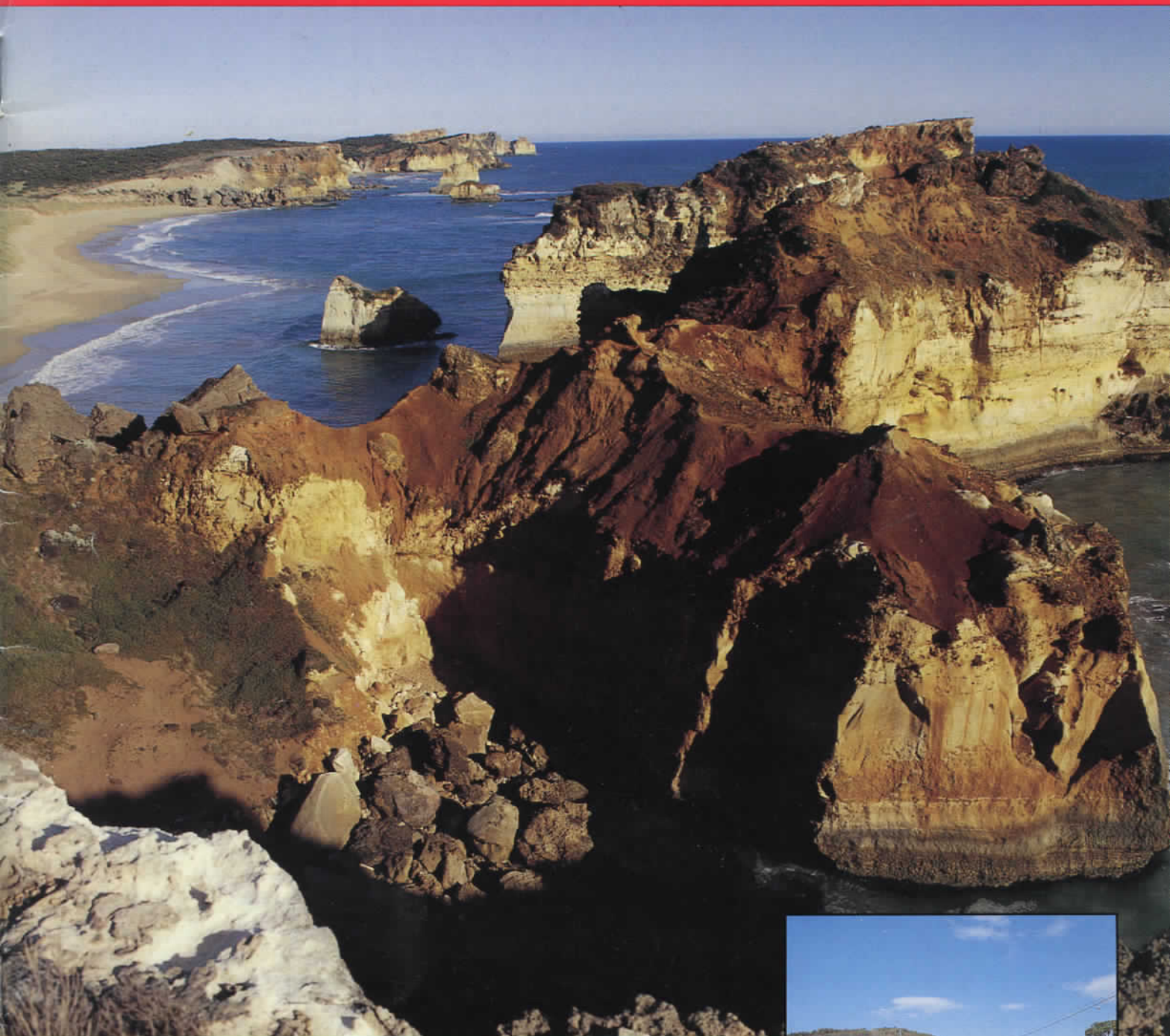


SUMMER, 1989/90

VIC ROADS

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New Trading Name for Roads Corporation

The Roads Corporation is proud of its business orientation and commitment to customer service and is now operating under the trading name VIC ROADS. On 25 September, 1989 the Roads Corporation launched its new trading name which follows the trend for such names in other areas of the Transport Portfolio, namely The Met and V/Line.

The statutory name of the authority remains Roads Corporation, but VIC ROADS will be promoted in all areas of activities.

The Roads Corporation is the result of a merger on July 1, 1989 between the Road Traffic Authority and the Road Construction Authority. □



Cover: Summer - that time of year to get away from it all. This spectacular shot was taken near Port Campbell which can be reached via the Great Ocean Road. Our feature story on "summer driving" starts on page 12.

'VICROADS' is published twice yearly to inform readers about the activities of VIC ROADS, Victoria's State road authority. Articles may be reproduced without permission but the source must be acknowledged.

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Moving House?

We don't want to lose you! If you change address, please let us know so that you can continue to receive 'VICROADS'. Send your old mailing label with your new address on it to help us locate your entry on our mailing list.

1989... Victoria's shame !

The road toll last year is Victoria's shame.

Especially for a State which has - for decades - been a world leader in road safety initiatives.

Elsewhere in Australia, the trend has been for a decline in road accidents. Not so in the Garden State.

Last September, Victoria's Transport Minister, Jim Kennan, and Police and Emergency Services Minister, Steve Crabb, jointly denounced the rising toll and outlined a comprehensive \$30 million campaign aimed at reducing the shocking trend.

And as Mr Kennan stressed, "we will consider every option to change the culture that is killing and maiming thousands of Victorians every year".

Drivers convicted of drinking offences have been targeted.

Amendments are being made to the Road Safety Act which will make life harder for the flagrant drink driver. Repeat drink drivers, or those with a blood alcohol reading of 0.15 or more, will have to obtain a certificate from an accredited body before their licence can be restored. They will face a three year, zero blood alcohol period if their licence is restored.

Repeat offenders, or those convicted of offences involving a reading of 0.10 or more, will be told to "start over again" - they'll revert back to probationary licence status.

"Booze Bus" Brigade

Those who drink and drive are told to heed the warning: 13 new "Booze Buses" will be on the roads throughout the State early in the new year.

The amount of random breath tests will double to one million a year, Mr Crabb said, adding that more visible police presence on the roads will have a "marked deterrent effect".

"We want to get the police out from behind the trees and onto the roads as a visible force."

Probationary drivers could have their licences suspended on a wide range of offences through the issue of an on-the-spot ticket.

Offences include failing to stop or give way at a crossing or red light, crossing double lines, passing a stationary tram or exceeding the speed limit.

A new, graduated licensing system, introduced by July 1, 1990, will extend the probationary period from two to three years.

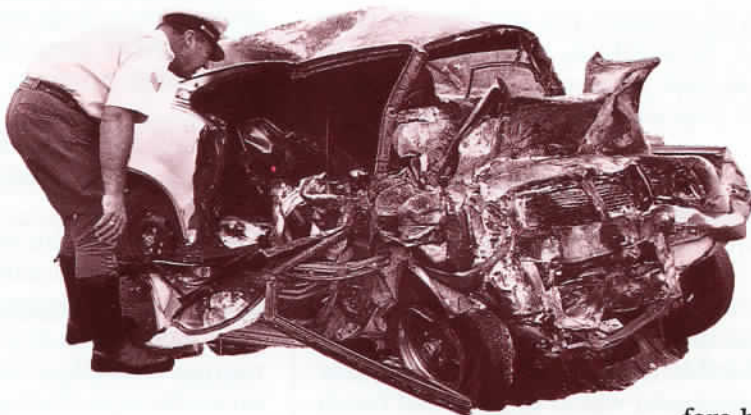
The 'P' plate driver will also be restricted from driving V8, turbo-charged or modified cars.

Tackling the high risk areas

On other fronts, the Government will tackle:

- **speedsters:** 60 new automatic speed cameras will be introduced along major highways.
- **tailgaters:** it will be a separate offence if drivers fail to keep a safe distance from the vehicle ahead;
- **cyclist deaths:** bicycle helmets will become compulsory from July 1, 1990; and
- **the young drink driver:** drivers under 25 who lose their licence for a drink driving offence will have to complete an accredited educational program before being relicensed;
- **road safety in the schools:** VIC ROADS will increase its funding of school road safety programs by \$250,000 in 1990 and will seek sponsorship to fund more curriculum materials for these programs.

Premier Cain said that it was important for every motorist to realise just how vulnerable he or she was on the road. □



School is in ...

...and so is Road Safety!

Road safety education at an early age is seen by many as a key element in changing poor driving standards in the community. VIC ROADS, through its Educational Services programs, is playing an important role in educating youngsters about road safety. After all, today's primary student will be tomorrow's motorist.

School is over for the day and high-spirited youngsters are surging out of the school ground.

The noisy banter, jostling feet and clanging bicycle bells reach a cacophany when suddenly a squeal of car brakes pierces the air. It is followed by a sickening thud.

A child has been hit.

For the ambulance crew called out to the incident, it is an all too familiar scenario; children figure very significantly in road accident statistics.

Each year hundreds of children are involved in road accidents in Victoria. Youngsters, particularly up to the mid-teens, are at risk on our roads for several reasons - and it's not just youthful exuberance!

"As pedestrians and cyclists, kids simply have problems dealing with the traffic system," explains Linda Ivett, Head of the VIC ROADS Educational Services Section.

"One major factor many adults do not realise is that children's vision is under developed. They have one third less effective peripheral vision and cannot catch movement out of the corner of their eyes as adults can.

"Children also have difficulty judging speed of vehicles and the direction of sounds."

Their size, too, means that it can be difficult for them to get an unobstructed view of traffic on the road.

"There is a big problem with kids darting out from between parked cars," adds Linda.

Linda believes that one way to help make youngsters aware of the perils on the road is to "start teaching them at an early age". She works with 20 teacher consultants in the VIC ROADS Educational Services Section which has produced a range of road safety curriculum units for schools.

Materials consist of manuals, prints and visual and audio aids to help teachers with road safety programs. VIC ROADS consultancy staff are also available to assist with program implementation.

"We have eleven curriculum units available at the moment aimed at children at various levels," says Linda.

Targetting the pre-schoolers is the popular "Starting Out Safely" education program which embraces four elements, "Passenger Safety", "Pedestrian Safety", "Safe Play" and "Preparing for School". As well as a teacher's manual and discussion prints, the program includes an audio tape of songs and listening activities, passenger safety certificates and safety door stickers.

"Through this program, which has been prepared by a pre-school teacher, we aim to maximise a child's traffic knowledge and attitude towards road safety," says Linda, herself a teacher for 11 years. "We also aim to stress to parents their important role as supervisors."

Some of the more popular units available are:

"**Streets Ahead**", a safety program focusing on pedestrian and passenger safety for Preps to Year Six children.



A big problem: youngsters darting out on the road from between parked cars.



'Bike Ed' instructors supervise on-road riding to teach suitable skills and attitudes.



Pre-schoolers are told to "be careful out there" and get to know their road signs.

"Bike Ed", a bicycle safety education course for young pedal pushers aged between 9 and 13. Teachers trained as Bike-Ed instructors supervise both off-road and on-road riding to help shape appropriate skills and attitudes.

"Roads and Traffic" is a social science unit for middle level post primary students. The unit provides them with an opportunity to carry out town planning activities based on their local area and using traffic accident data specific to the area.

"Teenagers, Alcohol and Road Safety" helps Year 8, 9 and 10 students to clarify their values in relation to drink-driving and to dispel some of the myths associated with drink-driving.

But the program doesn't just end with a swag of worksheets and audio tapes, says Linda. VIC ROADS can organise curriculum days as well as provide staff to speak at in-service meetings about the importance of teaching road safety.

Does a child, well versed in the rules of the road, make a better driver for the future?

"That is part of the thinking behind encouraging schools to incorporate road safety into their curriculum," replies Linda.

"If we can get children aware of road safety at an early age, and have an on-going program through their schooling years, we should have some impact on their behaviour and attitudes in their later life."

And it's not only the kids who benefit from such programs as "Bike Ed" and "Starting Out Safely". All of

the programs aim to involve parents in the area of road safety awareness.

"It is important that parents realise the many problems that confront the child on today's roads," says Linda. "Parents can also play a vital role as positive role models for their children." □

Want more information?

Contact Educational Services at VIC ROADS on **(03) 810 1037**.

Below: Young children put together a road model from the Education Services unit.





Life in the fast lane

Supervising traffic control is regarded as one of the most hazardous jobs with a road gang.

Rod Booley, Arthur Cochrane and Ray Taylor do not mince words when they talk about the hazards of their job.

They work on the roads, but unlike a lot of the staff with VIC ROADS, are in the forefront: they are out there amongst the thick of it.

Part of their role involves supervising traffic control: an often perilous task which entails a worker standing in the middle of a road and holding a stop/slow bat to direct cars, trucks and buses safely through roadworks or newly sealed surfaces.

"Our 'flaggie' has the worst job. He's in what we call 'death valley' because of its dangers," explains Arthur Cochrane, a veteran with road gangs for 33 years.

"It used to be the other way around...you could count on the truck drivers to be helpful," reflects Ray Taylor, an area maintenance supervisor. "But now many abuse you or even deliberately clip the warning signs as they speed through a work site."

"When you've got a transport bearing down at you and you're standing there with a little stop sign, you feel a bit insecure," says Overseer, Rod Booley, from the Barwon Region, who has had his fair share of "near misses".

"Motorists don't seem to have any regard for us standing out here, and how dangerous it can be."

About 160 accidents with casualties are reported at roadwork sites on highways, municipal roads and city streets each year. Since mid-1988, there have been two tragic deaths of VIC ROADS men working on the State's roads.

VIC ROADS is constantly assessing the problem of traffic control in a bid to prevent accidents and reduce the stress levels of the men on the job.

Ron Gowan, Road Construction and Maintenance Engineer in Operations Support of VIC ROADS, has been travelling the State conducting workshops in roadworks signing for VIC ROADS field supervisors and engineers.

Ron explains that there is more to road safety at roadwork sites than just placing a few warning signs around the place.

"When thinking about safety, we need to consider job planning and work methods, driver awareness and behaviour, as well as roadworks signing and traffic control." Appropriate signing, says Ron, involves advance warning and information signs plus "a clear guidance scheme".

The Right Attitude

However, even the best signing schemes will be not be effective if drivers don't have the right attitude.

Says Arthur Cochrane: "The amount of abuse we are subjected to is unbelievable. The public screams if the roads aren't maintained, but when it comes to doing something, no-one wants to experience a short delay."

In conjunction with VIC ROADS regional offices and the contracting industry, the Operations Branch has developed a training strategy

“The amount of abuse we are subjected to is unbelievable..”
Arthur Cochrane,
veteran of the road gangs for 33 years.



Summer is the time when VIC ROADS and municipal councils carry out resurfacing jobs on the road network. Drivers should always heed the advice of traffic controllers and warning signs at such sites.

to improve the standard and uniformity of roadworks signing for everybody working on the road system.

In some situations, such as asphaltting or maintenance work on busy multi-laned roads, VIC ROADS operates large electronic warning arrows, or to use the correct term, a “sequentially flashing chevron trailer”.

VIC ROADS is also investigating and refining other electronic devices to assist in controlling motorists through work sites.

“While the aim is to minimise the use of flaggies with stop/slow bats, there will always be a need for this form of traffic control,” says Ron Gowan.

Apart from the danger of the job, there is also the problem of exhaust fumes, dust and naturally the constant noise of not only traffic, but heavy construction equipment.

Engineers and Overseers realise that stress levels of traffic controllers are high, and arrange for individuals to work on a rotation basis within the road gangs.

'Driver Education'

The other area that VIC ROADS is looking at is driver education, as there is obviously a lot of ignorance about what is expected from motorists moving through roadworks. A new publicity brochure is being produced by VIC ROADS about road signing on unattended sections of newly sealed roads.

That is another area of concern: motorists travelling too fast on recently surfaced roads.

When stones are applied to a thin film of bitumen to provide or preserve an all-weather road surface, loose stones are present on the surface for up to a week after the application. Naturally, these sections of road are not supervised 24 hours a day by workers. Consequently, it is up to the driver to exercise caution and heed the advice of warning signs.

Every week at least one regional office of VIC ROADS will receive a letter from an irate motorist complaining about a broken windscreen.

'Warning Signs'

“The signs are there as a warning to slow down, but many drivers do not perceive any danger and deliberately ignore them or are oblivious to their presence” says Ross Paul, an engineer with the VIC ROADS Asphalt and Pavements Group.

“And the first time they realise the danger is when they either skid out of control or get a broken windscreen.”

Vehicle accidents on roadworks cost Victorians an estimated \$7 million a year - almost the cost of the recently opened Genoa River Crossing in East Gippsland.

It's a problem that won't be resolved overnight.

VIC ROADS could invest thousands of dollars on more traffic controllers, bigger fluorescent signs and elaborate flashing chevrons. But the long term answer lies in educating the travelling public to adopt a more tolerant attitude to, and a better awareness of, the problems associated with traffic control on roadworks. □



It's easy being GREEN

Motorists can certainly save time, and fuel, by making the most of SCRAM...



Have you ever wondered why you get so many green lights when you are driving along one of Melbourne's major arterial roads?

It's true that many drivers complain bitterly about the red light they confront after passing through ten greens, but the fact is, Melbourne motorists are a lot better off than their counterparts in many other cities around the world.

This is because Melbourne has a dynamic computer controlled system which co-ordinates 1400 sets of traffic signals throughout the metropolitan area.

It's called SCRAM which denotes the Signal Co-Ordination of Regional Areas in Melbourne using the SCAT (Sydney Co-Ordinated Adaptive Traffic) System.

Considered one of the most sophisticated systems in the world, SCRAM simply means that traffic signals on major roads are co-ordinated to provide green lights to minimise delays at successive intersections to allow traffic to flow smoothly.

It makes good viewing - checking the traffic flow in the Control Centre at VIC ROADS.

That's no easy task, considering Melbourne's sprawl has made it a bigger metropolis than London or any city in the United States, except for Los Angeles.

Each intersection is controlled by its own microprocessor based controller, linked by a telephone line to a regional computer. This receives information on traffic density and volumes and adjusts the signal timings in order to optimise the signals to reduce traffic delays and to make maximum use of the road system.

The system is monitored and adjusted from the VIC ROADS Control Centre in Hawthorn where officers can detect faults and manually override signal operation. Using the central computer, the 18 regional computers can be monitored and through them, the individual sites.

The Control Centre has acted as consultants and partners in marketing and implementing the area traffic control systems overseas, and staff have ventured to such far apart places as Dublin, Karachi, Singapore, Shenyang and Shanghai in China.

And SCRAM has a lot in its favour: proven efficiency, dynamic operation, flexibility of use and structure, and the in-built fallback in the unlikely event of a system failure.

All major cities in Australia and New Zealand are using this form of traffic control system, as is Shanghai and Singapore.



Traffic Signal Controller being installed by a VIC ROADS electrical maintenance worker.



Control Centre staff are quick to point out the misconceptions some drivers may have about SCRAM and traffic light co-ordination.

True, it is designed to get you from A to B in the shortest possible time, but some delays are impossible to avoid. The system cannot eliminate red lights totally.

But motorists can certainly save time, and fuel, by making the most of SCRAM.

On a typical arterial road in Melbourne, studies have shown that SCRAM saves 20 per cent travel time, 40 per cent in stops and 12 per cent in fuel compared with unlinked signals.

Motorists should remember that if they are approaching an amber light they should stop. Jumping amber is not worth the risk, and the motorist will only have to stop at the next signal. By stopping, the motorist is ideally placed at the head of the traffic stream for the next cycle of the traffic lights.

SCRAM is designed to provide signal co-ordination of those travelling within the speed limit. High speeds will result in more stops and wasted fuel.

So the next time you're suddenly confronted by a red light on a Melbourne road, stop and think about how many green ones you've just passed through.

And if you're commuting in Geelong, the red light blues will soon be a thing of the past. SCRAM is currently being implemented in the city and should start operating this year. □

Keeping an eye on the major Arterial

On the South Eastern Arterial Road traffic has grown significantly, especially on the section through Hawthorn and Richmond. This is largely due to the opening of the final stage of the Arterial Road, between Warrigal and Burke Roads, which has attracted motorists previously using residential streets and other main roads.

Even though travel time has been reduced markedly for motorists travelling to and from the City, sometimes delays, especially between Toorak and Punt Roads, cannot be avoided.

But VIC ROADS is hoping the delays can be minimised with its new detection and surveillance facilities which have recently been installed on the route. The facilities monitor traffic flow on sections of the Arterial Road with ten TV cameras coupled with computer-based traffic monitors. The monitors use detection loops placed in the road at 500 metre intervals and nine centrally controlled variable message signs.

The traffic monitors give warning signals to the Control Centre in Hawthorn which then uses the camera network to identify exact causes of the problem. With this system, appropriate emergency services and assistance can be directed to the site with minimal delay and by using the message signs, early warning can be given to motorists.

There are six emergency gates in the median barrier between Toorak Road and Punt Road to allow access for emergency vehicles. If necessary, traffic can also be re-routed onto the other carriageway. These gates will eventually be replaced with removable concrete median barrier emergency gates when the existing guard rail in the median is replaced with a concrete barrier for greater safety. □

Dandenong Road, Caulfield

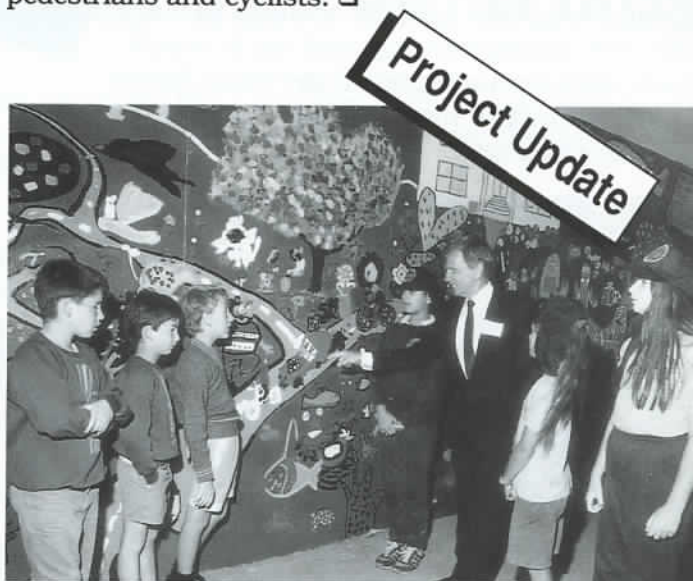
Motorists are now driving from east of Pakenham to the outskirts of Melbourne on a fully divided Princes Highway route following completion of the Dandenong Road duplication at Caulfield on 20 December, 1989.

The \$16 million project was opened by the Federal Minister for Land Transport and Shipping Support, Mr Bob Brown.

The project involved duplicating Dandenong Road from Hawthorn Road to Tooronga Road, eliminating the last remaining undivided section of the route between St Kilda and Pakenham.

Three lanes are now available for traffic in either direction and the highway has been lowered under the railway line at Caulfield to raise the height clearance for trucks to 5.3 metres.

A shared footway and separate underpass has been constructed adjacent to the road underpass to cater for pedestrians and cyclists. □



Bob Brown inspects the mural inside the pedestrian underpass with local children who helped with the painting.

Elms on the move!

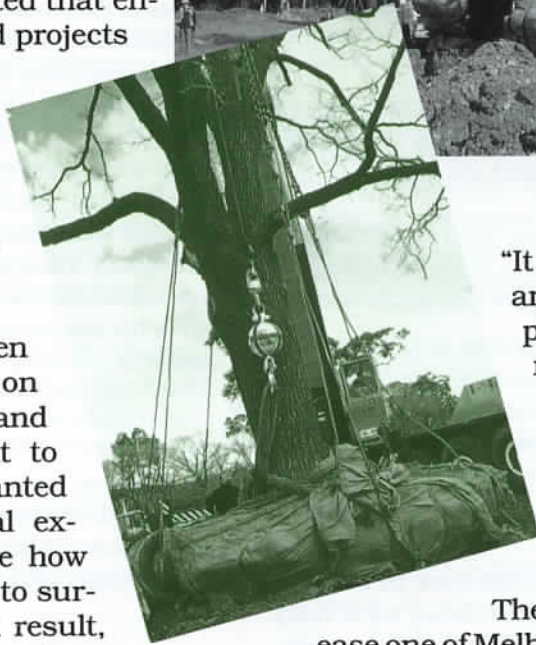
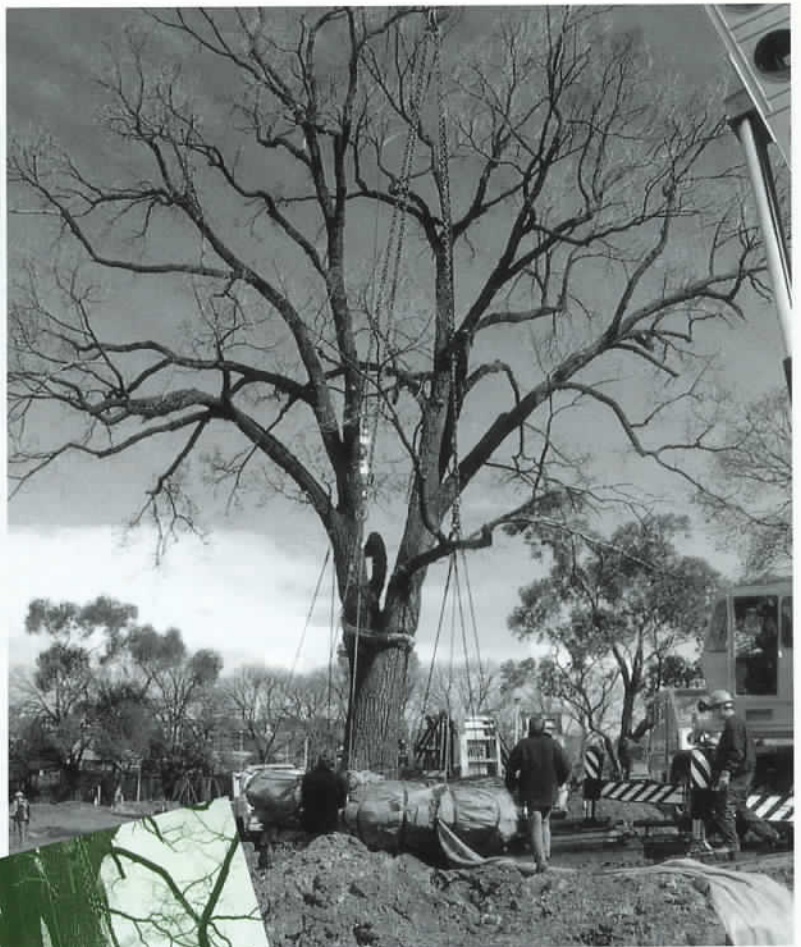
Balancing road development needs with conservation of the natural environment is not always an easy exercise.

Whether VIC ROADS planners and engineers are creating a major urban road or a rural highway bypass, it is vital for them to work in harmony with the social and physical environment.

The successful transplant by VIC ROADS of a stand of elm trees on the fringe of Yarra Park in Richmond recently demonstrated that environmental issues on major road projects can be identified and addressed.

The elms, some as old as eighty years, were in the path of the widening of Punt Road, one of Melbourne's busiest north-south roads.

The widening of the road had been planned to minimise the impact on parkland and public open space, and more than \$100,000 was spent to save the trees which were transplanted within Yarra Park. Horticultural experts were engaged to determine how many trees were healthy enough to survive the transplanting, and as a result, three were transplanted at the Swan Street intersection and five from north of the Richmond Cricket Ground.



"It was a very successful exercise and we're confident the transplanted elms will survive in their new site," said engineer, Bruno Aleksic, who supervised the job. The project also involves realignment of the eastern boundary of the Richmond Cricket Ground.

The widening of Punt Road will ease one of Melbourne's most notorious traffic bottlenecks by providing six lanes of traffic between Bridge Road and Swan Street.

The \$25 million project is scheduled for completion next year. □



Top: A 90 tonne crane was used to transport the elms to their new location.

Centre: On the move.

Left: A relocated elm being backfilled.

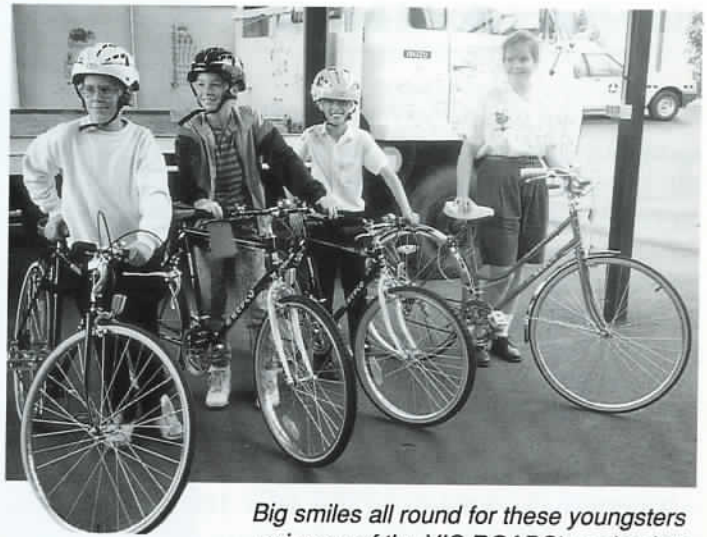
Expo gets the message across

Humphrey B Bear, champion Richmond footballer, Mark Lee, and Australia's premier female AUSCAR racing driver, Terri Sawyer, joined forces on Sunday 3 December, 1989 in Frankston to promote the message of road safety.

The VIC ROADS Frankston District Office staged the 'Road Safety Expo' to get the message across to the public with displays centring on bike helmets, driver education, .05, vehicle safety, licensing and other aspects of roads and road safety.

Police, Country Fire Authority and State Emergency Service officers also demonstrated the capabilities of emergency vehicles and rescue equipment used at road accident sites.

One of the highlights, however, was the arrival of the Search and Rescue helicopter which took some elated youngsters on a surprise joyflight over the Peninsula.



Big smiles all round for these youngsters - winners of the VIC ROADS' road safety poster competition.

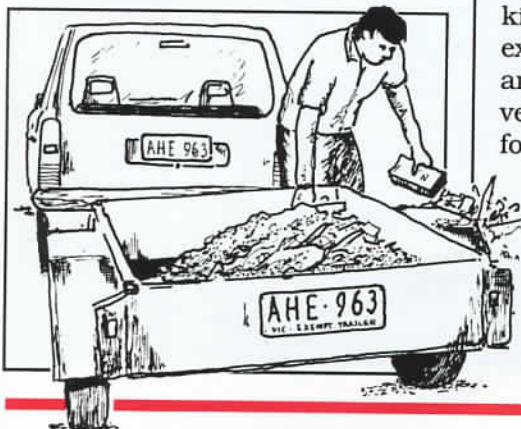
Another highlight for many of the children was the awarding of prizes for a VIC ROADS poster and road safety slogan competition, held in conjunction with local primary schools.

"There is no doubt that the Road Safety Expo was entertaining and informative," said VIC ROADS' Frankston Manager, Mr Lyn Monaghan. □

Left: State Emergency Services demonstrate the use of the 'jaws of life'.

Trailer Plates now available from VIC ROADS

For \$11.20, owners of small trailers can say "goodbye" to the familiar weekend chore of fabricating home made number plates showing the registration number of the family car.



Special trailer plates, produced by VIC ROADS, are now available which can be affixed to the rear of small box trailers.

Box trailers weighing less than 200 kilograms unladen, which do not exceed three metres in overall length and are not wider than the towing vehicle, do not need to be registered for private use.

The registration number of the towing vehicle, however, must still be displayed. The specially manufactured trailer plates duplicate the registration

number of the towing vehicle and are endorsed with the slogan VIC - EXEMPT TRAILER.

So it's time to throw away that old can of paint and piece of board and pay a visit to your local VIC ROADS office. □

90 years ago...

Two people died in motoring accidents in the United States in 1899. The popularity of the automobile grew and in 1969, there were more than 60,000 fatalities.

The "other" road toll

How the motorist can "be prepared" for native animals on the road.

It is a world-wide problem. In Sweden, drivers have an unnerving habit of ploughing their Volvos into moose roaming onto the road. In parts of Africa, motorists keep a vigilant eye out for lurking elephants. In the UK, authorities introduced signs to warn travellers of areas where toads are likely to cross roads to spawning ponds.

Native animals and motor cars have not exactly shared a harmonious affinity in the past 100 years; it is a situation with which Australians are all too familiar. Cruise along any section of rural highway and you will see the sombre evidence: the lifeless magpie by the median strip; the flattened possum tarnishing the bitumen; the dead 'roo in the middle of the road.

Some biologists call them "road-kills", and the facts are clear: too many of Australia's unique mammals, birds and reptiles are becoming victims of motoring mishaps.

What is equally disturbing is that many of the animals which have become "road-kills" could have survived had the hapless motorist involved known what to do, and who to contact, after the accident.

There really is no excuse to leave an injured animal on the road, and if you do a lot of country driving, it doesn't hurt to "be prepared". For a start, carry a small box or a hessian sack and a towel just in case you do hit a wayward possum or koala.

This is a re-print of an article by John Allison which appeared in *Royalauto* in March 1987. Some aspects, including the telephone contacts in the story, have been updated...

Even if an animal is obviously dead after a collision, it should be checked over. If it is a female, it could have young in its pouch.

Many veterinarians will not charge if they are approached by motorists with an injured native animal.

What to do in case of an accident?

So, it is late at night and you are driving along a lonely section of highway, a long way from anywhere. Suddenly the headlights catch the eerie gleam of a pair of eyes, and before you know it - you've hit a small wallaby.

According to the RSPCA, the procedure for dealing with injured animals is quite straightforward.

- Try to capture the animal without fuss to avoid distressing it further. A towel or blanket dropped over the animal often makes it quieter;
- Try to examine the victim for obvious injuries and abnormalities such as bleeding ears, nose and throat, broken wings, glazed eyes, etc. An inclined head may suggest concussion or a damaged ear. Minor cuts can be cleaned and bathed in mild anti-septic and then left to dry;
- Place the animal in a box, sack or pillow case;





Bronwyn MacReadie at the Healesville Sanctuary with an orphaned wombat. A female animal that has been killed on the road should be checked for young in her pouch.

They don't make the statistics, but many native animals are killed on Australian roads every day.

The Department has an active office at Phillip Island where there is a high rate of roadkills - telephone **(059) 52 2509**.

The Healesville Sanctuary Animal Reception Centre averages 600 animal inpatients a year - telephone **(059) 62 4022**. It can also direct callers to the nearest wildlife shelter.

The RSPCA is based in Burwood - telephone **(03) 808 5111** - but has branches at

Ballarat **(053) 34 2075**;
 Bendigo **(054) 41 2209**;
 Sale **(051) 44 5745** and
 Warrnambool **(055) 627399**.

Other contacts include the Melbourne Zoo **(03) 347 1522**, Jirralinga Centre, Barwon Heads **(052) 5444 2428**, Blue Cross Animal Society, Wonga Park - emergencies only **(03) 722 1265**.

Australia has some of the most remarkable fauna in the world, and they need to be protected. It is up to every motorist to see that animals injured on the open road are accorded prompt medical attention. □

- Make sure it is kept at an agreeable temperature as all young animals must be kept in a warm environment. Prepare an artificial pouch for baby marsupials. A woollen sock, for instance, is ideal for a baby possum. Try to keep a simulated pouch at a temperature of 32 to 34 degrees Celsius. Captive animals are very sensitive to temperature: larger animals are liable to suffer from heat stress while smaller animals are susceptible to cold;
- Be sure to provide the victim with water. After resting, it may also start wanting food;
- If the animal has only minor injuries, such as small cuts, it is best to release it as soon as possible as it may not eat well or could become tame if it is held.

Once you have placated the animal and made it comfortable, you should contact an expert (see right) about its welfare. Ask as to whether you should offer it food and of what kind.

In some cases, if the animal is only stunned, you may be advised to re-

lease it straight away.

Who to speak to...

There are almost 90 voluntary wildlife shelters throughout the State which are licensed by the Department of Conservation, Forests and Lands to accept protection of wildlife for care. They can be contacted through regional offices or through the National Parks and Wildlife Division, telephone **(03) 450 8600**.

They come out at night!

There may be fewer cars on the road at night - but chances are, there's more wildlife. Dawn and dusk are the times when a lot of animals venture out, and that's when it can get hazardous.

Wombats and koalas often cross roads while seeking new feeding grounds, but you also have to be alert for kangaroos and domestic life such as cows and sheep.

Keep your speed down, and you will have time to react - you should be able to stop within the distance you can see. In the country, this will be your headlight range.

But no matter what time you are driving, you should be on the defensive, especially if the road is passing through forests, thick vegetation or farming areas where there could be broken fencing. □

Step into the past:

Follow the Major Mitchell Trail

It was just over 153 years ago that Major Thomas Mitchell set out on a monumental expedition into what he called "Australia Felix" - the fortunate land.

The aim of the journey was to complete his survey of the Darling River, and at the time it was the largest, most costly expedition that had ever been mounted in Australia.

Except today you don't need to equip yourself with horses, carts and sheep: it can be done in the comfort of your own car, simply by following trail markers erected at critical road junctions and at features of interest along the route.

Mitchell, who had been appointed Surveyor-General of New South Wales nine years earlier, was an ambitious, energetic individual who felt quite comfortable leading 22 convicts, 100 sheep, a boat carriage, 22 carts and eleven horses into unexplored terrain.

The roads used for the Trail range from highways to minor gravel roads, but all are suitable for conventional vehicles. It may help to plan the trip rather than just jump in the car and head off: some of the roads are subject to temporary flooding in winter.

It turned out to be a landmark journey: his travels took him into what is now central and western Victoria.

It is estimated that most people could cover about 100 to 120 km per day, taking into account that the Trail also includes access points to monuments and sites of his camps.

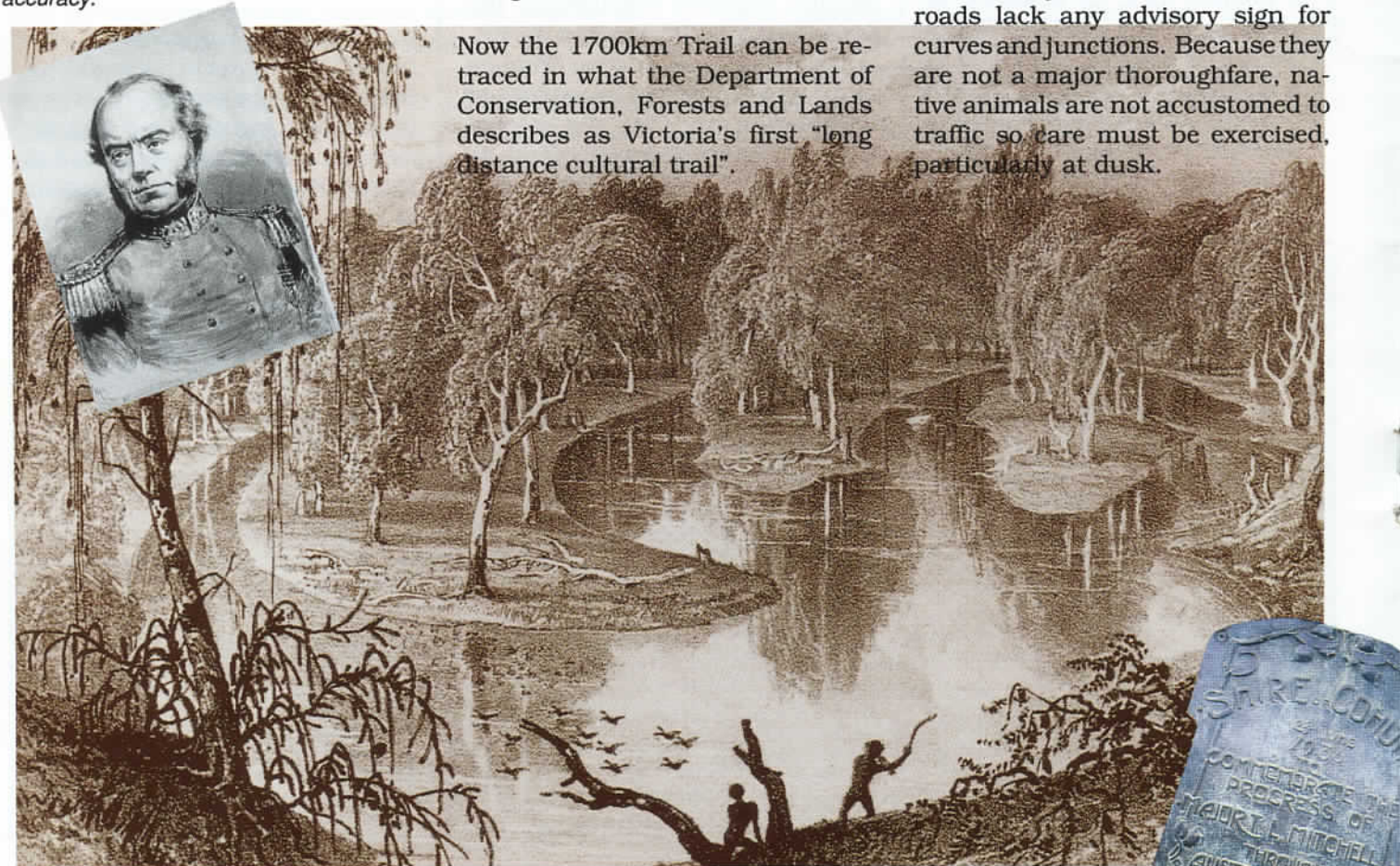
The significance of his trek was proven with the rapid development of settlements into the lush green district, and about 90 per cent of his route through Victoria came into productive use.

Motorists should also be prepared to adjust their driving to the conditions. Many of the minor, unsealed roads lack any advisory sign for curves and junctions. Because they are not a major thoroughfare, native animals are not accustomed to traffic so care must be exercised, particularly at dusk.

Now the 1700km Trail can be retraced in what the Department of Conservation, Forests and Lands describes as Victoria's first "long distance cultural trail".



Above: Major Thomas Mitchell
Below: Sir Thomas Livingston Mitchell had a flair for drawing and painting and was able to record his journeys with great accuracy.





Consequently, modern day trekkers will be able to discover a lot of areas of rural Victoria which certainly are off the beaten track. Major roads coincide with only short sections of his route so one can become immersed in the journey without being too harassed by busy traffic or noisy towns.

And those who embark on the trek will no doubt be impressed by just how much ground Major Mitchell covered.

Mitchell was a skilled surveyor and through his impressive sketches and writings, his path has been traced with great accuracy.

From where the Darling meets the Murray in the northwest, the Trail follows the Murray to Pyramid Hill. It was here that the explorer went south-west where he eventually discovered, and named, the Grampians, explored the Glenelg River, visited the Henty family at Portland and sighted Melbourne from his vantage point at Mount Macedon.

Many of the place names given by Mitchell are familiar today: the Loddon, Avoca, Campaspe and Wimmera Rivers, Mount William and Mount Abrupt in the Grampians, and Mount Macedon.

Re-live the past

If you want to really re-live the past by following Mitchell's Trail, remember that he made the journey between June and October. If you want to really experience the wide, open spaces - forget the car and consider

“As I stood, the first European intruder on the sublime solitude of these verdant plains, as yet untouched by flocks or herds, I felt conscious of being the harbinger of mighty changes, and that our steps would soon be followed by the men and animals for which it seemed to have been prepared...” **Major Mitchell at Pyramid Hill, 30 June 1836.**

long distance cycling. Most of the route is suitable for standard bicycles, though a mountain bicycle would be handy over the gravel roads.

The Trail has been described as a fitting tribute to Mitchell, one of the most 'monumented' explorers in Victoria, and his party. It was developed under the Commonwealth and State Bicentennial Commemorative program.

Additional details

Don't leave home without your copy of "The Major Mitchell Trail: Exploring Australia Felix" (CFL/Pindari Publications), the most comprehensive guide to the Trail. Containing maps and extracts from Mitchell's diaries, the guidebook clearly outlines the Trail and includes information on road surfaces, walking tracks, accommodation and camping facilities.

The guidebook will be available in early 1990 from offices of the Department of Conservation, Forests and Lands (C,F&L), from outdoor equipment stores and selected newsagents and bookshops along the route. It will be priced at approximately \$15.00.

You can write to the CF & L at **240 Victoria Parade, East Melbourne, 3002**, or contact one of the regional offices at Ballarat, Benalla, Bendigo, Geelong, Hamilton, Horsham, Mildura, Wodonga and Portland. If you decide that you only want to explore a small section of the route by bicycle, keep in mind that many places along the Trail can be reached by V/Line tel. **(03) 619 1500**. Victour tel. **(03) 619 9444** and regional tourism information centres can also assist with details about accommodation and other features of interest along the Trail. □

Prepared with assistance from Merrilyn Julian from the National Parks and Wildlife Division of the Department of Conservation, Forests and Lands.



It's spectacular scenery like Mt Arapiles that makes the Major Mitchell Trail worthwhile.

Fatigue is a much more serious factor in road accidents than previously recognised.

That is the finding of a research report which showed that fatigue was identified as a significant factor in single vehicle crashes in Victoria.

VIC ROADS and the Transport Accident Commission funded a study of 147 single vehicle accidents in rural Victoria, and fatigue was found to be involved in 21 per cent of the accidents, and a possible contributing factor in a further 12 per cent.

"There are common sense ways to overcome the problem," says Peter Lowe, Director of Road Safety with VIC ROADS. "Motorists should always plan their trips, starting when fresh and not at the end of the day when they're tired.

"They should have regular breaks on a long journey every two hours".

One way to beat highway hypnosis is to take advantage of the many roadside rest areas on the State's highway network. VIC ROADS rest areas are provided on many roads to give travellers the chance to take a break from long distance driving.

Other tips for long journeys are:

- make sure there is good ventilation in the vehicle;
- limit your hours of driving to what you can easily handle in a day;
- don't have a big meal before driving, and try to eat non-fatty foods such as sandwiches and fruit.
- if you are travelling with children, try to keep them occupied. Bored children can be a distraction and can make the journey even more tiring. □



Olympic Champ pushes cyclist's handbook

"Contrary to popular opinion, the fate of cyclists is not largely in the hands of motorists," says Victoria's Olympic gold medallist, Dean Woods.

"More than 70 per cent of all bike crashes do not involve motor vehicles."

Dean, the Los Angeles Olympic cycling sensation, was handing out the advice to young pedalpushers at the launch of the new "Victorian Cyclist's Handbook" on October 13, 1989.

The book, published by VIC ROADS, is a comprehensive guide on safe cycling practices. Aimed at all age groups, the book covers everything from handling bikes safely on the road, Victoria's road rules, buying a bike and its accessories and hints on introducing children to two-wheeling.

"The most experienced riders in the world have had their share of tumbles," says Dean, "but by taking heed of the many tips in this book, all riders can gain valuable advice which will reduce their chances of coming off second best when cycling on the open road."

The book, which also covers freeway riding, carrying luggage, locking a bicycle and buying a helmet, costs \$6.95 and is available from book stores, newsagents, bike shops and VIC ROADS regional offices. □



Top: Dean Woods shows his style, and Above: at the launch.



Footy stars say "Use Your Head"

"Use your head" is the message from Footscray Football Club stars, Steve Macpherson and Phil O'Keefe.

The Bulldogs duo were visiting children at Ararat in September, 1989 to promote road safety as part of 'Police Awareness Day'.

Part of their role was to promote the importance of bicycle helmets.

"School children use their bikes for both recreation and transport so they have a very high risk of being involved in accidents," said Steve. "It is therefore vital that they protect themselves against possible head injury by wearing approved and correctly adjusted bicycle helmets."

Since VIC ROADS began promoting helmet wearing, the number of cyclists admitted to hospital with head injuries has dropped by 30 per cent.



Footscray's Steve Macpherson with Ararat West Primary School student, Kelly Jordan.

"This shows that helmets really work," said Phil.

Players from Richmond and Footscray Football Clubs have been visiting schools throughout Victoria to conduct football clinics and promote road safety.

Both clubs have been supporting the "Say No To Drink Driving" campaign during 1989. □

Bikes welcome in Bet Bet

"Wear an approved helmet and bright clothing" is also the message coming from the Shire of Bet Bet in Central Victoria. "And watch out for the snakes."

The Shire offers these cycling tips with their colorful brochure, "Golden Triangle Bicycle Rides", a publication aimed at those who want to get into some rural pedalpushing.

Dunolly, west of Bendigo, is promoting bike rides in and around the historic town.

The "Golden Triangle" takes cyclists through one of the richest former gold areas in Australia. Riders can follow four different recommended routes which will take them to old mines, sites of former settlements and historic buildings.

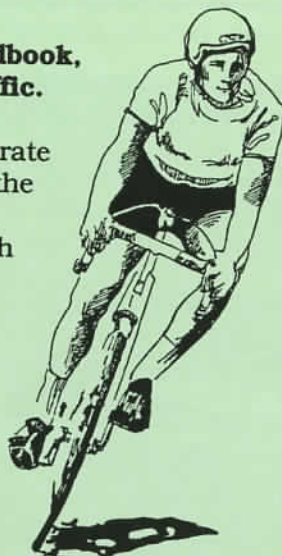
The terrain is flat to undulating, and bikes can be hired in the town.

The project has been funded by the Federal Government with support from the Shire of Bet Bet, and additional details and brochures can be obtained from the Tourist Information Centre in Dunolly, telephone (054) 68 1205. □

Pedal safe

According to the Victorian Cyclist's Handbook, there are four main skills for riding in traffic.

- Riders must always anticipate. Concentrate on the situations that are developing on the road.
- Communicate. Use hand signals and watch car indicators.
- Ride in a straight line one metre out from the kerb. If there are parked cars, also ride one metre out from them as a car door is almost as wide as the car itself.
- Be predictable. Other drivers are watching you and anticipating what you will do. Make it clear to road users what your intentions are. □



The Law and the Cyclist

Parents should stress to their children that bike riders are not exempt from road regulations.

Under Victorian law, bicycles are classified as vehicles. Consequently, with some minor variations, they must obey the same regulations as drivers of motor cars.

According to Bicycle Victoria, cyclists should obey traffic regulations simply because "it makes you more predictable for other road users".

"Motorists will be less likely to hit you when they know what you are likely to do," says Bicycle Victoria. "And motorists will not get hostile when you follow the rules they have to obey. Ignoring traffic regulations gives bicycle riders a bad name." □

Bringing the service closer to the customer

Registration and Licences Division: profile

In the future, our customers will be able to visit VIC ROADS' offices around the State for all matters relating to road use.

VIC ROADS, being Victoria's single road agency, is planning to establish "one-stop-shops" in key areas to provide across the counter service to the general public, contractors, heavy vehicle operators, government bodies, etc.

Vehicle registration and driver licensing are crucial customer services of the organisation.

Currently, they are delivered from the main office in Carlton plus a network of outlets throughout the State embracing 35 district offices and sub-offices and a chain of agencies.

Staff in the Registration and Licensing Division are strongly committed to providing excellent customer service. Through innovation and the development of new technology, they are working to bring

these services even closer to our customers. This is being achieved in several areas.

Franchised new car dealers can now register vehicles for purchase on behalf of VIC ROADS, and a trial involving second-hand dealers is underway.

The Victorian Motor School Association is organising learner permit testing sessions at times convenient to their clients.



From left: Tom Todaro from VIC ROADS Registration (holding the Grand Award Certificate), Terry Waters, Ian Stoney (Chief Executive of VIC ROADS) and Manny Parnis also from Registration (holding the Silver Medal Award).

Driver licences may now be renewed at nearly 130 "photopoints" throughout the State.

Registration renewals may be paid at any bank and at VIC ROADS offices as well as by mail, and the label is immediately available to be placed on the windscreen.

As far as VIC ROADS is concerned, when you're on a good thing, stick to it. The system, known as "Stamp and Stick", has been extremely successful. It has removed a complete mailing step from the process of registering renewals and provides customers with a greatly improved service. Its other bonus is that it is saving the tax-payers money.

The "Stamp and Stick" form recently won two awards for the flexibility it provides customers.

The first, a "Silver Medal for Innovation", was awarded at the National Print Awards which attracted 1500 entries. The judging panel was impressed with the way that the label is initially incorporated into the form, and then easily removed for immediate application.

The second was for the "Grand Award Certificate" from the Australian Business Forms Association. It was awarded for the flexibility that it provided customers in that they had a choice of paying their renewal by mail, at a bank, or at a VIC ROADS office.

VIC ROADS is proud of this recognition as it is striving to become a more customer-driven organisation, with one of the creeds of the new organisation being: "our customers are our first priority". □

See the light

Notice how more and more motorists are driving vehicles with high mounted brake lamps?

Passenger cars manufactured after 1 July of last year are required to have a central high mounted stop lamp fitted as standard equipment - and it's all in the name of road safety.

Experience has shown that these devices lead to fewer rear-end crashes. However, it should be stressed that while such brake lamps provide significant benefits, they are not total protection against rear-end crashes.

Driving speed and braking habits must suit changing traffic, weather, and road conditions. A safe stopping distance should always be maintained between vehicles, particularly in wet conditions. □



Keeping Track

A regular feature which briefly looks at what's happening in road construction, traffic engineering, road safety and other areas of roads and transport in Victoria...

Bullocks and Bridges herald Genoa's historic day

The bad old days - when floodwaters cut the Princes Highway at Genoa in Victoria's far east - passed in to history last July when a new \$7 million highway crossing of the Genoa River floodplain was opened to traffic.

The tiny hamlet, just 12 km inside the State border, celebrated in style when an old bullock dray carried local school children across the new Genoa River Bridge to mark the opening.

The usual population swelled from about sixty to more than three hundred as locals joined with visitors to witness the commissioning of the new bridge and to salute the 60 years of service given by the old timber truss bridge.

The old bridge opened in 1928, could no longer cope with the demands of modern day traffic and had been restricted to one way traffic ensuring its survival until the new crossing was completed.

Four new concrete bridges carry the Princes Highway across the floodplain, the longest being a five span, 140 metre long structure parallel to the old bridge.

In keeping with the historic theme of the day, the first vehicle to pass over the bridge was a bullock dray pulled by eight beasts and driven by Ivan Lister, chief teamster of the East Gippsland Bullock Drivers League.

As part of the project, almost 2km of the Princes Highway was realigned and a climbing lane was also constructed east of Genoa.

Genoa is the gateway to many popular Victorian tourist destina-



Transport Minister Jim Kennan cuts the ribbon to open the Bridge. Genoa's oldest resident Winifred Becker looks on, along with Arthur Hetherington and VIC ROADS Regional Manager John Wilson.

tions including the Mallee Lakes and the Croajingalong National Park.

The new crossing, which was funded through the Federal Government's Bicentennial Roads Program, is the fourth structure to span the river since the area was first settled in 1839.

And if the locals and VIC ROADS staff who designed and built the bridge have their way, the crossing will still be giving good service when Australia's tricentenary comes around. □



The bullock team carries Genoa Primary school students across the bridge.

121 years ago...

The world's first traffic signals were installed near the House of Commons in London. The red and green gas lights were set in a revolving lantern on top of a 7m high pillar. They operated at night until 1872 when they were pulled down. It wasn't until the mid 1920s that traffic lights made a reappearance in London.

Dale Weightman, Richmond Football Club's rugged captain, has a message for all Victorians.

"The drink driving problem affects the life of ALL of us," he says, "not only the heavy drinkers."

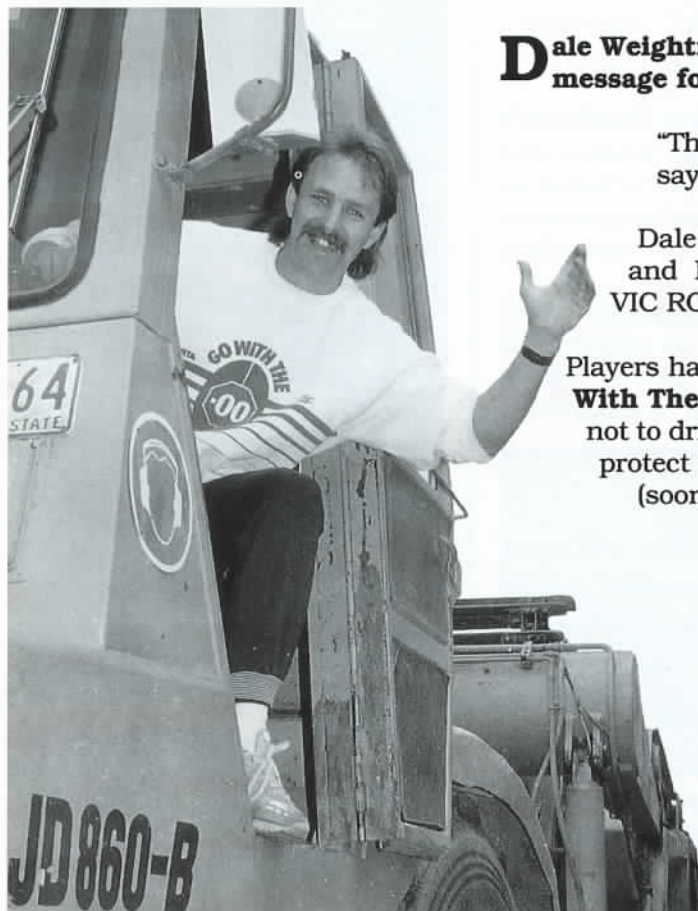
Dale has been one of many footballers from both the Richmond and Footscray Clubs who has been involved in the successful VIC ROADS drink-driving campaigns during 1989.

Players have been visiting post primary schools to promote the 'Go With The .00' campaign. L and P plate drivers are required by law not to drive a vehicle with any alcohol in their blood. The .00 laws protect young drivers and their passengers during the first two (soon to be three) years after gaining their licence.

Says Dale: "this program has been designed to be used when students are starting to make up their own minds about drinking and the problem of drink driving."

Both the .00 campaign and the 'Say No To Drink Driving' campaign aim to get people to realise how drink driving is the cause of many fatal crashes.

Thirty eight per cent of drivers killed on Victorian roads are over the .05. □



Project Update

Morwell Bypass

Work on the \$48 million Princes Freeway Bypass of Morwell is on schedule, with two major structures having been completed recently.

And innovations in the construction of the two new bridges will save VIC ROADS around \$400,000 in costs.

The rail bridge serving the briquette plant and open cuts was built by contractor, Boncorp Pty Ltd, using special stressing methods that have given it added strength. A 1000 tonne jack, one of the largest of its kind in Australia, was used to tension the bridge's six internal groups of cables.

The first locomotive passed over

the bridge in September.

The Midland Highway bridge will carry traffic on the highway over the new bypass.

Being constructed by Contula Construction Pty Ltd., the structure presented problems because of the length of piles required.

Originally, it was thought that long steel piles would have to be used on the project. However, the solution was found in using shorter concrete pipes, linked together with special couplings. This method allows normal piles and pile-driving gear and is less expensive.

Apart from the two bridge structures already completed, work also involves construction of a bridge over the Morwell River to serve east-bound traffic and a twin structure to serve traffic on the Morwell-Thorpdale Road.

Stage one of the project, from the Morwell River to the Midland Highway, passes between the township and the SEC works area and is scheduled for completion in April, 1990. It is estimated that 10 000 vehicles a day will use the bypass when it is completed. □



Driving the piles on Midland Highway bridge.

Green weekend for VIC ROADS staff

Bob Hawke has a plan to plant a billion trees by the year 2000 and he has the full support of VIC ROADS.

As the State road authority, it is one of the biggest planters of trees in Victoria with one of its major objectives being the protection and enhancement of the natural environment.

On July 23, 1989 the traditional Sunday afternoon social barbeques and sporting functions gave way for a VIC ROADS family event in Richmond which had a noticeably green tinge.

Almost 1500 trees were planted by staff members and their families on the roadside verge adjacent to the South Eastern Arterial.

The staff, from the VIC ROADS metropolitan regional office at Kew East, eagerly worked on the roadside plantation between the Heyington rail overpass and Yarra Boulevard in Richmond.



Armed with buckets, spades and with green thumbs to the ready, they transformed the sparse section of the roadside into a native plantation.

"Like the rest of the community our staff members share a genuine concern for the environment," said VIC ROADS Chief Executive, Ian Stoney. "This family day was a positive way to contribute to the greening of our City." □



Top: Almost 1500 trees were planted in July at the VIC ROADS "family day".

Above: VIC ROADS Horticultural Officer, Peter Forstner, took the opportunity to give the younger generation first hand knowledge of his expertise.



Left: Michael North-Coombes, left, who helped organise the "family tree-planting day", with VIC ROADS Regional Manager, Howard Ellis and his son, James.

Keeping Track

No butts!

A total ban on smoking came into force in Victoria on 1 October, 1989 - and the new legislation has been like a breath of fresh air for taxi drivers and bus drivers.

The ban affects 3700 taxis and almost 5000 buses on the State's roads and will improve travelling conditions for both drivers and passengers.

The new legislation now provides a complete ban on smoking on public transport. Since 1976, there has been a ban on passengers smoking in Government-owned metropolitan buses, trams and trains. This ban was extended in 1986 to Government-owned country road coaches and some rural rail services.

And if a passenger feels he or she can't endure a ride without "a quick puff", take heed: a penalty of \$200 will be imposed on those who ignore the ban. □

The colour purple for Enforcement Cars

If you're travelling along the Hume Freeway these days and suddenly notice a purple flashing light hovering in the distance - rest assured, you're not seeing things.

Throughout October, 1989 VIC ROADS enforcement cars were fitted with new purplish rotating roof lights to distinguish them from other service vehicles.

The move to provide the cars with distinctive warning lights is part of the Cain Government's Road Safety Strategy.

The rapid growth of amber rotating lights on service, industry, wide-load and other non-emergency vehicles has made the interception of offending vehicles by VIC ROADS officers more difficult.

VIC ROADS Enforcement Officers play a major role in inspecting the safety, operation and road worthiness of trucks, buses, taxis and tow trucks and in preserving Victoria's roads by controlling weight and dimension limits.

It is important for VIC ROADS officers to quickly and safely intercept drivers and this change will achieve that goal. □



Showing that Olympic spirit

When Ford Australia recently pledged its support for Melbourne's bid for the 1996 Olympic Games - by presenting eight FORD LTD cars to the Melbourne Olympic Committee - VIC ROADS was right behind them.

VIC ROADS provided the cars with attractive and distinctive "Melbourne" number plates, seen here on a new LTD with Melbourne's Lord Mayor, Cr Bill Deveney. □

In brief...

New names for authorities

For many years the National Association of Australian State Roads Authorities has been familiar to people in the road management industry. In July last year a new organisation, AUSTRROADS, replaced NAASRA. As with NAASRA, it will continue to be a co-operative. Additional information is available from the National Office on (02) 957 6188.

The former Department of Main Roads, Tasmania, has been restructured in accordance with major administrative changes announced by the new State Government. The former Department of Main Roads is now the Department of Roads and Transport, and it also car-

ries out the activities of the former Transport Tasmania and the Metropolitan Transport Trust.

Now Servicing West Gate...

Two Shell service stations were opened in August on the eastern approach to West Gate Bridge. Shell Australia has a 25 year lease on the two sites which are owned by VIC ROADS.

Practical idea

Overseas driving licence holders wishing to gain a Victorian driver's licence will be required to take a practical driving test. Victoria's move follows an agreement by all States and Territories to introduce a drive test for overseas applicants, with the only exemption being those who hold a New Zealand licence. □

Towards Better Roads

Major projects on Victoria's urban and rural roads...

Barwon River Crossing, Geelong

Work recommenced in early May on the Barwon River Crossing which forms part of the La Trobe Terrace Project.

Cost estimate: \$18 million

Completion expected: mid 1990

Bell Street-Banksia Street Link, Heidelberg

Work is well underway on the road link, a four lane divided road, between Bell Street and Banksia Street in Heidelberg. Stage one, duplicating Banksia Street between Cape Street and Studley Road, was opened in December 1989. Work on the major cutting and retaining walls, west of Studley Road, is expected to begin in late 1990.

Cost estimate: \$34 million

Completion expected (total project): early 1993

Calder Highway

*** Bendigo**

Work is progressing on strengthening the old concrete arch bridge crossing of the Bendigo Creek at Golden Square. The project will retain the historic appearance of the original structure while allowing for increased loads of modern vehicles.

Cost estimate: \$160,000

Completion expected: Late March 1990

*** North of Sea Lake**

Minor earthwork and pavement construction works over 3.4km was completed in September 1989 at a cost of \$750,000.

Cohuna Main Road, Echuca

Work on the Warren Street Bridge over the Campaspe River is continuing under a second contract (Northern Region and City of Echuca).

Cost estimate: \$227,000

Completion expected: January, 1990

Greensborough Bypass



The opening of the 2km section of the bypass on 18 August, 1989 from Grimshaw Street to Yallambie Road, completes the second stage of the project.

Cost estimate: \$32 million (stage 1: \$20 million; stage 2 \$12 million)

Hume Freeway

*** Euroa Bypass**

The bypass extends from the Western Interchange to Cemetery Lane and earthworks along this 8km section commenced in May 1989. Estimated cost: \$29 million

Completion expected: 1992

*** Euroa to Balmattum**

Earthworks along this 8km section are nearing completion. Contracts for paving and sealing will be called to begin in early 1990.

Estimated cost: \$16 million

Completion expected: mid 1990

*** Wangaratta Bypass**

Drainage structures, earthworks and sub-base paving between 15 Mile Creek and King River have been completed. Construction of the Wangaratta-Whitfield Road overpass is nearing completion and traffic will be diverted over the bridge in autumn, 1990.

Estimated cost: \$76 million

Completion expected: 1995

*** Bowser to Springhurst**

This 12 km section of duplicated highway was opened to traffic in July, 1989, at a total cost of \$13 million.

*** Springhurst to Chiltern**

This 5.5 km section from Horns Road to Adams Road will be opened to traffic in April 1990. Estimated cost is \$7 million.

The next 3.5 km section southwards to Springhurst will begin in

January 1990 and will open to traffic in early 1991. Estimated cost is \$5.6 million.

*** Barnawartha Bypass**

The 3 km section of divided highway from Cemetery Lane to Mt Lady Franklin will have a staged opening, with the major length to open in January 1990 and the other section to open in May 1990. Estimated cost is \$8 million.

Mornington Peninsula Freeway Extension

Earthworks are progressing on the freeway section between Moorooduc Road and Mount Martha.

Princes Freeway West

*** Forsyth Road Overpass, Hoppers Crossing**

This 1.2km project was opened on the 18 January 1990. It involves two bridges: one over the Princes Freeway and the other over the Melbourne-Geelong railway line. Bridge construction is prestressed concrete beams, cast in reinforced concrete deck with reinforced earth retaining structures.

Cost : \$9.7 million

Princes Highway East

*** Brodribb River Bridges**

Construction is proceeding on two 3-span reinforced concrete bridges over the Brodribb River and flood plain east of Orbost. The new bridges consist of prestressed beams and reinforced concrete deck. Built on an improved alignment, the bridges will replace two timber structures.

Cost estimate: \$3 million

Completion expected: mid 1990

*** Bunga Creek**

The existing timber bridge was replaced using corrugated metal pipes on a modified road alignment upstream from the existing bridge. The new bridge was opened on 16 January 1990.

Cost : \$1.7 million

Towards Better Roads

* **Dandenong Road- Caulfield/ Malvern**

This duplication between Hawthorn Road and Glenferrie Road was opened on the 20 December 1989. The height clearance under the Caulfield line has been increased to 5.3 metres enabling the majority of high trucks to remain on the Princes Highway (see story page 9 in this issue).

* **Genoa River Crossing, Genoa**

This project was opened in July (see story "Keeping Track" in this issue).

* **Morwell Bypass**

Stage one of the project is scheduled for completion in April, 1990. Two bridges have been completed and work is progressing on the Morwell River Bridge and a twin structure for traffic on the Morwell-Thorpdale Road (see "Project Update" this issue).

Punt Road, Melbourne and Richmond

Work is continuing on the widening of Punt Road between Swan Street and Bridge Road. Most of the work to date has been carried out at the Swan Street intersection and has included major drainage and service relocation work.

Cost estimate: \$25 million

Completion expected:

Swan St to Brunton Ave: January 1990

Brunton Ave to south of Bridge Rd: December 1990

Pyrenees Highway, Newstead

Construction of a new bridge on the highway over the Loddon River at Newstead is progressing.

Cost estimate: \$1.6 million

Completion expected: April, 1990

South Eastern Arterial

Although the new section of road between Toorak Road and Warrigal Road has been opened since December, 1988, there are still some major works being carried out by the project team. These include the

installation of additional sound attenuation fencing along the route at an estimated cost of \$2 million; the construction of six shared path creek bridges; and the completion of sections of shared path linking the proposed creek bridges. Placement of the final asphalt layer using open graded friction course asphalt is also underway. Landscaping and planting of roadside areas is nearing completion.

Cost of remaining works:

\$7.5 million

Completion expected: mid 1990

South Gippsland Highway

* **Cranbourne to Lang Lang**

Work has been completed on duplicating the highway from Cranbourne to Five Ways, Tooradin to Dalmore Road, and Yallock Creek to the Bass Highway. Work is continuing on the remaining sections.

Cost estimate: \$27 million

Completion expected: late 1990

Wells Road Duplication

The duplication between Bowen Road, Braeside and Springvale Road, Apsendale has been completed. Construction of a new bridge over Mordialloc Creek is progressing. Work on the section between Bowen Road and Governor Road is scheduled to begin in early 1990.

Completion expected:

Roadwork: Mid 1991

Bridgework: Early 1991

Western Bypass

A proposed road link between Tullamarine Freeway and Footscray Road. The Transport Minister, Jim Kennan, announced on 9 August that the proposed Western Bypass will be funded and built by the private sector. The private sector group will finance, construct and operate the bypass. Additional information: (03) 860 2286.

Western Freeway Ballarat Bypass

Work has commenced on the 26km bypass between Woodmans Hill and Burrumbeet. Initially, a two lane, two way carriageway will be con-

structed with interchanges at Woodmans Hill, Daylesford Road and the Midland Highway. An overpass is to be provided at Lovven Street with grade separation of the Mildura and Adelaide railway lines. At grade intersections will be constructed at Swingers Road, Gillies Road and the Sunraysia Highway, and Brewery Tap Road intersection will be upgraded.

Estimated cost: \$65 million

Completion expected: 1993/94

Western Ring Road

* **Broadmeadows section**

Work has commenced on the Broadmeadows Section of the Western Ring Road, which will be built as a four lane divided road from Sharps Road, Tullamarine, to Mahoneys Road, Campbellfield. Provision has been made to widen the 8.5km road to six lanes in the future.

Construction of embankments for the Tullamarine Freeway Interchange has been completed and a contract for construction of the bridges over the freeway has been let.

A \$3.7 million contract for earthworks and drainage has commenced on the section between the freeway and east of Moonee Ponds Creek.

A sidetrack at Widford Road was opened on the 6 December 1989 to enable construction of an overpass of the Ring Road.

Work has begun on the construction of a pedestrian overpass at Orphir Street.

The section between Campbellfield Creek and Mahoneys Road, estimated at approximately \$20 million, is to be undertaken on a Design and Construct basis and pre-registration of interested contractors is in progress.

Western Ring Road

* **Broadmeadows section**

The project will include an interchange at the Hume Highway, south of Camp Road.

Estimated Cost: \$135 million

Completion Date: Late 1992

*** Tullamarine to Laverton North**

No decision on the Ring Road will be made by the Government until the community has had the opportunity to see and comment on the Ring Road proposals. In early 1990, an independent panel will be appointed to listen to the views of residents and other interested persons. □

Panel to review road proposals

An independent panel is reviewing the proposed Eastern Arterial Road and the Ringwood Bypass. The panel is looking at current proposals and other options, and will report to the Transport Minister, Jim Kennan, by the end of March, 1990.

The road proposals are being reviewed principally due to the change in community attitudes to road traffic and transport planning since the original proposals were formulated several years ago. □

230 years ago...

The world witnessed the run of the first mechanically propelled road vehicle. It was a huge, three-wheeled, steam-powered gun carriage invented by a French artillery officer.

On its first run it steamed for 20 minutes at a speed of 3.6km/h...then crashed into a wall causing the world's first motor vehicle accident.

Japan

Despite skyrocketing vehicle use, Japan has achieved a declining accident death rate that, according to some transport experts, is "little short of miraculous".

The gross number of people killed in traffic accidents fell from 21,535 in 1970 to 12,596 in 1984 - a 42 per cent drop. During the same period, the number of vehicles owned rose from 18.6 million to 46.4 million, an increase of 148 per cent.

Traffic engineering has played a vital role. Better cars and effective law enforcement have also had a significant impact. In 1984, 6.7 million drivers applied for first time licences - only four million passed the exam. Most of these people completed a course involving 27 hours behind the wheel, 30 hours of classroom study and costing an average of \$1000.

Wales

Welsh authorities are investigating the spread of Japanese Knotweed which is taking over the roadsides. The plant is from Japan and grows to three metres in the UK, though it can have spreading root systems seven metres long. The roots can penetrate bitumen and cause considerable damage to roads and buildings.

Malaysia

The largest event to be held on road engineering in Malaysia will be on in March 1990. "Roadex '90" will be an

international road engineering exhibition aimed specifically at road construction engineers, maintenance contractors and manufacturers of related products and equipment.

The exhibition will be held in conjunction with the 6th conference of the Road Engineering Association of Asia and Australia in Kuala Lumpur from 7 to 10 March.

Thailand

Construction has started on the US\$1000 million Bangkok Expressway, one of the largest private road projects ever undertaken. The 36.6 km expressway is scheduled for completion in 1995 and will link up with other major roads to create a ring road around central Bangkok.

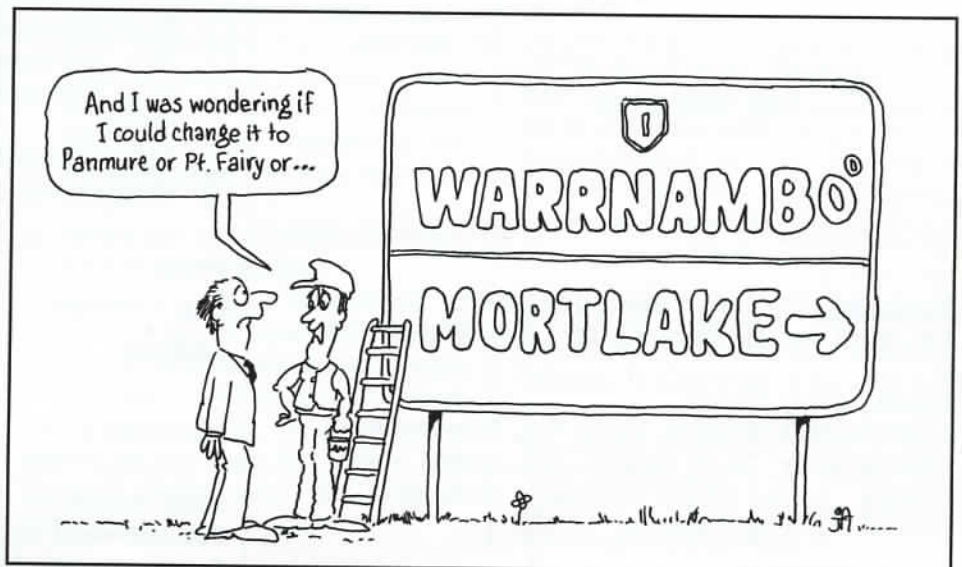
Europe

The last two segments of the Brussels to Luxembourg Motorway have been completed, linking Belgium and Holland with Switzerland, Italy, Spain and the south of France.

USA

There are two billion vehicle hours of delay per year attributed to congestion, says a US research authority. An estimated US \$73 billion was also lost to the nation each year because of congestion and excess travel due to poor navigation.

There are now 110 million commuters in the United States, double the number in 1950.



▼▼ Read all about it ▼▼

The following publications are available free of charge by sending the list and coupon below to VIC ROADS's Corporate Affairs:

Project leaflets

- A Bypass for Ballarat
- Bell St/Banksia St Link, Heidelberg (No. 2)
- Calder Highway - Keilor to Diggers Rest
- Dingleys's Road - information bulletin
- Hume Freeway, Baddaginnie to Bowser
- Hume Freeway, Euroa Section
- Hume Freeway, Springhurst to Wodonga
- Princes Highway, Moe River to Moe
- Princes Highway, Morwell Bypass
- Wells Road - Boundary Road duplication
- Western Ring Road- Broadmeadows Section (No. 2)
- Western Ring Road- Tullamarine to Laverton North (No. 4)
- West Gate Freeway - A new shape for South Melbourne

General publications

- Eye Spy children's car game
- Great Ocean Road: a brief history
- On the Skids
- History of the Hume
- Hume 31, a freeway from Melbourne to Wodonga
- Paving the way - roads in Victoria 1913 to 1988
- Roads Victoria (back issues)
- Snow Driving guide
- Summer Driving guide
- Points Demerit Scheme
- Bush track to highway (AustRoads publication)

Name
 Organisation
 Address

 Postcode

Send details to : Corporate Affairs, VIC ROADS,
 60 Denmark St., Kew, Victoria, 3101
 or telephone (03) 860 2880.

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Road Safety Publications

The following publications are available free of charge by sending the list and coupon to VIC ROADS' Education Services:

- Motorcycle & Bicycle Safety
- Car Drivers and Motorcyclists Beware
- Bicycle Helmets Because They Work

Car Safety

- Safe Hints for Elderly Drivers
- Before You Take A Drive This Winter
- Vehicle Safety
- Understanding Road Safety

Adult and Child Restraints

- A Technical Guide to Child Restraints
- Preventing the Human Collision
- A Guide to Child Restraints
- There's No Excuse, So Belt Up

Licensed Drivers

- Road Law Update
- L & P Plate Laws in Black and White

Alcohol and Drugs

- Penalties For Drink Driving in Victoria
- Driving and Medication
- Licensed to Drive at Zero
- Drinking and Driving, it's your Decision

Pedestrian Safety

- Stepping out in Safety
- Children in Traffic

Stickers

- Look Right, Look Left, Look Bike
- Buckle Up in the Back Seat
- Bicycle Helmets Work
- .05
- There's No Excuse, So Buckle Up

Other material

- Road Accident Facts
- Film and Video Catalogue
- Rock and Roll Carefully on the Road (school time table)
- Before Other Help Arrives (first aid)
- Various road safety posters

Name
 Organisation
 Address

 Postcode

Send details to: Educational Services, Ground Floor,
 290 Burwood Road, Hawthorn Victoria 3122.
 Telephone (03) 810 1037.

A New Era in Road Services

New arrangements to improve the delivery of VIC ROADS services to rural communities were announced last November by the Minister for Transport, Jim Kennan.

"Providing full integration of customer services, the existing Regional and District Offices in rural Victoria will be re-organised around five zones centred in Geelong, Ballarat, Bendigo, Benalla and Traralgon with the existing Regional Offices becoming the zone centres," Mr Kennan said.

"Regional Managers will continue to be located at Warrnambool, Horsham and Bairnsdale. They will maintain responsibility for managing road services in their areas although over time, some specialist support services will be transferred to the zonal offices," he said.

Mr Kennan said that it is aimed to establish a new office at Swan Hill to provide registration and licensing services. An improved range of services will be provided from Mildura and Wodonga.

"As VIC ROADS offices are important centres for rural communities, all existing centres where services are delivered will be maintained," said Mr Kennan.

"The changes will culminate in a complete merger of the former Road Construction Authority and Road Traffic Authority in the rural areas of the State.

Mr Kennan said that the re-organisation arose from a comprehensive review of the nature and location of services in rural Victoria.

Staff were consulted throughout the review and commented on a number of possible options for the future of the rural operational network, he said.

The benefits of the new rural network will be:

- improved delivery of a wider range of services through "one-stop-shops"



Broadmeadows staff.

- a more efficient delivery of services in the rural area by an organisation dedicated to serving the public
- productivity savings of up to \$1.5M, allowing increased expenditure on road maintenance and improvements. These savings will accrue over and above the cost of establishing the Swan Hill office and upgrading the Mildura and Wodonga offices.
- better use of staff skills and wider career opportunities

"The creation of "one-stop-shops" for all matters relating to road usage, road safety and the road network will greatly assist the public and result in savings for many VIC ROADS customers," Mr Kennan said.

"Many municipalities can also expect improved service through an expanded range of contact points.

"Throughout the gradual process of achieving restructured rural operations, where it is necessary to redeploy and relocate staff, this will occur in accordance with agreements reached with unions. No member of staff will be retrenched - down sizing will generally occur through natural attrition.

"The move to restructure VIC ROADS' rural operations heralds a new era of increased access to road services at a reduced overall cost to all Victorians.

"By bringing services closer to the user, it will aid rural growth and increase economic and social opportunities for rural communities.

"The restructure will assist in meeting the increasing road needs of rural areas and will drive the rural road funding dollar further than ever before.

"The Cain Government is committed to responsible transport reform to improve efficiency and service to the public.

"Restructuring the way VIC ROADS delivers its services in rural Victoria is one of the many ways that the Government is continuing to deliver on this commitment," Mr Kennan said. □

40 years ago...

The Morris and Austin Mini was introduced. It became a winner with the public, being small enough to squeeze through city traffic, easy to park and cheap to run. Soon other big car manufacturers followed with their own mini-models.

That's Warrigal Road?



Today's driver may not recognise it, but the photographs on this page are of Warrigal Road in Burwood. The 1938 shot above, showing a lone vehicle on the road, looks south across Webster Street, near Riversdale Road. The tranquil scene to the right shows the road near Gardiners Creek, while the colour photograph below was taken in December last year at the identical spot as above.

