ATTACHMENT TO AGENDA ITEM

Ordinary Meeting

18 February 2014

Agenda Item 8.4 **Maude Street Mall Revitalisation Study**

TITLE

Maude St Mall Revitalisation Study

DATE

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CLIENT

Greater Shepparton City Council

REPORT VERSION

Final Report

PREPARED FOR

Greater Shepparton City Council

PREPARED BY

Geografia

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Geografia SOCIAL AND ECONOMIC PLANNING & SPATIAL ANALYSIS

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Executive Summary

Introduction

Despite being at the centre of a large regional population, Shepparton's Maude Street Mall has experienced a decline in patronage. This has been attributed to:

- a lack of physical improvements in the last two decades;
- competition from newly constructed suburban retail centres; and
- the perception of anti-social behaviour.

Online shopping and a general decline in retail spend in Australia may also have impacted on Mall vitality.

The community, traders and the Greater Shepparton City Council (GSCC) have discussed a number of solutions to rectify the problem. This includes improving the amenity (e.g. cleanliness, landscaping, safety and shade); activation strategies (e.g. extended opening hours, more events, a broader mix of cafes/restaurants and retail diversity); and more affordable and accessible parking. Some retailers have also argued for the Mall to be re-opened to vehicle traffic.

As part of its efforts to seek the most cost effective solution, Council partnered with Geografia to undertake a study with two key objectives:

1. To investigate the relative merits of different Mall 'improvement packages' by identifying and quantifying the effect of variables affecting the vibrancy and visitations to the area.
2. To demonstrate the efficacy of using systems analysis to quantitatively model the interactions between social, economic and environmental parameters as a decision support tool for complex planning issues.

Methodology

The primary output of this study was a quantitative model, or simulator, that estimates the effect of different bundles of improvements on visitor numbers, opening hours and retail spend in the Maude Street Mall.

The main tasks of the project were:

- An Investment Logic Mapping exercise with key stakeholders to identify the problem and potential solutions;
- An Influence Diagram session with stakeholders to specify the variables (and their inter-relationships) influencing the success of the Mall;
- A case study analysis of pedestrian malls;
- A telephone survey to collect data on visitations to shopping precincts, spend per visit and the probability that different Mall changes would increase visitations to the Mall;
- A business survey to collect data on the number of customers per week, turnover, number of employees, the number of customers

necessary to support the extension of opening hours and the probability that opening the Mall to vehicle traffic would influence the decision to extend opening hours; and

- Construction of a dynamic systems model of these factors to simulate the costs and benefits associated with different improvement bundles.

Results

The telephone survey results indicate that there are currently a little over one million visits to the Mall per annum. If improvements to the Mall met the requirements of residents (and taking population growth into account) then theoretically an additional 1 million annual visits might be generated[1].

Table A Maude Street Mall – Resident Survey Summary

No. Respondents	380
Average Mall Visits per Annum	26
Average Spend per Visit	$49
Total Estimated Average Annual Mall Visits	1,135,279
Theoretical Additional Maximum Annual Mall Visits with Improvements (by 2022)	1,029,157
Total Estimated Average Annual Mall Visits with Improvements (2022)	2,164,436

However, analysis of the data found that individual interventions did not generate a significant change in visitation numbers. Improvements only had a statistically reliable impact when applied in 'bundles'. Table B provides a summary.

Table B Maude Street Mall - Resident Survey Summary

Bundled Improvements	Constituent Improvements	Percentage contribution to theoretical maximum additional visitations
Group 1 - Activation	Opening Hours, Events, Mix of Cafes/Restaurants, mix of retail outlets	35%
Group 2 - Amenity	Cleanliness, Landscaping, Safety and Shade	39%
Group 3 - Parking	Accessible Parking, Affordable Parking	25%

These data were combined with results from a survey of retailers and used to calibrate a model of the cause and effect relationships and costs and benefits of different approaches to improving the Mall.

[1] These figures are based on survey respondents' estimates of how many visits they make to the Mall each year. The model provides a range of outputs, but, for the sake of clarity, only mean estimated values are reported here.

Table C provides a summary of the different costs associated with the various implementation initiatives[2]. For the four discrete scenarios modelled, the best return on investment (ROI[3]) is the activation 'bundle' improvements (a net gain of $208 per additional visitor). This compares with a little under $7 per visit by simply re-opening the Mall to traffic.

Table C Maude Street Mall – Cost Benefit Summary

Cost/Benefit	Activation	Amenity	Parking	Re-opening Mall to Traffic
Implementation Cost (2012)	$545,000	$2,560,000	$2,110,000	$4,122,763
Number additional annual visitations (2022)	523,000	485,000	394,000	302,000
Additional Total Sales	$37.8m	$45.8m	$41m	$17.5m
Extended Trading Hour Sales	$37.1m	$34.9m	$33.8m	$5.2m
Total ROI (NPV)	$342.8m	$340.8m	$178.8m	$337.5m
Per capita ROI (NPV)	$208	$183	$51.3	$6.7

Conclusions

The modelling outcomes provide a clear measure of the relative merits of different approaches to resolving the Maude Street Mall issues. Key policy implications are:

1. There is no statistical evidence that individual improvements (e.g. shade, more events, affordable parking or opening the Mall to vehicle traffic) will change consumer shopping preferences. However, there is strong statistical evidence that when combined or packaged as 'improvement bundles' (e.g. amenity, activation and parking) they will increase Mall patronage.
2. There is a misalignment between the perceived importance of vehicle access and parking and its likely effect on Mall visits and therefore revenue generation. At best, affordable and accessible parking accounts for 25% of the potential increase in visits and re-opening the Mall to traffic little more, at 29%.
3. Activation (i.e. extended opening hours, events, mix of cafes/restaurants and retail diversity), followed by amenity (i.e. cleanliness, landscaping, safety and shade) consistently generate the best returns on investment in terms of increased visits, increased spend and per capita returns on infrastructure investment.
4. The use of a probabilistic systems modelling technique has revealed the best broad policy approach and has provided a quantitative

[2] Note that, for this report, ongoing maintenance costs were set at zero for all interventions. However, the model has the capacity to factor in variable capital, operational and maintenance costs, as well as revenue estimates (e.g. for car parking).
[3] That is, the net return per additional visitor less the cost of intervention.

measure of the impact of different interventions. This, when combined with qualitative analysis, including client collaboration and case studies, demonstrates a robust and innovative approach to local government decision making processes.

Taking into consideration the model results, together with the case study analysis, it is concluded that, in the absence of significant household and business investment in the Mall area (e.g. via residential development), partial reopening of the Mall to vehicle traffic may be beneficial to Mall patronage and provide a positive, albeit small, 'return on investment', not least due to its perceived positive impact on parking. However, as 'activation interventions' generate the greatest overall return, any plan to reopen the Mall to vehicles needs to be mindful of how it may impact on the capacity to implement related initiatives (e.g. the requirement for pedestrian and event spaces). To that end, it is recommended there be:

1. A detailed investigation of the program details of bundled Mall improvement packages - activation, amenity and parking - that can be used to increase Mall visits, including design considerations and how they may be funded and rolled out.
2. Consideration of the option of a partial reopening of the Mall, in conjunction with the bundled Mall improvement package and mindful of the broader planning strategies for the CBD (including traffic management).
3. An investigation of the capacity of the model to contribute to this effort by quantitatively and transparently identifying the optimum intervention program (including budget and timing). This can be applied through a comprehensive cost benefit study.

Methodology Comments

This project was a collaboration between the City and Geografia with a view to demonstrating the value of probabilistic systems modelling[4] to investigate local government planning and development issues and provide a more robust evidence base for decision-making. The approach used in this study demonstrates the value of using a flexible, scenario-based decision-support tool. By being able to compare the net benefits of different interventions designed to address shopper preferences, the systems model can provide the evidence base necessary to support better decision-making.

[4] This is a form of modelling that relies on running multiple simulations, each time sampling different values from input variables. It is designed to account for the uncertainty of factors such as individual decision making (e.g. the probability that, next time they go shopping an individual will choose to go to the Mall, rather than a shopping centre).

1.0 Introduction

1.1 Background

Shepparton is the fifth largest city in Victoria (2011 population, 63,335) and services a region of more than 150,000 people. There are four primary retail centres that cater to this catchment: 1) Shepparton Central Business District; 2) Mooroopna Shopping Centre; 3) Market Place; and 4) Riverside Shopping Centre.

The CBD precinct has a Pedestrian Mall with a history of mixed fortunes[5]. Created in 1989, the Mall stretches along Maude Street from Fryers Street to the High Street (Figures 1 and 2).

Despite the large regional population, traders in the Maude Street Mall have reported a decline in patronage. This has been attributed to:

- a lack of physical improvements over the last two decades;
- competition from newly constructed suburban retail centres; and
- perceptions of anti-social behaviour.

Online shopping and a general decline in retail spend in Australia may also have contributed to Mall vitality.

In response to this, the local business community has called for action and several solutions have been discussed by the community, traders and the Greater Shepparton City Council (GSCC). This includes interventions to improve amenity (i.e. cleanliness, landscaping, safety and shade); activation plans (i.e. extended opening hours, more events, a broader mix of cafes/restaurants and retail diversity); and more affordable and/or accessible parking. Some retailers have also argued for the Mall to be re-opened to vehicle traffic[6].

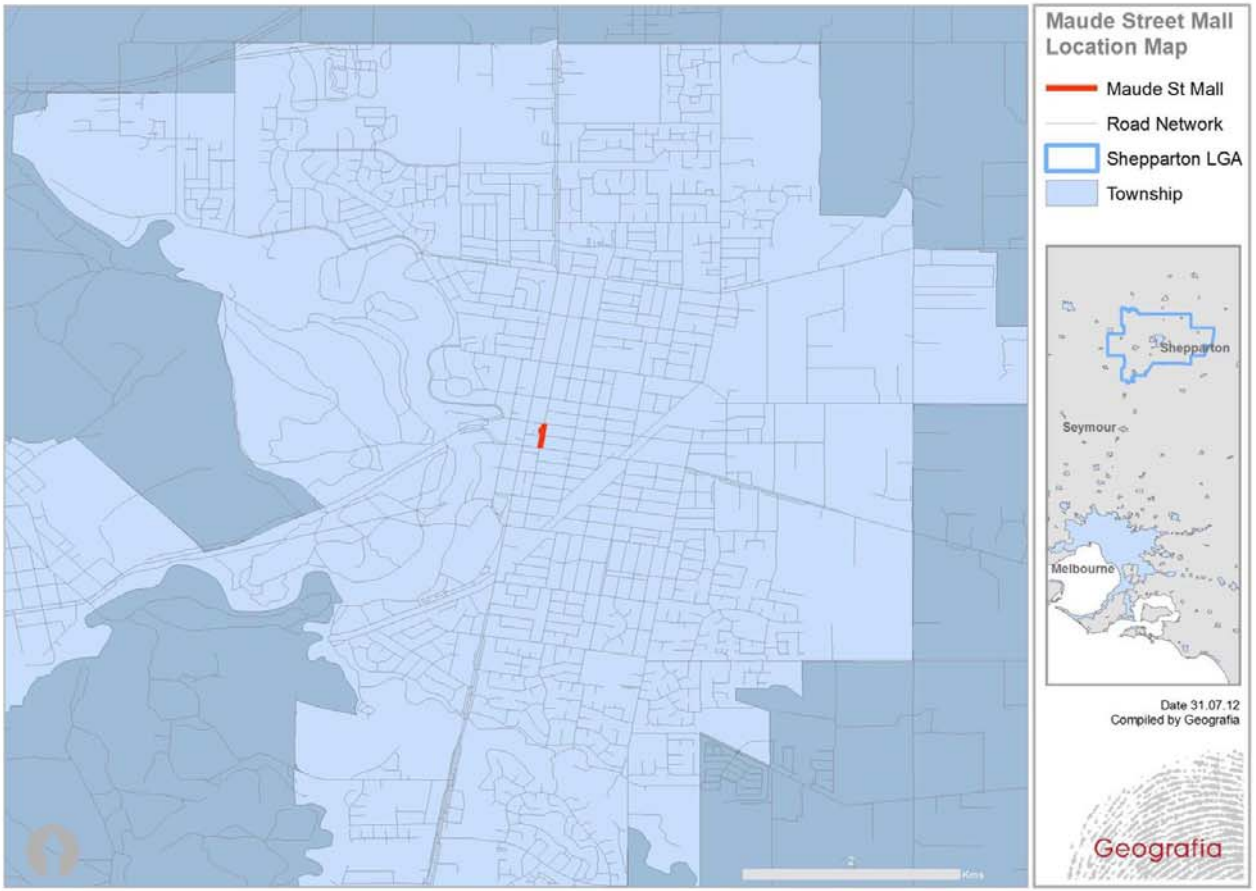
As part of its efforts to seek an efficient and effective solution, the GSCC formed a partnership with Geografia to test the benefits (and costs) of improving the Maude Street Mall. The study had two key objectives:

1. To investigate the relative merits of different Mall 'improvement packages' by first identifying and then quantifying the effect of variables impacting on the vibrancy and number of visitors to the Mall.
2. To demonstrate the efficacy of using probabilistic systems analysis to quantitatively model the interactions between social, economic and environmental parameters and, in doing so, provide a more robust, evidence-base for decision-making about complex planning issues.

[5] See Appendix 1 for background information and a summary of case studies on regional pedestrian malls.
[6] This last option has been the subject of a costing exercise commissioned by the Council. These costs are used in this modelling exercise.

Geografia SOCIAL AND ECONOMIC PLANNING & SPATIAL ANALYSIS 2

Figure 1
Maude Street Mall
Location Map



The analysis of the different intervention options was based on data from a telephone survey of 380 residents. Respondents were asked to rate the impact of different proposed improvements or changes on their willingness to visit the Mall. Via a separate survey, Mall retailers were also asked how many customers per hour would be sufficient to support extended opening hours, as well as the likelihood that they *would* extend opening hours if the Mall were re-opened to vehicle traffic.

These data were used to calibrate a model that measured the effect of different combinations (or bundles) of Mall improvements on visitor numbers, opening hours and retail spend. The model was constructed in the form of a 'what-if' scenario tool, or simulator. It used survey data to quantify the causal, probabilistic relationship between single or bundled Mall improvements, visitors, spend, employment and implementation costs.

1.2 Report Outline

There are multiple possible combinations of Maude Street Mall improvement options and this document reports on selected scenarios in which hypothetical (but plausible) Mall improvement programs were rolled out. The model has been provided to GSCC for testing other scenarios as, and if, the need arises.

The rest of this report consists of:

Section 2
Background information on the impetus for this project and issues facing the Maude Street Mall.
Section 3
An overview of the methodology used in the study.
Section 4
An outline of the model assumptions and results.
Section 5
Conclusions and indicative recommendations.

2.0 About the Maude Street Mall

2.1 Amenities and Land use

The Maude Street Mall is located in the heart of the Shepparton CBD. The Mall stretches along Maude Street from Fryers to High Street and includes sections of Fraser and Stewart cross streets (Figure 2). The Mall comprises of a paved pedestrian area, rotunda, gazebo archways and seating amenities.

Figure 2
Maude Street
Mall

There are a total of 37 retailers in the area (Table 1). Combined they employ 88 full-time, and 143 part-time workers and attract more than 3,000 customers per week (Geografia 2012a).

Table 1 Maude Street Mall Land Use Activities

Shop Type	No.
Clothes store	19
Shoes	6
Fashion accessories	1
Newsagency	0
Retail - misc	0
Doctors/medical suite	0
Restaurant/cafe - standalone	1
Food hall - vendor	1

Shop Type	No.
Department store	1
Hotel - accommodation	0
Pub/bar	0
Camera shop	1
Electronics store	1
Optometrist	1
Pharmacy	0
Bookstore	1
Hairdresser	0
Other	4

Source: Maude St Mall Business Survey 2012

2.2 Shepparton CBD Strategy

The Shepparton CBD Strategy (2008) identified several issues with the Maude Street Mall. Foremost was the need for upgrading. There was also a perception that it was unsafe at night. However, it was acknowledged this was not a concern on weekdays and the Strategy did note that "crime figures suggest that there is more crime outside of the Mall than within, and that which does occur, is generally after hours when patrons of entertainment venues use the Mall to access other venues" (GSCC, 2008: 76).

Other issues raised by the community include the view that the Mall is too long; the design is out-dated; parking access is poor; there is limited outdoor dining; there are few shops open on the weekend; and linkages to and from the Mall are inadequate.

As part of the CBD Strategy, the option to re-open the Mall to vehicle traffic was also assessed (although not in any quantifiable way). Identified benefits from this included enhanced passive surveillance by passing vehicles; improved access; and more on-street parking. The negatives relate to the removal of an important (and one of few) civic spaces in the CBD for events, relaxing and social gathering. In view of this, the Strategy recommended retaining the Mall, with the following improvements:

- Employing a Mall manager;
- Improved maintenance;
- Enhancing pedestrian linkages;
- Encouraging shops that operate outside normal business hours (bookshops, cafes etc);
- Attracting national brand retailers;
- More alfresco dining especially in evening;
- Encouraging distinctive 'gateway' architecture;
- A new playground;
- More shade structures;
- Barrow style food stalls (e.g. fruits);
- Encourage housing/accommodation above offices and shops (shop-top housing); and
- Creation of artwork installation or window displays.

2.3 Maude Street Mall Concept Design

Following on from the CBD Strategy, in 2010, the GSCC engaged *Liesl Malan Landscape Architects* to develop a concept landscape improvement plan for the northern sections of the Mall (Stewart to Fryers Street). This study identified that there were:

- Conflicts between service trucks/vehicles and pedestrians;
- Trip hazards;
- Poor sightlines and unsafe spaces, particularly at night (e.g. pergola, gazebo);
- A general lack of coherency in the spaces and amenities;
- Potential for shade structures;
- Opportunities to support an outdoor dining area in this section of the Mall to complement the entertainment area in Stewart Street; and
- Potential to incorporate an outdoor events space.

The subsequent concept design was used to provide indicative costs for a Mall upgrade that would partially reopen the Mall to vehicular traffic[7].

2.4 Modelling Implications

Both the CBD Strategy and the landscape improvement plan identified issues with the Mall and both point to a range of solutions. The relative importance of the issues was tested through business and community surveys gauging the likely community/patron response to various improvements and then monetising this.

[7] This is modelled as option 4 in this study.

3.0 Modelling Methodology

3.1 Overview of Approach

The primary output of this study was a quantitative model, or simulator, that estimates the effect of different improvement bundles on visitor numbers, opening hours and retail spend in the Maude Street Mall. In developing this model, the primary steps were:

- An Investment Logic Mapping exercise with key stakeholders to identify the problem and potential solutions;
- An Influence Diagram session with stakeholders to specify the variables (and their inter-relationships) influencing the success of the Mall;
- A case study analysis of Pedestrian Malls;
- A telephone survey to collect data on visits to shopping precincts, spend per visit and the probability that different Mall changes would increase Mall visits;
- A business survey to collect data on the number of customers per week, turnover, number of employees, the number of customers necessary to open after hours and the probability that opening the Mall to vehicle traffic would influence the decision to extend opening hours; and
- Construction of a dynamic systems model of these factors in order to simulate the costs and benefits associated with different improvement bundles.

3.2 Investment Logic Map

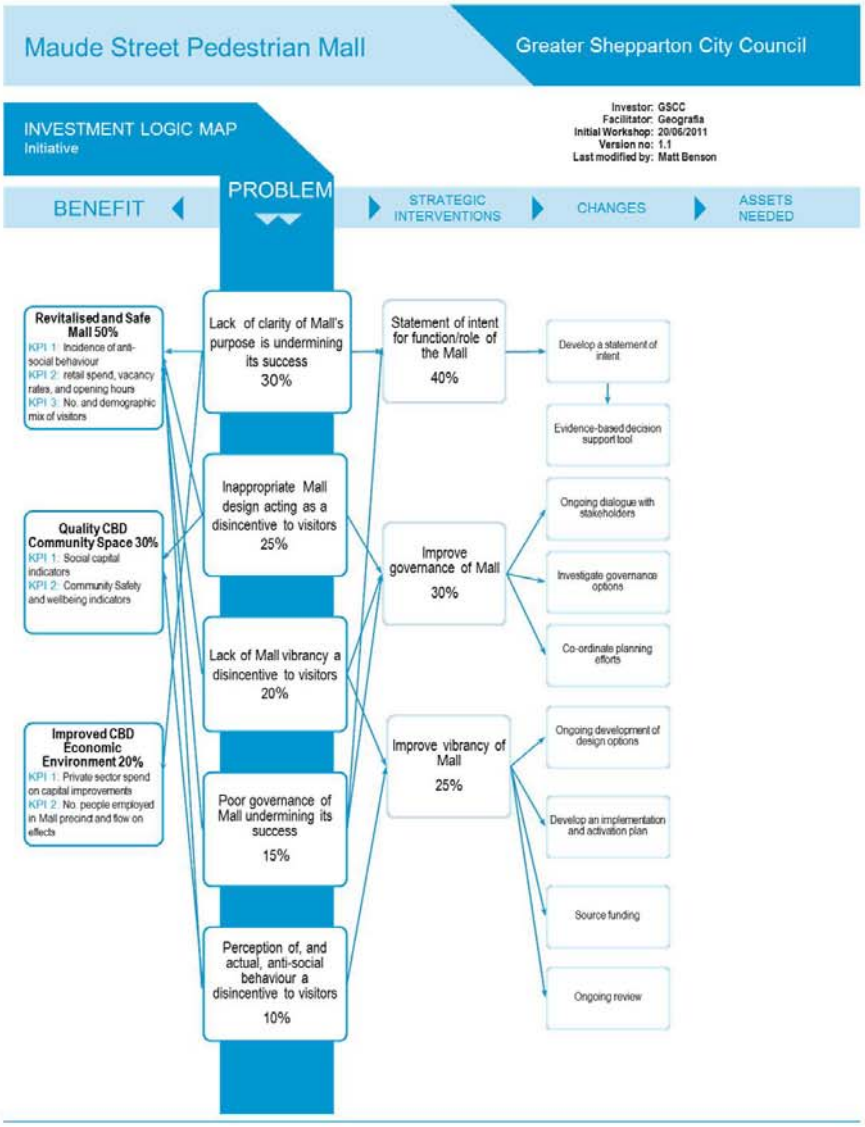
Investment Logic Mapping is a process promoted and endorsed by the Victorian Department of Treasury and Finance. It is designed to create a "depiction of the logic that underpins an investment". The main output is a single page illustration of the core problem, strategic interventions, benefits and changes required to resolve a set of issues.

An Investment Logic Mapping session was held with Council staff, business representatives and landscape architect consultants. As illustrated in Figure 3, the core problems in the Maude St Mall were:

1. A lack of clarity in the Malls purpose.
2. Inappropriate design.
3. Lack of vibrancy
4. Poor governance
5. A perception of anti-social behaviour.

Interventions focus on addressing these issues.

Figure 3
Maude Street Mall
Investment Logic
Map



3.3 Influence Diagram

An Influence Diagram is a useful way to expand on the ILM and visualise the cause and effect relationships in complex systems, including the parameters that need to be quantified for further analysis.

An Influence Diagram session was held with key stakeholders to document key variables shaping the success of the Mall, as well as the important relationships between these variables. The Influence Diagram produced (Figure 4) highlights the complexity of these influences.

The reinforcing (positive and negative) feedback loops in this system are particularly notable. For example, the number of pedestrians/visitors influences the Mall's vibrancy. In turn, this influences the attractiveness of the Mall, which increases the number of visitors. Similarly, visitor numbers influences retail profitability which influences the retail mix and decreases vacancies. In turn this increases the number of visitors.

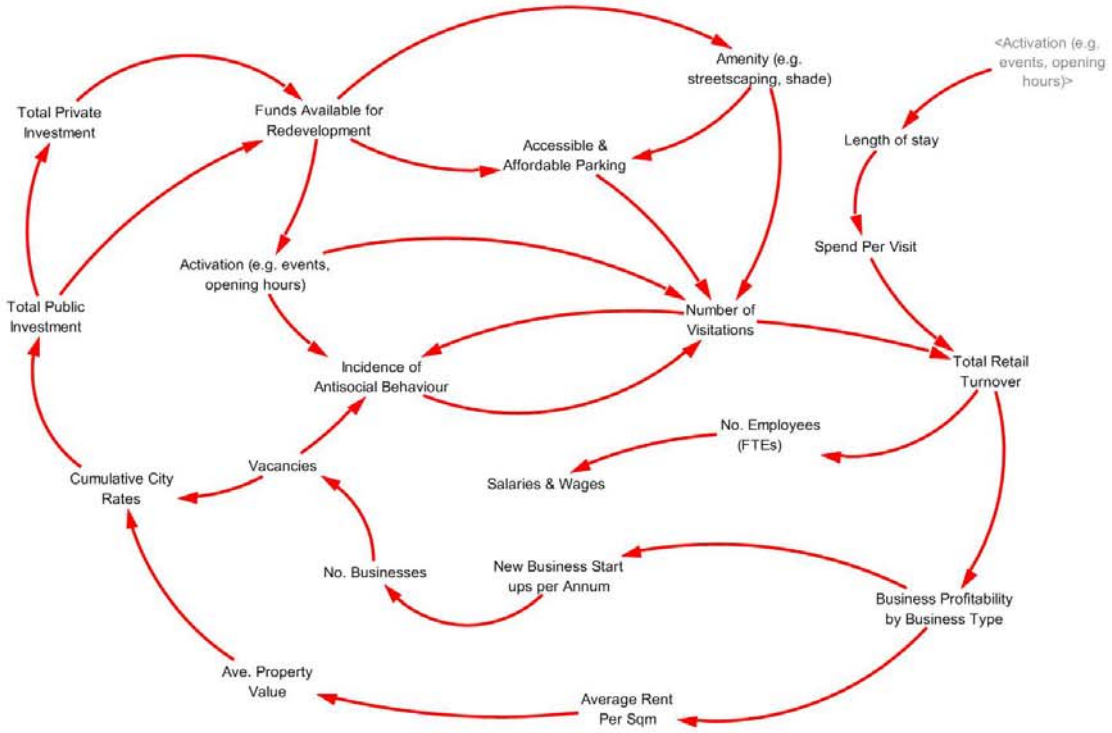
These types of relationships are central to the modelling technique adopted for this study.

3.4 Case Study Analysis

To help inform the modelling, thirteen retail mall case studies were examined (see Appendix 1). A literature review of the shift towards pedestrian malls was also undertaken. The case studies highlighted that mall success relies on:

- The need to support the town centre - malls are usually part of a wider town centre and their performance is strongly tied to the performance of the centre as a whole;
- The need for committed management - the successful case study pedestrian malls have all had a coalition of partners taking responsibility for management;
- The need for promotion - marketing is important in attracting new and repeat business. Successful promotion requires that target markets (both residents and visitors) are identified and catered for within the mall;
- The need for an active street - a successful mall should be the focal point of community life in the town centre. This includes activities such as outdoor dining, busking, community events, concerts and so forth;
- The right scale and mix of activities - to be successful, a mall must be large enough to contain an attractive mix of activities;
- The need for regular re-invigoration - continual monitoring of the performance of a mall is required, with a commitment to regularly reinvigorating the urban design and street activity;
- The need for safety and security - malls can provide a stage for anti-social behaviour that is off-putting for many centre users;
- The need for accessible car-parking - in a regional centre with relatively poor public transport, accessible car parking is important; and
- In some cases, the benefits that can arise from, at least, partial, reopening of malls.

Figure 4
Maude Street Mall
Influence Diagram



3.5 Resident Telephone Survey

To collect baseline information on the probability that residents visit the Maude St Mall and the likely impact of any improvement on visits, a randomised telephone survey was undertaken (see Appendix 2).

Questions were designed to first ascertain the number of visits to any of the five main retail centres in Shepparton. Respondents were also asked how much they spend on any given visit. They were then asked to rate the importance of 10 different retail centre characteristics in terms of their decision to visit. This included parking, cleanliness, events, mix of activities, opening hours and physical amenity. Based on this, they were then asked to what extent improvements that addressed these features would change the frequency of their visits to the Mall

Quotas for age categories were set in order to attain a representative sample. A total of 380 randomly selected responses were collected, providing a 95% Confidence Level for the results. Table 2 below provides a snapshot of the survey results.

Table 2 Maude Street Mall Resident Survey Summary

No. Respondents	380
Average Mall Visits Per Annum	26
Average Spend per Visit	$49
Total Estimated Average Annual Mall Visits	1,135,279
Theoretical Additional Mean Annual Mall Visits with Improvements (by 2022)	1,029,157
Total Estimated Average Annual Mall Visits with Improvements (2022)	2,164,436

Structural equation modelling[8] was used to analyse the data and test the importance of different features of a shopping precinct on an individual's decision to visit. It was formatted so that it would provide a means to measure the likelihood of different improvements to Mall features increasing visitations.

The results showed that individual interventions did not generate a statistically significant change in visitation numbers. It was only in combination or bundles that improvements had a statistically reliable impact. Table 3 summarises this.

Table 3 Maude Street Mall Resident Survey Summary

Bundled Improvements	Constituent Improvements	Percentage contribution to theoretical maximum additional visits
Group 1 - Activation	Opening Hours, Events, Mix of Cafes/Restaurants, mix of retail outlets	35%
Group 2 - Amenity	Cleanliness, Landscaping, Safety and Shade	39%
Group 3 - Parking	Accessible Parking, Affordable Parking	25%

[8] This is a statistical technique that combines quantitative data with qualitative assumptions to test causal relationships between variables.

3.6 Retailers' Survey

A survey of Maude Street Mall retailers was also carried out. Information about each business was collected (e.g. type of retail, number of full-time and part-time employees). Data about the number of customers per week and spend per customer were also gathered.

Retailers were asked how many additional customers per hour would be required for them to extend their opening hours. They were also asked to rate (on a scale of one to ten) how likely they would be to extend their trading hours if the Mall was reopened to vehicle traffic. A total of 37 businesses were surveyed and three vacancies identified. Table 4 summarises this.

Table 4 Maude Street Mall Retailer Survey Summary

Variable	Average	Total
No. retailers	n.a	37
Vacancies	n.a.	40
Full-time employees	2.5	88
Part time employees	4.0	143
No. customers per week	407	12,222
Est. spend per customer	$76.6	n.a
No. customers required per hour to extend opening hours	11.7	n.a

3.7 Model Architecture

Building on the outcomes of the ILM and Influence Diagram sessions, case studies (Appendix One), resident and retailers' survey, a probabilistic model of the Maude Street Mall was constructed.

At the core of the model was the theoretical maximum number of additional visits that would be possible if the full suite of Mall improvements were made. That is, the probability that, under different scenarios (e.g. different improvement bundles), a randomly selected resident's visit to a shopping precinct would be to the Maude Street Mall.

Additional visitor spend was also calculated, as well as implementation costs for each scenario. Population growth and inflation were factored in[9]. The number of retailers likely to extend their trading hours as a result of additional patronage was then calculated.

Reopening the Mall to vehicle traffic was tied to the retailers' indications of the likelihood that they would extend their trading hours as a result of improved visits. Employment and turnover gains were then modelled and compared to the implementation costs. Where appropriate, Net Present Value (NPV) was calculated[10].

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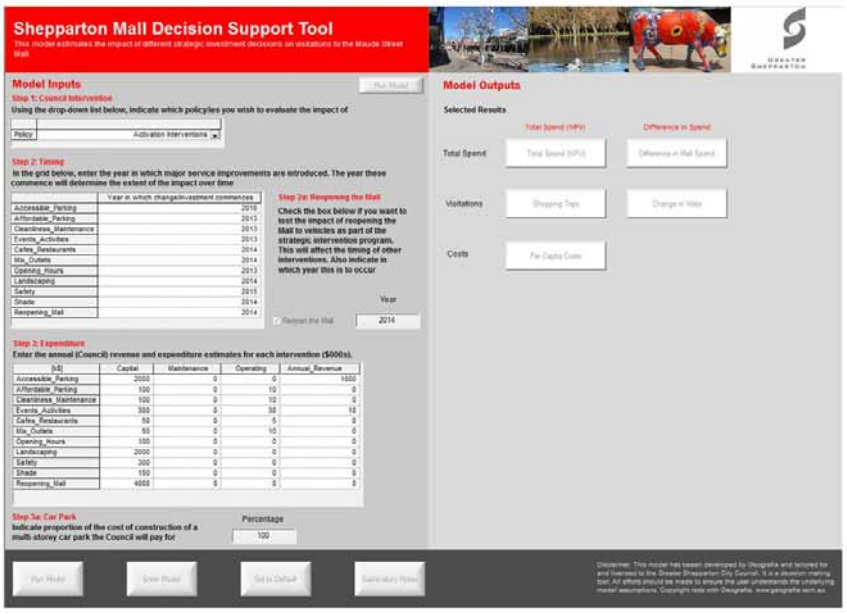
[9] Forward inflation rates are calculated using 2000-2011 CPI values projected using a geometric growth function with an annual volatility of 1%.

[10] It is worth noting that most of the model equations are stochastic. This means that where possible the full distribution of possible inputs is factored in. The model was run for 10 years, with 1,000 iterations and each iteration selects from a probability distribution of the input variables. This means that the results are reported on as a matrix of possible outcomes.

An optimisation function was also incorporated into the model. This calculated the highest return on investment in terms of additional visits per dollar spent on interventions[11].

The approach used in this exercise is highly transparent. The GSSC has also been provided with a 'dashboard' interface (Figure 5) that allows them to adjust assumptions (e.g. year of implementation) and test variations on other features such as the intervention costs and the discount rate (for calculating net present value). They can also access a visual spreadsheet of the model architecture which highlights the linkages between variables.

Figure 5
Model
Dashboard



[11] Note that the scenario model has the capacity to be expanded into an optimisation tool that can specify the best mix and timing of interventions to maximise whichever performance indicator is being targeted (e.g. number of visitors). A similar exercise was undertaken for the East Gippsland Shire Council. This provided a tool to identify the optimum infrastructure investment (from a choice of over 54), in terms of per capita returns.

4.0 Model Results

4.1 Model Assumptions

The main model assumptions relate to the costs and year of implementation for the improvements. These can be readily adjusted using the model dashboard. The assumptions used in this model run are summarised in the table below.

Table 5 Maude Street Mall - Model Assumptions

Interventions	Improvement Components	Start Year	Initial Capital Cost (2012 prices)	Annual Operational Cost (2012 prices)
Activation	-Opening hours -Events -Mix of Cafes/Restaurants -Mix of retail outlets	2014	$500,000	$50,000
Amenity	-Cleanliness -Landscaping -Safety -Shade	2015	$2,550,000	$10,000
Parking	-Accessible Parking -Affordable Parking	2013	$2,100,000	$10,000
Re-opening Mall to vehicle traffic	-Option 1 of Mall Redevelopment Concept Plan	2014	$4,122,763	-

The model was run 1,000 times with a start year of 2012 and running to 2031.

4.2 Improvement Benefits

Number of Visitors

Efforts to activate the Mall, improve amenity and parking (according to the timeline outlined in Table 6), would generate an additional 1.08 million visits to the Mall to 2022. These calculations are based on the resident survey, which asked respondents to estimate how many times they currently visit the Mall each year and the likelihood that improvements would increase that number.

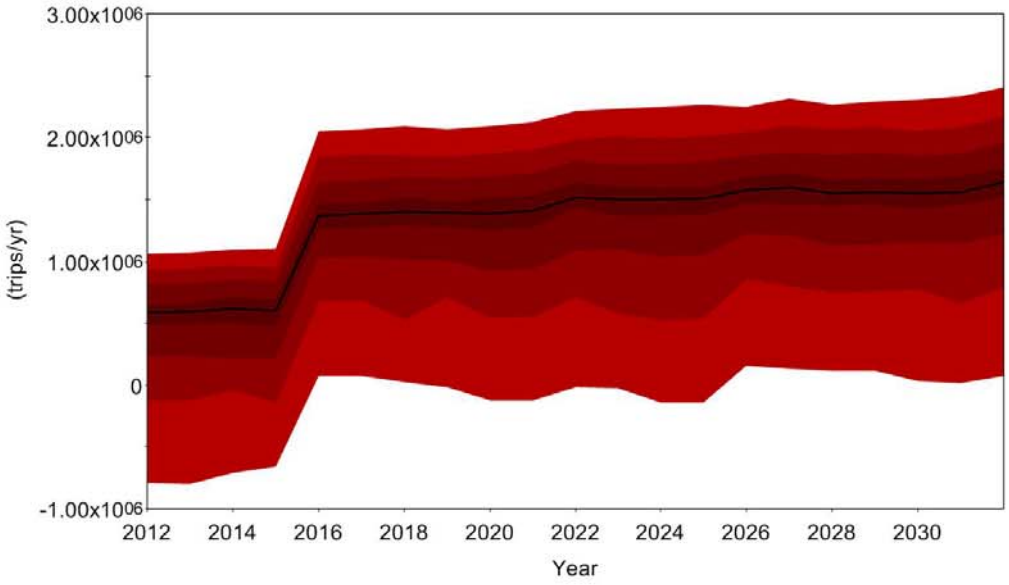
Table 6 provides a summary.

Table 6 Maude Street Mall Improvements

Indicator (annual in 2022)	Mall (mean)	Non-Mall (mean)
BaU visits	1,135,279	4,845,651
Visits with improvements	2,164,436	5,121,086
Difference	1,029,157	275,435

Figure 6 provides an illustration of how these change over time[12].

Figure 6
Net Visitation Increases Associated with Mall Improvements



Note that the coloured bands represent confidence bands. In this case, the full range of bands illustrate a 85% confidence band. That is, we are 85% confident that the net increase in Mall visitations under the scenario outlined in Table 6 will fall within the coloured range. The black line represents the mean value. Sensitivity analysis showed that the variability is primarily due to the volatility of reported annual visitations of residents. The model assumes a very rapid change in behaviour in response to Mall improvements.

If the Mall were re-opened to vehicle traffic, it would theoretically improve parking accessibility, possibly the mix of outlets and enhance the probability that some retailers would open after hours. However, the statistical analysis can only reliably estimate the impact of bundled improvements. At best, the impact estimation function in the model indicates that re-opening the Mall to traffic would contribute 29.4% of the theoretical mean increase (e.g. 302,000 additional annual visitations by 2031).

Spend/Turnover

Retaining the Pedestrian Mall but expending resources to better activate the area, improve amenity and parking would generate an increase of $55 million in sales per year by 2021. This takes into account inflation and population increase. This has a Net Present Value of $371 million. Table 7 provides a summary.

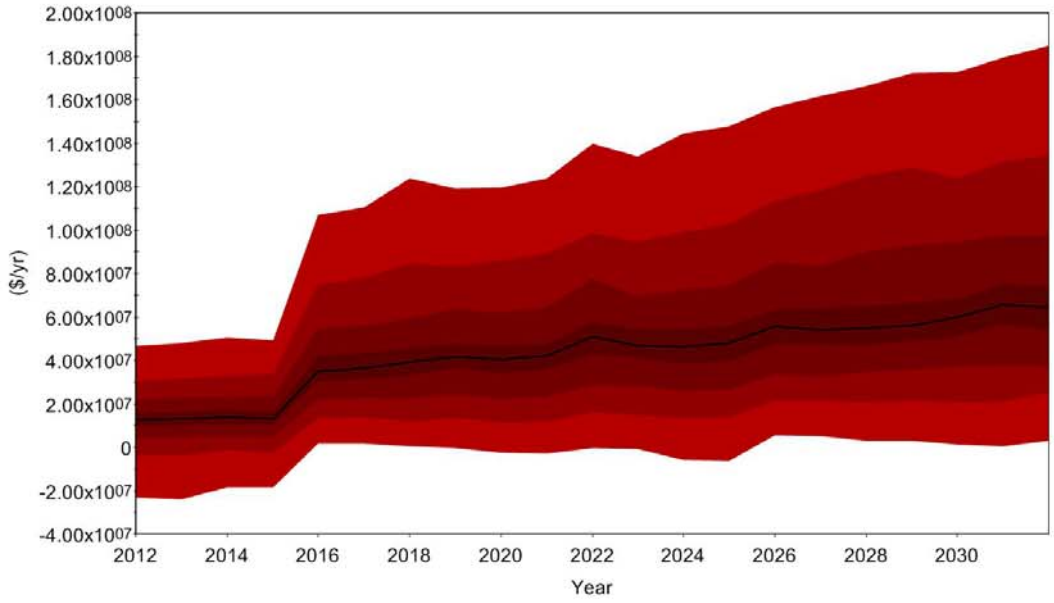
[12] Note that, although the model runs to 2031, results are reported for 2022 (that is, 10 years from the commencement date).

Table 7 Financial Impact of Maude Street Mall Improvements

Indicator	Spend (mean value)
BaU spend in 2022	$56,731,000
Spend with improvements 2022	$111,830,000
Difference	$55,117,000
Net Present Value	$371,130,000

Figure 7 charts the improved spend over time. The high variability in current estimated spend reported by survey respondents means that future estimate are highly uncertain. What can be said, however, is that, the survey results strongly indicate an increase in average annual spend at the Mall as a result of the improvements.

Figure 7
Net Sales Increases Associated with Mall Improvements



If the Mall were re-opened to vehicle traffic, the maximum net benefit is less that 1/3 of that possible with a broader suite of lower cost interventions.

Employment

Data were collected on the existing number of full-time and part-time employees. This was converted to a ratio of 'employee per hour' and potential new employment arising from extended opening hours was calculated. Based on the retailers' responses, it was estimated that an additional 17 FTE jobs would be created by opening the Mall to traffic and 15 FTEs if the suite of bundled improvements were

made. However, as highlighted in below, the revenue generated during extended opening hours would be higher if a combination of interventions were implemented rather than simply re-opening the Mall to traffic. In others words, the gross margins for retailers would be higher if bundled improvements were made compared to re-opening the Mall to vehicle traffic.

It may also be that three of the existing vacancies become occupied as a result of any of these initiatives. Based on the average employee per retail outlet, this is likely to generate up to an additional 7 FTEs under either condition.

Opening Hours

The additional employment generated from extended opening hours was based on the likelihood that businesses reported they would extend their trading hours if the Mall was re-opened to traffic and the number of visitations required to open was achieved.

Based on this information it is likely (19) businesses would trade for longer hours if the Mall was re-opened to traffic. Apportioning total new visits to extended hours and allocating these numbers to the required customer/hour to open, 17 (range from 8-24) shops are likely to be viable with extend opening hours if coupled with amenity, activation and parking improvements.

In terms of turnover during extended hours, in 2022 an additional $5.2 million in additional sales may be generated under an open-to-traffic scenario (NPV = $44 million). This figure is based on what businesses reported as the average spend per customer.

By comparison, in 2022, $10 million may be spent during extended opening hours if the bundled package improvements were implemented (NPV = $70.5 million). Table 8 provides a summary.

Table 8 Comparisons Benefits Associated With Extended Trading

Indicator	Re-opening the Mall to Traffic	Bundled Mall Improvements
Sales (2022)	$5,278,973	$10,822,493
Net Present Value	$44,079,736	$70,592,104
Shops Open	19	17
Net New FTEs (including vacant premises reletting)	25	23

4.3 Per Capita Cost Benefit Comparisons

Table 9 overleaf provides a summary of the different costs associated with the various implementation initiatives[13]. The model provides a range of outputs, but only mean estimated values are reported here. For the four discrete scenarios modelled, the best return on investment (ROI) (that is, dollars spent for dollars returned by new visitors) is the amenity improvements (a net gain of $208 per additional visitor). This compares with a little under $7 for the re-opening the Mall to traffic option. Note that,

[13] Note that, for this report, ongoing maintenance costs were set at zero for all interventions. However, the model has the capacity to factor in variable capital, operational and maintenance costs.

as these figures are calculated in net present value terms (to 2022), the timing of the intervention has a significant impact on the results.

Table 9 Maude Street Mall –Cost Benefit Summary (mean values)

Cost/Benefit	Activation	Amenity	Parking	Re-opening Mall to Traffic
Implementation Cost (2012)	$545,000	$2,560,000	$2,110,000	$4,122,763
Number additional annual visitations (2022)	523,000	485,000	394,000	302,000
Additional Total Sales	$37.8m	$45.8m	$41m	$17.5m
Extended Trading Hour Sales	$37.1m	$34.9m	$33.8m	$5.2m
Total ROI (NPV)	$342.8m	$340.8m	$178.8m	$337.5m
Per capita ROI (NPV)	$208	$183	$51.3	$6.7

5.0 Conclusions

5.1 Model Results Summary

It is important to note that this report only documents mean values while the model generates probable outcomes in terms of ranges. However, on the basis of the mean values, it can be concluded that the activation and amenity intervention packages generate the best return on investment. For most model runs, the activation interventions generate a greater return on investment than amenity/appearance (e.g. over 500,000 additional visitations per year compared with approximately 485,000). However, random variation in the model parameters means that any minor change in the roll-out of components of these two packages will change the relative benefits from each. This means that, for all intents and purposes these intervention packages have comparable (positive) outcomes.

By contrast, parking and re-opening the Mall to traffic return a lower benefit on the basis of the cost and the increased likelihood of more visitations (particularly outside of current trading hours). However, these model outcomes do not include issues such as logistical access for delivery vehicles, which may be improved if the Mall were to be reopened.

5.3 Policy Implications

The modelling outcomes provide a clear measure of the relative merits of different approaches to resolving the Maude Street Mall issues. Key policy implications are:

1. There is no statistical evidence that individual improvements (e.g. shade, more events or affordable parking) will change consumer shopping preferences. However, there is strong statistical evidence that when combined or packaged as 'improvement bundles' (e.g. amenity, activation and parking) they will increase Mall patronage sufficiently to provide a positive return on investment.
2. There is a misalignment between the perceived importance of vehicle access and parking and its likely effect on Mall visits and therefore revenue generation. At best, affordable and accessible parking accounts for 25% of the potential increase in visits and re-opening the Mall to traffic a little more, at 29%.
3. Activation (i.e. extended opening hours, events, mix of cafes/restaurants and retail diversity), followed by amenity (i.e. cleanliness, landscaping, safety and shade) consistently generate the best returns on investment in terms of increased visits, increased spend and per capita returns on infrastructure investment.
4. The use of a probabilistic systems modelling technique has illustrated the best broad policy approach and has provided a quantitative measure of the impact of different interventions. This alongside qualitative (including case study) analysis demonstrates a robust and innovative approach to local government decision making processes.

5.3 Recommendations

Taking into consideration the model results, together with the case study analysis, it is concluded that, in the absence of significant household and business investment in the Mall area (e.g. via residential development), partial reopening of the Mall may be beneficial to Mall patronage and provide a positive, albeit small, 'return on investment', not least due to its perceived positive impact on parking. However, as

activation generates the greatest overall return, and it requires space for pedestrian activities, any plans to reopen the Mall need to carefully consider how this would impact on activation strategies. To that end, it is recommended there be:

1. A detailed investigation of the program details of bundled Mall improvement packages - activation, amenity and parking - that can be used to increase Mall visits, including design considerations and how they may be funded and rolled out.
2. Consideration of the option of a partial reopening of the Mall, in conjunction with the bundled Mall improvement package and mindful of the broader planning strategies for the CBD (including traffic management).
3. An investigation of the capacity of the model to contribute to this effort by quantitatively and transparently identifying the optimum intervention program (including budget and timing). This can be applied through a comprehensive cost benefit study.

5.4 Methodology Comments

This project was a collaboration between the City and Geografia with a view to demonstrating the value of probabilistic (Monte Carlo) systems modelling to investigate local government planning and development issues and provide a more robust evidence base for decision-making. The approach used in this study demonstrates the value of using a flexible, scenario-based decision-support tool. By being able to compare the net benefits of different interventions designed to address shopper preferences, the systems model can provide the evidence base necessary for making the optimum policy decision.

As a matter of necessity, there were several assumptions underpinning the modelling. These were:

1. While outliers were removed from the sample (e.g. respondents indicating they visited the Mall more than twice a day for 365 days per year), survey respondent statements about the number of times they currently visit the Mall and other shopping complexes are likely to be over-estimates. Conversely, the survey did not account for tourism visits, which partially offset this. Overall, total visitation numbers should be treated cautiously and more confidence assigned to the relative numbers between Mall improvement bundles.
2. It was assumed that no additional retail centre would open during the period under analysis (in this case, from 2012 to 2022). If this were to occur, it would generate further competition for consumer spend.
3. The preference for shopping destination is based on a survey of Shepparton Residents and Maude Street Mall retailers. This means, while it may have conceptual value for other locations, the results are not necessarily universally applicable. Resident and business surveys must be used to calibrate similar modelling efforts elsewhere.
4. Additional costs (e.g. maintenance costs and the replacement cost of the Civic Space should the Mall be re-opened to traffic) have not been factored into this modelling exercise. However, the model itself has been constructed to allow this should it be required.
5. Any lost revenue and visitation reduction during building works has not been factored into the model. Again, this can be added in if required.

6.0 References

Greater Shepparton City Council, 2008, **Shepparton CBD Strategy**, Prepared by Planisphere, Melbourne

Greater Shepparton City Council, 2010, **Maude Street Mall (Northern Section): Design Rationale Report**, Prepared by Liesl Malan Landscape Architects, Bendigo

Pojani, D, 2008, **Santa Monica's Third Street Promenade: the failure and resurgence of a downtown pedestrian mall**, Urban Design International, vol 13, 141–155

Appendix 1 Pedestrian Mall Case Studies

A.1.1 The Pedestrian Mall Movement

The pedestrian mall movement originated in the United States when in the 1960s and 70s nearly 200 main streets were converted to malls. They were seen as a way to revitalise down town areas and initially they were a success, with increased sales and regeneration of downtown areas. This justified the capital costs incurred by government and in some cases levies from land owners. However, within 5-10 years the expectations had failed to materialise. It seems people showed up for the opening ceremonies, but rarely returned. Vacancy rates were higher and rents lower than surrounding streets. Malls gained a reputation as unsafe places, especially at night, which in turn created investment risk aversion, further compounding problems (e.g. vacancies led to more vacancies).

By the late 1980s, it was generally felt that most US malls (though not all) were a failure. Local councils began to reconvert their malls back to streets with vehicle access - at some expense. By the 1990's fewer than 30 viable malls remained in the US (Pojan, 2008). Surprisingly, there was limited cost benefit analysis undertaken on either opening up malls in the first place or for their reconversion. The reasons for their failure (as well as the reasons the limited few succeeded) can assist with the decision making model being developed for the Maude Street Mall.

Importantly, the pedestrian mall experiment was tried at the same time that private car and drive-to suburban box shopping malls became popular. Downtown pedestrian malls simply could not compete. The problem was systemic as much as it was with flaws in the design of malls themselves. However, there were some success stories. Key features seemed to be encouraging residential development, hotels, restaurants, movie theatres, as well as a pitch to office worker, student or tourist patronage - rather than a surrounding catchment.

A.1.2 Pedestrian Mall Case Studies

The following case studies describe the range of experiences with dealing with mall revitalisation challenges. It includes some examples of malls that have been re-opened to vehicle traffic. Photographs have been included where available. In most cases information has been provided by the local council and/or the mall traders' association. A summary of the key points is provided at the end.

Case Study 1: Gold Reef Mall, Main Street, Stawell

In 2004, the Gold Reef Mall in Stawell reopened as Main Street, 26 years after it had first been closed to traffic. The Mall was one of the first in Victoria and provided much of the specialty retailing for the town of Stawell and surrounds (a catchment population of around 9,000 people). The retail offering in the town was and is equivalent to a large neighbourhood or community level centre in the retail hierarchy, containing supermarkets and specialty stores.

The impetus for reopening the Mall came from the traders and town centre land-owners. There was a perception amongst this group that Stawell was not competing effectively with nearby towns such as Ararat and Maryborough. There were a number of vacant shops and one or two chain stores in the Mall had recently closed for lack of custom.

Following reopening of the Mall to traffic, the shop vacancy rate declined and traders indicated (in an informal survey conducted by Council officers in 2005) that turnover had increased. In 2011, most traders apparently remain sure that reopening the Mall has been beneficial to trade.

Moderating this view, retailing in general has had some times of high growth over the intervening period, and the population in the Statistical Local Area of Stawell stabilised around 2006 following five years of steep decline.

Case Study 2: Hargreaves Mall, Bendigo
Hargreaves Mall is the prime retail strip in the Bendigo CBD. Opened in the 1980s, the Council has recently undertaken a major refurbishment incorporating new trees, street furniture and paving, fountains and event screens (see http://www.rushwright.com/civic-space/hargreaves-mall).

The Mall is predominantly a retail strip and the main focal point for activities in the CBD. It also hosts a variety of community functions and entertainments. There are a few offices above the shops but no residences. The Mall does benefit from being located in a multi-functional centre but it is mostly closed on Sundays. It has attracted ongoing publicity in the local press concerning violent incidents. An increased police presence has reduced concerns, although safety and security is an ongoing issue for all malls ("Malls attract performers, including anti-social performers" according to one knowledgeable source).

There have been some calls in the past to reopen the Mall to traffic but these have been resisted, and with the recent expenditure are unlikely to gain traction. A special rate was levied on all CBD traders to pay for marketing and promotion, including employment of a promotions officer. This levy has recently lapsed and has not been renewed.

Retail rents in the Mall are higher than surrounding parts of the CBD and there is presently only one vacancy. Council and traders are relying on the capital improvements to create ongoing interest in the Mall.

Case Study 3: Bridge Mall, Ballarat
Bridge Mall in Ballarat was created in the 1970s as part of the main shopping centre of Ballarat. The fortunes of the Mall have waxed and waned over the years and there has been a feeling amongst some in the community that the Mall has not performed well in terms of generating high levels of pedestrian activity or retail turnover. However, the most recent decision by Council has been to retain the Mall and to reactivate it. The Ballarat CBD Strategy (2010) recommends, "that the Mall not be opened at this time as it is functioning well in its current format".

The Bridge Mall was established in a narrow historic street; opening this street now would not allow two way traffic and adequate parking and footpaths on both sides of the street. It has around 100 traders including many national chain stores but also a variety of owner-operators. The Mall runs east-west but has the advantage of pedestrian cross-flows between a discount department store (Big W) to the north and Coles and Woolworths supermarkets to the south. These large format stores have extensive car-parking which also serves the Mall.

Council levies a special rate on the Mall which is handed back to the Bridge Mall Traders Association for centre management and promotion. This includes running a centre office, a part-time security guard, security cameras and a wide range of promotional activities such as a web-site (www.bridgemall.com.au) and events including a monthly farmers market.

Anecdotal evidence from Centre management suggests that the turnover in the Mall shops is reasonable and, in some cases, higher than equivalent shops in the enclosed sub-regional centre at Wendouree. The vacancy rate is around 2% and retail rents are higher than or equivalent to other high value areas of the CBD (such

as Ballarat Central). Winter sales are relatively low because of the cold weather and the alternative indoor centres elsewhere in the CBD and at Stockland Wendouree.

The elements of success at Bridge Mall include:

- the location of key retail attractors and the pedestrian flows they generate through the Mall;
- the promotion and activation of the Mall through Council and trader action; and
- a commitment to security and strong centre management.

The unsuccessful elements include:

- lack of major entertainment elements (cinemas etc);
- limited opening on Sundays;
- little cross-pollination from other uses (offices etc); and
- no residents to support wider variety of shops and other services.

The executive officer of the traders association suggests that the success of the Bridge Mall is a result of its physical layout (that is, being too narrow to be reopened to traffic and continuing to function as a shopping street); and the existence of a long-standing and pro-active traders organisation with a willing Council.

Case Study 4: Third Street Promenade, Santa Monica California
The Third Street Mall was created in the main shopping street of Santa Monica during the mid 1960s at the same time as many city centre malls were being created in response to the decline of city centre shopping. The Mall was successful for a time but eventually declined in the face of continued suburbanisation and lack of intensive management. Vacancies rose and traders failed to invest.

In the mid 1980s the City Council considered reopening the Mall to traffic. However, the downtown area was becoming a desirable place to live and there was increasing community pressure to create a pedestrian oriented "main street". A Third Street Development Corporation was formed by Council including local businesses and community representatives. This group prepared a plan to reorient the Mall to serve a market niche in providing eateries and entertainment.

In the late 1980s after major investment in urban design, the Mall was relaunched as the Third Street Promenade. Along with private investment in dining and entertainment, this has created an attraction for the region that is still successful 20 years later. The problems of the Mall now are the management of growth and the maintenance of the dining and entertainment function that is so attractive.

The success factors for the Third Street Promenade appear to be:

- Growth in the number of local residents and a certain amount of gentrification;
- A plan to develop the Mall to serve a particular market and commitment to carry it through;
- Funding from Council for urban design initiatives; and
- Some restrictions on development elsewhere (for example, new cinemas were only allowed in this precinct).

The success of the Promenade is indicated by increasing rents and the clamour of chain stores seeking a location in the precinct. The public-private management corporation has now extended to cover the whole of downtown Santa Monica (see www.downtownsm.com).

Case Study 5: Hunter Street Mall, Newcastle

Hunter St Mall (Image: Urban Insider)

In 1970, a 300m section of Hunter Street, was closed to traffic and paved to create, the Hunter Street Mall. In the intervening years, the rise of regional shopping centres and the spatial constraints of the Newcastle peninsula resulted in a serious decline in retail and employment in the Mall and along the rest of Hunter Street itself. As a consequence, the choice of retail declined, and with it employment. Shops became vacant and anti-social behaviour increased.

Hunter Street Mall was redeveloped and reopened to calmed traffic in 2009 in an attempt to address the decline. The not-for-profit organisation Renew Newcastle helped to revitalise the CBD including the Mall by making empty shops and offices available to artists, creative entrepreneurs and community groups for little or no rent. This reduced vacancies in the Mall while activating the area. While the Mall now has significantly less pedestrian space, the anecdotal evidence is that businesses are happy and that it is starting to become a successful space. There is still a perceived lack of safety in the Mall at night, though the quantitative evidence suggests that obstructions (such as concrete bollards and old paving) are more dangerous to pedestrian safety than crime.

The NSW Government has committed funding to regenerate the area through the Newcastle Urban Renewal Strategy 2012. This includes residential development in the area. Having one major property owner (the General Property Trust, which acts as a de-facto Mall manager), is considered both a benefit to this work and a challenge. Some of the proposals in the Strategy include reducing clutter in the Mall as well as redeveloping the area in to an avenue style Mall.

Case Study 6: Langtree Mall, Mildura, Victoria

Langtree Mall (Image: Mildura Independent)

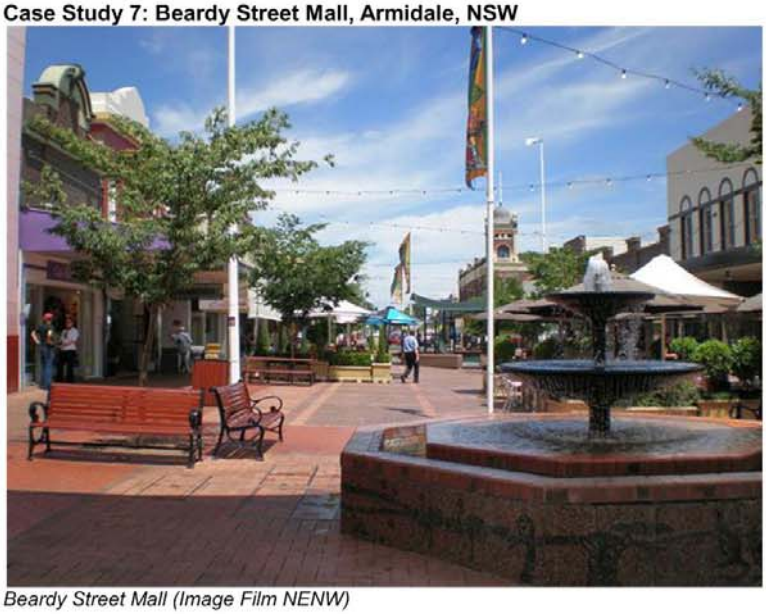
Langtree Mall was opened in November 1986 following the closure of part of a 220m section of Langtree Avenue to through traffic. By the early 2000s, the area was in decline. This has been attributed to:

- The opening of a large shopping centre a short distance from the Town Centre;
- The eroding of the paving; and
- The cluttered space of the Mall.

In 2011, Council spent $4.2 million on an upgrade as part of the Mildura CBD Structure Plan. Key objectives included improving public safety via lighting; improvement of sight lines and passive surveillance through the removal of buildings and structures; the provision of a more attractive pedestrian space to encourage visitors and tourists to stop.

Thus far the upgrade has not significantly improved trade. A general decline in retail trade in the area has been reported (and mostly attributed to the effects of the Global Financial Crisis and drought). This has led to increased vacancy rates. There is anecdotal evidence that the Mall is still unpopular due to the type of seating installed (without backs or armrests) and the overall design. The reintroduction of through traffic was explored by Council, but dismissed. This was not an issue at the time, but has come up in the media since then with some wanting a return of cars to the street. Council regards this as unfeasible.

Case Study 7: Beardy Street Mall, Armidale, NSW



Beardy Street Mall (Image Film NENW)

The 330m long Armidale Mall, stretches over three blocks of Beardy Street. It was opened in 1973 and is claimed to be the first of its kind in regional Australia. Beardy Street currently has limited one-way traffic leading to the pedestrianised mall. Council policy is to protect the central city, with a precinct committee overseeing the central area. The heritage buildings in the area are seen as a particular advantage which encourage the presence of high end retailers.

While regular events and entertainment bring people to the Mall, it is not as successful as it once was. The Mall used to be the centre of Armidale shopping, however the construction of shopping centres elsewhere has led to some decline. There are few owners in the Mall, which results in rents being uncompetitive. There are no major department stores in Armidale, meaning that shoppers need to travel to Newcastle, Tamworth or Sydney. The Mall has noticeably declined, especially when compared to the nearby planned shopping centres, which have "colonised land-uses internally (such as fashion outlets) that might otherwise be contributing to the vibrancy of the main street"[14].

In an attempt to address this decline, parking in the area was increased from a one hour limit to three. This has had the unintended consequence of workers using these parking spots and moving their cars when needed, rather than them being used by shoppers. The current redevelopment of the post office and court house may also have an impact. The post office is an important service attracting a lot of pedestrian traffic. However, a new court house will be built away from the Mall which is expected to have a negative impact. There are no current plans for redevelopment.

[14] Wood, S., Sneesby, T., & Baker, RGV. (2012): Maintaining town centre vitality in competitive environments: pedestrian movements, land-use and built-form in Armidale and Tamworth, NSW, Australian Planner, 49:2, 172-187

Case Study 8: Crown Street Mall, Wollongong, NSW

Artist's impression of the Crown Street Mall after redevelopment (Image: Wollongong City Council).

First opened in 1986, the 400m long pedestrian-only zone of Crown Street Mall is currently undergoing redevelopment. Crown Street is a historically significant street, providing the main connection from surrounding areas to the town centre and the ocean. There are also a number of historically significantly buildings in the mall. Crown Street Mall acts as a key pedestrian connection from retail areas to public transport located at Burelli Street and Wollongong Station.

By 2000, the Mall had reportedly lost 20 per cent of its retail market share; largely due to suburban shopping centres. It had also become 'worn and tired' and anecdotal evidence suggests there were safety issues due to youth congregating in the area in the evening and the impact of patrons from nearby bars. In April 2009 Council voted to refurbish the Mall but keep it closed to traffic. This decision followed extensive community consultation in which the majority of residents argued for the Mall to be retained as a pedestrian-friendly zone. Refurbishments commenced in 2012 and are expected to be completed by 2015. The total cost is $19.4 million, partly funded by a $5 million grant from the Australian Government's Regional Development Australia Fund. The work is part of the revitalisation of the Wollongong City Centre.

The redevelopment of the Mall will support the community by creating open outdoor spaces for performances, play and social interaction. The Mall previously featured covered sections and an amphitheatre and these will be rejuvenated. The community is enthusiastically in favour of the pedestrian-only dimension to the plans and that many activities are held there throughout the year - this will continue in the new Mall. The refurbishment plans include a new area for pedestrians, including the creation of an urban native forest, open-air performance spaces, play areas, seating, lighting and free Wi-Fi. The refurbishment is intended to act as a catalyst for property owners to invest in commercial, residential and retail space, which will also provide flow-on benefits to business in the area.

Case Study 9: Little Malop Street Central, Geelong

Little Malop Street Central (Image: Geelong Advertiser)

Little Malop Street, in the centre of Geelong, has gone through phases where it has been pedestrianised and open to traffic. The precinct stretches from Gheringhap to Yarra Streets, crossing Moorabool St and is a currently a mix of shared spaces, pedestrian-only zones and calmed traffic zones. Backing on to the street is the Market Place Shopping Centre, created in the 1980s and taking its name from the former marketplace on the site.

A redevelopment of the Mall was completed in 2005. This de-cluttered the precinct, successfully transforming a formerly poorly used area into a successful community and retail precinct. The term 'mall' had a bad reputation and the area is referred to as Little Malop Street Central. The decision to create the shared space was more about passive surveillance rather than about retail spend and retailing is considered to be only one component of the area. It is also an informal gathering space with plenty of seats and activities. The aim is to influence positive behaviour though activation and engagement. This includes fruit stalls, games, functions and participation activities. The area is popular with traders and the public alike.

There is currently a plan - Vision 2 - to revitalise the whole of the Geelong CBD. The primary focus of Vision 2 is for Malop Street to be a 'Green Wedge' with nodes of activity linking to and from it. The plan includes some work to further enliven the area, including the activation of the shopfronts in the privately-owned Market Place.

Case Study 10: Flinders St, Townsville, Qld

Flinders Square (Image: Flickr: Oriolus84).

In 1979 Flinders Street was pedestrianised between Denham and Stanley Streets, a length of approximately 450 metres. This created Flinders Street Mall. Soon after the Mall declined as major retail and entertainment businesses moved elsewhere. Despite upgrades to the Mall during the 1990s, property values declined. Vacancy rates fluctuated between 20 and 30 percent, even though rents were less than a third of those for comparable spaces in the suburbs. Community surveys reported that the Mall is tired, no longer safe and associated with anti-social behaviour including vagrancy and crime.

Council undertook studies which found that more people would travel to the central city if through traffic were introduced. Developers and retailers were not prepared to support a pedestrian mall; they wanted traffic in the street, arguing it would increase trade.

The Council has estimated the new-look street will stimulate an additional $81 million per annum in economic activity. Modelling showed that in the long term, every $1 of costs associated with the Flinders Street Mall redevelopment will see $17 in benefits to the region[15].

A $56 million redevelopment of the Mall was completed in 2011 with it transformed from a pedestrian mall into a traffic calmed street with a car-free centre, Flinders Square. $16.2 million of this money came from the Federal Government's Community Infrastructure Program, while $18.9 million was sourced from the Queensland Government. The redevelopment transformed Flinders Mall into a calmed street and is considered an 'outstanding success'. There have been increases in retail expenditure, and it is claimed that anti-social behaviour has all but disappeared. Since the Global Financial Crisis there has been a downturn in retail expenditure in the Mall.

[15] Townsville City Council (2008), Submission to Infrastructure Australia Audit of Australia's Future Infrastructure Requirements.

Case Study 11: Heritage Mall, Maitland, NSW

Maitland Heritage Mall (Image: Maitland City Council).

The Heritage Mall, constructed in 1988, is an open air paved pedestrian mall in the heart of the Maitland CBD. There are numerous heritage buildings in the mall with bronze plaques and details in the paving further describing Maitland's history. The Mall runs along High St between Elgin and Bourke Sts and is approximately 280m in length. The Mall was initially successful, but the opening of the nearby shopping centres drew away its business. In addition, the pavers in the Mall had begun to break up because of wear and tear. It would have required a lot of money to restore the pavers to the required standards.

In November 2011, a petition, heavily supported by local traders, to open the Mall up to through traffic was put forward. Council resolved to introduce a one-way traffic flow, creating a shared pedestrian and vehicle zone. The planned investment also includes improved connections to the Hunter Riverside Walk, as well as a significant refurbishment of the space. The project aims to reactivate the area and fill the shop vacancies and it has significant community support. The project also includes improved seating, lighting and other features such as coffee carts for people in the Mall. The project is currently at the concept design stage. There is little housing in the Maitland CBD, but Council has received funding to develop 260 affordable homes as well as approval for 'shop-top' developments; this is expected to further revitalise the area.

Case Study 12: High Street, Coffs Harbour, NSW

High Street Coffs Harbour (Image: Virtual Tourist).

Part of High Street in the Coffs Harbour CBD was closed to traffic in 1982 and the street's pedestrian mall was completed in 1983. Even though the region had high population growth due to its popularity as a coastal retirement destination[16], the impact of regional shopping centres undermined the viability of the town centre. Other issues included the downturn of tenancies in the mall and the perception of crime in the area. In the late 1990s, Council decided to revitalise the whole CBD including the Mall. This was completed in 2000 and it was opened with traffic calming at either end.

The street is now fully open to through traffic and contains on-street parking. It features extended footpaths. There is also a city square that is fully pedestrianised. It includes kiosks, shade sails and outdoor eating. Lighting has also been improved in the area; high-lux lighting has been installed and the improvement to perceived safety is attributed to this. There are activities in the street including a very well patronised farmers market. According to Council, occupancy rates increased from 42% prior to the redevelopment to 90% afterwards. There is also evidence that many retailers have moved back in to the CBD from the regional shopping centre. Anecdotal evidence suggests that rental costs are much higher in the shopping centre than in the CBD. The abandonment of the pedestrian mall and the re-introduction of through traffic and additional parking, but limited to short shopping trips, "revitalised a precinct that has had a chronic vacant shop problem for nearly a decade"[17].

[16] Its population almost doubled from 1981, reaching 81,000 in 2011 (ABS, 2012, catalogue no 3218.0

[17] Baker, RGV. (2006), Dynamic Trip Modelling: From Shopping Centre to the Internet, Dordrecht : Springer, p.303

Case Study 13: Smith Street Mall, Darwin, NT

Smith Street Mall (Image: Linda Stokes' Blog)

Smith Street Mall is the central hub of the Darwin CBD. The mall was created when Smith Street was closed to traffic between Bennett and Knuckey Streets in the 1980s, and opened as a pedestrian mall. The mall runs for a length of approximately 250m. The mall has seen upgrades since with the most recent in 2010. The latest featured an upgraded of underground infrastructure, tree planting and a de-cluttering of the mall with an increase in accessibility and legibility. The mall currently features a playground, shaded areas and free Wi-Fi. The shaded areas are especially important given the climate.

Smith Street Mall is popular with tourists. Cruise ships dock at the end of the street and many of the shops in the mall are geared towards this market, with Aboriginal art, locally made jewellery and tropical clothing shops featuring prominently in the mall. However, the mall lacks major retail drawcards and there is little to draw locals to the area. Locals prefer to spend their money at the shopping centre in suburban Casuarina. There are tentative plans for further upgrades.

Table 10 Case Study Summary

Mall	Reopened to Vehicle Traffic	Recently Upgraded	Key Advantages	Considered a Success By Traders	Considered a Success By Others
Gold Reef Mall, Stawell	Yes	No	-Reopening the Mall -Stabilisation of regional population	Yes	Uncertain
Hargreaves Mall, Bendigo	No	Yes	-Multifunctional centre	Yes	Uncertain
Bridge Mall, Ballarat	No	No	-Multiple land holders -Narrow (pedestrian friendly) street -Active traders association	Yes	Yes
Third St Promenade, Santa Monica	Partly (day only)	Yes	-Residential population -Clear plan and commitment to it -Management Group -Restrictions on developments nearby	Yes	Yes
Hunter St Mall, Newcastle	Partly (traffic calmed)	Yes	-Renew Newcastle -Free/low rent -Extensive upgrade	Expected	Expected
Langtree Mall, Mildura	No	Yes	-Extensive upgrade	No	No
Beardy St Mall, Armidale	No (one way roads lead to Mall)	No	-Heritage buildings -Precinct Committee	Partly	Partly
Crown St Mall, Wollongong	No	Underway	-Extensive upgrades -Heritage buildings	Yes	Yes
Little Malop St Central, Geelong	Partly (shared space, pedestrian-only zone, traffic calming)	Yes	-Extensive upgrades -Public space, not just retail	Yes	Yes
Flinders St, Townsville	Partly (traffic calmed, central square)	Yes	-Extensive upgrades	Yes	Yes
Heritage Mall, Maitland	Partly (one-way, traffic calmed)	Imminent	-Heritage buildings	Expected	Expected

High St Coffs Harbour	Partly (central square, widened footpaths)	Yes	-Population growth -Shopping centre rents higher	Yes	Yes
Smith St Mall, Darwin	No	Yes	-Tourists from cruise ship	Yes	Yes

Appendix 2 Resident Telephone Survey

ADVANTAGE COMMUNICATIONS - RESEARCH

GEOGRAFIA for GREATER SHEPPARTON City Council

MAUDE STREET MALL CONSUMER SURVEY – NOV 2011

Shepparton *is situated approximately 181 kilometres north-east of Melbourne. It is the fifth largest city in* ***Victoria****. Maude Street Mall is the main shopping centre, while Wyndham Street is the main civic and commercial street of the city.*
We want to get a representative sample of the whole community. – not just people who do grocery shopping. These shopping areas are used for more than shopping (e.g. banking, entertainment, etc)– so we want at estimate of total users ***for whatever purpose****.*
The survey is to be used to determine what features influence people's decision to use one shopping are over another.

NAME _____ _____ Gender: Male 1
Female 2

POSTCODE _____ **NOTE FROM PHONE LIST**

TELEPHONE _____ INTERVIEWER_____RESULT _____DATE_____

Good Morning/Afternoon_____. My name is _____ and I am calling for the Greater Shepparton City Council
(I'm from Advantage Communications-Research, an independent market research consultancy) who've asked us to conduct a quick survey on the community's use of local shopping areas. Can I ask....? →Q1
We only want to invite people aged 15 or over. If they sound young, ask their age before continuing

It will only take a few minutes to complete....and your opinions are really important to help Council enhance the facilities in the area
If they have any queries about the survey or the way in which data will be used, they can ***contact :***

1. Which of the following age groups do you fit into?
Read out bands. Circle one only

Please Circle
15 - 19 1
20 - 64 2
65 or over 3

2. In the last 12 months, ***(approximately)*** **how many times would you have visited (for whatever purpose) each of the following shopping areas in Shepparton?**
What about centre workers?

	SHOPPING AREA	Number of Visits in last 12 months
a	Market Place	
b	Maude Street Mall	
c	Mooroopna Shopping centre	
d	The Rest of the CBD	
e	Riverside Shopping Centre	

If necessary Prompt: **How often do you visit the _____?** *(shopping area)*
See frequency key below

Frequency	Daily/Every day	Once a week	Once a fortnight	once a month	Once every 3 months	Once every 6 months	Once/hardly ever	Never/Not at all
Visits per yr	360	52	26	12	4	2	1	0

If have visited visit Maude street Mall in last 12 months (i.e. not 0 visits)

3. On average, approximately how much money would you spend in total for whatever purpose on each of your visit(s) to the Maude Street Mall? *(read out brackets)*

Please Circle	
$0 - $50	1
$51 - $100	2
$101 - $200	3
$201 - $300	4
$300 or more	5

4. Using a scale of 1 to 10, with 1 being of very low/not at all important and 10 being very important/essential, can I ask you to indicate the importance of each of the following features in your decision to visit a particular shopping area in general *Read out all items in table* **RANDOMISE ORDER**

	Feature	1 = not at all important									10 = essential
a	Accessible Parking (walking distance less than 5mins)	1	2	3	4	5	6	7	8	9	10
b	Affordable Parking	1	2	3	4	5	6	7	8	9	10
c	Cleanliness and Maintenance	1	2	3	4	5	6	7	8	9	10
d	Events and Activities (e.g. concerts, festivals, markets, outdoor cinema)	1	2	3	4	5	6	7	8	9	10
e	Good Cafes and Restaurants	1	2	3	4	5	6	7	8	9	10
f	Mix of Outlets (A good range of retail outlets, businesses and shops)	1	2	3	4	5	6	7	8	9	10
g	Open in the Evening and Weekends (after 5pm)	1	2	3	4	5	6	7	8	9	10
h	Quality Landscaping (e.g good paths, places to sit, toilets etc)	1	2	3	4	5	6	7	8	9	10
i	Safety (e.g. security officers, security cameras, good lighting, clear sight lines)	1	2	3	4	5	6	7	8	9	10
j	Shade (trees, gazebo and shade sales)	1	2	3	4	5	6	7	8	9	10

1 -2=very low 3-4 = low 5-6 = av 7-8 high 9-10 very high

Earlier you mentioned that have visited the Maude Street Mall approximately Q2_____ **(times) in the last 12 months** *(refer Q2b).*

5. If improvements were made to the Maude Street Mall that met your requirements, approximately how many additional visits to the Maude Street Mall would you be likely to make per year? Q5_____ *additional visits/yr*

Q2_____ *(current visits/yr)* *e.g. Q2 once a month (12 visits per year)* **+ *Q5*** _____ *(additional visits/yr)* *+ Q5 40 additional visits per year* **=** _____ ***TOTAL visits*** *= once a week (52 visits per year),*

the number of additional visits = 52 - 12 = 40 per year

6. Do you have any additional comments or suggestions you'd like to make regarding the future of the Maude Street Mall precinct? *Note below*

Thank you very much for your time and interest. Your opinion is very important to the Greater Shepparton City Council in determining future priorities. That completes the actual survey, but my supervisor may check the veracity of my work with a very brief call in the next few days (they call about 10% of my interviews). Apart from the random checking process, you will not be contacted again after this survey, nor will your name be recorded on any database. THANK & TERMINATE *s:/My Documents Matt/questionnaires Geografia Maude St Mall Survey Nov11*