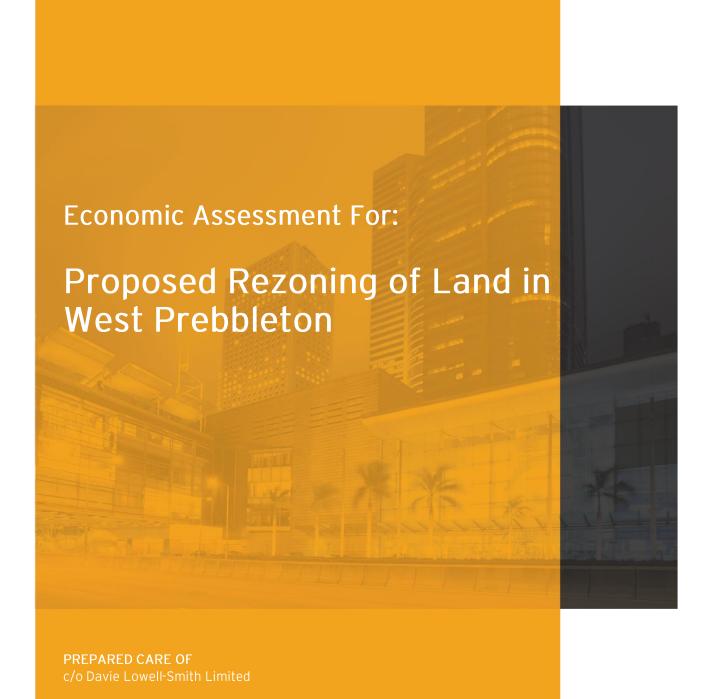
Appendix F – Urban Economics, Economic Assessment			





3.11.2020

AUTHOR ADAM THOMPSON AND MATTHEW WILLIAMSON 51542.5.01





OUR AREAS OF EXPERTISE

Economic Analysis

Our work aims to bridge the gap between land-use planning and urban economics. Our focus is on the interaction between land markets, land-use regulations, and urban development. We have developed a range of methodologies using a quantitative approach to analyse urban spatial structure and audit land-use regulations.

Property Research

We provide property and retail market research to assist with planning and marketing of new projects. This includes identification of new sites and market areas, assessments of market potential and positioning, and the evaluation of market-feasibility of specific projects.

Development Advisory

We provide development planning and costing advisory services to support small and large-scale developments.

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1. Key Points

This report evaluates the economic impact of rezoning 71.9ha of General Rural zoned land in Prebbleton to General Residential.

The key points to note are:

- The current housing market in Prebbleton is expensive, with only 1% of dwellings priced below \$400,000, 15% of dwellings priced below \$600,000 and the vast majority (85%) of dwellings priced over \$600,000.
- The Selwyn Growth model (2017) used to inform the 2018 2028 Selwyn District Long Term Plan estimates that 400 additional households will reside in Prebbleton over the next decade. This indicates an underlying demand for around 40 new dwellings each year.
- Over the past decade Prebbleton has seen strong growth, with around 100 dwellings built annually based on Building Consent data, and for some years around 200 dwellings per annum. This indicates that the demand for housing is at least 2-3 times that estimated in the Selwyn District Long Term Plan, of only 40 dwellings per annum.
- There are only a small number of locations adjacent to the main urban area that have land values that are low enough to enable new urban developments that are feasible.
- The proposal encompasses one of only two feasible expansion locations for the town that do not require development to leapfrog an area of lifestyle blocks.
- Areas adjacent to the existing urban area are considered the most efficient locations for new development as they integrate directly with the existing urban area. The proposal site fits this decription.
- There is practical potential for around 5 additional infill dwellings over the next decade.
- There is practical potential for around 90 additional greenfield dwellings over the next decade.
- The proposal enables a total of approximately 820 lots ranging in size from 400m² -1,000m².
- This wide range of lot sizes also enables a range of dwellings types and sizes. Enabling diversity of housing choice is a significant economic benefit.
- Future housing scenarios have been estimated for Prebbleton based on the existing stock, existing commercially feasible capacity and the impact of the proposal.
- Under the 'existing stock' scenario only 15% of dwellings are priced below \$600,000.
- Under the 'existing stock plus commercially feasible capacity' scenario 22% of dwellings are priced at \$600,000 or less.

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- Under the 'existing stock plus commercially feasible capacity and the Proposed Development' scenario 44% of dwellings are priced under \$600,000.
- There is currently reasonably expected development capacity for an additional 95 dwellings. This is less than one year of demand.
- Currently the NPS-UD requirements for the short, medium and long term are not met for Prebbleton.
- The Prebbleton West Block will bring capacity for an additional 820 dwellings to the market. This would increase capacity to 9.2 years, which would enable the short-term and medium-term capacity requirements to be met. Under the higher demand scenario, of 150-200 dwellings per annum, this would represent 4-5 years capacity.



2. The Proposal

This report evaluates the economic costs and benefits of rezoning 71.9 ha of land across fourteen properties between Shands, Hamptons and Trents Road. The properties are currently zoned General Rural. The zone change being sought is for the whole block of land to be rezoned General Residential.

Figure 1: Proposal Extent



3. Existing Land Uses

Prebbleton and its immediate 3km rural surrounds is comprised of:

- 20 rural properties comprising 560 hectares (21%),
- 410 lifestyle block properties comprising 1,780 hectares (67%),
- 1,710 residential properties comprising 230 hectares (9%), and
- 110 non-residential properties comprising 90 hectares (3%).

The main points to note are:

- Prebbleton is therefore dominated by lifestyle blocks, which account for two thirds of all land use.
- There are very few remaining rural properties, in the order of 20.
- The residential area accounts for 240 hectares.

¹ Property type as defined by Corelogic.



4. Housing Market Profile

Figure 2 shows the prices of the existing dwellings in Prebbleton. This is illustrated in Figure 2. The main points to note are:

- 1. Only 1% of dwellings are priced below \$400,000.
- 2. Only 15% of dwellings are priced below \$600,000.
- 3. The vast majority, 85%, of dwellings are priced at \$600,000 or more.

Figure 2: Prebbleton Residential Lot Size and Price

Price Ranges	Count	Percentage
Under \$200k	2	0%
\$200k - \$400k	20	1%
\$400k - \$600k	245	14%
\$600k - \$800k	820	47%
\$800k - \$1m	340	20%
\$1m plus	301	17%
Total	1,728	100%

Source: Corelogic, Urban Economics



Figure 3 shows the distribution of dwellings by price. Most dwellings are \$600,000 plus (shown with orange-red) with a small cluster of dwellings worth between \$400,000 and \$600,000 (shown with light green) around the centre of Prebbleton.

Figure 3: Prebbleton Dwelling Price Map



Source: Selwyn Council, Urban Economics



5. Urban and Rural Lifestyle Housing Demand at Prebbleton

The Selwyn Growth model (2017) used to inform the 2018 - 2028 Selwyn District Long Term Plan estimates that 400 additional households will reside in Prebbleton over the next decade. This indicates an underlying demand for around 40 new dwellings each year.

Over the past decade Prebbleton has seen strong growth, with around 100 dwellings built annually based on Building Consent data. This indicates that the demand for housing is approximately 2-3 times that estimated in the Selwyn District Long Term Plan, of only 40 dwellings per annum.

Based on the recent construction trends, there is estimated demand for an additional 1,000 dwellings at Prebbleton over the next decade.

It is worth noting that as capacity has been exhausted, from around 2017-2018, the rate of new construction has declined, from around 150-200 per annum, to 50 per annum. Additional capacity would result in this higher level of historical demand (150-200 per annum at its peak) to be in large part achieved, which could be in the order of 1,500 to 2,000 dwellings being demanded over the next decade².

Figure 4: Prebbleton Residential Building Consents 2011 - 2020

Year	Number of Dwellings
2011	40
2012	70
2013	210
2014	120
2015	150
2016	190
2017	120
2018	50
2019	50
2020	40
Total	1,040
Annual	100
_	C1 1: 1: NI

Source: Statistics NZ

6. Prebbleton Development Opportunities & Constraints

Figure 5 shows the land value, on per sqm basis, for all properties in Prebbleton. This is calculated as the total land value divided by the property area in square metres. This is a useful tool for evaluating the redevelopment potential of land, as higher land values are a constraint on development, as they increase the cost for a developer, and often mean that a new development is

² Household and Dwelling Construction and Price Trends in Christchurch, 2020, Urban Economics



not commercially feasible.

The main points to note are:

- There are a significant number of lifestyle blocks that surround the main urban area. These lifestyle blocks generally have a value of \$50+ per sqm.
- There are only a small number of locations adjacent to the main urban area that have land values of less than \$50 per sqm that would enable new urban developments. These are identified with yellow circles³.

It is evident that Prebbleton has very little remaining opportunity for new residential growth that is commercially feasible.

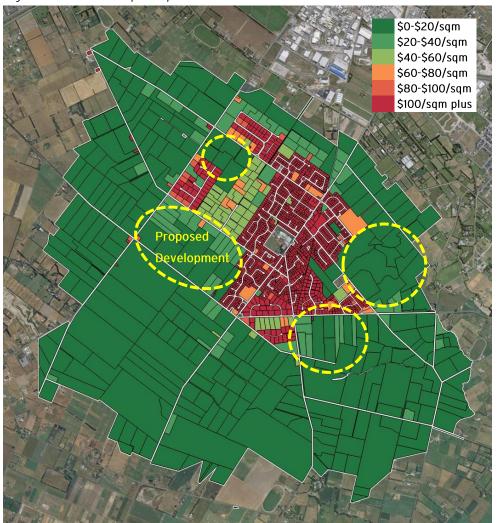


Figure 5: Land Value per Sqm

Source: Selwyn District Council, Corelogic, Urban Economics

³ This is the current value of greenfield development land in Selwyn District, with the implication being that higher prices would not be feasible.



Figure 6 shows the land area of each parcel in Prebbleton. The main points to note are:

- A large part of the Prebbleton urban area is bordered by Lifestyle Blocks of 1-2 hectares.
 This provides a de facto greenbelt for much of the town, as it is practically and commercially difficult to develop these properties into smaller residential properties (unless these blocks have been 'future proofed' on a comprehensive basis for future potential urban development).
- The areas identified with yellow circles show that there are only two feasible expansion locations for the town that do not require development to leapfrog an area of lifestyle blocks⁴.
- The areas identified in yellow show that there are two expansion locations for the town that do not require development to leapfrog an area of lifestyle blocks notwithstanding the potential aggregation of lifestyle blocks into larger development sites). These are efficient locations for new development as they integrate directly with the existing urban area. The proposed development is one of these locations and based on this preliminary analysis, is an optimal location for new housing in Prebbleton.

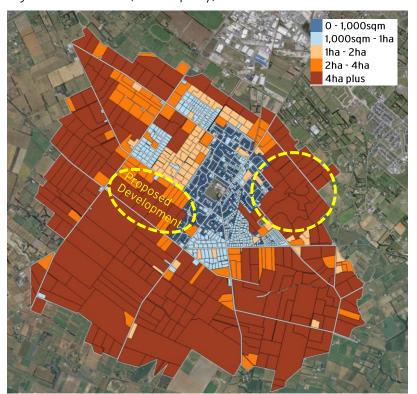


Figure 6: Land Area (Per Property)

Source: Corelogic, Urban Economics

⁴ There may be opportunities for parcels to be aggregated which may result in a feasible development, however this can often be difficult if land owners are not willing to sell.



7. Plan Enabled Capacity

Figure 7 shows the plan enabled capacity for each property in Prebbleton. It displays the minimum lot sizes in each zone. Figure 9 shows the zoning extents under the proposed District Plan. As displayed in Figure 7 there is plan enabled capacity for 823 additional lots under the General Residential zone, and 61 additional lots under the Large Lot zone.

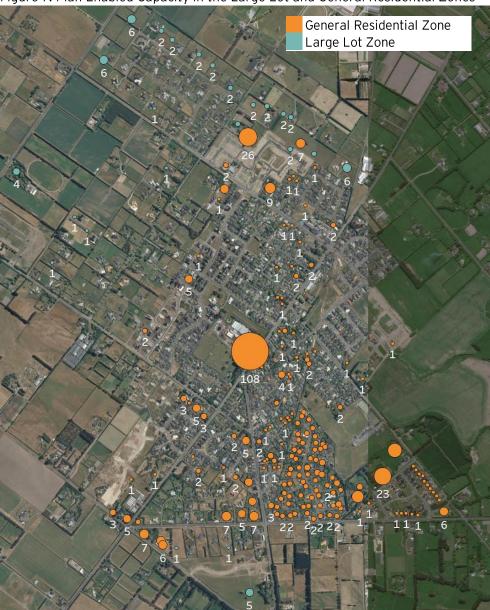


Figure 7: Plan Enabled Capacity in the Large Lot and General Residential Zones

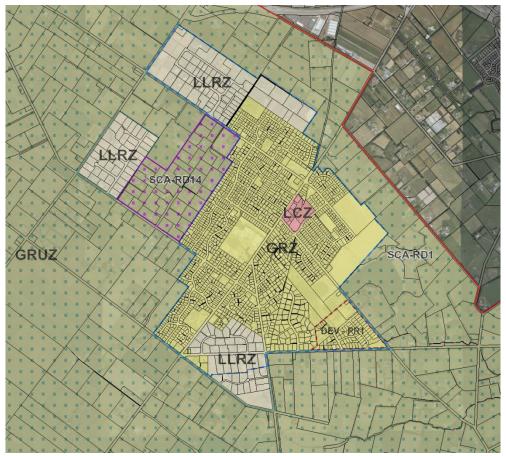


Figure 8: Residential Lot Sizes by Zone

Zone	Minimum Lot Size
General Residential	500
Large Lot Residential Zone	3,000
SCA-RD14	10,000

Source: Proposed Selwytn District Plan

Figure 9: Prebbleton Zoning Map



Source: Selwyn District Council



8. Commercially Feasible Infill Capacity

Figure 10 shows the estimated 'commercially feasible' infill lots and dwellings by lot size and price for Prebbleton under the Proposed District Plan. The results are illustrated in Figure 11. The key points to note are:

- 1. In total, there is potential for 13 commercially feasible infill⁵ dwellings in Prebbleton. As some of these properties would not be available for development, as the owners would not sell these properties over the next decade, this would imply that there is practical potential for around 5 additional infill dwellings over the next decade.
- 2. There are a range of lot sizes that are possible under the Proposed District Plan, ranging, in broad terms, from 500m² to 40,000m².
- 3. These lots would be priced between \$235,000 and \$730,000.
- 4. The dwellings that are likely to be built on these lots would result in a property value of \$470,000 to \$1.46 million. All the potential infill dwellings, however, would be priced around \$470,000.

Figure 10: Plan Enabled & Commercially Feasible Infill Lots by Lot Price

Lot Size	Lot Price	Dwelling Price	Feasible Dwellings	Feasible Dwellings %
500	\$235,000	\$470,000	13	11%
3,000	\$437,500	\$875,000	0	0%
10,000	\$575,000	\$1,150,000	0	0%
Total			13	11%

Source: Corelogic, Urban Economics

⁵ Infill development is defined as development that occurs on lots of 5,000m² of less, and greenfield development is development that occurs on lots of 5,000m² or greater.



Figure 11: Commercially Feasible Infill Lots



Source: Corelogic Database, Urban Economics

9. Greenfield Land Capacity

Figures 12 shows the estimated greenfield potential dwellings, by lot size and price for Prebbleton. The results are illustrated in Figure 13. The key points to note are:

- 1. In total, there is potential for 114 greenfield dwellings in Prebbleton. As some of these properties would not be available for development, as the owners would not sell these properties over the next decade, this would imply that there is practical potential for around 90 additional greenfield dwellings over the next decade.
- 2. There are a range of lot sizes that are possible under the District Plan, ranging, in broad terms, from 500m² to 40,000m².
- 3. These lots would be priced between \$235,000 and \$730,000.
- 4. The dwellings that are likely to be built on these lots would result in a property value of



\$470,000 to \$1.46 million. The majority of the potential infill dwellings, however, would be priced around \$470,000 - \$875,000.

Figure 12: Greenfield Land Capacity

Lot Size	Lot Price	Dwelling Price	Feasible Dwellings	Feasible Dwellings %
500	\$235,000	\$470,000	60	53%
3,000	\$437,500	\$875,000	54	47%
10,000	\$575,000	\$1,150,000	0	0%
Total			114	100%

Source: Corelogic, Urban Economics







Source: Corelogic Database, Urban Economics



10. Yield from the Proposed Development

The proposal would enable the development of approximately 820 dwellings, on sites of 400 - 1,000m². Figure 13⁶ shows the estimated price of the proposed dwellings. The main points to note are:

- 1. The proposal enables approximately 820 lots ranging in size from $400m^2 1,000m^2$.
- 2. Approximately 3ha (37 lots) is planned to be developed at a lower density with lots ranging from $700m^2$ $1,000m^2$. With the remaining 69ha developed at a medium density with lots ranging from $200m^2$ to $700m^2$.
- 3. Lot prices range from \$130,000 to \$315,000 and dwelling prices range from \$300,000 to \$625,000. There is clear evidence that shows smaller lots have a lower price and enable lower priced dwellings.
- 4. This wide range of lot sizes also enables a range of dwellings types and sizes. Enabling diversity of housing choice is a significant economic benefit for Prebbleton.

Figure 14: Indicative Dwelling Yield on Proposed Site

Lot Size	Lot Count	Proportion	Lot Price	Dwelling Price
200	25	3%	\$130,000	\$300,000
300	50	6%	\$175,000	\$350,000
400	75	9%	\$210,000	\$420,000
500	140	17%	\$235,000	\$470,000
600	250	30%	\$255,000	\$510,000
700	255	31%	\$270,000	\$545,000
800	8	1%	\$290,000	\$575,000
900	8	1%	\$300,000	\$600,000
1,000	9	1%	\$315,000	\$625,000
Total	820	100%		

Source: Corelogic, Urban Economics

11. Potential Future Housing at Prebbleton by Price & Type

The following figures examine three future housing scenarios for Prebbleton.

The first is the **Existing Stock** scenario (the status quo). Under this scenario only 15% of dwellings are priced at \$600,000 or less.

The second is the Existing Stock plus Commercially Feasible Capacity scenario. This is the scenario that would eventuate under the currently proposed District Plan provisions, which has some capacity for additional housing development. Under this scenario only 22% of dwellings

⁶ This is an indicative yield mix that is consistent with the district plan provisions.



would be priced at \$600,000 or less.

The third is the Existing Stock plus Commercially Feasible Capacity plus Proposed Development scenario. This is the scenario that would occur if the proposed zone is applied to the subject properties. Under this scenario a significant 44% of dwellings would be priced at \$600,000 or less. Notably, the proportion of dwellings between \$200,000 - \$400,000 increases from 1% to 3%. This would have a wide range of social and economic benefits, most notably there would be more diversity in the housing stock, in terms of size and price, and this would enable more households to meet their housing needs.

Figure 15: Future Housing Scenarios for Prebbleton

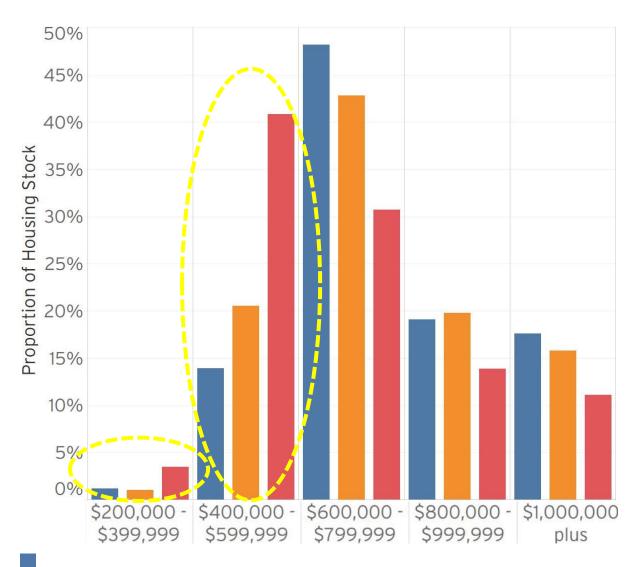
Future Scenario	Total Dwellings	Total Dwellings %
Existing Stock	1 otal Dwellings	1 otal Direllings 70
\$200,000 - \$400,000	20	1%
\$400,000 - \$600,000	240	14%
\$600,000 - \$800,000	830	48%
\$800,000 - \$1,000,000	339	20%
\$1,000,000 plus	293	17%
Total	1,722	100%
Existing Stock plus Comm	•	
\$200,000 - \$400,000	20	1%
\$400,000 - \$600,000	398	21%
\$600,000 - \$800,000	830	43%
\$800,000 - \$1,000,000	393	20%
\$1,000,000 plus	293	15%
Total	1,934	100%
Existing Stock plus Comm	nercially Feasible Ca	apacity plus
Proposed Development		
\$200,000 - \$400,000	95	3%
\$400,000 - \$600,000	1,134	41%
\$600,000 - \$800,000	838	30%
\$800,000 - \$1,000,000	396	14%
\$1,000,000 plus	293	11%
Total	2,756	100%

Source: Corelogic, Urban Economics



Figure 15 provides a graphical representation of the three scenarios. It is worth noting the significant increase in housing priced between \$400,000 and \$600,000 under the proposal and the increase in the housing stock between \$200,000 and \$400,000, as highlighted with the yellow circles.

Figure 16: Future Housing Scenarios for Prebbleton



Existing Stock

Existing Stock plus Commercially Feasible Capacity Existing Stock plus Commercially Feasible Capacity plus Trices Road Block



12. NPS-UD Provisions

The key provisions of the NPS-UD that relates to efficient land markets is as follows:

NPS-UD:

"Policy 1: Planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum: have or enable a variety of homes that:

(i) meet the needs, in terms of type, price, and location, of different households..."

"Policy 2: Tier 1, 2, and 3 local authorities, at all times, [must] provide at least sufficient development capacity to meet expected demand for housing and for business land over the short term [1 to 3 years], medium term [3 to 10 years], and long term. [11 to 30 years]"

"Policy 8: Local authority decisions affecting urban environments are responsive to plan changes that would add significantly to development capacity and contribute to well functioning urban environments"

The following figure compares the estimated capacity for housing with the estimated demand for housing across the short, medium and long term. The key points to note are:

- There is currently 'reasonably expected' development capacity for an additional 100 dwellings. With demand averaging 100 dwellings per annum, this is only one year of supply.
- Currently the NPS-UD requirements for the short, medium and long term are not met for Prebbleton.
- The Proposed Development will bring capacity for an additional 820 dwellings to the market. This would increase capacity to 9.2 years, which would enable the short-term and medium-term capacity requirements to be met. Under the higher demand scenario, of 150-200 dwellings per annum, this would represent 4-5 years capacity.
- It is the responsibility of the Regional Council to define 'significant development capacity' as at the date of this report's publication, Environment Canterbury has not yet done this.
- In our view the proposal represents considerable significant development. If an area is unable to meet the requirements of policy 1 then developments that enable this policy to be met should be considered significant. The proposal would result in the provision of considerable affordable housing in the \$400,000 \$600,000 and the \$200,000 to \$400,000 price brackets, which is currently undersupplied.



Figure 17: NPS-UD and AUP Development Capacity Analysis

			Existing Capacity	Existing Capacity Plus Prebbleton West Block
Dwelling	Infill 'Reasonably Expected' for	Development	5	5
Capacity	Greenfield 'Reasonably Expected' for Development		90	910
	Demand per annum		100	100
	Years Supply		1.0	9.2
		Short (0-3 year)	Not Met	Met
NPS-UD	Land Provision Requirements	Medium (3-10 year)	Not Met	Not Met
		Long (10-30 year)	Not Met	Not Met

Source: Urban Economics, Proposed Selwyn District Plan

13. Conclusion

Currently there is very little commercially feasible capacity for new dwellings in Prebbleton, either from subdividing existing residential properties or from live zoned new greenfield development areas. The proposal would meet this short-term shortage and enable Prebbleton to meet it's NPS-UD across the short and medium term requirements to provide sufficient capacity to meet demand for housing.

The proposal also enables more affordable housing in the \$200,000 - \$600,000 price range by providing relatively small lots at between 200 - 500m². Currently only 240 dwellings or 14% of all dwellings fall within this price range. The proposal enables an additional 820 dwellings bringing the proportion of total housing stock within this range up to 44%. Enabling a diversity of housing choices both in terms of size and price is a significant economic benefit for Prebbleton.

The proposal has several economic benefits and no economic costs and is therefore recommended for approval.



14. Appendix 1: Housing Capacity Assessment Methodology

The following methodology has been used to determine the feasible and likely to be realized capacity for additional housing in this report:

- 1) The land area, capital value, improvement value, land value, most recent sale price (if applicable), most recent sale date (if applicable) and zone of all residential properties in Prebbleton was downloaded from CoreLogic and the proposed Selwyn District plan.
- 2) Feasible lot sales prices for different sized lots were determined from a regression of Council valuations of land values on land area.
- 3) The feasibility of development for each property was tested by taking the Council valuation of each property and the development costs associated with supplying additional lots to the market as costs and the price per lot achievable as determined in step 2 as revenue. If revenue exceeds costs, then development is determined to be feasible.
- 4) Feasible capacity has been adjusted for likely realized capacity.

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15. Appendix 2: Lot Size and Lot Value Correlation

The following figures shows the estimated lot price for a range of lot sizes in Prebbleton. This is derived from a regression analysis, which had a r^2 of 72%, indicating a very strong correlation. Land area was significant at the 99% confidence level in determining land value. This provides a strong indicator of the value of land within the Prebbleton market at different lot sizes.

Lot Prices at Different Lot Sizes

4,000

6,000

Land Area (sqm)

8,000

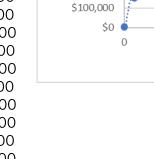
10,000

12,000

Figure 18: Lot Size and Lot Price Correlation for Prebbleton

\$800,000 \$700,000 \$600,000 \$500,000 \$400,000 \$300,000 \$200,000

Lot Size (sqm)	Lot Price
200	\$130,000
300	\$176,000
400	\$209,000
500	\$234,000
600	\$255,000
700	\$272,000
800	\$287,000
900	\$301,000
1,000	\$313,000
1,100	\$324,000
1,200	\$333,000
1,300	\$342,000
1,400	\$351,000
1,500	\$359,000
1,750	\$376,000
2,000	\$391,000
3,000	\$437,000
5,000	\$495,000
10,000	\$574,000



Source: Corelogic, Urban Economics