



*Let's make
it happen*

**In response to the
challenges facing Midland**

Submitted 18 February, 1998 to

the Shire of Swan

and the

WA Ministry for Planning

by

Ecologically Sustainable

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Ministry for Planning
WESTERN AUSTRALIA

MIDLAND'S REVITALISATION CHARRETTE

**A Detailed Report on
the Charrette Proposals**





Ministry for Planning
WESTERN AUSTRALIA

SHIRE OF SWAN

WA MINISTRY FOR PLANNING

With support from

- Midland Districts Chamber of Commerce & Industry
- Westrail, Swan Region Business Enterprise Centre
- Shire of Mundaring, Midland Brick, Main Roads WA
- Homeswest, WA Department of Transport
- WA Department of Commerce & Trade
- Midland Town Centre Promotions, Inc



Westrail



Midland Brick



TRANSPORT



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1. INTRODUCTION

This report is a comprehensive and detailed record of the Midland Revitalisation Charrette Proposals, and how they were derived from the challenges facing Midland.

This report explains:

- what a Charrette is, why we did it and what happened during it;
- Midland's existing context, its issues and challenges, so that readers can understand what we had to work with and the reasons behind the outcomes;
- all the proposed Charrette designs and the rationales behind them together with general and specific strategies to expand employment; and
- lastly, this report suggests very briefly what may happen next, and how the Charrette may be implemented.

The Midland Study Area and Target Sites

The Sub-Regional Existing Conditions Plan below shows most areas that affect Midland, and vice versa, including the 18 specific sites which the Charrette was asked to address. These sites are listed in Appendix 3. All aspects of this study area were open to review during the Charrette.

The Intended Uses and Users of this Report

This report should be useful to anyone wanting to understand the Charrette in detail, or to implement its proposed designs. That includes those who may be responsible for implementing it, such as the Shire of Swan and other members of a Charrette Implementation Task Force, as well as persons who may be moving to Midland, or buying or developing properties here, or considering business ventures in Midland.

This Report will go through a period of public review, comment and possible revision. Then, once approved formally by the Client (Shire of Swan), the rationales and Project Design Briefs detailed in this Report should be considered when preparing and assessing all future development proposals within the Midland Study Area.

A less detailed brochure entitled a Summary of the Outcomes has also been produced for those wanting a summary of the Charrette.

The Accuracy and Completeness of this Report

An exhaustively complete record of all the information and public input gathered as a result of this Charrette, as well as all the possible designs considered, is well beyond the scope of this Report. Minor omissions surely exist. However, once approved formally by the Client, this Report is meant to serve as the definitive record of the Midland Revitalisation Charrette.

The Present Non-Binding Status of this Report and of the Midland Revitalisation Charrette

While the Shire of Swan has approved the Charrette in principle and other organisations have come out in its favour, nothing presented here is cast in stone. Indeed, one purpose of this Detailed Report is to encourage readers to find and suggest improvements to the Charrette Proposals.

This Report has been principally written by Ecologically Sustainable Design, Pty Ltd (ESD) the consultants employed to lead the Charrette. This Report reflects ESD's understanding of the Charrette. Recommendations made in this Report do not necessarily represent precisely the desires or positions of any or all of the Clients for the Charrette, or any of the agencies involved.

If any of the designs suggest changes to properties you own or are interested in, do not panic! While the designs are fairly detailed, they often describe one of several means of reaching a goal, for which there may be a better way that could affect your property differently or not at all. Contact Cath Blake-Powell, Implementation Co-ordinator with the Shire of Swan, for further information, or if you have such concerns at 08-9267-9285.

Designs are Indicative; Revisions Should Adhere to Project Design Briefs

The Proposed Charrette Designs are indicative only. Over time, better designs may evolve. Design revisions and/or new designs proposed during implementation should comply with the Project Design Briefs, which accompany each site explained in this Report.

The Structure of this Report: How It Communicates

This report communicates most of the Charrette Proposals through the Charrette Drawings, by explaining each drawing fully before moving to the next drawing. Several of the drawings show designs that should take place early, alongside designs that might happen later. Therefore, the sequence of *communicating* Charrette Proposals in this report does not correlate directly with the sequence in which they may best be *implemented*.

Readers may only come to understand how the Charrette Proposals operate as an integrated whole, after they have absorbed all the contents of this report. Then it will be useful for readers to return to certain chapters to review details. Some drawings address a single topic, such as street design in the Town Centre. Most drawings show key catalyst developments in some detail for a given area, such as the Town Centre Revitalisation Plan or the Bellevue Neighbourhood Enhancement Plan.

Limited Indemnification of ESD

While ESD was responsible for leading the Midland Revitalisation Charrette and for writing this Report, all recommendations from the Charrette and in this Report are based on information provided by the Client and/or received through public consultation during the Charrette. Therefore, ESD cannot be held liable for the content of conclusions drawn and decisions stemming from this Report.

2. WHAT IS A CHARRETTE, AND WHY DID WE DO IT?

What is a Charrette?

A Charrette is an intensive five day-long, design-based, publicly-interactive planning and design process, which Ecologically Sustainable Design Pty Ltd pioneered in Australia and has been refined to resolve complex, large and/or controversial projects.

Why did we do it?

Many problems, accumulating over the past decades, have weakened Midland, with efforts thus far to correct the decline having been far from successful. Efforts to date, which had generally tried to solve one problem or issue at a time, were not seeming to stem the decline of Midland.

The Shire of Swan, with assistance from the WA Ministry for Planning, agreed that they had to undertake:

- a process, which was as rigorous and comprehensive as Midland's problems are complex and inter-locking;
- a process which could bring all stakeholders together to deal with these problems;
- a process which could produce a practical plan which could earn strong support and could therefore be implemented.

It was suggested that a Charrette was the right process to produce such a plan, and Ecologically Sustainable Design Pty Ltd (ESD) was informally approached to lead the Charrette.

How the Midland Design Workshop Helped to Spawn the Charrette?

In response, ESD suggested that a Midland Design Workshop should be conducted first, before contracting for the more ambitious, thorough and more expensive Midland Revitalisation Charrette, in order to enable key stakeholders to experience the 'Enquiry-by-Design' process, which is the foundation of both design workshops and Charrettes led by ESD. An ESD Enquiry-by-Design process tests and verifies the practical feasibility of certain objectives and proposals by means of designing them thoroughly, to fit their specific physical contexts.

The two-day Midland Design Workshop, held in March of 1997, mainly considered whether Midland's present and possible urban structure could support and 'earn' an extension of electric commuter rail service beyond Midland. It was agreed that the Design Workshop should save dealing intensely with the Town Centre for the possible Charrette itself.

The Design Workshop demonstrated to the Clients the viability of the Enquiry-by-Design process, revealed possible opportunities to test further during a possible Charrette and information required to inform a Charrette. The Design Workshop helped to ignite so much broad support for the Charrette process throughout much of Midland and beyond, that many state agencies and local organisations (with the adept and crucial nudging from Peter Schifferli of the Shire of Swan) joined the Shire of Swan and the Ministry for Planning to sponsor the Charrette. History will hopefully verify that this quite complete 'closing of ranks' in support of the Charrette process was a key factor in its success.

Charrette Preparation

During the several months before the Charrette, a Charrette Preparation Team comprised of the Client, Ministry for Planning and ESD staff completed logistical preparations and conducted extensive research to resolve questions which emerged during the previous Midland Design Workshop. ESD prepared a detailed *Client's Charrette Manual* to guide the Client in their Charrette preparation and management responsibilities.

The Client prepared a thorough *Charrette Team Briefing Book*, which became a crucial source of information that guided the Charrette. The Contents Sheet of that document is reprinted in the Appendix, and the *Charrette Team Briefing Book* itself is available for review at the Shire of Swan through Ms. Cath Blake-Powell, Charrette Implementation Co-ordinator.

A rigorous assessment of existing and potential employment contexts and opportunities was conducted prior to the Charrette, as well. The initiative was directed by Derek Kemp of Brisbane, a member of the Charrette Team. Key data outputs from that assessment are reprinted in the Appendix.

3. WHAT HAPPENED AT THE CHARRETTE?

From 11 - 15 September 1997, at the Old Midland Library, the Midland Enterprise Centre and the Swan Italian Sporting Club, hundreds of residents used their local knowledge to work with a diverse design team (see Appendix 2 for members' names) to consider all aspects of Midland's inter-related problems and opportunities all at once, rather than looking at each issue one at a time.

A public meeting on the first night outlined the process and gave people a chance to air their concerns. Over the next few days urban designers, traffic engineers, planners, experts in ecology, public transport, community and economic development and engineering all worked together with residents, businesses, landowners, government agencies and interest groups such as youth and the Aboriginal community, to produce the Charrette Outcomes explained in this report.



Charrette Team member Neil Foley works with public stakeholders at the Charrette Studio in the Old Midland Library

Designs were proposed for key areas of opportunity for Midland, Mundaring Shire and the region, but the main target was the heart of Midland, including the Old Great Northern Highway retail district, the Railway Workshops Site, the Midland Oval, the whole Midland Enterprise & Arts Centre and Tuohy Gardens block, Carnegie Park, Midland Gate, Centrepoint, and Midland Station. Many improvements were proposed for transport including the streets, bus network and pedestrian/cyclist access and amenity, commuter and freight rail, river transport and Perth Airport's future runway noise contours. Designs embraced the rehabilitation of the Helena River and Blackadder Creek. Charrette Proposals are explained in detail in Part II of this Report.

Contracted Objectives Of The Midland Revitalisation Charrette

1. To ensure through participation as many stakeholders as possible that a common and shared vision is developed for Midland within its Sub-Regional and Regional context.
2. To examine and identify what are the interrelated problems of Midland and in particular its central area.
3. To consider maximising Midland's role for the region.
4. To identify, strengthen and tap into the existing assets of Midland and its subregion, and to identify any specific additional new elements or measures which should combined with these existing assets in order to catalyse a critical mass of social and economic vitality for Midland.
5. To identify, strengthen and tap into the existing assets of Midland and its subregion, and to identify any specific additional new elements or measures which should combine with these existing assets in order to catalyse a critical mass of social and economic vitality for Midland.

Some, but not all, of those existing assets may include:

- a 'small town' quality of life and community cohesion and commitment, expressed in its many organisations and individuals;
- Midland's cultural and historic fabric;
- under-utilised or un-used buildings and properties which might be re-used more efficiently and profitably for Midland;
- public open space and parks (existing and potential), which may be better utilised;
- the Helena and Swan Rivers and their flood plains, whose habitat, recreational, amenity and heritage values may become more accessible, vital and beneficial to the amenity of Midland;
- the geographic context and existing transport infrastructure of Midland and its sub-region, including the Perth airport, train lines and existing road network;
- large electrical power easements whose lands beneath the easements are presently under-utilised, and may serve as cost-effective premises to support adjoining start-up and/or other small business premises, and/or other activities;

The Midland Charrette will hopefully identify further assets which can combine synergistically with those listed above and/or others. The Charrette should test and possibly reduce or expand this list, through consultation with stakeholders.

5. Through the use of Ecologically Sustainable Principles, produce 'win-win' solutions which will

focus on:

- creating opportunities and facilities for education and research;
- encouraging appropriate economic attractors that will trigger development and revitalisation, and thereby enhance employment opportunity;
- increasing access and encourage use of public transport;
- enhancing walkability, which will help minimise dependence on the car;
- increasing public, personal and property safety;
- improving community access, cohesion and social equity;
- planning for cultural diversity including Aboriginal cultures;
- developing housing choice, density and affordability;
- encouraging appropriate and compatibly mixed uses;
- conserving and/or re-using both natural and man-made heritage, including Aboriginal heritage;
- developing opportunities and facilities for recreation;
- creating opportunities and facilities for arts and cultural development;
- developing and enhancing of tourism.

6. Ensure that the Charrette outcomes and solutions are designed, developed and marketed to be effective, and to promote positive attitudes towards innovative design approaches, including higher densities and mixed uses in appropriate contexts.

7. Provide a Midland Revitalisation Charrette Report including the following:

- an overview of how these Objectives were applied in the context of Midland;
- a comprehensive description of the outcomes;
- an explanation of what happened during the Charrette;
- recommendations for a Midland Revitalisation and Implementation Strategy, which engages stakeholders and includes a staging program involving government capital works and recurrent expenditure programs.

The Midland Charrette.

Come and be responsible for your future.

Who will run the Charrette?

The Shire of Swan, in partnership with the Ministry for Planning, has appointed Ecologically Sustainable Design Pty Ltd (ESD) - an experienced team of consultants who have conducted numerous successful "charrettes" throughout Australia and New Zealand.

ESD's Chip Kaufman will lead the charrette process.

Day 1: Thursday 11 September

Introduction to your Charrette

7.30pm - 10.00pm

Swan Italian Sporting Club

Francis Street (Off Lloyd Street)

Middle Swan

This is the one everyone should attend.

Charrette Leader, Chip Kaufman, will explain exactly how the charrette process works.

Mr Kaufman, an experienced urban designer, will outline the issues and objectives of sustainable urban planning, showing how these relate to Midland.

Constructive comment and an exchange of your views will be an integral part of this meeting, with all participants given the opportunity to contribute in post-presentation responses.

Day 2: Friday 12 September

Government & Quasi Governmental Agencies Meeting

9.00am - 2.00pm

Midland Enterprise Centre

Cnr. Great Eastern Highway & Viewach Road, Midland

Primarily a government meeting involving representation from no less than 20 agencies, this element of the charrette would prove far too unwieldy if open to the public.

Special Interest Meetings

3.30pm - 9.00pm

Midland Enterprise Centre

Cnr. Great Eastern Highway & Viewach Road, Midland

Anyone with a special interest in the following issues is encouraged to attend these afternoon and evening group meetings:

3.30pm - 4.30pm

- Retirement & Senior Citizens
- Youth Pre-Tens, Tens & Early 20's
- Employment, Business & Economic Development
- Aboriginal Community Issues
(Representation from Aboriginal Community)

5.30pm - 6.30pm

- Housing, Affordability, Diversity & Home Based Business
- Retail, Independent Retail Building Owners
- Traders and Shopping Mall Owners, Managers and Store Tenants
- Heritage Conservation & Adaptive Re-Use

7.30pm - 9.00pm

- Parks & Sporting Activities
- Environment, Contamination & Recreation
- Public Transport, Traffic & Rail (Passenger & Freight)
- Community Safety
- Major Potential Development Sites South of the Rail (Midland)
- Swan Vista/Stratton/Midvale
- The Town Centre

Day 3: Saturday 13 September

10.30am - 1.00pm

and

Day 4: Sunday 14 September

2.00pm - 4.00pm

Design Studio open to the Public

Old Midland Library Building

The Crescent, Midland

Here's another opportunity to work directly with team-member designers on specific issues or to discuss any concerns or ideas you may have.

Day 5: Monday 15 September

Concluding Presentation & Open Discussion

7.30pm - 10.00pm

Swan Italian Sporting Club, Middle Swan

Charrette Leader, Chip Kaufman, will present the outcomes of the previous five days' efforts as well as the specific charrette designs for the revitalisation of Midland.

During the evening, there will be another opportunity for all members of the public to comment on the results.

And the next step?

The project to revitalise Midland will not, of course, end with the charrette-week. Indeed, all participants wishing to remain involved will be invited to do just that.

First, a brochure detailing the outcomes of the charrette will be prepared and widely distributed. This will be followed by the preparation of an in-depth "Revitalisation Strategy" report, proposing a strategy to implement the charrette outcomes.

Endorsement of such a strategy will then be sought from all key stakeholders (including members of the public) as well as all levels of government.

Finally, a working group will be established to oversee implementation of the report.

Be assured, after all our collective effort, this Revitalisation Strategy shall not be allowed to gather dust!

4. INTERLOCKING ISSUES & CHALLENGES

4.1 INTRODUCTION

In order to propose solutions to Midland's problems and to capitalise on Midland's potential, the Charrette Team and stakeholders needed firstly to understand them. Through the Charrette process a complex but reasonably focused picture emerged of Midland, a town blessed with potential but plagued with inter-locking problems, explained here as Midland's 'Inter-locking Issues and Challenges' which informed the Charrette Proposals.

'Inter-locking' is the right word to describe both Midland's problems and the solutions required to solve them. Although explained one at a time, the following issues and challenges are functionally inter-locking and, if Midland's revitalisation is to succeed, the initiatives pursued and how they are implemented must be just as strongly linked together.

With post-Charrette perspective, this chapter interprets and presents Midland's challenges somewhat differently from how they were presented and discussed during the Introductory Meeting of the Charrette. The authors believe this to be a useful re-interpretation.

4.2 MIDLAND THE JUNCTION, SUFFERING CONGESTION, CIRCULATION & ISOLATION PROBLEMS



Midland the Funnel

Midland has always functioned as a junction, with the junction operating like the hole at the end of a funnel. However, this funneling has temporarily become unbalanced. Midland was originally able to flourish as a junction of rail, road and rivers, where fruitful exchange could take place within that junction. But traffic flows have increased, the junction has congested, and traffic has been channelised and re-distributed to flush through Midland's Town Centre funnel so quickly that its 'fertility' has been swept away.

Flow vs. Fertility

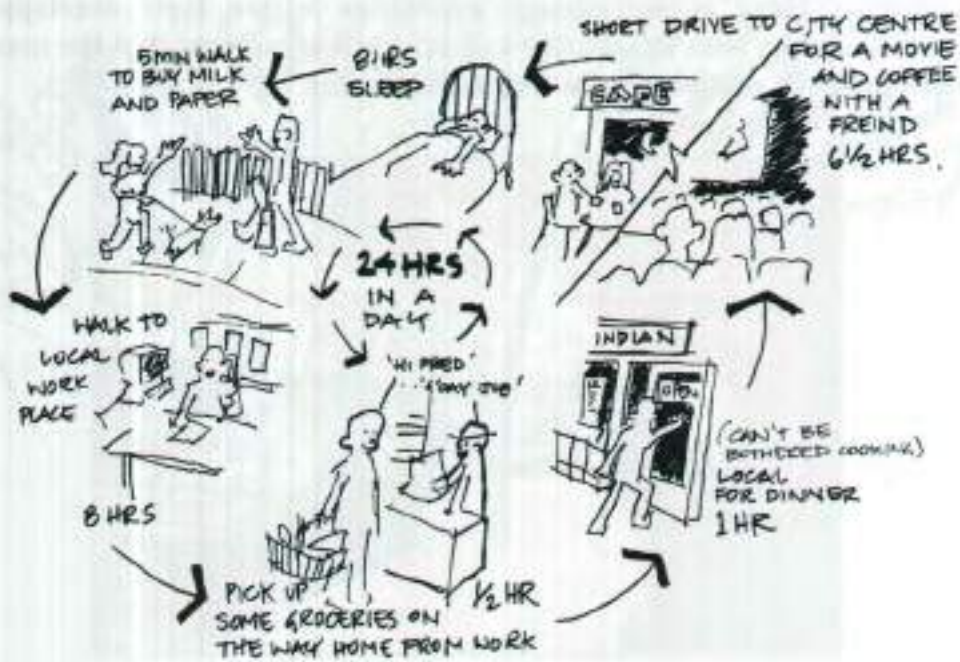
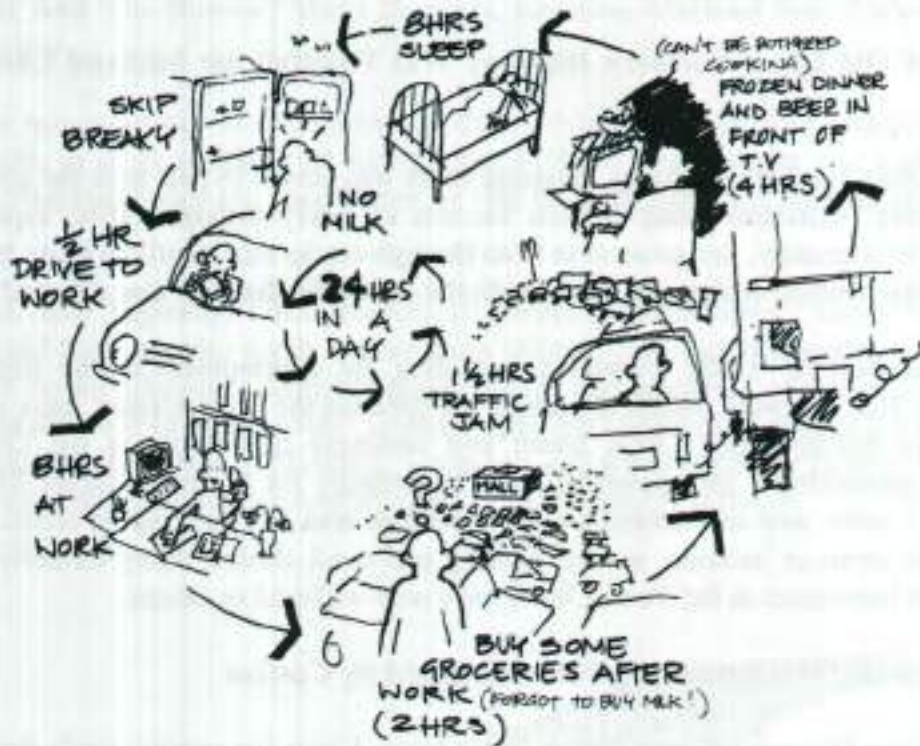
For a moment, let us think of ourselves in Midland as a fertile ecosystem, with our transport network of highways, streets and the railway as a delta of rivulets carrying vital nutrients to its plants and animals. It is vital that the rivulets flow in order to distribute the nutrients. It is equally vital that these nutrients and the plants and animals which they support can reach each other, so that fertility can take place. Both flow and fertility are necessary for the system to stay alive.

Now imagine putting the rivulets into concrete channels, where flow becomes very efficient, but where fertility can't happen because there is no chance for exchange between the rivulets and their shores.

The same applies to Midland and its citizens; we need to get around, but we also need to be able to mix. Flow and fertility have become unbalanced in Midland.

The cartoon below illustrates how the imbalance between *flow and fertility* at the Junction affects our daily lives.

Midland, Get a Life!



Employment-Driven Traffic Impacts

While Midland has a relatively low unemployment rate compared to much of the rest of Western Australia, too many of Midland's employees in the Industrial Economy commute to work in Midland from elsewhere, and too many of Midland residents drive away to white collar jobs in Perth. This locational mismatch between jobs and housing generates a great deal of traffic back and forth from Perth, whose main routes run past the Town Centre, congesting it with *through* traffic but not benefiting it enough with *to* traffic.

CHALLENGE: *In order to reduce through traffic which does Midland more harm than good, we've got to get more of Midland's workers to live here, and more of Midlands residents to work here!*

GENERAL EMPLOYMENT CHALLENGE: *We need to attract and maximise local and sub-regional businesses and jobs, especially in the Post-Industrial Information and Service-Based Economy!*

A Detailed Midland-Specific Employment Brief

In preparation for the Charrette, a research and consultative process was undertaken to identify Midland-specific needs and opportunities for employment growth. The specific conclusions of this study, which are provided in Chapter 12 of this Report, profoundly informed the Midland Revitalisation Charrette Proposals.

4.4 MIDLAND'S AILING HEART: THE TOWN CENTRE

The problems mentioned below for Midland's Town Centre are *in addition* to those already mentioned above.

Image Problems

Midland's image to many is that it is 'past its prime'; it is unattractive in parts, and, for too many of us, numerous on-going petty street crimes in the Town Centre have made it feel unsafe.

Lack of Residential Development in the Town Centre

The Town Centre, while favourably zoned to attract both workers and residents, has lost them instead, due partly to the problems noted above. We need to attract much more residential development (both affordable and more upmarket) into and near the Town Centre, in order to infuse life back into the heart of Midland, to patronise the shops there, and to improve security by means of casual surveillance by residents during their daily and evening activities. When a place is your home, the local environment becomes your concern, 24 hours a day.

Future Perth Airport Runway Noise Corridor

Another airport runway is proposed in 25 years, whose flight path and resulting noise corridor presently points directly over the Town Centre. While the airport and its expansion are good for businesses in and around Midland, this proposed noise corridor could prevent badly needed residential development in the Town Centre. We also need to increase population in the neighbourhoods adjoining the Town Centre.

CHALLENGE:

We've got to breathe life back into the Heart, make it feel much more safe and appealing, and attract many more residents and workers into it!

4.5 ATTRACTIONS GALORE, BUT WHERE'S THE AMENITY?

A place with 'amenity' has characteristics that appeal to and attract most of us. Midland has surprisingly many attractions and assets potentially going for it already, but right now Midland has relatively little amenity. This is because many of Midland's attractions are either blighted in some way, not appreciated or capitalised on, or they are difficult to locate. In order to attract new residents, businesses and the 'high-fliers' noted above, and to get more out of Midland ourselves, we need more *amenity*.

Listed below are some of Midland's key attractions, with notes as to why a lack of amenity or other problems are limiting their full potential:

- **Streetscape Amenity and Safety Are Generally Lacking**

Streets take up at least 25% of any town's urban fabric. With some noticeable exceptions, many of Midland's streets are relatively bleak. Pedestrian amenity and perceived safety are commonly lacking. Many streets have no footpaths, even en route to bus stops and neighbourhood centres. Shady street trees are lacking on many streets, which discourage pedestrians especially in summertime. Perceived pedestrian safety is also sorely lacking, in that buildings along many streets either back onto them or do not 'greet' passers-by, as shown below.

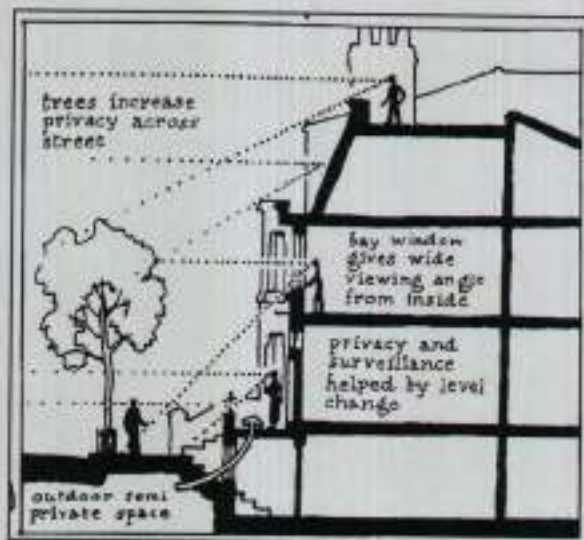


Back fences with no footpath along Lloyd Street damage pedestrian amenity.



This blank wall up against Helena Street damages pedestrian amenity.

Streets are more vibrant when they are interesting and safe. They are safer when there are people indoors who will casually observe people outside their windows. Such public spaces are generally more interesting when those outside feel some contact with people in the adjacent buildings. Locating buildings close to the footpath contributes to successfully achieving both the interest and the safety, as illustrated below. Perimeter blocks both create amenity and define a sense of place in streets.



Buildings overlooking streets, and perimeter block dev't (courtesy Responsive Environments, by Paul Murrain et al).

- **Shire of Swan Administration Centre and DOLA**

The establishment of these agencies in the Town Centre has certainly been a signal of government commitment to Midland. However, the majority of those who work at these agencies live outside Midland, spend much of their incomes elsewhere, and leave town on weekdays at 5:00 pm, seldom coming back on week-ends. Furthermore, the Town Centre's street network and one-way systems limit the Old Great Northern Highway shopping area from deriving 'secondary custom' meaning business that comes when some one passes by a shop en route to somewhere else. The custom was not the primary aim of the trip, it is instead 'secondary custom'. Secondary custom is an important fraction of any well-located shop's livelihood. Workers and users arriving by car (ie. most of them) will generally park in the DOLA and Shire Administration Centre car parks. The access to either of these car parks is not direct via the Old Great Northern Highway along its shopping area. Therefore, while going and coming to these car parks, most workers and users will generally neither drive nor walk along the shopping street. They have to decide to make a special trip to get there, even though it is so close.

- **TAFE and Swan Tertiary Centre at the Railway Workshops**

These educational institutions are important assets to Midland. The budding Swan Tertiary Centre on the Railway Workshops site might positively expand with an increase in student demand, but expansion is reported to be limited by the relative isolation and access difficulties of the site and its lack of surrounding amenity. Redevelopment of the Railway Workshops and better access would mitigate these limitations.

- **Perth Airport**

Midland's proximity to the Airport should generate all sorts of 'spin-off' businesses such as tourism, overnight and business meeting accommodations, but proximity alone is not an adequate attraction, without significant amenity as well. A significant rise in the amenity of the Town Centre, to make it a destination where people want to go, could help trigger an Airport-related business expansion.

- **Heritage/Tourism**

Midland's Town Centre is particularly blessed with many historic buildings and should be a flourishing tourist centre, but the overall amenity is compromised by sometimes unpleasant streets lacking in pedestrian safety and amenity, and most vehicular traffic gets flushed through without the opportunity or reason to linger, enjoy and spend.

- **Affluent Guildford, Swan Valley and Mundaring Hills**

The relatively wealthy populations of Guildford, Mundaring Hills and the Swan Valley, whose expendable incomes should be a boon to Midland, do not generally choose to spend time in the Town Centre because again of poor amenity and perceived safety difficulties, and a lack of discrete offerings that might appeal to them.

- **Natural assets of the Swan River, Helena River and Blackadder Creek**

The beautiful Swan River, despite its proximity to Midland, is relatively hard to access and appreciate. Ray Marshall Park, Midland's primary riverfront park, is relatively hard to reach because most of its boundary with the town is lined with private back yards instead of a public street or right of way, with only one vehicular access point, at its furthest point from the Town Centre. Swan Valley tourists do not tend to link their wine tours with Midland.

However, hope may be on its way up the Swan River from Perth. According to the *Swan River Passenger Ferry and Land Use Study*, upgraded ferry services are proposed on the Swan River from Fremantle to Ascot Waters. This ferry service might be extended to Midland, if only there were a ferry landing close to the Old Town Centre!



"The Bend" Swimming Hole on the Swan River

The potentially attractive Helena River and Blackadder Creek are hard to access and presently degraded. A former tip site now degrades the confluence of the Blackadder Creek with the Swan River, as shown below.



Photo of Blackadder Creek channelised and filled by a rubbish tip at its confluence with Swan River

- **Swan Valley Wineries and Tourism**

So near and yet so far, the Swan Valley and its flourishing tourism are not linked well to Midland, even though most tourists must pass through Midland to get there. Swan Valley tourism maps, for example, do not generally show Midland on them.

- **Regional sports facilities**

Midland's regional active sports facilities are of a very high quality, but they are relatively isolated from the rest of Midland, which limits easy access and opportunities for potentially neighbouring developments to share benefits back and forth of increased value, usership and security.

- **Relatively affordable and well-located properties compared to other areas of Perth**

Across all of Australian cities, areas like Midland, blessed with mixed use centres, public transport and parks, are becoming more sought after for residential locations, especially areas like Midland which are relatively close-in to city centres.

Property costs in Midland are generally lower than much of Metro-Perth. Vacant land and redevelopment opportunities abound within Midland, which could add population, employment and an improved urban fabric. Midland is regionally well-positioned for prosperity. Growth up and down the Coast on Perth's fringe has slowed considerably, being replaced by urban consolidation, positioning Midland well to attract Perth's growth.

These conditions might help trigger a much more positive development climate in Midland, but not without a high likelihood of increased amenity and associated values. To tap into this potential, Midland needs to reverse an image of decline, which is held by too many. A positive turn-around for Midland needs somehow to be signalled, before widespread redevelopment takes place.

CHALLENGE:

In order to attract more tourists, residents, new businesses and employment to Midland, we need to present Midland's existing assets much better, lure new assets here, and improve Midland's overall amenity!

4.6 SOMETIMES WE'VE BEEN TACKLING PROBLEMS IN THE WRONG WAY.

'Single-Issue' Responses to 'Multi-Issue' Problems

Recent decades have seen some brave and commendable responses to Midland's problems, but some of them seem to have been 'single-issue' responses, which may not have fully taken into account how complex and *inter-locking* Midland's problems actually are.

'Single-Issue' Responses Working At Cross Purposes

It may be worth comparing two related cases in point. Possibly a single-issue response to 'More Jobs!' resulted in the commendable establishment of DOLA and the Shire Administration Centre in the Town Centre. A possibly 'single-issue' response to 'Too Much Through Truck Traffic!' resulted in the closure of the Old Great Northern Highway shopping street. Both decisions were meant to benefit the Town Centre and Midland generally, but each well-meaning decision may not have fully considered other inter-locking factors. Notwithstanding, the proposals were based on regional and local planning studies and community support.

If the urban structure around DOLA and the Swan Administration Centre does not allow and encourage their employees and visitors to pass through the Old Great Northern Highway shopping street frequently enough during their daily routines, then the arrangement has not reached its full potential. If closing the shopping street to through traffic in order to protect it from heavy trucks has also closed it off to a key fraction of its custom, then that well-intended 'single-issue' response may not have achieved an overall benefit to the Town Centre.

Inter-Locking problems Required Inter-Locking Solutions.

The Charrette began to discover how inter-locking Midland's challenges are with each other. Earlier tries at fixing one problem at a time have not reversed the decline.

CHALLENGE: *To solve our inter-locking problems we need inter-locking solutions.*

No One-Way Government Hand-Outs

Midland's revitalisation definitely needs government assistance, but we can't expect a one-way hand-out from the State or Federal Government. Instead, the Charrette must deliver a comprehensive strategy and a co-ordinated practical action plan, to which all three levels of government, the development community, and citizens *all contribute*.

CHALLENGE: *What is required of a plan that we can all support?*

- Each move we make must help pay for itself and/or for other improvements, and each move we make must trigger further steps in the chain reaction toward revitalisation.*
- We must design win/win solutions and 'cut deals' where government funding in combination with private sector investment can profit both investors and Midland!*

5. INTRODUCTION: INTER-LOCKING SOLUTIONS FOR INTER-LOCKING PROBLEMS

The Charrette Proposals cumulatively paint a comprehensive vision of Midland revived, where the Town Centre is vital, safe and attractive, bustling with many more residents, workers and shoppers, where all the formerly isolated parts of Midland are much better connected and working well together, and where Midland's 'hidden' assets are more accessible and celebrated.

Because Midland's problems are so inter-locking, their solutions must be equally so. Each component of the Charrette Proposals explained below aims to redress several inter-locking problems at once, rather than to tackle one problem at a time. It is important to recognise that ultimately to implement only a few of the Charrette Proposals may well jeopardise the whole initiative.

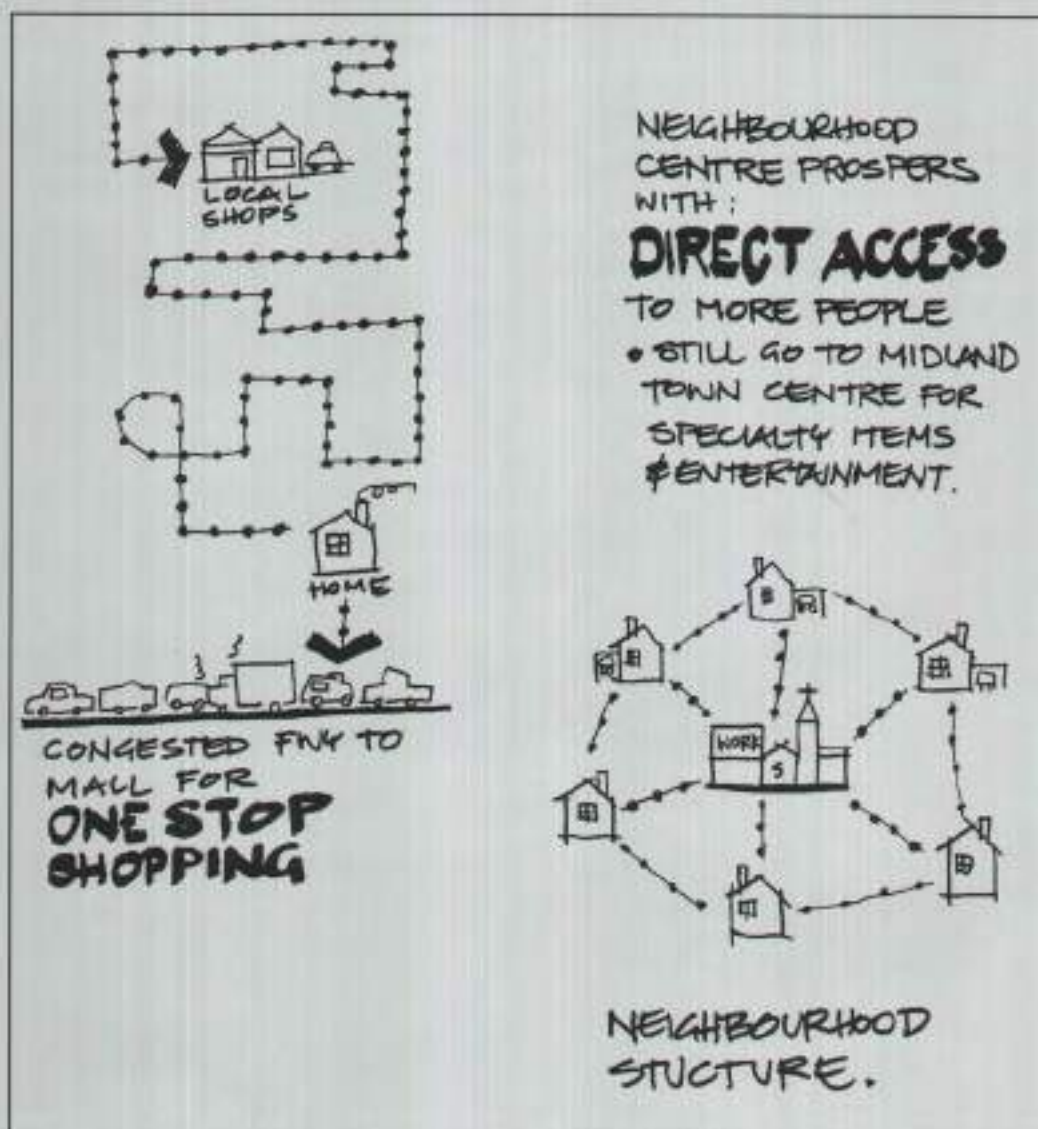
At the same time, we cannot expect to achieve all the proposed outcomes right away. Therefore, it is vital to identify which should come first, and what circumstances would decide timing and priorities for the various components. These questions are addressed in the Implementation & Timing sections following the description of each of the Charrette Designs, and, to some extent, in Part III of this Report.

The proposed Sub-Regional Structure Plan introduces the Charrette Outcomes, as it shows all the areas covered and how they inter-lock with each other. Proposals for the street and rail networks follow, as these networks connect all the areas. The Report then focuses on catalyst developments for the Town Centre, followed by proposed enhancements to the surrounding neighbourhoods. Chapter 12 outlines employment initiatives in more detail.

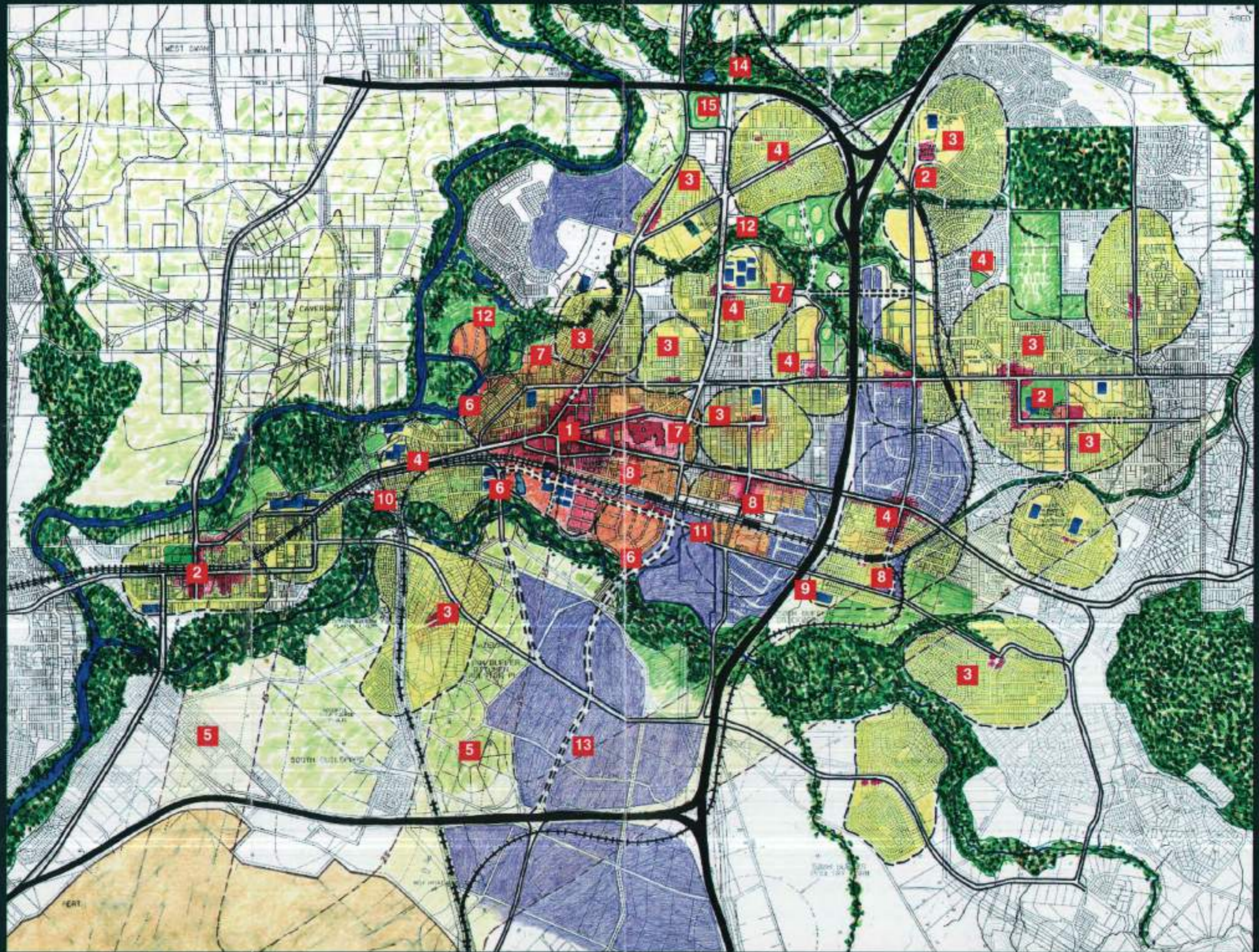
6. PROPOSALS FOR THE MIDLAND SUB-REGION

The proposed Sub-Regional Structure Plan on the following page shows the combined changes proposed for Midland and its environs, and shows how the Town Centre will be strengthened by becoming the focus of a cluster of more attractive and efficient mixed use neighbourhoods, better-connected to the centre by streets and public transport, and to the rivers and parklands. The keynotes for the plan explain many of the key rationales that drive the plan.

The cartoons below attempt to contrast two forms of sub-regional and neighbourhood structuring and their impacts on our daily lives.



Sub Regional Plan



KEYNOTES FOR SUB-REGIONAL PLAN

1. A strong and attractive Midland Town Centre (see Chapter 8), supported by intensified housing and businesses within 800 metres, and better connections to enhanced mixed use neighbourhoods between the Swan River and the scarp.
2. Larger local centres of Swan View (see Section 11.4), Stratton and Gailford strengthened with more workplaces and housing, to reduce trans-region travel demands and to complement Midland's Town Centre.
3. Existing neighbourhood centres with their main walkable catchments.
4. Proposed neighbourhood centres to serve residential areas which presently have minimal facilities.
5. Airport flight path noise contours, including the one for the proposed future runway. Housing intensification can only occur outside the ANEF 25 contour. The proposed third runway contours will limit housing and reduce viability for the heart of Midland unless the ANEF 25 contour can be reduced, ideally to south of the Helena River.
6. New street links to connect Midland to the Swan and Helena Rivers, and to proposed Woodbridge Landing at the rehabilitated mouth of Blackadder Creek, with associated new parks (see Chapter 10).
7. Increased street connections to support local movement to centres by car and on foot (see Section 7.1)
8. Extension of electrified passenger rail to the Bellevue bend, with a new park-and ride station at Ferguson Street, and a possible new station at Brockman Street to serve Midland Gate and new housing on the Railway Workshops site (see Section 7.3)
9. Possible freight rail bypass along a new route from Bellevue, south along Roe Highway and then rejoining the existing track to Kewdale (see Section 7.2).
10. Existing freight rail lines that could be removed if the freight rail bypass is built, releasing land, and reducing barriers and noise in Midland, Midvale, West Midland and Hazelmere (see Section 7.2).
11. Encourage gradual relocation of low intensity industry and mixed use intensification of the area between Ferguson Street Station and the Helena River (see Section 11.2).
12. Enhance and complete vegetation corridors along Blackadder Creek and its tributaries (see Section 11.5).
13. Hazelmere Industrial Estate to be repositioned as an important regional facility capitalising directly on its highways/airport/rail location for truck servicing, cross-docking, eco-recycling and clean industry (see Section 12.3).
14. Possible Brick Hill Aboriginal Centre (see Section 8.6.1).
15. Jack Mann Oval retained by connecting Great Northern Highway, instead of Lloyd St, to Roe Highway (see Section 7.1).

7. FIX OUR CIRCULATION & CONGESTION PROBLEMS

7.1 HIGHWAYS AND STREETS

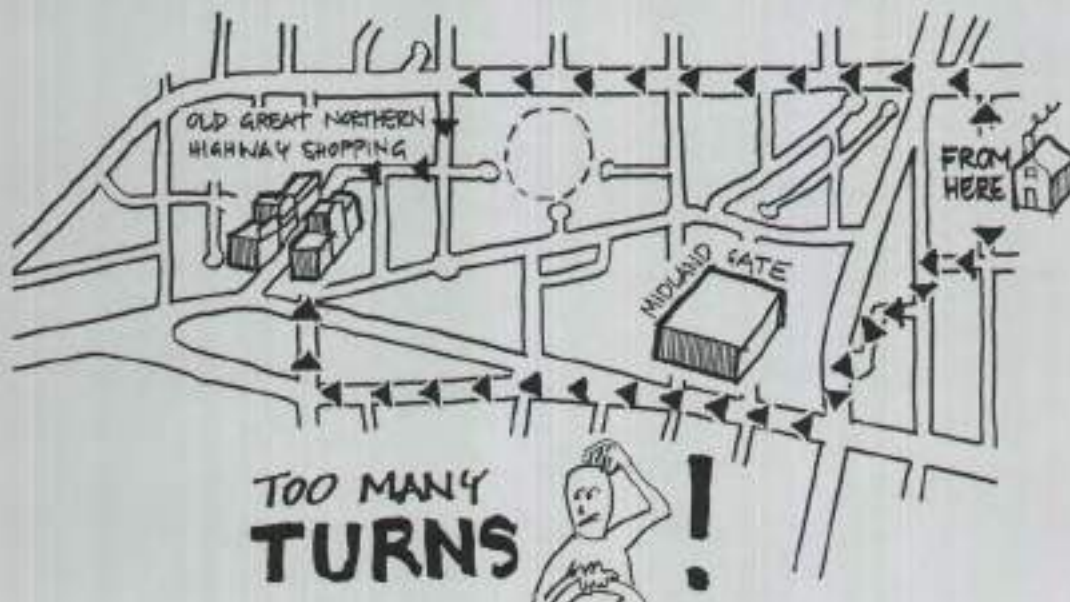
GENERAL STREET NETWORK PROBLEMS

The comparative cartoons on page 9 of this Report contrast how street network problems, explained below, affect our daily lives.

- It is 'harder to get around' now in Midland. Locals must make relatively circuitous car journeys, and pedestrians find most arterials unsafe, unfriendly and hard to cross even to reach bus stops.

The obstacles are illustrated below for Midvale residents, a former key catchment for the Old Great Northern Highway shopping area, trying to get there. There are two circuitous routes to get to the old Great Northern shopping area by car. One can drive south onto Lloyd Street, directly beside the Midland Gate, then turn west onto Great Eastern Highway, and then onto the one-way Victoria Street, then turn back north onto Helena Street to reach the Old Great Northern shopping area. Once there, drivers must risk having to loop back onto this one-way system in order to find a place to park.

For the other northerly route, one must drive north to Morrison Road, then west on Morrison Road to Keane Street, then right onto The Avenue, then left onto Old Great Northern Highway ... again risking having to do more loops while searching for a parking space. Bus routes are equally as circuitous and therefore take a long time. Walking may be relatively direct but in excess of 800 metres (more than 10 minutes one-way) and the route along The Crescent is lined with bleak car parks and little interest.



On-street parking is limited in specific locations along most of the Great Eastern Highway and Victoria Streets near the Town Centre, in order to accommodate higher traffic flows. Both streets have lengths of a kilometre or more in or near the Town Centre, where few safe pedestrian crossing points, such as traffic signals, exist.

- Most of Midland's high-flow arterials, including Morrison Road, Lloyd Street, Great Eastern Highway, Victoria Street and Roe Highway carry traffic reasonably well, but they also act generally as barriers to divide Midland into isolated pockets. This is because these arterials have limited access onto them from smaller streets, many of whose intersections with the big arterials have been closed off in order to improve through-traffic flow. However, the improved through-flow can be at the expense of local vehicular access and pedestrian amenity and access.
- The one-way systems of the Great Eastern Highway and Victoria Street, and local street closures along key arterials force longer local trips, congest the main arterials and their intersections, and limit on-street parking to starve streetfront businesses of custom.
- Great Eastern Highway has a particularly high incidence of traffic accidents between the Old Great Northern Highway and Farrall Road, where many side streets and businesses need right turning access, in and out of fast-moving heavy traffic.
- Closure of the Old Great Northern Highway in the Town Centre makes access to that shopping street relatively circuitous, compared to getting to Midland Gate. While it generally only takes a few extra turns and minutes to reach the Old Great Northern Highway shopping street, that difference may be enough for patrons to choose the easier and time-saving route to Midland Gate instead.

STREET NETWORK DESIGN BRIEF

Proposed changes to the highways and streets aim to breathe life back into the Town Centre by improving pedestrian and vehicular access to it, and by improving local connections between the Town Centre and all of Midland's neighbourhoods, so they can support each other.

Big trucks would increasingly use the big arterials such as the Roe Highway, reducing truck impacts on the Town Centre. Permeability of the local street network would improve and congestion at intersections would decrease, by opening up many small parallel routes to the big arterials, so that local traffic could disperse along local streets instead of always having to use the big arterials.

Thus the Charrette identified the following Street Network Design Brief, to which all the following interdependent Street Network Proposals adhere:

- improve accessibility and reduce trip length for locals in cars, buses, train, walking and cycling;
- relieve congestion on key arterials and intersections to improve both local and through traffic flow;
- increase traffic safety for cars and pedestrians, especially on Great Eastern Highway;
- reduce the barrier effect of the big arterials as well as the rail;
- increase amenity and safety throughout Midland's streets.

CHARRETTE STREET NETWORK PROPOSALS

Please note: the following proposals are cross-referenced, by the capital letters preceding them, to the Sub-Regional Plan on page 24a or, for Town Centre proposals, to the larger scale Town Centre Revitalisation Plan on page 50a.

Great Eastern Highway & Victoria Streets (Refer to Town Centre Plan No. 11)

To improve local access and amenity, the Charrette proposes to change the one-way pair of the Great Eastern Highway and Victoria Street into 2-way 2-lane streets with parallel parking and street trees, including signalling the intersections of William Street and Viveash Street with the Great Eastern Highway in order to distribute the traffic into this new system. (Costs about \$3.2 million)

These adjustments will benefit the retail and other businesses along both Victoria Street and the Great Eastern Highway by means of providing more flexible and direct vehicular access to them. The adjustments will also result in more interrupted traffic flows, which will enhance pedestrian amenity and ease of crossing the streets, which will again benefit businesses along those streets.

Separate right-turn and stand-up through-traffic lanes are proposed at intersections, so that capacity of the system to carry the current and expected future traffic loadings is maintained.



Concept design for Western end of two-way system for Great Eastern Highway and Victoria St



Concept design for Eastern end of two-way system for Great Eastern Highway and Victoria St

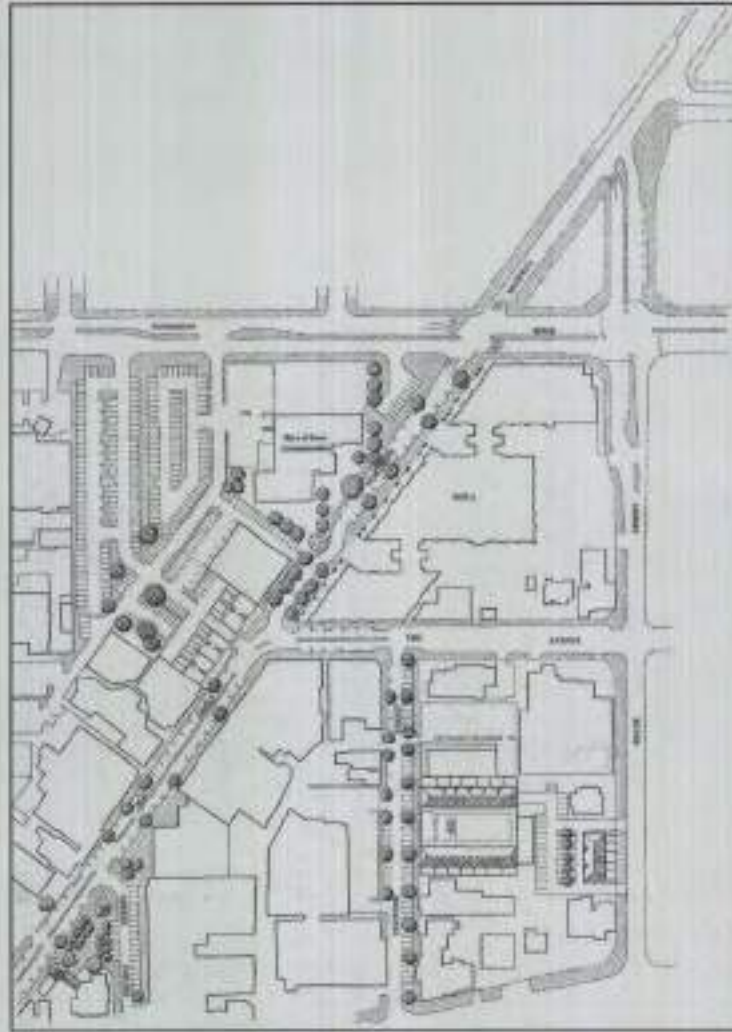
Old Great Northern Highway (Refer to Town Centre Plan No. 1)
(see Chapter 8 for rationales and explanations)

Section 4.1 and Chapter 8 of this Report detail the reasons for the following proposal. To help reinvigorate the Town Centre's retail trade, the Charrette proposes to re-open the Old Great Northern Highway at the Town Centre to vehicular traffic with a slow-speed 2-lane 2-way street with parallel parking (costs about \$275,000), which:

- retains most of the formerly pedestrianised plaza;
- retains and increases on-street parking;
- opens direct access to the Council car park, via either a route through 'the Tan block' and/or via a connection just north of Bankwest, for shoppers as well as Council workers and visitors coming either from the north and east via the Great Northern Highway or Morrison Road, and from the south, west and east for shoppers coming along Great Eastern Highway. This will encourage more people to drive along Old Great Northern Highway and therefore to patronise its shopping street.

The Great Northern Highway project is part of a package of street projects proposed for the area to the north and east of Midland's Town Centre which are all aimed at improved accessibility into and about the Town Centre. A detailed traffic analysis of the impacts of these projects is provided in a separate report entitled *Midland Revitalisation Charrette: Traffic Impacts and Implications*. The projects proposed are essentially a PACKAGE of works which promote:

- the development of the major routes external to the Town Centre for higher speed, longer distance travel, and most importantly, for road freight vehicles which are best not within the Town Centre; and
- enhancement of the street network connectivity about the Town Centre for safe, convenient and amenable use by patrons of the Town Centre.



Concept Design for re-opened Old Great Northern Highway in the Town Centre



Sketch of Great Northern Highway re-opened along DOLA.

The Charrette conducted a 'Space Syntax Analysis' of Midland, whose outcome is shown below. 'Space Syntax Analyses' effectively assess the circulatory efficiency of urban areas. The colour red indicates maximum circulation, which is where retail should focus to benefit from that circulation, purple is least well-integrated. The 'Space Syntax' diagram of Midland's street system below shows the circulation for the *closed* area of the Old Great Northern Highway is poor.



Space Syntax Analysis of Midland's Streets System (red is best, purple/blue is worst)

The estimated cost of \$275,000 for opening the Old Great Northern Highway assumes use of the present road bed along the Old Great Northern Highway, including the present pedestrian plaza. This road bed is not designed for extremely heavy truck traffic, but the proposed design continues to divert heavy truck traffic onto other main arterials such as Roe Highway. Therefore, a costly reconstruction of a heavier duty road bed is not recommended.

Optimise Roe Highway

Support the already planned function of Roe Highway to carry regional and particularly large truck traffic past and to key destinations, while improving access across and along it for business development, to reduce vehicle kilometres travelled for local trips, by means of the provision of:

- service roads wherever feasible, accessed by left-in and left-out at grade intersections;
- car parking either along these service roads and/or within the parallel electricity easement (see Section 11.5);
- an additional on-grade signalised intersection to connect Stratton and the proposed 'West Stratton' development to north Midland, until a grade-separated intersection can be constructed there (see Sections 11.5 & 11.6). Upon upgrading to freeway form, this intersection will need to become a simple bridge over the freeway with no access onto or egress from the freeway, as the distance between interchanges to the north and south is too close to fit on- and off-ramps.

Re-design Roe Highway/Great Northern Highway Interchange

(Refer to Sub Regional Plan No. 15)

Re-design the planned grade-separated intersection of Roe Highway and Great Northern Highway north of Midland in order to direct most south-bound traffic onto Great Northern Highway instead of Lloyd Street.

- gives better access to Town Centre instead of feeding Swan Valley residents and visitors primarily to Midland Gate,
- preserves Jack Mann Oval instead of losing it,
- this re-design preserves the key Aboriginal heritage 'Brick Hill' site, which may become a new 'centre' for Aboriginals to replace their present focus for gathering at Tuohy Gardens.

Helena Street On-Grade Rail Crossing And Related Improvements (see Chap 9)

(Refer to Sub Regional Plan No. 17)

Connect Town Centre south to Midland Station, Railway Workshops Site and the Helena River by extending Helena Street with an on-grade crossing of railway with gates and electronic pedestrian gate ('pedgate') at the railway crossing south to front the forested Helena River floodway (to be made a park). This provides direct access to heritage buildings on the Railway Workshops Site in order to encourage tourism, Swan Tertiary Centre expansion and related economic development and better road access to the Midland Station. To improve further the linkage between the Old Great Northern Highway shopping street and the Railway Workshops:

- change Helena Street between Great Eastern Highway and Old Great Northern Highway to 2-way with head-in parking;
- provide parallel parking both sides of Helena Street between Great Eastern Highway and Railway Parade.

Hooley Road Extensions (Refer to Sub Regional Plan No. 3)

(see Section 11.1 for drawing and further explanation)

Connect Midvale directly to Town Centre and to Roe Highway via Hooley Road extensions, removing the need for circuitous travel on Great Eastern Highway or Morrison Road, en route to key destinations including the Town Centre. This proposal should reduce traffic volumes and turnings onto Great Eastern Highway and related accidents there. This proposal includes:

- new intersection at the western end of Hooley and connects across Lloyd Street onto The Crescent, feeding directly to the heart of the Town Centre;
- an on-grade intersection at Roe Highway for left-in/left-out-only turns, which will facilitate employment-generating development of and access to, the present back fences along the highway, via a proposed service road within the highway reserve.

Connect Midvale to proposed new Ferguson Street Station

(Refer to Sub Regional Plan No. 8)

(see commuter rail extension proposal in Section 7.3).

This improvement involves:

- Lights at the intersection of Ferguson and Great Eastern Highway, to provide pedestrian crossings and links to bus stops and the new Midland Station;
- Electronic 'pedgate' (only, no vehicular crossing proposed) connects Ferguson to Military Road across the railway at the new station.

Signalised Intersection for Farrall/Horace Streets & Great Eastern Highway

(Refer to Sub Regional Plan No. 4)

(see Section 11.3 for further information justifying this improvement)

Provide lights at intersection of Farrall/Horace Streets and Great Eastern Highway, to support enhancement of a needed neighbourhood centre at that intersection, to improve north-south access to it for vehicles, buses, pedestrians and cyclists, and to improve safety in turning into and out of Farrall Road and Horace Street.

New At-grade Crossing of Roe Highway between Swan Regional Park and West Stratton

(Refer to Sub Regional Plan No. 7)

(see Sections 11.5 & 11.6 for further rationales and explanations)

Connect proposed 'West Stratton' and Stratton to north Midland for more direct access to Swan Sports Park and TAFE, with an on-grade signalised crossing initially, to be replaced by a bridge at the time of overall Roe Highway's upgrading to freeway form. This proposal would reduce traffic now going indirectly from Stratton via Morrison Road en route to Swan Sports Park regional facilities. This proposal would also support use of the Velodrome and other Swan Sports Park facilities by users from the east, and it would inject more activity into the Regional Sports Park, especially after hours, to increase casual surveillance and resultant security.

A pedestrian bridge over the railway or an electronic 'pedgate' is proposed to connect the Blackadder neighbourhood of Swan View to proposed 'West Stratton' and to give access to Swan Regional Park, in order to improve commercial and social exchange between these two otherwise separated areas of Midland.

An on-grade signalised intersection is proposed for Roe Highway now, but when and if Roe Highway becomes upgraded to freeway form, then a simple bridge over the freeway is proposed. There would not be enough distance between the planned grade-separated interchanges at Toodyay Road and Morrison Road to fit on- and off-ramps for a grade-separated interchange at the Eddie Barron extension across Roe Highway.

Support the already planned Lloyd Street Extension.

(Refer to Sub Regional Plan No. 6)

The Charrette supports the extension of Lloyd Street south from Clayton Street to the Great Eastern Highway Bypass because it:

- provides direct connection into Midland from Roe Highway South, reducing Perth/Midland through traffic along the Great Eastern Highway through Midland Town Centre;
- connects eastern half of the proposed Railway Workshops Redevelopment to Helena River amenity and to the centre of Midland;
- provides a more direct connection from Midland to the Perth Airport;
- spreads traffic accessing the Hazelmere Industrial Area (proposed to expand) by adding this Lloyd Street access.

Parallel Secondary Route via Clayton Street Extension Across Railway Workshops (Refer to Sub Regional Plan No. 11)

(see Chapter 9 for further rationales and explanations)

A new east-west secondary route is proposed south of the railway through the proposed Railway Workshops redevelopment (as an extension of Clayton Street), in order to take some pressure off east-west through-traffic in the centre of Midland, especially along the Great Eastern Highway, as well as to distribute traffic well to and from the Railway Workshops site. This street links through north of the historic workshop buildings to the proposed Helena Street on-grade railway crossing and existing on-grade railway crossing for Archer Street/Morrison Road at the western end.

Extend Keane Street Southward Through To The Great Eastern Highway and Victoria Street.

This extension opens up the key Tuohy Gardens triangle which suffers a high rate of petty crimes due to bad permeability and limited casual surveillance (see section 8.6.1). This added north/south local route takes pressure off sub-regional north-south links and their intersections, such as Lloyd Street and Helena Street.

A new public street between the Great Eastern Highway and Victoria Street may not be possible in the short term. However, access between Great Eastern Highway and Victoria Street may continue via an existing private carpark which will not affect the existing parking which already functions informally as a limited through way. The slight increase in traffic through the carpark is likely only to benefit adjoining businesses by an increased exposure for more custom.

Re-open several local street closures along Morrison Road and Great Eastern Highway, at least for left-in and left-out access.

In Midvale (and elsewhere in Midland) local street closures are generating many longer local trips and adding to congestion at major intersections. This improvement will generally give more direct vehicular and pedestrian access to key neighbourhood centres and other destinations.

Traffic volumes or speeds on local streets are unlikely to become noticeably greater, when the whole local interconnected street network carries such traffic reasonably dispersed. Traffic-calming should be incorporated to control speeds on local streets whose existing designs encourage motorists to exceed posted limits.

Support enhancement of and access to the Swan View Centre, particularly the poorly-accessed Coles supermarket there, by opening up Gladstone Street and Marlboro Road as follows: (see Section 11.4 for further details on this proposal)

- eastward (Gladstone to Salisbury Roads @ Amherst Road), and
- southward into Greenmount (Marlboro across former rail reserve into Damascus Drive).

Generally improve pedestrian accessibility, comfort and safety by:

- providing footpaths along many key routes where they are missing;
- providing safe crossing points at regular intervals along busy arterials, especially Great Eastern Highway by adding traffic signals, median islands and other improvements;
- linking bus stops to safe crossing points;
- improving surveillance of pedestrian routes by encouraging redevelopment to create building frontages along main arterials (especially Lloyd Street, much of which is currently lined by back fences);
- ensuring that all new development fronts and overlooks streets, minimising blank walls, high fences, garage doors or carparks along the street front and ensuring buildings are sited close to, or directly abutting the street frontage, and not set back;
- in core retail and other busy town centres and at main intersections, ensuring that verandah cover is provided over the footpath by adjoining developments;
- adding pram ramps at all kerb crossings;
- increasingly ensuring that new footpaths are constructed at 1.5m rather than 1.2m widths in recognition of the increasing dual use of footpaths by cyclists, especially young inexperienced cyclists.

7.2 FREIGHT RAIL SYSTEM

GENERAL PROBLEMS

Midland is the only town centre in Metropolitan Perth with a heavily-used freight line running through the middle of it. The freight rail line runs west through Midland then south at West Midland towards Kewdale, Forrestfield and beyond to Kwinana, Fremantle and the rest of the south west. No freight trains run on the main rail line to Perth Central.

The freight rail line through the centre of Midland severely divides the town, hindering the redevelopment of the Railway Workshops and thus far denying a strong link between the Town Centre, the Railway Workshops and the Helena River or a well-integrated Bellevue and West Midland. Freight rail noise holds back the potential of Midland to revitalise and redevelop in key areas from West Midland to Bellevue along the rail line.

Many *present* uses along the rail line are relatively compatible with it, but these uses, as well as other under-utilised properties along the rail, including the Railway Workshops, are the key areas whose redevelopment would most benefit the Town Centre and Midland overall, as high amenity mixed use and/or relatively up-scale medium-density housing. But such new uses are sensitive to freight rail noise and vibrations. Such uses will not come without higher amenity than exists there now.

Moreover, for the Department of Transport, Midland seems to be a key opportunity in the Perth region, where ridership of the existing public transport system could be drastically improved by means of a relatively short commuter rail extension catalysing key urban consolidation and improved transit-orientation.

TWO ALTERNATIVE PROPOSED CHARRETTE DESIGNS

Two alternative freight rail proposals emerged through the Charrette process to address the negative impacts of the freight rail through town, and designs were prepared for both. The more ambitious alternative, a freight rail bypass/shortcut, *may or may not be financially attainable*. However, its potential benefits to Midland are so important, that we introduce it here, urging a timely cost-benefit comparative analysis between the two alternatives, before a decision is made. Moreover, depending on their timing, these alternatives are not mutually exclusive.

Alternative 1:

FREIGHT RAIL SHORTCUT VIA BYPASS AT THE BELLEVUE BEND

Alternative 1 re-locates the freight rail line, south east of the town, providing a short cut and by-pass to free Midland of the noise and the barrier-effect of the freight, while keeping the passenger service through town. Preliminary investigations during the Charrette identified the most suitable freight rail route to run south from the railway bend at Bellevue, south along the power easement, turning west along the Helena River, and then following Roe Highway south toward Kewdale. See Sub-Regional Plan in Chapter 6 and the Bellevue Neighbourhood Enhancement Plan in Chapter 11.3.

Approximate Cost: \$29 million

Benefits to Midland

There appear to be many benefits from this alternative, as outlined below:

- This bypass would enable all of Midland, west of the northern junction at the Bellevue bend, to bind together and redevelop along a narrowed railway, which would be used only for electrified (much quieter) commuter trains and a very few intercity diesel passenger trains.
- Rail noise and vibration would be very significantly reduced, attracting more noise-sensitive redevelopment along both sides of the track including medium-density residential development, location of new information and service-based businesses and the relatively discerning 'high-fliers' who generally can choose to start such businesses wherever they like.
- More at-grade crossings of these passenger tracks, protected by boom gates and electronic 'pedgates', would be much more feasible along the line because of drastically reduced rail traffic. More stations, spaced more closely together, would mean slower train speeds between safer crossings, as well as more stops for an increased user population. Stations are often spaced more closely together in denser urban areas to serve larger numbers of users there.
- With more intense and populous urban development along both sides of the line, more stations could be justified in closer proximity, possibly with as close as 800-metre spacings.
- The Proposed 'Y' intersection at Bellevue (\$1 million of the total cost) would enable trains needing to head south to the train washing facilities to use this bypass as well. By means of this 'Y', Westrail's tracks through Hazelmere southward would become redundant and could be removed, thereby removing a long-term cost in maintenance for Westrail, which helps to justify the bypass. The gains to urban amenity, real estate value and Midland's revitalisation would thereby include West Midland and Hazelmere.
- A savings in operating time for the rail freight operators (not Westrail), of up to \$1 million per year, was also estimated in the Halpern Glick Maunsell study (see Bibliography), if this route were implemented.

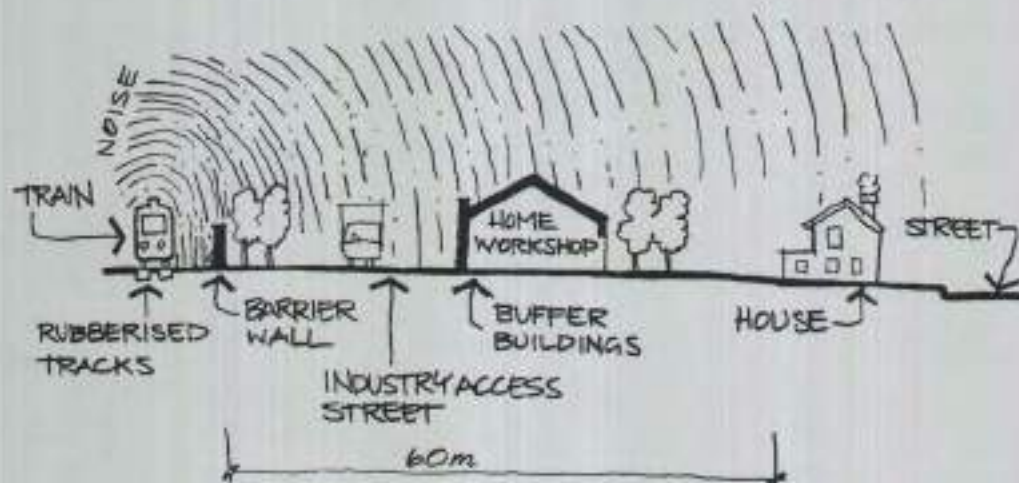
While this proposed bypass is one of the more expensive measures to emerge from the Charrette, the freight rail bypass may deliver among the highest cost-benefit ratios, when calculated holistically in terms of gains for urban development and the revitalisation of Midland. The magnitude and depth of benefits of this bypass would be appreciated not just in the short term, but for centuries to come.

Alternative 2:

KEEP FREIGHT RAIL IN MIDLAND BUT MINIMISE ITS NEGATIVE IMPACTS

A short-term achievable means of reducing noise impacts is a combination of installing rubber pads beneath the tracks through town, along with masonry sound walls and 'buffer buildings' lining the tracks. This treatment should be applied between Midland Station and Bellevue Bend. The three main components of this proposal include:

- 'rubberise' the freight tracks by installing high-strength neoprene pads along the tracks to absorb noise and vibration (cost approximately \$400,000);
- construct 4 metre-tall masonry sound wall, about 2 metres from the freight track in order to deflect wheel noise upwards instead of outwards toward adjoining urbanism.
- line the railway with buffer buildings to accommodate activities capable of withstanding rail noise, whose bulk and construction further buffers noise transmission to more sensitive uses beyond.



Diagrammatic Section through Railway and Adjoining Buffer Buildings

These three measures, in combination, would enable residential development as close as 60 metres from the freight noise source. The first row of this residential development would need special construction (approximately costing an additional \$4-6,000 per dwelling) including thicker glass, weather stripping, wall insulation, and the location of more noise-sensitive rooms away from the noise source. Dwellings beyond the first row require no special treatment. This is particularly crucial for the vitally important residential redevelopment of the eastern end of the Railway Workshops Site, owned by Westrail. See Chapter 9.4 for more detailed solutions for buffering rail noise along the Railway Workshops.

Comparative Study Recommended

A feasibility study comparing these two alternatives, considering *all* the above benefits and how these alternatives might be implemented as one or the other or perhaps in concert, should be conducted as soon as possible.

7.3 EXTEND COMMUTER RAIL SERVICE

The Government is studying an extension of the commuter rail service to Bellevue, and a relocation of Midland's park & ride facilities nearer to Hills commuters to the east. Additional stations along the line would significantly benefit their adjoining communities because the new stations would stimulate development of mixed use centres around the stations and new spin-off businesses and jobs, and would improve public transport usership while reducing car dependence and traffic congestion in Midland.

A key benefit is that the large park & ride area at Midland Station would be freed up for Town Centre developments (see Section 8.7.1).

GENERAL PROBLEMS

Urban Structure and Densities Do Not Support Commuter Rail Extension

In order for an extension of commuter rail service to become relatively cost effective and feasible, the 10-minute or 800-metre radius walkable catchment for each potential station should have or be able to reach an average population of at least 25 dwellings per gross hectare or 70 resident/workers per gross hectare, and an urban structure which encourages pedestrians to walk to the station, ideally supported by a mixed use centre which caters to most daily social, retail and employment needs of its catchment.

The urban fabric of Midland does not yet come close to meeting these requirements, especially the eastern areas such as Stratton and Swan View. However, the potential is definitely there, especially for areas west of and including Bellevue, as their street networks are relatively interconnected and there are many opportunities for incremental redevelopment. The Charrette tested extending the passenger service as far as Stratton, but found that electric train service beyond Bellevue is not feasible at this time because of the low densities and poor walking environments in Swan View and Stratton.

In order to make the extension of commuter rail beyond Midland a reality, these communities along the railway *must incrementally redevelop to earn* extended rail service, with much greater densities and improved walking routes to new stations.

Midland Station and Park & Ride Facility

The present Midland Station is badly located for the majority of its potential user catchment, which stretches east, north and south of it. Because the urban fabric of this catchment is relatively low density and not very supportive of busing, cycling or walking to the station, most users drive to the present park & ride, further straining Midland's main street arterials and their intersections. A very large parking lot is required, which occupies a site which, if redeveloped instead, could greatly stimulate Midland's revitalisation. If a better-located Park & Ride could be found further east, then the Midland Station Park & Ride site, so very well-located as a mixed use project for Midland's Revitalisation, could be redeveloped.

No Helena Street Crossing

Without an on-grade rail crossing at Helena Street, redevelopment of the Railway Workshops Site, access to the Helena River, expanded station usership and synergies between the Old Town Centre and these assets south of the rail line are badly compromised.

GENERAL OPPORTUNITIES & STUDIES

- Building mixed use transit-oriented urban villages along an extended commuter rail line, which could provide local employment opportunities and complement the Town Centre.
- The Midland Design Workshop, held in March of 1997, confirmed the need for the Charrette more thoroughly to investigate extension of the electric commuter rail service beyond Midland Station towards Bellevue, and a corollary relocation of the Midland Station's Park & Ride further to the east.
- A study was commissioned through Halpern Glick Maunsell Pty Ltd to investigate the technical feasibility of extending the commuter rail service, and to inform the Charrette. A single bi-directional track with a crossing loop, along the inside of the Bellevue bend, was determined to be relatively cost-effective (about \$20 million including 2 or 3 stations out to the Bellevue bend), and to allow attractive intervals between trains of about 15 minutes during peak hours.
- The Midland Park & Ride Facility and the Westrail Railyards Workshops are two key redevelopment opportunities of extreme value to the revitalisation of Midland, especially focusing on the Town Centre. Relocating at least part of Midland Station's Park & Ride Facility to one or more stations eastwards along the rail line is a high priority.

PROPOSED COMMUTER RAIL STATION OPTIONS BEYOND MIDLAND

Three relatively feasible station locations were identified beyond Midland:

- at Brockman St, serving Midland Gate, the Brockman Street area, and the eastern end of the Railway Workshops site;
- at Ferguson St, providing the main new park-and ride to replace Midland Station's, and serving the neighbourhood of Midvale;
- and Bellevue Station at the Bellevue bend.

More details on these possible stations are provided below.

In addition, two possible future station sites were identified beyond Bellevue. One is just south of Morrison Road and would serve most of Swan View. One is just south of the Farrall Road crossing of the railway at Stratton. These sites should be protected for long-term future commuter use. In the interim it is recommended that the feasibility of constructing platforms for country diesel services for these areas be fully tested.

Brockman Street Station, Just West of the Lloyd Street Crossing

(see Town Centre Revitalisation Plan, page 50a.)

This station located just west of Lloyd Street, on axis at the end of Brockman Street:

- catalyses Railway Workshops Redevelopment and incremental redevelopment of the extensive older low density area between the rail and Midland Gate Shopping Centre;
- is located on the Perth-side of Lloyd Street crossing, so that no commuter trains need to cross Lloyd Street in the near term;
- could provide some limited park and ride capacity nearby which could free up some of Midland Station's park and ride for redevelopment;
- would serve Midland Gate, a 5-minute walk to the north.

Brockman Street Station also provides an optional interim terminus for the rail extension, as it could service the park & ride built as proposed for the Ferguson Street Station, provided a safe pedestrian-crossing were provided at Lloyd Street.

Ferguson Street Station and Park & Ride

(see Midvale Neighbourhood Enhancement Plan, Section 11.1)

The bottom of Ferguson Street was chosen for this station because:

- it is the best site to re-locate the majority of Midland Station's park & ride capacity onto existing Westrail unused shunting yard between Lloyd Street and the grain silo, as well as onto land south of the railway on the northern tip of the Sale Yards and the north eastern tip of the Railway Workshops property;
- there is extensive redevelopable land within a 400m walkable radius;
- there is good access for park & ride users from the eastern parts of Midland and the Mundaring Shire, along Great Eastern Highway, via the intersection with Ferguson Street where new traffic lights are proposed for easier turning and better pedestrian crossing safety;
- if electrified rail is extended to this Station, then the Brockman Street Station *might* become optional. A cost-benefit analysis should be conducted to determine benefit of developing both stations to stimulate urban intensification, improve urban amenity and pedestrian-based ridership.

Bellevue Station

(see Bellevue Neighbourhood Enhancement Plan, Section 11.3)

While of great value potentially to Bellevue itself, this station is somewhat more difficult than the previous two stations to justify extension of electrified rail to, because of relatively constrained infill development potential and resultant usership. However, this station would serve an expanding resident population plus workers in the Midvale industrial area and north up Farrall Road.

The station could also serve an important fraction of park & ride demand, as it is well-located and accessed for Koongamia, Boya, Helena Vale and suburbs to the south east. The Park & Ride area, however, poor surveillance may lead to some users choosing to drive further to a Ferguson Street Station Park & Ride instead.

The Bellevue Station design works with or without the freight rail bypass shown on the Bellevue design.

7.4 IMPROVE THE BUS SYSTEM

GENERAL PROBLEMS

- Present routes are relatively circuitous and inefficient, because of the present street network including its one-way systems and local street closures.
- Pedestrian access to many bus stops is often circuitous, perceived as unsafe, and often without foot paths.

GENERAL OUTCOMES

- Generally speaking, the street network proposals above will enable a bus route network that is more direct and serves its intended catchment better.
- As noted above, the proposed commuter rail extension will offer opportunities for 'feeder bus routes' to each new station.

7.5 'GREEN LINKS' TRAIL NETWORK

INTRODUCTION

The 'Green Links' trail network proposal aims to link physically the region's natural assets and existing trails for the benefit of local residents and visitors. This proposal outlines an important aspect of revitalising Midland and its environs by recognising that recreation reserves are far more enjoyable and successful for many passive uses when they are linked as one.

The 'Green Links' trail is proposed to connect John Forest, Greenmount and Kalamunda National Parks via creeks and former rail reserves to the Swan and Helena Rivers, and potentially, provide part of a regional network of trails connecting the Swan Valley to Perth. The implementation of such a trail network would require co-operation from the Shire of Swan, Shire of Mundaring and various landowners in the region if it is to succeed as a properly integrated, connected network.

The Shire of Swan and other Shires in the region would need to co-ordinate an effort gradually to acquire private land along the proposed network. Where this is not possible, the relevant Shire should negotiate public access easements with landowners to allow the trail to pass through the private properties concerned.

EXISTING TRAILS, LAND OWNERSHIPS AND ASSOCIATED CONSTRAINTS

Some trails already exist along parts of the proposed network, but they are dispersed and not well linked to residents or to each other. Most of the proposed route is in public ownership, however, areas of private land break the continuity and linkage between trails and the various natural assets of Midland and its environs.

COMMUNITY INPUT

Residents have noted the limitations of the current trails, reportedly admitting to trespassing on some occasions to continue walks along the waterways in the area.

Members of a local bicycle organisation have expressed a need for a linked trail and have put together a plan outlining a proposed route.

PROJECT DESIGN BRIEF

The proposed network is indicative only. The network may evolve as updated information comes to light. Independent to the changing conditions, the following objectives are intended to keep the vision of the 'Green Links' trail clear to those implementing the project. The trail design, in essence, should:

- allow clear access to and from streets and car parks so that the trail can be easily reached by the largest possible catchment of people;
- consider the safety of the users by allowing casual surveillance, especially by trying to use route options where properties 'front' onto the trail;
- aim to provide continuity along rivers and creeks, at least on one side to create circuits;
- link up existing trails to make them more useable;
- plan for maximum usability, keeping in mind the many and varied purposes the trail may serve, such as:
 - general pedestrian 'short-cut';
 - commuting to work/school or station;
 - recreation walking, cycling and horse riding;
 - exercising and dog walking;
 - possible marathon events;
- ensure the appropriate trail construction details are suited to the types of uses various sections of trail are likely to receive.

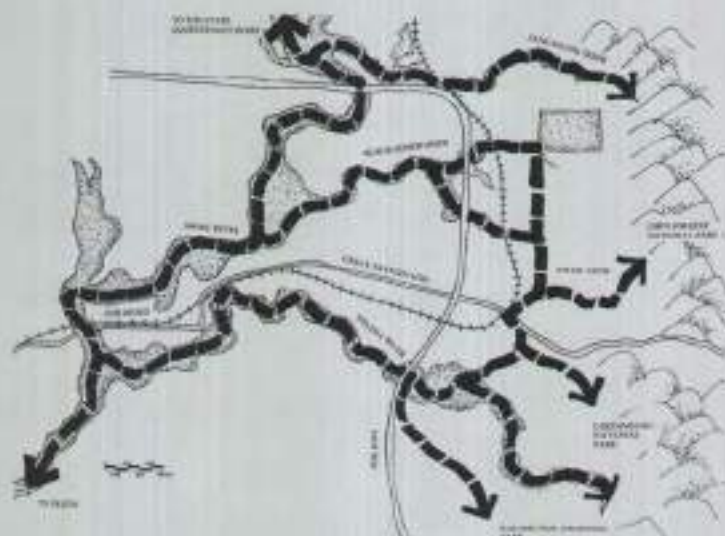
MAJOR COMPONENTS OF THE GREEN LINKS TRAIL

The trail network concept plan can be broken into three major components. These are described as:

- the trail following the Swan River;
- a circuit extending from the Swan River; and
- other extensions leading from the Swan and the circuit trail.

Along the Swan

A suggested trail is shown to run along the Swan River, extending from the Swan Valley sportsground near Millendon (and perhaps further north even as far as the State Equestrian Centre at Brigadoon) through to the junction of Helena River in Guildford, possibly continuing to Perth CBD.



Schematic design of the 'Green Links' trail network.

A Trail Circuit via the Helena River, Swan View Neighbourhood Centre, and Woodbridge and Blackadder Creeks

A proposed circuit is created by a trail that starts at the Swan/Helena Rivers' junction, follows the Helena River east, then cuts north at Bellevue to the junction of the Great Eastern Highway and the railway tracks. The trail could be routed from here to Swan View along the old rail reserve next to Buninyong Road. Pedestrian and bicycle exposure could be boosted in Swan View Neighbourhood Centre by proposing to continue the trail along Weld Road. Trail users could head back to the Midland Town Centre and the Swan River from Weld Road along Morrison Road connecting up with Woodbridge Creek at the intersection of Woodbridge Creek and the rail lines. Alternatively one could continue travelling north from Weld Road along Myles Road to Stratton, then link back to the Swan River and Midland Town Centre via the northern arm of Blackadder Creek.

Extensions from the Circuit and the Swan

Other rails could potentially extend from the aforementioned trail network such as:

- the existing path to John Forest National Park along Buckingham Parkway;
- a new path along Jane Brook creek;
- the existing bike trail around Koongamia Primary School through to Greecomount National Park;
- a continuation of the proposed Helena River trail, meeting up with trails at Marriott Road and Coulston Road; and
- along the disused railway line from the Helena River to Kalamunda National Park.

IMPLEMENTATION AND STAGING

To understand the implications of implementing such a trail it is necessary to first establish who owns what land, and where; particularly what is public and what is private.

Before approaching landowners with access proposals it is important to verify the most ideal and achievable routes on which to construct the network. Further input should be sought from the community and interest groups such as bicycle and hiking organisations to determine a trail network that will be the most accessible and enjoyable for the majority of users.

Once the routes for the trail network are fully resolved it would then be appropriate to approach landowners and other interested parties to co-ordinate a multi-stakeholder effort to implement, incrementally, the trail network design.

8. HEALING THE HEART OF MIDLAND

8.1 INTRODUCTION

Midland's Town Centre is the main challenge and opportunity for the Revitalisation of Midland. The component parts of the Town Centre are presently not working very well as a whole. How the Town Centre should function better as a whole is addressed first in this Chapter.

Individual components of the Town Centre need help, as well. Proposed outcomes for key 'catalyst developments' are covered in sections 8.5 - 8.7 of this Chapter. As each component is implemented, it should catalyse improvements in others nearby, lifting the overall function of the whole. Catalyst developments within this Chapter are grouped by area into three roughly pie-shaped 'wedges' radiating from the Town Hall:

1. Northern Wedge up the Old Great Northern Highway;
2. Eastern Wedge which includes the Midland Oval, developments along the Crescent, the Great Eastern Highway and Railway Parade;
3. Southern Wedge which includes Centrepont and Midland Station.

These 'wedges' are used only for presentation purposes; they should not be seen as initiatives that are independent from adjoining wedges; they are indeed inter-dependent.

The final part of this Chapter addresses implementation and timing for the Town Centre proposals.

8.2 TOWN CENTRE DESCRIPTION AND INFLUENCES

Precinct Area and Land Ownerships

While no firm boundaries exist, the operative Town Centre was seen by the Charrette to include the Old Great Northern Highway shopping and office area, Centrepont and Midland Station, Midland Gate, and the surrounding urban fabric extending north west to the Swan at Jack Marshall Park, north to Morrison Road, south to the railway, and east to Lloyd Street. With better connections, the Railway Workshops would be included in the functional Town Centre as well.

The Town Centre has many diverse property ownerships, with a few key ones mentioned specifically below, as specific catalyst development sites are explained.

Most of the multiple and inter-locking issues and challenges for the Town Centre are explained earlier in Chapter 4.

Community and Major Stakeholder Input

Community and major stakeholder input at the Charrette effectively confirmed the above issues and challenges in Chapter 4, and sought, for the most part, the 'Integrated Town Centre Design Brief' explained below.

Three Competing Cores of the Town Centre's Retail Triad

The Old Great Northern Highway shopping street, Centrepoint and Midland Gate make up a retail triad of sorts for the Town Centre. Presently these three 'retail cores' are more competitive than complementary, as they compete at selling fairly similar commodities within a limited overlapping retail catchment.

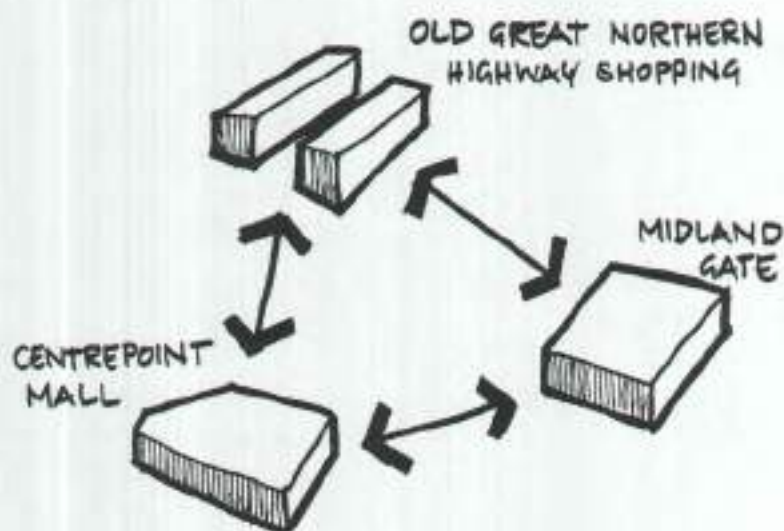


Diagram of the Town Centre's 'Retail Triad'

Midland might function better if these three 'retail cores' functioned more as three differentiated components of a 'retail whole', where shoppers might choose to patronise more than one of the cores on a given visit.

The three cores should develop more of their own complementary identities and respective points of difference. Midland Gate could specialise in car-based comparison shopping, offering the widest variety for relatively long shopping trips separated by longer intervals of time. Centrepoint might capitalise more on custom from Midland Station and a growing mixed use 'symbiosis' with the Junction Regional Business Centre (see Section 8.7.1) and developments on the Railway Workshops site, while also offering convenience shopping for groceries and such. The Old Great Northern Highway shopping street might capitalise more on offices nearby, heritage and cultural activities and government, entertainment and socialising venues (pubs), and the proposed Woodbridge Landing (see Chapter 10).

However, to work more as one, the 'retail triad' will need to be much better linked. Distances between them are within walkable distance thresholds, but the presently poor pedestrian environment along possible routes makes walking trips between the three areas seem almost unthinkable. Much more inviting and legible links, both for pedestrians and motorists, are vital, if this retail triad and the Town Centre are to operate better as a whole.

It was generally agreed through the Charrette that any outcome for the Town Centre (either coming from the Charrette or thereafter) should address as many as applicable of the following intentions for the Town Centre, and that proposals which conflicted with these intentions should not be supported.

- **strengthen retail viability of the Old Great Northern Highway main street**, perhaps by positioning it *both* as a high amenity, heritage- and culture-focused mixed use entertainment area, as well as a source of daily convenience needs, in order to attract more affluent residents and Information and Service-Based Economy workers to the Town Centre;
- **link and integrate the presently isolated retail components** of Midland Gate, the Town Centre Main Street and Centrepoint, so that they compete with each other *less* and complement each other *more*. Strengthen the distinctions between and mutual benefits to these areas, with the Town Centre becoming more of a cultural, heritage, entertainment, civic district; with Centrepoint offering convenience shopping and linked more strongly to the Station, nearby new housing and the forthcoming Junction Regional Business Centre, as well as the revitalised Railway Workshops, and with the Midland Gate offering higher order comparison shopping;
- **add new retail only in very limited amounts** and only in locations where it can contribute to linking the three 'retail cores', and where it fronts streets (does not back onto streets);
- **improve the permeability of the street and pedestrian network** throughout the Town Centre, in order to relieve traffic congestion on main arteries and intersections, reduce trip lengths and turning movements, and to improve the pedestrian access, amenity, property values and economic viability along streets;
- **improve sub-regional and local vehicular, public transport and pedestrian links to the Old Great Northern Highway centre in particular**, in order to increase custom to it and vitality, pedestrian safety and amenity within it;
- **improve car parking serving the Old Great Northern Highway shopping street**, if not in its amount, then at least in its distribution, accessibility, usership, and amenity, in order to encourage motorists who presently forego the Town Centre to give it another try;
- **retain and/or improve mixed use compatibility and synergies** between all properties and uses within them;
- **increase residential population in and near the Town Centre**, at relatively high densities and including on average as much as 20% higher-end accommodation, so that more users will regard the Town Centre as their home, and safety and amenity therein as a personal gain and responsibility, and so that the wealthier population will spend their incomes locally and spawn new businesses there to increase local employment;

-
- **encourage construction of short-term accommodation** for students, visitors and other temporary users in the Town Centre, in order to increase vitality and diversity;
 - **improve amenity and safety in the public realm associated with the Town Centre**, usually by means of perimeter block development and building frontages overlooking the public realm, to increase casual surveillance from buildings, add interest and increase personal safety, which in turn will attract more residents, businesses and workers;
 - **improve links between the Swan and Helena Rivers and the Town Centre**, so that the Town Centre's amenity may rise by its association with them, and so that more people will enjoy spending time along these rivers, making them safer and more highly valued places;
 - **capitalise more on the heritage assets in and near the Town Centre**, to enrich both the identity of the Town Centre as well as the value of those heritage assets;
 - **improve amenity, access to and use of the Town Centre's parks**, including Midland Oval, Tuohy Gardens, Carnegie Park, and Marshall Park, Swan River and the proposed Woodbridge Landing (see Chapter 10);
 - **support the generation of new businesses and jobs**, especially catering to the growing Information and Service-Based Economy, in order to provide jobs to existing residents and for the future population growth of Midland.

8.4 IMPROVEMENTS TO THE WHOLE OF THE TOWN CENTRE

The Town Centre is first shown here in its entirety, to emphasise how the proposed catalyst developments should work together to function as a revitalised whole, and adhering to the intentions of the Overall Town Centre Design Brief noted above. After this plan, each of the key outcomes is shown and explained more thoroughly, one at a time.

Future Airport Runway Noise Corridor

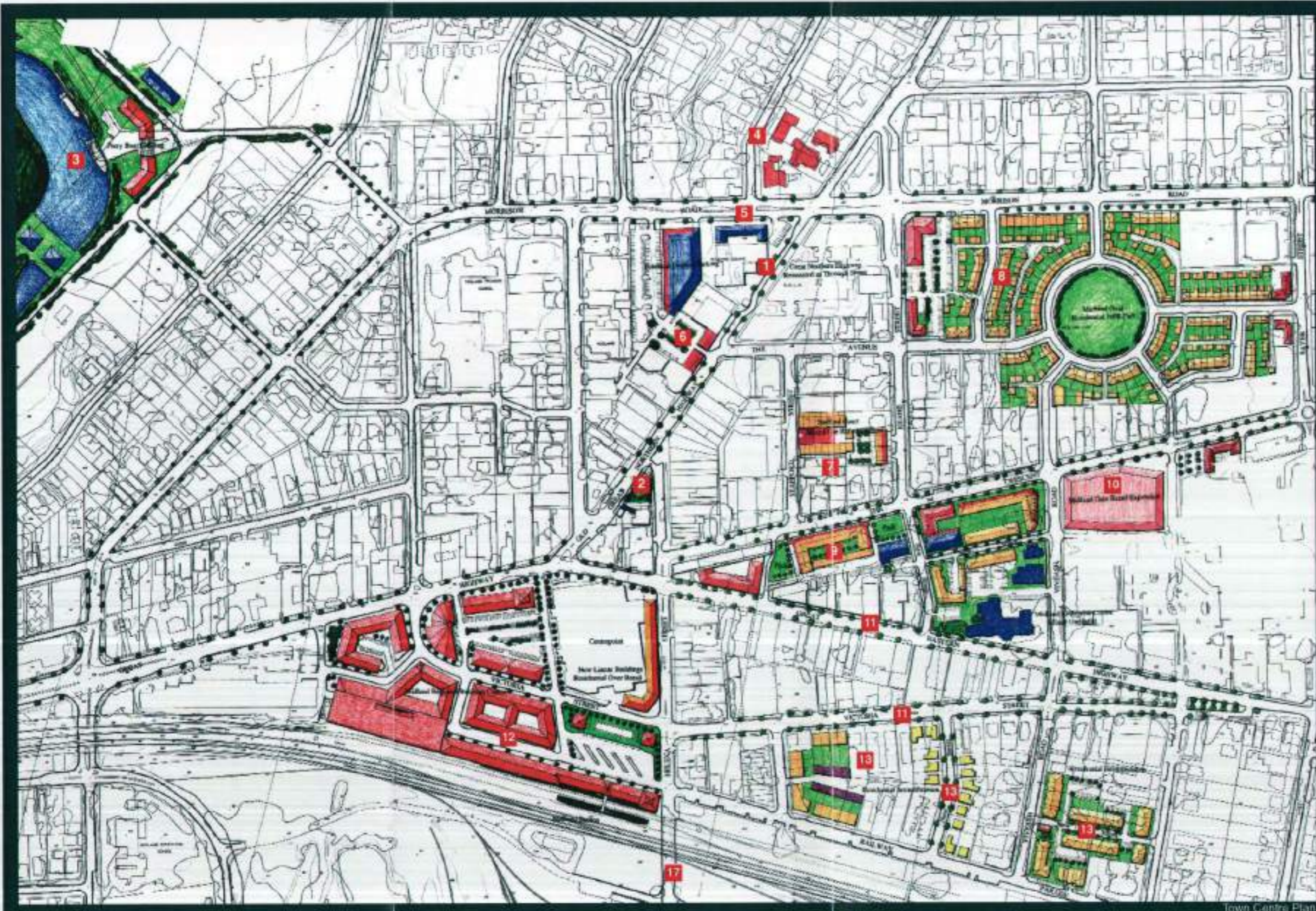
A crucial conflict exists between the Town Centre and the future runway for the Perth Airport, proposed for 25 years from now, whose flight path is presently planned to extend directly over the Town Centre. Aircraft noise greater than 25 ANEF is regarded by some planning conventions as too loud for residential development. The presently proposed 25 ANEF noise contour extends across the Town Centre and up to La Salle College on Muriel Street. While the Airport and its expansion are definitely good for Midland, *this proposed noise corridor could permanently prevent desperately needed residential development in and near the Town Centre.*

A review of planning for this additional runway is scheduled for early 1998. Therefore, the Charrette proposed that the Airport owners, the Ministry for Transport, the Ministry Planning, the Shire of Swan, and other peak agencies should work together to adjust the projected noise corridor so that the 25 ANEF contour ends south of the Helena River or so that this flight path can miss going directly over the Town Centre.

During the Charrette several possibilities for adjustment of the airport noise corridor for the forthcoming second runway were discussed with representatives of the Airport owners, suggesting some hope in this regard.

In the meantime we should encourage and allow housing in the Town Centre but build it robust enough to convert to commercial uses later, if need be.

Town Centre Plan



- LOW DENSITY RESIDENTIAL
- HOME BUSINESS
- MEDIUM DENSITY RESIDENTIAL
- PEDESTRIAN BASED RETAIL
- COMMUNITY FACILITIES
- BULKY GOODS COMMERCIAL
- HOME WORKSHOP
- LIGHT INDUSTRY
- HEAVY INDUSTRY
- NOXIOUS/OFF/HAZ
- WATER
- PARKS & PLAZAS
- TREES
- BUSHLANDS (NATURAL)

Town Centre Plan

LEGENDS FOR THE TOWN CENTRE PLAN

1. Old Great Northern Highway re-opened, in order to breathe life back into the Town Centre.
2. Carnegie Park redeveloped to provide a safer, more attractive and better connected open space amenity for Old Great Northern Highway shopping precinct (see Section 8.5.1).
3. Woodbridge Landing - a new native habitat park, tourist and residential development linking the Swan River to the Town Centre (see Chapter 10). A proposed ferry service would take both tourists and commuters to and from the Perth CBD and points along the Swan River and up to some wineries.
4. The Convent, intending to relocate its activities with the next year or two, may be re-used in time as an accommodation and/or convention-type re-development opportunity to complement the Town Centre (see Section 8.5.4).
5. Shire of Swan Administration Centre's expansion space, which might be developed for office or business uses at street level, possibly with residential upstairs, complemented by a parking structure adjoining (see Section 8.5.3).
6. Proposed development of Mr. Tan's vacant lot, with shops below residences and vehicular access between Old Great Northern Highway and car parking behind it, to encourage custom from motorists arriving to park via the shopping street (see Section 8.5.2).
7. Stafford and Keane Street new mixed use, predominantly residential developments (see Section 8.6.4).
8. Mixed use development on vacant lot at Morrison Road & Keane Street intersection (see Section 8.6.3).
9. Improvements to and re-development of Tuohy Gardens and Midland Enterprise Centre (see Section 8.6.1).
10. Midland Gate expansion with a 4000 sqm 'boutique department store', in order to help link Midland Gate to the Old Great Northern Highway shopping street via the Crescent (see Section 8.6.2).
11. Great Eastern Highway and Victoria St converted to two-way traffic and parallel parking with better walking amenity (see Section 7.1).
12. Re-development of Midland Station, Park & Ride and Centrepoint (see Section 8.7.1). Improves links between Town Centre, Centrepoint, Station and Railway Workshops. Shows multi-deck parking structure along rail lines to buffer rail noise from buildings to the north. Shows expanded station and improved bus interchange, which should take place when commuter rail service is extended east. The Centrepoint expansion along Helena Street puts pedestrian-friendly new shops with other uses upstairs along the backside of Centrepoint.
13. Proposed residential developments along Railway Parade, including the redevelopment of the burned-out historic Stockmas Hotel (see Section 8.7.3).
14. Proposed Brockman Station, serving Midland Gate only 5 minute's walk to the north and the residential areas of the Railway Workshops Re-development to the south (see Section 7.3), stimulating intensification of a large area between Railway Parade and the Great Eastern Highway.
15. Proposed Ferguson Street Station with Midland's Park & Ride relocated on Westrail's land north of the tracks and on part Sale Yards and part Railway Workshops land south of the tracks, serving Midvale to the north and a developing industrial area south of the rail line (see Section 7.3).
16. Intensification of Midvale Neighbourhood, adding new street connections, and more residences and small workplaces for Midvale's existing neighbourhood centre (see Section 11.1). Note Hooley Road connection to The Crescent across Lloyd Street, for more direct access to the Town Centre.
17. Railway Workshops site accessed by new Helena Street crossing, with Helena Street extended to the Helena River, and redeveloped for intensive commercial, community and residential uses to complement the Town Centre and Station (see Chapter 9).
18. West end of railway workshops site proposed for Police Academy or possibly residential and mixed commercial uses if the Academy does not locate here (see Chapter 9).
19. Central historic buildings precinct used for variety of education, tourist and commercial activities (see Chapter 9).
20. East end of Railway Workshops site proposed for medium-density housing, with noise buffer buildings lining the railway (see Chapter 9).

The Meaning of Colours and the White Areas on the Charette Drawings

Colours in the Charette Drawings have consistent meanings, as noted below.

Many of the drawings, such as this one, only show specific development opportunities identified as designed during the Charette, leaving large areas of the existing town as relatively blank with just lines on a white background. The Charette did not ignore these white areas; the absence of colouring means simply that these 'white areas' are either meant to remain roughly as they are, or that owners of these areas may choose to develop them in keeping with the goals and principles of the Charette.

8.5 THE NORTHERN WEDGE OF CATALYST DEVELOPMENTS FOR THE TOWN CENTRE

The 'Northern Wedge' of catalyst developments includes designs for representative key sites radiating generally up the Old Great Northern Highway including improved parks, redevelopment sites providing new vehicular links, etc. The key purpose of this 'Northern Wedge' is to strengthen the retail street with multiple complementary actions.

8.5.1 CARNEGIE PARK

INTRODUCTION

Abutting the historic Town Hall and Court House, the Shire of Swan's historic Carnegie Park is very well located as the primary civic plaza for the Town Centre, but it needs some improvements in order to reach its full potential.

SITE DESCRIPTION AND INFLUENCES

The site is the northern tip of a key triangular civic street block bounded by Helena Street, the Old Great Northern Highway and Great Eastern Highway.

Carnegie is a small key landmark park for the Town Centre. It is highly exposed and a central focus of the historic civic triangle precinct. Carnegie Park has excellent potential as a place for civic as well as casual gatherings, a place for workers and shoppers to take a break or have a picnic lunch.

The present design of certain park components and building frontages to its south keep the Park from fulfilling its role as the key civic plaza for the Town Centre. The New Library and the historic Court House do not open onto or connect into the park. Instead, the tall wall along that property line, the nearby roofed picnic table and the toilet block make obscure corners where it does not always feel very safe. Most of the foliage in the park is relatively bushy, so that pedestrians cannot see through the park from one side to the other, further reducing perceived safety, amenity and the overall appeal of the Park. All of these design problems can and should be corrected to make the Park function much better.

PROJECT DESIGN BRIEF

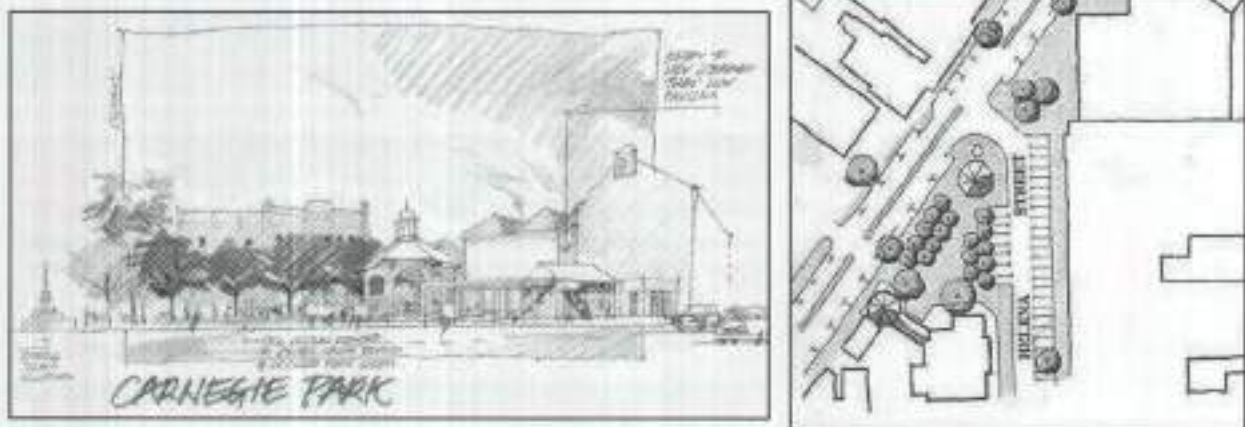
Therefore, improvements to Carnegie Park and adjoining properties should:

- strengthen its role as a key meeting and gathering point;
- improve amenity, safety, value and usership of Carnegie Park;
- open the park up to better viewing and pedestrian access across it from adjoining streets, by removing bushes and other foliage that obscures viewing and by introducing formally planted tall shade trees which allow viewing past their trunks beneath their canopies;

- remove walls backing onto the park along its southern boundary, connect the park directly to both the Old Post Office/New Library and the Old Court House, and provide a historically respectful and permeable arcade to celebrate its southern edge;

CHARRETTE DESIGN PROPOSAL

The combined proposed design improvements aim to re-establish the park as a beloved civic plaza and focus for the Town Centre.



Paired photo of park and sketch of proposed design.

The low bushes in the park which prevent visibility through it are removed, replaced by a formal planting of tall deciduous shade trees along its two street sides, whose canopies start well above head height. This way pedestrians on the footpaths of either Helena Street or the Old Great Northern Highway can see through to each other and feel much more welcome to cross and/or linger in the park.

A strong pedestrian link is proposed between the New Library and the park. The present north/south entrance to the Library from Great Eastern Highway should be extended north into the park. The tall brick wall separating the park from the Library is removed, and a historically responsive portico is proposed to extend from the north western corner of the Court House to the historic building at the northwest corner of the Library complex (see sketch above). The pedestrian link between the park and the Library passes through this portico into the new courtyard framed by the Library and the present rear of the Courthouse. The Library and Court House open up and front onto this courtyard and the park beyond.

The historic dolphin fountain at the north end of the park, which so beautifully caps the top of this civic triangle, is to be preserved.

IMPLEMENTATION & TIMING

These Carnegie Park improvements should be done soon, as they are a relatively small investment for a very well located and conspicuous outcome, which would hopefully catalyse other improvements within its sphere of influence.

8.5.2 TAN'S DEVELOPMENT SITE ON THE OLD GREAT NORTHERN HIGHWAY

SITE DESCRIPTION & INFLUENCES

- **Site area and location**

Mr Tan owns a key vacant lot of about 4000 sqm on the west side of the northern end of the Old Great Northern Highway shopping street, where The Avenue intersects from the east.

- **Problematic Gap But Possibly Brilliant Opportunity**

This large vacant lot causes a problematic gap in the built continuity of this key street. Arriving via The Crescent, this long-vacant lot is both a disappointing symbol of the shopping street's decline, and an abundantly evident development opportunity, when the time is right and profits can be made. The site terminates the street vista from The Crescent, potentially brilliantly.

- **Shire Car Park Access Problem and Opportunity for Shopping Street**

This vacant lot adjoins the Shire carpark behind the Administrative Centre, but at present motorists cannot drive across this lot or otherwise reach this car park directly from Old Great Northern Highway, even though probably half of the carpark users arrive from the south or from Perth via streets which connect to Old Great Northern Highway. This lack of direct access to the carpark limits traffic and potential passing trade for businesses along the shopping street. This vacant lot could provide that badly needed access.

- **Constraints Within Site And Of Adjoining Properties**

A drainage easement passes roughly east/west through the middle of the site, on which construction would be restricted to protect the easement. Three large and pleasant shade trees are growing near the rear of the site.

The rear of the adjoining development to the south is set back from the adjoining property line so that windows and a footpath abut the side property line. Thus, a development of blank walls abutting this side boundary would be detrimental to this southern neighbour.

The bank to the north has a two-storey blank wall along its side property line along Tan's lot. Thus, a development abutting this blank wall would work well.

PROJECT DESIGN BRIEF

Ideally for the benefit of both Mr Tan and the Town Centre, this vacant lot should:

- yield, when the time is right, a multi-storey development fronting the street, with retail at street level and either businesses and/or residential accommodation upstairs, accessed both from the front and the rear to optimise robustness of the upstairs premises;
- present a building frontage that attractively terminates the street vista from The Avenue;
- present a front facade that respects the surrounding heritage context;
- provide ideally double verandahs overlooking the street to give shelter to pedestrians from the weather, and so that occupants of the upstairs balconies may overlook and choose to interact with citizens on the street below;
- provide vehicular and pedestrian access, to be constructed as soon as possible, between the Shire car park and the Old Great Northern Highway, to increase custom to the street from motorists using this link to access the car parking (this vehicular passage, located along the drainage easement, should run between and possibly beneath upper floors of the new building/s fronting the street);
- if on-site parking capacity exceeds that required for a logical multi-storey building envelope fronting the shopping street, then financial and/or management arrangements should be made whereby the excess parking can be constructed and used by the rest of the Town Centre (some private garages should be provided at the rear of the buildings for occupants of the upper stories);
- preserve the large shade trees growing on the site, in order to retain this natural amenity which benefits all adjoining areas.
- take advantage of and respond compatibly with the buildings along each side property boundary, so that they work well together.

CHARRETTE DESIGN PROPOSALS

It was recognised that Mr Tan's property represents a simple short term 'shot in the arm' for the Old Great Northern Highway, if he were to allow vehicular and pedestrian access across his lot between the Shire's carpark and the Old Great Northern Highway, as shown on the plan.

A more significant and hopefully quite profitable redevelopment of Mr Tan's block was designed during the Charrette, as shown below. The vehicular access is provided along the sewer easement on which buildings cannot be constructed anyway. Either side of that passageway, street level shops are proposed to front the Old Great Northern Highway main street, with hopefully two or more storeys of secondary offices and/or residential accommodation upstairs and bridging over the vehicular passageway. This development prominently terminates the vista of the Avenue from the east.



Sketch of Mr Tan's development of shops beneath residential or offices.

Plenty of additional carparking fits behind this streetfront development. In fact, more parking is shown in the design than Mr. Tan's development may need. Private garages are built into the rear of the development for the upstairs occupants, with stairs both from the rear and from a single entrance on the Main Street.

Upstairs access from front and rear means that garage users have easy access, but, more importantly, the upstairs accommodation has a public access and address on shopping street, improving its amenity and value for Mr Tan and its users.

A double verandah is proposed for the front of the development, to protect users of the footpath from the weather and for shaded balconies from which occupants can greet passers-by below. More private balconies and/or roof terraces could also be provided in the rear for the upstairs premises. Private outdoor space such as this is key to residential amenity in this urban context.

IMPLEMENTATION & TIMING

A pedestrian and vehicular access arrangement to connect the Shire carpark to the Old Great Northern Highway has, indeed, been reached since the Charrette, between the Shire and Mr Tan, to both their credits and to the benefit of the Town Centre.

The rear of Mr Tan's lot should be paved for more carparking in the short term, while protecting the shade trees. Added parking will help the Town Centre overall, and an arrangement should be made with Mr Tan which compensates him for the use by others of this carpark on his property.

The proposed building may be developed at any time, so long as the connection through and the carpark paving are done beforehand.

8.5.3 MIXED-USE EXPANSION OF THE SHIRE OF SWAN ADMINISTRATION CENTRE

INTRODUCTION

The Shire of Swan could consider a possible catalyst development opportunity, which might improve the frontage, image and amenity of its new Administration Centre along Morrison Road and increase Town Centre density. Revenues from the development may help pay for other desired Charrette Outcomes.

DESCRIPTION OF THE SITE, OWNERSHIP AND INFLUENCES

The Shire of Swan Administration Centre, owned by the Shire, was sited to accommodate an expansion to its north to front Morrison Road more closely. The large car park west of the Shire Offices, which also fronts Morrison Road, is not the best way to greet passers-by along Morrison Road.

The future expansion site, now in turf, is about 25 metres deep by about 60 metres wide across the Morrison Road frontage.

Development of this site is unlikely to ignite controversy, as it impacts no neighbours other than the Shire offices, and it appears only to generate gains for the Town Centre and stakeholders.

PROJECT DESIGN BRIEF

This proposed catalyst development project should:

- be mixed use, if possible, in order to introduce a round-the-clock presence in this key area by means of residents with a sense of protection and ownership in it;
- front Morrison Road and the Old Great Northern Highway with active frontages for the new buildings, to greet the streets, to broadcast a welcoming signal to passers-by, and to achieve passive surveillance of the public realm from these new premises;
- respect the amenity, identity and function of the existing Shire Offices;
- provide additional parking to accommodate the parking needs of this new development, probably by means of multi-decking some or all of the adjacent Shire carpark;
- generate potential financial returns to the Shire in order to help pay for this and possibly other Charrette Outcomes.

PROPOSED CHARRETTE DESIGN

As shown on the plan below, a multi-storey mixed use building is proposed north of the present Shire Offices, which would form a small pleasant courtyard between itself and the Shire Offices.

A multi-deck carpark is proposed on the present parking lot, whose added parking capacity would need to serve (at least) this mixed-use expansion north of the Shire Offices. While a multi-deck might seem too costly for the present development climate in Midland, this is a very key site and may justify such in a few years. A single-aspect commercial building 'sleeves' the north end of the parking structure to front Morrison Road.

The upper stories of both these mixed use developments accommodate more workplaces (small offices) or residences with balconies and/or roof terraces to receive the north sun, whose living areas would be set back the depth of these balconies from Morrison Road, to reduce traffic noise impacts.



Plan of Shire Offices Mixed Use Expansion

IMPLEMENTATION & TIMING

Such a project could well be a co-venture between the Shire (owners of the land) and a private developer. The private developer would provide the development, construction and marketing expertise, while the Shire would provide the land. Such a development would be a 'win/win' both for the private developer, the Shire and Midland's citizens who could work and/or live in this expansion, which in turn would increase population and vitality in the Town Centre.

The Shire could prepare a *design brief* for potential co-venturers to follow, to ensure that the outcomes of the development adhered to the design intentions noted above.

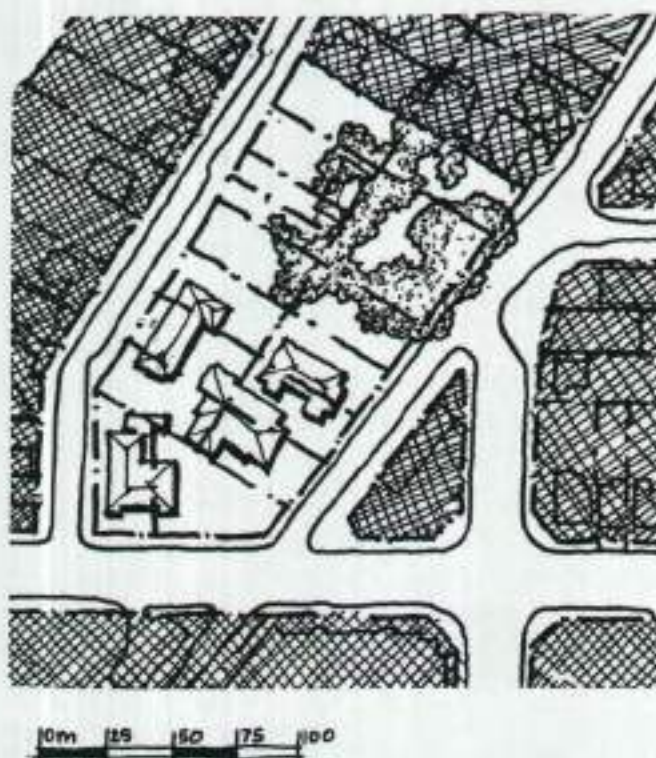
This project could commence at any time, although its *immediate* commencement is not seen as pivotal to the overall revitalisation of the Town Centre.

Due to the related costs of multi-decking the car park, and because there is not a great demand for more street level office space yet in the Town Centre, it may be difficult to make this project justify itself financially in the short term. However, the project is entirely within the control of the Shire, and the Shire could elect to implement this project early in order to catalyse other Town Centre redevelopment.

8.5.4 FUTURE RE-USE OF THE CONVENT & ADJOINING LAND

OWNERS AND THEIR DISPOSITION TOWARD THE SITE

St. Brigid's Convent School at Morrison Road across from the Shire Offices at the Old Great Northern Highway owns several contiguous lots in that street block (see plan below). The owners are exploring a consolidation of their activities into fewer of the existing buildings, thereby exposing opportunities for re-using the buildings they may vacate. The owners also report a willingness to consider sale and/or co-development of the adjoining land they own.



Plan showing properties owned by St. Brigid's Convent

SITE DESCRIPTION

St. Brigid's owns several undeveloped and under-utilised lots (see plan above), which are very well-located for uses complementary to the Town Centre.

The Convent facility itself is in very good shape and very well located as another 'anchor' of some sort for the Town Centre. It has a good commercial kitchen, meeting rooms, and the accommodation for the staff and students might serve well for other perhaps short-term residential uses. The main historic building presents very well to Morrison Road.



Photo of Main Building of the Convent from Morrison Rd (by Chip Kaufman)

PROPOSED RE-USE, IMPLEMENTATION & TIMING

These properties may offer opportunities for uses complementary to the Town Centre, such as convention facility for sports, civic, educational, religious or other activities. Possible joint ventures may be appropriate.

8.6 THE EASTERN WEDGE OF CATALYST DEVELOPMENTS FOR THE TOWN CENTRE

8.6.1 TUOHY GARDENS AND THE MIDLAND ENTERPRISE & ARTS CENTRE

INTRODUCTION

Petty crime problems associated with Tuohy Gardens have badly hurt the image and viability of the Town Centre for years. On the other hand, the Midland Enterprise & Arts Centre is a great boon to Midland's small business incubation and cultural development, but the layout of some of its non-historic buildings contributes to the petty crime problems associated with Tuohy Gardens. The proposed design addresses both properties together to relieve the petty crime problems, strengthen the Town Centre generally and offer a better place for the Aboriginal community to gather.

SITE IDENTIFICATION & OWNERSHIPS

The site includes the Old Library, Tuohy Gardens with car parks along The Crescent, and the Midland Enterprise & Arts Centre, vested respectively in the Shire of Swan and the WA Department of Commerce and Trade, from whom the Midland Enterprise & Arts Centre has a lease.

SITE DESCRIPTION & INFLUENCES

Background, Uses and Neighbours

Tuohy Gardens occupies a length of former railway reserve. It has a large free-standing toilets building. A line of beautiful mature shade trees run the length of the Gardens and along the front of the former city library, which is temporarily without a permanent user. The library housed the Charrette Studio. Vibrant week-end markets take place on the Shire's car parks along The Crescent.

The Midland Enterprise & Arts Centre is anchored within a historic former primary school. An accumulation of sheds and a few other smaller and less important historic buildings completes the facility.

On the same triangular-shaped street block, privately owned shops along both The Crescent and Great Eastern Highway back onto Tuohy Gardens and a rear lane.

Future Aircraft Noise Contours

Except for its western tip, Tuohy Gardens is outside the 25 ANEF aircraft noise contour for the planned future runway for the Perth Airport. Thus, residential development is allowed on all but the western tip of the site as of now, from the standpoint of aircraft noise contours.

Existing Layout of Buildings Tends to separate Midland Gate from the Old Great Northern Highway shopping street, Rather Than Integrating Them

The distance between Midland Gate and the Town Centre is only about 600 metres, or about a 7-minute walk. But this distance seems much greater, as this street block does more to separate the Town Centre from Midland Gate than it does to integrate them. There is no direct east/west vehicular route *within* this street block. There are several pedestrian routes through this too-large block, but they are all confusing and uninviting, especially for visitors to Midland or at night. The route along the southern side of The Crescent is quite bleak, as virtually its entire length is lined with car parks. The width, minimal parallel parking, and relatively vacant appearance of The Crescent encourage many motorists to speed, and in turn discourage pedestrian use of the footpath beside the carpark.

Bad Location and Layout of Tuohy Gardens with Adjoining Buildings

Although loved and used by many, Tuohy Gardens is badly laid out in relation to the old Library and adjoining rows of shops, with many hidden corners which offer places for anti-social behaviour, which has badly hurt the image and viability of the Town Centre. The main frontage for Tuohy Gardens is the Crescent, but at present the Gardens are set back from the Crescent behind a parking lot. The narrower frontage along the Great Eastern Highway is obscured from good view by the solid wall of a large bus stop.

The shops along the Crescent, at the western end of this triangular street block, back onto Tuohy Gardens, introducing havens for antisocial behaviour because of lost casual surveillance. The shops along the Great Eastern Highway back onto Tuohy Gardens, as well, introducing similar difficulties for themselves and users of the park. The free-standing toilet block building has similar difficulties.

Negative Impacts on Aboriginals

This bad design has not benefited the Aboriginals and others who use the park. Tuohy Gardens has become a focus of Aboriginal gatherings almost by default, because its trees offer shade, and no better site is available. When asked during the Charrette, most Aboriginals said they did not necessarily need a gathering place in the Town Centre itself, so long as they could reach the Town Centre easily (through public transport) to access services and facilities there. Many said they instead might prefer a place outside the Town Centre, if it were a site more sacred to them, which they could own, and from which they had adequate public transport to the Town Centre.

Negative Impacts on the Old Library

The Old Library is virtually surrounded by problem areas. An undignified carpark compromises its frontage to the Crescent. Blank walls and obscure corners on its east and south harbour fairly constant anti-social behaviour. Because of the blank west wall of the Old Library, that edge of the park can harbour anti-social behaviour, as well.

Bad Layout of Sheds and Bushes Around the Midland Enterprise & Arts Centre

Many free-standing sheds and nearby bushes confuse what should be private vs. public space and routes, and there are many obscure corners where anti-social behaviour fairly regularly takes place, and where it does not seem safe to many would-be passers-by, especially in darkness. These sheds obscure viewing and appreciation of the several important heritage buildings, from most points of view.

Community and Major Stakeholder Input

Deep concern over Tuohy Gardens is widespread among Midland's citizens of all races. Perceptions of the causes for the problems vary widely, from racial prejudice, to bad police public relations, to an understanding of the design problems described above.

Members of the Shire of Swan staff and political leadership acknowledged the problems and generally agreed that present management approaches were not overcoming the inherent design problems, and that something more had to be done.

PROJECT DESIGN BRIEF

Improvements to this troubled street block should:

- improve permeability of this block, in order to make more of us feel comfortable by increasing activity in and circulation through it;
- increase casual surveillance and amenity of this block and its adjoining streets, by means of perimeter block development;
- encourage development of buildings that front up along The Crescent to enhance that link between Midland Gate and the Old Great Northern Highway shopping street, which should include relatively continuous verandahs for shelter, surveillance and amenity along the way;
- establish a 'live-in' community within the block, who will come to regard it as their home and protect it;
- honour the Old Library by improving its overlooking of and the amenity and use of areas adjoining it;
- improve the amenity, safety, location and function of Tuohy Gardens;
- increase amenity within the block by better celebrating its heritage assets, especially those within the Midland Enterprise Centre;
- provide the Aboriginal Community with an alternative and improved place for gathering;
- improve location of, access to, amenity/safety and efficiency of carparking.

PROPOSED CHARRETTE DESIGN

Together, the components of the following Charrette Design Proposal achieve all the intentions of the Project Design Brief presented above. Although all the following proposals need not be implemented *simultaneously*, they are so inter-related that we present them here as an integrated whole.

Two New Streets

Two new streets will improve local access through this block, to increase safety and intra-block parking. Keane Street is to be extended south across the Crescent to connect with Great Eastern Highway. A new east/west street will connect the existing rear lane eastward directly to the main western entry of the Midland Gate.

Car Parking

On-site car parking is slightly reduced by this scheme, although the efficiency of the proposed new parking is much higher in access, amenity and anticipated usership and value to the Town Centre. Additional *off-site* parking should be developed very simply by re-striping the north side of The Crescent for head-in parking, for which there is adequate width in the reserve. Further parking, not dedicated to this project exclusively, should be developed by re-striping Stafford Street, as well (see the Stafford Street Proposal below).

Developing the former car parks along the Crescent will strengthen the link between Midland Gate and the Town Centre. Lost parking will be regained partially by new head-in parking along the north side of the Crescent.



Re-development Plan for Tuohy Gardens and the Midland Enterprise Centre

Develop Existing Tuohy Gardens, But Re-establish New Tuohy Gardens to Honour the Old Library

The shallow depth and lay-out of the thin triangular street block in which existing Tuohy Gardens site is such that the petty crime-inducing design flaws of Tuohy Gardens, as explained above, cannot be feasibly corrected. The blank rears of shops south of the park which front the Great Eastern Highway cannot feasibly open also onto the park for casual surveillance of it. Nor can the shops further west, which front The Crescent, open their rears to overlook that end of Tuohy Gardens. It is, of course, neither feasible nor appropriate to remove any of these shops to provide better surveillance across the park between streets.

Perhaps some Midland citizens would still hope that the on-going anti-social behaviour associated by Tuohy Gardens would somehow just go away. Unfortunately, experience over the past decade or more seems to confirm that the best of intentions to 'manage' Tuohy Gardens better in order to reduce anti-social behaviour there have not been as successful as most of us would hope. The problems persist.

Thus, despite how treasured Tuohy Gardens may be to some of us, there appears no choice but to change Tuohy Gardens fundamentally. The design proposes to re-locate Tuohy Gardens to directly in front of the Old Library, in order better to honour that civic asset. This proposal aims to eliminate the design problems of the existing Tuohy Gardens by making a new Tuohy Gardens that functions better and that is actively fronted by development instead of being backed onto, encouraging anti-social behaviour.

The design proposes that the former Gardens be developed and sold as private live/work two- or three-storey terraces. This is a development that maximises benefits to the Town Centre and all its citizens by introducing residents who will treat the area as their home and keep it safe, in a design that enables them to do so. Most of the present Tuohy Gardens site is to be re-developed as two- or three-storey terrace housing and home offices, fronting the Crescent and retaining the existing row of tall shade trees in their private back gardens. Rear garages are accessed along the existing lane behind the shops along the Great Eastern Highway. Studio units and/or home offices may be constructed upstairs over the residential garages, to overlook the rear lane to improve its safety.

Possible financial returns from that development are proposed to help pay for establishing a new and better place to gather for the Aboriginal people who use Tuohy Gardens now, preferred by that community over the present Gardens.

Possible Brick Hill Aboriginal Centre

Negotiations are already underway for an Aboriginal site for an improved Centre for Aboriginal gatherings, to replace Tuohy Gardens as their gathering place.



Photo of Brick Hill Aboriginal Heritage Site (photo by Chip Kaufman)

The present large toilet block at Tuohy Gardens could be retained, and its use might be expanded beyond that of toilets, to increase positive activity and safety there.

New Development Along Rear of Shops Facing the Crescent at the West End of the Block

A new possibly mixed use building is proposed on the western end of the present Tuohy Gardens, which would front the Great Eastern Highway and form a secure courtyard between the present rear of these shops and this new building. This new building would directly overlook the present bus stop along Great Eastern Highway.

Bus Stop

The present solid wall of the bus stop along the Great Eastern Highway should be altered for better visibility, safety and increased usership by people waiting for the bus. No specific design has been detailed for this improvement as of yet, but it is perfectly feasible to correct the present shelter to achieve these objectives.

Re-Locate and Continue the Week-End Markets

The popular week-end open-air markets would re-locate either to the Old Great Northern Highway main street itself, or to the Railway Workshops.

Midland Enterprise and Arts Centre Redevelopment

The Midland Enterprise and Arts Centre Re-development retains and honours the heritage buildings, adds mixed use development, parking and artists' live/work lofts. The workshop facilities, presently housed in the sheds scattered across the site, are to be expanded in a new location as a long row of light industrial buildings to line the south side of the railway on the Railway Workshops site, which will buffer the proposed Helena Neighbourhood from rail noise (see Chapter 9).

The efficiency and amenity of car parking within the Midland Enterprise Centre site is improved, as is its capacity. The clutter of bushes and sheds is removed, producing a much more legible and accessible development for users and those passing through it on foot and in vehicles.

In order to contribute to a pleasant and safe pedestrian link between the Old Great Northern Highway shopping street and Midland Gate, two- or three-storey terrace housing and home offices front the corner of The Crescent and Viveash Road, extending westward. Access to private garages for these terraces, potentially with studio units or home offices above the garages, is gained along the secondary street, which intersects at Viveash Road with a direct route to the main western entrance of Midland Gate. Affordable studio rental units may encourage young working people to the Town Centre, while the home offices in this context may offer a quiet place for those small businesses which do not require exposure to large amounts passing traffic.

Along the south side of this secondary east/west street are located relatively inexpensive two-storey loft-type premises with work spaces below their residences. Many people may choose to live and work in these robust and relatively affordable buildings, including artists.

New developments are proposed also along the new street which connects Keane Street to the Great Eastern Highway. An extension of a presently free-standing brick building in good shape forms the corner of the Keane Street extension with The Crescent. This new extension frames and overlooks the new Tuohy Park in front of the Old Library.

To the south, also fronting the Keane Street extension, is another home/office two- or three-storey development, whose private garages are accessed from the rear.

Re-Use of the Old Library

The Old Library should be re-used for some civic or community purpose/s. The closed toilet block tacked onto its eastern end should be removed to make way for the extension of Keane Street. The street should split to form a small public island reserve for the existing trees in its path, just east of the Old Library.

IMPLEMENTATION & TIMING : Urgency, Opportunity, Costs and Risk

The Urgency

The ongoing damage from anti-social behaviour associated with Tuohy Gardens to the image and viability of the entire Town Centre now seems an urgent problem to resolve decisively. As explained above, these problems are largely due to functional problems with the design of the *entire street block*, of which Tuohy Gardens is only the most conspicuous irritant.

The Opportunity

Hopefully the Proposed Charrette Design, as detailed above, offers an opportunity to fix these problems. The simultaneous outcomes of new home/offices on the former Tuohy Gardens site, the new park in front of the Old Library, and a new centre which Aboriginal groups can call home, will have a very positive ripple effect across the whole Town Centre.

The Costs

Fixing the problem of the whole street block, by implementing the Proposed Charrette Design or subsequent refinements to it, will involve considerable costs for construction and possibly for helping to provide a different and better place for the Aboriginal community who presently use Tuohy Gardens to gather.

These costs are partly why development of Tuohy Gardens is so vital to solving problems of that street block. Redevelopment of the entire block at once is not necessary, and possibly not feasible financially. Possible returns from development of Tuohy Gardens might be 'rolled over' to help pay for further improvements to the street block.

The Risks

But solving the problem may not be that simple, financially. If put on sale today, the Tuohy Gardens development would be 'leading' the market. The hoped for ground swell of profit-driven redevelopment of Midland, riding a wave of increased amenity, safety and forthcoming property value increases, has not yet begun. While Tuohy Gardens' construction cost remains fairly constant, real estate values for the proposed live/work terraces may vary significantly. There might be minimal or no financial profits directly from sales of this development (although redressing the anti-social problems might yield a much larger financial gain indirectly for the whole Town Centre).

The revitalisation of Midland is faced with a 'chicken and egg' challenge. Neither the profit-driven ground swell of redevelopment and confidence, nor the catalyst to trigger that ground swell, is yet at hand. The whole revitalisation initiative is fraught with risks. Among the highest risks is the 'fizzling' of early attempts at catalysing the ground swell.

It may be that the Town Centre has more to risk from the ongoing haemorrhaging associated with Tuohy Gardens than it does from risks associated with decisively trying to fix it. This seems an important political leadership decision. The risks are both financial and political, if the proposed initiative were to fail.

Implementation Of The Tuohy Gardens Development

The first and most vital step to fixing the Tuohy Gardens problems seems to be implementing the whole of the Proposed Charrette Design west of and including the extension of Keane Street. Thus, the initial package includes:

- extension of Keane Street to Great Eastern Highway;
- building the Live/Work Terraces;
- building the new Tuohy Gardens in front of the Old Library,;
- building the 'Completion' of the Shops at the Western End of the Triangle;
- fixing the Bus Stop;
- re-striping of The Crescent and Stafford Street (see Section 8.6.4) to regain some on-street parking;
- establishing a new place for the Aboriginal community to gather.

These initiatives, led by the Shire of Swan, could be implemented as one development or as multiple related ventures of public and private investment.

Midland Enterprise & Arts Centre

The success of redevelopment of and improvements to the Midland Enterprise & Arts Centre depends to a large extent on fixing Tuohy Gardens first. The Midland Enterprise & Arts Centre redevelopment could start at any time, and its various components could be implemented as one development or in stages and by different development entities. Constructing its new east/west street to meet the proposed Keane Street extension seems a necessary part of any first step for that site.

8.6.2 BOUTIQUE DEPARTMENT STORE FOR MIDLAND GATE

INTRODUCTION

A proposal for actually *more retail* in Midland, when so much of the Town Centre is struggling now, may seem far-fetched. Indeed, this proposal is not meant to take place until the Old Great Northern Highway shopping area has revived. Early development would have a further adverse impact on the Old Great Northern Highway shopping centre which occurred previously when the Midland Gate Shopping Centre expanded. Its consideration in the first place is primarily aimed at strengthening the retail integration between Midland Gate and the rest of the Town Centre, and at improving how Midland Gate functions within itself and with its immediate neighbours.

SITE DESCRIPTION & INFLUENCES

Area

Midland Gate Shopping Centre occupies the very large street block bounded by The Crescent on the north, Lloyd Street on the east, Great Eastern Highway on the south and Viveash Road on the west.

Strong Centre

Midland Gate is located effectively in what has become the geographic centre of Midland, and it enjoys the best car access of any shopping centre in Midland.

Impacts of Single Use and Very Large Catchment on the Local Area

Because Midland Gate is a single-use shopping centre with a geographically very large retail catchment, most shoppers arrive by car. This generates considerable traffic in the area and requires a great deal of parking capacity.

Impacts at Midland Gate's Outer Edges

Midland Gate's site design response to demands for parking and revenue generation is a layout which is similar to most large 'stand-alone' regional shopping centres. It has a very large enclosed shopping mall in the middle of the site, with several free-standing 'pads' along its periphery.

While this site layout works well in some ways, it does not function as an ideal neighbour for adjoining properties across the streets. Blank walls and large car parks greet neighbours and arriving shoppers. This arrangement is especially unpleasant for pedestrians.

Need to Remodel and Expand Every 5 - 7 Years on Average

It is common knowledge within the retail field that the average interval between remodels and expansions of regional stand-alone shopping centres in Australia and North America is between five and seven years. Overheads for this kind of shopping centre are quite high (as are rents), and revenues begin to taper usually after about 3 - 5 years.

To re-generate higher cash flows, a remodel and expansion is usually the next step...that is, if more retail expenditure is seen as accessible within a feasible retail catchment, and if there is physical space for and regulatory approval for such an expansion.

Such an expansion, in the same site lay-out and approach that Midland Gate has succeeded with thus far, is likely to damage other retail competing within the same catchment for the same expendable income (ie Centrepoint and the Old Great Northern Highway shopping street). This is particularly relevant as the retail population catchment of Midland is oversupplied and, therefore, it may be reasonable that the Shire of Swan would elect not to support such an expansion at the expense of other parts of its own municipality.

Possible Win/Win Opportunity Born of Need to Remodel and Expand

Yet Midland Gate's cash flows are likely to dwindle, as do most such centres after a few short years. A question therefore is worth asking...can Midland Gate expand in a way that is a win for Midland Gate *as well as for the rest of the Town Centre?* Possibly favourable answers to this question are what drove the Proposed Charrette Design, as explained below.

What is a 'Boutique Department Store'?

'Boutique Department Store' is a small scale department store of around 4,000 sqm. Most department stores are at least 7,000 sqm, but today's computerised inventorying and delivery systems enable boutique department stores to operate successfully with less stock on hand and hence less floor area. A smaller floor area reduces store overhead and, importantly, can fit more compatibly into an urban centre, with less expanses of blank external store walls, which can mean a gain in profits as well as urban amenity.

Why Consider a Boutique Department Store at Midland Gate?

Two conflicting retail influences confronted the Charrette Team.

Firstly, the Team recognised that many existing retailers, especially in the Town Centre, have been struggling and certainly do not need or want competition from a new department store, especially one located at Midland Gate. The impact of Midland Gate on the Town Centre in the past is well recognised.

Secondly, a demand exists within the department store industry to locate such an outlet in Midland. Interviews within the retail industry revealed that a boutique department store would only locate at the epicentre of Midland's retail activity, that is, Midland Gate. Centrepoint was also considered by the Team as a possible site.

However, Midland Gate's attraction for the boutique department store was much stronger than Centrepoint's. Centrepoint's parking capacity was also relatively limited, although decked parking was investigated as a possibility. More importantly, the Charrette Team was seeking, for the sake of the Town Centre, a way to improve the linkage between the Town Centre (including Centrepoint) and Midland Gate, as explained below.

Need To Redress the Bad Links Between Midland Gate and the Town Centre

The distance between the Town Centre and Midland Gate is only about 600 metres, and yet they seem miles apart. Midland Gate at present is much better located to attract passing trade along the Great Eastern Highway and Lloyd Street, while the Town Centre is suffering because it has limited vehicular and pedestrian access. Six hundred metres is only about a seven-minute walk, but the pedestrian routes between centres, especially along the Crescent, are quite unappealing. To emphasise the difference that pedestrian amenity makes, many shoppers happily walk the length of Rokeby Road in Subiaco, which is over a kilometre long.

Furthermore, motorists shopping at Midland Gate are loathe to drive to the Town Centre because of difficulties in finding a conveniently located parking space.

If a new boutique department store were to open up and strengthen a link between Midland Gate and the Town Centre, then its presence might be in that aspect a windfall for the Town Centre. Such a scenario would be far preferable to a boutique department store locating, for example, on the eastern side of Midland Gate, further isolating the Town Centre.

PROJECT DESIGN BRIEF : TRY FOR 'WIN/WINS'

The Team needed to investigate possible 'win/wins', where, if Midland Gate needed badly to expand and remodel and the boutique department store had to come, its negative impacts to existing retailers could be minimised, and its momentum could be harnessed actually to benefit the Town Centre instead of hurting it further, by linking together all the retail components within the Town Centre.

Therefore, the Proposed Charrette Design and any subsequent proposals for Midland Gate should:

- locate any expansion on the north west corner of Midland Gate's land, fronting The Crescent because it is the most important and badly needed link between Midland Gate and other parts of the Town Centre to the east, especially the Old Great Northern Highway shopping street;
- improve pedestrian amenity along all links to the Town Centre by providing reasonably continuous verandahs along all foot paths, active window frontages, good lighting, etc;
- encourage residential and/or commercial (non-retail) development on upper storeys of any Midland Gate expansions, whenever feasible;

-
- reinforce the function of a 'street' (not a public dedicated one) to operate along the western face of the existing enclosed Midland Gate mall, to encourage better north/south permeability across the site and linkages with the Midland Oval to the north and Brockman Road to the south (the key route to the proposed Brockman Rail Station, as explained in Section 7.3).

PROPOSED CHARRETTE DESIGN, IMPLEMENTATION & TIMING

Strengthen Links to the Old Great Northern Highway Shopping Area and To The Rest of The Town Centre

The proposed new building, at the corner of The Crescent and Viveash Road, is located and designed to strengthen two links between Midland Gate and the Town Centre, along The Crescent and via the proposed secondary street running east/west through the Midland Enterprise Centre.

The 4000 sqm boutique department store and associated specialty stores in that roughly 7000 sqm building open to and actively greet pedestrians en route along The Crescent to the Town Centre.

The eastern edge of this new building opens to and also actively fronts the driveway along the western front of Midland Gate, which basically functions as a street and which is to be extended northward as part of the Midland Oval redevelopment (detailed next in this report).

Service and delivery access is provided at one point along the south face of the building.

Incubator Business Premises

Most of the south face of the building is lined by shallow (about 6 metre-deep) premises for incubating small businesses, which can benefit from this high exposure area until they mature enough to relocate to permanent premises. This arrangement might be initiated and administered by the Midland Enterprise Centre, and it could be part of a design brief as a condition of project approval. This type of 'liner uses' helps to minimise the amount of blank walls of a 'big retail box', which back onto key routes of pedestrian and vehicular traffic.

Timing and Conditions for Approval

Another key condition of project approval is timing; an adequate revival of the Old Great Northern Highway shopping area needs to be well underway prior to approval of this project to be constructed. However, a project approval could be granted beforehand to set the location of the boutique department store, subject to these conditions. Such a conditional approval would keep a department store from trying to locate somewhere else within Midland, where its impacts could be quite damaging to any revitalisation proposals of the Town Centre.

Possible Subsequent Remodels and Expansions of Midland Gate

Possible subsequent remodels and/or expansions of Midland Gate might evolve, as a win/win both for Midland Gate and the Town Centre, toward a more mixed-use and open public street-based site design, possibly involving more than one storey for some of the buildings. Such mixed use centres generally cost less both in terms of initial capital costs, as well as lifetime costs, and they generally require remodelling much less frequently.

More information about such approaches is available through documentation in the Bibliography on Mungerie Park Town Centre, etc. Designs for this direction of future redevelopment were not asked for or done during the Charrette.

LATER POSSIBLE DEVELOPMENT FRONTING THE CRESCENT

Also shown on this design is a smaller building the northern blank wall of Midland Gate, and actively fronting The Crescent. This small building also frames a small square landscaped in shade trees at the main driveway entry to Midland Gate from The Crescent.

The user/s of this small building is yet to be determined, and timing of its implementation is not of great importance, so long as it happens after the Old Great Northern Highway shopping area has adequately revived.

8.6.3 THE MIDLAND OVAL REDEVELOPMENT

INTRODUCTION

The redevelopment of the Midland Oval is among the more controversial Charrette sites. After extensive public consultation and enquiry-by-design during the Charrette, the Proposed Charrette Design produces win/wins for most stakeholders and the Town Centre.

SITE DESCRIPTION & INFLUENCES

Site Area, Ownership and Leases

The Midland Oval site includes more than the present Oval itself. The Shire of Swan owns both the Oval and a few of the parcels adjoining it. Most adjoining properties presently back onto the Oval, resulting in some security and privacy problems along boundaries between private rear yards and the public Oval. There is only one paved and public access to the Oval at present, which is the extension of the Avenue from the west, connecting across Keane Street.

All of the present sports uses for the Midland Oval are in the process of being re-located, generally to the Swan Park on the north side of Morrison Road. The final lease expires in two years.

Why Redevelop The Midland Oval For Housing?

The retention and enhancement of some public park has been part of the planning considerations toward the redevelopment of the Midland Oval for some time.

Considering the redevelopment of the Midland Oval began with the establishment and growth of Swan Park, to which most of the active sports uses are being re-located. Various redevelopment options have been under consideration for some time, including an 'office park'. Recent concern for the Town Centre has tended to focus consideration on future of the Midland Oval.

To revitalise, the struggling Town Centre *must* gain a large 'live-in' community. When a place is your home, the local environment becomes your concern. Your daily routine gives 24-hours surveillance of other buildings and public spaces. The Midland Oval site represents a relatively large opportunity to help fill this key need.

The Oval is all the more important because its location just east of the Town Centre removes it from the planned flight path and noise impacts from the future runway for the Perth Airport, whose projected noise levels present limit residential development in the Town Centre itself.

The street block in which the Midland Oval is embedded is very large, limiting both vehicular and pedestrian access across the block and to the Oval. A key goal was to improve access to the Oval and through this large street block.

Major Stakeholder Input

The Shire of Swan recognised the need to lead in revitalising the Town Centre and saw the Midland Oval redevelopment as a key catalyst and demonstration project of how to do things right in Midland, to affect a win/win for as many stakeholders as possible.

The Shire of Swan saw potential proceeds from this development as a means to help pay for other sorely needed Charrette outcomes, for which funding might not otherwise be available.

Community Input

Many local neighbours to the Oval love it and want it retained as is, or to allow the surrounding Shire property to be redeveloped without impacting the present Oval.

The Oval seemed to be valued more as passive open space than for its capacity as an active sports venue.

PROJECT DESIGN BRIEF

All these needs noted above, plus the heartfelt pleas and a design by local neighbours to keep the Oval as is, were considered in depth during the Charrette, to evolve the following proposed design, which is hoped to affect the broadest win/wins, both for neighbours as well as for Midland. The Proposed Charrette Design and any subsequent revisions or proposals for the Midland Oval should:

- retain at least one hectare as public park, generally in the form of an oval, but detailed for more passive, informal recreational use, and with better vehicular and pedestrian access to it;
- improve street connections across the site, both north/south and east/west, so that the various parts of Midland can work better together, and to reduce trip lengths and car dependence;
- redevelop for predominantly medium-density residential (the denser the better), to reinforce a 'live-in' residential community in the Town Centre;
- mixed-use development and home-based businesses should incrementally develop to front Morrison Road;
- protect the amenity of back yards of adjoining residences from overlooking, overshadowing and other negative impacts;
- ensure that new development fronts streets and that garage doors, blank walls and high fences do not dominate street frontages.

PROPOSED CHARRETTE DESIGN

The proposed redevelopment of the Midland Oval retains a one-hectare park, and builds about 130 two-storey terrace houses, each with its own private front and rear gardens, and within easy walking distance to the Town Centre.



Midland Oval Development showing retention of 1-ha oval park and new streets connecting to Midland Gate, Morrison Road, Lloyd and Keane Streets

Improved Access

Five new streets radiate out from the new street which encircles the Oval, providing excellent access both to the Oval and from its surrounding development. The extension of the Avenue gives direct access to the Town Centre. From the north, New Bond Street is extended south across Morrison Road to the Oval. Two new streets radiate south from the Oval, one connecting to Viveash Street, and the other connecting across the Crescent to the private street along the western front of Midland Gate. Two additional secondary streets, one behind Sayer Street and the other behind Keane Street, further open up this area to better access and amenity.

The location of these proposed streets is ideal for the Town Centre, but it is indicative only, as several of the streets run across private property and are, of course, subject to the will of the property owners.

Design and Function of the Proposed Streets

The inter-connecting streets are about 16 metres wide, with at least 1.2 metre-wide footpaths and parallel parking on both sides of streets that are about 9.8 metres-wide (kerb to kerb), allowing just enough room for two cars to pass each other at slow speed, but plenty of access and room for emergency vehicles to get around, including fire engines and refuse vehicles.

Density and Amenity

The residential development is relatively dense, trading reduced private open space for the close-by public amenities of the enhanced Oval Park, the Town Centre, Midland Gate, Tuohy Gardens, etc. Most lots are 6 to 9 metres wide. Private garages are located on the rear lanes provided throughout the development, so that the fronts of the dwellings can greet the street, making a friendly and safe environment for neighbours as they walk, cycle or slowly drive by.

Adjoining Ownerships

The majority of land shown in this design is owned by the Shire of Swan. The design also shows how some adjoining private properties which back onto the present Shire property might choose to join in the development, although they are in no way obligated to do so. They may choose to retain their properties exactly as they are now.

Adjoining Commercial Development at Keane Street & Morrison Road

Also shown is a development of the vacant lot on the south east corner of Morrison Road and Keane Street, fronting the streets and offering plenty of parking behind the buildings, which also connects into the Oval development via adjoining rear lanes. This development should be predominantly business or commercial uses, possibly with housing above, or if demand for commercial stays low, for purpose-built home-based businesses, for which a higher demand may exist.

IMPLEMENTATION & TIMING

This development is very important for the revitalisation of the Town Centre. Ways and means to implement this proposal should be investigated and pursued as a priority, such as drafting co-venture arrangements with adjoining land owners and for developer/builders, and preparing a design brief to ensure the intentions noted above get built into the project.

Timing of project commencement will be subject to expiration of leases with sporting clubs, demand for housing, anticipated values to be derived at projected time of sales, and other Charrette projects in the Town Centre which may be getting underway, which may influence the viability and ideal timing of this project.

Development Intended to Help Fund Other Charrette Outcomes

Financial returns from development of the roughly 130 new dwellings should ideally help pay for these streets and for other benefits from the Charrette Outcomes.

8.6.4 STAFFORD STREET REDEVELOPMENT

INTRODUCTION

Stafford Street seems quite special but not entirely successful in its present role. It is very short (only about 200 metres long). It is part of the Town Centre and very well located in that sense. Due to its position in the street network (not a long through-street, with 'T' intersections at both ends), Stafford Street carries little traffic. Yet most uses along it are commercial.

Thus, while a quiet street close-in might be a very high amenity context for residential uses, the commercial premises along Stafford Street seem to be struggling, perhaps also because it is such a quiet street. There may be a mismatch between its present uses and how it might function best within the Town Centre.

Opportunities for incremental redevelopment of several private properties along Stafford Street were considered hypothetically during the Charrette, as well as for improvements to the street itself. The Charrette Team selected a two-storey commercial building on 8-12 Stafford Street, called the Stafford Court, and owned by K. & L. Chan & Westraint Pty Ltd, as a representative hypothetical redevelopment opportunity, to demonstrate the potential inherent in each individual parcel. That design is explained below.

SITE DESCRIPTION AND INFLUENCES

Stafford Street Itself

The road pavement width in Stafford Street itself is very wide (about 13 metres) and does not optimise its potential parking capacity within the 20 metre-wide reserve. The cross-street of The Avenue terminates its north end, and The Crescent terminates its south end, looking onto the present carpark with Tuohy Gardens beyond. There are a few large trees along the street, which contribute substantially to its amenity.

- reduce negative impacts of vehicular traffic and rail noise on possible noise-sensitive uses which might locate in the area;
- re-build the train station and platforms to enable commuter trains to continue eastward to new stations;
- improve the Midland Station area by addition of retail and other activities at the station which improve its amenity and safety by their operation during commuter service hours;
- limit further *large scale* retail expansion until the Old Great Northern Highway shopping street is operating well again (ie 5% or less vacancy rate in street level shops);
- encourage mixed use development (ideally commercial beneath short-term residential accommodation) to front Helena Street, especially to line the present back side of the Centrepoint Centre and replace the service station at the corner of Helena Street and Victoria Street;
- encourage perimeter block development on the Centrepoint property, possibly for commercial premises at the street level with other uses upstairs;
- establish and incrementally expand a station-based 'Junction Regional Business Centre', as a means of generating new businesses and employment for Midland.
- encourage development of a multi-deck parking structure alongside the railway on the present Westrail property, to buffer rail noise from uses north of it, and for use by Centrepoint, the Junction Regional Business Centre and others;
- encourage good access to such a multi-deck parking structure via new public streets, if needed, from major approaches to it;

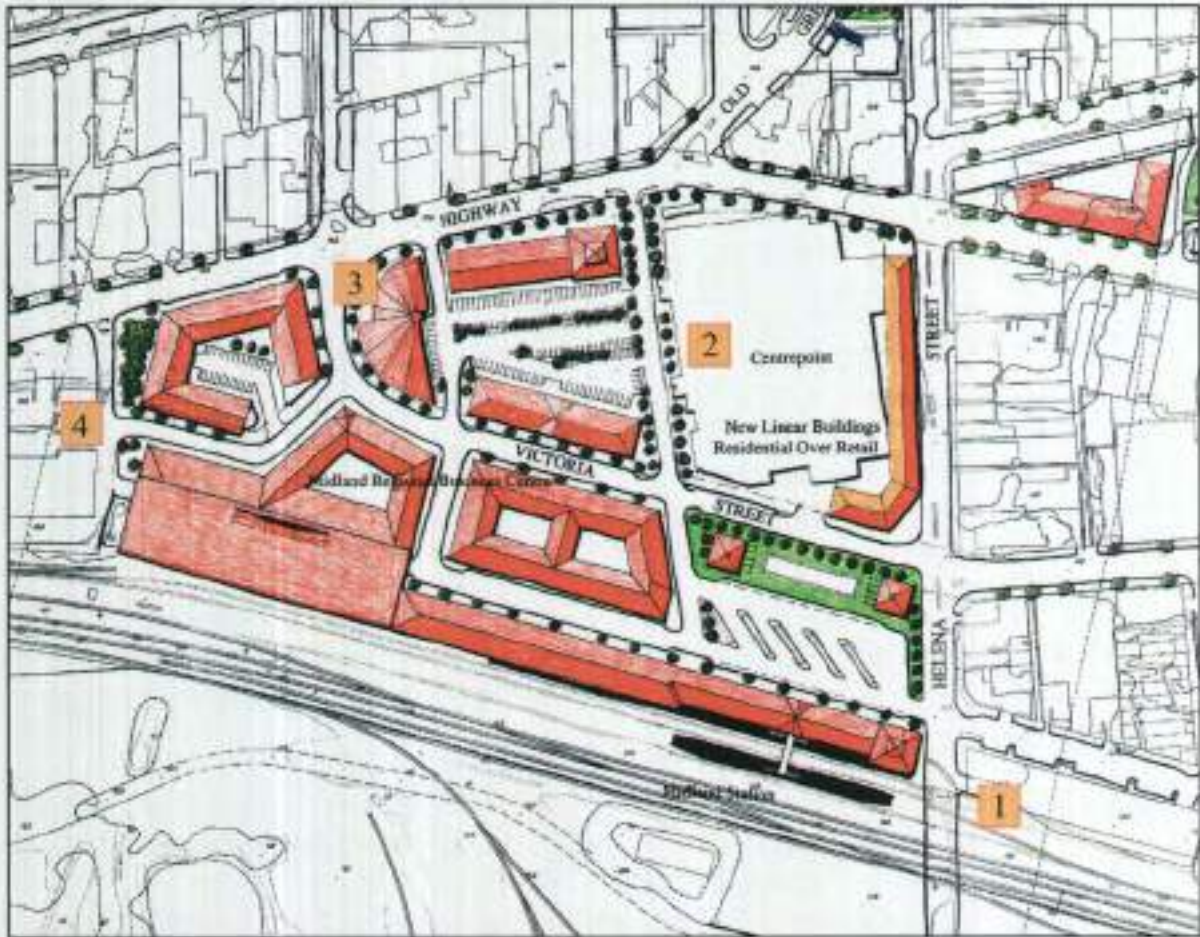
PROPOSED CHARRETTE DESIGN

The Charrette Design proposes substantial transit-supportive mixed-use intensification of all three main properties on the site, including upstairs residential with home/offices at street level, strengthened pedestrian and vehicular linkages between the Town Centre and the Station, and the incremental establishment of a Junction Regional Business Centre. The design assumes that a solution to the possible 25 ANEF aircraft noise contour for the future Perth Airport runway can be found.

Co-operation Between Owners Proposed

The best design, which the Charrette Team evolved during the Enquiry-by-Design process to optimise results for the above described Project Design Brief, reflects substantial co-operation among the three owners, yielding high benefits to the individual owners, as well as for the Town Centre. The proposed design illustrates what such co-operation might yield on the ground, and the various arrangements between owners, revealed by the design process, are explained below.

If such co-operation between owners cannot be affected, then other designs might evolve to attain the Project Design Brief in similar ways. The particular design shown is regarded as the optimal result to emerge during the Charrette design work, but it should not be seen as the only way to comply with the Project Design Brief. In that regard, no single owner should be allowed to 'hold hostage' the results of this particular design, by seeking what might be inequitable compensation in the cross-ownerships that might be needed to implement this design *per se*.



Centrepoint, Midland Station & the Junction Regional Business Centre Proposal

Improved Vehicular and Pedestrian Links between the 'Southern Wedge' and the Town Centre

Key improvements are proposed for several vehicular and pedestrian linkages between the 'Southern Wedge' and the Town Centre, to their mutual benefit. The numbered links described below are keyed to the plan above.

1. On-Grade Crossing for Helena Street

This vital on-grade crossing will help trigger redevelopment of the Railway Workshops, as its users will have better access to the Town Centre, public transport via the Station, and much more direct vehicular access from south of the railway. The Station will gain a large new catchment of ridership. The Town Centre will gain custom from a redeveloped Workshops and direct access to the amenity of a rehabilitated Helena River Park via this on-grade crossing.

2. Improved Access Between the Re-Located Station and the Town Centre Along the Western Face of Centrepont

A key access way, which is to remain on private property, is the driveway along the western front of Centrepont. A new left-in and left-out driveway is proposed at the Great Eastern Highway for Centrepont, improving access both to Centrepont, its intra-block parking and to the Station. A new public street would continue the alignment of this driveway southward across Victoria Street directly to the new inter-modal station.

3. New Street Alongside Trees At Great Eastern Highway

Another street is proposed, entering from Great Eastern Highway southward, along the tree-lined western boundary of the Shire's public open space, to give direct access for motorists accessing the proposed parking structure along the railway (see below).

4. New Street Connecting the Existing Showroom Warehouse Development on Great Eastern Highway to Victoria Street. The New Street will run between a new perimeter block development to its north at Great Eastern Highway, and the redevelopment of the Park and Ride to its south.

The Shire's public open space is proposed for redevelopment, whose returns are meant to help fund the Charrette Outcomes. The present open space is under-utilised and badly located, shaped and sized for a good park. A new street is proposed between the strip retail along the Great Eastern Highway and Centrepont at Victoria Street, which runs across Westrail's present Park & Ride. This new street forms a larger street block comprised of the Shire's public open space joined with the north western tip of the Park & Ride, on which an efficient perimeter block mixed use development is proposed. This development is further explained later in this section.

Increased Residential Presence

All proposed buildings (except the station and parking structure described below) are designed to accommodate the choice of residential development in their upstairs premises, in order to maximise a 'live-in' community in this area, to fill a demand for high amenity residential close-in to a transit-oriented town centre, and to improve security in the area through night-time casual surveillance by residents.

Incentives such as reduced on-site car parking requirements, expedited approvals via design briefs, and property tax holidays should be considered by the Shire of Swan to encourage residential development upstairs in these buildings.

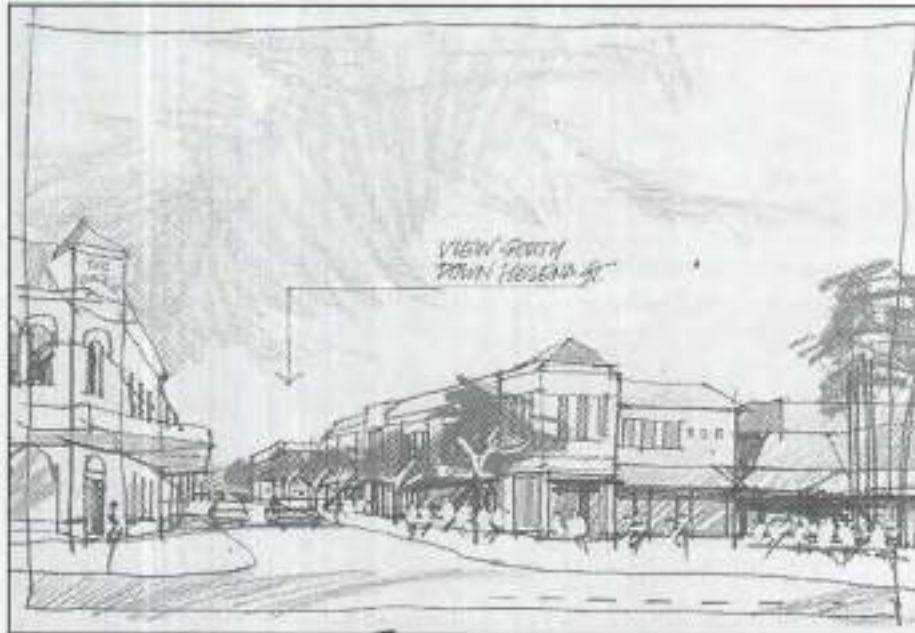
Perimeter Block Development, Intra-Block Car Parking and Improved Pedestrian Amenity and Safety

The plan *generally* incorporates perimeter-block development and intra-block car parking, so that buildings front right up to the streets and footpaths in order to provide interesting storefront windows, etc for passing pedestrians and to improve their safety by means of casual surveillance of the footpaths from these buildings. Blank walls and carparking along street frontages are minimised.

Centrepont Developments

- New 'Liner Building' To Front Onto Helena Street

A single-aspect 15 metre-deep, hopefully two- and perhaps three-storey new building is proposed to 'line' the back side of Centrepont and to front onto Helena Street and, perhaps, to replace the present service station on the corner of Victoria Street. This development should significantly upgrade the pedestrian experience along Helena Street and establish a continuity between the Town Centre and the extension of Helena Street into the Railway Workshops.



Sketch of New Centrepont 'Liner Building' looking south along Helena Street



Sketch of Centrepont perimeter block development along Great Eastern Highway

- **Perimeter Block Developments On Western End of Centrepoint Property**

Perimeter block developments are proposed on Centrepoint's present car park to enfront the Great Eastern Highway and Victoria Street. These two- or three-storey buildings would accommodate small offices or home/offices at street level with hopefully residential above. Accessed from the intra-block parking, private garages for the residences above should tuck under the residences, making for single aspect, appropriately shallow street level premises to front onto the streets.

Junction Regional Business Centre

Junction Regional Business Centre mixed use development on the former park & ride facility caters for its street level premises (at least) to the projected demand for a relatively up-market transit-oriented business address, as explained above and in Chapter 12. Upstairs premises should be designed to be robust to accommodate office, meeting/conference, community or residential uses, where feasible. The Junction Regional Business Centre is not seen as a single-use or one-shot development. Rather, it should develop incrementally, based on demand and opportunity. Components of the Junction Regional Business Centre could also occupy premises beyond the park & ride facility, such as on Centrepoint's property, the Railway Workshops, etc.



Sketch of Junction Regional Business Centre and Centrepoint, looking west along Victoria St.

The Junction Regional Business Centre is designed to abut the proposed multi-deck car park and buffer building explained below. The north side of the parking structure would have a solid wall between itself and an adjacent three-storey development with an atrium courtyard, whose northern facade opens to a proposed new 'dog-leg' street connecting Victoria Street to the shopping centre to the west. This building would be part of the Junction Regional Business Centre, as would be the three-storey double-courtyarded building and the two smaller pavilion buildings to the east on the former Park & Ride.

Multi-Deck Car Park Buffer Building

- Design

A two- to four-level public parking structure is proposed along the railway, 36 m deep by about 130 m long, which can accommodate two double-loaded aisles of parking and ramp for about 170 spaces per level, or as much as 680 spaces on four levels. The parking capacity would be a function of anticipated demand and funding arrangements from its anticipated key users such as Centrepoint and the Junction Regional Business Centre (see below). This parking structure would be open to the air on the long south side facing the tracks and its western end, so that relatively expensive mechanical ventilation of the parking structure would not be required. The structure could be owned and/or developed publicly or by a private/public joint venture.

- Anticipated Users

The Junction Regional Business Centre would be a key user of this parking structure. The feasibility of whether Centrepoint shoppers would use this proposed parking structure has not been confirmed. The entry-to-entry distance between this carpark and Centrepoint is 180 metres or about a 2-minute walk, which is more remote than Centrepoint's present on-site parking, but less by far than many patrons normally walk between car parks and major anchors in many big shopping centres. Presumably Centrepoint's employees (normally about a third of shopping centre parking demand) could be asked to use this more remote site. Those occupying the proposed new perimeter block developments on the western end of the Centrepoint property, whose stays might last for a work day rather than an hour-long shopping visit, might also be willing to use the parking structure.

The most feasible balance between amount of perimeter block development on the Centrepoint site itself and parking demand/capacity for this proposed parking structure, and cross-property agreements have yet to be resolved.

- Possible Ownership and Development Arrangements

Hopefully this parking structure would serve many users from its entire walkable catchment (say, within a 400-metre walking distance, depending on duration of parking stay). The more users, the larger the multi-deck, the more feasible its construction becomes. Furthermore, with a larger multi-deck, less surface car parking land is needed, so that more intense development can take place within the walkable catchment of the Station and the Town Centre.

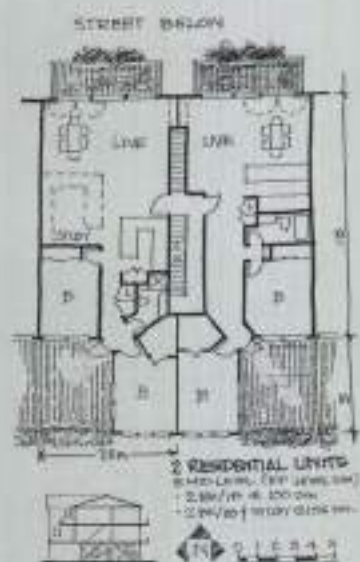
In such a multi-user context, the multi-deck parking structure might be a public facility owned and operated by either Westrail or the Shire of Swan. Or, those most likely to benefit from it, such as Centrepoint, the Shire of Swan and Westrail, might choose to joint-venture its funding, development and ownership.

New Inter-modal Train/Bus Station

The design proposes an improved lay-out of the bus station with sheltered diagonal bus bays, taxi rank and 'kiss and ride' drop-off points directly in front of the new train station. The new train station will be required when commuter rail services is extended eastward because the present commuter rail track dead-ends into the present station and cannot extend eastward. The present track is to be abandoned and the adjacent two through-tracks to the south used for passenger trains, with a new island platform between them for west-bound trains. The new station building is to be rebuilt further to the east, closer to Helena Street for improved access for pedestrians crossing the rail there, closer to the majority of its pedestrian catchment, and to make more room for the parking structure noted above, part of which occupies the former dead-end trackage.

Development of Triangular Open Space

Once the re-location of the Park & Ride is underway, then a joint development agreement between Council and Westrail would build a new street across the Westrail property, forming an efficient development site as shown across the present open space bounded by the Great Eastern Highway and Victoria Street, while retaining the established trees along the western boundary. This two- or three-storey live/work perimeter block development with intra-block car parking would increase residential population near the Town Centre and the station, while offering home offices at street level along its entire perimeter. Intra-block parking could be provided as shown on the plan, or still more parking could be provided by adding private 'tuck-under' parking behind the street level home offices for upstairs residents, with private stairs up to the residences both from the street and the parking courtyard. An indicative design for such an arrangement is shown below.



Two single level L-shaped apartments, on two floors over shallow retail. (Street to north, east or west.)



Sketches of the rear of L-shaped residential over retail. Showing garages onto carpark, and secluded outdoor living areas above.

Indicative 3-Storey Live/Work Development with Tuck-under Parking, as designed by Ecologically Sustainable Design, Pty Ltd.

IMPLEMENTATION AND TIMING

High Priorities to Get Things Moving

1. The two-way conversions of Victoria Street and the Great Eastern Highway are key catalysts for developments on this site.
2. Development of the 'liner building' along Centrepoin't's Helena Street frontage is key to an early strengthening of the link between the Town Centre, the Station and the Railway Workshops.

One Design of Perhaps Many Choices

This proposed joint development design and arrangement illustrates only one of perhaps several ways that shared benefits to these three owners and the rest of Midland can be achieved. Other possible options, which embody the same benefits to Midland as stipulated above in the Project Design Brief, should also be considered during implementation.

Agreements Across Properties

Several agreements across properties are reflected in this plan, as outlined below.

- **Parking Structure**

Because the proposed parking structure along the track on the Westrail property is meant to provide parking for perimeter block development on Centrepoin't's property and for users of the proposed Junction Regional Business Centre, an agreement among these owners to co-fund construction and possibly joint ownership of the parking structure may be appropriate.

The Charrette Implementation Task Force should lead this initiative and facilitate an equitable and expeditious arrangement. A condition of approval for this development should include compliance with design briefs (prepared by the Implementation Task Force or others) that reflect the Project Design Brief, illustrated by this proposed indicative design. Such an arrangement should help ensure that all players cooperate to maximise returns for the Town Centre and themselves.

- **Perimeter Block Development Of Shire's Triangular Open Space And The North Western Corner Of The Park & Ride Facility**

The Charrette Implementation Task Force should initiate an arrangement between Westrail and the Shire of Swan for an equitable land swap to enable gazetting of the enlarged parcel for the perimeter block development and the new street from the west that forms the southern boundary of that block.

Until this development takes place, the present Victoria Street reserve across this proposed street block should be used for on-street parking.

- **Left-in and Left-out Intersection for Centrepoint**

The Charrette Implementation Task Force should implement this intersection as soon as feasible, in conjunction with assuring reservation of the alignment it establishes along the western face of Centrepoint, as well as its extension across Victoria Street into the proposed new inter-modal train/bus station.

Because these arrangements across properties are so inter-related, the Charrette Implementation Task Force should endeavour to achieve these as an integrated whole.

Timing and Opportunism to Achieve the Project Design Brief

Not all components of this design can be expected to be built at once, nor does the proposed outcome need to be built entirely as drawn here. What *is* important is that the Project Design Brief should inform opportunistic approaches that the Charrette Implementation Task Force takes to implement the *intent* of the project. So long as the intent is achieved, any component/s of this design or others should be encouraged to move forward, with the exception of retail development limitations noted below.

Conditions for Further Retail Development

New retail development within this project should be limited until street-level occupancies and vitality have returned to the Town Centre, with the exception perhaps of the street-level retail development along the Helena Street frontage. Helena Street retail development with other uses upstairs such as services apartments might be developed as soon as possible because it is meant to strengthen the Town Centre through connections (especially for pedestrian amenity and safety) between the Station and future Railway Workshops developments with the Old Great Northern Highway, via Helena Street.

8.7.2 INCREMENTAL INTENSIFICATION OF SMALL SITES NEAR MIDLAND STATION (Stockman Hotel & Marion Street Redevelopments)
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INTRODUCTION

A regional town centre with a major commuter rail service such as Midland's should have intense development of both residential and commercial premises within its walkable catchment. Incremental redevelopments, large and small, within the walkable catchment of Midland Station, should support and feed off each others' momentums and benefit the Town Centre. The designs explained below illustrate how that can happen for the north-east quadrant of the walkable catchment of Midland Station, in particular.

SITES DESCRIPTION AND INFLUENCES

Area Location

The most intensively developed catchment for Midland Station should ideally extend outwards in all directions to about a 10-minute walking distance, measured along public rights of way. Sites closer to the Station would likely be affected more and sooner by related developments, and the Helena Street on-grade railway crossing would be needed to help catalyse progress south of the railway.

The pie-shaped wedge of street blocks east of the Station, bounded by Railway Parade on the south, Victoria Street on the north and Lloyd Street on the east is particularly full of redevelopment opportunities.

Multiple Ownerships

Many small ownerships exist within this walkable catchment. Some redevelopment opportunities exist where co-operation among adjoining owners is likely to benefit all involved.

Some ownerships such as the Railway Workshops are very large, while many others are quite small.

'Oversized' Street Blocks and Lots

An ideal walkable mixed use or residential urban street block is normally between 60 to 80 metres-deep by between 140 to 200 metres-long, with a mid-block boundary down the long axis making private lots either side of it to face the surrounding streets. When street blocks get larger than this, they become less robust (able to accommodate different uses over time). Overly deep or long street blocks also limit permeability and walkability in the street network, forcing longer trip lengths. Bigger street blocks usually also mean bigger private lots. Deeper or wider lots often consume too much valuable land, especially in a context such as the Town Centre, where resident/worker densities should be relatively high to support community, economic and public transport viability.

Many of the street blocks and lots in this area (as well as other areas such as Midvale) are too large, having the problems described above.

Pedestrian Amenity and Safety Challenges

Most of this walkable catchment could gain by improvements to the amenity and perceived safety of walking routes to the Station and the Town Centre, by means of streetscape improvements and perimeter block development to 'puts eyes on the street'.

Heritage

Scattered through this district are some buildings of historic interest and value, whose preservation and adaptive re-use may benefit those properties as well as adjoining properties.

Noise Challenges

The area is impacted by vehicular noise, especially areas close to the railway impacted by heavy freight traffic. The electric-powered commuter rail system generates relatively little noise on its own.

Noise Mitigation

Proposed noise mitigation of the freight rail, including rubberised tracks, sound walls alongside the tracks, and possible 'buffer buildings' to line the southern side of Railway Parade, may significantly improve amenity of areas both north and south of the railway.

The possible freight rail bypass/shortcut from Bellevue, if built, would remove freight noise entirely from this area, with an even higher increase in amenity and allowing relatively noise-sensitive developments effectively adjacent to the remaining passenger-only railway through the Town Centre. With either outcome (and possibly even without), incremental redevelopments of this area should take hold.

Aircraft Noise Contours

This area is outside the 25 ANEF aircraft noise contour for the planned future runway for Perth Airport, and so, from this standpoint, residential development is acceptable in this area.

Compatibility Challenges for Incremental Redevelopment

Incremental redevelopment in this precinct, as well as in other comparable ones in Midland and beyond, requires place-based compatibility and synergising with neighbouring properties. Often such areas can cumulatively benefit if all redevelopments there are guided by development controls such as the *Good Design Guide* of Victoria and/or the *Mixed Use Compatibility Development Control Plan for Newcastle* (see bibliography).

Specific Sites for Which Designs Were Prepared

The Charrette Team found it appropriate to prepare specific designs for three sites, each of which represents a different but fairly common type of redevelopment opportunity in the district, as explained below.

- End-Block or Corner Site Redevelopment

Several adjoining properties are under-developed at this end block. There is opportunity to insert a new rear lane along the centre-line of the street block, opening up the opportunity for private and secure rear garages, granny flats and home workshops along the lane, plus narrower lots for greater density, with better 'kerb appeal' for building frontages because they are not blocked by front garages.

- **New Street Opportunity**

Many of the street blocks in this area are either too deep and/or too long. These conditions suggest the opportunity of increasing the permeability and walkability of the street network, while opening up the interior of street blocks to new and denser development fronting these small streets.

- **Redevelopment Triggered By An Important Heritage Asset**

Significant heritage buildings often have a value and identity that can support a redevelopment that capitalises on them. The historic Stockman Hotel is a case in point. Even though it has recently burned, leaving only its masonry shell, this building adds considerable character to the area and may be feasible to re-build for the same or another use. Adjoining properties may benefit from such a development, or even join forces for a wider redevelopment triggered by the Stockman.

PROJECTS DESIGN BRIEF

All projects within the walkable catchment of Midland Station should do the following, whenever feasible:

- maximise residential development and generally increase resident/worker densities;
- ensure that all developments are designed in response to a detailed site and context analysis to minimise loss of amenity to any adjoining lots and to maximise synergies with them;
- incorporate noise-responsive design where appropriate;
- incorporate important historic buildings or features into new developments wherever possible;
- add new street links street blocks which are either too long (ie longer than about 200 metres) or too wide (ie wider than 80 metres), in order to maximise developable land and resultant resident/worker densities within the walkable catchment of the Town Centre and the Station;
- improve streetscape and pedestrian amenity throughout, especially along routes to the Station.

PROPOSED CHARRETTE DESIGNS

The Charrette Team produced three specific place-based designs to illustrate how such incremental redevelopment might take place in this area.

Redevelopment of the Stockman Hotel And Its Neighbours

- **Site and Influences**

The southern end of Viveash Road meets Railway Parade in an area presently impacted relatively severely by the barrier-effect and noise impacts of the freight rail. The historic Stockman Hotel burned recently, but its shell remains and may be feasible to restore.

Surrounding parcels are relatively under-developed, suggesting the possibility of a redevelopment of parts of the bottom half of that whole street block.

A relatively vacant strip of land stretches across the whole street block across two properties about 60 metres north of Railway Parade, introducing the possibility of a new small street to open up the interior of that 135 metre-wide street block.

- Input from Owners and Other Stakeholders

The Charrette Team was able to interact with some of those property owners, but no commitments were made. The design reflects indicative possibilities only. It is understood that two or three of the properties north of the Stockman Hotel may be interested in redevelopment in the not-too-distant future.

Many heritage advocates sought the restoration of the Stockman Hotel. Its owner is understood to be reluctant, but improvements to overall amenity of the area and other redevelopments nearby might help the Hotel restoration to 'stack up' better financially.

- Proposed Charrette Design

The design proposes the development of new apartments which incorporate the historic facade (brick shell) of the Stockman Hotel. The Stockman could be redeveloped alone, or with one, two or three lots to the north, or possibly even with adjoining properties to the east.

A new street is shown running east/west about 60 metres north of Railway Parade. The Stockman could redevelop with or without this street. Without the street, the access drive to its intra-block parking would be from Railway Parade.

Adjoining properties are shown redeveloped to front the new street, with parking on the new street as well as intra-block. A total of about 25 new, mostly attached terrace buildings are proposed in this design. Redevelopment of even a fraction of this total would hopefully trigger adjoining redevelopment, a general rise in property value, and more resident/worker population near the Station and Town Centre.



Proposed plan for site.

- **Implementation and Timing for the Stockman Hotel & Environs**

This substantial redevelopment of most of the bottom end of this whole street block might incorporate cross-ownership co-venture redevelopment, or the Stockman property could go forward on its own.

The Charrette Implementation Task Force should prepare a 'design brief' to govern the redevelopment of this area, and should offer incentives for its early redevelopment in compliance with that brief.

Marion/Viveash Street Block Redevelopment

- **Introduction and Site Area**

The street block bounded by Victoria Street, Railway Parade, Viveash Road and Marion Street is representative of many under-utilised areas within the walkable catchment of Midland Station, whose incremental redevelopment could catalyse others nearby.

- **Site Description and Influences**

This whole street block is impacted somewhat by the barrier effect of and noise from the railway, especially freight rail traffic. The Railway Parade frontage is particularly noise impacted by the freight railway.

The street block itself is representative of many other blocks in the area which are too big either in length and/or width, as explained above. This particular trapezoidal block is both too long (280m along Victoria Street and 250m along Railway Pde) and too wide at its eastern end for most uses (175m along Viveash Road), such that considerable land is under-developed in its interior. There are a few vacant or under-utilised lots along about midway along Victoria Street and Railway Parade, through which a new public street might be built, and long which new development could take place on adjoining under-utilised areas within the street block.

Assuming that sound impacts can be mitigated, then amenity of the area will hopefully rise enough to trigger incremental redevelopment of much of this street block.

- **Owner Consultation**

No owners were consulted for this design; it is hypothetical only in that regard.

- **Project Design Brief**

The Project Design Brief is generally the same as for other projects described within this section called Incremental Intensification.

Specifically, developments within this street block should improve local permeability and access and open up areas within the street block which could be redeveloped.

- Proposed Charrette Design

A new north/south street about mid-block is proposed, which either misses existing buildings or replaces relatively under-utilised buildings, so that new buildings can be developed along both sides of the new street, generally in the present rears of properties which might accordingly subdivide. Most existing buildings could stay, while their owners could sell off the rears of their properties. Thereby, worker/resident within this street block and other like it could substantially increase.



Proposed plan for site.

A rear east/west lane is proposed to enter the street block midway along Marion Street, opening up the under-utilised rears of several properties. This lane would provide access to new private garages, home offices or workshops, and granny flats, ideally for more new buildings fronting both Victoria Street and Railway Parade. New or redeveloped buildings are also proposed to front Marion Street, extending to both corners of the new lane entrance.

- Implementation & Timing

These designs are meant to yield a high return for several adjacent owners, but most of them would require co-operation and joint funding by the owners or their developers. The Charrette Implementation Task Force could take a leadership role in initiating such cooperative arrangements which would help ensure equitable returns and minimal negative impacts for the parties involved.

GENERAL IMPLEMENTATION & TIMING FOR INCREMENTAL REDEVELOPMENT OF AREAS AROUND THE MIDLAND STATION

Area-Wide Catalysts to Development

- 'Certainty' for Developers

The Charrette Implementation Task Force can unlock a vital catalyst for generalised incremental redevelopment of the area. That catalyst is 'certainty' (relatively speaking) of implementation conditions such as timing for permits, clear and feasible development briefs, minimised third party resistance, and committed support from the Shire of Swan and the Ministry for Planning. Such is not possible without considerable further follow-up work and consultation with local owners and residents.

- Helena Street On-Grade Crossing

Early commitment to and then construction of this crossing would be a major and conspicuous 'shot in the arm' for the revitalisation of this area.

- Mitigation of Noise Impacts from Freight Rail

Early commitment to and implementation of noise mitigation from the freight rail traffic will favourably affect the entire area presently within earshot of the railway.

- Conversion of Victoria Street and Great Eastern Highway

Early commitment to and completion of works for these improvements (see Chapter 7.1) will send a pervasive strong signal and deliver a profound benefit to owners, developers, traders and anyone else who uses or is considering involvement with this area.

Development Controls and Design Guidelines

The Charrette Implementation Task Force may need to affect incentives combined with development controls and design guidelines to help initiate projects which further the overall Project Design Brief for this precinct.

9. MIDLAND RAILWAY WORKSHOPS PRECINCT

9.1 INTRODUCTION

The Midland Railway Workshops is the largest single potential development opportunity examined during the Charrette. It is 70 hectares, and belongs to Westrail, but its future use is being managed by the Government Property Office. It is mostly vacant, including around 8 ha of mostly vacant buildings, and Westrail has annual holding costs of around \$400,000.

It is a key site for Midland's revitalisation because of its location immediately south of the Midland Town Centre, and within the critical 800 metre (ten minute walk) distance of the Town Centre and Midland Station; it contains significant historic buildings with re-use potential; and it abuts the Helena River. The site can be regarded as the southern half of what could become an enlarged and much more vibrant, mixed-use, high-amenity Midland Town Centre.

However the huge scale of the site, the costs of making the site available for development, and the presently poor investment conditions in Midland have resulted in several relatively fruitless years of searching for possible uses, whose focus was more on getting rid of the site than on how best to use it to catalyse Midland's revitalisation.

Two main approaches for 'disposing' of the site have been pursued, without great success as yet. One has been to promote the site as a home for several metropolitan State Government-supported 'silver-bullet' facilities, including the Police Academy, a State Sports Stadium and/or a greatly expanded education campus. The second approach has been to pursue industrial development, for which there is some market. The Australian Railways Historical Society has also expressed interest in using the historic buildings in the central part of the site as a rail museum.

The Charrette Team investigated in detail the site requirements and possible economic and social benefits of these and other possible uses, against the criteria of optimising benefits to Midland's revitalisation. The Team produced one core option and two other options for the Railway Workshops.

9.2 SITE DESCRIPTION & INFLUENCES

THE SITE AND ITS CONTEXT

The Site Area

The site area includes the Railway Workshops, a length of the Helena River and land to its south. The site is bounded by the railway on the north, Amherst Road on the west, Metro Brick and the Sale Yards on the east, and a power transmission easement south of Stirling Crescent on the south.

Land Form of the Railway Workshops Site

The Railway Workshops site is flat, and is isolated from the rest of Midland by the rail tracks. It abuts the Helena River along its extensive southern boundary. An escarpment generally runs along the southern site boundary for the western half of the site, then bends north on the east half, leaving a semi-circular lower-level river flat, which is quite attractively forested around a gully. This flat is no longer flood prone, due to the Mundaring pipehead dam upstream on the Helena River.

Heritage Buildings

The historic buildings are clustered in the central core, and are dominated by three huge brick buildings, each enclosing between 1 and 1.5 hectares beneath its sawtooth roof. The west end is dominated by a coal dam, a former spring enlarged to provide underwater storage for coal. It also is over 2 hectares. The east end is relatively empty - grassland with some lightweight industrial sheds, a few trees and some sealed surfaces. However it also has the main area of contamination, in the form of extensive unconsolidated fill along the river escarpment.

Present Uses of the Railway Workshops

The site is mostly unoccupied. Five hundred students from the Swan Tertiary Centre occupy historic buildings across from the Midland Station. Historic machinery and trains are housed in other historic buildings, while other activities, such as film-making, periodically use small parts of the site.

Land South of the Helena River

Land south of the Helena River, along Stirling Crescent, is generally flat, mostly cleared and rural or rural residential in character. This land is presently zoned to form a buffer to the as-yet relatively undeveloped Hazelmere Industrial Estate further south. The only 'direct' connection to the Railway Workshops site is via an unmade road (Whiteman Rd) that runs from the Sale Yards to Stirling Crescent across a rustic, historic bridge over the Helena River. The bridge is closed to vehicles and is used mainly for droving sheep between the saleyards and feedlots to the south. This crossing is just west of a proposed southern extension of Lloyd St to Hazelmere and the Great Eastern Highway Bypass.

Metro Brick and the Sale Yards

The eastern boundary of the Railway Workshops site is abutted by the Metro Brickworks and the Midland Sale Yards. The Brickworks is a modern, efficient plant with capacity to expand within its existing approvals. It is likely to be a long-term activity, and is controlled by stringent noise, dust and other emissions limits. The Saleyards are, by contrast, a historic use, but one which is still significant to the local economy and to national stock marketing. Sales occur several days a week, and the activity is evident in the vicinity through noise, dust and transport movement. While the WMLA (manager of the Saleyards) has considered alternative sites in Bullsbrook (Pearce) and Wooroloo, it is unlikely to relocate in the short term.

SITE CONSTRAINTS

The site has several main constraints.

Access: The site is very difficult to access from the Town Centre, with only two indirect vehicle accesses existing, one from Lloyd Street, and the other from West Midland via Amherst Road. An elevated pedestrian bridge, well east of Helena St, is the only relatively direct link to Midland Station and the Town Centre. A direct road access through the extension of Helena St, with an on-grade crossing of the railway, has been applied for, but as yet is not approved or funded.

Contamination: The site has extensive contamination in three forms:

1. 'hot spots' of hydrocarbons and heavy metals;
2. extensive loose fill containing asbestos, metal and rubble, which is unconsolidated and cannot feasibly be built on, and which is too expensive to remove except for a few areas where the fill is less than a metre deep;
3. the historic coal dam with extensive contamination which would cost about \$4 million to remove by filling.

Requirements for Occupancy Upgrading of Historic Buildings: The main historic buildings are on the State Heritage Register. Most have re-use potential after repair, but many will be dependent on major upgrading and investment, justified by a financially-viable occupancy. It is also expensive to reinstate services, including power and water, so temporary or transitional uses have not been easy to accommodate to date. The few low-cost and easily adaptable buildings are now mostly in use by the Swan Tertiary Centre or are permanently committed to housing heritage machinery.

Industrial Surrounds: The eastern end of the Railway Workshops is affected by a 500 metre industrial buffer around Metro Brick, and by the noise and dust of the Midland Sale Yards. Existing industry and feedlots south of the Helena River reinforce a poor image 'south of the tracks'.

Rail Noise: Heavy freight train activity, particularly at night, causes vibration and noise up to several hundred metres from the tracks. The possible extension of the electrified service to Bellevue will create another very minor noise source.

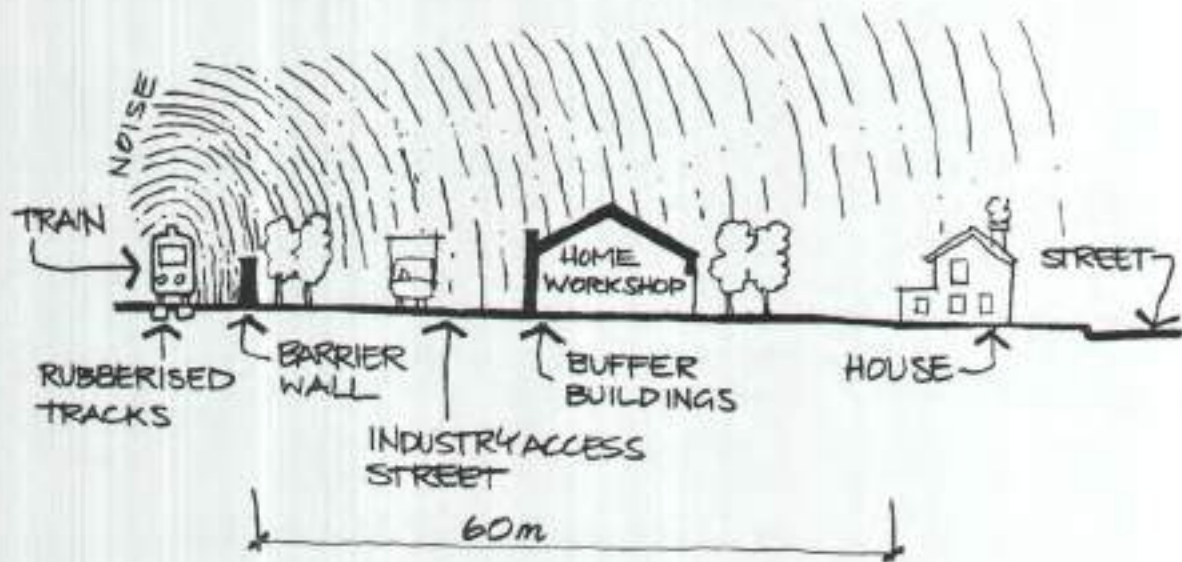


Diagram of Freight Train Noise Emissions across open land

Future Aircraft Noise: Part of the site is proposed to be affected by noise from Perth Airport's proposed parallel runway, tentatively scheduled 25 years from now. The 25+ ANEF contour, which essentially prohibits residential development, affects the western third of the site. This noise level is also likely to be too high for operation of a sports stadium in that western end of the site.

Existing Zoning For Industry: The site is presently zoned for industry under the Metropolitan Region Scheme. It would likely require a two-step rezoning to allow many of the commercial and residential uses that are likely best to benefit Midland's revitalisation. First it must be rezoned to 'urban' in the MRS, and secondly under the Shire of Swan Town Planning Scheme to more specific zones.



Shows the precinct and its major constraints.

MIDLAND DESIGN WORKSHOP OUTCOMES

The Midland Design Workshop, held in March of 1997, focused on the site development options which might contribute to justification of an extension to the passenger rail system east beyond the existing Midland Station. It identified that the site was important for relatively intensive commercial, community and residential uses, to provide both a strong metropolitan destination, and a high amenity residential community for potential commuter users. It also demonstrated that the use of the site for broad industrial uses was quite inappropriate given its proximity to the Town Centre, commuter rail service and the Helena river, and the availability of the Hazelmere industrial area with its extensive land and better proximity to the Roe Highway and the airport.

COMMUNITY INPUT

The Midland Railway Workshops site is a very significant site to the Midland community. This is because of its former role as a principal focus of the town's identity and economic prosperity. Its current abandonment is a symbol of the town's decline. It is also seen widely as a key site to trigger the town's revitalisation.

Community input came principally from a special-purpose meeting on the Friday night of the Charrette, with additional input during the open Charrette studio sessions. These revealed the following issues and suggestions.

Heritage: There was significant input and extensive interaction with the Midland Enterprise and Arts Centre to identify how they might use existing or new buildings on the site for business incubators; from many individuals concerned with protecting the site's heritage and community value; from the Australian Railway Historical Society (ARHS) proposing re-use of at least one and a half of the three main workshop buildings as a railway museum.

To use one or more of the main workshop buildings as a railway museum, the ARHS needs rail access to the building/s on existing tracks, so that operational heritage steam trains and rolling stock can access the main railways for heritage train journeys.

Thus the historic Railway Workshop buildings will suit a variety of tourist commercial uses including Railway Museum, Riverside Garden Centre, display and storage of vintage cars, artificial rock climbing centre, film studios etc. They might also suit university expansion or warehouse loft-style apartments.

Metro Brick and Sale Yards: There was also sympathetic co-operation from the Metro Brick representative and the Sale Yards representative to find solutions that took into account the actual off-site impacts of their industrial activities.

Hazelmere: There was also significant input from some Hazelmere residents concerned about expansion of industrial activities close to their community, in particular a proposal for a brickworks just south of the Workshops site (off Stirling Crescent).

Helena River: There was also strong interest in the Helena River and its potential as public parkland, despite its minimal water flow. There was also concern, particularly expressed by members of the Aboriginal Community, of leaching of contaminants into Helena River.

Freight Rail Bypass: Community support for the possible relocation of the freight rail was also strong.

INPUT & STUDIES FOR POSSIBLE 'SILVER BULLET' USES

The Government Property Office and Westrail have both conducted a range of technical, financial and design studies in their endeavours to identify a future for the Railway Workshops. These studies were available to the Charrette Team and provided valuable background material.

During the Charrette, the following relevant information was obtained from the government agencies and other stakeholders, for three possible 'silver bullet' uses, that is, uses of state significance in size and funding, which could serve as a 'silver bullet' catalyst for the Railway Workshops redevelopment as well as the revitalisation of Midland. While of great value if any of them were to come, the Charrette Designs do not hang their fate on any one of these possibilities.

Police Academy: The land and building requirements for the proposed Police Academy were not yet available, so the Charrette Team had to estimate these based on other similar facilities. The existence of a rifle range and an Army Transport Unit Driver Training Circuit south of the Helena River, and the Swan Regional Sporting facilities were seen as significant benefits to attracting the proposed Academy. The Team also learned that the Police Academy could benefit by being integrated with tertiary institutions, and would use short-stay accommodation in or near the site, preferably in the Town Centre. Redevelopment of nearby sites such as the Stockman Hotel to serviced apartments or student unit type-accommodation was seen as appropriate.

Sports Stadium: Before the Charrette the proposed sports stadium had been tentatively identified to be located on or near the coal dam. However, while this provides the advantage of station and town centre access, it does not appear to fully consider the costs of converting the coal dam to a stadium, or the impact of future aircraft noise. The Charrette Team identified an alternative area at the far eastern end of the site, which could be served by a proposed new park-and-ride station, sharing parking facilities with the stadium, and which would involve minor adjustments to the boundary with the Sale Yards. It was found that by careful design the stadium could be accommodated with minimal loss of the prime vacant development land east of the main Workshop buildings, and in a manner that provided this land with a buffer from the industrial uses to the east.

Major Tertiary Institution: In relation to the possibility of the site becoming a major tertiary institution, this is seen as unlikely, both because of funding and need limitations and because of the changing nature of education, limiting the physical building and land requirements in favour of electronic communication. However Midland TAFE expressed possible interest in further relocation of some of its functions from the main Midland TAFE site on Eddie Barron Drive to the site if its amenity and access were improved. Accessibility and urban amenity of campuses is becoming more critical now in competing with other institutions for students. There is some demand for student housing, and that might increase with more students. This possible 'silver bullet' shrank to a more realistic and hopefully feasible expansion of the Swan Tertiary Centre.

Thus the Charrette Team had two known 'silver bullet' targets to design for.

The following requirements were identified to govern the site's design, as well as future initiatives for the site:

- ensure that site's redevelopment will provide a major catalyst for Midland's revitalisation in the relatively short term;
- catalyse re-use of the historic buildings for activities that contribute to the vitality, historic character, employment base and an improved image of Midland;
- provide uses with relatively high intensity of residents/workers/visitors to capitalise on the location being within walking distance to station and town centre;
- include a significant housing component - ideally to be mainly relatively high quality medium-density housing, to encourage higher-income households into Midland's core and more population overall;
- produce an adaptable development concept that allows for any one or more of the state-supported 'silver bullet' facilities to be plugged-in to an appropriate part of the site (should they eventuate), but which is adaptable enough to enable other areas to proceed in the short term;
- provide a development concept that provides good options for the site to be developed as several precincts, rather than just as one huge parcel;
- use practical and cost-effective solutions to the contaminated areas to minimise the land likely to be sterilised from development;
- open up access to Helena River for the whole community, provide direct access to it from the Town Centre and develop a bushland public park along the river valley on State Government-acquired land;
- consider housing and home-based businesses on the immediate south side of the Helena River as this land has potentially high amenity and is still relatively close to the town centre;
- deal with the rail noise in a land-efficient manner, (eg. design efficient low-cost buffer buildings along the railway to protect residential or other noise-sensitive uses, and find uses for these buffer buildings);
- ensure that adequate buffer buildings, compatible use transitions and other conditions exist to protect the site from industrial activities to the east, and vice versa;
- ensure that a through street, parallel to the Great Eastern Highway, is created between Lloyd Street, Helena Street extension and Amherst Road to spread traffic and facilitate local movement.

INTRODUCTION

The Charrette produced three Charrette Design Options, which adhere to the Project Design Brief and can accommodate any of the anticipated use scenarios, including the proposed Police Academy and/or Sports Stadium, two different possible Historic Railway Museum locations, etc. Components of any of the three designs, for a given precinct, can be mixed and matched compatibly to adapt to all known possible combinations of intended uses and opportunities.

In the course of considering how best to locate and accommodate the various intended uses, five distinct site precincts emerged, which are consistent across the three Proposed Charrette Designs. One precinct is the land south of the Helena River, and the other four are to its north. The proposed development of the Helena River Linear Park is consistent in all three Charrette Design Options.

Through the enquiry-by-design process, the Charrette Team carefully considered the constraints of the site and possible intended uses in order to minimise their negative impacts on each other and on the site's development feasibility as it evolved with the Project Design Brief. Through this process the Charrette Team worked its way through to these three feasible design options.

THE FIVE DEVELOPMENT PRECINCTS

The site divided into five precincts: four on the Railway Workshops, plus one south of the river.

1. Coal Dam Precinct

This precinct is influenced by the contaminated historic coal dam, which would cost about \$4 million to remove. For cost reasons, it should remain and its impacts mitigated as much as possible. However, its contaminated presence will permanently influence what uses can develop near it. This precinct extends east to the edge of the significant historic buildings.

2. Historic Buildings Precinct

The key historic buildings are located together in one precinct closest to the Town Centre, and uses locating there should capitalise on the preservation and adaptive re-use of these historic buildings.



Simplified Plan of the Railway Workshops Re-development Area showing (1) Coal Dam Precinct, (2) Historic Buildings Precinct, (3) Helena Neighbourhood, (4) Lloyd Industrial Precinct, and (5) Hazelmere Riverfront Neighbourhood

3. Helena Neighbourhood

The so-called 'Helena Neighbourhood' is an area without significant historic buildings, whose contaminated areas can be treated to allow for residential development on them. This area is east of the planned noise impacts of the Perth Airport's proposed future runway 25+ ANEF noise contour, within which new residential construction is not allowed. The Helena Neighbourhood is west of negative impacts from the Sale Yards, Metro Brick (after its impacts buffer zone has been reduced from 500m to 350m because of demonstrated emission reductions) and the proposed Lloyd Street extension, which is meant to accommodate mostly light industrial uses.

This precinct has been identified for predominantly medium-density residential because:

- residential development near the Town Centre is crucially needed for Midland's revitalisation;
- this is the best large area of the site suited for residential development;
- the precinct has potentially very high amenity because of its proximity and overlook of the Helena River, historic buildings nearby, and closeness to the commuter rail system and Midland Town Centre;
- relatively upscale medium-density residential development, in the context of the high amenities this area could offer, is likely to generate higher investment returns to help pay for the site decontamination than other uses which might locate there.

4. Lloyd Street Industrial Precinct

Several factors suggest that the area around the Lloyd Street extension should be industrial. The Lloyd Street extension is likely to carry a good deal of heavy truck traffic to the Hazelmere Industrial Area to the south, which could impact uses along this street. The Lloyd Street Industrial Precinct is affected by the nearby Sale Yards and Metro Brick. Neither use is likely to leave in the short term, so their impacts need to influence new uses within their buffer areas for this next 'generation' of development. West of the Lloyd Street extension only a thin layer of buffer buildings should be incorporated so that maximum land in the Helena Neighbourhood is available for residential development.

5. Hazelmere Riverfront Neighbourhood

Fronting the Helena River to its north, the precinct dubbed the 'Hazelmere Riverfront Neighbourhood' has the potential to become a mostly residential development enjoying the very high natural amenity of the Helena River Linear Park. This extends across Stirling Crescent to the power transmission easement, which was recognised by the Charrette Team as an appropriate northern edge of the Hazelmere Industrial Estate.

Helena River Linear Park (not a development precinct)

The State has recently purchased the Helena River flood plain, and it is hoped that commitments and a time table to develop the Helena River Linear Park will soon be forthcoming. While the Helena River is presently degraded and ignored by many, it could become a quite beautiful, shady sanctuary both for native flora and for park users. It is proposed that public rights of way (probably slow-speed small streets) will front both edges of the forested 100-year flood plain, and provide several crossing points over the river (at least pedestrian).

DEALING WITH THE SITE CONSTRAINTS

As explained below, the site constraints identified above were each able to be addressed effectively, either through site design, technical mitigation measures and/or by where the proposed uses were to be located on the site. In the three proposed design options, most site constraints were dealt with in similar ways, except for certain differences which will be noted.

Access: Site access for all three options is identical. Access is an on-grade crossing with boom gates and electronic 'pedgates' for Helena Street, which then extends directly to the edge of the Helena River Linear Park. Lloyd Street's on-grade crossing is retained and improved with electronic pedgates. Lloyd Street is extended south to cross the Helena River just east of the old inoperative bridge, then across Bushmead Road further south to connect with the Great Eastern Highway Bypass. Access to the west is retained via Amherst Road.

Site Contamination Problems and Solutions:

For all three design options to be explained below, the following approaches and/or solutions apply to the general site.

1. 'Hot spots' of hydrocarbons and heavy metals:

- remove most hot spots;
- cap and contain the larger Plating Shop Site near the Helena River.



Plan showing how three locations of contamination are to be dealt with.

2. Loose fill containing asbestos, metal and rubble:

- remove shallow areas of fill (less than 1 metre deep), which allows residential development in its place;
- build retaining wall against deeper fill along escarpment and cap the contaminated fill with at least a half-metre of clean fill, which forms an elevated linear park amenity along the escarpment and river flat in the Helena Neighbourhood Precinct, overlooking the Helena River Linear Park;
- retaining wall limits area affected by land fill and aims to contain contaminants to prevent them from leaching into the Helena River.

3. Coal dam:

- fence securely and leave as is (especially if used as site for Police Academy), or
- fence securely and cover sloping edges with clean fill to make it safe for recreational use from the outside up to the fence.

Approximate Cost Estimates for Site Remediation

Hot Spots	\$228,000
Plating Shop	\$300,000
Fill	\$319,000 - \$608,000
Retaining Wall	\$800,000
Coal Dam	\$0 - \$400,000
Studies	\$100,000
TOTAL RANGE	\$1,747,000 - \$2,755,000

Revenue from Residential Development Created by Removing Shallow Contaminated Fill **\$338,400**

Site Remediation Approximate Cost Estimates Per Design Option (explained below)

Option 1 & 2 \$1,409,000 - \$1,728,000
Option 3 \$1,809,000 - \$2,128,000

Historic Building Re-use Requirements:

- **Services to Buildings:** For upgrading and/or reinstating the services infrastructure of water, power, etc. to each building, treatment of the Historic Buildings Precinct as an independent infrastructure entity is likely to be the most feasible approach. Services to these buildings should be constructed (or at least committed) prior to releasing the buildings for sale or lease.
- **Building Upgrades to Allow Occupancy:** Re-use and occupancy feasibility studies for some of the buildings have been undertaken, at least partially, by the Government Property Office. To release these buildings most successfully for sale or lease, it is recommended beforehand that all known upgrade requirements and costs, such as asbestos removal, fire sprinkling, internal services, etc., should be quantified for each building separately.

This approach of providing services up to all buildings in the Historic Buildings Precinct, and then positioning each building separately for its own sale or lease, should increase the flexibility and feasibility of the re-use of this precinct. This approach should also enable government to identify which buildings require public subsidy or cross-subsidy in order to catalyse their economic re-use.

Industrial Surrounds:

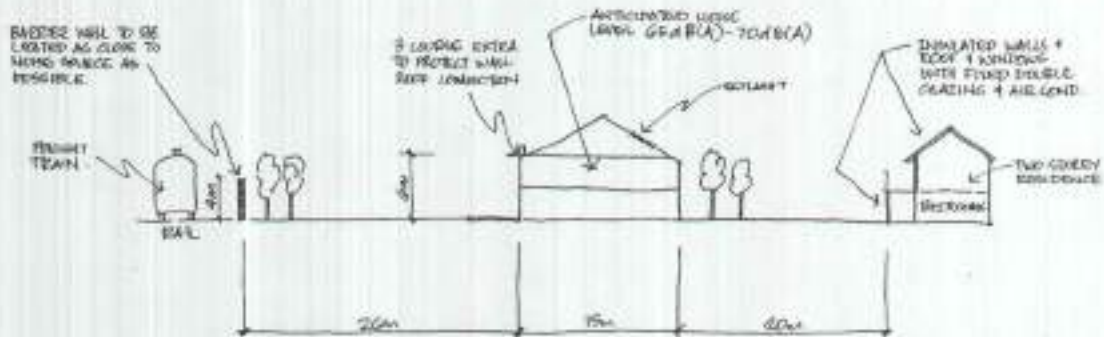
All three design options dealt with constraints of the industrial surrounds by:

1. proposing reduction of Metro Brick's industrial buffer from a 500-metre radius to a 350-metre radius, responding to the current license conditions and recent technical upgrades to the facility which significantly reduce amounts and area of emissions impacts. This should allow non-industrial uses to locate closer to Metro Brick;
2. using the Lloyd Street Extension and proposed light industrial buildings along it to serve as buffers between noise and other emissions to the east and the proposed Helena Neighbourhood west of there (Mid-block compatible use transitions as shown on all plans. These prototypes are explained in *Mixed Use Development -- New Designs for New Livelihoods*);
3. deleting existing zoning on the Railway Workshops, to be replaced as Town Centre mixed use development, which is more appropriate for this key location. There is plenty of industrial land in the Hazelmere Industrial Estate;
4. moving the northern boundary of the Hazelmere Industrial Estate south from Stirling Crescent to the power transmission easement, in order to enable a mixed use and residential development to take advantage of the Helena River and its location close to the Town Centre;
5. ensuring that only non-impacting light industrial activities occur in the wedge of land between the Hazelmere Industrial Estate and the Helena River (that is, the Hazelmere Riverfront Neighbourhood).

Rail Noise Mitigation:

If the freight rail line cannot be relocated in the short term, a design solution to mitigate the noise impacts for residential uses on the Railway Workshops was prepared, using a continuous row of small double-storey workplace buffer buildings combined with sound walls, distance and rubberising of the freight rail tracks. The following designs and performance criteria were prepared with the Charrette Team's acoustic consultant, Mr. Phil Cuttone.

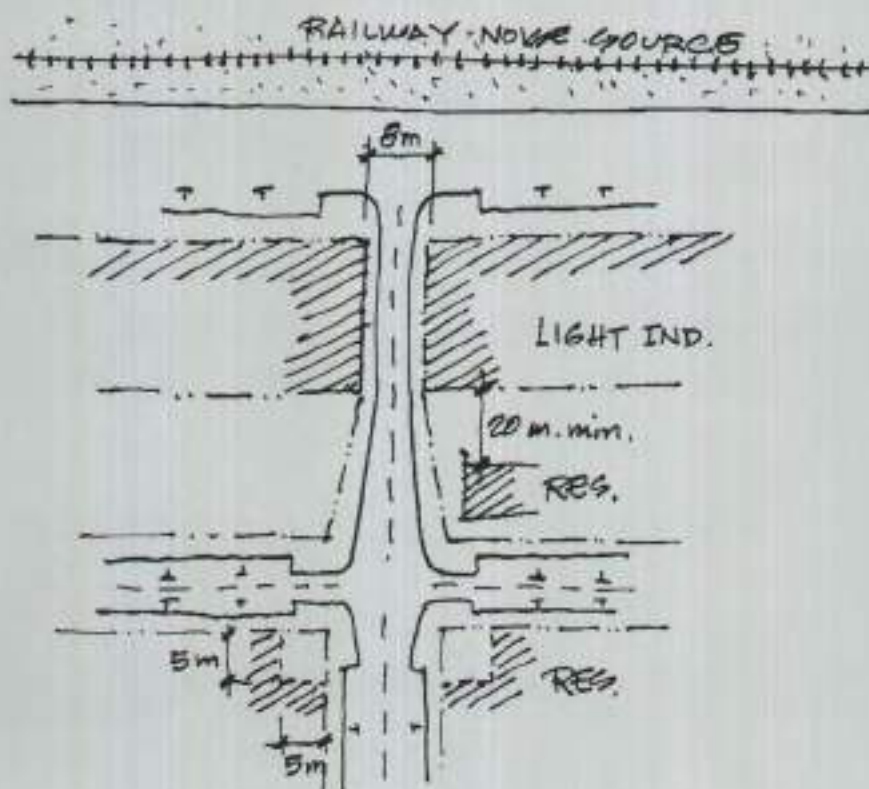
Proposed Design Criteria for the Buffer Buildings



- Minimum height 6 metre-tall masonry wall facing rail noise source,
- Minimum 3-course masonry parapet to protect wall/roof link,
- Office inside building must be located at least 3 metres inside from noise buffer wall,
- Fixed double glazing facing rail = 10 mm glass / 75 mm air gap / 10 mm glass,
- Ceiling of office = 16 mm plasterboard with R 2.5 insulation above.

This arrangement yields background noise inside office of about 55 - 65 dB(A) when train passes (only), which is still above recommended 45 dB(A); advise purchasers or lessees by memorial on certificate of title or on lease documents.

Recommended Disposition of Buffer Buildings at Ends of Street Blocks



Combination of noise buffering measures for residential uses behind buffer buildings alongside the freight railway.

Design & Location for the Half Street Block of Residential Behind Industrial Buildings in plan above:

- Light industrial buildings to return around street block corners to mid-block transition to the residential area. This buffers from rail noise flanking around corners.
- The ends of north/south street reserves, where they connect to streets alongside the railway, should be narrowed to 8 metres-wide, with corner buildings located only 8 metres apart, to limit openings through which sound can reach the neighbourhood. Construct narrowed travel lanes and foot paths on both sides through this 8-metre passage.
- Street corners, on next street back from railway frontage streets, which face the noise source, should have residential buildings set back 5 metres from those corners (see plan above).
- Locate noise-affected wall of residential building no closer than 20 metres from rear wall of industrial building;
- Locate bedrooms behind other rooms, away from rail noise source;
- Building wall and roof facing noise source to be upgraded for acoustical insulation by means of boxed eaves, cavity brick walls, double glazed windows using 10 mm glass - 75 mm air gap - 6 mm glass inside, mechanical ventilation if fixed windows (non-operable), sisalation below roof membrane, minimum R 2.5 roof insulation, minimum 16 mm plasterboard ceiling @ upper floor, flush jointed to walls with surface-mounted lights and mechanical fixtures.

This combination of measures is *only* required for the *first half street block* of residential closest to the noise source. Indoor noise at night may still exceed 25 dB(A). Therefore include this as a memorial on certificates of title. All residential further from the rail noise will have noise levels normally acceptable for residential uses.

- **If Freight Rail Bypass Implemented**

If the freight rail *is* relocated to bypass the Town Centre, then a similar but much more modest buffering arrangement should be utilised to protect residential development from the reduced noise generated by the electric commuter rail and country trains still using the railway.

Aircraft noise contours

The best solution for the sake of the Town Centre and western end of the Railway Workshops is to reposition the flight path of the proposed new airport runway, or require reduced noise levels through operational and technical improvements, so that the 25 ANEF contour does not impact north of the Helena River Linear Park.

If relocation of the noise contour is not possible, then *non-residential* uses within the 25 ANEF noise contour would be permissible (such as Swan Tertiary Centre and proposed Police Academy), but such buildings would need to be acoustically well- insulated and air conditioned. The west end of the site would be unsuitable for the proposed sports stadium because anticipated television coverage of the events would be interrupted unacceptably by aircraft passing overhead.

THREE DESIGN OPTIONS To Address All Known Development Scenarios

Three design options were prepared, many of whose components can be mixed and matched, to enable the Government Property Office (responsible for Railway Workshops) to respond flexibly and decisively to any appropriate user/s, large or small. At least one arrangement among these three design options works effectively and compatibly for every known appropriate use, while preserving compatibility with neighbouring uses.

Three options were required to accommodate the possible inclusion of the two main 'silver bullet' proposals mentioned above -- the Sports Stadium and the Police Academy. Option A shows both; Option B shows one; Option C shows none.

More than one option was also required to show the impacts of the proposed Railway Museum being housed in the different workshop buildings (especially land needed for the rail tracks connecting to the building/s).

The three design options are shown and explained below. Option B is explained first in detail, noting those features which are consistent across all three options. Options A & C will then have only their own unique features explained.



Railway Workshops Design Option B

Design Features Common to All Three Options

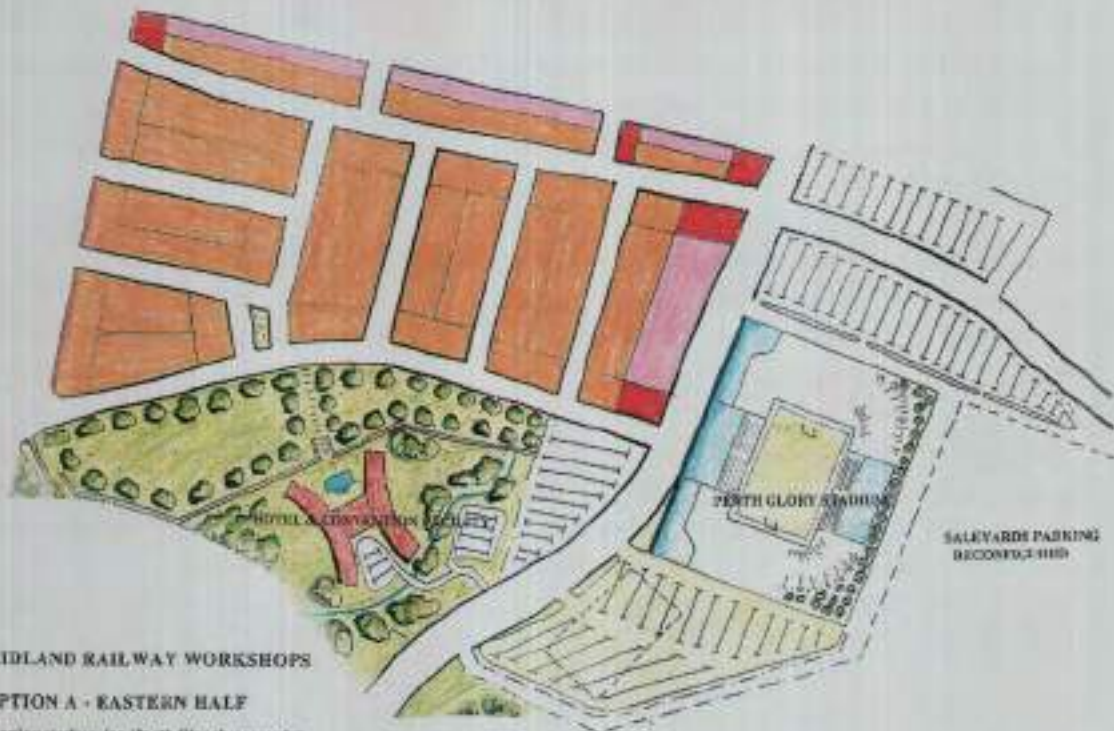
- **Helena Street Extension and On-Grade Railway Crossing.**
The extension of Helena Street via an on-grade vehicular and electronic 'pedgate' crossing of the railway is pivotal to the success of this site.
- **Lloyd Street stays an on-grade crossing and extends directly southward.**
The retention of the on-grade crossing at Lloyd Street is equally important to binding this potential southern half of the Town Centre to its northern half. Boom and electronic 'pedgates' should be installed here.
- **Brockman Station.**
Brockman Station is shown in all options because it seems at this stage to work so well. However, after more careful cost-benefit analyses, Brockman might possibly be deleted in favour of Ferguson Street Station (see Chapter 7.3 above).
- **Helena Neighbourhood.**
All designs for the Helena Neighbourhood show a compatible use transition between buffer buildings along the railway and Lloyd Street, with medium-density high-amenity predominantly residential developments in a street network that optimises views to the Helena River Linear Parkway and takes advantage of the 'river flat park' atop the capped loose fill area (see Contamination response above).
- **Industrial Buildings to Buffer Residential Uses.**
Detailed most completely along the northern edge of the Helena Neighbourhood, similar treatments should be applied along the entire interface between urban development and the freight railway. The Midland Enterprise Centre has expressed interest in developing these buffer buildings as small business incubators along Helena Neighbourhood boundary with the railway.

- **Hazelmere Riverfront Neighbourhood South Of The Helena River.**
This high amenity linear neighbourhood capitalises on the Helena River Linear Park frontage and its proximity to the Railway Workshops, Town Centre and Commuter Rail. It affects a compatible use transition along its southern boundary along the power transition easement between home workshop/residential and the light industrial uses of Hazelmere Industrial Estate.
- **Space For Swan Tertiary Centre To Expand To Its Anticipated Limits.**
Space is accessible for expansion, if need be, of the Swan Tertiary Centre facilities, housing and associated offices in either the Railway Workshops and/or the Town Centre along its Helena Street access.
- **Linking To And Establishment Of The Helena River Linear Park.**
Recently the State Government has acquired or reserved land along the Helena south of the rail yards, as part of the metropolitan parks system. The Helena River is a forested oasis. However it is isolated by the railway workshops, and its image is associated with industry, dust and paddocks of sheep. In summer it rarely flows, and has no evident public access.

All three design options propose the extension of Helena Street south from the Town Centre, across the rail to provide direct access to the Helena River. The plans for the Railway Workshops site front the Helena River with various commercial, community and residential activities, with new streets bounding the Helena River Park. Within the park itself, several paths are proposed to run along and across the stream, with the crossing points possibly constructed as small weirs so some water remains during the summer. Other ideas included adding high fencing around the park and developing it as a haven for emus and kangaroos, but with full public access retained.

Design Features of Option B, Which Are Not Shown In All Options

- Police Academy in the Coal Dam Precinct.
- Rail Museum in the northern large workshop building and half of the middle building, served by tracks. This alternative minimises land consumed west of the building for rail tracks, compared to buildings further south.
- Lloyd Street's southward extension is key to the compatible use transition between the Lloyd Street Industrial Precinct and the Helena Neighbourhood (see page 119).
- Lloyd Street extension is aligned further to the east across the Railway Workshop site in order to maximise residential development area in this precinct. This arrangement slightly increases the length and therefore cost of the Lloyd Street extension, which is expected to be paid for by reciprocal residential development returns.



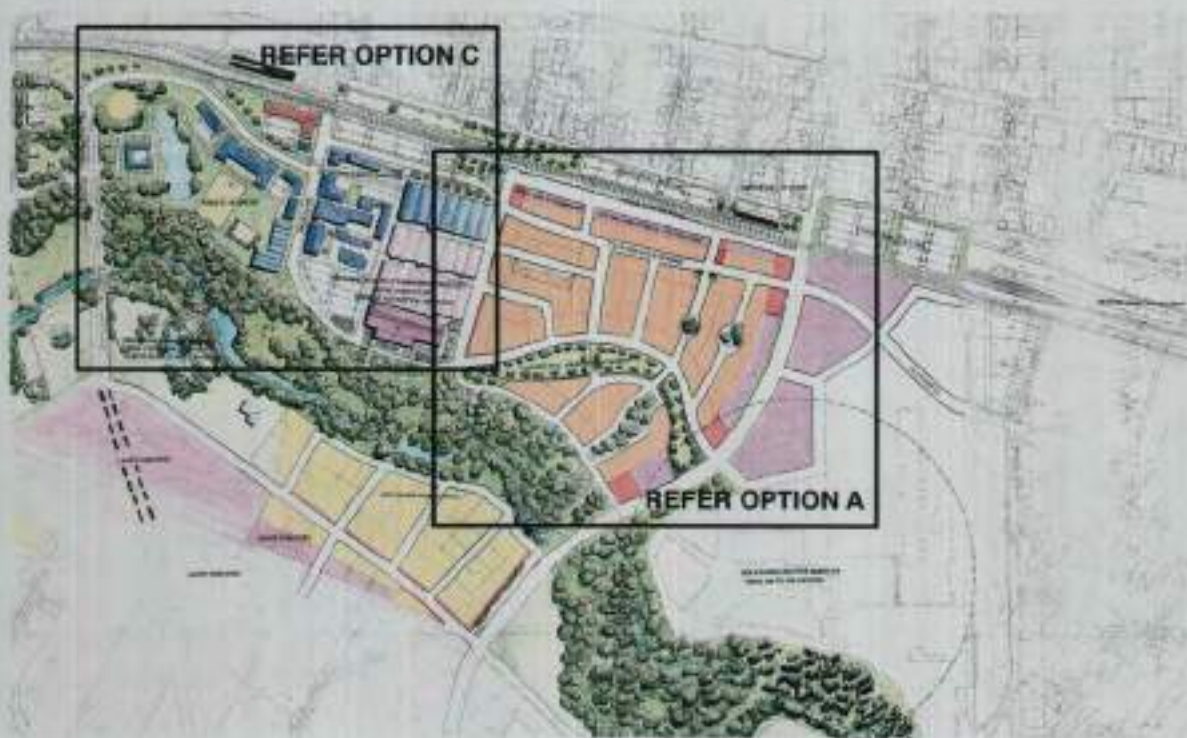
MIDLAND RAILWAY WORKSHOPS

OPTION A - EASTERN HALF

Showing stadium for 'Perth Glory' soccer club, hotel and recreation facilities and medium density residential

prepared for the
MIDLAND REVITALIZATION CHARTER
11-12 September 1997

Railway Workshops Option A



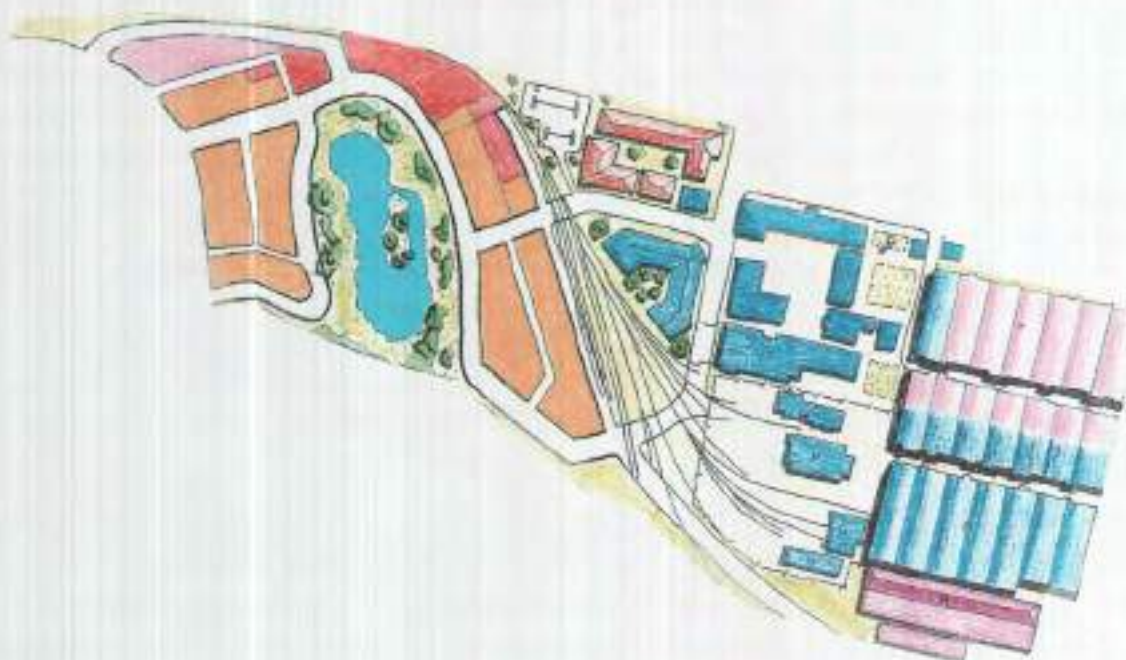
Railway Workshops Options B

Design Features Special to Option A (Both 'Silver Bullets'):

- Police Academy at Coal Dam Precinct,
- Rail Museum occupies northern building as in Option B above,
- Sports Stadium at eastern end near Ferguson Street Station and Park & Rides (replaces the Lloyd Street Industrial Precinct),
- Lloyd Street extension aligned specifically to fit the shape of the proposed stadium to its east.

Design Features Special to Option C (No 'Silver Bullets'):

- Railway Museum in southern building and half of middle building, requiring more land to the west for tracks access, but incorporating better with the other historic buildings nearby.
- Residential development in Coal Dam Precinct (assumes aircraft noise contour relocation), adjusted to accommodate the rail tracks to the proposed rail museum.



Hypothetical Use Layout for Heritage Buildings Precinct in Option C

INTRODUCTION

The potential of the site has been known for some time, but its re-development has not decisively moved forward. The Charrette concluded that to wait for one mega-developer to commit for the whole site was a very limited approach. As an alternative to seeking one mega-developer, multiple developers should also be encouraged to proceed independently on different (or the same) precincts. Site clean-up and other site improvements can proceed precinct-by-precinct as well, allowing a more flexible and opportunistic development approach.

KEY CATALYSTS FOR SPEEDY AND DECISIVE PROGRESS

It will be crucial to determine for each of the following: when to be done, who pays first, who implements it, how are costs to be recouped through development?

Fix the zoning ASAP: The Railway Workshops site is presently zoned Industrial. It may take about a year to change this zoning to suit the recommended uses which most benefit the Town Centre and Midland. This rezoning process should commence immediately and be expedited in any way possible, so that potential developers do not have to face this delay, and to increase the underlying value of the property. The Metropolitan Region Scheme (MRS) needs to be changed, which may statutorily require an Environmental Impact Statement (EIS). Such an EIS should be structured in precinct components to facilitate precinct-by-precinct clean-up rather than a site-wide giant clean-up, and hopefully pre-approvals could be granted, conditioned upon subsequent clean-ups prior to occupation permits. The Shire of Swan will also need to adjust its municipal zoning to facilitate appropriate and speedy redevelopment.

Helena Street on-grade crossing: Expeditiously assess why this has not been approved, address impediments if feasible and appropriate, and hopefully commence construction as soon as possible.

State Commitment To Commence Upgrading Helena River Linear Park: Now that the State has acquired these lands, and because they are already part of the State's System 6 habitat priority, hopefully the State can commit funds and commence improvements to this park, which is so key to Midland's revitalisation and especially to the successful redevelopment of the Railway Workshops Precinct.

Midland Enterprise Centre Buffer Buildings For Residential Development Behind: The Charrette Implementation Task Force should work with the Midland Enterprise Centre, the Government Property Office and Westrail to implement the rail-side street and subdivision for these buildings, as well as work to facilitate financial arrangements with banks. The other noise mitigation measures should be commenced with these buffer buildings, in order to help ensure and catalyse development of the Helena Neighbourhood.

GOVERNMENT INITIATIVES RECOMMENDED FOR EACH PRECINCT

Listed here, for the five Railway Workshops Precincts, are the likely specific government initiatives needed to trigger their development, potentially involving multiple and diverse owners. Each precinct should be encouraged to proceed independently of the others.

1. Coal Dam Precinct

Either the Police Academy should commit, or some other 'silver bullet' user should be found and attracted to the precinct, or else mothball this precinct until the future airport runway noise impacts relocation has been resolved, so that residential and mixed use development in this precinct can go forward.

2. Historic Buildings Precinct

The following government initiatives should be carried out, roughly but not necessarily in the following sequence:

- construct the Helena Street extension down to the public Helena River frontage;
- site clean-up for that precinct (best done by government, spot by spot) and provision of services up to all building;
- determine which building/s, if any, should house Railway Museum after site remediation, servicing and occupancy costs are better known for each building;
- promote comparable developments, especially the Sacramento Railway Museum including how it catalysed revitalisation of adjoining historic 'Old Sacramento'.
- promotion of and competitive bids for re-development of workshop buildings;

3. Helena Neighbourhood

The following government initiatives should be carried out, roughly but not necessarily in the following sequence:

- establish the existing roadway along north side of historic buildings as a dedicated public street connecting to the Helena Street and Lloyd Street extensions, so that subdivision of the Helena Neighbourhood can connect to a public right of way and thereby be legal and saleable;
- site clean-up for that precinct may be done by private developers or by Westrail;
- rail noise mitigation (or freight rail bypass);
- formally reduce Metro Brick's residential buffer from 500m to 350m radius;
- make decision on Brockman and/or Ferguson Street Station/s. Brockman Station will promote both Railway Workshops development as well as development between station and Midland Gate to the north, which is an important area of relatively large lots with redevelopment potential, whose new population would greatly help the Town Centre and support the commuter rail.
- resolution of Lloyd Street extension, route, funding and timing;
- design and financial tender package for release of land for medium-density residential development.

4. Lloyd Street Industrial Precinct:

- Lloyd St extension: resolve who will do it and when, and decide whether to build it to the Helena River or across to Stirling Crescent south of river as first phase, in order to:
 - enable development of light industrial buffer buildings along west side of Lloyd Street extension to buffer the residential development within from road and industrial impacts from the east;
 - facilitate more direct extension of Clayton Street east across the Railway Workshops as local parallel route alternative to Great Eastern Highway, connecting at Helena Street extension.
 - provide another route for industrial traffic to Hazelmere (if built to Stirling Crescent in first phase).

5. Hazelmere Riverside Neighbourhood

- rezone area unaffected by 25+ ANEF aircraft noise contour and west of Whiteman Street to urban under the Metropolitan Regional Scheme and the Town Planning Scheme;
- consult with owners to encourage residential development near the River, and mixed use live/work developments fronting Stirling Crescent;
- prepare a Design Brief to guide development generally in accord with the Charrette;
- construct Lloyd Street extension across Helena River;
- resolve Helena River Linear Park development commitments/time table.

10. LINKING TO THE SWAN • WOODBRIDGE LANDING & NEW REGIONAL PARK

10.1 INTRODUCTION

This Charrette proposal was not contemplated before the Charrette began. It emerged instead as a result of stakeholder interaction during the Charrette. Therefore, no preparation took place beforehand, such as gathering site information or contacting potentially affected property owners. There may need to be, therefore, more consultation with related property owners to consider the following proposal.

The Charrette commenced with most stakeholders expressing the need to connect Midland better to the Swan River, but with virtually no one having any concrete ideas as to how to achieve it...that is, except for Graeme Harris of the Midland Chamber of Commerce and Industry. During one of the open design sessions at the Charrette Studio, he proposed a canal from the Swan to the Town Centre. At first it seemed too far-fetched, but the Charrette Team tested the idea by design, and it began to make more and more sense. An important opportunity seems to have emerged for a major recreational area on the Swan, supported by tourist and residential development, which could:

- rehabilitate the confluence of the Blackadder Creek with the Swan, which has been degraded by a tip site,
- add a secondary channel to the Swan to bring tourist ferry service to within 700 metres of the Town Centre,
- establish a new natural habitat park on the island formed by the new channel, and an active recreation park in areas which would not negatively impact the rehabilitated Blackadder Creek,
- fund the project at least in part from the profits to be derived from an up-market new development on an area outside the designated floodway.

10.2 SITE DESCRIPTION AND INFLUENCES

Site Area Description

The area involved is a large mostly flood prone area of about 90 hectares along the Swan River including Ray Marshall Park, a former municipal refuse disposal site. The northern portion of the area consists of unfilled flood plain previously used for grazing which includes about 12 hectares of land not designated as floodway by the Waters and Rivers Commission.

10.3 PROJECT DESIGN BRIEF

Analysis of the area, in combination with broad stakeholder input, resulted in the following Project Design Brief to guide the Charrette and any subsequent adjustments to it:

- the confluence of Blackadder Creek and the Swan should somehow be restored to a more natural condition, and the portions of Blackadder Creek which run through Midland as drains should be rehabilitated and be made available for public use;
- any contamination from the tip should be either removed and/or contained so that it no longer poses a danger to the environment or people near it;
- Midland should link better to the Swan River, improve its street connections, capitalise on opportunities for public vistas, and incorporate a tourist ferry service to Perth's CBD if feasible;
- new development on the fringes of the park should front public streets along the park boundary and have their frontage facing towards the park;
- if displaced by connections to the Swan River, oval facilities in Ray Marshall should be replaced somewhere within the overall park development;
- the new regional park should contain natural areas, informal parkland, water-based recreation and entertainment opportunities, and limited additional active sporting areas;
- such a project should be relatively self-funding if technically feasible, if it is to be undertaken, which may require development on limited areas on land presently earmarked for public parkland.

10.4 PROPOSED CHARRETTE DESIGN

The design proposes a new approximately 75-hectare Regional Park, links the Town Centre and the Swan River, introduces a river ferry service to Perth, rehabilitates degraded Blackadder Creek and its confluence with a new native habitat island park and more active sports fields, and develops new upmarket residential development close to the Town Centre and river, which should substantially help the financial viability of the project.



Proposed Plan for Woodbridge Landing

Construct A New Channel Of The Swan To Meet Blackadder Creek

A new channel loop in the river is proposed to be constructed, through which part of the Swan would flow. This loop could form a new confluence site with Blackadder Creek. The creek is proposed to be rehabilitated upstream of this new confluence with native habitat, with a dual-use path to link to the district pedestrian cycle network. Residential development presently backs onto the Blackadder Creek drain reserve. This condition of backing onto the reserve should be re-oriented to *front* the reserve as redevelopment occurs.

The existing Blackadder wetland, which is much valued by the local community, is proposed to be rehabilitated to provide more habitat for wildlife. Nutrient stripping facilities would need to be constructed, including the possibility of lagoons to strip nutrients from the Viveash estate's storm water which currently drains onto the flood plain. A wildlife and Aboriginal interpretive centre with boardwalk and trails across and around the wetlands should also be constructed. This facility should attract both locals and tourists to Midland.

Create a new island park mostly for native fauna and flora

The new river loop forms a large new approximately 16-hectare island on the Shire land and council reserves, which is proposed to be developed as a limited access native habitat park. One or two pedestrian-only bridges would connect to this island for hikers and birdwatchers, and to access a possible fitness track. A 'super playground' facility including a skate-board ramp might be located on the island, to be used by Midland's youth, as well as to attract visitors from elsewhere. Appropriately designed gates should be installed at the bridges to limit access to the island from domestic and other predatory animals.

Locate a ferry landing and marina within 700 metres of the Town Centre

A ferry landing is proposed at the end of Poynton Avenue, located a 700-metre walk from the Town Centre. Serving both tourists and possibly commuters, the ferry would hopefully link into a system being contemplated by the State to link Perth's CBD with key points upstream. A small public marina should be incorporated within the constructed river branch. Cafes, restaurants, overnight accommodation and other facilities should complement the ferry landing, all with public frontage to the river channel. A tourist ferry service already operates upstream to Sandalford Winery, calling at Woodbridge House, slightly downstream. Woodbridge Landing could be another point of call for tourist ferries allowing them to also visit the wetlands and interpretive centre and Midland's railway heritage. This would present the opportunity for overnight stays in Midland with additional income generation for the Midland community.

Construct more active recreation facilities

Active sporting fields are proposed on those areas of the flood plain within ownership of the Western Australian Planning Commission, which would not negatively impact upon the existing and introduced native habitat. Ray Marshall Park facilities, displaced by the new river channel and the island it forms, are to be re-located with a new pavilion 300 - 500 metres to the north on the flood plain, and accessed from the new perimeter streets. Public paths should extend along the river's edge to Guildford and to the Middle Swan Bridge if public access arrangements can be acquired or negotiated.

Develop upmarket housing close to the Town Centre

A new public perimeter street is proposed along most of the southern and eastern edge of this new regional park. This new street provides much improved public access to and overlooking of the new park. The street introduces new developable upmarket lots above the floodway which would back onto the present private lots of Woodbridge and along Elvire Street, and which would generally not unreasonably block views toward the Swan from those existing more elevated properties. Some of the existing private properties along Harper Street are at least partially beneath the flood level or on unconsolidated refuse fill, and this roading project could result in the filling of the rears of such properties as part of an overall scheme with Shire-owned properties, in return for commitment from those properties to redevelop in ways that comply with the Project Design Brief.

A relatively dense and up-market new mixed use development is proposed on the existing approximately 12-hectare 'island' above the designated floodway on land owned by the Western Australia Planning Commission. It has a small mixed use neighbourhood centre of its own, focusing on the River and Park amenities and providing daily convenience goods for that new 'island' neighbourhood. Upmarket accommodation, which Midland lacks at present, could be built on this 'island'.

This land along the park perimeter and on the flood-free 'island' should be deleted from the regional park to become private properties, and in return its development should help fund the whole project. These new relatively affluent residents with plenty of expendable income should help to invigorate the nearby Town Centre.

Residential developments help pay for the project

Returns from these residential developments along the perimeter street and on the existing flood-free 'island' have been preliminarily estimated to make a major contribution toward paying for most of the improvements for this entire project.

Infrastructure Costs and Returns 'Guesstimates'

The Shire of Swan has on record the calculations generated during the Charrette on the costs of improvements and possible returns from this project. Anyone interested in developing this project or investigating its feasibility may be well-advised to study these notes (see Bibliography).

10.5 IMPLEMENTATION & TIMING

This development is causally independent of the rest of the Charrette Proposals, although its presence would greatly benefit other areas of Midland, especially the Town Centre. Therefore, it could commence at any time.

Design refinements and more thorough quantifications of the costs need to be prepared, to verify the technical and development feasibility of the project.

The properties for this project appear to be entirely owned by the state and the shire. A joint venture between the two, with a development implementor, seems appropriate.

11. ENHANCING MIDLAND'S NEIGHBOURHOODS

As outlined in the section on Sub-regional Structure, Midland is not presently supported by a cluster of strong local neighbourhood centres. Strong and supportive neighbourhood centres serve many functions that collectively can help, rather than compete with or threaten Midland's Town Centre.

Features Of A Strong Neighbourhood Centre

A strong local neighbourhood centre:

- provides local daily needs and services such as convenience shops, child care, other community facilities, a public transport stop, some local service businesses and a nearby primary school shared with other neighbourhoods within reasonable proximity to the neighbourhood's residents and workers;
- has a sufficient local population of residents and workers to support these local facilities;
- limits the need for excessive car travel to undertake daily tasks, reducing congestion from unnecessary local trips on main roads to and through the Midland Town Centre;
- supports those without access to a car; and is safe, efficient and attractive for local walking and cycling trips, usually by each centre serving an area of around 50 and possibly up to 200 hectares (400 to 800 metre radius equivalent to a 5 to 10 minute walk);
- provides housing choice, particularly for young adults and the elderly, through a variety of denser than average housing types;
- provides opportunities for local small businesses, including home-based businesses, to start and grow;
- provides a strong sense of local identity and community focus, which helps encourage people to shop, recreate and possibly work in the Midland sub-region;
- is located on relatively major through-streets and is well-connected to the Midland Town Centre and to adjoining neighbourhoods.

The Charrette Outcomes identified opportunities to strengthen many of the existing neighbourhoods; to re-locate or extend some that are relatively weak because of their poor location relative to their catchment or to the street system; and to add more centres to serve those neighbourhood 'catchments' without their own centres.

This section describes the proposals for strengthening the six neighbourhood centres that were investigated in some detail during the Charrette.

11.1 MIDVALE NEIGHBOURHOOD ENHANCEMENT

INTRODUCTION

The Neighbourhood

The Midvale neighbourhood centre is very well-located to the immediate east of the Midland Town Centre. The neighbourhood is an older part of Midland. Midvale has been built as predominantly public housing, in the form of detached dwellings on relatively large lots. The neighbourhood centre is on Hooley Road and contains a few small shops. The primary school is just to its north.

Why The Charrette Investigated Midvale

This area was investigated because it has a significant redevelopment and amenity enhancement potential, and because it is not well-linked to the Town Centre despite its physical proximity. Most redevelopment opportunities exist on public housing lots being sold off in groups of one to four by Homeswest, the Government's housing authority and a sponsor of the Charrette.

Post-Charrette Design Revisions

During the Charrette, designing focused on preparing typical development prototypes for possible lot combinations that may become available, and provided only a few site-specific solutions for those sites immediately surrounding the neighbourhood centre. After the Charrette, more input was received from Homeswest on which lots were for sale and which of those lots contained houses that would be demolished. The Charrette designs were then refined to illustrate specific redevelopment concepts across much of Midvale. These designs and their contexts are explained below.

SITE DESCRIPTION AND INFLUENCES

The Area of Midvale

The Midvale neighbourhood area is quite strongly defined and identifiable. Midvale is clearly bounded by the major roads of Roe Highway on the east, Morrison Road on the north, Great Eastern Highway on the south and Lloyd Street on the west.

Midvale is distinguished by its relative predominance of public housing, and characterised by its right-angled grid of streets.

Midvale appears relatively secluded from most passers'-by on the major arterials bounding it of Roe Highway and Lloyd Street, because development of the residential community within generally walls itself off against these arterials.

Street Network and Access Problems

- Gigantism of Midvale's Street Blocks

Along with very large house lots (see above), Midvale has extremely large street blocks, averaging 100 metres-deep by 350 metres-long, all of whose long axes run north/south, and with Hooley Road the only east/west street. Therefore, despite the fact that the streets are interconnected, the very long street blocks make walking distances relatively onerous. More ideal walkable street blocks would be about 70 metres-wide by 140 metres-long, yielding a much more permeable street network with more direct routes, especially for targets diagonal to the street grid. More east/west streets would help to redress this difficulty.

- Frontage along Lloyd Street: Poor Link from Hooley Road to the Town Centre

Hooley Road is badly needed as an east/west street because it is Midvale's only such street, but Hooley Road fails to reach and cross Lloyd Street efficiently to carry either vehicular traffic or pedestrians directly across toward the Town Centre. Vehicles are funnelled south onto the Great Eastern Highway or north into Morrison Road, which is a relatively congested and longer route than via The Crescent.

A narrow walkway via a public reserve connects onto Lloyd Street at The Crescent from Midvale, but again there is no safe pedestrian crossing here. Development along this part of Lloyd Street backs onto it with back fences, and there is no footpath on that side of Lloyd Street.

- Back Fences Along Roe Highway

Vacant rears of residential lots back onto more than half the length of Roe Highway along Midvale, lining the highway with back fences and preventing these properties from deriving any gain from their exposure to passing trade on the Roe Highway. The view from along Roe Highway of these back fences is rather bleak.

- Access and safety along Great Eastern Highway

The length of Great Eastern Highway between Lloyd Street and the Roe Highway is mainly a strip dedicated to through traffic and car-based commercial uses. Most of the intersections along this part of the Great Eastern Highway are "T" intersections, which encourage through traffic over north/south cross traffic, and make right hand turns in and out of Midvale unsafe.



Typical View looking east along the Great Eastern Highway

This stretch of the Great Eastern Highway suffers a relatively high vehicular accident rate and bad pedestrian safety and amenity. One main cause of accidents appears to be motorists turning into the many carparks via their driveways along the Highway, at numerous relatively unpredictable points between intersections.

There is no traffic light for 1.25 kilometres between the Roe Highway and Lloyd Street. It is generally not safe for pedestrians to cross anywhere along this length of the Great Eastern Highway. The walking experience along either side of it is quite bleak, as well. Pedestrians on the footpaths experience high volumes of fairly high speed traffic on the highway side, with no on-street parallel parking between the footpath and the travel lanes to act as a buffer. Along the non-highway side, pedestrians are greeted by fairly large car parks in front of businesses.

Therefore, along with carrying high volumes of traffic and supporting highway-based businesses along it, the Great Eastern Highway acts as a divider, or barrier, between the areas to north and its south, both for pedestrians and for local north/south traffic. Access to bus stops is similarly constrained.

- **Ferguson Street As Possible Main North/South Link Across Great Eastern Highway**

Ferguson Street was identified as a possibly important north/south link, if better north/south connections were found to be needed. Because the Charrette Team was contracted to investigate the possible extension of commuter rail service beyond Midvale Station, Ferguson Street was noted as a possibly key access route to a station associated with Midvale.

Character of Development Along the Great Eastern Highway

Development along this stretch of the Great Eastern Highway is set back from the street, with on-site parking in front accessed from driveways directly onto the highway.

Main Roads is contemplating imposing a 5 metre-deep set-back on the south side of the Great Eastern Highway. The businesses along here are doing reasonably well, as they capitalise on the passing traffic.

Commercial properties along the Great Eastern Highway generally abut residential properties inward from the highway.

Redevelopment Challenges Regarding Compatibility with Existing Properties

Most potential redevelopment sites are scattered amongst privately owned detached houses. Therefore, just about any redevelopment site in Midvale is likely to have one or more neighbours, for whom compatibility between the proposed redevelopment and their properties may be an issue.

The Charrette Team's contracted brief asked for representative redevelopment prototypes for Midvale, based on a small fragment of Midvale, rather than a complete and comprehensive plan for all of Midvale. The end result produced was a compromise between a complete plan and a representative 'cameo', as will be explained below.

R-Coding varies

The R-coding for Midvale does not seem ideally to distribute densities across Midvale in a way that supports its underlying neighbourhood structure. The western edge is R60. The rest of the western half is R40. Then east of the neighbourhood centre drops to R20.

Related Studies

Homeswest is currently undertaking a Midvale Landscape Enhancement Study, and has expressed the intention of considering incorporating the Charrette results.

Community Input During Charrette

Despite having some public housing 'stigma', Midvale is seen by many local people as a good area for older people to move to upon retiring. Many retirees, looking to downsize into new units, are moving in from both the Midland area, as well as from suburbs a little closer in to Perth, such as Dianella. Because new units in Dianella currently sell for more than the old houses there are worth, aging Dianella residents wanting to sell their older family houses and re-locate to lower maintenance smaller 'retirement units' must look further out (ie Midvale) to find units whose cost does not exceed the returns from the sale of their family homes.

The proximity to Midland Town Centre and the sense of community offered by Midvale's neighbourhood centre are seen as assets, with housing costs still seen to be reasonably affordable.

Other comments concerned the new park, which some saw as too small and bland.

While some of the businesses on Great Eastern Highway wish they could expand, some traders reported difficulty when attempting to acquire adjoining residential lots to expand onto, even when these lots were vacant.

Major Stakeholder Input During Charrette Relevant to Midvale

The Department of Transport suggested the possibility of extending electric commuter rail service beyond the Midland Station, possibly as far as Bellevue. Therefore, the Charrette Team paid special attention to possible station sites and existing urban fabric that might support such stations.

Homeswest indicated to the Charrette Team that many of the remaining publicly owned dwellings were in poor condition and were planned to be demolished, while houses in good condition were planned to be left in place (but possibly sold off). Homeswest did not report having a firmly set plan for disposal of their lots. Homeswest lots for sale appeared to be fairly randomly scattered across Midvale.

The Shire of Swan expressed the hope of upgrading and diversifying Midvale, while retaining affordability and without unreasonably impacting those living there now.

Good Potential Despite Present Shortcomings

Despite the shortcomings noted above, Midvale has considerable potential. It is very well located in relation to the rest of Midland. It has many redevelopment opportunities (although many of them are relatively small in size). Present land prices seem to be relatively low, compared to infrastructural and locational advantages.

PROJECT DESIGN BRIEF

A complex Project Design Brief evolved for Midvale, born of stakeholder input and the precinct itself. Proposals for Midvale should stitch together many if not all of the following objectives (during the Charrette and for proposals thereafter):

- **Improve the overall amenity and image of Midvale**, through improvements to its public streetscape, parks and private properties (existing and new), in order to increase the resident/worker density and diversity of the neighbourhood.
- **Improve and increase vehicular and pedestrian linkages, throughout the neighbourhood and into adjoining areas**, in order to reduce travel distances and demand and to increase walkability and improve access to public transport;
- **Attract and capitalise on a possible commuter rail station to the south**, by ensuring good links to it, and by locating the station advantageously to serve Midvale, in order to reduce car-dependence in Midvale through improved public transport.

-
- **Enhance and intensify Midvale's Neighbourhood Centre and its surrounding properties including the park**, to increase the economic and social viability of the neighbourhood by attracting new residents and businesses to interact with and be served by the Centre.
 - **Enable businesses along Great Eastern Highway to strengthen**, by facilitating their acquisition of adjoining vacant residential properties to accommodate their expansion, and possibly by enabling them to redevelop closer to the present street, while relocating their on-site parking to the deepened rears of their properties.
 - **Capitalise better, if possible, on the Roe Highway frontage**, to enable properties along it to take advantage of passing trade, possibly by construction of a service road in the highway reserve, onto which these properties might develop a business frontage;
 - **Ensure compatibility between new redevelopments and existing properties**, so that the overall amenity, diversity, vitality and compatibility of the neighbourhood can rise along with its resident/worker densities.
 - **Prepare designs and implementation approaches that attract profit-driven private development proposals to help implement the above objectives.**

PROPOSED CHARRETTE DESIGN

The Charrette Design shows a coordinated suite of proposals to meet the above Project Design Brief. Several of the proposals are indicative of how redevelopment might take place on the sites shown or elsewhere in the area, while other proposals are much more pivotal to the success of the area, such as development fronting the small park.

Enhancement and Intensification of Midvale's Neighbourhood Centre

In order to catalyse as well as to feed off incremental redevelopment throughout the rest of Midvale, improvements are proposed to the Centre itself and virtually every adjoining property, as noted below:



Sketch of improved park

- Infill shops

Gaps between existing shops are proposed to be filled by new premises for retail, community or commercial uses. These buildings could incorporate stairs from front and rear to upstairs premises both above themselves and possibly accessing upstairs improvements to adjoining buildings, assuming their structures can accommodate such.

- Homeswest/Joint Venture Group Dwellings or Medium Density Housing Developments On Private Lots Enfronting and Framing the Park

Terrace-style two-storey buildings are proposed on three sides of the park (west, south and across Wellaton Street), to frame the space of the park to make it more special, and to provide casual surveillance of the park from building occupants. These robust buildings would ideally accommodate small offices or home-based businesses on their street levels, with residences upstairs.

Some of the parcels shown are owned by Homeswest, while others are in private ownership. Suggestions for implementation are explained below.

Streetscape Improvements to Key Streets

Streetscape improvements, focusing on street trees, are proposed as shown along key routes connecting the Centre with adjoining neighbourhoods and the proposed Ferguson Street Station to the south. The Homeswest streetscape study is examining this possibility in further detail.

Intensification of the Neighbourhood in Conjunction with Increased Permeability

To open up the standardised 1000 sqm lots to more intensive redevelopment and simultaneously to improve permeability throughout the neighbourhood, several new small east/west streets are shown in under-developed areas, to be enfronted by attached terrace housing and/or group housing. The streets are shown in locations where public housing lots abut and thus provide potential for a link as part of the redevelopment.

The design concepts drawn for each group of lots have been carefully laid out and drawn in terms of likely impacts of setbacks and massing on the adjacent neighbours and on the streetscape, while achieving density and diversity. An indicative location for the garage and private open space for each dwelling is shown to illustrate how street fronts can be largely free of high walls and garage doors.

These new buildings should be linked in character with the existing traditional detached dwelling style by respecting front garden character, roof styles, avoiding high front fences, and street fronts dominated by garage doors or carports. The *Victorian Good Design Guide* may be a useful document to consider for guiding such redevelopment.

New Hooley/Lloyd/Crescent Junction Providing Direct Access to Town Centre

An ambitious and important connection is proposed to link Midvale much more directly to the Town Centre, both for pedestrians and vehicles. The design requires co-operation of several private owners, across whose partially vacant property a new street link is proposed between the western end of Hooley Street and the intersection of The Crescent and Lloyd Street.

To achieve the proposed direct street connection, at least one existing house must be removed. The arrangement to implement this design would require adequate compensation to all affected land owners. The orange-coloured area indicates a relatively dense redevelopment, which respects all existing buildings seeking to remain, but develops the backyards jointly.

This design would transform what is effectively a barrier between Midvale and the Town Centre along Lloyd Street into an inviting and vital entrance to Midvale and connection to the Town Centre.

A much less satisfactory solution to connect Midvale better to Lloyd Street is to convert the existing 10 metre-wide walkway into a street.

Key connection to proposed Ferguson Street Station

If the proposed new commuter rail station at Ferguson Street goes forward, Ferguson Street will become all the more important to Midvale. The proposed Sub-Regional Plan shows this important linkage between the station and Midvale's Centre. With the station, Ferguson Street may become a feeder bus route, carrying passengers to the station from points as far north as Eddie Barron Drive and the Velodrome.

Many of the proposed redevelopment sites appropriately line Ferguson Street. A new commercial building is proposed right on the corner of Ferguson Street and the Great Eastern Highway to celebrate this corner and the increased importance of this intersection, which should be signalised when the station goes in.

Lights are proposed at Ferguson Street and Great Eastern Highway, to provide a safe pedestrian crossing point, access to the Great Eastern Highway bus stop, and bigger breaks in traffic to aid right-turning vehicles along the Great Eastern Highway.

Expansion Of Great Eastern Highway Businesses And Other Localised Employment Opportunities

The design proposes the redevelopment of several residential lots on the northern boundaries of properties along the Great Eastern Highway, in order to enable those businesses to expand and to accommodate more parking behind them on those residential lots. This could take place as outright purchases by the businesses or possibly as joint ventures between the lot owners and the businesses, if only the back yard area is needed for parking. Compatible use transitions should be ensured between the commercial activities and the residential uses deeper into the neighbourhood. Examples of such use transitions can be found in *Mixed Use Development – New Designs for New Livelihoods*.

IMPLEMENTATION & STAGING

It is important to review R-Coding to ensure that the typical prototype layouts can be built from a statutory standpoint. This will mainly involve increasing the R-Code east of Ferguson Street to about R40.

Homeswest should urgently remove from individual sale any lots in the group of lots shown to provide opportunity for east-west mews street links, or which could better be redeveloped as denser, more profitable and larger parcels.

Parcels of abutting lots should be prepared for sale or joint-venture with Homeswest with a design brief and development guidelines attached to each parcel, to help ensure that the above Project Design Brief is implemented.

Homeswest-owned residential lots abutting commercial land along Great Eastern Highway should be made available for sale and use for carparking in association with redevelopment and enhancement of commercial frontages.

Homeswest should be encouraged to joint-venture develop its lots abutting the new park as soon as possible.

The Charrette Implementation Task Force should continue negotiations with the landowners affected by the Hooley-to-The Crescent link, to identify potential win/win solutions.

A study to evaluate justification of lights at Ferguson and the Great Eastern Highway in the near term should be undertaken.

11.2 FERGUSON STREET STATION AND SURROUNDING REDEVELOPMENT

INTRODUCTION

As outlined in Section 7.3, the Charrette investigated extending the electric commuter rail system eastward along with finding an appropriate location for a new park & ride facility at a station that would be easily accessible to the Hills commuters. This station also needed to be able to catalyse urban intensification around it to generate good patronage and pedestrian amenity in its walkable catchment and an 'urban village' at the station.

SITE DESCRIPTION AND INFLUENCES

Site Area

The site area of study is bounded by the Great Eastern Highway on the north, the Roe Highway on the east, Lloyd Street on the west. The southern extent of the study area is less well-defined, but it includes the light industrial areas near the railway, the Sale Yards and the older residential areas stretching south toward the Helena River.

Site Description

- A Low Intensity Area of Highly Varied Uses

North of the railway is a mix of older industrial uses, some newer car-based retail outlets, some generally older houses, and extensive areas of undeveloped land, all in multiple ownerships. Individual lots are of generous size (about 1000 sqm) and are well-suited to redevelopment. Businesses fronting the Great Eastern Highway appear to be generally flourishing.

To the south west are the extensive industrial uses of the Sale Yards and Metro Brick. Their location limits the viability of the Ferguson Street Station area and nearby Railway Workshops to redevelop and revitalise. The Sale Yards is often mostly vacant because volumes of stock for sale through it have tapered way off. Metro Brick is a viable and important industry, whose recent technical upgrades have reduced its off-site emissions to make it a much better neighbour. The reportedly reduced emissions indicated to the Charrette that the present 500-metre radius buffer around the factory could be reduced to a 350- metre radius.

To the south east, an older mix of residential and industrial uses co-exist. The Military Markets operates on week-ends.

The older residential area in the south seems to be 'caught between a rock and a hard place', wedged in between the Roe Highway and the Sale Yards. Some of that areas has become light industrial uses.

A key site of about 6 hectares, owned by Westrail running about 600 metres along the north side of the railway is virtually vacant. The shunting yards have not been used for over a decade are not likely to be used again. A 300 metre-long grain silo, leased by CBH from Westrail, is under-utilised by short-term users making such things as bags for grain. Large areas south of the track are vacant or under-utilised, as well, some of which is in Westrail ownership. It was this land that in part led to the proposal to relocate the park & ride to this area.



Plan for site.

- Accessibility from Great Eastern Highway and from the South

The Ferguson Street Station could be accessed well by commuters by means of the addition of lights at Ferguson Street and the Great Eastern Highway. Access from the south and south east via Clayton Street is also good.

- Great Eastern Highway businesses

Businesses fronting the Great Eastern Highway are generally flourishing, but premises directly behind them are generally under-utilised and without much amenity, squeezed against the vacant properties along the railway.

Large Land Owners and Their Dispositions

Westrail owns a key 6-hectare under-utilised site, as mentioned above. This land was recognised as a possible park & ride facility if a commuter rail station were to be located nearby it. Westrail also owns land adjoining the northern vacant tip of the Sale Yards, again suggesting a possible park & ride opportunity south of the railway. The Sale Yards

acknowledged that their commercial viability and operational requirements might justify a possible relocation or consolidation with another sale yards elsewhere, within a decade or so, but not sooner.

Metro Brick has recently done major capital improvements to their facility. It would be hard to justify their relocating any time soon financially. They are a significant and stable employer for the region.

The Charrette Team did not reach the many smaller land owners in the area, whose points of view deserve to be heard by the Charrette Implementation Task Force, as more detailed plans for this precinct are developed.

Midland Design Workshop Outcomes

During the Midland Design Workshop in March of 1997, extensive design investigation occurred testing the possibility of relocating the major park & ride facility further east to the Bellevue bend of the railway. However, results showed there were significant problems of both commuter access and land availability for a large park & ride facility in that area of the bend. Therefore, the Charrette focused its park & ride facilities investigations in the Ferguson Street area.

PROJECT DESIGN BRIEF

A complex Project Design Brief evolved for the Ferguson Street Station area, born of stakeholder input and the precinct itself. Proposals for this site should stitch together the following objectives (during the Charrette and for proposals thereafter):

- **provide a station with good access for car-based commuters with adequate land for a park & ride facility for at least as many cars spaces as presently at the Midland Park & Ride;**
- **optimise viability of extending electric commuter rail service** by improving the urban structure, resident/worker densities and land use dispositions with walkable catchments of the station sites, in order for the area to support further the extension of the commuter rail service;
- **reconcile land use conflicts**, between existing industrial and new residential and/or commercial development by means of compatible use transitions, reduced emissions, etc., in order to increase the overall amenity and viability of the area;
- **minimise the negative effects on the adjoining area from transport infrastructure**, including the barrier effect and noise impacts of the railway and the isolating effect of the Roe Highway and, to a lesser extent, the Great Eastern Highway, in order to increase the amenity and profit-driven incremental redevelopment viability of the area.

PROPOSED CHARRETTE DESIGN

The Charrette Design bases itself on and strives to 'earn' a proposed electric commuter rail station at Ferguson Street. The proposed station site has excellent sub-regional access from points east, north and south. Land for park & ride facilities is by far the most ample of the choices available, and much of this land is already in Westrail ownership. Considerable vacant and under-utilised properties exist and are suited to redevelopment with transit-oriented projects in response to the Station.

Ferguson Street Station and On-Grade Pedestrian-Only Crossing

On a new passenger rail track north of the freight tracks, the station platform is proposed east of Ferguson Street. This station position maximises the walkable catchments both for this station and for the proposed Lloyd Street Station by moving the platforms apart from each other so that their 400-metre catchments overlap less.

While the design appears to show an on-grade vehicular crossing, only an electronically controlled 'ped gate' is proposed to link Ferguson Street across to its southward extension. Electronic 'pedgates' cost about \$150,000, have an excellent safety record, and are generally recommended over pedestrian underpasses or bridges because they are more direct, pleasant and less prone to petty crime such as vandalism or hassling of pedestrians.

The southerly extension of Ferguson Street beyond the railway might also deflect from the crossing slightly (not shown in this plan), so that it could directly connect to the top of Military Road. This more direct and legible routing option would depend on land owner co-operation for the parcels affected.

Park & Ride Facilities Both Sides of the Railway

Park & Ride facilities are proposed on both sides of the railway. The northern one occupies the western half of Westrail's shunting yard. The shunting yard rails are to be removed and possibly re-used for the commuter rail extension. This park & ride can accommodate about 250 parking spaces. The eastern half of the shunting yard is proposed for multi-story transit-oriented development (commercial at street level, secondary commercial and/or residential above). The CBH silo may well be re-used and adapted for further transit-oriented multi-storey uses (or possibly for shaded, secured commuter parking).

The park & ride on the south side is on half Westrail and half Sale Yards (now vacant) land. It can accommodate about 400 spaces.

On-street parking nearby could raise short-term parking capacity for the station still further. Depending on where they parked, commuters could walk to either the Ferguson Street Station, or, if built as well, the Lloyd Street Station.

In the longer term, both park & rides could redevelop to multi-deck car parks which could accommodate many more spaces, or which could serve the same number of spaces on much less land, opening further development opportunities overlooking the station/s.

Signalised Intersection at Ferguson and the Great Eastern Highway

To connect pedestrians, cyclists, cars and public bus access safely and efficiently from Midvale's neighbourhood centre and other points still further north, a signalised intersection on the Great Eastern Highway at Ferguson Street seems imperative.

Incremental Redevelopment of Adjoining Properties

- **Commercial Development Adjoining the Station and Railway and at Great Eastern Highway/Ferguson Street Intersection**

A Ferguson Street Station commitment is likely to trigger a wave of incremental redevelopment within the 400 metre-radius 'pedshed' of the station, as shown on the plan. A small amount of station-based retail is proposed directly adjoining the station, potentially on both sides of the 'pedgate' crossing of railway, but may alternatively focus further up Ferguson Street near or at the Great Eastern Highway.

- **Buffer Buildings and Service Streets Fronting the Railway**

Limited commercial redevelopment and intensification is proposed either side of the railway, in a continuous 'sleeve' of buildings designed to insulate occupants from rail noise and to buffer more noise sensitive uses further into the development from noise along the railway. Service roads are proposed to run along both sides of the railway to maximise access to the station and to give access for buildings designed to overlook these key pedestrian routes to the station, to enhance their pedestrian amenity and safety.

- **Incremental Redevelopment Around the Signalised Intersection**

Signalising Ferguson Street at the Great Eastern Highway is likely to justify incremental redevelopment of the buildings either side of Ferguson Street toward higher-end commercial premises, and possibly neighbourhood retail, capitalising on the traffic exposure and the amenity and access derived of the station.

- **Medium-Density, Predominantly Residential Development**

Extensive incremental medium density housing redevelopments are proposed north of the railway behind these buffer buildings and overlooking the park & ride on the north side of the railway. Such buildings might be two or three storeys, attached, and with small offices or home/offices at the street level. On street parking would be augmented by intra-block and probably private garages accessed off rear lanes for the upstairs residences.

- **New Urban Park on Ferguson Street**

A relatively vacant site is proposed to be purchased and developed by the Shire of Swan as a small urban park, to increase the amenity of surrounding proposed medium density development.

The location of this park is not fixed; it can go in the general vicinity of where it is shown, so long as:

- it has a frontage on Ferguson Street between the Station and the Great Eastern Highway;
- it is fronted on all sides by public streets (a foot path would do on one side if need be); and

all adjoining properties front their buildings to the park and generally build up close to the front property lines.

Clayton Street Extension Into Railway Workshops

Clayton Street is proposed to be extended westward across the northern tip of the Sale Yards and into the Railway Workshops, to link up with the proposed on-grade crossing of Helena Street and the existing Amherst Road on-grade crossing further west. This Clayton Street extension aims to help relieve congestion and accidents along the Great Eastern Highway by providing a secondary parallel route for local traffic, especially from new development south of the railway.

Light Industrial Uses Within Buffer of Metro Brick and Sale Yards

The southern extremity of the 400-metre radius walkable catchment for the proposed Ferguson Street Station is, for the time being, to be left as predominantly light industrial uses (albeit hopefully invigorated with incremental redevelopment). Compatible use transitions between the light industrial and new residential to the north should be ensured by new development controls for the area.

IMPLEMENTATION & TIMING

The key catalyst to the revitalisation of this area is a decision to extend the electric commuter rail service at least as far this Ferguson Street Station. This decision would help ignite profit-driven redevelopment of the Midvale Neighbourhood to the north, as well. The electronic 'pedgate' on-grade non-vehicular crossing at Ferguson Street, plus traffic lights at the Ferguson Street intersection with the Great Eastern Highway are integral to this decision; the one cannot work well without the other two.

11.3 BELLEVUE NEIGHBOURHOOD ENHANCEMENT

INTRODUCTION

The Charrette Team produced a suite of inter-related proposals to enhance the neighbourhood of Bellevue, to give it a stronger centre, to provide a commuter railway station supported by development intensification, to connect it better to surrounding neighbourhoods, and to increase its internal and surrounding amenity. The proposals also identify a route for the possible freight rail bypass.

The proposed design, explained below, works with or without the possible Bellevue freight rail shortcut/bypass. After reviewing this section, readers may refer to Chapter 7.2 for more information about the Bellevue freight rail shortcut/bypass alternative. After reviewing this section, readers may also refer to Chapter 7.3 for further information about the proposed Bellevue Train Station.

SITE DESCRIPTION AND INFLUENCES

The Bellevue Precinct

The area referred to here as Bellevue is roughly bounded by the regional power transmission easement on the north east, the neighbourhoods of Greenmount and Koongamia on the east and south east, the Helena River to the south, and the Roe Highway on the west. Farrall Street/Horace Street is the main central spine of the area north of the railway.

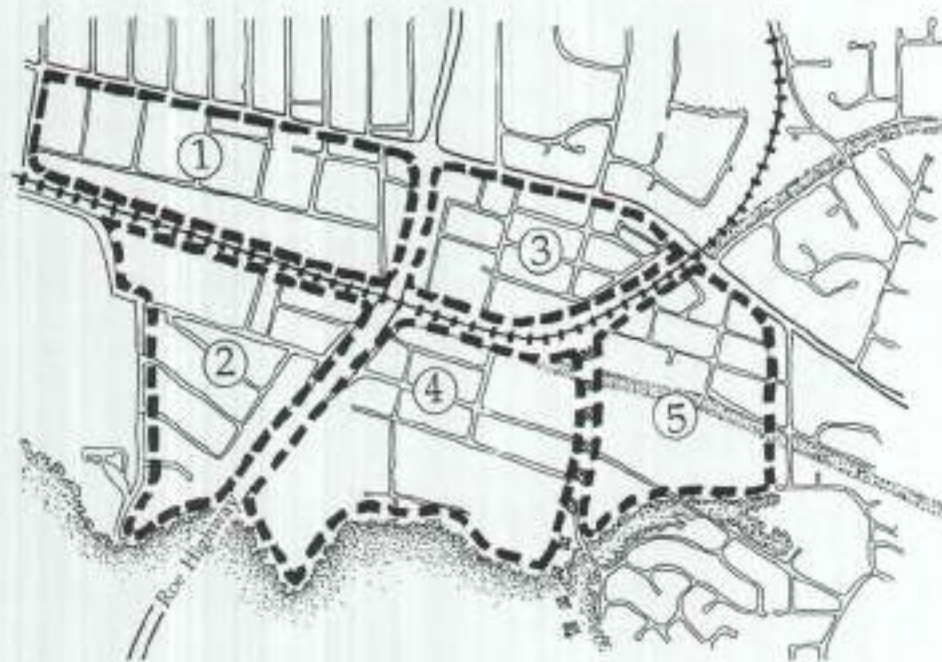
Prior to World War II and the expansion of today's railway and the Roe Highway, the operative neighbourhood of Bellevue was larger, extending west roughly to Military Road and Lloyd Street, and as far north as the Great Eastern Highway.

Expansion of the railway, then construction of the Roe Highway and of the 330 KV regional power transmission easement, plus the increased traffic flows and resultant 'barrier effect' of the Great Eastern Highway, have severely divided Bellevue into five relatively small and isolated fragments, none of which functions very well now, alone or with the other nearby fragments. Each fragment is much too small in area and population to be able to support a mixed use centre of its own, and the five fragments are too isolated from each other to 'synergise' with each other.

These five fragments are identified below:

- Fragment 1: the area south of Midvale bounded by Lloyd Street on the west, Great Eastern Highway on the north, the railway on the south, and Roe Highway on the east;
- Fragment 2: the area west of the Roe Highway and south of the railway, bounded by Military Road on the west, the railway on the north, Roe Highway on the east, and the Helena River on the south;
- Fragment 3: the northern Bellevue area bounded by Roe Highway on the west, Great Eastern Highway on the north, and the bend of the railway on the south and east;
- Fragment 4: the central Bellevue area bounded by Roe Highway on the west, the railway to the north, the regional power transmission easement to the east and the Helena River to the south; and

Fragment 5: the eastern Bellevue area bounded by the regional transmission easement on the west and north west, the Great Eastern Highway to the north east, the municipal boundary between the Shire of Swan and Mundaring Shire to the east, and the flood plain of Elder Creek to the south.



Bellevue's five 'fragments'

This section of this Report pertains mainly to Fragments 3, 4 and 5 above, which we refer to as the Bellevue Precinct. Fragments 1 & 2 were covered in Chapter 11.2.

Precinct Description, Constraints and Opportunities

Several significant negative impacts and difficulties with the urban structure affect one or more of the above five Fragments, as explained below:

- Noise impacts and limits to future development

The flight path of Perth Airport's east/west runway passes over part of this area with the south east corners of Fragments 4 and 5 located within the greater than 25 ANEF noise corridor, in which future residential development is effectively prohibited. The adjacent 20 - 25 ANEF aircraft noise contour, in which new dwellings must be treated for noise insulation, also runs across portions of Fragments 3, 4 and 5.

Fragments 3, 4 and 5 are also significantly affected by noise from the freight trains, especially because the track through the railway bend is slightly elevated.

Fragments 3 and 4 are further affected by noise from the Roe Highway, which is elevated through this area to bridge over the railway.

Noise from the Great Eastern Highway affects Fragments 3 & 5.

-
- Impacts of the regional power transmission lines

The 330 KV regional power lines and their 60 metre-wide easement have limited development near them, especially north of Clayton Street. However, this swath of undeveloped land began to reveal itself as a possible blessing in disguise for the Charrette designers, as will be explained below.

- Isolated undeveloped land as a possible golf course within the airport noise corridor

The regional power easement and a former railway easement which is now parkland in the Shire of Mundaring further cut a corner of land out of the Bellevue neighbourhood, on which development of a new 9-hole golf course is being developed. While the Perth Airport aircraft noise corridor limits this area for new residential development, Bellevue might gain still more amenity from an enlarged 18-hole golf course stretching across a large swath of noise-impacted and undeveloped land.

- Site contamination in Fragment 4

A major contaminated site owned previously by Omex is located just south of the railway bend near a polluted pond. Clean-up for this site, costing about \$7,000,000, has been planned by the State, to a level where residential development could take place on and near that site after the clean-up.

- Street network conditions and impacts across the entirety of Bellevue

While the original urban fabric is one of interconnected streets, construction of the post-war barriers mentioned above severely limit the inter-connectivity of the overall neighbourhood fragments and access to most adjoining neighbourhoods.

Two key roads pass to or through some of these Fragments.

Farrall Road, approaching from the Midvale industrial area in the north, crosses the Great Eastern Highway at a busy but uncontrolled intersection, extending south into Fragment 3 as Horace Street. Unsignalised right turns for westbound traffic from Farrall Road are reported presently to limit the safety of this intersection. It is difficult for pedestrians to cross the Great Eastern Highway here to reach bus stops of either side of the highway. The possibility of installing lights at Farrall Road was being considered by the Minister for Transport at the time of the Charrette.

Bellevue Road also runs south from Great Eastern Highway into Fragment 3, terminating in a cul de sac. Neither of these key roads connects past the railway, and Fragment 3 is indeed quite isolated at present.

Clayton Street is the only through street in the area with even reasonable local access along it. Clayton Street carries a lot of Perth or Town Centre-bound traffic from Greenmount and Koongamia (via Katharine Street) through Fragment 4, whose passing trade supports a tiny bit of retail development, but nowhere near enough to make any part of Bellevue at all self-sufficient even for daily convenience needs.

Some locals described Clayton Street as somewhat congested during peak hours, but this congestion is not as heavy as that on other main roads in Midland and environs. Clayton Street is not traffic-calmed, and its design tends to encourage motorists to exceed the posted speed limit on a regular basis. Indeed, the speed of traffic may be more of an impact than its volume.

The Greenmount grade transitions onto the flat land along this part of the Great Eastern Highway. The horrific accident from about a decade ago is still of concern to many.

- Population and Demographics across the whole of Bellevue

The existing urban fabric is relatively under-populated, compared to its present and future capacity. Shrinking average household sizes within the existing dwellings have led to a reduction in population compared to fifty years ago. Very little new construction has taken place over the recent decades.

Most of Bellevue is occupied by people making less than Midland's average income.

- Local Neighbourhood Services

Local neighbourhood services are scant. The relatively low population and average income makes it difficult for local neighbourhood services, such as convenience retail or small service businesses, to survive on the expendable income of their local neighbourhood alone.

The few retail and neighbourhood services present have located along the major traffic routes of the Great Eastern Highway and, to a lesser extent, Clayton Street. These services are scattered rather than concentrated, so they have trouble affecting a critical mass together.

The Bellevue Primary School is an important asset to the area, albeit tucked away on the southern edge of the site.

More population, higher average family incomes, and better connectivity will be needed before significant improvements to neighbourhood services can build up.

- Natural Amenities

Natural amenities generally include Elder Creek and the Helena River, neither of which has reached its full amenity potential. Much land adjoining the creek and river is presently used for farmland and might be improved as outdoor amenities for Bellevue, such as a golf course. Planting and management of such a golf course would need to involve drought-tolerant non-invasive species and a fertilising regime that does not negatively impact the creek and river.

- **Heritage Amenities**

Much of the urban fabric of this area was constructed prior to the Great Depression and has some heritage value. The Bellevue Primary School, the Mechanics Institute and the Bellevue Homestead with associated rural buildings are of particular importance. Many of the modest early houses have historic character and appeal, which might be celebrated more than is presently the case.

- **Land Values**

Land values are generally lower than other areas of Midland that are better connected, closer to amenities and less divided by infrastructure barriers and related noise.

Land Ownerships and Jurisdictions

Jurisdictional boundaries between the Shires of Swan and Mundaring divide Bellevue. Historically and without negative intent, Bellevue as a priority may have 'fallen between the cracks' due to municipal boundaries.

The general urban fabric is divided into hundreds of separate private ownerships. The Helena River flood plain is Crown Land. The two large undeveloped parcels north of and adjoining Elder Creek and the Helena River are in private ownership.

Midland Design Workshop Outcomes and Resultant Background Studies

The Midland Design Workshop, conducted in March of 1997, investigated Bellevue as a possible site for a future commuter rail station and park & ride facility. The Charrette Team was contracted to investigate this possibility further. Although a station site was possible, problems with land availability and site access for a major park & ride were identified.

Impacts from the freight rail through Midland's Town Centre, recognised during the Design Workshop, triggered a study by Halpern Glick Maunsell, which identified and preliminarily costed several potential freight rail bypass routes, which started their southern diversions at the Bellevue bend in that study.

A preferred option, at a preliminary capital cost of about \$29 million, was identified, which appeared technically feasible, but whose route ran through the existing fabric of Fragment 4.

One option not studied before the Charrette was a route running due south along the regional power transmission easement and around the southern edge of Bellevue, a route which was investigated further during the Charrette (see below and Section 7.2).

Community and Major Stakeholder Input

There was considerable input from the Bellevue community and from major stakeholders during the Charrette.

Many Bellevue residents wanted less noise, higher amenity, and reduced traffic impacts along Clayton Street. Many were concerned about the safety of the intersection of Farrall Road/Horace Street and the Great Eastern Highway. Many were concerned about possible run-away trucks descending from Greenmount into Bellevue, recalling the horrific accident from a run-away truck in the 90's.

Many citizens expressed concern over the contaminated Omex site.

Heritage advocates want Bellevue's heritage to be protected.

Many citizens were in favour of better rail and bus-based public transport, including an extension of the present electric commuter rail service. The Department of Transport was concerned about the feasibility of extending electric commuter rail to Bellevue or beyond (see Section 7.2 for more details).

Some citizens responded very favourably to the possibility of a freight rail bypass of the Town Centre. Representatives of the Department of Transport and Westrail expressed some scepticism regarding the estimated capital costs and feasibility of the potential preferred freight rail bypass route noted above. They also explained that a freight line connection between Perth and Forrestfield is needed as diesel passenger trains use a train washing facility in Forrestfield.

PROJECT DESIGN BRIEF

A complex Project Design Brief evolved for Bellevue, born of stakeholder input and the precinct itself. Proposals for Bellevue should stitch together many if not all of the following objectives (during the Charrette and for proposals thereafter):

- **increase permeability** of the urban fabric, to improve both local and sub-regional pedestrian, vehicular and public transport access, so that the presently isolated fragments of Bellevue can be stitched together to function better as a whole, economically, socially and environmentally;
- **gain resident/worker population** within Bellevue through compatible incremental redevelopment of existing properties and by new development of available adjoining lands, where appropriate, in order to affect a systemic increase in the social and economic viability of Bellevue, and to help 'earn' a possible commuter station;
- **create a viable heart for Bellevue**, in the Horace Street / Farrall Road / Great Eastern Highway area, that also serve the Midvale industrial area;
- **reduce negative impacts** from the freight railway and Roe Highway, so that amenities of adjoining areas may rise, in order to attract incremental redevelopment, population gain and a systemic increase in social and economic viability for Bellevue;
- **capitalise on and improve natural amenity** from and access to the natural assets of Elder Creek and the Helena River (for the same reason as the previous objective);

- **capitalise more on local heritage** and conserve it, at least in cases where its retention *advances more than limits* the amenity, identity and the enhancement of Bellevue, through its incremental redevelopment and conservation of historic buildings.

PROPOSED CHARRETTE DESIGN

The proposed design, focusing on an enhanced Horace Street Centre to serve the sub-region, links together the best of Bellevue's available assets, capitalises on existing infrastructure and locations, and mitigates the area's shortcomings.

Improved Links To An Enhanced Horace Street 'Centre'

A 400 metre-long enhanced 'main street' centre is proposed for Horace Street. This street is centrally located *sub-regionally* to serve Greenmount, Koongamia, Bellevue and Midvale (east of Roe Highway). Horace Street *locally* serves the adjoining Fragments 3 and 4. Horace Street may become the badly needed and well-connected centre which can link up the present Fragments of the sub-region, with a signalised 4-way intersection at Farrall Street on the Great Eastern Highway and an on-grade crossing of the railway to connect Katharine Street to Horace Street via the regional power transmission easement.



Bellevue Neighbourhood Enhancement Plan

Signalised Intersection at Farrall Road/Horace Street and Great Eastern Highway

A newly signalised and safer 4-way intersection with the Great Eastern Highway is needed at Farrall Road/Horace Street to enable both turning and through traffic to support retail and other businesses focusing at this Horace Street Centre. Traffic signals are particularly important for southbound vehicles from Farrall Street, seeking to turn right (west) toward the Town Centre or to cross the Great Eastern Highway into the Horace Street Centre.

The lights would also help northbound traffic arriving from Koongamia to cross the Great Eastern Highway or turn right (east) up the Greenmount grade of the Great Eastern Highway. These traffic lights are also crucial for a safe pedestrian crossing to link the adjoining walkable catchments.

A New At-Grade Railway Crossing to Achieve a Major Sub-Regional Road Link

A new on-grade railway crossing is proposed at the Bellevue bend, which strengthens links between the Midvale industrial area and points north with Koongamia and Fragment 4 of Bellevue to the south. An on-grade crossing at this point appears relatively safe, as visibility along the line is relatively good and as the line is slightly elevated, as would be the on-grade crossing.

This on-grade crossing would provide a sub-regional road link to improve the economic and social viability of the Horace Street Centre. This link may represent a potentially important route for the regional bus network, which would be all the more valuable if it were to feed a proposed Bellevue Rail Station at this crossing.

If the proposed freight rail bypass (see plan) were implemented, then this on-grade crossing would become all the more feasible and attractive. All freight rail traffic would pass to the east of this on-grade crossing. Only a limited country and inter-state passenger trains would intersect with this on-grade crossing. The last stop for the proposed extension of electric commuter trains from Perth is at the proposed Bellevue Station, which is *west* of the proposed on-grade crossing. The westerly branch of the 'Y' connection to the proposed bypass would serve only those very few trains heading south to the train washing facility in Forrestfield. Therefore, this 'secondary' on-grade crossing would have very infrequent use from trains. Both crossings are proposed to have boom gates.

Possible Bellevue Station and Park & Ride

A commuter rail station and small park & ride facility is proposed, which would anchor the southern end of the 400 metre-long Horace Street Centre. The station is optimally positioned *locally* to serve the walkable catchments of adjoining Fragments 3, 4, 5 and Midvale's industrial area, and *sub-regionally* to serve Greenmount, Koongamia, Midvale's industrial area via bicycles, cars and bus transport.

Limited park & ride capacity is available within the triangle formed by the proposed freight rail bypass, accessed via the on-grade crossing. Parking is also available along the several streets that connect to the station.

Numerous properties, which are near the station and vacant or under-utilised, could incrementally redevelop (see plan) and thereby intensify resident/worker densities and station usership within its primary walking catchment. The Bellevue Returned Servicemen's League (RSL), which is about 120 metres from the proposed station, would contribute to that station development, and vice versa.

Transit-Oriented Redevelopment of the Omex Site

The presently contaminated Omex site in Fragment 4 is about 200 metres south of the proposed train station. Development near Omex is presently very limited due to possible risks from the Omex contamination. Site clean-up offers an important opportunity for the relatively dense redevelopment of this presently degraded area, as shown on the plan, with medium-density housing shown outside the 25 ANEF aircraft noise corridor. Construction typical of medium-density development, including shared party-walls and multi-storey construction, in conjunction with air conditioning and roof overhangs, is likely to satisfy noise mitigation requirements in this area of the 20 - 25 ANEF contour. Buildings should also respond to noise impacts from freight trains by locating less noise-sensitive uses closer to noise sources to buffer the more noise-sensitive uses such as bedrooms.

Improved Local Services and Reduced Sub-Regional Travel Demand/Congestion

By increasing locally-available 'convenience retail', businesses and community services, an enhanced Horace Street Centre is likely to complement Midland's Town Centre. Locals, many of whom may presently struggle financially to own cars, would gain the choice of a walk or much shorter drive to the Horace Street Centre for many of their daily needs, instead of having to drive to Midland. This advantage for Bellevue area locals would also reduce traffic problems along the Great Eastern Highway and in the Town Centre.

With commuter rail in place to Bellevue, locals could also use the train to either Midland Gate, Centrepoint, the Old Great Northern Highway shopping/cultural centre, a redeveloped Railway Workshops, or Perth, etc.

New Golf Course Within the 25+ ANEF Aircraft Noise Corridor

While the 25+ ANEF Noise Corridor prohibits new residential development within it, the opportunity does exist to develop an 18-hole golf course on this aircraft noise-affected land (see plan). This golf course, which would boost the outdoor amenity of the area, is proposed across several private properties, all of which might benefit financially from this scheme.

A smaller 9-hole golf course is already under construction by an owner on one site in Fragment 5. The enlarged 18-hole golf course would likely be an even better attraction for the area, and it would extend along much of Fragment 4 as well as 5. The design proposes that the golf club house should occupy the historic Bellevue Homestead buildings south of the Goodchild Oval. Hopefully that might be acceptable to its present owners, if it ensured the restoration of and ongoing use of these heritage buildings.

The golf course is designed to work both with and without implementation of the freight rail bypass, whose proposed reserve passes alongside it.

Fragment 3: Incremental Redevelopment Fuelled By Horace Street Centre

The design proposes that the many land owners of virtually all of Fragment 3 should have the choice incrementally to redevelop, to grow as the Horace Street Centre strengthens. The viability of the Horace Street Centre along with incremental redevelopment for Fragment 3 will rise significantly with a signalised intersection at the Great Eastern Highway and the on-grade crossing of the railway.

The eastern edge of Fragment 3 along the railway is proposed as predominantly light industrial redevelopment, whose uses could better tolerate the freight rail noise, and whose buildings would buffer that noise from more noise-sensitive developments inward from the tracks.

Buildings along Horace Street and along the Great Eastern Highway either side of Horace Street would be encouraged to redevelop to accommodate growing businesses contributing to that Centre. With the introduction of the train station, properties within a 400 metre walk of the station would be encouraged to redevelop at higher densities to support the station and the Horace Street Centre. Planning controls and R Codes should be reviewed to provide R40 and mixed uses in this fragment.

The western end of Fragment 3 is mostly industrial uses or relatively vacant. An edge of relatively noise-tolerant light industrial uses in relatively contiguous buildings is proposed along Roe Highway, in order to buffer more noise-sensitive medium-density developments closer to the Centre. These so-called 'light industrial' businesses would take advantage of their exposure to passing trade on the Roe Highway, with access to them along frontage roads (see plan).

Fragment 4: New and Incremental Redevelopment

Much of this area is within walking distance of the proposed Bellevue Station. New developments and incremental redevelopment are proposed for those areas of Fragment 4 which lie outside the 25 ANEF aircraft noise corridor. These developments would key off the positive momentums of a new train station and/or the golf course.

Traffic-calming is proposed along Clayton Street between the Roe Highway and Katharine Road, so that motorists presently speeding along here will slow to the posted speed limit.

Properties abutting the proposed freight rail bypass reserve may continue their present uses as of right, but, if the bypass is implemented, then they should be encouraged to redevelop as light industrial buffer buildings (coloured lavender on the plan) to buffer more noise-sensitive developments inwards from the railway.

A new area for mostly residential development is proposed at the south western end of Fragment 4, which capitalises on walkable proximity to the historic Bellevue Primary School, the Goodchild Oval and a new small park, and the proposed new golf course. A public street fronts the golf course and Goodchild Oval, with streets radiating north from the golf course into the new development, enabling oblique views from most lots out across the flood plain of the Helena River. Such a development might indeed renew the original meaning of the name 'Bellevue'.

Two new small parks are proposed within this new residential area, each slightly larger than the 3000 sqm minimum proposed in the new WA Liveable Neighbourhoods Community Design Code, with which this new development should comply.

The proposed reserve for the freight rail bypass runs parallel to the eastern extremity of this development. Both that part of the new development, as well as the noise-affected area adjacent to Roe Highway, are proposed as 'light industrial' places of work, which could tolerate the noise and would buffer more noise-sensitive dwellings inward from them.

A corner of the street block adjacent to and west of the Goodchild Oval is shown as the commercial component of home/offices, as that corner is within the 25 ANEF aircraft noise corridor, where residential development is not allowed.

Fragment 5: Redevelopment Limited by Noise Impacts from Rail and Aircraft

All of Fragment 5 is affected by noise from either the freight rail or the 25 ANEF aircraft noise corridor (or both). As suggested above, if the new Bellevue Station goes forward, then the Shire of Mundaring may be well advised to allow incremental redevelopment of buildings in this area, which are within walking distance of the new station, for any new premises compatible with the neighbourhood, which increase density and provide adequate acoustical insulation for those uses.

Without the train station, it will be more difficult for Fragment 5 to redevelop.

IMPLEMENTATION & STAGING

Introduction

A pro-active Charrette Implementation Task Force should aim to combine several infrastructure outcomes in order to start a wave of private sector-driven redevelopment, strengthened by the combined momentums of a burgeoning Horace Street Centre and improved access to outdoor amenities including the golf course, and capitalising on the heritage places of the area.

Ignition: Traffic Lights & On-Grade Railway Crossing for Horace Street Centre

The public sector (Main Roads, DOT and Westrail) can decisively initiate Bellevue's revitalisation by implementing the traffic lights and on-grade railway crossing for the Horace Street Centre. The need for the traffic signals is evident, and they should be installed quickly.

To achieve the on-grade railway crossing, the Charrette Implementation Task Force would need to link together and construct a 300 metre-long road reserve, extending Katharine Road northward to the rail crossing where it would join the southern end of Horace Street. The new reserve should run within the 60 metre-wide regional power transmission easement along the west side of the proposed freight rail bypass reserve, crossing the abandoned rail easement which is now public open space owned by the Shire of Mundaring to meet with the railway. On the ground, this route is self-evident, and this design hopefully gives the Charrette Implementation Task Force the rationale and legitimacy to achieve it.

For Westrail and the DOT to permit this on-grade railway crossing, these agencies may need to recognise that determinants for its justification should extend beyond pure freight servicing and safety requirements, to include wider benefits to Midland plus an increased public transport usership, as a result of the on-grade crossing for better local and sub-regional connectivity and hopefully the new Bellevue Station.

The Design Works *With or Without* the New Bellevue Train Station

While the proposed Bellevue design works very well to support a new commuter rail station at Bellevue, the design is worth implementing even without the new station. The benefits of sub-regional connectivity, strengthening of the Horace Street Centre, and stitching back together the Fragments of Bellevue appear to be justifications in themselves for the speedy implementation of the traffic signals and on-grade crossing. The Charrette design allows for the station to be built at a slightly later date.

Design Works *With or Without* the Freight Rail Bypass, But Dedicate Its Reserve

The proposed design works with or without the freight rail bypass being built.

The Charrette Implementation Task Force and others may determine, however, that the benefits of the freight rail bypass are so important, that the Task Force should *dedicate and reserve* its route early and decisively. Because the route follows the existing regional power transmission easement to thread its way through existing Bellevue with minimum disruption, it would appear relatively feasible to dedicate its route very soon, even if finding the funds to implement the bypass may not be such a short-term task.

Omex Site Redevelopment And Other Redevelopments To Support Train Station

Once the Omex site clean-up is complete, a large swath of land (about 5 hectares across several ownerships) will be appropriate for development, just south of the proposed Bellevue Station. The clean-up approach should be integrated with the designing of new development for this area. If site remediation involves significant excavation, then the hole left over might be used as sub-grade parking. The development opportunity of a large urban infill site adjoining a new station gives further momentum to the rationale for the Bellevue Station, especially when the adjoining under-utilised properties north of the railway are considered as well.

The Charrette Implementation Task Force may be instrumental in lobbying both related land owners, developers and Westrail to extend commuter rail service to Bellevue. The Task Force could structure *quid pro quo* win/win arrangements between land owners and Westrail, trading likely rises on property values as a result of a station commitment for commitments by land owners that, when they redevelop, such developments will be relatively dense, mixed use and transit-oriented. The Task Force could encourage all parties to come to the bargaining table to their mutual benefit.

Golf Course as Catalyst for Redevelopment

A 9-hole golf course is already being constructed for the open land in Fragment 5. It seems that a larger 18-hole golf course could expand amenities and benefits for more of Bellevue and environs, with no known down-side. Lay-out of an enlarged 18-hole golf course would require co-operation from more land owners and would need to be coordinated around the proposed freight rail bypass reserve (see plan). The adaptive re-use of the Bellevue Homestead for a golf club needs to be explained to its owners by the Task Force. The Charrette Implementation Task Force may be well advised to take the lead in encouraging the various private owners and agencies to investigate its feasibility.

Light Industrial Development to Buffer Noise and Provide Employment (Compatible Transitions with Adjoining Residential)

The areas shown lavender on the proposed plan suggest 'light industrial' development. Bellevue citizens may initially be concerned about the introduction of 'light industrial' into their community. It may be important for the Charrette Implementation Task Force to communicate to citizens two important points.

Firstly, when built such that their masonry walls abut each other, these light industrial uses are intended to form a continuous 'noise buffer line' to buffer more noise-sensitive uses from the primary noise impacts on Bellevue, which are from the Roe Highway and the freight railway (whether in its present location or along its proposed bypass). 'Light industrial' means small businesses generally with minimal impacts, which might assemble computer parts or run a small catering operation. Building permits for such developments should be conditioned on their compatibility with adjoining residential properties. Readers may refer to *Mixed Use Developments -- New Designs for New Livelihoods* or the *Newcastle Mixed Use Compatibility Development Control Plan and Design Guidelines* for examples of and controls for compatible use transitions between 'light industrial' and residential uses.

Secondly, the introduction of these work places should help redress a travel-inducing jobs/housing imbalance in Bellevue, to give more residents the choice of working nearer to where they live.

Thus the proposed introduction of the lavender coloured 'light industrial' areas should actually increase local employment while improving overall amenity.

Ignite Interest and Sustain Confidence for Private Development

Bellevue is not generally recognised as a key target for investment. However, if the proposed Charrette Outcomes take place, Bellevue is likely to experience a considerable gain in real estate values and economic and social viability. While public sector-driven decisions like the traffic signals and on-grade crossing are probably required to ignite the process, a chain reaction of development will not take place without complementary private sector-driven incremental redevelopment.

Therefore, it may be in the interest of Midland for the Charrette Implementation Task Force to introduce Bellevue to the private development community as an important target for investment, and to sustain their confidence in Bellevue by making sure that key Charrette Outcomes are publicly scheduled and implemented.

A more detailed plan for Bellevue needs to be prepared in consultation with the local community and possible developers and builders. The Charrette Plan is a concept plan done with limited knowledge of the development intentions or otherwise of many land owners. In response to the concept plan the Charrette Implementation Task Force should initiate a more detailed redevelopment plan working with as many land owners as possible.

11.4 STRENGTHENING SWAN VIEW AS A CENTRE FOR ITSELF AND ITS ADJOINING NEIGHBOURHOODS

INTRODUCTION

Stakeholder input during the Charrette and study of the site convinced the Charrette Team that Swan View Centre needs to be restructured and strengthened. It needs to serve better and be supported more by both the neighbourhood of Swan View and the adjoining neighbourhoods of Greenmount and Stratton. To achieve this, the Centre itself needs to integrate its presently isolated components, street links to adjoining neighbourhoods need to be opened or improved, and more population and employment (attracted by increased natural and urban amenity) need to occur, focussing on this Centre.

Details of the stakeholder input and of the site itself, along with the Charrette Design which aims to achieve these needs, are explained below.

SITE DESCRIPTION AND INFLUENCES

Three Functionally-Overlapping Areas of Study

The Charrette Team recognised that Swan View operates (or should operate) at three scales and across three overlapping areas:

1. The Centre of Swan View

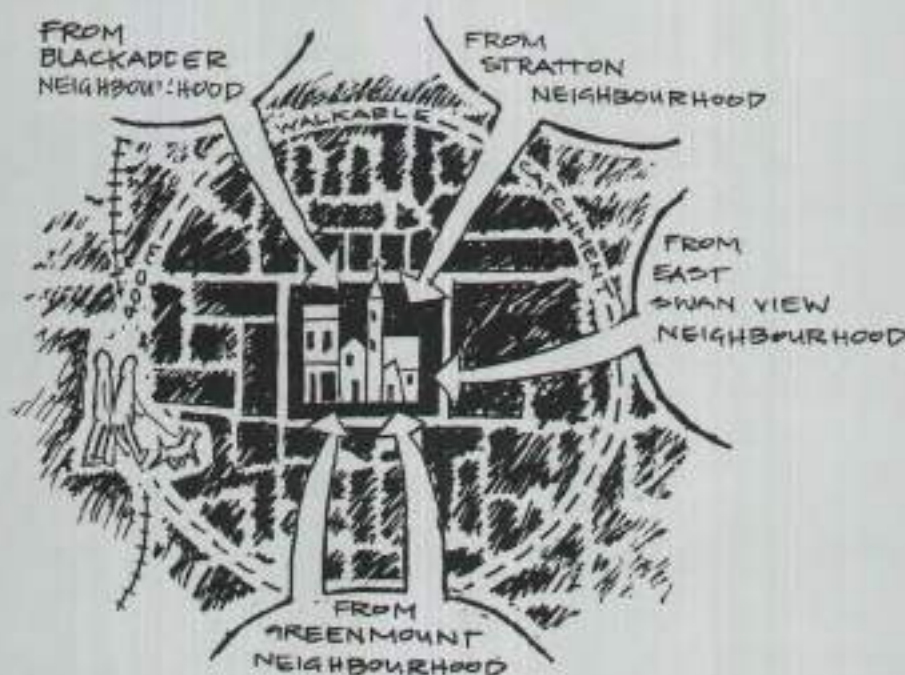
Swan View 'Centre' is actually a misnomer, as the components that would normally be clustered together to form a centre are indeed scattered across the neighbourhood, so much so that they have trouble affecting a critical mass through their mutual support. These relatively isolated components, which might work better together if they had better links or were closer to each other, include the Darling Range Centre (the shops along Morrison Road at Myles Road), Swan View Senior High School, Swan View Primary School, the Coles shopping centre with post office and medical offices, a church on Gladstone Avenue, and the Community Centre of Brown Park.

2. The Neighbourhood of Swan View

The local Swan View Neighbourhood is roughly defined by the railway on the west, Blanchard Road and the Cemetery to the north, John Forest National Park on the east, and the Buckingham Parkway along the south.

3. The Sub-Regional Catchment of Swan View

The 'sub-regional catchment' of neighbourhoods is bounded by the railway on the west and the escarpment on the east, and included Blackadder, Greenmount and Stratton south of O'Connor Road. The size and relative isolation of this sub-regional catchment is sufficient to justify Swan View being a higher-order neighbourhood centre than the others it serves. It has an important role to play in providing many daily or weekly retail workplace and community needs of its population (estimated at about 10,000).



Cartoon of the sub-regional catchment of neighbourhoods using Swan View Centre

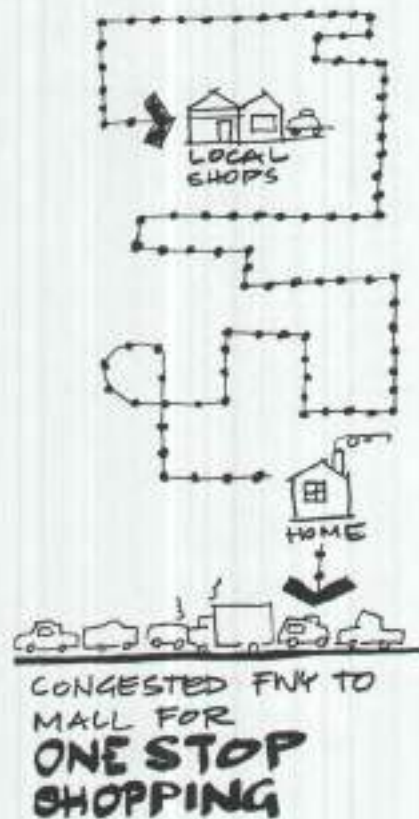
Linkages (or Lack Thereof) And Their Impacts

• Sub-Regional Scale Linkages (or Lack Thereof)

The sub-regional street structure tends to siphon its catchment away from the Swan View Centre. The Buckingham Parkway (an abandoned railway reserve which is now public open space) separates Greenmount from Swan View, and, despite Greenmount's proximity to the Centre, its motorists are generally deviated out onto the Great Eastern Highway. The only two north/south connecting streets across the parkway (Balfour Road/Innamincka and Woolloomooloo/Amherst) carry traffic between Morrison Road and the Great Eastern Highway, but *not* past Swan View Centre.

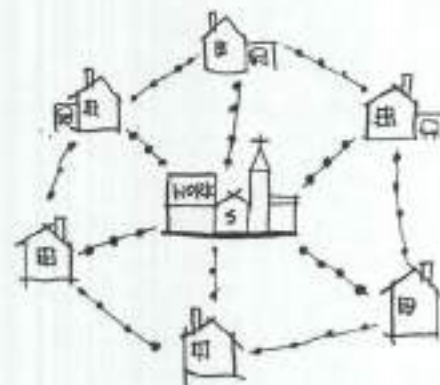
All road connections between Stratton and Swan View along Morrison Road form 'T' intersections with Morrison. Instead of four-way intersections which could encourage north/south movement, all north/south routes have been sheared along Morrison Road. Once motorists are flowing along Morrison, it is 'just too hard' to bother to make another turn, and motorists are swept right past Swan View Centre.

Pechey Rd is a sub-regional feeder from John Forrest National Park, and it would carry good custom to Swan View Centre via Salisbury Road, were it not for the fact that Gladstone Ave. has a cul de sac breaking that key link, requiring three turns to get through.



NEIGHBOURHOOD
CENTRE PROSPERS
WITH:
DIRECT ACCESS

TO MORE PEOPLE
• STILL GO TO MIDLAND
TOWN CENTRE FOR
SPECIALTY ITEMS
& ENTERTAINMENT.

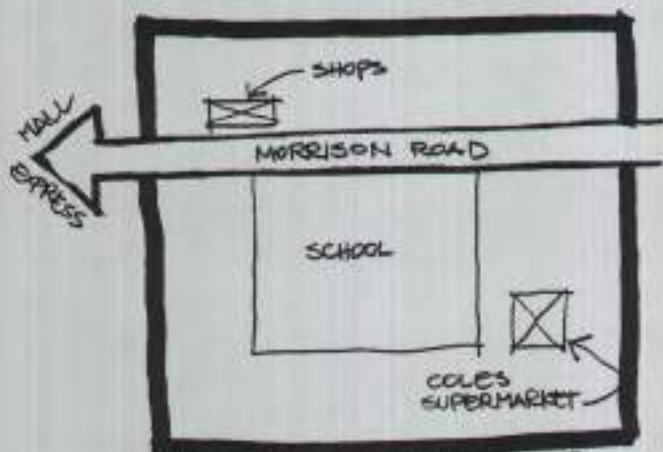


NEIGHBOURHOOD
STRUCTURE.

Comparative Cartoons of Sub-Regional Linkages (existing vs preferred)

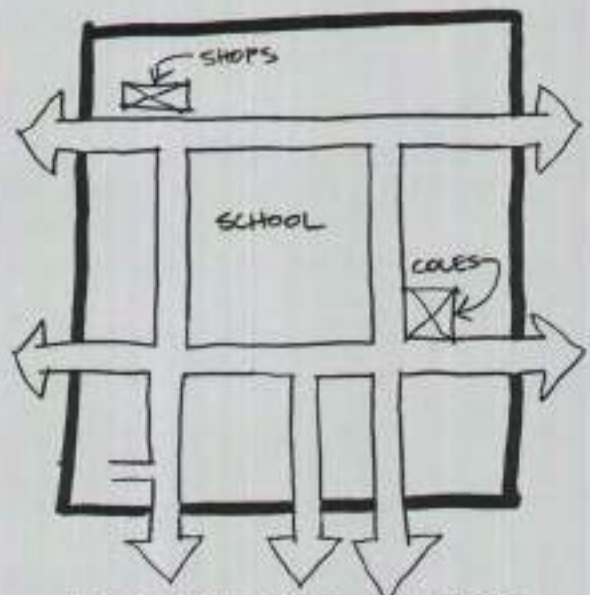
- Neighbourhood Scale Linkages (or Lack Thereof)

The street network of Swan View is essentially a grid. However, many local streets have been cul-de-sac'd at Morrison Road, or are not yet built through to connect with others nearby. This forces longer travel distances, limit walkability and induce car dependence. Once in their cars, the local streets generally carry motorists directly onto Morrison Road and/or the Great Eastern Highway and away from Swan View Centre.



EXISTING CONDITIONS @ SWAN VIEW

- LIMITED VEHICULAR OPTIONS MAKE ONE STOP'S HOPPING AT THE MALL THE BEST OPTION FOR MOST PEOPLE.



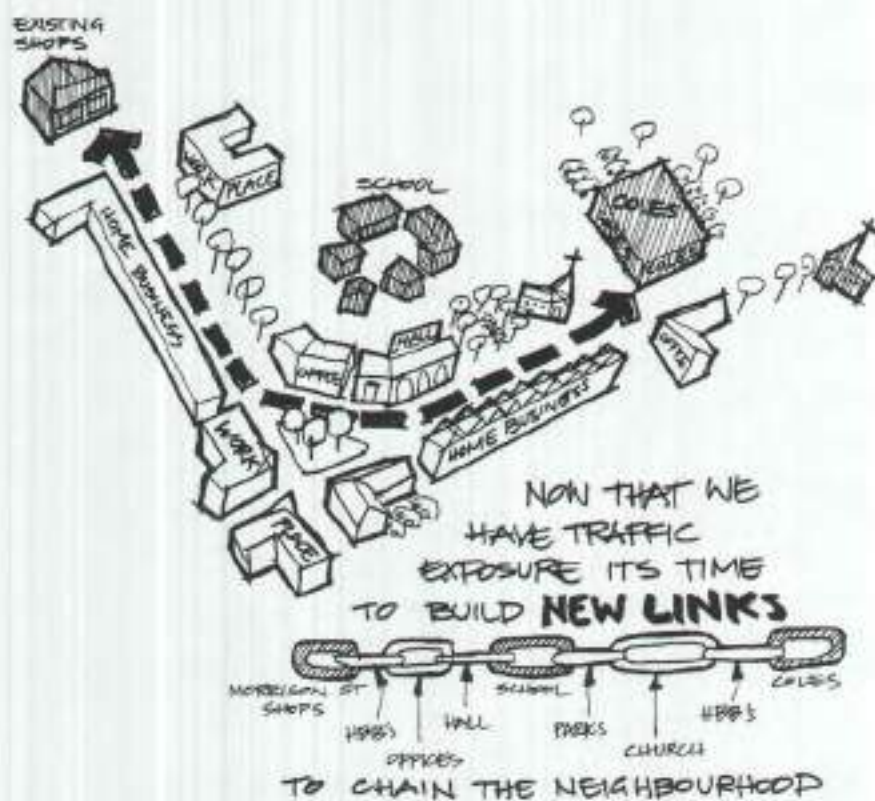
PROPOSED NEW LINKS FEED TRAFFIC THROUGH THE STARRYING NEIGHBOURHOOD CENTRE.
- COLES GIVEN MORE EXPOSURE.

Comparative Cartoons of Neighbourhood Linkages

• Linkages of the Centre Itself (or Lack Thereof)

If the Centre were indeed a centre, it would be much better off. In its present scattered state, there are many minor destinations requiring travel between them instead of one more powerful destination containing all the components of the Centre in order to trigger a commercial and community 'critical mass'. Midland Gate, on the other hand, provides most corresponding destinations (plus a lot more choice) under one roof. The scattered lay-out of Swan View Centre, in combination with the neighbourhood and sub-regional street network problems, makes it all the more difficult to compete with Midland Gate, even for daily convenience shopping.

The scattered components of the Centre do suggest possible routes between them, or ways to hook them together better. They roughly form a long line, starting from the Darling Range Centre, going around or through the High School and then linking Coles to the Brown Park Community Centre. In that it is not possible physically to relocate these components closer together, this 'linking of a chain' between them became an important goal for the Charrette Team to design towards.



Cartoon of stringing together the neighbourhood components into a more continuous chain

Population, Demographics, Land Use and Employment

Population, demographics, land use and employment are extremely inter-dependent for Swan View. Population (density) is quite low, expendable income for the neighbourhood to support its shops is relatively low, public transport is difficult to support, etc. The lack of diversity of Swan View's relative monoculture of low-to-moderate incomes means that people with higher incomes do not strive to move to Swan View and/or to open businesses there. There is a dearth of local employment, as virtually the only employment opportunities in the neighbourhood are in the scattered retail or as school employees. This amount of employment is far below the locally-needed share of 1.5 jobs per household needed on average today across Australia (see Employment Chapter 12 for more details).

Swan View's many attractions, however, hold the potential to turn this condition around. Swan View offers many infill and incremental redevelopment opportunities, its gently rolling hills afford pleasant distant views, and it has considerable natural amenity, as noted below.

Natural Features

Swan View's pleasant rolling hills and distant views are quite attractive, compared to, for example, Midvale which is relatively flat. Almost everyone likes to live with a view, including the people who have wealth and choice, who Swan View may need to attract if it wants more diversity, new businesses, local employment and expendable income to support its shops.

Three creeks join in Swan View, the Buckingham Parkway runs through it, and several parks are located here to add further natural amenity to the neighbourhood. Most residential lots, particularly on the south side, back onto the Buckingham Parkway, limiting access to it and perceived safety for its users due lack of casual surveillance from adjoining properties.

There actually may be an excess of existing and proposed open space in Swan View, when the low population and related issues are taken into consideration. For example, considerable land on the High School property appears unused. The bucolic old vineyard, west of Marlboro Street, may be past its prime, and its eventual redevelopment seems likely.

Importantly, perhaps the best park *site* in Swan View is a privately owned tree-covered hilltop semi-hidden within the too-large street block bounded by Gladstone along the north, Marlboro, Weld and Buckingham. This street block measure 450 metres by 380 metres; four blocks would normally fit within this area, not one. The opportunity was recognised of opening up this giant block to give access to the park and adjoining redevelopment and infill opportunities, so very close to the Centre.

Key Land Ownership, Municipal Boundaries and Associated Opportunities and Impacts

The majority of Swan View neighbourhood is within the Shire of Mundaring. However, the Swan View sub-regional catchment falls within both the Shire of Mundaring and the Shire of Swan, thus requiring on-going co-operation between the shires. Such co-operation was definitely apparent during the Charrette.

Many private properties, particularly south of Gladstone and west of Marlboro Street, are either under-utilised or are just grassland, suggesting many redevelopment opportunities, whose implementation might also help to redress some of the issues noted above such as access, population/ employment and the viability of the Centre. As mentioned above in relation to open space, both the high school and the old vineyard may yield such infill opportunities. Many existing private residential lots are either vacant or under-developed, as well.

Community and Major Stakeholder Input

Present during much of the Charrette, Max Williams (CEO of the Shire of Mundaring) was instrumental in reflecting his understanding of community needs and helping the Charrette Team to recognise problems and opportunities. Elderly housing advocates, Anglican Church members, a few local community members and commercial developers also gave input during the Charrette.

The Team had difficulty reaching decision makers for the High School and Coles. The aging vigneron reportedly has indicated that he intends to live out his days working his vineyard. The owners of the treed hilltop mentioned above could not be reached.

PROJECT DESIGN BRIEF

The following objectives informed Swan View's Charrette Design, and they should also guide any future development proposals for Swan View:

- **Improve Access and Connectivity** within the sub-region, neighbourhood and Centre of Swan View, in order to reduce travel distances, increase walkability and the use of and service from the Centre;
- **Strengthen and Support Swan View Centre** by improving links to it, by better connecting its presently scattered components, and by intensifying development within and near it to increase consumer choice and number of consumers;
- **Enhance and Capitalise on Natural Assets** to make Swan View a nicer place for its existing occupants and to attract new and diverse residents, compatible businesses and related employment and expendable incomes;
- **Increase Local Employment** by improving the attractiveness of Swan View and by encouraging the generation of home based business and other compatible businesses in appropriate locations, especially near the Centre and along the major streets;
- **Increase Resident/Worker Density** by permitting and encouraging infill development and redevelopment of both new dwellings and businesses, especially around the Centre to increase its vitality and that of the whole neighbourhood.

CHARRETTE DESIGN PROPOSAL

The Charrette Design proposes inter-related improvements to the sub-region, the neighbourhood and the Centre of Swan View, in order to strengthen the Centre and to make all the parts work better together.

Improved Links Within the Neighbourhood and to Its Sub-Regional Catchment

- Connect Gladstone Rd. to Salisbury Rd. The cul de sac at the eastern end of Gladstone Road is proposed to be opened to encourage custom to the Swan View Centre from catchments along Salisbury and Pechey Road, as well as from those from north/south Amherst Road. Traffic calming should be installed at intervals to ensure that motorists do not speed along this long straight road, such as the roundabouts shown on the plan for the intersections of Gladstone at Weld Road, Markham Way and Amherst Road.
- Connect Marlboro Rd and ideally Weld Road across Buckingham Parkway to Greenmount. These two small connections across the parkway would increase access to, activity and safety within the parkway, while increasing access between Greenmount and the Swan View Centre. The Weld Road connection is slightly indirect, created by developing a vacant house lot at the top of a cul de sac street.

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- Create a new street just east of the Darling Range Centre on Morrison Road, to provide a stronger link across Morrison to the rest of the Swan View Centre. The present cul de sac street system of Ellesmere Road discharges onto Myles Road, 'downstream' (ie. west) of Weld Road, so that those motorists are inclined to bypass Swan View Centre in favour of points west. This new street corner at Morrison introduces a development opportunity adjoining the existing shops for small work places and home/offices to support the adjoining shops, take advantage of passing trade on Morrison, and improve population and vitality in Swan View.
 - Open up four new streets which connect from all directions to the treed hilltop, within the too-large street block bounded by Weld, Marlboro, Gladstone and Buckingham Streets. This hilltop is proposed to become a public park, whose amenity will increase the appeal of new development opportunities opened up along these four new streets (see development opportunities below).
 - Connect south west Swan View to its own Centre! Presently the street system serving the entire catchment of south west Swan View (bounded by Gladstone on the north and Weld Road on the east) funnels motorists away from Swan View Centre and instead along Buninyong Road to the Great Eastern Highway and points west. The proposed new connection links Luffe Court and Ray Road onto Weld Road, again opening up new development opportunities along these rights of way. The Luffe Court connection is only a narrow walkway, and the cul de sacs of Cheeney Court and Reeves Place still get siphoned out to the Great Eastern Highway. This is not an ideal situation. Over time, cross property arrangements should be encouraged which connect this whole quadrant of Swan View better to its Centre.

Making a Main Street for Swan View: The 'Glad-Weld' Link

The 'Glad-Weld' main street concept is very fundamental to making a strong local mixed use centre out of the scattered pieces of Swan View. It offers a major opportunity for intensification along the Gladstone Street frontage, parts of the High School site, and incrementally, as owners choose, along the Weld Street frontage.

Weld Road and Gladstone Avenue area proposed to function together as an L-shaped main street, nicknamed by the Charrette Team as 'Glad-Weld Street'. New street trees are proposed along the length of this main street. Angled parking is proposed alongside the proposed buildings fronting the L-shaped street across from the High School.

Three designs for 'short cutting' the south west corner of the school grounds at Weld and Gladstone are shown, each of which makes that shortcut corner a new link in the Centre's chain, featuring a small park fronted by a shortcut street lined with on-street parking and small workplaces, home/offices and a proposed youth centre.

Several improvements are proposed to the 'links of the chain' forming the Centre itself, mostly involving the High School property. A more formalised pedestrian path diagonally across the school grounds is proposed from Morrison Road linking at the south east corner of the school grounds at new small streets fronting a proposed church site associated with elderly housing (see below in developments section).

Key New Developments Proposed for the Neighbourhood and Its Centre

Keying off the proposed new linkages mentioned above, new development proposals fall into three areas - new links in the Centre chain, developments capitalising on the new hilltop park, and diverse small developments as new small street linkages.

- **New Development Links in the Swan View Centre 'Chain' Along Its 'Glad-Weld' Main Street**

Several developments are shown and key-numbered on the proposed plan, which are listed below according to corresponding numbers:

1. An extension of the Vale Tavern is proposed to front the existing service street at the corner of Morrison Road and Myles Road, in order to give physical continuity to this strip of retail development. Retail generally functions better when its components are contiguous rather than separated.
2. At the corner of the proposed new street connecting Morrison Road to Ellesmere Road, a complex of home offices is proposed with on-street and intra-block parking as shown. Adjoining residential lots to the north along the new streets might subdivide and intensify as shown.
3. Remodelling to home offices or other business uses is encouraged along Morrison Road and Weld Road north of Glad-Weld Street. A new commercial development (not retail) is proposed on the south east corner of Weld and Morrison Road, to complement the retail diagonally across from it, and to signal more strongly the entry into the Glad-Weld Main Street. This is on High School land, and may be an incubator business centre linked to the High School and TAFE.
4. A key new link in the Glad-Weld Main Street chain is the improved corner of Gladstone Ave and Weld Road with its proposed new park enfronted by adjoining buildings to define the park better as its own space. Ideally these buildings would be robust, at least partly two-storey, and able to accommodate many uses initially or over time, including small work places, home/offices, residences, a proposed youth centre, etc.
5. Gladstone Street frontage south of the High School to be developed for businesses and residential.
6. Further development around the key intersection of Marlboro and Gladstone is proposed, to strengthen the chained main street but, more importantly, to benefit from and capitalise on the Coles Centre.

7. In consultation with members of the Anglican Church who expressed interest in the site, a new church and elderly housing complex are proposed for the north west corner of this intersection, using under-utilised High School land.



8. Residential lots along the south west and south east corners of this Gladstone/Marlboro intersection are encouraged to redevelop to commercial or home offices, ideally forming an attached two-storey building mass to give this intersection a stronger sense of place as a key link in the main street chain.

New 'Glad-Weld' Main Street for Swan View.

- **Developments Along New Streets Focussing on Proposed New Hilltop Park**

Aspects of the proposed design capitalising on the new hilltop park are keynoted on the plan and explained below, such as the park (A). Some of these developments involve the possible eventual redevelopment of the old vineyard (B). This area is a core catchment for the Swan View Centre, being within 400 metres walk of Coles.

It is proposed that the Shire of Mundaring purchase the hilltop property to dedicate it as a park. To help pay for the new park, the Shire should sell off two less valuable and under-used parcels of Shire property, just south of the hilltop (C), which are already owned as 'public open space' but not developed as such. The proposed street system linking to the hilltop park enables new lots along these streets to enjoy oblique views up to their new park, to which new residents can walk to on evenings after work.

Some back lanes are proposed (D) to enable relatively narrow lots with nice street frontages and private garages and possibly granny flats access from these lanes. Smaller lots are shown to increase resident density near the Centre and because it is assumed that with the nice hilltop park so close, the desire for large private gardens will be lessened in favour of more manageable courtyard areas.

A very small treed park (E) is proposed in the double-bend of one of the new streets connecting to Gladstone Avenue near the Coles Centre. Relatively small squarish 400 sqm 'cottage' lots are proposed fronting this park and the nearby streets (F). A key asset of this lot layout is that no lots 'back on' to either this small park or neighbouring streets.

A new small east/west street is proposed about 100 metres north of Buckingham Road along an existing small creek drainage and 'paper road'. The creek would be preserved as a drainage easement north of the small street, as a public park amenity for lots fronting onto it (G). Lots along Buckingham Road are about 100 metres deep, and many of them are vacant, suggesting ample redevelopment opportunities for frontages of the new street as well as fronting the Buckingham Parkway. A rear lane is proposed along some of this area where development of both ends of these lots is feasible, to give private garage access from the rear for these narrower lots.

- **Small Developments Associated with Assorted Neighbourhood Links**

Hammerhead lot layouts are proposed in the redevelopment design for the south west quadrant of Swan View, where Ray Road and Luffe Court are proposed to connect to Weld Road (H).

More hammerhead redevelopment is proposed where Weld connects through Buckingham Parkway to Messines Court (I).

In both cases, the hammerheads enable the new buildings to front onto open space and streets instead of backing onto them.

IMPLEMENTATION AND STAGING

This plan provides a relatively hypothetical redevelopment strategy for Swan View. It is a very long way from being implemented. What follows are comments and abbreviated recommendations of tasks and approaches for implementing this Swan View Enhancement Plan.

Stakeholder Co-operation & Charrette Task Force Project Management Required

As with many of the Charrette Outcomes, this proposed plan was done in collaboration with only some, but by no means with all, of the relevant stakeholders. Many of them were not reached during the Charrette. It is hoped that the design explained above provides a framework and approach that offers win/wins for all stakeholders concerned. Assuming that the Clients approve of this plan, then the plan, in conjunction with the above objectives, rationales and descriptions, needs to be presented to all relevant stakeholders as a first step towards its refinement and more formal approval and implementation.

While the Charrette Implementation Task Force should continue to guide and co-ordinate all Charrette Outcomes, the major changes in Swan View are within the Shire of Mundaring. It is probable that the Shire of Mundaring will need to be the principal implementing agency.

The Shire of Mundaring should firstly review this plan and hopefully approve it *in principle*, then it should take a leading role in progressing this plan further. It should:

- approach all the private and public stakeholders to explain the plan, revise it if necessary, and gain their support of the plan in principle (A joint presentation to all known stakeholders may be the best approach, so they can together understand how their co-operation is necessary to gain their own parts of this win/win scheme);
- review and verify the sufficiency of the plan in terms of its site and related constraints, and revise the plan as appropriate, if needed;
- determine what is required, from a statutory approvals standpoint, to gain approvals for and to implement the plan (such as re-zoning of properties along 'Glad-Weld' main street to support more mixed use and home based businesses in potentially attached and multi-storey configurations);
- re-arrange the public open space areas south of Gladstone to create the hilltop and gully parks (including likely land purchases and/or swaps);
- do preliminary capital costings for public infrastructural components of the construction of the plan;
- determine how the plan can be implemented, if appropriate, in stages, and decide which stages should progress in what order;
- structure an approach to funding the infrastructure components of the plan, itemised and scheduled in such a way that all parts of the plan do not need funding and constructing at once;
- prepare design briefs as needed for given areas of the plan to ensure that the Project Design Brief noted above is embodied in any and all proposals for development of this area;
- structure requests for expressions of interest for various areas to implement the plan through private and/or public developments, select developers, and coordinate approvals for them from the required regulatory agencies. (This may be done in collaboration with certain private land owners of given areas);
- gain all necessary approvals, funding commitments and commence construction.

Public/Private Leadership, Facilitated by the Charrette Implementation Task Force

Joint public/private leadership is especially necessary to make this particular plan a reality. No private land owner and/or developer is likely to start and lead this initiative without commitment at least in principle of support from relevant regulatory agencies. By the same token, it may not be worth the Shire of Mundaring's trouble to put the necessary regulatory arrangements in place, without a strong indication from affected land owners and members of the private development community that they are prepared to go forward and build the private side of project. The Charrette Management Task Force should take the initiative to bring both sides to the negotiating table to affect agreements sufficient to enable the implementation process to move forward.

11.5 WEST STRATTON & ENVIRONS

INTRODUCTION

West Stratton and Environs involves three areas of development opportunity, including the large lozenge-shaped area between Roe Highway and the railway (referred to here as 'West Stratton'), the walkable catchment of a possible future commuter rail station focussing on the intersection of Morrison Road and the railway, and the former primary school site in the Blackadder neighbourhood. A mixed use development is proposed for West Stratton, involving light industrial and low to medium density residential developments which are located to capitalise on the constraints and opportunities of the site. Most proposed developments within the walkable catchment of the possible Morrison Road Station would be catalysed by that station and are designed to support the use of the station and services stemming from it. The proposed development of the Blackadder former school site retains existing trees in a small dedicated park while introducing new smaller house lots fronting the park and an extension of the existing street system to improve connectivity of Blackadder's street network and resultant local access.

This section explains these three areas separately.

11.5.1 WEST STRATTON

SITE DESCRIPTION AND INFLUENCES

Site Area and Ownerships

West Stratton is an extensive area of mostly vacant land with Farrall Road running up its north/south axis, bounded by the Roe Highway on the west, Morrison Road to the south and the railway to the east. The northern majority of the site is owned by Homeswest, and the southern area is in several different ownerships. The Charrette Team chose to design West Stratton as though it were one site, while respecting property boundaries so that the site could be developed either incrementally or cooperatively by the different owners.

Natural Constraints and Opportunities

Much of the site is seasonally waterlogged 'palusplain' flats. The site has been classified 'multiple use' in accordance with the Water and Rivers Commission Wetland Management Categories. Such wetlands are significantly degraded, with few natural attributes and limited human use or interest at present (Charrette Briefing Booklet).

From a natural resource management perspective, 'multiple use' wetlands are considered suitable for redevelopment providing their function and values are retained or replaced. Maintaining local water balance and quality are likely to be the key functions and values to be retained and replaced when developing the palusplains and damp lands within the site.

Retaining and replacing these natural functions is commonly achieved through the application of water sensitive urban design principles which aim to implement 'best practice' water resource management techniques (ie detaining and cleansing urban stormwater run-off prior to its discharge into natural streams). In many cases, 'multiple use wetlands' are retained in their existing setting and modified or rehabilitated to manage stormwater run-off associated with adjoining development (Charrette Briefing Booklet).

To develop them, these palusplain areas would generally need at least a half metre deep of imported fill to raise them to an acceptable level for development.

Three small tributary creeks to Blackadder Creek flow across the site. A 30m set-back either side of these creek beds for natural and cultural (Aboriginal) conservation was recommended by the environmental and cultural consultants.

Much of the northern half of the site is covered by trees and scrub. The 'palusplains' soils could easily support re-growth anywhere, meaning that over time some areas presently in trees might be developed, while presently bare areas might be re-forested, if such trade-offs made development more feasible for other reasons. Some flooded gums, grevilleas, a few swamp sheoaks and paperbarks line parts of the three tributary streams, supporting bird life in particular. This riverine habitat would grow further alongside the creeks, if given the chance.

No known endangered species were documented on the site. However, the natural constraints noted above certainly complicate development of this site, making it relatively costly to develop, compared to its underlying land values. More detailed natural constraints analysis and documentation would be needed prior to development approval. Depending on the outcomes of such analyses, such increased precision may enable more *or perhaps less* costly development requirements. Nearby areas, such as Blackadder and Swan View, do not share the same level of natural constraints.

60m Power Easement Alongside The Roe Highway

The 60 metre-wide regional power transmission corridor runs along the eastern side of Roe Highway, on this site. Possible development along this side of West Stratton might benefit commercially from passing traffic. In combination with the Roe Highway reserve, this makes for about a 115 metre-wide barrier of high speed traffic and power easement between the site and the Swan Regional Park to the west, with no crossing point for 1950 metres between Toodyay Road and Morrison Road. Presently this western boundary of the site is cut off from adjoining benefits of the passing traffic or the Swan Park and Midland TAFE further to the west.

Traffic noise from the Roe Highway is another impact on the site which limits its amenity.

The road reserves for Roe Highway are quite large, configured to accommodate future grade separated high speed intersections and access ramps at Morrison Road and Toodyay Road. These large areas of land were recognised as needing to be protected for that purpose.

Western Power presently prohibits development of any kind on this 60 metre-wide easement, although other Australian states allow short trees (less than 4 metres-tall), parking, limited storage outdoors and/or within short buildings, all which are seen to be within an acceptable risk threshold (Power Easement Report for the Charrette by Integral Energy of NSW). Such uses were seen by the Charrette Team to be a possible means of ameliorating the barrier problems and development limitations of the site.

Railway

The railway along the eastern site boundary acts as a barrier between the site and Blackadder and Stratton, as it has no crossing for about 1500 metres between Morrison Road and Farrall Road. A significant grade change occurs along most of the length of the railway, as well, reinforcing the barrier effect, although mitigating rail noise slightly in some areas.

The railway might some day offer a opportunity for extending commuter rail service to this area, but the surrounding urban structure and densities cannot come close to supporting electrified rail service at this time (see Sections 4.1 and 7.3 and comments in this Section on a possible Morrison Road Station).

Diesel-powered freight and 'country' passenger trains significantly impact the site with their noise and vibration, especially at night.

Other Transport Infrastructure

The design and vehicular speed of Morrison Road along the southern boundary tends to separate the site (if developed) from properties along the south side of Morrison, but it does provide a quite valuable east/west link for sub-regional access, while giving potentially good commercial exposure to properties at the south end of the site.

Farrall Road efficiently carries traffic north and south through the site, with an on-grade crossing of the railway at its northern end, en route to Stratton Shopping Centre.

Smaller roads and 'paper roads' give access to the various private lots across the site. Development of West Stratton would need to respond to these road reserves and private properties.

Background Studies and Midland Design Workshop Outcomes

The Midland Design Workshop was conducted in March, 1997 by the Shire of Swan and the Ministry for Planning, and led by Ecologically Sustainable Design, Pty Ltd. A key purpose of the design workshop was to test through design whether it might be feasible to extend the electrified commuter rail service, presently reaching the Midland Station, further east as far as Stratton. The key design criterion to be investigated was whether adjoining urban structure was adequately transit-oriented to 'earn' such a passenger rail extension through projected train usership, or, if not, whether the urban structure could be improved over time to earn such.

Conclusions from that design workshop were that extension of the rail service as far as Bellevue might be relatively viable, but that service further out was more difficult (Midland Design Workshop Outcomes Report). Thus the 'Stratton' station site, investigated in the design workshop, was found to be probably beyond feasibility for electrified rail service for the foreseeable future. A station at Morrison Road was also considered. While the Morrison Road Station was also doubtful, it is at least closer to Midland, thereby involving less track infrastructure cost. Morrison Road's possible station site is better located to be served by sub-regional buses along Morrison Road. Understanding that the possible Stratton and Morrison Road stations are too close to each other to justify both, Morrison Road's possible station site was recognised as the more viable of the two.

The Ministry for Planning commissioned a feasibility study by Halpern Glick Maunsell Pty to investigate technical rail feasibility and costs for extending passenger rail service as far as Stratton. This study was meant to inform the Charrette. The study determined preliminarily that a single electrified track system along the inside of the 4 km-long bend through this area, with at least one bypass point to let oncoming trains pass each other, might be constructed, including 4 modest stations and a four-car train, might cost around \$28 million (Charrette Briefing Booklet). Because length of track is a major part of this cost, the shorter the distance of electrified rail extension (and the fewer stations), the less costly such improvements would be.

Community and Major Stakeholder Input

During the Charrette, concern was expressed from the Aboriginal community, environmentalists and others for the three small tributary streams of Blackadder Creek.

Western Power emphasised the importance of the regional power transmission easement, especially that it is not cost-effective either to move it or to put the overhead cables underground. Precedents from other states about uses that take place on similar easements elsewhere were discussed with Western Power representatives before and during the Charrette.

Main Roads emphasised the regional importance of the Roe Highway and its likely upgrading to a grade separated freeway, although no time frame was reported to have been set, nor funding committed for such.

Representatives from Homeswest, the main owner of West Stratton, expressed the desire to develop the site. They recognised the challenges as noted above to the site and worked cooperatively with the Charrette Team during the Charrette.

A possible demand was recognised during Charrette consultations with businesses for around 2000 sqm or larger 'light industrial' parcels. Light industrial development generally costs less for its infrastructure per area than residential development. Therefore, because West Stratton appeared to be relatively difficult to 'pencil out' entirely as residential, and because of the recognised need for more local employment opportunities for Midland, a mix of light industrial and low or medium-density housing (where amenities justified such) were recognised by the Charrette Team and a target design intention for West Stratton.

PROJECT DESIGN BRIEF

The following objectives guided the Charrette, and they should provide a design rationale to guide future revisions from the Charrette designs and other proposals. West Stratton should develop and grow in a way that:

- utilises land to its full potential, avoiding waste space areas wherever possible (such as under power lines);
- optimised synergies and linkages at a sub-regional scale with areas surrounding the site, such as the Swan Park, Midland TAFE, Stratton and Swan View;
- reduces negative impacts from the noise coming from the railway and Roe Highway so as to create a more liveable environment between these two noise generators so that more people will be attracted to live and work in West Stratton;
- capitalises on commercial exposure provided by the Roe Highway and Morrison Road so that business and industry has an opportunity to develop and flourish alongside these two routes, and accessed from them where feasible;
- capitalises on the natural amenity provided by streams and reserves, attempting, wherever possible, to preserve and enhance these amenities and for properties to front such amenities across public street or walkway reserves;
- builds resident and worker population with the development of housing and work places that are compatible and in close proximity to one another, so as to help reach toward the goal of 1.5 local jobs per household, needed for an ideal 100% full local employment;
- enhances Farrall Road as a high-amenity integrator arterial and enables local businesses to form along it and capitalise on exposure and safe vehicular and pedestrian access from and across it;
- intensifies development where feasible within the walkable catchment of a possible future intermodal bus/rail station at Morrison Road.

PROPOSED DESIGN

The proposed design aims to maximise development feasibility for all land owners of West Stratton, while also accommodating the Project Design Brief above.



Proposed Charrette Design for West Stratton and Environs

Sub-Regional Linkages and Synergies With Adjoining Properties

Eddie Barron Drive is proposed to be extended from Midland TAFE eastward, past and accessing the Velodrome, then intersecting with and crossing the Roe Highway, connecting to Farrall Road, and then continuing as a pedestrian bridge only into Swan View at the intersection of Blackadder Road with the present cul de sac of Pine Street. This key new east/west sub-arterial link not only strengthens the development and urban feasibility of West Stratton, but it also connects several large areas of Midland which, until now, have been isolated from each other, or at best have been forced to reach each other by driving circuitously along Morrision Road.

The Roe Highway crossing is proposed to be signalised and on-grade for the time being. If Roe Highway upgrades to a grade separated freeway function, then a bridge over the freeway is proposed here; a grade-separated interchange with on- and off-ramps would not fit here between the interchanges at Toodyay Road and Morrision Road.

Three Main Areas of Development, Defined by Existing Creeks

The three existing creeks are proposed to be preserved and enhanced with a minimum setback from their stream beds of 30 metres each side. These areas for habitat, passive recreation and storm water detention and cleansing basins should be either publicly owned or else as private property with easements to achieve the same functions. All properties should front these natural open spaces across a street or public walkway, wherever possible, to maximise casual surveillance of those spaces and thereby improved safety and access for users.

The middle area between two creeks receives the Eddie Barron Drive extension and is the logical place for an activity centre which serves mixed uses in that area and the areas to the north and south. The area to the north is too small to support its own activity centre, and it is mainly low and medium-density residential with home-based businesses encouraged along Farrall Road and home work spaces backing onto the railway to serve as noise buffer buildings. The area to the south is smaller but very well located for exposure to and access from both the Roe Highway and Morrison Road. This area is proposed primarily as the Morrison Road Business Centre (see Chapter 12 and Section 12.7), with some medium-density housing fronting adjoining creek's open space. Vehicular access is gained from Morrison Road via Farrall Road, Orchard Avenue and new proposed street.

Response to Property Boundaries and Existing Road Reserves

The design aims to respect all known separately-owned private parcel boundaries, so that West Stratton can be developed cooperatively as a whole, or incrementally by individual owners.

Light Industrial Development Adjacent To The Roe Highway

The low-lying land next to the noisy highway and power lines is not ideal for residential development, but appears to offer better opportunity to develop light industrial businesses, whose infrastructure improvements generally cost less per hectare than those for residential development. Industrial businesses can also benefit from exposure to the highway because of the greater chance of customers seeing their buildings as they drive by.

Access from the Roe Highway

Access to the site is proposed directly from Roe Highway. The main access is at a signalised on-grade crossing of the extension of Eddie Barron Drive, with a turning lanes to stack about 5 vehicles from each direction. A secondary entry (not exit) point is provided to the north for south-bound traffic, with a deceleration lane.

If Roe Highway becomes a freeway, then it will be important to investigate the feasibility of retaining access from Roe Highway somehow onto the proposed frontage road alongside West Stratton, to support the businesses proposed to front it.

Power Easement Next to the Roe Highway

A frontage street and car parking are proposed within the power easement, 'light industrial' properties subdivided and coded such that the face of all *buildings* can abut the very eastern edge of the power easement. This subdivision design will make the best of the privately owned land within the power easement, without impeding its primary power transmission function. Bollards or other barriers may be provided to protect the power stanchions, in negotiation with Western Power, designed for the speed of vehicles along that relatively low-speed frontage road. This arrangement will probably eliminate any on-site parking requirements for the properties fronting the power easement, which means that they can have a much higher building coverage of their site. This should make these businesses more financially feasible. Possible low-level storage and display should be negotiated with Western Power for these businesses, as well, taking into account precedents of other Australian states for similar power easements. A report was prepared for the Charrette by Gary Brennan of Integral Energy, which may be useful in this regard.

Development Adjacent To The Railway Lines

Development proposed along the railway is both relatively tolerant of noise and vibration impacts, and proposed to buffer the more sensitive residential uses behind them. Railway impacts can be buffered by the combined use of a four metre-high masonry sound wall (located as close to the train tracks as possible) followed by a relatively contiguous approximately six metre-high row of masonry (or other sound attenuating) work place buffer buildings.

Relatively large home workshop lots are proposed alongside the railway, with their rears facing the rail and their residential fronts facing other houses. The lots are large because the land is of relatively low value, and because such home workshop lots need to be relatively large in order to offset their relatively low amenity and to attract buyers.

A detailed impacts assessment of the railway along this area was not conducted for the Charrette. This should be assessed, and recommendations should be made, taking into account the cost of constructing such buffers, the proximity of noise sensitive buildings to the railway, and their respective construction costs and development feasibilities. 'Rubberising' the tracks (installation of high-strength neoprene pads along the tracks to absorb noise and vibration) along this length of the railway is another alternative to be considered with more detailed design.

Access Across the Railway

An electronic 'ped gate' is proposed to continue pedestrian access between Blackadder and Western Stratton, in the alignment of the Eddie Barron Drive extension.

Residential Development

Low and medium-density residential development is proposed on about three quarters of the developable land. The medium-density development concentrates along the creekside amenity because medium-density housing (despite less cost per lot and better fits for smaller households) generally needs more urban and natural amenity than lower density to sell well, to make up for the smaller lots and houses. Home-based businesses are shown and encouraged along the relatively busy roads. Lower density is proposed on the majority of the residential areas because the site does not offer much amenity beyond the creeks to attract medium density housing. The main thing developers can offer is lot size and relative affordability.

Compatible Use Transitions

The transition from residential to light industrial development occurs along the rear lots of both residential and light industrial. This is to avoid creating a street with an incompatible condition of residential use fronting one side and industrial fronting the other. In most cases the rear yards of residences backing on to industrial use properties are proposed to encourage home workshops running continuously along them so as to help buffer possible noise from the adjoining Light Industrial properties (see home workshop prototypes and mixed use transitions in the Mixed Use Primer).

Morrison Road Business Centre

A small business complex is proposed on the corner of Roe Highway and Morrison Road on the majority of the developable land south of the southerly creek. This business centre is explained further in Section 12.7 of this Report. This property has excellent exposure from passing traffic and good access off Morrison Road via Orchard Avenue and the small street further east. Access should be permitted into both these streets from both directions of travel on Morrison Road.

If Roe Highway gets upgraded and the access from Morrison Road onto Orchard Road is abandoned to accommodate an on-ramp, the street system is designed so that access to all lots may be quite feasibly retained.

Neighbourhood Centre

A modest neighbourhood centre is proposed at the entry to the site from Roe Highway on the Eddie Barron Drive extension. This centre might initially only have a milk bar and small businesses servicing the industrial area, although the urban structure of the area should enable the centre to expand over time.

Rear Lanes

A few rear lanes are proposed:

- where the traffic may exceed around 5000 vehicles per day, and/or
- where lots are too narrow for garages located in the front of lots (less than 12m wide), and/or
- where rear access is desirable for lots on at least one side of the rear lane.

Enhancing Farrall Road

Properties proposed to front Farrall Road will sell and function better if the function of Farrall Road is enhanced from that of a relatively high speed and featureless country road to more of an urban boulevard with slower speed and higher amenity. Farrall Road is proposed to be enhanced with traffic calming devices, street trees, parallel parking and foot paths. The detailing of the District Distributor Integrator B would be appropriate, as described in the WA Liveable Neighbourhoods Community Design Code, Edition 1.

Proposed Bushland Habitat Areas

The site has been classified 'multiple use' in accordance with the Water and Rivers Commission Wetland Management Categories, and it has been recognised that native bush will grow reasonably quickly on any part of the site, meaning any of it can be developed, if natural values and functions are replaced and/or maintained. Much of the relatively important (potential) creek habitat areas are presently de-forested or degraded, while other areas are covered in bush.

For these reasons, areas proposed to be retained as bushland on the plan do not coincide directly with existing bushland. Rather, the most appropriate areas for long-term bush (such as along creeks or where development is relatively difficult) are proposed as such, even though some of them are presently degraded. On the other hand, some forested areas are proposed for development. Some larger trees should be retained, wherever feasible, to improve the amenity of the developments. However, the approximately half-metre of fill depth needed to raise building pads above the boggy land may preclude this in many cases.

The northern tip of the site is proposed as bush as well. This is because access to that land is difficult, and because the land is quite low lying and badly drained, making it relatively costly to develop.

11.5.2 WALKABLE CATCHMENT FOR A POSSIBLE MORRISON ROAD RAILWAY STATION

SITE DESCRIPTION AND INFLUENCES

Rationale for and Challenges for a Commuter Rail Station at Morrison Road

Although far from ideal from an urban structure and density standpoint, a possible station focussing on Morrison Road was found by the Charrette Team to be the most feasible station site beyond Bellevue. Morrison Road would be a key sub-regional feeder for park & ride, kiss & ride, and a bus interchange commuters. Key public transport destinations are nearby, as well, including the high school and, to a lesser extent, the industrial area of Midvale.

However, the surrounding resident/worker density is quite low, local access to a station site is problematic, and there is not a great deal of land evidently available to redevelop into a station and surrounding transit-oriented centre.

A less costly commuter rail alternative was considered beyond Bellevue in the form of diesel-powered passenger service of possibly single or double cars, with a very modest station platforms. This system would coincide with electric service further west. Such an approach might serve as a transitional facility until urban structure and densities around Morrison Road improved considerably.

The Charrette Team considered sites for a station capitalising on the intersection of the railway with Morrison Road, and access to such a site. A creek needing habitat protection dominates the north west quadrant of that intersection, which excluded that quadrant as a station candidate. Privately owned single-family houses and Swan View Park occupy the north east quadrant, whose cul de sac street system does not offer good access to a station at this time. The south west quadrant, occupied by mostly privately owned single family homes on cul de sacs backing onto the railway, offers no obvious access at present to a possible station site (although direct access at least for pedestrians from the industrial area beyond would be quite crucial for a station to succeed). The south east quadrant appeared to offer the main opportunity for a station site on a triangular parcel abutting the railway and Morrison Road, with an equestrian facility on it at present. Therefore, access to this site from all directions, and hypothetical transit-oriented redevelopment around it became a challenge for the Charrette designers.

Resultant Site Area and Ownerships

Knowing that the surrounding urban structure and development needs intensify and create better access in order to 'earn' any future station at Morrison, the area within about a five-minute walk from such a station (about 400m radius) was identified for transit-oriented design investigation during the Charrette. It was also recognised that West Stratton (noted above) would be part of that station catchment.

Most of this land is in single-family home ownerships, with the exceptions of Swan View Park and Collier Park, the larger relatively undeveloped parcels at the south end of West Stratton, the larger equestrian triangular parcel and a larger lot at the corner of Balfour and Gladstone. Collier Park appears pleasant and safe, and it is well fronted by houses. However the density of these homes is low compared to the park amenity available and to normal densities required to support and attract a commuter rail system to serve it. Swan View Park has playing fields on some of it and was reported to be relatively under-utilised for its size. Its frontage along Morrison Road is not very pleasant due to the volume and speed of traffic along it. The larger blocks were seen as possible development opportunities, perhaps preserving and/or incorporating any existing buildings.

Regional Power Transmission Easement

The 60 metre-wide regional power transmission easement south of the possible station site divides the residences near the site from the more remote light industrial uses. Considerable vacant land exists on the power easement, especially near the railway, on which limited storage and/or parking might be located for adjoining work places, if Western Power were to allow it. Such limited uses of 330 KV easements in other states are relatively commonplace (Integral Energy Pre-Charrette Report).

Municipal Boundaries

Morrison Road is the boundary in this area between Mundaring and Swan Shires. If the station were to be built on this site, it would be located within the boundary of Mundaring Shire. However, the station's catchment and properties contributing to the success of the station fall on the sides of both Mundaring and the Shire of Swan. Continued co-operation between the two Shires will be needed to make the project work.

Major Stakeholder and Community Input

No input on this site was recorded from local owners during the Charrette. However, surely those owners, whose properties are potentially affected by these design proposals, need to be consulted now.

Representatives of the Department of Transport expressed reservations about the near-term feasibility of a station for sites beyond Bellevue due to limitations in urban structure and densities for their potential catchments (for reasons explained above).

PROJECT DESIGN BRIEF

The following objectives guided the Charrette, and they should provide a design rationale to guide future revisions to the Charrette designs and other proposals. Development within the walkable catchment for a possible commuter rail station near Morrison Road should:

- identify and either develop or dedicate a future station site, with adequate commuter parking (at least 125 spaces preferably on-street), bus stop, cab rank and kiss & ride drop-off, support community and retail services in an activity centre focussing on the station;

-
- optimise local vehicular and pedestrian connections to that station site from all directions, and improve pedestrian amenity along such routes;
 - maximise resident/worker densities within at least the 5-minute walkable catchment of that station site in order to 'earn' and support the rail service;
 - improve the amenity and safety of parks within this walkable catchment and, when feasible and appropriate, consider rationalising their facilities if under-utilised into more efficient and better park space, while developing the remainder;
 - detail and locate buffer buildings and/or other devices to protect more noise-sensitive development from impacts of the freight railway.

PROPOSED DESIGN

The proposed design attempts to optimise all possible key development sites within the walkable catchment, to achieve the Project Design Brief.

Station Design

The proposed station occupies the triangular-shaped parcel presently used as an equestrian facility, the most feasible site for a station. A modest platform is on the west side of the tracks in the railway reserve, located here because the track for any longer term electrified rail would run on this side of the railway for technical reasons explained in Section 7.3. The main station development and associated parking is on the western side where land is available. An electronic 'pedgate' links the platform to the station. A new street runs along the eastern side of the rail tracks alongside the rail reserve, with head-in commuter parking on both sides for about 160 vehicles. A kiss & ride stop and a taxi stand should also locate on this street in front of the station. The street connects directly to Morrison Road at its north end and to Gladstone and Lister Streets to the south, to maximise access to the station. Mixed use buildings occupy the remainder of the triangular parcel, incorporating an existing small general store. An apartment building at the north end has two courtyards, in which the main trees on the site are preserved.

Connections and Development into the South East Catchment Quadrant

A large under-utilised parcel at the corner of Gladstone and Balfour preserves the existing buildings and develops the rest of the site in small lots fronting a small cul de sac. The terminus of this cul de sac connects between existing adjoining dwellings to Cheney Court via a public walkway, to improve access from that area to the station.

Swan View Park Re-Design and Partial Development

Substantial development is proposed in the north east quadrant of the station catchment, capitalising on Swan View Park and the Morrison Road frontage. The playing fields are concentrated to the northern quieter end of the park, and a mixed use building is proposed, whose south side fronts Morrison Road and whose north side overlooks the reduced but quieter and improved park.

The rear of the lot to the east plus two adjacent vacant lots east of the park are consolidated into a mixed use development also fronting Morrison and the Swan View Park. Parking for these facilities is proposed within the existing power easement along the north side of Morrison.

Connections Into The South West to the Midvale Industrial Area

Connecting the station to Midvale's industrial area with at least a direct pedestrian route is very important for the station's usership, especially by the industrial workers. An existing house on Narwood Place is proposed to be purchased as an access to the station. An existing house on Gum Place, owned by Homeswest, is proposed to be retained for future access to the station as well. A third link from the industrial area is proposed at Elmsfield Road in the form of a street which runs across the power easement and opens that area up more directly to the station.

Morrison Road Business Centre

The Morrison Road Business Centre, explained in Section 11.5.2 and in Section 12.7 is in walking distance of the station along Morrison Road. This centre and the station are likely to benefit each other.

STAGING AND IMPLEMENTATION

The main impetus for redevelopment in this area would a passenger rail station, either already built or committed within a known time frame. The diesel-powered train cars and a very modest platform, connecting to the electric system closer in might be a sufficient catalyst. Without some commitment for such a station with commuter service, there is little reason for this area to develop as proposed.

Property owners potentially affected by this design proposal need to be consulted, of course, at this stage. The local community should be consulted about the possible development of part of Swan View Park. A commitment from the community in support of these Charrette proposals might help the Department of Transport to decide favourably toward extending the rail service to Morrison Road, at least utilising the diesel-powered alternative.

11.5.3 BLACKADDER FORMER PRIMARY SCHOOL SITE

SITE DESCRIPTION AND INFLUENCES

Site Area and Ownerships

The former Blackadder primary school site of about 5 hectares is owned by the Department of Education. An adjoining strip of public open space roughly 600 metre-long by 20 metre-wide running north south which connects it via Harold Road to Morrison Road to the south. Numerous low density private house lots either back onto or side onto the school site and this long strip of open space.

Major Constraints

Five cul de sacs terminate at the vacant former school site. The site itself is largely mown grass, with a few scattered reasonably nice shade trees in copses. No lots front the site at present, save those the other side of Blackadder Road to the east. A significant opportunity offers itself to connect up the cul de sacs and to develop new lots on an interconnected street system to front a smaller higher quality dedicated park which retains the trees.

A very modest Blackadder neighbourhood centre might be able to develop over time, fronting the amenity of this possible park.

The long strip of public land is entirely backed onto, not heavily used or loved, and to some extent is a security and maintenance problem. An opportunity also exists to turn that strip into perhaps a slow speed shareway, to increase activity in this strip and to encourage the houses which presently back onto it to redevelop or remodel over time to front this more active and safer linear reserve.

Community and Major Stakeholder Input

This site triggered little controversy or concern within the community during the Charrette, and no local property owners were recorded to have come forth to comment on the site.

The Shire of Swan requested of the Charrette to consider the redevelopment of the former school site.

PROJECT DESIGN BRIEF

The following objectives guided the Charrette, and they should provide a design rationale to guide future revisions from the Charrette designs and other proposals. The Blackadder former primary school site should:

- be developed in part to improve local street connectivity and pedestrian access, amenity and safety;
- capitalise on the best treed areas of the site for a quite small dedicated public park (no smaller than about 3000 sqm), which should be bordered by public rights of way (ideally streets), across which new lots formed from within the site should front the park;
- increase use, safety and frontages along the long public open space strip by introducing more pedestrian and cycle traffic and possibly slow-speed vehicular traffic in a shareway which bends to enable retention of key trees and to slow the traffic.

PROPOSED CHARRETTE DESIGN

The proposed design complies with the Project Design Brief by forming a new small park which retains the trees, bounded by a street which links up all the cul de sacs. The street design is such that the long strip may also be opened to limited vehicular traffic over time, if the community seeks it.

IMPLEMENTATION AND STAGING

This site is relatively independent of the rest of the Charrette proposals. The Department of Education could choose to sell or develop this site at any time.

11.6 MIDLAND TAFE & SWAN REGIONAL PARK ENHANCEMENTS

INTRODUCTION

Swan Park and Midland TAFE were found to be of great value to Midland, but not to be reaching their full potentials, and designs were proposed not only to improve their own functioning and how they relate with each other, but also to generate development returns to help pay for those improvements.

SITE DESCRIPTION AND INFLUENCES

Site Area

The area of study includes Swan Park, Midland TAFE and the adjoining areas with which they interact. The area of study is bounded approximately on the east by the Roe Highway, the south by Morrison Road, the west by Hamersley Street and the north by Patterson Drive.

Precinct Description

- Swan Park and Environs

Swan Park is a single use active recreation park, loosely dispersed across a quite large area, and accessible only by car for most users.

Despite its central location, the Park is relatively isolated from its neighbours because of the edges between them, which limit pedestrian or cyclist access. Roe Highway and the railway beyond that makes a barrier to the east, so that eastward users from Stratton or Swan View must drive two or three times as far 'as the crow would fly' to reach the Park.

The large housing estate of cul de sacs, which is bounded by Morrison Road on the south, Eddie Barron Drive on the north, the Great Northern Highway on the west and the Park on the east, has most properties backing on to its perimeter. It greets Swan Park with back fences, which limits access as well as casual surveillance of the Park.

Thus Swan Park has security and vandalism problems, particularly at night, because of its isolation and lack of mixed uses integrated with it.

Few citizens reported knowing or appreciating that Blackadder Creek flows just north of Swan Park. This is in part because no streets or development actively front the creek along its southern side.

- **Movie Complex**

The cineplex, located just north of Morrison Road and just off the Roe Highway, is quite well located for car access but is presently isolated from adjoining urbanism, limiting synergies with other uses.

- **Midland TAFE**

While the TAFE is an important academic asset for Midland, the design of its campus and adjoining urbanism induces a costly dependence on cars for most students and staff. The urban design of the area separates the TAFE, physically as well as symbolically, from the community it serves, instead of integrating them.

Though Lloyd Street, Spring Avenue and Eddie Barron Drive converge at a key corner with the TAFE campus, no mixed use centre flourishes there. The TAFE pulls north and away from that corner, fronting it with car parks instead of buildings. The southern frontage of Eddie Barron Drive greets that frontage with back fences. A residential access street parallels the western side of Lloyd Street, fronted by houses. It is both rare and unfortunate when a major TAFE is so isolated from its adjoining community, denying the economic, educational and social synergies that a more mixed use context typically affords.

Thus this area of Midland holds several regional assets (Park, TAFE and cinemas), which, because of their urban contexts, must operate in relative isolation from each other instead of benefiting from each other's adjacency.

Land Ownerships

There are the four larger ownerships of Swan Park, TAFE, Cinemas and Blackadder Creek, surrounded by privately owned single dwellings for the most part.

Community and Major Stakeholder Input

The Shire of Swan reported some security problems for Swan Park, caused in part by its isolation and its active recreation single use. Over the past years, much public consultation was reported to have taken place, aimed at resolving a park development plan to locate the various active recreation uses. However, despite the time and effort that had been expended, some park representatives came to recognise that the plan might not provide for good safety or synergies between uses, if built as planned. Park representatives became increasingly willing to consider alternative designs to redress these problems.

TAFE agreed with the isolation and urban design difficulties noted above, as well. They noted that future growth (if any) might to some extent be determined by changes to adjoining properties. The possibility was mooted of expansion or even to some extent relocation toward the Town Centre or the Midland Railway Workshops, if conditions and amenities there were significantly to improve.

PROJECT DESIGN BRIEF

The following objectives informed the Swan Park and TAFE Charrette Design, and these objectives should also guide any future development proposals for the area:

- **Facilitate more synergies among the presently isolated uses** of TAFE, Swan Park, the Cinemas and adjoining housing, by redressing the barrier effects along boundaries between them and by introducing compatibly mixed use development into these areas, where appropriate and feasible;
- **Achieve more direct sub-regional access to Swan Park and TAFE**, especially from areas to the east, north and west, in order to reduce travel distances and car dependence, and to introduce more activity within these areas to improve security there;
- **Improve the security and vitality of Swan Park** by introducing other uses within the Park, where appropriate, to encourage casual surveillance adjoining uses and more activity around the clock;
- **Establish more of a TAFE-based mixed use centre** by integrating TAFE better with adjoining development along Eddie Barron Drive and Lloyd Street and introducing more local student housing where feasible, in order increase economic, academic and social synergies, to increase walkability and to reduce car dependence and related costs for students and staff;
- **Integrate the cinema complex better with its adjoining neighbourhoods**, so that it can function more as a local centre for them.

PROPOSED CHARRETTE DESIGN

The proposed Charrette design hinges on several new sub-regional connections and the development of some Shire-owned property, whose outcomes are designed to redress the problems explained above and to achieve the Project Design Brief.

Proposed New Sub-Regional Connections

- Eddie Barron Drive Extension to West Stratton

Eddie Barron Drive is proposed to be extended eastward across the Roe Highway into Stratton West (see Proposed Sub-Regional Plan and Chapter 7.1). The southern edge of the loop-road carpark around the Velodrome is extended eastward to a proposed on-grade crossing of the Roe Highway, which forms the main entrance from Roe Highway for proposed West Stratton (see Chapter 11.5), and which extends into Blackadder via a proposed pedestrian bridge over the railway.

With West Stratton lying undeveloped, there has been less reason for local access between Swan Park and points to the east, and the priority of limited access in favour of regional through traffic has been quite valid. However, if West Stratton is to be developed, it should ideally have access off Roe Highway, and this increased population may deserve more direct access to Swan Park and the TAFE. This on-grade crossing would help relieve congestion on Morrison Road and its intersections. When Roe Highway upgrades to fully grade separated interchanges, then this proposed on-grade intersections would be

upgraded as well. Because the proposed new intersection is only about 700 metres north Morrison Road, this new intersection may only be able to have access roads from the north.

- **Link Patterson Drive Through Swan Park to Gray Drive**

A small street is proposed to give more direct access for people north of Swan Park into and through the park. This new street would cross Blackadder Creek, giving better exposure and access to footpaths and related improvements along the creek.

Several active recreation areas not yet built area to be re-arranged along this new street, with shared facilities and parking to reduce overall costs and to improve services for each of these sports fields.

- **Small Connector on TAFE property along Blackadder Creek**

A small east/west street is proposed from the Great Northern Highway to provide a positive edge between TAFE and the Blackadder Creek flood plain and parkway, so that over time new campus buildings can front the street and look north across the creek park. This new street connects to the new north/south street and defines the eastern edge of proposed new medium-density developments on the park land and enfronting the park facilities (see below).

Development of Key Unused Areas of Swan Park and TAFE

About 125 new mostly medium-density dwellings are proposed along the eastern edge of the TAFE property and along the residential subdivision to its south, to be developed on Shire of Swan property. This development of interconnected streets provides a very positive frontage to Swan Park, without losing any planned park facilities. It will bring a live-in community much closer to the park facilities, so that use of the facilities will likely rise and vandalism will diminish, due to increased casual surveillance from adjoining properties which would now front the park, rather than backing onto it with high fences. Returns from this development may help pay for improvements to the Park, as well as other Charrette Outcomes. Some planned sports fields are proposed to be relocated for improved access and to make room for this new development.

- **TAFE Student/Faculty Housing**

The development on TAFE property may be ideal to accommodate both students and faculty, who may prefer to live close-by, especially with such good exposure to the Park and Blackadder Creek.

- **Development North of Aquatic Centre**

The new development north of the Aquatic Centre capitalises on proximity to the Park, Cineplex and TAFE. Rears of new residential lots meet the rears of existing lots which presently back onto the park, and existing cul de sacs are connected east through the new streets and properties which now *enfront* the Park instead of *backing onto it*. This design arguably gives a *better* interface with the park than is presently available to the lots which

back onto it, because these lots either have high privacy fences, which deny views, or low fences, which allow views but lose privacy and security. Thus the lots that presently back onto the Park can neither appreciate the Park fully, nor can they provide casual surveillance to the Park because of their high back fences.

- **Enhanced Neighbourhood Centre @ Cineplex**

The development at the southern end of the Park, south of the Aquatic Centre, aims to integrate with the cineplex to complete a local mixed use neighbourhood centre there, featuring access to sports, recreation and TAFE, and well-served by bus transit along Morrison Road.

New TAFE-based Mixed Use Centre

Two key moves are proposed together to trigger a new TAFE-based mixed use centre at the intersection of Lloyd Street and Eddie Barron Drive. The first is a decision by TAFE to concentrate future development in within the indigo blue-coloured area in the south west corner of the TAFE property, bringing new TAFE buildings to front both Lloyd Street and the relocated Eddie Barron Drive explained next.

Back fences run along the entire south side of Eddie Barron Drive, and TAFE car parks greet most of the north side, forming a bleak streetscape which denies synergies between TAFE and the adjoining neighbourhood. Charrette Team member Keith Weymes came up with the idea of shifting Eddie Barron Drive 25 metres north onto TAFE's parking lots, turning the car park aisle into a street, and freeing up a 25 metre-deep band of land in the former street reserve for mixed use development to front the re-located street. Present cul de sac head are connected through this band of new development to connect the subdivision to the south more favourably to the relocated Eddie Barron Drive, which now *binds* the two developments together rather than *dividing* them as does the present street. Thus both sides of the street meet at effectively a main street environment with education on one side and related mixed use development on the other. The south side of the street near Lloyd Street would be mostly convenience retail to serve the TAFE and surrounding neighbourhoods, while street level uses further east could become more small offices and/or home offices for residences above or behind.

IMPLEMENTATION & TIMING

Reconcile Individual and Community Priorities

Owners of properties backing onto the Park may have concerns about losing their privatised interface with the Park. The Shire of Swan will need to come to grips with whether the expectations of these owners should override possibly bigger gains both for the Park and Midland generally, derived of improvements to both from the proposed design. It will be important, as well, to consider how much the financial returns from developing these under-utilised areas of public open space can help to pay for other Charrette Outcomes, such as other improvements to the Swan Park, rehabilitation of Blackadder Creek, etc. Local citizens should also consider the merits that more population, born of this design, may deliver in terms of local services this added population and expendable income can support, such as cafes and new employment opportunities in businesses within the TAFE-based mixed use

centre, as well as corresponding gains with enhancement of the Cineplex centre.

Facilitate Joint Funding Agreements

Many of the design proposals, such as the sub-regional linkages, will benefit many users, especially land owners adjacent to them. For example, the street alongside Blackadder Creek on the TAFE property will benefit all Blackadder parkland users in terms of access and safety, while it will also benefit the TAFE by giving it an active frontage to the creek. The same principle applies to relocating Eddie Barron Drive, for TAFE and the Shire of Swan who owns the street reserve. Therefore, the Charrette Implementation Task Force may be well advised to facilitate joint funding arrangements for such infrastructure improvements.

Holistic Cost-Benefit Review of Proposed New Crossing of Roe Highway

The Charrette Implementation Task Force may be well advised to initiate a cost-benefit review of *all related issues* around the proposed extension of Eddie Barron Drive *across the Roe Highway*, to reconcile possibly conflicting priorities which might be held either by the Shire of Swan and/or Main Roads. An integrated review of the sub-regional economic, social, environmental and transport costs and benefits for this intersection should prevail, hopefully measured against the relatively holistic list of objectives which gained broad support through the Charrette.



Swan Park and Tafe Plan

12. THE EMPLOYMENT AGENDA

12.1 EXECUTIVE SUMMARY

The Charrette proposes improvements to local employment throughout Midland. Reasons for this are explained in Section 4.2 of this Report. Local employment improvements are proposed *generally* across all projects and then *specifically* with major initiatives for particular sites, as explained below.

A strategy *generally* to expand information and service-based small business employment viability underpins all of the Charrette Proposals, in order to:

- increase Midland's resident and worker density in the Town Centre and all neighbourhood centres, because more population and diversity generally helps new and small businesses to start and grow by means of greater local market and support networks of related businesses, and because more population and diversity makes more part-time and casual jobs (a growing sector of new jobs) more accessible to more workers (for more information on employment trends and resultant demands on urban structure see Mixed Use Primer);
- improve Midland's natural and urban amenity in order to attract higher-income people to move here and to start new small businesses locally to help employ the rest of us;
- improve the urban structure of Midland for better local access, interconnections and commercial and social exchange.

Each of the Charrette Proposals in earlier chapters explains how this general strategy is focussed for that particular proposal.

The Charrette also makes several key *Midland-specific* business generation and employment proposals which, in combination, respond to all major known opportunities specific to Midland. These major proposals were informed firstly by research conducted prior to the Charrette and secondly by what was learned during the Charrette.

Midland's Employment Context in a Nutshell

Midland badly needs more *local jobs for locals*. Midland's population is expected to increase by 32,460 over the next 30 years. On the next page are two contrasting local employment scenarios for Midland's present and future population.

'STEADY AS SHE GOES' - (Current Planning)

Jobs Needed	17,600	
Jobs Created	5,976	<i>(33% of local jobs needed)</i>

'ACHIEVE THE CHARRETTE PROPOSALS'

Jobs Needed	17,600	
Jobs Created	12,200	<i>(70% of local jobs needed)</i>

Details of the Charrette Proposals, from which these conclusions are derived, are provided in sections 12.3 and 12.7.

Major Local Employment Proposals

The Charrette assessed employment needs and opportunities *specific* to Midland, and proposed the following *specific* business expansions:

<u>MAJOR EMPLOYMENT INITIATIVES</u>	<u>JOBS</u>
Railway Workshops Heritage Precinct	182
Hazelmere Eco-Industrial Park	7,400
Midland Junction Business Centre	1,060
Woodbridge Landing Ferry/Tourist Centre	260
Morrison Road/Roe Highway Business Centre	705
Convent Country Club	43
Total New Jobs	9,650

These initiatives, identified or generated through the Charrette, are meant to maximise all possible and appropriate major employment opportunities for Midland, known to us at the time of the Charrette.

The rest of this chapter offers sections for each of these major employment initiatives. Typically a landuse justification with anticipated uses is offered in outline form. Anticipated spatial needs and related jobs projected for this initiative are then outlined. This data was researched and prepared under the leadership of Derek Kemp, before and during the Charrette.

How The Major Local Employment Proposals Were Developed

Proposals were developed through a combination of sources and processes. The 1996 ABS and census data was interpreted before the Charrette. Interviews and workshops with business leaders were conducted prior to the Charrette, which generated many suggestions about possible employment opportunities. These suggestions were analysed preliminarily, and those which seemed most feasible were then considered by designers during the Charrette. The employment research team, led by Derek Kemp, also participated as part of the Joint Client/Consultant Charrette Team.

The Charrette then tested the feasibility of these local employment possibilities by design for specific sites, while responding to public input and 'floating' non-binding 'deals' with business project proponents and key private, regulatory and government leaders. The following major local employment proposals are those which emerged through this interactive design and consultation process as apparently feasible and appropriate for the Charrette to propose, based on the information available.

While none of this information can be regarded as definitive or assured, it may be useful to inform implementation of the Charrette.

12.2 DEVELOPMENT OF THE EMPLOYMENT AGENDA

Situation Analysis

Investigations prior to the Charrette identified a number of difficulties constraining Midland's ability to grow. Foremost amongst these were:

- the failure to attract enough new jobs that generate income from outside the local area - especially high growth service based employment to replace the state and regional serving manufacturing jobs lost with the closure of the railway workshops.
- the failure of Midland to attract enough expenditure from those earning their income from outside Swan Shire - especially tourist and visitor expenditure.
- the failure to capture much of the household expenditure from existing high income earners already working in Midland - these people are choosing to live outside Swan Shire.
- the failure to capture the available discretionary (non-essential) expenditure of existing residents - wealth is draining out of the Shire because people felt there was "no where to go", "nothing to do" and "no feeling of going out" in Midland, therefore, they spend special evenings and weekends elsewhere.
- the failure to attract significant business expenditure - often services were purchased from outside Midland and there were few reasons to bring visitors or entertain business clients.
- urban settings were not conducive to attracting clients - there was little opportunity to impress clients or convince them that a business had standing because of the physical setting and perceived social problems.

It is clear that Midland is still adjusting from its former role as a major manufacturing centre and significant rural service centre. Consequently, Midland is struggling to successfully compete in the emerging post-industrial economy.

An Approach to Sustainable Employment Growth

Midland needs to build a sustainable, service based economy able to generate wealth and create jobs, both today and into the future.

Building a sustainable, strong, service based economy, able to deliver good job outcomes, increasingly requires:

- attracting and retaining those with scarce skills; and
- capturing high incomes so that they are expended locally.

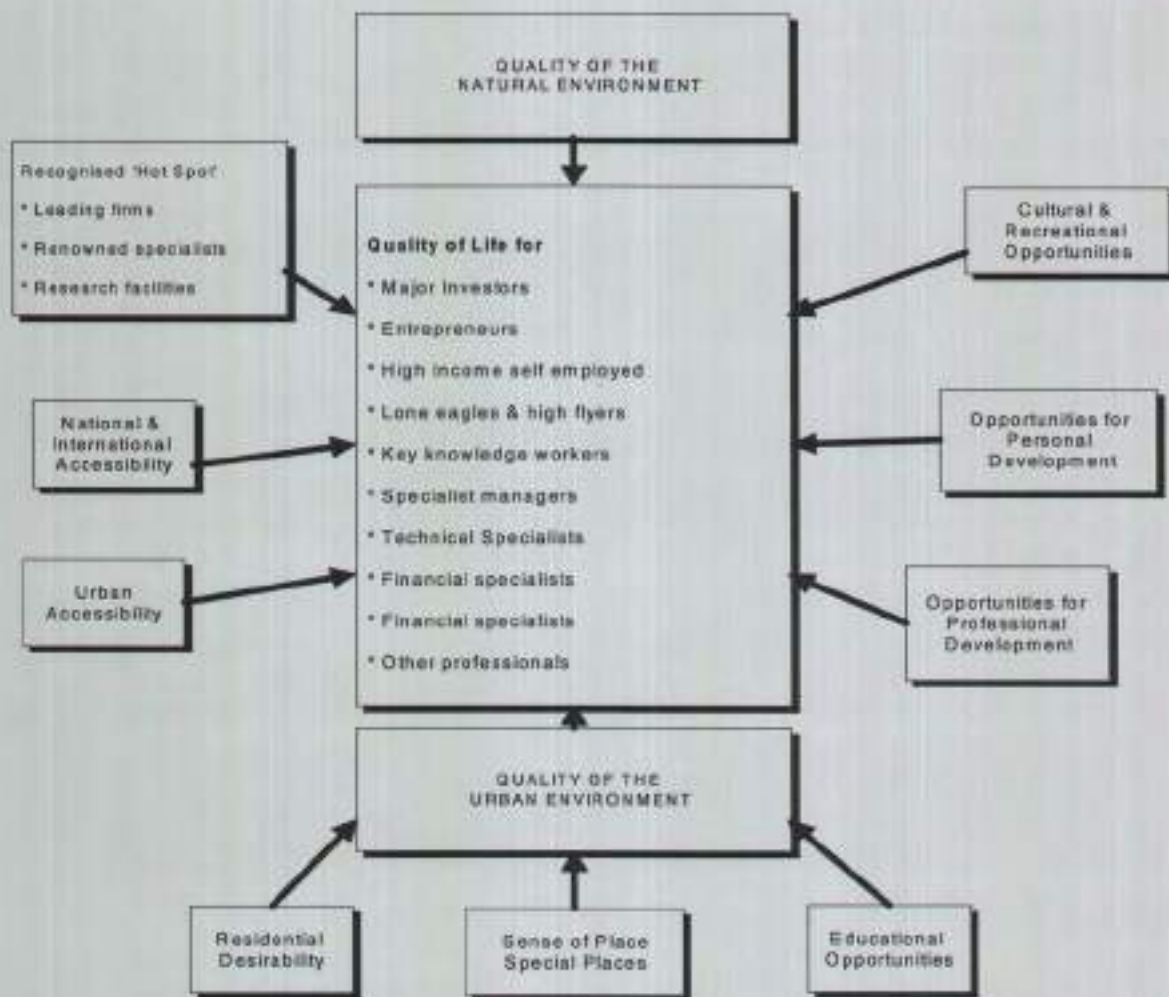
Attracting and Retaining Those With Scarce Skills

Locations with good employment prospects have to be attractive to those with scarce skills who can afford to live and work wherever they choose. Throughout the world the same set of skills are in short supply. Regions are increasingly competing with each other to attract the people they need to underpin their future economic growth.

Midland will need to compete for the people with scarce skills it needs to underpin its future economic growth. The key requirements for attracting and retaining these people revolves around the 'quality of life' available. The most influential elements of this are:

- the quality of the natural environment;
- the quality of the urban environment - special places with a 'sense of place';
- the residential desirability of individual neighbourhoods;
- personal and professional development and educational opportunities;
- recognition that the area is a 'hot spot' at the leading edge of some activities;
- good urban and international accessibility.

LIVEABILITY REQUIREMENTS FOR POST-INDUSTRIAL URBANISATION



Illustrates how capturing high incomes can create sustainable employment.

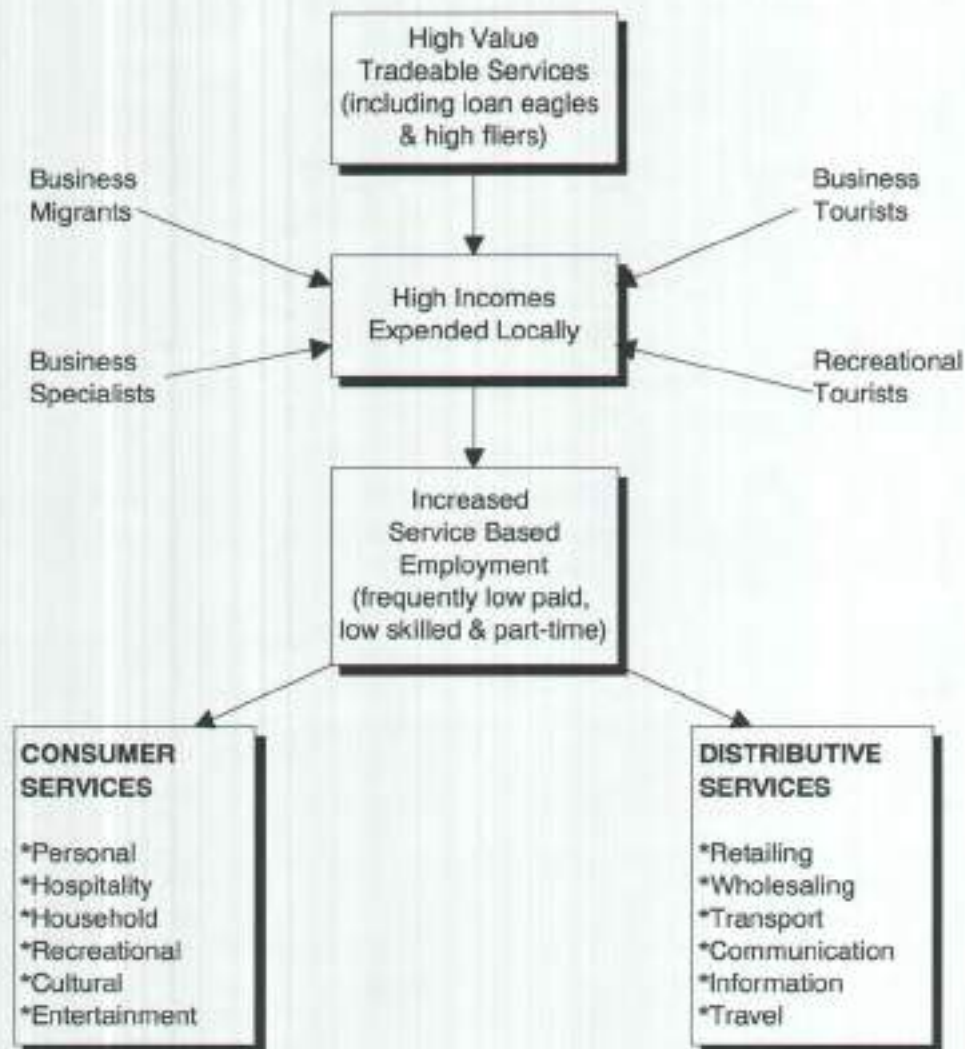
Capturing High Incomes So That They Are Expended Locally

Manufacturing and agriculture services are no longer able to provide the large numbers of jobs for young people, nor the many unskilled jobs that they did in the past. Thus urban areas like Midland need to find new ways of creating these jobs. Government and big business employment is unlikely to be a source. The best prospects are in the provision of business, community and personal services. Most of these jobs are likely to be in newly established small businesses.

For these small, service sector businesses to grow in sufficient numbers to achieve good employment outcomes, it is necessary to capture high levels of both local and external expenditure. This is best achieved in diversified economics that attract:

- the household expenditure of high income earners living locally;
- the discretionary expenditure of visitors and tourists living elsewhere;
- business expenditure from high value service firms;
- expenditure from business visitors attending conferences and workshops.

SUSTAINABLE POST-INDUSTRIAL SERVICES BASED EMPLOYMENT



Illustrates how capturing high incomes can create sustainable employment.

Midland Needs to Attract People with High Incomes and Scarce Skills and to ensure their Expenditure is Spent Locally.

Employment Related Economic Objectives for Midland

The following employment related, economic objectives were developed for Midland.

1. To build a strong base for organisations, business and people providing services to those located outside the Shire of Swan.

-
2. To develop facilities and urban settings able to attract investment and bring both business and visitor expenditure to Midland.
 3. To create residential and urban settings attractive to those with scarce skills and higher income earners who will spend locally.
 4. To create a credible business address and provide built infrastructure to support the establishment and growth of small service sector businesses.

These objectives guided further opportunity investigations prior to the Charrette and the 'enquiry by design' that took place during the Charrette.

Midland's Competitive Advantages

Midland has a number of significant competitive advantages around which future employment growth could be built. These were explored by key informant interviews and through a series of focus group workshops held prior to the Charrette.

Foremost amongst these competitive advantages are:

- the continuing of Midland as a rural service centre - attractive to country people seeking a wide range of services provided in a slower paced, large country town atmosphere without the hassles and harassment of hurried metropolitan shopping;
- the locational advantage of Midland being close to Perth Airport; on the inter-state highway to the Eastern States, and at the intersection of Perth's orbital highways (giving good metropolitan wide accessibility and direct connections north and south to the rest of the state) - in combination, these provide strong locational advantages for businesses serving metropolitan wide markets and could enable Midland to become a transport and logistics centre;
- the potential of the old railway workshops land to provide large sites for future residential, mixed use, service based institutional, sports and/or recreational development - with the possible adaptive re-use of the workshops themselves to support logistics, tourist or other business opportunities;
- the potential attractiveness of the area to higher income earners and those with scarce skills - provided by the Swan River, the Swan Valley and the Hills, with their scenic advantages and recreational opportunities, and provided by the metropolitan, state-wide and international accessibility created by Midland's position near the airport and the metropolitan highway system;
- the strong growth in small local service based businesses, many starting as home based businesses - these need incubating, support and assistance to grow to serve wider markets.

Opportunity Investigations

Commercial and business opportunities were investigated, both before and during the Charrette. The aim was to find ways to realise the competitive advantages of Midland in ways that could most cost effectively meet the above employment related economic objectives.

These investigations considered both:

- the general requirements to grow service based businesses; and
- the requirements of opportunities with particular locational or site needs.

Investigations and industry based focus groups enabled 30 business opportunities to be identified for Midland that had specific locational or large site needs.

- 7 tourism and entertainment opportunities.
- 6 manufacturing and industry opportunities.
- 8 transport and distribution opportunities.
- 9 technology and training opportunities.

These were further investigated by the economic consultant and the Swan Team and 'Opportunity Profiles' were prepared for each opportunity.

Major Opportunities Identified for Midland

See individual 'Opportunity Profiles' on each of these.

Tourism and Entertainment

- Integrated tourism gardens (floriade, herbal plants, medicinal plants, bush tucker).
- Multi-cultural and indigenous cultural venues (dream time cultural centre).
- Living parks attractions (each with their own theme, themed by community groups).
- Regional bike tour tracks.
- Music in the park venues (including a river stage possibility).
- Midland lights attractions.
- Venues to watch water events and the Avon Descent.
- Accommodation to support the regional sports complex.
- Health/sports medicine centre.
- Weddings and reception centre.

Manufacturing and Industry

- Gem cutting and jewellery manufacture and display centre.
- Food industry park.
- Sustainable green waste management.
- Sustainable waste management (possible co-generation energy park).
- Large scale outdoor fabrication (for resource industries).

Transport and Distribution (Logistics)

- Mega distribution warehousing.
- Trucking and distribution centre (including truck park and cross-docking facility).
- Multi-role driver training centre (including construction equipment, truck, coach, four wheel driving courses and skid pads).
- Interactive order and display centres.
- Consolidation warehouses and distribution (for resource industries).
- Super consumables and spares store (for resource and vehicle industries).
- Building and construction supplied distribution centre.
- Container and debundling complex.

Technology and Training

- Logistics management.
- Outsourcing and outsourcing contract management.
- Fleet management.
- Security training.
- Research and development park.
- Sustainable water management.

There is real opportunity for Midland to become a centre of excellence and a place to come for training in a range of these activities. The provision of suitable training packages and venues for Midland to develop as a 'hot spot' for these activities should be an important aspect of Midland's Economic and Employment Strategy.

The following place specific projects and design proposals were informed by the need to provide such venues.

Overall, the aim is to create 'a whole' that is greater than the sum of its parts.

Translating these Opportunities into Place Based Proposals

Midland needs to attract Tourists, Visitor and Business Expenditure, to realise new business opportunities and to support small business growth.

The Charrette provided the opportunity to interact with local business people, government departments and agencies and the community to:

- identify specific 'placed based' ways to address the constraints, identified above, that are presently handicapping Midland's employment growth;
- identify suitable locations to realise the specific opportunities with specific locational requirements, or requiring large sites, identified before the Charrette;

-
- identify ways to support the growth of less locationally constrained small service sector based businesses that have been demonstrated to generate high employment - especially for young people and those with lower level skills.

The Charrette enabled designs to be developed to address these issues on specific sites in Midland.

The following opportunities were built into the design studies:

- the re-development of 'the Railway Workshops';
- the development of 'the Junction Regional Business Centre';
- the development of 'the Morrison Road Business Centre';
- the development of 'the Woodford Landing Health, Conference and Recreational Centre';
- possible adaptive re-use of 'the Convent Country Club'.

Beyond this the Charrette provided an opportunity to explore the possibility of creating 'the Hazelmere Eco-Industrial Park' to realise some of the other important employment opportunities identified prior to the Charrette.

At the same time the Charrette sought to address the wider employment agenda:

- urban design and landscaping improvements were developed that will improve the attractiveness of Midland to businesses, investors, government departments and agencies and their employees;
- residential areas were designed that will be attractive to high income earners, high net worthy people and those with scarce skills that Midland needs;
- urban designs were developed that would accommodate robust, mixed-use buildings and home based businesses, as well as supporting the provision of local retailing and services.

12.3 SITE SPECIFIC EMPLOYMENT OPPORTUNITIES

12.3.1 THE RAILWAY WORKSHOPS (See Chapter 9 for design information)

The area around the main Railway Workshops provides an opportunity for adaptive re-use for one of the following sets of purposes.

- Visitor and events opportunities.
- Transport and equipment displays.
- Distribution activities.
- Retail displays.
- Recreational activities.

These possibilities are outlined below.

Heritage Buildings Precinct Adaptive Re-use Possibilities

*NB: Some uses may be incompatible.
West side of building visitors and display.
East side work spaces.
(Also Swan Senior high School vocational venues.)*

Visitor and Events Opportunities

- Railway Historical Society (displays and restoration).
- Jewellery, gem cutting and mineral (displays, sales, interpreting).
- Street machine & collectable concourse cars (displays & restoration work spaces).
- Garden centre, garden expos and floriade (including gourmet restaurant, native species, bush tucker).
- Cricket, cycling, callisthenics, 'Halls of Fame'.
- Antique and furniture fair (displays, sales, auctions, restoration).
- Model vineyard (including vocational training & standards/testing laboratories).
- Working orchard.
- Walk through aviary and butterfly house.
- Walk through nature fauna reserve.

Transport and Distribution

- Truck and coach manufacturers' displays.
- Caravan and camping manufacturers' displays.
- Farm and construction equipment displays.
- Auto mall (car manufacturers, displays, detailing and equipment fitting).
- Trucking cross docking and distribution centre.
- Bus, coach and truck servicing (over pits).

Other Business Opportunities

- Small office/home office products (displays and sales).
- Building product displays.
- Home improvement and outdoor furniture sales.
- Assembly of 'knocked down' furniture & products (from interstate and overseas).
- Family gymnasium and entertainment.
- Factory seconds and supersede stock outlets.
- Amusement centre/interactive display.
- Full product line manufacturers' display.
- Furniture, white goods, floor covering (displays and sales).

Given the above economic and employment objectives it is considered the best use of the main Railway Workshop buildings would be for activities attractive to visitors and tourists. These could include:

-
- Railway historical displays.
 - Sporting halls of fame (cycling, cricket, calisthenics).
 - Jewellery, gem cutting and mineral displays.
 - Street machine and collectable car concourse.
 - Four wheel driver manufacturers' displays.
 - Furniture manufacturers' displays.
 - Antique and furniture fairs.

The inclusion of interactive activities and displays (such as an interactive virtual mine) would add to the attractiveness.

It is possible the use of each workshop building could change at the middle. Tourist and visitor displays and retailing being in the western half of the buildings and restoration and workspaces at the rear, eastern ends.

These uses would be augmented by the use of land immediately adjacent to the main workshop buildings for related attractions.

The land running down to the Helena River would be particularly attractive to outdoor visitor attractions once visitors are attracted in large numbers to the precinct.

Land uses that could create a tourist and visitor complex around the main workshops would include:

- market places;
- a complete skate boarding complex;
- a 'walk through' aviary and/or butterfly house;
- a 'walk through' native fauna reserve;
- a working orchard and/or model vineyard;
- a floriade and permanent garden expo;
- native tucker and medicinal plant gardens.

See the Tourism and Entertainment 'Opportunity Profiles' for further information.

It is possible these opportunities could be developed with walkways and garden settings to showcase local building and garden products.

The employment generating possibilities of such adaptive re-use are estimated as 182 jobs (effective full-time - fte) excluding any off-site flow on employment effects and 150 volunteers, and 30 stall holders etc. .

The employment generating possibilities of such a local business centre are estimated as 705 jobs fte excluding any off-site, flow on employment.

Station Regional Business Centre Employment Budget

	JOBS
Office	610
Not for Profit	180
Convenience Retail	230
Accommodation Servicing	26
Business & Community Access Facilities	5
Maintenance & Management	9
TOTAL:	1,060

12.3.3 THE MORRISON ROAD BUSINESS CENTRE (See Section 11.5 for design information)

One of the keys to successful small business growth is to have sufficient attractive, affordable, well located space where these businesses can naturally cluster. These small business nodes need high exposure sites that provide good local and metropolitan wide accessibility. The businesses located there benefit from the 'presence' created by the built form and having other quality businesses nearby that reinforce the business image.

The high exposure Morrison Road site is ideally suited to create a credible business address for small, local, office based, service sector businesses. This centre will compliment the Junction Regional Business Centre by providing cheaper office accommodation, east of Midland, at a prominent local address, with high exposure and excellent accessibility.

The Morrison Road Business Centre will provide suitable, affordable office accommodation to meet the needs of small businesses established to the east of Midland's town centre.

The Morrison Centre will provide affordable space for local small start up businesses and home based businesses that need to move to commercial premises. Suitable accommodation needs to be available within about four kilometres of where a home based business is first established if that business is to relocate and grow.

As with the Junction Business Centre, the aim is to create a distinct 'business address' that can help emerging small businesses establish their business credentials. The clustering of office based services at an identifiable business centre recognised by its prominent location, built form and distinctive design is critical. In this way it is possible to add to the credibility of local businesses to overcome the attitude that significant metropolitan service sector businesses serving metropolitan or wider markets must have a West Perth or Victoria Park address.

The Morrison Road Business Centre will also provide an opportunity for small businesses to own their own premises as they expand.

The Centre will act as a small business incubator. It is proposed that 20% of the space is devoted to serviced offices with shared reception and business support services. A cafe and restaurant will promote interaction between businesses. Other commercially operated services could be a gym, squash courts, office overload services and retail components such as newsagents, stationers and office supplies, bookshops, computer hardware and software shops.

Further justifications of this proposal and an outline of the facilities and spaces that should be provided in the Morrison Road Business Centre are set out below.

Morrison Road Business Centre Landuse Justification

- Meets identified need of locally incubated small businesses to have a prominent business address.
- Rentals less than at Station Regional Business Park (\$50 to 70m2 - \$90 to 140m2).
- Ability to purchase own unit.

Outline of Uses

- 12,000m² quality small business office space (20% serviced offices with shared reception) (50m² to 150m²).
- Copying, plan printing, office overload services.
- Cafe, restaurant.
- Book, computer shops.
- Gym, health club, squash courts, sauna, spa.
- Newsagents/stationers.

The employment generating possibilities of such a local business centre are estimated at 705 jobs fte excluding any off-site, flow on employment.

	JOBS
Small Business Offices	480
Business Services & Convenience Retailing	188
Cafe & Restaurant	20
Gymnasium & Squash Club	14
Centre Management	3
TOTAL:	705 fte

12.3.4 THE WOODBRIDGE LANDING MULTI-FUNCTION CENTRE (See Chapter 10 for design information)

Woodbridge Landing has the potential to provide the high amenity residential areas sought by those with scarce skills which Midland needs to attract, and sought after by the high income/high net worth people (whose expenditure Midland needs to retain - see Section 12.2).

There is also a genuine need to provide venues for entertaining business visitors, for running small conferences and workshops and to host functions such as weddings and receptions.

These business needs are likely to expand with the introduction and growth of new business and government enterprises in Midland.

Similarly, the demand for up market social and entertainment venues are likely to grow as more higher income people visit and seek to live in Midland.

Beyond this, there is an opportunity to attract the expenditure of businesses and people located outside Midland if suitable high amenity venues are provided. For instance, many businesses, government departments, government owned enterprises and not for profit organisations welcome the opportunity to run workshops away from their office - where there are fewer distractions and there is less opportunity for participants to be called away or absent themselves temporarily only to never return.

There is also increasing emphasis by businesses and individuals on personal and executive health. This is a largely untapped market with high income and growth potential.

The Woodbridge Landing design provides an ideal setting for a multi-functional health and conference centre that would tap the demand created by all these needs. The Swan River parkland setting, the possible Perth river ferry and the adjacent fitness track, riverside walks and jogging track will add to its attractiveness and the range of activities available to guests. An added convenience is it just being within walking distance of the Midland town centre. Thus there can be additional business spin offs for both.

Woodbridge Landing will provide:

- small scale conference, workshop and training venues;
- health club and country club facilities;
- health, sports medicine and corporate training courses;
- scenic venues for weddings and receptions;
- scenic venues for product launches, advertising and marketing;
- accommodation for small groups and individual participants.

Further justifications of this proposal and an outline of the facilities that should be provided at the Woodbridge Landing Health and Conference Centre as follows.

Viveash/Swan Landing Multi-Functional Health and Conference Centre

Landuse Justification

- Upmarket health study providing small scale conference and wedding/reception facilities (local need).
- Venue for small, short duration specialist courses with eminent speakers - marketed throughout Western Australia and Asia (tradeable service).
- Opportunity to attract government departments and small corporate workshops. Out of Perth so participants don't go back to office, able to provide overnight accommodation (business need).
- Brings higher income people into area and keeps people overnight.
- Increases corporate awareness of Midland as a serious 'place to do business'.

Outline of Uses

- Training rooms.
- Medical consulting rooms.
- Bistro, gourmet 'Healthy Eating' restaurant.
- Library and serviced office space.
- Gymnasium, flotation tanks, sauna and spa.
- Weddings and receptions (use of outdoor chapel).
- Types of health courses (residential):
 - Healthy Living
 - Detoxification
 - Weight loss/Body toning
 - Stress management
 - Dietary control
 - Know your Heart
 - Change Your Lifestyle
 - Health and Diet for the Over 50s
- Types of corporate courses/programmes (optional residential):
 - Team building and leadership
 - Negotiation and dispute resolution
 - Outsourcing and outsourced contract management
 - Sustainable design and management of resorts
 - Managing not for project organisations
 - Sports Medicine

The employment generating possibilities of such a multi-functional health and conference centre are estimated at 98 jobs fte (excluding any off-site, flow on employment) rising to 160 for special events.

Woodbridge Landing Multi-Functional Health and Conference Centre

First Stage Development (minimum investment)

Beds:	20
Training Rooms:	One meeting room for 30 Three meeting rooms for 10
Other Facilities:	Bar, bistro for 50, small gym, one tennis court, on flotation tank, small games room (one billiard table), library nook, fax/copier, one service office of 20m2

Note: Careful consideration could be given to providing budget cabin accommodation.

Venue for 'Music By the Swan' on Boardwalk, observed from Swan Landing Island.

Prior to the Charrette more localised needs were also established for:

- small and medium scale light industry and warehousing premises;
- residences with home workshops;
- residential lots where truck drivers could bring their vehicles home.

The Hazelmere area also presents excellent future opportunities for other business uses requiring highly accessible sites with good exposure. These include:

- retail warehousing and showrooms;
- business park;
- trading estates.

Consequently, some time was spent during the Charrette considering the most appropriate locations for a range of these opportunities.

Staging the Use of the Hazelmere Land

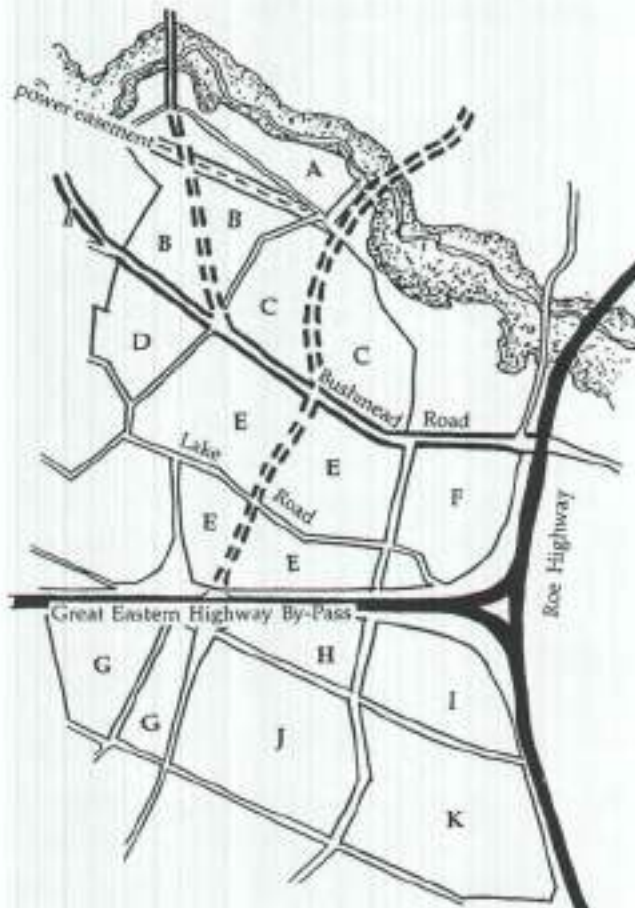
Staging the development of Hazelmere will be particularly important to ensure longer term opportunities are not unnecessarily squandered by:

- the loss of key sites to meet local rather than regional business needs;
- the introduction of inappropriate land uses;
- the loss of future strategic sites to other uses;
- the loss of available large sites to smaller scale uses.

However, sufficient medium and small sites still need to be provided to meet existing and potential future needs of local businesses and small scale transport, distribution and industrial needs.

The Hazelmere area has been divided into 14 precincts to enable discussion (see Plan for these precincts and possible landuses). These precincts could form the basis for future planning and landuse controls.

SCHEMATIC PLAN OF LAND USES



- | | |
|---|---|
| <p>A Residential with Home Workshops facing onto Power Easement.</p> <p>B Rural Residential</p> <p>C Water/Waste Management Recycling/ (Demo Project)</p> <p>D Rural Residential</p> <p>E Clean 1-3 ha Light Industry/Distribution</p> <p>F Bus Park (Small Site Light Industry/ Warehousing Alternative)</p> | <p>G. Large site (Interim outdoor fabrication, container parks buffered from Highway).</p> <p>H Large Auto/Truck Service*</p> <p>I Large Auto/Truck Service*</p> <p>J Large Sites Future Mega- Distribution (Interim truck park and truck cross-docking facility).</p> <p>K Large Sites Future Mega- Distribution (Interim Driver Training or for Dist. Vehicles)</p> <p>* (Interim truck/coach/trailer construction equip displays).</p> |
|---|---|

Areas A, C and E1 and E2 of the Hazelmere lands (north of the Great Eastern Highway Bypass) should be made available, as soon as possible, for the nominated landuses to cater for existing and emerging demand. This will help establish Midland's credentials as a 'Logistics Centre' and demonstrate the Shire's desire to attract 'Clean Industries' to its 'Eco-Industrial Park'.

It is critical that the first activities attracted to this area establish the required image, rather than detract from it. Landuse and Planning intents should be prepared for these precincts to ensure this is achieved.

Careful attention also needs to be given to the landuses fronting the major highways. Landuse, design and landscaping controls would be appropriate for these areas.

The areas south of the Great Eastern Highway should be retained for future logistics activities requiring large sites. The areas close to the highway being used for vehicle displays and sales with supporting vehicle and component fitting services. However, appropriate interim uses could be permitted that will avoid these strategic sites being rendered sterile until they are needed. Such landuses should be selected so that they involve low capital investment and do not result in inappropriate, major permanent structures on the land.

The following sections outline the suggested intent for each Hazelmere precinct.

Precinct A: Home Workshops

This precinct would suit residences with home workshops facing onto the power easement. Larger residential allotments could also be provided with appropriate town planning controls to enable truck drivers to bring their rigs home and to do minor repairs and routine maintenance on them.

Precincts B and D: Rural Residential

These precincts have been designated rural residential and are not considered further for business use beyond possible home based businesses.

Consequently landuses originally proposed for these sites have been re-allocated to other areas where appropriate. Hence, the reduction in estimates of the future employment potential of Hazelmere.

Precinct C: Waste Management

Because of their proximity to the sales yards and its effluent disposal, these two areas are most appropriate for the identified waste management and recycling opportunities.

The western area could, alternatively, be used for either small or large scale light industry and warehousing and distribution activities if they are not needed for waste management.

Precinct E: Mixed Industry, Warehousing and Distribution

This precinct is best used for a broad mix of industry, warehousing and distribution activities. Different areas should be initially reserve for particular types of uses.

- Area E1 (the north eastern part):
 - ◆ for medium sized industry, warehousing and distribution activities - requiring sites of 1 to 3 ha.
- Areas E2 and E4 (fronting the Great Eastern Highway By-pass)
 - ◆ for small, light industry, warehousing and distribution uses - requiring sites below 5,000 m²;
 - ◆ the highway frontage being available for retail warehousing and large showrooms - accessed from either a slip road or from a rear road.
- ◆ Area E3 (the north western part)
 - ◆ a clean production area suitable for food, pharmaceutical and technology based industries serving state and metropolitan wide markets.

This split in landuses between different types of activities is not meant to be 'etched in stone'. If there is significant unfulfillable demand for any of these types of landuses, then any remaining vacant land could be allowed to make good the short fall.

Precinct F: Business Park and Trading Estate

The elevation of this area, with its prominent position at the intersection of the Great Eastern Highway By-pass and the Roe Highway, makes it well suited for a future business park or landscaped trading estate.

If this area is to be developed in the short-term, greater employment potential would be realised if the land at the rear, behind the highway frontages, is developed for small scale, clean light industries. The highway frontage could be developed for large scale retail warehouses or large showrooms.

If the uncompacted fill is a problem, the rear land could be used for medium scale industrial, warehousing and distribution activities. These could be 'slab on ground' construction on sites of 1 to 3 ha. Large scale warehousing and logistics operations with automated or computer 'picking' may be unsuitable due to movement on the fill.

Precincts G, I and K: Large Scale Warehousing and Distribution

These precincts should be reserved for large scale warehousing and distribution activities in keeping with developing Midland's role as the 'Logistical Heart of Perth'.

Precinct H and J: Truck and Auto Service Trades

There will be considerable demand for truck, trailer, refrigeration and container servicing and when Hazelmere reaches its full potential as a logistics and distribution centre.

These areas are proposed for a wide range of vehicle sales and service activities.

Interim Landuses for these Precincts

Interim landuses should be considered for these prominent, highly accessible precincts south of the Great Eastern Highway By-pass. Possible interim landuses, that occupy large sites but require limited permanent structures would be:

- truck part and truck centre;
- cross-docking truck distribution facilities;
- vehicle storage prior to distribution;
- truck and coach driving centre and skid pan;
- off road vehicle driving centre;
- auto-mall (car and four wheel drive manufacturer's displays);
- truck and coach manufacturers' displays;
- construction equipment and machinery displays;
- building products display centres;
- camping and caravan manufacturers' displays;
- container storage (only on visually buffered internal sites located away from the highway frontages).

Further Justifications

Further justifications of these proposals and an outline of the facilities that could be provided at Hazelmere are set out below. The 'Opportunity Profiles' provide further information and key Western Australian and interstate contacts for these opportunities.

Hazelmere Eco-Industrial Park Landuse Justification

- Very little industrial and warehouse land is needed for projected population growth:
 - Pre-Charrette population growth requires 5.5 ha.
- Location with respect to highways suits:
 - truck traffic from interstate;
 - truck traffic to Kalgoorlie and North;
 - activities requiring to distribute daily across whole metropolitan area (not just any one corridor eg. bread, biscuits, small goods, dairy products etc.)
- Therefore, areas proposed for:
 - food manufacturing and clean production;
 - warehousing and distribution;
 - trucking centre;
 - truck, construction equipment, displays, sales and services.

The employment generating possibilities of Hazelmere are estimated at 7,400 jobs ft (excluding any off-site, flow on employment).

Hazelmere Eco-Industrial Park Employment budget 2026

		JOBS
Area A	Home Based Industry/Truckie Lots	110
Area B		
Area C	Eco-Waste Management & Recycling	400
Area D		
Area E	Food & Clean Industry/Warehousing	2,160
Area F	Business Park/Trading Estate	430
	Detail Warehousing/Showrooms	130
Area G	Large Scale Warehousing/Distribution	600
Area H	Truck & Auto Service Trades	450
Area I	Large Scale Warehousing/Distribution	840
Area J	Truck & Auto Service Trades	1,050
Area K	Large Scale Warehousing/Distribution	820
	TOTAL:	7,400

NB: Hazelmere and population based growth can provide about all (15,958-17,600=91%) the additional jobs needed by Pre-Charrette.

NB: Most will be low skill matching existing population profile.

12.5 HOME BASED BUSINESSES

Further employment will be generated from home based businesses. It is estimated that an additional 1,400 home based businesses would be established in Midland and the Shire of Swan as a result of the population growth projected by the Ministry for Planning between 1996 and the year 2026.

The Charrette itself developed opportunities for a further 3,100 residences. This is likely to generate between 150 and 300 new home based businesses in these renewal areas.

Thus some 1,500 to 2,000 additional home based businesses can be expected in Swan by the year 2026. The planning regime of Swan Shire may need to be amended to enable, facilitate and even encourage the formation of home based businesses.

Many home based businesses will grow and graduate to occupy commercial space. Investigations for the Charrette suggests there is already an unsupplied demand for approximately 50 office units to satisfy the unmet needs for affordable well presented office accommodation of existing home based businesses in the vicinity of Midland.

It is estimated that home based businesses graduating to commercial premises will create a demand for between 300 and 350 office units between 1996 and the year 2026. They will occupy between 15,000 and 17,000 m² of office space. This requirement translates to between 20,000 m² and 25,000 m² of gross floor space.

Home Incubated Businesses (Graduating to Flexible Business Premises)

Existing Unsatisfied Demand	Number	N.L.A	G.F.A
	50	2,500m ²	3,500m ² *
Additional Demand	Number	N.L.A	G.F.A
	253	12,650m ²	16,445m ² **
	303	15,000	20,000m ²
Home Based Businesses	Number	N.L.A	G.F.A
	1,405	Nil	Nil

*Demand unlikely to be supplied under existing planning and development.

**Only 25% of demand likely to be supplied under existing planning and development.

Clearly this demand will help to underpin the viability of the Junction Regional Business Centre and the Morrison Road Business Centre.

Employment generated home based businesses are conservatively estimated as 2,250 jobs fte (excluding any off-site, flow on employment).

12.6 MIDLAND'S EMPLOYMENT BUDGETS

The Pre-Charrette Job Situation

The population of Midland is estimated by the Ministry for Planning to increase by 32,500 between 1996 and the year 2026.

With realistic employment participation rates, Midland would need to grow 17,6000 new jobs to provide sufficient jobs for this growth in the resident workforce.

Under present planning and economic settings, Midland is only likely to provide 34% of the jobs needed by its new residents. Most of these jobs will be in construction, retailing and other population serving businesses that naturally follow population growth. The project growth in jobs without the initiatives outlined in this Chapter are shown below.

Job Budget : Pre-Charrette

(Based on Pre-Charrette Population Growth) - 32,460 -1996 to 2026

Demand for Jobs

Jobs Required (1996 to 2026)
(for 100% employed locally) **17,600**

Present Supply of Jobs

	No.	%
Industrial	361	6%
Warehousing	425	7%
Office in Midland	706	12%
Home Based Business	1,405	26%
Home Incubated Business (Graduated to flexible premises)	158	
Retailing	2,921	49%
TOTAL:	5,976	
Jobs Supplied as % of Demand		34%
Commuting or Unemployed		66%

The result would be a continued deterioration in the employment situation. It is projected that the jobs available in Midland would fall to merely 65% of the jobs required by the resident workforce. This compares with 1991 when the jobs available in the Swan Shire were 89% of the jobs required by the resident workforce. By 1996 the situation has already deteriorated by 5% so that the jobs in the Swan Shire only amounted to 84% of the resident workforce.

Deteriorating Job Situation : Pre-Charrette
(Based on Pre-Charrette Population and Projected Job Provision)

	1991	1996	2026
Available Jobs as % of Resident Workforce	89%	84%	65%
Jobs Actually Taken by Swan Residents	28%	26%	20%
Jobs Commuted to by Swan Residents (or Unemployed)	72%	74%	80%

Of course, not everyone wishes or is able to take the jobs available locally. In 1991 only 28% of jobs in the Swan Shire were taken by residents in the Swan Shire. 72% were taken by people resident outside the Shire. This figure had fallen to 26% by 1996 leaving 74% of Swan residents commuting to employment elsewhere.

These figures are projected to fall under a 'steady as she goes' scenario without the employment initiatives generated by the Charrette. So that by the year 2026 only 20% of Midland residents would be able to find jobs in the Swan Shire and some 80% would need to commute if they can find jobs elsewhere.

A major difficulty is that high income professionals are choosing to live outside the Shire and lower income and unskilled people living in the Shire are forced to find jobs elsewhere.

A further difficulty is that these low skill and entry level jobs are declining in number everywhere and many are becoming part-time or casual jobs. Consequently, future job prospects are not good for Swan Shire residents that are forced to seek this type of employment outside the Shire.

Many young people, the disabled, recent migrants and unskilled Swan residents would almost inevitably remain unemployed under the prevailing 'steady as she goes' scenario.

Job Prospects If The Identified Opportunities Are Realised

As discussed previously there are opportunities to create a more diversified jobs base for Midland. Attention should focus on serving wider business and visitor needs and capturing the expenditure of high income and high net worth businesses and families. In addition, Midland has considerable locational advantages for logistics and businesses serving metropolitan wide and state wide markets. These advantages can be capitalised upon to improve the overall job prospects for its residents.

The Charrette assessed employment opportunities specific to Midland and proposed specific job expansions. These amount to 9,650 jobs.

Employment Budget Major Employment Initiatives

	JOB
Railway Workshops Heritage Precinct	182
Hazelmere Eco-Industrial Park	7,400
Midland Junction Business Centre	1,060
Woodbridge Landing Ferry/Tourist Centre	260
Morrison Road Business Centre	705
Convent Country Club	43
TOTAL NEW JOBS:	9,650

This is equivalent to 55% of the 17,600 jobs needed to match the growth in the Midland's resident workforce. These figures exclude any jobs created by the Police Operations Centre or other business and employment opportunities created on the remainder of the Railway Workshops site.

Apart from these site specific job opportunities there will be the expected 5,890 jobs created by population based business growth and by home based businesses.

Combining these two sources of job growth, Midland has realistic prospects to create at least 15,600 jobs in total, excluding any government and near government jobs provided - such as the Police Operations Centre. This compares with an estimated increase in the resident workforce of 17,600. The range of jobs will be quite diverse and many jobs would meet the needs of young people and the less skills.

If the opportunities identified in this Chapter are realised, direct job creation in Midland will be equivalent to at least 89% of the increase in the resident workforce.

Additional Indirect Employment Effects

Given the nature of the activities proposed for the specific sites, the employment created is likely to have flow on effects which will induce increased local employment by approximately 90% of the direct employment. This would result in a further 8,960 jobs being created.

Thus the total number of jobs created by realising the full range of opportunities identified as part of the Charrette could easily double the existing number of jobs in the Swan Shire and be as high as 24,500 jobs. This is almost one and one half times (138%) the number of jobs that need to be created for the Swan Shire to be self sufficient in jobs given anticipated population growth to the year 2026.

Employment and Commuting Outcomes

The following table shows Swan Shire's job prospects from realising the Charrette proposals is listed below. The present decline in available jobs will be arrested. More importantly, jobs in Midland taken by Swan residents will rise from 20% under current planning to over 65%. Midland residents commuting to jobs outside the Shire will fall to less than 35%. This compared with 74% of Swan Shire residents commuting to jobs outside the Shire in 1996. An outcome that is expected to deteriorate with 80% of Midland's residents commuting to jobs outside the Shire unless the Charrette proposals to increase local employment are realised.

Swan Shire's Job Prospects From Achieving the Charrette Proposals

	1996	'Steady as She Goes' Scenario 2026	Achieve Charrette Proposals 2026
Available Jobs as % of resident workforce	84%	65%	86% (104%)*
Jobs Actually Taken by Swan residents	26%	20%	65% (77%)*
Jobs Commuted to by Swan residents	74%	80%	35% (23%)*

Note: ()* the indirect flow on effects on employment will result in even better employment outcomes (shown in the brackets).

Vigorously pursuing these opportunities could result in Midland once again supplying more jobs than it needs to satisfy its own resident workforce.

12.7 REALISING THIS EMPLOYMENT POTENTIAL

Possible next steps to realise these employment outcomes would include:

- actively progressing the civic improvements identified by the Charrette;
- creating opportunity prospectuses and actively seeking investors;
- seeking government support to 'kick start' the signature projects;
- establishment of a 'rolling fund' to commence some commercial investments early;
- developing 'local area plans' that support development on the subject sites;
- preparation of more detailed design studies (in collaboration with owners for private properties);
- review of Council's planning provisions to support:
 - ◆ home based businesses;
 - ◆ mixed business and residential developments;
 - ◆ mixed business, industry, warehouse developments.
- adoption of civic improvements in Council's Corporate Plan and programme of capital works;
- active involvement of State Government Departments and Agencies in seeking to progress the signature projects.

13. PROGRESS SINCE THE CHARRETTE

The Shire of Swan has formally approved, in principle, the Midland Revitalisation Charrette Outcomes.

Similarly, strong support for the Charrette recommendations has been expressed by numerous numerous community groups, including the Midland Districts Chamber of Commerce and Industry.

In order to co-ordinate the Charrette implementation process, the Shire of Swan has established a steering committee comprising representatives from community and business groups, Councillors, Shire of Swan officers and two regional members of State Parliament.

The steering committee has considered priorities and alternative implementation options for the revitalisation of Midland. In particular, a sub committee is exploring the potential for the establishment of a redevelopment authority based on the East Perth and Subiaco models.

Where-ever possible, issues highlighted by the Charrette are being addressed by the Shire of Swan. In particular, this includes negotiation with owners of a vacant lot in the town centre (Lot 10 Old Great Northern Highway) for access to the adjacent parking area as well as on establishing additional parking on the vacant site, until the owner developments the property.

Similarly, the Shire has initiated a redevelopment of Carnegie Park. The first stage, involves a re-design of the landscape. A later stage will examine the connection of all heritage buildings within the newly landscaped park and the resolution of a number of access and security issues.

The State government recently announced the establishment of the Police Operations Support Facility on part of the Railway Workshops site. Scheduled for commencement in mid 1999, this strategic decentralisation represents an input of resources to the Midland town precinct of approximately forty million dollars and 600 employees.

The preparation of a master plan for this site by the responsible state agency, in- line with the Charrette recommendation, is also under way.

The previous Perth Airport Master plan generated noise constraints from a future parallel runway. This in turn limited the integration of new residential development in the Midland town centre

However negotiations with the new owners of the airport achieved a reduction of the potential noise impact, therefore permitting the expansion of residential components in the centre of Midland.

The Shire of Swan has further promoted the Midland Revitalisation Project by giving in principal support to the establishment of a Midland Revitalisation Office, in the Old Midland Library, to provide a venue for the steering committee meetings, as well as for a permanent Charrette Project display.

It is especially symbolic as the Old Midland Library was used as the Charrette design studio.

In addition, co-operation between the Police and the Shire has resulted in the establishment of a Community Police Post in the Old Midland Library. The building will also accommodate a local employment development project.

The Shire has also taken initiatives to develop the social and economic aspects of the Charrette recommendations. In particular, the Shire, with the participation of the Police, has progressed towards a developing comprehensive Civic Safety Audit for the Midland town precinct.

The Shire continues to actively initiate major liaison and development processes, involving a wide range of landowners, developers, government agencies and commercial interests, necessary for progressing the diverse potential of the Charrette recommendations,

14. SETTING PRIORITIES & SEQUENCING OF INITIATIVES

A number of Charrette recommendations signal their potential as viable, early to mid-term projects. These include:

- Midland street network improvements, such as the re-opening of the Old Great Northern Highway and the re-configuration of Great Eastern Highway and Victoria Street into two-way "mainstreets";
- the redevelopment of Tuohy Gardens'
- the redevelopment of the Midland Oval location;
- options for future airport runway noise reduction;
- commitments from State agencies to enable the redevelopment of the Railway Workshops site;
- commitments from the State transport agencies for feasibility studies into the extension of commuter rail services;
- the examination of options for the freight rail line and related noise issues; and
- the potential for related social and commercial developmental projects.

Included in the first initiatives following the Charrette was the formation of an technical advisory group, the establishment of a Midland Revitalisation Steering Committee and the formulation of guidelines and principles for the identification and implementation of Charrette recommendations

A major administrative option being examined is the establishment of a Redevelopment Authority. Clearly this will be dependent on significant State Government co-operation.

Whilst these options focus on specific projects they also indicate the desirability for the establishment of a substantial mechanism that will facilitate the identification and co-ordination of priorities, resources, project analysis and project implementation.

15. WHO IMPLEMENTS?

INTERIM IMPLEMENTATION STRUCTURE

The importance of Midland as a regional centre and the Shire's limited resources, lead to the recommendation for the establishment of a Development Authority or other government agency.

This approach would have a number of benefits, the most important being endorsement by state cabinet, as well as ensuring an enhanced support for funding and resources.

However, the time required to establish a development authority could take up to two years.

An **interim** structure has been set up to maintain the momentum and outcomes of the Charrette and, following Council endorsement, to investigate, evaluate and where feasible, implement a number of the outcomes.

The interim structure comprises the following elements.

MIDLAND REVITALISATION PROJECT STEERING COMMITTEE

The Midland Revitalisation Project Steering Committee was established by Council in December 1997 for the following purposes :

- make recommendations to Council in terms of prioritising and implementing the outcomes of the Midland Revitalisation Charrette.
- to communicate with the community on matters of the steering committee (unless the information is requested to be treated confidentially) and for members to advise the steering committee of views of the community relevant to implementation.
- to facilitate ongoing community involvement in outcomes of the Midland Revitalisation Project.

Council has approved a composition and terms of reference under which the Steering Committee will operate.

TECHNICAL ADVISORY GROUP , IMPLEMENTATION CO-ORDINATION AND PROJECT TEAMS

The Technical Advisory Group (TAG) is an in-house team. This group comprises staff and other agencies, such as the Ministry for Planning, who participated in the pre Charrette and Charrette phases.

This group is responsible for coordinating the investigation and evaluation, on behalf of the Steering Committee, of the Charrette and related projects.

The "Implementation Co-ordinator" is responsible for working with a range of stakeholders including, business, community groups, planners, engineers and other agencies in order to ensure a co-ordinated and holistic approach to urban planning, management and implementation.

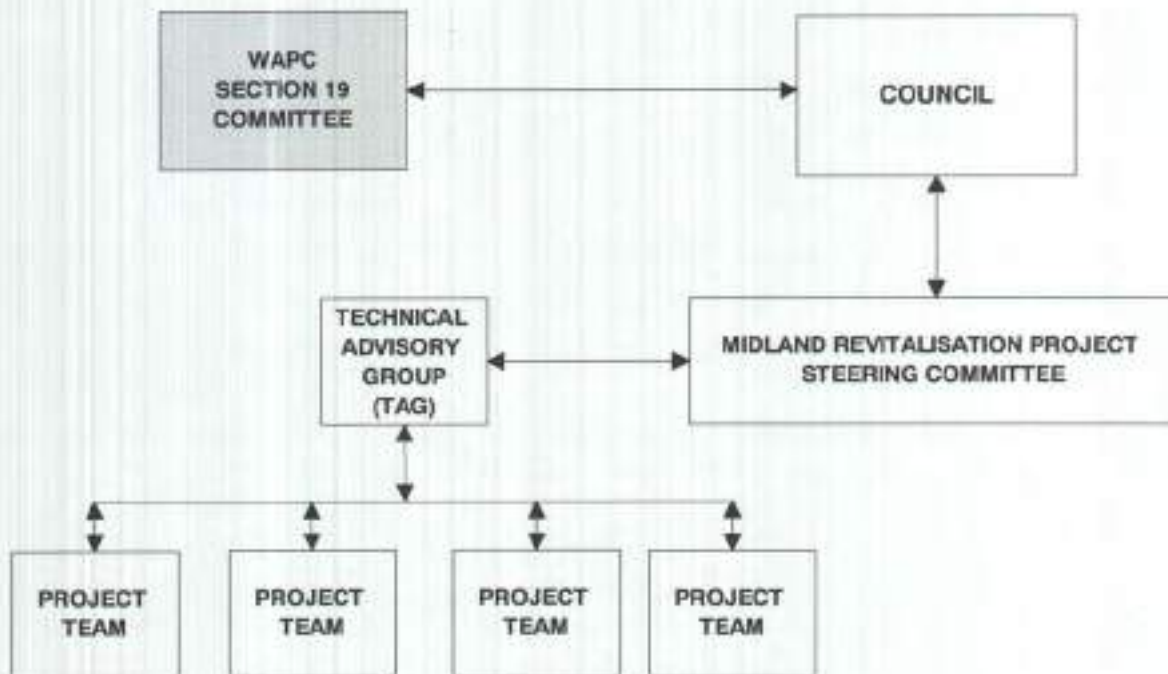
The benefits of such a role are that the "Big Picture" is maintained and the perspectives of individual professions and groups are brought together within an integrated framework and narrow sectorial actions are avoided.

Given the uniqueness of such a role Council has supported the need to seek funding, via the state government, based upon a pilot programme facilitated by the Shire.

PROJECT TEAMS

The Charrette recommendations cover many different areas in and around Midland. Although each recommendation has a similar objective, ie the revitalisation of Midland, each recommendation comprises different proposals, varying from simple residential infill to working towards re-aligning the freight rail line south of Midland.

Project Teams will be established where outcomes of the Charrette require further investigation and evaluation.



16. FUNDING INTENTIONS AND POSSIBILITIES

A REDEVELOPMENT AUTHORITY

The establishment of a redevelopment authority, based on the East Perth or Subiaco models would institute a specifically focused framework defined by State Legislation. This in turn would enable the establishment of a redevelopment scheme defining the context, nature, planning and policy parameters within the defined redevelopment precinct.

The redevelopment authority, by virtue of the legislative basis, is an independent entity accountable to the responsible Minister and reporting annually to Parliament.

The financial support structure of a redevelopment authority could include a substantial, initial one-off grant, with access to loans through the WA Treasury Corp. This whole financial could be based on an extensive financial feasibility modeling, and on estimates for staged capital works programs.

This structure includes the funding and budgetary contexts and processes associated with State Government instrumentalities, and would also include the potential for raising funds through rates revenues.

WAPC SECTION 19 COMMITTEE

The establishment of a Section 19 Committee, under the Western Australian Planning Commission Act 1985 is one mechanism to source appropriate funding for projects that have state government budget and funding implications. The Ministry for Planning and the Shire of Swan are investigating this mechanism.

ROLLING LOAN FUND

The Charrette process generated an energetic approach to the challenges of addressing a comprehensive response to the revitalisation of Midland.

One of the ideas to emerge, as a result of the interaction with the broad diversity of issues and interested groups, is the notion of a "rolling loan fund". An estimated pool of approximately \$20 million was suggested as a means of initiating developments, and subsequently redirecting revenues from these projects back into the fund for allocation to additional projects.

It was envisaged that this "rolling loan fund" would 'seed' development initiatives and encourage complementary development initiatives from the private and public sectors.

OTHER FUNDING OPTIONS

The energetic investigation of a broad range of funding options, from incentives programs, differential rating measures, government sourced grants, joint ventures, and private enterprise developments, will be necessary to ensure the viability of significant portions of the revitalisation strategy.

However, the key to the successful realisation of funding will, to a large extent, reflect the level of co-operation and co-ordination between the major partners in the revitalisation process.

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GLOSSARY OF TERMS

Arterial routes are the urban grid of transport routes that ranges from freeways (up to 80,000vpd) to district distributor integrators (down to 6,000vpd).

Home-based business is where the resident of a dwelling operates a business on the premises.

Interconnected streets are where the street system possesses numerous intersections and junctions providing many alternative vehicle and pedestrian routes which disperse traffic.

Lane way means a narrow local street type without a verge located along the rear and/or side property boundary, typically used in more dense residential areas when small lot layouts justify rear parking, and where alternative vehicle access is needed for lots fronting busy streets or parks.

Legibility is where the design of the street system provides a sense of direction and connection, giving clear signals regarding the spatial layout and geography of an area.

Local streets means the local network of lanes, access streets and neighbourhood connectors that serve the neighbourhood.

Mixed use means the compatible mixing of a range of appropriate uses, integrated in close proximity to each other to improve the efficiency and amenity of neighbourhoods, reduce travel demand, increase walkability, and make more efficient use of available space and buildings.

Pad Jargon within the retail industry for a smaller free-standing shop (300 - 600 sqm) placed out in front of the main mass of a shopping centre, in its car park, usually on a prominent corner, far enough forward of the main centre not to obscure it from passing traffic. Some shops are frequently fast food outlets, petrol stations, or video stores.

Ped-shed - refer to walkable catchment.

Synergy - the interaction or co-operation of two or more agents, organisations etc. to produce a new or enhanced effect compared to their separate effects.

WA Community Code is intended to deliver the multifaceted objectives of the State Planning Strategy through its role as an integrated development control policy for structure plans and subdivision design.

Walkable catchment means the actual area served within a 400m (5 minute) or 800m (10 minutes) walking distance along the street system from a public transport stop, town or neighbourhood centre.

Walkable neighbourhood means the area defined by a 400m or 5 minute walk from the neighbourhood centre having an interconnected and safe walkable street network where shops, schools, public transport, community facilities and other buildings front the streets.

APPENDIX 1

CHARRETTE BRIEFING BOOK TABLE OF CONTENTS

1. Charrette Logistics
 2. Introduction
 3. Regulatory & Political Context
 4. Economic Context
 - 4.1 Employment Context
 - 4.2 Retail Context
 - 4.3 Property Development
 - 4.4 Tourism Opportunities in Midland & Swan Valley
 5. Social/Cultural Context
 - 5.1 Social/Cultural/Historic Background
 - 5.2 Repetitive Crime Location and Public Space Amenity
 - 5.3 Active & Passive Recreation Capacity
 - 5.4 Aboriginal Issues/Sites
 - 5.5 Community Facilities
 6. Environmental Context
 - 6.1 Natural Habitat
 - 6.2 Site Contamination and Landfill
 - 6.3 Noise Impacts
 7. Traffic/Transport
 - 7.1 General Analysis
 - 7.2 Possible Freight Rail Bypass Below Bellevue
 - 7.3 Possible Extension of Electric Rail Passenger Service
 - 7.4 Possible Road Train Bypass
 8. Project Sites
 - 8.1 Site Analysis
 9. Funding Mechanisms & Opportunities
- Appendices

APPENDIX 2

CHARRETTE TEAM MEMBERS

CLIENT CHARRETTE TEAM

TEAM MEMBER	ROLE
Shelley Pike	Executive Representation/Aboriginal Consultant
Peter Schifferli	Client Charrette Agent/Economic Development
Cath Blake-Powell	Client Charrette Manager/Strategic Planner
Peter Camilleri	Social Planner
Carolyn Groves	Client Charrette Administrator
Evan Jones	Executive Representation/Urban Designer
Munira Mackay	Mapping Manager/Urban Designer
Steve Thorne	Urban Designer
Brett Coombes	Urban Designer
Neil Foley	Urban Designer
John Chortis	Transport Planner
Greg Perejuan	Videographer
Bruno Zimmerman	Photographer
Erwin Swashbrook	Research
Pat Davis/Tom Pavlos	Community Services
Keith Weymes	Guest Principal Planner
Sarah Fisher/Dominic Mitchell	Statutory Planner
Tony Watts	Economic Consultant
Jillian McNamara	Contamination Consultant
Mick McCarthy	Environmental Consultant
Terry Sargent	Environmental Consultant
David Djulbic	Civil/Traffic Engineer
Shane Purdy (pre only)	Traffic Engineer
Geordie Thompson	Recreation
Grant MacKinnon	Parks Services
Tony Pestell	Ranging and Security
Phil Cuttone	Noise Consultant
Wendy Cooke	Public Relations
Michael Ross	Cultural Heritage/Strategic Planner
Tony Shrapnel (Consultant Team)	Retail Consultant
Rex Ballard	GIS (Shire of Swan Mapping)
Brian Curtis	Site Development Economics Advisor
Tim Hillyard	Real Estate Valuation Advisor

CONSULTANT CHARRETTE TEAM

TEAM MEMBER	ROLE
Chip Kaufman	Charrette Leader
Wendy Morris	Design Leader
Yvonne Rust	Charrette Manager/Designer
Paul Murrain	Designer
Peter Richards	Designer
Kobus Mentz	Designer
David Mead	Designer
Steve Goldie	Designer
Jimmy Higgs	Traffic Engineer
Derek Kemp	Economic Planner
Peter Edgeley	Illustrator
Tony Shrapnel	Retail Consultant
Jim Davies	Designer
Simon Couchman	Designer
Bill Denis	Designer
Malcolm Mackay	Designer

APPENDIX 3

THE MIDLAND STUDY AREA AND TARGET SITES

Development Opportunity Site No. 1	Midland Railway Workshops
Development Opportunity Site No. 2	Midland Oval
Development Opportunity Site No. 3	Centrepoint Shopping Centre and its links with the Station and Midland Central Area
Development Opportunity Site No. 4	Midland Gate Shopping Centre & Edges
Development Opportunity Site No. 5	Swan Regional Sports Park
Development Opportunity Site No. 6	Old Library Building and Tuohy Gardens
Development Opportunity Site No. 7	Bellevue, New Rail Station and Transport Interchange
Development Opportunity Site No. 8	Great Eastern Highway (300m length near Midland Centre)
Development Opportunity Site No. 9	Historic Triangle, including Carnegie Gardens
Development Opportunity Site No. 10	TAFE Centre
Development Opportunity Site No. 11	Stratton/Swan View Proposed Station
Development Opportunity Site No. 12	Farrall Road Homeswest
Development Opportunity Site No. 13	Empty Lot (Lot 10 Old Great Northern Highway)
Development Opportunity Site No. 14	Shire Offices - Re-use and Proposed Incremental Re-development of that Area
Development Opportunity Site No. 15	Midland Enterprise Centre
Development Opportunity Site No. 16	Midvale Homeswest Housing
Development Opportunity Site No. 17	Mundaring Housing
Development Opportunity Site No. 18	Blackadder School Site

APPENDIX 4

FEED-BACK FROM STAKEHOLDERS AT THE INTRODUCTORY CHARRETTE MEETING

To cap off the Introductory Public Charrette Meeting on the evening of 11 September, the audience was asked to respond. They were asked to reform themselves into small groups of a dozen or so. A member of the Charrette Team facilitated each group to give feed-back to three key questions:

- What do you like about Midland?
- What do you dislike about Midland?
- What is your vision for Midland's Future?

Stakeholder responses have been synthesised below, in no particular order of priority. Occasional contradicting input is left as is. The actual notes taken by the community facilitators are available for review through Cath Blake-Powell of the Shire of Swan.

INTRODUCTORY NIGHT FEEDBACK

Likes

- Swan Valley - natural assets.
- Vacant land - private development.
- Memories.
- Good access to Midland from environs.
- Access to Perth and airport - 20 mins max.
- Heritage - Town Hall entry.
- Community/country town feel.
- Diversity in buildings - no glass/concrete.
- Great Northern Highway streetscape.
- Train access.
- Cultural diversity.
- Re-investing in Midland.
- Recreation facilities.
- Pride in homes and renovation.
- Loyalty to business.
- Midland Oval.
- Cycling dome - re-invest.
- Good place to stay.
- Affordability.

-
- Range of businesses.
 - Spring in the Valley Festival.
 - Easy to use grid streets.
 - Views down streets such as Great Eastern Highway.
 - Access to Swan - Marshall park

Dislikes

- Youth leaving Midland.
- No signage - cringe stigma - Midland not stylish.
- Homeswest.
- Centrepont and station are "daggy".
- Closure of Great Northern Highway very bad for town centre/bad transport.
- Hard to reach new library.
- Hard to reach Town Centre, especially from north.
- 57 empty shops in Town Centre.
- Not enough parks in Town Centre.
- Unemployment in Town Centre.
- Historic Court House not well used as church.
- Lack of hectare-sized parcels to development.
- No night life/lack of entertainment.
- Bureaucracy holding things back.
- Midland Gate too far away.
- Too many dead-end streets at Town Centre.
- Myers did not happen (for the Town Centre).
- Post office closing in the Town Centre.
- New ugly post office outside the Town Centre.
- Ministry of Justice in wrong location.
- Aboriginal youth conflicts at Tuohy Gardens.
- No town hall facility.
- Key businessmen not residents.
- Enterprise Centre blocks connectivity.
- No impulse buying at town centre.
- Housing out of centre - no community left.
- Poor directional signs to Town Centre and car parks mislocated at Viveash Road.
- Planned Aircraft Noise Corridor for Perth Airport's future runway.
- TAFE has not enough choice.
- Commercial ugliness at Morrison Road.
- Lloyd Street connection.
- Bad shopping.
- Bad access to creeks and rivers.
- Zoning limitations etc.
- No bridge to Bassendean across river.
- River boundary not logical.
- Parking time limits in Town Centre.
- Shop left of the Helena Arcade.

-
- Tuohy Gardens.
 - No tourist information centre.
 - Can't get off Great Eastern Highway to shop.
 - Peripheral uses.
 - Through traffic.
 - Racism disrupting community cohesion and estranging the Aboriginal Community.

Visions

- More soccer (junior).
- Link the two centres (Midland Gate and Town Centre).
- Department store.
- Improved "gateways" to Midland.
- Link to Swan.
- Clean up streets.
- Helena Street "cappuccino zone".
- Houses over shops.
- More Entertainment.
- Keep park at Midland Oval for kids on weekend.
- More universities.
- Stafford Street opportunities for housing.
- More youth centres.
- North/south connections at oval and west of these.
- Re-open Great Northern Highway.
- Improve the post office.
- Improve public transport (rail and buses).
- Improve relations with Aboriginals.
- Two way traffic everywhere.
- Open the blank walls of Centrepoint.
- "Boulevard" the Great Eastern Highway.
- 24 hour shopping.
- New development to respect heritage.
- Town Hall - performing arts centre.
- Grain Silo - make it a film studio.
- North/south pedestrian links and cycleways.
- Expand uni at Railway Workshops.
- Improve Great Northern Highway as "gateway".

The Charrette Team considered and responded to this input, along with much more received during the Charrette, in order to inform the Charrette Project Briefs and to produce the Proposed Charrette Designs explained in this report.