



LANDSCAPE
SURVEY & ANALYSES
OF

WAIPUKURAU

CONTENTS

- # INTRODUCTION
- # SOILS
- # CLIMATE
- # VISUALLY SIGNIFICANT TREES
- # UNBUILT OPEN SPACE AND PUBLIC PARKS
- # CULTURAL SITES
- # VISUAL STREET SURVEY
- # TELEPHONE SURVEY OF OUTDOOR FACILITIES
- # STATISTICS ON POPULATION OF WAIPUKURAU
- # CONCLUSION

INTRODUCTION

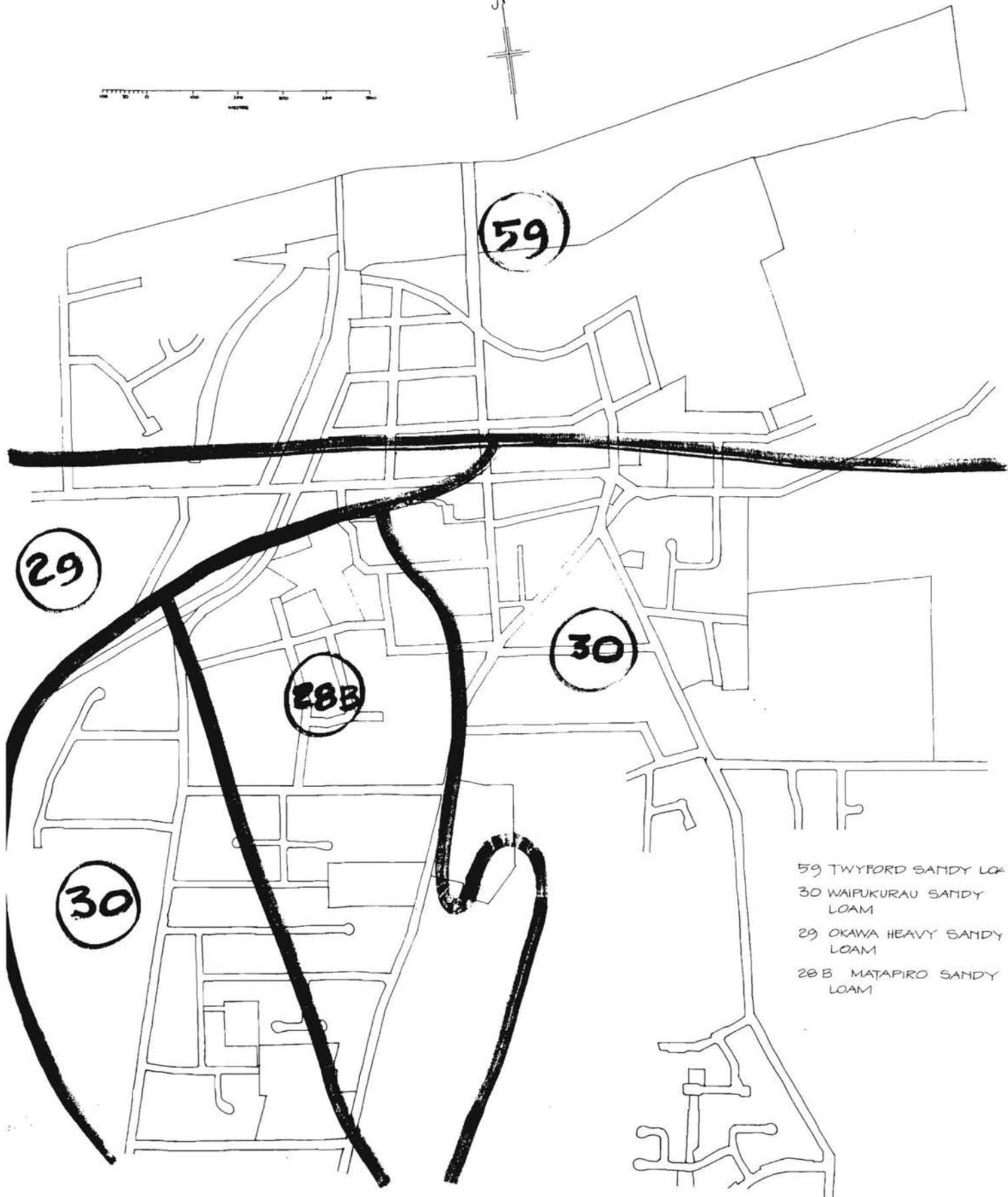
This report has been prepared by Nicola Henderson, Landscape Architect, as a requirement for the completion of the Rural Leadership Course 1990, Lincoln University

The aim of the report is to provide an introduction to the factors which go to make up the landscape of Waipukurau township. The physical, visual, social and cultural aspects are introduced.

The report is the result of a visual survey, research into physical and cultural factors and a telephone survey of the elderly care givers, child care givers and representatives of physically disabled, who use the amenities in the town.

The research is preliminary and further work would need to be undertaken before acting on information contained in this report.

SOILS



- 59 TWYFORD SANDY LOAM
- 30 WAIPUKURAU SANDY LOAM
- 29 OKAWA HEAVY SANDY LOAM
- 28 B MATAPIRO SANDY LOAM

WAIPUKURAU

DIAGRAM SHOWING
• SOILS •

SOILS

1. WAIPUKURAU SERIES (30)

The Waipukurau Series contains a single soil type, the Waipukurau sandy loam.

Waipukurau sandy loam (30) has good natural fertility. It is distinguished from the Okawa soil (29) by lighter texture and by the presence of a hardpan in the subsoil. The parent material is mainly river-deposited sediments derived from greywackes and argillites, sandstones, limestones and some mudstones. The Waipukurau soil which is the most extensive of the terrace soils in the coastal hill country covers 15,039 acres, chiefly in the districts of Waipukurau, Waipawa, Lake Poukawa, Havelock North, Matapiro and Rissington. A profile is:

*6 in. dark-grey sandy loam,
6 in. light-brownish-grey sandy loam,
2 in. light-greyish-yellow heavy sandy loam with lenses or veins of humus, slightly compact,
8 in. light-greyish-yellow sandy clay loam with some orange flecking, cemented to hardpan when dry,
on dark-greyish-yellow heavy sandy loam, cemented on structural surfaces, slightly compact.*

The profile appears to be the most mature of the yellow-grey loam soils; the hardpan is usually well developed and does not soften completely in winter. The hardpan is not always continuous particularly where the subsoil is stony. The profile grades into Okawa heavy sandy loam (29) as its clay content increases. In places stony gravels lie near the surface.

The drainage of the soil is slow, although there is some lateral movement of drainage-waters through the sandy sub-surface soil. Poaching occurs in wet weather the water-table remaining perched above the pan for long periods causing roots in the subsurface soil to drown. The soil is probably too sandy for mole-drainage, but experiments need to be tried with the mole in the upper subsoil. Some areas of the soil are remote from permanent streams but others are well-watered. Artesian water is generally not available. In places gullies are encroaching on the soil and need control. Small areas of the Waipukurau soil, for example, near Atua with rainfall exceeding 40 in. per annum have light-yellow sub-soils.

The Waipukurau soil is moderately aced and has a medium supply of lime. Potash varies from low to medium and phosphate is low.

2. OKAWA SERIES (29)

The Okawa series contains heavy soils of good natural fertility, lying on flat or gently sloping terraces mostly between 10 and 40 ft above stream-level. The subsoils are claypans or hardpans, a feature which distinguishes Okawa soils from the less leached Pukehou soils, which are formed on similar river-deposited sediments. The soils are widely distributed in the coastal hill country in small areas.

The pan resists root penetration strongly and many farm shelter trees are forced to adopt a shallow-rooting system above the pan with the result that they are easily uprooted by strong winds.

The surface drainage of Okawa soils is rapid except on level areas where there is some

flooding by surface waters and artificial drainage is required. Internal drainage is slow and drainage waters are perched on top of the pan. Poaching occurs readily. Very little mole-drainage has been carried out and experiments are necessary to determine whether it is satisfactory. It is likely that the subsurface soil is a little too sandy for this type of drainage and that moles would erode easily. The greater part of the area covered by these soils is well-watered by streams but a part of the area is poorly watered. In many places gullies are encroaching on the ploughable land and require controlling.

Analyses show that the Okawa soils are moderately acid and have a medium supply of lime in the topsoil. The lime content of the subsoil is high. Potash varies from low to medium and phosphate is low.

Okawa heavy sandy loam (29) covers 11,532 acres. The largest areas are in the districts of Waipukurau, Waipawa, Lake Poukawa and Okawa which is twelve miles south of west of Napier. A profile is:

6 in. grey heavy sandy loam,
6 in. light-grey heavy sandy loam,
2 in. light-greyish-yellow clay loam containing thin lenses or veins of humus, slightly compact,
6 in. light-greyish-yellow clay, cemented to a hardpan in summer,
on dark-greyish-yellow clay loam, cemented on structural surfaces only, slightly compact.

In places small concretions of oxides of iron and manganese are found in the subsurface soil and upper subsoil. The humus veins in the upper subsoil are due partly to the decomposition of roots which spread out above the pan and partly to the accumulation of humus washed down from the topsoil.

3. TWYFORD SERIES (59)

Soils of the Twyford Series have exceptionally high natural fertility. They are situated on low river-flats which are generally subject to flooding. The profile usually has no well-defined topsoil and except for the shallow phase consists of deep, grey-brown silt loam, loam or sandy loam. The soils, situated near most of the streams and rivers of mid Hawke's Bay, are most extensively distributed in the coastal hill country. Typical areas occur on Heretaunga Plains on the Moteo and other flats near Puketapu and near Bay View.

On account of their fertility many areas have been protected from floods by river-works, but where no such protection exists it is unwise to assume that flooding has permanently ceased. The addition of sediments during floods builds up the soils and is responsible for the absence of well-developed humus topsoils. Where the soils have been removed from flooding for a considerable period they develop a humus topsoil and a more stable structure. In such places they are transitional to the Hastings soils.

The Twyford soils mostly have rapid drainage. The rainfall is usually fairly low. The soils are well-watered by permanent streams and in addition artesian water supplies are available on most areas. The cultivated soils have some peculiarities due to the fact that they are very young and lack the stable structure of older soils such as those on the hills.

The Twyford soils are neutral or slightly acid and in most places are unusually well-supplied with plant foods, the supply of lime, potash and phosphate being very high. Another unusual feature is that little fertiliser response has been detected in field trials although this does not necessarily prove that the use of fertilisers such as phosphate is unpayable.

The high productivity of Twyford soils is noteworthy. As they are naturally well-drained in most places they are best suited to deep-rooted crops and on Heretaunga Plains they are excellently adapted to fruit-growing. Where the drainage is slower than average shallow-rooted crops are highly productive. The soils are well-adapted to intensive farming and in accessible areas the trend in the future should be towards releasing them from extensive farming for this purpose.

Twyford sandy loam (59) covers 3,047 acres mostly in small areas adjoining the main rivers. It is lighter than other Twyford soils and dries out a little more rapidly. The soil is well drained in most places the profile consisting of grey-grey-brown sandy loam with little topsoil differentiation.

The twyford sandy loam is regarded as one of the best fruit-growing soils and is well-adapted to deep-rooted crops. It is less suited to shallow-rooted crops than other Twyford soils on account of its lightness which allows it to dry out fairly rapidly.

The shallow phase of Twyford sandy loam dries out rapidly as it has a sand subsoil below a depth of 8 in. to 15 in. It occupies 3,083 acres mostly alongside the main rivers, the most extensive areas being near Tutaekuri River between Hakowai and Redcliffe. A profile is:

8 in. grey or grey-brown sandy loam,
on grey, loose sand

Shallow-rooted crops are unsuited to the soil during summer unless it is irrigated. Apart from the ease with which it dries out the shallow phase is similar to the sandy loam soil.

CLIMATE

CLIMATE INFORMATION

Av. rainfall 847 mm

Max. frost 9.7°C
Av. number of frost days 62

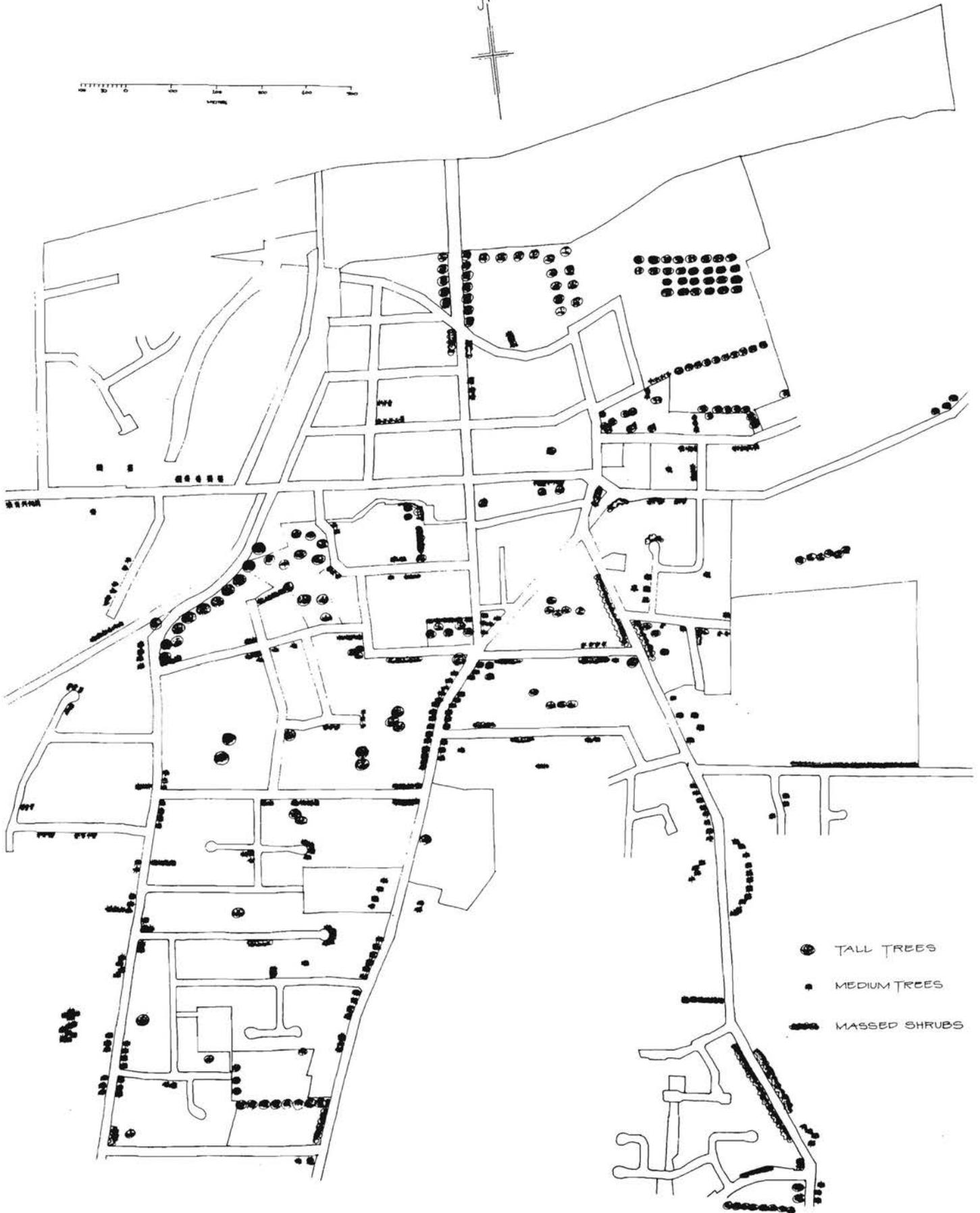
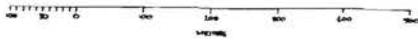
number of sunshine
hours per annum 1992

Average daily maximum
winter temp. Dec 22.0
Jan 23.7
Feb 24.0
Mar 21.0

Average daily maximum
summer temp. June 12.4
July 11.9
Aug 12.9

Wind predominantly from west and southwest
mean annual wind speed (recorded at Dannevirke)
is 8.7 mph

VISUALLY SIGNIFICANT TREES

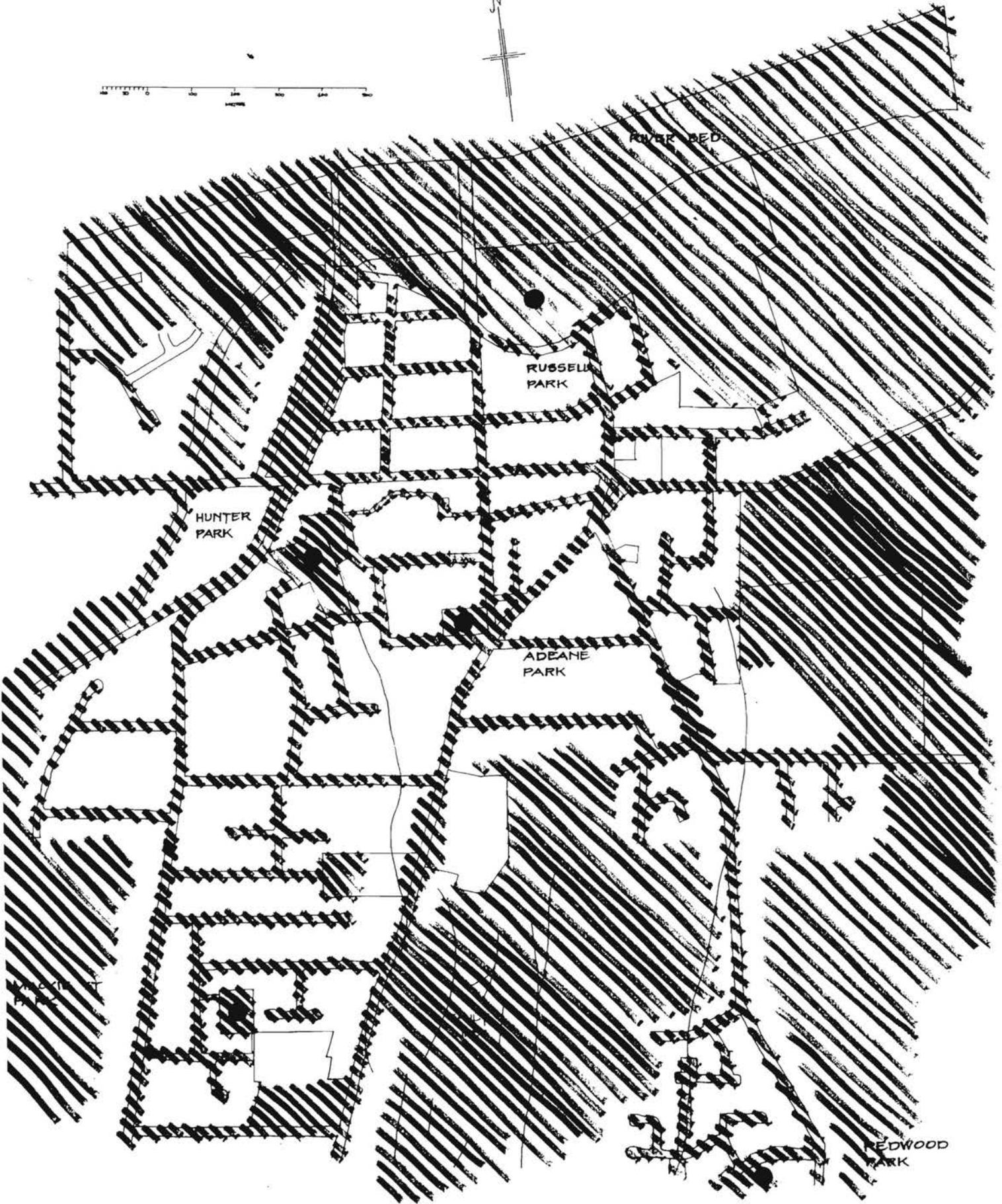
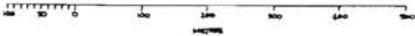


- TALL TREES
- MEDIUM TREES
- MASSES SHRUBS

WAIPUKURAU

DIAGRAM SHOWING
● TREES ●

UNBUILT OPEN SPACE & PUBLIC PARKS



WAIPUKURAU

DIAGRAM SHOWING
◦ UNBUILT SPACE ◦

UNBUILT SPACE

The accompanying diagram shows the pattern of built to unbuilt space.

The unbuilt space consists of:

1. the river
2. public recreation parks
3. farmland
4. the fault lines
5. the streets
6. private and institutional open space

1. The river on the northern boundary of the township is visually important and forms a memorable entry from the north while providing an extensive natural area for recreational use.

2. Public Recreation Parks

- (a) Russell Park alongside the river contributes to the high visual quality of the northern entry while providing space for organised sport, an area for childrens play and a rose garden. Russell Park boundaries the A & P Assn area to the east, the total open space being extensive.
- (b) Hunter Memorial Park covers the highest ground in the town and is visually significant, forming a green backdrop to the commercial zone. The large trees are visible from a wide area and the plunket rooms near town, which are in Hunter Park, provide an important passive recreation space.
- (c) Adeane Park is a passive open space and childrens play area, with large trees bordering the commercial and residential areas.
- (d) Residential Parks - off Mackie Street is an area of open space in the centre of a Housing Corporation development. There are no trees or amenities.
- Redwood Drive Park is associated with a new housing development and is bounded by large trees. There is some new planting in the park.

3. Farmland on the perimeter of town and reaching into the residential area from the south provides a balance of open space with the built area.

4. The fault lines only recently located have, in some cases, been built on. As future development will avoid them, the opportunity exists to provide a pattern of open space, already started.

5. The streets are the physical and visual links of the town. These which rate a high visual grade (see street survey) are well planted along the boundaries on public and private land.

6. Private and institutional open space includes gardens, schools, hospitals, churches, Regional Council and Railways land, car parks, commercial space, undeveloped sections, etc. In some cases these spaces make a positive contribution to the townscape with large trees and broad areas of soft landscape.

Summary

Waipukurau is well endowed with accessible and visual open space. The river is important, not only for its visual and recreational assets, but its contribution to the identity and character of Waipukurau.

Russell Park is well used by organised sports people. Care should be taken to preserve and enhance its qualities by:

- avoiding illconceived development
- undertaking shelter and shade planting (see survey on outdoor facilities)

The area bounding Russell Park to the south, including the war memorial, car park and the rose garden require high maintenance without a consequent public gain. The philosophy governing the on-going existence of these areas in their present form should be examined.

A program of tree planting and replacement for Hunter Park will ensure a constant pattern of trees for the future. The standard of access into and within the park is low with no obvious entry points and car parking.

Adeane Park is attractive and well maintained and is of greater benefit visually than as an area to be used.

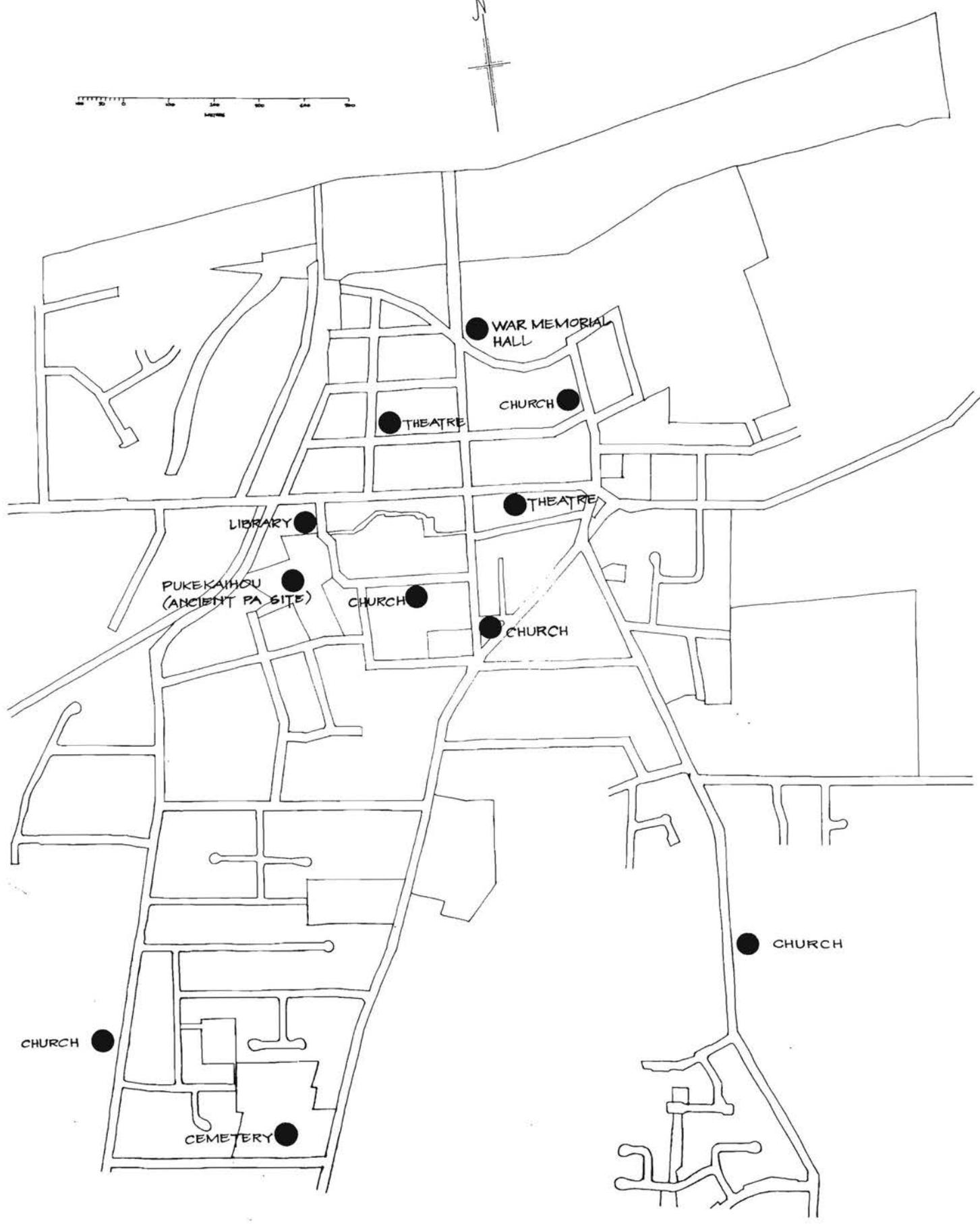
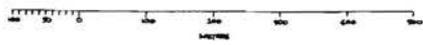
The farmland within the town boundary and especially the area coming in from the south, presents an opportunity to preserve significant open space within a residential area by setting aside reserves in association with the fault lines.

Tree planting on private and institutional land and in the street verges would improve the visual quality of all the areas of Waipukurau and should be encouraged.

Unfortunately, the public recreation parks do not relate well to the centre of residential population, where there are few public parks and little civic planting. This situation could be improved by:

- (a) the development of 'green' connecting links to available open space. This could be achieved by:
 - i. nominating a hierarchy of roads for traffic control and appropriate traffic management systems;
 - ii. encouraging increased pedestrian use by widening paths, narrowing carriageways, providing seating trees and soft landscape.
- (b) improving the quality and amenity of existing parks, such as the park off Mackie Street (perhaps local residents could be invited to name the park?) which is cut off physically and visually from the street and housing.
- (c) Siting future parks so they relate to a pedestrian circulation pattern, associated housing and an overall open space pattern within the town.
- (d) Encouraging tree planting on private land, especially in areas which have a low tree count.

CULTURAL SITES



WAIPUKURAU

DIAGRAM SHOWING
• CULTURAL SITES •

A BRIEF HISTORY OF MAORI SETTLEMENT IN THE WAIPUKURAU DISTRICT

Aitanga a whata was the original tribe based in the area governed by the waterways and centered around Waipukurau. This was the first tribe to leave the coast and settle in an inland place in this part of Hawke's Bay.

Rangitane became the dominant tribe after intermarriage.

Kahungunu arrived at the same time as *Tahunui*. At this time the *Pukekaihou* pa was fortified and is the site of the last Maori battle about 1830-35. In 1856 Waipukurau was sold.

The word 'pukurau' means, eatable brown puff ball, which was found growing in the area.

Lake Hatuma, called *Whatuma*, provided eels and was a breeding ground for wildlife with subsequent controls on hunting and fishing seasons.

The hill, now known as Hunter Park, was a pa site called *Pukekaihou*.

With thanks to *Teataarangi Allen*, who was my informant.

VISUAL STREET SURVEY

VISUAL STREET SURVEY AND ANALYSIS

1. The survey was conducted from a pedestrian point of view.
2. There were five criteria assessed:
 - (a) scale
 - (b) sense of place
 - (c) amenities
 - (d) visual grade
 - (e) potential for improvement

A. Scale

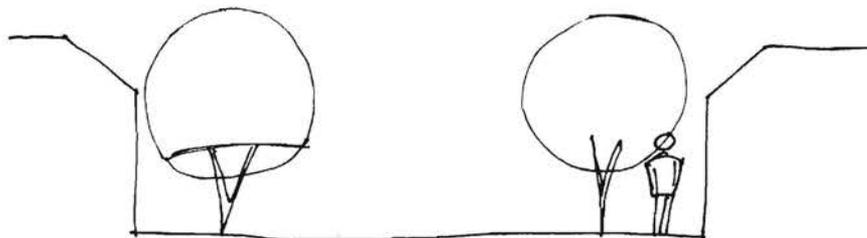
This category had two grades; good and poor.

A 'good' scale evolves from a relationship between:

- width of the street
- height of buildings or trees
- bulk of buildings or trees
- the size of a pedestrian being in proportion to the surroundings.

An example of a good pedestrian scale is Kitchener Street.

An example of a poor pedestrian scale is Takapau Road.



GOOD PEDESTRIAN SCALE



POOR PEDESTRIAN SCALE

B. Sense of Place

This category had two grades; yes and no.

A sense of place evolves from:

- *the scale*
- *visual containment*
- *memorable features*

An example of a street with a sense of place is Cook Street.

An example of a street with no sense of place is Gaisford Terrace.

C. Amenities

This category had six divisions:

- *car parking*
- *footpaths*
- *seats*
- *street trees*
- *public open space*
- *private trees of visual significance*

The presence of any or all of these items did not affect the quality of the street, but is a record of the make-up of the street.

D. Visual Grade

This category had three grades:

- *high*
- *medium*
- *low*

A High visual grade results from a combination of good scale, a sense of place and trees of visual significance, e.g. Kitchener Street.

A Medium visual grade results from either good scale, a sense of place or trees of visual significance or a little of each of these, but not enough to be memorable, e.g. Gaisford Terrace.

A Low visual grade results from poor scale, no sense of place and no trees of visual significance, e.g. McCarthy Terrace.

E. Potential for Improvement

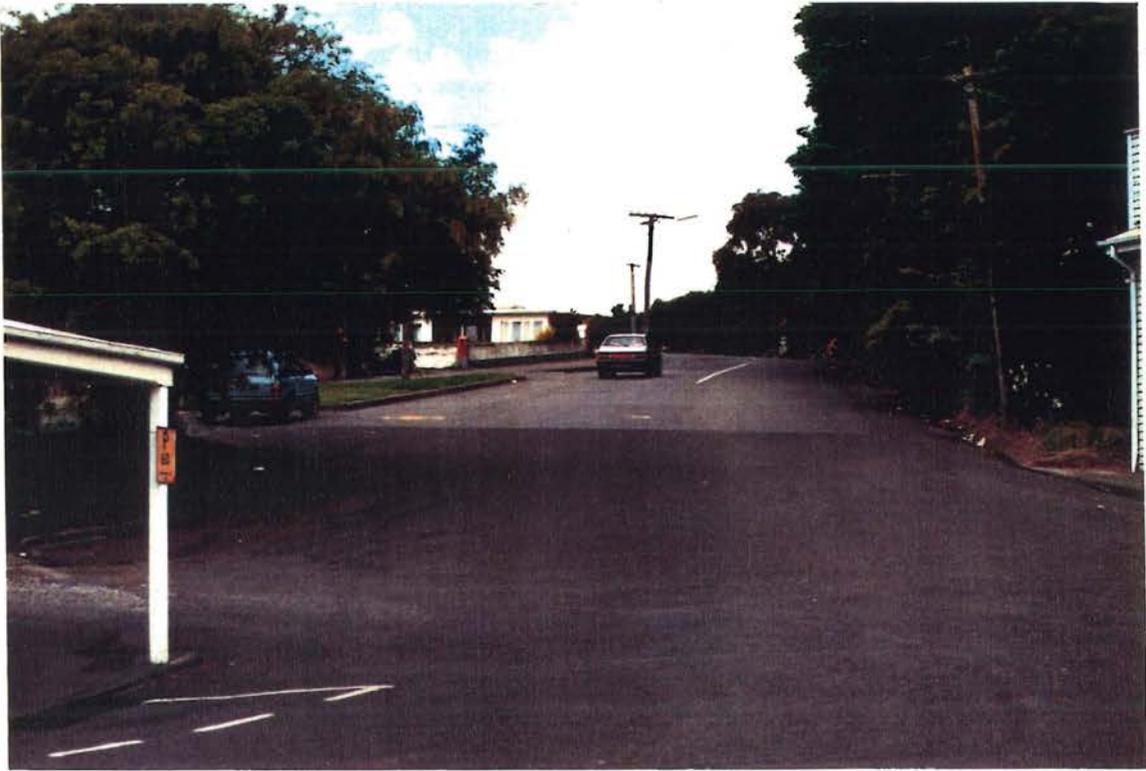
This category had three grades:

- high*
- medium*
- low*

A High potential for improvement has a direct relationship to a medium or low visual grade and small improvements would give maximum benefits, e.g. Jull Crescent.

A Medium potential for improvement relates to a high or medium visual grade but more effort would be required to improve the visual grade, e.g. Jellicoe Street.

A Low potential for improvement - no streets fell into this grade as all streets could be improved.



KITCHENER STREET - HIGH VISUAL GRADE



*JELlicoe STREET - MEDIUM VISUAL GRADE
MEDIUM POTENTIAL FOR IMPROVEMENT*



*JULL CRESCENT - GOOD PEDESTRIAN SCALE
SENSE OF PLACE
HIGH POTENTIAL FOR IMPROVEMENT*



*TAKAPAU ROAD - POOR PEDESTRIAN SCALE
NO SENSE OF PLACE
LOW VISUAL GRADE*

STREET SURVEY BASED ON PEDESTRIAN VALUES

STREET	Scale		Sense of place		Amenities			street trees	Public open space	private trees	Visual			Potential for improvement		
	good	poor	yes	no	car parks	foot paths	seats				Grade high	med	low	high	med	low
River Terrace	✓		✓		✓	✓	×	×	✓	×		✓		✓		
St Josephs St		✓		✓	✓	✓	×	×	×	✓		✓			✓	
Mitchell St		✓		✓	✓	✓	×	×	✓	✓		✓		✓		
Francis Drake St		✓		✓	✓	✓	×	×	×	×		✓			✓	
Gow St		✓		✓	✓	✓	×	×	×	×			✓	✓		
Jull Cres	✓		✓		×	✓	×	×	×	×		✓		✓		
Mt Herbert Rd		✓		✓	✓	✓	×	×	✓	×		✓			✓	
Tavistock Plce	✓			✓	✓	✓	✓	✓	✓	×			✓	✓		
Albert St	✓		✓		×	✓	×	×	×	×		✓		✓		
Tutanaekai St		✓		✓	✓	✓	×	×	×	✓		✓			✓	
Hinemoa Tce	✓		✓		✓	✓	×	×	×	×		✓		✓		
Svenson St		✓		✓	✓	✓	×	×	×	×			✓	✓		
Ferguson Ave	✓		✓		✓	✓	×	✓	×	✓		✓		✓		
Blundell Ave		✓		✓	✓	✓	×	×	×	×			✓	✓		
Redwood Drive		✓	✓		✓	✓	×	✓	✓	✓		✓		✓		
Holt Plce		✓		✓	✓	✓	×	✓	✓	×			✓	✓		
Kowhai Plce		✓		✓	✓	✓	×	✓	✓	×			✓	✓		
Totatara St		✓		✓	✓	✓	×	✓	✓	×			✓	✓		
Leeton Dve	✓		✓		✓	✓	×	×	×	✓		✓			✓	
Porritt Plce		✓		✓	✓	✓	×	×	✓	×			✓	✓		
Stiles Ave		✓		✓	✓	✓	×	✓	×	×		✓			✓	
Jellicoe St		✓		✓	✓	✓	×	×	×	×		✓			✓	
Holyrood Tce		✓		✓	✓	✓	×	×	×	×		✓			✓	
Marlborough St		✓		✓	✓	✓	×	×	×	×			✓		✓	
Northumberland St		✓		✓	✓	✓	×	×	✓	×			✓		✓	
Peel St		✓		✓	✓	✓	×	×	×	×			✓		✓	
Railway Esplanade		✓		✓	✓	✓	×	×	✓	×			✓		✓	
Russell St E.end	✓		✓		✓	✓	×	×	×	✓	✓				✓	
Russell St W.end		✓		✓	✓	✓	×	×	✓	✓			✓		✓	
James St	✓			✓	✓	✓	×	✓	×	×		✓		✓		
Aclin/Harris Sts		✓		✓	✓	×	×	×	×	×			✓	✓	✓	
Coughlin St		✓		✓	✓	×	×	×	×	✓			✓	✓	✓	
Takapau Rd		✓		✓	✓	✓	×	✓	×	×			✓	✓	✓	
Cook St	✓		✓		✓	✓	×	×	×	✓	✓				✓	
Montgomery St		✓		✓	✓	✓	×	×	×	×			✓	✓	✓	
Ruahine Plce	✓		✓		✓	✓	×	×	×	×			✓	✓	✓	
Wilder St		✓		✓	✓	✓	×	×	×	×			✓		✓	

STREET	Scale		Sense of		Amenities					Visual Grade			Potential for improvement			
	good	poor	place		car parks	foot paths	seats	street trees	open space	private trees	high	med	low	high	med	low
			yes	no												
Woburn Street		✓		✓	✓	✓	×	×	×	×			✓		✓	
Kitchener St	✓		✓		✓	✓	✓	✓	✓	×	✓				✓	
St Marys St		✓	✓		✓	✓	×	×	×	✓		✓		✓		
Wallace Rd		✓	✓		✓	✓	×	×	✓	✓	✓			✓		
Fleming Rd		✓	✓		✓	✓	×	×	✓	✓		✓			✓	
Reservoir Rd		✓		✓	✓	✓	×	×	✓	✓		✓			✓	
Nelson St		✓		✓	✓	✓	×	×	×	✓		✓			✓	
Goodger St		✓	✓		✓	✓	×	×	×	✓		✓			✓	
Hill St	✓		✓		✓	✓	×	×	×	✓		✓		✓		
Gaisford Tce		✓		✓	✓	✓	×	×	×	✓		✓			✓	
Carpenter St	✓		✓		✓	✓	×	×	×	×			✓	✓		
Cobham Cres	✓		✓		✓	✓	×	×	×	✓		✓		✓		
Savage Plce	✓		✓		✓	✓	×	×	×	×		✓		✓		
Churchill St	✓			✓	✓	✓	×	×	×	×			✓	✓		
Freyberg Tce	✓			✓	✓	✓	×	×	×	×			✓	✓		
Mackie St		✓		✓	✓	✓	×	×	✓	×			✓	✓		
McLean Tce	✓			✓	×	×	×	×	×	×			✓	✓		
Mt View Plce	✓		✓		✓	✓	×	×	×	×		✓		✓		
McCarthy Tce		✓		✓	✓	✓	×	×	×	×			✓	✓		
Chambers Cres	✓		✓		✓	✓	×	×	×	×			✓	✓		
Lake View Rd		✓		✓	✓	✓	×	✓	×	×			✓		✓	
	✓		✓		✓	×	×	×	×	×			×	✓	×	
	✓		✓		✓	×	×	×	×	✓	✓		✓	✓		
	✓			✓	✓	✓	×	×	×	×		✓	✓			

TELEPHONE SURVEY OF OUTDOOR FACILITIES

TELEPHONE SURVEY OF OUTDOOR FACILITIES IN WAIPUKURAU

This was a telephone survey undertaken to assess the level of satisfaction with outdoor facilities in Waipukurau.

The consumers approached to participate in the survey were:

- child care providers*
- children (represented by child care providers)*
- the elderly and infirm care providers*
- the elderly and infirm*

The number of replies were as follows:

- 3 representing:
250 children
150 parents/child care providers*
- 2 representing:
100+ elderly and infirm*
- 7 representing:
200 elderly and infirm*

Example of Survey of Outdoor Facilities in Waipukurau 1990

<i>NAME OF GROUP</i>						
<i>Contact Person</i>	<i>telephone</i>					
<i>A. Age of people you represent</i>	<i>0-5</i>	<i>5-15</i>	<i>16-30</i>	<i>30-50</i>	<i>50+</i>	
<i>B. Number of people you represent</i>	<i>0-10</i>	<i>10-20</i>	<i>20-50</i>	<i>50-100</i>	<i>100+</i>	
<i>C. Sex of people you represent</i>	<i>Male</i>	<i>Female</i>	<i>Both</i>			
<i>D. Facilities used by people</i>	<i>Hall</i>	<i>Public Park</i>	<i>Shops</i>	<i>Sportsground</i>		
		<i>Other</i>				
<i>E. Outdoor recreation areas used by people you represent</i>	<i>Do you need open space?</i>		<i>Yes</i>	<i>No</i>		
	<i>Is open space provided?</i>		<i>Yes</i>	<i>No</i>		
	<i>Is it easily accessible?</i>		<i>Yes</i>	<i>No</i>		
	<i>Adequate size?</i>		<i>Yes</i>	<i>No</i>		
	<i>Handy position?</i>		<i>Yes</i>	<i>No</i>		
	<i>Well maintained?</i>		<i>Yes</i>	<i>No</i>		
	<i>Sheltered from sun?</i>		<i>Yes</i>	<i>No</i>		
	<i>wind?</i>		<i>Yes</i>	<i>No</i>		
<i>F. Are other facilities you need provided?</i>	<i>Easily accessible?</i>		<i>Yes</i>	<i>No</i>		
<i>Yes</i>	<i>Handy position?</i>		<i>Yes</i>	<i>No</i>		
<i>No</i>	<i>Well maintained?</i>		<i>Yes</i>	<i>No</i>		
	<i>Adequate size?</i>		<i>Yes</i>	<i>No</i>		
	<i>Sheltered from sun?</i>		<i>Yes</i>	<i>No</i>		
	<i>wind?</i>		<i>Yes</i>	<i>No</i>		
<i>G. Do you need RAMPS?</i>	<i>Yes</i>	<i>No</i>				
<i>Are they provided?</i>	<i>Yes</i>	<i>No</i>				
<i>Are they handy?</i>	<i>Yes</i>	<i>No</i>				
<i>In good condition?</i>	<i>Yes</i>	<i>No</i>				
<i>Sheltered from sun?</i>	<i>Yes</i>	<i>No</i>				
<i>wind?</i>	<i>Yes</i>	<i>No</i>				
<i>H. Do you need STEPS?</i>	<i>Yes</i>	<i>No</i>				
<i>Are they provided?</i>	<i>Yes</i>	<i>No</i>				
<i>Are they handy?</i>	<i>Yes</i>	<i>No</i>				
<i>In good condition?</i>	<i>Yes</i>	<i>No</i>				
<i>Sheltered from sun?</i>	<i>Yes</i>	<i>No</i>				
<i>wind?</i>	<i>Yes</i>	<i>No</i>				

I.	Do you need FOOTPATHS?	Yes	No
	Are they provided?	Yes	No
	Are they handy?	Yes	No
	In good condition?	Yes	No
	Sheltered from sun?	Yes	No
	wind?	Yes	No
J.	Do you need CARPARKS?	Yes	No
	Are they provided?	Yes	No
	Is there an adequate number?	Yes	No
	Are they handy?	Yes	No
	In good condition?	Yes	No
	Sheltered from sun?	Yes	No
	wind?	Yes	No
K.	Do you need OUTDOOR SEATING?	Yes	No
	Are seats provided?	Yes	No
	Are there enough?	Yes	No
	Are they handy?	Yes	No
	In good condition?	Yes	No
	Sheltered from sun?	Yes	No
	wind?	Yes	No
L.	Do you need OUTDOOR LIGHTING?	Yes	No
	Is lighting provided?	Yes	No
	Is there enough light?	Yes	No
	Is it reliable, well maintained	Yes	No

Response to Survey

1. Children represented by child care providers:

A. Age of children	0-15
B. Number	250 - 300
C. Sex	Male and Female
D. Facilities used	Public parks, sportsgrounds, library, pool
E. Outdoor recreation	Areas are adequate but not sheltered
F. Other facilities	Would like an adventure playground, heated pool
G. Ramps	Are adequate
H. Steps	Are adequate
I. Footpaths	Are adequate
J. Carparks	Are provided but are not handy to facilities
K. Seating	Is required but is not provided
L. Outdoor lighting	Is not required

Comments - The grandstand in Russell Park is dangerous with no shade or shelter.

2. Child care providers:

A. Age	16-50
B. Number	100+
C. Sex	Female predominantly
D. Facilities used	Hall, public parks, shops, restrooms and hospital
E. Outdoor recreation space used	Space is provided but is not easily accessible
F. Other facilities needed	Open space in town centre
G. Ramps	Are adequate with some exceptions
H. Steps	Are adequate
I. Footpaths	Are adequate
J. Carparks	Are adequate but no shade
K. Outdoor seating	Required but not provided
L. Outdoor lighting	Adequate

Comments - Play areas should be more accessible with seating and shelter and shade. All existing play areas are only accessible by car.

3. *Elderly represented by care providers:*

A. <i>Age of elderly</i>	<i>50+</i>
B. <i>Number</i>	<i>100 - 200</i>
C. <i>Sex</i>	<i>Male and Female</i>
D. <i>Facilities used</i>	<i>Hall, public parks, hospital, church rooms</i>
E. <i>Outdoor recreation</i>	<i>Areas are well provided but not sheltered</i>
F. <i>Other facilities</i>	<i>Not required</i>
G. <i>Ramps</i>	<i>Are adequate</i>
H. <i>Steps</i>	<i>Are adequate</i>
I. <i>Footpaths</i>	<i>Are provided but surfaces are uneven</i>
J. <i>Carparks</i>	<i>Are adequate but disabled parks are often used up - not sheltered</i>
K. <i>Outdoor seating</i>	<i>Is required but not provided</i>
L. <i>Outdoor lighting</i>	<i>Is adequate</i>

Comments - *hard to get to Doctors waiting rooms because of steep ground and steps.*
- *seats are needed on the main street outside shops and banks.*
- *there is neither lighting nor telephones at Newmans Buses drop off points.*
- *public loos are unclean.*

4. *Infirm*

A. <i>Age</i>	<i>16-50+</i>
B. <i>Number</i>	<i>50 - 100</i>
C. <i>Sex</i>	<i>Male and Female</i>
D. <i>Facilities used</i>	<i>Hall, public park, shops, sportsground, Cosmo. Club, Red Cross</i>
E. <i>Outdoor recreation</i>	<i>Adequate but no shelter or shade</i>
F. <i>Other facilities</i>	<i>Not required</i>
G. <i>Ramps</i>	<i>Are adequate</i>
H. <i>Steps</i>	<i>Not required</i>
I. <i>Footpaths</i>	<i>Are provided but not in very good condition</i>
J. <i>Carparks</i>	<i>Are adequate</i>
K. <i>Outdoor seating</i>	<i>Is not required</i>
L. <i>Outdoor lighting</i>	<i>is not required</i>

Comments - *public toilet is only fair as far as usability is concerned.*
- *footpaths need upgrading in some cases.*

5. *Elderly and infirm, represented by care providers*

- A. *Age* 50+
- B. *Number* 20-50
- C. *Sex* Male and Female
- D. *Facilities used* Hall, public park, shops, sportsground (as spectators)
- E. *Outdoor recreation* Is provided and adequate but needs shelter from wind
- F. *Other facilities* Not required
- G. *Ramps* Are adequate
- H. *Steps* Are not required
- I. *Footpaths* Are provided but new ones are badly designed
- J. *Carparks* Are provided but not shaded or sheltered
- K. *Outdoor seating* Is required but not provided
- L. *Outdoor lighting* Not required

Comments - no seats or shelter at Newmans Bus stop.
- design of pavements a concern.

Summary of Survey of Outdoor Facilities in Waipukurau

Outdoor recreation - well provided but not sheltered or shaded. Not easily accessible for child care givers.

Other facilities desired - for children and child care givers, i.e. adventure playground, heated pool, open space in town centre and play areas should be more accessible. The elderly do not require other facilities.

Ramps - adequate. Town well provided.

Steps - well provided.

Footpaths - are adequate but surfaces in some cases are in poor condition and design of new footpaths not suitable for wheelchairs.

Carparks - are provided in adequate numbers but none are shaded. Disabled parks are often full.

Seating - is desired but is not provided.

Outdoor lighting - is adequate.

Note: The elderly are often entertained by care givers in private homes and therefore seem to have no need for outdoor recreation space.

STATISTICS OF POPULATION OF WAIPUKURAU

STATISTICS ON WAIPUKURAU POPULATION (taken from 1986 New Zealand Census)

Total Waipukurau District

INCOME	1986	
	<i>Male</i>	<i>Female</i>
0 - 10,000	828	1791
10,000 - 20,000	1299	690
20,000 - 30,000	480	132
30,000 - 40,000	93	18
40,000 - 50,000	36	6
50,000 +	39	3

WORK STATUS		
	<i>Male</i>	<i>Female</i>
Full-time Labour Force	2136	987
Part-time Labour Force	192	501
Not working	504	1362
TOTAL	2835	2841

EMPLOYMENT STATUS		
	<i>Male</i>	<i>Female</i>
Employer of Others in own Business	318	66
Self-employed and not Employing Others	300	93
Wage or Salary Earner	1605	1092
Unpaid Worker in Family Business	24	78
Unemployed and Seeding Work	69	147
Not Specified	18	6
TOTAL	2331	1479

INDUSTRY		
	<i>Male</i>	<i>Female</i>
Agriculture, Hunting, Forestry and Fishing	819	165
Mining and Quarrying	24	-
Manufacturing	384	210
Electricity, Gas and Water	24	3
Building and Construction	198	6
Wholesale, Retail and Restaurant	222	144
Transport, Storage, Communications	105	24
Finance, Insurance, Property	57	66
Community, Social, Personal	237	270
Not Adequately Defined	18	12
TOTAL	2019	900

FULL-TIME LABOUR FORCE, OCCUPATION AND SEX

	<i>Male</i>	<i>Female</i>
<i>Professional, Technical</i>	165	165
<i>Administrative, Managerial</i>	69	6
<i>Clerical</i>	78	156
<i>Sales Workers</i>	126	93
<i>Service Workers</i>	66	132
<i>Agricultural, Animal Husbandry and Forestry Workers, Fishermen and Hunters</i>	831	159
<i>Production, Transport, Equipment Operators and Labourers</i>	753	183
<i>Not Adequately Defined</i>	6	6
TOTAL	2091	900

OCCUPIED DWELLINGS*Waipukurau Township*

<i>Separate House</i>	1113
<i>Two Houses or Flats Joined Together</i>	114
<i>Three or More Flats (houses) Joined Together</i>	45
<i>Flat/House Attached to Business or Shop</i>	18
TOTAL	1290

ETHNIC ORIGIN

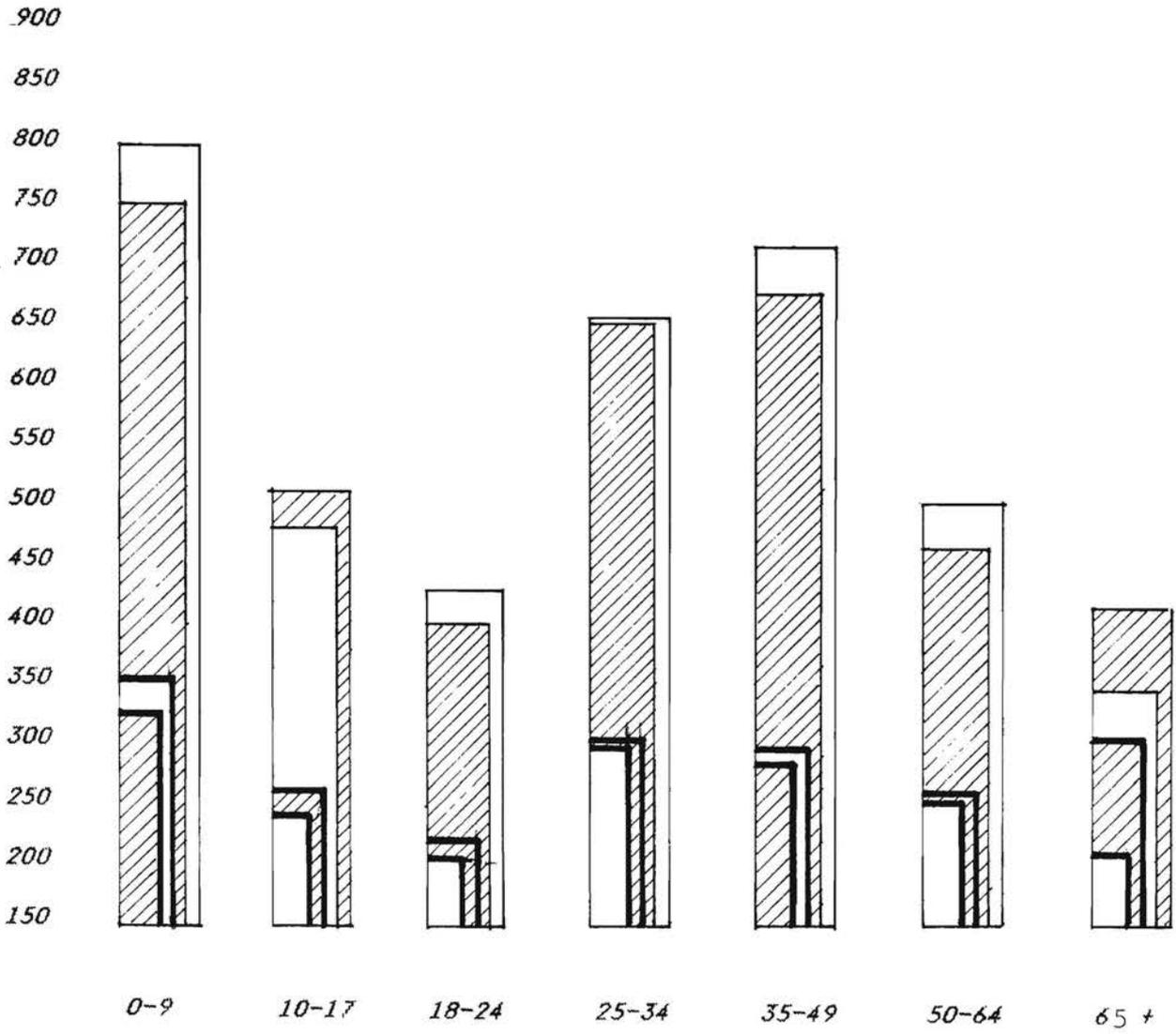
	<i>Male</i>	<i>Female</i>
<i>European</i>	3207	3171
<i>Persons of N.Z. Maori Origin</i>	669	675
<i>Persons of Pacific Island Polynesian Origin</i>	45	33
TOTAL	3921	3879

POPULATION AGE GROUP AND SEX

	<i>Male</i>	<i>Female</i>
<i>Waipukurau Township:</i>		
<i>Under 5</i>	<i>177</i>	<i>174</i>
<i>5-9</i>	<i>174</i>	<i>153</i>
<i>10-14</i>	<i>165</i>	<i>141</i>
<i>15-17</i>	<i>78</i>	<i>126</i>
<i>18-19</i>	<i>57</i>	<i>57</i>
<i>20-24</i>	<i>150</i>	<i>171</i>
<i>25-29</i>	<i>162</i>	<i>159</i>
<i>30-34</i>	<i>135</i>	<i>150</i>
<i>35-39</i>	<i>120</i>	<i>99</i>
<i>40-44</i>	<i>87</i>	<i>81</i>
<i>45-49</i>	<i>84</i>	<i>105</i>
<i>50-54</i>	<i>96</i>	<i>84</i>
<i>55-59</i>	<i>72</i>	<i>96</i>
<i>60-64</i>	<i>84</i>	<i>84</i>
<i>65 and over</i>	<i>216</i>	<i>306</i>
<i>TOTAL</i>	<i>1860</i>	<i>1983</i>

<i>Total Waipukurau District:</i>		
<i>Under 5</i>	<i>390</i>	<i>378</i>
<i>5-9</i>	<i>411</i>	<i>375</i>
<i>10-14</i>	<i>318</i>	<i>318</i>
<i>15-17</i>	<i>165</i>	<i>204</i>
<i>18-19</i>	<i>114</i>	<i>90</i>
<i>20-24</i>	<i>324</i>	<i>315</i>
<i>25-29</i>	<i>336</i>	<i>315</i>
<i>30-34</i>	<i>330</i>	<i>345</i>
<i>35-39</i>	<i>303</i>	<i>267</i>
<i>40-44</i>	<i>231</i>	<i>213</i>
<i>45-49</i>	<i>189</i>	<i>201</i>
<i>50-54</i>	<i>192</i>	<i>162</i>
<i>55-59</i>	<i>156</i>	<i>165</i>
<i>60-64</i>	<i>156</i>	<i>147</i>
<i>65 and over</i>	<i>345</i>	<i>426</i>
<i>TOTAL</i>	<i>3954</i>	<i>3909</i>

POPULATION 1986



	<i>MALE</i>	<i>FEMALE</i>
DISTRICT	□	▨
TOWN	□	▨

CONCLUSION

CONCLUSION

The landscape of Waipukurau is dominated by:

- the river with its riparian vegetation*
- Russell Park and the A & P Association land*
- Hunter Park with its mature trees*

The northern approach to town over the river is of high visual quality with contained views into the streets. Hunter Park forms a green back drop.

From the south, the impact of the view from Pukeora Hill has been all but lost - a view which distinguishes Waipukurau from every other town in New Zealand.

The southern approach is of low visual quality with few distinguishing features. Any future development should consider creating a sense of arrival in town.

The survey of outdoor facilities showed a need for seating within the town and a desire for more centrally located open space. The provision of these facilities could be associated with the development of a 'place' which gave a sense of arrival in town.

By encouraging planting of trees of an appropriate size and form in and around the industrial and commercial areas, there would be opportunities to develop a sense of place, improve the visual quality and the pedestrian environment.

The visual quality in the residential areas is variable and usually related to private and public planting.

An on-going programme of tree planting should be established. This tree planting should relate to an overall goal to create a logical and effective open space and tree pattern in association with vehicle and pedestrian circulation within the town.

The creation of areas of community interest and encouragement of public participation in the planning, planting and maintenance of trees would help ensure the success of such a programme.

The assembled information in this report gives an overview of the different aspects which contribute to the landscape of Waipukurau and the people who enjoy that landscape.

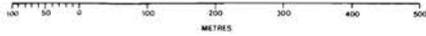
As mentioned in the introduction, the research is preliminary and further work would need to be undertaken before acting on information contained in this report.

REFERENCES

- *Central Hawke's Bay District Council*
- *D.S.I.R. Soil Bureau Publication No. 15*
- *Year Book*
- *New Zealand Geological Survey N 141 N 142 and part 146*
- *Hawke's Bay Regional Council*
- *1986 New Zealand Census of Population and Dwellings*
- *National Resources Survey Part VI. Hawke's Bay Region 1971*
- *"Handbook of Urban Landscape". Editor Cliff Tandy
The Architectural Press, London*
- *"Trees in Streets Rethought". Allan Correy
Architecture in Australia, Oct 1972 edition, Vol 61, No. 5*
- *"Trees in Streets. Guidelines for Street Planting in Eastbourne"
prepared by Environmental Design Section, M.O.W.
District Office, Wellington 1983*

**WAIPUKURAU
DISTRICT COUNCIL**

Sheela *John A. Kitchin*
 Project Administration Officer Chairman



Legend

- Commercial
- Rural
- Industrial A
- Industrial B
- Industrial C
- Industrial D
- Recreation
- Residential
- Special Residential
- Designated Land
- Class 1 Active Fault
LOCATION DEFINED BY SURFACE EVIDENCE
- Class 1 Active Fault
EXTENSION DEFINED TO 150 METRES
- Building Line
- Street Widening
- Future Road / Access

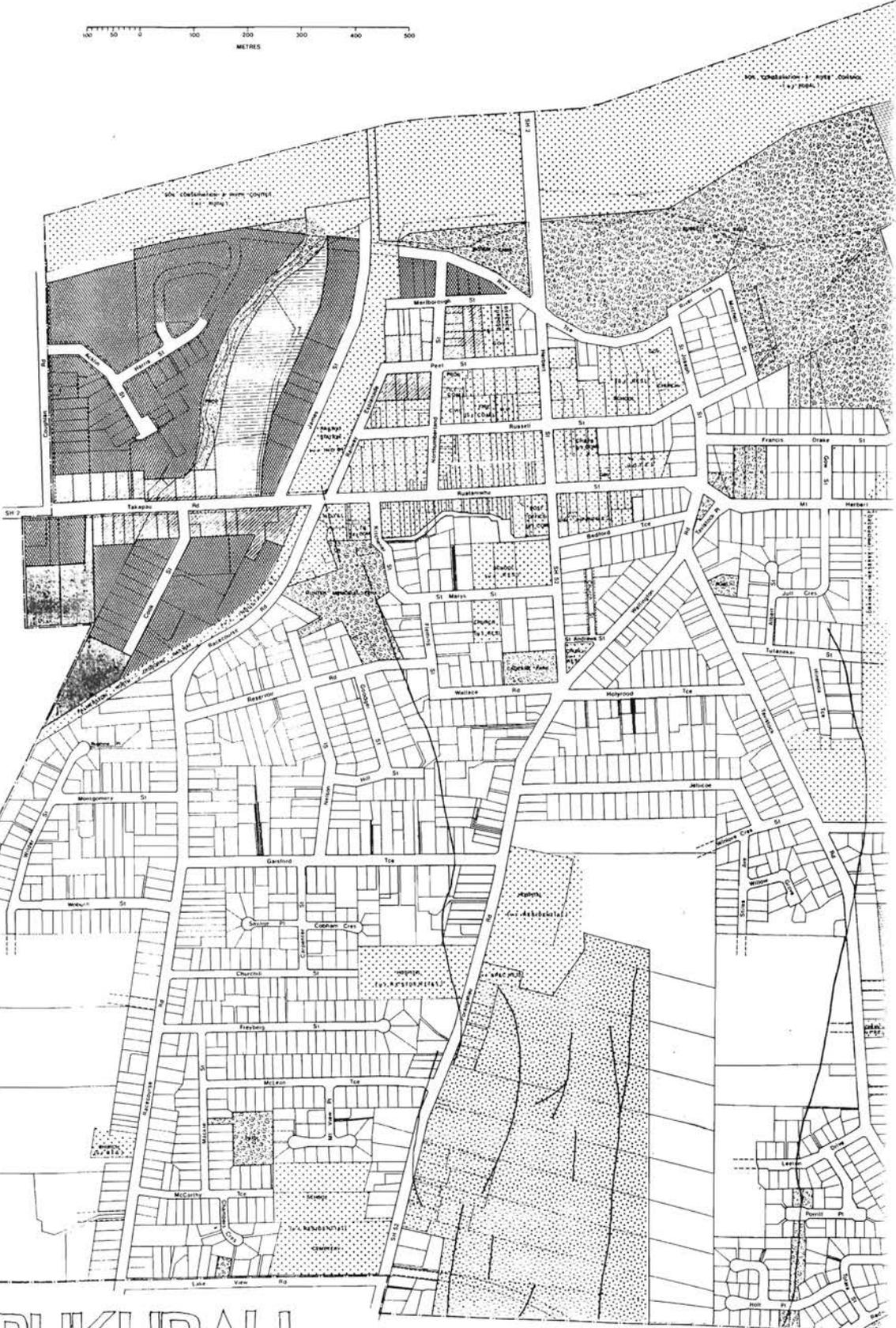
NO	REVISION	DATE	DEL
1	Approved	20 12 88	AK
2	Amended	20 12 88	AK
3	Amended	24 11 88	AK
4	Amended	24 10 88	AK
5	Revised	24 9 88	AK

TITLE
**Waipukurau
 Urban Section Review**

DATE
 Operative Date January 1st 1987

SCALE
 1:4 000

DRAWING NO. 647/3



WAIPUKURAU