

THE PEDESTRIAN NETWORK IN THE ADELAIDE CORE AREA

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ABSTRACT: *A major step in providing a pedestrian network throughout the Adelaide Core Area occurred when Rundle Street was converted to a pedestrian mall last October. This had the effect of creating a pedestrian precinct of 14 hectares in the most highly developed part of the City.*

Although detailed studies aimed at converting Rundle Street to a Mall were only commenced in 1972 the Project was the logical outcome of a series of other studies, dealing largely with transportation and parking, which began in the early 1960's.

The policies developed and the action taken as a result of the studies are described. In brief the policies have been directed towards improving the accessibility of the Core Area. This has resulted in a unique and extensive off street parking system which is now a fundamental component of the pedestrian precinct.

The priorities for extending the Pedestrian Network throughout the Core Area have been established and are described. The views expressed are those of the author and do not necessarily represent those of the City Council.

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1. INTRODUCTION

1.1 GENERAL BACKGROUND

Planning in Adelaide is guided and controlled by the City of Adelaide Plan adopted by Council in 1976 and by the "City of Adelaide Development Control Act - 1976".

Both the Plan and the Act place particular stress on the importance of high standard pedestrian facilities in the Core Area. To this end the Council has initiated an action project entitled "Pedestrian Network and Shelter" aimed at defining the existing situation and making appropriate recommendations for improvements.

In fact a major step in providing a pedestrian network throughout the Core Area has already occurred as a result of the conversion of Rundle Street to a pedestrian mall last October. This had the effect of creating a pedestrian precinct of 14 hectares in the most highly developed part of the Adelaide Core Area.

The Mall Precinct, as it will be referred to in this paper, is free from vehicular traffic, except in some minor stub service streets, and it contains a well developed internal pedestrian circulation system through private roads, arcades and stores. Three of the arcades have been built during the last 10 years and a further two are planned for the near future.

The relationship of the Precinct to South Adelaide (referred to in this paper as the City) is shown on Fig 1 which also gives an indication of its size relative to the inner city area of Melbourne.

The future work to be done on the Pedestrian Network and Shelter Project can be divided into two basic tasks. Firstly, optimising the potential for pedestrian facilities in future redevelopments and, secondly, providing adequate connections from other parts of the Core Area to the Mall Precinct.

It is interesting to reflect that although detailed studies aimed at converting Rundle Street to a Mall were only commenced in 1972 the project was the logical outcome of a series of other studies, dealing largely with transportation and parking, which began in the early 1960's.

A brief description of the Mall Precinct and comments on some of the implications of the earlier planning studies are given below.

1.2 OFF STREET PARKING DEFINITION

The terms "long term" and "short term" parking are used in this paper. "Short term" is defined as parking for less than four hours and is the type of parking appropriate to shopping and business trips. "Long term" is parking for longer than four hours and usually implies all day parking by city workers.

It is Council's policy to strongly discourage long term parking in the Core Area. The Council operates most of the major parking facilities and the hourly parking rates increase with length of stay. This encourages long term parkers to use the parking facilities established for that purpose outside the Core Area. It also encourages the use of public transport.

2. THE RUNDLE MALL PEDESTRIAN PRECINCT.

2.1 DESCRIPTION

The work of reconstructing Rundle Street to form a mall was completed in September 1976. The detailed work and design have been to a high standard. The whole of the 516 metre long by 20 metre wide street has been paved with bricks and incorporates landscaping, kiosks, outdoor eating areas and a variety of other facilities.

Some of the main facts about the Mall Precinct Fig 2 are :-

- (a) There are 16801 people employed within its boundaries. The main categories are Retail and Commerce with 4336 and 9199 workers respectively. The figure of 16801 represents 24% of all workers in the City (1972 Land Use Survey).
- (b) It is bounded by four major streets - North Terrace, King William, Grenfell and Pulteney Streets which enclose an area of 14 hectares.
- (c) Every public transport bus entering or leaving the City passes along at least one of the boundary streets.
- (d) The Bee Line Bus Route passes along the western boundary (King William St.). This route connects the Railway Station and the Glenelg Tram Terminus at Victoria Square - the two main public transport generators in the City. Bee Line buses provide a free service and operate at five minute intervals throughout the day.
- (e) Within the Precinct three multi-storey parking garages provide 2,235 spaces for short term parkers. One other garage located less than 100 metres to the south has a further 554 spaces and the Rundle Mall Car Park in the final stage of construction at the eastern boundary (Pulteney St.) will provide a further 854 spaces. The total number of 3,643 provides off-street parking equivalent to a ground level parking lot of 10 hectares. The space turnover factor on an average day is three.
- (f) The three garages within the Precinct give direct internal connection at various levels to four department stores - Myers, David Jones, John Martins and Harris Scarfes.
- (g) The short term garages are complemented by long-term facilities providing 3946 spaces within ten minutes walking distance of the Core.

The off street parking facilities are a vital component of the infrastructure of the Mall Precinct. The short term spaces with minimal walking distance and the long term spaces within 10 minutes distance make the Precinct extremely accessible both to workers and to short term parkers on shopping or business trips. Before the Council commenced its parking programme in 1965 there were no public off-street spaces within the Precinct compared with 2,235 spaces today.

3. RELEVANT PLANNING STUDIES 1963-1976

3.1 The main planning studies which have contributed towards developing the pedestrian network to its present stage and setting guidelines for its future extension are :-

- (a) The Comprehensive Parking Study of the Central Business District in 1963-64.
- (b) The Metropolitan Adelaide Transportation Study, 1964-68.
- (c) A comprehensive land use survey in 1965.
- (d) Pedestrian Mall Investigations for Rundle Street 1972-75.
- (e) The City of Adelaide Plan 1976.

The policies and action which stemmed from these studies are described below.

3.2 THE COMPREHENSIVE PARKING STUDY 1963-64

Aimed at defining the short term parking needs of the Central Business District this investigation was directed by Wilbur Smith and Associates of the U.S. and Len T. Frazer of Melbourne.

It was conducted in accordance with the standard procedures of the U.S. Bureau of Public Roads with an extension to include interviews in all-day parking areas for later use in developing a long-term parking programme.

In brief, the main study entailed interviewing all parkers in the northern half of the City and processing the results to quantify demand on a block to block basis. The parking deficiencies or surpluses within the blocks were then found by comparison with an inventory of existing spaces.

The blocks were accumulated into sectors, one of which, Section 6, now forms the Mall Precinct. At that time it contained 204 private and no public off-street spaces. After projecting forward to 1969 the study defined a need for an additional 2,100 spaces to serve Sector 6 compared with 1,900 for the remainder of the City.

The most important outcome of the report was the decision to build parking garages and the development of a philosophy that the key to successful short term parking is to reduce walking distance to an absolute minimum. This meant that sites would be expensive and difficult to assemble compared with alternative sites one or two blocks away where land was cheaper but where a walking distance of up to 300 metres would be necessary.

It was decided to meet the demand by building three multi-storey garages within the Sector. Two were built on land assembled by the Council and one by John Martin on land controlled by the Company on North Terrace adjoining its department store.

The criteria adopted for the garages were that they should be :-

- (a) Located as near as possible to the centre of demand.
- (b) Designed for quick easy parking - preferably the sloping floor type with a module of 120 ft.

- (c) Have good traffic access to the street system but no direct connection to Rundle Street.
- (c) Financially feasible with a charging system geared to discouraging long term parking i.e. parking for more than four hours.

Meeting both (a) and (d) presented special problems because land at the centre of demand was expensive. However the heavy patronage by parkers and the inclusion of extensive commercial space in the structures has resulted in profitable operation.

The two Council Garages are entered from Gawler Place and North Terrace respectively. At Gawler Place the site was assembled from five properties. Several of the previous owners had to be accommodated within the new structure which, in addition to 730 parking spaces, contains three floors of shopping and commercial space at ground level and below besides additional commercial space at roof level. The parking decks are connected directly to Myers and David Jones at various points.

The Grenfell Street site was developed in a similar way. The ground floor and basement are leased to Harris Scarfe's Department Store from which some of the site was purchased. The Council operates the 530 space parking component which has direct access to Rundle Mall via the store.

The 975 space North Terrace Garage is connected directly to John Martins Store and is operated in a similar manner to those owned by the Council.

In addition to the three described above a 554 space garage was erected some 80 metres south of the Sector in Wyatt Street by a private organization and then leased to the Council.

In summary, by 1972 the Parking Study had resulted in four strategically placed parking garages providing 2789 short term off-street spaces to the Rundle Street Area.

The increase in accessibility achieved without adding to the congestion of Rundle Street itself set the stage for its later conversion to a mall and the effective creation of the Rundle Mall Pedestrian Precinct.

3.3 THE METROPOLITAN ADELAIDE TRANSPORT STUDY

In 1964 the State Government engaged consultants De Leuw Cather, Alan M. Vorhees and Rankin and Hill to undertake this task. Appropriate study groups and members of advisory and steering committees were drawn from six participating agencies, one of which was the City Council.

The output was mainly a detailed plan for a major freeway system to be built by 1986 but it also included proposals for public transport improvements. One of these was for a railway subway connecting the north and south suburban lines under King William Street.

There was an adverse public reaction to the plan when it was published in 1968 and it was not adopted by the Government. Nevertheless it did have some important effects by generating action in other ways.

In the City it led to additional parking studies which resulted in Council adopting in 1969 a report entitled "Programme for Long and Short Term Parking". This programme set a target of 8,300 off-street long term spaces to

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be provided in 13 facilities within reasonable walking distance of the Core Area plus an additional 1,740 short term spaces to serve the northern part of the Core Area. The concept is shown in Fig 3.

The deficiency on which the figure of 8,300 long term spaces was assessed was based on :-

- (a) Existing and forecast traffic data from M.A.T.S.
- (b) Characteristics of long term parkers gathered during the Wilbur Smith Study.
- (c) Data on land use and workers by location and category from the Comprehensive Land Use Survey described below.
- (d) Forecast in City employment growth made as part of the M.A.T.S. Study.

In selecting the 13 sites the criteria were generally similar to those for the short term sites except those regarding walking distance and size. A maximum distance from the Core equivalent to 10 minutes walking time was adopted and the sites had to be larger to permit the use of simple three storey structures.

Twenty-two possible sites were examined and thirteen finally selected. The optimum capacity of each site was determined by assigning the appropriate proportions of forecast traffic entering the City to the sites serving the various sectors of demands Fig 4.

To date 70% of the land required for ten of the sites has been purchased, the remaining three being owned by the State Government. No structures have yet been built on the sites which are being used as lots. The need to proceed with structures has been lessened by the temporary availability of other land acquired for redevelopment schemes by the Council.

At present the Council operates 3,946 long-term spaces of which 1,129 are on land acquired as part of the Programme.

3.4 THE LAND USE SURVEY 1965

The first comprehensive land use study of the City was made in 1965. For every property in North and South Adelaide it provided complete data on floor space employment and number of residents by category. The results were used to forecast future employment in the City which, together with other data from M.A.T.S. and the Wilbur Smith Study, was used to assess demand for the future long term parking programme.

3.5 THE PEDESTRIAN MALL INVESTIGATIONS

Rundle Mall had long been considered a unique retail complex because it contained five department stores, two large variety stores (Coles and Woolworths) and numerous smaller retail outlets. At peak hours it usually presented a busy but chaotic scene as pedestrians spilt over from the inadequate footpaths and competed with motor vehicles for space on the carriageway.

Changing Rundle Street to a Mall had frequently been suggested but the idea was generally opposed by the retail traders who felt that any change might tend to accelerate the growth of major suburban shopping centres.

A softening in this attitude was brought about by the new parking facilities and in 1972 the Premier asked the Council to ascertain the effects of a Pedestrian Mall in Rundle Street.

Consultants P.G. Pak Poy and Associates were engaged and following their study a Mall was recommended provided that :-

- (a) It was properly planned and designed.
- (b) Increased short term spaces were provided.
- (c) Public transport frequency was improved.
- (c) Specific traffic monitoring and control were undertaken in the surrounding street system.

In March 1975 the Rundle Mall Act was passed, construction commenced and the Mall was opened on 1st October 1976.

To comply with Condition (b) above the Council purchased a property immediately outside the eastern end of the Mall at Pulteney Street and is currently erecting on it a 850 space garage due for completion within a few months.

The garage is bordered on three sides by streets and the main entrance is in the unconverted part of Rundle Street 100 metres east of the Mall. The garage has been designed and built to permit the entrance to be changed to York Street on the southern side if it is ever decided to extend Rundle Mall to the east.

3.6 THE CITY OF ADELAIDE PLAN - 1976

The passing of the S.A. Planning and Development Act in 1966 foreshadowed the time when a special study of the City would have to be made to provide guidelines for future development.

In 1972 the Council engaged Urban Systems Corporation and George Clarke of Sydney to make an appropriate study. The Consultants' report was completed in June 1974 and the outcome, after consultation with the State Government and several public exhibitions, was the adoption of the City of Adelaide Plan and the passing of the "City of Adelaide Development Control Act" in 1976.

Planning control in the future will be in accordance with the Plan and Act which reinforce the concept of short-term parking within the Core and long-term parking outside the Core with off-street Core parking permitted only in authorised parking structures. In addition the importance of ease and comfort of pedestrian movement within a small highly developed Core is emphasised.

In December 1976 after research on the project "Pedestrian Network and Shelter" referred to in Paragraph 1.1 the Council adopted a progress report which defined the main areas of pedestrian attraction and generation in the Core Area.

The Mall Precinct is by far the most important attractor.

Other principal areas of existing and forecast attraction and generation as shown on Fig 5 are :-

- (a) The State Government Office Area of 3 hectares near Victoria Square. Three major buildings have been erected in the area in the last two years and further extensive developments are planned.
- (b) A redevelopment site of one hectare for the Australian Government Office Centre. The properties were purchased in 1975 and preliminary planning made for a major pedestrian oriented complex. Scheme deferred in 1976.
- (c) Major current office redevelopments by Pilgrim Church and City Council. Provision for pedestrian movement between Flinders and Pirie Streets.
- (d) Stock Exchange Plaza redevelopment of 0.81 hectares of land assembled by the City Council. The scheme comprises two 26 floor office towers set in a pedestrian plaza. The northern tower and half of the plaza was completed in 1975. The southern tower and half of the plaza due to be commenced in 1978-79.
- (e) The Central Market. A single storey shopping complex surmounted by a 1.62 hectare parking deck with a capacity of 530 cars. The space turnover factor on market days is ten. Land has been purchased immediately to the west for an additional 500 space parking garage connected directly to the market.
- (f) The Railway Station generating 15,000 trips into the City on an average day.
- (g) The Glenelg Tram Terminus at Victoria Square generating 3,000 trips into the City on an average day.

Priority for further study has been given to improving connections between the areas described in (a) to (d) and Rundle Mall. This has been designated the Victoria Square - Rundle Mall Corridor and connects the major redevelopment areas shown on Fig 5.

4. CONCLUSIONS

The pedestrian precinct of 14 hectares created by the conversion of Rundle Street to a Mall has established a significant part of the Core Pedestrian Network.

The Mall conversion was practicable because of its accessibility to public transport passengers and to short term car parkers. The extensive off-street parking system is a fundamental component of the Mall. The system is the result of policies formed and action taken as a result of various studies made since 1963.

The work remaining to be done on the Pedestrian Network is to extend it to other parts of the Core Area. This involves two main tasks :-

- (a) Encouraging high standard facilities in new developments.
- (b) Improving some mid block street crossings.

The movement corridor between Victoria Square and Rundle Mall presents

most redevelopment opportunities. It also includes the most hazardous street crossings, particularly at each end of the Stock Exchange Plaza. For these reasons this corridor has been given the priority for further study.

REFERENCES

- WILBUR SMITH AND ASSOCIATES, LEN T. FRAZER AND ASSOCIATES (1964). *Analysis of Parking Needs, Central Business District, City of Adelaide.*
- DE LEUW CATHER AND COMPANY, RANKIN AND HILL, ALAN M. VOORHEES AND ASSOCIATES INC. (1968). *Report on Metropolitan Adelaide Transportation Study.*
- CITY OF ADELAIDE (1965). *Comprehensive Land Use Survey.*
- CITY OF ADELAIDE (1969). *Planning Report No. 10. Stock Exchange Plaza.*
- CITY OF ADELAIDE (1969). *Programmes for Long and Short Term Parking.*
- CITY OF ADELAIDE (1970). *Planning Report No. 15. Union Place and Environs.*
- GEORGE CLARK AND URBAN SYSTEMS CORPORATION (1974). *The City of Adelaide Plan.*
- P.G. PAK POY AND ASSOCIATES (1974). *Rundle Street Pedestrian Mall Investigation.*
- CITY OF ADELAIDE (1976). *The City of Adelaide Plan.*
- S.A. GOVERNMENT (1976). *The City of Adelaide Development Control Act.*

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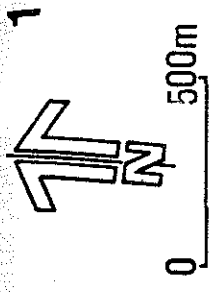
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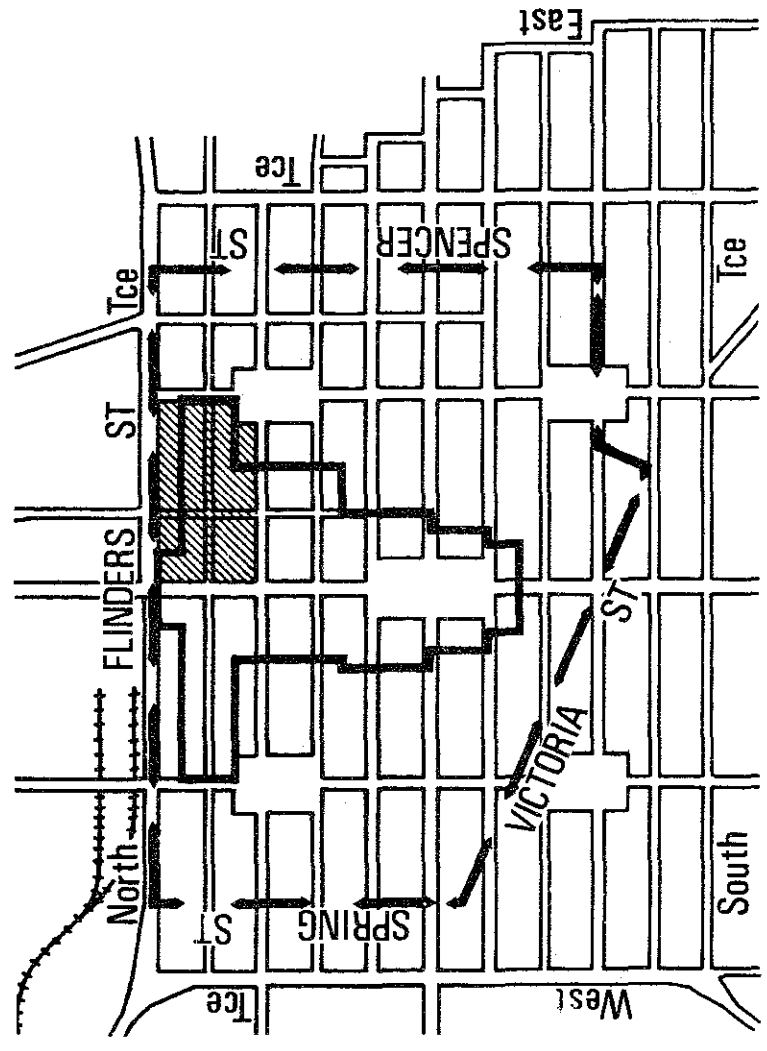
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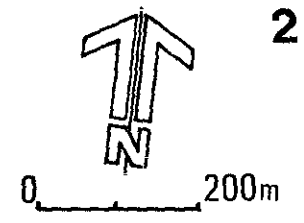
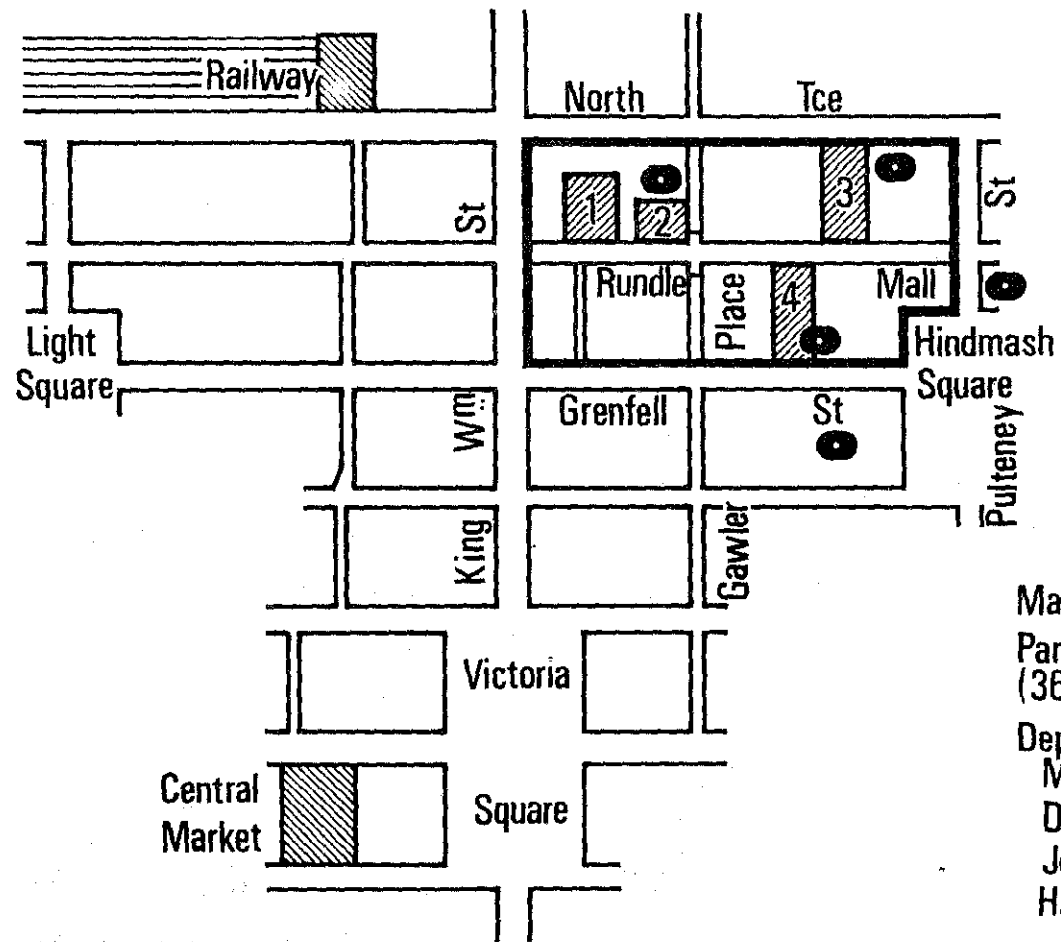
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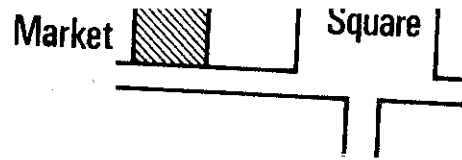


- Core Area - City of Adelaide Plan
- Mall Precinct
- Melbourne Central Business Area

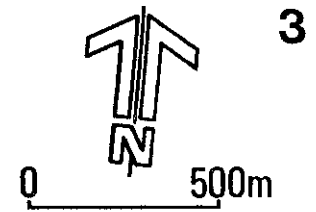
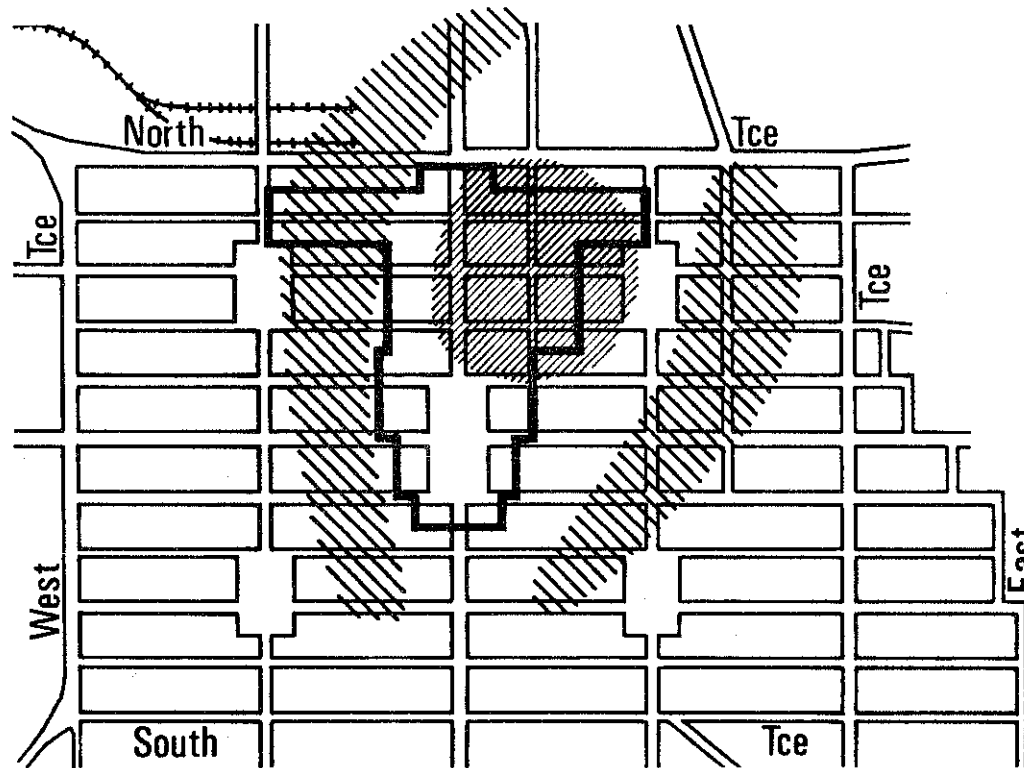







- Mall Precinct
- Parking Garages (3643 spaces)
- Department stores
- Myers 1
- David Jones 2
- John Martin 3
- Harris Scarfe 4



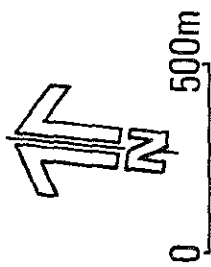
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- David Jones 2
- John Martin 3
- Harris Scarfe 4



-  Core Area - City of Adelaide Plan
-  Short term
-  Long term

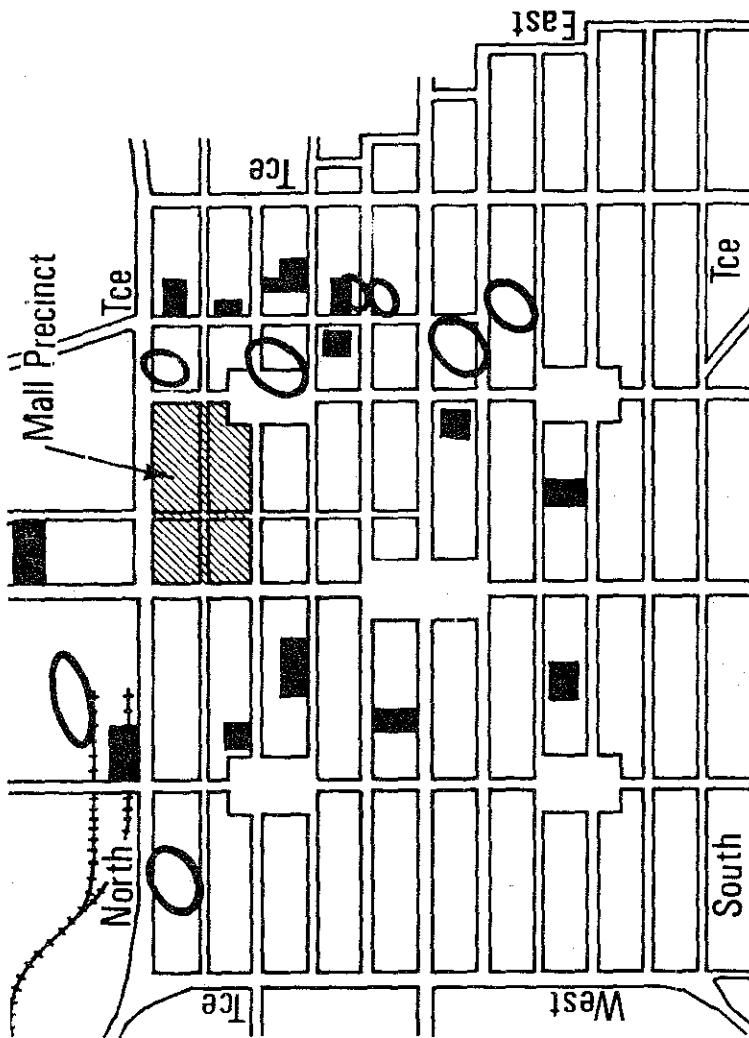
OFF STREET PARKING CONCEPT

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Temporary sites ○
 2817 spaces



LONG TERM OFF STREET SPACES

LONG TERM OFF STREET SPACES

