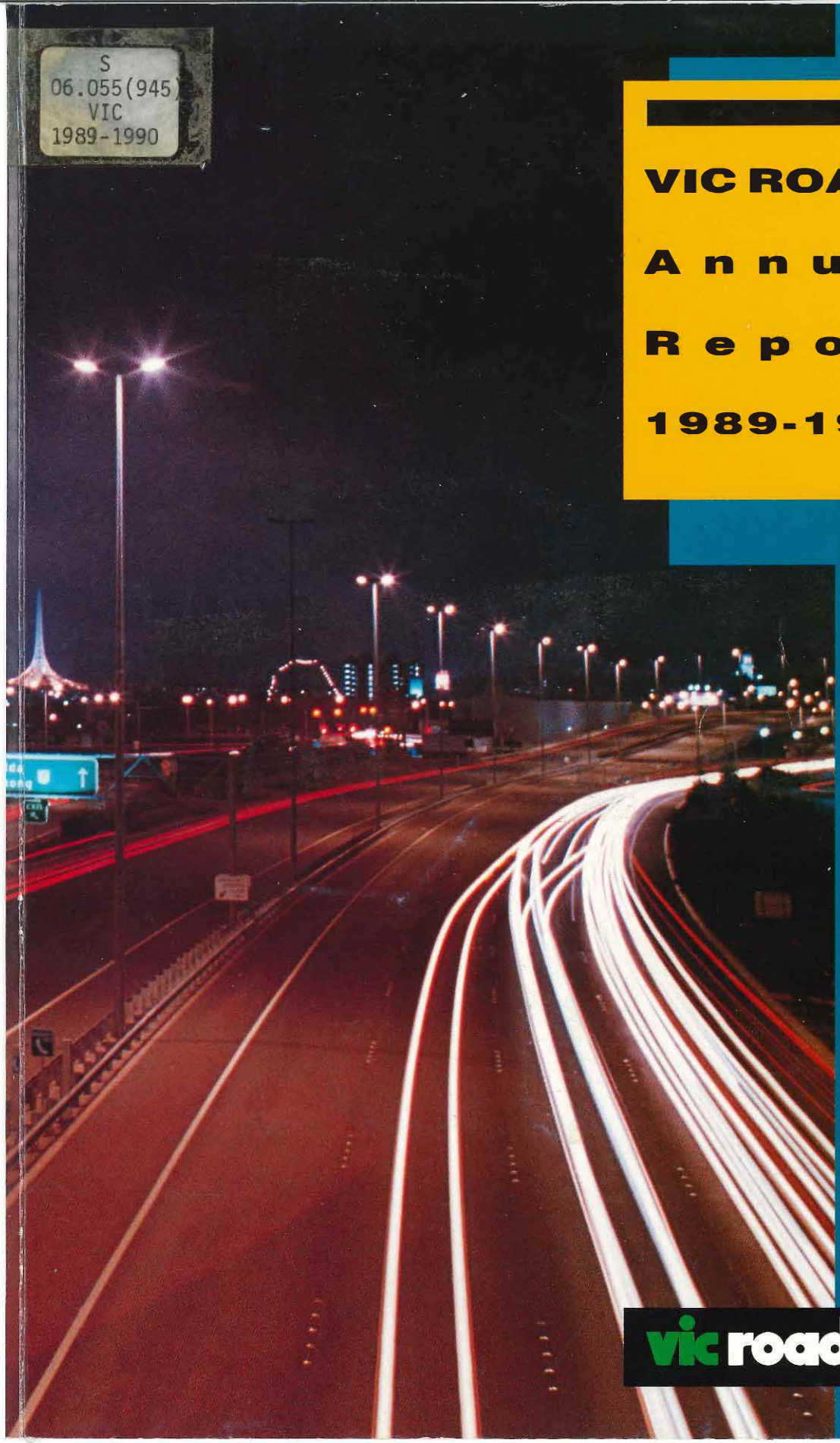
VIC ROADS Annual Report 1989-1990



vic roads

The Honorable Peter Spyker, MP
Minister for Transport
Transport House
589 Collins Street
Melbourne 3000

Dear Mr Spyker,

I have pleasure in submitting to you for presentation to the Houses of Parliament the Annual Report, prepared in accordance with the Annual Reporting Act 1983, of the Roads Corporation (VIC ROADS) on its operations for the year 1 July 1989 to 30 June 1990.

The merger of the Road Construction Authority and the Road Traffic Authority to form the new Roads Corporation was implemented as a major initiative to reduce overlap and duplication, resulting in improved road services being provided more efficiently for all Victorians. The co-operation, constructive attitude and dedication of the staff were clearly shown in the complex task of the merger and I congratulate them for their role in its smooth introduction .

The VICROADS 2000 strategy, for the development of rural arterial roads over the next decade, was substantially completed this year as was the Central Area Transport Strategy (CATS) a major study to integrate inner Melbourne's transport services and land use. CATS will enhance the urban environment in a bold new transport vision to revitalise the centre of Melbourne and attract people back to the City.

Road safety has continued to be high in the priorities of the Corporation. I have particular pleasure in being able to report that measures introduced as a result of the Road Safety Strategy have contributed to the significant downward trend this year in Victoria's road toll; reversing the pattern of recent years.

The many achievements of the Corporation, contained in this report, were obtained through the dedication and professionalism of all staff and I congratulate them for their important contribution to the development of Victoria.

Kind Regards

Yours Sincerely

Reg Patterson

REG PATTERSON
CHIEF EXECUTIVE

VIC ROADS

OUR PURPOSE

To serve the people of Victoria by managing the road network and its use as an integral part of the overall transport system.

VIC ROADS, in partnership with other transport agencies, local government, and the Victoria Police, contributes to the social and economic development of Victoria through its role in the management of the State's transport system.

Management of the road network includes planning, designing, constructing and maintaining roads, managing road use through registering vehicles, licensing drivers and traffic management, and providing information and road user services.

OUR AIMS

■ Road Safety

To achieve a safe road system for the people of Victoria.

■ Access and Mobility

To assist the efficient movement of people and freight and improve access to services for all transport system users.

■ Economic Development

To assist economic growth by improving the effectiveness and efficiency of the transport system.

■ Environment

To be sensitive to the environment through responsible management of the transport network.

■ Commercial Services

To provide information, financial and technical services to clients on a commercial basis.

OUR VALUES

We are guided in all our actions by these values –

- ❑ we exist to serve our customers – they are our first priority
- ❑ we provide quality service to meet out customers' needs
- ❑ we are outward-looking and forward thinking
- ❑ we work with commitment and integrity
- ❑ we are accountable for our actions
- ❑ we care about our people, and we provide opportunities for their development

Contents

Highlights of the Year

❑ To minimise costs and to provide the most efficient level of road services for Victorians, VIC ROADS was formed by merging the Road Construction Authority and the Road Traffic Authority on 1 July 1990.

❑ The manner that services are provided in metropolitan and rural areas, and the way that planning and provision of customer services were conducted, was reviewed to provide an improved management direction for all aspects of road management and road use.

❑ More than 40 business areas have been established to ensure VIC ROADS delivers programs that the community wants and to ensure that resources are managed commercially.

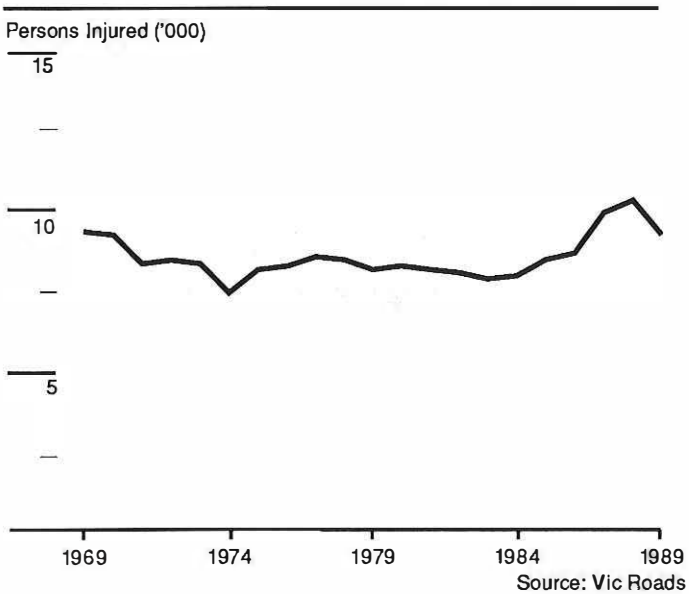
❑ Rationalisation of buildings used by VIC ROADS has saved $2 million per annum.

❑ Road programs were restructured to clarify the outcomes the community wants from its road system under the prime areas of:
Road Safety
Access and Mobility
Economic Development
Environment
Customer Services

❑ The VIC ROADS 2000 strategy, for the development of rural arterial roads over the next decade was substantially completed this year.

❑ Planning for the Western Bypass continued with the preparation of Enviornmental Effects Statements and Planning Scheme Amendments for the proposed link between the Tullamarine Freeway and Footscray Road.

NUMBER OF PERSONS SERIOUSLY INJURED IN ROAD ACCIDENTS, VICTORIA 1969–1989



Source: Vic Roads

- It appears likely that measures introduced into the Road Safety Strategy this year contributed to the significant downward trend in Victoria's road toll (mainly relating to vehicle occupants and pedestrians) since October 1989, reversing the pattern of recent years.

- Community consultation and investigation during the year paved the way for the later introduction of compulsory helmet wearing for bicyclists (a world first) and the graduated licensing system.

- Under contract to VIC ROADS, the Monash University Accident Research Centre completed an evaluation of the value of accident black spot treatments. The findings showed the program had been a great success in reducing accidents at intersections and that this type of road safety program was highly economic.

- A network of Community Road Safety Councils has been established to reduce road trauma by action at the local level.

- 3,248,439 motor vehicle registrations and 2,729,637 driver licences were on issue as at 30 June 1990.

- Traffic flow was improved substantially on one of Melbourne's most notorious bottlenecks with the opening in May of three north-bound lanes on Punt Road between Swan Street and Bridge Road.

- The Broadmeadows Section of the Western Ring Road is well under way with the final aim being a link between the Hume Highway and Tullamarine Freeway.

- Seven major projects on the Hume Highway proceeded well (three were finished).

Accident Black Spot treatments: in this situation fully controlled right turn light sequences have been installed to reduce accidents for vehicles turning right across oncoming traffic.

VIC ROADS Organisational Structure – Divisions

VIC ROADS Corporate Development Division provides strategic management of the road network through corporate planning, road planning investigations, legal services, strategic transport planning and environmental and community services, together with development of the organisation and its major projects.

Two Operations Divisions, comprising 3 metropolitan and 5 rural regions, provide day to day operational management of the principal road network: they assist municipalities, develop and implement detailed works programs, and are responsible for project management and construction and maintenance activities, together with shop front services for registration and licensing through a decentralised network of offices. Very large construction projects are managed by Project Managers, with a Project Office at the site.

Technical Resources Division designs major roads and bridges and conducts material investigations. It also oversees traffic engineering and develops technical standards and practices. It provides Regional and Project Managers with technical support services beyond their normal capacity.

Business Services Division provides centralised administration, management information systems, road information, plant, property management and plant and supply. It also conducts corporate affairs information to advise the public and provides services to the Minister and Government.

Human Resources Division develops VIC ROADS' human resources by workforce planning, training and development and occupational health and safety, and provides personnel services to line managers throughout Victoria.

Finance Division is responsible for budget and account management and financial performance, financial strategies and reports, and the analysis of business operations.

Information Technology (IT) Division develops and transfers IT skills and systems throughout the organisation. It conducts strategic IT planning and provides integrated computer and communication systems.

Quality Service Management Division develops service as a culture throughout VIC ROADS and implements quality management systems.

Road Safety Division conducts research, and designs and implements programs to reduce the road toll. It is active in formulating legislative changes, training and licensing, and vehicle, traffic and road environment safety.

Registration and Licences Division oversees Victoria's driver licensing and vehicle registration systems as well as specialised registrations and licences such as bus, taxi, and tow trucks. It also enforces commercial and passenger vehicle regulations and vehicle road worthiness.

CORPORATE MANAGEMENT GROUP AS AT 30 JUNE 1990

REG PATTERSON
Chief Executive

COLIN JORDAN
Deputy Chief Executive and
Director, Corporate Development

DAVID ANDERSON
Director, Business Services

GEOFF CHAMBERS
Director, Finance

SUE HARRIS
Director, Human Resources

KERRY BURKE
Director, Information Technology

DAVID BERRY
Director, Metropolitan Operations

PETER STUART
Director, Quality Service Management

DAVID O'SULLIVAN
Director, Registration and Licences

PETER LOWE
Director, Road Safety

ROB McQUILLEN
Director, Rural Operations

MAX LAY
Director, Technical Resources

MIRANDA DOUGLAS
(Manager Corporate Planning)
Secretary

Restructuring – the Creation of VIC ROADS

A merger of the Road Construction Authority and the Road Traffic Authority was determined in February 1989 as the best way to minimise costs and to gain the highest level of efficient road services for Victorians.

This merger to form the Roads Corporation (trading as VIC ROADS) was put in place from 1 July 1989 as part of an overall rationalisation of transport services.

For many years, road services in Victoria were provided by a number of organisations, and in 1983 they were concentrated in the RCA and RTA, both working with local government. The further amalgamation that took place this year has removed areas of duplication and overlap, and has reduced community confusion on the areas of responsibility for road and traffic issues.

Under the new format of VIC ROADS the merging of similar RCA and RTA functions has brought about considerable savings which have been used to improve roads and services.

Access by the public is being improved through the gradual development of 'one stop shops' and increased regional networks.

■ **Organisational Review**

An important lead-up to the VIC ROADS merger was an in-depth review during the first half of 1989 of the way services were provided through metropolitan regional structures. The review considered existing and possible future services to the community in metropolitan Melbourne, with the task of establishing the best arrangements to operate these functions over the next decade.

This review was undertaken with a high focus on customer requirements and the mechanisms needed to deliver road services. Being close to customers, to ensure that community needs would be well understood and effectively communicated, was one of the most important principles in the planning.

The new VIC ROADS Metropolitan North West Regional Office (1100 Pascoe Vale Road, Broadmeadows) offers a full range of road services.

With the formation of VIC ROADS, an organisational development unit successfully undertook the following major reviews:
- Metropolitan Regional Arrangements.
- Rural Regional Arrangements,
- Planning Arrangements across the Organisation, and
- Organisational Arrangements within the Corporate Development Division.

The work was undertaken by small project teams with specific attention being given to generate:
- a focus on serving customers better by identifying principal customers and their requirements,
- staff involvement to achieve ownership of change,
- a consultative and open process to establish accountability of Directors and senior managers,
- honest face–to–face interaction between management and staff,
- effective communication through concise and accurate presentation of information, options and recommendations, and
- identification of the impacts of change, particularly on staff.

The establishment of VIC ROADS thus led to a new management direction covering all aspects of road management and road use.

■ Roads Program

To reflect this change, the road programs have been restructured to emphasise the outcomes needed – a restructure which was developed in consultation with local government.

The road program structure used previously emphasised the part of the network being treated and the type of work being done, that is WHAT and WHERE. This was suitable for administrative purposes but did not clarify what needs were being addressed.

On the other hand, the new program structure is designed to answer the fundamental questions of:
- WHY is the work being done?
- WHO will benefit from this work or service?
- HOW will the work or service be delivered?

This structure enables road management strategies to be more visible and more easily understandable to the people of Victoria, by emphasising the outcomes the community wants from its road system.

The programs are now structured to address the prime areas of:
- Road Safety
- Access and Mobility
- Economic Development
- Environment
- Customer Services

Strategic guidelines setting out the Statewide emphasis for each program are issued annually to reflect Government and corporate strategies, community priorities, economic benefits and the existing physical and operating conditions of the road system.

■ Corporate Planning

A number of projects were utilised through the year to enable us to work to these programs with improved efficiency:
- The VIC ROADS Corporate Plan, entitled "Creating our Future," which sets out our purpose, aims and values was released to clarify the key issues critical to the provision of effective and efficient services to our customers.
- The Business Area Planning Guidelines, which are a key element in developing a more commercial approach to

service delivery and charging within VIC ROADS, were revised.
- Authorisations and Delegations, which are used to ensure every officer has all necessary authorisations and delegations to carry out his or her job, were also revised.
- A "Futures Forum" was conducted to develop a framework within which VIC ROADS can effectively plan for and support Victoria's future transport needs.
- A Senior Officers Conference was conducted as the major forum to determine the key issues facing us, the actions needed to address those issues and to review our objectives and programs.

■ Policy Development

A number of significant changes in policies affecting road users have been developed and implemented over the past twelve months. These changes, which flowed on from consultation with the community, have been carried out to minimise regulation and the administrative processes required.

The major changes were:

Freight Movement
- General Permits were introduced to simplify the movement of overdimensional loads and to simplify the administration of these operations.
- A number of changes were introduced to align Victorian regulations with agreed National guidelines to improve interstate transport efficiency.
- Measures to improve vehicle safety were developed jointly with the NSW Roads and Traffic Authority. These include speed limiting of prime movers and coaches and monitoring the operation of these vehicles.

Public Transport and Taxis
- Improved training standards for taxi drivers were developed in conjunction with the industry.
- Restrictions on the assignment of taxi licences and leasing of taxis were removed to improve the use of available taxis, and fare structures were adjusted to encourage availability in periods of peak demand and at night.
- A working party was established to improve bus safety, particularly in relation to school bus services.
- Smoking was banned in buses and taxis.

Access for Disabled People
- Fifty additional licences were made available in the metropolitan area for taxis capable of carrying disabled people.
- Guidelines were developed for a uniform Statewide parking scheme for disabled motorists and passengers.

Safety and Amenity in Local Streets
- Guidelines on new approaches to improve the safety and amenity of local streets were developed in consultation with a wide range of residents and local government representatives.

■ Transport Planning

In response to the growing community and Government concern for improved transport planning in Victoria, the Strategic Transport Planning Department was established in late 1989.

Strategic projects and consultative processes are underway in the following key areas:

- *Travel Demand Management*

A recently commenced study of "Traffic in Melbourne" will provide a strategy to address the demand for and management of Melbourne's traffic to the year

2000, and beyond. It has an integrated transport context to support the Government's metropolitan development policy, and social, environmental, safety and economic objectives.

❑ *Transport System Planning*
Strong input has been given to assist the Department of Planning and Urban Growth in its work on:
❑ Victoria's Long Term Urban Development Project, and
❑ Transport Systems for the Metropolitan Growth Corridors within the Plenty Valley, Werribee and the south eastern region of Melbourne.

❑ *Transport Modelling and Forecasting*
Travel demand forecasting is being decentralised with a computer-based package named TRIPS. Training sessions are being provided on traffic assignment and transport modelling to increase the use of this package throughout the organisation.

Transport modelling capabilities are being progressively improved with analysis models of the public transport network.

❑ *Transport Planning Data*
Preliminary work has been completed to enable a major survey of metropolitan travel habits to be undertaken over the next five years. Transport planning data and information is being assembled into commercially marketable sets for use by other organisations interested in transport efficiency.

One of the first community consultation group discussions seeking input to the Traffic in Melbourne study.

HUMAN RESOURCES

Our emphasis continues to encourage employees to develop to their full potential.

Due to organisational changes, the mobility and development of staff was a critical issue this year. A focus was directed on assisting more than 350 staff seek new career opportunities and to encourage their development to create a stimulating and healthy work environment.

The basic area of career development was consolidated and expanded together with an on-going program of role clarification and information.

The Equal Employment Officers developed an EEO policy for VIC ROADS and instigated a vigorous education program for all employees, with EEO training modules being included in all management and supervisory courses.

■ Structural Efficiency

It is part of a nationally agreed consensus between Government, industry and the union movement that work patterns and practices in all sectors of industry need to be overhauled in order to achieve greater efficiency and productivity and thus secure Australia's standing in the world economy.

VIC ROADS has an objective "to promote flexibility in the deployment of our workforce to maximise the service output of the organisation and the career development of staff."

This allows us to use structural efficiency as a "lead strategy" to drive other organisational reforms needed to deliver government programs in today's retracting economic environment.

We chose to work toward that objective by using a high level of staff involvement to identify barriers to and opportunities for improved efficiency, with working parties representing different occupational categories to:

- communicate with staff on the objectives of award restructuring; and
- to develop proposals for award restructuring in particular occupational categories.

The working parties were successful in achieving these objectives and have proposed a new integrated classification and pay structure.

Early this year VIC ROADS made a joint application with unions to establish a new Award covering all trades, technical and professional employees from the bottom to the top of the organisation.

A Joint Union Management Structural Efficiency Committee (JUMSEC) has enhanced the consultative process in relation to structural efficiency and has allowed a number of issues to be resolved at an early stage.

■ Industrial Relations

The initial focus of the industrial relations activity during the year was to negotiate and implement industrial agreements required to ensure the harmonious merger of the road authorities into the new VIC ROADS.

A Relocation Agreement was negotiated to protect the entitlements of employees who are required to relocate their work places or their homes as a result of organisational changes. A mobility package for all VIC ROADS employees is now being negotiated.

The Industrial Relations Section has also negotiated uniform agreements for

VIC ROADS in redeployment, part-time employment, technological change, occupational health and safety and interim guidelines on screen-based equipment. Negotiations on a new screen-based equipment agreement will commence shortly.

■ Workcare

There has been a shift in emphasis towards claims management which has had a positive impact on our performance.

A total of 843 Workcare claims were received this year – a decrease of 13% on last year. This reduction comes from a number of factors, including an increased awareness of safety by staff and management.

There has also been a significant reduction in the number of long term claims (over 52 weeks) which is due to improved rehabilitation procedures, early intervention and action on claims, and greater involvement by managers.

■ Welfare Counselling

The network of Inter-Church Trade and Industry Mission (ITIM) services introduced last financial year, was extended to cover former RTA areas with the total service hours being extended from 60 to 98 hours per week.

This ITIM service is one of pastoral care (not denominational) and provides support to field and office staff with personal problems. It complements the professional services provided by our occupational psychologist. The demand for both these services has increased significantly over the past twelve months.

■ Safety Services

A variety of safety services are provided (including safety training, safety engineering, ergonomics such as manual handling and screen-based equipment), and industrial hygiene involving hazardous materials.

Business Planning for Efficiency

The business planning approach in VIC ROADS is enabling the organisation to become more commercially competitive, and to respond flexibly, efficiently and productively to the changing needs of road users and other customers. This helps us to provide consistent higher levels of service to customers and to focus on their requirements.

Effective business planning ensures that we deliver programs that the community want, and that we manage resources in a commercially orientated manner. More than 40 business areas have been established in VIC ROADS.

Business planning involves each area of the organisation reviewing what services are required, how this demand will be met and what resources will be needed. A critical analysis of the organisation's environment in terms of key issues from client groups and customers, demands from the community, and Government strategies is therefore the first step in the process. Rigorous consideration is then required of the benefits achieved through all current programs, and of the resources devoted to each. Included in this is a review of current service delivery standards and the quality of our products. Options to improve the delivery of programs and services are then considered, and actions to streamline these mechanisms are developed.

All business areas now develop strategies to enable VIC ROADS to better respond to customer needs and to achieve Government objectives. Services being delivered are monitored.

An example of Business Area Planning might involve the provision of a service such as the road design service for a road project aimed at improving road safety. Engineers and planners who provide this service operate in a commercially competitive way on the basis of a fee for service. A contract price for the design is calculated. This allows the project manager to compare the internal costs with those available externally.

Business planning therefore helps to reduce costs and ensures that the organisation continues to be efficient.

Another major drive to improve efficiency was undertaken by the Business Services Division which concentrated on the rationalising of services, with a particular aim to identify their true cost. As a result some of the services have been privatised and in other cases the manner in which they have been provided has been significantly changed.

Some examples:

- There has been an integration of resources which manage data bases so that more comprehensive information can be provided about the operation of any particular part of the road network.
- VIC ROADS' plant fleet has been reduced in size and focussed towards specialised road maintenance.
- Improvements to the design of plant items has increased productivity in construction and maintenance operations.
- Rationalisation of the buildings formerly occupied by the RCA and RTA has resulted in net rental savings of about $2 million per annum.
- Development of a computer system to manage property acquisition, which has reduced the time required for negotiating with property owners.
- Management costs of properties purchased for road purposes have been reduced by $60,000 a year.
- A review of energy management in VIC ROADS' offices resulted in a potential saving of $80,000 a year in energy costs.

■ **Training and Development**
Two per cent of the salaries budget was dedicated to training to ensure our continued investment in people.

52 management, supervisory and personal development courses were conducted, with 2362 people undertaking 68,160 training days.

88 information technology courses were held. 60 courses were developed to meet specific training requirements. In addition, places have again been made available to officers from local government and Australian Road Research Board (ARRB).

Five workshops involving approximately 70 managers were conducted to assist them to understand and take responsibility for information and technology planning and management issues.

Efforts have been made to increase the use of our West Gate Training Centre by hiring it to other organisations in "off peak" times – it now has 25 regular external clients.

■ **New Information and Communication Systems**
With the merger of the RCA and RTA, a major project was completed to consolidate the computing environments of the two organisations. Two contracts were successfully completed – the first was to upgrade the computer room facilities in Carlton and Kew, and the second to replace the IBM and Amdahl mainframes in Carlton and Kew with an upgraded IBM mainframe in Carlton. This has substantially improved our computing performance and reliability.

To considerably enhance the ability of our word processing, a program was started in January to introduce Word Perfect as VIC ROADS' word processing package. 35 training courses have been run, giving a total of 280 staff trained. 200 copies of Word Perfect have been installed.

Office automation has been upgraded with the number of electronic mail (PROFS) users increased from 320 to 780, and a number of management information features added to the system. Financial statements for each month are now available in standard form or can be compared to the previous and following month. Traffic information is available showing accident information, signal faults, news flash (which is a facility to quickly bring attention) and events which affect traffic. A project reporting system is also available which shows the status and progress of major projects.

Telephone systems were also restructured with the nine ex–RCA and ex–RTA PABX'S in the metropolitan area being combined into one telephone network; putting all VIC ROADS metropolitan staff on to a four digit extension dialling system, making internal communications much simpler. Telephone systems in Geelong, Ballarat and Traralgon were upgraded.

Creating Excellent Customer Service

With the formation of VIC ROADS, new arrangements operating through eight regions and a network of 27 local District Offices were implemented to improve the delivery of services to customers throughout the State.

The operation of District Offices and agencies was decentralised to two Operational Directorates which by more appropriate location and a more effective and efficient use of resources has eliminated areas of duplication

Greater accountability has been devolved to the local level to better establish effective links with the communities. This has been achieved through better co-ordinated and integrated delivery of the many services provided to road users on road and traffic management, road safety, registration and licensing.

Increased convenience for customers has been achieved by more convenient access to services, an expansion of the services provided in many areas and the establishment of some new offices. Local councils also have greater access to road and traffic management arrangements with more offices now delivering these services.

The challenge in the coming year is to 'package' our expertise so that more routine processing can be carried out on-the-spot while the customer is present. This process will be facilitated by a service improvement group which has been set up to decentralise all routine processing by the end of 1991.

■ Quality Service

Over the past year there has been an increased focus to accurately identify VIC ROADS' customers, to determine their needs and to change our systems and procedures to meet those needs in the most efficient way. This drive has been reinforced through a program of Quality Service Management with an extensive education program underlining the commitment of managers and staff to a continuous program of improvement.

This has included:

- Two–day "Introduction to Quality Service Management" workshops for senior executives and managers.
- Quality Service Awareness Management sessions for VIC ROADS metropolitan and country offices.
- Custom-designed Quality Service Management programs for union groups and designated work areas.

To accelerate the understanding and adoption of practical quality service measures in the work place, 36 Quality Improvement Facilitators were selected for training in quality improvement tools and techniques. They will assist Quality Improvement Project Teams to develop improved systems and procedures in the work place. Considerable effort has also been directed towards informing external contractors, consultants and local government of the impacts which quality systems will have on their operations and dealings with VIC ROADS.

Quality service management techniques and tools are now being practically applied though the organisation as project teams review many of our systems and work area processes. 68 Quality Improvement Projects were nominated during the year and their work has commenced. Procedures have been established to monitor the extent and impact of these projects.

To recognise and reward staff for exceptional levels of performance and service the Service Excellence Award scheme is used. This has been well

received and 57 staff members have had outstanding service delivery recognised.

REGISTRATION AND LICENCES

In recent years a substantial growth of around 4 per cent each year in registration and licensing services has been conducted with a workforce reducing by more than 3 per cent each year.

This has been achieved by higher levels of staff training, investing in new technologies, simplifying and improving procedures, and decentralising.

■ Driver Licensing

The road safety regulations require VIC ROADS, upon notification from the Sheriff's Office, to suspend driver licences of persons who have failed to pay fines. In conjunction with the Sheriff's Office we have implemented new procedures which are designed to increase compliance with court orders on traffic violations.

The Driver Licensing section worked in conjunction with the Liquor Licensing Commission (in a program to reduce under age drinking) for the smooth introduction of the "Proof of Age" card on 1 May.

The Proof of Age card for persons over 18 years who don't have a driver from VIC ROADS' Registration and Licensing Offices for $15.

A Learner Permit with photographic ID was developed (to be first issued from 1 July 1990) together with the refinement of proof of identity requirements. The use of photographic ID learner permits eliminates double handling of applicant records and thereby reduces customer time at VIC ROADS' offices.

■ Driver Certificates
Drivers of commercial passenger vehicles, taxis, private buses and tow trucks are required to hold a driver certificate issued by VIC ROADS.

Testing of metropolitan taxi drivers is conducted, under delegation from VIC ROADS, by approved taxi depots under the supervision of the Victorian Road Transport Industry Training Committee.

1989/90	Certificates Issued
Metropolitan taxi and and hire cars	2,322
Country and urban taxi and hire cars	941
Metropolitan route and and charter bus	495
Country and urban route and charter bus	734
Private bus	789
Tow truck	396
Other	456
Total	6,133

■ Stamp and Stick Registration Certificate and Label
Continued improvement to the text and information contained on the 'Stamp and Stick' renewals has resulted in an increase from 50% to more than 70% in the number of registration renewals being paid at banks – a major service improvement.

■ Dealer Certification Scheme
Selected new car dealers are empowered to act as registration agents for VIC ROADS, with registration labels and number plates on hand so that customers can be provided with a 'one stop' service at the time of purchase. As at 30 June 1990 the scheme had expanded to cover 860 new car dealers across the State.

■ Marketing of Custom and Personalised Number Plates
Enhancement to the registration plates computer has resulted in speedier and more efficient service to the public, and an on-line ordering system has enabled District Offices to provide an expanded and faster service to customers.

■ Registration Transfers
Information bulletins have been distributed to provide explicit details on the procedures for transferring vehicle registrations and the correct assessment of vehicle market value for stamp duty.

■ Registration Fees
The annual renewal fees for vehicles registered 'private domestic' have now been abolished, and a simplification to the fee structure is being investigated for all other vehicles.

■ Vehicle Licensing
On 30 June 1990 there were 3,248,439 motor vehicles registered and 2,729,637 driver licences on issue in Victoria.

The Transport Act 1983 requires vehicles operating as commercial passenger vehicles and tow trucks to be licensed.

Provision is made for notice of licence applications, excluding taxi licences, to be published in the Government Gazette and for objections to be lodged.

Where no objections are received or the objections are resolved, the applications are determined by VIC ROADS. Other applications are referred to the Road Transport Licensing Tribunal.

During the year, VIC ROADS referred 231 applications to the Tribunal for issue or variation of the commercial passenger vehicle and tow truck licences.

❑ PASSENGER VEHICLE LICENCES - TAXI AND HIRE CAR

	Number of licences issued in 1989/90	Number of licences on issue in total
Metropolitan taxi	-	3048
Metropolitan hire car	39	274
Urban taxi		
Ballarat	1	53
Bendigo	-	59
Geelong	-	120
Urban hire car		
Geelong	1	7
Ballarat	2	2
Country taxi	19	487
Country hire car	10	70
Special purpose vehicle	39	353

❑ PASSENGER VEHICLE LICENCES - BUS

	Number of licences issued in 1989/90	Number of licences on issue in total
Metropolitan route	17	1495
Metropolitan charter	11	532
Urban route	2	123
Urban charter	1	48
Country route	4	524
Country charter	17	189
School	30	2079
Touring	1	204
Special purpose	16	344
Private bus	31	953
G.P. (Goods and Passenger)	-	2

■Taxi users

Taxis are an important part of metropolitan transport, providing an estimated 23 million passenger trips and generating about $179 million in fare revenue a year. Problems experienced by the public in obtaining taxis are continually being assessed, and on-going surveys of the industry are undertaken to ensure the fare structures encourage a high level of service to the public, and to issue sufficient licences to cover public need.

During the past year fraud detection activities have resulted in the revocation or suspension of 18 Driver Certificates and the referral of six cases to the

Victoria Police for further investigation and possible prosecution.

■ Taxi Cab Licensing
Applications were approved for the issue of taxi-cab licences at Alexandra, Bairnsdale, Bannockburn, Beaconsfield, Beaufort, Camperdown/Cobden, Healesville, Kinglake, Koondrook, Lakes Entrance, Lorne, Mallacoota, Metung, Orbost, Rosedale, Seymour, Tarwin Lower, Warburton, Wodonga and Yea (2). Applications to license multi-purpose taxi-cabs (M50's) able to carry persons in wheelchairs were approved for Ballarat and Warrnambool.

■ Multi Purpose Taxis
These give improved personal mobility to people with disabilities who aren't able to use public transport services.

Members of the program are entitled to a discount of half the metered taxi fare up to a maximum of $25.00 per trip. The 50% discount is refunded to the taxi industry by VIC ROADS and applies to all taxis in Victoria including wheelchair capable Maxi Taxis. There are 20 Maxi Taxis licensed to operate in the metropolitan area, six in Geelong, four in Frankston, three in Ballarat and Bendigo and one each in Bairnsdale, Cowes, Dandenong, Horsham, Mildura, Moe, Mornington, Morwell, Rosebud, Shepparton, Traralgon and Wodonga. In June applications were invited to operate an additional 50 of these vehicles in metropolitan Melbourne.

Admittance to the program requires a formal application including a medical report outlining the nature of the applicant's disability. All membership cards expired on 30 June 1990 and the renewal of approximately 88,000 cards was successfully completed by mid June. The renewed cards are issued for life, removing the need for further renewal.

At 30 June 1990, there were 87,782 members in the Program (67,037 in the metropolitan area) including 5,231 members who use wheelchairs. During 1989/90 some 2.35 million journeys were made. Fare concessions totalled $9.6 million.

■ Enforcement
Annual permits have been introduced for those house removalists who have agreed to abide by a code of ethics, which has resulted in less inspections being required by enforcement officers.

A concerted effort has been made to reduce the incidence of materials falling off vehicles on the West Gate Bridge. A substantial reduction in insecure loading was achieved through visits to all major trucking firms who use the bridge, and by regular education and enforcement.

■ Prosecution Procedures
During the year greater emphasis was given to the use of 'on the spot' fines to reduce the time required by officers for court appearances and to increase their time for on-road traffic supervision and enforcement.

■ Vehicles Securities Register
This system records details of registered motor vehicles and trailers that are financially encumbered. Information is available six days a week (by telephone) to prospective purchasers who are also able to purchase certificates showing whether any financial interest is recorded against the vehicle. Certificates provide protection against repossession by a financier who has failed to record an interest. Office staff also can advise whether a vehicle has been reported stolen.

Information is available by Viatel seven days a week, 24 hours a day, and credit card facilities are now available. Use of the services has increased this year from 474,227 enquiries to 524,249.

■ Tow Truck Allocation Scheme

The Scheme is administered by the Accident Towing Advisory Committee, comprising representatives of the Royal Automobile Club of Victoria (RACV), the Victorian Automobile Chamber of Commerce, the tow truck industry, and VIC ROADS.

A Control Centre operated by the RACV, under contract to VIC ROADS, is used to allocate tow trucks to accident scenes on a roster basis. There are 123 authorised depots and 382 tow trucks on the roster.

The objectives of the Scheme operating in metropolitan Melbourne are to:

- control the number of tow trucks attending accidents;
- control the behaviour of tow truck drivers and the personnel at the scene of accidents; and
- introduce a system of self regulation.

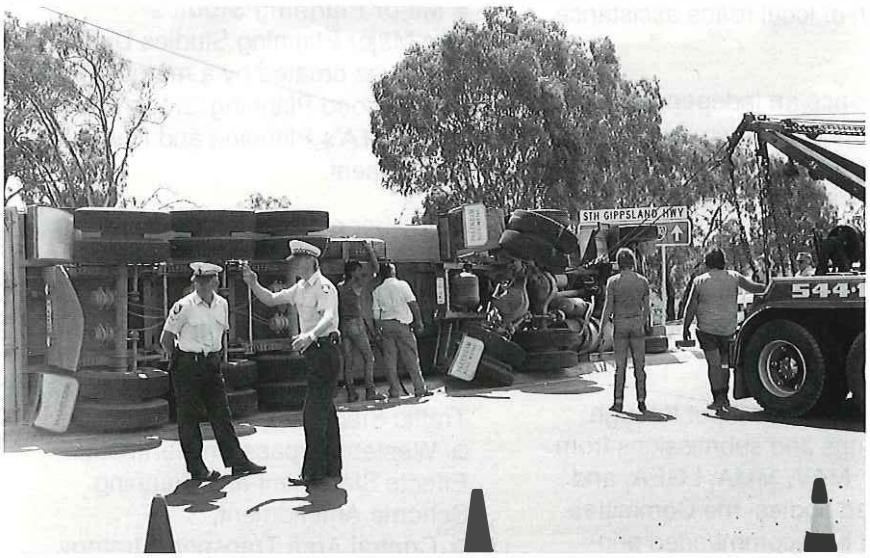
The Transport Act 1983 makes it illegal for any tow truck to attend the scene of an accident without authorisation from the Control Centre.

The Scheme has minimised problems for motorists at accident scenes and introduced standard charges for towing and storage.

The Committee held eight meetings this year, considering issues such as:

- the allocation of accident tows to specific vehicles rather than depots;
- the introduction of the Victorian Tow Truck Drivers' Training Course;
- preventative measures to minimise the exposure of drivers to communicable diseases at accident scenes;
- the inclusion of the Mornington Peninsula in the Scheme; and
- accident allocation prosecutions.

During the year 40,483 allocations resulted in 37,529 vehicles being towed.



Tow truck allocation to minimise problems at accident scenes.

ACCESS AND MOBILITY

The road system must provide access and mobility for all members of the community.

This includes the mobility of pedestrians, cyclists, public transport users and disadvantaged people.

Whereas the demand for road travel is growing faster than the economy or population, the total capacity of the road system cannot be increased at the same rate - for economic reasons as well as for the social and environmental impacts of traffic. Thus the available resources are directed to maintain the existing system and to give improvements to those parts of the system which will provide the greatest benefit to the community.

■ Distribution of Funds for Local Roads

The Australian Centennial Roads Development legislation of 1989 required each State to reach agreement with local government on principles for the distribution of local roads assistance funds.

As a consequence an Independent Committee of Inquiry, chaired by Professor Len Stevens, was established to review the principles for the distribution of State and Federal funds for local roads in Victoria. The Committee was assisted by support staff from VIC ROADS' Program Development Department.

After gaining Statewide input through regional hearings and submissions from municipalities, MAV, MMA, LGEA, and other interested bodies, the Committee has submitted its recommended principles to VIC ROADS to be discussed and negotiated with MAV and MMA to formulate final recommendations for the consideration of State and Federal Ministers.

■ Improving Road Capacity

With limited funds available for new roadworks and increasing community concern with adverse social and environmental effects associated with transport, greater emphasis is being placed on optimising the operation of the existing arterial road network.

Some of the demand management measures that are being examined and implemented are:

- a review of clearway provisions to determine whether current clearway hours should be extended,
- better use and operation of public transport through provision of tram fairways, rail station car parks, bus lanes on freeways and other bus priority measures,
- improved control of bus lanes,
- encouragement and assistance to increase patronage of public transport.

■ Major Planning Studies

The Major Planning Studies Department was created by a merger of the RCA's Road Planning Group and part of the RTA's Planning and Research Department.

A number of studies have been completed or are nearing completion, including:

- Settlement Road, Keon Parade, Mahoneys Road Traffic Study,
- North Fitzroy and Surrounding Areas Traffic Study,
- Western Bypass Environment Effects Statement and Planning Scheme Amendment,
- Central Area Transport Strategy.

Planning studies were also carried out for:
- Fawkner-Reservoir-Coburg Traffic (commenced),
- Docklands Task Force,
- Melbourne Olympic Candidature,
- Interdepartmental Committee - Very Fast Train Project,
- Port of Melbourne Authority - Land-side transport.

Major reviews were carried out on:
- road reclassifications,
- road reservations, and
- airport access.

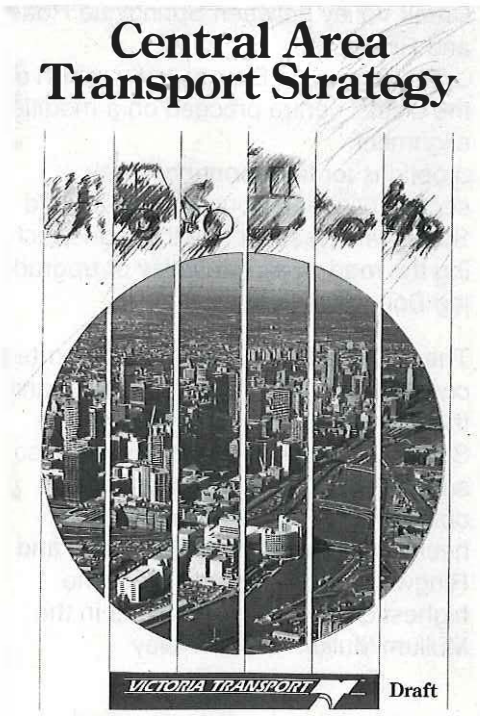
The Department has improved its productivity by introducing computer technology for drafting and graphics purposes. Output has been maintained with lower staff numbers, and through the introduction of business planning greater accountability has been achieved.

Several displays and publications were completed to inform the public of project proposals.

■ VICROADS 2000

The VICROADS 2000 strategy, for the development of Victoria's rural arterial roads to the year 2000, was substantially completed this year. It is presented within a Statewide report and five regional reports setting out directions for future rural arterial road programs with priority being given to:
- improving road safety,
- maintaining the road network,
- assisting the economy by developing national routes and assisting tourism, and
- being responsive to environmental needs.

The Strategy has been developed in close consultation with rural communities. Community groups, local government, industry and Government agencies have all been involved through workshops and forums around the State.



The CATS plan, a long term transport strategy to reduce commuter traffic in the City centre.

■ **Central Area Transport Strategy (CATS)**
A major study to integrate inner Melbourne's transport services and land use was substantially prepared during the year. CATS will enhance the urban environment in a bold new transport vision to revitalise the centre of Melbourne and attract people back to the city.

The strategy will provide improved bypass routes around the city to reduce congestion by through traffic and will encourage commuters to travel by public transport.

The CATS Strategy will move people and goods in and around the central area more efficiently and with far less impact on the environment. It is the result of a comprehensive process to obtain the widest possible input from the community at large.

■ **Traffic Incident Management**
Further developments have been made to establish an incident management system, so that traffic delays and hazards on the metropolitan arterial road network can be minimized.

An on-road Incident Management Group provides a 24-hour service to co-ordinate management of major traffic incidents, together with more effective use of the VIC ROADS' Traffic Control and Communications Centre in providing agency and media advice.

On metropolitan freeways and arterial roads, additional measures include the extension of closed circuit television, cameras and incident detection loop systems, median opening gates and the installation of variable message signs on the freeways and approach roads.

■ **Eastern Arterial Extension and Ringwood Bypass**
Proposals for the extension of the Eastern Freeway as an arterial road, between Doncaster and Ringwood and for the Ringwood Bypass have been the subject of a review conducted by an independent panel which was appointed by the Government in August 1989.

Current and future travel needs in the eastern corridor were examined and road proposals were reviewed in terms of transport, economic issues, land use, social and environmental consequences.

After considering public submissions, including those presented during 23 days of public hearings, the Review Panel in June 1990 released draft recommendations which included proposals that:
- no road be built in the Mullum Mullum Creek Valley between Springvale Road and Ringwood,
- The Ringwood Bypass to the north of the district centre proceed on a modified alignment,
- options for the Koonung Creek section between Doncaster Road and Springvale Road were either constructing the road along the valley or upgrading Doncaster Road.

The VIC ROADS submission supported constructing the Ringwood Bypass and the Eastern Arterial Extension to Springvale Road. The submission also supported a further examination of options for a high standard road connection between Springvale Road and Ringwood, and preservation of the highest quality bushland areas in the Mullum Mullum Creek Valley.

■ **The Western Bypass**
A major program was achieved in planning for the Western Bypass with the preparation of Environmental Effects Statements and Planning Scheme Amendments for the proposed link between the Tullamarine Freeway and Footscray Road being exhibited in December 1989.

The proposed route follows the alignment of the Mooney Ponds Creek and part of the Upfield rail line.

As a lead up to the proposals a series of public meetings were held in areas affected by the Bypass to explain and examine the options. A significant aspect of the study involved investigations into public health impacts of the proposals.

The Panel hearing into the EES submission has been deferred pending a review of the Upfield line.

■ **Road Classification Review**
The Statewide Review of Road Classifications is being carried out by VIC ROADS and local government (through the LGEA, MAV and MMA) to classify roads by their current functions and to clarify the levels of responsibility for each road.

The arterial road network, for which VIC ROADS is responsible, is identified by criteria such as traffic volumes and use of the road for economic significance; remaining roads are therefore within the control of local government.

Discussions have taken place with municipalities across the State to resolve classifications for individual roads. As agreement is reached changes to classification are published in the Government Gazette. To date, agreements have been made with 85% of municipalities involving more than a thousand road classification changes.

A number of heavily trafficked roads have shifted from Councils to VIC ROADS, and vice versa. Overall there has been no funding level change, however there has been some shift in allocations to individual councils.

Approximately 190 Gazettal diagrams were prepared, representing about 700 of the total 1100 changes to road classifications.

The classifications of roads are:

❑*State Highways*
Principal arteries that provide interstate connection and links between larger centres in the State. Some are part of the National route system, with uniform numbering throughout Australia.

VIC ROADS accepts full cost of construction and maintenance needed for through traffic.

❑*Freeways*
Usually with dual carriageways and no direct access from properties or from side roads. Most crossings by overpass or underpass. Traffic enters and leaves by ramps.

VIC ROADS accepts full cost of construction and maintenance.

❑*Tourists' Roads*
Provide access to places of special interest to tourists, both in summer and winter.

VIC ROADS accepts full costs of works needed for through traffic, usually done by municipalities under direct supervision of VIC ROADS' staff.

❑*Forests Roads*
In or near State forests or in timbered,

mountainous or undeveloped areas.

VIC ROADS accepts the full cost of works needed for through traffic, with about half the work undertaken by municipal councils.

❑ *Main Roads*
Link major centres, plus roads within areas of industry, commerce or settlement. Usually built and maintained by municipal councils to the satisfaction of and with financial help from VIC ROADS.

In some cases, at the request of the council and with the approval of the Minister, works are done under the direct supervision of VIC ROADS' staff.

❑*Unclassified Roads*
Road not declared or proclaimed under the Transport Act 1983. These roads are the responsibility of municipal councils.

However, VIC ROADS helps finance construction and maintenance works, generally in accord with priorities allotted by councils.

■ **Metropolitan Route Numbering**
The Melbourne Metropolitan Route Numbering System has been upgraded in response to the continuing development of the metropolitan area of Melbourne and the poor standard of route numbering in some areas.

The process of review involved consultation with over 54 metropolitan municipalities as well as road user groups.

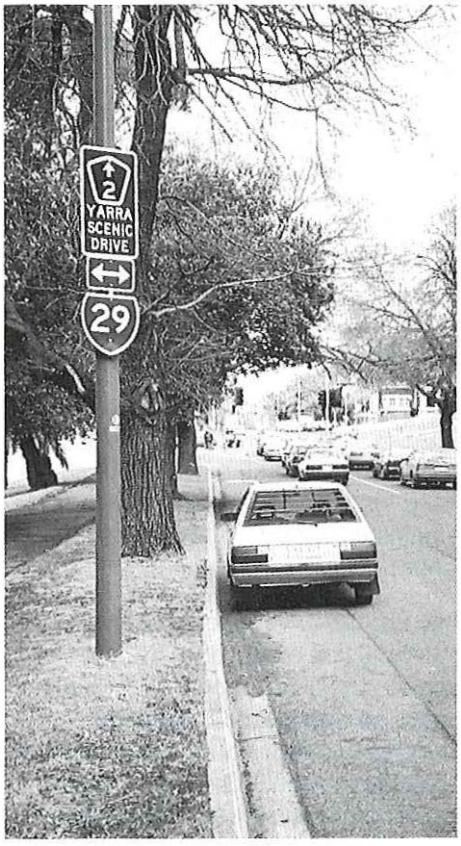
The system benefits visitors to Melbourne as well as those unfamiliar with parts of Melbourne. It assists motorists to plan and navigate the route they wish to travel by noting route numbers (as shown at right) instead of road and suburb names.

The benefits include quicker and easier planning of a trip, together with time and fuel savings from the more efficient use of the road network. Road safety benefits come from less confusion and apprehension that can often impair driver performance in unfamiliar locations.

The route numbers have been incorporated in the latest copies of street directories and maps.

76,000 signs were installed at 1,060 intersections and other locations at a cost of $530,000.

The last signs were installed in April 1990, and maintenance will be undertaken by VIC ROADS.



ECONOMIC DEVELOPMENT

Transport costs have been reducing dramatically over the past two decades – due in part to improvements in vehicle efficiency and road and traffic improvements, especially on inter-capital and inter-regional routes.

The VIC ROADS Economic Development program is directed to aid National, State and regional economic growth through cost-effective improvements to the road system. The flow of export-bound commodities is assisted by the provision of direct routes and intermodal improvements at sea-road, air-road and rail-road junctions.

Also, an effective road network is essential to support the needs of tourism.

In the past, road authorities have responded to economic development objectives by improving the main inter-capital and regional routes - now projects in urban areas are included to assist cross town and trade orientated freight movement as identified in the National Roads Study of Victoria (NATROV).

The VIC ROADS' Economic Development program targets projects and services which contribute to State and National economic objectives by improving the efficiency and effectiveness of Victoria's road transport system. This is particularly important for routes used by trade exposed industries – those producing exports or import-replacement goods and international tourism.

Funds for the construction and maintenance of the principal interstate routes of the Hume Highway between Melbourne and Sydney and the Western Highway between Melbourne and Adelaide are provided from the Federal Government as National Highways, within the Australian Centennial Development Program (ACRD).

Victoria's strategy for development of the Hume Highway gives priority to complete duplication between Melbourne and the NSW border and construction of bypasses of Euroa, Springhurst and Wangaratta.

In July 1989 12 km of duplication between Bowser and Springhurst was opened to traffic. In March 1990 5.2 km of duplicated carriageway between Springhurst and Chiltern was opened.

The strategy for development of the Western Highway gives priority to the bypass of Ballarat. Over $15 million was spent on this project in 1989/90 and completion is programmed for 1994.

The 1987 NATROV strategy provided for the development of an arterial road network to complement and link the major interstate and intrastate freight routes with industry, freight distribution areas, sea and air ports.

ACRD National Arterial funding has enabled the opening of several projects in 1989/90:

- South Eastern Arterial Widening Springvale Road to Jacksons Road opened May 90)
- Princes Freeway East Bypass of Morwell Stage 1 (opened April 90)
- Princes Highway West Forsyths Road Overpass (opened Jan 90)
- West Gate Freeway Todd Road Ramps (opened Dec 89)

In addition to the completion of these projects, significant progress has been made in 1989/90 on the Broadmeadows Section of the Western Ring Road

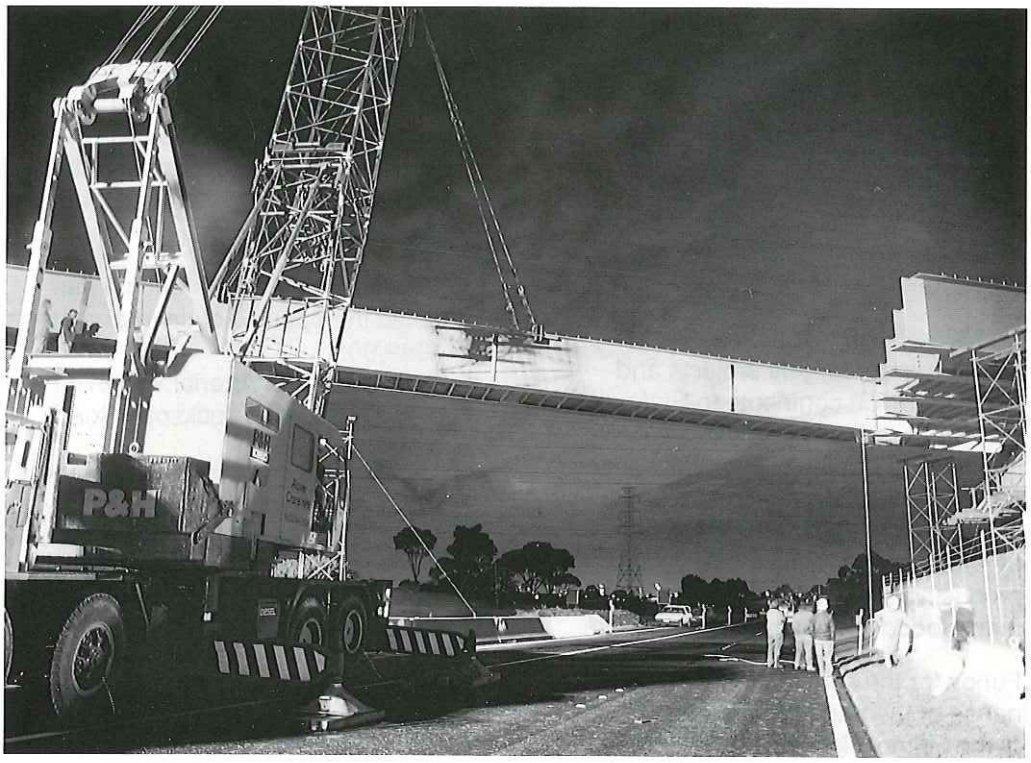
between Tullamarine Freeway and Mahoneys Road, the Bell Street – Banksia Street link at Heidelberg, the widening of Punt Road between Bridge Road and Swan Street and the duplication of the Calder Highway, between Keilor and Diggers Rest. These projects will significantly assist efficient road transport.

■ Western Ring Road Study - Tullarmarine to Laverton North

The Environment Effects Statement (EES) for this project was available for public comment from November 1989 to February 1990, together with a series of planning scheme amendments to reserve the land required for the favoured option. This exhibition was the end product of a detailed investigation and consultative process that began in September 1988.

The EES was supported by a series of supplementary reports covering topics including existing and future traffic, noise, air quality, options for the Calder interchange, community profile, social impacts, flora and fauna, archaeology, landscape, economic assessment, land use and soil contamination.

The favoured option was located along the existing planning scheme reservation except at Ardeer, where a deviation to the west was recommended. The existing reservation through Ardeer was far too narrow by current standards, and an arterial road in the reserve would have caused severe environmental and social impacts on the abutting residential developments.



Lifting beams for the Western Ring Road bridge over the Tullamarine Freeway.

Other features of the favoured option are:

- a second connection to the Melbourne Airport,
- a possible future high standard interchange with the Calder Freeway at East Keilor,
- a major 600m long high-level bridge over the Maribyrnong River,
- connections to key and local arterial roads south of the Calder Freeway and at Sunshine Avenue, Furlong Road, Western Highway, Fitzgerald Road, Boundary Road and West Gate and Princes Freeways.

Following the receipt of submissions as a result of the public exhibition, a panel appointed by the Minister for Planning and Urban Growth conducted a public hearing over the period of 28 May to 18 June 1990.

ENVIRONMENTAL ENHANCEMENT

The thrust of the Government's strategies on energy, conservation and metropolitan development is to conserve energy, improve the urban environment and foster urban consolidation..

To help achieve these aims and in particular to reduce the adverse environmental impacts from roads and traffic in the most cost effective way, the VIC ROADS' Environment Program has been developed.

Roadside management provides roadside conservation by careful design practices, selection of plants and vegetation management.

Air quality is protected by programs and education to control vehicle emissions, and by increased tree plantings along road reserves to improve amenity, and lessen the impact of the greenhouse effect.

Noise barriers have been installed on freeways and more will be installed where warranted to reduce traffic noise.

Local amenity is protected by modifying the patterns of traffic to reduce traffic intrusion.

Energy is conserved by projects which assist public transport, by public education on reducing fuel use and by road design and traffic management to improve traffic flow.

■ Roadside Management

VIC ROADS is currently working towards the development of Roadside Management Plans for the State's principal road network. These plans describe a strategy for the management of individual roadsides and take into

account maintenance and safety requirements, conservation and landscape values, fire risk management and the activities of the various service authorities that share the road corridor.

We are also working with the Roadside Conservation Committee to establish a procedure to help develop roadside management for local government roads.

Another joint initiative being developed by the Roadside Conservation Committee and VIC ROADS is the signing of Significant Roadside Areas. These signs are designed to identify and protect areas of conservation value.

■ Landscape

The road and its environs provide one of the most frequently viewed public landscapes and feature in most people's day to day activities.

The landscape plays a significant role in the visual quality of a road facility, in the protection of conservation values along roadsides and in the safety and functional requirements of a road. It is important in establishing a 'sense of place' or identity for a stretch of road and with appropriate planting can also achieve a 'sense of travel' and relief from the monotony of a journey.

The Landscape Section carries out the landscape planning, assessment and design associated with VIC ROADS' activities. This work includes the development of planting for new freeways and arterial roads, streetscape, rest area development and rehabilitation of existing plantings as well as being involved in developing landforms, bridges and retaining walls.

Some of the main landscape projects underway at present are:

❑ Western Ring Road. Detailed design for the Broadmeadows Section, and concept development for the Western Section.

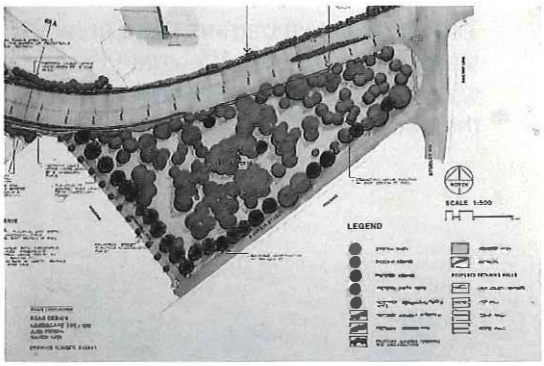
❑ Tullamarine Freeway. Assessment of the existing landscape and development of concepts to enhance the existing planting and to link them with proposals for the Western Bypass.

❑ Hume Freeway. Landscape design for

Example of the environment protection signs to be installed.

the Wangaratta and Euroa bypasses.
❑ Bell/Banksia Link. Landscape design and retaining wall treatments.
❑ Hernes Oak Rest Area on the Princes Highway East. Preliminary site design.

Other environmental activities of the year include:
❑ Preparation of a Draft State Environment Protection Policy for Traffic Noise: The EPA has commenced work on the policy with technical and financial help from VIC ROADS.
❑ Heavy Vehicle Exhaust Emission: VIC ROADS is assisting the EPA in carrying out a survey of the noise levels generated by trucks operating on Victorian roads. To date noise levels of approximately 200 trucks have been measured to assist the EPA in preparing acceptable in-service noise emissions for heavy vehicles.
❑ Archaeological Surveys: It has now become accepted practice for archaeological surveys to be carried out for significant projects. During the past year surveys have been carried out or were in progress on the:
• Western Ring Road
• Kyneton Bypass
• Calder Freeway (Diggers Rest to Gisborne)
• Eastern Arterial Extension plus Ringwood Bypass



Landscaping for the widening of the Princes Highway through Malvern, which involved transplanting mature palms. Top: typical landscape plan.

❑ Draft Environmental Policy: A Draft Policy on Roads and the Environment was published. Following receipt of public comment the draft policy will be modified, if necessary, and adopted.
❑ World Environment Day: Activities were organised throughout the organisation, concentrating on tree planting and the use of environmentally friendly transport.

■ Noise Barriers

VIC ROADS currently uses three styles of noise barriers, a simple reflective style and the more acoustically advanced dispersive and absorption barriers.

The reflection barriers reduce the transmission of unwanted traffic noise, and therefore provide a reasonable amount of protection for residences near our freeways and major arterial roads. While they reduce the noise impact these barriers can reflect noise back towards and beyond the roadway. If this impact is unwanted, a dispersive type of barrier is installed to reflect noise over a greater area.

Where a roadway passes through an area with residences near and along both sides of the road it is necessary to install noise absorption barriers. These provide protection by reducing noise transmission, like the reflective barriers, but do not allow noise to be reflected into nearby houses.

VIC ROADS installed 2km of absorption barrier along the South Eastern Arterial in the past year as well as increasing the height of some barriers.

Timber reflective barriers were erected along sections of the Westgate Freeway, Princes Highway at Laverton and the South Eastern Arterial.

Landscaping of the Princes Highway East at Malvern, incorporating timber noise barriers.

Road Safety

VIC ROADS is committed to reducing the incidence and severity of road crashes and to replacing any tolerance of a high road toll with a personal commitment by all Victorians to safety on the roads.

Road crashes ruin too many lives. Each year about 700 people die and 6,000 are seriously injured on Victorian roads. This means that statistically one or more of every Victorian's close circle of family and friends is likely to be killed or seriously injured in the next 10 years.

In economic terms, road crashes cost Victorians more than $1200 million each year.

The challenge for the 1990's is to reduce the number of fatalities each year to below 500 and to reduce the number of casualties per kilometre of travel by more than 40%.

VIC ROADS is a lead agency in fighting the road toll. In conjunction with the Police, the Traffic Accident Commission and ARRB we implement road safety strategies which confront the key road dangers and generate a commitment to safety.

Publicity campaigns are designed to convince Victorians of the need to change their road behaviour.

In addition, positive steps are being taken with programs which include improvements in community involvement, road safety education, driver licensing, drink driving and speed enforcement, as well as car, bus and truck safety, and safe road improvements.

We know the major factors behind the road toll:

❑ High Risk Behaviour

- human factors are involved in 90% of crashes
- 38% of drivers killed have a blood alcohol reading over 0.05
- speed is involved in 23% of fatal accidents
- young inexperienced drivers have three times the risk of older drivers

❑ The Vulnerability of Pedestrians

- 31% of Melbourne fatalities are pedestrians

❑ The Severity of Truck Crashes

- 18% of fatal crashes and 8% of serious casualties involves trucks

❑ The Protection of Vehicle Occupants

- 67% of road fatalities are in vehicles

❑ The Road Environment

- a direct factor in 4% of crashes and a contributing factor in 30% when combined with high risk behaviour
- 60% of casualty accidents in Melbourne are at intersections
- 60% of rural crashes involve vehicles running off the road

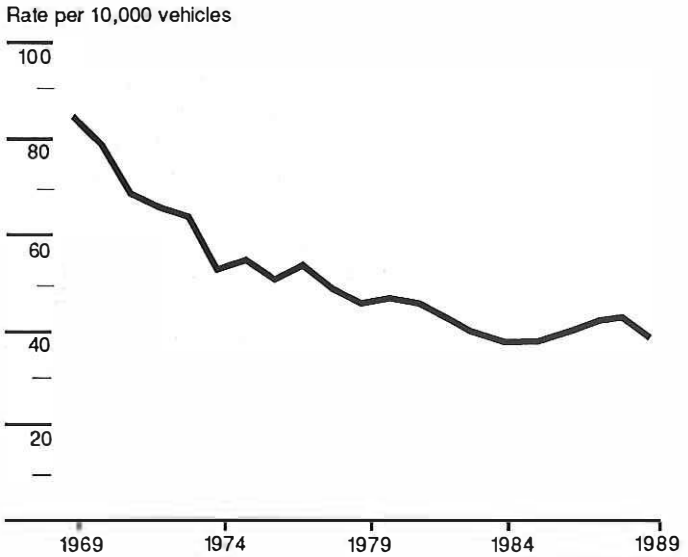
These are elements which we either control ourselves or can influence in others. The VIC ROADS' road safety programs target these factors with the intent to make a major reduction in road crashes.

■ Trends in the Road Toll

In recent years road safety activities have resulted in a significant improvement in the road safety record in Victoria. Road accident fatalities per 10,000 registered vehicles have fallen from 8.1 in 1970 to 2.7 in 1989 indicating that improvements by road safety activities since the early 1970's have clearly outweighed the effect of increases in travel.

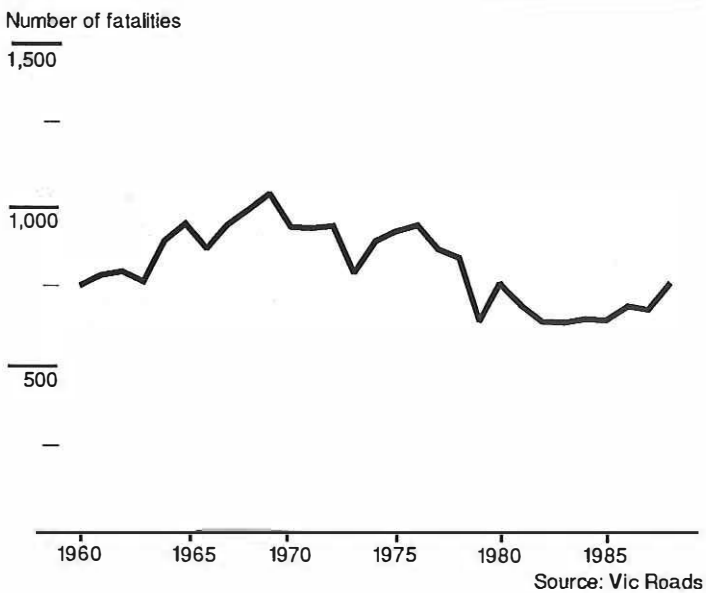
For every person who dies on Victoria's roads, about 8 people require hospital admission and a further 25 require medical treatment. While the fatality

NUMBER OF SERIOUS CASUALTY ROAD ACCIDENTS IN RELATION TO THE NUMBER OF REGISTERED VEHICLES, VICTORIA 1969–1989



Source: Vic Roads

NUMBER OF PERSONS KILLED IN ROAD ACCIDENTS, VICTORIA 1960–1989



Source: Vic Roads

rate (per registered vehicle) has been steady over recent years, the serious casualty (death plus hospital admissions) rate has decreased by 20% over the last five years.

❑ PERSONS KILLED OR ADMITTED TO HOSPITALS IN VICTORIA: 1970-1989

Year	Persons Killed	Persons Admitted to Hospitals*
1970	1061	7,582
1980	657	6,764
1986	669	6,979
1987	705	6,355
1988	701	5,674
1989	777	5,580

* Source: Health Department

The first half of 1990 has seen a substantial decrease in Victoria's road toll over the pattern of recent years with the drop mainly relating to vehicle occupants and pedestrians. This reduction in road fatalities for the first six months continued the significant downward trend since October 1989. It appears likely that this trend is associated with road safety measures introduced in the Road Safety Strategy this year.

This strategy has been designed to attack road dangers through the principal components of human behaviour, the vehicles and the roads.

■ Review of Road Safety Strategy

A continual reduction in the level of road trauma was a primary aim during the early part of 1990. It was seen that inter-agency co-operation and co-ordination, public support and political commitment are the key issues impinging on the development and application of effective road safety countermeasures.

To address the key issues, VIC ROADS, on behalf of the Road Safety Co-ordinating Committee (with representatives from the Police, Transport Accident Commission, VIC ROADS and Ministries of Transport and Police and Emergency Services), organised a road safety workshop in late June 1990. This included representatives from road user groups, road safety research organisations, road safety interest groups and responsible Government agencies. The purpose was to:

❑ Obtain input to the development of a State Road Safety Strategy from the senior representatives of the key Government and community agencies and other organisations; and to

❑ Develop among all parties, the vital sense of ownership and commitment essential to the successful implementation of agreed strategies.

A State road safety strategy for improving and managing road safety in Victoria over the next ten years will be developed from the workshop results. This strategy will be proposed for adoption by the Ministers for Transport and Police and Emergency Services during 1990/91.

■ Community Road Safety Councils

Based on the success of two pilot community road safety programs in the Latrobe Valley and Central Victoria in attracting community support, a statewide network of independent Community Road Safety Councils (CRSCS) has been established with 10 rural and 3 metropolitan Councils now operating, and with discussions being held in four other areas.

The CRSCS aim to reduce road trauma in local areas by developing community action plans and campaigns. This will require community support, particularly sponsorship and the close liaison of all community groups to target local road safety problems.

In 1990/91 VIC ROADS will provide a grant of $25,000, plus up to $25,000 on a 1:1 basis for sponsorship raised, as well as the services of a Road Safety Officer.

■ Compulsory Bike Helmet Wearing
The introduction of compulsory helmet wearing for all cyclists (a world first) was set up to be launched on 1 July 1990, with an extensive public education campaign using the theme "Bike Helmets - Don't Hit the Road Without One."

Traffic safety education consultants in schools promoted helmet-wearing, while promotional materials were made available to the public through an extensive distribution network. In the lead up to helmet mandation, a direct supply scheme between manufacturers and schools was instituted to enable purchase of approved helmets at reduced prices.

To assess the effectiveness of the new regulation, bike helmet usage rates and the incidence of head injuries among cyclists will be monitored.

■ Pedestrian Safety Strategy
This move began in March 1990 to reduce the number and severity of pedestrian accidents. It includes programs such as "Safe Routes to Schools" and alcohol "Server Intervention" which feature behavioural and engineering measures to counter poor road behaviour.

Pedestrian "advocates" are now implementing programs to target children, elderly citizens and intoxicated pedestrians in selected municipalities (Dande-

Compulsory helmet wearing for all cyclists will be introduced in a drive to reduce head injuries.

nong, Springvale, St Kilda, Port Melbourne, South Melbourne, Brunswick, Coburg).

■ **Fatigue: Education Campaign**
Recent research has shown that fatigue is implicated in up to 30% of single vehicle casualty crashes in rural areas. To combat this, VIC ROADS mounted public education campaigns on holiday weekends to alert drivers to the signs of fatigue, and to advise of positive steps they could take to avoid it. Operation Coffee Break, conducted by the State Emergency Service and volunteers at key sites on major rural roads over these holiday periods, was promoted.

Patronage of coffee break sites was excellent; an analysis of trends in single vehicle crashes in rural areas is planned to assess the effectiveness of the campaign.

■ **Development of Road Safety Materials for Schools**
A new series of science-based topic units with a traffic safety theme are under development for years 7-10. These units are linked to the syllabus of the different year levels and are currently being tested in schools for a planned released for early 1991.

A new recreational cycling curriculum unit for post primary levels is also being designed. Years 7 & 8 will be tested during Term 2 of the 1990 School Year, Years 9 & 10, will follow.

The video "Their Lives In Our Hands" was produced in 1990 for parents and teachers to address the limitations of pre school children in traffic, and promotes the Starting Out Safely program. This resource will primarily be used by Traffic Safety Education (TSE) Consultants to heighten the awareness of teachers and parents.

■ **Staying Alive Show**
A new three part video series called "The Staying Alive Show" has been produced in conjunction with the Ministry of Education. A game show approach, using Muppet-style puppets as the contestants, covers various pedestrian and passenger safety issues for junior to middle primary school students. It is specifically intended as a support resource for Streets Ahead, a pedestrian and passenger TSE program produced by VIC ROADS for primary schools.

■ **Road Safety Educators**
In 1989 VIC ROADS employed 21 teachers to implement Traffic Safety Education in schools and pre-schools: this service was expanded with an additional six teachers in early 1990.

Decentralisation of the TSE consultancy services commenced this year and at present consultants in teams of three or four are located in three metropolitan and two rural VIC ROADS regions. This has placed consultants closer to schools and community groups, and will assist plans to expand TSE over the next three years.

To enhance this process, consultants will have expertise in all VIC ROADS TSE programs rather than specialising in one program or area.

In the wider community three consultants provide road safety information to specific groups. Two educators lecture at hospitals, tertiary institutions, antenatal, pre school and parent groups. Issues covered include the limitations of children in traffic, the need for careful supervision, advice on laws relating to child restraints and bicycle helmets and advice on installing restraints.

The senior citizens road safety educator talks to senior citizens groups concerning pedestrian safety, alcohol and road usage. A video "Play It Safe" has been produced to advise senior citizens on their use of the roads both as pedestrians and drivers. It also includes road safety advice for them in their role as grandparents.

■ Child Pedestrian Safety
Each year nearly 300 children up to the age of eight are killed or seriously injured as pedestrians on Victoria's roads. Many of these casualties could have been prevented. In response to this problem, VIC ROADS conducted a public education campaign in May and June to alert adults and parents to children's limitations in traffic and to the steps they can take to enhance their safety.

An evaluation will assess the target audience's recall of the key safety messages with a follow-up analysis of trends in crashes involving young pedestrians.

■ Public Advice Service
A wide range of road safety information is provided to the community. This year more than 6,500 requests for information on road safety issues were processed.

The road safety film and video library handled 5,000 requests for loan materials during the year. Recent additions to the library include:
❑ "Do It Right - Look" – dealing with cycling on the road.
❑ "Bicycle Helmets for Headstrong Children" – promoting the need to wear an approved helmet.
❑ "Take a Walk in My Shoes" – highlights how a child's perception of traffic differs from an adults.'
❑ "The Staying Alive Show", and "Their Lives In Our Hands."

Displays are used to support publicity campaigns and promote traffic safety education programs such as helmet displays to accompany the new bicycle helmet laws.

■ Child Restraint Fitting Stations
VIC ROADS, in a joint venture with the RACV, is establishing a network of child restraint fitting stations to improve road safety for child passengers. Recent studies have shown that many of these restraints are not correctly fitted.

The service will be provided at a nominal fee through approximately 50 specially trained operators in the RACV Approved Repairer Network. The service will be of great benefit to owners of some makes of vehicles in which the correct fitting of a child restraint is difficult. The service is expected to commence in August 1990.

■ Bassinet Loan Scheme
This has been well received by parents and is highly successful in raising the level of infant restraint use in Victoria.

Currently, 210 municipalities are participating, with over 15,500 bassinets available for loan. In most cases, the scheme is administered through either the Maternal and Child Health Care Centre or the municipal office. VIC ROADS provides training to staff operating the scheme and telephone advice.

During 1989, 1,600 "Baby Commuters" were introduced on a trial basis. Public reaction to this alternative restraint is being evaluated.

Road Safety measures.
Top to bottom: Accident Black Spot treatments with guard rail to reduce accident severity, and edgelines to reduce accidents. Education with the Staying Alive Show. Crash cushion to slow out-of-control vehicles. Child restraints.

■ **Evaluation of Accident Black Spot Treatments**
Under contract to VIC ROADS, the Monash University Accident Research Centre (MUARC) has completed an evaluation of the value of accident black spot treatments. It was found that the program had been highly successful in reducing accidents at intersections, and the economic worth of investing in this type of road safety program was highly beneficial.

Intersection casualty accidents were reduced by an average of 33 per cent with reductions being achieved from roundabouts, new signals and fully controlled right-turn phases of 81 per cent, 52 per cent and 44 per cent, respectively. The cost for each intersection treatment was $72,000, with a calculated average benefit to cost factor of 9.

A number of other aspects of traffic engineering safety research including crashes at traffic signals were also carried out at MUARC during this year.

■ **Innovative Crash Cushion Trial**
A crash cushion which has the potential to save lives has been installed as a trial on the new Morwell Bypass. At one location there was a risk that errant vehicles could leave the roadway and hit either of two bridge end posts or continue over a steep drop into the Morwell River.

The protective treatment is an arrangement of steel drums, designed to progressively slow an out-of-control vehicle to a stop without serious injuries to the occupants.

■ **Technical Developments in Speed Management**
The Police have introduced new radar cameras to moderate vehicle speeds. To determine the effectiveness of this program VIC ROADS has undertaken the monitoring and evaluation of speed data across a broad sample of Victorian roads.

In order to complement the speed camera program, VIC ROADS has also developed, and is testing, an automatic system to record infringements on video, recognise the vehicle number plates and, by computer, issue the traffic infringement notices.

■ **Portable Traffic Signals**
A radio-linked portable traffic signal system for the automatic control of traffic at work sites has been completed. Mounted in a "split trailer" for mobility and ease of installation on site, the first production units are in use and are expected to soon be sold to other States.

■ **Temporary Mobile Traffic Signals**
This equipment was developed to provide a safer working environment for traffic controllers at roadworks and enables the operator to stand back from the path of traffic and display stop and go instructions by red and green traffic signals operated by a hand held control unit. It is able to be manoeuvred by one person.

■ **Vehicle Standards**
A fundamental part of road safety is the development of standards for safety features to be built into vehicles so that the safety of occupants and other road users is enhanced.

In the interests of national uniformity and in accord with the requirements of the Federal Motor Vehicle Standards Act, Victoria has adopted the Australian Design Rules (ADR's) as the standards vehicles must comply with for registration and use in this State. VIC ROADS

is represented on the national committee that oversees the development of ADRs.

The major new ADRs that have been finalised since mid-1989 are for speed limiters for heavy vehicles, which will apply to vehicles built from early 1991, and seat padding, strength and occupant-retention requirements for bus seats, which apply to large buses built from mid 1992. Other significant developments include amendments to the requirements for towbars, drawbar and trailer couplings, and considerable progress towards major revisions to the child restraint anchorage requirements and anti-lock braking.

■ Vehicle Standards Information Sheets

VIC ROADS receives many requests from the public, other government departments, registration officers and sections of industry for guidance and information on subjects applying to the design, modification and use of vehicles.

To meet this need a series of Vehicle Standards Information Sheets has been developed to summarise the various regulations and requirements. Guidance on vehicle safety and roadworthiness requirements is also included.

Twelve new information sheets have been produced and many existing ones have been updated and reprinted throughout the year.

■ Speed Environment

Roads designed for specific speeds have been generally satisfactory but problems arise where operating speeds differ markedly from the intended speeds. Over the last ten years road authorities in different countries have developed procedures to minimise these discrepancies. The Speed Environment concept introduced by AUSTROADS was developed for this purpose, but has proved to be difficult to use as a design system.

A review undertaken by VIC ROADS has resulted in a new design procedure based on the ARRB research which enables operating speeds to be estimated at each point along a road. Designs using the new method will help to provide safer and more economical roads for Victoria.

■ Truck Performance Characteristics

US accident studies have shown that trucks are 3 to 5 times more likely to be involved in fatal accidents than cars. Road Design Department has therefore undertaken a study of the effect of truck performance characteristics on road design and this has revealed that the commonly held opinion that the higher eye height of the truck driver fully compensates for the lower performance characteristics of trucks is not valid.

Some modification of current road design practices will be undertaken as a result of these findings.

■ Roadworthiness

The roadworthiness of vehicles in Victoria is scrutinised by programs of mandatory and random inspections, and by programs through licensed vehicle testers:

❑ Roadworthiness Certificate (RWC) fees were deregulated, from 11 April 1990, to enhance reliability of the scheme. Consumer protection measures (e.g. the requirement for charging by quotation) accompanied the change.
❑ To make the RWC scheme more convenient the telephone directory listing of testers was promoted; specialist licences were made available for

new testers (e.g. light vehicles only); localised issuing of RWC books for testers was trialled; and a comprehensive Roadworthiness Reference Manual for testers was drafted.

Random scrutiny of vehicle roadworthiness was aided by two measures:
- Joint VIC ROADS/Victoria Police campaigns were targeted at unroadworthy and illegally modified vehicles;
- Authorisation to issue Traffic Infringement Notices for unsafe vehicles and faulty tyres was extended to more than 20 extra VIC ROADS officers.

■ Vehicle Modifications

There were several developments relating to modified vehicles:
- Implementation of the Federal Motor Vehicle Standards Act 1989, effectively requiring authorisation to import a vehicle on the basis that it must comply with applicable Federal Standards (Australian Design Rules).
- Introduction of an improved telephone enquiries service, including mail-out of information sheets, for modified and individually imported vehicles.
- Registration of modified vehicles, based on recognised engineering consultants' certification reports, subject to audit.
- A computerised register of engineers' certification reports for enquiries regarding modified and individually imported vehicles.
- Participation in the development of codes of practice for light vehicle modifications (e.g. additional seats, campervans, steering conversions).
- Completion by a joint VIC ROADS/industry working party of draft codes of practice for heavy vehicle modifications (e.g. chassis extensions, extra axles, changed bodies).

Roadworthiness by Licensed inspection and random scrutiny was modified.

Along with several other sectors of what is now VIC ROADS' Technical Resources Division has been restructured during 1989/90 with eight Department Managers now reporting to the Director. The new flatter structure will result in improved flexibility and a greater emphasis on service delivery.

Another drive to further boost technical expertise within the organisation was the establishement of the Corporate Research and Development Department as a unit of Corporate Development, with a budget of $1m allocated for the non-salary components of 35 projects, 26 of which are proceeding on schedule.

A VIC ROADS Research and Development Strategy was published and a project database was set up to help people with their planning research.

Research projects on social issues of new technology, demand management and in-vehicle data communication were carried out by the department.

Planning for the 1990/91 Corporate Research and Development program is well underway with departmental officers active in assisting project leaders to formulate R&D proposals.

■ **Materials Technology**

❑ Laboratory management

The laboratory management system developed by Materials Technology Department has been introduced into the majority of VIC ROADS laboratories throughout the State. It provides a system of tracking samples being tested, reporting test results, a means of charging both internal and external clients and enables reports on performance to be made to managers on a monthly basis. The system is currently being extended to enable entry of raw data from tests to provide calculation of results and summaries of test results.

■ **Australian Standards**

When the Australian Standards do not meet VIC ROADS' and other State road authorities' requirements, the service of VIC ROADS officers has been provided to accelerate the necessary changes to the standards. The adoption of Australian Standards will ensure consistency of approach in testing roads throughout Australia and thus will reduce problems in administering construction contracts and the possibility of litigation.

■ **Pavement Condition**

During November 1989 and January 1990 VIC ROADS contracted RST Systems Australia to undertake an automated survey of the surface condition of 2500 kilometres of Melbourne's heaviest trafficked roads to assist us and municipalities in managing road pavements more efficiently.

■ **Great Ocean Road - Port Campbell**

The Geotechnical Group was commissioned to carry out an evaluation of undermined road areas following the collapse of the natural limestone arch forming the tourist landmark "London Bridge" in January.

Several road areas near Port Campbell pass close to the edge of limestone cliffs up to 56m high. At some of these locations natural groundwater drainage and the action of waves has undercut the cliffs which have been kept under observation for many years – but the sudden collapse of the London Bridge arch indicated that simple observation was inadequate to predict a major fall.

Innovative ways of investigating the undercut areas had to be developed. A program of drilling and remote sensing techniques, together with control survey

and the adaptation of photogrammetry techniques to produce accurate cliff profiles was used.

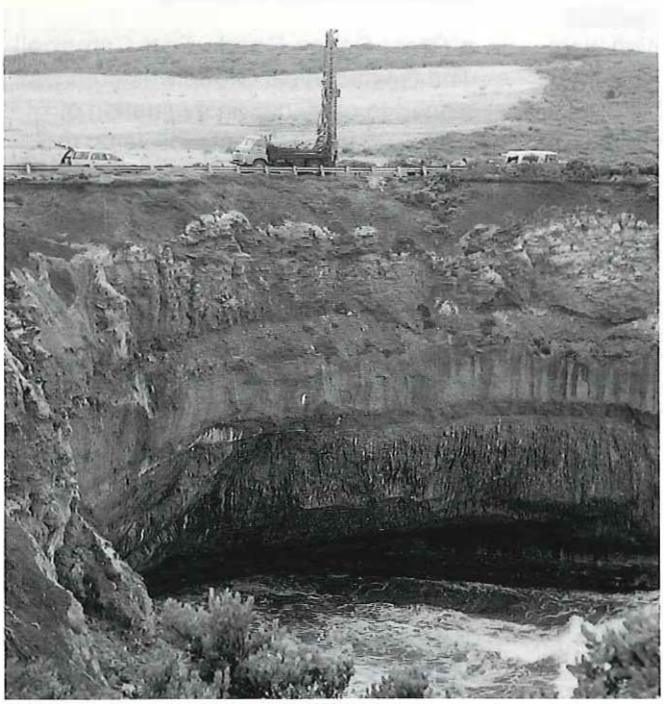
Close co-ordination and co-operation with the Port Campbell Surf Life Saving, Cliff Rescue Group and the Department of Conservation and Environment allowed extensive investigations to be carried out at four major areas of interest within a short time.

Following the preparation of information about the potential risk of failure at each location a decision was made to deviate the Great Ocean Road immediately and construction was started in April, 1990.

The techniques to study this problem were applied to assist the Department of Conservation and Environment in assessing limestone formation stability and risk at key tourist areas adjacent to the Great Ocean Road near Loch Ard Gorge and in formulating plans for tourist area redevelopment and access.

■ **Alexandra Ave Embankment Slip**
On Thursday 8 February two sections of the Alexandra Avenue embankment on the Yarra River at Herring Island collapsed into the river.

Geotechnical engineers from VIC ROADS' Materials Technology Department inspected the slips during the morning and advised the City of Prahran regarding the possibility of further collapses.



Investigation drilling to define the cavern – Great Ocean Road, Port Campbell.

The Geotechnical Group immediately reallocated drilling, technical and engineering resources to carry out investigations at the site to furnish soil and groundwater information needed for stability assessment and development of options to stabilize the bank.

Advice was given to Prahran City Engineers that the southern two lanes of Alexandra Avenue were safe to open to traffic. The northern lanes remained closed because of severe cracking of the bank.

VIC ROADS acted for the City of Prahran for design of remedial works, the preparation of contract documents for repairs and to monitor the groundwater regime and determine soil profiles from the bank into the Yarra River, employing an MMBW barge to support a drill rig for investigations over water.

VIC ROADS was able to meet a number of tight program controls in carrying out its investigations and in preparing design options for repairs. Using its expertise in the design and specification of reinforced slopes, in which PVC coated steel mesh is used in layers between good quality filling, the Geotechnical Group were able to develop designs which proved to be substantially cheaper than structural options. The reinforced fill restored the river bank as a natural grassed slope, preserving its appearance.

■ Testing of Flood Affected Pavements in Western Queensland
The strength of pavements in the flooded regions of western Queensland was assessed using VIC ROADS' new Pavement Strength Evaluation testing vehicle, commissioned by the Main Roads Department to determine pavement rehabilitation needs for which Federal funding would be sought. The successful execution of the work, valued at $70,000 and requested at short notice, has encouraged the marketing of this service elsewhere in Australia.

■ Accelerated Loading Facility
The performance of seven heavy duty bound-pavements was evaluated using the ALF testing machine. These tests were done in co-operation with ARRB with VIC ROADS contributing $724,000 toward the trial. The benefits in reduced pavement costs will exceed $3 million over the next five years.

LAND INFORMATION AND SURVEY

■ Geographic Information Systems – GIS

Substantial progress has been made with the investigation and development of GIS which has the capability to service many VIC ROADS' applications; so seminars and demonstration packages have been presented to a broad range of staff from all levels of the organisation.

Two R&D projects were also implemented. The first was to research the appropriate application of GIS in VIC ROADS in general terms. The second researched the use of GIS to support Road Information Services.

As a result of research, and the positive reactions of many staff, more detailed R&D will be conducted to consider GIS for Road Planning, and for Property Management.

Substantial training effort has been made to ensure a high level of GIS competence within the team using it. Demonstrations and talks have also been given to external agencies, and VIC ROADS is now being acclaimed as having a very high level of GIS knowledge within the survey and mapping industry.

■ Map Production

It was determined that a digital road network map of Victoria be compiled as a matter of priority. Considerable work was done to identify appropriate map data sources to provide complete coverage of metropolitan Melbourne and rural Victoria. Work started in May 1990, and a target of January 1991 has been set for completion. The digital road network map will be available for GIS and CADD applications.

A further four maps of the 1:250,000 VIC ROADS' Administrative Map Series were printed in 1989/90, bringing the total available to 20 of 21 map sheets in the series.

Work on the remaining Melbourne Sheet also progressed to an advanced stage, with the completion date set for September 1990.

A marketing campaign was carried out with all 27 VIC ROADS' metropolitan and rural offices being supplied with copies of the map sheets for sale across their counters. The public response has been very favourable.

ROAD DESIGN TECHNOLOGY

■ Road Design Guides and Publications

❑ Drainage

Work is nearing completion on the revised Drainage chapter of VIC ROADS' Road Design Manual which includes new methods to give more economic designs.

Significantly improved estimation will allow the sizes of many culverts and pipes to be reduced with a substantial saving on construction costs. Also, research on pit types used by VIC ROADS show that capacities had previously been under-estimated by 10 to 15 per cent. New pit design charts will allow increased pit spacings and a reduction in the overall number of pits used.

❑ Standard Drawings

Updating of VIC ROADS' Standard Drawings for Roadworks is 75% complete with a limited number of drawings being issued as soon as they are printed. Once all are available, full sets will be published. Examples of the changes which will reduce maintenance costs and improve the safety of our roads include:

- a new slotted breakaway cable terminal for guard rails;
- the inclusion of loading standards for pits and lintels, and
- the use of optional round lids for use on side entry and junction pits;

■ Computer Applications

❑ RIDGE Noise Programs

The RIDGE Noise Program has been updated to conform to the 1988 edition of the 'Calculation of Road Traffic Noise,' UK Department of Transport, Welsh Office, and to include improvements from experience on the South Eastern Arterial and the Eastern Arterial.

The program now includes corrections for road surface type, and for reflection from building facades. A plot of each cross section can be produced showing the source and receiver locations, the calculated L10 (18 hour) noise levels for each receiver, and up to 4 barriers (this includes a combination of man-made and natural barriers).

The program is written in Fortran 77 and is suitable for use particularly on larger projects. A PC version, available on Lotus 1-2-3, is used for smaller jobs.

■ Expert System

An expert system stores knowledge on a particular subject in a logical structure, and can be used to guide operators step by step through a problem and provide advice at any point in the process. A pilot project for an expert system to advise designers on culvert location, size and hydraulics, was completed in February.

The pilot system is for demonstration purposes only, and has been used to assess the feasibility of such systems as a design aid. It will be developed to full production capability in the future.

■ Design Program

During the year Road Design Department completed designs and construction plans for twelve major road projects. Nine hundred drawings were prepared at a design cost of $1.8 million enabling construction to an estimated value of $170 million to proceed.

PLANT AND SUPPLY

Plant and Supply Department now raises all of its funding through plant hire and sales of goods and services. 95% of this income is from sales to VIC ROADS operating Divisions, the balance comes from external customers in Victoria, interstate and internationally.

The plant fleet inventory was reviewed and a number of non-performing items disposed of.

The Plant Group is concentrating on a core business of providing road maintenance plant. As this work is seasonal some specialist plant that can be adapted to work in both seasons is being purchased and modified to improve its utilisation. During the year Plant Group successfully absorbed the management of the previous RTA and RCA motor vehicle fleets into a single entity.

The salient improvements in operation were:

	1988/89	1989/90
Plant Hire Income	$30.0m	$33.2m
Plant Utilisation (Dec/Jun)	65%	71%
Staff Numbers	346	316

As Plant and Supply Department has the bulk of its organisation arrangements grouped around business units and service centres in place – the main effort in 1989/90 was in job design and skill development in the trades stream under structural efficiency proposals. The workshop and service centre skills and classifications have been aligned with Metals Industry Agreements, and at the end of the year trials were ready to test these arrangements. Service Centres have been working in a partially multi-skilled environment for some time and the fabrication areas in the Glen Waverley Workshops were, at the end of the year, developing the concept of project orientated multi-skilled teams.

■ Resource Sharing

Efforts to promote the more efficient use and distribution of public investment in road maintenance plant and capability have continued through resource sharing. VIC ROADS hires specialised plant to municipalities and other government services and has attracted plant and vehicle maintenance business through its service centre network in regional Victoria. Plant operator training services are in growing demand from municipal and private plant organisations, as is occupational health and safety advice.

A pilot project to give access to the shires of Winchelsea and Barrabool to VIC ROADS' computer based inventory and plant management system EQRMS had started by the year's end. This will allow these Shires to consider VIC ROADS' plant as part of their own fleet when planning their maintenance requirements.

VIC ROADS held a plant operators field day for municipalities in the Bendigo area. This event allowed municipal operators to try out plant supplied by various companies, allowing them to define their needs better before purchase. These projects promote a greater awareness of the possibility of resource sharing amongst municipalities, and lead to better pooling and co-operative arrangements between themselves and VIC ROADS.

■ **Plant Group**

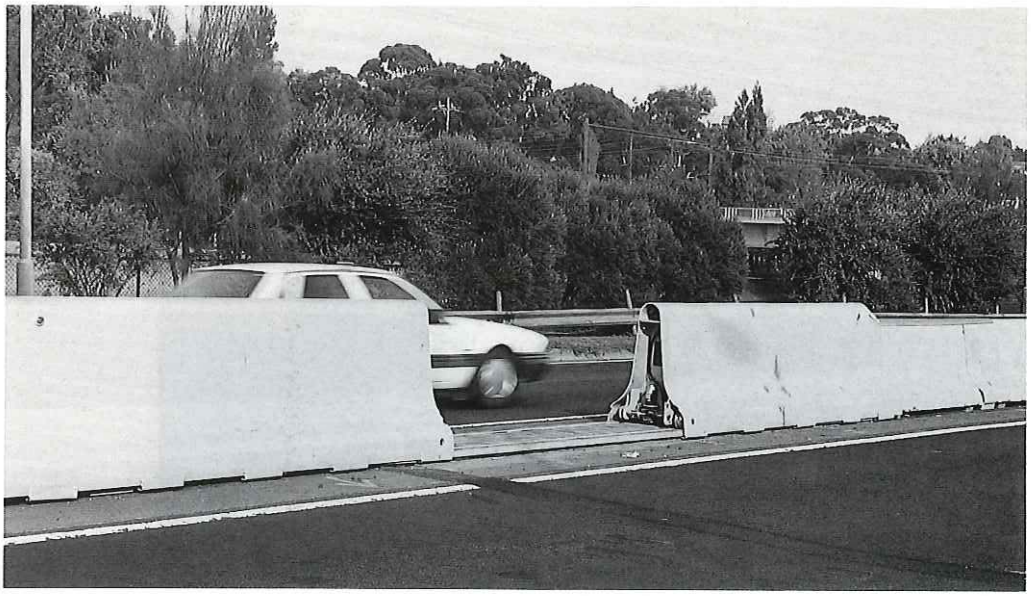
VIC ROADS Service Centres are located in Bairnsdale, Benalla, Bendigo, Ballarat, Horsham, Glen Waverley, Westgate, Kew, Traralgon and Warrnambool. They provide plant hire, a mobile repair, servicing and plant inspection, and a workshop repair service. Major or specialised items of plant are available from anywhere in the State through our transportation service. VIC ROADS and staff have made a major commitment to personal development and training to transform the former regional workshops into service oriented businesses and an increased volume of business is testament to this effort.

The Technical Services Group at Glen Waverley has developed new products and capabilities to meet customer needs during the year. Of note are:

- technical and operating manuals for training and reference for electronic and mechanical products,
- road/rail maintenance vehicle conversions,
- specialised trailers for traffic signal, red light camera maintenance and temporary roadworks signalling,
- high speed linemarking technology.

Plant Group has developed its capability to prepare, package and ship specialised plant for overseas assignments, and support it in the field. During the year, services were provided to New Zealand, Antarctica, and around Australia. A medium linemarker designed and manufactured by VIC ROADS was sold to Tasmania, bringing the total sold within Australia to 8.

The VIC ROADS' rural radio communication network was extended into Northern Victoria and now provides mobile communication for about 80% of the State. This is a key factor in the rapid provision of our services throughout Victoria.



The emergency sliding barrier opening.

■ **Emergency Gate - Median Barrier**
For many years the Tullamarine Freeway and South Eastern Arterial have experienced traffic blockages due to various accidents and vehicle breakdowns. This problem has been aggravated because of increasing traffic, and emergency services have had great difficulty attending vehicle breakdowns, particularly in areas where emergency and stopping lanes are not available.

The Plant and Supply Department designed, manufactured and in March installed an emergency opening access with a sliding gate system which fits in with the concrete median barriers to give access for emergency services.

A section of the concrete barrier is replaced with a similarly shaped section manufactured from high tensile steel of sufficient strength to absorb the impact of vehicles.

In an emergency situation the steel section moves back over the adjoining concrete section by means of an electrically driven gearbox operated on site. The gate operates on a 24V system for increase safety and can be readily monitored from the traffic control centre. In fact, the gate can be totally controlled from the traffic control centre.

The device is covered by a provisional patent.

■ **Aggregate Loader Upgraded**
Over the past six months the operation of an aggregate loader has been enhanced to increase its productivity time by 20%. The improvements were carried out at the Geelong Service Centre through the experience of the Service Centre staff and the technical direction of the Design and Advisory Services Group.

A considerable increase in productivity was gained for an aggregate loader.

Under operational conditions for the past three months the unit has proven the design effort and costs justified. At a recent Bitumen Surfacing Conference the meeting requested that urgent action be taken to upgrade further units.

■ **Supply Group**

Supply Group has extended its financial system to include inventory management. This has improved the productivity in processing and invoice orders significantly and allowed staff to concentrate on developing a more service oriented commercial approach.

Inventory lines continued to be reduced and a marketing team has been formed to better establish customer needs. As a result, the product mix was changed and stock turnover was increased.

Major achievements included:

- amalgamation of the stationery supply function at Reservoir and a service standard of 24 hours from order receipt to dispatch.
- establishing VIC ROADS representation on the Government Supply Advisory Committee.
- a small deficit of $56,000 below the break-even target resulted on a turnover of $16.7m.
- staff reductions from 56 to 48, through productivity and amalgamation measures.

BRIDGE DEPARTMENT

To suit customer and community needs, low cost bridging solutions were designed to AUSTROADS requirements utilising technology developed and refined within VIC ROADS Bridge Design, Geotechnical and Northern Region.

The bridges were developed following close consultation with clients and hearing their needs for low cost, efficient and serviceable bridging within the road network, particularly on minor roads.

New precast concrete components were designed to reduce on-site construction problems. Pile foundations were optimised using the VIC ROADS dynamic pile driving analyser. The cost savings on the bridges constructed have been in excess of 30 per cent over previous bridging solutions.

Some low cost bridges constructed in Northern Region were at:

- Shire of Marong, Bridgewater-Maldon Road over Bradford Creek $450/sq.m
- Shire of Huntly, Old Murray Road over Bendigo Creek $470/sq.m
- Pyrenees Highway, Loddon River at Newstead $740/sq.m
- Shire of Nathalia, Pedestrian Bridge over Broken River $830/sq.m

■ South Eastern Arterial – Gardiners Creek

Six single span bridges over Gardiners Creek were designed to meet environmental requirements. The bridges, which form part of the shared footway path along the creek, are all arched steel box girders with a composite concrete deck. Charcoal grey concrete and steelwork and red tubular handrailing were chosen to blend with the modern sporting facilities in Gardiners Creek Park.

■ Western Ring Road, Broadmeadows Section – Ophir Street Pedestrian Bridge

The Ophir Street Pedestrian Bridge was recognised as a prominent feature in the community – the result satisfies service requirements while providing a cost effective, aesthetically pleasing pedestrian bridge. It consists of a 46 metre post tensioned portal frame spanning both carriageways of the proposed Ring Road.

Landscaped approach ramps have been located to minimise visual impact and provide disabled access across the Ring Road to sporting and educational facilities.

■ Technical Improvements

The development of voided slab structures was seen as an improvement on box girders which are generally used over freeways.

These improvements include a more shallow structural depth for shorter structures which improve the aesthetics, and are faster and cheaper to build. A typical example of these structures is the Wangaratta-Whitfield Road bridge over the Hume Freeway.

■ Nova Span Project

Fletcher Manufacturing Pty Ltd have engaged VIC ROADS to investigate the structural performance of a NOVA SPAN bridge being constructed as part of the Princes Freeway project at Morwell.

Bridge Department is developing numerical models using its non-linear finite element analysis program (NISA),

which will be calibrated against the measured field behaviour. These models will then be used to assist in the design of future NOVA SPAN bridges.

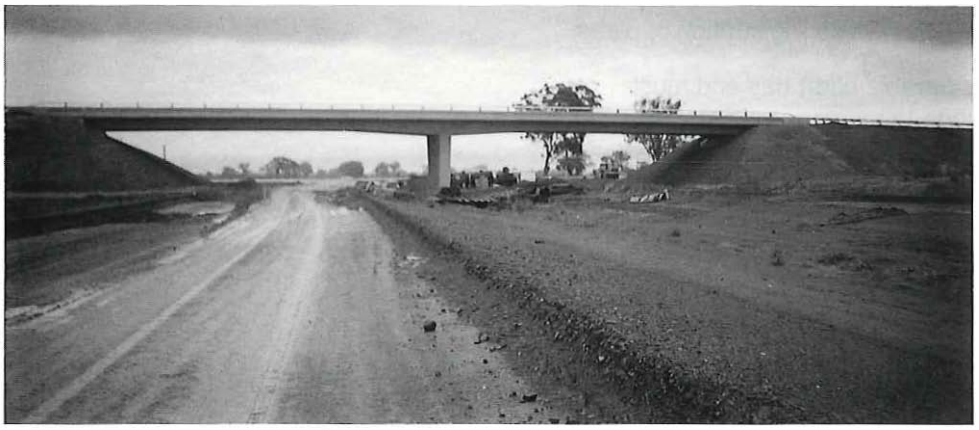
PROPERTY SERVICES

■ Property Acquisition
$37.1 million, based on valuations, was expended to purchase land for road purposes this financial year.

In November 1989, a tender system for requesting valuation advice was introduced. The total fees paid for valuation advice (excluding fees paid to the Valuer-General's Office) amounted to $479,000. The tender system has saved $121,000 or approximately 20%.

■ Property Management
Some changes have been made to improve the efficiency of the management of the diverse list of properties managed by VIC ROADS.

Approximately 1,400 properties are managed by VIC ROADS, of which 700 are residential. The provision of maintenance has in the past, been contentious and labour intensive and VIC ROADS was using a large number of real estate agents which led to some inefficiencies.



The Whitfield Road Bridge.

Rationalisation of the leasing will be fully operative in the new financial year but to date savings of approximately $80,000 in salaries have already been achieved.

■ Property Sales

VIC ROADS has pursued an active policy of disposal of surplus properties and during the year, proceeds from sales of properties amounted to $13.7 million, including sales of residential and commercial properties, stock items and improvements on land and separate areas of unimproved land.

Tenders are now invited from agents for the sale of larger parcels of land which has resulted in a saving of about $76,000 in discounted commissions this year.

■ Subdivision Act

The Subdivision Act 1988 which came into force on 30 October 1989, allowed for a transitional overlap period of 6 months which ended on 30 April 1990. Virtually all land acquisition and disposal of freehold land by VIC ROADS must now comply with the Act. The process of land acquisition in particular is now more complicated, involving VIC ROADS in the planning process, with Council certification and Land Titles Office registration of plans.

Considerable effort has and must continue to be made with staff training and with the implementation and review of new and existing procedures.

■ PUNT ROAD WIDENING

Following the commencement of this widening, reconstruction and duplication project between Swan Street and Bridge Road in December 1988, the upgrading of both the Swan Street and Brunton Avenue intersections has largely been completed and the new north bound carriageway between Brunton Avenue and Bridge Road was opened to traffic in May 1990.

The project is scheduled to be completed by mid 1991 at an estimated cost of $24 million (on road costs only). Traffic flow will be greatly enhanced, accident rates will be reduced and public transport operations improved.

Innovative measures were used to substantially reduce traffic disruption during the laying of drains under the Swan Street intersection, and night time asphalting proved to be very successful in reducing traffic delays and disruption to public transport.

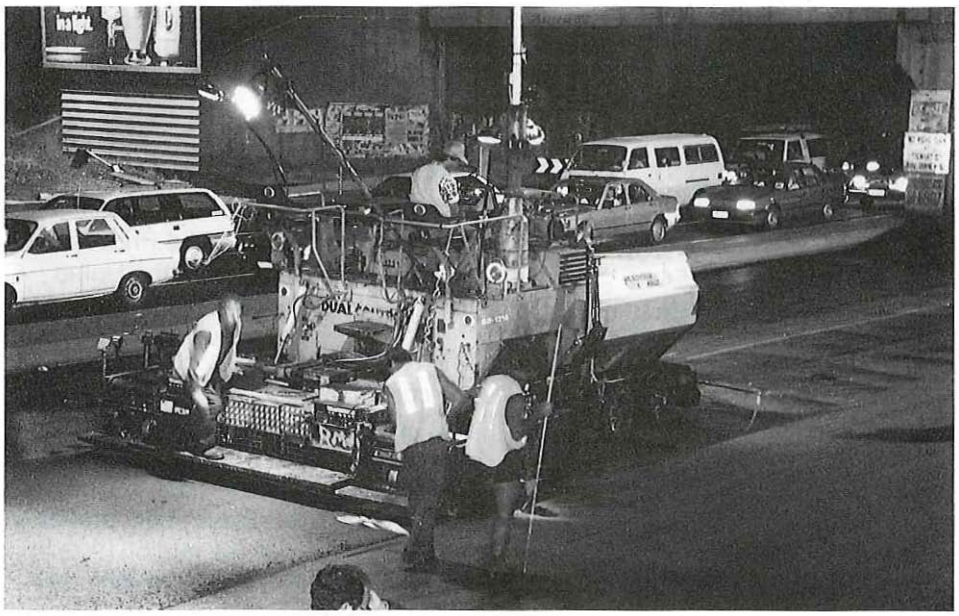
■ GREENSBOROUGH BYPASS

With the opening of the first section between Diamond Creek Road and Grimshaw Street in March 1988, work continued on the dual carriageway section between Grimshaw Street and Yallambie Road, Watsonia.

The opening of this second stage in September 1989 has reduced congestion in the Greensborough shopping area by reducing most through traffic movement.

■ PRINCES HIGHWAY EAST DUPLICATION – CAULFIELD

The duplication of Princes Highway East between Hawthorn Road and Tooronga Road was opened to traffic in December 1989. Increased clearance below the railway line, intersection upgrades and provision of two 3 lane divided carriageways will now give heavy vehicles a clear run on this section of highway.



Asphalting through the night at the Swan Street–Punt Road intersection reduced traffic disruption.

■ BELL STREET – BANKSIA STREET LINK

The construction of this direct link between Bell and Banksia Streets started in December 1988. Stage 1 - the duplication of Banksia Street between Cape Street and Studley Road - was completed in December 1989.

The provision of a new bridge over the Hurstbridge railway line commenced in March 1990 and is scheduled for completion in February 1991.

Construction of Stage 2, which includes roadworks, retaining walls and a bridge on Upper Heidelberg Road across the link, will start in September 1990 by contract.

Completion of the project is scheduled for late 1992 at an estimated cost of $31 million (on-road costs only).

■ SOUTH GIPPSLAND HIGHWAY DUPLICATION

With the opening of the 3 km section between Manks Road and Lynes Road in December 1989 and another 3 km section between Lynes Road and Dore Road in April 1990, 27 km of the planned 32 km length of duplication between Cranbourne and Bass Highway has now been completed.

Duplication of the remaining 5 km between Dalmore Road and Beattie Road at Koo Wee Rup is proceeding,

Total cost of the duplication works is estimated at $35 million.

■ MORWELL BYPASS

The bypass extends over 10 km from the Morwell River in the west to the Princes Highway, east of Alexanders Road.

The first 6.4 km stage between the Morwell River and the Midland Highway was opened to traffic in April 1990 and cost $31 million (on-road costs only).

The second 3.8 km stage commenced in January 1990 and is scheduled for completion in April 1992 at a cost of $20 million (on-road costs only).

The bypass will reduce travel time on this important strategic route and will remove through traffic from the commercial centre thus improving the safety and amenity of the Morwell township.

■ BALLARAT BYPASS

Construction of this 26 km bypass of Ballarat started in 1988 and is scheduled to be opened in 1994 at an estimated cost of $76 million (on-road costs only).

Upon completion it will relieve congestion in the city centre by providing an alternative route for both commercial and private vehicle through traffic, and will improve suburban traffic management.

■ WESTERN RING ROAD – BROAD-MEADOWS SECTION

The Western Ring Road will ultimately provide a link between the Princes Freeway at Laverton with the Hume Highway at Campbellfield.

The first stage of this project comprises the construction of a four lane divided road extending from Sharps Road to Mahoneys Road, a distance of 8.5 km. Construction of this section commenced in February 1989 and is scheduled to be opened to traffic at the end of 1992 at an estimated cost of $140 million (on-road costs only).

■ **BARWON RIVER CROSSING**
This river crossing forms the final link in the La Trobe Terrace project which provides a new route of the Princes Highway to bypass the busy commercial centre of Geelong.

Bridgework began in April 1987 and is scheduled to be opened to traffic in September 1990. The estimated total cost of this project is $25 million (on-road costs only).

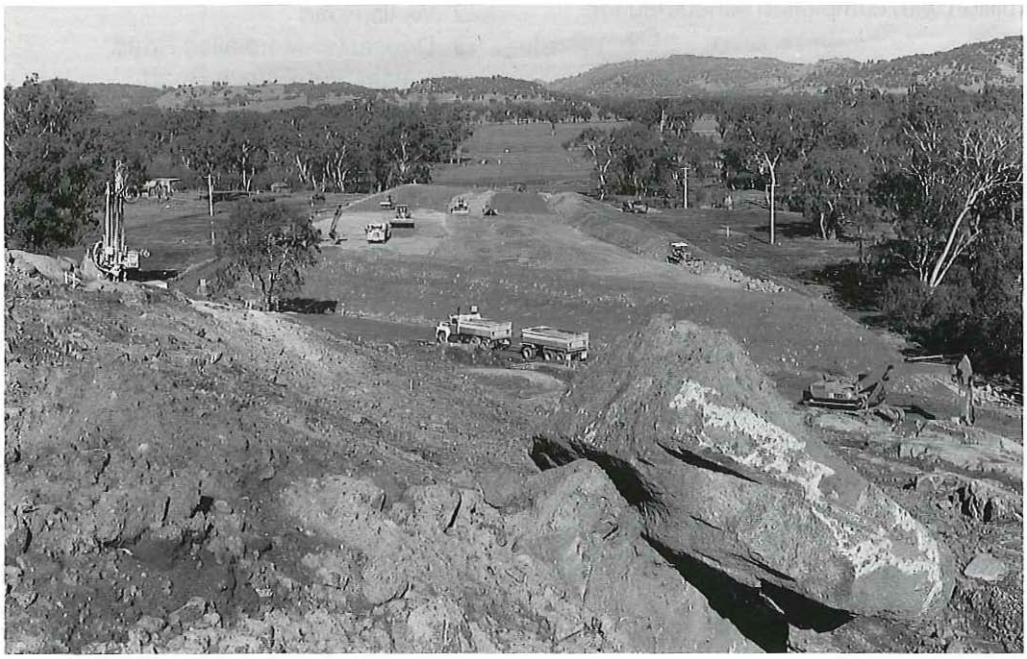
■ **HUME FREEWAY – EUROA BYPASS**
This 8 km bypass extends from a full diamond interchange on the Euroa side of Flat Rock Hill and connects back to the highway with a full diamond interchange near the Euroa Cemetery.

Works commenced in May 1989 and are expected to finish in 1992 at an estimated total on-road cost of $47 million.

■ **HUME FREEWAY – EUROA TO BALMATTUM**
Duplication of this 8 km section was opened in June 1990 at an on road cost of $16 million. It includes a 2 km length of Melbourne bound carriageway at Duck Ponds Creek and eliminates a section of the highway with a serious accident history.

■ **HUME FREEWAY - SPRINGHURST TO CHILTERN**
The 5.2 km duplication from Horns Road to Adams Road south of the Chiltern township was opened in March 1990 for $8.5 million (on-road cost).

■ **HUME FREEWAY - BARNAWARTHA BYPASS**
The 3.3 km bypass of Barnawartha was substantially completed in February 1990 with two way operation continuing over part of the length until works were finally completed in June 1990. Cost was $11 million (on-road costs only).



Cutting through rocky hillside near Euroa for the Hume Freeway.

■ HUME FREEWAY – WANGARATTA BYPASS

The Wangaratta bypass will extend from Taminick Gap Road, Wangaratta south to the Hume Highway at Bowser.

Earthworks for the southern 7 km section from Fifteen Mile Creek to Webb Creek were completed in 1989 whilst the Whitfield Road overpass was opened in May 1990.

This project is one of the most expensive along the Hume corridor on a cost per km basis as the route crosses four major water courses and most of the 12 km between the northern end of the Glenrowan section and the Ovens Highway is subject to flooding.

Ten pairs of bridges over major rivers and floodways are required together with overpasses for Bright Road and Wangaratta-Eldorado Road.

The estimated total on road cost is $79 million with completion scheduled for 1994.

■ HUME FREEWAY - SPRINGHURST BYPASS

The freeway will bypass Springhurst to the south with a full diamond interchange providing for local access and traffic bound for Rutherglen.

Beyond Springhurst, a duplicate carriageway will be located on the southern side to avoid the Telecom co-axial cable and the Melbourne-Sydney railway on the northern side.

Construction of this 5.5 km section is to be commenced in 1990 and is expected to be completed in 1993 at an estimated on-road cost of $7 million.

■ HUME FREEWAY – NORTH OF SPRINGHURST

The 3.4 km duplication north of the Springhurst Bypass commenced in 1990 and is expected to be completed in 1991 at an estimated cost of $5.2 million (on-road).

■ OTHER PROJECTS UNDER CONSTRUCTION

- ❑ Princes Freeway East: Tynong Section
- ❑ Calder Freeway: Keilor - Diggers Rest Bypass
- ❑ Princes Freeway East: Longwarry Section
- ❑ Princes Freeway East: Moe River to Moe

■ MAJOR PROJECTS FOR MUNICIPALITIES

- ❑ Dorset Road
- ❑ Doncaster-Warrandyte Road
- ❑ Wellington Road
- ❑ Boronia Road
- ❑ Lower Dandenong Road
- ❑ Wells Road
- ❑ Doncaster-Mordialloc Road
- ❑ Heidelberg-Eltham Road
- ❑ Keilor-Laverton Road
- ❑ Keilor Park Drive
- ❑ Sharps Road
- ❑ Warrigal Road
- ❑ Footscray Road

ROAD MAINTENANCE MANAGEMENT

In order to monitor the condition of the principal road network and determine the optimal pavement rehabilitation policy, a Pavement Management Information System (PMIS) has been used by VIC ROADS over the last two years.

This system monitors the pavement condition in terms of roughness, rutting, cracking and texture, predicts the performance of those conditions from historical data and uses maintenance and rehabilitation treatment costs to determine the optimal cost solution to achieve specified standards of pavement condition.

The rehabilitation treatments addressed by PMIS are routine maintenance (on pavement only), reseals (including thin asphalt overlays), major patching and resheeting (including thick asphalt overlays).

Rehabilitation treatments appropriate to PMIS represent 20% of the Direct Works bids and 30% of the Municipal Works bids. A personal computer version of PMIS is currently being introduced into municipalities for use on main roads.

To further enhance efficiencies in road maintenance, VIC ROADS has developed a Maintenance Management System that monitors the level, location and effectiveness of routine maintenance for the various types of treatments and activities.

■ Road Surfacing

Bituminous surfacing is an important part of maintenance of the road system and surfacing of newly constructed and reconstructed pavements.

This year retreatments amounted to 1,936 km or 8.3 per cent of the sealed length of the declared road system; restoration of surfacing on reconstructed pavements amount to 298 km, or 1.3 per cent of the sealed length; and surfacing of new pavements amounted to 39 km, thereby increasing the sealed length of the declared road system.

VIC ROADS' 13 bituminous surfacing units completed 2453 km of sprayed seal surfacing on the declared road network at a cost of $25.6 million. A further 2273 km of sprayed seal work, at a cost of $16.1 million was completed by the VIC ROADS' bituminous surfacing units on unclassified and other roads for municipalities and other authorities. 293 km of sprayed seal work was completed on declared roads by contractors and municipalities at a cost of $2.9 million and 108,583 tonnes of hot mix asphalt supplied and placed by contractors at a cost of $8.9 million.

The length of the principal types of work completed on the various road categories is shown in the following table:

BITUMINOUS SURFACING WORK COMPLETED
(PRINCIPAL TYPES OF WORK)

	Year		
Road Category and Type of Work	***87/88***	***88/89***	***89/90***
Freeways	*(km)*	*(km)*	*(km)*
Extensions to sealed system	20	135	9
Reconstruction of lengths of previously sealed pavements	22	28	15
Retreatment	121	192	135
Highways			
Extensions	7	1	15
Reconstruction	104	81	96
Retreatment	735	736	615
Main Roads			
Extensions	6	56	10
Reconstruction	235	361	181
Retreatment	920	965	1095
Tourist and Forest Roads			
Extensions	-	1	5
Reconstructions	22	6	6
Retreatment	91	117	91
Totals			
Extensions	33	193	39
Reconstruction	383	476	298
Retreatment	1,868	2,010	1,936
Total	2,284	2,679	2,273

Performance Indicators

Category/Indicator	1989/90 Targets	1989/90 Actual
Financial	**$ mil**	**$ mil**
Total Recurrent Expenditure	363.0	342.9
Total Capital Expenditure	321.4	333.9
Total Revenue Earned	46.6	54.9
Road Safety	78.7	64.2
Road Network Access Services	376.4	376.3
Road System Development Services	151.2	162.2
Road System Environment Enhancements	25.8	21.7
Customer Services	42.7	42.8
Corporate Services	9.6	9.6
Employees		
Total Employment (Full time equivalent)	5622	5596
Hours Lost Through Sickness/Million worked hours		23,700
Lost Time Injuries/Million Worked Hours	45	44
Hours Lost Through Industrial Disputes/Million Worked Hours		973
Road Safety		
Road Fatalities per 10,000 registered vehicles	2.6	2.5
Pedestrians killed per 100,000 population	3.0	2.8
Motorcyclists killed per 10,000 registered vehicles	7.8	8.4
Serious Casualties per 10,000 vehicles registered	22.6	17.1*
Road Safety- Road Conditions $ mil	$46.5	$40.0
Road Network Access Services		
Freeway and State Highways - Surface Retreatment	9.8%	9.9
Freeway and State Highway - Pavement Rehabilitation	1.6%	1.5
New Structures Commenced Under VIC ROADS Supervision	73	45
Additional Lane Kilometres opened to Traffic	100	107
Traffic Signal Sites Maintained		
Metro - Intersection	-	1277
Metro - Pedestrian	-	581
Rural - Intersection	-	214
Rural - Pedestrian	-	78
Percent of Time for On-road Presence of Enforcement Officers	75%	74.5%
Customer Services		
Working Days to Process Vehicle Registration - new	6	7
Working Days to Process Vehicle Registration - renewals	5	5
Working Days to Process Vehicle Registration - transfers	5	9.2
Working Days to Process Driver Licence Issue - Country	13	13
Working Days to Process Driver Licence Issue - Metropolitan	11	11

** Preliminary figure based on estimated data.*

Financial Management

During 1989/90 significant progress was made in rationalising and refining the inherited financial systems to support the business philosophy with commercial accounting practices. The major improvements were:

- Accounting services were decentralised
- Reporting processes strengthened
- Duplication of accounting effort between business areas reduced
- Work practices changed to simplify banking reconciliation and payroll systems

A major effort was made to accurately record the value of operating assets and to account for them on a business area basis.

Transfer Pricing was introduced to support the concept of business areas providing an internal commercial service and to enable direct costs to be distributed to services and projects regardless of where the cost is initially incurred in the organisation.

By the beginning of the 1990/91 financial year VIC ROADS had a single, decentralised accounting system that enables each Business Area to record and manage its full business responsibilities.

A specification was prepared for an integrated Program and Resource Management System that will link to project planning and scheduling, with job costing and activity recording through to the Revenue and Expense and Balance Sheet statements.

Parts of the Resource Management System will cater for Human Resource Management needs under the new structural efficiency principles.

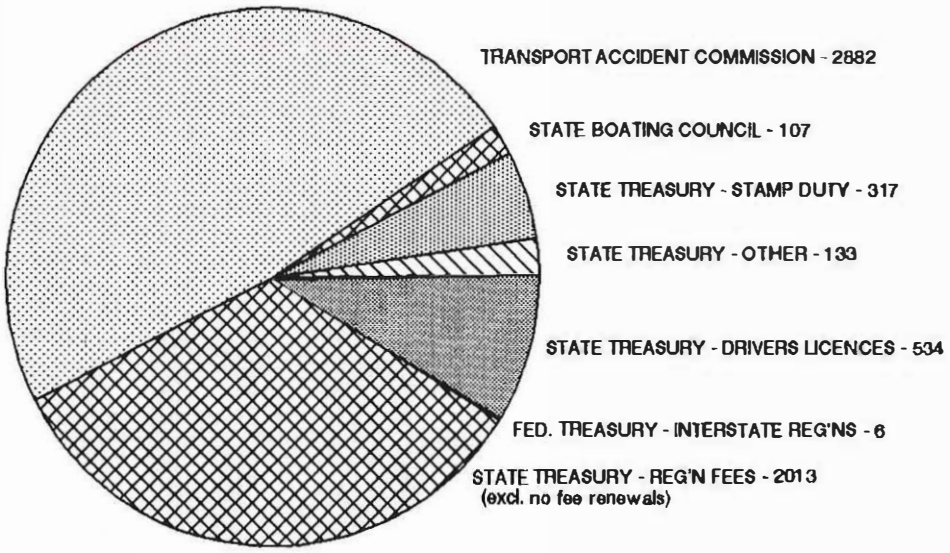
The underlying philosophy of the system is that data should be entered once and used many times. This will reduce duplication of effort, improve timeliness of management information and improve resource effectiveness. This system will be progressively installed during 1991.

During 1989/90 the computerised district payment system was extended to all Registration and Licensing Offices. The completed network has enabled the processing of collections to be improved by several days.

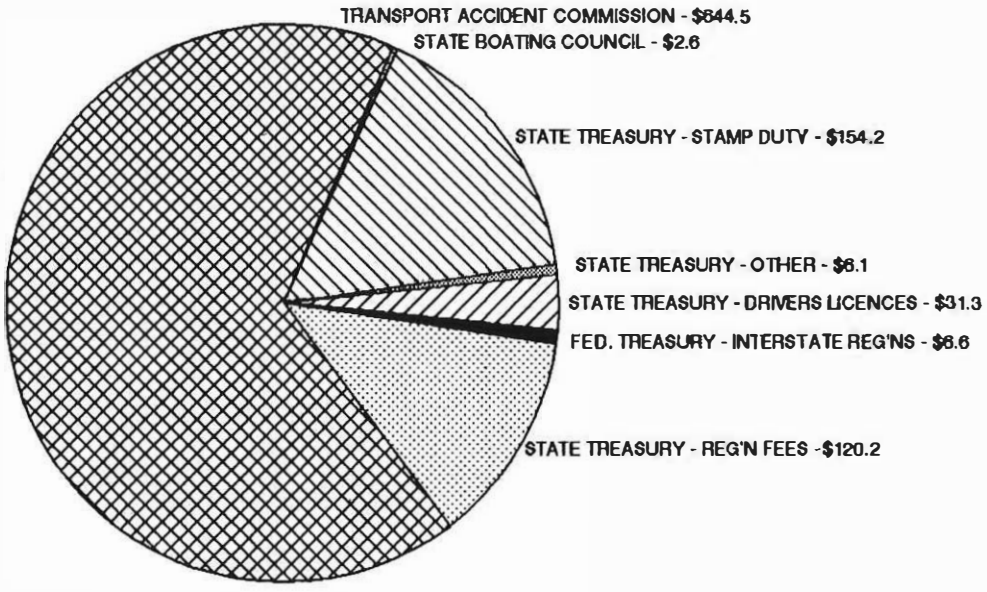
$965.5 million was collected on behalf of the Transport Accident Commission and Federal and State Treasuries, and the State Boating Council during 1989/90.

The attached charts indicate the level of funds raised on behalf of these clients and the volume of business transacted

AGENCY COLLECTIONS - 1989/90
NO. OF TRANSACTIONS (000'S)



AGENCY COLLECTIONS - 1989/90
$M



■ Roads Corporation
Revenue and Expense Statement for the Year Ended 30 June 1990

Items	Notes	1990 $000	1989 $000
Operating Revenue Providing Fund Inflows			
Government appropriations	3.1	585,040	570,303
Operating contributions	3.2	7,364	8,481
Regulatory, licence and other income	3.3	72,235	50,587
		664,639	629,371
Less Operating Expenses Requiring Fund Outflows			
Road network management programs	4.1	506,475	466,805
Management and operating expenses	4.2	197,349	193,829
Loss/(Profit) on disposal of Non-Current Assets	4.3(i)	817	(1,623)
		704,641	659,011
Operating Deficit Requiring Fund Outflows		**(40,002)**	**(29,640)**
Operating Expenses Not Requiring Fund Outflows			
Depreciation and amortisation	5.1	11,942	19,332
Increase in Provisions for Employee Entitlements	5.2	90,466	59,722
Fixed Assets written off	5.3	1,351	13,998
Increase in Other Provisions		409	267
Land and buildings incorporated into roadworks	5.4	9,630	3,528
		113,798	96,847
Less Operating Revenue Not Providing Fund Inflows			
Profit on disposal of Non-Current Assets	4.3(ii)	4,813	5,473
Operating Deficit not Requiring Fund Outflows		(108,985)	(91,374)
Operating Deficit for the Year		**(148,987)**	**(121,014)**
Accumulated Deficit at 1 July		(760,488)	(639,474)
Accumulated Deficit at 30 June		(909,475)	(760,488)

The accompanying notes form part of these financial statements.

■ **Roads Corporation**
Balance Sheet as at 30 June 1990

Items	Notes	1990 $000	1989 $000
Equity			
Contributed Capital	6.1	698,538	675,585
Asset Revaluation Reserve	6.2	448,686	444,345
Accumulated Deficit	6.3	(909,475)	(760,488)
Total Equity		**237,749**	**359,442**
Liabilities			
Current Liabilities			
Creditors and Accruals		97,158	73,807
Government of Victoria and Agencies	7.1	5,999	7,252
Works Advances	7.2	1,018	1,166
Liabilities - Lease	7.3	–	1,603
Liabilities - Property	7.4	13,229	14,671
Provisions for Employee Entitlements	7.5	38,474	41,177
Other Provisions	7.6	848	282
Total Current Liabilities		**156,726**	**139,958**
Non-Current Liabilities			
Deferred Creditors		5,270	–
Liabilities - Lease	7.3	–	5,684
Liabilities - Property	7.4	4,000	90
Provisions for Employee Entitlements	7.5	579,562	486,393
Other Provisions	7.6	566	723
Total Non–Current Liabilities		**589,398**	**492,890**
Total Liabilities		**746,124**	**632,848**
Total Equity and Liabilities		**983,873**	**992,290**

■ Roads Corporation
Balance Sheet as at 30 June 1990 (Continued)

Items	Notes	1990 $000	1989 $000
Assets			
Current Assets			
Cash at Bank, in Hand and Deposits	8.1	8,790	11,193
Debtors and Prepayments	8.2	11,571	13,858
Inventories	8.3	23,861	25,627
Repayable Advances - Municipalities	8.4	92	109
Property Loans	8.5	60	68
Total Current Assets		**44,374**	**50,855**
Non–Current Assets			
Repayable Advances - Municipalities	8.4	727	888
Property Loans	8.5	301	301
Land and Improvements in Service	8.6	109,814	102,789
Land and Buildings Acquired for Roadworks	8.7	758,343	765,946
Leased Assets	8.8	160	6,948
Fixed Assets	8.9	70,154	64,563
Total Non–Current Assets		**939,499**	**941,435**
Total Assets		**983,873**	**992,290**

The accompanying notes form part of these financial statements.

■ Roads Corporation
Consolidated Statement of Changes in Equity for the Year Ended 30 June 1990

Items	Notes	Contrib–uted Capital $000	Asset Revalu–ation Reserve $000	Accumulated Deficit $000	1990 TOTAL $000	1989 TOTAL $000
Balance at 1 July		**675,585**	**444,345**	**(760,488)**	**359,442**	**(137,141)**
Deficit for the year				(148,987)	(148,987)	(121,014)
Capital funding	3.1	37,733			37,733	51,074
Proceeds from sale of fixed assets paid to Consolidated Fund	2.13	(14,621)			(14,621)	(16,538)
Properties from MMBW	6.1(i)	1,607			1,607	178,334
Transfer to Department of Property and Services	6.1(ii)	(1,766)			(1,766)	–
Asset revaluation	6.2		4,341		4,341	404,727
Balance at 30 June		**698,538**	**448,686**	**(909,475)**	**237,749**	**359,442**

The accompanying notes form part of these financial statements.

■ Roads Corporation
Statement of Sources and Applications of Funds for the Year ended 30 June 1990

Items	1990		1989	
	$000	$000	$000	$000
Sources of Funds				
Funds from Operations				
Inflows of funds from operations				
Government appropriations	585,040		570,303	
Operating contributions	7,364		8,481	
Regulatory, licence and other income	72,235	664,639	50,587	629,371
Outflows of funds from operations	704,641		659,011	
Less Payment of employee entitlements	43,545	661,096	32,149	626,862
Net Funds from Operations (Refer Note 9)		3,543		2,509
Contributed Equity				
Contributed Capital (Refer Note 2.13)	37,733		51,074	
Less variation between proceeds from sale of Fixed Assets and amounts paid to Consolidated Fund (Refer Note 4.3(ii))	971	36,762	(604)	51,678
Reduction in Assets				
Current Assets				
Cash at Bank, in Hand and Deposits	2,403		3,398	
Debtors and Prepayments	2,287		(841)	
Inventories	1,766		1,583	
Repayable Advances - Municipalites	17		3	
Property Loans	8	6,481	3	4,146
Non-Current Assets				
Repayable Advances - Municipalites	161		109	
Property Loans	–		169	
Book value of Non-Current Assets sold	5,418	5,579	3,627	3,905
Increase in Liabilities				
Current Liabilities				
Creditors and Accruals		23,351		19,666
Non-Current Liabilities				
Deferred Creditors	5,270			
Liabilities - Property	3,910	9,180		90
Total Sources of Funds		**84,896**		**81,994**

■ Roads Corporation
Statement of Sources and Applications of Funds for the Year ended 30 June 1990 (continued)

Items	1990		1989	
	$000	$000	$000	$000
Applications of Funds				
Increase in Assets				
Non–Current Assets				
Acquisition of Fixed Assets	21,950		28,580	
Leased Asset Capitalised	–		7,804	
Acquisition of Land and Improvements in Service	6,527		1,701	
Land and Buildings Acquired for Roadworks	9,256	37,733	20,793	58,878
Decrease in Liabilities				
Current Liabilities				
Government of Victoria and Agencies	1,253		4,219	
Works Advances	148		(203)	
Liabilities - Lease	775		(1,364)	
Liabilities - Property	1,442	3,618	(6,654)	(4,002)
Non-Current Liabilities				
Liabilities - Lease		–		(5,031)
Payment of Employee Entitlements		43,545		32,149
Total Applications of Funds		**84,896**		**81,994**

The accompanying notes form part of these financial statements.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

For the financial year ended 30 June 1990
ROADS CORPORATION

■ 1. FORM AND CONTENT OF FINANCIAL STATEMENTS

The financial statements of the Roads Corporation have been prepared in accordance with the Annual Reporting Act 1983 and the Annual Reporting (Contributed Income Sector) Regulations 1988 and Australian Accounting Standards where applicable.

The Annual Reporting (Contributed Income Sector) (Amendment) Regulations 1990 requires that a distinction be made in the Revenue and Expense Statement between revenue and expense items providing or requiring fund flows and revenue and expense items not providing or requiring fund flows. The concepts of funds and flows of funds as adopted in Australian Accounting Standard AAS12 "Statement of Sources and Applications of Funds" have been used to make the distinction. The impact of the amendment is to separate items of revenue and expense that are funded from those items that do not require funding during the year of operation.

With the enactment of the Transport (Amendment) Act 1989 the Road Construction Authority and the Road Traffic Authority were abolished and the Roads Corporation became the successor in law to those Authorities as from 1 July 1989. Comparative figures have been adjusted to conform with changes in presentation in 1990 and to eliminate any inter-corporation transactions. Wherever possible comparative figures have been shown in the Notes to the financial statements.

The Corporation has rounded off amounts in these statements to the nearest one thousand dollars.

A supplementary set of financial statements has been prepared on the basis of the Statement of Accounting Practice SAP1 (Current Cost Accounting) including the capitalisation of the road infrastructure. These financial statements have not been audited and are included elsewhere in the Annual Report.

■ 2. STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES

❑ *2.1 General*

These financial statements have been drawn up on the going concern basis and the accrual basis in accordance with the historical cost convention except where otherwise stated.

❑ *2.2 Road Network Management Programs*

(a) Except for property acquisition, expenditure on roads, bridges, and traffic facilities is expensed in the year in which it is incurred.

Although last year's financial statements indicated that an appropriate method of capitalising such expenditure would be developed in 1989/90, this was not achieved. The prime financial statements for 1989/90 are however consistent with 1988/89 whereby such expenditure was expensed. Further refinements to the information systems supporting the capitalisation methodology will be required to enable the prime financial statements to include a value for the road infrastructure.

(b) Expenditure on the acquisition of land and buildings acquired for roadworks is capitalised until such time as formal possession of the properties takes place for the purpose of commencing construction of the roadway.

❑ *2.3 Land and Buildings Acquired for Roadworks*

(a) Property Liabilities and Commitments
In circumstances where:-
– land and buildings are the subject of compulsory acquisition,
– final settlement has not been achieved at balance date, and
– the Corporation has taken possession of the land and buildings for the purpose of commencement of roadworks,

the acquisition is recognised as an expense of the year and included as a liability based, wherever practicable, on a full independent valuation which includes acquisition costs (Refer Note 7.4). Where formal possession has not occurred at balance date appropriate commitments have been disclosed in Note 10(ii)(a).

(b) Land and Buildings not incorporated into roadworks
Properties have been included in the Balance Sheet at 30 June 1989 values. It is the Corporation's policy to revalue all its properties every three years. A complete kerbside valuation was carried out in 1988/89. For properties with an estimated value in excess of $200,000 valuations are performed by independent valuers. For properties with an estimated value less than $200,000 valuations are undertaken by experienced Corporation staff.

At any point in time, the Corporation holds a large number of properties acquired from owners affected by planning scheme reservations. Bearing in mind the long holding periods, revisions to planning reservations and limited funding, the majority of these properties are unlikely to be incorporated into roadworks in the near future and therefore the Corporation considers that the financial statements should reflect a current valuation of these properties.

(c) Residual Land - Isolated Fragments
Following the completion of roadworks, the Corporation retains many small and isolated fragments of land representing residual property adjoining the road reservations.

The fragments, although not part of the road reservation, have no apparent market value and have not been included as assets in the financial statements of the Corporation.

If at some future date an adjoining property owner desires to purchase any such fragment of land, the revenue from the sale of the property will be brought to account at that time.

❑ *2.4 Land and Improvements in Service*

The Corporation's policy is to revalue all of its properties every three years

Land and improvements in service for the former Road Construction Authority were last revalued as at 30 June 1989 on the basis of kerbside valuations by independent valuers.

Land and improvements of the former Road Traffic Authority, excluding portable buildings and properties expected to be sold in the next financial year, were recorded at values based on estimates made by the Valuer-General as at 30 June 1987 which were updated by the former Authority to deemed values as at 30 June 1989 using data provided by the Valuer-General.

Acquisitions during 1989/90 are included at cost.

❑ *2.5 Fixed Assets*

(a) In 1988/89, plant and motor vehicles were assigned deemed values based on the estimated written down historical cost as assessed by technically experienced internal staff as at 30 June 1989. Because of difficulties associated with the assignment of the deemed values to individual plant items (within the computerised asset register) and the costly major system changes that would be required to depreciate on the deemed values, it was decided to adopt revised deemed values at 30 June 1990 being the former written down values that would have applied in 1988/89 had deemed values not been adopted. As a result the valuation for plant and motor vehicles and the Asset Revaluation Reserve have been reduced by $5,819,000.
(b) In order to overcome recognised deficiencies in the valuation of equipment of the former Road Traffic Authority and to ensure consistency in valuation of equipment, the Corporation contracted independent registered valuers to provide the basis for valuing all equipment at current market value as at 30 June 1990.

(c) It is the Corporation's policy that all fixed assets are subject to an annual physical stocktake and fixed assets acquired at a value less than $1,000 per item are expensed. External computer software purchases costing in excess of $100,000 are now capitalised whilst in-house developed computer software is expensed.

❑ *2.6 Disposal of Surplus Assets*

In accordance with Section 66(4)(b) of the Transport Act 1983 the net proceeds arising from the disposal of certain assets of the Corporation are paid into the Consolidated Fund.

❑ *2.7 Depreciation and Amortisation*

(a) Depreciation is charged on all fixed assets, excluding land, used in day to day operations in order to write off the cost of these assets over their useful lives.

All fixed assets are depreciated using the straight line method with due allowance for residual values.

In previous years some fixed assets of the former Road Construction Authority were depreciated using the diminishing balance method. The effect of changing to a straight line depreciation policy was to reduce the 1989/90 depreciation charge by $489,000.

A full year's depreciation is charged against the value of assets except for current year additions, improvements and disposals where depreciation commences or ceases in the month in which the asset is purchased or sold.

(b) Depreciation is not charged on buildings on land acquired for roadworks. This policy will be changed at the time of the next valuation (1992) when separate values for both land and buildings will be obtained. Refer Note 2.3(b).

(c) Expenditure on improvements to leasehold properties has been amortised over the unexpired period of each lease.

❑ *2.8 Inventories*

(a) Inventories of stores and other materials have been valued at average cost. Traffic facilities hardware has been valued at weighted average cost.

(b) Stockpiles of construction and maintenance materials "on site" with a value in excess of $2,000 have been taken into account at cost.

(c) Inventories of saleable items and consumable stores have been valued at the lower of cost or net realisable value.

❑ *2.9 Doubtful Debts*

Estimated doubtful debts are based on the examination and assessment of each individual debt.

❑ *2.10 Provisions for Employee Entitlements*

The Corporation has recognised and brought to account employee entitlements accruing for annual leave, long service leave, superannuation and workers' compensation as follows:-

(a) The liability for accrued annual leave has been calculated using the actual leave outstanding for each employee at 30 June 1990 and pay rates applicable at that date (including leave loadings).

(b) The provision for long service leave has been calculated for employees with a continuous length of service in excess of four years. The provision has been valued using the calculated entitlements for each employee at 30 June 1990 and pay rates applicable at that date. The amount estimated to be payable in the next 12 months is shown as a current liability.

(c) Roads Corporation employees contribute to one of the following superannuation schemes; the State Superannuation Scheme, the State Employees Retirement Benefits (SERB) Scheme, the Transport Superannuation Scheme, the Melbourne and Metropolitan Board of Works (MMBW) Superannuation Scheme, the National Mutual Life (NML) Superannuation Scheme or the Colonial Mutual Life (CML) Superannuation Scheme.

In respect of the State Superannuation Scheme, the Corporation contributes to the cost of entitlements paid on the retirement, death or incapacity of the contributor. The Corporation maintains a provision for the estimated employer portion of superannuation entitlements payable to contributors. This provision has been based on an independent actuarial assessment provided by William M. Mercer, Campbell Cook and Knight Pty Ltd. The amount estimated to be payable in the next 12 months is shown as a current liability.

In so far as the MMBW, NML and CML Schemes are concerned the Corporation meets its ongoing liabilities under each scheme by making progressive payments to each scheme in accordance with agreed contribution rates.

In the 1990 actuarial assessment by William M. Mercer, Campbell Cook and Knight Pty Ltd, it was determined that there was an unfunded liability at 30 June 1990 in respect of the employment service of Transport Scheme members arising from their prior membership of the SERB Scheme and the existing contributors and pensioners of the SERB Scheme. These unfunded liabilities amounted to $64.6 million and have been included in the 1989/90 financial statements. Refer Note 5.2.

(d) The provision for Workers' Compensation covers the estimated liability under the old Workers' Compensation Act for injuries that occurred prior to the introduction of WorkCare. The provision is assessed by the State Insurance Office on the basis of claims outstanding at 30 June each year.

❑ *2.11 Other Provisions*

Other provisions covering quarry restoration and precast formwork are calculated on the basis of costs applicable at 30 June each year.

❑ *2.12 Collections on behalf of the Government of Victoria and Agencies*

The Corporation collects revenue as an agent for the Government of Victoria and other Government Agencies which does not constitute revenue of the Corporation.

Collections not remitted to the Government of Victoria and other Government Agencies at balance date have been reported as liabilities in the balance sheet. Refer Note 7.1

❑ *2.13 Contributed Capital*

Except where otherwise stated Contributed Capital includes the book value of all loans centralised in accordance with the Transport (Amendment) Act 1986, plus the proportion of Works and Services Appropriations from the State Government used to acquire fixed assets less the net proceeds from the sale of assets paid into the Consolidated Fund. Refer Notes 2.6, 3.1, 4.3(ii) and 6.1.

❑ *2.14 Revenue Recognition*

Revenue in respect of services or works provided by the Corporation is recognised at the point of service delivery.

■ 3. OPERATING REVENUE PROVIDING FUND INFLOWS

❑ *3.1 Government appropriations*

	1990 $000	1989 $000
Recurrent appropriations	288,873	320,977
Works and services appropriations	333,900	300,400
	622,773	621,377
Less transfer to Contributed Capital	37,733	51,074
Government appropriations deemed to be revenue of the Corporation	**585,040**	**570,303**

The Government originally appropriated $637.773 million for 1989/90 however $15 million was transferred to the Public Transport Corporation during June 1990.

❑ *3.2 Operating contributions*

During the year the Corporation received contributions towards operating expenses from:-

	1990 $000	1989 $000
Transport Accident Commission	6,016	5,724
Ministry of Tourism	575	576
Other	773	2,181
Total	**7,364**	**8,481**

❑ *3.3 Regulatory, licence and other income*

	1990 $000	1989 $000
Regulatory, licence and other fees	26,496	22,491
External works	15,932	5,647
Rental income	9,143	5,060
Municipal contributions	8,033	7,358
Interest	2,368	3,732
Property enquiry fees	757	1,211
Other	9,506	5,088
Total	**72,235**	**50,587**

■ 4. OPERATING EXPENSES REQUIRING FUND OUTFLOWS

❑ *4.1 Road Network Management Programs*

The Roads Corporation delivers its road network services through 6 major programs. The services include physical works on the network as well as operational or traffic management measures, education and liaison activities, registration and enforcement activities and associated corporate services. The comparative figure for 1988/89 was $466.805 million but due to changes to program structures an analysis of comparative values by program is not available.

	1990 $000
Road Safety	36,854
Access and Mobility	334,687
Economic Development	111,536
Environment Enhancement	3,636
Customer Services	19,422
Corporate Services	340
Total	**506,475**

❑ *4.2 Management and Operating Expenses*

	1990 $000	1989 $000
Salaries and associated costs	144,794	130,549
Data processing	18,347	9,451
Finance charges	717	1,167
Property maintenance	21,055	18,362
School crossing supervision	5,356	4,094
Multi purpose Taxi Program	9,817	8,827
Promotion and publicity	2,231	3,977
Audit fees	272	266
Bad debts	3	9
Doubtful debts (Refer below*)	3,059	24
Special Payment to Ministry of Transport	530	531
Administrative and Technical Services expenditure	44,508	33,295
Management and operating expenditure allocated to Road Network Management Programs (Refer Note 4.1)	(53,340)	(16,723)
Total	**197,349**	**193,829**

*Included in doubtful debts is a net amount of $2,503,000 billed in respect of previous years' inter-Government Agency property transfers which is unlikely to be collected.

❑ *4.3 Profit/Loss on disposal of Non-Current Assets*

(i) Included in the Operating Deficit Requiring Fund Outflows is the loss on disposal of Non-Current Assets. The proceeds from these disposals are retained by the Corporation.

	1990 $000	1989 $000
Proceeds from sale	4,601	5,250
Book value of assets sold	5,418	3,627
Loss/(Profit) on disposal	**817**	**(1,623)**

(ii) Included in the Operating Deficit Not Requiring Fund Outflows is the profit on disposal of Non-Current Assets. The proceeds from these disposals are paid to the Consolidated Fund. Refer Note 2.13.

	1990 $000	1989 $000
Proceeds from sale (Refer below*)	13,650	17,142
Book value of assets sold	8,837	11,669
Profit on disposal	**4,813**	**5,473**

*Variations between proceeds from sale of Fixed Assets and amounts paid to Consolidated Fund result from differences in timing of receipt of proceeds and the actual payments made:

	1990 $000	1989 $000
Amount remitted to Government	14,621	16,538
Less Proceeds from sale	13,650	17,142
Variation	**971**	**(604)**

■ 5. OPERATING EXPENSES NOT REQUIRING FUND OUTFLOWS

❑ *5.1 Depreciation and Amortisation*

	1990 $000	1989 $000
Improvements in Service	2,159	2,968
Leased Assets	16	16
Plant and Motor Vehicles	5,444	5,082
Equipment	4,323	11,266
Total	**11,942**	**19,332**

❑ *5.2 Increase in Provisions for Employee Entitlements*

	1990 $000	1989 $000
Increase in provision for superannuation (Refer below*)	89,700	57,090
Increase in other employee entitlements	766	2,632
Total	**90,466**	**59,722**

* The current actuarial valuation at 30 June identified the following in respect of superannuation:-

	1990 $000	1989 $000
Increase in provision for superannuation		
– Normal	38,600	39,590
– Abnormal		
(i) SERB liability not previously taken up (Refer Note 2.10(c))		–
– Transport Fund	44,000	
– SERB	20,600	
(ii) Abnormal 'profit' in State Superannuation Scheme resulting from extremely favourable investment experience	(31,900)	–
(iii) Abnormal 'catch up' in State Superannuation Scheme to compensate for improved employee benefits associated with the revision in the scheme from 1988	18,400	–
(iv) Change in actuarial valuation basis of total superannuation liability	–	10,500
(v) Increase in superannuation liability due to introduction of new scheme	–	7,000
Total	**89,700**	**57,090**

❑ *5.3 Fixed Assets written off*

	1990 $000	1989 $000
Normal	1,351	935
Abnormal		
– Write off of fixed assets as a result of physical stocktake	–	6,427
– Write off as a result of change in capitalisation policy	–	6,636
Total	**1,351**	**13,998**

❑ *5.4 Land and buildings incorporated into roadworks*

Land and Buildings, capitalised in accordance with the policy outlined in Note 2.2(b), are expensed upon the commencement of construction works.

	1990 $000	1989 $000
Normal	9,630	9,661
Abnormal		
– Adjustment to properties acquired for roadworks for events occurring in prior financial years	–	(6,133)
Total	**9,630**	**3,528**

■ 6. EQUITY

❑ *6.1 Contributed Capital*

In addition to adjustments for acquisitions and sales of assets as per Note 2.13, the following transactions have been included in Contributed Capital -

(i) Properties to the value of $1,607,000 (based on kerbside valuations by independent valuers), received free of charge from the MMBW on 30 June 1989 which were not taken up in the 1988/89 financial statements.

(ii) A reduction in land and improvements with a corresponding reduction in Contributed Capital of $1,766,000 being the transfer of fit-out costs for a building originally intended for use by the former Road Traffic Authority and now under the control of the Department of Property and Services.

❑ *6.2 Asset Revaluation Reserve*

	1990		1989	
	$000	$000	$000	$000
Balance at 1 July		**444,345**		**39,618**
Movements for the year				
– Land and buildings acquired for roadwork (Refer Note 2.3(b))	–		373,904	
– Land and improvements in service (Refer Note 2.4)	4,915		25,134	
– Fixed Assets				
– Plant and motor vehicles (Refer Note 2.5(a))	(5,819)		5,819	
– Equipment (Refer Note 2.5(b))	5,245	4,341	(130)	404,727
Balance at 30 June		**448,686**		**444,345**

❑ *6.3 Accumulated Deficit*

Major items contributing to the accumulated deficit include:-

– unfunded items such as provisions for employee entitlements and depreciation; and

– road expenditure financed from Capital (equity) sources offset by assets financed from the Corporation's income (works and services appropriation).

■ 7. LIABILITIES

❑ *7.1 Government of Victoria and Agencies*

The Corporation collects revenue such as stamp duty, drivers licence fees and the Transport Accident Charge, on behalf of the Government of Victoria and other Government Agencies.

Collections and payments during the year were as follows:-

	1990 $000	1989 $000
Balance at 1 July	7,252	11,471
Plus total revenue collections (see below*)	965,524	926,680
	972,776	938,151
Less total amount paid	966,777	930,899
Balance at 30 June	**5,999**	**7,252**

*Revenue collections on behalf of Government and Other Agencies include:

	1990 $000	1989 $000
Transport Accident Charge	644,458	609,309
Stamp duty	154,238	131,868
Registration fees	120,180	142,115
Drivers' licences	31,301	30,385
Federal interstate registrations	6,615	5,052
Other licence fees and permits	6,139	5,242
Motor boat registrations	2,593	2,709
Total	**965,524**	**926,680**

❑ *7.2 Works Advances*

Various Councils and Developers have advanced funds for the installation of traffic signals and other intersection treatment. These advances are interest free and are invested with the Victorian Development Fund.

❑ *7.3 Liabilities - Lease*

	1990 $000	1989 $000
Current		
Not later than one year	–	1,603
Non-Current		
Later than one year and not later than two years	–	1,824
Later than two years and not later than five years	–	3,860
Later than five years	–	–
	–	5,684
Total	**–**	**7,287**

During 1989/90 the lease agreement on Computer equipment was cancelled.

❑ *7.4 Liabilities - Property*

This amount represents the value of land and buildings acquired for road purposes (including acquisition costs) where a Notice of Acquisition has been formally served on the property owner and the Corporation has taken formal possession although final settlement had not been achieved at 30 June. Refer Note 2.3(a).

Amounts have been based on valuation data prepared by external and internal valuers.

	1990 $000	1989 $000
Current		
Not later than one year	13,229	14,671
Non-Current		
Later than one year and not later than two years	4,000	90
Total	**17,229**	**14,761**

❑ *7.5 Provisions for Employee Entitlements*

	1990			1989		
	Non Current $000	Current $000	Total $000	Non Current $000	Current $000	Total $000
Superannuation	23,500	540,150	563,650	17,080	456,870	473,950
Annual Leave & Leave Loading	11,027	–	11,027	10,334	–	10,334
Long Service Leave	3,947	39,412	43,359	11,263	28,555	39,818
Workers' Compensation	–	–	–	2,500	968	3,468
Total	**38,474**	**579,562**	**618,036**	**41,177**	**486,393**	**527,570**

❑ *7.6 Other Provisions*

This item represents amounts provided for precast formwork and future site works, including access roads, and environmental restoration works at the Quarries and Pits operated by the Corporation following completion of quarrying operations.

	1990 $000	1989 $000
Current	848	282
Non-Current	566	723
Total	**1,414**	**1,005**

■ 8. ASSETS

❑ 8.1 *Cash at Bank, in Hand and Deposits*

	1990 $000	1989 $000
Cash at Bank	7,291	7,148
Bank Overdraft	–	(24,648)
Cash in Hand	340	345
Deposits	1,159	28,348
Total	**8,790**	**11,193**

❑ 8.2 *Debtors and Prepayments*

	1990 $000	1989 $000
Debtors	14,157	12,269
Less estimated doubtful debts (Refer Note 4.2)	3,425	363
	10,732	11,906
Prepayments	839	1,952
Total	**11,571**	**13,858**

❑ 8.3 *Inventories*

	1990 $000	1989 $000
Stockpile materials	14,095	12,818
Traffic facilities	2,923	3,000
Saleable items and consumable stores	4,632	4,877
Stores and other materials	2,211	4,932
Total	**23,861**	**25,627**

❑ 8.4 *Repayable Advances - Municipalities*

This item represents the value of principal outstanding for loans made to municipalities for specified permanent works carried out during the period 1950 to 1965. These loans are repayable over periods up to 35 years in equal annual instalments as defined in clause 8, Schedule 5 of the Transport Act 1983.

	1990 $000	1989 $000
Current		
Not later than one year	92	109
Non–Current		
Later than one year and not later than two years	727	888
Total	**819**	**997**

❑ 8.5 *Property Loans*

Represents outstanding principal due under terms contracts relating to the sale of land and associated improvements.

	1990 $000	1989 $000
Current		
Not later than one year	60	68
Non-Current		
Later than one year and not later than two years	301	301
Total	**361**	**369**

❑ 8.6 *Land and Improvements in Service*

This item refers to those assets which are in service (e.g. offices and laboratories, regional residential properties, storage sites, depots and patrol garages). Improvements include freehold buildings, buildings on Crown land, buildings on leased land, leasehold improvements and others. It is not practical for the valuations to be split, in dollar terms, between those conducted by independent valuers and experienced Corporation staff.

	1990 $000	1989 $000
Land		
At Cost	2,146	–
At 1989 Valuation	47,223	45,954
Improvements		
At Cost	12,582	5,522
At 1989 Valuation	50,399	53,174
Total Land and Improvements	112,350	104,650
Less Accumulated Depreciation	2,536	1,861
Total	**109,814**	**102,789**

❑ *8.7 Land and Buildings Acquired for Roadworks*

At 30 June 1990 the Corporation owned properties which are required for future roadworks, situated in a planning scheme for future roadworks, surplus to requirements and awaiting final survey after roadworks, or land-locked awaiting plans of consolidation and restoration of access before being sold. Refer Note 2.3.

Where possible, these properties are rented or leased until required for roadworks or sold after being deemed surplus to requirements.

All land and buildings acquired for roadworks up to 30 June 1989 are at valuation. It is not practical for the valuations to be split, in dollar terms, between those conducted by independent valuers and experienced Corporation staff. Acquisitions during 1989/90 are at cost.

	1990		1989	
	$000	$000	$000	$000
Balance at 1 July				
– At Cost	**–**		**31,813**	
– At Valuation	**765,946**	**765,946**	**176,298**	**208,111**
Add				
– Acquisitions	9,256		20,793	
– Revaluation increment (Refer Note 6.2)	–		373,904	
- Properties from MMBW (Refer Note 6.1(i))	1,607	10,863	178,335	573,032
		776,809		781,143
Less				
– Incorporated into roadworks (Refer Note 5.4)	9,630		3,528	
– Disposals	8,836	18,466	11,669	15,197
Balance at 30 June				
– At Cost	**9,256**		**–**	
– At 1989 Valuation	**749,087**	**758,343**	**765,946**	**765,946**

❑ *8.8 Leased Assets*

	1990	1989
	$000	$000
Leased computer equipment	–	9,402
Leasehold building	224	224
	224	9,626
Less Accumulated amortisation	64	2,678
Total	**160**	**6,948**

During 1989/90 the lease agreement on computer equipment was cancelled. Refer Note 7.3.

In the course of acquiring properties for future roadworks the Corporation purchased a leasehold building which is secured until the year 2000. The capitalized lease value is amortized over the lease period commencing 1986/87. The Property is let providing income to offset the amortization charges until such time as it is required for roadworks.

❑ *8.9 Fixed Assets*

	1990 $000	1989 $000
Plant and Motor Vehicles		
- At Cost	13,181	–
- At Corporation Valuation 1989	–	43,517
- At Corporation Valuation 1990	34,273	–
	47,454	43,517
Less Accumulated Depreciation	5,444	–
Total Plant and Motor Vehicles	42,010	43,517
Equipment		
- At Cost	–	8,535
- At Corporation Valuation 1989	–	17,308
- At Corporation Valuation 1990	28,144	–
	28,144	25,843
Less Accumulated Depreciation	–	4,797
Total Equipment	28,144	21,046
Total	**70,154**	**64,563**

■ 9. RECONCILIATION OF NET FUNDS FROM OPERATIONS WITH THE OPERATING DEFICIT FOR THE YEAR

	1990 $000	1990 $000	1989 $000	1989 $000
Operating Deficit for the year		(148,987)		(121,014)
Add:				
Depreciation and amortisation	11,942		19,332	
Employee Entitlements				
- Increase in provisions	90,466		59,722	
- Payments	43,545		32,149	
Fixed Assets written off	1,351		13,998	
Increase in Other Provisions	409		267	
Land and Buildings incorporated into roadworks	9,630	157,343	3,528	128,996
		8,356		7,982
Less:				
Profit on disposal of Non-Current Assets		4,813		5,473
Net Funds from Operations		**3,543**		**2,509**

■ 10. OTHER MATTERS

(i) Contingent Liabilities - Legal
The Roads Corporation has examined current legal records to provide an estimate of possible material payments resulting from various legal actions. The estimate of such contingent liabilities as at 30 June 1990 was $2.4 million (1989 - $2.0 million).

(ii) Commitments
(a) Forward Contracts

The outstanding liability on Capital Expenditure contracts as at 30 June is:

	1990 $000	1989 $000
Road, Bridge and Ancillary Works	37,188	67,482
Land Acquisition - formal possession not taken as at 30 June (refer Notes 2.3(a) and 7.4)	46,079	31,998
	83,267	99,480

(b) Operating Leases
For non-cancellable leases with a lease term in excess of one year, lease commitments aggregated as at 30 June are as follows:

	1990 $000	1989 $000
Not later than one year	11,523	11,404
Later than one year and not later than two years	8,907	4,077
Later than two years and not later than five years	13,576	5,043
Later than five years	1,257	5,031
	35,263	25,555
Total Commitments	**118,530**	**125,035**

A significant additional liability may exist in respect of the lease of certain properties, the rates for which are currently under review.

STATUTORY STATEMENT BY CHIEF EXECUTIVE OFFICER AND PRINCIPAL ACCOUNTING OFFICER

In our opinion -

(a) the accompanying financial statements of the Roads Corporation present fairly the financial transactions of the Corporation for the year ended 30 June 1990 and the financial position of the Corporation as at that date,

(b) the financial statements of the Corporation have been prepared in accordance with the Annual Reporting Act 1983 and the Annual Reporting (Contributed Income Sector) Regulations 1988, and

(c) at the date of signing these statements we are not aware of any circumstances which would render any particulars included in these financial statements to be misleading or inaccurate.

Reg Patterson
Chief Executive Officer

Terry Carrigg
Principal Accounting Officer

Dated at Melbourne on 11 October 1990

AUDITOR-GENERAL'S REPORT

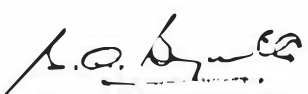
The accompanying financial statements comprising revenue and expense statement, balance sheet, consolidated statement of changes in equity, statement of sources and applications of funds and notes to the financial statements of the Roads Corporation (trading as VIC ROADS) have been audited as required by the *Annual Reporting Act 1983* and in accordance with Australian Auditing Standards.

(i) As indicated in notes 2.3(b) and 6.2 to the financial statements, land and buildings acquired for roadworks were revalued at 30 June 1989. The revaluation increment in respect of these assets, held at 30 June 1990, is $359 million. As these properties were acquired for future road construction and are not expected to realise their revalued amount through continued use, it is my opinion that these assets should have been valued at the lower of cost or net realisable value. Accordingly, the item, land and buildings acquired for roadworks, is overstated by $359 million.

(ii) As indicated in note 1 to the financial statements, the Corporation has included supplementary current cost financial statements in it's annual report. The Treasurer of Victoria has not requested that these statements be submitted for audit. Accordingly, an audit opinion is not expressed in respect of these financial statements.

(iii) In the revenue and expense statement, the Corporation has distinguished between revenue and expense items involving fund inflows and outflows and those not requiring fund inflows and outflows. This approach is required by the *Annual Reporting (Contributed Income Sector) Regulations 1988*. The statement prepared on this basis discloses a net deficit of $149 million for the year after incurring total expenses of $818 million and earning total revenues of $669 million. I consider that disclosure of all revenue and expense items on an aggregate basis, with no distinction between fund inflows and outflows and with separate reporting of supplementary information of a funding nature, would result in a clearer presentation of the Corporation's operating performance.

In my opinion, except for the effect on the financial statements of the matter referred to in paragraph (i) above, the financial statements comply, in all material respects, with the requirements of the *Annual Reporting Act 1983* and present fairly the state of the affairs of the Roads Corporation as at 30 June 1990 and the results of its operations for the year ended on that date in accordance with Australian Accounting Standards.



C.A. BARAGWANATH
Auditor-General

MELBOURNE
18/10/1990

Supplementary Financial Statements
Incorporating – Infrastructure Assets at Current Replacement Cost (Unaudited)

INTRODUCTION

The purpose of the following supplementary current cost financial statements is to disclose information useful in evaluating the task of managing the declared road network which is controlled by VIC ROADS. These statements will enable readers to make informed judgments about VIC ROADS performance in relation to the size and condition of the road assets. They will also ensure that the activities, resources and results of the corporation are measured in comparable terms and are of maximum value to users.

For the 1989/90 financial year, Current Cost Reporting supplements the historical cost financial statements (by the inclusion of VIC ROADS infrastructure assets) and should be read in conjunction with them.

BACKGROUND

The Victorian Government policy on reporting asset values, has for some years, been expressed through the Annual Reporting Act, and Rate of Return Reporting requirements for commercial utilities.

Recently, the Australian Accounting Research Foundation released an exposure draft, ED50, "Financial Reporting by Local Governments", which indicates, these bodies should value and record their infrastructure assets in their financial statements.

The Australian Accounting Research Foundation through its "Proposed Statements of Accounting Concepts", ED42C and the Australian Road Management organisations through AUSTROADS predecessor, NAASRA, have supported and encouraged the valuation of infrastructure assets and their inclusion in the financial statements of statutory bodies.

With the inclusion of infrastructure values, the asset base has increased by $12.3 billion. After allowing for accumulated depreciation the written down current replacement value of the assets is $6.9 billion. As these assets are included for the first time, the depreciation amount is reflected in the accumulated deficit figure of $6.2 billion.

BENEFITS

The benefits arising from this initiative are:-

- to build a reliable information base from which maintenance costs and the implications of heavier vehicle usage and higher traffic volumes can be more visible to the public.
- recognising that assets have been inherited from the past and their value reflects some of the state's assets financed by borrowing activity.
- develop a community understanding that infrastructure assets are not a "free good", outside of anyone's control. The acknowledgment of infrastructure value enhances the concept of managerial accountability for the operational performance of the assets resource.
- assists in recognising that the road network contributes to the State's economic performance in ways other than as a vehicle transport mode. For instance, the road reservations are used to transport other commodities for which an economic return is currently not obtained such as: electricity, gas, water, telecommunications. In time, a resource fee could be applied for these other forms of traffic.
- provides a cost base for pricing assets in accordance with user pays principles and provides a comparable economic base to evaluate alternative investments in transport.
- discloses the whole of life cost and management implications of maintaining road infrastructure assets against their total value. The Annual reporting requirements expense maintenance and construction costs. They do not recognise the long cycle of preventative and rehabilitation maintenance necessary to preserve the assets.

VIC ROADS INFRASTRUCTURE ASSETS

VIC ROADS infrastructure assets include:

(i) Land under roads and on road reservations.

(ii) Roads, the constructed pavement and ancillary works.

(iii) Bridges and major culverts.

(iv) Traffic control devices.

For each of the above VIC ROADS has a data base recording technical specifications and in some instances current asset conditions.

In terms of identifying the assets VIC ROADS can place a high level of confidence in the recognition of their existence. For instance:

- Land area recognition and road specifications have high confidence levels as historical information has been collected and is available on a database system in the required form.
- All necessary information on the number and type of bridges is also collected and stored on a database as is all information relating to the traffic signal network.

VALUATION OF INFRASTRUCTURE ASSETS

The reliability of applying current cost values to infrastructure assets is dependent upon the availability of relevant current costs or appropriate indices. In addition, these figures should not be interpreted as representing a realisable value. They attempt to reflect the balance of tangible value to the community remaining in the assets.

In relation to roads the unit current replacement costs can be obtained from existing road projects which provide a reliable reference. Unit replacement costs for bridges can be estimated by expert bridge engineers. Traffic control device replacement costs are presently recorded in a management data base at current replacement costs.

The valuation of road reservations can be obtained by reference to the land compensation principles set out in the Land Compensation Act 1986. In essence VIC ROADS is required to pay compensation equivalent to the unaffected value of the land. The principle used in applying the Valuer General's average municipal value per hectare of road reservation, is based on the lowest site value.

DEPRECIATION & REFURBISHMENT OF ASSETS

The road network assets are in a used condition i.e. some of their service potential is expired. Depreciation attempts to measure this loss and make an annual distribution. However, a road asset is seldom retired from use and disposed of at the end of its service life. It is usually rehabilitated by a capital expenditure which restores the pavement to yeild a further service life similar to the original construction.

Provision for rehabilitation recognises the liability for reconstruction that is accumulating as the pavement surface deteriorates over and above periodic maintenance activity. VIC ROADS proposes to record provision for rehabilitation from 1 July 1990.

Schedules showing the age of infrastructure assets provide an insight into the timing of the need to replace or rehabilitate assets or to face an increase in maintenance costs.

ASSESSMENT OF THE STRUCTURAL LIFE OF BRIDGES

Current evidence suggests that the average useful life for a bridge is approximately 80 years based on the assumption that at least one major rehabilitation or upgrade is required during that time.

The age profile for bridges in the declared road system shows that the average age for major rehabilitation or upgrade is approximately 40 years. Available information also shows that the average age of bridges in the declared road system at 30/6/90 is 33.2 years.

ASSESSMENT OF HIGHWAY PAVEMENT STRUCTURAL LIFE

The structural life expectancy of "highway" and "freeway" standard pavements has been based on the assumption that adequate and appropriate pavement management activities have been initiated and performed over the life of the network. Such pavement management activities include routine pavement maintenance, major patching, resheeting and resealing.

Based on "road condition" data the Victorian State Highway/Freeway network has a remaining life expectancy of between 25 and 35 years. Currently data reflects an overall pavement condition of approximately 70% i.e. equivalent to an age profile averaging approximately 15 years (Note: whilst the networks age may be greater than 15 years the networks condition reflects this age profile based on road condition prediction tables).

In making useful predictions about the remaining life other factors need to be taken into consideration, these include;

- the estimated useful life may be affected by climate
- geographic location
- the level of routine maintenance
- traffic density and type
- is the service standard appropriate
- the rate of technological development

These factors may lead to revisions of the estimated life expectancy and to the time when rehabilitation is required.

Expert opinions from VIC ROADS engineers have been used to determine standard life expectancy rates. In addition, the Pavement Management Information Systems, used to assist

road asset management decisions, contains predictive models for deterioration of road conditions. It also provides an estimation of the expected remaining life of the roads and bridges. The Traffic Control Device network also, includes age information for control devices.

Creating a provision for depreciation and refurbishment does not provide funds for asset replacement unless it were permitted to influence revenue decisions. This is not the case.

Reconstructing the Annual Accounts to record infrastructure assets at current replacement cost provides a useful aid in turning the emphasis to asset management and to questions of how much infrastructure we can afford; what is an appropriate infrastructure service level and how can scarce maintenance and development resources be efficiently distributed to avoid a deterioration in service levels.

ROADS CORPORATION

■ Revenue and Expense Statement for the Year Ended 30 June 1990

ITEMS	NOTES 1990	$000's
OPERATING DEFICIT FOR THE YEAR AS PER HISTORIAL COST ACCOUNTS		(148,987)
Less Abnormal Items	2	5,384,917
OPERATING DEFICIT FOR THE YEAR (excluding monetary holding (gains) losses)		(5,533,904)
Add Gains on Holding Monetary Items	1(f)	51,657
OPERATING DEFICIT FOR THE YEAR		(5,482,247)
ACCUMULATED DEFICIT AT BENINNING OF YEAR		(760,488)
ACCUMULATED DEFICIT AT END OF YEAR		($6,242,735)

ROADS CORPORATION

■ Balance Sheet as at 30 June 1990

	NOTES	$000's
CURRENT ASSETS		
Cash at Bank, in Hand and Deposits		8,790
Debtors and Prepayments		11,571
Inventories	1(b)	24,797
Repayable Advances-Municipalities		92
Property Loans		60
Total Current Assets		**45,310**
NON CURRENT ASSETS		
Repayable Advances-Municipalities		727
Property Loans		301
Fixed Assets	1(b)(c), 3.1	118,358
Land and Buildings Acquired for Roadworks	1(b), 3.2	817,821
Land (Right of Way)	1(b)(c), 4.1	1,272,558
Roads	1(b)(c), 4.2	4,607,330
Bridges	1(b)(c), 4.3	1,002,126
Traffic Control Devices	1(b)(c), 4.4	64,722
Land & Improvements in Service	1(b)(c), 3.3	118,427
Leaseholds	1(b)(c), 3.4	217
Total Non-Current Assets		**8,002,587**
TOTAL ASSETS		**8,047,897**

ROADS CORPORATION

■ Balance Sheet as at 30 June 1990 (continued)

	NOTES	$000's
CURRENT LIABILITIES		
Creditors and Accruals		97,158
Government of Victoria and Agencies		5,999
Works Advances		1,018
Liabilities-Property		13,229
Provision for Employee Entitlements		38,474
Other Provisions		848
Total Current Liabilities		**156,726**
NON-CURRENT LIABILITIES		
Deferred Creditors		5,270
Liabilities-Property		4,000
Provisions for Employee Entitlements		579,562
Other Provisions		566
Total Non-Current Liabilities		**589,398**
EQUITY		
Contributed Capital	1(e),5(A)	13,030,191
Current Cost Account	5(B)	514,317
Accumulated Deficit	5(C)	(6,242,735)
Total Equity		7,301,773
TOTAL LIABILITIES AND EQUITY		**8,047,897**

Summary of Significant Accounting Policies

NOTES TO THE ACCOUNTS

■ NOTE 1

(a) Basis of Preparation
These supplementary financial statements have been prepared in accordance with Statement of Accounting Practice Number One (SAP1), using principles of the Current Cost Accounting Convention.

(b) Valuation of Non-Monetary Assets
Non-current non-Monetary assets (principally Land and Improvements in service, Land and Buildings Acquired for Roadworks, Fixed Assets, Right of Way Land, Leaseholds, Roads, Bridges and Traffic Control Devices) have been valued at written-down current cost after allowing for total capitalised funding costs, current cost depreciation in respect to depreciable assets and current cost rehabilitation requirements in respect to certain infrastructure assets.

Current non-monetary assets (principally inventories) have been valued at the lower of current cost and net realisable value. Current cost has been determined on the basis of average current market buying price using the consumer price index applied to past carrying values as appropriate.

The valuation methods used for infrastructure assets are:
(i) Right Of Way Land– land under roads and on road reserves has been valued at the average current market buying price per hectare for each municipality, based on the lowest 'site value'.

(ii) Roads– the constructed portion of the road has been valued at Current Replacement Cost. Construction costs have been determined as the current dollar rate per lane kilometre for each classification of declared road under the Transport Act 1983.

(iii) Bridges– bridges and major culverts have been valued at Current Replacement Cost. Unit construction costs have been determined as the current dollar rate per square metre for each type of structure on the declared road network.

(iv) Traffic Control Devices– the traffic control device network has been valued at Current Replacement Cost.Unit replacement costs have been determined as the current dollar rate per intersection or pedestrian signal.

All infrastructure assets will be revalued each five years on a rolling basis using expert valuations. Appropriate indices will be used in the intervening years.

(c) Depreciation and Amortisation
All non-monetary assets have been depreciated using the straight-line depreciation method.

Land (right of way) is not subject to depreciation.

(e) Appropriations
Works and Services appropriations for new works only will be treated as an equity item (contributed capital) in the 1990/91 Supplementary Statements. All other Works and Services and Re-Current Appropriations will be treated as a revenue item.

(f) Gains and Losses on Holding Monetary Items
Holding gains on monetary liabilities reflect the amount of cost saving

achieved as a result of changes in prices during the period.

The amount has been calculated by reference to average movements in the Consumer Price Index.

Holding losses on monetary assets reflect the amount of additional finance needed for monetary assets as a result of changes in specific prices during the period.The amount has been calculated on the same basis as holding gains on monetary liabilities.

(g) Other Accounting Policies

Except as set out above, the accounting policies and methods used in Current Cost Accounting are the same as those used in the historical cost financial statements.

■ NOTE 2
Abnormal Items

Accumulated Depreciation on non-current physical assets capitalised for the first time is treated as an abnormal item.

The Accumulated Depreciation amounts for the Infrastructure assets are as follows:-

	$000's
Roads	4,607,330
Bridges	703,620
Traffic Control Devices	73,967
TOTAL	$5,384,917

■ NOTE 3
Non-Current Assets

ASSET TYPE	GROSS CURRENT REPLACEMENT COST $000s	ACCUMULATED DEPRECIATION $000's	WRITTEN DOWN CURRENT COSTS $000's
3.1 FIXED ASSETS:			
- Equipment	58,202	13,823	44,379
- Plant & Motor Vehicles	128,782	54,803	73,979
3.2 LAND & BUILDINGS ACQUIRED FOR ROADWORKS	817,821	–	817,821
3.3 LAND & IMPROVEMENTS IN SERVICE	121,162	2,735	118,427
3.4 LEASEHOLDS	304	87	217
TOTALS	**1,126,271**	**71,448**	**1,054,823**

■ NOTE 4
Physical Non-Current Assets

ASSET TYPE	GROSS CURRENT REPLACEMENT COST $000s	ACCUMULATED DEPRECIATION $000's	WRITTEN DOWN CURRENT REPLACEMENT COSTS $000's
4.1 LAND (RIGHT OF WAY) as at July 1988 values	1,272,558	–	1,272,558
4.2 ROADS	9,214,660	4,607,330	4,607,330
4.3 BRIDGES	1,705,746	703,620	1,002,126
4.4 TRAFFIC CONTROL DEVICES	138,689	73,967	64,722
TOTALS	**12,331,653**	**5,384,917**	**6,946,736**

■ NOTE 5
Statement of Changes In Equity for the Year Ended 30 June 1990

	(A) CONTRIBUTED CAPITAL ACCOUNT $000	(B) CURRENT COST ACCOUNT $000's	(C) ACCUMULATED DEFICIT ACCOUNT $000's	TOTAL $000's
* Balances as at 1 July	675,585	444,345	(760,488)	359,442
* Infrastructure Assets incorporated into supplementary statements.				
- Land (Right of Way)	1,272,558			1,272,558
- Roads	9,214,660			9,214,660
- Bridges	1,705,746			1,705,746
- Traffic Signals	138,689			138,689
* Current Cost Net Deficit			(5,482,247)	(5,482,247)
* Adjustments involved in the determination of Current Cost net deficit				
- (Gain)/Loss on holding monetary items		(51,657)		(51,657)
* Restatement of non-monetary assets				
- Inventories		936		936
- Fixed Assets		85,709		85,709
- Land & Buildings Acquired for Roadworks		59,478		59,478
- Land & Improvements in Service		8,812		8,812
- Leaseholds		80		80
* Restatement of Accumulated Depreciation				
- Fixed Assets		(37,505)		(37,505)
- Land & Improvements in Service		(199)		(199)
- Leaseholds		(23)		(23)
* Historical Cost Adjustments to Accounts for year to date	22,953	4,341		27,294
NET CHANGE FOR THE PERIOD	**$12,354,606**	**$69,972**	**($5,482,247)**	**$6,942,331**
BALANCE 30 JUNE 1990	**$13,030,191**	**$514,317**	**($6,242,735)**	**$7,301,773**

LEGISLATION

VIC ROADS assisted in the development of amendments to the Road Safety Act 1986 which were incorporated in the Road Safety (Amendment) Act 1990.

The amendments provided for:
- assessment, education and relicensing of convicted drink drivers
- reduction of the learner permit age
- probationary drivers to have their licence in their possession at all times while driving
- probationary driver infringements
- tailgating infringements
- offences of tampering with specified equipment

VIC ROADS was also responsible for development of the following regulations during the year:

- Transport (Passenger Vehicles) (Prohibition on Smoking) Regulations 1989 SR No. 206

These regulations provide a better, safer working environment for drivers and improved travelling conditions for passengers of Taxi-Cabs and on Buses not already covered by State or Federal legislation.

- Road Safety (Vehicles) (Amendment No. 3) Regulations 1989 SR No. 227

These regulations temporarily revised the fees charged by licensed vehicle testers pending a detailed examination of permanent arrangements. The regulations expired on 11 April 1990 and were replaced by 1990 SR No. 68 below.

- Road Safety (Procedures) (Infringements) Regulations 1989 SR No. 245

These regulations, together with Section 5 of the Road Safety (Miscellaneous Amendments) Act 1989, substantially revise the driver licence demerit points system. A new scale of points is introduced in line with national standards. Offences committed in other States are taken into account and revised procedures for dealing with excessive points tallies are prescribed.

- Road Safety (Vehicles) (Corporate Registration) Regulations 1989 SR No. 268

These regulations supplement the provisions of Section 18 of the Road Safety (Miscellaneous Amendments) Act 1989 which establishes a new infringement notice system for drink driving and excessive speeding offences resulting in mandatory licence cancellation or suspension under the Act.

The regulations restructured the provisions of the Principal Regulations relating to infringement notices by bringing all infringement notice provisions together and adopting a common form of notice.

The regulations also amended Schedule 6 to the Principal Regulations to insert the new infringement codes and the amount which may be paid if court proceedings are to be avoided.

- Road Safety (Procedures) (Demerit Points) Regulations 1989 SR No. 267

- Road Safety (Procedures) (Defence Personnel) Regulations 1989 SR NO. 271

These regulations ensure that Defence Force personnel and their dependents who have a driver licence issued in their former State or Territory of residence

are able to drive legally in Victoria until that licence falls due for renewal.

- Road Safety (Procedures) (Speed Cameras) Regulations 1989 SR No. 325

These regulations prescribe new kinds of cameras for owner onus purposes and enable the information in the photographs taken by the cameras to be used as prima facie evidence.

- Chattel Securities (Fees) Regulations 1990 SR No. 5
- Road Safety (Procedures) (Fees) Regulations 1990 SR No. 6
- Road Safety (Vehicles) (Fees) Regulations 1990 SR No. 7
- Transport (Commercial Goods Vehicles) (Fees) Regulations 1990 SR No. 8
- Transport (Fees For Road Property Enquiries) (Amendment) Regulations 1990 SR No. 9
- Transport (Passenger Vehicles) (Fees) Regulations 1990 SR No. 10
- Transport (Tow Truck) (Fees) Regulations 1990 SR No. 11

These regulations provided for an indexation increase in various fees from 1 February 1990.

The average fee increase was 6%.

- Road Safety (Procedures) (Suspension of Licences) Regulations 1990 SR No. 13

These regulations provide procedures for suspension of a driver licence if the holder has failed to pay traffic or parking fines. They also ensure that if the person holds both a Victorian licence and a licence from another State he or she cannot continue to drive in Victoria on the other State's licence when the Victorian licence is suspended.

- Road Safety (Traffic) (Control) Regulations 1990 SR No. 12

These regulations enable authorised officers of the Roads Corporation to provide escort services for overdimensional vehicles and to give directions to drivers of other vehicles.

The regulations also exempt escorted vehicle and their escorts from various provisions of the traffic rules and authorised officers of VIC ROADS are also empowered to operate traffic signals manually.

- Road Safety (Vehicles) (Licensed Testers) Regulations 1990 SR No. 68

These regulations allow licensed vehicle testers to charge fees for certificates of roadworthiness that are appropriate to the different types and conditions of vehicles and introduce more appropriate penalties for giving false certificates.

- Road Safety (Procedures) (Relicensing) Regulations 1990 Sr No. 73

These regulations ensure that the Roads Corporation has a discretion to issue a driver licence to a person who has been previously licensed, without requiring the person to first obtain a learner permit. Such a discretion previously existed under the Motor Car Act.

- Road Safety (Bicycle Helmets) Regulations 1990 SR No. 122

These regulations make the wearing of bicycle helmets mandatory.

OVERSEAS MISSIONS

David South (Principal Research Officer, Road User Behaviour)
22 OCTOBER 1989 - 3 NOVEMBER 1989

The trip involved two weeks in the USA investigating road safety measures, particularly the operation of schemes involving alcohol ignition interlocks for convicted drink drivers.

On return, the following actions were taken to make use of what was learned:

- ❑ A 13 page report was prepared and distributed throughout the organisation.
- ❑ A seminar was presented.
- ❑ A presentation was made to Corporate Management Group.
- ❑ Discussions were held with particular groups regarding the implications for particular areas:-
  - Vehicle safety standards re: airbags
  - ARRB re: collision avoidance radar
  - Monash University Accident Research Centre re: IBM PC based driving simulators.

Mr South is involved in setting up an alcohol ignition interlock program in Victoria, and in planning for educational and training programs for drivers with undesirable conviction and accident history. The lessons from the United States are being applied to the development of Australian programs.

Ian F X Stoney (Chief Executive)
2 - 15 MARCH 1990

REAAA

As an invited guest speaker and Australia's representative on the REAAA Council, Mr Stoney attended the 6th REAAA Conference in Kuala Lumpur and the concurrent REAAA Council meeting.

Information acquired has been disseminated to the Committee of the Australian Chapter of REAAA and will be relayed to all Australian members of this Association via newsletter.

A number of Conference attendees, including Mr Stoney, have briefed VIC ROADS Directors and staff on the Conference proceedings, information and ideas generated and relevance for VIC ROADS operations, potential overseas contracts and research.

Ian F X Stoney (Chief Executive)
14 - NOVEMBER - 9 DECEMBER 1989

PIARC

Information acquired as a result of Mr Stoney's attendance at the meetings of the Executive of the Permanent Association of Road Congresses has been disseminated to all State road authorities and Australian members of this association.

■ SAUDI ARABIA

At the invitation of the Kingdom of Saudi Arabia, Mr Stoney led a delegation to that country to discuss the possibility of commercial arrangements between VIC ROADS and Saudi Arabia. A Memorandum of Understanding was signed and tenders have been submitted for supply of equipment.

■ IRELAND

The purpose of this visit was to finalise contract negotiations between VIC ROADS and the Dublin Corporation regarding the SCATS project and to discuss the possibility of subsequent work in expanding the SCATS network throughout the entire City of Dublin.

The VIC ROADS component of the initial contract is estimated at $300,000 and the total Victorian component estimated at $2.5 to $3 M.

FREEDOM OF INFORMATION

During the year VIC ROADS received 318 requests for information under the Freedom of Information Act. In summary:

- ❑ Requests made 318
- ❑ Full details of access 134
- ❑ Requests granted in part 22
- ❑ Requests denied 79

The remainder are requests which:

- ❑ are still in process,
- ❑ have lapsed or been withdrawn by the applicant, or
- ❑ have been transferred to another agency.

CONFLICT OF INTEREST POLICY

A review of policy on conflict of interest has commenced and is currently the subject of consultation with the Unions.

Officers will be required to complete pecuniary interest declarations in accordance with the policy as soon as it is completed.

OFFENCES AND PROSECUTIONS

■ Prosecutions Branch Statistics – 1989/90

Offence reports submitted by the Corporation's field officers totalled 3,771.
In Court proceedings for breaches of the Acts and Regulations enforced by the Enforcement Department 3,069 proven cases resulted for which the Courts imposed fines totalling $1,537,110.

In addition a total of 11,560 Penalty Notices were issued, the penalties for which totalled $1,800,800.

Combined financial penalties from Court fines and Penalty Notices totalled $3,337,910.

Detailed information on offences and prosecutions is shown in the following summaries.

❑ Finalised Offence Report

Court Cases Proven (incl. 123 Bonds)	3,069
Warnings Issued	38
Cases Dismissed	33
Cases Withdrawn	123
Cases No Action	954
Information Not Served	109
Files Disclosing No Offence	356
Reports from Police	27
TOTAL	4,709

■ SUMMARY OF CONVICTIONS AND FINES – BY LEGISLATION

	Convictions	Fines
Motor Car Act	3	1,450
Litter Act	2	275
Road Safety Act	664	167,562
Road Safety (Procedures) Regulations	54	7,450
Road Safety (Traffic) Regulations	453	92,750
Road Safety (Vehicles) Regulations	1,420	1,139,252
Summary Offences Act	7	1,250
Transport Act	180	33,015
Transport (Passenger Vehicles) Regulations	24	2,835
Transport (Road Traffic) Regulations	2	250
Transport (Tow Truck) Regulations	13	6,100
Interstate Road Transport Regulations (Commonwealth)	123	84,920
TOTAL	2,945	$1,537,110

■ SAFETY OFFENCES

	Convictions	Fines
Overdimensional Vehicles	137	36,712
Overweight Vehicles	1,206	1,156,511
Speed Offences	352	75,245
Log Book Breaches	29	4,980
Lighting Offences	48	4,900
Insecure Loading	16	3,905
Vehicle/Mechanical Defects	52	10,120
Traffic Breaches	31	4,430
Unregistered Vehicle/Trailer	488	121,247
Unlicensed/ Unendorsed Licence	68	19,820
TOTAL	2,427	$1,437,870

■ SUMMARY OF PENALTY NOTICES

	No. Issued	Penalties
Speeding		
Exceed speed limit by up to 15 km/h	1,281	108,885
Exceed speed limit by 15 to 29 km/h	3,848	519,480
Exceed speed limit by 30 km/h or more (licence suspension)	201	41,480
Traffic Offences		
Signs and Signals	293	34,955
Other	133	15,555
Lighting Offences	73	7,655
Safety Procedures		
Fail to wear seat belt	83	9,130
Other	16	1,835
Licensing and Reg'n Offences	488	31,995
Miscellaneous Offences		
Unsafe Vehicle	293	39,555
Other	39	3,015
Commercial Vehicle Offences		
Log Book Offences	637	84,345
Hours of Driving	38	5,130
Overweight Vehicles	2,426	715,420
Overdimensional Vehicles	930	125,550
Insecure Load	300	33,000
Other	205	13,610
Tow Truck Offences	18	1,210
Taxi Offences	51	2,080
Parking Infringements	199	6,060
Various	8	855
TOTAL	11,560	$1,800,800

OTHER ROAD ORGANISATIONS

VIC ROADS involves itself with various national and international road organisations. These include AUST ROADS, the Australian Road Research Board (ARRB), and the Australian Transport Advisory Council (ATAC). VIC ROADS also convenes, in association with the Local Government Engineers Association, an annual conference of Municipal Engineers.

■ AUSTROADS

AUSTROADS is the national association of road and road traffic authorities established in 1989 to replace NAASRA (National Association of State Road Authorities). It is governed by a Council consisting of the Chief Executives of the nine Member Authorities – six States, two Territories and the Federal Department of Transport and Communications.

AUSTROADS mission is to pursue the effective management and use of the nation's roads as part of the Australian transport system by the development and promotion of national policies and practices.

■ Australian Road Research Board (ARRB)

The Australian Road Research Board (ARRB) is a focal point for road and related transport research in Australia. Its Board consists of four Directors elected from among the ten Members, two external Directors and the Executive Director.

ARRB, founded in 1960, is a non-profit company sponsored jointly by all three levels of government and is available to assist the private sector as well.

Through its comprehensive research programs and its emphasis on knowledge and technology transfer, it is a significant contributor to the development of efficient, effective, safe and environmentally responsible land transport.

During 1989/90, ARRB has been working on a number of projects under contract to VIC ROADS. These include:

- evaluation of axle loads on the West Gate Bridge
- roughness measurements on the South Eastern Arterial
- optical/photometric standards for variable message signals
- an assessment of the social impacts of new technologies
- software and data systems to produce speed monitoring analyses.

■ Australian Transport Advisory Council (ATAC)

The Australian Transport Advisory Council is made up of all the Commonwealth and State and Territory Ministers responsible for transport, roads, marine and ports matters.

AUSTROADS has assumed the role of the ATAC Road Group. AUSTROADS advises ATAC on such matters as road safety, construction and maintenance of roads, vehicle limits, road funding, national highway strategy plans and all road transport policy issues.

ATAC was set up in 1946 to initiate discussions on transport matters and to report to the Federal Government. It is supported and advised by a Standing Committee on Transport (SCOT), and by a number of boards, committees and groups encompassing motor vehicle, motor transport, railway, road and general transport interests.

FUNCTIONS AND OBJECTIVES

The Roads Corporation functions, as prescribed by the Transport Act 1983 are:

- To maintain, upgrade, vary and extend the State's declared road network.
- In conjunction with municipalities, to assist in the maintenance, upgrading and construction of other roads.
- To purchase, design, construct, erect, install, maintain and operate traffic signals and other traffic facilities for traffic management and control.
- To determine load limits and advisory speed limits for any road, bridge or culvert and to determine maximum speed limits for travel on those under construction or repair.
- To provide and maintain roadside reserves adjacent to any road for the use or enjoyment of people using that road.
- To establish guidelines and requirements for the issue of vehicle mass and dimensions permits.
- To provide registration and licensing procedures and systems in connection with transport.
- To develop and implement road safety strategies, and to develop, promote, and administer road safety education and training programs.
- To develop and implement traffic management strategies and practices.
- To specify road accident prevention practices and to promote their adoption within the community.
- To develop and supervise regulations applicable to road traffic.
- To compete for work on the open market.
- To investigate, promote and undertake research into any matter related to the performance of its functions, powers or duties.

The Act requires the Roads Corporation to have regard to the following objectives in exercising its functions:

- Make use of available transport resources in ways that are most beneficial to the community and with due regard to the enhancement of the environment.
- Operate within government policy and other parameters determined by the Victorian Transport Directorate.
- Achieve the efficient and safe movement of road traffic.
- Improve the community's awareness of road safety strategies and practices.
- Improve and simplify registration and licensing procedures.
- Improve the State's principal road network to facilitate the efficient vehicular movement of people and goods.
- Improve productivity
- Establish and maintain a satisfying work environment which ensures the broadest range of opportunities for career development and job enrichment.
- Achieve an efficient and dynamic organisation by implementing appropriate technological and other changes through a process of consultation beginning at the contemplative stage.
- Maintain an effective decentralised organisation and delegate decision making to appropriate levels in the Corporation.
- Maintain harmonious relations between management, staff and employee organisations through the processes of effective consultation and participation in decision making.
- Develop and train all personnel to carry out their duties and responsibilities effectively and efficiently, and to interact with the public in a helpful and

courteous manner and to enhance their work skills

- ❑ Maintain a high level of motivation, performance, teamwork and safe working practices and develop a sense of commitment to the organisation, with employment conditions in keeping with community standards.
- ❑ Facilitate accountability at all levels within the Corporation by maintaining suitable information and reporting systems.
- ❑ Effectively manage its assets, including real estate, to protect future options, and provide for the planning, design, construction and management of new infrastructure and facilities as required.
- ❑ Minimise interference to the community arising from construction, and maintenance activities of the Corporation.
- ❑ Provide mechanisms and full information to enable effective and timely participation by the community in decision making about facilities, services and roadworks.

OVERSEAS MARKETING

Projects in which VIC ROADS participated during the year were:

■ Fiji

Fiji Road Upgrading Project: This major project of 3 years duration and funded by the World Bank, was supervised by VIC ROADS staff and completed at the end of the 1989/90 year. A 6 month extension to this project is also being managed by VIC ROADS and is due for completion at the end of 1990. VIC ROADS supplied 10 staff comprising 8 engineers, one soils scientist and an accountant to provide road upgrading and institutional support to the Public Works Department of Fiji.

Road Maintenance Projects: An Asian Development Bank Project of 2 1/2 years duration is being managed by VIC ROADS who has supplied 3 engineers, 3 maintenance supervisors and 2 plant supervisors.

■ Thailand

RAMA 1X Bridge Resurfacing Project: VIC ROADS is providing specialist advice, compiling contract documentation and managing the contract for resurfacing of a large cable stayed bridge in Bangkok for the Expressway and Rapid Transit Authority of Thailand. Two engineers and one asphalt inspector from VIC ROADS are involved.

■ Indonesia

Bridge Management Project: One bridge maintenance engineer is assisting in this 3 year Australian aid project to design and implement a bridge managment project for the Directorate General of Highways in Indonesia.

■ Singapore

Area Traffic Control (ATC): The second stage of the ATC project in Singapore connecting a further 100 signalised intersections and another regional computer, was completed. Four engineers from VIC ROADS Traffic Control Services participated in this project.

■ Ireland

Area Traffic Control (ATC): A computerised ATC system was installed for 32 Signalised intersections with provision for 300 intersections. VIC ROADS Traffic Control Services provided specialised inputs into this turnkey project.

■ New Zealand

Skid Resistance Survey: VIC ROADS carried out skid resistance testing on 16,000 kilometres of New Zealand Highways for TRANSIT New Zealand using the SCRIM testing vehicle (shown below).

■ Western Samoa

A bridge design engineer from VIC ROADS spent 3 months in Western Samoa on a bridge design assignment.

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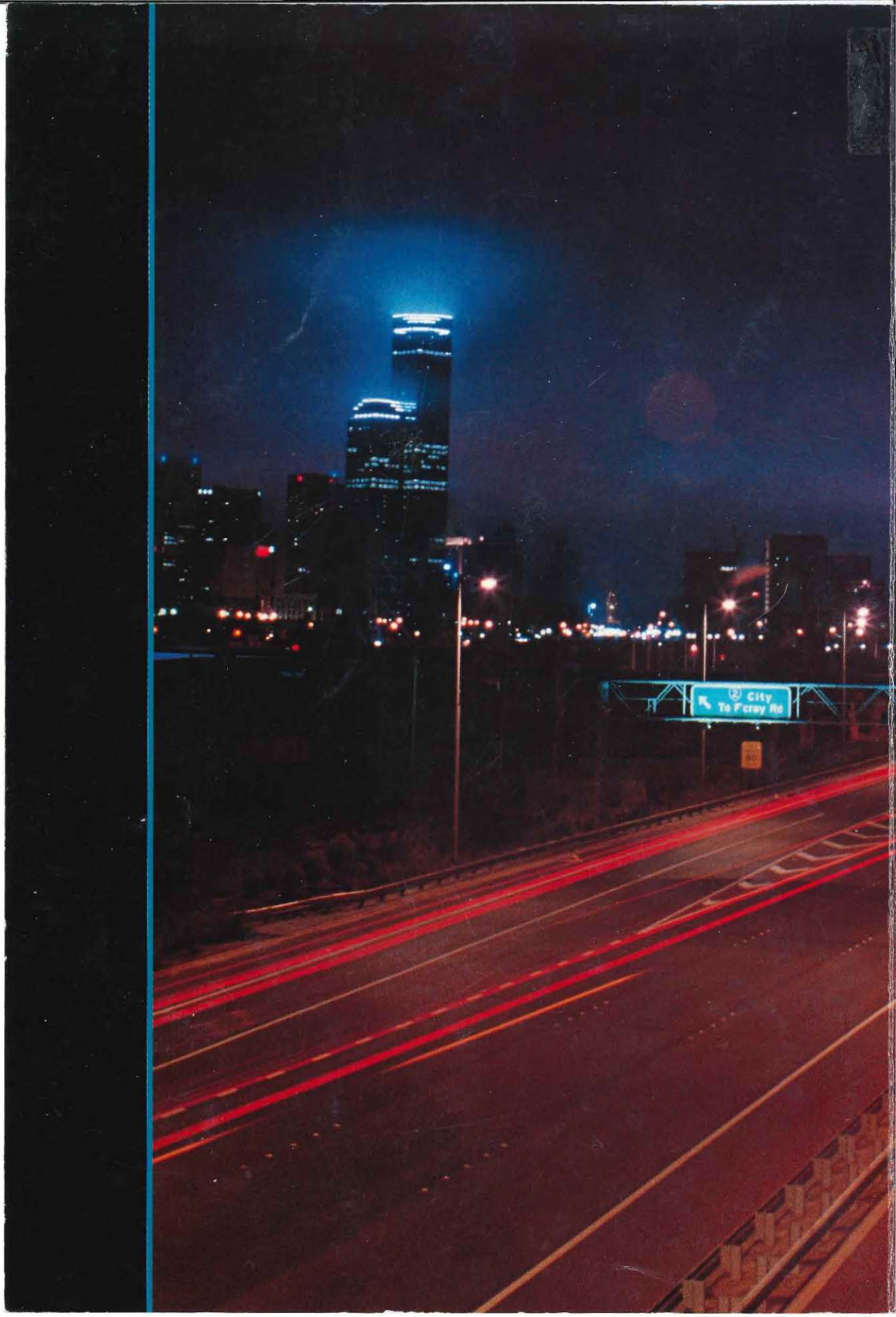
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