based at Nunawading.

Stan's eagle eye had spotted an article by Cathy Withiel in the Uniting Church magazine *Crosslight*, featuring Joan Tucker who, at the age of 96 is serving as the Church's Treasurer in Pascoe Vale South. Stan remembered Joan from the CRB's Exhibition Building days.



A recent picture of Joan

I called in to see Joan on 13th June and she told me about her long career with the CRB and its successors. While she is not the oldest of our members (Jack Waters is 99), she may well have joined the CRB before any other living Association member.

Joan, who is 96, was the youngest of three and was born in 1929, the year the stock markets crashed and triggered the Great Depression.

Growing up in West Coburg, Joan was 14 years old (in 1943) when she joined the CRB as a comptometrist in the Accounts Department pay section in the Exhibition Building Annexe at Carlton.

That was 82 years ago.

Joan recalled her original supervisor in Carlton – Mr Yuille and the unforgettable 'dead fish' Christmas handshake of the Chairman, Mr Darwin.

At Kew Head Office, Joan worked on the 6th floor of the south wing, where she was

a ledger keeper and remembered Mr John Frost and Mr Silvers. She also recalled Judith Trotter and Joan Zantuck, who worked there.

Retiring from the CRB in 1988, after 45 years of service, Joan took her mother Edith to England to see Edith's childhood home in Castleton in Manchester – 78 years after she had left it to come to Australia.

In what must have been another small record, Joan, who never married, lived in her parents' West Coburg home for 95 years from the time of her birth until she moved into a unit managed by Uniting AgeWell in 2024. In her later years she cared for both her parents.

Longevity runs in her family. Her father died at 87. Her sister Ethel lived to 99 years and she showed me the certificate her mother (who lived to 101) received acknowledging her 100th birthday. It was signed by the Prime Minister John Howard and the Governor General, Peter Hollingworth.

Joan told interviewer Cathy Withell: "You can be old at 45 but young at 95. It's up to you."

She attributed the longevity in her family to a healthy lifestyle and good genes.



Joan in 1988, when she retired from the RCA

Lillian Moon - Lest We Forget by David Jellie

In my history of the military service of people who worked for the CRB, RCA and VicRoads, *Roads to War*, I found only two women - Patricia Marr and Lillian Moon. I wrote about Pat in an earlier newsletter. She joined the Women's Auxiliary Air Force in Britain and, after the war, she migrated to Australia.

I had an inkling that Lillian Moon also served during the war - in the Women's Australian Auxiliary Air Force - but I could not find a record, because her first name was Ruby and her maiden name was O'Donnell. She married Bertie Moon after the war. At last, I have found her and I am pleased to tell her story. She was a popular and highly respected person in the CRB and many of you will remember her. If you have any stories to tell, please let our editor, John Wright, know and he will pass them on to me.

There may be another woman who served. A list in the 41st Annual Report of the CRB shows all the CRB staff and employees who enlisted in the Second World War. It stated that there are probably others of whom particulars are not recorded. There are 60 members of staff and 536 employees on it. A lone woman, Miss T. Storey, is included in the list. I could not find a woman of that initial and name in the National Australian Archives but I found Miss Valerie June Storey who, in many ways, fits the bill, but I can't be sure.

But here is Lillian's story...

Aircraftwoman Ruby Lillian O'Donnell (Lillian Moon), 105399

Ruby was always known by her second name - 'Lillian'. She was a highly respected and loved character in the CRB under her married name, Lillian Moon.

In the Personal Record of Service - Airwomen, it is recorded that she was born in Essendon in September 1911 making her 31 years old when she enrolled in the Women's Auxiliary Australian Air Force on 10 March 1943. Her occupation was given as 'Dressmaker and Designer'.

She was tiny - five feet tall and six stone seven pounds. In her Application for Enrolment as an Airwoman it states that she was living in Newtown, Geelong. It also stated that she ran her own business of dressmaking, employed staff and kept her own books.

She also had experience as a builder's clerk and had a previous occupation of drafting and tracing. There were additional notes in the file - "Nice type, smartly dressed and well spoken. Good knowledge of stocktaking of equipment and stores. Suitable as Equipment Assistant."

Her first posting was to No.1 WAAF Depot. This was a training depot located in Preston. The depot was formed in 1941 and was located for a time at Geelong Grammar School and later at St Catherine's school in Toorak before relocating to Preston early in 1943. After a month's training.

Lillian was transferred to Air Force Headquarters - (AFHQ, (Department of External Affairs (DEA))). On 12 April 1944 she transferred to 2 Embarkation Depot.

Six Embarkation Depots were established by the RAAF during World War 2. Their function was to house personnel awaiting embarkation for overseas posts and to ensure that, before departure, they were medically and dentally fit, vaccinated, inoculated and properly equipped.



Lillian O'Donnell's enlistment photograph - 1943.

The No. 2 Embarkation Depot was located at Bradfield Park, Lindfield, New South Wales. Tropical service and hardening courses were also conducted at the Depot.

Lillian's next posting was to 1 Reserve Personnel Pool (1 RPP) in Townsville, Queensland and on 3 May 1944 Lillian joined 23 Operational Base Unit in Townsville. This unit managed movements of aircraft of USAAF, RAAF, RNZAF, Dutch RAF and civilian craft. Over 70 WAAF airwomen were stationed there. On 15 December 1944 Lillian transferred to RAAF Base Garbutt – also in Townsville – where she served until 20 November 1945 before returning to No. 2 Personnel Depot RAAF at Bradfield Park in Sydney. She was discharged from the WAAF on 11 December 1945.

Lillian described how she came to join the CRB in 1957 in *Reminiscences of Life in the Country Roads Board*:

“My father got me the job. I had been married a couple of years, and I was home making a dress for my aunt, and my father was visiting me - he didn't like my aunt - and he said, ‘You are a fool sitting here sewing for all the relations’. He looked up The Age and he said, ‘Here's a job with the Country Roads Board’. I said, ‘My husband wouldn't allow me to go to work’.

In those days, just after the war, perhaps girls might work for a few months, but not a long time, and I said, ‘No, he wouldn't allow me. Dad said, ‘What rot. So, Dad phoned up and got me the appointment and I had to tell Bertie about it, and he said, ‘Oh, well, just until we have a family’. He thought that would be any minute, so he gave way on those grounds.⁴

Miss Chomley interviewed me, and she said, ‘I was looking for somebody more permanent; I didn't really want anyone who was married’. I said, ‘Look, I just want to stay until I have a family, and I hope that will be soon, and I will fit in with you’. She said, ‘That's fine’. I was taken on the condition that when Miss Chomley found somebody more permanent that I would go. Nearly 35 years later I was still there, waiting for somebody more permanent to arrive.”

She also said in the same publication:

“When I first arrived at the Board it was very difficult to get staff. I remember on one occasion Miss Chomley was away and they had got a temporary girl, and I had to allow her to get lemon meringue pie and eat it while she was typing, just to keep her there. I begged people to stay until lunch time. It was incredible; there was a great shortage of stenographers just after the war.” Another memory:

On a number of occasions, I was summoned to the Board Room to sew on a button for Mr O'Donnell (The Chairman) – he saw it as an opportunity for me to put my early training as a dressmaker to good use.”

After joining the CRB, Lillian worked under Kate Handley in the Board's Secretariat. Kate Handley was the first female officer appointed by the Board in 1913 and remained virtually an *ex officio* Board member for over 50 years. Together with Meg Chomley, Kate and Lillian had an uncanny knack of unravelling obscure decisions of the Board and dealing with Parliamentary enquiries. Lillian loved working in the Secretariat and she became beloved by the Board.

In 1965 Lillian was appointed Supervising Stenographer, a role she held until 1970 when she became the Senior Female officer. In this role, she had to look after the needs of the women in the organisation. She visited all the CRB's divisions and sections, ran courses in typing, office procedures and supervision. It was pioneering work in what was essentially a male domain, and she recalled it was difficult to promote the notion that women had an important role to play in the organisation. By the time she retired in 1985, these negative attitudes no longer existed.

⁴ Lillian was 46 at that time so her chances of having a child would have been fairly remote.

She was appointed to the position of Secretarial Assistant, Archives from September 1972 to October 1974. It was during this time she prepared the Disposal Schedule, which she described as a comprehensive guide on file retention.

Following that role, she was appointed Correspondence Clerk, Class 3 where she managed the Board's general correspondence and arranged overseas missions for senior officers. This involved liaising with overseas authorities, arranging bookings, researching background material for the travellers and organising passports and insurance. At the time of her retirement, Lillian was an Admin Officer Class 4.

Lillian described working for the Chairman R.E.V. Donaldson as follows:

"I found Mr Donaldson a very nice man to work for. He allowed me to do things that I had never been given the opportunity to do before. I had free rein over a lot of things; if there were visitors coming, he would allow me to arrange all the social activities for the wives.

When I was going to university, he was wonderful; he encouraged me all the time and he was always interested in what I was doing. I found him actually a very stimulating person to work for because he gave me so much responsibility. I was able to draft speeches and all that sort of thing for him. I enjoyed it."

It is not an exaggeration to say that everyone loved Lillian. She was always welcoming and smiling with a great sense of humour.

With the assistance of Norma Jones and David Jellie, she established the CRB Film Society which, for many years, showed arthouse films in the theatrette one evening every month. We often had attendances of about 100 people.

Lillian also loved travel which took her to China, Japan, North America, South East Asia and Europe – but Britain was her favourite.

I have enjoyed telling her story; remembering her generosity, encouragement and laughter.

Lillian and Bertie did not have any children. She died in November 1994.



Lillian Moon – circa 1985

David Jellie

Continuing John Wright's work Odessey ...

In 1970, while working as a draftsman at Dandenong Division in Nunawading, I received my Diploma of Civil Engineering after years of night school and correspondence courses. I found myself in a very different position to many other engineers, who at age 30 had probably accumulated 10 years construction experience.

The Divisional Engineer, Mr Frank Docking, was very supportive of my new situation and appointed me to the Municipal Section, which was then being run by my old boss, John Glenn.

Much of my work involved answering queries about land acquisition on the declared main road network. All my reports went to Right of Way, to be dealt with by Ian Rennick, Alan Pollard and later, Ray Nicholas. I shared the room with Murray Heffernan and 'Short' Jack Ryan. Mike Jeffress⁵ was appointed to my position after I left.

Murray Heffernan

Murray had been working in Dandenong

Division when I left to go to Brisbane in 1963. I knew him as an intelligent, articulate and vital man with a sparkling sense of humour. As a younger engineer, Murray had worked on the construction of the new Hawkesbury River railway bridge. He told me his crew was working to prepare a caisson, which was positioned at the water surface for a controlled sinking operation to the river bed. To his horror, they lost control of the caisson and it sank out of sight to be irretrievably lost.

While I was away, Murray suffered a major stroke affecting one side of his body and making speech difficult. It was so sad to see this beautiful man trapped in his crippled

body. No longer the dynamic person I had known in 1963, he was nevertheless bravely soldiering on in an administrative role, and his sense of humour remained intact, if somewhat drier.

Murray made his fair share of boo-boos in his new role, but the Divisional Engineer, Frank Docking found it beyond him to take him to task. Instead, Frank would call in his brother-in-law, 'Short' Jack Ryan and go crook at him, knowing that he would pass on his concerns to Murray, in a kindlier way. Murray passed away in 1980, aged 65.

Arnold Easton

Arnold came to Municipal Section sometime after I left. Like Bill Kendall he was a WW2 RAAF veteran from the European theatre. Arnold was a big, tall and friendly man who, unlike many of his fellow veterans who'd seen action, was happy to speak about his wartime experiences.

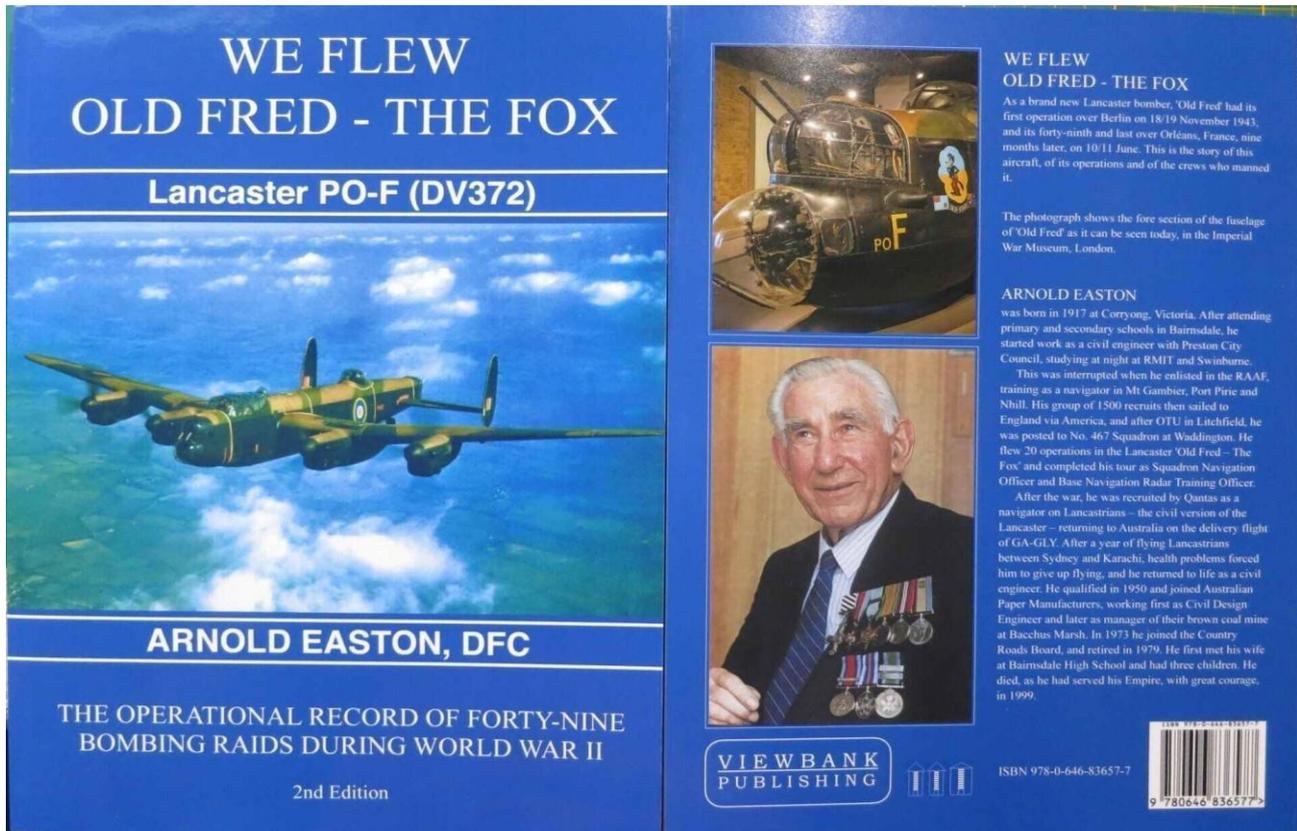
Like the late Noel Anderson, Arnold had flown in many night raids deep into Germany – and somehow survived to tell us his experiences, which he remembered in remarkable detail. One day, he brought strips of metallic foil into the office to show us. It was a rare sample of what the Allies called 'chaff', which bombers dropped in huge clouds to confuse German radar operators.



'Short' Jack Ryan (L) and Murray Heffernan, around 1973

⁵ Michael sadly died in 1995, aged 48.

Arnold retired in 1979 and later published a book called *We Flew Old Fred: The Fox Lancaster POF (DV372)*, in which he detailed every mission he flew, and identified every crew member. He also described what happened on each mission, including the flight paths. The forward section of Arnold's plane *Old Fred*, which, like him, miraculously survived the war, is on display at the Imperial War Museum in the UK (Thanks to David Jellie for the war service info). Arnold died in August 1999.



The dustcover of Arnold's book

Early in 1972 I moved to the Division's Statutory Planning section, which was responsible for ensuring that proposed residential and commercial developments on or near existing or proposed CRB roads were not affected by future proposals, and that their points of access to CRB roads were safe and appropriate.

Russ Widdis and David Vimpani

Russ was a very likeable fellow in his late 20's, who like me, rented a CRB house in Nunawading where he lived with his wife, Dianne and their young family. Prior to starting in the position at Kew in 1968, Russ had successfully managed the CRB's line marking crew.

Heavily involved in basketball, Russ frequently rubbed shoulders with some of its famous stars, including Andrew Gaze. He also enjoyed a beer and we'd occasionally visit the White Horse Hotel in Nunawading (now long gone). Russ was also a keen follower of the horses and I was soon placing small bets at the local TAB and recording my wins and losses. At the time, a young Eddie McGuire⁶ was on the morning radio sports shows announcing his tips for the Neil Nielsen Daily Double. More often than not his tips were spot on. However, I was to learn what many others already knew, that racing is a dirty game.

This was particularly so in respect of country races where a tried and true heavyweight Melbourne winner would be competing with local refugees from the glue factory. Somehow,

⁶ In 2013, I appeared on his long-running Channel 9 show "Who wants to be a Millionaire". I flunked a question on Test Cricket dates my late brother could have answered in a flash, and I didn't win anything.

the Melbourne favourite, which was a dead cert to win, would unexpectedly 'die' in the home straight, allowing some roughie nobody had ever heard of to win at amazing odds. The race announcers would sometimes comment that the usually very well-known rider of the favourite 'was pulling his horse's head off' to slow it down so that the roughie could pass it. No action was ever taken against these jockeys who were undoubtedly following orders from major crime syndicates.

Russ was the Division's acknowledged and irreplaceable subdivisional expert and as far as I know he remained in that position until he retired. He died in 2017 from pancreatic cancer.

There was another, very bright young guy in Dandenong Division, David Vimpani, who often came up with winning combinations for the daily double. He gave me the numbers for a weekend race meeting, and I bravely placed 10 units (\$5.00 worth) on it at the local TAB. I was over the moon when the double came in at a price that would have netted me \$650. However, I was devastated to learn that, in my keenness to place the bet, I had used the barrier numbers instead of the horse numbers. I think I gave up after that.

David's attention to detail on major planning matters was legendary, and the substantial roadwork requirements he successfully imposed on many of Melbourne's major retail developments – especially the roads adjacent to Knox City (see later) - endure to this day.

Noel McFadyen

Our newly appointed manager, Noel McFadyen was a very pleasant man in his early-40s. We got on extremely well together, and I sometimes accompanied him on inspections of proposed roadside developments. I was to discover that Noel knew the location of virtually every Devonshire Tea establishment within 50 miles of the City, as we often managed to stop at one around morning or afternoon teatime.

Noel had wonderfully clear diction and spoke slowly to ensure that he was properly understood. He was hyper-efficient and quickly assessed incoming tasks and delegated them to his staff. As a result, his huge desk was frequently empty, and he constantly fretted that it looked like he had nothing to do.

Noel sometimes consumed some of his 'slack time' acting as a mentor, counselling admin. staff over their office-related personal issues. These sessions did not go unnoticed by the new Assistant Divisional Engineer, Raleigh Robinson, who used to refer to Noel at staff meetings as the Division's "Family Planning Engineer" – much to Noel's chagrin.

The great joy in Noel's office life was Russ Widdis's frequent late morning arrivals and the wonderful excuses that Russ personally tendered to him on these occasions. Noel would listen attentively to Russ with a straight face, and a short time later he would stroll across to Frank Docking's office to pass on the latest excuse. You could hear their roars of laughter all over the office. I can still remember two of these:

- Russ said he was unable to back his car out of the driveway because a mass of caterpillars on it was making the wheels slip.
- Russ said his car battery was flat, and when his wife gave him a push, her dressing gown caught on the back of the car and was torn off her as he drove away, leaving her almost naked halfway down the street. He had to rescue her.

I particularly remember the original Knox City development. I was visited by a high-powered delegation including a consultant, David Emery⁷ from Wilbur Smith and Associates P/L, who were designing the centre, and a very young Alan Stockdale⁸, representing the developer.

⁷ I had worked for David when I joined the CRB in 1958

⁸ He could have been the Alan Stockdale who later became Treasurer for the Victorian Liberal Government under Jeff Kennett.

Stockdale gave a very slick presentation, which was heavy on economic benefits to the community including the creation of hundreds of jobs. I had already seen David Vimpani's initial assessment of the road infrastructure needed for the huge development and responded by telling them that they would need to fund the duplication of the adjoining Stud and Burwood Roads and provide turning lanes and signalised intersections at all of the proposed major entrances.

Alan Stockdale was horrified and, returning to his benefits story, suggested that the CRB should be funding this work as a contribution to the public good. It was such an outrageous suggestion I had difficulty not laughing. I asked him if the MMBW and the SEC had also agreed to provide free drainage, water and power, and the subject was quickly changed.

A very funny thing happened while I worked for Noel. A young and somewhat reserved engineer was about to get married, so Frank Docking decided that he and his bride-to-be should be given a special afternoon tea at which all of the staff could wish them well.

At the Friday gathering, Frank made his speech and, in conclusion, uttered the memorable words: "*Well, I suppose you two will be getting your things together tonight in readiness for your big day tomorrow*". All of those present immediately grasped the meaning of Frank's wonderful *double entendre*, and except for his guests, dissolved in hysterical laughter that went on for many minutes. The young couple turned crimson and Frank, who would have made a wonderful poker player, managed to maintain a perfectly straight face.

Noel eventually left Dandenong Division to take up a new position in Right of Way at Head Office and was replaced by Trevor Phillips. Noel retired in 1987 and played an important role in the CRB/RCA Retired Person's Association. He died in Kew in 2004, aged 77.

Maurice Johnson



Maurie Johnson in the CRB Cricket Team 1962

Maurie, as we knew him, had been a dear friend since he commenced work in Dandenong Division at Kew in 1962. He was an understudy to Ray Adams, an experienced engineer responsible for the Hume and Northern Highways.

Over breakfast one morning in November 1972 I was horrified to discover that Maurie had been killed. My brother Geoffrey was working as a reporter for the *Melbourne Sun* newspaper and his feature story on the front page was about the tragic death of a young man in a road accident on the Calder Highway near Gisborne.

I was stunned to learn that the young man was Maurie. He was a keen golfer and had been on his way to an early morning session when an oncoming driver had fallen asleep and crashed head-on into his new Morris Marina. Maurie did not survive the ambulance journey.

Most of Dandenong Division attended his funeral at Essendon. It was very sad. In addition to being a golfer, recently married Maurie had been a popular local footballer, and the church was packed out into the street. Coincidentally, the funeral of the CRB's former Chief Engineer, John Mathieson was being held at another church on the same day.

To be continued...

Notable Achievements in the Materials Research Division as compiled by Lance Midgley, (Continued)

Jim Holden, in the 1980s, with the assistance from staff from the RCA Survey and Mapping Division, developed a methodology for stable Permanent Survey Marks (PSMs) constructed in expansive clay soils. It had been found that the previously used PSMs were progressively being jacked upwards by up to 40 mm when installed in these soil conditions. This led to claims being received from contractors arising from unstable benchmarks. The basic methodology involved installing a stainless-steel rod inside a stainless-steel sleeve that penetrated the clay subsoil which was then anchored in the bedrock below. Movements less than 1 mm were achieved.

Jim, along with two others outside of VicRoads, won the 1996 ARRB Director's Prize for the development of a new construction method for vertical moisture barriers beside highway pavements. The role of these barriers is to stop the seasonal lateral migration of moisture to and from the subgrade beneath the pavement, a significant factor causing pavement cracking and loss of shape. The barrier also prevents the invasion of plant roots – refer to VicRoads Technical Note No.13.

Peter McDonald and **Richard Evans** developed design methods for rock socketed piles in weathered basalt for the West Gate Freeway – South Melbourne Section. These methods provided confidence for bridge designers to meet the tight design tolerances for the elevated superstructure.

Peter also investigated improved methods for the design of laterally loaded piles which lead to significant savings for foundations for noise attenuation walls subject to wind loading.

Peter McDonald – 1990



Peter and **David Jellie** (Project Manager of the West Gate Freeway) in 1992 were joint recipients of the “Baker Medal” awarded triennially by The Institution of Civil Engineers in the UK in recognition of services to the significant developments in design and construction practices for the foundations used on the West Gate Freeway Project – South Melbourne Section.

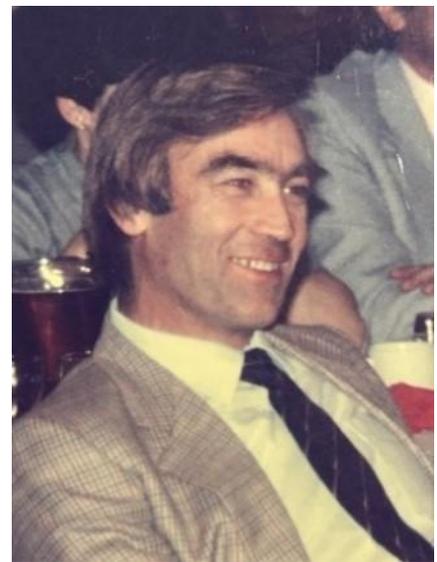
David Jellie - 1988



Adrian Williams developed design methods for socketed piles founded in weathered mudstone – a very different treatment to that for weathered basalt.

VicRoads sponsored Adrian to undertake a PhD at Monash University to develop the design method, and his input was pivotal to the socketed pile designs that were finally adopted for the mudstone.

Adrian's work was crucial to the foundation designs for the West Gate Freeway Project.



Dr Adrian Williams – Circa 1980s

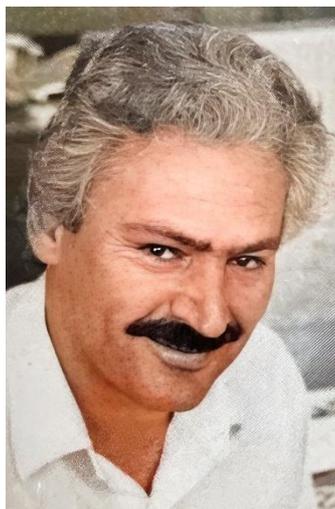
Peter Balfe led a team investigating the correlation between instrumented Dynamic Pile Load testing and Static Pile Load testing for several hundred concrete piles on the West Gate Freeway Project. These piles were 1.5 m in diameter and extended down to a maximum depth of 65 m through silt and gravels and socketed into the underlying mudstone and basalt foundations.

During construction, doubts developed about the strength and integrity of the socketed foundations due to the discovery of remnant bentonite on the socket interface of the pile and the rock. Previously, testing of such large piles traditionally required very expensive and timeconsuming static load tests.

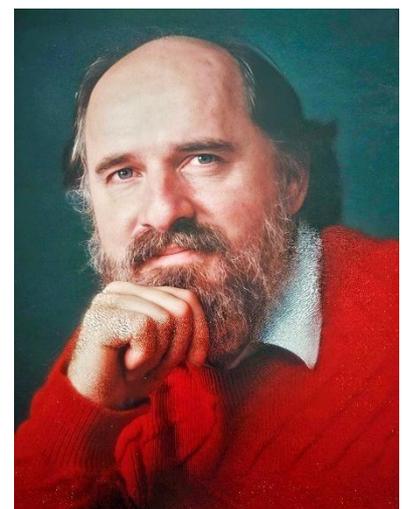
The investigation surpassed expectations, proving that the dynamic test results could be relied on which led to major cost and time savings on the West Gate Freeway Project and on many subsequent projects. The computer modelling and testing analysis was mainly undertaken by **Sam Plesiotis** and **Julian Seidel**, assisted by **Russell Brown** and **Ivan Haustorfer**.



Peter Balfe – 1990



Sam Plesiotis – circa 1980s



Russell Brown - 1991

Ultra lightweight Expanded Polystyrene (EPS) was used as fill in embankment construction in the 1980s over weak ground at various sites where Coode Island silt existed in the South Melbourne area during construction of the West Gate Freeway Project.

Russell Brown, in 1995, further refined the use of EPS in the repair of a significant number of landslips which occurred in the Otway's within a couple of months. These landslips mostly occurred where road formations had been constructed as sidling cut and fill. The method is described in VicRoads Technical Note No. 25. Over the next 10 years, the method was used to repair over 300 slips.



Barry Fielding - 1990

Barry Fielding, in the 1970s, developed an Aggregate Durability test method in basalt source rocks. The test involves the measurement of the proportion of fines produced after several cycles of immersing a sample in boiling ethylene glycol.

This test assesses the physical degradation of the sample primarily due to the swelling of clay minerals, especially smectite in basalt. A sound basalt rock type should have an index value of at least 94, with values between 90 and 93 considered marginal.

Less than 90 is considered unsound. The method formed the basis of the Accelerated Soundness Index Test now published as an Australian Standard Test - AS 1141.29.

Kelvin York, in 1976, co-authored with **David Currie** the authoritative Standard Specification Section 812 for Crushed Rock Base and Subbase pavement materials of the CRB, a specification of distinction at that time.

Kelvin, in 1986, introduced the Nuclear Gauge density testing method into VicRoads procedures that replaced the IPCADD (In Place Coarse Density Device) previously developed by Keith Moody – a procedure for measurement of compaction in granular pavement construction.

Kelvin, Simone Servais and Andrew Walker, in 1988, developed a calibration procedure for Nuclear Density/Moisture Gauges at the Mulgrave Laboratory.



Kelvin York - 1990



Simone Servais circa 1980's



Andrew Walker – Circa 1980s

Kelvin York, in the early 1980s, prepared a document providing guidance for the conduct of carrying out pavement investigations in a uniform manner so that relevant design parameters are consistently and accurately obtained.

Parameters such as pavement strength, surface condition, surface and sub-surface drainage condition, pavement layer depths and descriptions, subgrade strength, and sampling for laboratory CBR testing.

This document was subsequently modified and reformatted to bring it in line with other Technical Bulletins produced by VicRoads MRD staff.

The updating was predominantly carried out by **Ken Mitchell** assisted by **Lance Midgley**, **Graham Foley**, **Andrew Papacostas**, **Ross Paul** and **Gerry Turner** – refer to VicRoads Technical Bulletin No. 40 issued in 1995.



Graham Foley – 1983



Ross Paul – 1997



Gerry Turner – Circa 2000s

Ross Paul, in 1997, presented an authoritative paper to the 10th AAPA International Flexible Pavement Conference on the history of the development in design and construction procedures used for deep strength asphalt pavements.

This type of pavement had become almost exclusively used on urban, heavy-duty freeway construction, particularly in the Melbourne Metropolitan area. The paper covers how the design procedures evolved from an empirical procedure using granular equivalency coefficients to a full mechanistic procedure as greater knowledge of the structural properties and performance of pavement materials became available.

In preparing the paper Ross was assisted by Bill Brown, David Simpson and Darren Von de Lippe from MTD and staff from the ARRB.

Barry Bromham and Dom Meadley (see below), in the 1970s, researched the use of super plasticisers in high strength concrete thereby dramatically changing the practices in the precast industry by enabling steam curing to be reduced from 10 hours to about 2 hours.

Barry and Dom, in 1982, introduced rubber capping of concrete test cylinders providing a more efficient and less hazardous method than the alternative of sulphur capping. They also introduced the use of 100 mm diameter x 200 mm in length concrete test cylinders which, in 1986, was accepted as an Australian Standard (AS No.1012) saving multiple backs strains with over 100,000 cylinders being tested each year.



Barry Broham - 1983



Dom Meadley - 1986

Dom, in 2008, was presented with a Standards Australia Meritorious Contributions Award for his 33+ years' work with the Soils, Asphalt, Aggregates and Earthworks committees.

David Anderson, in the late 1970s, studied for his Master's degree in Transportation specialising in pavements. The study was undertaken at the University of California at Berkeley, USA and supervised by Professor Carl Monismith.

His research required him to run more than 250,000 computer analyses, usually near midnight when the University's computer was available. David concluded that the difference between the maximum deflection and the deflection at an offset of 200 mm ($d_0 - d_{200}$), which he termed the Curvature Function, was considerably superior to other candidate parameters in estimating asphalt strain.



David Anderson - 1982

This work significantly rationalized the CRB's approach to Asphalt Overlay design and ultimately was adopted into the Austroads Pavement Design Guide procedure. In 1987, David, along with four other State Road Authority pavement experts, updated the NAASRA (now Austroads) "Guide to the Structural Design of Road Pavements" that incorporated a mechanistic approach to pavement design. This approach was a major change in the design of flexible pavements with bound layers such as asphalt over the empirical design charts used to design such roads as the Mulgrave Freeway in the early 1970s.

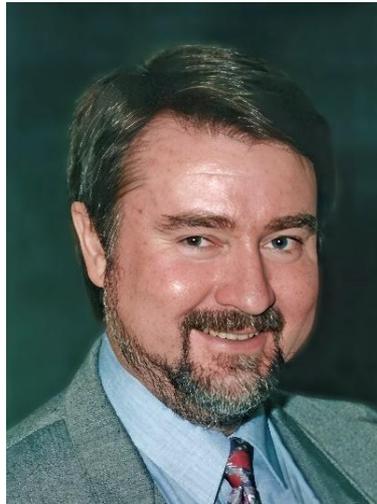
Bill Sherwin, in 1979, produced “Technical Report No 67, CRB Asphalt Mix Design - The State of the Art”.

The report identified numerous MRD staff who contributed to improving asphalt mix design including **Alf Gawith** (1938), **Ollie O’Flynn** (1950s and 60s), **Alan Ratnarajah** (1961), **Bill Sherwin** (1962), **J Morris** (1963), **Brian Head** (1967/68), **M Jordan** (1974), **Maurice Herzfeld** (1974) and **Bruce Phillips** (1974 and 1976).

Bill Sherwin
circa 1980s



Lance Midgley, when working on the Hume Freeway- Seymour to Euroa Project in the late 1970s and early 1980s, together with **John Jobson**, sourced the use of a slightly plastic granitic sand as an additive to the crushed rock being produced at a Hornfels quarry that had been established at a VicRoads nominated site on private farmland in Avenel.



Lance Midgley - 1986



John Jobson - 1983

The mixture achieved a much better grading which significantly reduced its permeability, improved cohesion and compatibility but more importantly, eliminating the brittle nature of the previously used mixture on the failed Hume Freeway – Wallan to Broadford Project.

The principle of this modification together with other features adopted on the project, such as specifying and achieving higher pavement compaction levels and increased frequency of pavement density testing with results assessed on a statistical analysis, were subsequently incorporated in VicRoads’ standard specifications – refer to VicRoads Standard Specification Section 812.

Lance, in 1988, reported (refer Technical Report No. 77) on the innovative pavement construction techniques over expansive clay subgrades adopted on the Western Freeway - Melton Section. Such techniques were aimed at minimising the swelling and shrinkage characteristics of such materials.

In the past, where conventional construction methods were used, premature loss of pavement shape occurred adversely affecting the ride quality of the pavement. These techniques, together with close attention to landscaping plantings (none in central median), led to improved pavement performance based on monitoring over the past 40 years. The concept of these techniques form part of a procedure now incorporated into VicRoads practices – refer to VicRoads Code of Practice No. RC 500.22.

Lance Midgley, in 2023, was presented with a National Transport Research Organisation (previously ARRB) Lifetime Contribution Award for his contribution in the field of pavements for over 20 years. This included amongst other achievements, 10 years representing VicRoads on the Austroads Pavement Research Group, (3 years as Chair), leading the initiative with John Bethune to produce Austroads/AAPA Work Tips, and the issue of several papers at National Conferences including “Best Practice for the Preparation of New Granular Pavements for Thin Bituminous Surfacing” published as VicRoads Technical Report No. 209.

John Hanks and **Kel York**, in circa 1980, developed statistically based acceptance testing ‘procedures for roadworks (lot testing), now incorporated in VicRoads specifications and adopted by all other Australian road authorities.

John Hanks – 1982



Walter Holtrop and **Chris Starr** (from Horsham Division), in the 1980s, led the development of the Surfacing Inspection Rating Procedure (SIRP), a fundamental input for determining the need and priority for resurfacing.

The procedure involves a visual assessment of the following conditions for a Sprayed Seal Surface: Extent of cracking, Loss of Aggregate (Stripping), Extent of Patching, Assessing Binder Condition (Oxidation), Loss of Binder, and Loss of Surface Texture. A similar procedure was developed for asphalt surfaces. Both procedures are described in VicRoads Technical Bulletin No. 50.

Walter Holtrop – 1990



Elmer Nyoegeer, the CRB’s petrologist, developed a test (early 1980s) identifying secondary minerals in basalt more commonly known as “green basalt”. This type of rock significantly breaks down when exposed to the elements and was a contributing cause leading to the failure of the asphalt used in rehabilitation work following the earlier failure of the Wallan – Broadford Section of the Hume Freeway. The test formed the basis of the Secondary Minerals Content in Basic Igneous (Basaltic Type) rocks now published as an Australian Standard Test - AS 1141.29.



Elmer Nyoegeer - 1982

Geoff Jameson, in 1990, reported on the results of the Mulgrave Accelerated Loading Facility (ALF) trial aimed at evaluating the fatigue characteristics of asphalt and cement treated crushed rock, both of which are required to design deep strength asphalt pavements.

ALF enables the simulation of heavy vehicle trafficking on pavement structures providing rapid and cost-effective evaluation of the pavement being tested. The purpose of the trial was to obtain information about the fatigue characteristics of asphalt and cement treated crushed rock, both of which are required to design deep strength asphalt pavements.



Geoff Jameson – 1986

This need was highlighted when a mechanistic approach to the design of such pavements was adopted for Melbourne in the late 1980s. This followed the publication of the 1987 NAASRA Pavement Design Guide: A Guide to the Structural Design of Road Pavements.

This 1987 Guide included presumptive fatigue relationships based on overseas research and there was an urgent need to validate the relationships for use under Australian conditions. The results from the trial indicated that a reduction in the thickness of Deep Strength Asphalt pavements could be made making them a more cost effective and the favoured structure for use in Melbourne.

The paper was reported in the Proceedings of the 1992 ARRB Conference held in Perth.



ALF at the Mulgrave Site – 1991 post trafficking

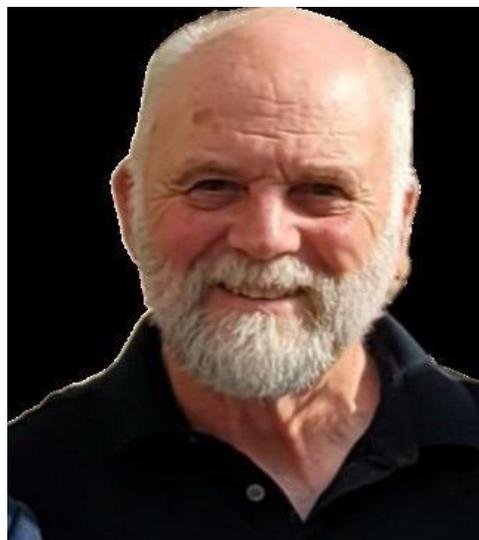
Geoff, in 1993, updated the then CRB Pavement Design Guide (Technical Bulletin No. 31 issued in 1980) as a supplement to the NAASRA “Guide to the Structural Design of Road Pavements” issued in 1987 – see David Anderson above. TB31 was based on empirical and equivalency procedures and needed to be updated to align with the new Austroads Guide. The Supplement was known as Technical Bulletin No. 37 – VicRoads Guide to Pavement Design.

John Esnouf, in 2017, championed the introduction of the forward moving, front of vehicle, aggregate spreading system for sprayed bituminous sealing work.

This significant development followed concerns regarding the hazard associated with the traditional reverse moving vehicle aggregate spreading system.

It arose following a serious accident where a VicRoads' workman was run over by a reversing truck. Private contractors have adapted this innovation resulting in reduced accidents and improved quality of construction.

It also reduces the quantity of aggregate required, thus preserving valuable quarry resources.



John Esnouf - 2024

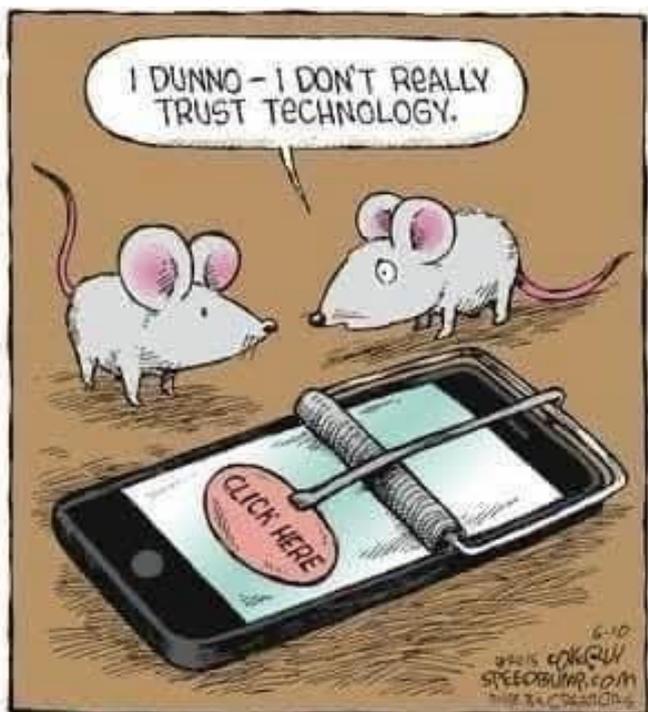
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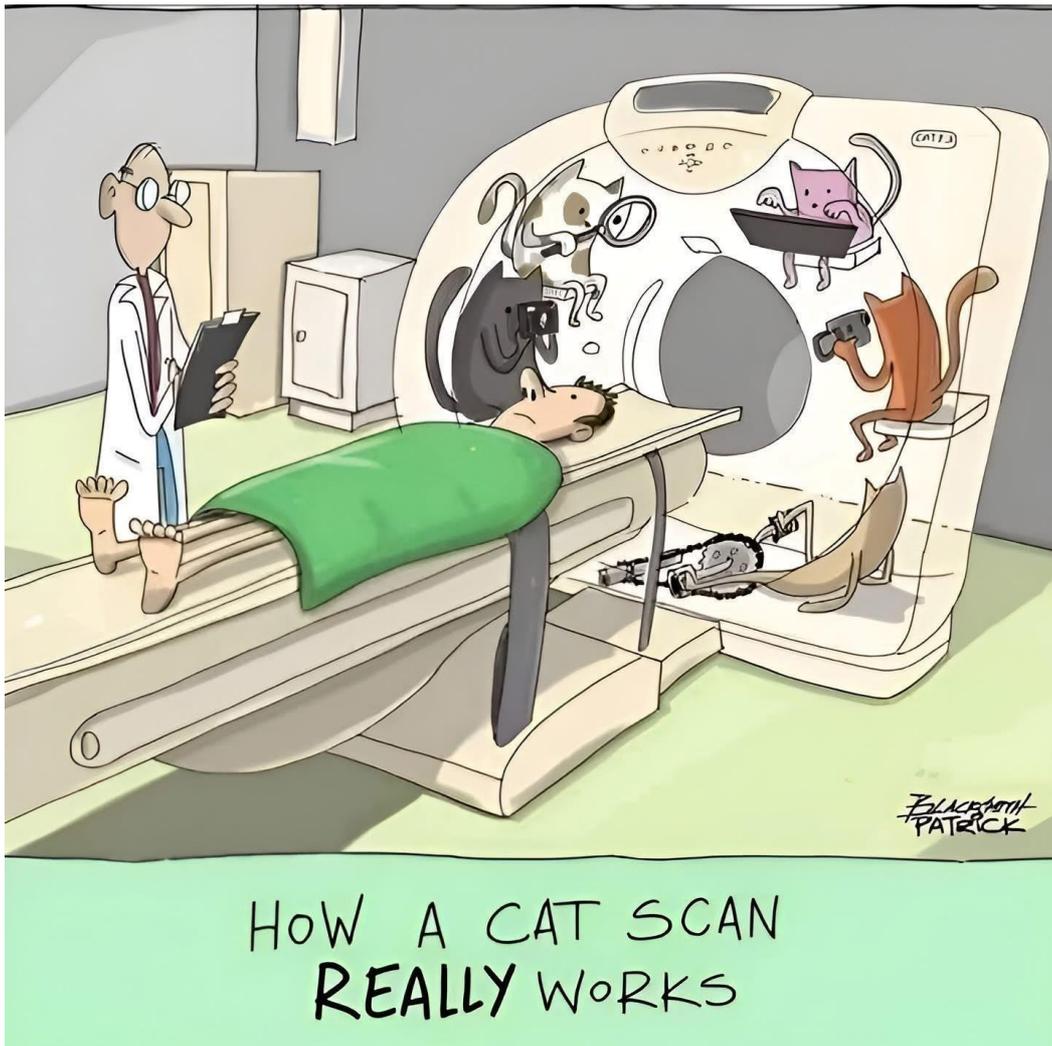
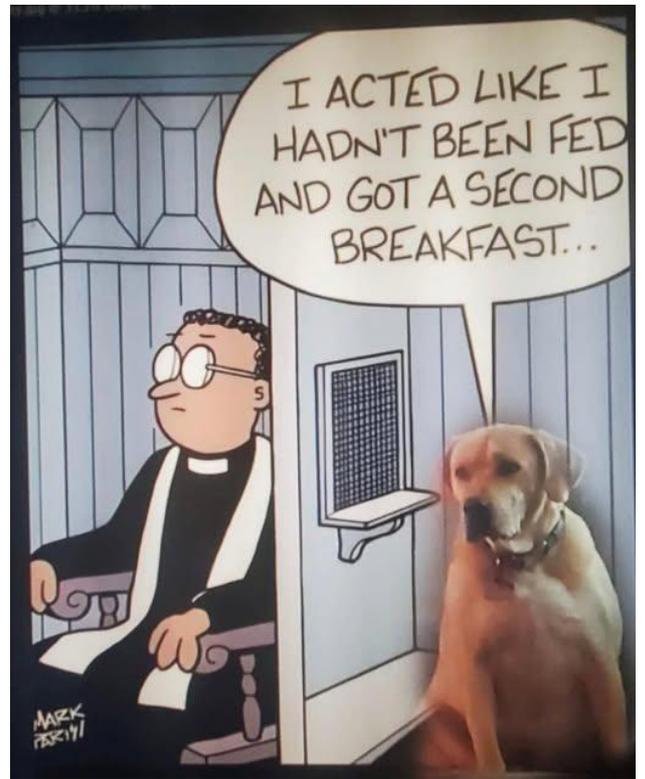
We never want to lose touch with our Members. Key details such as:

- address
- email address
- phone and/or mobile phone number
- key emergency contact person and their contact phone number (don't forget , this cannot be your number)

can change over time. If yours have and you don't think we have the latest details please advise either the Secretary, Jill Earnshaw (jillmearnshaw@gmail.com) or our Membership Secretary, Iris Whittaker (irisw25@bigpond.com) of your new details. Thank you.

Amusements





VicRoads Association Inc

Registration No A0022250S

Membership Application Form

Email completed form to:
Membership Secretary, VicRoads Association Inc
Email Address: irisw25@bigpond.com

First Name **Surname**
Address
 Postcode
Telephone Number **Mobile Number**
E-mail address *Nominate an email address if you don't personally have your own*

Emergency Contact Name

Emergency Contact Number

Employment in VicRoads and antecedent/previous organisations:

Date From **Until To**
Organisation/s

Paid Direct Transfer.
Your payment of **\$50.00** by electronic transfer should be made into the Association's NAB bank account, details as follow:

VICROADS ASSOCIATION
BSB 083-323
ACC 170934017

Reference - Please ensure that you include your name in the "online" transaction details so that the subscription can be attributed to you.

The information collected from members will be used solely for the purposes of managing the Association and its activities.

I agree to be bound by the Rules of the Association.

Signed
Date

For more information on VicRoads Association see our website vicroadsassociation.org