

S LANES :

THE EFFECT OF TRAFFIC MANAGEMENT

ON ARTERIAL ROAD FRONTAGES

J.A. Black*

H.L. Westerman**

M.T. Wade***

A research study undertaken for the
New South Wales Department of Main Roads.
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- * J.A. Black is Professor and Head, Department of Transport Engineering at the University of New South Wales
- ** H.L. Westerman is Professor and Head, School of Town Planning at the University of New South Wales
- *** M.T. Wade (BTP Hon I) was the Research Assistant for the project

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EVALUATION OF ARTERIAL ROAD TRAFFIC MANAGEMENT
ON FRONTAGE LAND-USE

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PREFACE

Many local area traffic management plans have been implemented in recent years while many others are under consideration. Such actions undoubtedly improve the quality of the local environment but tend to place more strain on arterial and sub-arterial roads which often carry heavy traffic already. Traffic management measures such as right-hand turning bans, clearways and S-lanes can be introduced to increase the capacity of such roads and be quite effective in improving vehicle flow and speed. However, they often have an impact on frontage activities and on the different users of the road space which should be understood and, if necessary, be mitigated. Similarly, changes in the frontage activities in transport corridors occur over time which may have an impact on the performance of the traffic in such corridors. There is a need, therefore, to study the interaction between traffic and road environment, and to develop policies for it.

This research project is part of a broader research interest in the relationship between traffic and the road environment. There is a need to reduce the impact of traffic in residential, commercial and other precincts, but there is also a need to improve the performance of arterial roads and the environment along them.

The focus in this research report is on the impact of S-lanes on frontage activities in suburban shopping centres with the aim of predicting likely impact in situations where such a measure is contemplated and developing indicative policies and possible actions for mitigation. The scope was limited to a post-facto study of three centres and a pre-facto study of one centre, and data collection was limited to a survey of business operators and real estate agents with knowledge of the centres selected.

In November, 1985, the School of Town Planning conducted a pilot survey of the effects of S-lanes on business properties in Gladesville and Petersham. The Department of Main Roads, NSW, provided funds to undertake a more systematic study between January and August, 1986. The financial assistance allowed Ms Maureen Wade to be employed as a research assistant for this period. Under the supervision of Professors Westerman and Black, she played a major role in designing the surveys and collecting the data, in analysing the results, and in the writing of the report.

The research was greatly assisted by a steering committee that provided valuable comment and advice on the survey design and study methodology. We would like to record our appreciation to committee members from the Department of Main Roads, Messrs Brian Watters, George Glazier, Bruce McNamara and Ms Maria Whipp. Other officers of the Department made valuable comments at a seminar held in July.

We would also like to thank all those shopkeepers and businessmen who participated in the surveys of Gordon, Turramurra and Leichhardt. Special thanks are given to Ms Jan McDonald, Mr George Buschman, Mr Haines, and Mr Brian Gold, real estate agents, who provided valuable insights into the workings of the local property markets. In Leichhardt, Ms Philomena Summa, a final year town planning student at the University, translated the questionnaires into Italian and assisted with the interviews.

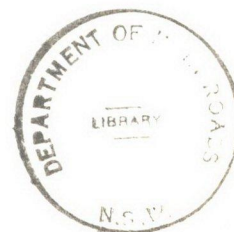
In the production of the final report, Ms Wade drew the figures and designed the cover, and Mrs Joan Mills typed the report.

We thank the Department of Main Roads for their support in completing this study. The interpretations made are the responsibility of the research group.

While it is clear that there are many other factors to be considered in an assessment of the impact of S-lanes (such as the impact on vehicle access, the behaviour and perception of pedestrians, cyclists and motorists, the operation of buses), we believe that the research carried out for this project has shed some light on an important aspect of S-lanes.

J. A. Black
Professor of Transport Engineering

H. L. Westerman
Professor of Town Planning



CHAPTER 1

INTRODUCTION

1.1 Background

The Ministerial Committee on Main Roads was set up in July, 1984, with the aim of improving traffic flow on major roads and providing a greater degree of co-ordination between the various Government Departments and Local Government bodies involved in traffic management in New South Wales. The implementation of S-lanes, and associated traffic management measures (such as median closures, altered signal timing and prohibited right hand turns), resulted from the recommendations made by this Committee. S-lanes were first introduced in Sydney along Parramatta Road and Victoria Road on a trial basis in October, 1984. S-lanes were introduced initially at four locations on Victoria Road and ten locations on Parramatta Road. Following protests received by local business operators, S-lanes were later removed and replaced by separate right-turning bays at Johnston Street and Bridge Road, Parramatta Road. In November and December 1985, S-Lanes were also introduced along the Pacific Highway.

An independent study was carried out by staff and students of the School of Town Planning at the University of New South Wales in November 1985, which provided a preliminary assessment of the effects of S-lanes at two selected locations (Gladesville and Petersham). This formed part of a submission presented to the Department of Main Roads, New South Wales, for financial support to carry out a more detailed study. As the Department was interested in investigating the broader effects of S-lanes in the light of the significant public protests (press articles, moving blockades, referendums) arising out of the introduction of S-lanes, the research study was funded and completed between January and August, 1986.

1.2 Previous Studies

There have been a number of studies by the Department of Main Roads of the traffic performance of S-lanes. The Department took aerial photographs before and after the introduction of S-lanes in Parramatta Road. These showed improvement in traffic conditions as well as reduction in queue length.

The Department of Main Roads also conducted several extensive travel time surveys on Parramatta Road, Victoria Road and the Pacific Highway, to evaluate the effectiveness of S-lanes and other traffic management measures. The last survey of Parramatta Road and Victoria Road was conducted in April 1986 and that of the Pacific Highway was carried out in August 1986.

Travel times, traffic volumes, performance indicators and traffic accidents were assessed. The results (in summary) are as follows:

(i) Travel time

Travel time on all three routes had been improved significantly during off-peak periods (by up to three minutes on Parramatta Road, four minutes on Victoria Road and two minutes on the Pacific Highway). The PM peak travel time for Victoria Road had also been reduced by six minutes. The AM peak travel times for all three routes, however, had been found to be increased (by two minutes on Parramatta Road, five minutes on Victoria Road, and two minutes on the Pacific Highway). These improvements had taken place without a reduction in traffic volumes.

(ii) Traffic volumes

Traffic volumes for off-peak periods had increased significantly on Parramatta Road (by up to 15%) and marginally on the other routes (by up to 8%). PM peak traffic volumes had increased by 10% on Victoria Road and the Pacific Highway. AM peak volumes on the three routes increased only marginally.

(iii) Performance indicator

The performance indicator is a measure of traffic density: the product of traffic speed and volume per unit of distance. The performance indicators had increased significantly during off-peak periods (up to 31% for Parramatta Road and 11% for the others). The performance indicators for the PM peak had increased by 20% for Victoria Road and 11% for the Pacific Highway, and for the AM peak had decreased marginally for Victoria Road and by 14% for Parramatta Road.

(iv) Traffic accidents

The number of accidents had decreased by 4% on the surveyed section of Parramatta Road, increased by 6% on Victoria Road, and decreased by 10% on the Pacific Highway. (Only injury type of data were available for the Pacific Highway). Further study of accidents at the shopping centres along the routes showed that

the number of accidents had decreased by 18% along Victoria Road and 46% along Parramatta Road. No data were available for the Pacific Highway.

Care is needed in interpreting these results. The number of accidents classified by different types of accidents is too small for tests of statistical significance. Accident patterns also have seasonal variations. A somewhat similar problem occurs with comparing travel times before and after the introduction of S-lanes. The problem is compounded by the fact that traffic volumes had, in many cases, increased.

In general terms, it can be said that the introduction of S-lanes has had a more positive than negative effect on traffic performance, and that the utilisation of the road space has improved. From the motorist's point of view, perhaps the most important benefit is that a greater consistency in travel time has been achieved. The variation in travel time during the day has been reduced significantly.

A pilot study on the effects of S-lanes on the road environment was completed by the School of Town Planning, at the University of New South Wales in November, 1985. The study aimed to provide a preliminary appreciation of the effects of S-lanes as perceived by business operators. It also served the purpose of testing the survey design, which might later be applied to a more detailed study. The methodology of the study included the carrying out of land use surveys and interviews with shopkeepers, whose businesses were located in the vicinity of the S-lane (not just those businesses immediately adjacent to the S-Lane).

Some general results derived from the pilot study were:

- the effects were felt mostly by those land uses within the immediate vicinity of the S-lane (where the on-street parking had been removed);

- certain land uses had experienced a decline in trade, whilst others had experienced no effects;

- the loss of on-street parking was considered to have a major effect on the viability of the shopping centre;

- the capacity and convenience of loading and unloading had been reduced substantially;

- there was a perceived decline in the safety of the shopping environment;

- property values had been reduced by an estimated 10 per cent.

This pilot survey proved that some business operators had clearly been affected by the introduction of S-lanes. The results of this study indicated the need to carry out more detailed research, aimed at providing more conclusive information on the extent and nature of the effects of S-lanes on land use.

1.3 Objectives of the Study

The general objectives of the study, as specified by the Department of Main Roads brief, are as follows:

to identify the effects of traffic growth and management on frontage land use;

to investigate the possible means of mitigating the adverse effects; and

to recommend necessary changes to the policies of the relevant authorities.

Given the broad nature of these objectives and resource constraints the following more specific study objectives evolved as the research proceeded.

- * To identify the range of issues and interest groups associated with the introduction of S-lanes.
- * To assess the effects of S-lanes on business operators in three selected areas shopping centres (Gordon, Leichhardt and Turramurra).
- * To provide the base information for a possible before and after study of Enfield shopping centre.
- * To predict the likely affects of S-lanes on business activity in Enfield shopping centre.
- * To investigate the range of options (strategic, operational and procedural) available for mitigating the effects of S-lanes.
- * To identify specific options for mitigating the effects of S-lanes in the Enfield shopping centre.

1.4 Structure of the Report

The methodology is described in Chapter 2 which covers the research design, the literature searched, the issues, the objectives of the surveys, the land use surveys and historical data. The analyses of the results of the business surveys and interviews with real estate agents in selected shopping centres on the introduction of S-lanes are set out in chapters 3 to 5 for Gordon, Turramurra and Leichhardt respectively. Chapter 6 focusses on part of Enfield shopping centre which provides a case study before the introduction of S-lanes. Chapter 7 is a synthesis of the previous four chapters by predicting impacts. Chapter 8 discusses general options for mitigation and more specific options for the Enfield shopping Centre. The final chapter represents strategic and operational policy options.

CHAPTER 2

METHODOLOGY

2.1 Research Design

Figure 2-1 shows a detailed outline of the research design as discussed and agreed upon by the Steering Committee. The four main stages of the research design can be summarised as: issues scan; assessing the effects of S-lanes (as experienced in selected post-facto areas); predicting the effects of S-lanes on Enfield (pre-facto area); and identifying options for ameliorating these effects.

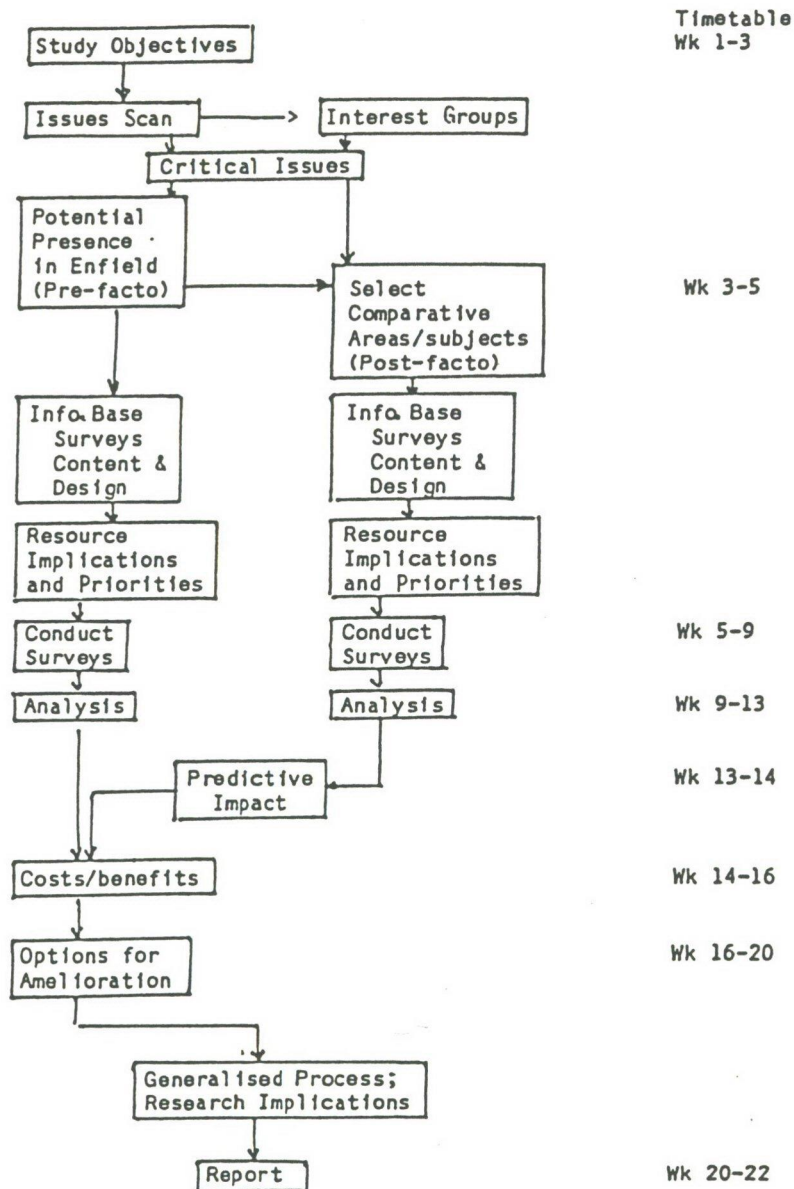


Figure 2.1. Flow Chart of Research

2.2 Literature Search

A preliminary search of the relevant literature was carried out in the initial stages of the research. Information was gathered in the form of transport planning journal articles and planning reports which were concerned with land-use and transport-related issues. The main sources of this information were the libraries of the School of Town Planning and of the Department of Transport Engineering at the University of New South Wales. The bibliography lists those references consulted.

Much of the literature simply provided contextual information, to assist the researchers in the preparation of the research design. Specific references were also useful in the preparation of the survey design. The publication by the City of Toronto Planning and Development Department provided some useful information in relation to policies for strip-shopping centres. The literature search did not reveal any information which provided a model for assessing the effects of traffic management on land use.

2.3 Consultation

Consultation between the Department of Main Roads and the study team was an important feature of the research design and implementation. A Steering Committee, comprising of representatives of the Planning Section of the Department was set up to co-ordinate with the study team and to meet and discuss the direction and progress of the research as it proceeded. Formal meetings were arranged in which the following occurred.

- * A discussion on the nature of the proposed research project, the findings of the pilot study conducted by the School of Town Planning, and the submission of a research proposal (2.12.85).
- * A discussion, and clarification of research objectives, research design and survey design (3.2.86).
- * A discussion of the preliminary results of the pre-facto surveys, the real estate agents survey design for Enfield, and the design of the post-facto surveys (10.3.86).
- * A preliminary discussion of the post-facto survey results and the report structure (4.6.86).
- * A presentation of the overall findings of the study at an informal seminar convened by the Planning Section of the Department of Main Roads (7.7.86).

In collecting data, the Department of Main Roads also assisted in providing base information, such as plans, press clipping and information relating to traffic conditions. Representatives of Burwood, Strathfield, Leichhardt and Kur-ring-gai Councils were consulted in relation to providing base information on the survey areas.

2.4 Issues Scan

The issues scan approach involved a three stage process of identifying: the relevant issues and interest groups; the range of research methods; and the various options for mitigating the effects of S-lanes. The purpose of this initial macro approach, was to provide a comprehensive framework in which to discuss, and formulate, the overall study design.

The issues scan involved gathering and analysing information over a three-week period as an initial step in the research design process. The data consisted of a collection of press clippings relating to S-lanes in the Sydney region. These were compiled by carrying out a search of the traffic files of the State Parliamentary Library, the John Fairfax library and the Department of Main Roads files. This information was initially summarised in terms of issues and interest groups. It was then analysed, commented upon and presented in three separate tables, which were used as a basis for discussion amongst members of the Steering Committee. The tables are not reproduced here.

The first table provided a summary of those interest groups (and sub-groups) and their related issues, as derived from press articles. This provided some contextual information on the perceived effects of S-lanes and the range of possible issues and interest groups involved. It was also used as a basis for discussion of which interest groups the study should focus on.

The second table examined the rationale behind the issues and interest groups identified in the first table. The distinction was made between those interest groups who raise the issues (the community) and those which are expected to respond to the issues (the public sector). It also identifies possible research methods for exploring each of these issues. This table was used as a basis for discussing those issues which the study should focus on and the appropriate research methods to be used, given resource constraints and the proposed objectives of the study.

The third table identified some of the options available for mitigating the perceived effects of S-lanes. This did not aim to provide a comprehensive list of ameliorative measures but was used mainly as a "thinking" tool to encourage discussion on the various responses which could be taken to the issues as identified in the first and second tables.

The 'Issues Scan' approach proved to be valuable in providing a comprehensive framework for the discussion of research design and study objectives. It may also provide a guideline for future studies concerned with the interaction of land use and transport and the resolution of the various issues which arise out of this. It was on the basis of this broad framework that the Steering Committee decided that the primary interest groups of the study should be the business operators, with some attention also being given to the property owners and pedestrians (as an indirect link to land use) and the public policy sector.

2.5 Selection of the Survey Areas

The selection of the survey areas was decided upon by the members of the Steering Committee. It was agreed that at least one survey area should be located along the Pacific Highway, since it was the most recent, urban arterial road to have S-lanes introduced. This decision was also influenced by the spate of public comment (in the press) which was generally critical of S-lanes along the Pacific Highway. Gordon shopping centre was chosen because of its relative size and significance. There had also been a considerable amount of local protest, in the form of petitions and referenda, surrounding the introduction of S-lanes at this location. Turramurra shopping centre was chosen because of its location along the Pacific Highway and its relative closeness to Gordon. Leichhardt shopping centre was chosen mainly for the purposes of comparison. It was agreed that this shopping centre contrasted to the other two centres in terms of its physical and social environment. It had also been the subject of substantial protests made by the Westgate Chamber of Commerce on behalf of the local business community. These protests had led to the provision of additional rear parking facilities, in response to the loss of on-street parking resulting from the introduction of S-lanes.

Enfield shopping centre was proposed by the Department of Main Roads as a suitable pre-facto survey area. It was considered as a highly suitable area for the introduction of an S-lane due to the existing traffic problems related to the right-turning movement into The Boulevarde. Advanced plans were available showing the specific nature of the proposed S-lane, which assisted in predicting the effects on specific business operators, and the shopping centre as a whole.

2.6 Survey Design

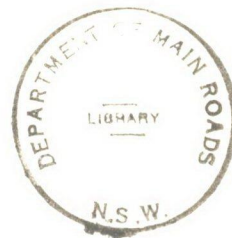
The survey design stage involved the preparation of two types of survey questionnaires: one for the pre-facto area (Enfield) and one for the post-facto areas (Gordon, Leichhardt and Turramurra). The survey design stage involved consultation with the Steering Committee, to ensure that all relevant matters had been included and that the questions themselves were clear and consistent with the study objectives.

Pre-facto Survey. (Appendix 1.)

The pre-facto survey was designed and carried out prior to the design of the post-facto surveys. This enabled the carrying out of the survey before any public announcement was made of the proposed introduction of S-lanes along the Hume Highway. The Steering Committee considered this preferable timing, as a means of reducing bias in the survey responses. The pre-facto survey was designed to meet the following objectives:

PRE FACTO SURVEY

OBJECTIVES



PART 1

- a) To acquire some understanding of land-use change over time. (Q:1,2)
- b) To compare the proportion of owner-occupied to rented premises. (Q:3)
- c) To identify recent changes in turnover. (Q:4)
- d) To determine whether traffic management or other factors were considered responsible for these changes in turnover. (Q:5)
- e) To determine the likely response of business operators to changes in turnover. (Q:6,7)
- f) To determine whether the trade catchment is predominantly local or regional. (Q:8)
(For instance, a large proportion of regional trade may represent a resilient business).
- g) To determine the perceived effect of clearways on business activity. (Q:9,10)
- h) To assess what response had been taken to adjust to clearways. (Q:11,12)
- i) To determine the level of linked trips occurring in the shopping centre. (Q:13)
- j) To determine the extent to which the main road prevents people from crossing. (Q:14)

PART 2

- k) To see how business operators perceive the adequacy of existing parking facilities. (Q:15,16)
- l) To determine business operators' perception of the importance of a main road location. (Q:17)
- m) To determine the likely impact of changes in traffic management and parking conditions. (Q:18-23)

PART 3

- n) To determine preferred options relating to traffic/parking which would improve business activity. (Q:24)

- o) To see which authorities were considered responsible for implementing preferred options. (Q:25)
- p) To extract any other comments, or suggestions, not covered by survey questionnaire. (Q:26)

Post-facto Surveys. (Appendix 2.)

The survey questionnaires for each post-facto area were basically the same design, with the exception of additional questions being included in the Gordon survey, in relation to the overhead bridge, and the recent opening of the Gordon Centre. The post-facto surveys were designed to meet the following objectives:

POST-FACTO SURVEY OBJECTIVES

PART I

- a) To acquire some understanding of land-use change over time (Q:1,2,3)
- b) To compare the proportion of owner-occupied to rented premises (Q:4)
- c) To identify recent changes in turnover (Q:5)
- d) To determine whether traffic management or other factors were considered responsible for changes in turnover (Q:6)
- e) To determine the likely responses of business operators to changes in turnover (Q:7,8)
- f) To determine whether the trade catchment is predominantly local or regional (Q:9)
- g) To determine the proportion of linked trips made by shoppers (Q:10)
- h) To determine the level of crossability of the road (the proportion of customers who visit shops on the other side of the street)
- i) To determine the level of useage of the overhead bridge and its perceived affect on trade (Q:12,13 Gordon shopping centre)
- j) To determine the effect of the building of the new Gordon Centre on trade (Q:14, Gordon shopping centre)

PART II

- a) To assess the impact of clearways on business activity (Q:15,16)
- b) To determine the nature and level of response taken by

business operators to the introduction of S-lanes (Q:17,18)

- c) To determine whether clearways are preferred to S-lanes (Q:19)
- d) To assess the impact of S-lanes on trade (Q:20,21)
- e) To determine the nature and level of response taken by business operators to the introduction of S-lanes (Q:22,23)
- f) To assess the likely response of business operators if their current level of turnover is sustained (Q:24)
- g) To identify, and rank, those factors which have contributed to a decline in trade (Q:25)
- h) To identify preferred measures for mitigating the effects of S-lanes (Q:26)
- i) To identify those ameliorative measures which business operators would be prepared to make a contribution towards (Q:27)
- j) To identify those authorities which are considered responsible for implementing ameliorative measures (Q:28)
- k) To extract any other comments or suggestions not covered by the survey questionnaire (Q:29)

2.7 Carrying out Surveys

A total of 85 completed surveys were carried out at the four different locations (Enfield, Gordon, Turramurra, Leichhardt). The survey response rate was considered to be reasonable, ranging from a 72 per cent response rate in Gordon to an 83 per cent response rate in Turramurra. Land-use surveys, and the collection of base information on each area, was carried out in conjunction with the survey questionnaires.

The approximate dates in which the majority of the surveys were carried out follows: Enfield shopping centre (February 17-21); Gordon and Turramurra shopping centre (March 24-28); Leichhardt shopping centre (May 1-5).

The survey questionnaire for Leichhardt shopping centre was translated into Italian and the services of an Italian-speaking interviewer proved to be successful in helping to achieve a response rate of 80 per cent, in a shopping centre where several shopkeepers had difficulty speaking English. It also helped to extract detailed comments from many of the respondents who might normally refuse to respond to the survey. Informal discussions with respondents in all four survey areas often provided greater insights into the perceived effects of S-lanes than the responses to specific questions. This information has been included in the survey results, contained in chapters three to six.

2.8 Survey Analysis

The compilation and interpretation of the survey results was the most time-consuming part of the research programme. The result of every question has been separately presented and interpreted, providing very detailed information, on each shopping centre, such as: how it operates; its perceived level of viability; trade catchment; perceived effects of traffic management on trade; and preferred options for ameliorating these effects (see chapters 3 to 6). The perceived and predicted impacts of traffic management resulted from further analysis of the results contained in these four chapters. This analysis led to the identification of seven specific effects of S-lanes (chapter 7).

2.9 Land-use Surveys

A comprehensive land-use survey was carried out for each survey area, with the aim of providing a context in which the survey results could be placed. These surveys involved: gathering base maps and details of traffic and parking conditions from the local councils; taking photographs of the relevant features of the survey areas; and carrying out on-site inspections. The following information was gathered and recorded, either in diagrammatic or written form, to describe and contrast the characteristics of each of the four survey areas:

- land-use type (individual uses and categories);
- condition of buildings;
- vacancy levels;
- recent improvements (redevelopment of sites or refurbishing of buildings);
- visual analysis (streetscape, architectural merit);
- parking (access, availability, loss of on-street facilities, indicator signs, opportunities for additional parking); and
- loading and unloading (on-street or off-street, rear service lanes, usage of backyards).

The information gathered from the land-use surveys will be particularly useful if future studies are carried out on any of the four survey areas.

2.10 Interviews-Real Estate Agents

Interviews with real estate agents in Enfield, Gordon and Leichhardt were conducted in conjunction with surveys of local business operators. The primary, and most detailed, interviews were carried out with two individual real estate agents who operated their businesses within Enfield shopping centre. These interviews were based on a detailed interview format, which was discussed and agreed upon by members of the Steering Committee

(Appendix 3). The interviews were aimed at providing insights into: recent land-use changes, the current viability of the shopping centre; property values and rentals; the perceived importance of parking to businesses; ways of revitalising the centre; and scenarios for the future. The interview results confirmed the importance of adequate parking (particularly on-street) to business activity which was considered to have a significant influence on property values and rentals. The results also indicated the need for investment in the centre (refurbishing, redevelopment, or additional car parking) to ensure that the centre does not deteriorate any further.

The real estate interviews carried out in the post-facto areas (Gordon and Leichhardt) were less detailed than the Enfield interviews. (There was no real estate agent in Turrumurra on the Highway.) These interviews aimed to gather information on recent land-use change, current property values, and the perceived effect of S-lanes on the value and marketability of properties.

2.11 Historical Analysis

The Steering Committee considered it worthwhile to gather historical information on the individual land-use changes which had occurred in Enfield in about the last twenty years. The aim was to see if any parallels could be drawn between land-use change and changes in traffic conditions or traffic management measures. This involved carrying out a detailed search of the individual property files covering the Enfield survey area. These were located at Burwood and Strathfield Councils.

It took a week to record and attempt to analyse the material made available by the Councils. There were significant deficiencies in the information gathered which may account for the difficulty in extracting any noticable trends as regards land-use change. These deficiencies could be summarised as:

- missing files relating to individual properties;

- information on the files was not consistently recorded, for example, the file might include an application for a change of use but often there was no indication as to whether this use had been approved;

- files were generally not available beyond 5 to 10 years; and

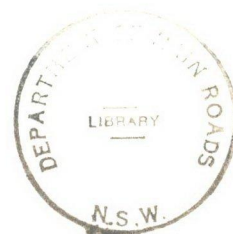
- property descriptions had changed, making it difficult to clearly identify which property was being referred to.

The review of the files made available indicated that many existing uses had not been formally approved by council, and, as such, there was no way of confirming how long the current business had been operating. The content in most files tended to relate to administrative matters (such as illegal building structures) or applications for change of use. It could be deduced from this that minimal interest has been shown in proposals for redevelopment in recent years.

Because of the deficiencies in historical information, this exercise provided no additional insight into land-use change than that already provided by responses to question 1 and 2 of the Enfield survey. At least these responses showed that the greatest proportion of land-use change had occurred in the last five years. The failure of this review of council files to draw the parallels between land-use change and traffic management change may be attributed to a range of other factors, such as social and economic conditions, and the time delay associated with decision making, which influence at what point a business operator decides to close down or relocate. This problem of isolating the effects of traffic management from other influencing factors, remained an important consideration throughout the study, particularly in interpreting the survey results.

CHAPTER 3

GORDON SHOPPING CENTRE



3.1 Gordon Shopping Centre - Description

Gordon Shopping Centre (Figure 3.1) is located on the Pacific Highway at Gordon, bounded in the north by Park Avenue and in the south by St John's Avenue. It is immediately adjacent to Gordon Railway Station. It is one of the larger shopping centres straddling a main urban arterial road in Sydney's northern suburbs. It was selected as a test area for the purpose of carrying out surveys because of its size and the extent of publicity surrounding the introduction of S lanes at this location. The local business community has also been vocal and active in its protest against S-lanes. The Chamber of Commerce, for instance, has organised a referendum and carried out negotiations with Ku-ring-gai Council aimed at bringing about the return of on-street parking.

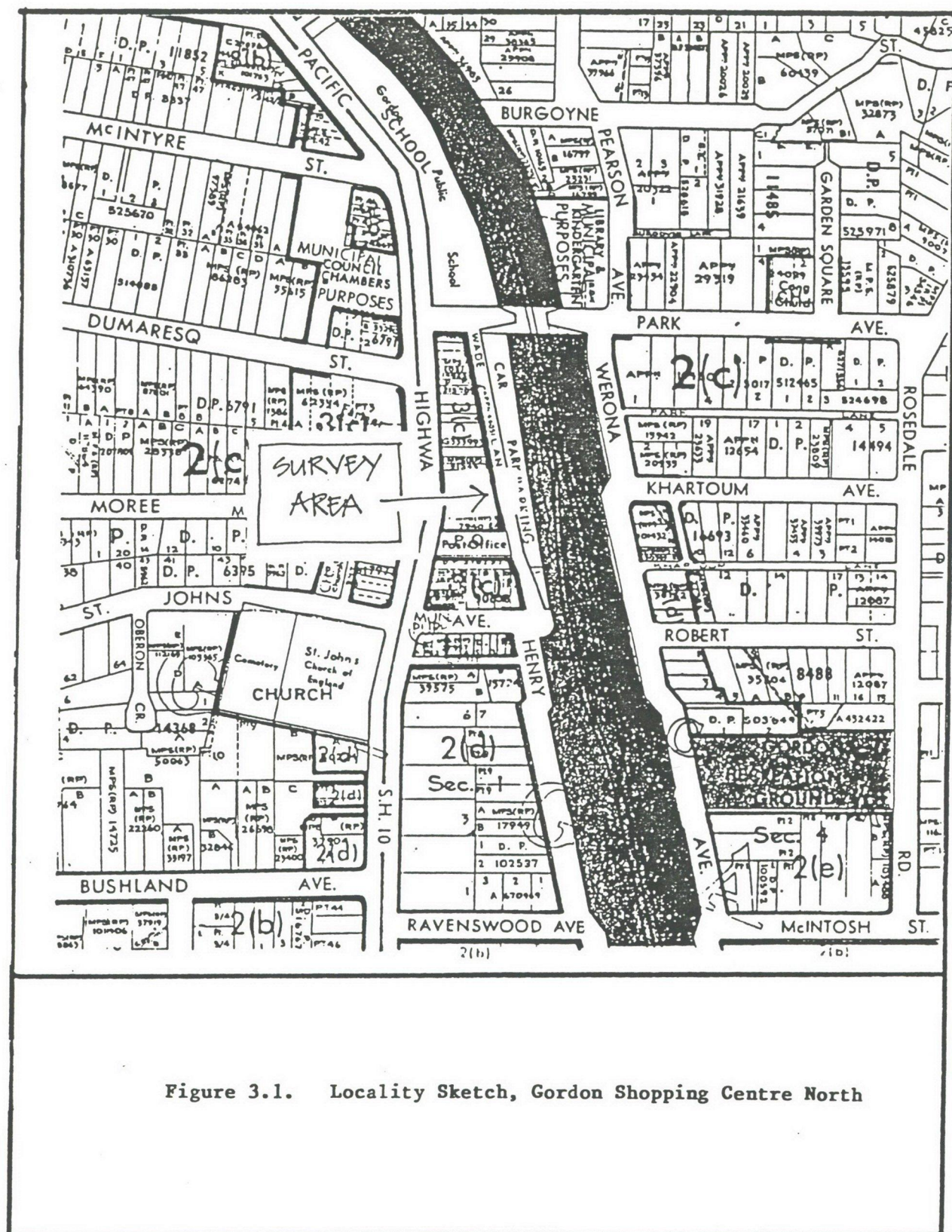
Characteristics

The shopping centre is characterised by two distinctive sides, being divided by the Pacific Highway. The western side of the centre is dominated by the recently built Gordon Centre which houses two major retailers (Woolworths and Harvey Norman Discounts). Myer's department store was previously located on this site. An overhead bridge connects the Gordon Centre with the upper level of a retail arcade located on the eastern side. Apart from this multi-level arcade the eastern side generally contains small-scale, ground-level retail uses.

The eastern side of the shopping centre has lost approximately twenty on-street parking spaces as a result of the introduction of S-lanes. There are six financial institutions (banks and building societies), a fairly typical range of convenience stores, and some well-known specialty shops (such as Tarantella Music and Shearers Bookshop) located on this side of the centre. There is one vacant shop (previously women's clothing) and one property which is currently being redeveloped for a new Commonwealth Bank building.

Traffic Management

An S-lane was introduced to the Pacific Highway in November, 1985 (Figure 3.2). This measure aimed to improve the flow of traffic by providing a separate right-turning bay for southbound traffic making a right-hand turn from the Pacific Highway into Moree Street. This required the kerb-side lane along the eastern side to be converted into a through-traffic lane, resulting in the loss of approximately twenty on-street car parking spaces, between Park Avenue and the Post Office. The intersection of the Pacific Highway and Dumaresq Street is controlled by traffic signals which include a right-turning phase. Southbound traffic therefore has controlled right-turn access to both Dumaresq and Moree Streets.



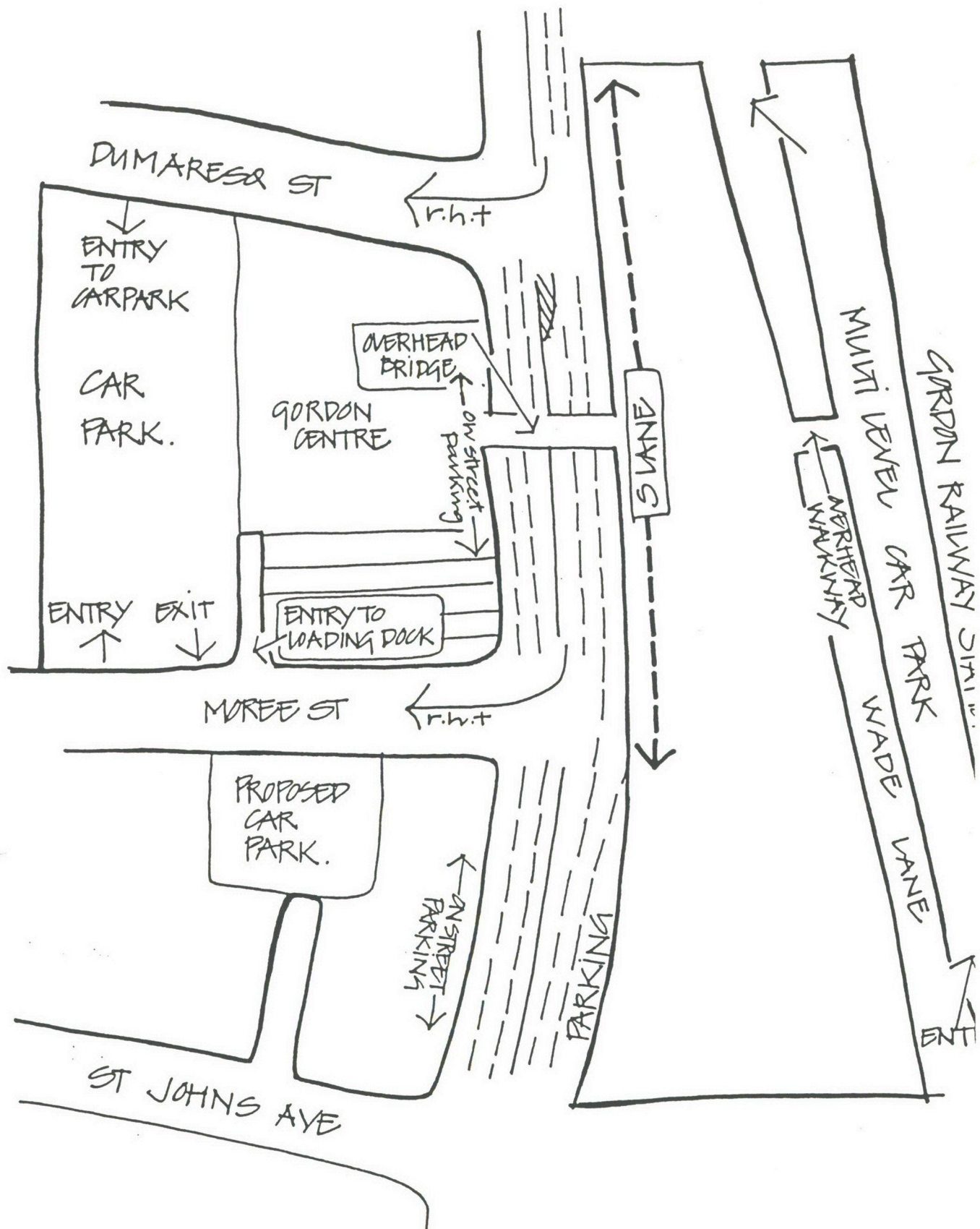


Figure 3.2.

Gordon Shopping Centre,
Traffic/Parking Conditions North.
(Not to scale)

Parking

According to members of the Gordon Chamber of Commerce, the introduction of an S-lane has reduced the on-street parking supply from 45 to 24 spaces. This is a dramatic loss when one considers the highly localised nature of shopping patterns in which local residents expect to be able to park on-street. There are only 8 on-street car parking spaces south of the Commonwealth Bank on the eastern side of the shopping centre. There appears to be an ample supply of off-street parking facilities. On the eastern side of the shopping centre, and adjacent to Wade Lane, is a three-level car park with a pedestrian walkway connecting it to the upper level of the retail arcade. This contains a total of 384 spaces - 42 available on all day lease, 4 with 3-hour restrictions, and 338 with 2-hour restrictions. The proximity of this car-parking station to the railway, and comments made by shopkeepers, seem to suggest that it is used predominantly by commuters. Over the western side of the centre there is a large multi-storey customer car park within the Gordon Centre with access from Moree and Dumaesque Streets, which contain 554 spaces. There is a proposed car-park in Mace Street, but this has not been formally approved by council.

Loading

Since the introduction of S-lanes, business operators on the eastern side of the shopping centre have been forced to carry out deliveries from Wade Lane, at the rear of the shops. For some shopkeepers receiving frequent deliveries (such as the chemist), this is far less convenient than on-street loading and unloading since access to the rear of the shop is not considered suitable for loading and unloading. It appears that most larger deliveries, for the Western side of the shopping centre, are carried out at the Gordon Centre loading dock, which has direct access to Moree Street. The right-turning bay has presumably improved service-vehicle access to the Moree Street loading dock.

Visual Analysis

The buildings on the eastern side of the shopping centre are mostly two storey with ground level retailing, with the exception of the retail arcade and an office building on the corner of Park Avenue, which are both three-storey buildings. The western side of the shopping centre is dominated by the large-scale Gordon Centre with its flat, modern facades and perspex awnings. Generally, buildings on both sides of the highway have been well maintained with few examples of architectural or historical interest. The street environment is typical of strip shopping centres but has some street planting and occasional seating. The overhead bridge is one distinguishing feature of the Gordon Shopping Centre from other centres along the Pacific Highway.

3.2 Survey Response

Figure 3.3 shows that there are 18 individual business premises which are directly adjacent to the 'no stopping' area introduced

to accommodate the S-lane. A multi-level shopping arcade is located within the affected area but was not considered for surveys since the shops within the arcade do not face directly onto the Pacific Highway.

Five business proprietors/operators refused or failed to respond to the survey questionnaire: this represents a favourable response rate of 72 per cent. Those land-use types which did not provide responses included: the Commonwealth Bank, BBC Hardware, a Butchery, State Bank and a womens' clothing shop. There is one vacant premise and one site which is currently being developed for a new Commonwealth Bank building.

Table 3.1 shows that an even distribution of land use types in each of the various land-use categories to be covered in the survey. This would seem to indicate an unbiased survey response by providing a representative sample of land-use types.

Table 3.1. Response Rate by Land-use Type, Gordon

Land-use Type	Response (%)	No Response
Retail-consumer	3 (16.7%)	1 (5.6%)
Retail comparison	5 (27.8%)	2 (11.1%)
Services	5 (27.8%)	2 (11.1%)
	13 (72.2%)	5 (27.8%)

Comments (Land-use Change)

Table 3.2. shows that just over 50 per cent of businesses surveyed have been operating at the present location for ten years or more. Twentythree percent of respondents had been businesses between five and ten years. These figures would seem to suggest a well-established and fairly successful business community. Environmental changes which upset this equilibrium will predictably be poorly received by the local business operators.

Table 3.2. Land-use Change in Gordon

Existing Use	Time of Operation	Previous Landuse	Reasons for Locating There
1. Real Estate	10 years	Office equip.	Previous business outgrew address
2. National Bank	28 yrs	Groceries (Franklins)	Considered an appropriate location

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Table 3.2. continued

Existing Use	Time of Operation	Previous Landuse	Reasons for Locating There
3. Antiques	3 yrs	Womens' clothing	Proximity of right clientele
4. Discount Electrics.	8 yrs	Groceries	Passing foot traffic
5. Shoes	10 yrs	Take-away chickens	Saw potential
6. Musical supplies	20 yrs	Same	Availability of store
7. Liquor	1 yr	Same	Wanted to locate in Gordon - opportunity arose
8. Pharmacy	6 1/2yrs	Same	Close to home - pleasant shopping
9. ANZ Bank	30 yrs	Petrol retail	Part of Branch network
10. Advance Bank	3 wks (were on other side of street)	Womens' clothes	Surveys taken on foot traffic
11. Pharmacy	16 yrs	Grocer	Opportunities, Myer's
12. Books	10 yrs	Pharmacy	Good potential market - availability of premises
13. United Permanent	8 1/2yrs		

Tenure (Q:4)

Only 2 out of a total of 13 premises are owner occupied, or about 15 per cent. The remaining business operators affected by S-lanes rent their premises. It is therefore mostly tenants, rather than property owners, who are affected by changes to traffic management measures. This raises the question of financial responsibility for physical upgrading (such as rear lane access and storage) which may be considered necessary to counteract the effects of S-lanes.



Figure 3.3. Shops and Services Adjacent to S-lane, Gordon, 1986

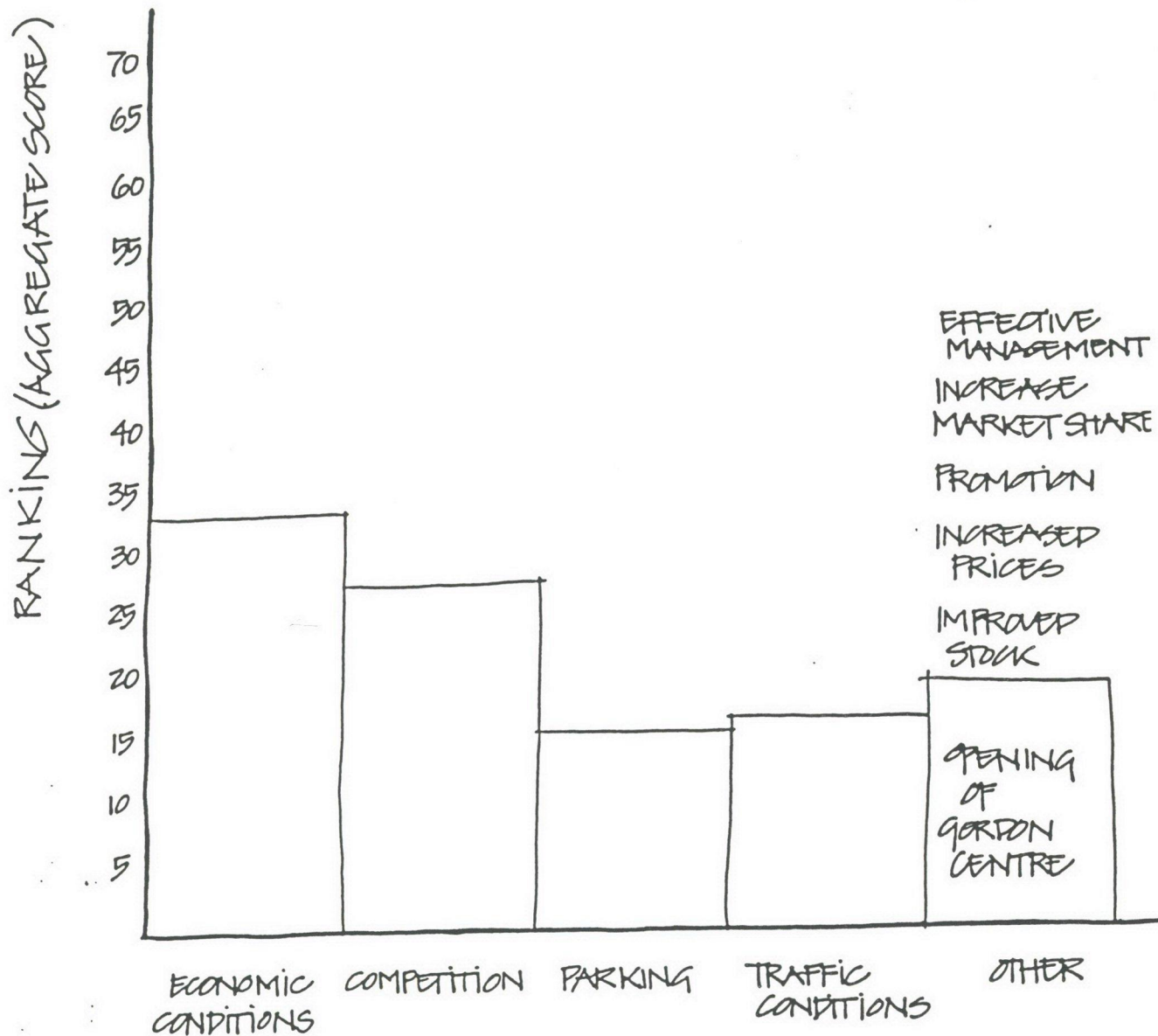


Figure 3.4. Reasons for Change in Turnover, Gordon

Change in Turnover (Q:5)

With the exception of one respondent this year's turnover had either increased or remained the same. Approximately 70 per cent of respondents had experienced an increase in turnover. Two business operators (United Permanent and Gordon Pharmacy) attributed increases in turnover mainly to the opening of the Gordon Centre in 1985 which contrasted to a slump in trade experienced in 1983/4 following the closure of Myer's operation at Gordon. Other business operators (liquor store, womens' clothing) commented that price increases had accounted for increases in turnover figures. These comments are significant in that it cannot be assumed that the general trend relating to increased turnover means that the introduction of S-lanes has had no negative effects on trade.

Table 3.3. Change in Retail Turnover 1985-86, Gordon

Extent of Change	Number	(%)
Great increase	2	(14.3%)
Small increase	7	(50.0%)
No change	3	(21.4%)
Small decrease	2	(14.3%)
Great decrease	0	(0.0%)

Reasons for Changes in Turnover (Q:6)

Respondents were asked to rank those factors which are considered responsible for changes in turnover. These results were weighted according to rank and aggregate scores were obtained (Figure 3.4.) Economic conditions were ranked highest next to competition, being the main contributors to a change in turnover which for 92 per cent of respondents had either remained the same or increased. The opening of the Gordon Centre seemed to have a significant influence on recent increases in turnover which appear relative to widespread decline in turnover coinciding with the closure of Myer Department store in the preceding years. The presence of a major retailer, such as Myer or Woolworths, obviously has a strong influence on level of trade experienced by smaller retailers. The closure of a long-established and well-known retailer, be it large or small, is also likely to have dramatic effects on trade levels generally. Currently, it is just such community identity stores (such as Shearers Bookshop, Sheargold's Cellars and Tarantella Music) which are expressing strongest concerns over the long-term future of the shopping centre.

Respondents also mentioned a range of other factors, such as increased prices, effective management, promotion, increased market share and improved stock, which have contributed to recent increases in turnover. This reflects the fairly active response taken by the local business community towards improved trade

levels associated with the closure of the Myer's store.

Response to Change in Turnover (Q:7,8)

Table 3.4. shows what actions business operators are likely to take in response to their recent increases in turnover. Although these results seem to suggest a fairly satisfied business community, many of the respondents commented that, despite recent increases in turnover, this was due to the relatively lower level of trade prior to 1985. They also expressed concern about the longer-term future of their businesses which they consider have been indirectly affected by S-lanes in a number of other ways, such as reduced pedestrian safety, reduced shopping amenity and the psychological impact of S-lanes on shoppers. It can be assumed from these comments that changes in turnover are not a satisfactory indicator of the longer-term viability of the shopping centre, or of the level of satisfaction with which business operators view their current level of trade.

Only one respondent indicated a decrease in turnover but proposed to continue business as usual. Although the chemist owner had experienced "no change" in turnover he indicated that he would reduce staff, increase trading hours or refurbish his shop in an attempt to increase turnover and cover rising prices.

Table 3.4. Response to Recent Increases in Turnover, Gordon

Response	Number	(%)
Continue as Usual	5	(55.6%)
Expand/Improve premises	2	(22.2%)
Increase staff	1	(11.1%)
Improve inventory	1	(11.1%)

Trade Catchment (Q:9)

In Table 3.5., 85 per cent of respondents claimed that they are predominantly local trade catchment. The remaining 15 percent described their trade as only half of the customers being from the local area. These results suggest that a strip shopping centre, such as Gordon, serves a very specific and important function for the local community. If shops were forced to close down or relocate then customers would be forced to travel further distances to do their shopping. This could make it particularly difficult for elderly people and other shoppers without access to private transport.

Table 3.5. Approximate Proportion of Local Trade by Individual Businesses, Gordon

Amount	Number	(%)
More than three-quarters	6	(46.2%)
Three-quarters	5	(38.5%)
Half	2	(15.4%)
One-quarter	0	(0.0%)
Less than one-quarter	0	(0.0%)

Linked Trips (Q:10)

Table 3.6. shows that just over half of the respondents indicated that their customers generally just visit their own business when they come to the shopping centre. With the exception of the chemist it would appear that these respondents operate a specialty business, such as an antique store or a real estate agency. About 40 per cent of respondents considered their trade as part of a number of shopping tasks being carried out at the one time. It might be assumed from these results that Gordon Shopping Centre offers a balance of convenience and specialty businesses.

Table 3.6. Perceived Extent of Trip Linking, Gordon

Type of Trip	No. of Respondents	(%)
Multi trip	5	(38.5%)
Single trip	7	(53.9%)
Mixture	1	(7.6%)

Pedestrian Movement Across the Road (Q:11)

The results of the question relating to pedestrian movement across the road (Table 3.7.) would seem to indicate a high level of 'crossability' within Gordon Shopping Centre. Business attraction is certainly not weighted towards one side of the street. The supermarket and new retail complex, with its large car park located on the western side, is probably counterbalanced by the number of financial institutions, businesses and specialty shops on the eastern side. The railway station, which presumably is a source of customers, is also located on the eastern side. The survey results would appear to indicate a high level of pedestrian interaction between both sides of the shopping centre despite the high volumes of traffic travelling along the Pacific Highway.

Table 3.7. Perception of Pedestrian Movement Across the Road, Gordon

Pedestrian Movement	No. of Respondents	(%)
Many cross	9	(69.2%)
Few cross	2	(15.4%)
None cross	0	(0.0%)
Do not cross	2	(15.4%)

Use of the Overhead Bridge (Q:12)

Gordon was the only study area with an overhead bridge. The questions relating to use of the overhead were designed to see how effective it has been in providing traffic-free pedestrian access across a major road. The survey results (Table 3.8.) show that the overhead bridge is not used a great deal despite what seems a high level pedestrian interaction between the two sides of the shopping centre. It appears from the survey results and shopkeepers' comments, that pedestrians prefer to cross at street level. One shopkeeper described the overhead bridge as an 'ineffective white elephant due to difficult access at both ends.'

Table 3.8. Use of Overhead Bridge, Gordon

Utilisation by Shoppers	No. of Respondents	(%)
Many	1	(7.7%)
Few	6	(46.2%)
None	2	(15.4%)
Do not know	4	(30.8%)

Effect of Overhead Bridge on Trade (Q:13)

From Table 3.9., about half of the respondents considered that the overhead bridge had not affected trade and 30 per cent considered that trade had increased since the building of the overhead bridge. This may be misleading since the bridge became operative at the same time as the opening of the Gordon Centre, which replaced Myer's Department Store. Generally, respondents commented that it was the opening of the Gordon Shopping Centre rather than the overhead bridge which was responsible for an increase in trade.

Table 3.9. Effect of Overhead Bridge on Trade, Gordon

Effect	No. of Respondents	(%)
Increased trade	4	(30.8%)
No change	6	(46.2%)
Decreased trade	0	(0.0%)
Do not know	3	(23.0%)

Effect of Gordon Centre on Trade (Q:14)

Table 3.10. reveals that the majority of respondents (77 per cent) agreed that the building of the new Gordon Centre has resulted in an increase in the number of customers shopping in the whole shopping centre. Although it has had an apparently positive effect on trade many respondents commented that the Gordon Shopping Centre store still attracts fewer customers than Myer's which was located on the same site.

Respondents comments indicated that Myer's store was considered a 'far superior' store than the new Gordon Centre. Generally, respondents agreed that the current level of trade is still below what it was when Myer was operating in the centre.

The survey results, and customer comments, reveal that factors other than traffic management can have significant effects on trade levels in strip shopping centres. It may also provide some clues as to ways in which strip shopping centres could be revitalised by the opening of a 'drawcard' retail outlet such as a supermarket or department store.

Table 3.10. Effect of New Gordon Centre on Trade, Gordon

Effect	No. of Respondents	(%)
Increased customers	10	(76.9%)
No effects	2	(15.4%)
Do not know	1	(7.7%)

Effect of Clearways on Trade (Q:15, 16)

An equal proportion of respondents considered that clearways had reduced trade as those who had experienced no effects (Table 3.11.). This seemed to indicate that clearways, overall, did not have a significant effect on trade. Those who could identify a proportion of trade lost included the chemist, shoe shop and bookstore. This loss of trade ranged from 5 to 15 per cent.

Table 3.11. Effect of Clearways on Trade, Gordon

Effect	No. of Respondents	(%)
Decreased trade	5	(38.5%)
No effect	5	(38.5%)
Not applicable	1	(7.6%)
Do not know	2	(15.4%)

Measures Taken to Adjust to Clearways (Q:17, 18)

Only three respondents indicated that they had taken measures to adjust to clearways. The bookshop owner promoted off-street parking by telling his customers about it. The Advance Bank moved premises from the western to eastern side of the road. The chemist provided rear access to his shop, which was only considered partially effective. The remaining respondents took no action in response to the introduction of clearways, which again seems to indicate that the impact on business activity was minimal.

Clearways vs S-Lanes (Q:19)

Table 3.12. shows that about 70 per cent of respondents indicated that they would prefer clearways to S-lanes. A range of reasons were given for this:

- a) S-lanes speed up traffic and have increased the potential for pedestrian-vehicular conflict;
- b) S-lanes impede the flow of traffic on the Pacific Highway because the configuration of the road conflicts with the location of merging lanes; and
- c) clearways prevent on-street parking for a limited period and parking is available during business hours.

It is clear from these comments, and the survey results, that clearways are considered a far more preferable traffic management measure than S-lanes.

Table 3.12. Are Clearways Preferable to S-Lanes?, Gordon

Response	No. of Respondents	(%)
Yes	9	(69.2%)
No	4	(30.8%)

Effect of S-Lanes on Trade (Q:20)

Table 3.13. shows that just over half the respondents had experienced some decrease in trade since the introduction of S-lanes. Only one respondent indicated that trade had declined to a great extent, but could not provide any figures to support this. Although the liquor store's trade overall had not declined, the operator commented that on-street trade (it also operates a drive-in bottle shop with rear access) from the same premises had decreased by 15 percent. This was said to be the equivalent of a \$3000 a week loss in turnover from on-street trade. The other premises, of course, do not have the benefit of trade from two shops within the one premises. The same shopkeeper believed that loss of trade was due to the increased noise and dust levels, and growing concern by shoppers regarding pedestrian safety. Elderly customers were said to comment daily on being frightened to walk along the footpath because of the proximity and speed of moving vehicles.

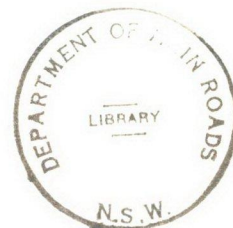
Table 3.13. Effect of S-Lanes on Trade, Gordon

Effect	No. of Respondents	(%)
Great increase	0	(0.0%)
Small increase	0	(0.0%)
No change	5	(41.7%)
Small decrease	6	(50.0%)
Great decrease	1	(8.3%)

*United Permanent began operations after the introduction of the S-lanes.

The local bookshop owner, and President of the Chamber of Commerce, also expressed concern over the 'psychological' effects of S-lanes. He maintained that pedestrian traffic on the footpath had been reduced making the shopping centre appear less interesting to passers-by, reducing overall trade potential. S-lanes are therefore considered to discourage impulse buying.

There was an overall concern expressed by respondents, irrespective of whether trade had been affected or not, regarding the declining safety and amenity of the shopping centre since the introduction of S-lanes. Many commented on the likelihood of large vehicles mounting the kerb and the perceived increase in average vehicle speeds. The perceived increase in noise and dust pollution was believed to be a growing distraction for customers and business operators alike. Several shopkeepers have decided to keep their front doors closed since the introduction of S-lanes in an attempt to reduce the impact of noise and dust.



Measures Taken to Adjust to S-Lanes (Q:22, 23)

The survey results (Table 3.14.) shows that six respondents have taken individual measures, in an attempt to adjust to S-lanes. These can be summarised as follows:

a) Bookshop

As President of the local Chamber of Commerce, the owner of the bookshop became involved 'with the local planning process with the aim of reducing the impact of poorly planned S-lanes'.

b) Chemist

The owner 'lobbied vigorously' which was considered reasonably successful.

c) Liquor Store

The owner carried out heavy advertising, has changed the trading hours of the on-street outlet, and has placed signs on the footpath indicating access to rear parking. These measures have been considered effective by boosting trade at the shop's drive-in bottle section, at the rear of the premises.

d) Antiques

The owner has closed the front door permanently, which has been reasonably successful in cutting down dust and noise levels.

e) United Permanent

The office manager commented on co-operating with the referendum organised by the Chamber of Commerce.

f) Chemist (Spencer and St Clair)

The owner provided rear access to the shop (for customers and delivery vehicles.) This was considered ineffective as an adjustment to S-lanes.

**Table 3.14. Have Measures Been Taken to Adjust to S-Lanes?,
Gordon**

Response	No. of Respondents	(%)
Yes	6	(46.2%)
No	7	(53.8%)

These raw survey results do not reflect the overall response taken by the Gordon business community. The local Chamber of Commerce, on behalf of business operators, has taken a very active role in trying to implement an alternative to the current system of traffic management. Firstly, the Chamber carried out a referendum to establish whether business operators would be in favour of an alternative to the S-lane. The Chamber also prepared an alternative proposal which was presented to members of Council and the Department of Main Roads. This proposal involved moving the median to provide a separate right-turning lane and to allow the return of on-street parking at the eastern side of the shopping centre, south of Dumaresq Street.

Representatives of the Department of Main Roads and Council considered this proposal at a meeting held on April 22, 1986, and a decision was made to leave the current traffic management system as it was. Discussions with the Chamber's President immediately following this meeting indicated a determination to bring about an alternative proposal. The level of action taken by the Gordon business community in response to the introduction of S-lanes indicates that the effects of such measures are perceived to be significant enough to warrant taking action to implement alternative measures.

Response to Sustained Level of Trade (Q:24)

Table 3.15. shows that five respondents (38 per cent) intend taking ameliorative action if their current level of turnover remains the same. One of these intends upgrading the premise whilst the others intend either closing down or relocating. With the exception of the chemist, these businesses could be considered as specialty stores. They include some of the longest established business operators within the shopping centre. The closure, or relocation, of some of these well-established businesses could have a detrimental effect on the popularity of the shopping centre, at least in the short term. This may also prompt other businesses to close down in the longer term. The results also indicate that non-retail uses such as banks, building societies and real estate agents, do not seem to be significantly affected by the introduction of S-lanes. Such uses could be described as resilient to traffic management changes.

**Table 3.15. Response to Sustained Level of Trade,
Gordon Shopping Centre**

Response	No. of Respondents	(%)
Continue as usual	8	(61.5%)
Close down	2	(15.4%)
Relocate	1	(7.7%)
Reduce staff	0	(0.0%)
Expand/upgrade	1	(7.7%)
Other	1	(7.7%)

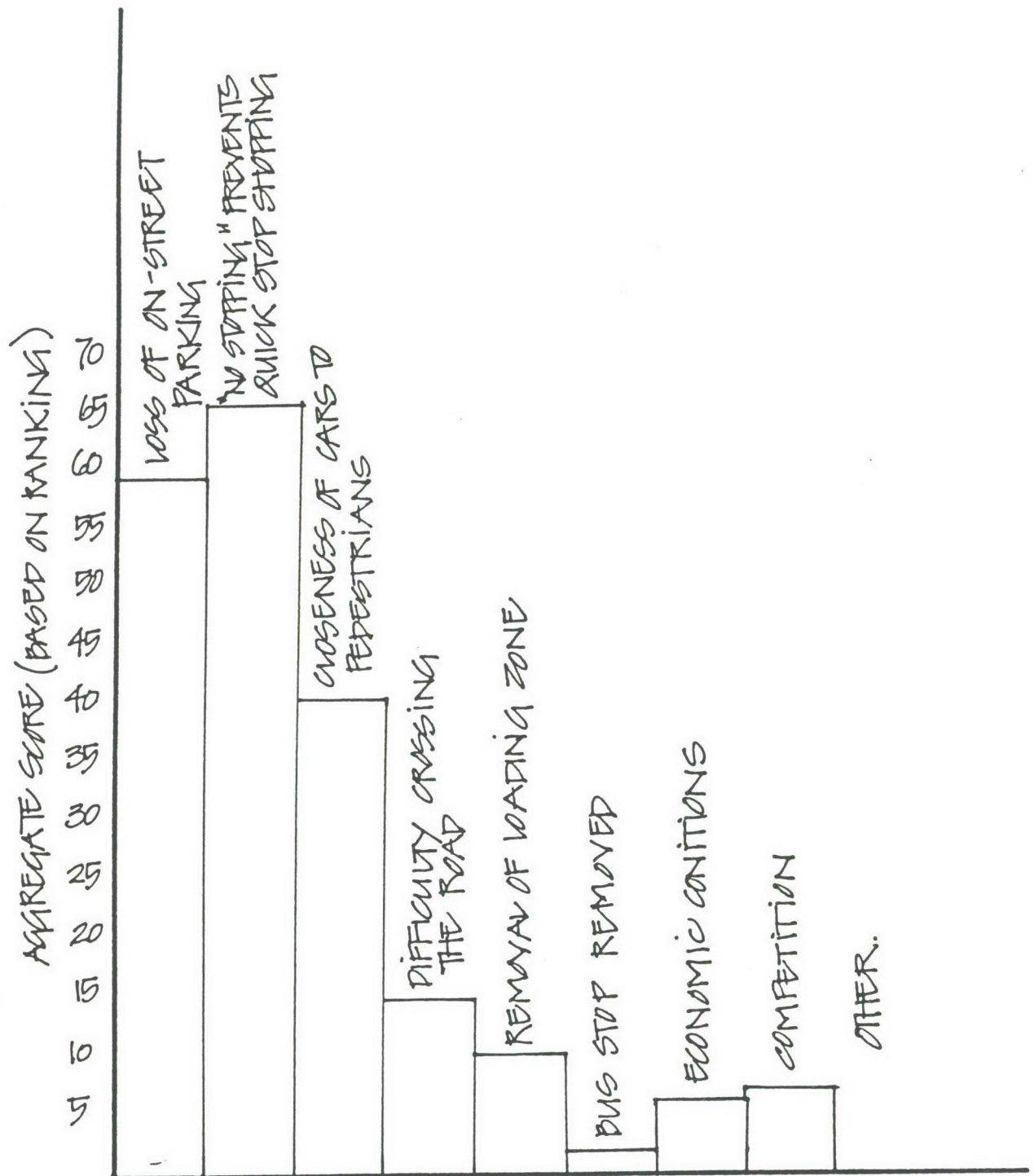


Figure 3.5. Factors Responsible for Decrease in Turnover, Gordon Shopping Centre

	lack of ON-STREET PARKING	"NO STOPPING" PREVENTS QUICK STOP STOPPING	CLOSENESS OF CARS TO PEDESTRIANS	DIFFICULTY CROSSING THE ROAD	LOADING ZONE REMOVED	BUS STOP MOVED	ECONOMIC CONDITIONS	COMPETITION	OTHER	NOT APPLICABLE
LANDUSE	A	B	C	D	E	F	G	H	I	
REAL ESTATE										*
NAT. BANK										*
ANTIQUES										*
DISCOUNT ELECTRICS		1	2							
SHOES	2	4	3	4	5	8	9	7	6	
MUSICAL SUPPLIES	1	2	3							
LIQUOR	1	2								
CHEMIST	3	1	2		4					
ANZ BANK										*
ADVANCE BANK										*
CHEMIST	2	1	4	3			5	6		
BOOKS	1	2	3	4						
UNITED PERMAN.	1	2	3							

Figure 3.6. Ranking of Factors Responsible for Decrease
in Turnover
Gordon Shopping Centre

Factors Responsible for a decrease in Turnover (Q:25)

Figures 3.5. and 3.6. are a summary of responses and the ranking given to those factors which were considered responsible for a decrease in turnover. Table 3.7. shows the aggregate score given to each factor, based on individual ranking. The results show that the "no stopping" restriction ranks highest as the factor most responsible for declining trade. It can be assumed that this restriction has affected turnover by reducing the centre's capacity to attract passing trade.

Loss of on-street parking was ranked next highest, as a contributor to declining trade. This makes it less convenient for shoppers to drive to the centre without walking an inconvenient distance from their car to the shops. The owner of the chemist shop also commented that the parking restriction makes loading very difficult and he is forced to load and unload goods on Sundays, whilst parking on the footpath.

The proximity of cars to pedestrians was also considered to be significant in contributing to declining trade. The combination of a perceived reduction in safety, and the supposedly high proportion of elderly shoppers, may account for the overall ranking given to this factor. The introduction of successful ameliorative measures would require that these three aspects be addressed in an attempt to overcome the problem of declining trade.

Measures to Encourage the continuation of Business (Q:26)

Figures 3.7. and 3.8. summarise responses and the overall ranking given to measures which would encourage business operators to continue operating their business. Eight respondents (62 per cent) did not respond to this question which seems to suggest that the same proportion would continue to operate their businesses regardless of whether ameliorative measures were introduced.

The conversion of S-lanes back to clearways, the provision of parking indicator signs, and additional off-street parking were the three highest ranking measures. Generally, those measures aimed at improving the physical attractiveness of the centre were not rated highly as ways of encouraging the continuation of existing businesses.

Contributions Towards Ameliorative Measures (Q:27)

Only one respondent expressed a willingness to contribute financially to any of the measures previously discussed and said that he would be willing to contribute to the provision of parking signs. These results seem to indicate that the funding and implementation of ameliorative measures is likely to be the responsibility of the local council or the Department of Main Roads. Essentially, the local business is concerned about the effects of S-lanes but is unwilling to make any contributions

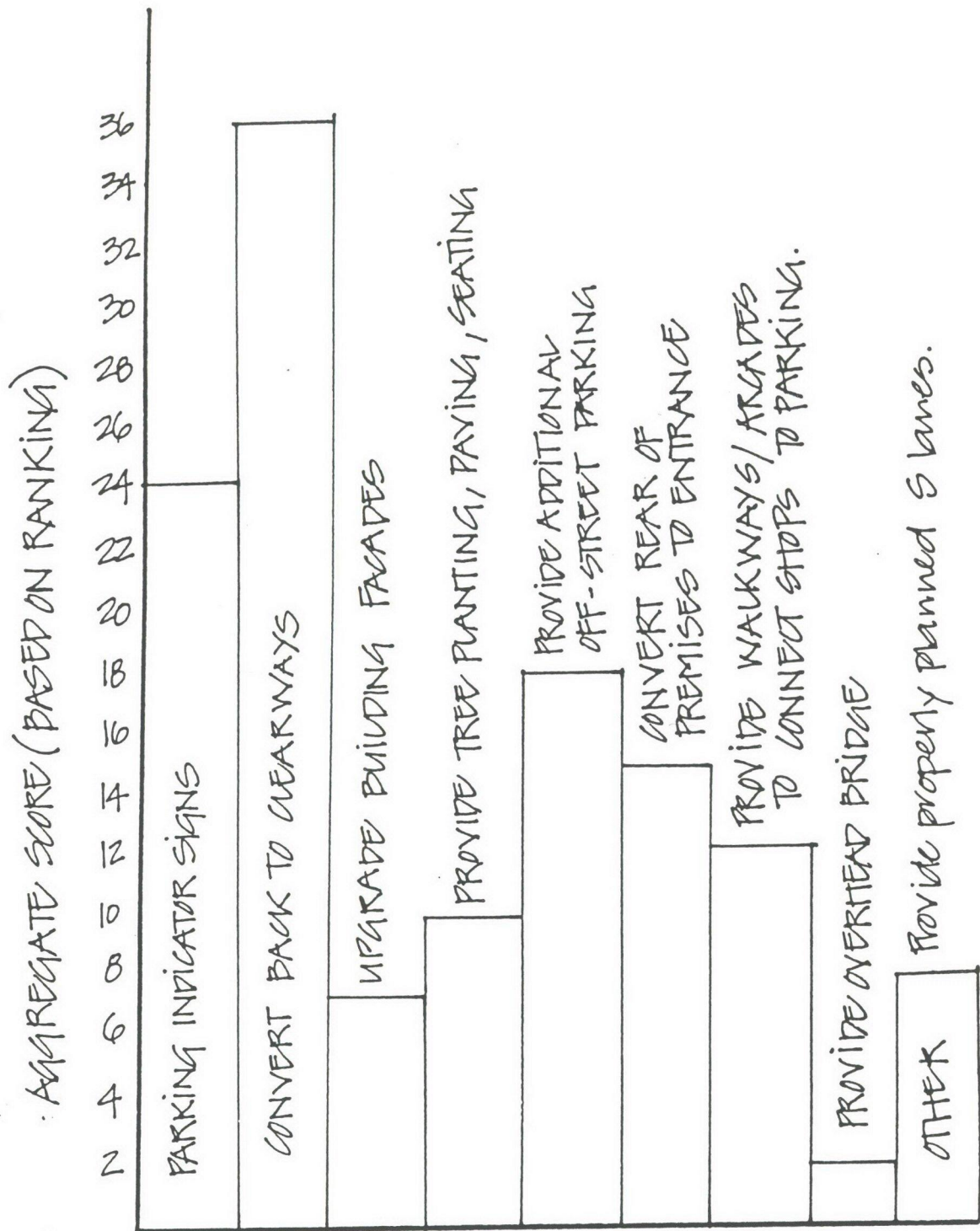


Figure 3.7. Measures to Encourage the Continuation of Business
Gordon Shopping Centre

MEASURES TO ENCOURAGE THE CONTINUATION OF BUSINESS	PARKING INDICATOR SIGNS	CONVERT TO CLEARWAYS	UPGRADE BUILDING FACADES	PROVIDE TREES, PAVING, SEATING	PROVIDE ADDITIONAL OFF-STREET PARKING	CONVERT REAR OF PREMISES TO PROVIDE ENTRANCE	PROVIDE WALKWAYS/ ARCADES TO CONNECT SHOPS TO PARKING	PROVIDE AN OVERHEAD BRIDGE	OTHER
LANDUSE	A	D	C	D	E	F	G	H	I
REAL ESTATE									*
NATIONAL BK									*
ANTIQUES									*
DISCOUNT ELECTRICS									*
SHOES	2	4	3	4	5	8	9	7	
MUSICAL SUPPLIES									*
LIQUOR	2	1							
CHEMIST		1			2	3	4		
ANZ BANK									*
ADVANCE BANK									*
CHEMIST	1								
BOOKS	2			6	3	4	5	1	1 → proper planned lane
UNITED PERMAN.									*

Figure 3.8. Ranking of Measures to Encourage the Continuation
of Business
Gordon Shopping Centre
*No Response

towards measures which might reduce these effects. One respondent commented: "this was forced upon us with no proper planning or consultation - I will not pay to rectify bureaucratic incompetence".

Responsible Authorities (Q:28)

Only four respondents indicated which authority should be responsible for implementing any of those measures previously mentioned. These respondents all agreed that it should primarily be the joint responsibility of the Department of Main Roads and the local council.

Summary of Respondents Comments (Q:29)

1. Real Estate Agency

The questionnaire is not considered relevant in real estate agencies, since customers seeking such services would normally try several agencies in the area, regardless of traffic or parking conditions.

2. National Bank

No Comments.

3. Antiques

No noticeable effects on trade due to the well-established nature of the business (55 years) and the availability of six parking spaces at the rear of the premises. The main concern is the vast increase in noise and dust levels. Traffic conditions are also considered more dangerous since the introduction of S-lanes. There is a concern that trucks will mount the kerb and cause damage to property.

4. Discount Electrical Appliances

The speed of passing traffic is perceived to have increased since the introduction of S-lanes and there is a concern that vehicles will mount the kerb.

5. Shoes

"Strip retailing has finished".

6. Music

No comments.

7. Liquor

There is a concern about the lack of consultation prior to the introduction of S-lanes. Noise levels have increased to a point where conversations with customers are often inaudible, mainly due to the closeness of heavy vehicles to the kerb. Dust levels

have also increased.

Pedestrians/customer, particularly the elderly, comment on the danger associated with walking along the footpath.

The local council was criticised for not adequately considering the local business operators requests to move the median strip, which would allow the return of kerb-side parking.

The shopping centre has three high quality shops (liquor, music, book store), which are considered to be the main draw cards of the centre.

8. Chemist

Loading and unloading is made difficult by S-lanes. The proximity of cars to pedestrians is considered to be potentially hazardous. S-lanes have have reduced passing trade by preventing quick-stop shopping.

9. A.N.Z Bank

No comments.

10. Advance Bank

Traffic speeds have increased. Elderly people are afraid to cross the road, because of the speed of traffic. The return of on-street parking would only bring small bonuses to business. The closing of the Myer store resulted in a dramatic loss of trade (estimated \$4 million drop in deposits).

11. Chemist

The traffic speed has increased and is considered too close to the kerb. The parking signs are insufficient.

12. Books

There is a need to establish a proper procedure for consulting and advising residents and business proprietors of proposed traffic management changes. S-lanes were introduced without any adequate consultation. S-lanes should be properly planned to consider the need of the business and non-business community.

13. United Permanent

The noise levels have increased. S-lanes are considered dangerous for pedestrians, especially the elderly, when walking close to the kerb.

3.3. Interview with Real Estate, Pacific Highway, Gordon

1. Land use Change

A number of shops were said to have closed down in recent

months and moved to the new Woolworths centre located on the western side of the Pacific Highway but Peggy Simpson (womens' clothing) was the only example given of such a relocation. McDonalds was said to have purchased a shop (mid block on the eastern side of the centre) presumably with the intention of opening a fast-food outlet.

2. Property Value/Rentals

Average rentals for upstairs office space was given as \$15 per square foot per annum and for retail/commercial it ranged from \$35 to \$50 per square foot per annum. Some small-scale retailers have relocated into arcades and back streets in recent years because rentals on businesses with highway frontages are considered excessive. S-lanes have had no noticeable effect on property values since there is already ample rear parking available for shoppers.

3. Profitability

Banks and building societies were identified as businesses which are considered to be profitable as compared with retail traders. Other well-known and competitive businesses which have also been fairly profitable include Discount Inn (Electricals). Local residents do their personal business (such as banking or medical services) in Gordon but are more likely to do the bulk of their comparison shopping at places such as Chatswood or St Ives.

4. Property Owners

In general, the property owners are small-scale investors. Chinese businessmen are predominant as property owners.

5. Investment

On average, investment in properties on the eastern side of the shopping centre would bring a 10 percent return on capital outlay. It is not considered to be a highly profitable form of investment but since premises rarely remain vacant for long it represents a fairly safe investment.

6. Parking

The availability of on-street parking is not a major concern of prospective lessees since there is an ample supply of rear parking in the centre. Only businesses such as milkbars would be particularly concerned about the availability of on-street parking.

7. General Comments

Gordon Shopping Centre appears busier since the opening of the new centre. Gordon is a popular place for offices and personal services (doctors, beauticians, banks). A number

of large office developments have been built recently within the vicinity of Gordon Shopping Centre. This would seem to indicate that the future of the centre is more likely to be office, rather than retail, related.

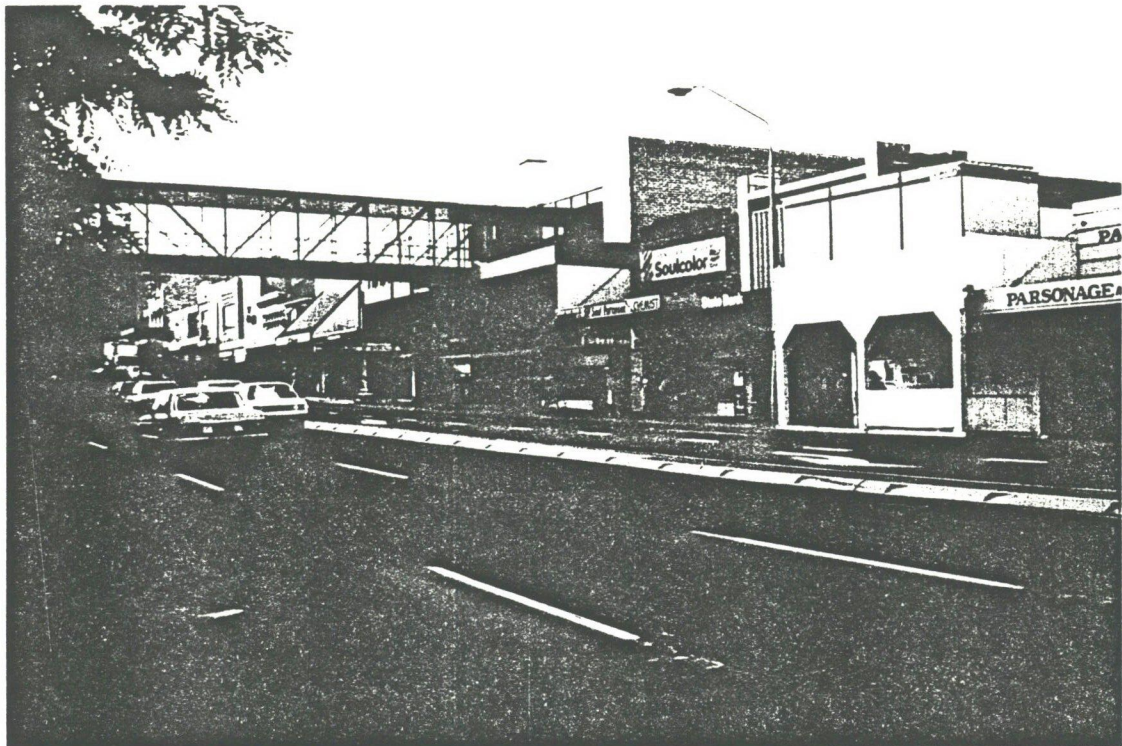


PLATE 3.1 AFFECTED LAND USES.
PACIFIC HIGHWAY, GORDON. PHOTOGRAPHS SHOWING
LAND USES DIRECTLY AFFECTED BY 5-LANES.

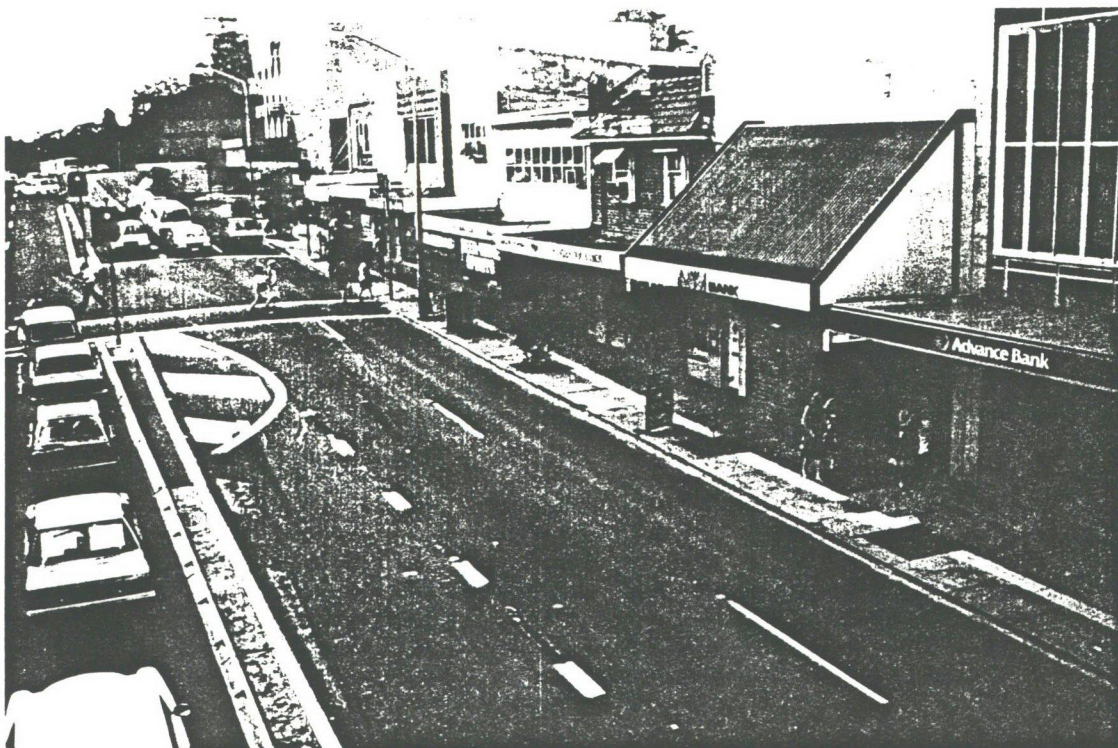


PLATE 3.2 AFFECTED LAND USES.



PLATE 3.4 GORDON CENTRE CAR PARK.
ACCESS TO GORDON CENTRE CAR PARK AND LOADING
DOCK FROM MOREE STREET

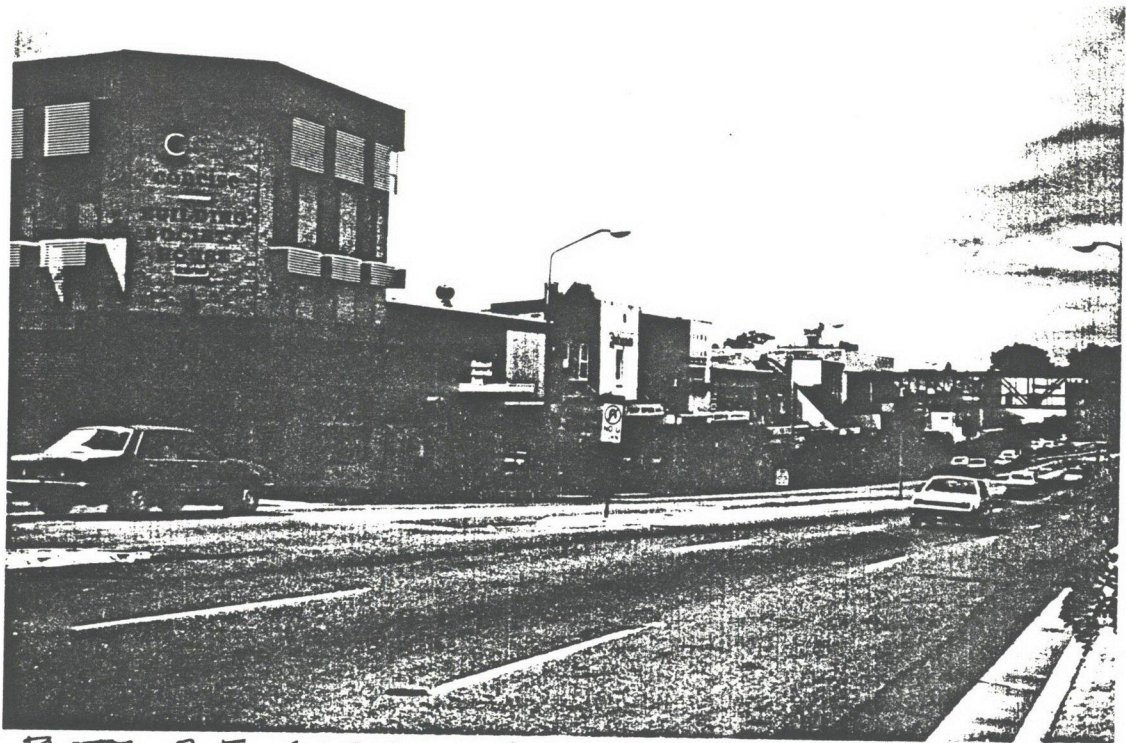


PLATE 3.9 GORDON SHOPPING CENTRE.
GORDON SHOPPING CENTRE, LOOKING SOUTH NEAR
THE INTERSECTION OF PARK AVENUE AND THE
PACIFIC HIGHWAY.

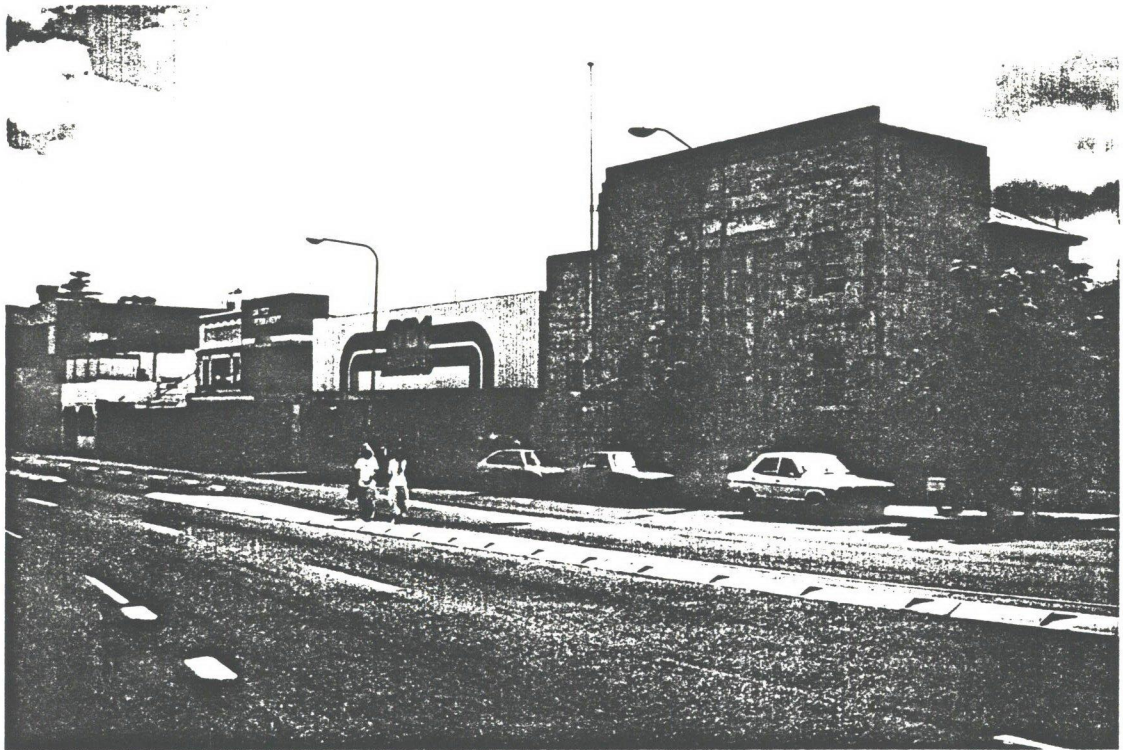


PLATE 3.6 PEDESTRIANS CROSSING THE HIGHWAY.
PEDESTRIANS STILL CROSS MID BLOCK
DESPITE 6 LANES.



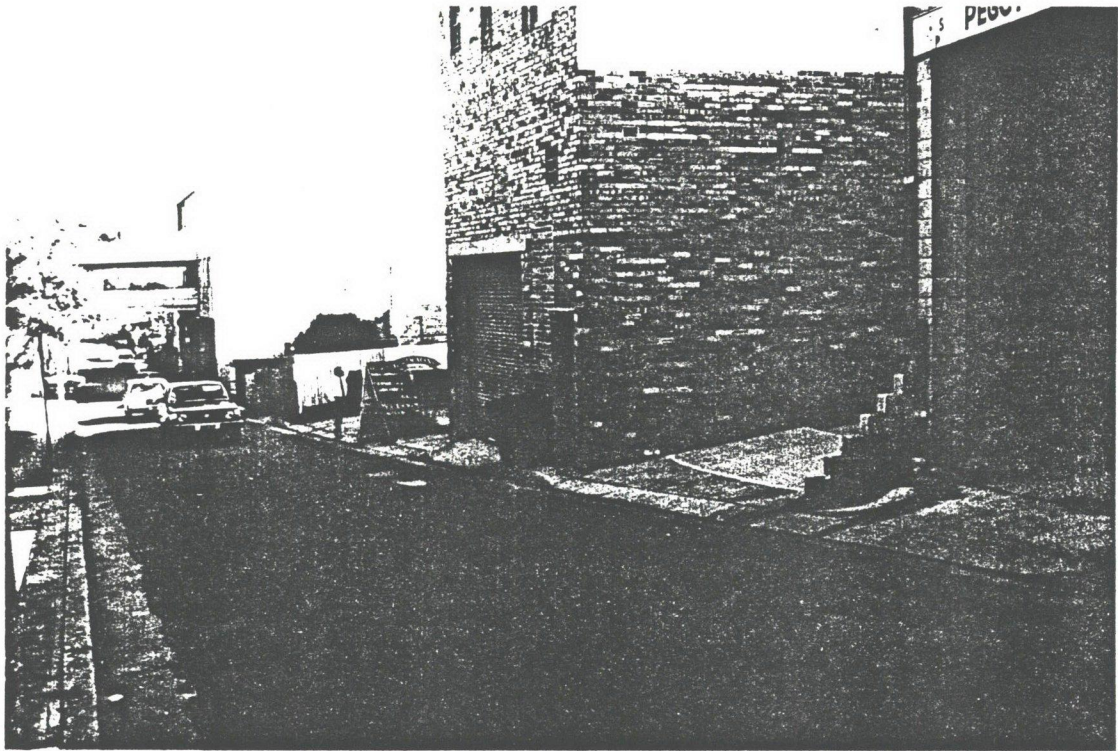
PLATE 3.7 GORDON CENTRE AND THE
OVERHEAD BRIDGE.



PLATE 3.8 LAND USES ADJACENT
TO S-LANE.

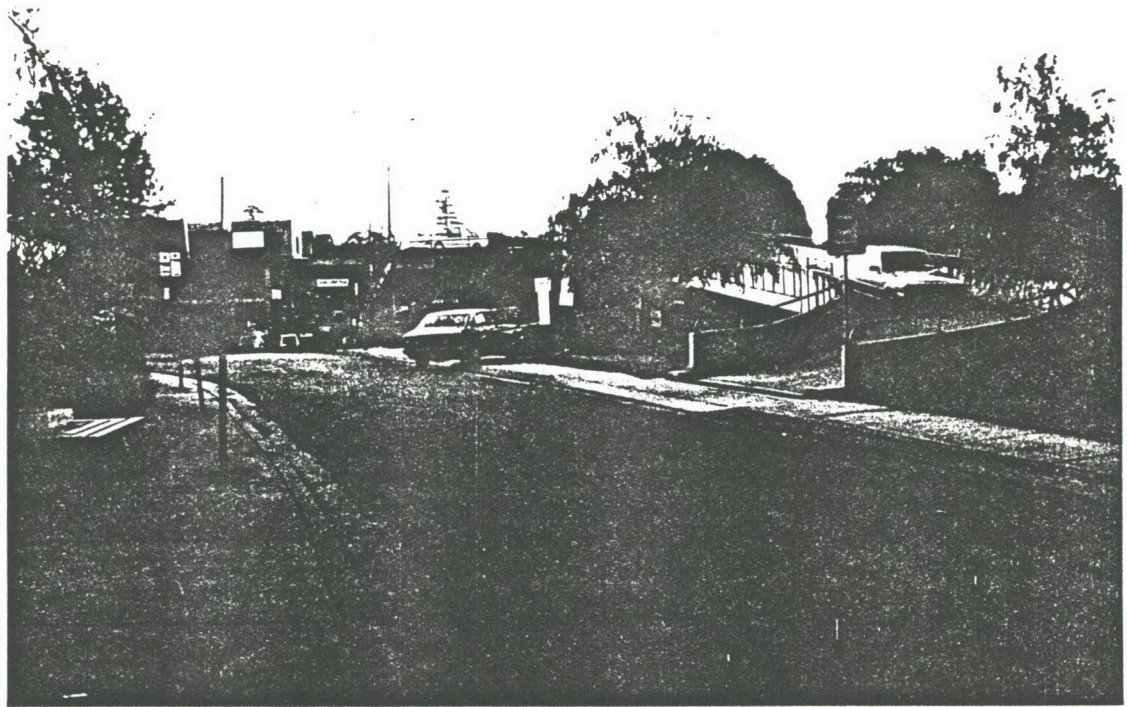


PLATE 3.9 LAND USES ADJACENT TO
S-LANE.



3.10 REAR LANE ACCESS.

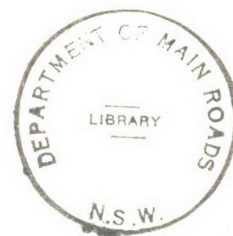
WADE LANE (ON THE NORTHERN SIDE
OF THE SHOPPING CENTRE PROVIDES
ACCESS TO THE REAR OF SHOPS.



3.11 SHOPPER PARKING.
ACCESS TO MULTI LEVEL CAR PARK
FROM WADE LANE

CHAPTER 4

TURRAMURRA SHOPPING CENTRE



4.1 Turramurra Shopping Centre - Description

Turramurra shopping centre is located approximately 4 kilometres north-west of Gordon shopping centre along the Pacific Highway. The northern side of the shopping centre is adjacent to Turramurra Railway Station (Fig 4.1). The area immediately affected by S-lanes is located on the northern side of the shopping centre, bounded in the west by Ray Street and in the east by the ANZ Bank, which is near the corner of William Street. Turramurra is the smallest of the survey areas. It was chosen to test whether similar effects were experienced at Turramurra as at Gordon shopping centre, which is also located along the Pacific Highway.

Characteristics

Turramurra is a local shopping centre. It is of a smaller scale and appears to have a lower level of pedestrian activity than that of Gordon shopping centre. There is a Coles New World store located in Ray Street, on the northern side of the shopping centre. The area directly affected by S-lanes consists mainly of specialty stores and a few financial institutions. At the time of the survey, the Commonwealth Bank site was being redeveloped to replace the existing bank building on the southern side of the highway.

Traffic Management

S-lanes were introduced to the Pacific Highway at Turramurra in late 1985. This measure aimed to improve traffic flow along the Pacific Highway, by providing a separate right-turning bay for south-bound traffic turning into Kissing Point Road. This has resulted in the conversion of the kerb-side lane (on the northern side of the highway, between Ray and William Streets) from morning clearway conditions to a through-traffic lane. Traffic lights control pedestrian crossing near the intersection of the highway and Kissing Point Road (Figure 4.1).

Parking

Turramurra has ample parking available, with two, large ground-level car parks being located at the rear of shops on both sides of the shopping centre. The parking area adjacent to Forbes Lane, within easy reach of the railway station, is used primarily by commuters, according to several local business operators. The majority of shops of the northern side also have access to parking within their property boundaries, and at the rear of the shops.

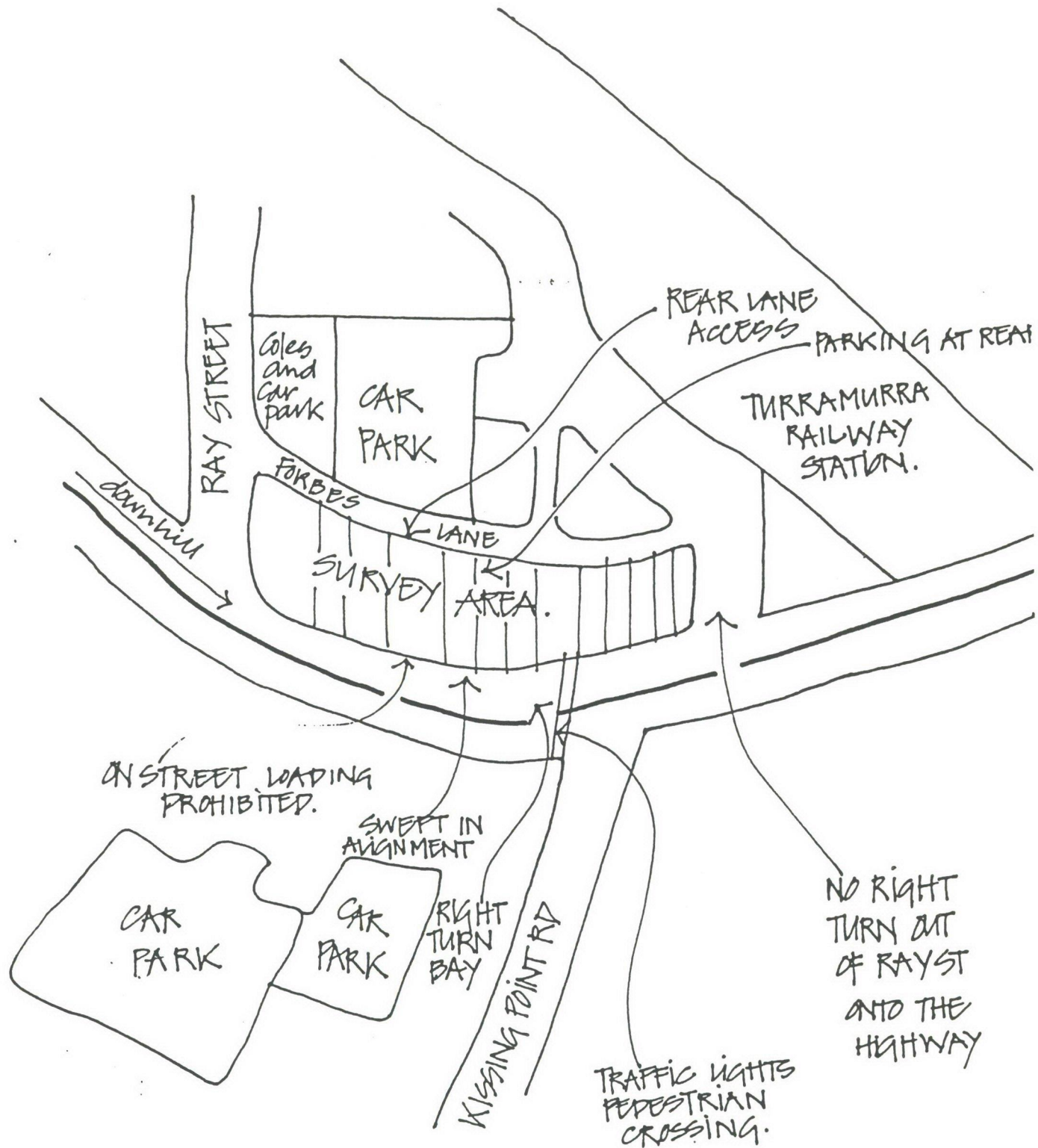


Figure 4.1. Turramurra Shopping Centre
Traffic/Parking Conditions
North (not to scale)

Loading

S-lanes have prohibited the carrying out of loading or unloading on-street. All those shops directly affected by the S-lane have rear-lane access. However it was impossible to determine whether this is suitable for loading activities.

Visual Analysis

Turramurra is a small-scale centre without any major buildings such as those which characterise Gordon shopping centre. The curvature of the highway, and the lack of consistent awning cover, make part of the shopping centre appear fairly exposed. The buildings range in height from one to three storeys. It appears that the upper floors are used mostly for offices. The condition of the building is generally fair and the architecture style is simple. The only new development is the Commonwealth Bank building on the northern side of the highway. The street-scape is rather bare, with little consideration being given to the comforts of the pedestrian or the public transport user. It lacks any of the greenery existing in William Street and in the area adjacent to the railway station.

4.2 Survey Response

As seen from Figure 4.2, there were twelve individual premises which were directly affected by the introduction of S-lanes. One of these was the Commonwealth Bank building, which was under construction at the time of the survey. Only one business operator (ANZ bank), did not respond to the survey. This represents a favourable response rate of 91 per cent, which was the highest of all the shopping centres surveyed (Table 4.1).

Table 4.1. Response Rate by Land-Use Type, Turramurra

Land-use Type	No. Response (%)		No. Non-response (%)	
Retail convenience	1	(9.1%)	0	(0.0%)
Retail comparison	7	(63.6%)	0	(0.0%)
Services	2	(18.2%)	1	(9.1%)
	10	(90.9%)	1	(9.1%)

Land-use Change (Q:1,2,3)

Table 4.2 shows that half of the respondents have been operating their business in Turramurra for four years or less. The remaining respondents have been operating for a variety of different periods, ranging up to 29 years. It is difficult to deduce any trend from this information except that the shopping

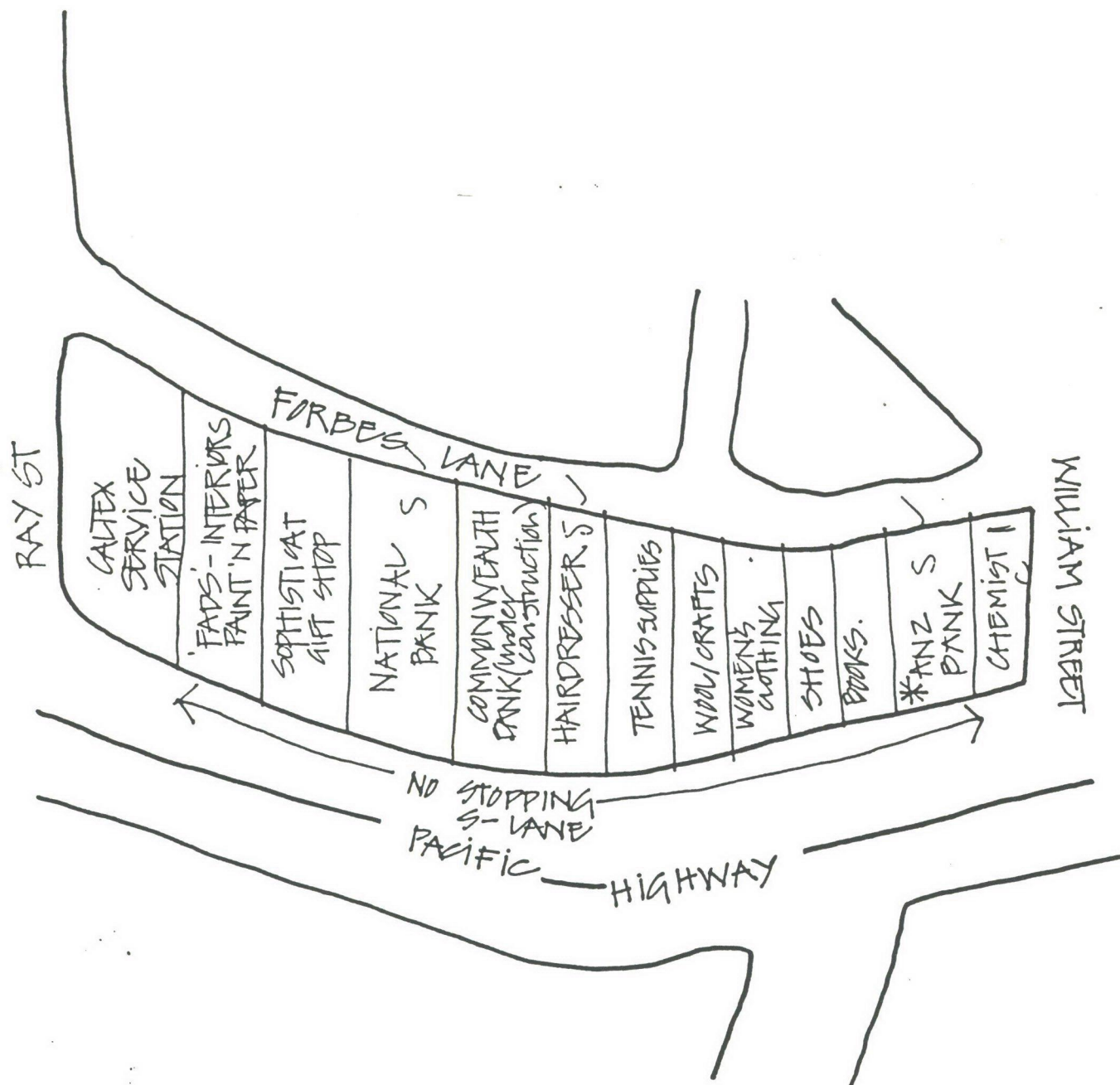


Figure 4.2. Shops and Services Adjacent to S-Lanes, Turramurra, 1986

Table 4.2. Land-Use Change in Turramurra

Existing Use	Time of Operation	Previous Land use	Reasons for Locating There
1. Interior Design Supplies	3 mths	same	Existing business
2. Men's Hairdresser Tobacconist	7 yrs		Worked here previously for 22 years
3. Shoes	29 yrs	Drapery	No shoe shop in the area
4. Books	2 yrs	same (for 12 yrs)	Established business
5. Drapery	4 yrs	same	Seemed to be thriving and front and rear parking
6. Craft/Wool	5 mths	same (for 12 yrs)	Business run down - opportunity to build up
7. Gifts	11 yrs	same	Passing traffic
8. Women's Clothing	25 yrs	same (for 35 yrs)	Worked in shop for 24 yrs prior to owning it
9. Tennis	2yrs	same	Business already established
10. National Bank	20 yrs	same (Bank)	Expanding area

Tenure (Q:4)

Only one of the respondents owned the premises in which his business was operated. This small proportion of owner-occupancy (about 10 per cent) is consistent with the results gained from other areas, where the majority of premises are rented.

Change in Turnover (Q:5)

Table 4.3. shows the extent of recent changes in turnover. Only two respondents had experienced at least a small decrease in turnover. Six respondents (60 per cent) had experienced at least a small increase in turnover, which seems to indicate that Turramurra shopping centre supports a reasonable proportion of healthy businesses. These results seem to correlate roughly with those gained from Gordon shopping centre and contrasts with the Leichhardt survey results which indicated that a higher proportion of businesses had experienced a recent decline in trade.

RANKING (AGGREGATE SCORE)

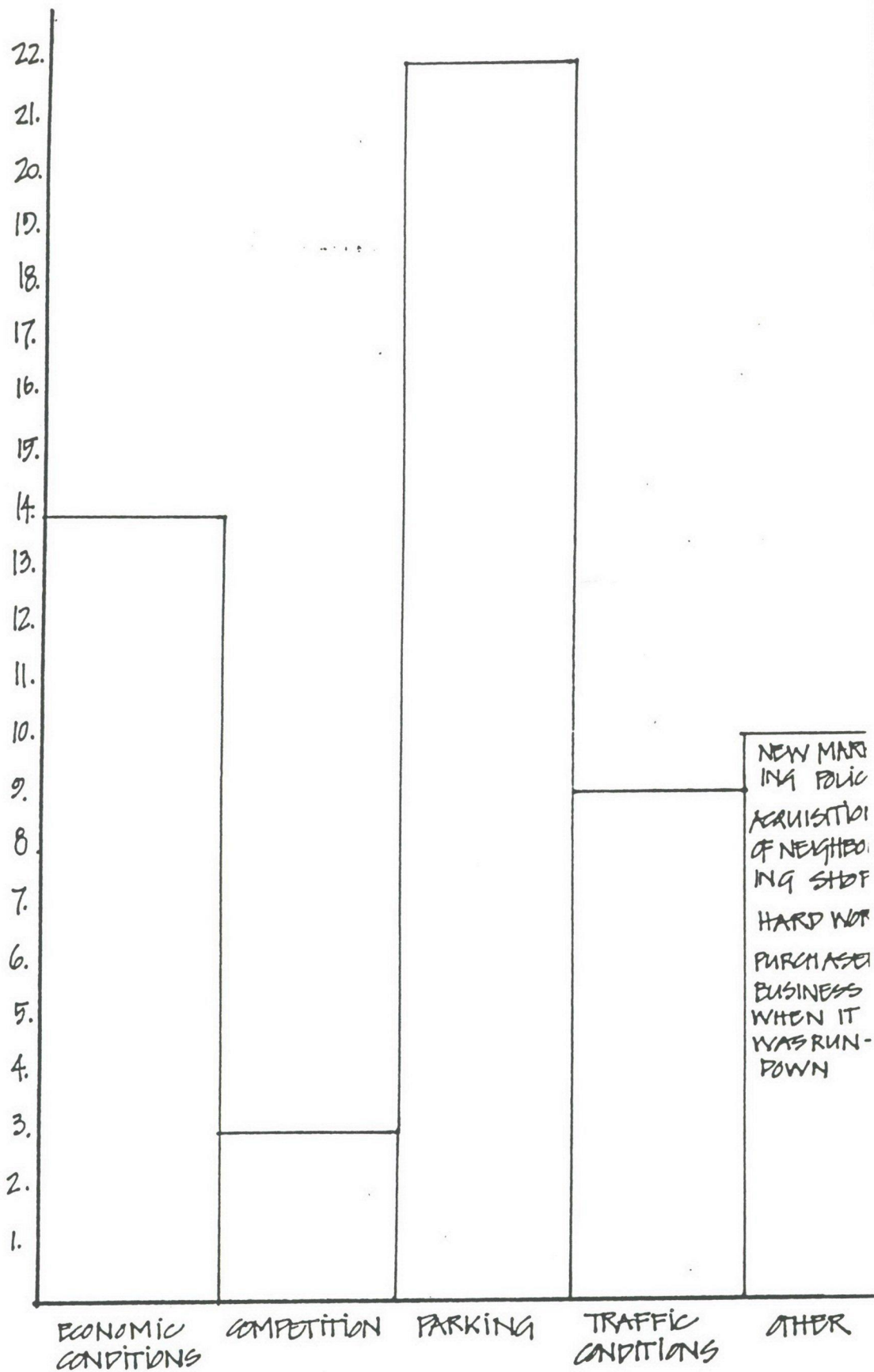


Figure 4.3. Reasons for Change in Turnover, Turrumurra

**Table 4.3. Change in Retail Turnover, 1985-86,
Turramurra**

Extent of Change	Number	(%)
Great increase	2	(20.0%)
Small increase	4	(40.0%)
No change	2	(20.0%)
Small decrease	1	(10.0%)
Great decrease	1	(10.0%)

Reasons for Change in Turnover (Q:6)

Figure 4.3. shows that parking, followed by economic conditions, is ranked highest as being the main reasons for recent changes in turnover. A range of "other" reasons and economic conditions presumably relate to those businesses which have experienced recent increases in turnover. Several business operators mentioned that economic conditions, specifically inflation, had been responsible for increased turnover, without a corresponding increase in profits. Parking and traffic conditions relate to those businesses (only two) which have experienced recent decreases in turnover.

Response to Increased Turnover (Q:7,8)

Two thirds of the respondents who had experienced a recent increase in turnover planned to continue their business as usual. The remaining respondents intended to upgrade or improve their premises (Table 4.4).

**Table 4.4. Response to Recent Increases in Turnover,
Turramurra**

Response	Number	(%)
Continue as usual	4	(66.7%)
Expand/improve premises	2	(33.3%)
Increase staff	0	(0.0%)
Improve inventory	0	(0.0%)

As seen in Table 4.5., of those who had experienced a decrease in turnover, only one respondent intended to sell her business if trade did not improve. Two respondents whose trade had not changed responded incorrectly to this question. Overall, these results seem to indicate that most business operators are satisfied enough with their current level of trade to remain in the shopping centre.

**Table 4.5. Response to Recent Decreases in Turnover,
Turrumurra**

Response	Number	(%)
Continue as usual	3	(75.0%)
Relocate	0	(0.0%)
Close down and sell	1	(25.0%)
Reduce staff	0	(0.0%)
Increase trading hours	0	(0.0%)

Trade Catchment (Q:9)

Table 4.6. shows that 90 per cent of respondents claim that they have a predominantly local-trade catchment. These results are consistent with the other areas which have been surveyed, which seems to suggest that strip-shopping centres serve an important function in the local community in which they are located. Respondents commented that local residents like to shop at Turrumurra shopping centre because it is close to home and provides friendly and personalised service, which is lacking in major retail centres.

**Table 4.6. Approximate Proportion of Local Trade by
Industrial Businesses, Turrumurra**

Amount	Number	(%)
More than three-quarters	5	(50.0%)
Three-quarters	4	(40.0%)
Half	1	(10.0%)
One-quarter	0	(0.0%)
Less than one-quarter	0	(0.0%)

Linked Trips (Q:10)

Half of the respondents in Table 4.7. indicated that their customers come to the centre especially for their business. These results are also consistent with those gained from Gordon and Leichhardt. The remaining respondents indicated that their customers visit other businesses at least some of the time when visiting the shopping centre.

**Table 4.7. Perceived Extent of Trip Linking,
Turramurra**

Type of Trip	No. of Respondents	(%)
Multi-trip	2	(20.0%)
Single-trip	5	(50.0%)
Mixture	3	(30.0%)

Pedestrian Movement across the Road (Q:11)

The results shown in Table 4.8. seem to indicate that it is not unusual for pedestrians to cross the Pacific Highway to shop on the other side. It is difficult to deduce whether or not a high proportion of pedestrians cross, or just the odd few. It could probably be assumed from the results that a reasonable proportion of pedestrians cross the highway. The results suggest a similar level of "crossability" to that which existed in Gordon shopping centre, and a greater level to that which occurred in Leichhardt shopping centre. In both Gordon and Turramurra, shops on both sides of the highway seem to provide equal attraction to customers. In both shopping centres, there are large rear car parks on both sides of the highway, which also reduces the tendency for customers to favour shopping on one side of the street rather than the other. In Leichhardt, the situation appears to be different, where the rear parking facilities dominate one side of the highway. This same side, according to the majority of shopkeepers, also offers more attractive shopping facilities. In all three cases, the volume of traffic is high; the level of interaction between the two sides of the street seems to depend on other factors, such as those already mentioned.

**Table 4.8. Perception of Pedestrian Movement Across the Road,
Turramurra**

Pedestrian Movement	No. of Respondents	(%)
Many cross	5	(50.0%)
Few cross	5	(50.0%)
None cross	0	(0.0%)
Do not know	0	(0.0%)

Effect of Clearways on Trade (Q:12,13)

Of those respondents who had been operating their businesses prior to the introduction of S-lanes, equal proportions considered that clearways had reduced trade as those who indicated that clearways had not affected trade at all. The survey results (Table 4.9.) do not seem to reveal any trends in those land uses

most affected by clearways. Once again, these results are similar to those obtained from Gordon shopping centre. In Leichhardt, however, the effects of clearways on trade were perceived by the respondents to be more severe than the other survey areas.

The following land use types estimated their loss of trade as follows: tennis supplies - 20 per cent; gift shop - 5 per cent; hairdresser/tobacconist - 10 to 20 per cent; and book shop - 5 to 10 per cent. On average, these businesses had experienced a loss of approximately 12 per cent in income since the introduction of clearways.

Table 4.9. Effect of Clearways on Trade, Turramurra

Effect	No. of Respondents	(%)
Decreased trade	4	(40.0%)
No effect	4	(40.0%)
Not applicable	2	(20.0%)
Do not know	0	(0.0%)

Measures Taken to Adjust to Clearway (Q:14,15)

Three respondents had taken measures to adjust to clearways. The book shop owner had advised customers of the Council car park at the rear of the shopping centre. This was considered only a partially effective measure, because the car park often contained a large number of commuters' cars. The owner of the shoe shop considered the upgrading of the rear entrance to his premises as being an effective measure to take. The owner of the tennis shop wrote to the local council about the effect of the clearway on trade, which she considered an ineffective measure to take. These results seem fairly consistent with the results gained from the other two survey areas, in which only a few respondents had taken any measures to adjust to the effects of clearways.

Clearways vs. S-lanes (Q:16)

Table 4.10 shows that half of the respondents indicated that they would prefer clearways to S-lanes. This is similar to the results gained from Leichhardt. In Gordon, a larger proportion of respondents indicated a preference for clearways, as opposed to S-lanes.

The reasons for preferring clearways can be summarised as:

- a) clearways are less confusing for the motorist;
- b) the level of noise (horns, swearing, tyre squeal) has increased since the introduction of S-lanes;
- c) clearways provide kerb-side parking during business hours; &

d) clearways are less dangerous than S-lanes.

Parking and safety were the two main issues identified by respondents in all three survey areas.

Those respondents who did not indicate a preference for clearways, generally commented that both measures have detrimental effects on business, and, as such, neither measure is favoured.

**Table 4.10. Are Clearways Preferable to S-Lanes?
Turramurra**

Response	No. of Respondents	(%)
Yes	5	(50.0%)
No	3	(30.0%)
Do not know	2	(20.0%)

Effect of S-lanes on Trade (Q:17,18)

Table 4.11. shows that 60 per cent of respondents had experienced at least a small decrease since the introduction of S-lanes. Only one of the respondents who had experienced a loss of trade was prepared to estimate the proportion of trade lost. The drapery owner estimated that trade had declined by 5-10 per cent since the introduction of S-lanes. The other respondents were either not prepared to disclose this or not able to adequately estimate the loss in trade. One of these respondents made the comment that whilst trade had decreased, turnover had remained fairly consistent due to inflation, which is responsible for increasing prices of goods.

Overall, the effects of S-lanes on businesses in Gordon and Turramurra seems to be similar, but trade loss appears to have been more noticable in Leichhardt. The availability of off-street parking may be an important variable in explaining the difference in survey results.

Table 4.11. Effect of S-Lanes on Trade, Turramurra

Effect	No. of Respondents*	(%)
Great increase	0	(0.0%)
Small increase	0	(0.0%)
No change	3	(33.3%)
Small decrease	5	(55.6%)
Great decrease	1	(11.1%)

*The wool/craft shop began business after the introduction of S-Lanes.

Measures Taken to Adjust to S-lanes (Q:19,20)

Only two respondents had taken any measures to adjust to clearways (Table 4.12). The owner of the men's hairdressers decided to work more flexible trading hours but could not indicate whether this had been an effective measure. The gift shop owner intended providing a new rear advertising sign and improving an existing front fascia sign to attract additional passing trade. When compared with the other survey areas, the respondents in Gordon shopping centre have been the most active group in taking measures to adjust to the effects of S-lanes.

**Table 4.12. Have Measures Been Taken to Adjust to S-Lanes?
Turramurra**

Response	No. of Respondents	(%)
Yes	2	(20.0%)
No	8	(80.0%)

Response to Sustained Level of Trade (Q:21)

As seen from Table 4.13, none of the respondents intend to close down, relocate, or reduce staff if their current level of trade remains the same. These results seem to indicate that trade in Turramurra has not been sufficiently reduced as a result of S-lanes to prompt business operators to take ameliorative action. In Leichhardt and Gordon, to a lesser extent, a proportion of respondents indicated that they would take ameliorative action based on their current level of trade.

**Table 4.13. Response to Sustained Level of Trade
Turramurra**

Response	No. of Respondents	(%)
Continue as usual	8	(80.0%)
Close down	0	(0.0%)
Relocate	0	(0.0%)
Reduce Staff	0	(0.0%)
Expand/Upgrade	2	(20.0%)
Other	0	(0.0%)

Factors Responsible for a Decrease in Turnover (Q:22)

Figures 4.4. and 4.5. show the summary of responses and overall ranking of factors which are considered responsible for any decreases in turnover. Five factors were identified as contributing to a decrease in turnover and ranked as follows:

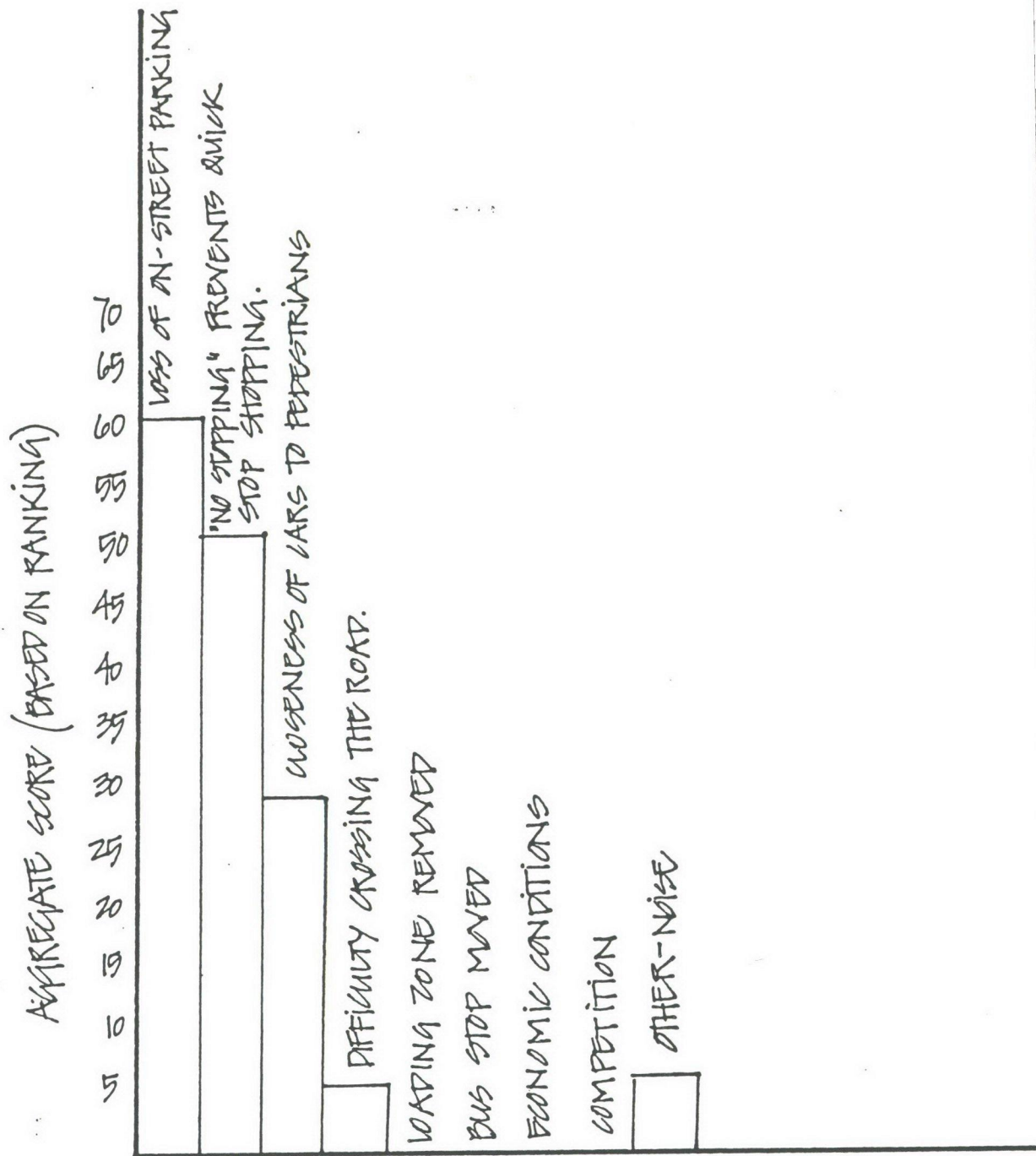


Figure 4.4. Factors Responsible for Decrease in Turnover, Turramurra

	LOSS OF ON-STREET PARKING	"NO STOPPING" PREVENTS QUICK STOP STOPPING	CLOSENESS OF CARS TO PEDESTRIANS	DIFFICULTY CROSSING THE ROAD	LOADING ZONE REMOVED	BUS STOP MOVED	ECONOMIC CONDITIONS	COMPETITION	OTHER	NOT APPLICABLE
LAND USE	A	B	C	D	E	F	G	H	I	
TENNIS	1									
CLOTHING	1		2							
GIFTS	1	2								
HAIR DRESSER	1	2	3	4						
BOOKS	1	1								
INTERIORS										*
CRAFT/WOOD										*
NAT. BANK	2	1	3							
SHOES										*
DRAPERY	1	2	3						noise	

Figure 4.5. Ranking of Factors Responsible for Decrease in Turnover, Turrumurra

- 1) loss of on-street parking;
- 2) "no stopping" prevents quick-stop shopping;
- 3) closeness of cars to pedestrians;
- 4) difficulty crossing the road; and
- 5) increased noise.

These results seem to indicate that parking, safety and amenity are the primary concerns of business operators arising from the introduction of S-lanes. These are the same concerns which were highly ranked in the results gained from Gordon and Leichhardt shopping centres.

Measures to Encourage the Continuation of Business (Q:23)

Figures 4.6. and 4.7. summarise the responses and show the ranking given to measures which would encourage respondents to continue operating their business. Only three business operators responded to this question, which seems to indicate that the remaining respondents intend to operate their business regardless of whether ameliorative measures are taken. The level of response in Leichhardt and Turramurra provides a clearer indication of suitable ameliorative measures for these areas.

Contributions for Ameliorative Measures (Q:24)

Only two respondents indicated a willingness to contribute to ameliorative measures. The shoe shop owner was prepared to contribute towards the provision of indicator signs, landscape improvements or improved building facades. The manager of the National Bank indicated a willingness to contribute towards the provision of an arcade, or walkways, to connect rear parking facilities with shops. These results suggest that the local business community is unlikely to assist authorities if any major attempt is made to upgrade the amenity of the shopping centre.

Responsible Authority (Q:25)

Only three business operators responded to the question of the appropriate authority for implementing improvements to the centre. The local Council, Department of Main Roads or a combination of the two, were the response gained from those business operators. The low response to this question was probably due to general lack of interest given to the prospect of carrying out ameliorative measures.

Summary of Respondents Comments (Q:29)

1. Interiors

There is plenty of rear parking available.

2. Men's Hairdresser and Tobacconist

No comments.

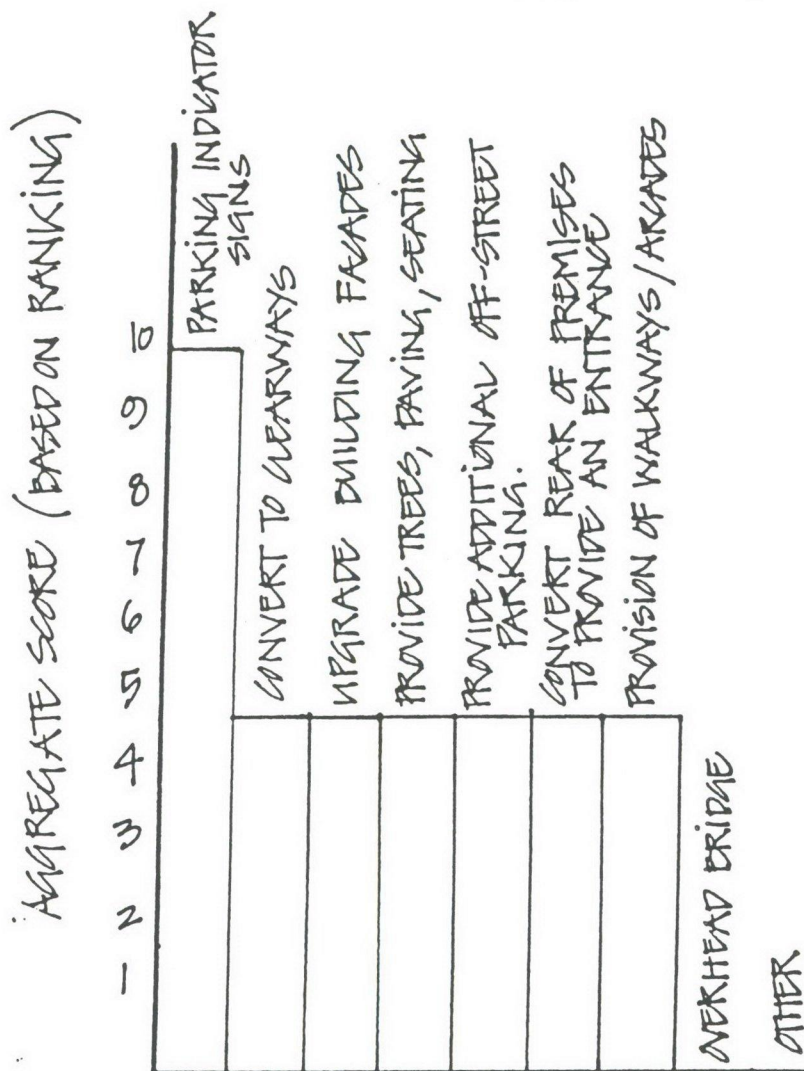


Figure 4.6. Measures Taken to Encourage the Continuation of Business, Turramurra

MEASURES TO ENCOURAGE THE CONTINUATION OF BUSINESS	PARKING INDICATOR SIGNS	CONVERT TO CLEARWAYS	UPGRADE BUILDING FACADES	PROVIDE TREES, PAVING, SEATING	PROVIDE ADDITIONAL OFF-STREET PARKING	CONVERT REAR OF PREMISES TO PROVIDE ENTRANCE	PROVIDE WALKWAYS/ ARCADES TO CONNECT SHOPS TO PARKING	PROVIDE AN OVERHEAD BRIDGE	OTHER
	A	B	C	D	E	F	G	H	I
TENNIS									N/A
CLOTHING									N/A
GIFTS									N/A
HAIRDRESSER									N/A
BOOKS									N/A
INTERIORS									N/A
CRAFTS/WOOD									N/A
NAT. BANK.	1.				1		1		
SHOES	1		1	1		1			
DRAPERY		1							

Figure 4.7. Ranking of Measures to Encourage the Continuation of Business, Turrumurra

3. Shoes

No comments

4. Books

Clearways have had more impact on business than S-lanes, the former have made it more impractical to park. The parking area at the rear of Coles, should have a time restriction placed on it to prevent commuters from filling up parking spaces which should be readily available for shoppers.

5. Drapery

Consultation - the Department of Main Roads did not adequately advise business operators about the introduction of S-lanes. Many accidents have occurred in which vehicles have mounted the kerb and have extensively damaged property. Strip shopping centres serve an important function for local residents, particularly the elderly, because they are close to home, provide personalised service, and are much smaller than major suburban shopping centres. Customers often comment on their fear of speeding vehicles moving close to the kerb.

Coles attracts a large number of customers to the centre.

The speed of passing traffic has increased since the introduction of S-lanes.

6. Wool/crafts

The northern side of the shopping centre, where S-lanes have been introduced is the most popular side of the shopping centre, since the majority of regular customers live on the northern side of the Pacific Highway. There is plenty of rear parking available. Safety is a problem for the elderly. A number of accidents have occurred since the introduction of S-lanes and have involved trucks.

7. Gifts

The speed of vehicles moving close to the kerb is unnerving. A proposal has been sent to the Department of Main Roads advocating the construction of a barricade along the footpath, to prevent any further accidents from occurring.

8. Women's Clothing

The speed at which vehicles are travelling close to the kerb is frightening for pedestrians, particularly the elderly.

The right-turning bay into Kissing Point Road is too short forcing right-turning traffic to overflow into the through-traffic lane in peak periods. This reduces the flow of through traffic.

9. Tennis supplies

State Government funds are poorly distributed. S-lanes prevent quick-stop shopping. There is a need to improve traffic signs for "parking", "S-lanes" and "right-hand turns".

S-lanes have created dangerous conditions for pedestrians and vehicles. This has resulted from the combination of increased vehicular speeds, the location of traffic signals, and the curvature of the road. A heavy vehicle recently went through the window of a nearby shop.



PLATE 4.1 REAR PARKING - SOUTHERN SIDE.
LARGE REAR PARKING AREA ON THE SOUTHERN
SIDE OF TURRAMURRA SHOPPING CENTRE.

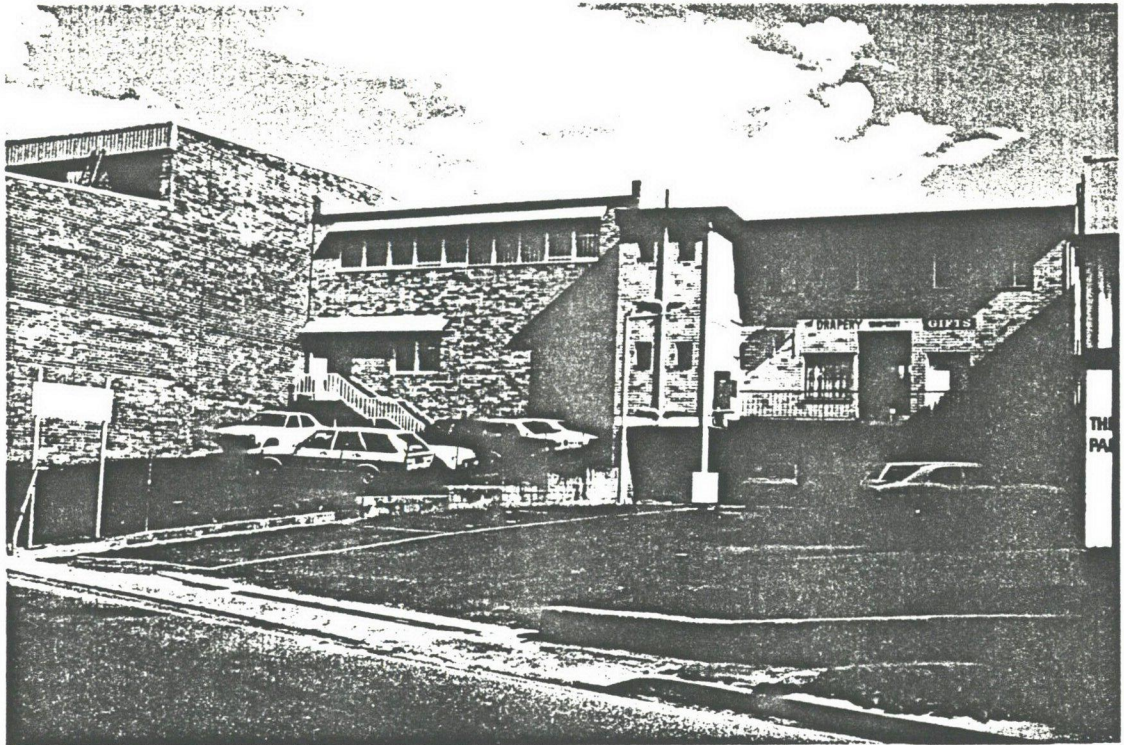


PLATE 4.2 REAR PARKING - NORTHERN SIDE.
PARKING IS AVAILABLE AT THE REAR OF SOME
SHOPS WITHIN THE AFFECTED AREA IF
TURRAMURRA SHOPPING CENTRE

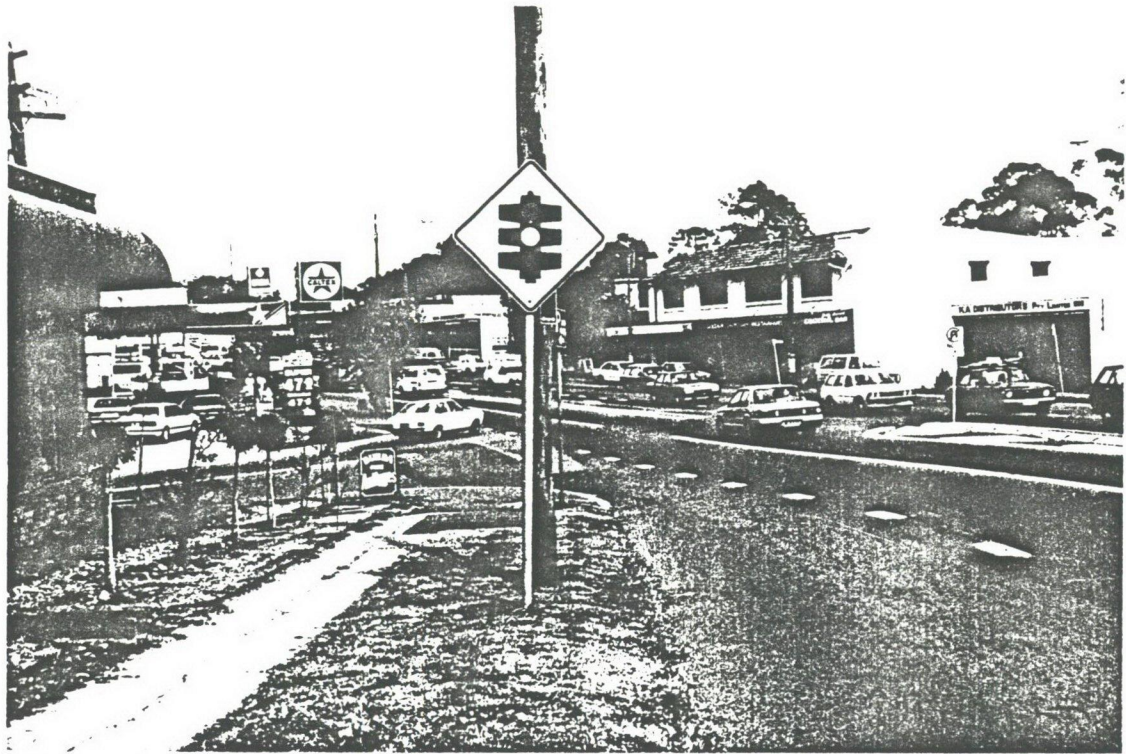


PLATE 4.3 NORTH WESTERN APPROACH.
THE NORTH-WESTERN APPROACH TO TIRRAMURRA
SHOPPING CENTRE, SHOWING THE CURVATURE
IN THE ROAD AS THE S-LANE APPROACHES
THE KERB.



PLATE 4.4 ROAD ALIGNMENT.
TURRAMURRA SHOPPING CENTRE. THE ALIGNMENT OF
THE ROAD AND THE PROXIMITY OF VEHICLES TO
THE KERB AND AWNINGS ARE CLAIMED TO BE
RESPONSIBLE FOR A NUMBER OF RECENT
ACCIDENTS, WHERE VEHICLES MOUNTED THE KERB
AND CAUSED EXTENSIVE DAMAGE TO PROPERTY.

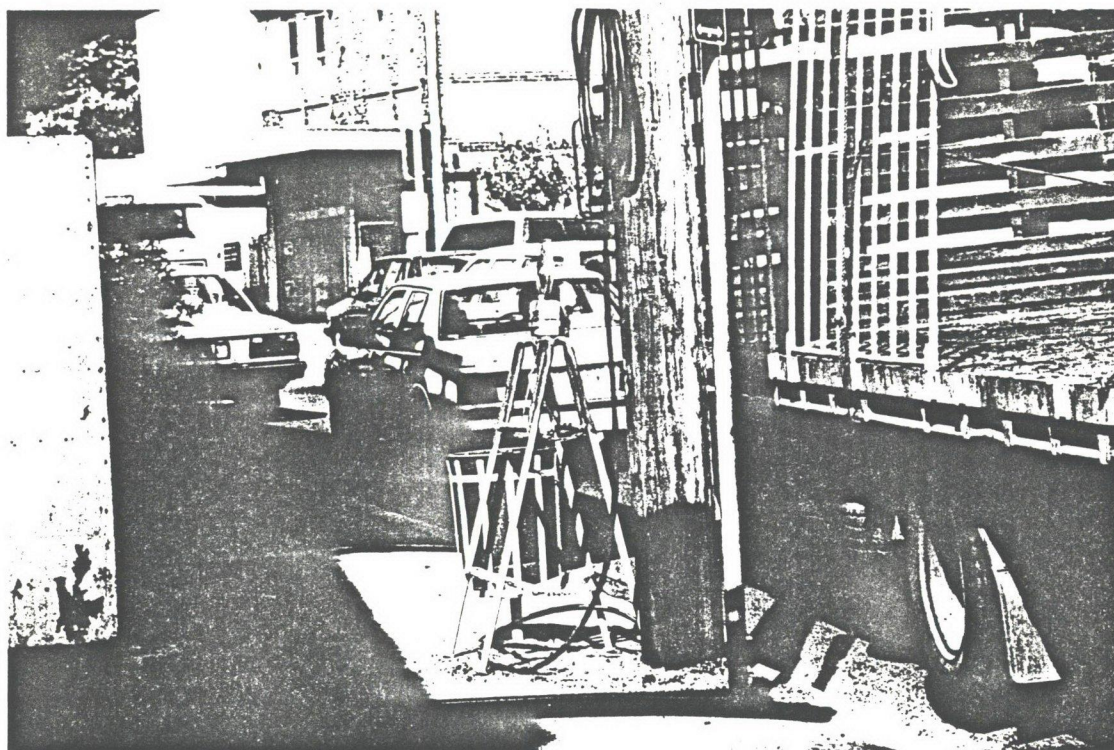


PLATE 4.5 PROXIMITY OF VEHICLES TO KERB.
PHOTO SHOWING THE CLOSE PROXIMITY OF HEAVY
VEHICLES TO THE KERB AND POWER POLES ALONG
THE PACIFIC HIGHWAY, TURRAMURRA.



PLATE 4.6 COMMUTER PARKING.

LARGE GROUND LEVEL CARPARK AT THE REAR OF TURRAMURRA SHOPPING CENTRE AND ADJACENT TO THE RAILWAY STATION. SHOP KEEPERS CLAIM THAT THIS CAR PARK IS USED PREDOMINANTLY BY COMMUTERS.



PLATE 4.7 RIGHT TURNING LANE.
PACIFIC HIGHWAY, TURRAMURRA, SHOWING
RIGHT HAND TURNING LANE INTO KISSING POINT
ROAD.



PLATE 4.8 PEDESTRIAN MOVEMENT.
ELDERLY PEDESTRIANS HAVE DIFFICULTY CROSSING
THE PACIFIC HIGHWAY. PHOTO SHOWS THE
CLOSE PROXIMITY OF MOVING VEHICLES AND
PEDESTRIANS.

CHAPTER 5

LEICHHARDT SHOPPING CENTRE

5.1 Leichhardt Shopping Centre - Description

Leichhardt shopping centre is located on the Parramatta Road, in the inner western suburbs of Sydney, approximately 6 kilometres from the CBD. The boundaries of the shopping centre are difficult to define as it forms part of a larger string of retail and commercial uses abutting Parramatta Road. In this study, Leichhardt shopping centre refers to the businesses on the northern side of Parramatta Road, with Norton Street forming its western boundary and Lowes clothing store forming its eastern boundary. The businesses located in this area are directly affected by the "no stopping" restrictions of S-lanes, as shown in Figure 5.1.

Leichhardt shopping centre was chosen as a study area because, like Gordon, it has been the subject of wide publicity and also there has been public protest, arising from the introduction of S-lanes. In the heyday of the tram, it also was a very popular shopping area, sometimes being referred to as the "golden mile" of Parramatta Road. The characteristics of the centre, and the social and physical environment in which it is set, offers a contrasting set of circumstances to those provided in the Gordon and Turramurra study areas.

Characteristics

Leichhardt shopping centre probably forms the hub of activity within a much larger strip-shopping area. The street width, building heights, and the speed and volume of the passing traffic, appear to create a much noisier and congested environment than that which exists in Gordon and Turramurra.

The range of land uses within the shopping centre is fairly typical of other similarly sized centres. It provides a balance of convenience stores, specialty shops and personal services (such as banks and travel agents). There is a strong ethnic influence throughout the centre as represented by some of its specialty shops (delicatessen, continental butchers). The shoppers themselves vary in age and ethnicity, contributing to a cosmopolitan atmosphere, when compared with the other surveyed areas.

The shopping centre supports five financial institutions which attract many customers to the centre. At the time of the survey, there were three vacant shops in the centre, two of which were previously jewellers. The survey results, and the appearance of some of the shops, suggest that they have been established for a long period and presumably have become local landmarks.

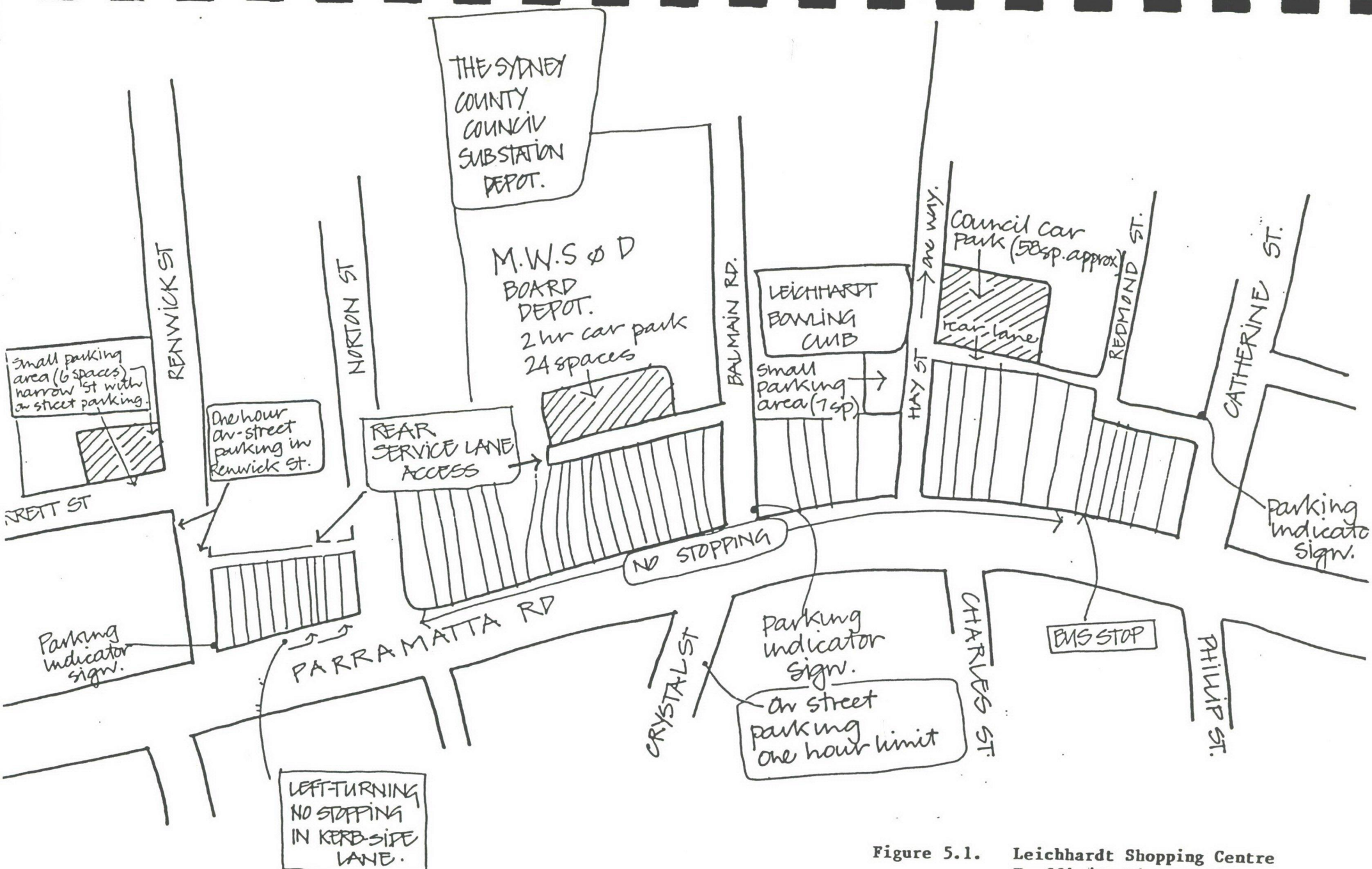


Figure 5.1. Leichhardt Shopping Centre Traffic/Parking Conditions North (not to scale)

Traffic Management

S-lanes were introduced to Leichhardt shopping centre in October, 1984, as part of an overall traffic management scheme, aimed at improving traffic flow in peak periods. The scheme was also devised to reduce accidents related to right-turning movements interrupting traffic flow in peak periods. Parramatta Road has been the subject of a range of traffic management measures, with clearways operating prior to the introduction of S-lanes.

The boundary of the survey area has been determined by the location of the S-lane, which has permitted a separate right-turning lane for east-bound traffic turning into Crystal Street and has resulted in the loss of on-street parking facilities.

Parking

The lack of adequate parking facilities was cited by both the Leichhardt shopkeepers and the Westgate Chamber of Commerce as being their primary concern. An inspection of the area surrounding the shopping centre reveals a surprising amount of rear parking, as shown in Figure 5.1. There are four separate car parking areas at the rear of the shopping centre, which provide approximately one hundred spaces. This includes the Council car park on the eastern side of Hay Street. In addition to this, there is on-street parking available in the side streets but this appears to be used by local residents and it is usually difficult for shoppers to obtain a car parking space easily.

In order to allow for the introduction of S-lanes, the Leichhardt Council and the Department of Main Roads entered into negotiations to provide additional car-parking spaces to replace the estimated 40 spaces lost in the Leichhardt area as a result of the introduction of S-lanes. Advice given by the Leichhardt Council confirmed that the Department of Main Roads had purchased the following properties for the purpose of providing additional parking. These properties are located at:

- a) the north-east corner of Renwick and Jarrett Streets. The car parking area has been completed and provides approximately 6 spaces;
- b) the southern side of the MWS&DB, which is located off Balmain Road. A recent site inspection reveals the provision of approximately 24 spaces at this location; and
- c) a house block immediately south of the Leichhardt Bowling Centre, which provides approximately 7 car spaces.

The Department of Main Roads has also arranged the leasing of 10 spaces from the Leichhardt Bowling Club, as temporary provision of parking. The cost of providing additional parking facilities in Leichhardt has been estimated to cost the DMR approximately \$1 million.

The rear parking facilities offered in Leichhardt are mostly small, poorly designed and uncoordinated. Access roads leading from Parramatta Road to the parking areas are generally narrow and parked with vehicles. There is no coherent circulation pattern. Pedestrian access from car-parking areas to shops is not clearly defined and is at some distance from the shops. Parking indicator signs have been provided at various locations as shown in Figure 5.1, but many shopkeepers argue that customers are not prepared to walk any distance from their cars to the shops. It is also considered by many shopkeepers that on-street parking has a much greater value to their business than any amount of rear parking. This is particularly relevant to convenience-related stores.

Loading

There are many problems associated with loading and unloading in the shopping centre. The introduction of S-lanes has prohibited the carrying out of on-street loading activities. Many shopkeepers do not have rear-lane access and are forced to illegally unload goods, on-street. This is a particularly difficult situation in the case of large and bulky goods (such as meat carcasses, or kegs for hotels). No alternative measures have yet been introduced to overcome this problem. Diagram shows those properties which do have rear service lane access. Many of these properties have not made provisions for service vehicle access, and, as such, still depend on on-street deliveries.

Visual Analysis

The appearance of Leichhardt shopping centre has very little to distinguish it from the adjoining string of retail uses also straddling Parramatta Road. The buildings are mostly two storey with ground floor retailing. The upper floors appear to be used mainly for residential purposes. The buildings vary in architectural style and condition. The streetscape presents a mixture of both historical and modern building facades. Several buildings, constructed in the late nineteenth century or the earlier part of this century, would seem to be of some heritage significance. The upgrading of these buildings could dramatically improve the existing streetscape. Some historical buildings have been renovated with flat and modern facades. Several buildings have resulted from redevelopment or extensive renovation (for example, some of the banks and building societies). The shopping centre is also characterised by an abundance of advertising and traffic related signs, varying in size and quality, and without any appearance of coordination or consistency. There is a complete absence of street planting or paving within the shopping centre.

5.2. Survey Response

There are a total of 34 individual businesses which are directly adjacent to the "no stopping" area introduced to accommodate S-lanes. Three of these properties were vacant at the time of the

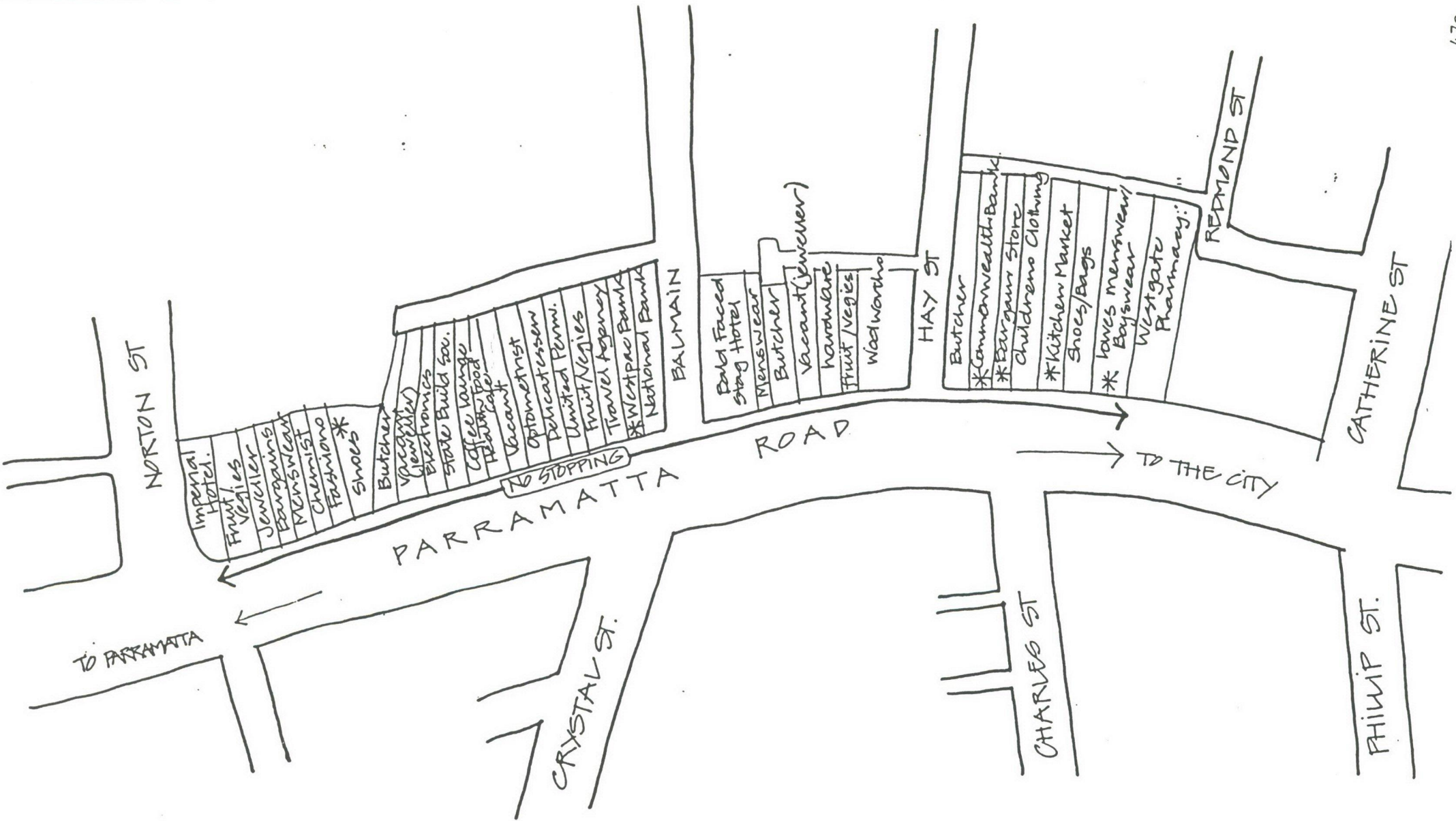


Figure 5.2. Shops and Services Adjacent to S-Lane, Parramatta Road, Leichhardt, 1986

survey, leaving 31 businesses available for the survey. Of these, 6 business operators did not respond to the surveys. This represents a response rate of 81 per cent. Those businesses which did not provide a response are shown with an asterisk (*) on Figure 5.2.

Table 5.1. shows that the survey responses are slightly biased in favour of the retail-convenience group of land uses, in which there was 100 per cent response rate. Within the other two land-use categories there are comparable proportions which did not respond to the surveys. This bias in the survey response level probably reflects that the retail-convenience category (which includes, for example, cafes, fruit shops and butcher shops) appear to be the type of uses which have experienced the worst effects from the introduction of S-lanes. Presumably, such shopkeepers are likely to be keener than others to express their concerns in relation to traffic- and parking-related matters.

Table 5.1. Response Rate by Land-Use Type, Leichhardt

Land-Use Type	Response (%)		Non-Response (%)	
Retail convenience	12	(38.7%)	0	(0.0%)
Retail comparison	8	(25.8%)	4	(12.9%)
Services	5	(16.1%)	2	(6.5%)
	25	(80.6%)	6	(19.4%)

Land-Use Change (Q:1, 2, 3)

Table 5.2. shows the length of time in which businesses have been operating in Leichhardt Shopping Centre. A substantial proportion (24 per cent) have been operating at the current location for one year or less. One-fifth of the respondents indicated that they had been operating their business more than one year and less than five years. A number of established businesses may have closed down in recent years, to be replaced by these relatively newer ones. Twenty eight per cent of respondents have been operating their businesses more than 5 and less than 10 years. The remaining twenty four per cent have been in business, in Leichhardt, for over ten years.

From these survey results there seems to be a fairly even distribution of short- and long-term business operators in the centre, which is a reflection of both the long- established nature of the shopping centre and the more recent decline in popularity of strip-shopping centres on busy roads, reflected in a substitution of older land-use activities with newer ones.

Table 5.2. Land-Use Change in Leichhardt

Existing Use	Time of Operation	Previous Landuse	Reasons for Locating There
1. Hotel (Imperial)	9 years	same (hotel)	good viable business
2. Fruit/Vegies	16 years	same (fruit)	good area/business
3. Jewellery (retail & manufact.)	3 months	Bags	moved to improved premises from across the road
4. Bargain Store (Clothes/knicknacks)	3 years	Carpet Store	Leichhardt is the best section of Parramatta Road
5. Menswear	2 years	Clothing	one of 2 Shops - other at the Hilton
6. Chemist	8 years	same	considered a 'stupid' decision in retrospect
7. Fashion (mens, womens, children)	7 months	Clothing ((Clarkes)	part of a chain of stores - all located on main roads
8. Butcher/small goods	8 months	Butchery	vacant shop - seemed to be a good place for a business
9. Tandy Electronics	1 year	same for 4 years	current owner worked with firm for years
10. Coffee Lounge	18 years	unknown	considered a good location
11. Health Cafe	5 months	Video shop	level of pedestrian traffic. Individual atmosphere
12. Optometrist	4 years	same	convenient location Italian-speaking population
13. United Permanent	2 years	Finance Company	head office decision
14. Fruit shop	4 years	same	passing trade
15. Travel Agent	6 years	same	type of business suited the area
16. National Bank	38 years	unknown	(no reason given)
17. Hotel (Bald Faced Stag)	7 years	same	level of traffic on Parramatta Road
18. Menswear (Las Vegas)	3 years		reasonable rental, bus stop at front premises available

(Table 5.2. continues)

Table 5.2. continues

Existing Use	Time of Operation	Previous Landuse	Reasons for Locating There
19. Butcher	1 year	same	previously employed in business
20. Hardware	35 years	hardware	no specific reason; owned three other stores in area
21. Fruit/Vegies	7 years	unknown	unknown
22. Woolworths Variety	50 years	unknown	Parramatta Road
23. Butcher (cnr)	10 years	same	liked the area
24. Childrens Wear	17 years	unknown	busy spot at the time
25. Shoes	7 years	same	previous business had high turnover; personal reasons.

Tenure (Q:4)

The majority of respondents are renting their premises (76 per cent). Only six business operators own their premises. These include such businesses as: the Imperial Hotel, chemist, coffee lounge, National Bank, butcher and hardware store. A common feature of these owner-occupied businesses is that they have been operating in the centre for more than 10 years, with the exception of the Hotel and Chemist which have been established by the same owner for 9 years and 1 year, respectively. It could be assumed that a much higher turnover rate exists amongst rented businesses in comparison to those which are owner-occupied. The extent of land use change and the stability of a centre may be related to the proportion of owner-occupied premises. It could be assumed that a higher proportion of owner-occupiers could mean that the local business operators have a higher vested interest in sustaining the viability of the centre.

Changes in Turnover (Q:5)

Table 5.3. shows the extent of recent changes in turnover. It is difficult to draw conclusions from these results, which show that a substantial number of respondents fall into each category, with the exception that no one had indicated a great increase in turnover. Of those who had experienced a decrease in turnover, 28 per cent of the total number of respondents described the magnitude of this change as 'great'. Forty per cent had experienced at least a small decrease in turnover which appears to indicate that a significant portion of shopkeepers are undergoing some measure of economic difficulty. A continuation

of this trend in reduced turnover may represent an overall decline in trading activity in the centre.

**Table 5.3. Change in Retail Turnover, 1985-86,
Leichhardt**

Extent of Change	Number	(%)
Great increase	0	(0.0%)
Small increase	6	(24.0%)
No change	9	(36.0%)
Small decrease	3	(12.0%)
Great decrease	7	(28.0%)

Reasons for Change in Turnover (Q:6)

Figure 5.3. gives the aggregate scores resulting from ranking of reasons and shows that parking was considered the main reason for change in turnover. Factors other than those listed on the survey form were next as being responsible for recent changes in turnover. This seems to indicate that a variety of factors (unrelated to traffic and parking) have a significant effect on changes in turnover. These factors are specific to the type of business and its mode of operation.

Economic conditions and traffic conditions were ranked equally whilst competition was ranked low in comparison to other factors. These survey results show that a range of factors is responsible for changes in turnover, some affecting trade more than others. They also reveal that factors unrelated to traffic and parking can also significantly affect trade. The issue of parking, however, figures most prominently as the reason for decline in trade. Figure 5.4. shows the specific responses, and ranking, identified by individual business operators who had experienced a recent change in turnover.

Response to Change in Turnover (Q:7, 8)

Of those respondents who had experienced an increase in turnover, 72 per cent planned to continue their business as usual. Table 5.4. shows that the remaining respondents plan to expand/improve premises, or concentrate on wholesale operations. These survey results seem to indicate that whilst trade improves, shopkeepers are not likely to want to relocate or close down for any other reason.

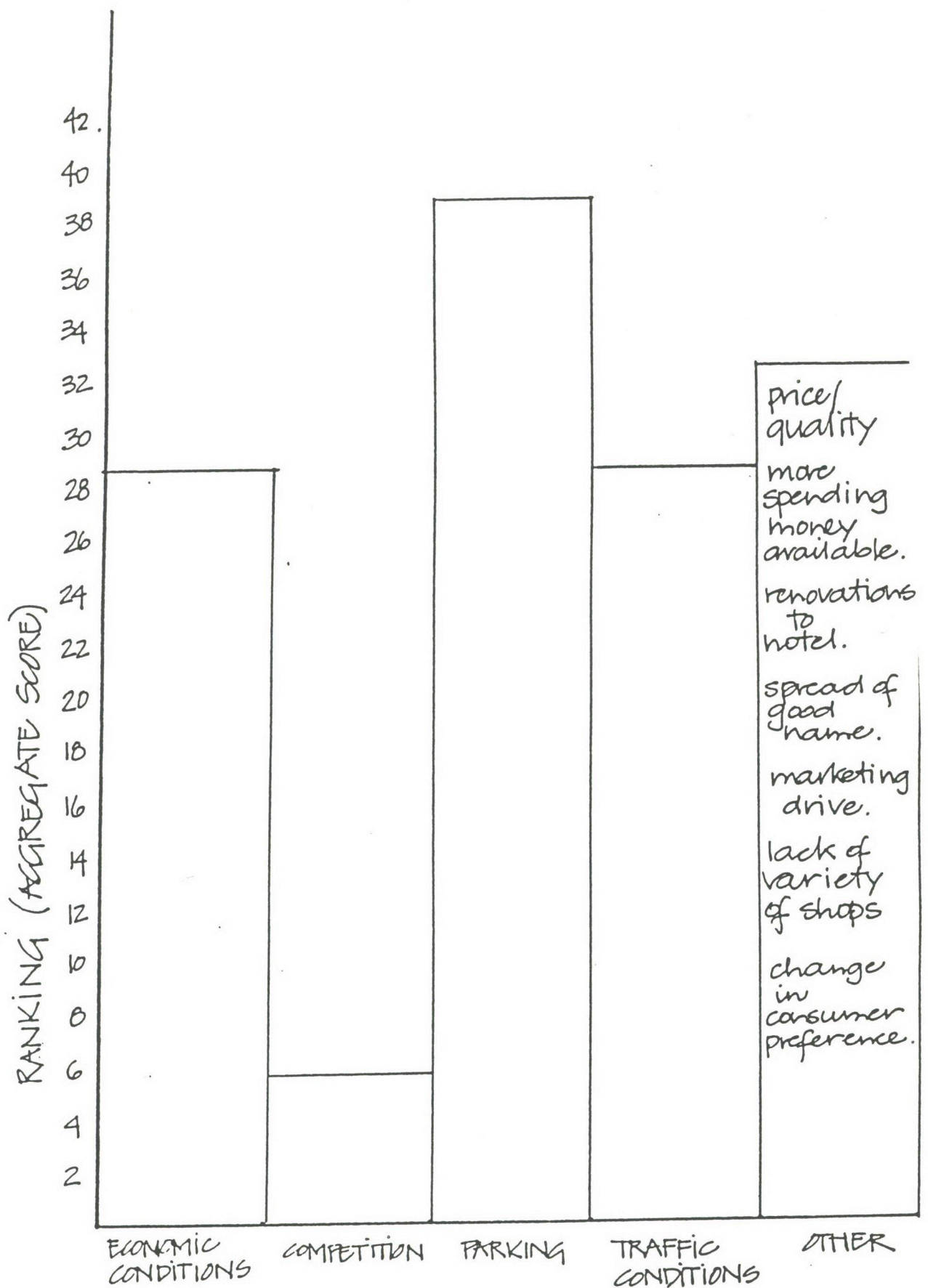


Figure 5.3. Reasons for Change in Turnover
Leichhardt Shopping Centre

Table 5.4. Response to Recent Increases in Turnover, Leichhardt

Response	Number	(%)
Continue as usual	5	(71.4%)
Expand/Improve premises	1	(14.3%)
Increase staff	0	(0.0%)
Improve inventory	0	(0.0%)
Other*	1	(14.3%)

* Butcher to concentrate on wholesale operations

Of those respondents who had experienced decreased turnover (Table 5.5), 50 per cent indicated that they would still continue to operate their business as usual. The remaining respondents intended relocating, closing down or reducing staff. The type of land uses affected to this extent include mostly convenience stores (fruit shop, chemist, health cafe) or lower end of the market shops (hardware, fashion). Out of the 24 respondents interviewed, three have immediate plans to close down or relocate. Several shopkeepers commented that they would like to relocate but the costs involved in doing so are prohibitive. Another shopkeeper commented that he would like to close down but cannot afford to retire yet.

Table 5.5. Response to Recent Decreases in Turnover, Leichhardt

Response	Number	(%)
Continue as usual	5	(50.0%)
Relocate	1	(10.0%)
Close down	2	(20.0%)
Reduce staff	2	(20.0%)
Increase trading hours	0	(0.0%)

Trade Catchment (Q:9)

The survey results in Table 5.6. show that Leichhardt Shopping Centre is a predominantly local shopping centre. Shopkeepers commented that the reason for this was that local people were forced to walk to the shops, either because of lack of parking or not having access to a car.

Leichhardt Shopping Centre, with its many Italian shopkeepers and specialist food shops (such as continental delicatessen and butchers), serves an important cultural and community function. The shopping population is diversified, with a noticeable proportion of ethnic and elderly shoppers, which is a reflection of the local population's social and cultural makeup. The

REASONS FOR CHANGE IN TURNOVER

LANDUSE	ECONOMIC CONDITIONS	COMPETITION	PARKING	TRAFFIC CONDITIONS	OTHER
SMALL INCREASE IN TURNOVER					
BUTCHERY/ SMALLGOODS	2.		3		1. price quality
TANDY ELECTRONICS	1.				2. more spend money
BALD FACED STAG HOTEL					1. renovation to hotel
MENSWEAR					
OPTOMETRIST					1. spread good word
UNITED PERMANENT	2.				1. mark drive
SMALL DECREASE IN TURNOVER					
FASHION			1. lack of		2. lack variety of shops
BUTCHER					changing consumer preference
BUTCHER			1.	2.	

Figure 5.4. Continued

REASONS FOR CHANGE IN TURNOVER

LANDUSE	ECONOMIC CONDITIONS	COMPETITION	PARKING.	TRAFFIC CONDITIONS	OTHER
	GREAT	DECREASE	IN TURNOVER		
FRUIT/ VEGIES				1. 24hr clearway	
CHEMIST			2.		
COFFEE LOUNGE.	3.		1.	2.	
HEALTH CAFE	2.	4.	3.	1.	
FRUIT/ VEGIES	3		1.	2.	
HARDWARE	3.	4	2.	1	
SHOES	3.	4.	1	2.	.

Note: Ranking in boxes

Figure 5.4. Individual Comments on Reasons for a Change in Turnover, Leichhardt

function of a strip-shopping centre such as Leichhardt is therefore interwoven with the local community.

Table 5.6. Approximate Proportion of Local Trade by Individual Businesses, Leichhardt

Amount	Number	(%)
More than three-quarters	10	(40.0%)
Three-quarters	9	(36.0%)
Half	4	(16.0%)
One-quarter	1	(4.0%)
Less than one-quarter	1	(4.0%)

Linked Trip (Q:10)

Just over half the respondents indicated that their customers visit a number of businesses when visiting the shopping centre (Table 5.7). This may indicate that a similar proportion of stores serve a local, or convenience, shopping function. The shopping centre is largely supported by local people carrying out their day-to-day shopping.

Approximately 36 per cent of the respondents indicated that shoppers come to the centre especially for their business. This would indicate that Leichhardt also has a number of specialty shops to which people are prepared to make a specific visit.

Several shopkeepers described many of their customers as passing trade. The presence of a number of doctors and dentists offices in Norton Street was said to attract customers to the shop. Land-use controls which encourage a mixture of retail, office uses and consulting rooms, may help to maintain the viability of strip-shopping centres in the future.

Table 5.7. Perceived Extent of Trip Linking, Leichhardt

Type of Trip	No. of Respondents	(%)
Multi trip	14	(56.0%)
Single trip	9	(36.0%)
Mixture	0	(0.0%)
Do not know	2	(8.0%)

Pedestrian Movement Across the Road (Q:11)

Overall, the survey results (Table 5.8.) show that few pedestrians cross Parramatta Road to shops on the southern side. Business operators commented that it was too dangerous for pedestrians (particularly elderly people) to cross the road.

Most shopkeepers said that pedestrians only cross the road for specific purposes but were unlikely to do so just to browse at the shops. The northern side of Parramatta Road (the area covered by the survey) was said to offer shoppers more facilities, such as rear parking and quality shops. The southern side of the road was considered less attractive. These results, and shopkeepers' comments, indicate that the level of trade and pedestrian activity is higher on one side of Parramatta Road than the other within the Leichhardt Shopping Centre.

Table 5.8. Perception of Pedestrian Movement Across the Road, Leichhardt

Pedestrian Movement	No. of Respondents	(%)
Many cross	7	(28.0%)
Few cross	13	(52.0%)
None cross	1	(4.0%)
Do not know	4	(16.0%)

Effect of Clearways on Trade (Q:12, 13)

Table 5.9. confirms that the majority of respondents (76 per cent) considered that clearways had brought about decreased business activity. A range of responses was given to the question of the proportion of trade lost as a result of the clearways. The responses were as follows:

Imperial Hotel	Not stated
Fruit/Vegies	50 per cent
Jewellery	Nil
Bargains	Nil, bus stop outside has maintained trade
Menswear	Don't know
Chemist	Don't know
Fashion	Don't know
Butcher	Butcher
Tandy Electronics	25 per cent
Coffee Lounge	50 per cent
Health Cafe	30 per cent
Optometrist	Minimal
United Permanent	High
Travel Agent	1 per cent - 2 per cent
National Bank	5 per cent
Hotel (Bald Faced Stag)	25 per cent - 30 pr cent
Menswear	25 per cent
Butcher	20 per cent
Hardware	Decreased, but cannot quantify
Woolworths	Decreased, but cannot quantify
Butcher	Don't know
Children's Wear	30 per cent
Shoes	20 per cent

Eleven respondents were able to quantify the proportion of their trade lost since the introduction of S-lanes. On average, a trade loss of 25 per cent was perceived to have occurred. Respondents had indicated a loss of trade in excess of 30 per cent. Two fruit shops and the Coffee Lounge put their trade loss at 50 per cent.

Of the remaining respondents, four indicated no loss of trade, whilst the others either did not know what the effect had been, or how to quantify it.

Table 5.9. Effect of Clearways on Trade, Leichhardt

Effect	No. of Respondents	(%)
Decreased trade	19	(76.0%)
No effect	4	(16.0%)
Not applicable	0	(0.0%)
Do not know	2	(8.0%)

Measures Taken to Adjust to Clearways (Q:14, 15)

A proportion (28 per cent) of respondents have taken measures to adjust to clearways. The measures taken, and perceptions of their effectiveness, are summarised in Table 5.10:

Table 5.10. Measures Taken on Perception of Effectiveness to Adjust to Clearways, Leichhardt

Land use	Measure	Effectiveness
1. Fruit/Vegies (next to Imperial Hotel)	protest tried every measure except violence	ineffective. Because parking insufficient to cope with numbers of people attracted to the area because of special- isation
2. Chemist	reduced staff	effective
3. Health Cafe	provided parking	ineffective
4. United Permanent	Marketing, visiting clients	effective; small increase in trade
5. Hotel (Bald Faced Stag)	Protests; contribution of funds	effective; bus stop moved to provide some parking

(Table 5.10. continues)

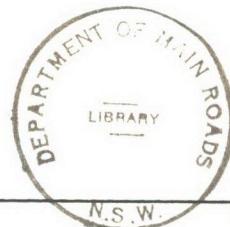


Table 5.10. continued

Land use	Measure	Effectiveness
6. Hardware	attended Chamber of Commerce meetings	ineffective
7. Woolworths	improve direct marketing	partially effective

Overall, few business operators have taken measures to adjust to the effects of clearways. There is a feeling of resignation amongst shopkeepers regarding the effects of clearways. Most respondents felt as if they could not change the situation regardless of the efforts they might make.

Clearways vs S Lanes (Q:16)

As seen from Table 5.11., about half of the respondents considered clearways preferable to S-lanes. A range of reasons were given for this and can be summarised as:

- a) clearways provide parking during working hours;
- b) S-lanes have resulted in increased traffic speeds;
- c) clearways are safer for drivers and pedestrians;
- d) S-lanes prevent on-street loading and stopping; and
- e) shoppers prefer on-street parking because they are not prepared to walk far (from parked car) unless they are shopping for a specific item.

The three main issues which arise out of these comments concern loading, parking and safety.

Forty per cent of respondents commented that they did not know which measure was preferable. It appears from these respondents comments that they could not identify one measure as preferable because they considered both to have negative affects on trade.

Table 5.11. Are Clearways Preferable to S-Lanes?
Leichhardt

Response	No. of Respondents	(%)
Yes	13	(52.0%)
No	2	(8.0%)
Do not know	10	(40.0%)

Effect of S Lanes on Trade (Q:17, 18)

Table 5.12. shows that a large proportion (64 per cent) of respondents perceived at least a small decrease in trade since the introduction of S-lanes. Thirty six per cent of respondents indicated that a 'great decrease' in trade had occurred. With the exception of clothing stores, Tandy electronics, and hardware, the type of retail uses most affected by S-lanes appear to be those which sell convenience items (such as fruit shop, coffee lounge, chemist).

In some cases, shopkeepers were confused by the label of S-lanes and clearways. It is also difficult to obtain valid responses to questions relating to measures which previously existed, such as clearways.

The most resilient businesses seem to be those which have consistently been successful. It appears that the land uses most affected by traffic management are those which had marginal profitability, sell mostly convenience items, or depend largely on passing trade.

Table 5.12. Effects of S-Lanes on Trade, Leichhardt

Effect	No. of Respondents	(%)
Great increase	0	(0.0%)
Small increase	1	(4.0%)
No change	8	(32.0%)
Small decrease	7	(28.0%)
Great decrease	9	(36.0%)

Of those business operators who had experienced a decline in trade, only 56 per cent were prepared to estimate the proportion of trade lost. The relevant responses were as follows:

Tandy Electronics	25 per cent
Fruit shop	50 per cent
Imperial Hotel	50 per cent
Coffee Lounge	50 per cent
Fruit shop	50 per cent
Hotel (Bald Faced Stag)	20 per cent
Butcher	20 per cent
Childrens' Wear	30 per cent or more
Shoes	20 per cent

These results represent an average loss of 24 per cent in turnover/trade since the introduction of S-lanes. The four businesses which indicated a 50 per cent loss in trade have been most dramatically affected and presumably have a high dependency on passing trade.

Many of the shopkeepers (64 per cent) who had experienced a decline in trade were not prepared to estimate the proportion of trade which had been lost. Some business operators even mentioned other factors, such as economic conditions, competition, market trends, and skills of the business operators, which can also affect changes in trade level. Of the three study areas, Leichhardt businesses seem to be most affected by the introduction of S-lanes.

The proprietor of the Imperial Hotel estimated a loss of \$6000 per week in bottle shop sales since S-lanes were introduced. This, combined with 10 per cent liquor tax and staff salary rises, have forced the owner to retrench several staff members to reduce the effects of loss in trade. The owners have also faced traffic fines for unloading goods (kegs) where 'no stopping' signs exist. Loading and unloading was identified by the owner as a major problem resulting from the introduction of S-lanes.

Measures Taken to Adjust to S-Lanes (Q:19, 20)

Only one respondent had taken any action to adjust to the effects of S-lanes. Woolworths Variety store manager had attempted to improve direct marketing (such as window displays) and has considered this partially effective in adjusting to the effects of S-lanes. Many business operators expressed the view that the only effective actions would be breaking the law. Most business operators feel that they have no power to bring about favourable changes to the current traffic management situation.

Response to Sustained Level of Trade (Q:21)

Table 5.13. shows that 10 business operators intend taking ameliorative action if their current level of turnover remained the same. Half of these shopkeepers intend closing down whilst the other half indicated that they would reduce staff. This represents 40 per cent of respondents who are currently dissatisfied with their trade levels to such an extent that they will be forced to take action in the future. Several shopkeepers commented that although their businesses are giving poor returns they would continue as usual as it is both difficult and expensive to relocate. These comments may explain why no one indicated an intention to relocate.

The five businesses which may close down if trade does not improve represent some of the longest established businesses within the shopping centre. The hardware store has been operating for 35 years, the coffee lounge for 18 years, the shoe shop for 7 years, and the fruit/vegies for 16 years. The loss of these long-established businesses in the short term is likely to have noticeable effects on local shopping patterns. Many regular customers who like the personalised service of such a centre may choose to shop elsewhere if some of these landmarks were to close down. On the other hand, there is a possibility that the closure of some shops may be substituted by the opening of a different type of shop (in both appearance and function) which may capture a new sector of the market. Such land-use

changes may, for instance, complement some of the changes occurring in the social composition of the local populations of Annandale and Leichhardt. The gentrification of Paddington, and the subsequent revitalisation of its strip-shopping centre, is one such example of where these changes have successfully occurred.

Table 5.13. Response to Sustained Level of Trade, Leichhardt

Response	No. of Respondents	(%)
Continue as usual	14	(56.0%)
Close down	5	(20.0%)
Relocate	0	(0.0%)
Reduce staff	5	(20.0%)
Expand/upgrade	1	(4.0%)

Despite these successes in a place such as Paddington, it is difficult to know whether Leichhardt Shopping Centre, with its heavier traffic flow on Parramatta Road, is likely to offer a suitable environment for revitalisation. Of those land uses which have recently been located in the Leichhardt area; some (for example; the Health Cafe and Fashion Store) are struggling to survive whilst others (Butcher/Smallgoods, Jewellery, Bargains) appear to be rather successful businesses. Based on this it is difficult to assess what effects the closure of certain businesses will have on the overall viability of the shopping centre in the longer term.

Factors Responsible for Decrease in Turnover (Q:22)

Figures 5.5. and 5.6. show a summary of responses and the ranking given to those factors which were considered responsible for a decrease in turnover. The aggregate score for each factor is calculated from each ranking being given a score (for example, a ranking of one received a score of 8 points).

The results of the surveys show that the loss of on-street parking was ranked highest, above any other factor in being responsible for a decline in turnover. The prevention of quick-stop shopping, and the proximity of cars to pedestrians, were also ranked highly. The impact of the loss of on-street parking appears greater in Leichhardt than the other two survey areas because of comparative lack of easily accessible rear-parking facilities. The rear-parking facilities which do exist in Leichhardt are scattered, with access being gained from narrow back streets.

These survey results also provide some direction as to the area in which improvements need to be made in an attempt to ameliorate the negative effects of S-lanes. Such improvements, however, may be prevented by the physical constraints of the location, such as the lack of suitably placed vacant or developable

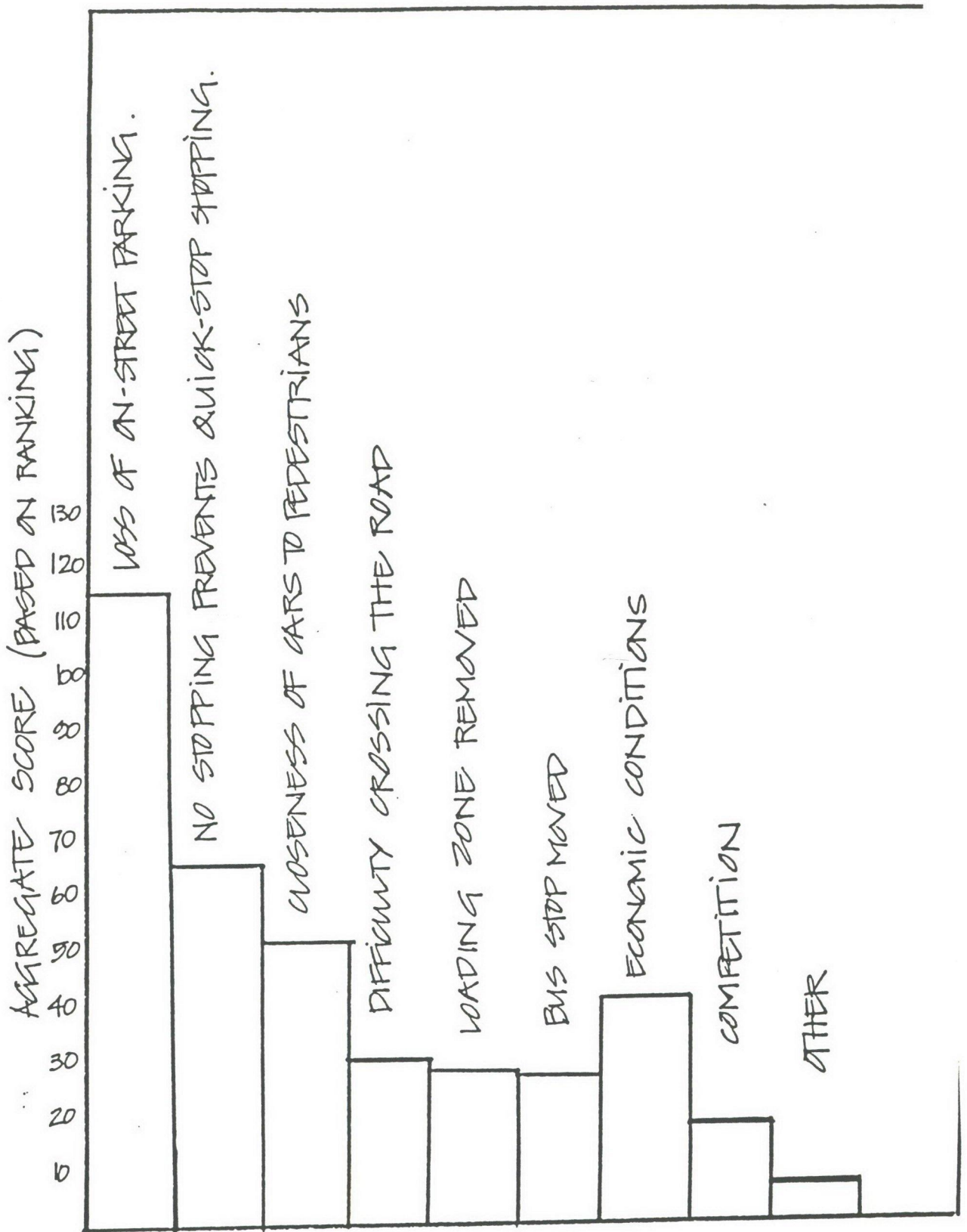


Figure 5.5. Factors Responsible for Change in Turnover
Leichhardt

LANDUSE	LOSS OF ON-STREET PARKING	NO STOPPING PREVENTS QUICK STOP SHOPPING.	CLOSENESS OF CARS TO PEDESTRIANS	DIFFICULTY CROSSING THE ROAD	LOADING ZONE REMOVED	BUS STOP MOVED	ECONOMIC CONDITIONS	COMPETITION	OTHER	NOT APPLICABLE
	A	B	C	D	E	F	G	H	I	
Tandys	1									
Butcher	1	2		3						
Fashion	1	2	3							
Chemist	1	2				3				
Menswear	1			2					3	
Bargains							1	2		
Jewellery										*
Fruit	2	1	3							
Coffee lngc.	1	2	3	4	5	6	7			
Hotel.	1	2	4		3					
Health Cafe.	3		1				2			
Unit. Perm										*
Optomet.										*
Nat. Bank.										*
Travel.										*
Fruit shop.	1						2	3		
Hotel (B.F.S)	1		5	3	4	2				*
Menswear										
Butcher	1	2	3	5	4	7	6	8		
Hardware	1	3	4		2			5		
Fruit Shop										*
Wardworths	2	5	4	6		1	3			*
Butcher										
Children's wear	1	2					3			
Shoes.										

Figure 5.6. Ranking of Factors Responsible for Decrease in Turnover, Leichhardt

property, for the purpose of providing additional car-parking facilities.

Measures to Encourage the Continuation of Business (Q:23)

Figures 5.7. and 5.8. summarise responses, and the overall ranking of measurements which business operators consider would encourage them to continue operating their businesses at the present location. Figure 5.7. shows the aggregate scores given to each of these measurements based on the ranking given by the respondents. Both figures show that the provision of additional off-street parking ranked highest as a preferred measurement to be introduced. This was followed, in preference, by the provision of parking indicator signs and the conversion of S-lanes back to clearways.

These results provide the relevant authorities with an indication of ameliorative measures which are likely to ensure the continued viability of the shopping centre. Since only about half of the respondents identified and ranked these measures, care needs to be taken in interpreting these results with the view to implementing the highest-ranked option.

Those respondents who considered the question not applicable generally did so because they had no intention of closing down or relocating their businesses. The Coffee Lounge owner, despite experiencing declining turnover, indicated that he was forced to continue operating his business since he had debts to pay and no one would consider buying his property.

Contributions Towards Ameliorative Measures (Q:24)

The hatched area in Figure 5.9. shows those measures for which specific business operators would be prepared to pay a contribution towards, to ensure that they are implemented. A minority of respondents (28 per cent) were prepared to pay contributions. Many business operators took the view that they were not responsible for changes in traffic management and therefore should not have to pay contributions towards reducing the impacts of these changes.

Of those prepared to pay a contribution, only one respondent did not identify the provision of additional off-street parking as an appropriate way to spend the contribution. This seems to be consistent with survey results from other study areas which favoured additional off-street parking as an appropriate ameliorative measure. One business operator commented that he considered it the property owner's, rather than the tenant's, responsibility to pay contributions towards measures which are likely to improve property values. Another shopkeeper (Chemist) indicated that he would be prepared to pay contributions if he was given a written guarantee that the funds would be spent on the specified measures. This scepticism seems to derive from a general concern by shopkeepers that parking contributions paid to Council had not been spent on providing additional parking in the shopping centre.

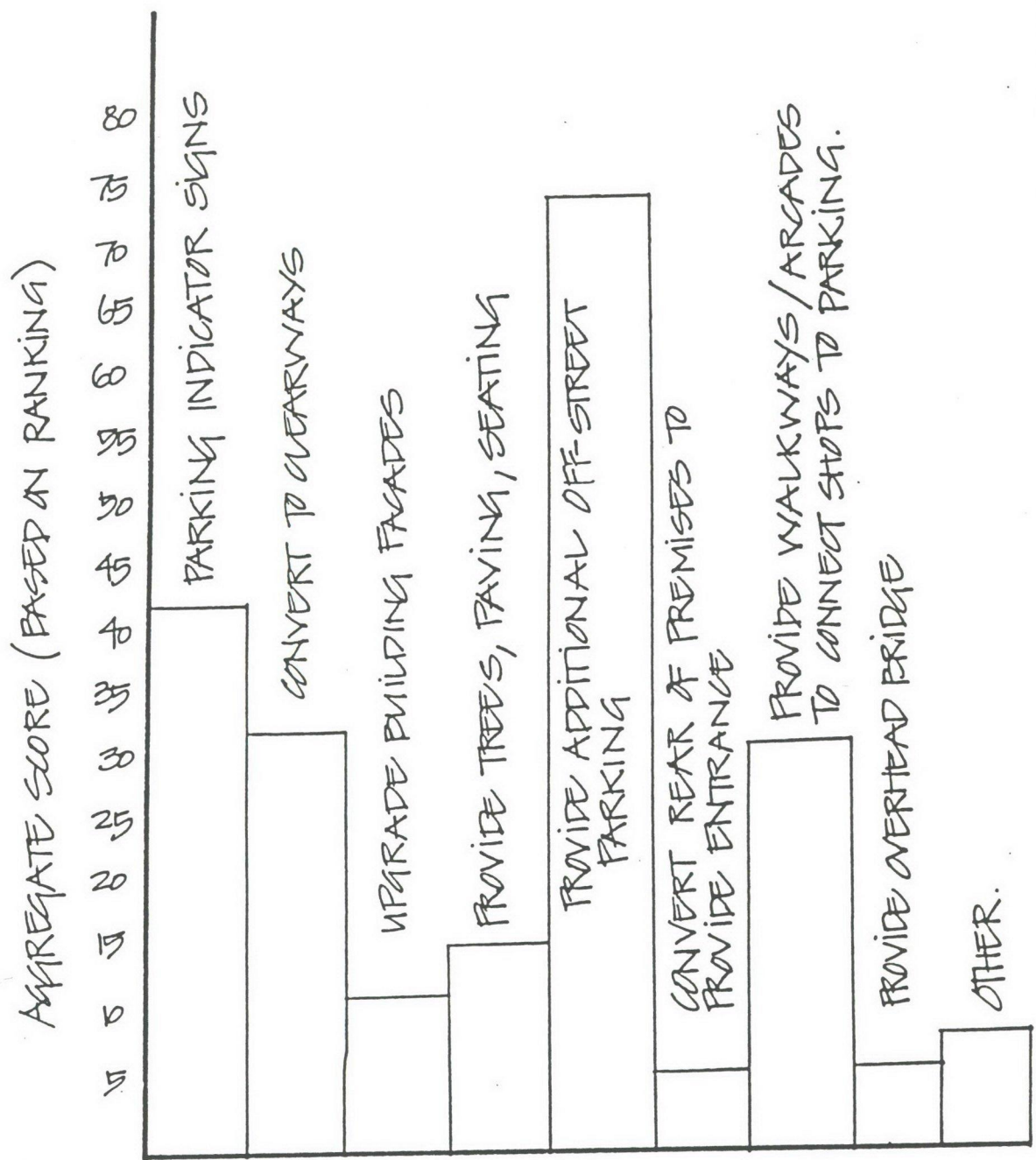


Figure 5.7. Measures Taken to Encourage the Continuation of Business, Leichhardt

MEASURES WHICH WOULD ENCOURAGE CONTINUATION OF BUSINESS	PARKING INDICATOR SIGNS	CONVERT TO CLEARWAYS	UPGRADE BUILDING FACADES	PROVIDE TREES, PAVING, SEATING	PROVIDE ADDITIONAL OFF-STREET PARKING	CONVERT REAR OF PREMISES TO PROVIDE ENTRANCE	PROVIDE WALKWAYS/ARCADES TO CONNECT SHOPS TO PARKING	PROVIDE AN OVERHEAD BRIDGE	OTHER
LANDUSE	A	B	C	D	E	F	G	H	I
TANDY									N/A
BUTCHER									N/A
FASHION					1				
CHEMIST	2				1				
MENSWEAR									N/A
BARGAINS	1				2				
JEWELLERY									
FRUIT SHOP	5	1	6	7	2		3	4	
COFFEE LNGE.									*
HOTEL	1	2			3				
HEALTH CAFE							2		Front l. parking
UNIT. FERM									N/A
OPTOMETRIST									N/A
NAT. BANK.									N/A
TRAVEL					1				
FRUIT SHOP				1			2		
HOTEL (B.F.S)	1		4	5	2		3	7	
MENSWEAR									N/A
BUTCHER									N/A
HARDWARE		2			1				
FRUIT SHOP	1	6	5	7	2	3	4	8	
Woolworths									N/A
BUTCHER									N/A
CHILDREN'S WEAR									N/A
SIDES	3	2			1				

Figure 5.8. Ranking of Measures to Encourage the Continuation of Business, Leichhardt

MEASURES WHICH WOULD ENCOURAGE CONTINUATION OF BUSINESS	PARKING INDICATOR SIGNS	CONVERT TO CLEARWAYS	UPGRADE BUILDING FACADES	PROVIDE TREES, PAVING, SEATING	PROVIDE ADDITIONAL OFF STREET PARKING	CONVERT REAR OF PREMISES TO PROVIDE ENTRANCE	PROVIDE WALKWAYS/ ARCADES TO CONNECT STOPS TO PARKING	PROVIDE AN OVERHEAD BRIDGE	OTHER	AUTHOR CONSIDER RESPONSE FOR IMPLEMENTATION
LANDUSE	A	B	C	D	E	F	G	H	I	
TANDY									N/A	LOC. COUN
BUTCHER									N/A	LOC. COUN
FASHION										GOVERNME
CHEMIST										STATE GO
MENSWEAR									N/A	LOC. COUNC
BARGAINS										LOC. COUN
JEWELLERY										N/A
FRUIT SHOP										PMR/LOC COUN
COFFEE UNDE.									*	STATE/LO GOVT./D
HOTEL										N/A
HEALTH CAFE									Front l. parking	LOC. COUNC
UNIT. FERM									N/A	STATE GOV
OPTOMETRIST									N/A	N/A
NAT. BANK.									N/A	N/A
TRAVEL										STATE/LOC GOVT.
FRUIT SHOP										DONT KNOW
HOTEL (B.F.S)										LOC. COUNC
MENSWEAR									N/A	D.M.R
BUTCHER									N/A	D.M.R
HARDWARE										D.M.R
FRUIT SHOP										LOC. COUNCIL
Woolworths									N/A	LOC. COUNCIL
BUTCHER									N/A	LOC. COUNCIL
CHILDREN'S WEAR									N/A	N/A
SHOES										LOC./STATE GOVT.
 PREPAREDNESS TO PAY CONTRIBUTIONS RESPONSIBLE AUTHORITIES LEICHHARDT SHOPPING CENTRE										

Figure 5.9. Responses to Ameliorative Measures, Leichhardt

Responsible Authorities (Q:25)

Overall the local council was considered by slightly more respondents to be responsible for implementing ameliorative measures. A substantial proportion of respondents identified the Department of Main Roads or the State Government as responsible. Figure 5.9. shows a summary of these results. As expected, none of the respondents considered the implementation of measures to be their own responsibility or that of other private-sector groups, such as the property owners or the Chamber of Commerce. Several respondents commented that it should be the joint responsibility of Local and State Government Authorities. Generally, respondents expressed a lack of faith in any government organisation to introduce measures which would benefit the shopkeeper.

Summary of Respondents Comments (Q:26)

1. Imperial Hotel

Inflexible Restrictions

The 24-hour restriction is ridiculous since traffic congestion varies throughout the day and the week. Saturday afternoon and Sunday trade are worst affected.

Traffic Accidents

Estimates eight accidents in kerb side lane recently - all involving heavy vehicles. These vehicles are too close to the kerb and have damaged awnings and run into telegraph poles. For instance, the traffic lights on Norton Street have been knocked over a number of times.

Wet Weather

Driving on S lanes in wet weather is considered to be particularly dangerous and confusing since the old line marking becomes confused with the new.

Loading Zone

The loss of a loading area has made it impossible to unload large items (e.g. kegs) without breaking traffic regulations.

2. Fruit/Vegies Shop

Noise:

Suggested that the Minister for Roads sit in his shop and listen to the traffic noise for a week. Creates loss of hearing.

Speed

Increased speeds leads to decay.

3. Jeweller

The specialist nature of the business (manufactures

jewellery) means that traffic and parking conditions have no effect on level of trade. Clients travel long distances for speciality items. A high proportion of Italian clientele.

4. Bargains

Pollution and noise levels are excessive.

5. Menswear

Pollution: doors need to be closed as dust ruins clothing; noise is excessive (sometimes the phone cannot be heard ringing); and vehicle speeds are increasing and dangerous.

6. Chemist

Government

The State Government is not interested in shopkeepers along Parramatta Road, it is only interested in the time-saving from Parramatta to the city (for drivers).

Bus Stops

There is a huge distance between bus stops in the vicinity, making it difficult for those shoppers who do travel by public transport.

Proposed Action

If an offer was made to buy the shop the owner would sell immediately.

7. Fashions ('Fashions Galore')

Noise is a major distraction to workers and customers.

8. Butchery/Small Goods

Parking - need a place for customers to park

loading - there is no place for loading.

9. Tandy Electronics

Noise levels are excessive - door is kept closed to enable conversation with customers. Before S lanes parked cars seemed to cut noise levels down. Dust is also a problem.

10. Coffee Lounge

Business is going broke because of traffic measures and increasing rates by Council. One shop a week is closing because of clearways.

Action a) if all day clearways were removed the problem would be solved. Remove S-lanes and return to clearway conditions.

b) provide a large car parking area

c) build a department store.

11. Health Food Cafe

Business - if some action isn't taken soon Parramatta Road will be dead as far as businesses are concerned. This will affect unemployment.

12. Optometrist - No comments

13. United Permanent

Parking - lack of parking reduces passing trade which then reduces business turnover.

Action

Provide parking on Parramatta Road by any of the following means: a) vehicular overpass at intersection; b) pedestrian overpass; c) prohibit right-hand turns; d) overhead highway; and e) increase number and reduce size of government buses.

14. Fruit/Vegies - No comments.

15. Travel Agency/Lotteries

Parking

Parramatta Road is slowly dying because of lack of parking

Action

No improvements have been made to Parramatta Road for along period.

16. National Bank

Action

Leichhardt will only develop as a retail and commercial centre if; a) off-street parking is provided; and b) improved pedestrian thoroughfares to allow both sides of the strip to be shopped.

17. Hotel ('Bald Faced Stag') - No comments.

18. Menswear

Accidents -

S-lanes have done more to create accidents than reduce them. (A daily peak hour driver along Parramatta Road.)

19. Butchery - No comments.

20. Hardware - No Comments

21. Fruit Shop

Loading

Business operators are forced to park illegally in order to unload.

22. Woolworths

Bus Stop

Operators want bus stop returned to where it was near shop. (Not near Coles).

23. Butcher

Business - Regular customers sustain business.

24. Childrens' Wear

Business

Turnover has increased due to inflation but the number of customers is definitely declining because of the economy and traffic.

25. Shoes

Business

The business cannot be sold because of Parramatta Road location.

Parking

Parking is a major problem. Unless off-street parking is provided the shopping centre will continue to decay.

Government

The State Government should be sacked because of its changes in policy which continue to reduce business incentive.

5.3. Interview with Real Estate Agent, Leichhardt

Some of the issues which arose out of the discussion included:

1) Parking

The Chamber of Commerce is not opposed to the principle of S-lanes but is concerned about the resultant loss of on-street parking. It also objects to the parking levies imposed by Leichhardt Council, particularly when applied to a change of use. It is skeptical of whether these funds have been successfully employed to provide the contributors with additional and accessible parking facilities.

2) Consultation

The Chamber has consulted with the Department of Main Roads since

the introduction of S-lanes. It organised a moving blockade of cars in November, 1984, in protest of the effects of S-lanes on trade. A delegation to the Minister for Roads, (along with the State Member for Balmain and representatives of Leichhardt and Marrickville Councils) was organised to achieve the removal of S-lanes in Leichhardt and Annandale. This was claimed to be responsible for the construction of right-turn bays at Johnston Street and Bridge Road. The State Government also funded the provision of 53 additional off-street car parking spaces (some of these were leased from existing parking facilities), on the northern side of Parramatta Road.

3) Loading

S-lanes were claimed to have made loading and unloading very difficult, particularly where premises do not have rear-lane access, or even space in the back yards of properties to provide on-site loading facilities.

4) Trade

The recent closure of several shops on the northern side of Parramatta Road was claimed to be a reflection of the significant effects of S-lanes on business activity in the shopping centre.

5) Property Values/Marketability

S-lanes were affecting the marketability of properties. Property values generally along Parramattta Road have decreased in recent years. An example was given of a property in Annandale, near the survey area, which was valued at \$200,000 in late 1983 and which was not sold until August, 1985, at a selling price of \$157,000. This same premise remained vacant for a period of nine months before a tenant was found. This 22 per cent drop in value could have been brought about by a range of factors, other than those related to traffic management.

6) Alternative Road Link

The Chamber of Commerce has negotiated with the Department of Main Roads with the aim of gaining some commitment to the rerouting of city traffic away from Parramatta Road (Appendix 2.) The Chamber of Commerce is prepared to accept the provision of additional rear-parking facilities, in the short term, in anticipation that traffic will be rerouted away from Parramatta Road in the long term.



PLATE 5.1 LEICHHARDT SHOPPING CENTRE.
VIEW OF PARRAMATTA ROAD, LEICHHARDT
SHOWING THE VARIATION IN ARCHITECTURAL
STYLE AND BUILDING CONDITION OF FRONTAGE
LANDUSES.



PLATE 9.2 TRAFFIC CHARACTERISTICS.
A RANGE OF VEHICLE TYPES TRAVEL ALONG PARRAMATTA
ROAD. HEAVY VEHICLES MOVE CLOSER TO THE KERB
SINCE THE INTRODUCTION OF S-LANES.



PLATE 5.3 OFF-STREET PARKING.
BACK STREETS OF LEICHHARDT - OVERCROWDED
WITH CARS AND NARROW



PLATE 5.4 TRAFFIC MANAGEMENT.
VIEW OF HAY STREET SHOWING NARROW ONE-WAY
ACCESS AND CROWDED ON-STREET PARKING.



PLATE 5.5 SURVEY AREA.
 BUSINESSES ON THE NORTHERN SIDE OF PARRAMATTA
 ROAD, LEICHHARDT. THE EASTERN BOUNDARY OF
 THE SURVEY AREA IS SHOWN ON THE PHOTOGRAPH.

PLATE 5.7 BALMAIN RD - HAY ST.
 PARAMATTA ROAD, LEIGHTHARDT, SHOWING THE
 AREA BETWEEN BALMAIN ROAD AND HAY STREET
 (WITH WOODWORTH'S VARIETY STORE ON THE CORNER)

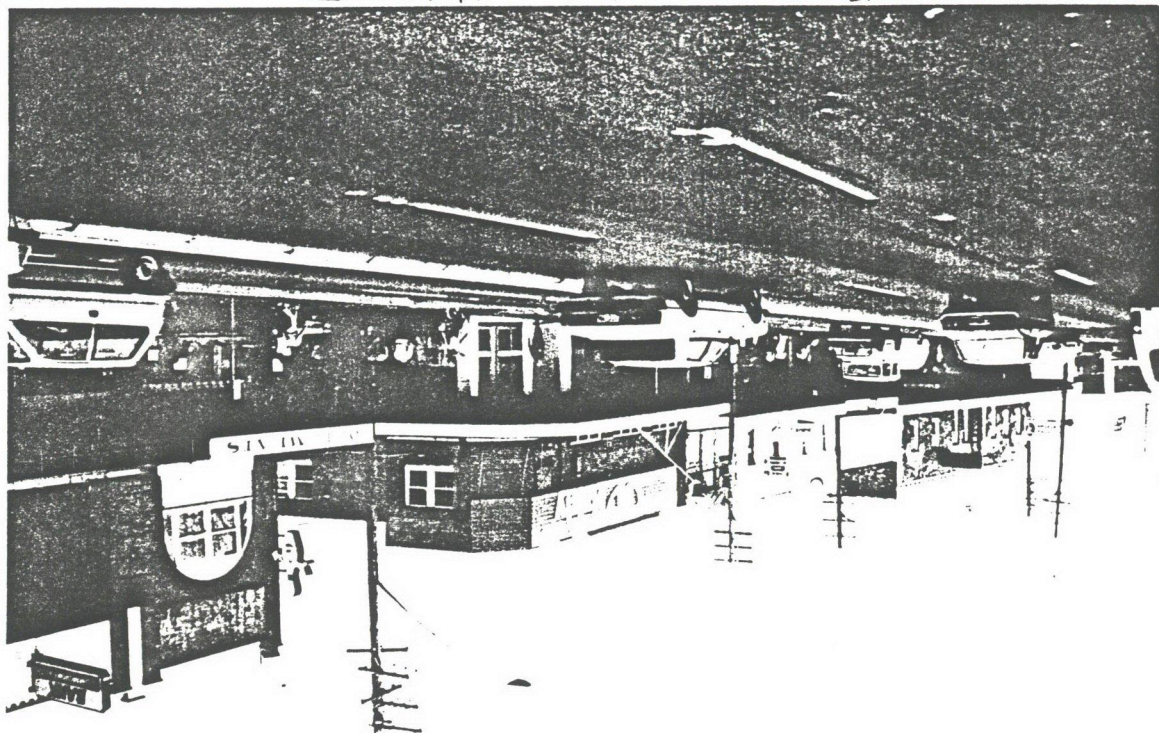


PLATE 5.6 NORTHON STREET INTERSECTION.
 PARAMATTA ROAD, LEIGHTHARDT, LOOKING EAST
 FROM THE CORNER OF NORTHON STREET.





PLATE 5.8 OFF-STREET PARKING.
 REAR PARKING AREA LOCATED ON THE SOUTHERN
 SIDE OF MSWDB SITE OFF BALMAIN ROAD.



PLATE 5.9 OFF-STREET PARKING.
 SMALL PARKING AREA NEAR THE CORNER OF
 RENWICK AND JARRETT STREETS.



PLATE 5.10 PARKING CONDITIONS.
PARKING IN LEICHHARDT'S SIDE STREETS IS
DIFFICULT BECAUSE OF THE NARROW,
OVERCROWDED STREETS



PLATE 5.11 INDICATOR SIGNS.
PARKING INDICATOR SIGNS ON PARRAMATTA ROAD,
USED TO DIRECT PASSING TRAFFIC TO
REAR PARKING AREAS.

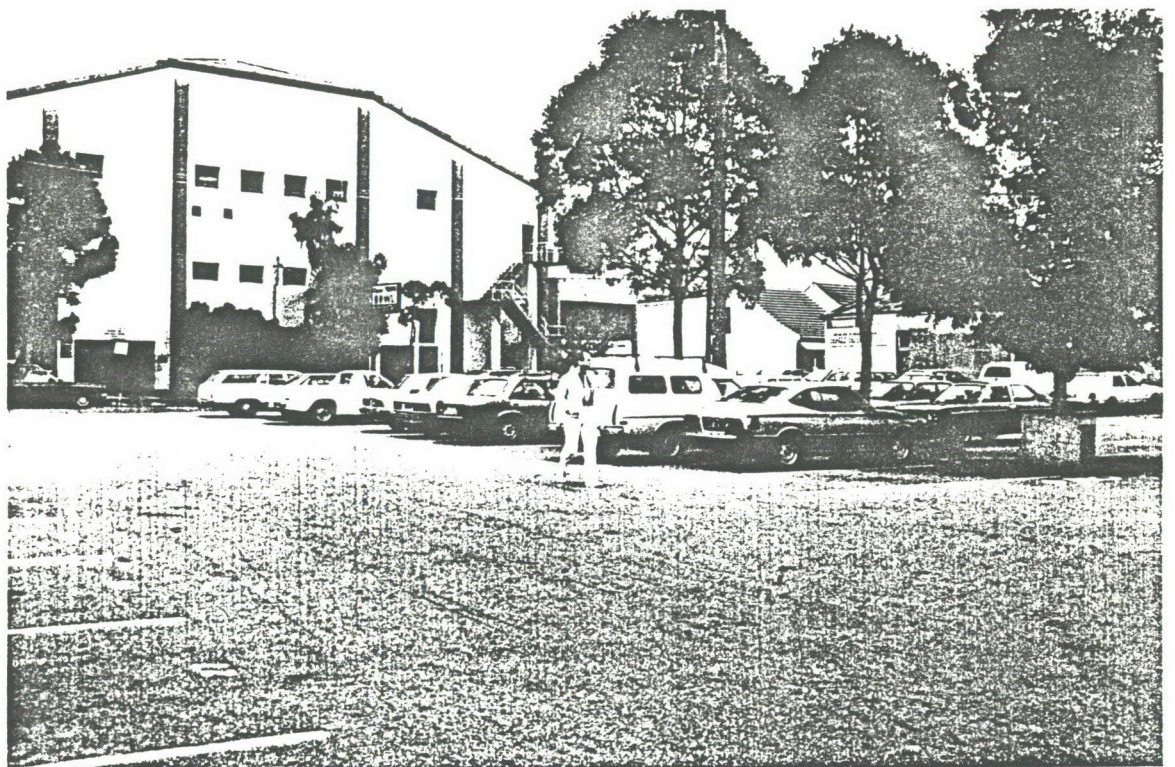
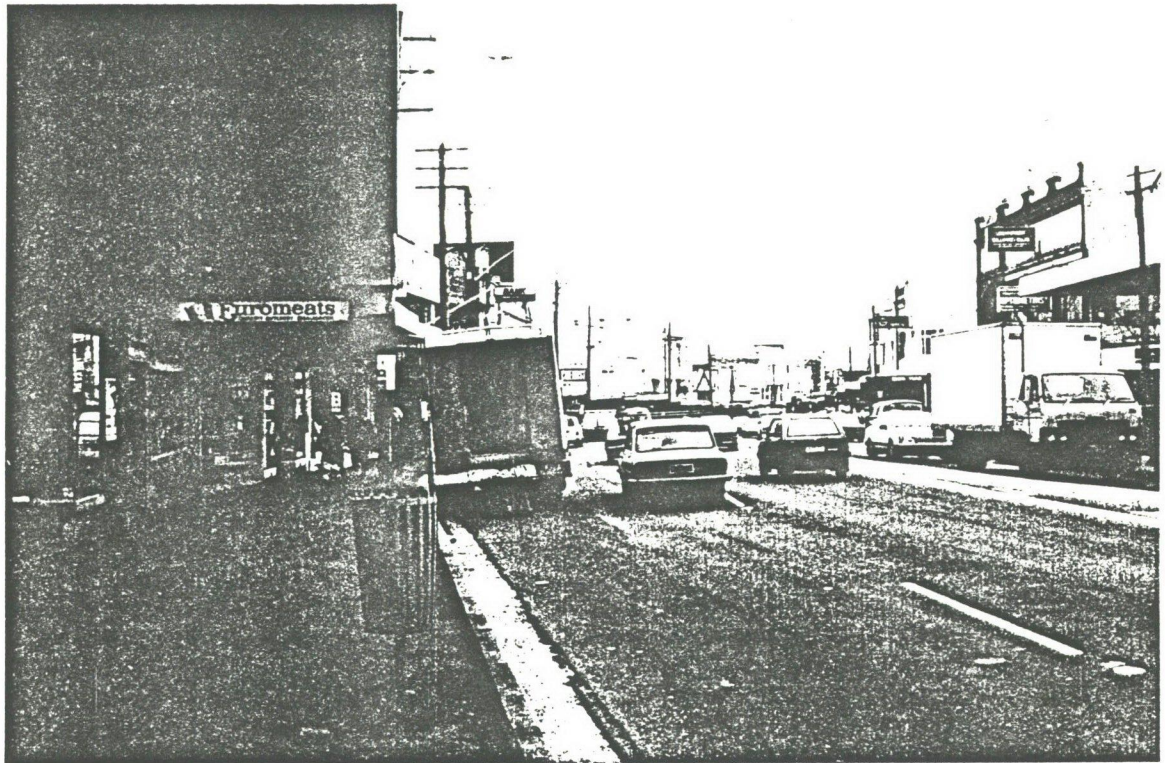


PLATE 9.12 BOWLING CENTRE CAR PARK.
CAR PARKING AREA LOCATED ON THE EASTERN
SIDE OF HAY STREET, OPPOSITE THE LEICHHARDT
BOWLING CENTRE, PROVIDES 58 CAR SPACES (APPROX)



PLATE 9.13 SMALL CAR PARK.
SMALL CAR PARKING AREA IMMEDIATELY
SOUTH OF LEICHHARDT BOWLING CENTRE IN
HAY STREET.



5.14 LOADING DIFFICULTIES.
A DELIVERY VEHICLE IS ILLEGALLY
PARKED TO UNLOAD GOODS.



PLATE 5.15 PROXIMITY OF VEHICLES.
PARRAMATTA ROAD LEICHHARDT, SHOWING THE
CLOSE PROXIMITY OF MOVING VEHICLES AND
PEDESTRIANS WHICH HAS RESULTED FROM THE
INTRODUCTION OF S-LANES.

ENFIELD SHOPPING CENTRE

6.1. Enfield Shopping Centre - Description

Enfield shopping centre is located at the intersection of the Hume Highway, Coronation Parade and the Boulevard. It is located at the crossroads of major north-south and east-west traffic links. The boundaries of the survey area were determined by the extent of commercial uses within the vicinity of the intersection. Enfield was chosen as a study area because it is located at the junction of two major roads, and has been chosen by the Department of Main Roads as a likely site for the introduction of an S-lane. Following discussions with members of the Advisory Committee, it was agreed that Enfield would provide a suitable location for the carrying out of pre-facto surveys. Only some businesses located on the southern side of the Hume Highway, and within the shopping centre, will be directly affected by the proposed S-lane. Despite this, it was agreed to survey the whole shopping centre and to gather data on the relationship between business and traffic and parking conditions. For the purpose of explanation the shopping centre has been divided into four areas, as shown in Figure 6.1.

Characteristics

Enfield shopping centre, unlike most strip-shopping centres, is located on three separate corners of a major intersection. It is of a substantial size, comprising a total of 53 ground floor business premises. The nature of the intersection - its width, range of traffic controls, and speed and volume of passing traffic - seems to dominate the appearance and amenity of the centre.

Like the other survey areas, Enfield has its share of convenience shops, such as the chemists, take-away food, newsagency, grocery store and so on. Figure 6.1. shows that it also has a high proportion of businesses which fall into the personal services category (such as banks, solicitors, T.A.B, laundromat, hairdressers). There appears to be a low level of pedestrian traffic in the centre throughout the day which may be an indicator of low trading activity.

Traffic Management

The road intersection appears fairly complex in term of its traffic management controls. This has been required because of the volume and speed of traffic which it holds and the unusual configuration of the intersection. Figure 6.2 shows the main features of the intersections traffic management controls. Many of the local shopkeepers perceived the intersection to be highly dangerous, particularly for pedestrians who wish to cross the road. There are three signal-controlled pedestrian crossings at the intersection. Despite this, many of the survey respondents

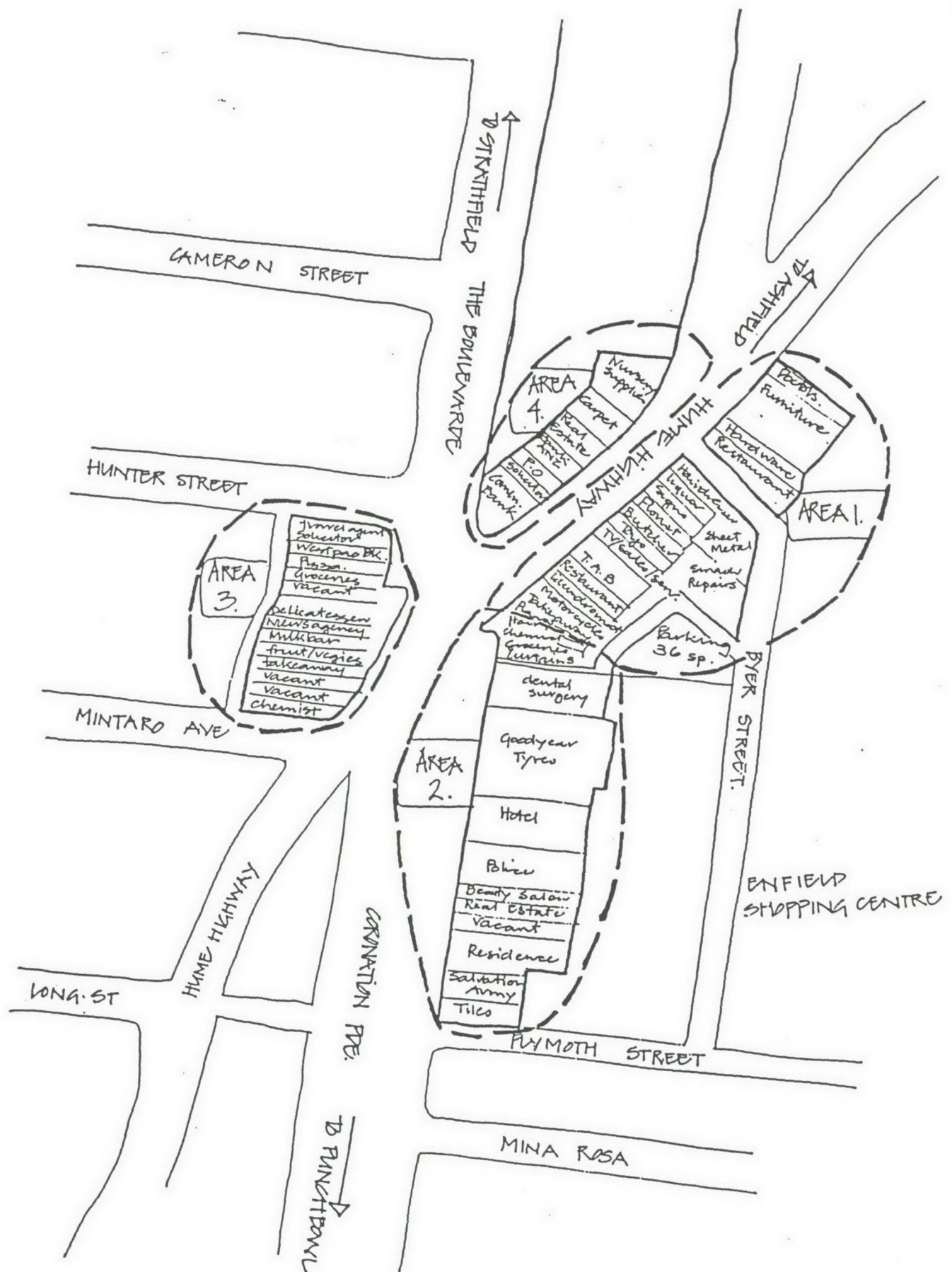


Figure 6.1. Enfield Shopping Centre,
Areas 1,2,3,4
North (not to scale)

commented that it is still dangerous for pedestrians, particularly elderly shoppers, to cross the road because of the short period of the "walk" phase, and the width of the intersection.

Business operators on both sides of the Hume Highway, and along Coronation Parade, are currently affected by either morning or afternoon clearways, making them accustomed to at least some form of parking restriction.

Plans for a proposed S-lane will only directly affect businesses in area 1 of the shopping centre. The aim of the proposed S-lane is to reduce traffic accidents, associated with right-turning movements into The Boulevard from the Hume Highway, which should also improve traffic flow along the Hume Highway. The proposed S-lane would have the immediate effect of altering the location and length of the bus stop and would result in the loss of approximately 8 on-street car-parking spaces along the Hume Highway, within area 1.

Parking

There is one off-street car-park at the rear of area 1, known as Byer Street car park. It provides approximately 36 car spaces, with pedestrian access to Coronation Parade along Cervetto Lane. Vehicular access to the car park is limited to south-west bound traffic travelling along the Hume Highway. Many business operators in area 1 commented that the car park is mostly under-utilised as directional signs are not properly placed to inform passing traffic of its existence.

The availability of on-street parking facilities is limited by a range of controls including: bus zones, clearways, time restrictions, and no-standing provisions near to corners. Despite this very limited supply of on-street parking, and the difficulties associated with parking on major roads, many shopkeepers commented on the importance of this to their businesses.

Loading

As with most strip-shopping centres, loading creates a number of difficulties, particularly where businesses have no rear access to their premises. Most deliveries are carried out on-street, either illegally or within parking zones. Many shopkeepers commented on the dangers associated with manouvering delivery vehicles in heavy traffic. Even where businesses have rear-lane access, loading is not likely to take place there because of the arrangement of building on the site, or the inconvenience of going off the main road to make deliveries. The proposed introduction of "no stopping" restrictions in area 1 would certainly increase the difficulties already associated with on-street loading and unloading.

Visual Analysis

Enfield shopping centre offers nothing particularly interesting that is likely to attract the attention of a passing driver. The size and complexity of the intersection seem to dominate the appearance of the centre which presents itself as separate groups of shops, rather than a cohesive shopping centre. The buildings are one or two storey (which usually have residences above). The buildings vary in style, age and condition. Several shops, particularly in area 1, could be described as rundown. The banks occupy some of the more modern buildings in the shopping centre. With the exception of a recently restored building on the corner of The Boulevard and Hunter Street, there appear to be few buildings of architectural merit. Advertising signs and traffic-related signs dominate the overall appearance of the shopping centre. Road re-alignment has extended the footpath width in areas 1 and 3, which had potential for improving the pedestrian environment. Limited street planting (area 3) and seating have been provided in these areas, but it is doubtful whether this has improved the visual amenity of the area.

6.2. Survey Response

There was a total of 52 individual business premises within the boundary of the study area. At the time of the survey, there were four vacant premises and a residential property. Of the remaining 48 businesses, 11 business operators did not respond to the survey, representing a response rate of 77 per cent.

Table 6.1. shows that a small proportion of the retail-comparison category did not respond to the survey, when compared to the two other land use categories. The personal services group had the lowest response rate, resulting in a slight bias towards the retail-comparison goods group.

Table 6.1. Response Rate by Land-use Type, Enfield

Land-use Type	No. Response (%)		No. Non-Response (%)	
Retail convenience	11	(22.9%)	3	(6.2%)
Retail comparison	11	(22.9%)	1	(2.1%)
Services	15	(31.2%)	7	(14.6%)
	37	(77.1%)	11	(22.9%)

Land-use Change (Q:1, 2)

Table 6.2. shows the length of time in which businesses have been operating in Enfield shopping centre. Twenty seven per cent of respondents have been operating at the current location for a period of one year or less. This is a similar result to that obtained from the Leichhardt survey results. This indicates a

fairly high turnover rate within the last year, which also suggests that the shopping centre is not a very profitable one in which to be located. An even greater proportion than this (35 per cent) has been operating their business for a period of between one and five years. The greatest proportion of businesses which have been located in the shopping centre for a period of one year or less are located in that section known as area 3.

The survey results show that 62 per cent of respondents have only been operating in the shopping centre for a short period (five years or less). Despite this, there are several long-established businesses such as the hotel, the Commonwealth Bank, Goodyear Tyres, Westpac Bank, and the hardware store all of which have been operating in the centre for ten years or more.

At the time of the survey, there were four vacant premises in the centre, three of which were located in area 3, indicating that this part of the shopping centre is having the most difficulty in flourishing.

Table 6.2. Land-use Change in Enfield

AREA 1: Southern side of the Hume Highway

Existing Landuse	Time of Operation	Previous Landuse
*1 Doctors Surgery	-	-
2 Furniture	4 yrs	Carpets
3 Hardware	26 yrs	Sports store
4 Restaurant/	-	-
5 Hairdresser	5 yrs	Hairdresser
6 Liquor Shop	5 mths	Liquor Shop
7 Florist	12 mths	Fruit Shop
8 Signs	3 yrs	Haberdashery
9 Butcher	4 yrs	Butcher
10 Porcelain Dolls	2 yrs	Cake Shop (then vacant)
11 Sports Goods/Toys	10 yrs	Clothing
12 T.V. Repairs	10 yrs	Not known
13 T.A.B.	2 yrs	T.A.B. (?)
14 Restaurant	15 mths	Restaurant
15 Laundromat	6 mths	Laundromat
*16 Motorcycle Access.	-	-
17 Take-away food	14 yrs	Take-away food
18 Piano Rental	3 yrs	Clothing
19 Hairdresser	3 yrs	Hairdresser

*DID NOT RESPOND TO SURVEY

(Table 6.2. continues)

Table 6.2. continued

Area 2: Coronation Parade

Existing Landuse	Time of Operation	Previous Landuse
------------------	-------------------	------------------

20 Chemist	4 yrs	Pharmacy
*21 Groceries	-	-
22 Curtains	3-1/2 yrs	Curtains
*23 Dental Surgery	-	-
24 Goodyear Tyres	20 yrs	
25 Hotel (Boulevard)	18 mths	Hotel (10 yrs)
*26 Police	-	-
27 Beauty Salon	4 yrs	(Vacant 2 yrs)
28 Real Estate	7 yrs	Architect
29 Vacant	-	-
*30 Residence	-	-
*31 Salvation Army	-	-
32 Tiles	4 mths	Tiles

*DID NOT RESPOND TO SURVEY

Area 3: North West Corner - Hume Highway/Boulevard

Existing Landuse	Time of Operation	Previous Landuse
------------------	-------------------	------------------

33 Chemist	8 mths	Pharmacy (50 yrs)
34 Vacant (Cake Shop)	-	Cake Shop
35 Vacant	-	Model planes/cars
36 Takeaway food	4 mths	Takeaway food
37 Fruit/vegies	12 mths	Fruit shop (25 yrs)
38 Milk Bar	2 yrs	Milk Bar (30 yrs)
39 Newsagency	2 yrs	Newsagency
*40 Delicatessen		
41 Vacant	-	Restaurant
42 Groceries	7 mths	Groceries
*43 Pizza		
44 Westpac Bank	20 yrs	Garage
*45 Solicitor	-	
46 Travel Agency	5 weeks	Antiques

*DID NOT RESPOND TO SURVEY

Area 4: North East Corner - Hume Highway/Boulevard

Existing Landuse	Time of Operation	Previous Landuse
------------------	-------------------	------------------

47 Commonwealth Bank	over 40 yrs	-
48 Solicitors	10 yrs	Real Estate Agency
49 Post Office	over 50 yrs	-
*50 ANZ Bank	-	-
51 Real Estate		
52 Carpet	17 yrs	Hardware
53 Nursery Supplies	6 mths	Swimming Pools

Tenure (Q:3)

The majority of respondents (73 per cent) were renting their premises at the time of the survey. Only seven businesses are owner-occupied. This low level of owner-occupancy would make it difficult to implement measures to physically improve the shopping centre, such as the provision of parking or improvement of building facades, since owners may not be able to get an increased return on investment if they are not occupying the premises themselves, or are unable to charge a higher rent.

Change in turnover (Q:4)

Table 6.3 shows the extent of recent changes in turnover. The largest proportion of respondents (50 per cent) had experienced no recent changes in turnover. The same proportion of respondents (25 per cent) indicated an increase in turnover as those who had experienced a decrease in turnover. Generally, those businesses which had experienced no change in turnover have been established in the shopping centre for a substantial period, or have traded in specialty goods (such as retail signs, pianos, porcelain dolls). Those businesses which had experienced at least a small decrease in trade either had a marginal business or depended on passing trade and were therefore affected by parking and traffic problems. Those businesses which had experienced a recent increase in turnover appeared also to sell either specialty goods or services and often had the benefit of experienced managers who realised the importance of marketing a business which is located in an area such as Enfield.

Table 6.3. Change in Retail Turnover, 1985-86, Enfield

Extent of Change	Number*	(%)
Great increase	1	(2.8%)
Small increase	8	(22.2%)
No change	18	(50.0%)
Small decrease	7	(19.4%)
Great decrease	2	(5.6%)

*One respondent refused to answer this question

Reasons for Change in Turnover (Q:5)

Figures 6.3. - 6.5. show the range and ranking of reasons given by respondents which account for recent changes in turnover. Those businesses which had experienced a recent increase in turnover identified a range of reasons, which were not shown on the survey form. These reasons included: improved management, advertising, efforts of sales staff, and customer recommendations. For those which had experienced a recent decrease in turnover, parking and traffic matters were generally ranked low as factors contributing to the decline in turnover. Economic conditions and competition appeared to be a substantial

influence on change in turnover. Other factors, such as new tax laws, absence of a supermarket, rents, and government policy, were identified as significant contributing factors towards declining trade.

These survey results show that there are a range of factors unrelated to parking and traffic conditions which appear to be having a negative impact on certain businesses throughout the centre. Several shopkeepers, especially those whose business is doing poorly, considered Enfield to be a dying shopping centre. If this is true, then the implementation of traffic management changes may only serve to accelerate this process.

Response to Change in Turnover (Q: 6,7)

Table 6.4. shows that the majority of respondents (82 per cent) who had experienced an increase in turnover intended to continue to operate their business as usual. Only two respondents indicated that they would expand their operations or increase staffing levels. These results seem to indicate that the increases in turnover are not substantial enough to prompt overall expansion of business within the shopping centre.

Table 6.4. Response to Recent Increases on Turnover, Enfield

Response	Number	(%)
Continue as usual	9	(81.8%)
Expand/improve premises	2	(18.2%)
Increase staff	0	(0.0%)
Improve inventory	0	(0.0%)

NOTE: Some respondents who had experienced no recent change in turnover responded to this question.

Of the nine respondents who had experienced a recent decrease in turnover, four intend to either close down or relocate their businesses (Table 6.5). Two respondents (Commonwealth Bank and the restaurant managers) indicated that they would reduce staff levels in an effort to adjust to declining turnover. Enfield shopping centre is likely to undergo substantial land-use change and decline in the short term if these respondents carry out these actions. Such changes may also bring about further decline in the centre in the longer term, especially if premises remain vacant for lengthy periods.

Table 6.5. Response to Recent Decreases in Turnover, Enfield

Response	Number	(%)
Continue as usual	3	(33.3%)
Relocate	1	(11.1%)
Close down	3	(33.3%)
Reduce staff	2	(22.3%)
Increase trading hours	0	(0.0%)

Trade Catchment (Q:8)

The survey results in Table 6.6. show that, like the other survey areas, Enfield is a predominantly local shopping centre, with the majority (62 per cent) of respondents indicating that 75 per cent or more of their customers come from the local area. Those businesses with 25 per cent or less of local trade include: retail signs, porcelain dolls, sporting goods and toys, piano rental, tiles, travel agent and carpet retailer. It can be assumed that these businesses supply specialty goods or services and as such would appear to have a lower dependency on passing trade. These types of businesses are more resilient to traffic management changes than those which have a high dependency on passing trade.

Table 6.6. Approximate Proportion of Local Trade by Individual Businesses, Enfield

Amount	Number	(%)
More than three-quarters	8	(21.6%)
Three-quarters	15	(40.6%)
Half	6	(16.2%)
One-quarter	2	(5.4%)
Less than one-quarter	5	(13.5%)
Do not know	1	(2.7%)

Effect of Clearways on Trade and Measures taken to Adjust (Q: 9 - 12)

The majority of respondents (62 per cent) considered that clearways had brought about decreased business activity (Table 6.7). Only a limited number of respondents were able to estimate the proportion of trade loss attributable to the introduction of clearways. The remaining respondents (38 per cent) were either not prepared to estimate the extent of trade loss or instead made some comment on the nature of the trade loss. On average, the estimated trade loss was about 16 per cent, with individual estimates ranging from 5 per cent (curtain

store) to 50 per cent (take-away food shop). The laundromat, florist, and the real estate agent in Coronation Parade were also significantly affected by clearways. These estimates, with the exception of the real estate agency, seem to support the theory that businesses selling convenience items or those which are highly dependent on passing trade experience the greatest loss in trade as a result of traffic management measures which reduce access to on-street parking facilities.

Table 6.7. Effect of Peak-Period Clearays on Trade, Enfield

Effect	No. of Respondents	(%)
Decreased trade	23	(62.2%)
No effect	13	(35.1%)
Not applicable	0	(0.0%)
Do not know	1	(2.7%)

Table 6.8. also summarises those measures taken by the various business operators to adjust to effects of clearways. In addition to this, it shows whether these measures were perceived to be effective. A reasonable proportion of respondents (32 per cent) had taken at least some measures in an attempt to adjust to the effects of clearways. Primarily, these measures related to parking or advertising. Five respondents considered these measures to be effective whilst two respondents described them as partially effective.

Table 6.8. Trade Loss and Measures Taken to Adjust to Clearways, Enfield

Area No.1

Landuse	Proportion of Trade Lost	Measures to Adjust	Effectiveness
Furniture	-	-	-
Hardware	quiet after 4pm	none	n/a
Hairdresser	not much really	none	n/a
Liquor	10 per cent	none	n/a
Florist	25 per cent	advertise heavily open till p.m.	no
Signs	-	-	-

(continued)

Table 6.8. continued

Landuse	Proportion of Trade Lost	Measures to Adjust	Effectiveness
Butcher	no trade after 3.30pm	none	n/a
Porcelain Dolls	new customers	none	n/a
Sports/Toys	-	-	-
T.V. Repairs	10 per cent	Council carpark contributions	yes
T.A.B.	10 per cent	inform customers of rear parking	don't know
Restaurant	substantial	none	n/a
Takeaway	don't know	provided	no
Hairdresser	10 per cent	none	n/a

Area No.2

Landuse	Proportion of Trade Lost	Measures to Adjust	Effectiveness
Chemist	-	-	-
Beauty Salon	none	opened private rear parking to customers	yes
Hotel	-	-	-
Goodyear Tyres	none	advise customers of access problems	don't know
Curtains	5 per cent	none	n/a
Real Estate	-	-	-
Tiles	10 per cent	none	n/a

Table 6.8. continued

Area No.3

Landuse	Proportion of Trade Lost	Measures to Adjust	Effectiveness
Chemist	10 per cent	advertising	yes
Takeaway	50 per cent	none	n/a
Fruit/shop	loss of mid-afternoon trade	leaflet advertising	yes for a few weeks
Milk Bar	25 per cent	none	n/a
Groceries	10 per cent	none	n/a
Wcestpac	none	none	n/a
Travel Agent	n/a only located for short period	none	n/a

Area No.4

Landuse	Proportion of Trade Lost	Measures to Adjust	Effectiveness
Commonwealth Bank	none	none	n/a
Solicitors	none	staff parking	don't know
Post Office	none	none	n/a
Real Estate	25 per cent	extend opening hours	yes
Carpets	10-20 per cent	directed customers to side-street parking	yes, partially
Nursery	10-15 per cent	Advertising. Advise customers of parking problems	yes

Linked Trips (Q: 13)

Seventy percent of respondents considered that most of their customers visited Enfield especially for their business (Table 6.9.). This would seem to indicate that a substantial level of specialisation exists within the shopping centre, since many non-

local customers come to the centre for a specific purpose. These results contrast to Leichhardt shopping centre which appears to depend more on passing trade. Land uses identified as part of a multi-trip are generally complementary and determine the pedestrian trip pattern within the shopping centre. The location of these land uses is such that shoppers undertaking a multi-purpose trip are often forced to cross a major arterial road to do so. This, in combination with the width and recognised danger of the crossing, makes Enfield an inconvenient and often hazardous shopping centre for the local convenience shopper.

Table 6.9. Perceived Extent of Trip Linking, Enfield

Type of Trip	No. of Respondents	(%)
Multi trip	11	(29.7%)
Single trip	26	(70.3%)
Mixture	0	(0.0%)

The number of individual specialist businesses within the shopping centre has resulted in a low level of interaction between the various land uses. A thriving strip-shopping centre may therefore contain a high proportion of complementary land-uses. Many of the specialist land uses already operating in Enfield could equally survive at numerous other locations.

Pedestrian Movement Across the Road (Q: 14)

Table 6.10. gives the respondents' perception of how many pedestrians cross the road. The largest proportion of responses (43 per cent) indicated that few pedestrians cross the road. Thirty percent of respondents believed that many pedestrians crossed the road. This could be explained by the results of the previous question, which suggested that those shopping for convenience items generally shop for a number of items at the same time and have to cross the road as part of their shopping trip. A proportion of respondents (13.5 per cent) were not able to estimate how many pedestrians crossed the road. The same proportion of respondents believed that pedestrians generally stayed on one side of the street and did not cross the road at all. This could be explained by separate comments made by business operators, who stressed the dangers and difficulties involved with pedestrians crossing the Hume Highway. It was believed by many that pedestrians were forced, rather than chose to cross the road. For instance, several shopkeepers commented that the presence of the banks and post office on the northern side of the highway forced many pedestrians to unwillingly cross the road.

Table 6.10. Perception of Pedestrian Movement Across the Road, Enfield

Pedestrian Movement	No. of Respondents	(%)
Many cross	11	(29.7%)
Few cross	16	(43.2%)
None cross	5	(13.5%)
Do not know	5	(13.5%)

Supply of Customer Parking (Q: 15)

From the survey results (Table 6.11.), it is difficult to interpret whether there is an adequate supply of customer parking in the centre or not, as the survey responses are almost evenly matched. A greater proportion of respondents in areas 3 and 4 considered that there was an inadequate supply of customer parking than those respondents in areas 1 and 2, which have access to rear parking from Byer Street. Based on these results, and the assumption that it is desirable to maintain the viability of business on the northern side of the Hume Highway, it would be best to locate additional rear-parking facilities on this side of the shopping centre.

Many of the respondents from areas 1 and 2 commented that the supply of rear parking is adequate but is under-utilised for a number of reasons. Some consider the Byer Street car park to be inconveniently located because of its limited access. Others commented on the need for improved sign posting to make passing drivers more aware of its existence. Several respondents considered on-street parking more beneficial to their business, describing most customers as "lazy" and wanting to park near to where they intend shopping.

Table 6.11. Supply of Customer Parking, Enfield

Response	No. of Respondents	(%)
Adequate	17	(45.9%)
Inadequate	19	(51.4%)
Not sure	1	(2.7%)

Different Types of Parking (Q: 16)

Figure 6.5 illustrates the aggregate score, based on respondents ranking, for the three different types of parking. Overall, on-street parking is considered as the most valuable form of parking, followed by off-street rear parking. These results are particularly relevant in predicting the likely impact of traffic management change which would bring about a loss of on-street

REASONS FOR CHANGE IN TURNOVER

LANDUSE	ECONOMIC CONDITIONS	COMPETITION	PARKING	TRAFFIC CONDITIONS	OTHER
SMALL DECREASE IN TURNOVER					
FLORIST					1. RENTS 2. Govt pol
SPORTS/ TOYS		1. (from large shopping centre)			
LAUNDROMAT	1.				
TAKEAWAY FOOD	1	2	4	3. (fast moving)	
GOODYEAR TYRES	3	1.			2. median strip closes restrict access
COMMON-WEALTH BANK	4	5.	1.	3	2. absence of major shopping centre
GREAT DECREASE IN TURNOVER					
RESTAURANT (The Copper Scuffle)			2. lack of onstreet parking		1. new tax laws
FRUIT SHOP	3.	4	1.	2.	

Figure 6.3. Reasons for Changes in Turnover and Their Relative Importance, Enfield

REASONS FOR CHANGE IN TURNOVER

LANDUSE	ECONOMIC CONDITIONS	COMPETITION	PARKING	TRAFFIC CONDITIONS	OTHER
SMALL INCREASE IN TURNOVER					
HARDWARE					1. Efforts selling st
SIGNS					1. advertis promotic locatic
PIANO RENTAL					1. good manag.
PHARMACY	1.				2. applic to work
CURTAINS					1. custom recommen
BEAUTY SALON					1. Improve Competitiv
SOLICITORS					1. Improve efficien
CARPETS					1. manager and sales effor
GREAT INCREASE IN TURNOVER					
HOTEL					1. manager

Figure 6.3. continued

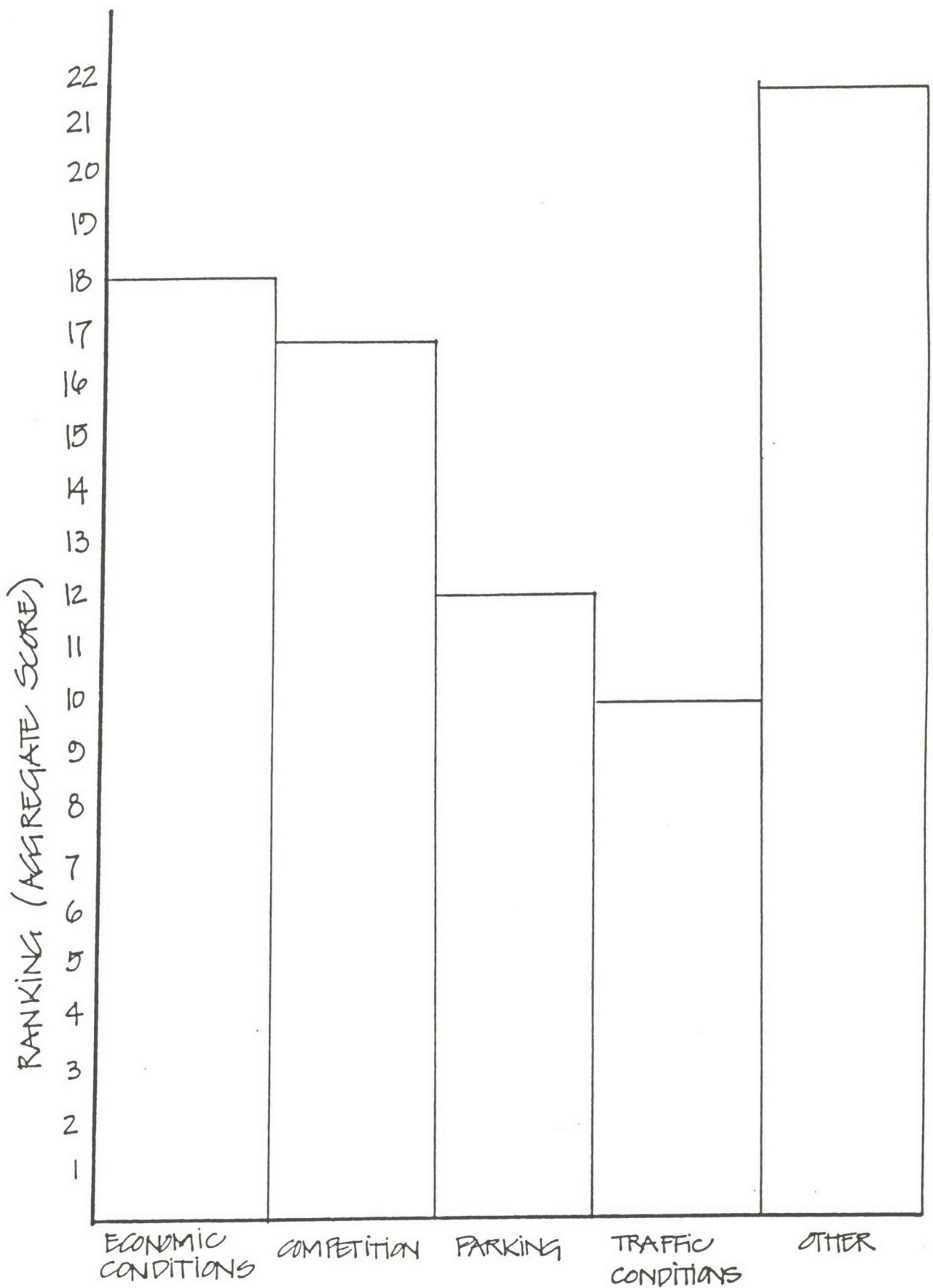


Figure 6.4. Reasons for Decline in Turnover, Enfield

parking facilities. If nothing else, such a proposal is likely to be met with significant protest from affected business operators.

Many respondents made separate comments in relation to rear parking:

- a) it needs to be well sign-posted;
- b) provides easier parking than on-street facilities;
- c) would be more fully utilised if shops provided a rear entrance, giving improved access to parking;
- d) should be carefully located to provide good pedestrian and vehicular access;
- e) is particularly important for loading and unloading large items, where on-street loading facilities are not available; and
- f) is best suited to regular customers, who are prepared to walk further than most other shoppers.

Figures 6.6(a) to 6.6(d) are sketches showing the limits of preferred customer parking areas.

Main Road Vs. Local Road Location (Q: 17)

This survey question aimed to test whether the advantages of an arterial road location outweighed the disadvantages. The results in Table 6.12. show that the majority of respondents (73 per cent) believe that a local road location would attract more customers than their present main road location. This seems to suggest that if many business operators had a choice, they would prefer to be located on a local road, despite reduced traffic volumes. From this, it appears that many business operators continue to operate their business at their present location for reasons other than the arterial road location. Relatively cheaper rentals, or the costs involved in relocating, may provide some explanation of this.

Several respondents made separate comments on having a main road location:

- a) it makes no difference to established trade;
- b) availability of on-street parking is a greater advantage than high volumes of passing traffic;
- c) specialist shops do not require a busy street; and
- d) good shopping streets need to be busy and provide adequate parking.

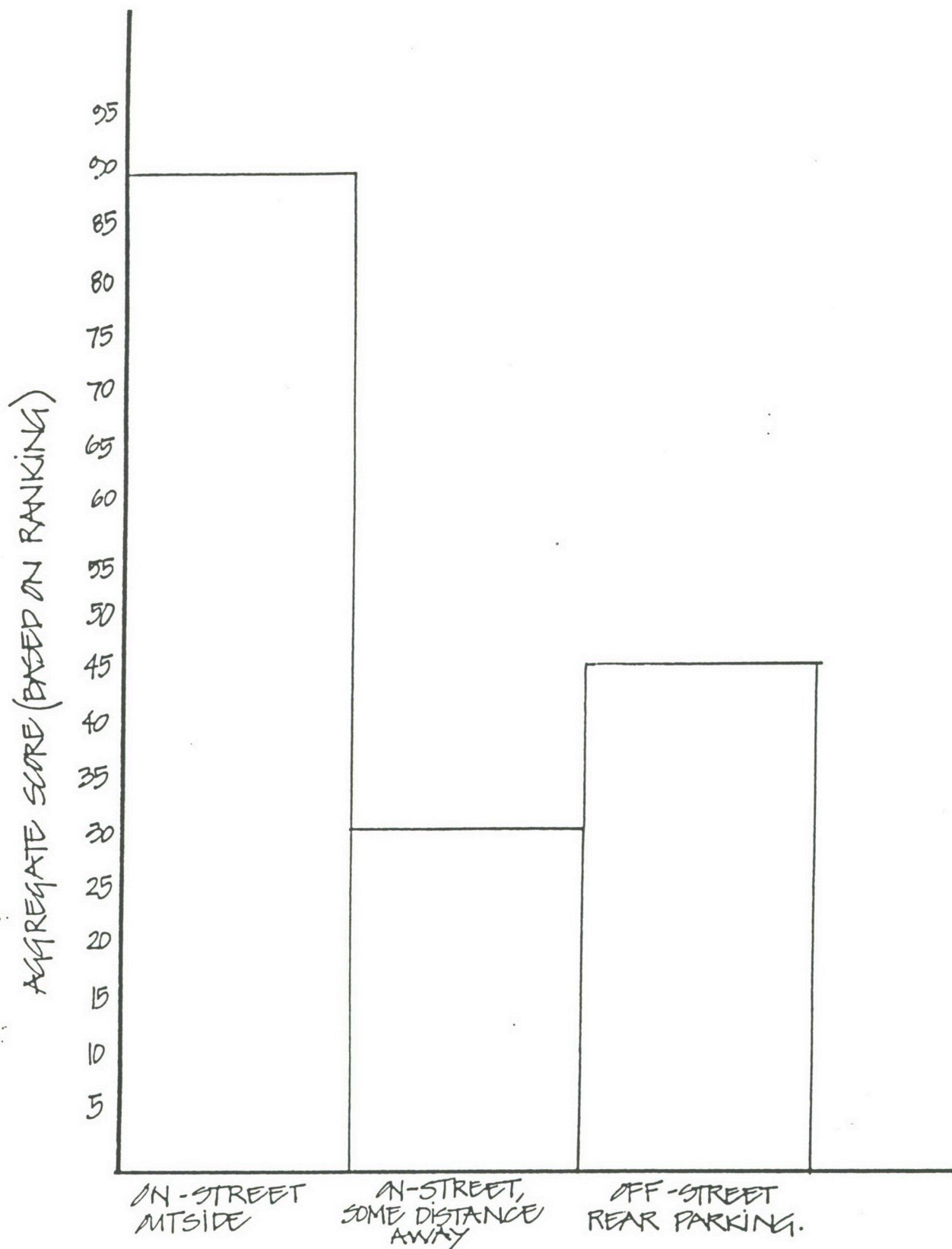


Figure 6.5. Importance of Different Types of Parking, Enfield

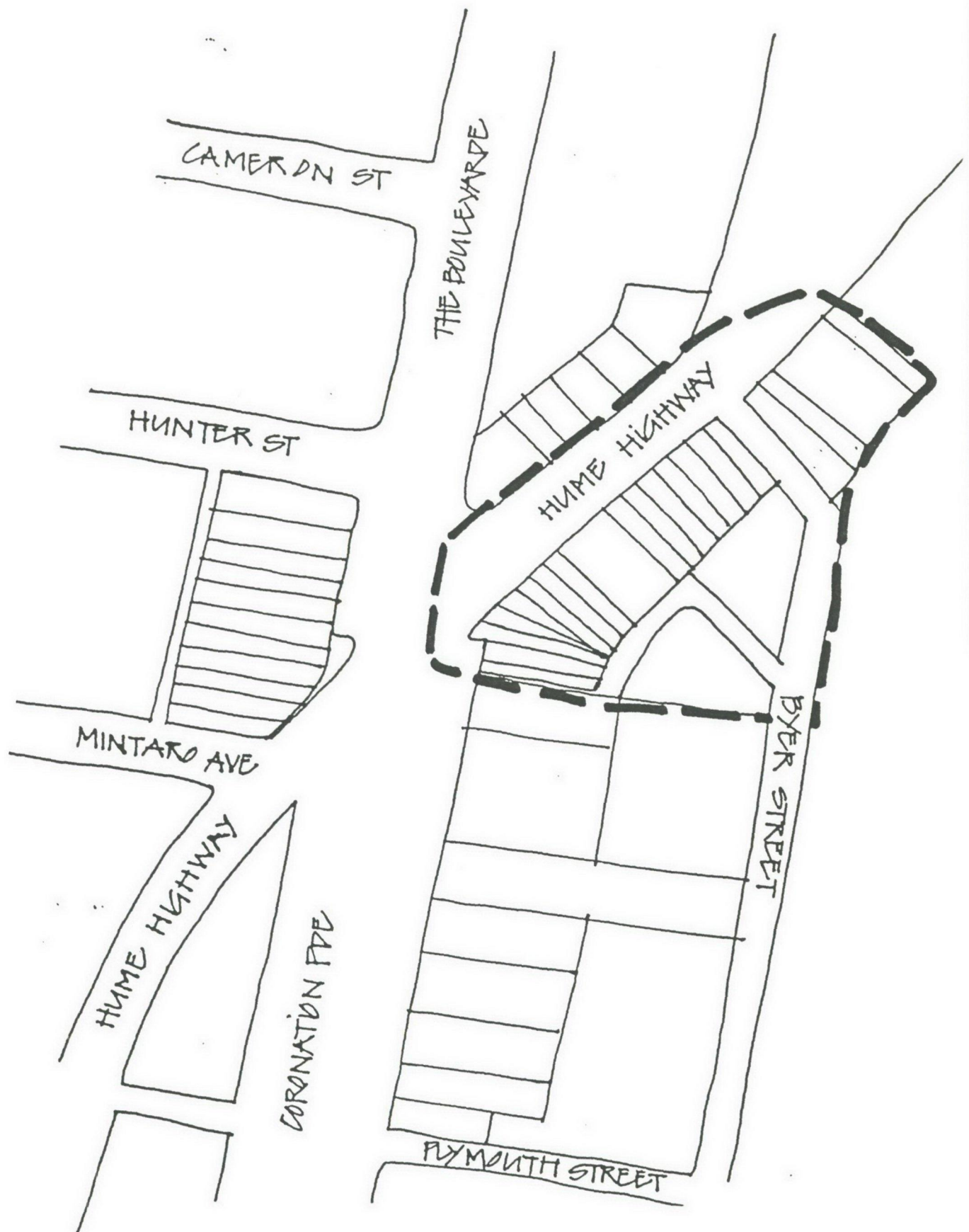


Figure 6.6(a).

Area 1.
Enfield Shopping Centre
Customer Parking - Preferred Area

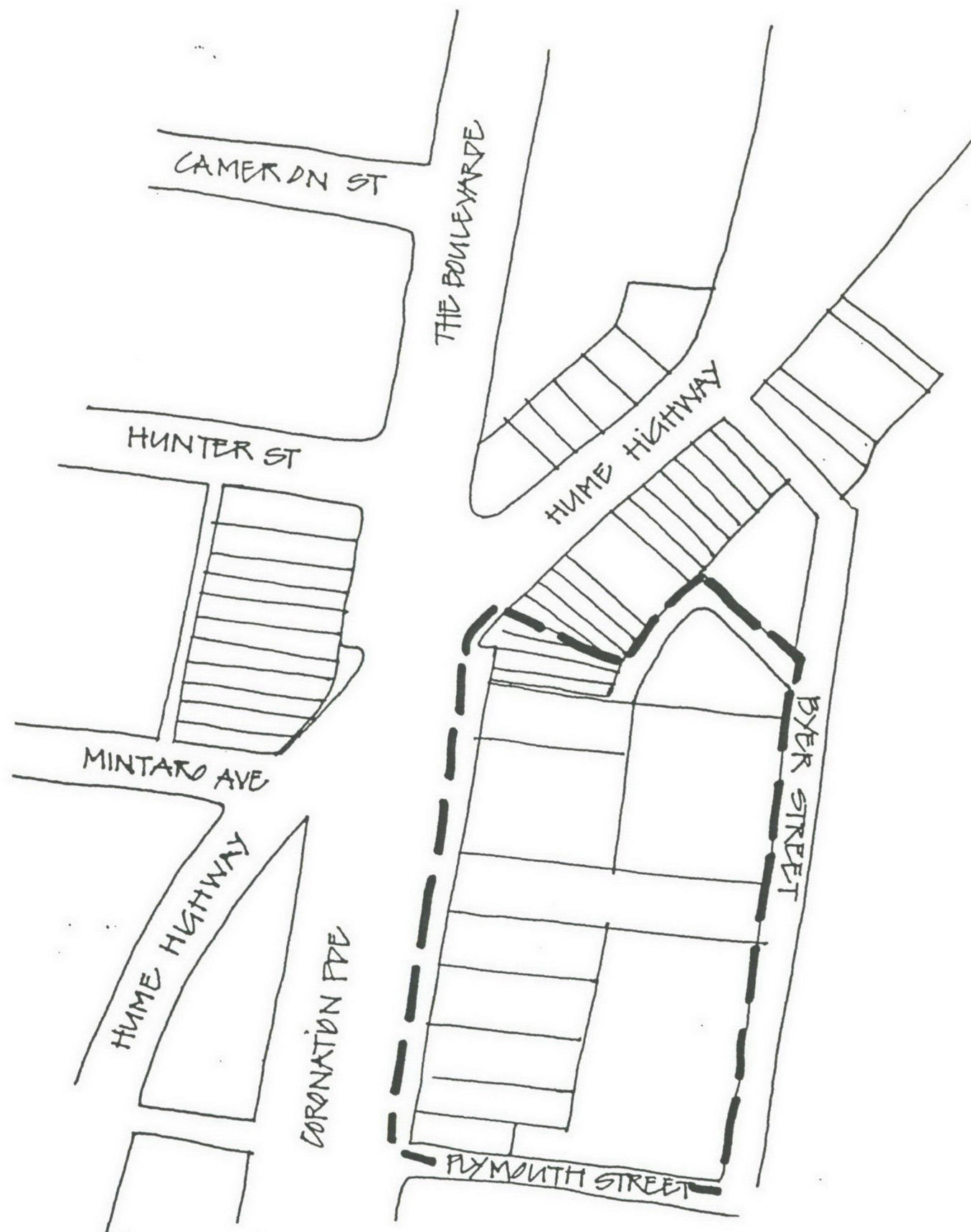


Figure 6.6(b).

Area 2
Enfield Shopping Centre
Customer Parking - Preferred Area

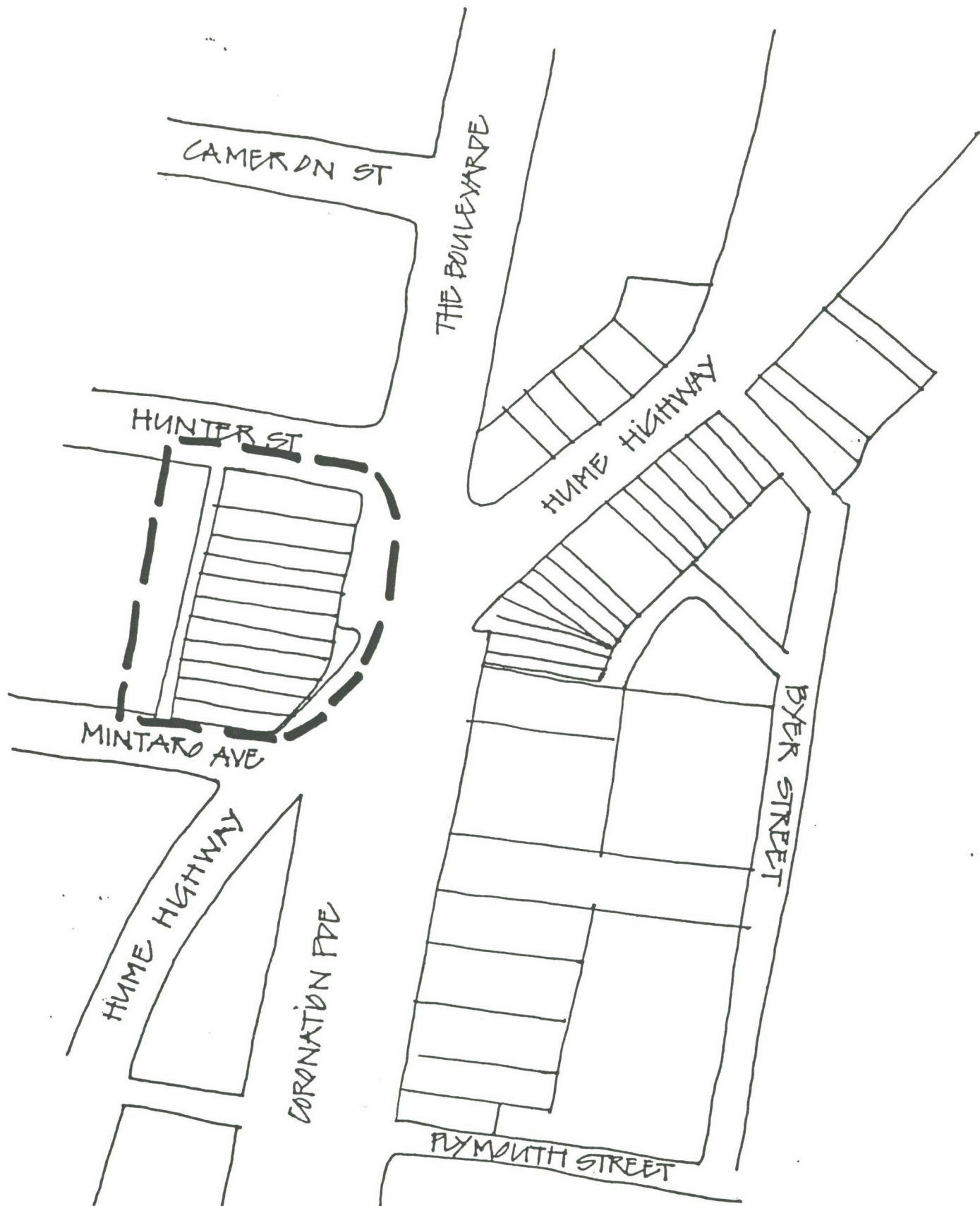


Figure 6.6(c).

Area 3
Enfield Shopping Centre
Customer Parking - Preferred Area

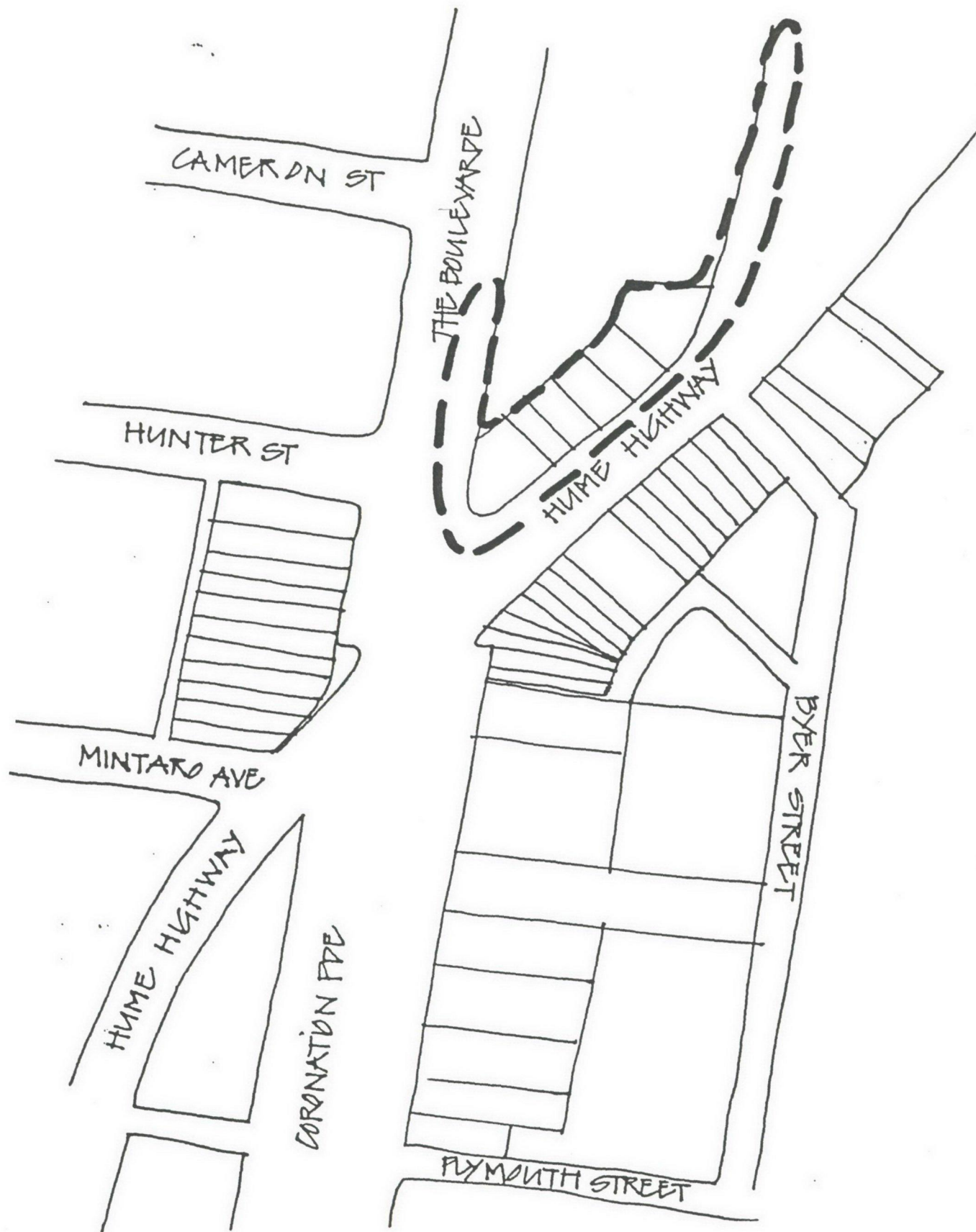


Figure 6.6(d).

Area 4
Enfield Shopping Centre
Customer Parking - Preferred Area

Table 6.12. Comments on Main Road or Local Road Location for Business, Enfield

Comment	No. of Respondents	(%)
Main road attracts more customers	7	(18.9%)
Quieter street attracts more customers	27	(73.0%)
Do not know	3	(8.1%)

Response to the Removal of On-street Parking (Q: 18)

Table 6.13. indicates that 57 per cent of the respondents indicated that they would continue business as usual if frontage parking were removed. At the time of the survey, ten respondents did not have access to frontage parking, making their response "not applicable". Of those respondents who currently do have access to on-street parking, six respondents indicated that they would either close down or relocate. This suggests that for some businesses the availability of on-street parking is critical to their remaining viable. Two of these respondents also commented that they may close down regardless of the removal of on-street parking, if turnover levels did not improve. Five business operators indicated that such a proposal would not force them to close down but that they would be most unhappy about the situation and predicted a likely decrease in trade. The survey results also showed that the effects of this would be felt in each of the four areas, with the exception of the area along Coronation Parade.

Table 6.13. Likely Response to the Removal of On-Street Parking, Enfield

Response	No. of Respondents	(%)
Continue as usual	21	(56.8%)
Close down	3	(8.1%)
Relocate	3	(8.1%)
Not applicable	10	(27.0%)

Response to "No Stopping" Signs (Q: 19)

Twenty four per cent of respondents indicated that they would close down or relocate if "no stopping" were placed in front of their business (Table 6.14). Included in this were the following businesses: hairdresser, take-away food, butcher, sporting goods/toys, florist, furniture and hardware stores. It can be

assumed that this would be a likely response to the introduction of S-lanes, which would result in the closing down of nine businesses within the Enfield shopping. Such a response would be considered to have a significant impact on individual businesses and the shopping centre as a whole.

Table 6.14. Likely Response to 'No Stopping' Signs Being Placed in Front of Businesses, Enfield

Response	No. of Respondents	(%)
Continue as usual	16	(43.2%)
Close down or relocate	9	(24.3%)
Not applicable	5	(13.5%)
Do not know	7	(18.9%)

Response to the Removal of Loading zones (Q: 20)

Table 6.15. shows that 20 respondents (70 per cent) did not have access to a loading zone at the time of the survey. This seems to suggest that nearby on-street or rear parking currently functions as a loading zone for the majority of respondents. The three businesses which would relocate or close down are: the sporting goods/toys, milkbar and the fruit shop. Any future proposals to remove parking should ensure that this does not interfere with the loading and unloading practices of the local shopkeepers. For example, on Parramatta Road at Leichhardt, delivery vehicles are forced to park illegally following the removal of on-street parking associated with the introduction of S-lanes.

Table 6.15. Response to the Removal of Loading Zones, Enfield

Response	No. of Respondents	(%)
Arrange rear deliveries	5	(13.5%)
Relocate or close down	3	(8.1%)
Other	3	(8.1%)
Not applicable	26	(70.3%)

Contributions for Additional Rear Parking (Q: 21)

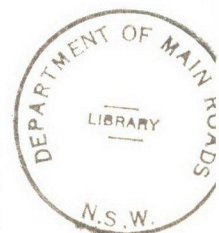
Over half of the respondents (59 per cent) indicated that they would not be prepared to pay contributions towards the provision of additional rear parking, whilst 41 per cent indicated that they would be willing to pay. Only one respondent in area 3 indicated a willingness to contribute towards rear parking. Several of those respondents willing to make a contribution qualified this with conditions such as:

- a) would contribute if parking was directly behind the premises;
- b) would pay contribution if it was reasonable and effective; and
- c) additional rear parking requires improved parking signs.

These comments suggest that even the willing respondents need to be convinced that their money will be appropriately spent before actually making a contribution. Authorities are likely to encounter difficulties in quantifying and securing equitable contributions from all business operators in an attempt to fund additional rear parking, since only a small proportion of the respondents are likely to make a monetary contribution.

Contributions for Rear Parking to replace On-street Parking (Q: 22)

Fifty nine per cent of respondents indicated a refusal to pay for replacement parking. Thirty five per cent of respondents indicated a willingness to contribute to replacement parking. This is slightly fewer than those willing to contribute towards additional parking. From these results, authorities would have more difficulty securing contributions towards replacement parking, compared with additional rear parking. The question was not applicable in the remaining 6 per cent of the businesses.



Provision of Laneways or Arcades (Q: 23)

Only two respondents considered the provision of laneways or arcades (connecting rear parking and shops) to be unimportant. Just over half the respondents (52 per cent) considered it to be at least of some importance, whilst 43 per cent described it as being very important (Table 6.16.). These survey results provide strong support for the inclusion of laneways and arcades into the design of additional rear-car parking facilities. Respondents commented that the existing laneway adjoining the Byer Street car park was well utilised by shoppers and shopkeepers. One business operator also suggested that laneways and arcades would be critical for loading and unloading purposes, in the event that "no stopping" restrictions were introduced which would prohibit on-street loading.

Table 6.16. Provision of Arcades or Laneways, Enfield

Response	No. of Respondents	(%)
Very important	16	(43.2%)
Of some importance	19	(51.4%)
Not important	2	(5.4%)

Preferred Changes to Traffic and Parking Conditions
(Q: 24, 25)

Area No.1: Hume Highway - South Side	Responsible Body
1. Hairdresser - parking indicator signs	don't know
2. Pianos - freeways above shops	State Gov't
3. Takeaway - provide on-street parking	Council
4. Laundromat - provide outside, on-street parking	shop owner with Govt assistance
5. Restaurant - remove clearway, provide on-street parking	don't know
6. T.A.B. - don't know	no comment
7. T.V. Repair - none at all	no comment
8. Sporting Goods/Toys - reduce length of bus zone to allow for deliveries and to avoid fines	U.T.A.
9. Porcelain Dolls - don't limit rear parking	Council
10. Butcher - remove clearway to provide on-street parking	Council
11. Florist - remove clearways	Council
12. Liquor - remove clearway to provide on-street parking	Council/DMR
13. Hairdresser - no comment	no comment
14. Hardware - Byer Street should be made one way provide additional parking on one side of the Street. Provide parking indicator signs for existing parking	Council
15. Furniture - provide traffic lights or pedestrian crossings opposite Willee Street to reduce the number of accidents	DMR or Local Council
16. Retail Signs - remove clearway	DMR/Council/UTA
- improve sign-posting for off-street parking	
- move bus stop out of centre to provide more on-street parking	
- provide more laneways to off-street parking.	

Area No.2: Coronation Parade**Responsible
Body**

-
- | | |
|---|--|
| 16. Real Estate Agent - widen Coronation Parade and add one more lane to attract more customers | DMR |
| 17. Beauty Salon - Provide lighting for existing rear parking. Replace destroyed clearway sign | Burwood Council or relevant government dept |
| 18. Hotel - nothing else can be done | no comment |
| 19. Goodyear Tyres - provide an entrance across the median strip | Council because it's their role to look after local business |
| 20. Curtains - increase on-street parking limit (currently only 1/4hr) provide overhead bridge | joint effort of DMR/Council and Traffic Auth'ty |
| 21. Chemist - provide more off-street parking | Council |
| 22. Tiles - provide additional off-street parking e.g. in the middle of The Boulevarde | no comment |
-

**Area No.3: North West Corner/Hume Highway -
The Boulevarde****Responsible
Body**

-
- | | |
|--|--|
| 23. Chemist - provide overhead bridge for pedestrians | don't know |
| 24. Takeaway Food - remove clearway | don't know |
| 25. Milk Bar - provide more rear parking with signs | Council |
| 26. Fruit Shop - not much can be done given the circumstances | joint effort of Landowner/T.A. and DMR |
| 27. Newsagency - move bus stop further up The Boulevarde and use this area to provide additional on-street parking | Council |
| 28. Groceries - provide subway for pedestrians to cross the road or an overhead bridge | Council or DMR |
| 29. Travel Agency - provide additional rear parking and on-street parking | DMR/Council |
| 30. Westpac Bank - provide more on-street and rear parking | Council/DMR |

Area No.4: North East Corner	Responsible Body
31. Post Office - there is adequate parking for size of shopping centre	not applicable
32. Real Estate - provide more parking areas just off the main road	Developers and Council
33. Solicitors - provide overhead walkway or underground arcades	Council or DMR
34. Carpet - can't do too much more	no comment
35. Nursery Supplies - connect Wille Street island into angle parking	Local Council
36. Commonwealth Bank - provide adequate parking	Council

Q: 26 COMMENTS

Summary of Suggestions for Improvements and Comments

Area No.1: Hume Highway, Southern side.

1. Doctors Surgery - no response
2. Furniture Store
Suggestion - traffic lights or pedestrian crossing opposite Willee Street due to high number of accidents
Responsible Authority - DMR, Council
3. Hardware
Suggestion - provide additional parking close to premises. Provide sign posting for existing rear parking. Traffic flow in Byer Street is dangerous. It should be made one way with parking on one side.
Comments - customers have been lost to large nearby shopping centres such as Westfield which has parking facilities and is located on a public transport link. Businesses need to specialise in this centre or they will not survive, e.g. hardware store sell oxy and acetelene gas which attracts customers.
4. Restaurant - open evenings - no response
5. Hairdressing Salon
Comments - the noise of trucks and semi-trailers makes it very difficult to talk to customers. Closing the door makes it very hot in summer. Would like to see heavy vehicles use an alternate route.

6. Liquor Supplies
Suggestion - remove clearway to provide additional on-street parking
Responsible Authority - Council, DMR
7. Signs
Suggestions - remove clearways, better signposts to off-street parking, more laneways to off-street parking. Move bus stop out of centre to provide more on-street parking.
Responsible Authority - DMR, Council, UTA
8. Florist
Suggestion - remove clearways
Responsible Authority - Council
Comments - government policy generally is opposed to small business
9. Butcher
Suggestions - remove clearways to provide parking on-street all day
Responsible Authority - Council
Comments - no trade after 3.30pm due to clearway
10. Porcelain Dolls (Shop and classes)
Suggestions - Cancel proposal to limit time on rear parking as this will affect those attending doll making classes
Responsible Authority - Council
11. Toys/Sporting Goods
Suggestions - reduce length of bus zone to additional on-street parking and improved access for large delivery vehicles
Comments - the local area has a growing ethnic population. This has influenced a changing shopping pattern away from traditional strip shopping centres. Elderly people are scared to cross the road due to the short 'walk' period and the 'don't care' attitude of motorists. Shoppers are not aware of the availability of rear parking. The length of the bus zone restricts the movement of large delivery vehicles such as brewery and butchers trucks. Both delivery vehicle drivers and others are booked quite often for parking in a bus zone
12. TV Sales and Repairs - no comments or suggestions
13. TAB - No comments or suggestions
14. Restaurant 'The Copper Scuttle'
Suggestions - remove clearway to provide additional on-street parking
15. Laundromat
Suggestions - provide outside, on-street parking
Responsible Authority - Shop owner with help of Government
Comments - considering selling business/building because of noise levels - when living on the premises

16. Motorcycle Accessories - no response
17. Takeaway Food
Suggestions - provide on-street parking nearby
Responsible Authority - Council
Comments - when on-street parking was available, business was good. People do not know that rear-parking is available. Customers are afraid to park in bus zone since many get booked
18. Piano Rentals
Suggestion - build freeway above shops and use existing highway as a feeder (Japanese idea)
Responsible Authority - State Government
Comments - The intersection is particularly dangerous for elderly pedestrians. There is on average two accidents each week. Accommodating traffic on main roads will be a major problem in the future
19. Hairdressing Salon
Suggestion - provide signs to show where rear-parking is (possibly put sign on corner where footpath extends)
Comments - there are many accidents at the intersection - including pedestrian accidents.

Area No. 2: Coronation Parade

20. Chemist
Suggestions - provide more off-street parking, e.g. where Goodyear Tyre Service is
Responsibility Authority - Council.
21. Groceries 'Scoop'
Comments - owner refused to do survey as he described the shopping centre as 'dead'.
22. Curtains
Suggestions - increase time limit on on-street parking. Existing 1/4 hour limit makes it difficult and inconvenient for customers and staff (particularly for loading/unloading)
Responsible Authority - DMR/Council/Traffic Authority should work together on solutions
Comments - loading and unloading needs to take place at the front of the shop. Parking time limit makes this difficult. The main traffic problem relates to the right-hand turn from the Hume Highway into The Boulevarde. There is an average of one accident per week at the intersection. Elderly people are afraid to cross the road because of its width, accident record and limited 'walk' period.
23. Dental Surgery
24. Goodyear Tyres - sales and service
Suggestions - provide entrance across median strip to allow customers heading north along Coronation Parade to have direct access to tyre service.

Responsibility Authority - Council

Comments - truck service provides large proportion of business. Difficult access makes it especially awkward for trucks. The shopping centre is 'awful' due to competition from other centres

25. Hotel - no suggestions or comments made

26. Police

27. Beauty Salon

Suggestions - provide lighting for rear parking area off Byer Street. Replace clearway sign (which was run over) in front of salon

Responsible Authority - Burwood Council or relevant government body

Suggestion - provide traffic lights at pedestrian crossing in Coronation Parade

Comments - one of proprietor's customer's children from primary school has been involved in accidents at this pedestrian crossing.

28. Real Estate Agent

Suggestions - widen Coronation Parade to provide one more lane (to attract more customers)

Responsible Authority - DMR

Comments - Real Estate Agents are a very special case - traffic management has very little influence on business. Advertising and the quality of the product are the main draw cards. The busier the locality - the better, as far as business is concerned

29. Vacant)

)

30. Residence)

31. Salvation Army

32. Tiles

Suggestions - provide additional off-street parking - maybe in the middle of The Boulevard where open space currently exists

Comments - there is an accident at the pedestrian crossing in Coronation Parade nearly every week - pedestrians always involved. Driveway from Plymouth Street provides rear parking for a few cars

Location - Cnr Hume Highway/The Boulevard - Between Hunter and Mintaro Ave

33. **Suggestions** - provide overhead bridge. Increase 'walk' period in traffic lights

Comments - difficult for elderly to cross the street in a short period. Business mostly confined to one side of the intersection. There are many accidents at the intersection including pedestrians, bicycles and cars

34. Cake Shop (closed in July 1985 after about 5 mths trading)
35. Discount Model Aircraft and Cars - appears to be closed
36. Take Away Food (Chicken)
Suggestions - remove clearway
Comments - business is halved as a result of clearways
37. Fruit/Vegetable Shop
Suggestions - very little can be done given the circumstances
Comments - the closing of the butcher shop (now a pizza place) drastically affected other businesses. The pedestrian crossing is a major problem for the elderly - there is an accident there nearly every day. People have also been knocked over on the median strip. The major attractions of the centre are: the Banks, Post Office, Doctor's Surgery, Shops and location of the bus stop. Available on-street parking is often taken up by office-related business. It should be used for quick-stop shopping. Traffic inspectors only occasionally seen.
38. Milk Bar
Suggestions - provide more rear parking with indicator signs
Responsible Authority - Council
Comments - location is very noisy making it uncomfortable for staff and customers
39. Newsagents
Suggestions - move bus stop further up the Boulevarde to provide more on-street parking
Responsible Authority - Council
Comments - crossing the road is a problem for the elderly. a large percentage of customers are elderly - they shop here because they live locally and generally goods are cheaper. The owner accepts the traffic problem.
40. Delicatessen - Refused to do survey as owner considered questions to be confidential
41. Pizza - open evenings - no response
42. Groceries
Suggestions - provide subway or overhead bridge to allow safer pedestrian crossing at the intersection
Responsible Authority - Council, DMR
Comments - 'walk' time at lights is too short
43. Restaurant - closed
44. Westpac Bank
Suggestions - provide more on-street and rear-parking
Responsible Authority - Council, DMR
45. Solicitor

46. Travel Agent
Suggestion - provide more outside, on-street parking
Responsible Authority - DMR, Council
- Location** - Hume Highway, North East Corner
47. Commonwealth Bank
Comments - Councils should provide more parking. More parking and shops are required
48. Solicitors
Suggestions - Provide overhead walkways or underground arcades
Comments - road conditions have little effect on business, but a growing shopping centre would help business
49. Post Office
50. ANZ Bank - permission from Head Office required to do survey
51. Real Estate Agent
52. Carpet Retailers
Comments - there is an accident nearly every week on the median strip in front of the shop. The Hume Highway is a major barrier for pedestrians/customers, who are advised by shopkeepers to cross at the lights
53. Nursery Supplies
Suggestions - convert island in the middle of Willee Street into angle parking
Responsible Authority - Local Council
Comments - Safety problem of right-hand turn into Willee Street from the Hume Highway due to the speed of the traffic and the bend in the road which obscures vision.
The location of the bus stop helps trade but it also blocks driver-vision of parking in Willee Street.
Loading/unloading from large trucks is a major safety problem since they have to unload from the main road.

6.3. Real Estate Interviews

In March, 1986, interviews with the two real estate agents in Enfield were conducted with the view of gaining insights into the nature and viability of the Enfield Shopping Centre. A detailed interview format was prepared and discussed with members of the Advisory Committee and altered accordingly before a final format was agreed upon. The outcome of the interviews reveals a contrasting perception of centre.

Real Estate Agent A

1. Historical Overview

It was considered that the shopping centre had been upgraded within the last 7 years.

Examples of this improvement were given as:

- a) Beauty Salon - refurbished building;
- b) New tile shop;
- c) Westpac/Commonwealth Banks updated;
- d) Old Antique shops completely refurbished for solicitor/-real estate agents/insurance brokers;
- e) Building of a large new hardware store (not within study area);
- f) Conversion of a deteriorated pool retailer to a nursery; and
- g) Butcher shop refurbished for a Pizza restaurant.

No recent upgrading has taken place on the southern side of the Hume Highway.

There is a high demand for properties in the area.

2. Property Values/Rentals

- a) **Offices** - the News offices (consisting of 2 shop fronts) were purchased for \$245,000.
 - Bank \$280,000.
- b) **Services** - laundromat recently sold for \$95,000.
 - pharmacy rental \$170 per week.
- c) **Consumer** - Specialist china dolls \$150 per week (800 sq ft).
- d) **Others** - Restaurant \$180 - \$200 per week.

Comparison of Values with Other Centres

Property and rental values are at least half of what they are in nearby Strathfield. Proximity to the railway line has a great deal to do with this.

Effect of Traffic Management Changes

Changes to individual property values was estimated to be approximately 20 per cent. Such changes are considered to affect smaller centres such as Enfield significantly more than larger centres such as Burwood, Ashfield and Strathfield which already attract large numbers of shoppers and workers - almost regardless of the availability of on-street parking. They have the advantage of a railway station.

It appears from discussions that once a strip shopping centre reaches a certain point in relation to size, functions and quality of shops it is more resilient to the effects of changes in traffic management.

Overall, property values have changed very little in Enfield over the last five years.

3. Business Valuation

Availability of parking more directly affects the valuation of a business than traffic conditions. However, where traffic management is changed in a place such as Enfield it may affect business valuation by as much as 20 per cent.

It is very difficult to rank land-use type in order of decreasing profit margin due to the complexity of factors which affect profit margin. One of these factors concerns the individual skills of business operators. Other factors include quality of goods, services and appearance of premises.

Professional offices appear to be fairly profitable in Enfield, which is probably due to the fact that their business is almost independent of location. Post offices/banks have an assured business although one bank manager expressed a desire to be located in a larger centre.

Change in traffic conditions would affect turnover and profit margins in Enfield. Only small changes in turnover could force the closure of some businesses.

4. Property Owners

Property owners are mostly long-established and content to leave premises as they are. (Of course, there is the risk of even a small upgrading requiring major changes to comply with Ordinance 70).

Yield from properties is poor, with an average property receiving 10 per cent net.

Trend to Sell - There does not appear to be a trend to dispose of properties except in the case of retirement, or similar circumstances.

5. Investment

Property investment in Enfield is not considered at all viable. Retail investment in more popular areas (for example, Ashfield or Burwood) is likely to bring better returns.

In the long term, this area may become more prominent as a retail/commercial centre. Investors may choose to buy in Enfield as a result of reduced commercial property supply and increasing cost in areas such as Burwood and Strathfield. For instance, Ashfield has grown rapidly in the past few years (although it has the advantage of being located on a main railway line).

Risk - There is minimal risk in investment although the returns are not high.

Improving on Returns - The condition of a building generally reflects the success of a business. Renovating or upgrading buildings, or improving quality of goods and services, likely to increase returns on business investment in the future.

6. Vacant Premises

Vacant premises do not usually remain as such for long periods except where they are located on a difficult section of the intersection, for example, northwest corner of the Hume Highway.

Most premises closed as a result of older established tenants moving out and because quality of goods were not in demand, for example, a fashion shop which was no longer fashionable.

Suitable uses for vacant shops are likely to include professional uses such as dentists or accountants. Food/clothing/shoe shops are likely to do well.

Vacancy rates in other centres nearby, such as Burwood and Strathfield, are usually nil because of the popularity of these centres.

7. Parking

Availability of parking in Enfield affects the marketability of properties far more than in Ashfield. Lack of on-street and off-street parking is certainly a deterrent to future upgrading of the centre. Potential buyers consider parking as being a very important consideration in their decision making.

8. Viability

The future viability of the centre will certainly be affected by traffic management and traffic conditions. Preferred ways of revitalising the centre include:

- a) encourage more office development;
- b) convert rear of shops to entrances; or
- c) upgrade the appearance of the centre.

9. The Future

The most likely scenarios to occur are marginal businesses forced out and an increase in office and office-related uses.

Redevelopment is likely as supply of commercial property in other nearby centres is exhausted.

Real Estate Agent B

1. Historical Overview

General changes over the last five years can be summarised as the deterioration of shops in terms of condition, quality and trade. There has been an increase in turnover of tenants. The type of tenants/shopkeepers is believed to have changed. Newer tenants are said to have little knowledge of marketing and are not prepared to spend money to improve businesses.

As the Shopping Centre has deteriorated (in appearance, quality of shops), competition from nearby centres has increased Enfield centre has become increasingly difficult to market. It has nothing to 'lure' customers.

Specific Examples of Land-Use and/or Property Change

- Fruit shop has changed hands three to four times in last 3 years.
- Delicatessen changed hands three to four times in last 3 years.
- Chemist shop changed hands recently.
- Copper Scuttle Restaurant has changed hands recently.

2. Property Rentals

a) Professional

Dentist	\$800 per month
Real Estate	\$1200 " "

b) Services

Florist	\$520 per month
T.A.B.	\$930 " "

c) Convenience

Butcher	\$568 per month
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d) Consumer

(depends on turnover)

e) Specialist

Specialist china dolls shop \$440 per month

f) Others

Restaurant \$930 per month

Property Values

Generally, retail outlets with premises above will be valued at between \$95,000 - \$120,000.

A laundromat has sold recently for \$95,000, after going to auction twice and selling for a price which was \$30,000 below the original value placed on the property. This is evidence of the difficulty of marketing premises in the shopping centre.

The Antique Furniture store's two shops were sold for \$110,000 each and were renovated to accommodate offices for travel agents, insurance brokers and solicitors.

Comparative Property Values

Properties along the Hume Highway in Ashfield, where the condition of the buildings is good, could receive double the price for properties in Enfield, which has a deteriorating image.

Effect of Traffic Management on Property Values

Traffic/parking are important factors in determining property values. For instance, the introduction of clearways could reduce business and property values by as much as 20 per cent. Professional offices would be affected to a lesser extent.

Turnover/Profit Margin

It is difficult to rank profit margin and turnover in terms of land-use type, since it is more likely that the skills and experience of business operators and the marketing of businesses will influence profit levels.

A possible ranking of business by land-use type in order of decreasing profit margin may be as follows:

a) Offices

- b) Consumer) profit margins depend on the capacity
- c) Specialists) to 'market'.
- Others)

- d) Services) Many of these businesses simply provide a wage. Since they are providing common goods/service it is difficult to compete with nearby centres.
e) Convenience Stores)

It is speculated that profit margin/turnover could be affected by as much as 20 per cent if traffic conditions were changed. In the case of businesses 'working for wage', a change in traffic management could force closure. Many existing businesses were said to be providing owners with a return equivalent to an average wage.

Property Owners

The majority of owners of property in the Enfield Shopping Centre were described as small scale, long-established or 'one-off' investors. The prevalence of this type of investor was considered as one of the main reasons for the physical deterioration of shops and the declining trade. The lack of larger-scale investors has meant that no significant improvements have taken place to encourage further investment.

Average annual yield from properties was estimated to be approximately 6 per cent. This is considered a poor return on investment given costs associated with land tax and rates. Negative gearing and capital gains tax were also considered to contribute to a "low ebb" in property investment. Alternative investments (finance companies) currently provide higher and more secure returns on investment than small-scale property investment.

Trend to Sell Properties

There is a significant trend to sell rental properties as a result of poor returns. (This varies from the advice given by Real Estate Agent A). For instance, a property worth \$100,000 may return \$6,000 per annum gross. Once costs are taken out the investment yields a very poor return in comparison to alternative investments requiring the same capital outlay. All types of businesses are affected by this trend to sell rentable properties.

A change in traffic management could only increase the trend to sell properties in the centre.

Many properties are currently considered unsaleable because of the poor return on investment. The only opportunities for sale of properties are for those who wish to be owner-occupiers.

Ordinance 70 makes it very difficult to sell properties in Enfield which are put on the market. This Ordinance was said to apply to the majority of commercial buildings, thus decreasing property values and restricting the possibility of selling properties because of the cost involved in

upgrading to meet fire and safety requirements.

Properties in the Enfield centre are generally not considered worth holding on to because of low return on investment.

Investment

Investment in a strip-shopping centre such as Enfield is not considered viable. Better returns can be obtained from newer style strip-shopping centres which have major attractions such as supermarkets or department stores. Such areas return considerably higher rents.

Vulnerability

There is a high level of risk associated with investment in strip-shopping centres, particularly those which have become run down. The main reason for this was considered to be an unprotected environment. Development on main roads is extremely vulnerable to changes in traffic management and conditions which could have significant impacts on business. The environment is considered to offer no assurance or protection to the business operator thereby making investment of a risky nature.

A parking limit, or increased clearway period were mentioned as potentially killing a business. Increased competition from self-contained shopping centres also contributes to the economic vulnerability of centres such as Enfield.

Improving Returns on Investment

Local Government should take a more active role in supporting and upgrading smaller strip-shopping centres. This support currently appears to concentrate on promotion of larger-scale shopping centres. Neighbourhood centres are left to fend for themselves. One way in which Local Government can promote these centres (according to real estate agents) is to expand the zoned commercial area to permit redevelopment and to provide additional car parking. The Real Estate Agents, for instance, applied to extend its premises and provide additional car parking but Council refused.

Local Government could also protect business operators by lobbying to maintain current levels of on-street parking.

There is a role for a neighbourhood shopping centre with good access to parking where local residents can buy all their convenience goods without being forced to go to a major centre such as Burwood.

Given the current returns on investment, most properties in the centre are not considered worth holding on to unless the business receives a good return or the building is in good

condition.

Vacant Premises

Vacant premises usually remain as such for extended periods. Vacant premises appear to be attracting the lowest end of the market in terms of tenants. These are tenants said to lack business or entrepreneurial skills.

Waiting time for vacant premises is short if an owner/occupier becomes available. Many of the properties in the centre are considered **unsaleable** because of the poor image of Enfield as a shopping centre and the cost associated with upgrading premises to Ordinance 70 requirements.

Proposals to Buy/Sell/Upgrade

Fruit shop on the north west corner is up for sale. Otherwise there are no plans to buy, sell or upgrade premises.

Reasons for Closing Down

Businesses usually close because of lack of trade.

Alternative Uses of Vacant Premises

Many premises are too costly to upgrade to Ordinance 70 requirements. Even if premises were upgraded it may not increase yield on investment or turnover for business owners. The best use for these premises was considered to be redevelopment to provide an attraction to Enfield (such as a Supermarket).

Parking

The availability or easy access to on- and off-street parking is essential to the marketability of properties and business. Lack of room for off-street parking, or lack of appropriate zoning, is considered a significant deterrent to future development or upgrading of the centre.

General Comments

The southern side of the Hume Highway is considered the most viable part of the shopping centre in that it can attract the afternoon trade. Kentucky Fried Chicken expressed interest in locating here for this reason.

Revitalising the Shopping Centre

The main way in which the Centre could be revitalised is by expansion and redevelopment. This could be facilitated by expanding the area that is zoned commercially. The key to expansion is access to parking facilities. For instance the southern side of the Hume Highway potentially could

attract a large proportion of the 'going home' trade if easy access to parking was available.

Mitigating the Effects of Traffic Management

The suggested ways of mitigating the effects of traffic management included:

- a) encouraging more office-related development
- b) encourage further development or redevelopment of the southern side for retail-related use to take advantage of afternoon home-bound traffic
- c) encourage redevelopment of properties which are 'beyond repair'.

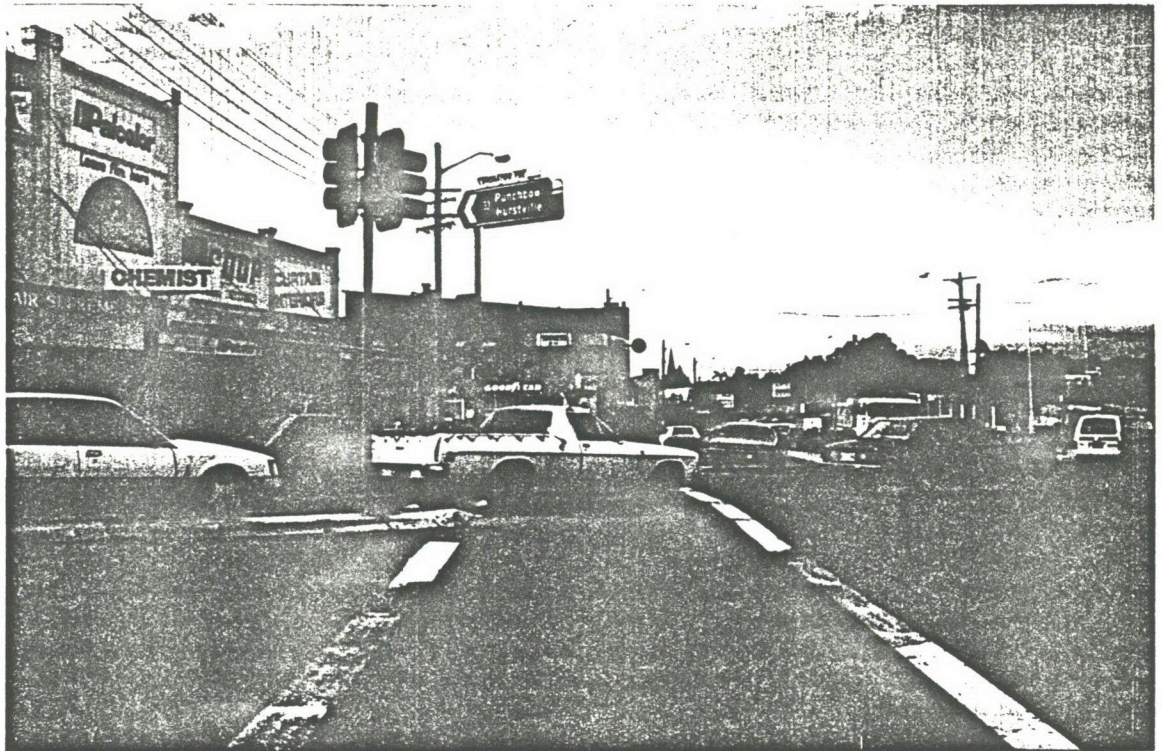


PLATE 6.1 TRAFFIC VOLUMES AT INTERSECTION.
THE INTERSECTION OF THE HUME HIGHWAY AND
CORONATION PARADE, SHOWING HIGH TRAFFIC
VOLUMES.

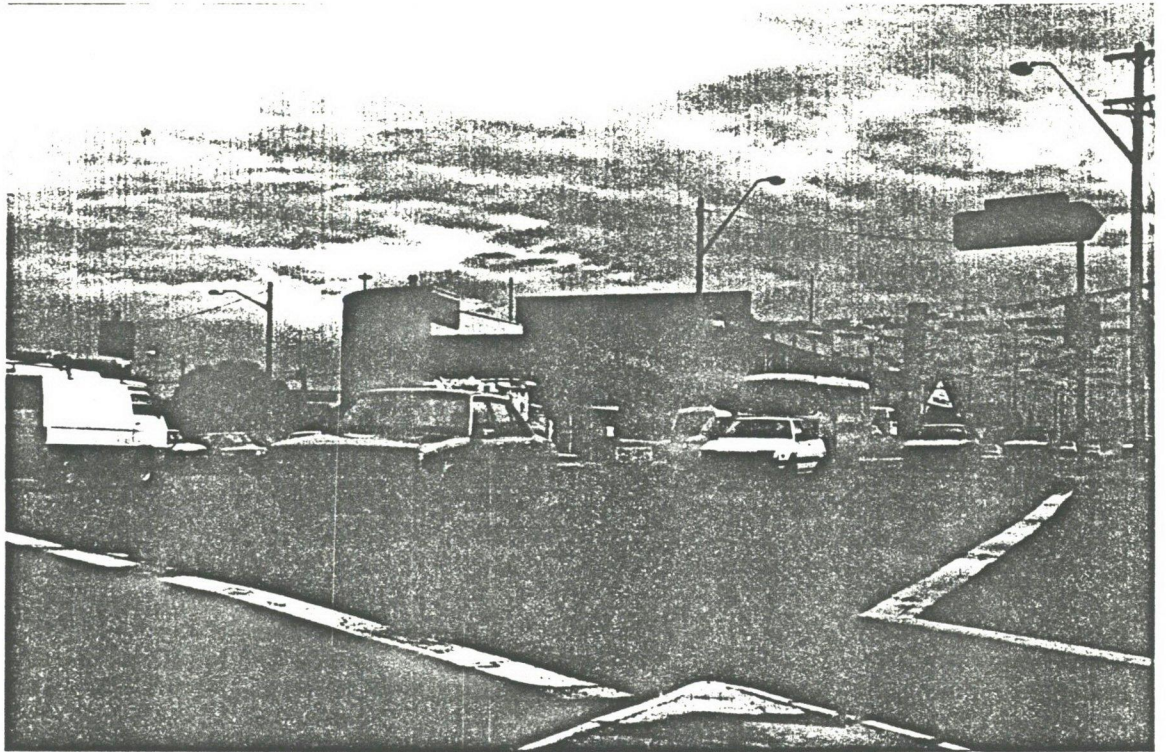


PLATE 6.2 INTERSECTION WIDTH.
THE WIDTH OF THE INTERSECTION AND THE VOLUME
AND SPEED OF PASSING TRAFFIC MAKES IT
A POTENTIALLY DANGEROUS INTERSECTION FOR
PEDESTRIANS.



PLATE 6.3 AREA 4.
AREA 4 - THE NORTH EASTERN CORNER OF THE
HUME HIGHWAY / THE BOULEVARDE INTERSECTION.



PLATE 6.4 BYER STREET CAR PARK.
BYER STREET CAR PARKING LOCATED AT THE REAR
OF SHOPS IN AREAS 1 AND 2.

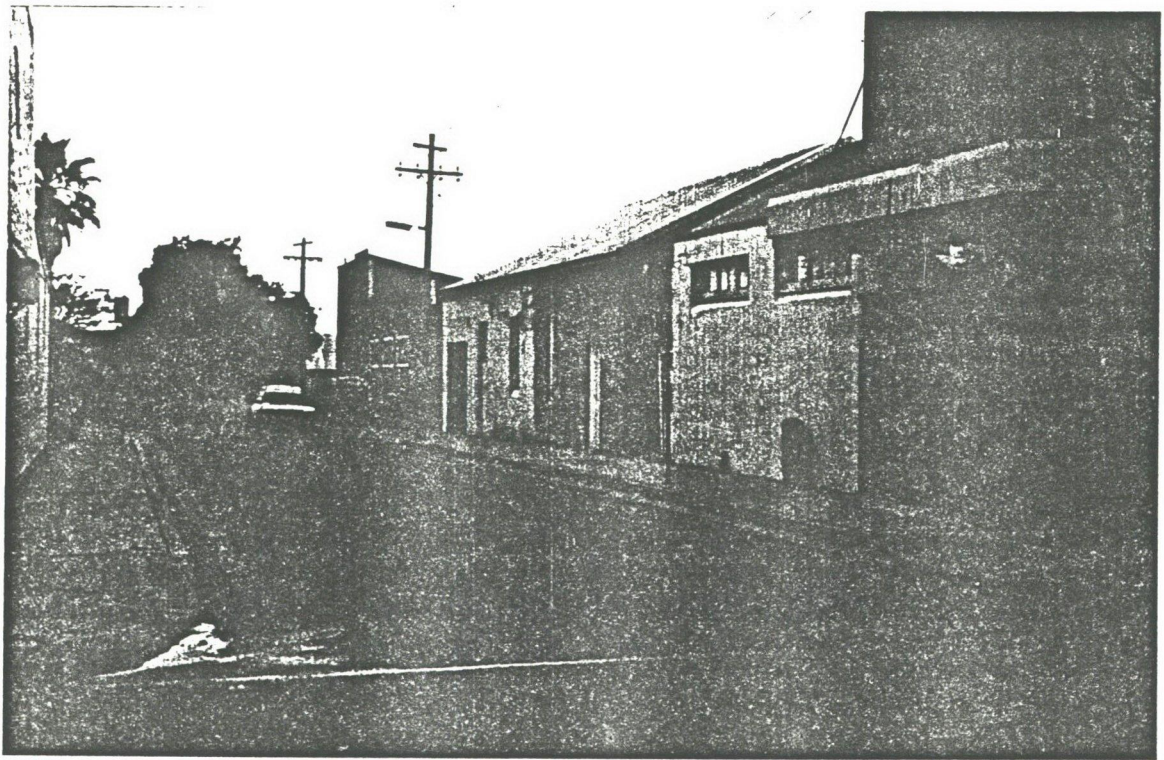


PLATE
LIMITED ACCESS TO BYER STREET CAR PARK.
FROM BYER STREET / HUME HIGHWAY INTERSECTION

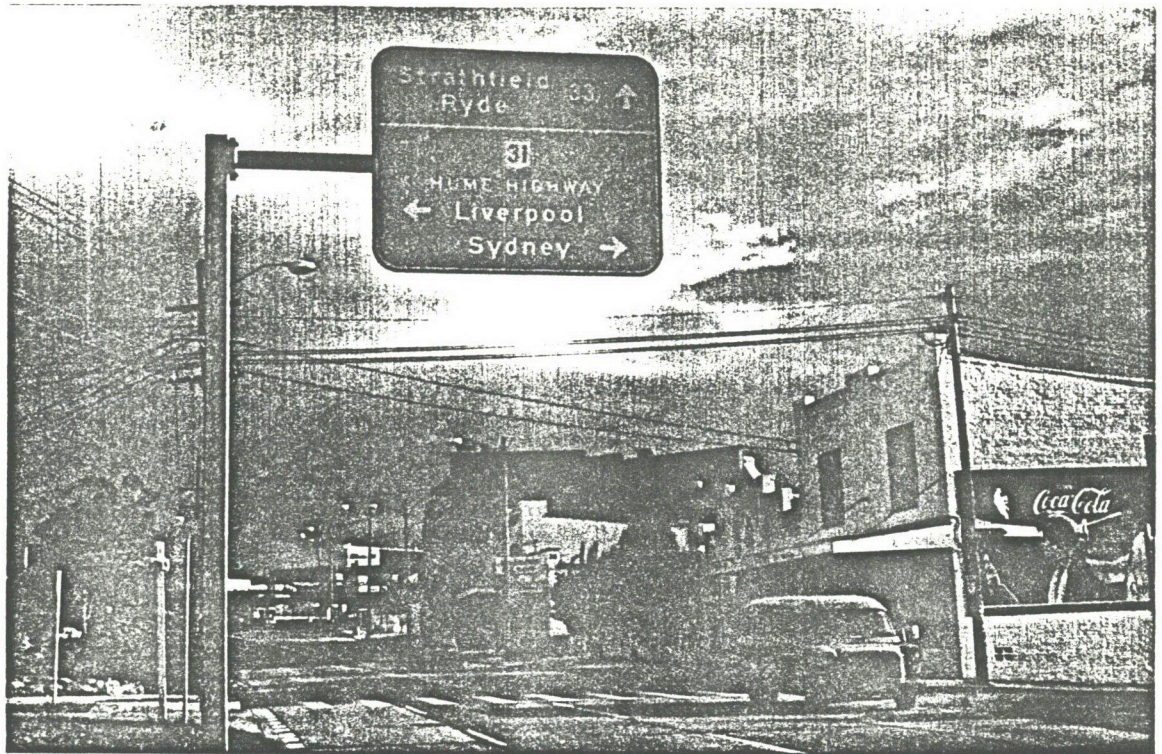


PLATE 6.6 SOUTHERN APPROACH.
SOUTHERN APPROACH TO ENFIELD SHOPPING
CENTRE SHOWING AREA 3, ON CORONATION PARADE,
IN THE RIGHT HAND SIDE OF THE PHOTO.

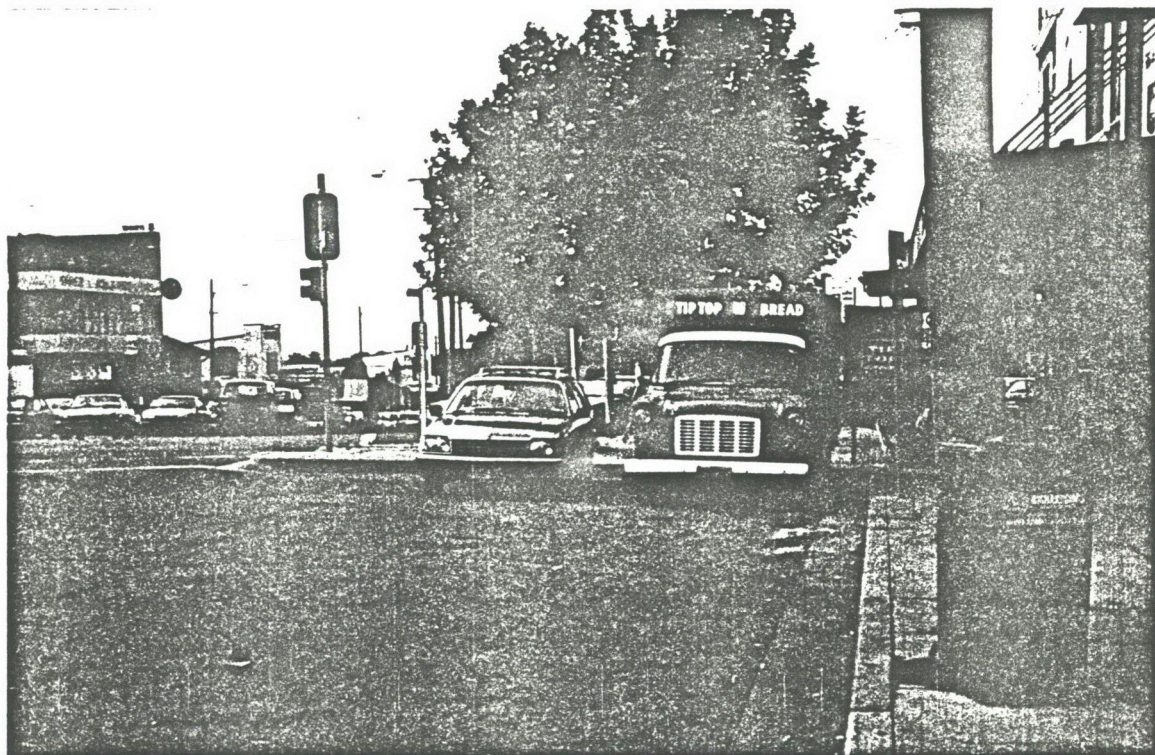


PLATE 6.7. AREA 3 - FOOTPATH ALIGNMENT.
THE FOOTPATH ALIGNMENT HAS PROVIDED
SERVICE VEHICLE PARKING.



PLATE 6.8 TREE PLANTING IN AREA 3.

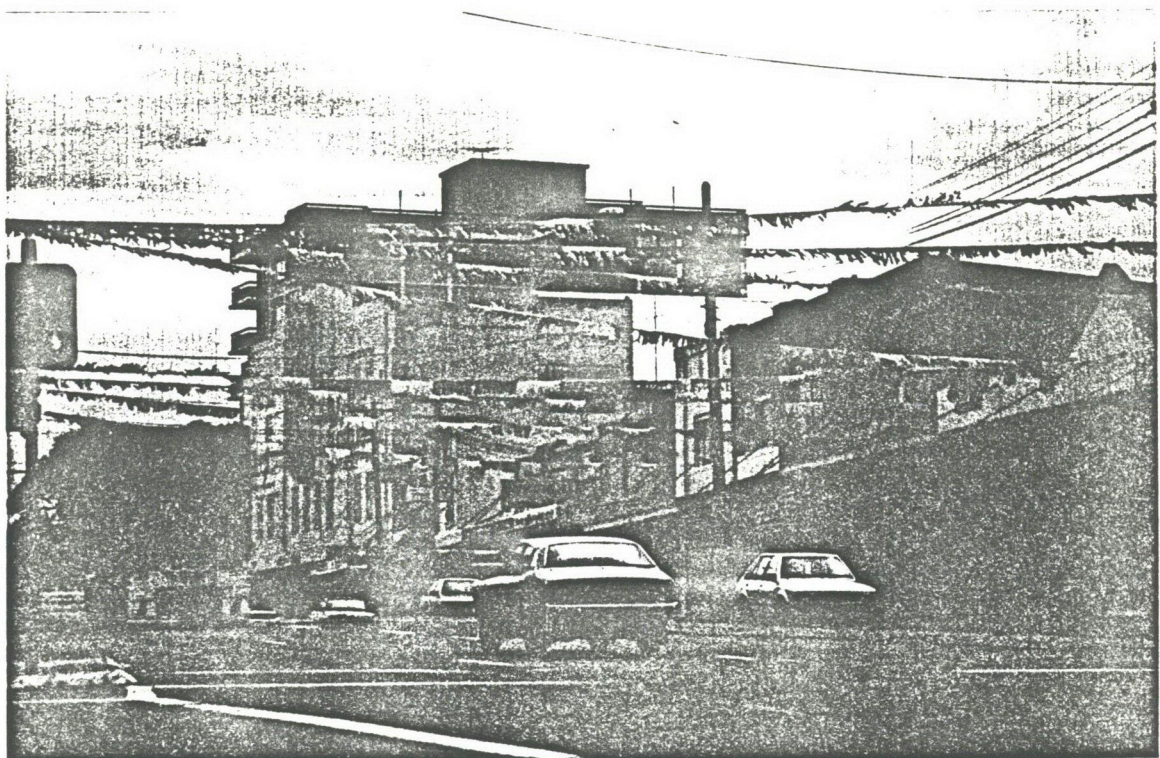


PLATE 6.9 AREA 1.
BUSINESSES FRONTING THE HUME HIGHWAY
AND LOCATED WITHIN AREA 1 OF THE
SURVEY AREA.

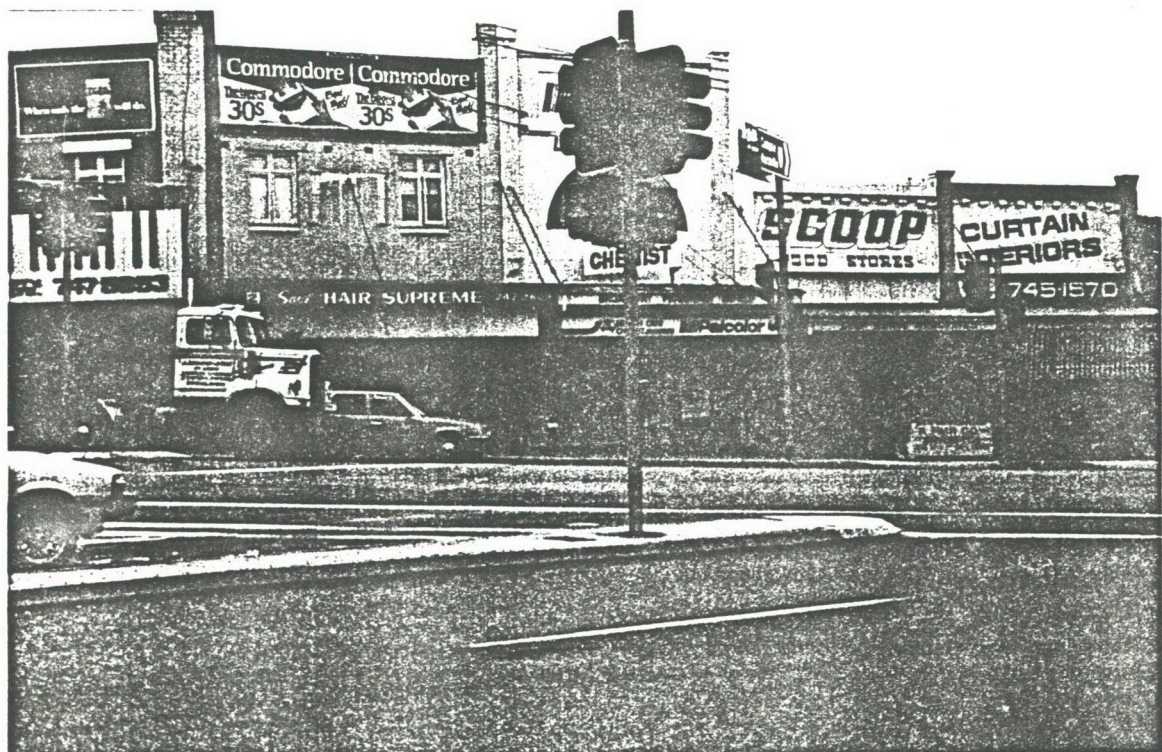


PLATE 6.10 AREA 1.

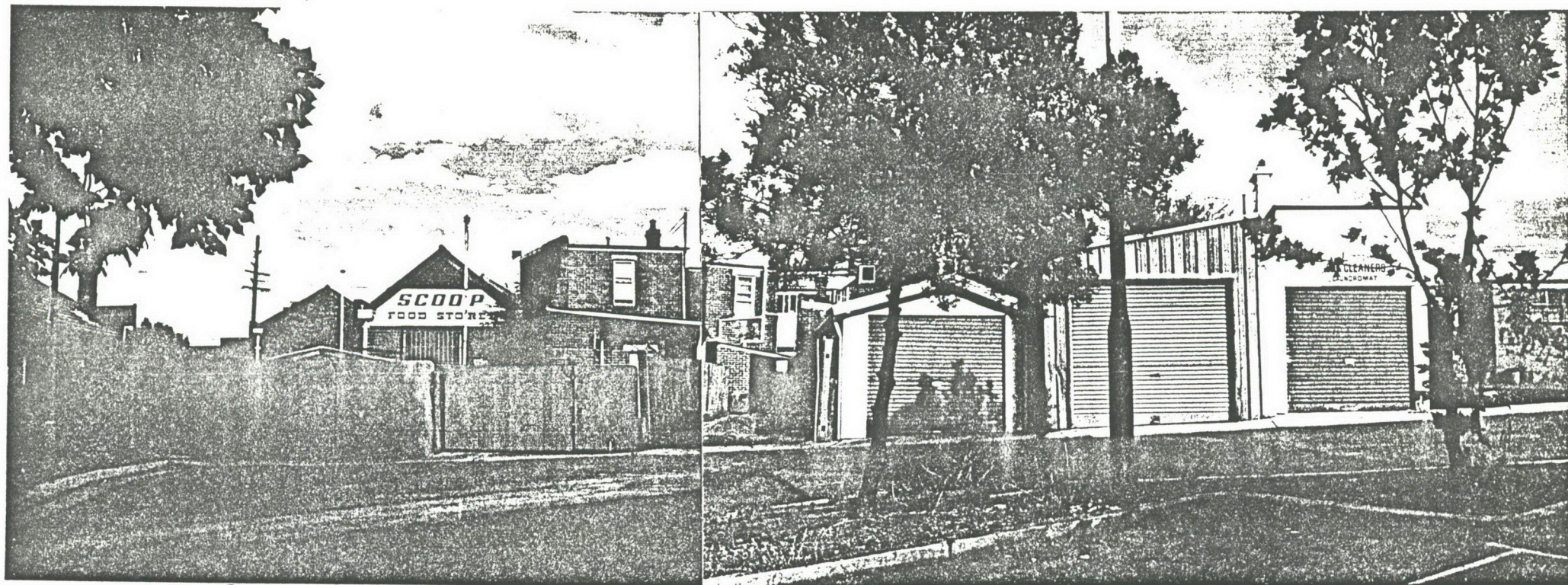


PLATE 6-11 REAR ACCESS.
SOME PROPERTIES ON CORONATION PARADE HAVE REAR LANE
ACCESS, ADJACENT TO BYER STREET CAR PARK. MOST DELIVERIES
TAKE PLACE ON-STREET.

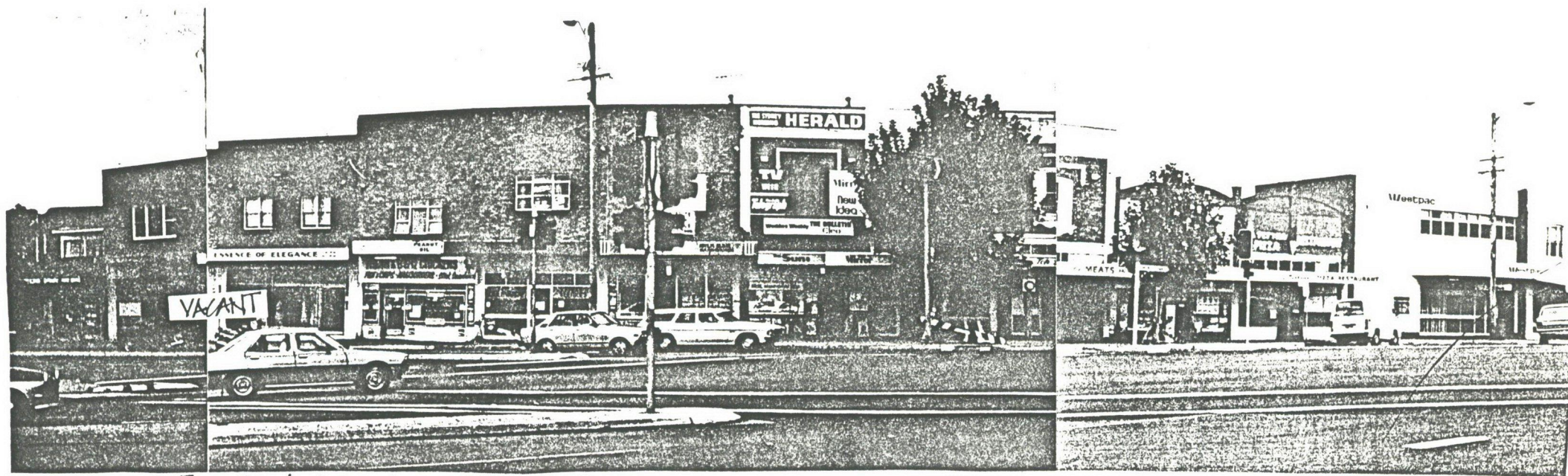


PLATE 6.12 AREA 3.
 AREA 3.- SHOWING LANDUSES ON THE NORTH-WESTERN CORNER OF
 THE HUME HIGHWAY AND THE BOULEVARDE.

PREDICTING IMPACTS

7.1 General Effects - Post-Facto

Figures 7.1 to 7.3 summarise the varying impacts which traffic management measures (specifically S-lanes) have had on the land uses within the different post-facto survey areas. They are based on the survey results which were described in Chapters 3 to 5. The various effects were ranked according to the survey results which indicated the seriousness of the effects in Gordon, Turramurra and Leichhardt.

Trade

Overall, S-lanes, and, to a lesser extent, clearways were perceived to have brought about a decline in trade. Care needs to be taken in interpreting the results, as some businesses may have been facing financial difficulties prior to the introduction of S-lanes, a situation which was shown to exist in Enfield. Leichhardt shopping centre appears to have been hit hardest by traffic management changes. In all three areas the main reasons attributable to decreases in turnover were: loss of on-street parking; "no stopping" which prevents quick-stop shopping; and the proximity of cars to pedestrians. In all areas, these factors were seen to be directly related to the introduction of S-lanes.

In the Leichhardt shopping centre, 76 per cent of respondents had experienced a decrease in trade, which was attributed to the introduction of S-lanes. Forty percent of respondents were also considering either closing down or reducing staff if their current level of turnover remained the same. Convenience stores had experienced the highest proportional loss in trade. Although Leichhardt is a predominantly local shopping centre, it is difficult to deduce from the survey results whether or not S-lanes had reduced local trade. The business operators who had experienced a recent increase in turnover attributed this to factors unrelated to traffic management measures. These included: changes in consumer preferences; renovations to premises; marketing drives; and improved economic conditions.

Trade in the Gordon shopping centre did not appear to be reduced to the same extent as in Leichhardt. However, particular uses were dramatically affected. One respondent claimed that turnover had been reduced by \$3000 per week since the introduction of S-lanes. One business operator had already relocated to the Gordon Centre, across the road, and three others were considering closing down or relocating if their current level of turnover did not improve. Respondents expressed a concern that their regular customers may choose to shop at major retail centres, such as Chatswood in the future, because of the difficulties with parking. It is difficult to know if this will happen given the availability of a large shoppers' car park, located at the rear of the affected businesses. It seems likely that changes in local shopping patterns would be fairly slow in responding to the introduction of S-lanes, given that the majority of customers

EFFECTS	EXTENT OF IMPACT			
	MAJOR	MINOR	NO EFFECT	NOT SURE
TRADE				
Passing				
Local				
PARKING				
LAND USE				
CHANGE				
CROSSABILITY				
PUBLIC T'SPORT				
LOADING				
SAFETY				
(subjective)				
AMENITY				
(subjective)				
PROPERTY				
(values/ marketability)				

Figure 7.1. Summary of General Effects
Gordon Shopping Centre

EFFECTS	EXTENT OF IMPACT			
	MAJOR	MINOR	NO EFFECT	NOT SURE
TRADE				
Passing				
Local				
PARKING				
LAND USE				
CHANGE				
CROSSABILITY				
PUBLIC'S SPORT				
LOADING				
SAFETY				
(subjective)				
AMENITY				
(subjective)				
PROPERTY				
(values/ marketability)				

Figure 7.2. Summary of General Effects
Turrumurra Shopping Centre

EFFECTS	EXTENT OF IMPACTS			
	MAJOR	MINOR	NO EFFECT	NOT SURE
TRADE				
Passing				
Local				
PARKING				
LANDUSE CHANGE				
CROSSABILITY				
PUBLIC/SPORT				
LOADING				
SAFETY (subjective)				
AMENITY (subjective)				
PROPERTY (values/ marketability)				

Figure 7.3. Summary of General Effects
Leichhardt Shopping Centre

are thought to be local residents and many of these regular customers.

Trade in the Turrumurra shopping centre appears to have been the least affected of the three survey areas, with only one respondent considering relocating if the current level of turnover remained the same. Although many respondents commented on the reduced safety of the centre, especially for elderly customers, it is difficult to tell whether this will actually reduce the the proportion of local trade in the shopping centre. Several specialty stores considered their trade loss to be associated with the inability of passing traffic to stop and park in order to make a quick purchase.

Parking

Parking was rated as having a major effect in all three survey areas. The survey results show that on-street parking plays a critical role in the successful functioning of these strip-shopping centres. Some of the the reasons given for this include: the expectation of shoppers and passing traffic to be able to park quickly; on-street parking is considered to provide a safety/noise/dust buffer; historically shoppers have been accustomed to having on-street parking; and drivers are not prepared to walk far from their cars to shops.

In Leichhardt, parking was rated as the factor most responsible for decline in trade. Its rear parking facilities are small and scattered with difficult access from the main road, and do not have short and direct pedestrian access to the shopping centre.

In Gordon, despite the large rear car park in Wade Lane, respondents were concerned that the loss of on-street parking prevented quick-stop shopping, and thus dramatically affected passing trade.

Respondents in Turrumurra claimed that on-street parking was important for convenience shopping and in attracting passing trade, which was lost as a result of the "no stopping" provisions. Some respondents also claimed that the existing rear parking area, on the northern side of the shopping centre, was used mostly by commuters, which restricted its use for shoppers. Many shopkeepers commented that difficult access to rear car parks results in passing traffic proceeding to a more convenient location.

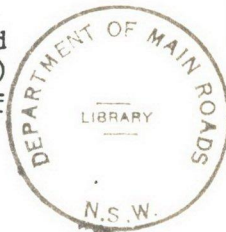
Land-Use Change

Land-use change involves the replacement of one land use by another, or the closure of a business resulting in a vacant premises. It also includes those changes which are likely to occur in the future. It was difficult to establish from the survey results whether the land-use changes which had occurred were a response to the introduction of S-lanes or some other factors. Some assumptions were made in assessing the extent of impact, based on the overall survey results.

In Leichhardt, six businesses have been operating for one year or less, which suggests a high recent turnover. Five respondents also indicated that they intended closing down if their current level of turnover remains the same. There were three vacant shops at the time of the survey, although there are no details given on the length of time they have been vacant. A local real estate agent suggested that once a premises becomes vacant, it remains so for a lengthy period.

One business (women's clothing) has been relocated from the affected side of the shopping centre to the Gordon Centre, on the other side of the road.

In Turrumurra, there was only one shop which had been located there for less than a year and one business operator (drapery) would consider closing down, but was prepared to wait and see if turnover remained at its current level.



Crossability

Crossability, in the context of this study, refers to the perceived level of difficulty in crossing the road. The survey questionnaire did not directly ask respondents to comment on the effect of traffic management measures on the interaction between the two sides of the shopping centre. Respondents did mention a number of factors which they considered made it more difficult for pedestrians to cross the road. These included: the alignment of the road in relation to the start of the S-lane and the increased speed and proximity of moving vehicles. It seemed that these factors reduced the movement of pedestrians mid-block. It was impossible to conclude whether the proportion of pedestrians crossing at traffic signals was also reduced.

Survey results in Leichhardt showed that there was a low level of interaction between the two sides of the road because of the volume of traffic, the availability of parking facilities on one side of the street, and the perceived imbalance in the type and quality of shops on different sides of the road. It was assumed that with an already low level of crossability, S-lanes are unlikely to have a noticeable effect.

Gordon shopping centre appears to be characterised by a high level of pedestrian interaction between the two sides of the centre. This may be attributed to the existence of large car-parking areas on both sides. The railway station and the Gordon centre, located on different sides of the highway might also explain this. Survey results showed that pedestrians prefer to cross at street level (at either of the two sets of traffic signals) rather than use the overhead bridge. Although many respondents commented on the increased danger associated with crossing the highway, it is not clear from the survey results whether this has reduced the crossability of the road or just in the mid-block situation.

It was also difficult to conclude from the Turramurra survey results whether or not the level of interaction between the two sides of the street had been affected by the introduction of S-lanes. There seemed to be a balance between the two sides of the shopping centre (both providing large car parks) which maintained this level of interaction. Respondents commented on the perceived danger by pedestrians, which may have reduced the amount of mid-block crossing.

Public Transport Users

With the exception of the Leichhardt respondents, the survey results indicated that public transport users had experienced no noticeable effects resulting from traffic management changes. In Leichhardt, several respondents commented on the value, to their business, of having a bus stop near their front door. Several respondents claimed that the moving of a bus stop away from their shop front had noticeably reduced trade. One respondent also claimed that the long distance between bus stops also had a detrimental effect on trade within the shopping centre.

From the survey results, a much higher proportion of shoppers use public transport in Leichhardt than in Gordon and Turramurra. The location and number of bus stops in a shopping centre such as Leichhardt could have a minor impact on the number of people who shop in the centre, given the inconvenience of combining shopping and use of public transport.

Loading

S-lanes have had the greatest affect on loading in Leichhardt of all the three post-facto areas. Traditionally, loading and unloading has been carried out on-street in Leichhardt with no provisions being made to do this off-street. The few properties which do have rear lane access are not suitably equipped, because of cluttered backyards or separate structures restricting access to the retail premises. Most delivery vehicles have been forced to unload illegally despite the "no stopping" restrictions of S-lanes. Typically, the side streets of Leichhardt are either overcrowded, or make no provision for loading, with the result that S-lanes caused a major impact on loading and unloading within the Leichhardt shopping centre.

The effects of S-lanes on loading and unloading in Gordon seem to be minor when compared to those experienced in Leichhardt. All affected premises have access to a clearly defined rear lane. Several shopkeepers have recently made adjustments to their properties (such as providing a loading dock) to accommodate rear-lane deliveries. For those who have not improved access to the rear of their building, S-lanes still present problems. One business operator explained that he carried out most of his unloading on Sundays, whilst parking on the footpath, because of the difficulty of unloading from the rear lane.

Although S-lanes have prevented the unloading of goods on-street in Turramurra, the survey results did not provide a clear

indication of the affect on the capacity and convenience of unloading within the centre. Presumably, those properties which have been directly affected by S-lanes unload most of their goods from the rear lane which extends the full length of the survey area.

Safety

Respondents in all three survey areas perceived that S-lanes had reduced the level of safety for drivers and pedestrians. Respondents in Gordon and Turramurra expressed a much greater concern about this than those in Leichhardt. The proximity of cars to pedestrians was ranked as the third highest factor in contributing to decreases in turnover in all three areas. It may be that shopkeepers in Leichhardt have had a longer history of traffic-related problems and traffic management changes. Shopkeepers in Leichhardt perceived that traffic speeds had increased since the introduction of S-lanes. One respondent claimed that eight recent accidents had occurred in the kerb-side lane, in which heavy vehicles, moving close to the kerb damaged shop awnings and hit telegraph poles. Comments were also made about the difficulty of driving in wet conditions, in which old line markings are confused with the new lines of S-lanes.

In Gordon, many respondents commented on the potential danger associated with the proximity of moving vehicles to pedestrians. Many customers, particularly the elderly, expressed concern about this aspect. There was also an expectation that moving vehicles might mount the kerb, causing damage to property or injuring pedestrians. Generally, respondents perceived that traffic speeds had increased.

A number of accidents were claimed to have occurred in Turramurra, as a result of vehicles mounting the kerb and causing extensive damage to property. These accidents were documented by a local businessman and are included in appendix . The proximity of moving cars to pedestrians was considered dangerous and "unnerving", particularly for the elderly. The speed of vehicles was also perceived to have increased.

Amenity

The extent of the impact on amenity is based mainly on the comments made by respondents, several of whom described the noise and dust levels as excessive. It is difficult to know to what extent these conditions existed prior to the introduction of S-lanes.

Respondents in Gordon also commented on the increase in noise and dust levels, and said that many customers had commented on this.

One respondent in the Turramurra shopping centre considered that the increased level of noise had contributed to a decline in trade.

Property Values and Marketability

A local real estate agent, and President of the Westgate Chamber of Commerce suggested that S-lanes had made affected properties in Leichhardt almost impossible to sell or lease. He was not prepared to quantify what effect this may have had on property values. One respondent indicated that he would like to sell his property but is convinced that it is no longer marketable.

According to a real estate agent located within the Gordon shopping centre, the marketability and value of properties has not been noticeably affected by the introduction of S-lanes. The take-up rate of vacant premises is good and the area is considered to have potential for increased office uses, which is likely to improve or at least maintain property values.

It is difficult to know whether properties in Turramurra have been affected. One real estate agent in Pymble suggested that S-lanes have made affected properties almost unmarketable. However, he could not provide instances of this occurring in Turramurra.

This question of what effects traffic management has on property values could not be answered conclusively by the survey results nor by the results of interviews with local real estate agents. The effects may also become noticeable in the long term, if traffic management were to prompt a gradual deterioration in the shopping centre. This may occur where traffic management brings about a decline in pedestrian traffic, decline in trade or the closure of well-established businesses. There are a range of other factors which might equally affect property values. To isolate the effects of traffic management on property values is likely to require a detailed and specialised study.

Comparative Effects

Figure 7.4 shows the comparative effects of S-lanes as experienced in the three post-facto areas. Parking was considered to be a major effect in all three areas. Trade was considered a major effect in Gordon and Leichhardt and a minor effect in Turramurra. Safety and amenity were identified as being effects in all three areas. This summary table shows that Leichhardt had experienced the greatest range of effects. Gordon had also been significantly affected but to a lesser degree than Leichhardt. Although Turramurra was least affected of all three areas, it still had experienced major impacts in terms of parking and safety.

7.2. Perceived Effects in Enfield

The Enfield Survey questionnaire included hypothetical questions (questions 18-20), to find out how business operators who would be directly affected by S-lanes perceived such affects. These questions asked respondents for their likely response if "no stopping" signs were introduced, or loading zones or on-street parking were to be removed. The same questions were asked of

EFFECTS	SURVEY AREAS		
	LEICHHARDT	GORDON	TURRAMURRA
TRADE	MAJOR EFFECTS	MAJOR EFFECTS	MINOR EFFECTS
PARKING	MAJOR EFFECTS	MAJOR EFFECTS	MAJOR EFFECTS
LANDUSE CHANGE	MAJOR EFFECTS	MINOR EFFECTS	
CROSSABILITY			
PUBLIC TRANSPORT			
LOADING	MAJOR EFFECTS	MINOR EFFECTS	
SAFETY (subjective)	MINOR EFFECTS	MAJOR EFFECTS	MAJOR EFFECTS
AMENITY (subjective)	MAJOR EFFECTS	MAJOR EFFECTS	MINOR EFFECTS
PROPERTY (values/ marketability)	MAJOR EFFECTS		
MAJOR EFFECTS MINOR EFFECTS			

Figure 7.4. Summary of General Effects
Post-Facto Areas

respondents in all four areas of Enfield. Only those respondents in area 1 will be directly affected by the proposed introduction of S-lanes.

Figure 7.5 shows how respondents in area 1 are likely to respond to the removal of on-street parking. Two business operators (furniture and hardware) indicated that they would relocate. Since many businesses already had a bus zone at the front of their premises the responses given to this question do not provide an accurate indication of the likely response to the introduction of S-lanes. Those respondents currently affected by a bus zone responded with "not applicable" to this question.

Figure 7.6 shows the responses of shopkeepers if "no stopping" signs were placed in front of their premises. Eight out of sixteen respondents (50 per cent) in area 1 indicated that they would either close down or relocate if "no stopping" signs were introduced. The responses given show that the introduction of S-lanes, which includes the erection of "no stopping" signs, will have a major impact for those directly affected by the proposal. With the exception of the liquor store, those businesses which indicated that they would continue business as usual could be described as specialist stores. The results also revealed the perceived importance to shopkeepers of capturing passing trade. Presumably, it is also important for a delivery vehicle to be able to stop on-street to make quick deliveries. Even those businesses which have a bus zone fronting their premises commented that delivery vehicles are forced to stop illegally within this zone because of the lack of loading facilities or on-street parking.

Figure 7.7 shows the responses given by respondents when asked how they would react to the removal of the loading zone. With the exception of a few businesses near the corner of the Hume Highway and Coronation Parade, no other businesses in area 1 have access to a formal loading zone. As a result of this the majority of respondents considered this question not to be applicable. According to the respondents, loading and unloading takes place mostly on-street, despite existing parking restrictions. For this reason, the responses given to this question do not provide an accurate indication of the perceived impact of S-lanes on business operators.

Overall, the perceived impact of S-lanes on business operators in area 1 will be significant. This is based on the 50 per cent of respondents who indicated that they would close down or relocate if "no stopping" signs were placed in front of their premises.

7.3. Predicted Effects in Enfield

A range of factors have been responsible for determining the viability of individual businesses within the Enfield shopping centre. These include: the level of competition from nearby shopping centres; the skills of individual business operators; changes in consumer preferences; and the physical appearance of the shopping centre. The difficulty in predicting the likely

AREA 1. LAND USE	RELOCATE	CLOSE DOWN	CONTINUE AS USUAL	NOT APPLICABLE
FURNITURE				
HARDWARE				
HAIRDRESSER				
LIQUOR				
FLORIST				
SIGNS				
BUTCHER				
PERCEV. DOWS				
SPORTS/TOYS				
T.V REPAIRS				
T.A.B				
RESTAURANT				
LAUNDROMAT				
TAKEAWAY				
PIANO RENTAL				
HAIRDRESSER				

Figure 7.5. Response to the removal of On-Street Parking,
Enfield, Area 1

AREA 1. LAND USE	CLOSE DOWN OR RELOCATE	CONTINUE AS USUAL	DON'T KNOW
FURNITURE			
HARDWARE			
HAIRDRESSER			
LIQUOR			
FLORIST			
SIGNS			
BUTCHER			
PRO. DOLLS			
SPORTS/TOYS			
T.V REPAIRS			
T.A.B			
RESTAURANT			
LAUNDROMAT			
TAKE AWAY			
PIANO RENTAL			
HAIRDRESSER			

Figure 7.6. Response to the Introduction of "No Stopping" Signs, Enfield, Area 1

AREA 1. LANDUSE	CLOSEDOWN OR RELOCATE	ARRANGE REAR. DELIVERIES	NOT APPLICABLE
FURNITURE			
HARDWARE			
HAIRDRESSER			
LIQUOR			
FLORIST			
SIGNS			
BUTCHER			
PORCELAIN			
SPORTS/TOYS			
T.V REPAIRS			
T.A.B			
RESTAURANT			
LAUNDROMAT			
TAKEAWAY			
PIANO RENTAL			
HAIRDRESSER			

Figure 7.7 Response to the Removal of Loading Zones,
Enfield, Area 1

effects of traffic management changes on the Enfield shopping centre is in separating the effects of traffic management from these other factors. For this reason, the predicted effects are based on the survey results (post-facto and pre-facto), an understanding of the area's physical constraints (such as lack of space for off-street parking), and views obtained from discussions with local real estate agents. To provide an overview, Figure 7.8 gives the extent of likely impacts on trade, parking, land-use change, crossability of the road, public transport, loading, safety, amenity and property marketability with specific reference to Area 1 in Enfield.

Trade

The predicted affect of S-lanes on trade is likely to depend very much on the existing viability of businesses in area 1. The physical deterioration of several shops, and comments made by respondents, indicated that many businesses in area 1 are currently not viable. The Enfield survey results (in particular responses to questions 4,7,9,10,19) suggest that the introduction of S-lanes is likely to have a major effect on trade within area 1. In the short term, this would probably result in forcing out marginal businesses (such as the florist, take-away, laundromat, sports/toys and restaurant). These affected premises are likely to remain vacant for lengthy periods, or be taken up by new non-retail uses or specialist retail uses. The other three areas will not be directly affected by the loss of on-street parking, but may be affected indirectly by the closure or relocation of several businesses in area 1, which could reduce the overall attraction of the shopping centre.

Of the eight businesses which have experienced a recent decrease in turnover, five (florist, sports/toys, laundromat, take-away and restaurant) are located in area 1. The owners of the florist and the takeaway food outlet intended to close down, in response to declining trade. The restaurant operator intended to reduce staff in an effort to counteract the effects of declining turnover. These five land-uses could be classified as vulnerable, because of their declining turnover. The post-facto survey results showed that vulnerable land uses, such as those in Enfield, are likely to be most affected by the introduction of S-lanes.

These businesses, with the exception of the sports/toys shop, are of the type which greatly benefit from being able to attract passing trade. S-lanes will certainly make it less convenient for passing customers to actually stop and make a purchase. Figure 7.6 shows that eight businesses intend closing down or relocating if "no stopping" signs were placed in front of their business. This figure is another illustration of the importance of passing trade to the majority of businesses in area 1. Although many of these businesses currently have a bus stop in front of their business, several shopkeepers commented that vehicles are prepared to park illegally for short periods in order to make a quick purchase.

EFFECTS	EXTENT OF IMPACT			
	MAJOR	MINOR	NO EFFECTS	NOT SURE
TRAFFIC				
Passing				
local				
PARKING				
LAND USE				
CHANGE				
CROSSABILITY				
PUBLIC T'SPORT				
LOADING				
SAFETY (subjective)				
AMENITY (subjective)				
PROPERTY (values/ marketability)				

Figure 7.8. Predicted Effects of S-Lanes,
Enfield, Area 1

The perceived effects of clearways on trade might also provide an indication of the likely effect of S-lanes on trade. Seven respondents in area 1 (liquor, florist, T.V. repairs, T.A.B., restaurant, take-away, hairdresser) indicated that their trade had been reduced, by an average of 13 per cent since the introduction of clearways.

These results suggest that S-lanes are likely to have a major effect on trade, particularly amongst those businesses which depend on passing trade and those which are currently experiencing declining trade. Specialty businesses or services which have a low dependency on passing trade or which have established customers.

In the short term it is probably safe to predict that marginal land uses (such as the florist, sports/toys, laundromat, take-away food) will want to relocate or close down.

Parking

The results of the post-facto surveys revealed that the availability of on-street parking plays a critical role in the successful functioning of strip shopping centres. The proposed introduction of S-lanes in Enfield would result in a loss of approximately 8 on-street car-parking spaces. All respondents in area 1, with the exception of two, ranked on-street parking as the most valuable form of parking (question 16). This strongly indicates that the loss of 8 spaces will have a significant impact on area 1. Table 6.13 shows the action which business operators would take following the removal of on-street parking facilities. Two respondents (furniture and hardware) indicated that they would relocate whilst one respondent (florist) would close down. Seven respondents did not consider this question applicable as a bus stop was located outside their premises at the time of the survey.

When asked about the supply of customer parking generally, 70 per cent of the respondents in area 1 considered it to be adequate, given the availability of 36 car parking spaces within the Byer Street car park. Most of these respondents also made comments about the under-utilisation of the car park due to poorly located parking indicator signs or the inconvenient location of the parking area. Several respondents commented on the laziness of passing motorists who were not prepared to shop in the centre unless they could quickly and conveniently find a parking space. This reinforces the importance of on-street parking to the trading activity in strip-shopping centres.

Land-use Change

Based on the responses given to questions 18 to 20 in the Enfield survey, S-lanes are likely to bring about major land-use changes. Eight respondents indicated that they would either close down or relocate in response to the removal of on-street parking and/or the introduction of "no stopping" signs. The land-use change in area 1 is also likely to have spin-off effects in the other three

areas which make up the whole shopping centre. The shopping centre is likely to undergo significant decline if these vacated premises remain vacant for extended periods. The replacement of retail by non-retail uses could bring about a change in the function of the centre as a whole. For instance, where convenience stores are replaced by offices or consulting rooms, the character the shopping centre will change significantly. Newer types of specialist retail uses, which do not depend on passing trade, might also replace some of the convenience stores.

Crossability

Survey results, and comments given by respondents, indicated that the pedestrians currently perceive the roads to be difficult and dangerous to cross. This applies to the traffic signals at the intersection and to mid-block crossing.

Based on the results of the post-facto surveys it is likely that the introduction of S-lanes would reduce the number of pedestrians crossing mid-block due to the perceived increase in danger and traffic speeds. It is difficult to assess whether the number crossing at traffic signals will be reduced. This may depend on the level of interaction between land uses on opposite sides of the highway and the nature of the land-use change which might occur in area 1.

Public Transport

The proposed introduction of an S-lane will result in the reduction in the length of the bus zone (from 42 to 30 metres) and its relocation to the north-eastern side of Byer Street. This will increase the walking distance for passengers to most of the business. It may create further difficulties for the elderly who already complain about the danger associated with crossing the highway. The change is also likely to cause some inconvenience to transport operators, especially in the initial stages. The location of the proposed bus zone is likely to obscure the view of existing parking indicator signs, when buses have stopped. New parking indicator signs should be relocated to provide motorists with adequate warning of the location of rear-parking facilities.

Loading

The introduction of S-lanes is likely to have a major impact on loading and unloading activities in area 1. Although most of the properties in area 1 have rear access, from either Byer Street or Byer Street car park, unloading of stock is said to take place on-street. The bus zone is used for unloading by those businesses which front directly on to it. Despite having rear access, the affected properties are simply not equipped to allow for the convenient unloading of stock. In most cases, for instance, the building only covers the front portion of the property. The backyards are either vacant, cluttered with rubbish, or have garages on them to house the owners car. Such features would make it impossible to deliver goods to the rear of

these premises without making substantial physical changes to the properties themselves.

Rear loading at Turramurra and Gordon is made possible by a clearly defined rear lane and where buildings do not extend the full length of the property (backing directly on to the rear lane) the back yards are usually uncluttered and appropriately surfaced for parking or delivery vehicles. In Leichhardt, on the other hand, delivery vehicles have traditionally unloaded goods on-street. This still occurs illegally, despite the introduction of S-lanes, either because of the inappropriate layout of the backyards or the absence of a rear lane altogether.

The introduction of S-lanes in Enfield is likely to have a similar effect to that experienced in Leichhardt. Businesses in area 1 at least have access to a rear car-parking area, which will make unloading more inconvenient, but not impossible. The businesses which are likely to be most affected are those which unload large items, such as the butcher, furniture and liquor stores. These businesses, as is happening in Leichhardt, will probably be forced to unload goods on-street despite restrictions.

Safety

The results of the post-facto surveys showed that respondents in all three areas agreed that the safety of the shopping centre had been reduced since the introduction of S-lanes. The main reasons given for this were the proximity of the cars to pedestrians and buildings and the perceived increase in speed of the vehicles using the kerb-side lane. Respondents in Turramurra and Leichhardt sighted several recent accidents involving vehicles in the kerb-side lane, which they considered had resulted directly from the introduction of S-lane.

The Enfield shopping centre is already perceived as an unsafe environment for pedestrians. Comments made by respondents in Enfield revealed that the current traffic conditions, and the configuration of the intersection (particularly its width), are already a major safety concern to pedestrians and shopkeepers, the elderly in particular. The introduction of S-lanes is likely to exaggerate this current perception of safety, but it is difficult to know to what extent this might occur.

Leichhardt could provide the closest example of what might occur in Enfield. The Leichhardt shopping centre has traditionally been perceived as a hazardous environment for pedestrians. The survey results suggest that S-lanes were perceived to have only a minor effect on safety because the area was perceived to be dangerous prior to the introduction of S-lanes. In Enfield, the impact would be considered as major if the perceived level of safety resulted in customers choosing to shop in a less hazardous environment.

Amenity

The appearance of the centre, the style and condition of the buildings, the configuration of the intersection, and the high traffic volumes, have contributed to Enfield's currently poor state of amenity. Comments made by respondents in the post-facto survey suggest that S-lanes are likely to increase the perceived levels of noise and dust. It is difficult to predict to what extent this might affect the number of customers choosing to shop in the centre or whether it will be sufficient to force shop keepers to relocate or close down. Such reactions, to declining amenity, are not likely to occur suddenly or immediately following the introduction of S-lanes, but might occur over an extended period, where individual business operators gradually respond to the disadvantages of a main road location.

Property (valuation and marketability)

The predicted affect of S-lanes on the property values and marketability of properties is based on the information gained from interviews with local real estate agents. Both agents interviewed in Enfield agreed that the availability of parking has a critical affect on property values within strip-shopping centres. It was also agreed that changes to traffic management measures, particularly where it affected the availability of parking, could reduce property values by as much as 20 per cent. It was suggested that properties housing office building would be affected to a lesser extent than retail uses.

The currently depressed property values were considered to be a reflection of both the economic climate and the difficulty of marketing properties in Enfield. It will continue to be difficult to market properties in the area whilst property yields are poor and the current economic circumstances continue. Property values may remain low and properties might continue to be difficult to sell regardless of changes to traffic management measures. Even a before and after study of Enfield could fail to isolate the effects of S-lanes on property valuation and marketability because of the important influence which these other factors have to play.

Long-Term Effects

The discussion, so far, has focussed on short-term effects. These could be described as those which manifest themselves in the first year or two following the introduction of S-lanes. The longer-term effects are much harder to predict and are influenced by an increasing range of factors as time goes on. The following provides a list of some of the possible long term, and probably more indirect affects of S-lanes:

- the replacement of marginal uses by office-related uses;

- the redevelopment of run-down properties for offices, as the supply of available land diminishes in nearby Ashfield and Burwood;

the phasing out of retail uses in area 1, especially small convenience stores;

the redevelopment of sites, with on-site parking, in area 1 for large-scale fast food or convenience stores (such as Kentucky Fried Chicken or Food Plus), to take advantage of the evening "going home" trade;

consolidation of retail uses to the northern side of the Hume Highway, where on-street parking is available. This area has the problem of inadequate off-street parking facilities;

the physical deterioration of buildings in area 1, due to declining trade and the costs associated with upgrading to meet fire and safety standards.

These are only some of the possible scenarios which might occur at least partly as a result of long-term changes in traffic management and partly as a result of many other economic and social factors which would influence land-use change.

CHAPTER 8

MITIGATION

8.1. Operational Options for Enfield

For Enfield, it is obvious, from both the post-facto surveys at Gordon, Turramurra and Leichhardt, and the pre-facto survey at Enfield, that replacement parking and signposting are essential mitigation measures. Another problem is that of unloading of delivery vehicles. Although this latter aspect has not been examined in detail there may be scope for utilising the under-used backyard area facing the Byer St car park. This requires further study.

In the short term there do not appear any economic, land-use or developmental options and we will consider here only the operational options for Enfield. The scope is limited to the following:

- * Parking: replace the spaces which are lost by off-street spaces in the vicinity.
- * Lighting Design: provide better illumination of off-street parking areas.
- * Signposting: provide directional parking indicator signs in prominent positions.
- * Laneway: reconstruct laneway, repave and make attractive for pedestrians moving from parking area to the shops.
- * Loading: assist in the development of rear access loading facilities.
- * Pedestrian crossing: examine the possibility of improving the conditions for pedestrian crossing (e.g. incorporate more islands and refuges in the reconstruction of the intersection, and change the pedestrian phasing) to give more green time.
- * Pavement barriers: provide barriers along the curb line to reduce the perception of danger by pedestrians of the high-speed vehicles close to the footpath.

Any proposal to change the traffic management situation is bound to have secondary effects which should be understood and studied in some detail with a view to amelioration. If this is not done, there will be repercussions later which could have been avoided. The study needs to determine the costs and how such costs offset against the benefits. This may lead to a reconsideration of the desirability of proceeding with the proposal.

8.2. Procedural Options for Enfield

Procedural options can not readily be divorced from the matter of responsibility. The Department of Main Roads is responsible for the construction and management of main roads, but, as has been shown, its actions have an effect on land-use, parking and the environment (primarily a local government responsibility), and on business activities (primarily, the private sector of individuals - owners, operators, developers). The minimum option, in our view, is for the Department of Main Roads to consult those bodies and individuals, and take their comments into account.

Such consultation can take place before plans have reached an advanced stage, they can occur on the basis of near-final plans, or at both times. With the first sub-option there is an opportunity of finding out what potential effects there could be, and this may influence the decision to proceed, or the type of solution to be pursued. The second sub-option offers the opportunity for a very specific discussion but there is the risk of conflict at a point where it may be difficult to revise the plans. The third sub-option combines the advantages of the first two but has the disadvantage that it draws out the process of consultation.

There are further options of mitigation to those already discussed under 8.1. and they relate to the compensation for traffic management measures. It could be argued (as it has been argued in some instances in the past) that the State Government should bear the cost of ameliorative actions. If such an option were to be considered there are again two sub-options. One of the sub-options is to provide a fund for specific and documented claims for monetary compensation. The underlying principle would be that the onus is on the business allegedly affected to prove in a quantitative way that there has been an effect (which may be hard to do) and there would have to be an independent before-and after-assessment in every case.

A second sub-option would be to compensate in kind. As the major effect is the loss of on-street parking (our study shows that there is substance in this contention), then the compensation could take the form of replacing what is lost. Such replacement parking will have to be in close proximity and include signposting. There would also have to be a proper connection from the parking area to the shop frontages. A more difficult issue may be the replacement of frontage access for loading where rear access does not exist, but the principle would be the same.

The only basis for compensation must be that of cause and direct effect arising from the change in the traffic situation. It could be argued that the effects of growing traffic have never been accepted as a basis for compensation. As far as we are aware, this is correct, but such changes generally occur over a long-time span during which business can adjust. In the case of a sudden change, as with traffic management, the situation is different and an argument can be sustained that the external costs

should be taken into account. This, indeed, is one of the principles underlying the Environmental Impact Study procedure.

It is more difficult to establish environmental effects, such as the perception by shoppers of increased danger, and the effect of increased noise levels on people and business. We believe that this issue, and the options arising from it, can be considered only in a longer-term strategic context, and in consultation with the local council and the business community. In the case of Enfield, the design has reached a stage where an advanced proposal exists, but there still is the option of pre-facto consultation. There is also the opportunity to consider the compensation option.

On procedural options there is a third major point of general concern: for any proposal to change the traffic management situation, whether or not it comes within the Environmental Impact Study/Environmental Impact Assessment procedure, there is a need to institute a procedure to ensure that implementation is facilitated.

8.3 The Effect of the Options for Enfield

The effect of the operational options for mitigation, in the case of Enfield, should reduce most of the adverse impacts, but not eliminate them. Whether this reduction is sufficient to avoid business failure will depend on the type of business. It is difficult to be sure whether businesses which rely on the passing trade, and are already marginal, will be able to survive. If they do fail another type of commercial use, less sensitive to on-street parking and loading, is likely to replace them, but an adverse effect on property values can be expected.

The procedural options will have the effect that owners and operators in the section affected will get a chance to assess the situation before it happens and some positive ideas (as well as adverse criticisms) may come out of such a consultation. However, if there was a willingness by the Department to embrace the option of compensation, at least in terms of parking provisions, the most important criticisms should be more readily overcome.

8.4. Specific Policy Considerations for Enfield

As that the proposals for Enfield are in an advanced stage of preparation, there is no point in considering strategic policy issues. The question therefore centres around the following operational policy aspects:

1. The need to acknowledge that there are external effects and that they require mitigation.
2. The most important effects are those of parking and access, and mitigation measures are required to offset them.

3. The precise form of such measures requires further study and consultation, and should be regarded as an integral part of the proposal for the introduction of S-lanes.
4. The need to consider whether or not there should be an opportunity for some form of compensation for specific and documented loss in retail turnover that can be attributed to traffic management measures alone.
5. The need to consider whether or not measures to mitigate the environmental effects associated with the pedestrian environment should be incorporated in the proposal.

8.5. General Options for Mitigation

After examining the likely impacts of S-lanes in Enfield, the more general options for mitigation will be considered. It is useful to make a distinction between strategic, operational, and procedural measures. Strategic measures are designed to establish a longer-term direction for the management of change and provide a context for operational measures. Operational measures, such as those already discussed for Enfield represent actions which are feasible in the shorter term. Strategic and operational measures may be expressed through economic, land-use, development, parking, environmental, road planning and traffic management policies and programs. The scope for options varies with the time frame, as shown in Table 8.1.

Table 8.1. General Options for Mitigation

Type	strategic	operational
economic	xx	-
land-use	xx	-
developmental	xx	x
parking	xx	xx
access	xx	x
environmental	xx	x
road transport planning	xx	x
traffic management	xx	x

xx signifies a high degree of scope

x signifies a low degree of scope

- signifies no scope within time frame

Procedural measures concern the process whereby the existing situation is assessed and possible future policies and programs are investigated, discussed, reviewed, and implemented.

The strategic options are discussed under the following points:

- * **Economic policy:** the option whether an existing centre should be strengthened and upgraded, whether it should be

kept at its current level, or whether it should be allowed to decline as a retail centre and be encouraged to change to another form but less intensive land-use.

- * **Land-use policy:** the option whether commercial zones should be expanded, whether there should be changes in the uses permitted and in development conditions, whether there should be different conditions for each side of the road, whether incentives should be offered to permit more intensive mixed development in some selected centres but not in others. For instance, in Canterbury, changes were made to the Local Environmental Plan to encourage the conversion of redundant retail use to showrooms. Conditions can be devised to reduce the number of access points from abutting frontage to an arterial road, thereby reducing the friction of frontage activity on traffic flow.
- * **Development policy:** the option whether to encourage redevelopment through incentives and with conditions appropriate to the function of the road and the way the traffic is managed, whether to enter into joint ventures, and whether to give priority, in the allocation of State and/or local government funds, to the improvement of a few selected centres. This is the principle underlying the "traditional centres" policy of the City of Toronto.
- * **Parking policy:** the option whether to provide for off-street parking facilities, where such facilities should be located, how they should be accessed, how they should be linked to the shopping frontages and other developments, how they should be signposted, and how they should be controlled. For instance, this aspect has been given some attention in, North Sydney (Crows Nest).
- * **Environmental policy:** the option whether to improve the pedestrian environment through widening of the pavement, protective screens along the kerb, providing for building line setbacks, developing arcades and rest places linked to parking areas at the rear, the option to improve the treatment of facades, awnings, advertising, the option of setting back upper-story development for noise protection (a notable example exists in Willoughby Road).
- * **Road planning policy:** the option to provide alternative routes for through traffic in the longer term (for example, F4 in respect of the Parramatta Road, or the Bondi Junction by-pass), the option to provide for new local access routes to the shopping centre, the option to develop a service road in front or at the rear.
- * **Traffic management policy:** the option to abandon clearways, extend them, reduce vehicular traffic speeds, change the pavement, facilitate pedestrian crossing, limit pedestrian crossing to specific points, change the location of bus stops, or introduce truck routes.

Turning now to a specific problem and taking Enfield as an example, it is difficult to determine what strategic options for mitigation there are without a clearer overview of the economic future of the centre. There are strong district centres in fairly close proximity and there are no signs of a strong economic demand for development in Enfield. The centre does have the advantage of being located adjacent to one of Sydney's main intersections, but the disadvantage that it is split by this intersection. It undoubtedly performs a significant local function, but comments on accident frequency suggest that the community suffers from this juxtaposition of land-use and traffic.

The longer term land-use policy should resolve this conflict by reducing the retail significance of all but one of the quarters and encourage a change of use to less pedestrian-active activity such as showrooms and offices in the other quarters (with residential above). If it is assumed that the quarter which would be directly affected by the proposed S lanes would not be the preferred one for retail consolidation, there may be a case for a policy to encourage the comprehensive redevelopment of the small blocks with parking below ground or at the rear. If it is assumed that this quarter would be the one for retail consolidation, there could be a development policy which would encourage the progressive provision of rear-access for loading and unloading, the provision of further off street parking and the linking of this parking area to the shops through an arcade.

The lack of sufficient information is also a problem when addressing the longer-term transport planning and traffic management issues. It is not clear, for instance, whether the future function of the main roads will change and, if so, to what extent and when. The intersection is complex and heavily used. There are many comments in the survey about the short time to cross the road for pedestrians, and especially the aged. If the new SW Freeway is built the role of the Hume Highway may change and there may be opportunities to reduce vehicle speed and improve pedestrian crossing. But if this facility is not built there may be pressure to increase the capacity of the intersection, at the expense presumably of the pedestrians wanting to cross.

It will be clear from this brief discussion how important it is to formulate longer-term strategies for land-use and traffic management, so that the form of mitigation arising from traffic management changes can be accurately assessed. This need is not confined to Enfield. There is no doubt in our opinion that there has been a lack of strategic planning at the local level and that strip shopping centres have been neglected. We are further of the view that there has not been much strategic consideration in recent years of land-use policy along arterial roads from a transport planning and management perspective. State Environmental Planning Policy 11 is a start, but is of limited value without such a strategic context.

The Procedural issues are complex: it is clear from this study

that there are land-use impacts arising from a major change in the management of traffic on arterial roads. It is the responsibility of the Department of Main Roads to maximise the use of the main roads network at an economic cost and high standard of safety. Where roads are situated in corridors without frontage access and with pedestrian control the interactions are limited to environmental effects and the use of the corridor by different transport modes.

In corridors where there is frontage access and existing development, the situation is totally different. This is recognised in State Environmental Planning Policy 11 which gives the Traffic Authority an opportunity to give special consideration to land-uses along arterial roads. There are also the provisions of the Environmental Planning and Assessment Act which require that an Environmental Impact Statement or Environmental Impact Assessment may need to be prepared for development activities which may affect the environment. It can be argued whether traffic management should be seen as an activity in terms of the Act, but regardless of any legal interpretation, traffic management constitutes a change which may affect others (as indeed it does in the shopping strings we have studied), and such affects can not be ignored.

The economic aspects of which activities along arterial roads should be encouraged or discouraged are matters which can be regarded as a joint State and Local Government responsibility. The same can be said for land-use policy and development policies. But, as we said earlier, these are strategic matters which can be resolved only within a longer-term regional framework (as was done in the case of Toronto).

It would be appropriate for the Department of Main Roads to consult with the Department of Environment and Planning with a view to taking a joint initiative which would, eventually, lead to policies and guidelines to be incorporated in Regional Environmental Plans, Local Environmental Plans and Development Control Plans. Such policies should be directed towards facilitating change in frontage activity with the dual purpose of reducing the "friction" of such activity in the function and use of arterial roads and reducing the impact of arterial road traffic on adjoining development. The primary goal should be to increase the compatibility of transport and land-use in arterial road corridors.

Within such a broad goal there are responsibilities for State and Local Authorities. For the Department of Main Roads there is a role not only in developing guidelines for compatible development, but also in systematically recording and monitoring land-use change in arterial corridors, and in preparing plans, policies and programs which reflect what frontage development exists. The "Roads 2000" project should take account of the economic, land-use and environmental constraints in the development of existing road corridors, and make provision for progressive change towards more compatible activities.

The Traffic Authority could develop guidelines (in association with the Department of Environment and Planning) for the development of suburban shopping strings to reduce the need and amount of pedestrian crossing, and improve safety in such centres.

The State Pollution Control Commission could be given further encouragement to develop standards for noise protection and procedures for mitigation. The treatment of dangerous goods movement warrants strategic policies and actions which will affect the management of both the road space and frontage development in the corridors.

Local government should be required to develop strategic management plans with a much more intelligent approach towards road frontage activities. Such plans should be complemented by Development Control Plans and Circulation Plans. It should be noted that the Canterbury Council is moving in this direction. There is a need for leadership and commitment by State authorities in this regard.

The issue of responsibility is not complete without considering the management framework within which such initiatives are to evolve. There would be a need to establish such frameworks, which at present only seem to exist on an ad-hoc basis. Similarly, there is a need to clarify the financial basis on which any actions for corridor management are to be pursued. It may be relevant in this regard for the Department of Main Roads to reconsider using the powers which it already has for acquisition, development and disposal of land within urban corridors, including joint ventures.

8.6. General Policy Considerations

In the light of this analysis, and by way of summary, the following aspects of general policy appear to be relevant:

1. The need to pursue a strategic approach to the management of major arterial roads in which transport planning, traffic management, economic, land-use, developmental and environmental opportunities and constraints are addressed in an integrated way. It is only at this level that there is a chance that a satisfactory balance will eventuate. This implies a need for a long-term corridor approach to the management of the road space and the road environment.
2. The need to consider any specific proposals for traffic management change along sections of an arterial road in the context of a local development and circulation plan. In the case of S-lanes, the parking and access arrangements will be changed, but they should not be changed without an understanding of how alternative arrangements can be made for them. In some cases (for example, where there is already rear access and parking), there may not be a need to take matters further, but, in others, the solution may be

more complex and can probably not be found without (notional) development and circulation plans.

3. The need to identify external affects and establish measures for amelioration.
4. The need to accept the principle of consultation with groups affected where there is a clear indication that such groups would be directly affected by traffic management changes.
5. The need to formulate procedures for such consultation and to decide at what point such consultation should take place.
6. The need to consider who bears what costs of any amelioration measures. One of the fundamental questions is whether the Department of Main Roads should bear, or contribute towards, the costs of mitigating the parking and access restraints which any traffic management scheme imposes. Another question is whether such costs should be taken into account where the proposed changes are part of a long-term strategic policy, arrived at after full consultation and public notification.
7. The need to include in any proposals for improving the traffic performance of arterial roads, an assessment of the direct and indirect costs and benefits.
8. The need to consider whether the external costs should be regarded as part of the project cost and whether to base any decision on proceeding with the change on the **total** project costs or merely implementation costs.

CONCLUSIONS

9.1 Principal findings

The study of the impact of traffic management changes on road frontage was confined to the effects of S-lanes on business activity in three selected suburban shopping strings - Gordon, Turrumurra and Leichhardt. It did not include an assessment of the effects on other groups, such as shoppers, motorists and cyclists, and the transport industry. The primary purpose of the research was to examine the effect of S-lanes on suburban shopping centres with a view to predict the likely future impact where there was a proposal to introduce them. Three existing centres where S-lanes had been introduced were surveyed (post-facto): Gordon, Turrumurra, and Leichhardt. The results showed that there had been a general impact, but that there were variations between centres and between individual types of rental and service establishments.

The general effect is a loss of attraction which is manifested in less accessibility, more noise and a perceived increase in danger. There is a general view in all centres that parking and loading are key problems associated with S-lanes. There is also a widespread view that there had been a loss of trade (of the order of 10-20 per cent), but it proved impossible to pin this down and attribute the loss solely to the S-lanes. General economic conditions, and normal competition from other centres, may have played a role. However, there does seem to be some correlation between loss of trade and type of business, in that those businesses which rely mostly on the passing trade, and frontage parking, invariably claim to have suffered a loss.

The ability to cope with these effects depends not only on the type of business but also on management and entrepreneurial skills. But whatever variations in skill exist, there is an overriding dependence on accessible parking. Apart from businesses which rely mostly on the passing trade, there are others who serve the local community, or are specialised and draw on a much wider clientele. For those businesses, the availability and adequacy of parking is more critical than the frontage parking which the passing traders need.

While these reactions were expected, the study produced other results which were less obvious. One such result was the increase in the perception of danger. It could perhaps have been expected that the clearways, which already existed during peak hours, would have conditioned people to traffic management solutions. However, this is apparently not the case and could be explained by the fact that trading during the traffic peak hours may have been light. It may be useful in any subsequent work to investigate this aspect more carefully and to include it in

interviews of pedestrians. There was no survey of pedestrians in this study.

The study then proceeded to examine a pre-facto situation: the case of Enfield. The business community was surveyed and an attempt was made at establishing which businesses were likely to be vulnerable. This analysis was then associated with the observed effects in the post-facto centres and used to make a forecast of likely effects. Questions were put to the businesses in Enfield in order to ascertain their attitude towards traffic management changes, and the responses were used to predict possible effects as perceived by these operators. The perceived effects were then compared with the forecast.

The conclusion which can be drawn is that there will be a definite impact, with parking and loading being the most critical. It has also become clear that the shopping environment will change and that this could have further detrimental effect on the operation of that part of the shopping centre where the S-lanes will be introduced. Other factors emerged such as the high incidence of accidents and the problem of crossing arterial roads, especially by the aged.

A framework of options for mitigation was developed. It became clear that the most important options can be considered only in a strategic context, because it is in that context that opportunities for compatible development can be created. There is an absence of strategic planning both at the Local Government and State Government level, and we believe that this deficiency should be rectified as a matter of urgency.

The issue of traffic management to increase the traffic performance of arterial roads can not be divorced from economic policies to encourage, or discourage, commercial centres along arterial roads. Strategic land-use policies and development policies should be based on them, and all must be linked to longer-term transport planning intentions. There is a need for leadership and planning guidelines so that a greater measure of compatibility between the use of the road space and road frontage evolves.

There also are operational actions, and in the absence of any strategic context for Enfield, these are the only ones which can be considered in this case. These actions should, as a minimum position, be aimed at substituting the parking and access arrangements which will be lost as a result of the S-lanes. There will be a need for signposting, illumination and improvements in access from the parking areas to the shopping frontage. Measures should also be taken to reduce the perceived sense of danger and improve the facilities for crossing by pedestrians.

It is not immediately clear from a detailed design point of view how such measures could be introduced in the Enfield case, and this requires further study. However, this points to a general conclusion that a local study be carried out wherever a

significant traffic management change is proposed so that mitigation measures can be determined.

This raises the further general point that there are options for consultation and compensation. We are of the view that much is gained (despite the inevitable criticism) if there is consultation before a final decision is made. Problems and possible solutions may surface which were not considered during the planning phase.

An important issue is that of external costs and benefits and whether there should be compensation in some form or another. We believe that external costs and benefits should be taken into account, and that there should be compensation in cases where there are demonstrable losses to individual operators. Strategic planning and long term policies which are openly discussed and publically notified should prevent any claims of loss, as there would then be time to adjust to them. But where there are sudden changes with a clear adverse effect, the situation is very different. The minimum position, we believe, is one where the loss of frontage parking and access is compensated.

Finally, the study has shown the need for management initiatives to ensure the integration and coordination of the many State and Local Government agencies, whose policies, programs and actions have an effect on the functioning and environmental quality of arterial road corridors. The study identified a number of such initiatives.

9.2 Further action

Limited resources available for the study meant that no study was made of other groups who are affected by S-lanes, such as pedestrians, cyclists, delivery vehicles, and motorists. It would be useful to pursue this in subsequent work.

The material collected did not permit the development of any prediction models, but identified the principal variables. This could be a step towards quantification of costs and benefits. It would be important to undertake a post-facto study of Enfield at an appropriate time so that a start can be made with the kind of data set which makes it possible to develop such a model.

There is also a need to assess impacts within a longer-term time frame. There is some evidence from overseas which suggests that there are long-term adjustments in land use arising from major traffic management schemes. A time lapse of two to three years would appear to be appropriate for such post-facto studies.

The most important need now, in our opinion, is to begin laying the foundation for a policy on compatible corridor development. This should embrace the categorisation of compatible land-uses, a study of existing planning controls and the way in which such controls should be modified to achieve compatibility in the longer term. We firmly believe that a strategic approach to

corridor management is a matter of high priority and would have tangible benefits to the community.

9.3. Where Next?

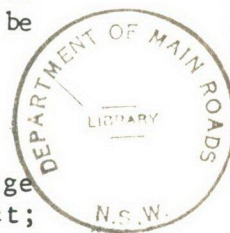
Bearing in mind that the overall premise is the need for effective management of the road environment as an adjunct of traffic management the following research possibilities may be worth considering:

a) Investigatory

- (1) Further development of compatibility of frontage activities; a systematic identification of conflict; this would involve looking at more complex situations such as Rockdale, Mascot, or main roads in country towns. Another variant would be to widen the range of land-uses to other than retailing and to develop some compatibility measures.
- (2) Further work on the land-use substitution and time adjustment question. This would involve looking at land-use changes along sections of arterial roads and the role of planning and building controls in helping or hindering change, and in reinforcing more desirable land-use developments.
- (3) Identification of the sections of the arterial road network where conflict is greatest. The purpose of this line of research is to find the areas under greatest stress from the road and its traffic. It assumes that we have some yardsticks to measure against.
- (4) Identifying the sections where frontage development affects the traffic performance most. This looks at the conflict from the traffic end: where are the bottlenecks and danger spots caused by the road environment?
- (5) Relating such sections to priorities for improving the level of traffic performance and road frontage environment, and preparing a program for priority. This can only be done when the preceding investigations (3) and (4) have been completed.

(b) Establishing Guidelines and/or Statutory Controls:

- (1) For local councils in the preparation of Local Environmental Plans, Development Control Plans and the administration of development and building control.
- (2) For Regional Environmental Plans



- (3) For use by the Traffic Authority and the Department of Main Roads, (including procedural matters such as investigation, consultation, and compensation.)

(c) Financial Management

- (1) Private investment potential and prerequisites for frontage adaptation.
- (2) Acquisition and re-offer, opportunities and constraints.

(d) Administrative

- (1) Establishing regional road environment management committees: composition, function, relationships, operations.



THE GORDON CHAMBER of COMMERCE

ALL COMMUNICATIONS TO BE ADDRESSED
TO THE SECRETARY
P.O. BOX 235, GORDON, N.S.W. 2072

*"Gordon — the Heart of
the North"*

17th April, 1986

The Town Clerk
Ku-Ring-Gai Municipal Council
Pacific Hwy.
Gordon 2072

Dear Mr. Taylor,

You are aware that Chamber has grave concerns about the effect that the present Pacific Highway traffic and parking arrangements are having on the business community of Gordon.

You are also aware that Chamber has been carrying out a referendum of all the business houses in Gordon (not restricted to Chamber members) to determine whether an alternative arrangement would be more acceptable than that which presently obtains.

We attach a copy of the referendum form which outlines the proposal.

We have now completed collection and collation of votes and advise you that the results are as follows:

In favour	80
Against	24
Other	1

Total votes cast	105
	=====

We believe that the above result fairly represents the concern of the Gordon business community and we look forward to working with you to quickly implement such changes as will restore proper traffic and parking arrangements.

Yours faithfully,



Moreton Shearer
President

GORDON CHAMBER OF COMMERCE TRAFFIC AND PARKING REFERENDUM

The first task required of the new committee of the Gordon Chamber of Commerce was to review the present traffic and parking arrangements in Gordon and to develop a proposal which would better meet the needs of the whole of the business community.

That task has now been completed and the following proposal developed which is supported by the whole committee. We ask you to consider the proposal carefully in the light of the development of Gordon as a whole and the effect the future of Gordon will have on your business. Please record your answers at the foot of this page.

If you have any queries or require any further information, please contact the committee member responsible for your area. For the name of your representative, please ring Shearer's Bookshop on 498 2406.

THE PROPOSAL:

1. The median strip on the Highway at the northern side of the Moree Street intersection should be moved one lane west so as to allow southbound traffic to turn right into the new parking station to be built in Moree Street.
2. The bus stop on the western side of the Highway should move to outside the Gordon Village Centre.
3. The S-lane which now runs from Park Avenue on the eastern side of the Highway to the Post Office should terminate opposite the Dumaresq Street intersection.

THE EFFECT WILL BE:

- WESTERN side of the Highway: Present parking arrangements will apply between St. John's Avenue and Moree Street, but parking will be prohibited between Moree Street and Dumaresq Street resulting in a loss of seven spaces.
- EASTERN side of the Highway: Parking will be restored between opposite the Dumaresq Street intersection and the Post Office, a gain of fifteen spaces.
- (The net gain of eight Highway parking spaces, on an average turnover of thirty minutes means parking for an extra 894 cars per week on the Highway!)
- CLEARWAY: At present a virtual clearway exists on both sides of the Highway from 3.30 pm onwards. Under the new proposal the clearway would only be on the eastern side until 9.30 am and on the western side from 3.30 pm



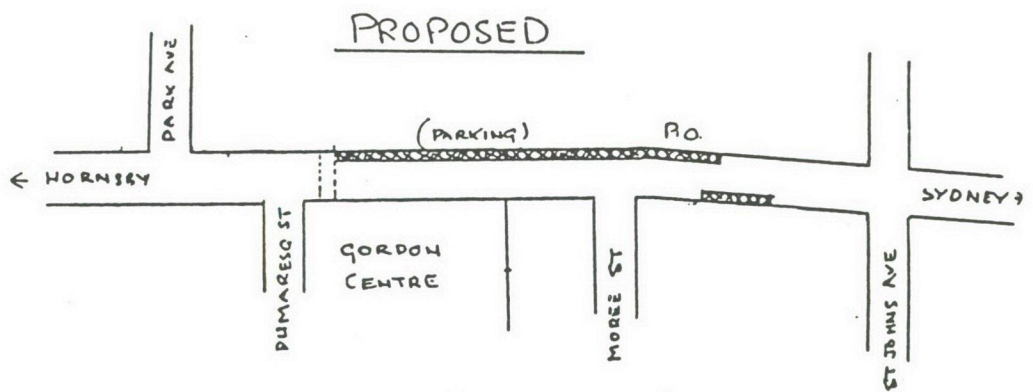
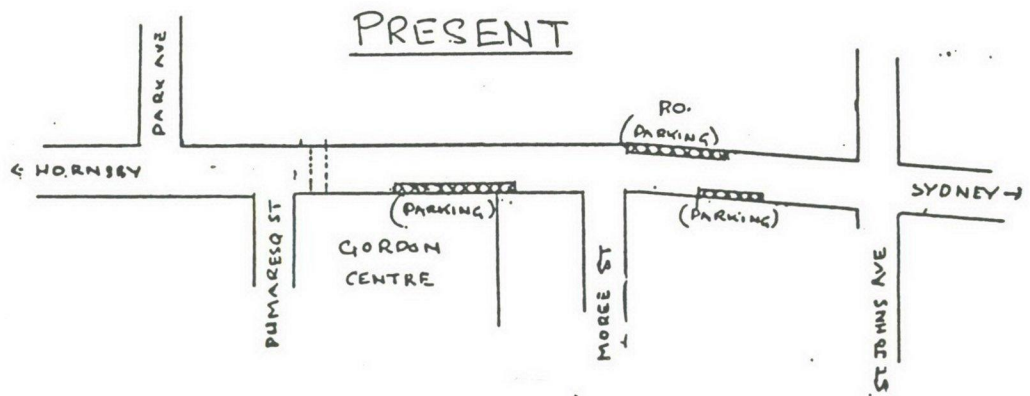
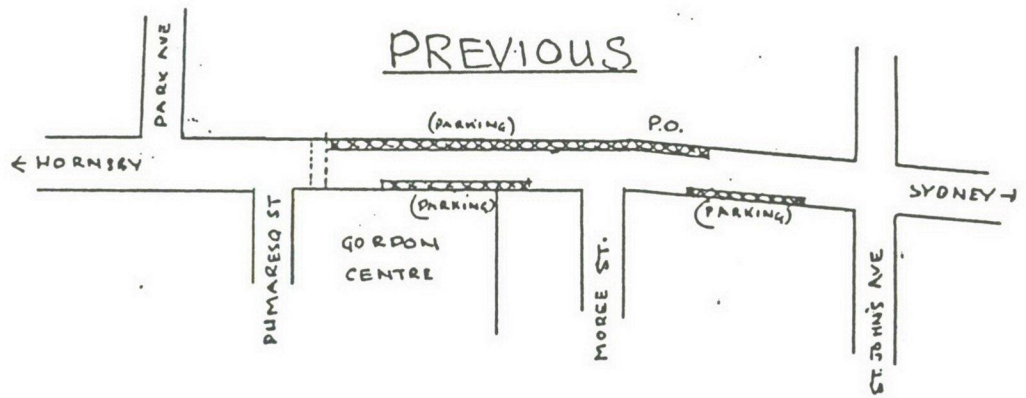
YOUR VOTE:

IN FAVOUR..... AGAINST.....

ALTERNATIVE SOLUTION:

Signed
March, 1986

BUSINESS NAME:



MR BRERETON DELIVERS THE GOODS.

After much deliberation, the Minister for Roads, the Hon. Laurie Brereton, has announced the plans for rerouting city traffic **AWAY FROM PARRAMATTA ROAD.**

The Westgate Chamber of Commerce and Industry supports this decision and expresses its confidence in this state government action for the good of all in our area.

Alternatives have been implemented with initiatives from the Westgate Chamber of Commerce and Industry to ease the massive congestion and pollution of the Parramatta Road area, via the City-West Link Road.

Shoppers will benefit. Traders will benefit. The local community will benefit.

THANK YOU, MR BRERETON. THANK YOU, THE DEPARTMENT OF MAIN ROADS.

We all look forward for continued cooperation in 1986.

The Westgate Chamber of Commerce and Industry is here to serve you. Find out how you can benefit by contacting the Secretary on 569 7156.



Yes Virginia,

There is a Santa Claus!