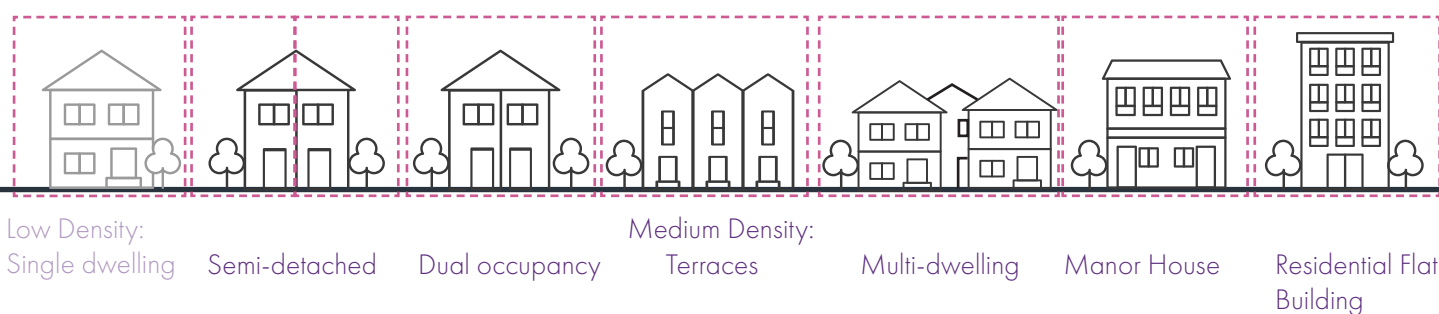


Maitland Infill Housing Analysis



Strategic Opportunity Sites & Typology Testing

Prepared by Tract for Maitland City Council

We acknowledge the Wonnarua People as the Traditional Owners and Custodians of the land within the Maitland Local Government Area. Tract pays respect to all Aboriginal Elders, past, present and future with a spiritual connection to these lands.

Infill Housing Study

Tract

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Executive Summary

Maitland is a regional strategic centre within the Lower Hunter region, situated on the Hunter River, with many suburbs serviced by the Hunter train line and the New England Highway.

The majority of new housing supply has historically come from greenfield land release in a low density format. However, Maitland City Council has identified the limited future availability of greenfield sites, ongoing challenges of infrastructure provision and continued upward pressure on pricing which suggests a refocusing on housing supply is required to consider urban consolidation through infill development. This is in line with the Greater Newcastle Metropolitan Plan, which aims for 60% infill housing supply for growth by 2036.

Therefore, Council investigates infill housing opportunities within existing urban areas to encourage more efficient use of land with greater accessibility to public transport, community facilities and centres. Such developments need to respond to the existing local and neighbourhood character.

Tract approach this place-based study from a perspective of best practice urban design, and are supported by Charter Keck Cramer who provide demographic, housing market and economic feasibility advice to ensure the findings best serve the population of Maitland.

The aim of this study is to identify those areas which provide most opportunity for urban consolidation, identify the number and typical configuration of suitable sites for infill development, and test the feasibility of various typologies. We aim to identify barriers to infill housing development and make recommendations to encourage suitable and well placed medium density development which respects the local character of existing suburbs, enhances liveability and caters for the changing needs of its growing population. This work will inform Council's new Local Housing Strategy.

Our methodology for this study is as follows:

1. Review planning context, demographics and housing market
2. Identify opportunity sites for infill housing
3. Test a typical hypothetical site for each identified area under a base case scenario, in line with planning controls, and an uplift scheme considering planning amendments
4. Test the feasibility of these hypothetical scenarios
5. Make recommendations based on these findings

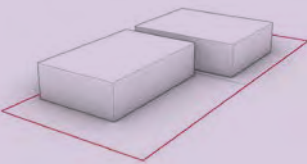
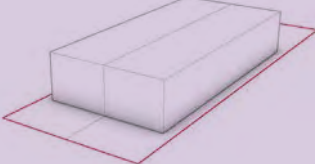
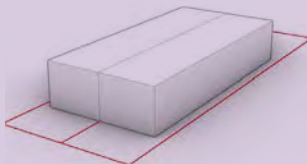
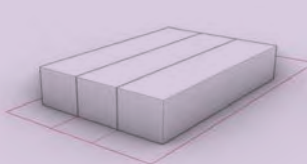
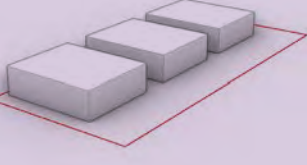
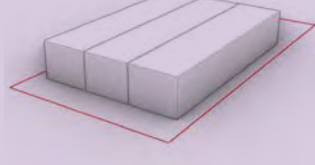
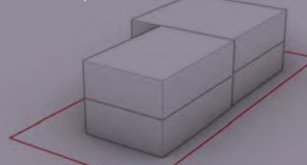
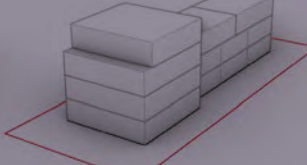
Infill Housing Definitions

For the purposes of this Study, we have sought to standardise the terminology used for various infill typologies, generally in line with the Maitland LEP 2011 definitions, with the addition of Manor House and Multi-Dwelling (Terraces).

In this Study, we have tested the below typologies in the following scenarios:

- Base Case: Generally in line with the existing planning controls
- Alternate Case: Uplift example with amendment to controls
- Where appropriate, we have tested uplift with a second alternate

In some high-street areas, such as Central Maitland and East Maitland/ East Maitland Catalyst Area, shop-top housing may also be an appropriate medium density typology, and design advice is provided in recommendations. However, for the purposes of this study we have assumed solely residential use.

Dual Occupancy (Detached)	Dual Occupancy (Attached)	Semi-Detached Dwelling	Attached Dwelling (3+)
2 detached dwellings on one lot of land, but does not include a secondary dwelling	2 dwellings on one lot of land that are attached to each other, but does not include a secondary dwelling	a dwelling that is on its own lot of land and is attached to only one other dwelling	a building containing 3 or more dwellings, where: (a) each dwelling is attached to another dwelling by a common wall, and (b) each of the dwellings is on its own lot of land, and (c) none of the dwellings is located above any part of another dwelling.
			
Multi-Dwelling House (3+)	Multi-Dwelling House (Terraces) (not in MLEP)	Manor House (not in MLEP)	Residential Flat Building
3 or more dwellings (whether attached or detached) on one lot of land, each with access at ground level, but does not include a residential flat building	all dwellings (3+) are attached and face, and are generally aligned along, 1 or more public roads	a residential flat building containing 3 or 4 dwellings, where: (a) each dwelling is attached to another dwelling by a common wall or floor, and (b) at least 1 dwelling is partially or wholly located above another dwelling, and (c) the building contains no more than 2 storeys (excluding any basement)	a building containing 3+ dwellings, but does not include an attached dwelling or multi dwelling housing
			

MEDIUM DENSITY INFILL

1 Background Study

1.1 Strategic Context

This study considers the following State, regional, metropolitan and local strategies which outline the need for planning of sufficient infill development to meet future residential growth. The key points in relation to this study are summarised in the following pages.

1.1.1 Hunter Regional Plan 2036

This 20 year blue print includes four goals, 2 of which relate directly to this study: thriving communities and greater housing choices and jobs.

Greater housing choice and jobs:

- an additional 70,000 dwellings will be needed in the region by 2036
- new housing will be focused in established areas through infill development and will also continue to be provided through greenfield development
- small lot infill housing provided to increase housing choice/diversity

Infill Development is defined as 'development in areas already used for urban purposes. Specifically, the re-use of a site within the existing urban footprint for new housing, businesses or other urban development.' The Plan notes the importance of retaining the identity of communities.

Maitland LGA contains a high growth metropolitan area that includes strategic centres servicing the hinterland and rural areas of Dungog and the Upper Hunter Area. Includes several urban release areas that are contributing to significant greenfield housing supply for the region.

Regional Priorities: Deliver housing in the Maitland corridor, investigate the region-shaping potential of the Hunter express-way, grow central Maitland as an emerging regional city Centre.

Priorities for strategic centres:

Central Maitland

- Develop Maitland as a Strategic Centre that services the western sector of Greater Newcastle, one of the fastest growing areas in the State.
- Leverage recent renewal activities to increase its ability to attract additional retail and commercial activity.
- Implement the Central Maitland Structure Plan.



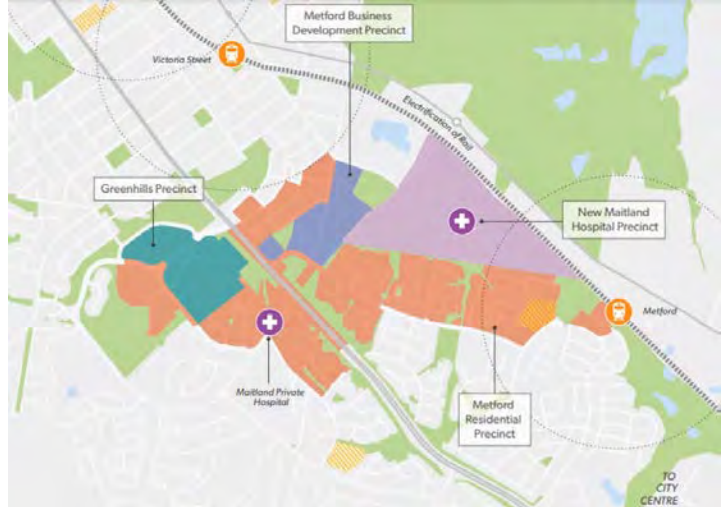
- Explore opportunities to improve the public domain and access to the Hunter River.
- Support increases in residential development that addresses flood risk.
- Support flood mitigation infrastructure and initiatives to increase the resilience of existing properties against flood risk.

East Maitland

- Investigate opportunities to develop a health cluster that leverages the NSW Government commitment to build a new Maitland Hospital.
- Diversify the economy and employment opportunities in the area.
- Investigate the potential of East Maitland and adjacent Green Hills and Metford areas to increase economic and population growth

Housing:

- Strong population growth in the Maitland LGA is resulting in ongoing pressures for additional residential land and a shortfall in infrastructure provision.
- Growth in housing needs to be balanced against the natural constraints of flooding and the agricultural value of floodplain and other rural land.



East Maitland Catalyst Area (GNMP 2036)

1.1.2 Greater Newcastle Metropolitan Plan 2036

The GNMP identifies Central Maitland and East Maitland as the fastest growing regional strategic centres in NSW. Both of these centres have the potential to accommodate significant growth in the economy and become important residential, employment and entertainment precincts.

The East Maitland Catalyst Area (EMCA) has been identified within the Plan as 'places of metropolitan significance' and it includes four precincts - New Maitland Hospital Precinct, Greenhills Precinct, Metford Business Development Precinct and Metford Residential Precinct.

Strategy 16: Prioritise the delivery of **infill housing** opportunities within existing urban areas

- 2017: 50/50 infill and greenfield housing
- **2036 target: 60/40 infill housing/greenfield housing¹**

This overall target is to be achieved across individual Council housing strategies across Greater Newcastle. Local strategies should achieve a min. density of **15 dwellings per ha, with 25% small lot or multi-dwelling typologies** (including apartments, dual occupancies, townhouses, villas and homes on lots less than 400sqm). The Plan also recommends urban densities between 50-70 people per ha for catalyst areas and urban renewal corridors.

This will influence housing affordability and diversity, focus new housing in areas close to jobs and green spaces, support efficient transport and reduce urban sprawl. It will also help meet the needs of an ageing population and support the reduction of household size. This may be achieved with a variety of housing types, including secondary dwellings, apartments, townhouses and villas.

Maitland, including Central Maitland and East Maitland, and historic villages such as Morpeth and Lorn, are part of Greater Newcastle's tourism network. Cultural assets such as Maitland Regional Art Gallery along with an increasing number of events and the river walk are increasing Maitland's attraction to residents and visitors. Employment precincts at Thornton connect to trading hubs, as well as places along the New England Highway, Hunter Expressway and the northern rail corridors. Planning for the new Maitland Hospital will grow health-related jobs and become a stronger part of the network of health services and infrastructure in Greater Newcastle. A significant proportion of Greater Newcastle's greenfield development will continue to occur in Maitland, focused on the two priority housing release areas of Thornton–Lochinvar and Maitland–Kurri Kurri. Longer-term renewal will also occur in proximity to train stations, with the benefit of electrification of the Hunter rail line to Telarah improving the 30-minute city connectivity.

¹ This split is currently under review (from the Hunter Regional Plan)



1.1.3 Maitland Local Strategic Planning Statement 2040+ (LSPS)

Sets out 20 year land use vision for the Maitland LGA and outlines how this growth and change will be sustainable managed.

Community Key Priorities:

- Infrastructure that keeps pace with the growth and existing issues resolved. Particularly infrastructure that connects people and places through active transport options
- Environment: Sustainability, climate change, water security and loss of biodiversity were all important issues
- Employment: agriculture, heritage and tourism important future economic drivers in Maitland
- Open Space: Community want to see more opportunity to connect with the river, and for more passive and active recreation opportunities
- Residential: The community want to see residential growth that does not compromise the rural or cultural identity of the LGA. Want to see the housing kept affordable with diverse options available to meet the different needs of people at different stages of life. **Urban Sprawl is of key concern to the community.**
- Maitland is characterized by dispersed settlement pattern, resulting in a high reliance on private cars. Requires improved transport planning around transport centres and areas of high amenity. Need to reduce dependency on cars and create opportunities to invest in public and active transport infrastructure.
- Urban Growth needs to be balanced against the natural constraints of flooding and bushfire.

Infill housing refers to development in areas already used for urban purposes, specifically, the reuse of a site within the existing urban footprint for new housing, business or other urban development.

Local Planning Priority 1: Plan for diverse and affordable housing to meet the needs of our growing and changing community

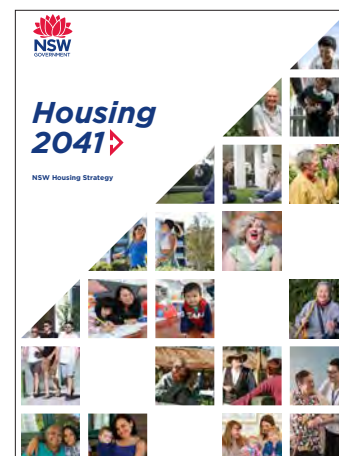
Local Planning Priority 2: Support sustainable housing growth by balancing greenfield and infill housing



1.1.4 NSW Housing 2041

Represents a 20-year vision for housing in NSW, in the right locations and to suit diverse needs. The strategy contains 4 pillars (which strongly correlate with some of the benefits of correctly sited infill development)-

1. Supply - infrastructure is critical to support housing supply in the right locations
2. Diversity - the new housing supply requires enhanced liveability/universal design elements
3. Affordability - more and improved social and affordable housing
4. Resilience - environmentally sustainable design that considers natural hazards



1.1.5 Low Rise Housing Diversity Code

Facilitates a diverse range of housing. The Code allows well designed dual occupancies, manor houses and terraces (up to two storeys) to be carried out under fast track complying development (although we note that Council has not had medium density complying development uptake at present).

The Code and associated Low Rise Housing Diversity Design Guide (LRHDDG) address housing choice by encouraging more variety with these medium density typologies as an alternative to traditional freestanding houses and apartments. Typically, these products require less land area and are more sustainable for growing families, singles and empty nesters, as well as improving housing affordability by providing smaller homes on smaller lots that still have the amenities of a single dwelling. We have used the Design Guide as a basis for our typology testing, and a full comparison with LEP + DCP is included in Appendix A.



1.1.6 Apartment Design Guide

NSW Government promotes better apartment design across NSW through the SEPP 65 - Design Quality of Residential Apartment Development. The Apartment Design Guide (ADG) explains how to apply SEPP 65's design principles to the design of new apartments.

SEPP 65 applies to residential flat buildings that are 3 or more storeys and have 4 or more dwellings (therefore it does not apply to manor houses and when testing these typologies we have relied upon the LRHDDG). A full comparison with the LEP + DCP is included in Appendix A.



1.2 Demographics & Local Housing Market

As part of this study, Charter Keck Cramer have carried out a Demographic Analysis and Local Housing Market Analysis. These documents are included in full in the Appendix, and summarised below:

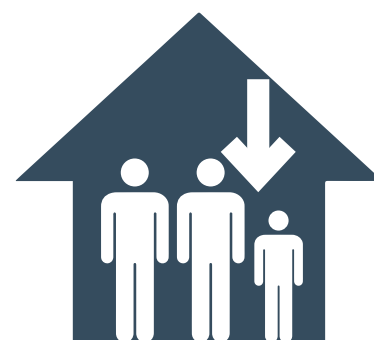
There is a forecast population growth of +25,650 over 25 years (from 79,050 in 2016 to 104,700 in 2041); or an estimated +13,550 dwellings as proposed in the DPIE Population Projections 2019.

Median household income in Maitland LGA exceeds the Rest of NSW and household structure is predominantly couples with children, followed by couples, then lone person households.

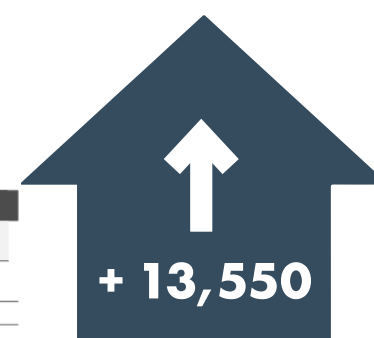
Median dwelling prices have uniformly increased over the past 15 years from \$290,000 to \$585,000 (growth rate of 4.79% pa average, and increase of 14% between 2020 and 2021).

Demographic Summary – Household & Dwelling Characteristics								
Item	LGA	Maitland	East Maitland	EMCA	R'ford	Telarah	Thornton	W'berry
Demographics (2016)								
Population	77,305	1,885	11,782	9,409	11,884	2,329	8,062	2,993
Median Age (yrs)	36	43	40	34	34	36	35	38
Prevalent Age Bracket		45 – 64 (28%)	45 – 64 (25%)	0 – 17 (29%)	0 – 17 (27%)	45 – 64 (24%)	0 – 17 / 45 – 64 (27%)	45 – 64 (27%)
Household Size (p.p.h.)	2.7	2.2	2.3	2.7	2.6	2.3	2.9	2.6
Prevalent H'hold Structure		Lone Person	Lone Person	Couples / Children	Couples / Children	Lone Person	Couples / Children	Couples / Children
Dwelling H'holds (occupied):								
Family Household	75.8%	58.5%	66.4%	79.5%	70.5%	66.5%	84.9%	74.0%
Single / Lone Person	21.7%	35.7%	30.8%	17.6%	26.6%	30.8%	13.4%	22.8%
Group	2.4%	5.8%	2.9%	2.9%	3.0%	2.7%	1.7%	3.2%
Dwelling Numbers:	30,583	870	5,286	3,499	4,847	1,057	2,912	1,187
Dwelling Structure (occupied):								
Separate House	87.1%	71.4%	75.3%	88.9%	84.5%	89.8%	95.6%	95.7%
Medium Density	8.9%	15.1%	15.0%	9.7%	11.6%	7.2%	3.7%	4.1%
Flat / Apartment	2.2%	8.6%	7.2%	1.4%	2.0%	3.0%	0.6%	0.3%
Other Dwelling	0.4%	3.3%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%
Number Bedrooms (occupied):								
None	0.2%	0.6%	0.2%	0.0%	0.1%	0.0%	0.1%	0.0%
1 bedroom	2.8%	8.9%	6.5%	1.7%	3.5%	3.6%	0.7%	1.7%
2 bedroom	11.1%	26.9%	20.2%	6.1%	12.3%	21.8%	5.3%	3.3%
3 bedroom	39.8%	41.2%	42.1%	42.0%	44.3%	58.4%	36.7%	70.2%
4 bedroom or More	43.8%	19.1%	28.5%	48.8%	35.4%	13.8%	55.9%	22.1%
Avg. # of Beds / occ. dwelling	3.4	2.8	3.0	3.4	3.2	2.9	3.6	3.2

SOURCE – ABS; Charter Keck Cramer



Average household size:
2016: 2.63, 2014: 2.44
(DPIE, 2019)



Proposed new dwellings
in 25 years (DPIE, 2019)



+ 25,650

Proposed population growth
in 25 years (DPIE, 2019)

2 Identification of Strategic Opportunity Areas

2.1 Identifying Strategic Areas for Infill Development - Methodology

Maitland City Council identified the following 7 areas for us to focus this study. These were as a part of Council's land use opportunities and constraints analysis and the extent of these locations is refined throughout the process.

1. Central Maitland
2. East Maitland
3. East Maitland Catalyst Area
4. Rutherford
5. Telarah
6. Thornton
7. Woodberry

In order to identify an approximate typical site to study for each investigation area, as well as to suggest an appropriate focus for infill housing, GIS mapping has been used to identify 'Opportunity Sites'.

We applied these filters across the whole LGA, and found that the results correlated around the above locations.

The following filters were applied to all sites within each group:

Filters	Reasoning
<i>Lot not currently strata titled - data from Six Maps NSW</i>	<i>Sites not likely to be redeveloped in the short-medium term</i>
<i>Lot not classed as an LEP heritage item</i>	<i>May not be suitable for additional density</i>
<i>Land zoned as R1 (+ land zoned B4 in Central Maitland)</i>	<i>Infill development seeks to increase density within existing residential urban areas</i>
<i>Land not containing Endangered Ecological Communities (EEC)</i>	<i>May not be suitable for additional density</i>
<i>Land within 400m of either B1, B2 or B3 zone, or 400m of train station/transport hub</i>	<i>Infill development to be centred around existing infrastructure and amenities</i>
<i>Land not within 100YR flood level (except in Central Maitland*)</i>	<i>May not be suitable for additional density</i> <i>*Central Maitland has been identified as a Strategic Centre and supported by local, regional and metropolitan strategies for densification. On advice from Council, due to the current flood mitigation measures (e.g. levee) and proposed measures (e.g. flood free access) this area is included for investigation despite being within the 100yr flood level.</i>

The width and frontage of the sites identified were plotted, and the median dimensions were used to study infill opportunities for an approximate 'typical' site. For this study, it is presumed the dimensions apply to a rectangular shaped 'typical' lot, however it is noted that corner lots, and cul-de-sacs produce a variety of lot dimensions throughout the LGA, and individual lots require a contextually appropriate response taking into account site-specific factors such as topography, acoustic and visual privacy, solar aspect, views and built form context.

Whilst the 'opportunity sites' allow for testing of a 'typical' site within each area, it is noted that some excluded sites within 400m of areas of high amenity may be suitable for development e.g. heritage sites should be taken into account on a site-by-site basis.

Mapping of the opportunity sites is provided in the following section. Some specific sites have been removed from the map graphics e.g drainage reserves and some peripheral areas within suburbs, but the typical lot size is based on the raw filtered data as per suburb boundaries.

2.2 Central Maitland

The historical core of Central Maitland has developed organically since the early 1800s, based on trade along the Hunter River. Flooding has since changed the course of the river and has influenced the pattern habitation. The devastating flood of 1955 has dramatically reduced the number of people living in Central Maitland and Horseshoe Bend. However, Central Maitland remains the focus of transport, civic, cultural and commercial activity for large parts of the Hunter Region.

Central Maitland is a public transport hub, sustaining a number of bus routes that link to surrounding suburbs and Town Centres, and provide regional links to Singleton, Patterson, Raymond Terrace and Newcastle. Two train stations, Maitland and High Street, also connect Central Maitland to Newcastle, Muswellbrook and Dungog as well providing inter-state connections, including to Sydney, Brisbane and Armidale. Road transport is facilitated by the New England Highway and Cessnock Road.

A wide variety of building uses are interspersed throughout Maitland, although patterns emerge: retail and commercial uses are concentrated on High Street and Church Street; residential uses sit behind commercial streets or in Horseshoe Bend; civic, sports and cultural uses are clustered around the Maitland Town Hall on High Street and include the Maitland Regional Art Gallery as well as a number of schools; A secondary civic node is present at the western end of High Street and includes the central branch of the Maitland Library, Courthouse and State Government offices.

Central Maitland includes a number of state and local heritage items, as well as the Heritage Conservation Areas of Maitland and Regent Street. Historical residential development is typified by small detached weatherboard houses, but also includes the grand manor homes on Regent Street, pairs of attached verandah dwellings and two storey terraces made of brick or timber.

Since the 2000s, Council policy has tried to balance this risk with the benefits of siting residential development close to daily needs, activities and transport. Council is working on mitigating flooding risks through management programs and a safe evacuation route. Nevertheless, some residential development has been occurring in Central Maitland, including terraces and apartment buildings and shop top housing.



Central Maitland, Aerial View



View towards Maitland Station



Central Maitland - Filter Criteria Overlaid

- potential infill opportunity site
- 100 yr flood extent
- protected vegetation (EEC)
- heritage item (if applicable)
- R1 & B4 zoning
- 400m from B zone
- 400m from transport hub or train station
- Ⓣ train station
- transport hub

criteria mapping identified:

747 sites

with a median frontage/depth:

17 x 34m

the most common
orientation is:
diagonal



2.3 East Maitland

East Maitland was surveyed in 1829 and was envisaged as the administrative and residential centre of Maitland as it was on a hill, away from floods and industry, but still within an easy commute of the employment lands. The area includes a number of state and local heritage items, such as the Maitland Gaol. The East Maitland heritage conservation area includes parts of the original subdivision and, being a collection of large regular lots on a formal grid, creates a counterpoint to Central Maitland's organic and constrained morphology.

There is a Town Centre on Lawes Street near Victoria Street station and an employment corridor along Melbourne Street to the north. Two train stations service the area and connect to Maitland and Newcastle: Victoria Street and East Maitland. Victoria Street was recently upgraded as part of the New Maitland Hospital works. A number of bus routes converge on Victoria Street station and provide connection to the commercial and retail centres at Central Maitland, Greenhills and Rutherford.

Since the 1980s, the central location of East Maitland, its transport connections, village atmosphere and large lots have seen the gradual development of medium density typologies. This is most clearly discernible within the 800m catchment of Victoria Street station and has most often taken the form of multi-dwelling housing, although some examples of dual occupancies, terraces and shop top housing also exist.



East Maitland, Aerial View





East Maitland - Filter Criteria Overlaid

0 1km

- potential infill opportunity site
- 100 yr flood extent
- protected vegetation (EEC)
- heritage item (if applicable)
- R1 + B4 zoning
- 400m from B zone
- 400m from transport hub or train station
- Ⓣ train station
- transport hub

criteria mapping identified:

1150 sites

with a median frontage/depth:

18 x 40m

the most common
orientation is:
diagonal



2.4 East Maitland Catalyst Area (EMCA)

The East Maitland Catalyst Area (EMCA) is expected to undergo significant change as a result of the New Maitland Hospital. The area currently offers a mix of uses from residential, educational, retail, aged care and healthcare to commercial and light industrial. The commercial and retail hub at Greenhills shopping centre services a large portion of the Hunter region.

Victoria Street train station, Melford train station, a bus hub at Greenhills shopping centre and the New England Highway provide easy access to the Town Centres of East Maitland, the Regional Centre of Central Maitland and the employment lands at Thornton. The railway line, however, creates a strong barrier from the EMCA to historical Morpeth and the growing residential areas at Raworth and Chisholm. The only link across the railway in this precinct is the Melford Road underpass. The New England Highway also presents a physical barrier in the precinct, dividing the New Maitland Hospital and the surrounding residential and industrial precinct from the commercial, retail, health, aged care and residential at Greenhills and Ashtonfield in the south. The residential area is divided from the new hospital by a high voltage power-line easement.

The residential pattern of development progressed from west to the east. Westernmost residences were built in the 60s in a grid pattern, the area south of the hospital dates from the 70s and 80s and is typified by an organic, looped structure with a prevalence of cul-de-sacs, and to the east, near Melford Station, development from the 90s and 2000s is arranged in a looped grid pattern.

A variety of medium density typologies exist in the area, including two storey apartment buildings adjacent to the power-line easement, and duplexes and two storey terraces in the west of the site. In some areas, affordable housing operators own adjacent lots, suggesting there are opportunities for further medium density development.



EMCA, Aerial View





East Maitland Catalyst Area Opportunity Sites - Filter Criteria Overlaid

- EMCA Boundary
- potential infill opportunity site
- 100 yr flood extent
- protected vegetation (EEC)
- heritage item (if applicable)
- R1 zoning
- 400m from B zone
- 400m from transport hub or train station
- train station
- transport hub

within the outlined boundary of
East Maitland Catalyst Area,
criteria mapping identified:

842 sites

with a median frontage/depth:

20 x 35m

the most common
orientation is:
diagonal



2.5 Rutherford

A large suburb in the west of the Maitland LGA, Rutherford is home to a significant residential population, as well as an important industrial and employment precinct. It is one of Maitland's oldest areas, with industrial lands recorded from the late 1800s, and suburbs gaining popularity in the 1920s-30s.

Recent development has been a mix of new release areas (such as the Heritage Parc subdivision and new urban release lands in nearby Aberglasslyn), medium density infill in the form of duplexes and multi-dwelling housing, and aged care or retirement villages. Development in Rutherford has been incremental which has resulted in a variety of uses, housing typologies, building ages and price points.

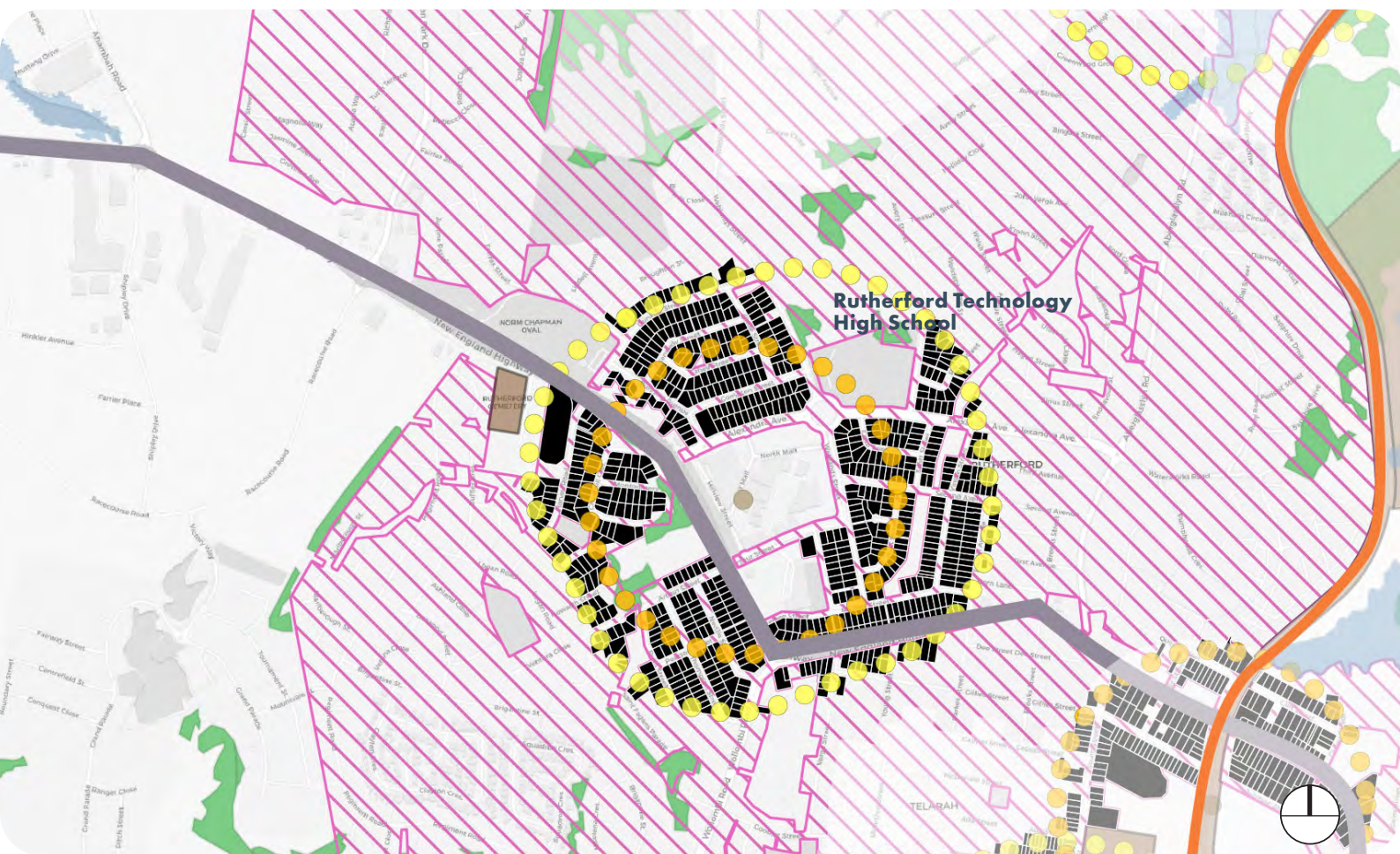
Although Central Maitland is only 4km to the east, Rutherford sustains its own large Town Centre which includes a community centre and a branch of the Maitland library. The Town Centre services the daily needs of residents from Telarah, Aberglasslyn, Rutherford, Windella as well as the urban release areas of Lochinvar and Farley.

Rutherford is also adjacent to Maitland Airport and to Walka Water Works, a popular regional recreational area.



Rutherford Centre, Aerial View





Rutherford - Filter Criteria Overlaid

0 1km

- potential infill opportunity site
- 100 yr flood extent
- protected vegetation (EEC)
- heritage item (if applicable)
- ▨ R1 zoning
- 400m from B zone
- 400m from transport hub or train station
- ⓘ train station
- transport hub

criteria mapping identified:

903 sites

with a median frontage/depth:

17 x 37m

the most common
orientation is:
north-south



2.6 Telarah

Telarah is in close proximity to Rutherford (approx. 1km from Rutherford Town Centre) and Central Maitland (approx. 2km). Telarah also sustains its own small neighbourhood centre at Green Street and South Street.

Telarah one of Maitland's oldest suburbs with subdivision beginning in the late 1880s and taking off in the 1920s and 30s. Houses were built for industrial workers and their families. It is characterised by a 230m x 90m street grid which, when coupled with its hilly topography, creates stunning views to the south. The historical subdivision pattern is narrow, with many lot widths around 10m. This has resulted in many instances where a single detached house is built across two adjacent lots. The historical house typology is predominantly small weatherboard or brick homes with narrow side setbacks, and some historical attached homes are also in evidence.

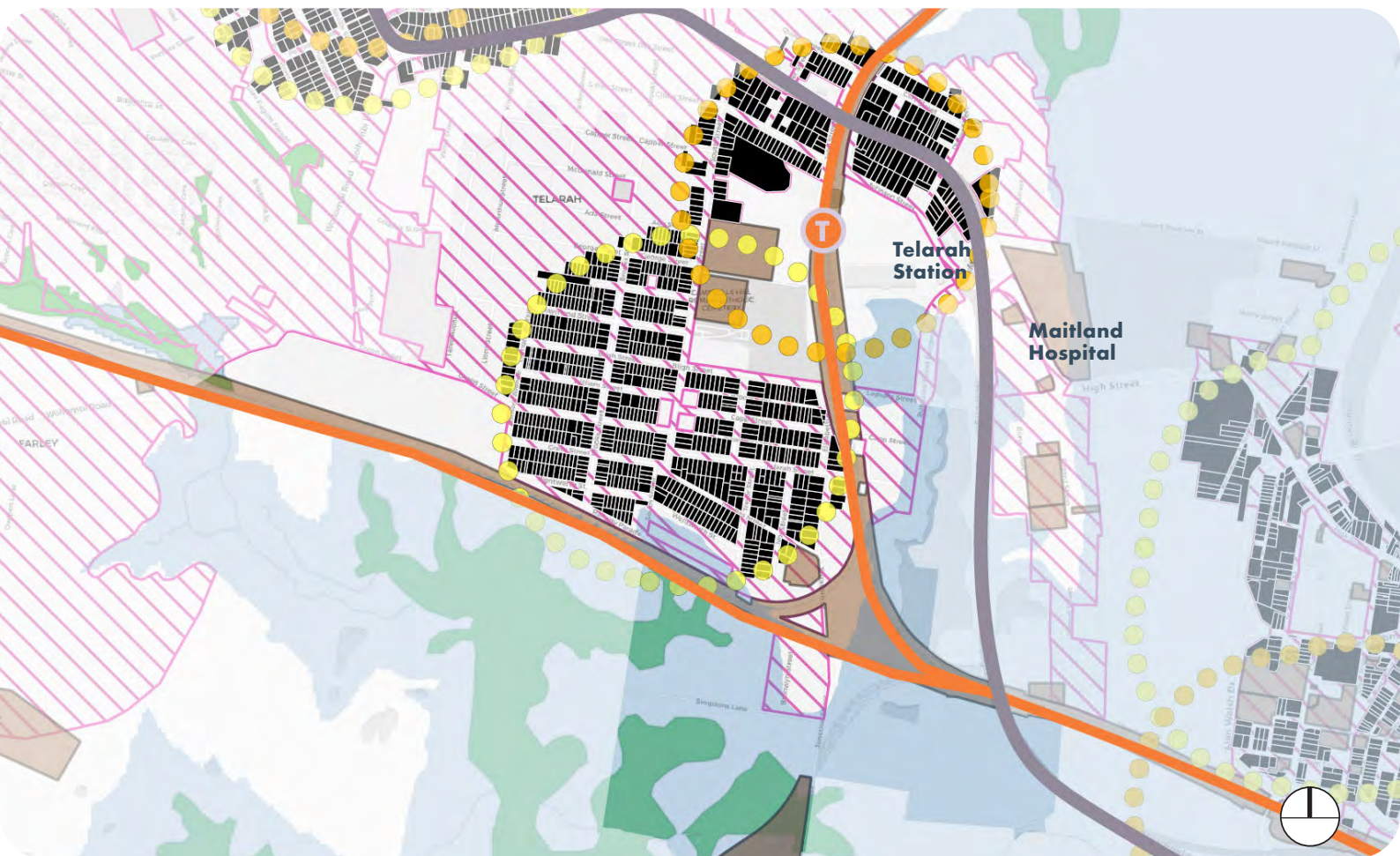
There has been some take-up of medium density housing in the early 2010s, often in the form of 1-2 storey multi-dwelling homes. Transport is available via the New England and bus route 183 which links to Rutherford, Central Maitland and Greenhills. Regular train services run from Telarah station, however its single platform is on the east side of the train line, making access difficult and circuitous for residents of Telarah.



Telarah Centre, Aerial View



View along South Street towards Telarah neighbourhood centre



Telarah - Filter Criteria Overlaid

0 1km

- potential infill opportunity site
- 100 yr flood extent
- protected vegetation (EEC)
- heritage item (if applicable)
- R1 zoning
- 400m from B zone
- 400m from transport hub or train station
- Ⓣ train station
- transport hub

criteria mapping identified:

764 sites

with a median frontage/depth:

12 x 34m

the most common
orientation is:
north-south



2.7 Thornton

The railway line divides the residential side of Thornton in the north from the industrial and employment lands in the south. Thornton station primarily services the residential area, although access to the south is available via the nearby overpass at Thornton Road.

The residential development pattern began at the train station and moved west and then north. The street pattern near the train station was established in the 1940s as grid system with streets and laneways. Lots were relatively large and wide and many have since subdivided into two. To the west is the Thornton Estate, a Radburn style subdivision (1970s) where residences face communal, pedestrian only public reserves and service access to homes is through a series of cul-de-sacs at the "rear".

Since the 1980s, Thornton has been expanding northward culminating in the large urban release areas of Chisholm and Thornton North which have been developing since the late 2000s.

Recently, traffic congestion in the area has become problematic due to a variety of reasons, including a road network in the urban release areas that is not yet fully developed, a lack of access to Metford Station from the north and delays in the development of the Chisholm Local Centre. Until the local centre at Chisholm is built, the Thornton Town Centre will continue to service both Thornton and Chisholm.

Medium density residential development take up has been relatively low in Thornton, potentially due to the proximity of the urban release areas in the north. Nonetheless, some duplex and multi-residential developments have occurred near the train station.



Thornton Centre, Aerial View





Thornton - Filter Criteria Overlaid

- potential infill opportunity site
- 100 yr flood extent
- protected vegetation (EEC)
- heritage item (if applicable)
- R1 zoning
- 400m from B zone
- 400m from transport hub or train station
- Ⓣ train station
- transport hub

criteria mapping identified:

702 sites

with a median frontage/depth:

20 x 34m

the most common
orientation is:
diagonal



2.8 Woodberry

Woodberry is a small suburb in the eastern-most part of the LGA, the shape and extents of which are defined by the 100-year flood footprint. It is surrounded by Woodberry swamp, a large wetland important for both ecological and flood management reasons.

Woodberry was entirely developed in the late 60s/early 70s as a garden suburb in a looped grid structure. Walkability is constrained by long blocks (up to 350m) and a lack of footpaths. It has a high proportion of affordable and social housing, particularly north of Lawson Avenue.

Lawson Avenue supports a neighbourhood centre which is co located with the Community Centre and the main open spaces in the area: Woodberry playground and Fred Harvey Sporting Complex.

Woodberry is 1.3km from the nearest train station at Beresfield, and is serviced by two bus routes which each run hourly and link to Greenhills, Maitland, Rutherford, Raymond Terrace and Newcastle Airport.

There has been some medium density take up by social and affordable providers in early 2010s. They took the form of 1-2 storey multi-dwelling housing, near the neighbourhood centre.



Woodberry Centre, Aerial View





Woodberry - Filter Criteria Overlaid

0 1km

- potential infill opportunity site
- 100 yr flood extent
- protected vegetation (EEC)
- heritage item (if applicable)
- ▨ R1 zoning
- 400m from B zone
- 400m from transport hub or train station
- T train station
- transport hub

criteria mapping identified:

570 sites

with a median frontage/depth:

15 x 33m

the most common
orientation is:
diagonal



3 Infill Typology Testing

In this Study, we have tested the below typologies in the following scenarios:

- Base Case: Generally in line with planning controls
- Alternate Case: Uplift example with amendment to controls
- Where required, we have tested uplift with a second Alternate.

In East Maitland we have tested an additional site with rear laneway access to consider how current issues Council is having in assessing DAs for detached dwellings or dual occupancies.

We have compared these typologies to the following controls:

Maitland LEP this applies to all development

Maitland DCP this applies to all development

SEPP 65 Apartment Design Guide (ADG) this applies where residential flat buildings are three or more storeys and contain four or more units

Low Rise Housing Diversity Design Code & Design Guide (LRHDDG) this applies to the following typologies:

- Dual occupancies
- Manor houses and 'one above the other' dual occupancies - buildings of between 2-4 dwellings
- Multi dwelling housing (terraces)
- Multi dwelling housing (town houses and villas)

This applies to development that contains two or more dwellings and is no more than two storeys in height. This Code allows well designed dual occupancies, manor houses and terraces (up to two storeys) to be carried out under a fast track complying development approval. However, we note that Maitland Council are not currently receiving applications under this Code.

Note: Housing typologies have been tested at high-level only, against some key planning controls as listed, to inform Council. This study is not deemed to be a full feasibility study and other factors may prevent viability of development. Massing and car parking layouts are indicative only and require further resolution and facade articulation. All 3D illustrations are intended to show maximum massing envelopes for potential development and therefore does not depict a preferred built form outcome and does not take into account variations in landform. Hypothetical typical sites have been selected based on pre-determined criteria to give an understanding of each place, and contextual factors will vary for any particular future development site.

Assumptions: To calculate the Gross Floor Area (GFA) and internal areas or Net Saleable Area (NSA) we have used the following assumptions, based on the Gross Building Area (GBA) of our massing models:

80% of GBA = GFA:

Dual Occupancies, Multi-dwellings

75% of GBA = GFA 85% of GFA = NSA:

Manor Houses, Residential Flat Buildings

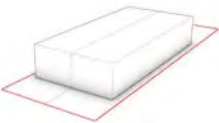
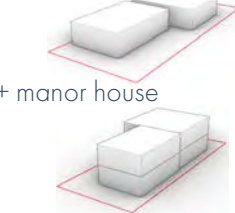
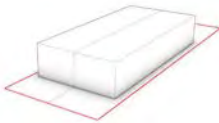
These figures have been used to ensure the units meet minimum size standards, and to calculate the financial feasibility in Charter Keck Cramer's review

Financial Feasibility Assessment:

CKC have carried out financial feasibility on all of these infill typologies. The base case scenarios demonstrate that infill typologies are feasible in these areas.

We note that the alternative scenarios as development outcomes have potential constraints to being realised on a single lot, including:

- Site conditions/physical constraints (frontage & depth, potential for amalgamation)
- Current planning controls (setbacks, height, parking requirements)
- Market factors (further elaborated on in CKC Part 1 and 2 reports)

Location	Base Case	Reason for choice	Alternate Case	Reason for choice
Central Maitland [Typical Site: 17 x 34m]	dual occ (attached) 	fits in planning envelope, but min lot size prevents subdivision to semi-detached (small lots)	medium density RFB 	to test feasibility of units in this central location, undercroft parking due to flood constraints
East Maitland [Typical Site: 18 x 40m]	dual occ (detached) with rear lane + manor house 	rear lanes prevalent here so detached dual occ considered, otherwise manor house	RFB 	to test increased density beyond planning controls in this central location
East Maitland Catalyst Area [Typical Site: 20 x 35m]	multi-dwelling (3 terraces) 	infill typologies not as established here as in East Maitland, wide site allows for terraces	RFB 	higher density apartments may be justified by market due to central amenities & planned growth
Rutherford [Typical Site: 17 x 37m]	semi-detached 	fits in planning envelope, min lot size exception in LEP allows for subdivision	manor house + RFB 	multi-dwellings already prevalent, although market currently untested for RFB
Telarah [Typical Site: 12 x 34m]	dual occ (detached) 	median frontage narrow (12m), better suited to detached dual occ	manor house on amalgamated lots 	to test feasibility of units on amalgamated site in this central location
Thornton [Typical Site: 20 x 34m]	multi-dwelling (3 terraces) 	wide site allows for 3 x 6m terraces	manor house 	to test feasibility of units to provide more diversity for smaller households
Woodberry [Typical Site: 15 x 33m]	dual occ (attached) 	15m allows for 6.5m unit width, suitable for dual occ attached	manor house 	to test feasibility of units to provide more diversity for smaller households

Source	Control	Requirement	Base Case
LEP	Zoning	R1 (dual occ not explicitly included/excluded)	
LEP 4.1(2)	Min Lot Size	450sqm	578sqm
DCP 8.e	Height of Building (No LEP designation)	8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multidwelling in B zone, RFB in R1 14m: RFB in B zone	6m
DCP 5.c	Front Setback	5m (6m for garage/carport) or average of two existing buildings DCP 5.h	7-8m
DCP 6.h	Side Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	1m
DCP 6.h	Rear Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	9m
DCP 7.e	Site Coverage (inc garage, driveways, paths)	Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	58% (334sqm)
DCP 7.e	Min Unbuilt Area	Min 40% for dwellings/small lot/dual occ Min 30% for multi-dwelling/RFB	42% (244sqm)
DCP 9.f	Parking Multi-Dwelling/Dual Occ:	Garages <50% frontage width, not side-by-side to adjacent Min. 1 space for 1&2 beds, 2 spaces for 2+ beds, 1 visitor space for first 3 dwellings and 1 space for every 5 dwellings thereafter.	4 (drive + garage)
DCP 10	POS: Private Open Space COS: Communal Open Space	Ground Level POS based on orientation, 45sqm min (6x6m min dim) N/A	77sqm
LRHDDG	Min Lot Size	LRHDDG requires 400sqm (15m width) for dual occ attached	578sqm
LRHDDG	POS for Dual Occ	16sqm (3m x 3m min dim)	77sqm
LRHDDG	Gross Floor Area for Dual Occ	25% of lot area + 300sqm: 445sqm	250sqm

Colour Legend for Requirement Compliance

Meets Min Requirement	
Almost Meets Min Requirement	
Doesn't Meet Min Requirement	

3.1.1 Planning Envelope

The above controls are taken from Maitland Local Environment Plan (LEP) & Development Control Plan (DCP), including Part C - Design Guidelines, in order to test the current potential barriers to different infill housing typologies. The Low Rise Diversity Design Guide for Dual Occupancies is also tested. The base case has been chosen to generally align with the above controls, whilst the alternate case is chosen to exceed this density and potentially challenge the existing controls.

3.1.2 Central Maitland Base Case - Dual Occupancy (Attached)

'2 dwellings on one lot of land that are attached to each other, but does not include a secondary dwelling'

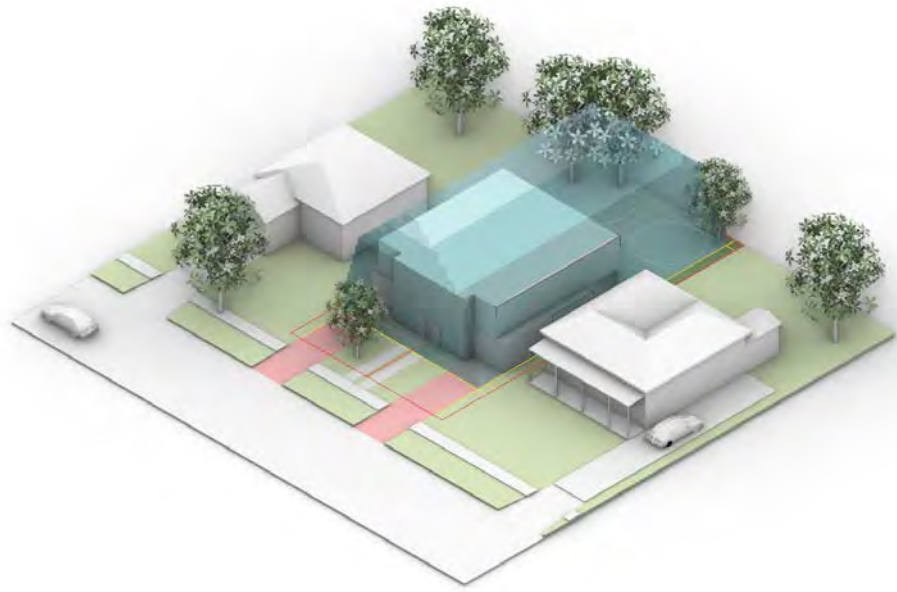
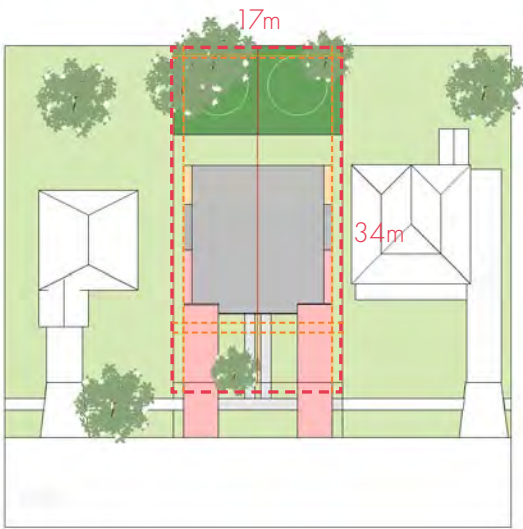
This typology conforms with the planning envelope, but is not a particularly common occurrence in Central Maitland, where there is a prevalence of multi-dwelling houses on amalgamated sites.

In this example, the width of each unit is 7.5m. In order to fit 3 multi-dwelling terraces, the width of each unit would be 5m but this is not deemed feasible in this case as the garage doors would dominate the facade and there would be insufficient width for front landscaping and internal planning. The amalgamation of two allotments would accommodate 5 units with a minimum width of 6.4m each.

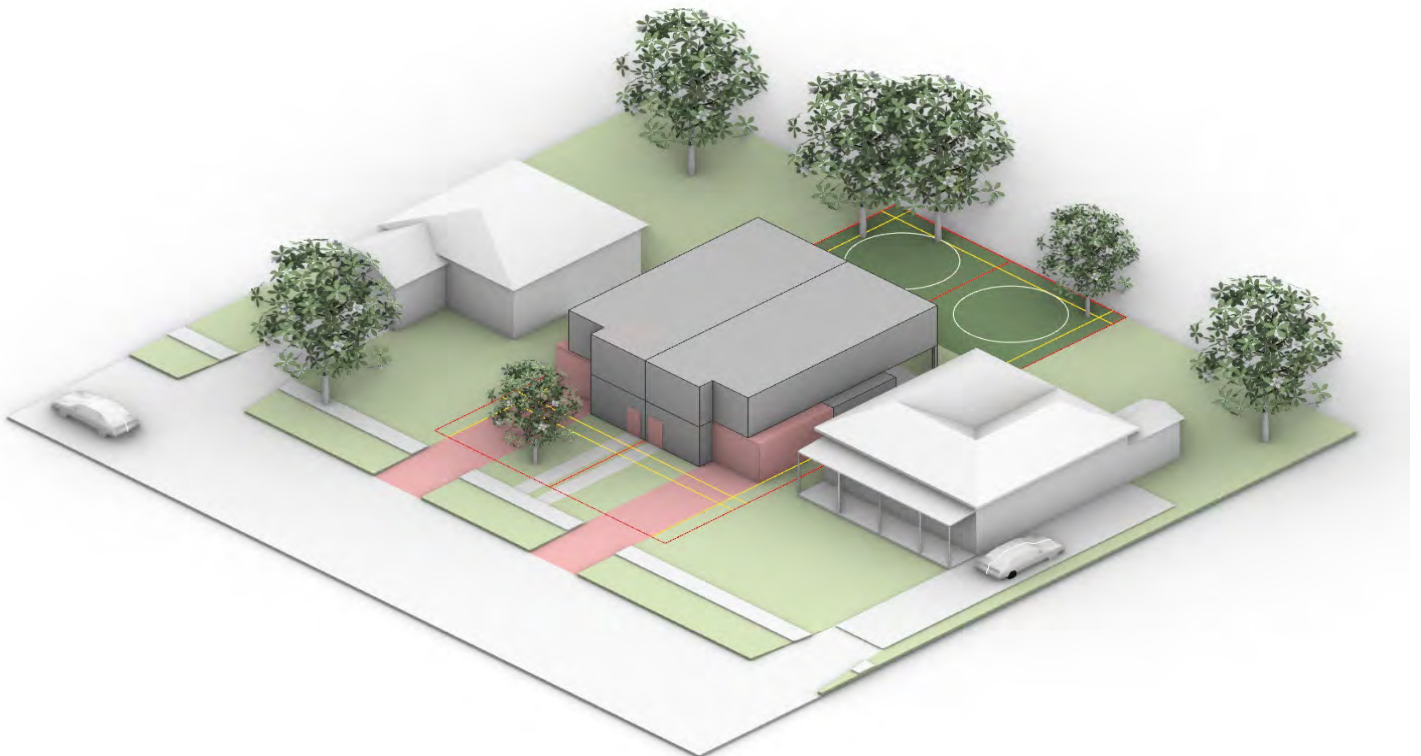
Due to flooding constraints in Central Maitland, this form assumes habitable rooms on first floor and parking/storage at ground level.

Size of Units & Title: Whilst dual-occupancy (attached) for 2 x 3 bed units (125sqm) is possible within the current controls, with strata title, the total lot size (578sqm) is too small to divide to allow for 2 x semi-detached dwellings ('a dwelling that is on its own lot of land and is attached to only one other dwelling') which may be preferable to the market. LEP 4.1(2) requires the minimum subdivision lot size of 450sqm (289sqm in this case).

Parking: In this scenario, the DCP (9f) requirement for 2 spaces per 3 bed is deemed satisfied with a driveway and single garage.



Case study site (578sqm) + approximate existing planning control envelope



Proposed Base Scheme for Central Maitland - Dual Occupancy (Attached)

Source	Control	Requirement	Base Case
LEP	Zoning	R1 (RFB permitted)	
LEP 4.1(2)	Min Lot Size	450sqm	578sqm
DCP 8.e	Height of Building (No LEP designation)	8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multi-dwelling in B zone, RFB in R1 14m: RFB in B zone	9m
DCP 5.c	Front Setback	5m (6m for garage/carport)	6m
DCP 6.h	Side Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	3m
DCP 6.h	Rear Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	2m
DCP 7.e	Site Coverage (inc garage, driveways, paths)	Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	58% (336sqm)
DCP 7.e	Min Unbuilt Area	Min 40% for dwellings/small lot/dual occ Min 30% for multi-dwelling/RFB	42% (242sqm)
DCP 9.f	Parking Multi-Dwelling/Dual Occ:	Garages <50% frontage width, not side-by-side to adjacent Min. 1 space for 1&2 beds, 2 spaces for 2+ beds, 1 visitor space for first 3 dwellings and 1 space for every 5 dwellings thereafter.	5 in under-croft
DCP 10	POS: Private Open Space COS: Communal Open Space	Above Ground POS, 10sqm (min 2.5m width) N/A	11sqm
ADG	POS: COS: Deep Soil	1 bed: 8sqm, 2 bed: 10sqm, min dim 2m 25% of lot area: 145sqm 7% of lot area: 40sqm	11sqm 242sqm 242sqm
ADG	Building Separation	6m between non-habitable (3m each side) 9m between habitable/non-habitable rooms (4.5m each side) 12m between habitable rooms (6m each side)	3m

Colour Legend for Requirement Compliance

Meets Min Requirement	
Almost Meets Min Requirement	
Doesn't Meet Min Requirement	

3.1.3 Central Maitland Alternate- Residential Flat Building (4 x Units)

'a building containing 3+ dwellings, but does not include an attached dwelling or multi dwelling housing'

The alternate case for Central Maitland, which would be achievable within the current R1 zoning, is a Residential Flat Building in a narrow infill configuration with undercroft parking. The 3 storey building is within the height limit but encroaches into the side and rear setback controls.

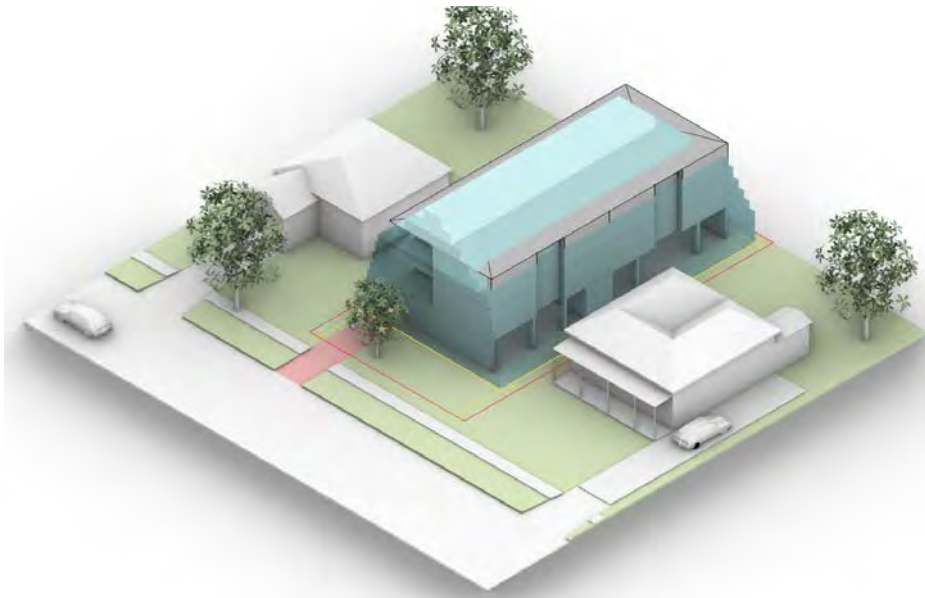
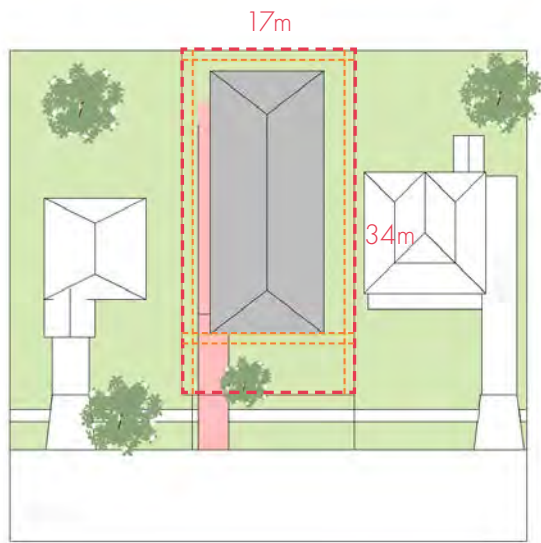
As stated in the Apartment Design Guide (ADG), narrow infill apartments must carefully consider privacy impacts along side and rear boundaries

Size of Units & Title: This development would be strata-titled, with a communal lobby for access. The form shown indicatively includes for approximately 4 units:

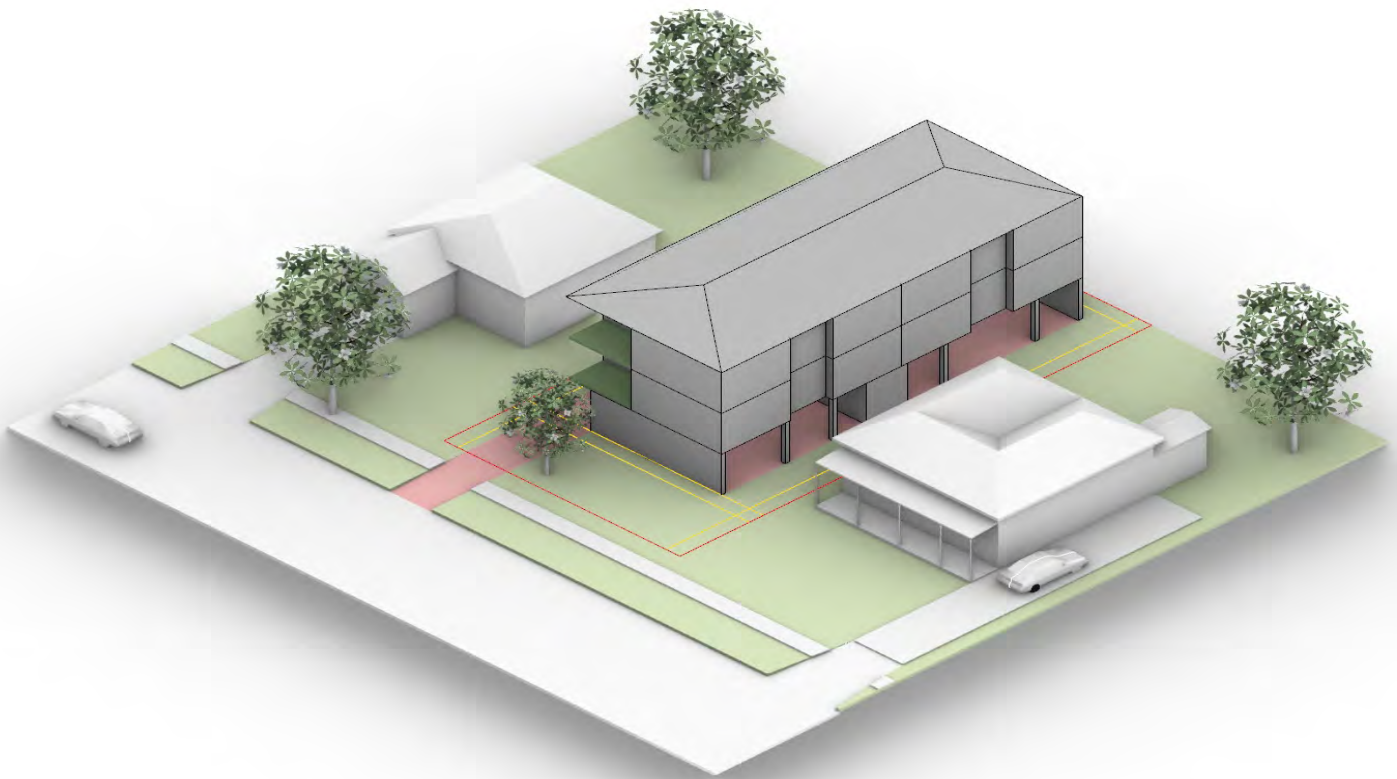
- 2 x 2-bed units at first floor
- 2 x 2-bed units at second floor

Further testing of feasibility would be required on the detailed layout to ensure the viability of units meeting the requirements of SEPP65 Apartment Design Guide (ADG), including solar compliance.

Parking: Car parking is particularly constrained, with 5 spaces required in a undercroft level. Basement parking is not deemed feasible due to flood constraints in Central Maitland. An amalgamation of 2 sites could make this more viable from a construction and feasibility perspective.



Case study site (578sqm) + approximate existing planning control envelope



Proposed Alternate Scheme for Central Maitland - Residential Flat Building

Source	Control	Requirement	Base Case
LEP	Zoning	R1 (dual occ not explicitly included/excluded)	
LEP 4.1(2)	Min Lot Size	450sqm	720sqm
DCP 8.e	Height of Building (No LEP designation)	8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multidwelling in B zone, RFB in R1 14m: RFB in B zone	6m
DCP 5.c	Front Setback	5m (6m for garage/carport)	5-6m
DCP 6.h	Side Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	2-2.4m
DCP 6.h	Rear Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m, 2m to garage for rear lane, 3m to habitable room	2m + 7.4m
DCP 7.e	Site Coverage (inc garage, driveways, paths)	Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	44% (320sqm)
DCP 7.e	Min Unbuilt Area	Min 40% for dwellings/small lot/dual occ Min 30% for multi-dwelling/RFB	56% (400sqm)
DCP 9.f	Parking Multi-Dwelling/Dual Occ:	Garages <50% frontage width, not side-by-side to adjacent Min. 1 space for 1&2 bedroom dwelling, 2 spaces for dwelling containing two or more bedrooms, 1 visitor space for the first 3 dwellings and 1 space for every 5 dwellings thereafter.	3 garage + 1 drive
DCP 10	POS: Private Open Space COS: Communal Open Space	POS based on orientation, 45sqm min assumed in this instance COS N/A	144sqm each
LRHDDG	Min Lot Size	LRHDDG requires 400sqm, ideally 18m width for dual occ detached	720sqm
LRHDDG	POS for Dual Occ	16sqm (3 x 3m dim)	144sqm
LRHDDG	Floor Space Ratio	25% of lot area + 300sqm: 480sqm GFA	269 GFA

Colour Legend for Requirement Compliance

Meets Min Requirement	
Almost Meets Min Requirement	
Doesn't Meet Min Requirement	

3.2.1 Planning Envelope

The above controls are taken from Maitland Local Environment Plan (LEP) & Development Control Plan (DCP), including Part C - Design Guidelines, in order to test the current potential barriers to different infill housing typologies. For East Maitland, we have two base cases: one with rear lane access and one without.

3.2.2 East Maitland Base Case #1 - Dual Occupancy (Detached) with Rear Lane

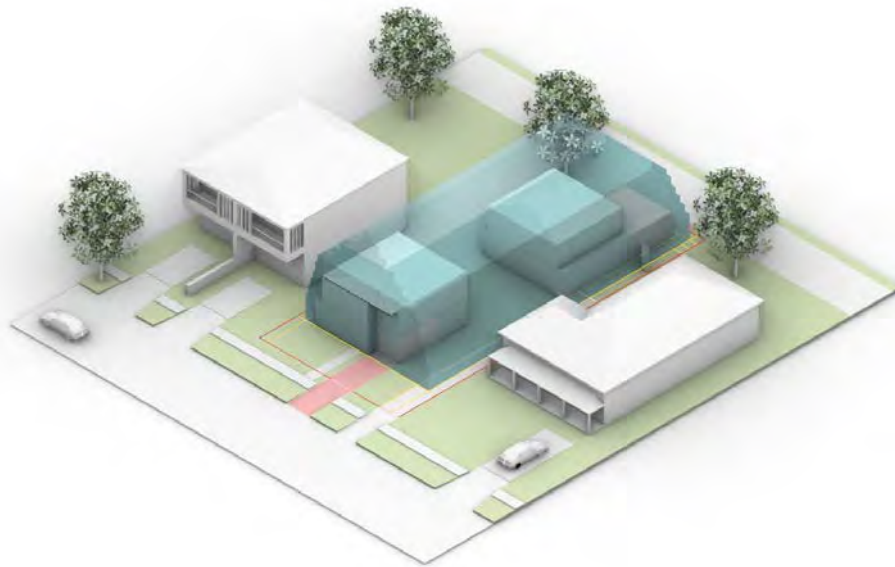
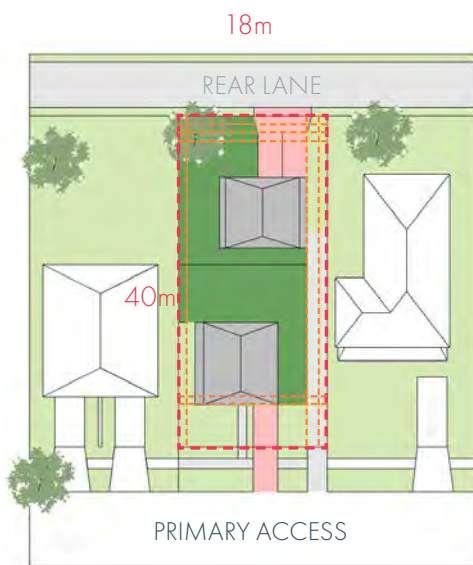
'2 detached dwellings on one lot of land, but does not include a secondary dwelling'

Council has recently received some applications for this type of development where rear lane access is provided, this is achieved in a number of older subdivisions across Maitland LGA where historically these lanes were intended as service lanes primarily for the collection of night soil.

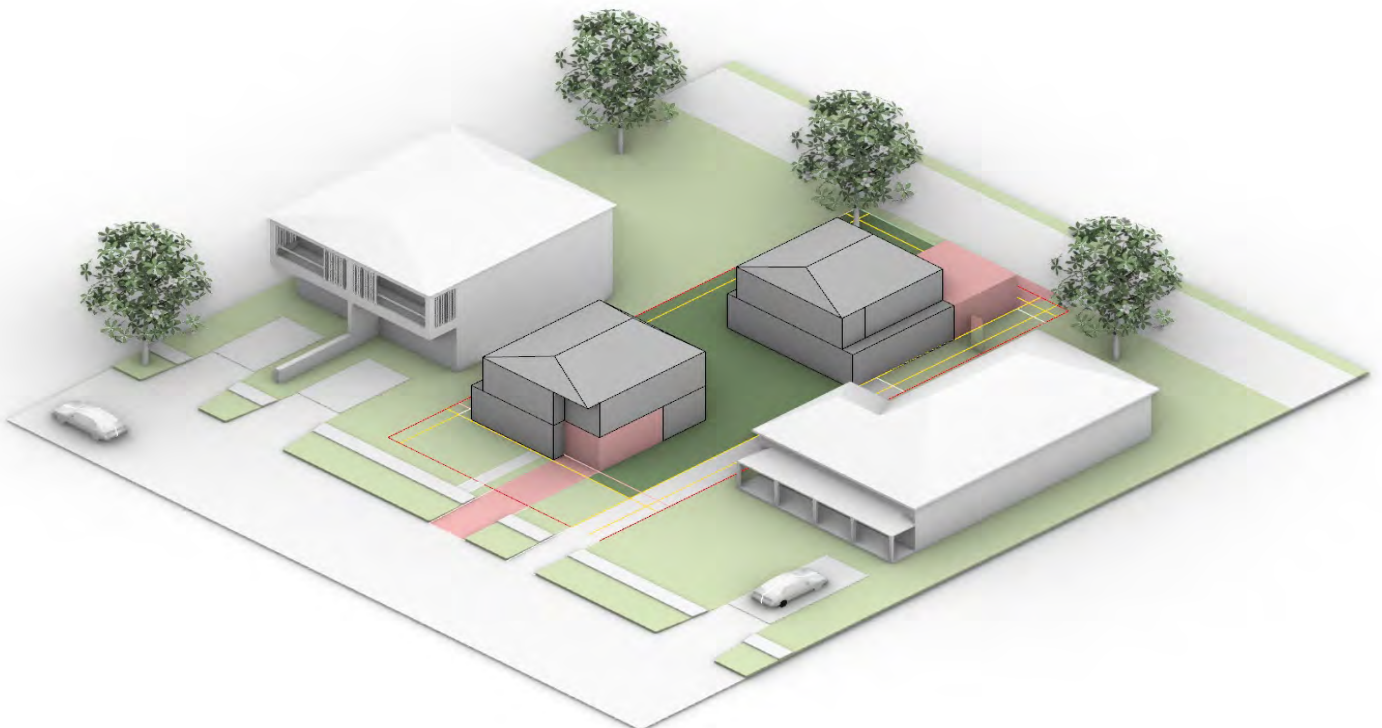
Access: To ensure that the dwelling at the rear of the lot relates to the primary street, pedestrian access is provided via the primary street frontage, with vehicle access from the rear lane.

Size of Units & Title: These dual-occupancy (detached) units suit 2 x 4 bed configuration. Torrens title is achievable as LEP4.1A allows for an exemption to the min lot size of 450sqm, for the subdivision of land into 2 or more lots equal to or greater than 300sqm (360sqm in this case). Good design and appropriate landscaping would need to be provided to ensure privacy is maintained between dwellings (9m separation between dwellings is shown here), as well as appropriate upgrades to the laneway for access to the rear dwelling.

Parking: This typology works well on lots with rear laneway access and on corner lots where the secondary road provides access to the rear dwelling without the need for a battle axe. The narrow width and condition of laneways in Maitland may be a barrier to achieving this typology (currently detached dual occ not shown as a rear lane configuration in the LRHDDG).



Case study site (720sqm) + approximate existing planning control envelope



Proposed Base Scheme #1 for East Maitland - Dual Occupancy (detached)
with rear lane

Source	Control	Requirement	Base Case
LEP	Zoning	R1 (RFB permitted)	
LEP 4.1(2)	Min Lot Size	450sqm	720sqm
DCP 8.e	Height of Building (No LEP designation)	8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multidwelling in B zone, RFB in R1 14m: RFB in B zone	6m
DCP 5.c	Front Setback	5m (6m for garage/carport)	5m
DCP 6.h	Side Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m + 1m for every m over 7.2m	western infracton
DCP 6.h	Rear Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m + 1m for every m over 7.2m	15.5m
DCP 7.e	Site Coverage (inc garage, driveways, paths)	Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	65% (466sqm)
DCP 7.e	Min Unbuilt Area	Min 40% for dwellings/small lot/dual occ Min 30% for multi-dwelling/RFB	35% (254sqm)
DCP 9.f	Parking Multi-Dwelling/Dual Occ:	Garages <50% frontage width, not side-by-side to adjacent Min. 1 space for 1 & 2 bedroom dwelling, 2 spaces for dwelling containing >2 beds, 1 visitor space for the first 3 dwellings and 1 space for every 5 dwellings thereafter. (5 required)	4 (5 req)
DCP 10	POS: Private Open Space COS: Communal Open Space	Ground Level POS based on orientation, 45sqm min (6x6m min dim) Above Ground POS, 10sqm (min 2.5m width) COS N/A	26sqm GF, 12sqm 1F
LRHDDG	Min Lot Size	LRHDDG requires 600sqm (15m width) for manor house	720sqm
LRHDDG	POS for Manor House (MH)	1 bed: 8sqm, 2+ bed: 12sqm, if living area at ground level: 16sqm behind building line (3x3m min dim). COS is 5% of lot area = 31sqm	26sqm GF 12sqm 1F 200 COS
LRHDDG	Gross Floor Area for MH	25% of lot area + 150sqm to max of 400sqm (330sqm)	312sqm

Colour Legend for Requirement Compliance

Meets Min Requirement	
Almost Meets Min Requirement	
Doesn't Meet Min Requirement	

3.2.3 East Maitland Base Case #2 - RFB - Manor House (4 x units)

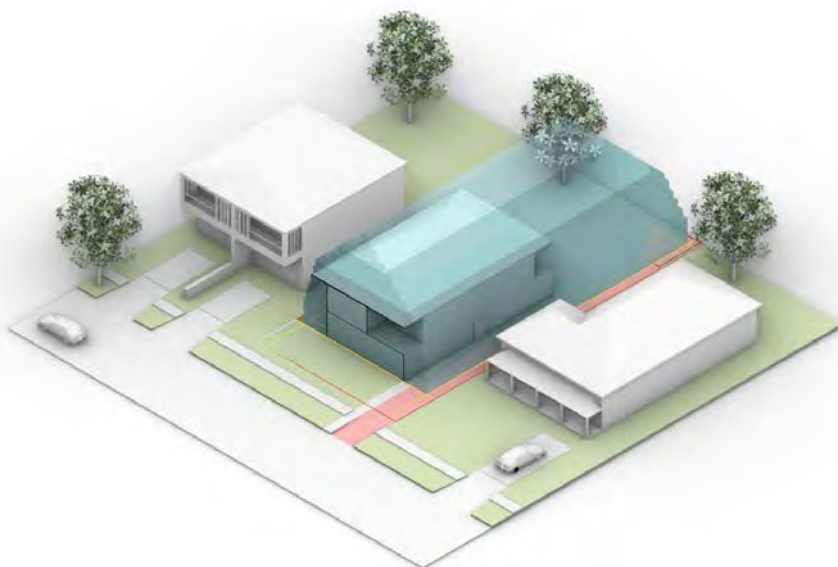
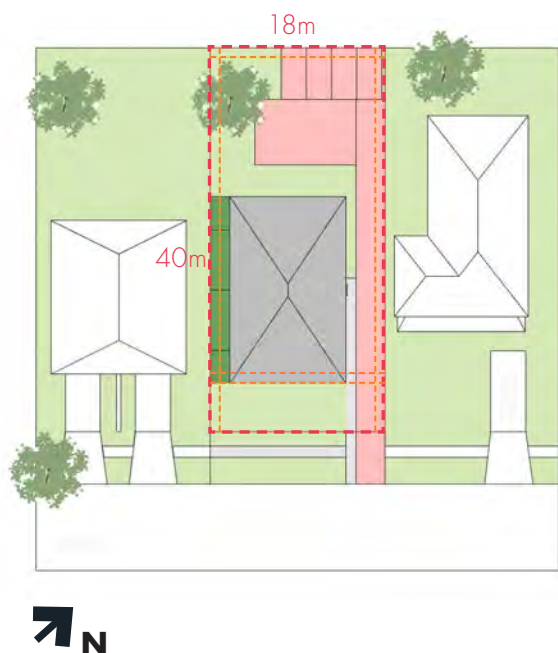
'a residential flat building containing 3 or 4 dwellings, where: (a) each dwelling is attached to another dwelling by a common wall or floor, and (b) at least 1 dwelling is partially or wholly located above another dwelling, and (c) the building contains no more than 2 storeys (excluding any basement)'

The Manor House is not defined in the Maitland LEP, but falls into the category of Residential Flat Building which is allowable in R1 zone. This typology generally conforms with the planning envelope (aside from a small exceedance on the west), but is not a common occurrence across Maitland.

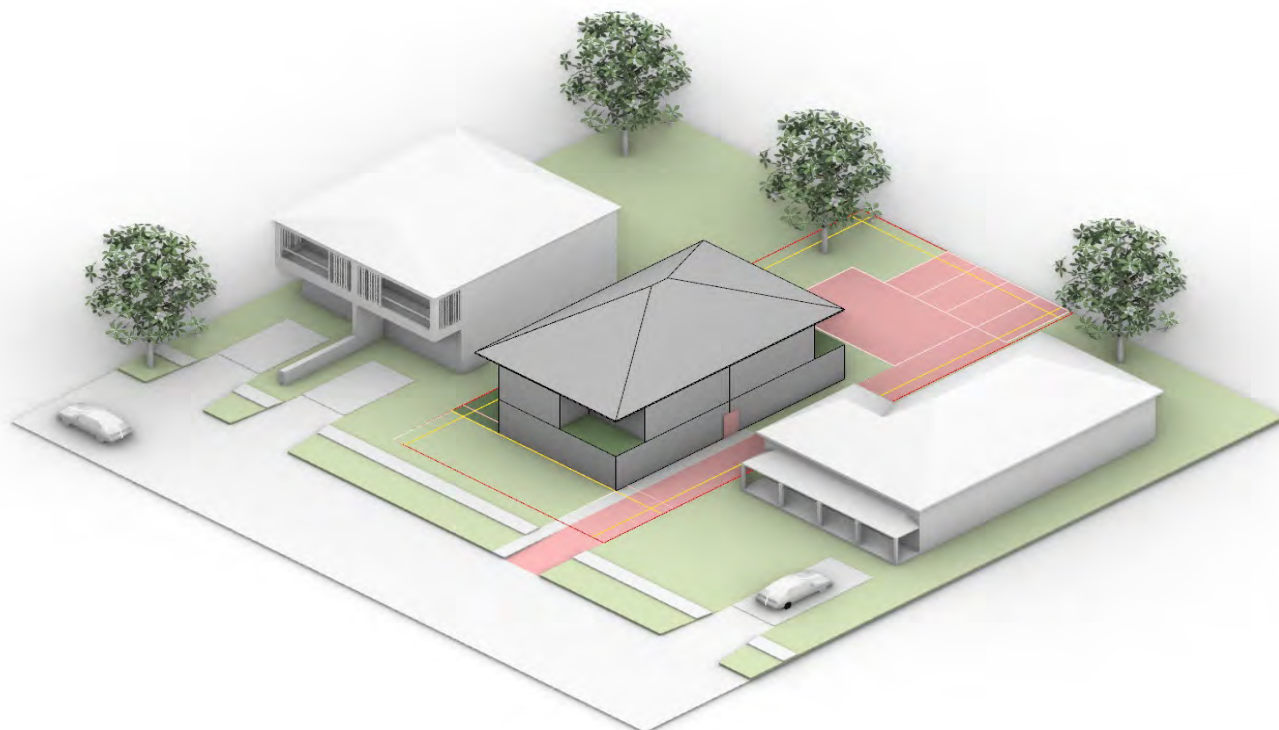
Private open space (POS) as specified in DCP Part C 10 for above ground units is met with balconies, but privacy must be carefully considered. POS for the ground floor units meets the Low Rise Diversity Design Guide (LRHDDG) but does not conform with DCP 10 (we note that this far exceeds the LRHDDG requirement). Communal open space requirements from the LRHDDG are far exceeded, and the minimum unbuilt area conforms with the DCP 7.e requirement.

Size of Units & Title: This development would be strata-titled, with a central communal lobby for access. The form shown indicatively includes for 2 x 2 bed units at ground and 2 x 1 bed units at first floor.

Parking: In this scenario, the DCP (9f) requirement for 1 space per dwelling is deemed satisfied with 4 spaces to the rear, but there is no visitor space and the parking arrangement is inefficient with a long driveway and insufficient turning area. A basement parking scenario would give a more favourable design outcome, however a higher construction cost.



Case study site (720sqm) + approximate existing planning control envelope



Proposed Alternate Scheme for East Maitland - Manor House

Source	Control	Requirement	Base Case
LEP	Zoning	R1 (RFB permitted)	
LEP 4.1(2)	Min Lot Size	450sqm	720sqm
DCP 8.e	Height of Building (No LEP designation)	8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multidwelling in B zone, RFB in R1 14m: RFB in B zone	10m
DCP 5.c	Front Setback	5m (6m for garage/carport)	5m
DCP 6.h	Side Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	1m
DCP 6.h	Rear Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	9m
DCP 7.e	Site Coverage (inc garage, driveways, paths)	Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	58% (417sqm)
DCP 7.e	Min Unbuilt Area	Min 40% for dwellings/small lot/dual occ Min 30% for multi-dwelling/RFB	42% (303sqm)
DCP 9.f	Parking Multi-Dwelling/Dual Occ:	Garages <50% frontage width, not side-by-side to adjacent Min. 1 space for 1&2 beds, 2 spaces for 2+ beds, 1 visitor space for first 3 dwellings and 1 space for every 5 dwellings thereafter.	7 in basement (no visitor)
DCP 10	POS: Private Open Space COS: Communal Open Space	Ground Level POS based on orientation, 45sqm min (6x6m min dim) Above Ground POS, 10sqm (min 2.5m width) N/A	28-39sqm + 11sqm
ADG	POS: COS: Deep Soil:	1 bed: 8sqm, 2 bed: 10sqm, min dim 2m 25% of lot area: 180sqm 7% of lot area: 50sqm (min dim 3m)	as above 303sqm 250sqm
ADG	Building Separation	6m between non-habitable (3m each side) 9m between habitable/non-habitable rooms (4.5m each side) 12m between habitable rooms (6m each side)	3-4m

Colour Legend for Requirement Compliance

Meets Min Requirement	
Almost Meets Min Requirement	
Doesn't Meet Min Requirement	

3.2.4 East Maitland Alternate Case - Residential Flat Building (7 x units)

'a building containing 3+ dwellings, but does not include an attached dwelling or multi dwelling housing'

The alternate case for East Maitland, which would be achievable within the current R1 zoning, is a Residential Flat Building in a narrow infill configuration with basement parking. The 3 storey building is within the height limit but encroaches into the side setback controls.

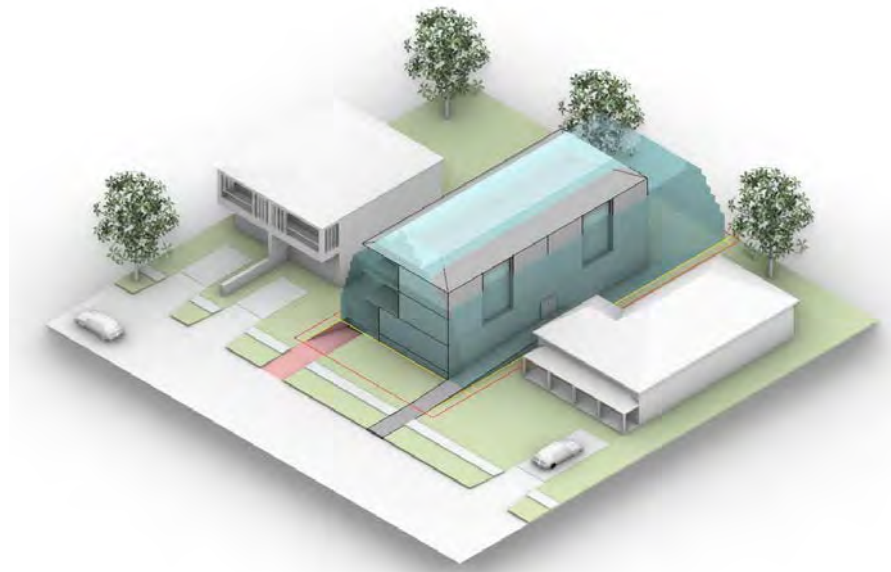
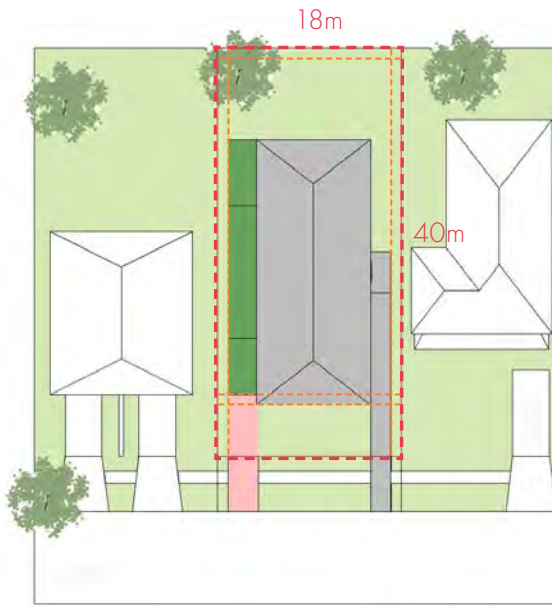
As stated in the Apartment Design Guide (ADG), narrow infill apartments must carefully consider privacy impacts along side boundaries.

Size of Units & Title: This development would be strata-titled, with a communal lobby for access. The form shown indicatively includes for approximately 7 units:

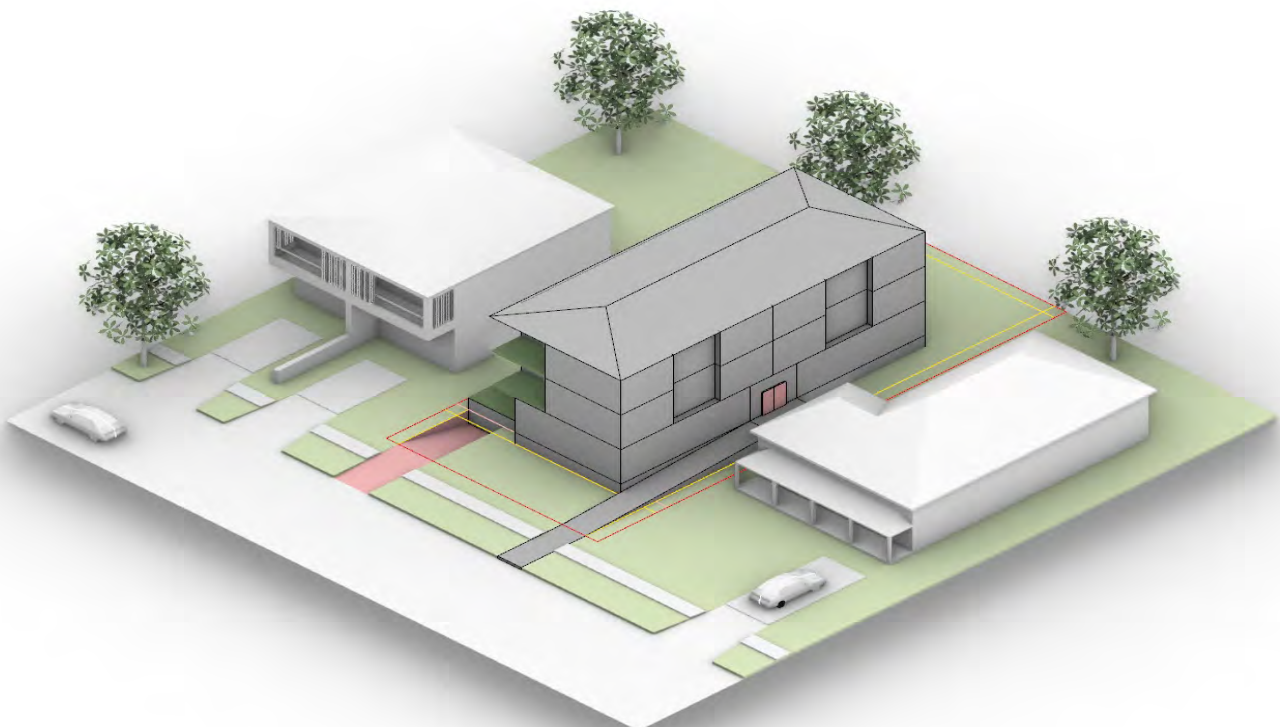
- 3 x 1-bed unit at ground floor
- 2 x 2-bed units at first floor
- 2 x 2-bed units at second floor

Further testing of feasibility would be required on the detailed layout to ensure the viability of units meeting the requirements of SEPP65 Apartment Design Guide (ADG), including solar compliance.

Parking: Car parking is particularly constrained, with 7 spaces required in a basement level under the building footprint, and an assumption that visitor parking could be accommodated on the street. An amalgamation of 2 sites could make this more viable from a construction and feasibility perspective.



Case study site (720sqm) + approximate existing planning control envelope



Proposed Alternate Scheme for East Maitland

Controls

LEP	Zoning	R1 (multi-dwelling permitted)	
LEP 4.1(2)	Min Lot Size	450sqm	700sqm
DCP 8.e	Height of Building (No LEP designation)	8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multi-dwelling in B zone, RFB in R1 14m: RFB in B zone	6m
DCP 5.c	Front Setback	5m (6m for garage/carport)	5-6m
DCP 6.h	Side Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	1m
DCP 6.h	Rear Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	7.6m
DCP 7.e	Site Coverage (inc garage, driveways, paths)	Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	62% (436sqm)
DCP 7.e	Min Unbuilt Area	Min 40% for dwellings/small lot/dual occ Min 30% for multi-dwelling/RFB	38% (264sqm)
DCP 9.f	Parking Multi-Dwelling/Dual Occ:	Garages <50% frontage width, not side-by-side to adjacent Min. 1 space for 1 & 2 bedroom dwelling, 2 spaces for dwelling containing two or more bedrooms, 1 visitor space for the first 3 dwellings and 1 space for every 5 dwellings thereafter.	6 (no visitor space)
DCP 10	POS: Private Open Space COS: Communal Open Space	POS based on orientation, 45sqm min assumed in this instance COS N/A	55sqm
LRHDDG	Min Lot Size	LRHDDG requires 600sqm (18m width) for multi-dwelling terraces	700sqm
LRHDDG	POS for Terraces	45sqm with min dim of 4m	46sqm
LRHDDG	Gross Floor Area for Terraces	60% of lot area: 420sqm	420sqm

Colour Legend for Requirement Compliance

Meets Min Requirement	
Almost Meets Min Requirement	
Doesn't Meet Min Requirement	

3.3.1 Planning Envelope

The above controls are taken from Maitland Local Environment Plan (LEP) & Development Control Plan (DCP), including Part C - Design Guidelines, in order to test the current potential barriers to different infill housing typologies. The base case has been chosen to generally align with the above controls, whilst the alternate case is chosen to exceed and challenge the controls.

3.3.2 EMCA Base Case - Multi-Dwelling 3 x Terraces

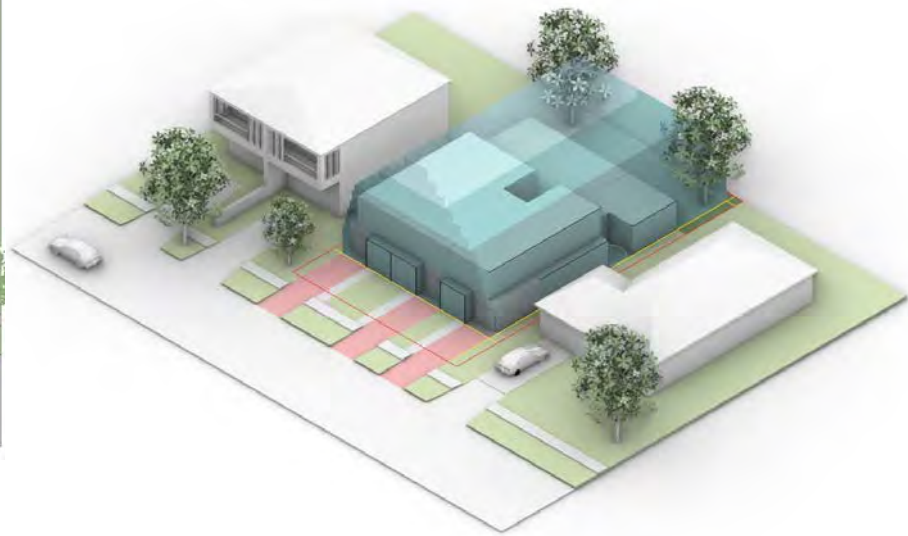
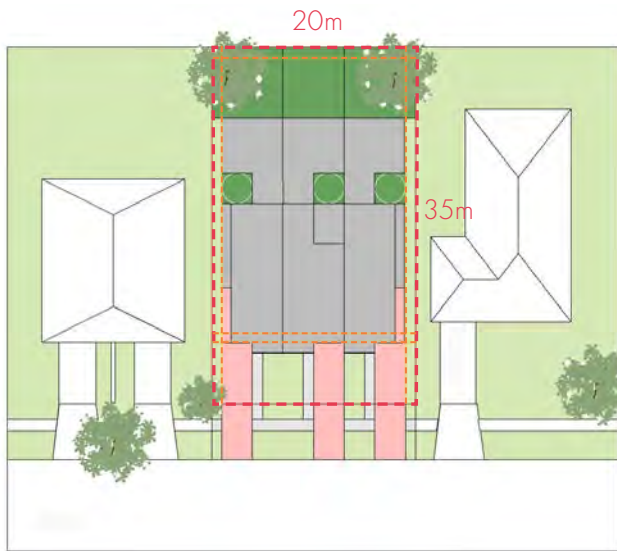
'all dwellings (3+) are attached and face, and are generally aligned along, 1 or more public roads'

This typology conforms with the planning envelope, but is not a common occurrence in Maitland and therefore is not an established product in the housing market.

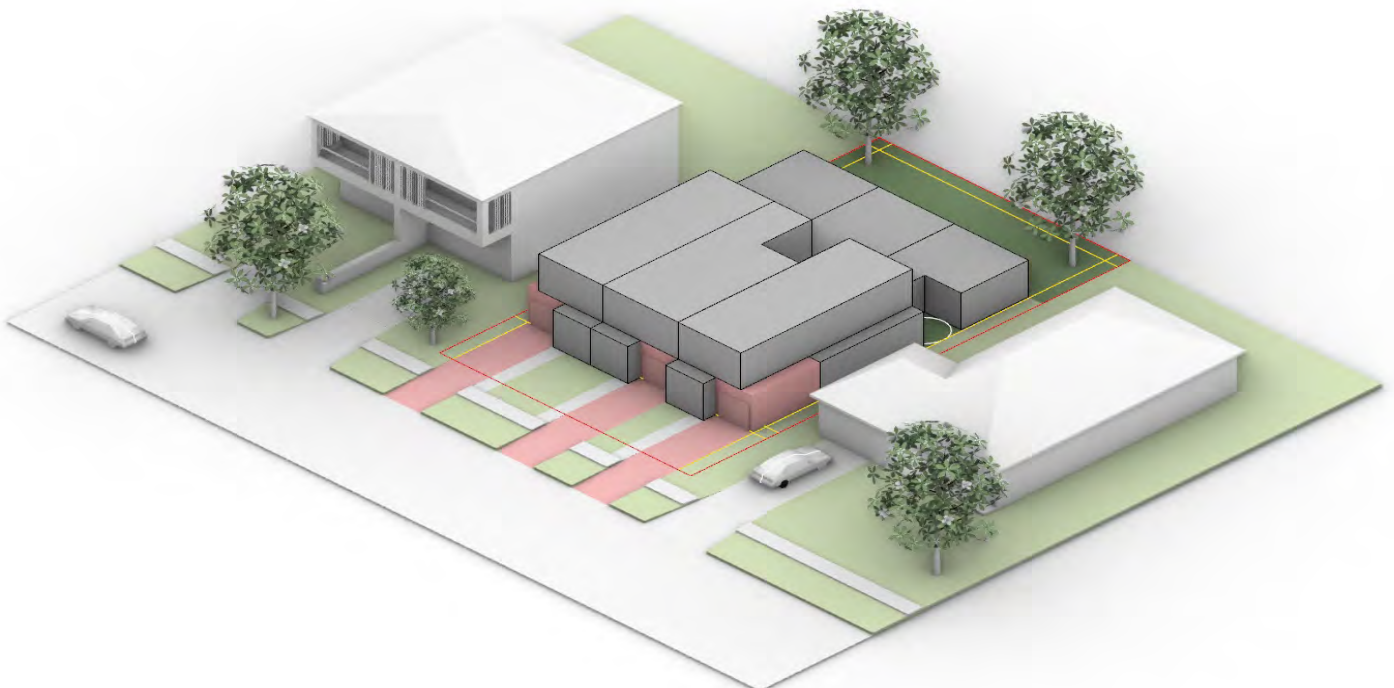
In this example, the width of each unit is 6m, which is deemed to be minimal as the garage doors dominate the facade and there is minimal width for any front landscaping. The narrow width of units would also restrict internal planning, although an internal courtyard POS as shown can improve the amenity of living spaces. The amalgamation of two allotments would comfortably accommodate 5 units with a minimum width of 7.6m each.

Size of Units & Title: Multi-dwelling terraces for 3 x strata-titled 4 bed units are possible within the current controls, or more spacious 3 bed units depending on market preference. The total lot size (700sqm) is too small to divide to allow for 3 x attached dwellings (*'a dwelling that is on its own lot of land and is attached to only one other dwelling'*) which may be preferable to the market. LEP 4.1(2) requires the minimum subdivision lot size of 450sqm (233sqm in this case).

Parking: In this scenario, the DCP (9f) requirement for 2 spaces per 4 bed is deemed satisfied with a driveway and single garage, however the visitor space required for 3 multi-dwellings is not provided as this would not be feasible in the current arrangement.



Case study site (700sqm) + approximate existing planning control envelope



Proposed Base Scheme for EMCA

Controls

LEP	Zoning	R1 (RFB permitted)	
LEP 4.1(2)	Min Lot Size	450sqm	700sqm
DCP 8.e	Height of Building (No LEP designation)	8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multidwelling in B zone, RFB in R1 14m: RFB in B zone	10m
DCP 5.c	Front Setback	5m (6m for garage/carport)	5-6m
DCP 6.h	Side Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	3m
DCP 6.h	Rear Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	4m
DCP 7.e	Site Coverage (inc garage, driveways, paths)	Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	60% (417sqm)
DCP 7.e	Min Unbuilt Area	Min 40% for dwellings/small lot/dual occ Min 30% for multi-dwelling/RFB	40% (283sqm)
DCP 9.f	Parking Multi-Dwelling/Dual Occ:	Min. 1 space for 1 & 2 bedroom dwelling, 2 spaces for dwelling containing >2 beds, 1 visitor space for the first 3 dwellings and 1 space for every 5 dwellings thereafter. (5 required)	7 in basement (no visitor)
DCP 10	POS: Private Open Space COS: Communal Open Space	Ground Level POS based on orientation, 45sqm min (6x6m min dim) Above Ground POS, 10sqm (min 2.5m width achieved) COS N/A	27sqm 11sqm 283sqm
ADG	POS: COS: Deep Soil:	1 bed: 8sqm, 2 bed: 10sqm, min dim 2m 25% of lot area: 175sqm 7% of lot area: 49sqm (min dim 3m)	27/11sqm 283sqm 261sqm
ADG	Building Separation	6m between non-habitable (3m each side) 9m between habitable/non-habitable rooms (4.5m each side) 12m between habitable rooms (6m each side)	3-8m

Colour Legend for Requirement Compliance

Meets Min Requirement	
Almost Meets Min Requirement	
Doesn't Meet Min Requirement	

3.3.3 EMCA Alternate Case - Residential Flat Building (7 x units)

'a building containing 3+ dwellings, but does not include an attached dwelling or multi dwelling housing'

Residential flat buildings are currently allowable in R1 zone. This typology generally conforms with the planning envelope (aside from a small exceedance on the west), but is not yet a common occurrence in this area or across Maitland LGA.

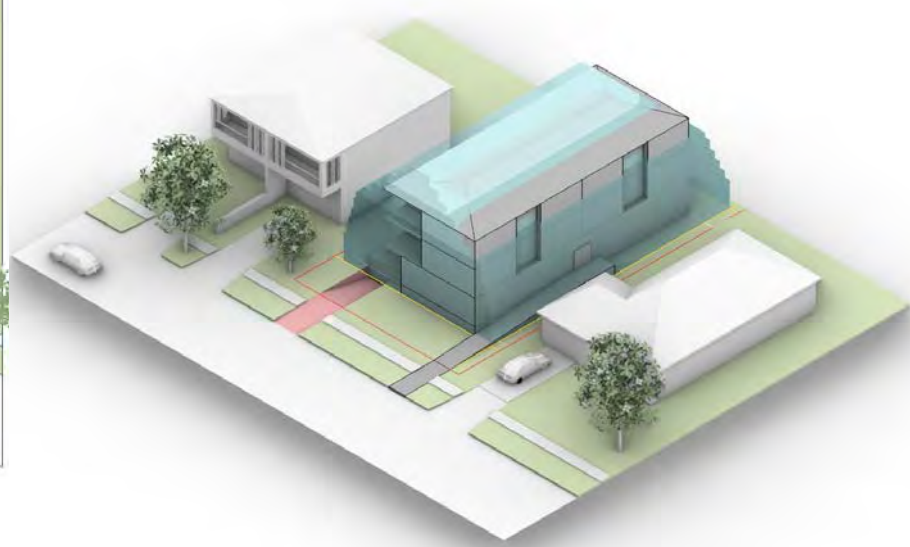
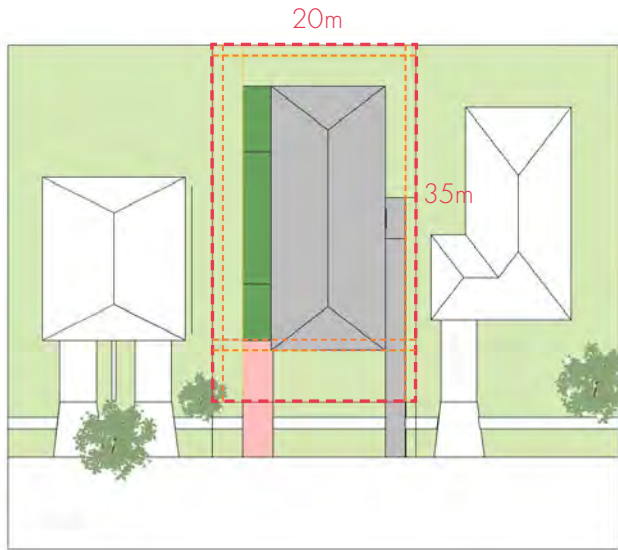
Private open space (POS) meets the ADG SEPP 65 minimum dimensions but does not conform to the DCP 10 ground floor requirements which do not distinguish between dwellings and units. Unbuilt area and communal open space, as well as availability of deep soil zones are all conforming with the DCP and ADG.

Size of Units & Title: This development would be strata-titled, with a communal lobby for access. The form shown indicatively includes for approximately 7 units:

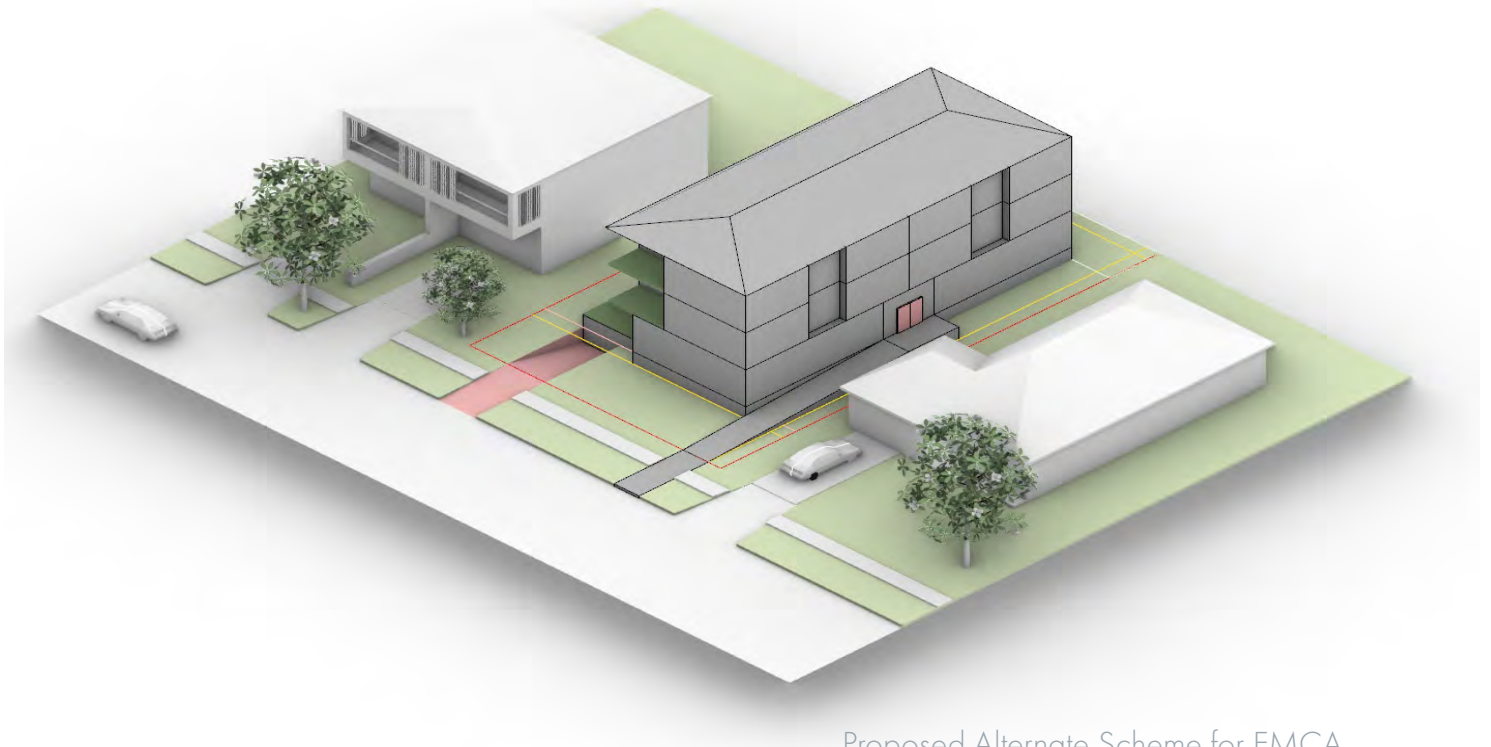
- 3 x 1-bed unit at ground floor
- 2 x 2-bed units at first floor
- 2 x 2-bed units at second floor

Further testing of feasibility would be required on the detailed layout to ensure the viability of units meeting the requirements of SEPP65 Apartment Design Guide (ADG), including solar compliance.

Parking: Car parking is particularly constrained, with 7 spaces required in a basement level under the building footprint, and visitor parking assumed to be accommodated on street. An amalgamation of 2 sites could make this more viable from a construction and feasibility perspective, as well as providing greater building separation.



Case study site (700sqm) + approximate existing planning control envelope



Proposed Alternate Scheme for EMCA

Controls

LEP	Zoning	R1	
LEP 4.1A	Exception to Min Lot Size	sub-division to 300sqm min for attached/semi-detached/dwelling	629sqm
DCP 8.e	Height of Building (No LEP designation)	8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multi-dwelling in B zone, RFB in R1 14m: RFB in B zone	6m
DCP 5.c	Front Setback	5m (6m for garage/carport)	5/6m
DCP 6.h	Side Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	1m
DCP 6.h	Rear Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	14m
DCP 7.e	Site Coverage (inc garage, driveways, paths)	Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	50% (315sqm)
DCP 7.e	Min Unbuilt Area	Min 40% for dwellings/small lot/dual occ Min 30% for multi-dwelling/RFB	50% (314sqm)
DCP 9.f	Parking Multi-Dwelling/Dual Occ:	Garages <50% frontage width, not side-by-side to adjacent Min. 1 space for 1&2 beds, 2 spaces for 2+ beds, 1 visitor space for first 3 dwellings and 1 space for every 5 dwellings thereafter.	4 (drive + garage)
DCP 10	POS: Private Open Space COS: Communal Open Space	Ground Level POS based on orientation, 45sqm min (6x6m min dim) N/A	119sqm each
LRHDDG	POS for Dual Occ	16sqm (3m x 3m min dim)	119sqm
LRHDDG	Gross Floor Area for Dual Occ	25% of lot area + 300sqm: 457sqm	250sqm

Colour Legend for Requirement Compliance

Meets Min Requirement	
Almost Meets Min Requirement	
Doesn't Meet Min Requirement	

3.4.1 Planning Envelope

The above controls are taken from Maitland Local Environment Plan (LEP) & Development Control Plan (DCP), including Part C - Design Guidelines, in order to test the current potential barriers to different infill housing typologies. The Low Rise Diversity Design Guide for Dual Occupancies is also tested. The base case has been chosen to generally align with the above controls, whilst the alternate case is chosen to exceed this density and potentially challenge the existing controls.

3.4.2 Rutherford Base Case - Semi-Detached Dwellings

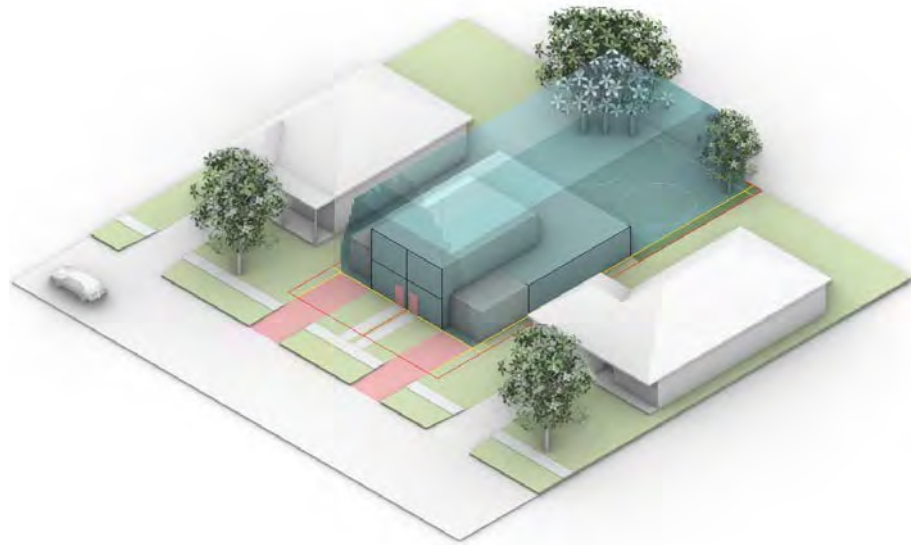
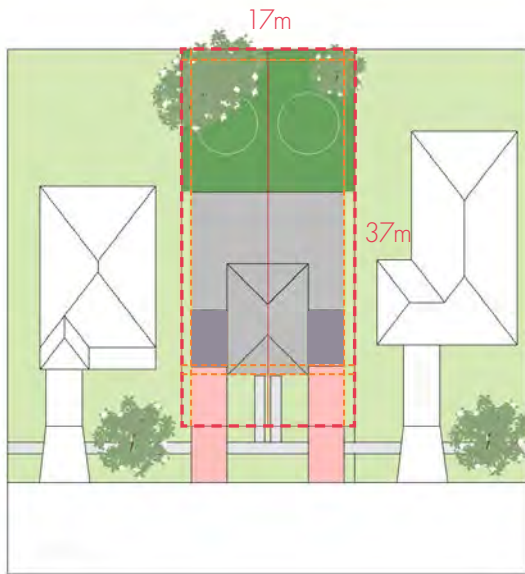
'2 dwellings on one lot of land that are attached to each other, but does not include a secondary dwelling'

This typology conforms with the planning envelope, but is not a particularly common occurrence in Rutherford, where there is a prevalence of multi-dwelling houses on amalgamated sites.

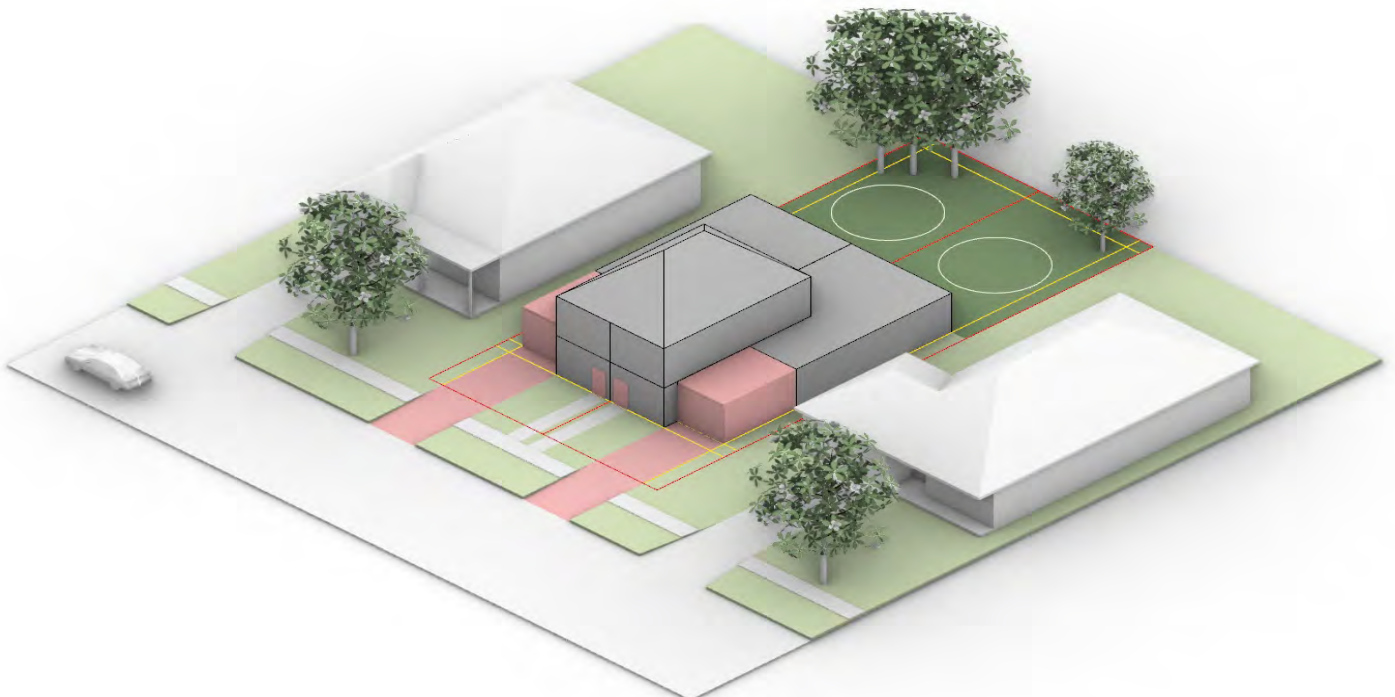
In this example, the width of each unit is 7.5m. In order to fit 3 multi-dwelling terraces, the width of each unit would be 5m but this is not deemed feasible in this case as the garage doors would dominate the facade and there would be insufficient width for front landscaping and internal planning. The amalgamation of two allotments would comfortably accommodate 5 units with a minimum width of 6.4m each.

Size of Units & Title: Semi-detached 2 x 3 bed units (125sqm) is possible within the current controls. Torrens title is achievable as LEP4.1A allows for an exemption to the min lot size of 450sqm, for the subdivision of land into 2 or more lots equal to or greater than 300sqm (315sqm in this case).

Parking: In this scenario, the DCP (9f) requirement for 2 spaces per 3 bed is deemed satisfied with a driveway and single garage.



Case study site (629sqm) + approximate existing planning control envelope



Proposed Base Scheme for Rutherford- Semi-detached

Controls

LEP	Zoning	R1 (RFB permitted)	
LEP 4.1(2)	Min Lot Size	450sqm	629sqm
DCP 8.e	Height of Building (No LEP designation)	8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multi-dwelling in B zone, RFB in R1 14m: RFB in B zone	6m
DCP 5.c	Front Setback	5m (6m for garage/carport)	5m
DCP 6.h	Side Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	western infraction
DCP 6.h	Rear Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	12.5m
DCP 7.e	Site Coverage (inc garage, driveways, paths)	Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	73% (458sqm)
DCP 7.e	Min Unbuilt Area	Min 40% for dwellings/small lot/dual occ Min 30% for multi-dwelling/RFB	27% (171sqm)
DCP 9.f	Parking Multi-Dwelling/Dual Occ:	Garages <50% frontage width, not side-by-side to adjacent Min. 1 space for 1 & 2 bedroom dwelling, 2 spaces for dwelling containing >2 beds, 1 visitor space for the first 3 dwellings and 1 space for every 5 dwellings thereafter. (5 required)	4 (no visitor)
DCP 10	POS: Private Open Space COS: Communal Open Space	Ground Level POS based on orientation, 45sqm min (6x6m min dim) Above Ground POS, 10sqm (min 2.5m width) COS N/A	17sqm GF, 12sqm 1F
LRHDDG	Min Lot Size	LRHDDG requires 600sqm (15m width) for manor house	629sqm
LRHDDG	POS for Manor House (MH)	1 bed: 8sqm, 2+ bed: 12sqm, if living area at ground level: 16sqm behind building line (3x3m min dim). COS is 5% of lot area = 31sqm	17sqm GF 12sqm 1F 138 COS
LRHDDG	Gross Floor Area for MH 2.2B	25% of lot area + 150sqm to max of 400sqm (307sqm)	311sqm

Colour Legend for Requirement Compliance

Meets Min Requirement	
Almost Meets Min Requirement	
Doesn't Meet Min Requirement	

3.4.3 Rutherford Alternate Case - RFB - Manor House (4 x units)

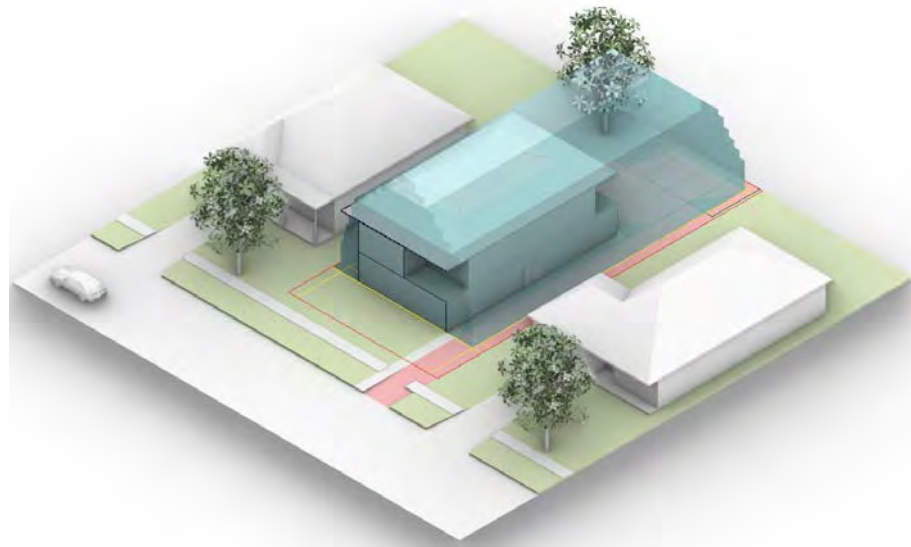
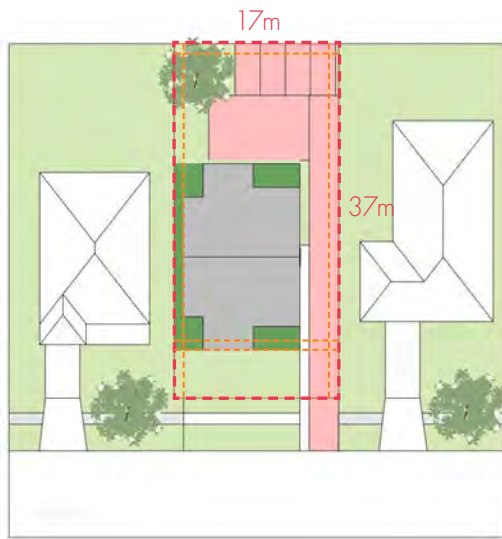
'a residential flat building containing 3 or 4 dwellings, where: (a) each dwelling is attached to another dwelling by a common wall or floor, and (b) at least 1 dwelling is partially or wholly located above another dwelling, and (c) the building contains no more than 2 storeys (excluding any basement)'

The Manor House is not defined in the Maitland LEP, but falls into the category of Residential Flat Building which is allowable in R1 zone. This typology generally conforms with the planning envelope (aside from a small exceedance on the west), but is not a common occurrence across Maitland.

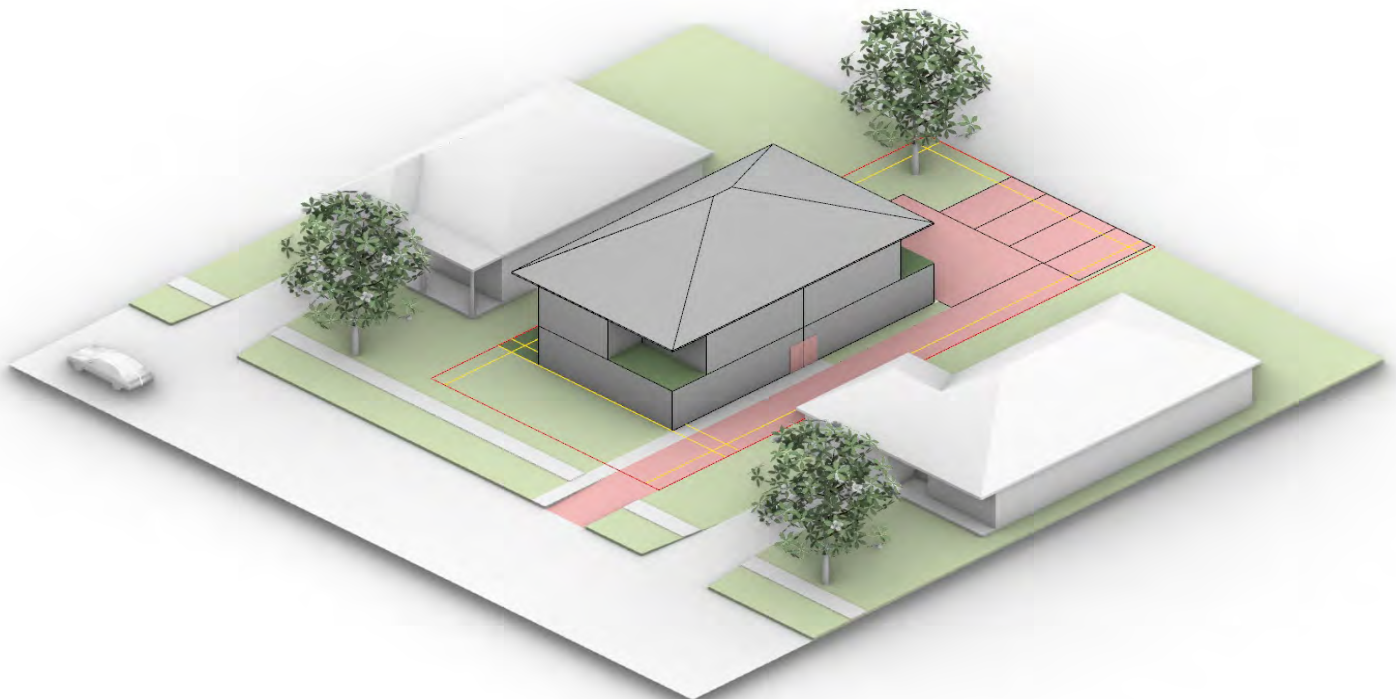
Private open space (POS) as specified in DCP Part C 10 for above ground units is met with balconies, but privacy must be carefully considered. POS for the ground floor units meets the Low Rise Diversity Design Guide (LRHDDG) but does not conform with DCP 10 (we note that this far exceeds the LRHDDG requirement). Communal open space requirements from the LRHDDG are far exceeded, however the minimum unbuilt area is slightly below the DCP requirement due to the parking arrangement.

Size of Units & Title: This development would be strata-titled, with a central communal lobby for access. The form shown indicatively includes for 2 x 2 bed units at ground and 2 x 1 bed units at first floor.

Parking: In this scenario, the DCP (9f) requirement for 1 space per dwelling is deemed satisfied with 4 spaces to the rear, but there is no visitor space and the parking arrangement is inefficient with a long driveway and insufficient turning area. A basement parking scenario would give a more favourable design outcome, however a higher construction cost.



Case study site (629sqm) + approximate existing planning control envelope



Proposed Alternate Scheme for Rutherford - Manor House

Rutherford

Controls

LEP	Zoning	R1 (RFB permitted)	
LEP 4.1(2)	Min Lot Size	450sqm	629sqm
DCP 8.e	Height of Building (No LEP designation)	8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multi-dwelling in B zone, RFB in R1 14m: RFB in B zone	9m
DCP 5.c	Front Setback	5m (6m for garage/carport)	6m
DCP 6.h	Side Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	3m
DCP 6.h	Rear Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	5m
DCP 7.e	Site Coverage (inc garage, driveways, paths)	Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	53% (336sqm)
DCP 7.e	Min Unbuilt Area	Min 40% for dwellings/small lot/dual occ Min 30% for multi-dwelling/RFB	47% (293sqm)
DCP 9.f	Parking Multi-Dwelling/Dual Occ:	Garages <50% frontage width, not side-by-side to adjacent Min. 1 space for 1 &2 bedroom dwelling, 2 spaces for dwelling containing >2 beds, 1 visitor space for the first 3 dwellings and 1 space for every 5 dwellings thereafter. (5 required)	5 in under- croft
DCP 10	POS: Private Open Space COS: Communal Open Space	Ground Level POS based on orientation, 45sqm min (6x6m min dim) Above Ground POS, 10sqm (min 2.5m width) COS N/A	11sqm
ADG	POS: COS: Deep Soil:	1 bed: 8sqm, 2 bed: 10sqm, min dim 2m 25% of lot area: 145sqm 7% of lot area: 40sqm	11sqm 293sqm 293sqm
ADG	Building Separation	6m between non-habitable (3m each side) 9m between habitable/non-habitable rooms (4.5m each side) 12m between habitable rooms (6m each side)	3m

Colour Legend for Requirement Compliance

Meets Min Requirement	
Almost Meets Min Requirement	
Doesn't Meet Min Requirement	

3.4.4 Rutherford Alternate Case 2 - Residential Flat Building (4 x units)

'a building containing 3+ dwellings, but does not include an attached dwelling or multi dwelling housing'

A second alternate considered for Rutherford, which would be achievable within the current R1 zoning, is a Residential Flat Building in a narrow infill configuration with undercroft parking. The 3 storey building is within the height limit but encroaches into the side setback controls.

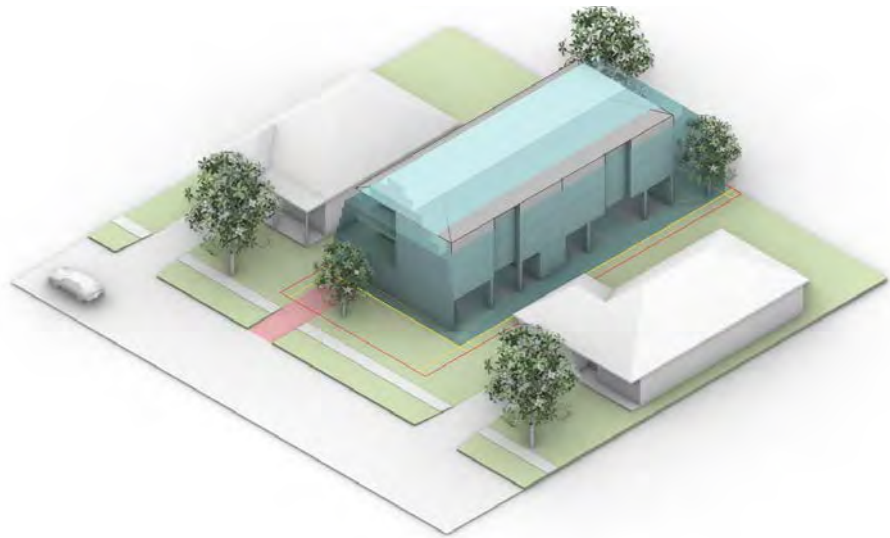
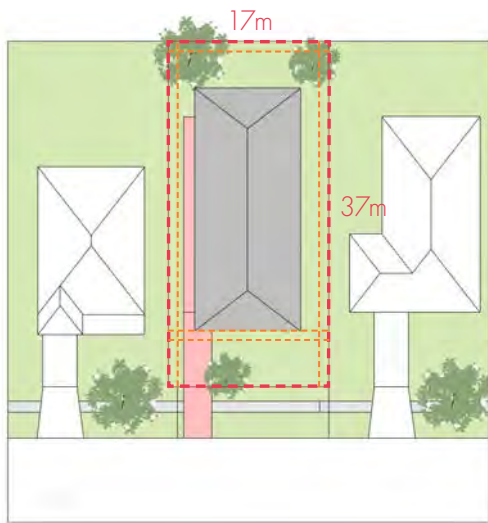
As stated in the Apartment Design Guide (ADG), narrow infill apartments must carefully consider privacy impacts along side and rear boundaries

Size of Units & Title: This development would be strata-titled, with a communal lobby for access. The form shown indicatively includes for approximately 4 units:

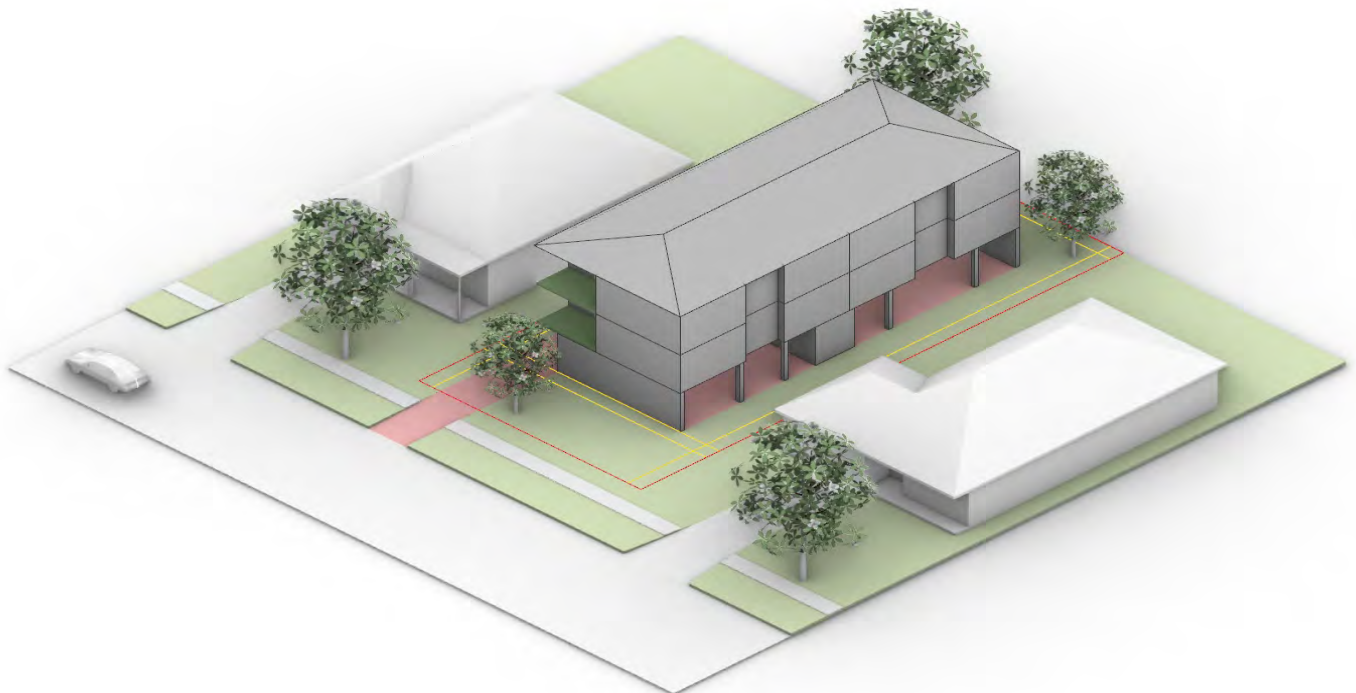
- 2 x 2-bed units at first floor
- 2 x 2-bed units at second floor

Further testing of feasibility would be required on the detailed layout to ensure the viability of units meeting the requirements of SEPP65 Apartment Design Guide (ADG), including solar compliance.

Parking: Car parking is particularly constrained, with 5 spaces required in an undercroft level. An amalgamation of 2 sites could make this more viable from a construction and feasibility perspective.



Case study site (629sqm) + approximate existing planning control envelope



Proposed Alternate Scheme 2 for Rutherford - Residential Flat Building

Controls

LEP	Zoning	R1 (dual occ not explicitly included/excluded)	
LEP 4.1(2)	Min Lot Size	450sqm	408sqm
DCP 8.e	Height of Building (No LEP designation)	8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multi-dwelling in B zone, RFB in R1 14m: RFB in B zone	6m
DCP 5.c	Front Setback	5m (6m for garage/carport)	5-6m
DCP 6.h	Side Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	1m
DCP 6.h	Rear Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	1m
DCP 7.e	Site Coverage (inc garage, driveways, paths)	Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	56% (227sqm)
DCP 7.e	Min Unbuilt Area	Min 40% for dwellings/small lot/dual occ Min 30% for multi-dwelling/RFB	44% (181sqm)
DCP 9.f	Parking Multi-Dwelling/Dual Occ:	Garages <50% frontage width, not side-by-side to adjacent Min. 1 space for 1 & 2 bedroom dwelling, 2 spaces for dwelling containing two or more bedrooms, 1 visitor space for the first 3 dwellings and 1 space for every 5 dwellings thereafter.	2 (garage + carport) + 1 drive
DCP 10	POS: Private Open Space COS: Communal Open Space	POS based on orientation, 45sqm min assumed in this instance COS: N/A	40- 51sqm
LRHDDG	Min Lot Size	LRHDDG requires 400sqm, ideally 18m width for dual occ detached	408sqm
LRHDDG	POS for Dual Occ	16sqm (3 x 3m dim)	40-51
LRHDDG	Gross Floor Area for Dual Occ	25% of lot area + 300sqm: 402sqm	217sqm

Colour Legend for Requirement Compliance

Meets Min Requirement	
Almost Meets Min Requirement	
Doesn't Meet Min Requirement	

3.5.1 Planning Envelope

The above controls are taken from Maitland Local Environment Plan (LEP) & Development Control Plan (DCP), including Part C - Design Guidelines, in order to test the current potential barriers to different infill housing typologies. The Low Rise Diversity Design Guide for Dual Occupancies is also tested. The base case has been chosen to generally align with the above controls, whilst the alternate case is chosen to exceed this density and potentially challenge the existing controls.

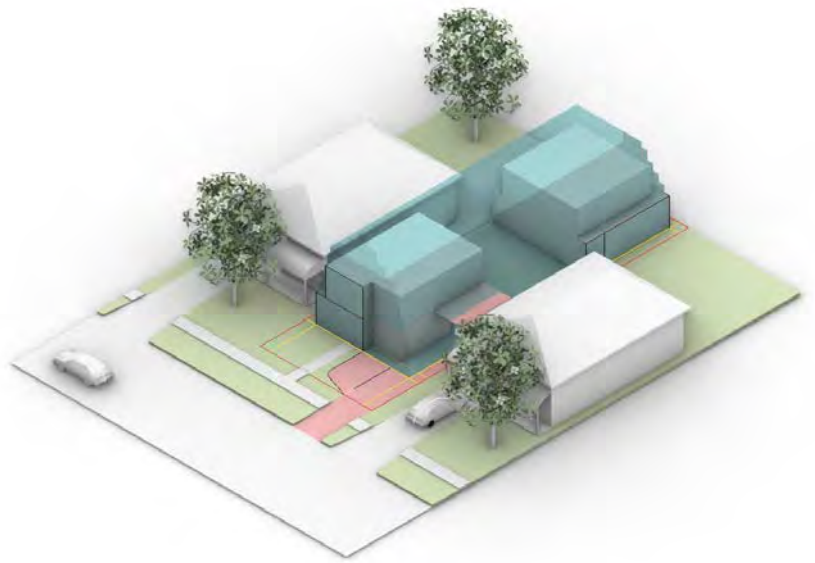
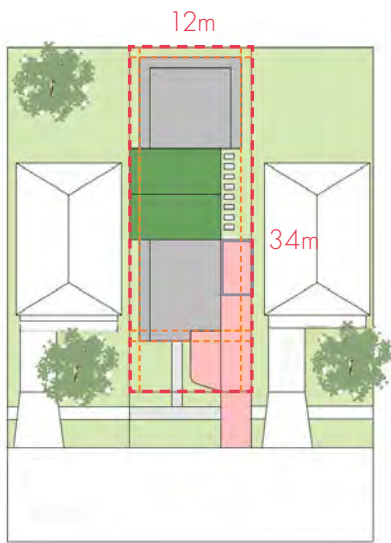
3.5.2 Telarah Base Case - Dual Occupancy (Detached)

'2 detached dwellings on one lot of land, but does not include a secondary dwelling'

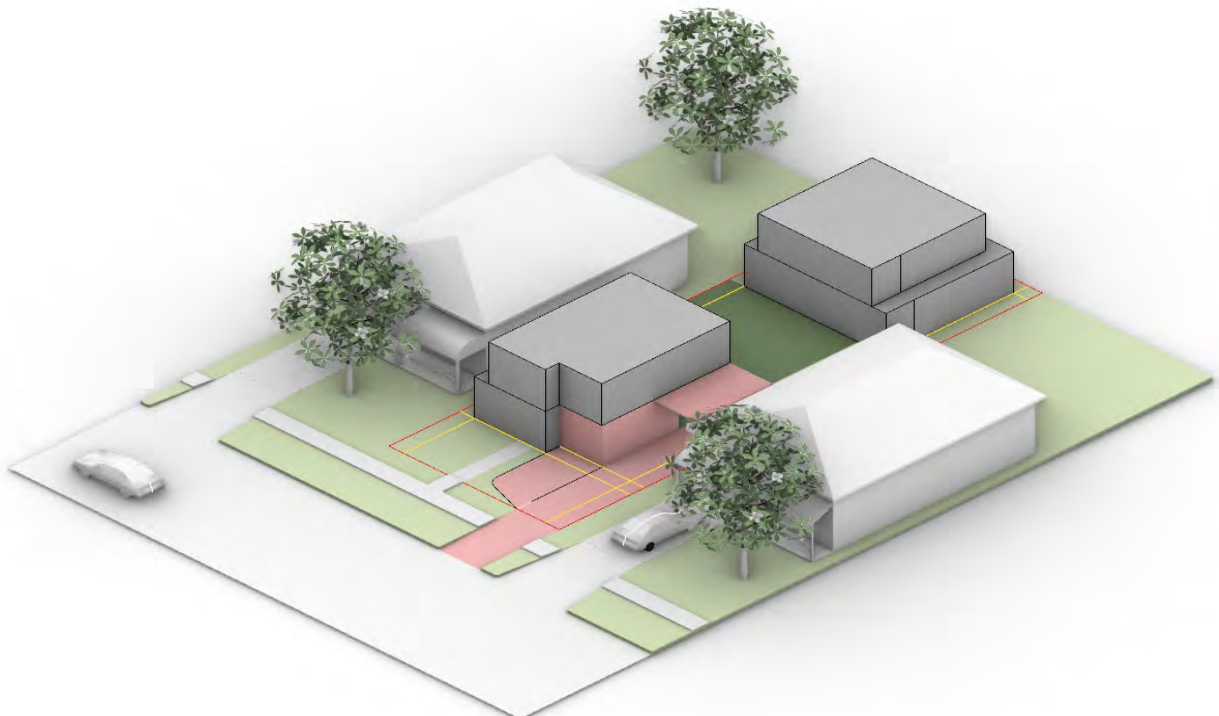
This typology conforms with the planning envelope, but is not a common occurrence in Maitland LGA although Council has recently received some applications for this type of development where rear lane access is provided. In this case, we have assumed access via the primary road, however in the East Maitland section we have considered the same typology with a rear lane.

Size of Units & Title: These dual-occupancy (detached) units suit a 2 bed (front) and 3 bed (rear) configuration. The total lot size (408sqm) is too small to sub-divide with a rear battle-axe lot, so these would be strata-titled units. LEP 4.1(2) requires the minimum subdivision lot size of 450sqm (204sqm in this case). Good design and appropriate landscaping would need to be provided to ensure privacy is maintained between dwellings (9m separation between dwellings is shown here) and to the rear boundary.

Parking: In this scenario, the DCP (9f) requirement for 2 spaces per 3 bed is deemed satisfied with a carport and long driveway, and the front unit has 1 space in a recessed garage. The driveway width is relatively large to accommodate separate access to the rear, and this arrangement would be better suited to a corner lot or rear lane with alternate access.



Case study site (408sqm) + approximate existing planning control envelope



Proposed Base Scheme for Telarah - Dual Occupancy (detached)

Controls

LEP	Zoning	R1(RFB permitted)	
LEP 4.1(2)	Min Lot Size	450sqm	816sqm
DCP 8.e	Height of Building (No LEP designation)	8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multi-dwelling in B zone, RFB in R1 14m: RFB in B zone	7m
DCP 5.c	Front Setback	5m (6m for garage/carport)	6m
DCP 6.h	Side Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	7m
DCP 6.h	Rear Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	4m
DCP 7.e	Site Coverage (inc garage, driveways, paths)	Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	34% (278sqm)
DCP 7.e	Min Unbuilt Area	Min 40% for dwellings/small lot/dual occ Min 30% for multi-dwelling/RFB	66% (538sqm)
DCP 9.f	Parking Multi-Dwelling/Dual Occ:	Garages <50% frontage width, not side-by-side to adjacent Min. 1 space for 1 & 2 bedroom dwelling, 2 spaces for dwelling containing two or more bedrooms, 1 visitor space for the first 3 dwellings and 1 space for every 5 dwellings thereafter.	5 basement
DCP 10	POS: Private Open Space COS: Communal Open Space	Ground Level POS based on orientation, 45sqm min (6x6m min dim) Above Ground POS, 10sqm (min 2.5m width) COS N/A	16sqm GF 12sqm 1F
LRHDDG	Min Lot Size	LRHDDG requires 600sqm (15m width) for manor house	816sqm
LRHDDG	POS for Manor House (MH) (2.2L) COS for MH (2.2Y)	1 bed: 8sqm, 2+ bed: 12sqm, if living area at ground level: 16sqm behind building line (3x3m min dim). COS is 5% of lot area = 41sqm	538sqm COS
LRHDDG	Gross Floor Area for MH (2.2B)	25% of lot area + 150sqm to max of 400sqm: 354sqm	295sqm

Colour Legend for Requirement Compliance

Meets Min Requirement	
Almost Meets Min Requirement	
Doesn't Meet Min Requirement	

3.5.3 Telarah Alternate Case # 1- RFB - Manor House (4 x units) with Basement Parking over 2 amalgamated 12 x 34m lots

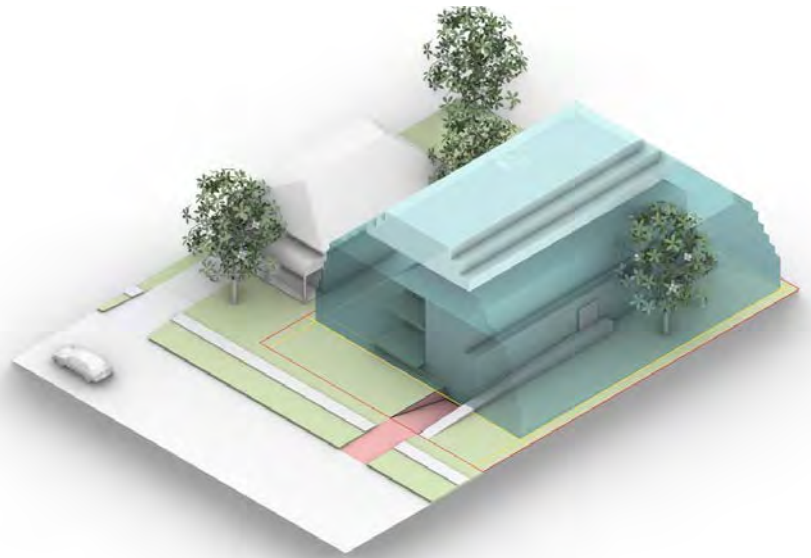
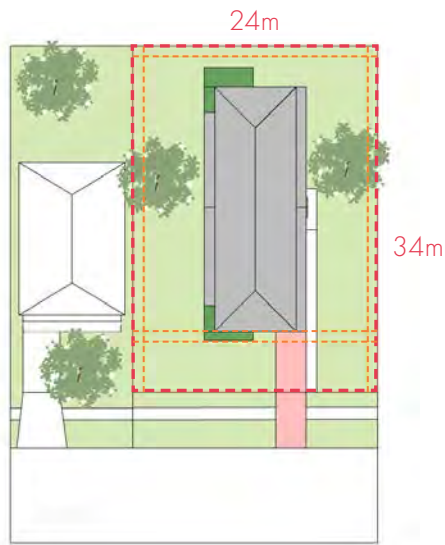
'a residential flat building containing 3 or 4 dwellings, where: (a) each dwelling is attached to another dwelling by a common wall or floor, and (b) at least 1 dwelling is partially or wholly located above another dwelling, and (c) the building contains no more than 2 storeys (excluding any basement)'

The Manor House is not defined in the Maitland LEP, but falls into the category of Residential Flat Building which is allowable in R1 zone. Due to the constrained size of the typical lot (12 x 34m), two are amalgamated to give 24m width and sufficient side setbacks, as well as allowable Gross Floor Area (LRHDDG 2.2B).

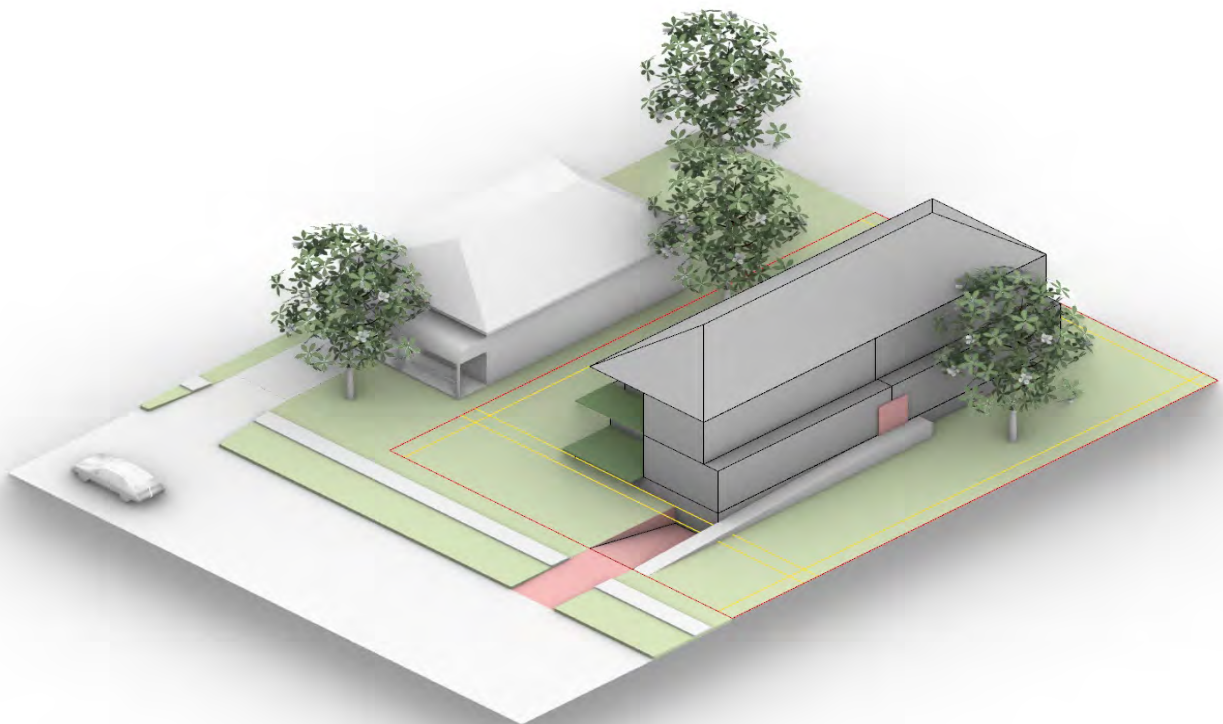
Private open space (POS) as specified in DCP Part C 10 for above ground units is met with balconies. POS for the ground floor units meets the Low Rise Diversity Design Guide (LRHDDG) but does not conform with DCP 10 (we note that this far exceeds the LRHDDG requirement). Communal open space requirements from the LRHDDG are far exceeded, and the minimum unbuilt area exceeds the DCP requirement.

Size of Units & Title: This development would be strata-titled, with a central communal lobby for access. The form shown indicatively includes for 2 x 2 bed units at ground and 2 x 1 bed units at first floor.

Parking: In this scenario, the DCP (9f) requirement for 1 space per dwelling plus a visitor space would be achieved in a basement level, however the construction cost may prove prohibitive for the market, at grade parking could be considered but would reduce the amenity and building separation as the form would have to shift closer to neighbouring dwellings.



Case study site (816sqm - two amalgamated lots of 12 x 34m) + approximate existing planning control envelope



Proposed Alternate Scheme for Telarah - Residential Flat Building

Source	Control	Requirement	Base Case
LEP	Zoning	R1(multi-dwelling permitted)	
LEP 4.1(2)	Min Lot Size	450sqm	680sqm
DCP 8.e	Height of Building (No LEP designation)	8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multi-dwelling in B zone, RFB in R1 14m: RFB in B zone	6m
DCP 5.c	Front Setback	5m (6m for garage/carport)	5-6m
DCP 6.h	Side Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	1m
DCP 6.h	Rear Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	7.5m
DCP 7.e	Site Coverage (inc garage, driveways, paths)	Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	62% (419sqm)
DCP 7.e	Min Unbuilt Area	Min 40% for dwellings/small lot/dual occ Min 30% for multi-dwelling/RFB	38% (261sqm)
DCP 9.f	Parking Multi-Dwelling/Dual Occ:	Garages <50% frontage width, not side-by-side to adjacent Min. 1 space for 1 & 2 bedroom dwelling, 2 spaces for dwelling containing two or more bedrooms, 1 visitor space for the first 3 dwellings and 1 space for every 5 dwellings thereafter.	6 (no visitor spaces)
DCP 10	POS: Private Open Space COS: Communal Open Space	POS based on orientation, 45sqm min assumed in this instance COS N/A	54sqm
LRHDDG	Min Lot Size	LRHDDG requires 600sqm (18m width) for multi-dwelling terraces	680sqm
LRHDDG	POS for Terraces	45sqm with min dim of 4m	45sqm
LRHDDG	Gross Floor Area for Terraces	60% of lot area: 408sqm	406sqm

Colour Legend for Requirement Compliance

Meets Min Requirement	
Almost Meets Min Requirement	
Doesn't Meet Min Requirement	

3.6.1 Planning Envelope

The above controls are taken from Maitland Local Environment Plan (LEP) & Development Control Plan (DCP), including Part C - Design Guidelines, in order to test the current potential barriers to different infill housing typologies. The base case has been chosen to generally align with the above controls, whilst the alternate case is chosen to exceed and challenge the controls.

3.6.2 Thornton Base Case - Multi-Dwelling 3 x Terraces

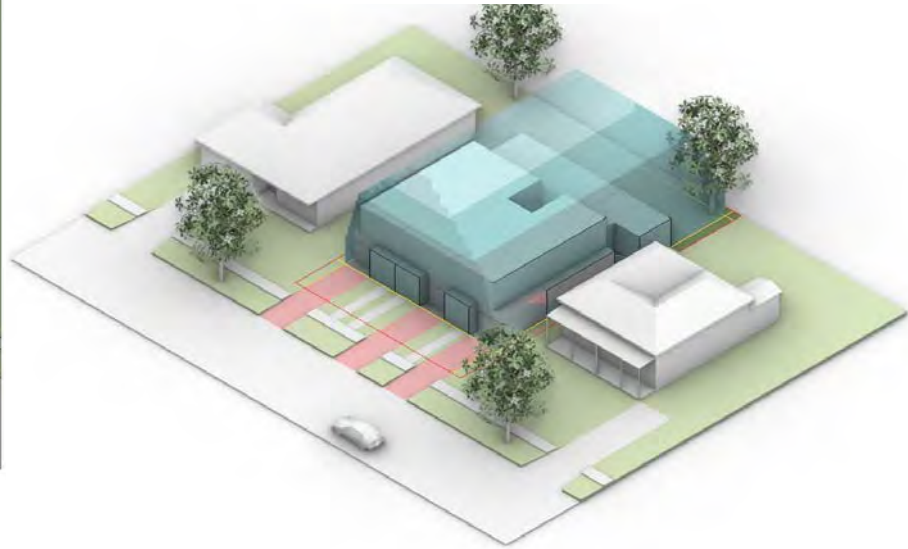
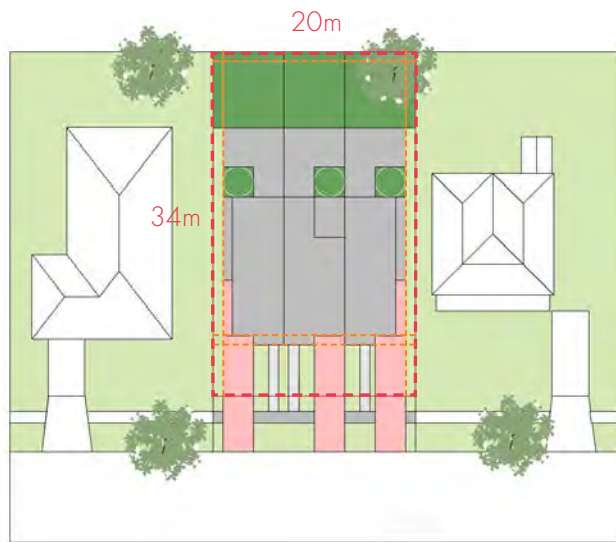
'all dwellings (3+) are attached and face, and are generally aligned along, 1 or more public roads'

This typology conforms with the planning envelope, but is not a common occurrence in Maitland, where there is a prevalence of multi-dwelling houses on amalgamated sites which face into the lot rather than along roads.

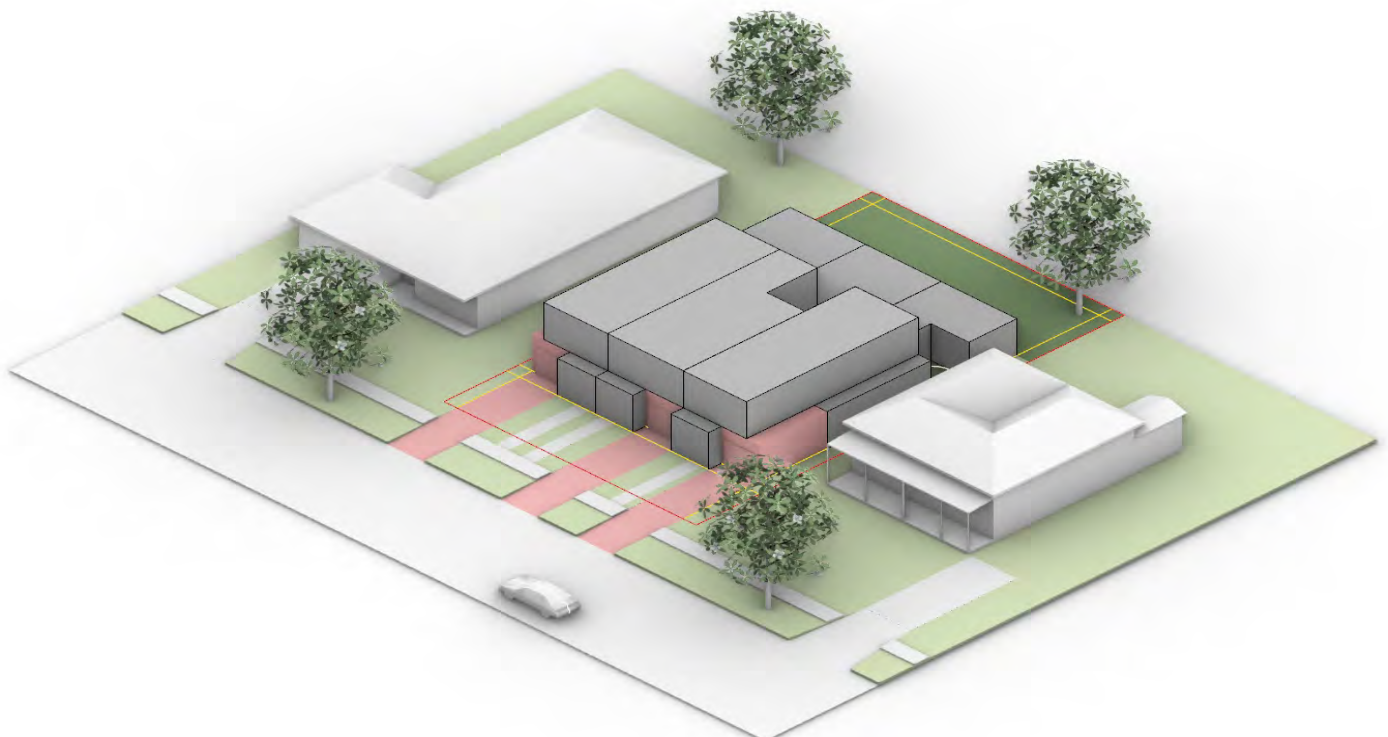
In this example, the width of each unit is 6m, which is deemed to be minimal as the garage doors dominate the facade and there is minimal width for any front landscaping. The narrow width of units would also restrict internal planning, although an internal courtyard POS as shown can improve the amenity of living spaces. The amalgamation of two allotments would comfortably accommodate 5 units with a minimum width of 7.6m each.

Size of Units & Title: Multi-dwelling terraces for 3 x 4 bed units are possible with strata title, although a more spacious 3 bed could also be considered depending on market preference. The total lot size (680sqm) is too small to divide to allow for 3 x attached dwellings ('a dwelling that is on its own lot of land and is attached to only one other dwelling') which may be preferable to the market. LEP 4.1(2) requires the minimum subdivision lot size of 450sqm (227sqm in this case).

Parking: In this scenario, the DCP (9f) requirement for 2 spaces per 3 bed is deemed satisfied with a driveway and single garage, however the visitor space required for 3 multi-dwellings is not provided as this would not be feasible in the current arrangement.



Case study site (680sqm) + approximate existing planning control envelope



Proposed Base Scheme for Thornton - Multi-Dwelling (terraces)

Source	Control	Requirement	Base Case
LEP	Zoning	R1 (RFB permitted)	
LEP 4.1(2)	Min Lot Size	450sqm	680sqm
DCP 8.e	Height of Building (No LEP designation)	8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multi-dwelling in B zone, RFB in R1 14m: RFB in B zone	6m
DCP 5.c	Front Setback	5m (6m for garage/carport)	5m
DCP 6.h	Side Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	1m
DCP 6.h	Rear Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	10.7m
DCP 7.e	Site Coverage (inc garage, driveways, paths)	Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	52% (357sqm)
DCP 7.e	Min Unbuilt Area	Min 40% for dwellings/small lot/dual occ Min 30% for multi-dwelling/RFB	48% (323sqm)
DCP 9.f	Parking Multi-Dwelling/Dual Occ:	Garages <50% frontage width, not side-by-side to adjacent Min. 1 space for 1&2 bedroom dwelling, 2 spaces for 3+ beds, 1 visitor space for the first 3 dwellings and 1 space for every 5 dwellings thereafter. (5 required)	3 (5 required)
DCP 10	POS: Private Open Space COS: Communal Open Space	Ground Level POS based on orientation, 45sqm min (6x6m min dim) Above Ground POS, 10sqm (min 2.5m width) COS N/A	36sqm 8sqm (1F)
LRHDDG	Min Lot Size	LRHDDG requires 600sqm (15m width) for manor house	680sqm
LRHDDG	POS for Manor House (MH)	1 bed: 8sqm, 2+ bed: 12sqm, if living area at ground level: 16sqm behind building line (3x3m min dim). COS is 5% of lot area = 34sqm	36sqm 8sqm 286sqm
LRHDDG	Gross Floor Area for MH	25% of lot area + 150sqm to max of 400sqm: 320sqm	239sqm

Colour Legend for Requirement Compliance

Meets Min Requirement	
Almost Meets Min Requirement	
Doesn't Meet Min Requirement	

3.6.3 Thornton Alternate Case - Manor House (3 x units)

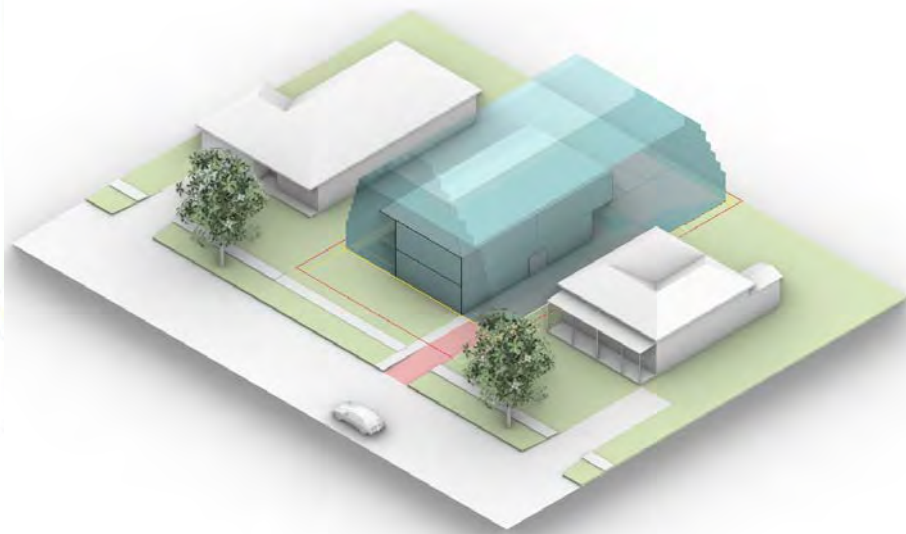
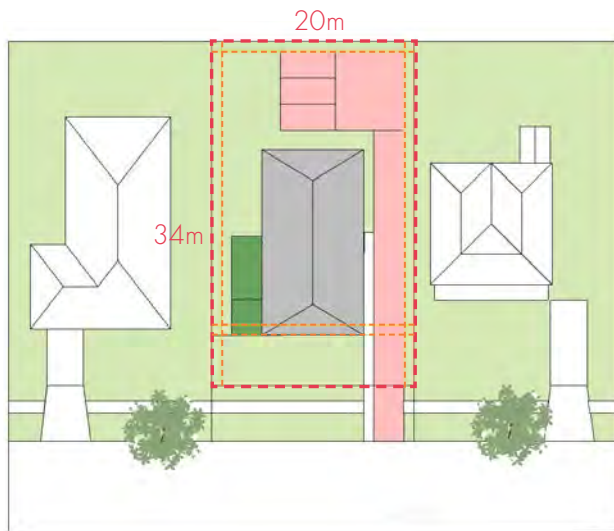
'a building containing 3+ dwellings, but does not include an attached dwelling or multi dwelling housing'

Residential flat buildings are currently allowable in R1 zone. This typology generally conforms with the planning envelope (aside from a small exceedance on the west), but is not yet a common occurrence in Thornton or across Maitland LGA.

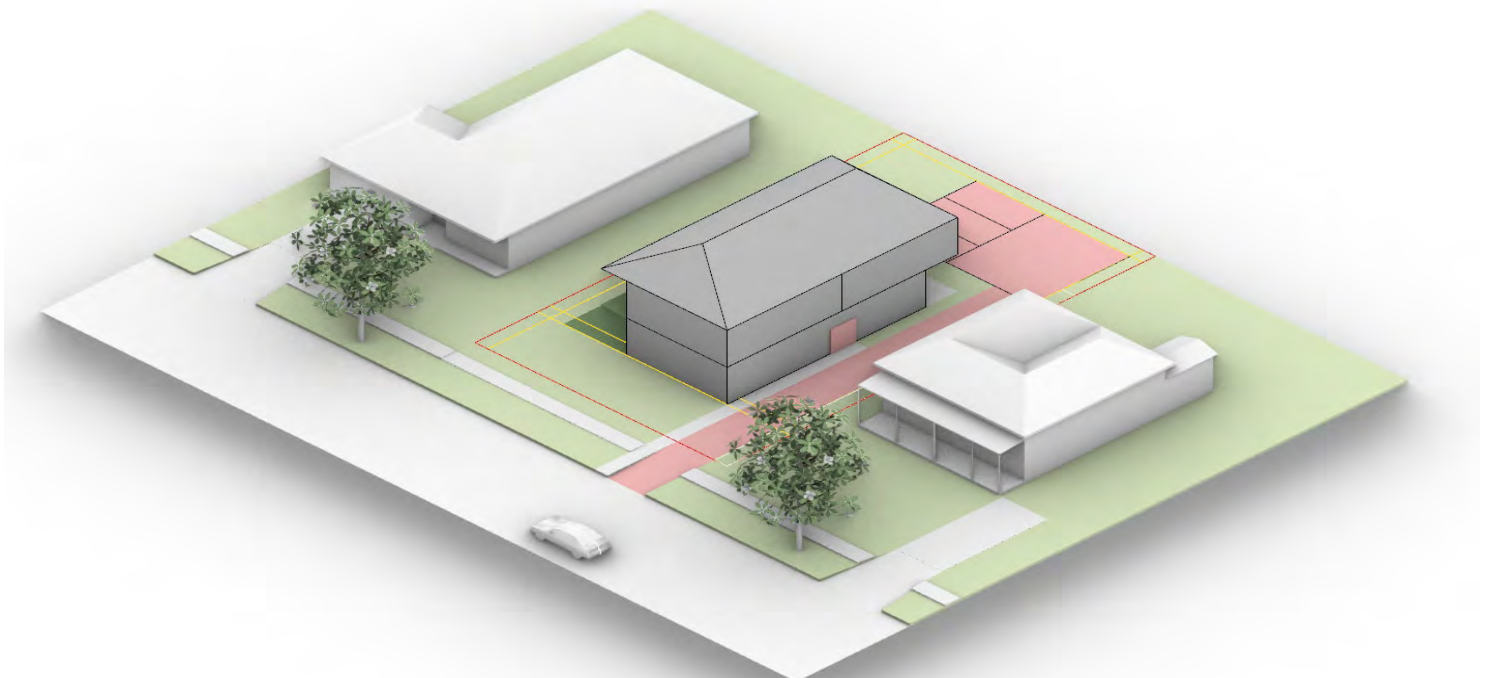
Private open space (POS) meets the ADG SEPP 65 minimum dimensions but does not conform to the DCP 10 requirements which do not distinguish between dwellings and units. Privacy and overshadowing of the ground floor open space must be carefully considered, and the POS for the ground floor units is set in front of the building line which does not conform with DCP 10.

Size of Units & Title: This development would be strata-titled, with a communal lobby for access. The form shown indicatively includes for 1 x 3 bed unit at ground floor and 2 x 1 bed units at first floor.

Parking: 1 space per dwelling is provided to the rear, but there is no visitor space and the ground floor unit requires 2 spaces as per the DCP 9.f, however Council could consider lowering this rate in central locations. The parking arrangement is inefficient with a long driveway and insufficient turning area. A basement parking scenario would give a more favourable design outcome, however a higher construction cost.



Case study site (680sqm) + approximate existing planning control envelope



Proposed Alternate Scheme for Thornton - Manor House

Source	Control	Requirement	Base Case
LEP	Zoning	R1(dual occ not explicitly included or excluded)	
LEP 4.1(2)	Min Lot Size	450sqm	495sqm
DCP 8.e	Height of Building (No LEP designation)	8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multi-dwelling in B zone, RFB in R1 14m: RFB in B zone	6m
DCP 5.c	Front Setback	5m (6m for garage/carport)	5-6m
DCP 6.h	Side Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	1.5m
DCP 6.h	Rear Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	5m
DCP 7.e	Site Coverage (inc garage, driveways, paths)	Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	60% (298sqm)
DCP 7.e	Min Unbuilt Area	Min 40% for dwellings/small lot/dual occ Min 30% for multi-dwelling/RFB	40% (197sqm)
DCP 9.f	Parking Multi-Dwelling/Dual Occ:	Garages <50% frontage width, not side-by-side to adjacent Min. 1 space for 1 & 2 bedroom dwelling, 2 spaces for dwelling containing two or more bedrooms, 1 visitor space for the first 3 dwellings and 1 space for every 5 dwellings thereafter.	2 garage + 2 drive
DCP 10	POS: Private Open Space COS: Communal Open Space	POS based on orientation, 45sqm min assumed in this instance COS N/A	49sqm
LRHDDG	Min Lot Size	LRHDDG requires 400sqm (15m width) for dual occ attached	495sqm
LRHDDG	POS for Dual Occ	16sqm (3 x 3m dim)	49sqm
LRHDDG	Floor Space Ratio	25% of lot area + 300sqm: 424sqm GFA	286sqm

Colour Legend for Requirement Compliance

Meets Min Requirement	
Almost Meets Min Requirement	
Doesn't Meet Min Requirement	

3.7.1 Planning Envelope

The above controls are taken from Maitland Local Environment Plan (LEP) & Development Control Plan (DCP), including Part C - Design Guidelines, in order to test the current potential barriers to different infill housing typologies. The base case has been chosen to generally align with the above controls, whilst the alternate case is chosen to exceed and challenge the controls.

3.7.2 Woodberry Base Case - Dual Occupancy (Attached)

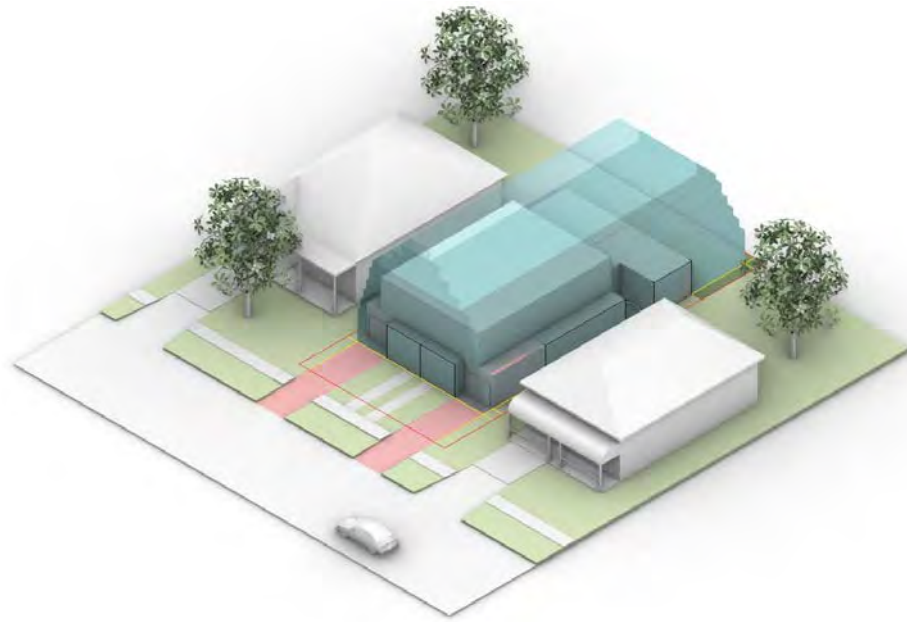
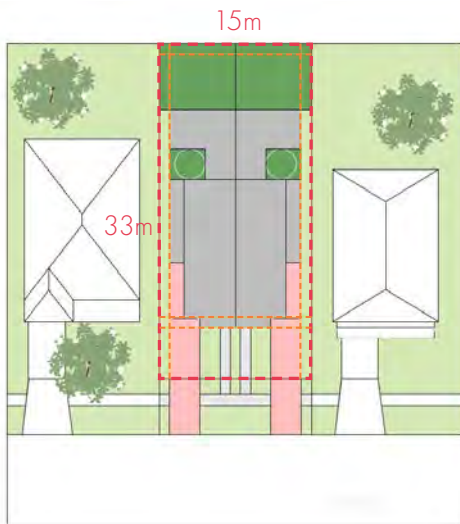
'2 dwellings on one lot of land that are attached to each other, but does not include a secondary dwelling'

This typology conforms with the planning envelope, but is not a particularly common occurrence in Woodberry, which is predominantly single storey detached dwellings.

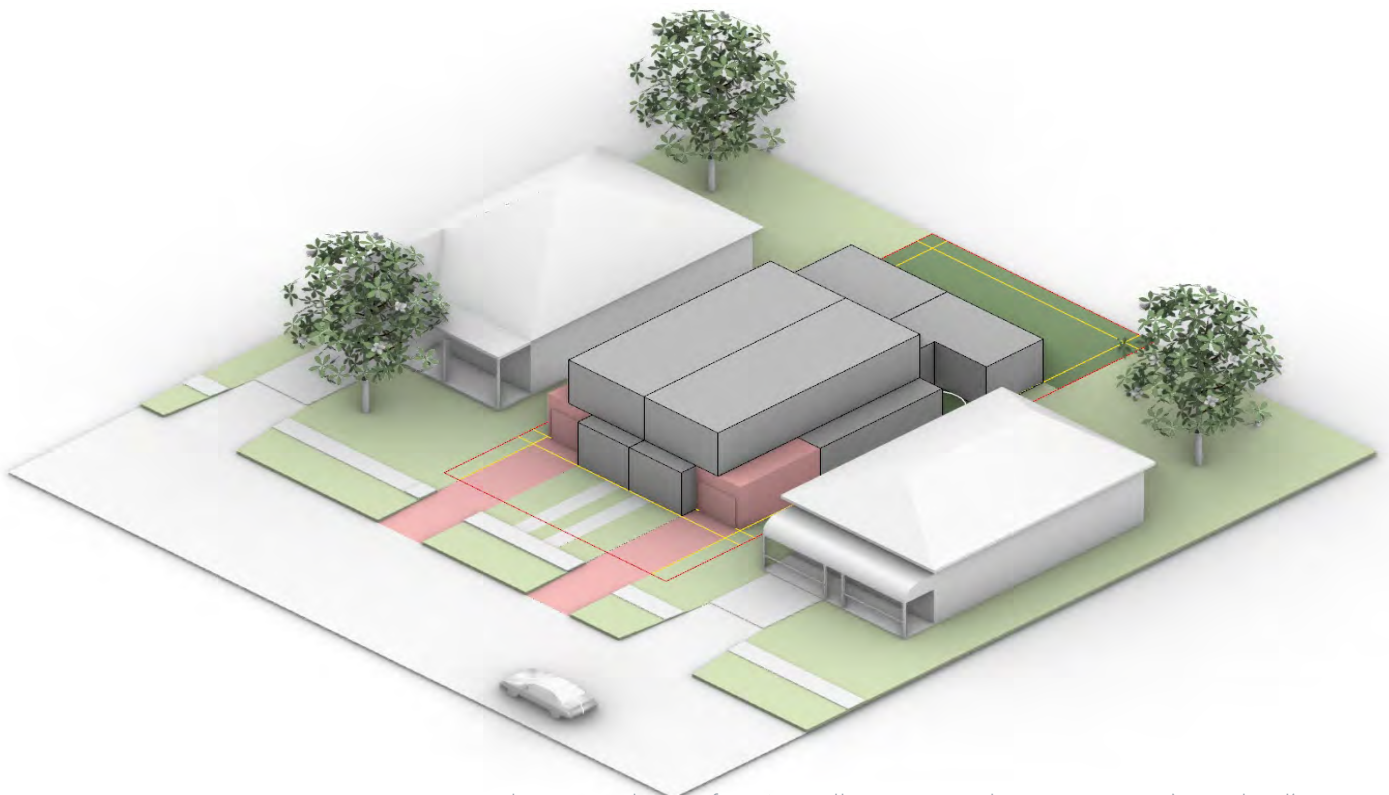
In this example, the width of each unit is 6m. In order to fit 3 multi-dwelling terraces, the width of each unit would be 4.3m but this is not deemed feasible in this case as the garage doors would dominate the facade and there would be insufficient width for front landscaping and internal planning. The amalgamation of two allotments would comfortably accommodate 4 units with a unit width of 7m each.

Size of Units & Title: Whilst dual-occupancy (attached) for 2 x 4 bed units is possible with strata title, the total lot size (495sqm) is too small to divide to allow for 2 x semi-detached dwellings ('a dwelling that is on its own lot of land and is attached to only one other dwelling') which may be preferable to the market. LEP 4.1(2) requires the minimum subdivision lot size of 450sqm (248sqm in this case).

Parking: In this scenario, the DCP (9f) requirement for 2 spaces per 4 bed is deemed satisfied with a driveway and single garage.



Case study site (495sqm) + approximate existing planning control envelope



Proposed Base Scheme for Woodberry - Dual Occupancy (attached)

Source	Control	Requirement	Base Case
LEP	Zoning	R1 (RFB permitted)	
LEP 4.1(2)	Min Lot Size	450sqm	495sqm
DCP 8.e	Height of Building (No LEP designation)	8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multi-dwelling in B zone, RFB in R1 14m: RFB in B zone	6m
DCP 5.c	Front Setback	5m (6m for garage/carport)	5m
DCP 6.h	Side Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	western infracton
DCP 6.h	Rear Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	9.7m
DCP 7.e	Site Coverage (inc garage, driveways, paths)	Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	72% (357sqm)
DCP 7.e	Min Unbuilt Area	Min 40% for dwellings/small lot/dual occ Min 30% for multi-dwelling/RFB	28% (138sqm)
DCP 9.f	Parking Multi-Dwelling/Dual Occ:	Garages <50% frontage width, not side-by-side to adjacent Min. 1 space for 1 & 2 bedroom dwelling, 2 spaces for dwelling containing >2 beds, 1 visitor space for the first 3 dwellings and 1 space for every 5 dwellings thereafter. (5 required)	3 (5 req)
DCP 10	POS: Private Open Space COS: Communal Open Space	Ground Level POS based on orientation, 45sqm min (6x6m min dim) Above Ground POS, 10sqm (min 2.5m width) COS N/A	17sqm GF, 8sqm 1F
LRHDDG	Min Lot Size	LRHDDG requires 600sqm (15m width) for manor house	495sqm
LRHDDG	POS for Manor House (MH)	1 bed: 8sqm, 2+ bed: 12sqm, if living area at ground level: 16sqm behind building line (3x3m min dim). COS is 5% of lot area = 25sqm	17sqm GF 8sqm 1F 122 COS
LRHDDG	Gross Floor Area for MH	25% of lot area + 150sqm to max of 400sqm (sqm): 274sqm	239sqm

Colour Legend for Requirement Compliance

Meets Min Requirement	
Almost Meets Min Requirement	
Doesn't Meet Min Requirement	

3.7.3 Woodberry Alternate Case - RFB - Manor House (3 x units)

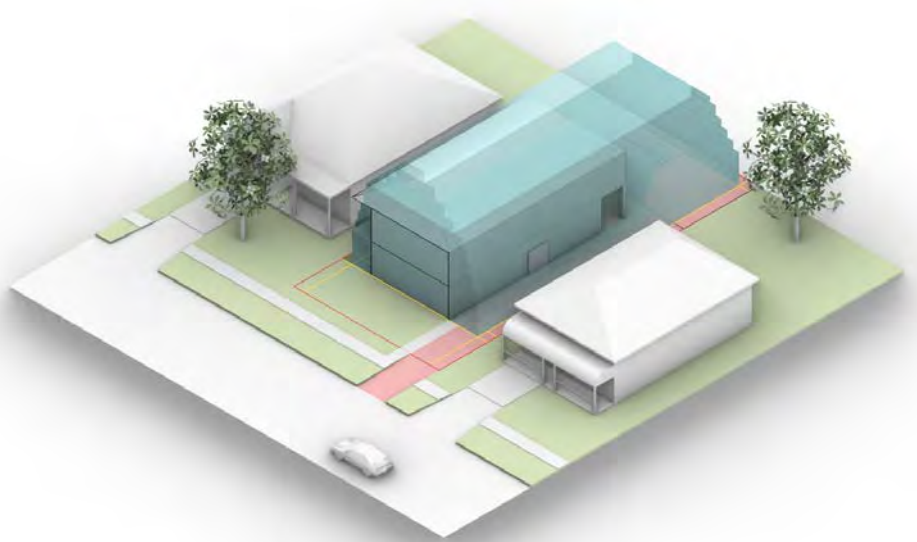
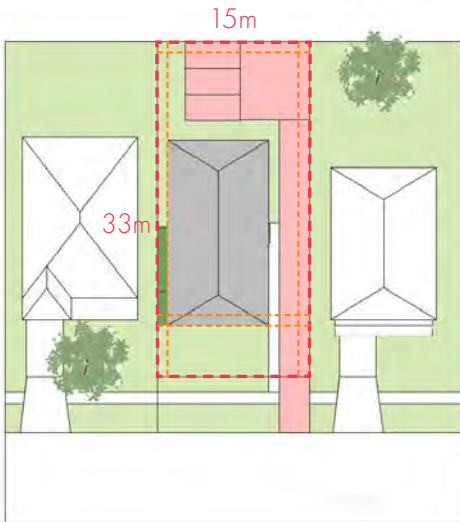
'a residential flat building containing 3 or 4 dwellings, where: (a) each dwelling is attached to another dwelling by a common wall or floor, and (b) at least 1 dwelling is partially or wholly located above another dwelling, and (c) the building contains no more than 2 storeys (excluding any basement)'

The Manor House is not defined in the Maitland LEP, but falls into the category of Residential Flat Building which is allowable in R1 zone. This typology generally conforms with the planning envelope (aside from a small exceedance on the west), but is not a common occurrence across Maitland.

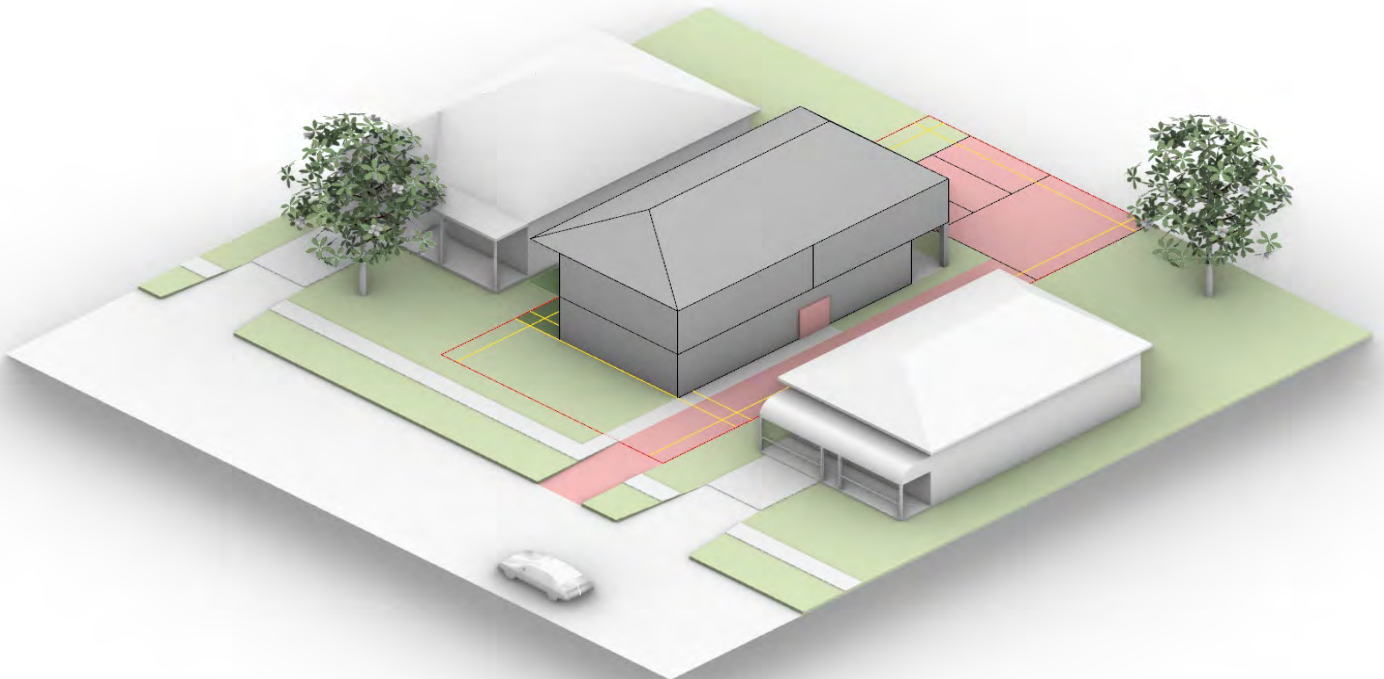
Private open space (POS) as specified in DCP Part C 10 for above ground units is met with balconies, but privacy must be carefully considered. POS for the ground floor units meets the Low Rise Diversity Design Guide (LRHDDG) but does not conform with DCP 10 (we note that this far exceeds the LRHDDG requirement - see above table for comparison). Communal open space requirements from the LRHDDG are far exceeded, however the minimum unbuilt area is slightly below the DCP requirement due to the parking arrangement. The built form shown is indicative, but would require further articulation so as not to visually dominate the neighbours.

Size of Units & Title: This development would be strata-titled, with a central communal lobby for access. The form shown indicatively includes for 1 x 3 bed units at ground and 2 x 1 bed units at first floor.

Parking: 1 space per dwelling is provided to the rear, but there is no visitor space and the ground floor unit requires 2 spaces as per the DCP 9.f, however Council could consider lowering this rate in central locations. The parking arrangement is inefficient with a long driveway and insufficient turning area. A basement parking scenario would give a more favourable design outcome, however a higher construction cost.



Case study site (495sqm) + approximate existing planning control envelope



Proposed Alternate Scheme for Woodberry

Conclusions

4 Recommendations

4.1 Summary of Key Findings

Having completed this exercise of testing infill housing typologies on standard size lots, we note that there are physical restrictions on what can be achieved without site amalgamation. This is particularly evident in suburbs that predominantly feature narrow lots (e.g. Telarah average lot width is 12m and we have considered a 2-lot amalgamation scenario).

In addition, the alternative scenarios as development outcomes have potential constraints to being realised under the current planning controls. Some of these may be reconsidered where contextually appropriate, without compromising the surrounding context.

CKC's financial feasibility study finds that the base case scenarios demonstrate that infill typologies are feasible in these areas.

We note that the alternative scenarios as development outcomes have potential constraints, particularly where medium density units are completed on a small scale of development, again suggesting amalgamation of small lots will assist with infill feasibility.

Planning barriers to infill development have been identified and addressed in the following planning control recommendations.

4.2 Planning Control Recommendations

Our analysis of the infill typologies was informed by the following State Environmental Planning Policies:

- SEPP (Exempt & Complying Development Codes) 2008 (Codes SEPP), in particular Part 3B Low Rise Housing Diversity Code
- SEPP65 Design Quality of Residential Apartment Development

We have therefore completed a comparison of the various State Environmental Planning Policy Design Guides/Controls (Appendix A):

- Low Rise Housing Diversity Design Guide
- Apartment Design Guide
- Maitland LEP and DCP 2011.

We note that SEPP 70 Affordable Housing also impacts on the development of infill typologies and is supportive of housing diversity for greater affordability, which can be achieved through an uptake of various infill typologies.

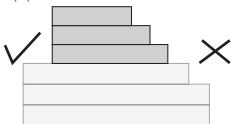
Our recommendations are summarised in the following table, covering the LEP and DCP controls which apply across Maitland LGA.

In addition to these control recommendations, bonus provisions may be considered as an offering to incentivise the type of appropriate infill housing

that Council would like to see in particular areas. Amalgamation may also be incentivised to give a greater efficiency of scale and give designers more room to site buildings to minimise impacts. Additional height and FSR, or reduced parking rates may be useful bonus provisions in central areas with appropriate setbacks to minimise bulk.

Further guidance is provided in the following sections:

- **Good Design:** critical to successful infill housing uptake and acceptance in the community
- **Rear Lanes:** Maitland has a historic predominance of rear lanes which may offer secondary access to some infill typologies
- **Manor Houses:** an area of medium density housing that Council does not currently have controls for, but which is covered in the Low Rise Housing Diversity Design Guide (LRHDDG) as part of the Low Rise Housing Diversity SEPP Code
- **Shop Top Housing:** which traditionally occurs along the main streets of the LGA, in many locations has the potential to deliver infill housing in central locations and increased economic vibrancy to town centres. Maitland DCP has a few allowances for this typology, particularly in Part E Central Maitland, but there is opportunity in multiple locations that require more specific controls. Shop top housing with 3 or more storeys and 4 or more units is covered by SEPP 65 and the Apartment Design Guide.

Source		Control	Recommendation
LEP	Zoning	R1 permits all residential infill typologies	Consider explicitly including dual occupancy in '3 Permitted with Consent' for clarity/to encourage awareness of this option. Consider rezoning opportunity site areas to R3 Medium Density Residential to indicate the areas deemed most suitable for medium density development
LEP 4.1(2) LEP 4.1A	Min Lot Size Exception	450sqm 300sqm	Exception applies for 'attached dwelling, a semi-detached dwelling or a dwelling house on each lot' is supported. A reduction from 300 sq.m. to 200-250sqm may result in greater development capacity and potential for Torrens title dual occs and triplexes which are more favourable than small scale Strata complexes. This would avoid the need for a Body Corporate, strata levies, meetings etc on a two or three dwelling complex, increasing the potential take up of these infill typologies.
DCP 8.e	Height of Building (No LEP designation)	8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multidwelling in B zone, RFB in R1 14m: RFB in B zone	Our base case options all fit within the DCP height. The alternate cases of 2-3 storeys were not at a sufficient scale to be deemed financially feasible, whilst some 4 storey + were closer to achieving the req profit margin albeit with an excessively bulky form. The higher density options may represent longer term propositions in some central areas, and should not be completely precluded from future planning policies as the market matures.
DCP 5.c	Front Setback	5m (6m for garage/carport)	No change - adequate setbacks are required to promote sensitive infill housing design which fits with the existing urban character
DCP 6.h	Side Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	Consider an extra constraint in higher density/mixed use zones to avoid layer-cake stepping e.g. provide a common setback for a min of 65% of the upper levels above street wall 
DCP 6.h	Rear Setback	1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	
DCP 7.e	Site Coverage	Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	No change - adequate unbuilt area is required for landscaping, providing tree canopy and stormwater mitigation. Consider adding a requirement for deep soil zone within the minimum unbuilt area to improve landscaping outcomes.
DCP 7.e	Min Unbuilt Area	Min 40% for dwellings/small lot/dual occ, Min 30% for multi-dwelling/RFB	
DCP 9.f	Parking Multi-Dwelling/ Dual Occ:	Garages <50% frontage width, not side-by-side to adjacent Min. 1 space for 1&2 bedroom dwelling, 2 spaces for dwelling containing >2 beds, 1 visitor space for the first 3 dwellings and 1 space for every 5 dwellings thereafter. (5 required)	In multi-dwelling terraces, such as proposed as Thornton Base Case, two adjacent garages would amalgamate driveway crossovers, giving more area for tree planting Council may consider reducing parking requirements to increase feasibility of infill housing in areas of close proximity to transport and amenities e.g. visitor parking can be provided on street (presuming it won't be needed where walkability and public transport are used) or reducing rates to 1 space per dwelling.
DCP 10	POS: Private Open Space	Ground Level POS based on orientation, 45sqm min (6x6m min dim) Above Ground POS, 10sqm (min 2.5m width)	DCP fig 20 is hard to interpret area based on orientation - further guidance required. Private open space requirements do not differentiate between single dwelling houses and units (manor house). Far exceeds LRHDDG and ADG (see Appendix A for comparison table) requirements, and reduction of this requirement would be appropriate for units.
-	COS: Communal Open Space	None set	Communal open space should be considered for infill housing units that have strata-title See Appendix A for comparison table- ADG & LRHDDG COS requirements.
-	Gross Floor Area Floor Space Ratio	None set	Council could consider adopting a control to limit the density of infill housing where appropriate. See Appendix A for LRHDDG GFA controls.

Good Design

How do we ensure good quality infill housing and protect local character?

Protecting character does not mean excluding infill development. Good design can help to make new housing fit in with the overall look and feel of an area. In many cases an improved design can address legitimate concerns about development.

Good Design Principles for Infill Development:

- Reduce building bulk and make buildings the same or similar scale to the setting. The visual (perceived) bulk should be managed through articulation and modulation of the form. The physical impacts of bulk (overshadowing, loss of privacy etc) need to be addressed through site-specific design to limit impact on neighbours.
- Use space efficiently and do not make spaces bigger than they need to be; smaller dwelling units in central locations provide a diversity of typologies and should not try to conform to current greenfield sizes.
- Include sufficient landscaped area. Homes that take up

too much space on the block and sacrifice landscaped or open space areas will appear out of character and have negative impacts on the local environment. The environmental impacts of individual land holdings is particularly important in infill areas, where historical town planning may be below the modern standard for water movement, open space, wildlife corridors and provision of vegetation/shade.

- Design landscaping within setbacks and unbuilt areas to soften the look of buildings, and improve the amenity of residential streets.
- Reduce the amount of hardstand area (e.g. concrete) for development.
- Use of materials which are durable and suited to the local character and environment.
- Consider privacy (acoustic and visual) of surrounding properties, firstly by good design and appropriate scale of development, before using screening and landscaping where necessary to reduce impacts.
- Connect the inside of homes with the outdoors and design for the local climate.

Recommendations to improve good infill design outcomes in Maitland LGA:

- Place-based character statements to help guide the design and assessment of new infill housing, including how the special character areas and heritage features of an area are to be preserved. We understand Maitland Council is in the process of developing these.
- Simplify planning controls with clear objectives, making them easy to understand and apply. For example, private open space DCP controls could be simplified for easier interpretation and application as per our recommendations.
- Provide early design advice for proposals, encouraging pre-DA meetings (including urban design and heritage input) and celebrate good examples of infill housing.
- Consider some of the barriers to good infill design eg:
 - parking requirements, and whether these can be reduced in areas in close proximity to transport and amenities (within the opportunity site areas we have identified within this study)
 - typical lot width is restricted in many areas, and site amalgamation could be encouraged e.g. with bonus provision for better design outcomes.



Figure 1. Attached Dual Occupancy, Source: Future Flip



Figure 2. Multi-Dwelling Housing, Source: Platform Architects



Figure 3. Terraces in Central Maitland, Source: Google St View

Rear Lanes

Maitland LGA has a number of instances where rear lanes (typically 6m width) offer the opportunity of secondary access to potential infill development sites in established areas.

These rear lanes provide an opportunity for terraces with rear lane access, dual occupancy detached or even small lot subdivided dwellings, particularly in central locations such as East Maitland, Thornton & Central Maitland if they are appropriately upgraded to suit rear vehicle access. This has the benefit of improving efficiency of the lots for infill development and reducing visual impact of car parking on the primary street.

DCP C.11 states that 'new development should not lead to significantly increased traffic movement on the lane way and should ensure that any new dwellings are not oriented towards the lane way'. Consider amending for appropriate siting of infill development where lane ways can be upgraded.

The 2.4m strip which is required as per DCP C.11d) provides the main pedestrian entry point and a direct connection between the principal street and the rear dwelling. This strip requires landscaping and lighting as per 'Safer by Design' principles, and applicants have cited maintenance issues.

Rear laneways are generally narrow and shared by pedestrians and vehicles. Careful design considerations for upgrade are required, such as:

- Passive surveillance to the lane should be provided by upper storey windows e.g. studio over garage (LRHDDG). It should be noted that for this study we have not focused on secondary dwellings as a typology as they may preclude stand-alone infill typologies.
- Allow for provision of public lighting within the lane way which does not affect the night-time amenity of residents and is supportive of the darksky movement.
- Allow for the provision of canopy and understorey plantings in the lane way; developments should include soft landscaping in the setback which does not impede passive surveillance (consider DCP control to ensure min 1 small tree per frontage).
- Use a cohesive theme for the lighting and landscaping elements throughout the lane.
- Have a minimum drive-able carriageway width to conform with AS2890.1. Garages may need to be indented for adequate manoeuvring, or a one-way configuration could be considered.
- Encourage the use of tandem car parking layouts.
- Limit travel speed to 10km/h.
- Use slow speed design initiatives such as tactile paving that causes vehicle vibrations, planting and a pedestrian priority structure.
- Council may consider reducing the 2.4m access width (Randwick DCP C1 2.2 cites 900mm min). If rear lane ways of sufficient width were to be upgraded to accommodate pedestrian access (1.5m), there is potential to remove this design constraint and provide a marked footpath in the lane way. Alternatively, lane ways could be treated as shared zones similar to Woonerfs in the Netherlands or Home Zones in the UK if sight line issues for cars reversing from driveways could be resolved.
- Adequate drainage of the lane way, including an apportionment of any upgrades to the drainage system required downstream as a result of increased runoff arising from sealing and widening of the lane way can be considered in development contributions.
- Traffic and waste management needs to be considered on a case-by-case basis to ensure a viable outcome.



Figure 4. Rear Lane at Clifford Terrace, Kensington, VIC



Figure 5. Withrow Laneway House, Source: Studio North



Figure 6. Laneway Studio, Toronto, Source: VF-A Architecture + Design

Manor Houses

Private open space can be obtained by the use of balconies and communal private open space in the rear of the development.

The Low Rise Housing Diversity Design Guide has a full set of detailed controls for typologies of infill housing including Manor Houses, and this should be referred to in the consideration of suitable controls for Maitland DCP e.g. private open space, gross floor area, public domain interface, solar and daylight access, or for assessing these developments under DA or CDC pathways.



Figure 7. Design Guidance from the Low Rise Housing Diversity Design Guide for DAs



Figure 8. Coppin St Apartments (6 units), Source: MUSK Architecture, VIC



Figure 9. Gen Y Step Home, WA (3 units), Source: Cast Studio



Figure 10. Manor House (4 units) at 34 Kurraka Dr, Source: BuildFast Property, Fletcher, NSW

Shop Top Housing

As per Maitland LEP, shop top housing means **one or more dwellings located above ground floor retail premises or business premises**, and is allowable in current R1 and B zones.

Currently the Maitland DCP states that generally, car parking is not required for the residential component of shop top, considering local availability. Central Maitland also has controls for shop top housing in Part E, p27. There are no other specific controls within the DCP for shop top housing, although the residential flat building controls apply to the residential portion (where SEPP 65 does not apply).

Historically, this building type contains a neighbourhood shop on the ground floor with one residential unit above. Contemporary examples in mixed use areas undergoing redevelopment may be of a larger scale with additional levels, where contextually appropriate and feasible. Shop top apartments typically range between 2 and 6 storeys.

Shop top housing is an opportunity to provide housing in close proximity to services and transport routes whilst helping the economic activity of a centre with additional residents, and enlivening street life with a ground floor active frontage and passive surveillance above.

Context

- The location of shop top must be carefully considered to ensure the commercial component will succeed (best suited to main streets and centres that require active retail of commercial frontage). Some DCPs mandate a minimum % of commercial/retail floorspace.
- On-site parking, if necessary, can be difficult and access must be carefully considered. Rear lane access is usually required, and the design should accommodate passive surveillance here for safety.
- This building type is carried out as strata title subdivision, with a separate residential entry & services.

Design controls:

Good design is critical to ensure that the residential component has a high level of amenity.

SEPP 65 and the Apartment Design Guide apply to shop top housing (where 3 or more storeys and 4 or more dwellings). However, it is noted that some developments are unlikely to reach this threshold and this typology warrants its own detailed controls. Further areas that may be considered for inclusion in DCP controls:

- Acoustic and visual privacy to dwellings should be to reasonable levels in new shop top housing developments.
- Designs should encourage passive surveillance to the main

street and any rear lane.

- Typically zero setbacks to side boundary walls are desired to maintain a consistent street frontage and awning along the main street, any development behind this may require side and rear setbacks for solar access, amenity and some open space.
- The scale of dwelling and articulation of the design should respond to the fine urban grain of the main street.
- Private open space can be obtained by the use of balconies and communal open space and deep soil in the rear of the development.



Figure 11. Design Guidance from the Low Rise Housing Diversity Design Guide for DAs



Figure 12. Historic 2 storey shop top housing in Central Maitland



Figure 13. The Commons, Source: Breathe Architecture

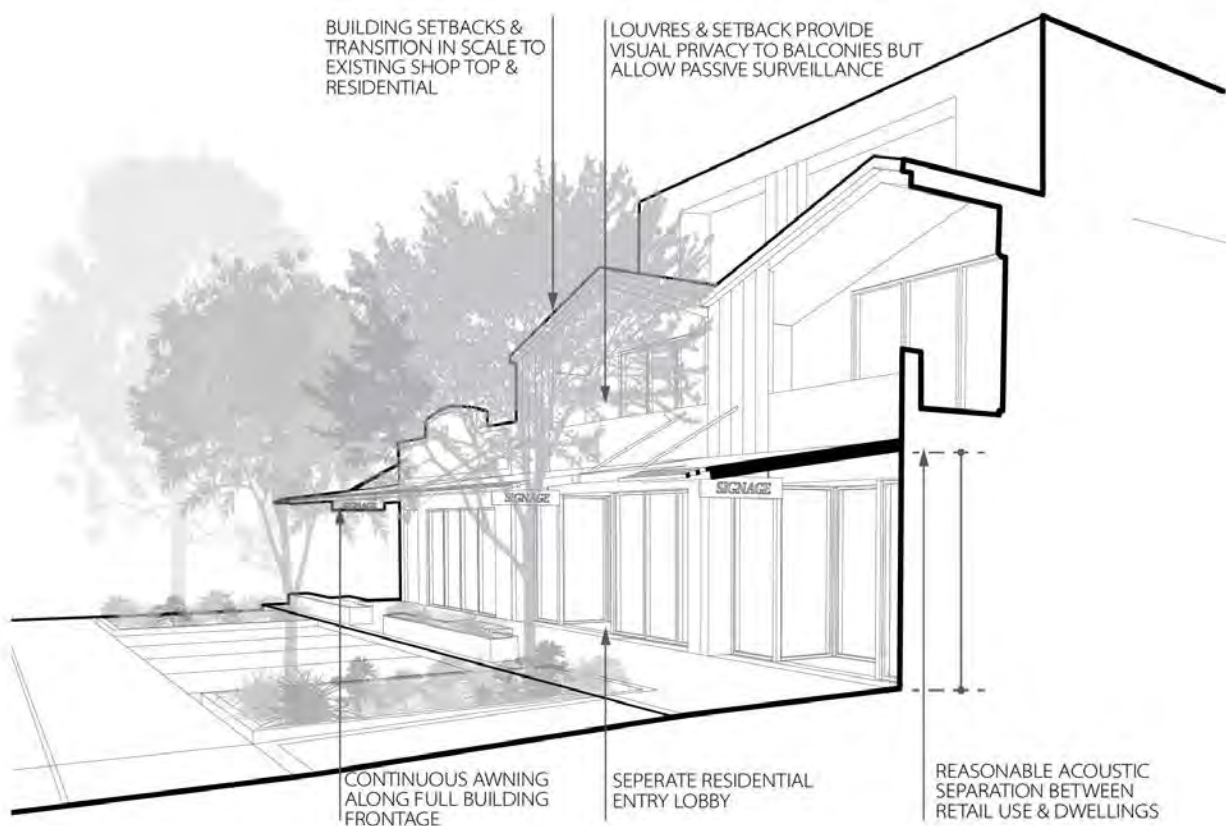


Figure 14. Overview of design issues to consider, Source: Tract

Appendices

Appendix A	Summary Comparison of Existing Controls + SEPP
Appendix B	Demographic & Local Housing Market Analysis
Appendix C	Feasibility Study

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Appendix A Summary Comparison of Existing Controls + SEPP

Control	Maitland LEP/DCP for Medium Density Typologies	Low Rise Housing Diversity Design Guide (Codes SEPP 3B)
Zoning	Predominantly R1, permits medium density typologies	3B.1 RU5, R1, R2, R3 Manor houses permitted if multi dwelling or RFB permitted
Lot Size	LEP 4.1: 450sqm (LEP 4.1A gives exception in R1 to 300sqm for attached dwellings, semi-detached or dwelling on each lot)	3B.8 Dual Occupancy: 400sqm (200sqm subdivision) 3B.21 Manor House: 600sqm 3B.33 Terraces: 600sqm (200sqm subdivision)
Lot Width	-	3B.8 Dual Occupancy: 15m (12m if rear access) 3B.21 Manor House: 15m 3B.33 Terraces: 21m
Height	(No LEP designation) DCP C.8 8.e: 8m: dwellings (any zone), dual occ/multi-dwelling in R1 11m: dual occ/multi-dwelling in B zone	3B.9 Dual Occupancy: 8.5m (2 storeys) 3B.22 Manor House: 8.5m 3B.34 Terraces: 9m (2 storeys)
Front Setback	DCP C.8 5.c: 5m (6m for garage/carport)	average of 2 closest if within 40m 3B.11/24 otherwise Dual Occ/Manor House: based on lot area between 4.5m - 10m, 3B.36 Terraces: 3.5m
Side Setback	DCP C.8 6.h: 1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	3B.11 Dual Occupancy: formula based on lot width + height, min 0.9m 3B.24 Manor House: 1.5m or formula if >10m behind building line 3B.36 Terraces: 1.5m
Rear Setback	DCP C.8 6.h: 1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	3B.11 Dual Occupancy: 3m-15m depending on lot area + height 3B.24 Manor House: 6m-15m depending on lot area + height 3B.36 Terraces: 3m-15m depending on lot area + height
Site Coverage	DCP C.8 7.e: Max 60% for dwellings/small lot/dual occ Max 70% for multi-dwelling/RFB	-
Min Unbuilt Area	DCP C.8 7.e: Min 40% for dwellings/small lot/dual occ Min 30% for multi-dwelling/RFB	Min Landscape Area: 3B.15 Dual Occ: 50% - 100sqm 3B.27 Manor House: 50% - 100sqm 3B.40 Terraces: 30% or 20% in R3
Tree planting	DCP C.8 13 'inclusion of trees' encouraged, not specified	1 front tree with mature height of 5m if primary road setback >3m 1 rear tree with mature height of 8m
Parking	DCP C.8 15.q Min. 1 space for 1-2 bedroom dwelling, 2 spaces for dwelling >2 beds, 1 visitor space for the first 3 dwellings and 1 space for every 5 dwellings thereafter.	3B.30/43 1 space per dwelling Terraces: visitor parking (1 per 5 dwellings) if a strata titled basement serves >10
Private Open Space (POS)	DCP 10 and Fig 20: Ground Level POS based on orientation, 35-60sqm (5x5 or 6x6m min dim) Above Ground POS, 10sqm (min 2.5m width)	Dual Occupancy + Terraces: 16sqm (3x3m min dim) Manor Houses: 1 bed: 8sqm, 2+ bed: 12sqm, if living area at ground level: 16sqm (3x3m min dim)
Communal Open Space (COS)	Ground level for 15+ multi-dwellings	Manor House: COS is 5% of lot area, providing opportunity for social interaction and further amenity for diverse housing typologies
Max GFA	-	3B.10 Dual Occupancy: 25% of lot area + 300sqm (if lot area >2000 = 800sqm) 3B.23 Manor House: 25% of lot area + 150sqm to max of 400sqm 3B.35 Terraces: 60% of lot area (80% if in R3)
Min Dwelling Area	-	Dual Occupancy + Terraces: 1 bed 65sqm, 2 bed 90sqm, 3+ 115sqm Manor House: studio 35sqm, 1 bed 50sqm, 2 bed 70sqm, 3+ 90sqm (extra bath: 5sqm, bed: 12sqm)

Control	Maitland LEP/DCP for Residential Flat Buildings	Apartment Design Guide (SEPP 65)
Zoning	Predominantly R1, permits residential flat buildings	-
Lot Size	LEP 4.1: 450sqm	-
Lot Width	-	-
Height	(No LEP designation) DCP C.8 8.e: RFB: 11m in R1 zone, 14m in B zones	Not specified, controls discussed
Front Setback	DCP C.8 5.c: 5m (6m for garage/carport)	Not specified, controls discussed
Side Setback	DCP C.8 6.h: 1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	3F-1 based on building separation shared equitably: up to 4 storeys / 5-8 storeys / 9+ storeys 6m / 9m / 12m for habitable rooms/balconies 3m / 4.5m / 6m for non-habitable rooms
Rear Setback	DCP C.8 6.h: 1m (below 3m to eaves) + 0.3m for every m from 3-7.2m +1m for every m over 7.2m	
Site Coverage	DCP C.8 7.e: Max 70% for multi-dwelling/RFB	-
Min Unbuilt Area	DCP C.8 7.e: Min 30% for multi-dwelling/RFB	-
Tree planting	DCP C.8 13 'inclusion of trees' encouraged, not specified	Deep Soil Zone 3E-1 7% of site, min dim 3-6m depending on lot size
Parking	DCP C.8 15.q Min. 1 space for 1-2 bedroom dwelling, 2 spaces for dwelling >2 beds, 1 visitor space for the first 3 dwellings and 1 space for every 5 dwellings thereafter.	3J-1 refers to Guide for Traffic Generating Developments if less than Council
Private Open Space (POS)	DCP 10 and Fig 20: Ground Level POS based on orientation, 35-60sqm (5x5 or 6x6m min dim) Above Ground POS, 10sqm (min 2.5m width)	4E-1 Studio: 4sqm, 1 bed 8sqm (2m min), 2 bed 10sqm (2m min), 3+ bed 12sqm (2.4m min) Ground floor: 15sqm (3m min)
Communal Open Space (COS)	Ground level for 12+ dwellings in RFB	3D-1 25% of site
Max GFA	-	Not specified, controls discussed
Min Dwelling Area	-	4D-1 Studio 35sqm, 1 bed 50sqm, 2 bed 70sqm, 3 bed 90 sqm (extra bath: 5sqm, bed: 12sqm)
Min Building Separation	-	2F Up to 4 storeys / 5-8 storeys / 9+ storeys 6m / 9m / 12m between non-habitable rooms 9m / 12m / 18m between habitable/non-habitable 12m / 18m / 24m between habitable/balcony

Note: This is a summary comparison of some of the controls which apply to infill typologies through the existing Maitland LEP and DCP and SEPP Codes/Design Guides.

Both the LRHDDG and the ADG contain multiple other design considerations such as solar access, ventilation, visual privacy and public domain interface. Whilst important, these considerations are beyond the level of detail studied in this infill housing analysis

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Appendix B

Maitland Infill Housing Analysis

Part 1 – Demographic & Local Housing Market Analysis

Prepared for
Maitland Council (c/ Tract Consultants)

January 2022

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Summary of Main Findings

Part 1 – Demographic & Local Housing Market Analysis

Maitland LGA Infill Housing Overview.

Maitland is a regional strategic centre within the Lower Hunter region and was first settled by Europeans in the early 1800's. Maitland is located 34 kilometres north-west of the centre of Newcastle and circa 160 kilometres north-west of Sydney.

Most residential locations geographically surround Central Maitland offering relatively affordable housing primarily in a traditional low density format. New dwelling supply has been focussed on greenfield land releases within new urban release areas including Thornton North, Aberglasslyn, Lochinvar, Farley, Anambah and Gillieston Heights.

Maitland LGA at present supports a population of circa 85,000 people. Population forecasts indicate an increase of 25,650 persons residing in Maitland LGA by the year 2041. This translates to a requirement for 13,550 additional dwellings by 2041.

Maitland Local Strategic Planning Statement 2040+ released in June 2020 aims to support sustainable housing growth by balancing greenfield and infill housing in Maitland LGA. Local new housing provision is at present heavily weighted towards greenfield land releases. The present ratio of new housing provision in Maitland LGA is 94% greenfield and 6% infill which is not considered sustainable in the long term.

Throughout the Greater Newcastle Region it is proposed that 60% of all future housing supply will be provided in the form of infill housing and 40% greenfield. This represents a dramatic shift from current new housing provision. Although this ratio is a regional target, the expectation will be that all locations including Maitland LGA increase the quantum of infill housing.

The seven infill study areas have been recognised by Maitland City Council as key locations to accommodate a considerable content of future infill housing and the key findings and recommendations provided below outline appropriate typologies for each location based on the demographic and local housing market analysis completed as part of this review.

Central Maitland.

Central Maitland accommodates the lowest number of dwellings of all seven study areas accounting for only 3.4% of total LGA stock. This location is also home to the city centre being a focal point for business in the region. Residents in Central Maitland enjoy the benefit of living close to work, having access to retail amenity / services and reducing reliance on private motor vehicle usage. As such, Central Maitland presents as a location well suited to accommodate new infill dwelling supply.

From both demographic and market perspectives, Central Maitland is considered one of the more viable study areas for new infill housing. It is suggested that the focus be on the provision of higher density dwelling types such as apartments along with medium density dwellings appropriate to city centre locations such as small lot terrace style housing.

Central Maitland features two train stations which enhances marketability of this location due to the excellent connectivity. However, both stations are set away from the main retail / commercial strip along High Street. There may be future opportunity to explore intensification of uses surrounding the stations and creation of mixed-use precincts (incorporating residential).

East Maitland.

East Maitland accommodates the highest number of dwellings of all seven study areas accounting for 17% of total LGA stock. Three quarters of this stock comprises dwelling houses plus 15% configured as villas / townhouses and over 7% apartments. With circa 22% of existing residential stock in the form of residential units this would indicate a general market acceptance of such dwelling typologies at this location. Much of this stock is however well-established and the apartments are set within complexes typically over only two levels.

From both demographic and market perspectives, East Maitland is considered one of the more viable study areas to accommodate new infill housing. There would appear an inherent undersupply of infill themed stock with dual occupancies, medium density dwellings and smaller scale residential apartment complexes considered suitable and appropriate at this location. This could include a mix of villas, townhouses, terrace style housing (dependent on specific location) and manor houses.

At this stage there is limited new apartment supply in East Maitland however given the favourable location close to Central Maitland and provision of two train stations, there may be future longer term opportunities to explore provision of this dwelling typology including intensification of uses surrounding the stations and creation of mixed-use precincts (incorporating residential).

East Maitland Catalyst Area.

The East Maitland Catalyst Area Study Region is geographically large and incorporates established residential components of Ashtonfield, East Maitland and Metford suburbs. Only a very modest residential component of East Maitland suburb is contained within the Catalyst Study Area and accordingly the demographic and housing market analysis has focused on Ashtonfield and Metford suburbs which are considered to best characterise the location.

The Catalyst Area is dominated by dwelling houses configured in a low density format accounting for close to 90% of all housing stock. Over 90% of all dwellings feature at least three bedrooms and there is a very modest content of residential units and dwellings with two bedrooms or less.

This location features a notable content of retail, service industry and industrial uses providing a source of both employment and amenity to local residents. Additionally, the Catalyst Area accommodates a number of schools which is of benefit to family households with children.

From a demographic perspective, the East Maitland Catalyst is considered to have potential to accommodate new infill housing over the short to medium term. There is considered an inherent undersupply of dwellings with one or two bedrooms which account for less than 8% of current dwelling stock yet 43% of households feature only one or two residents.

From a market perspective, the location is somewhat untested for modern higher priced stock. Market acceptance can be further investigated by means of financial feasibility testing but assuming a reasonable price point differential between dwelling houses and residential units there is likely to be sound demand for infill housing.

The infill typologies considered most appropriate based on market and demographic factors include dual occupancies, medium density dwellings and smaller scale residential apartment complexes that could accommodate dwellings with fewer bedrooms. There may also be potential for higher density apartments in key locations such as close to Stockland Green Hills Shopping Centre and the new Maitland Hospital Precinct.

Rutherford.

Rutherford accommodates the second highest number of dwellings of all seven study areas accounting for 16% of total LGA stock. Close to 85% this stock comprises dwelling houses and circa 14% is configured as villas / townhouses and apartments (albeit only 2.0% of stock is made up of apartments).

There has been a growing content of medium density development with incremental growth in price points and a reasonable differential between the price of dwelling houses and residential units. However, there continue to be land releases within the broader location with vacant land the most sought after product type. Accordingly, for market acceptance of infill dwelling typologies a notable differential between the price for established dwelling houses and new medium density stock will be required.

Based on the demographic and market reviews completed, Rutherford appears capable of accommodating an increased content of new infill housing. Appropriate infill housing typologies at this location include dual occupancies and medium density villas and townhouses. The market for contemporary residential apartments appears untested at this location and there is considered limited opportunity at present for this typology in Rutherford.

Telarah.

Telarah is an established location positioned to the immediate west of Central Maitland. The suburb accommodates the second lowest number of dwellings in all seven study areas accounting for less than 4% of total LGA stock. Given the

close proximity to Central Maitland, demand for residential dwellings has increased considerably in Telarah which is evidenced by recent strong capital growth (particularly for dwelling houses).

The vast majority of dwelling stock is catered towards family households with 90% in the form of dwelling houses. Close to three quarters of all stock comprises three or more bedrooms. Only 10% of dwellings are medium density dwellings or apartments with the latter accounting for only 3% of this stock. Additionally, most of the infill themed development is well-established / dated.

The provision of new infill housing in Telarah would represent a fundamental shift for the location and many of the potential dwelling typologies have not been tested in the market. Based on the favourable centralised location of Telarah combined with demographic characteristics, there is considered sound potential to increase the content of infill housing. However, the current low median price points of dwelling houses and residential units may limit any such potential for new stock. This will require further testing by means of a financial feasibility assessment.

The infill housing typologies considered most suited to this location include dual occupancies, medium density dwellings and smaller scale residential apartment complexes. This could include a mix of duplex dwellings, villas, townhouses and manor houses. There is considered limited opportunity to intensify residential land uses beyond these typologies at this location.

Thornton.

Thornton continues to develop as a residential location offering a mix of established and new dwelling houses, a growing content of medium density dwellings and continued supply of greenfield land releases. Median price points for all three of these categories are highest of all study areas.

Thornton accommodates a high number of dwellings which is dominated by dwelling houses accounting for 96% of all housing stock. There is a limited content of infill housing which is primarily in the form of contemporary duplex and medium density dwellings.

Family groups are most prevalent in Thornton making up circa 85% of all households. This is one reason why there is such a high content of dwellings featuring three or more bedrooms (92.6% of all housing). Dwellings with two bedrooms or less account for only 6% of total dwellings indicating very limited choice for lone person households, couples (no children) and downsizers which collectively make up 41% of households.

There is considered limited opportunity to intensify residential land uses beyond a medium density scale in Thornton. Any greater scale of development may represent a long term proposition as the area evolves. The viability of such will be largely dependent on location.

Woodberry.

Woodberry is an established residential suburb located the furthest distance of all study areas from Central Maitland. The suburb accommodates a very modest content of dwellings (1,187) with this supply dominated by dwelling houses (circa 96% of all housing stock). There is very limited supply of infill housing and accordingly no established market for such stock.

Woodberry is dominated by family households (74%) and this is somewhat reflected in the high content of dwellings houses featuring three or more bedrooms (92%). In contrast, there appears a misalignment for smaller household types with lone persons accounted for 22% of households yet only 5% of dwellings feature two or less bedrooms. Accordingly, it would appear there is inadequate smaller scale / low maintenance stock at this location for the high number of lone person households.

From a market perspective there may be some limitations in providing new infill housing typologies given that median prices of dwelling houses are the lowest in all of the study areas at only \$400,000. This price is similar or less than the price of new medium density dwellings in locations such as Thornton. Below average income levels for Woodberry residents also place questions on affordability.

The most appropriate dwelling typologies are considered medium density dwellings and small scale apartment buildings (such as two level manor houses or similar). There is considered limited to no opportunity at present to intensify residential land uses beyond a medium density scale in Woodberry.

It will be important to undertake financial feasibility testing on the identified infill housing options to provide greater visibility on whether such development is feasible in the current market or represents a medium or longer term option.

Maitland Infill Housing Analysis

Part 1 – Demographic & Local Housing Market Analysis

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Instructions.

Instructing Party	Maitland Council c/ Tract Consultants Pty Ltd Level 8, 80 Mount Street North Sydney NSW 2060 (Sophie Powell) Telephone +61 (0) 2 8077 1218 Email spowell@tract.net.au	
Purpose	This Part 1 Demographic & Local Housing Market Analysis has been prepared to inform the characteristics of Maitland Local Government Area and seven locations identified as potential infill areas. The Analysis will be used to guide latter stage urban / architectural design requirements and financial feasibility assessments. This review includes analysis at LGA and suburb level of demographic household & housing characteristics, historic median price point trends and sales volumes for houses, residential strata units and vacant land.	
Disclaimer	This report has been prepared for the exclusive use of the party to whom it is addressed and for no other purpose. No responsibility is accepted for any third party who may use or rely on the whole or any part of the content of this report. It should be noted that any subsequent amendments or changes in any form to this report would only be notified to and known by the parties to whom it is addressed. This report has been carefully prepared by Charter Keck Cramer Strategic Research and the information contained herein should not be relied upon to replace professional advice on specific matters. © 2022 (Charter Keck Cramer)	
Our Reference	Charter Contact	Brendan Woolley
	Report Author	Brendan Woolley, Jasmine Bilbao
	Version	Final (V3) issued January 2022 (Initial Draft issued July 2021)

Definitions.

There is considerable variance in terminology pertaining to dwelling typology as reported by various Government agencies and research providers. Accordingly, to ensure consistency of terminology and provide clarification of terms utilised within this report, the following definitions section is provided.

The definitions are listed in alphabetical order and are sourced from agencies including Maitland Local Environmental Plan 2011, the Medium Density Design Guide, NSW Legislation and the Australian Bureau of Statistics ("ABS").

Attached Dwelling: a building containing three or more dwellings, where:

- each dwelling is attached to another dwelling by a common wall, and
- each of the dwellings is on its own lot of land, and
- none of the dwellings are located above any part of another dwelling.

Dwelling: is the collective term used to describe all residential accommodation and is described as a room or suite of rooms occupied or used or so constructed or adapted as to be capable of being occupied or used as a separate domicile. Dwellings can include the following typologies:

- attached dwellings,
- boarding houses,
- dual occupancies,
- dwelling houses,
- group homes,
- hostels,
- multi dwelling housing,
- residential flat buildings,
- rural workers' dwellings,
- secondary dwellings,
- semi-detached dwellings,
- seniors housing,
- shop top housing,

Dwelling House: a Torrens title allotment improved with a building containing only one dwelling. In the majority of instances such a dwelling will be freestanding being described as a **separate house**. The dwelling house typology has been utilised within the median price point analysis as the source data (PriceFinder) is provided in this format.

Dual Occupancy (Attached): two dwellings on one lot of land that are attached to each other, but does not include a secondary dwelling.

Dual Occupancy (Detached): two detached dwellings on one lot of land, but does not include a secondary dwelling.

Manor House: a residential flat building containing three or four dwellings, where:

- each dwelling is attached to another dwelling by a common wall or floor, and
- at least one dwelling is partially or wholly located above another dwelling, and
- the building contains no more than two storeys (excluding any basement)

Medium Density Dwelling: a common reference to a group of **Strata** title dwellings (typically four or more) which can be either attached, semi-detached or freestanding. These dwellings have their own private grounds and no other dwelling above or below them. They are either attached in some structural way to one or more dwellings or are separated from neighbouring dwellings by less than half a metre. Common typologies include townhouses, villas and terraces. The medium density dwelling typology has been utilised within the "Dwelling & Household Characteristics" analysis given the ABS Census data is compiled using this dwelling typology.

Multi-Dwelling House: three or more dwellings (whether attached or detached) on one lot of land, each with access at ground level, but does not include a residential flat building.

Multi-Dwelling House (Terraces): all dwellings (three plus) are attached and face, and are generally aligned along, one or more public roads.

Occupied Private Dwelling: An occupied private dwelling is a private dwelling occupied by one or more people. A private dwelling is most often a dwelling house or residential unit. It can also be a caravan, houseboat, tent, or a house attached to an office, or rooms above a shop. Occupied dwellings in caravan/residential parks or camping grounds are treated as occupied private dwellings. In preparing this review, the majority of “Dwelling & Households Characteristics” analysis relies on occupied dwelling data with the typical exceptions being total dwelling and population numbers. In the locations reviewed the number of occupied dwellings is considered satisfactory to obtain a suitable spread of demographic data.

Residential Flat Building: a building containing three plus dwellings (**flats / apartments**), but does not include an attached dwelling or multi-dwelling housing. This category includes all dwellings in blocks of flats / apartments. These dwellings do not have their own private grounds and usually share a common entrance foyer or stairwell. Flats are often referred to as **high density dwellings**. The ABS adopts the residential flat building (flats / apartments) dwelling typology in compiling its Census data and our “Dwelling & Household Characteristics” analysis is accordingly based on this information.

Residential Unit: a broad term which refers to a dwelling held under **Strata title**. This could include medium density dwellings, a semi-detached dwelling and flats / apartments. The residential unit typology has been utilised within the median price point analysis as the source data (PriceFinder) is provided in this format.

Semi-Detached Dwelling: a dwelling that is on its own lot of land and is attached to only one other dwelling. Also referred to as a **duplex dwelling**.

Separate House: a house which is separated from other dwellings by a space of at least half a metre. A separate house may have a flat attached to it, such as a granny flat or converted garage. The ABS adopts the separate house dwelling typology in compiling its Census data and our “Dwelling & Household Characteristics” analysis is accordingly based on this information.

Strata Title: enables individual ownership of part of a property (“lot”) combined with shared ownership in the remainder (“Common Property”) through a legal entity called the owners corporation / body corporate.

Torrens Title: a land ownership system where the purchaser owns both the land and buildings constructed upon it. It is the most common method of property ownership in Australia with each state having a central register of all land and owners. Once an owner is registered they own the property above all others.

Unoccupied Private Dwelling: These are structures built specifically for living purposes which are habitable, but unoccupied on Census night. Vacant houses, holiday homes, huts and cabins (other than seasonal workers' quarters) are counted as unoccupied private dwellings. Also included are newly completed dwellings not yet occupied, dwellings which are vacant because they are due for demolition or repair, and dwellings to let. Unoccupied private dwellings in caravan/residential parks, marinas and manufactured home estates are not counted in the Census. The exception to this is residences of owners, managers or caretakers of the establishment and, from the 2006 Census, unoccupied residences in retirement villages (self-contained).

1. Introduction

Charter Keck Cramer (“Charter”) has been appointed by Maitland City Council as part of a consultant group led by Tract Consultants to undertake a Demographic & Local Housing Market Analysis (“DLHMA”) as part of a broader Maitland Infill Housing Analysis. This review forms Part 1 of the overall review with Charter to subsequently complete a Part 2 Financial Feasibility Assessment of potential infill development options for each infill location.

The DLHMA relates seven identified potential infill housing locations spread throughout Maitland Local Government Area (“LGA”). The following locations form the basis of our analysis:

- Central Maitland (suburbs of Maitland & Horseshoe);
- East Maitland;
- East Maitland Catalyst Area (suburbs of Ashtonfield, Metford & Part East Maitland);
- Rutherford;
- Telarah;
- Thornton: &
- Woodberry

The DLHMA includes an extensive demographic and residential market review both at LGA level and individually for each location to identify housing market characteristics and trends which will assist to guide future infill development design options and the Part 2 Financial Feasibility Assessment.

Our review has included demographic analyses based on Australian Bureau of Statistics (“ABS”) Census data, population forecasts sourced from the NSW Department of Planning, Industry and Environment (“DPIE”) and historic sales price & volume information sourced from property database Pricerfinder and online sources. It is noted that at the time of reporting, lockdown restrictions due to ongoing effects of the COVID-19 pandemic have meant that the DLHMA has been completed on a desktop basis.

In completing the DLHMA Charter has undertaken the following scope of works for Maitland LGA and each of the seven infill locations:

- **Demographic review** of Maitland LGA and each of the seven infill locations including a thorough review of household and dwelling characteristics (population, household size, median income, age brackets, median age dwelling numbers, dwelling structure, dwelling household composition, dwellings by number of bedrooms)
- **Review of existing infill housing typologies** within the seven study areas.
- **Housing market analysis** for Maitland LGA and each study area including the following:
 - Location review.
 - Study area v suburb comparison
 - Median price points and sales volumes for dwelling houses, residential units and vacant land historically over the past 15 years to identify trends (full calendar years 2007 to 2020 and first half of 2021). Year to date sales in 2021 have included transactions yet to settle.
 - Focussed review of sales over the past 18 months to identify the most prevalent property types transacted and characteristics.
- **Summary and recommendations** including a summary table comparing household characteristics and property market fundamentals for Maitland LGA and each study area. Broad conclusions have been drawn based on historic and current demographic and residential property market trends.

For Maitland LGA and each of the seven study areas, the demographic and housing market reviews have been consolidated by location as each component of research is closely inter-related.

2. Current Infill Dwelling Typology.

At present, a range of infill type development is currently in place throughout most of the seven proposed infill locations ranging from semi-detached dwellings to residential flat buildings. The quantum of infill stock varies considerably from modest / minimal supply in locations such as Telarah and Woodberry whilst locations such as Central Maitland, East Maitland and Rutherford feature established infill markets and regularly trade higher density stock. Examples of existing stock within each of the proposed infill locations are provided in the following photographs:

Figure 1: Infill Themed Development currently located throughout the Proposed Infill Suburbs



Contemporary Apartment Building in Central Maitland



Medium Density Townhouses in Central Maitland



Recent Townhouse Development in East Maitland



Established Medium Density Villas in East Maitland.



Established Duplex Dwelling in Rutherford (EMCA)



Established Low-Rise Flat Building in Metford (EMCA)



Established Medium Density Townhouse in Rutherford



Modern Medium Density Townhouse in Rutherford



Medium Density Townhouse in Telarah



Established Low Rise Apartments in Telarah



Established Medium Density Villa in Thornton



Modern Medium Density Townhouse in Thornton



Established Medium Density Townhouses in Woodberry
 SOURCE – Online Marketing Websites; Charter Keck Cramer



Established Medium Density Villa in Woodberry

3. Maitland LGA Housing Market & Demographic Overview.

3.1 Maitland Overview

Maitland is a regional strategic centre within the Lower Hunter region first settled by Europeans in the early 1800's. Maitland is located 34 kilometres north-west of the centre of Newcastle and circa 160 kilometres north-west of Sydney.

Most residential locations surround Central Maitland offering relatively affordable housing primarily in a traditional low density format. New dwelling supply has been focussed on greenfield land releases within new urban release areas including Thornton North, Aberglasslyn, Lochinvar, Farley, Anambah and Gillieston Heights.

Future dwelling supply is being guided by a range of strategic documents such as the Hunter Regional Plan 2036 (NSW Government October 2016), the Greater Newcastle Metropolitan Plan 2036 (NSW Government September 2018) and the Maitland Local Strategic Planning Statement 2040+ (Maitland City Council July 2020).

The Regional Plan additionally states the following in relation to housing in Maitland LGA:

“Strong population growth in the Maitland Local Government Area is resulting in ongoing pressures for additional residential land and a shortfall in infrastructure provision. There are significant challenges to servicing a number of development fronts and increasing dwelling density near centres, transport nodes and in areas of high amenity. The growth in housing needs to be balanced against the natural constraints of flooding and the agricultural value of the floodplain and other rural lands.

Future housing and urban renewal opportunities:

- *Deliver the existing Urban Release Areas of Anambah, Aberglasslyn, Gillieston Heights, Bolwarra/Largs, Lochinvar, Thornton North, Louth Park and Farley.*
- *Investigate growth and renewal corridors along main roads in existing urban areas, such as the New England Highway.”*

Although the majority of new housing supply has come by way of greenfield land releases, limited availability of greenfield sites, ongoing requirements for infrastructure provision and continued upward pressure on pricing have resulted in a refocusing of future housing supply provision to be dominated by infill development. This is highlighted in the Maitland Local Strategic Planning Statement 2040+.

The following is stated within the Maitland Local Strategic Planning Statement 2040+:

“Council supports infill housing opportunities within existing urban areas to encourage more efficient use of land with greater accessibility to public transport, community facilities and centres. Such developments need to respond to the existing local and neighbourhood character.”

“Infill and urban renewal development will play a key role in facilitating our future growth. Infill will assist to diversify our housing stock and integrate housing with our centres, employment clusters or transport nodes and maximise access to existing infrastructure and services. It will support a more sustainable urban form that is less reliant on cars and provide for more walkable neighbourhoods, where active transportation links can be provided.”

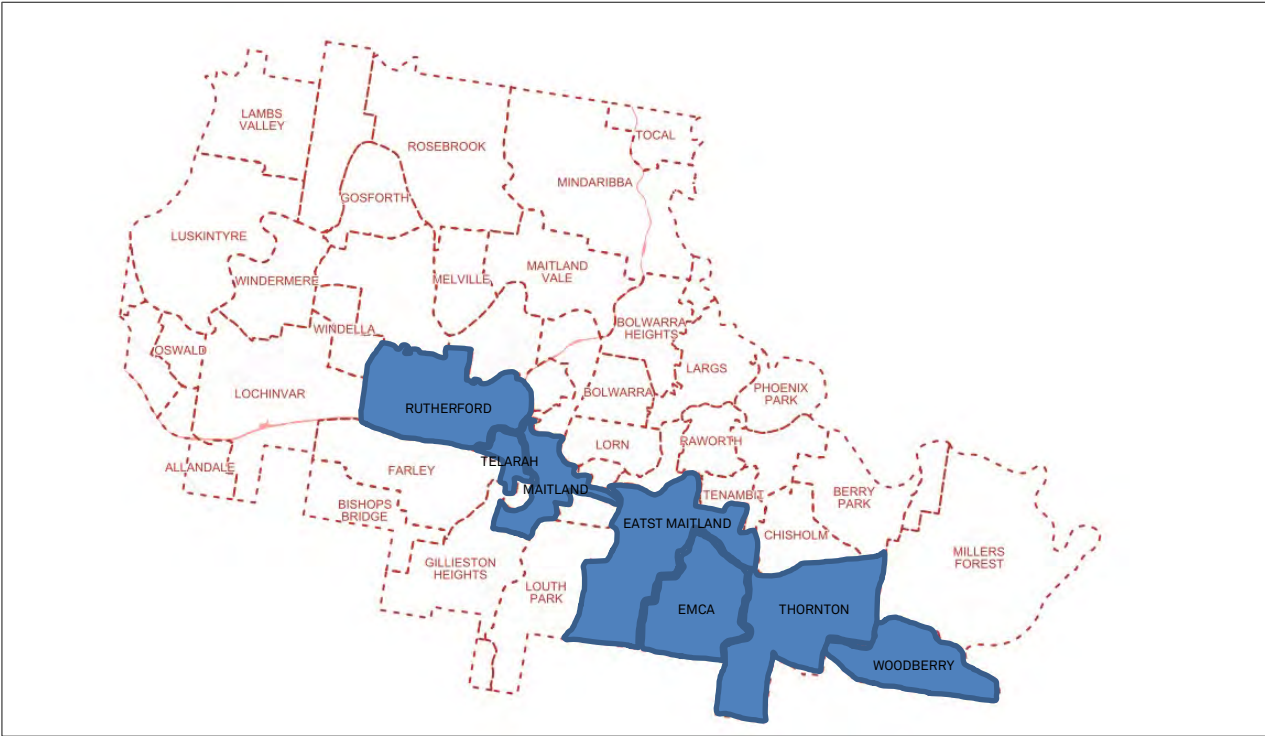
“Infill development needs to ensure that it positively contributes to local character, responds to its surrounding context, has quality design outcomes and provides a high level of amenities for future and current residents. Increasing density around existing rail interchanges will make public transport more sustainable, housing more affordable and reduce carbon emissions through less vehicle usage.”

The seven subject study areas have been identified as potentially suitable infill locations and the demographic and market appropriateness of these locations have been tested within this Part 1 analysis to identify current and future opportunities.

3.2 Maitland LGA & Infill Study Areas

Most established residential development in Maitland LGA is located within Central Maitland and surrounding suburbs. Accordingly, the seven identified infill study areas all are featured at this location as per the LGA boundary map below. The suburbs of Telarah and Rutherford adjoin the western side of Central Maitland whilst East Maitland, the East Maitland Catalyst Area, Thornton and Woodberry are to the east and south-east.

Figure 2: Maitland LGA & Infill Study Areas



SOURCE -Mapping.maitland.nsw.gov.au; Charter Keck Cramer

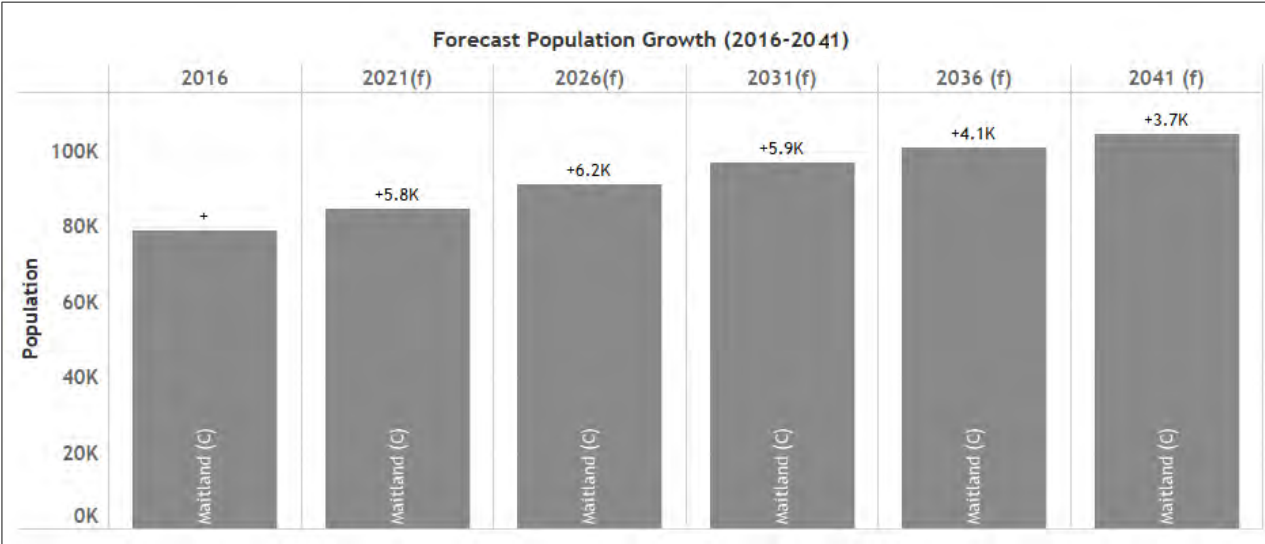
3.3 Dwelling & Household Characteristics

3.3.1 Population

Population forecasts are prepared by the DPIE with the latest forecasts released in 2019. A population of 79,050 was indicated for Maitland LGA as at 2016 with forecasts indicating a potential future population of 104,700 by 2041. This represents forecast population growth of 32.5% in Maitland LGA over 25 years.

The forecast population growth indicates an increase of 25,650 persons by 2041.

Figure 3: Forecast Population Growth - Maitland LGA



SOURCE – NSW Department of Planning; Charter Keck Cramer

Population forecasts by the DPIE help to identify future size of the Maitland LGA population and likely household composition. This in turn assists in identifying implied future dwelling requirements for the region.

The below table highlights the correlation between future population projections, forecast household size and implied dwelling projections.

Figure 4: Forecast Population, Households and Dwellings

Key Indicators: Projected Population, Households and Dwellings - all data at 30th June						
	2016	2021	2026	2031	2036	2041
Total Population	79,050	84,900	91,050	97,000	101,050	104,700
2016 Population Projection	78,200	85,750	93,500	101,550	104,850	
Total Households	29,750	32,500	35,350	38,250	40,450	42,350
Household Size*	2.63	2.59	2.55	2.51	2.47	2.44
Implied Dwelling Projection**	31,900	34,850	37,950	41,050	43,400	45,450

*Average persons resident per occupied private dwelling

**Dwellings required if the population forms households in the same ways as in 2016

SOURCE – NSW Department of Planning

Having regard to the projections by the DPIE, a total of 13,550 additional dwellings will be required between 2016 and 2041. This is represented as follows for each respective five year period:

- 2,950 new dwellings between 2016 – 2021 (590 per annum)
- 3,100 new dwellings between 2021 – 2026 (620 per annum)
- 3,100 new dwellings between 2026 – 2031 (620 per annum)
- 2,350 new dwellings between 2031 – 2036 (470 per annum)
- 2,050 new dwellings between 2036 – 2041 (410 per annum)

3.3.2 Household Characteristics

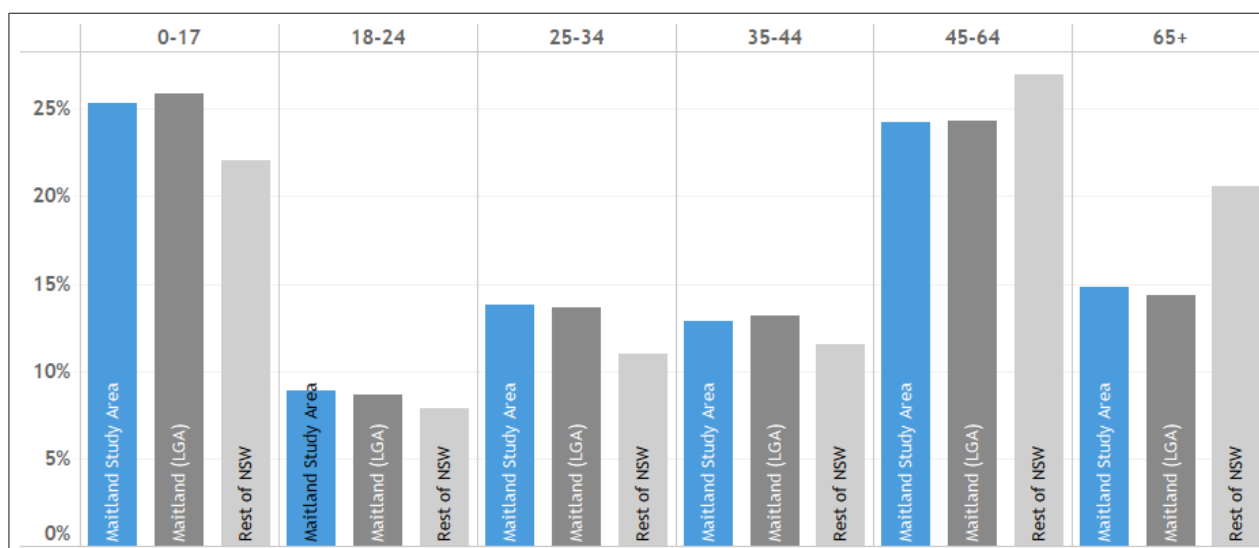
Household demographic metrics for Maitland LGA are based on Australia Bureau of Statistics Census data. A summary of key characteristics is provided below and within the following pages. Consolidated demographic data for the infill study areas and “Rest of New South Wales” has been included as a point of comparison.

Maitland LGA has a **household size** of 2.7 persons.

The **median age** of residents in Maitland LGA is 36 years. In terms of **age distribution** the most prevalent age bracket is 0 – 17 years accounting for 26% of local residents followed by 45 – 64 years at 24%. These age brackets indicate the LGA features a high content of families.

The 25 – 34 year and 65+ year age brackets each account for 14% of residents with the least number of residents aged 18 – 24 years.

Figure 5: Age Distribution - Maitland LGA

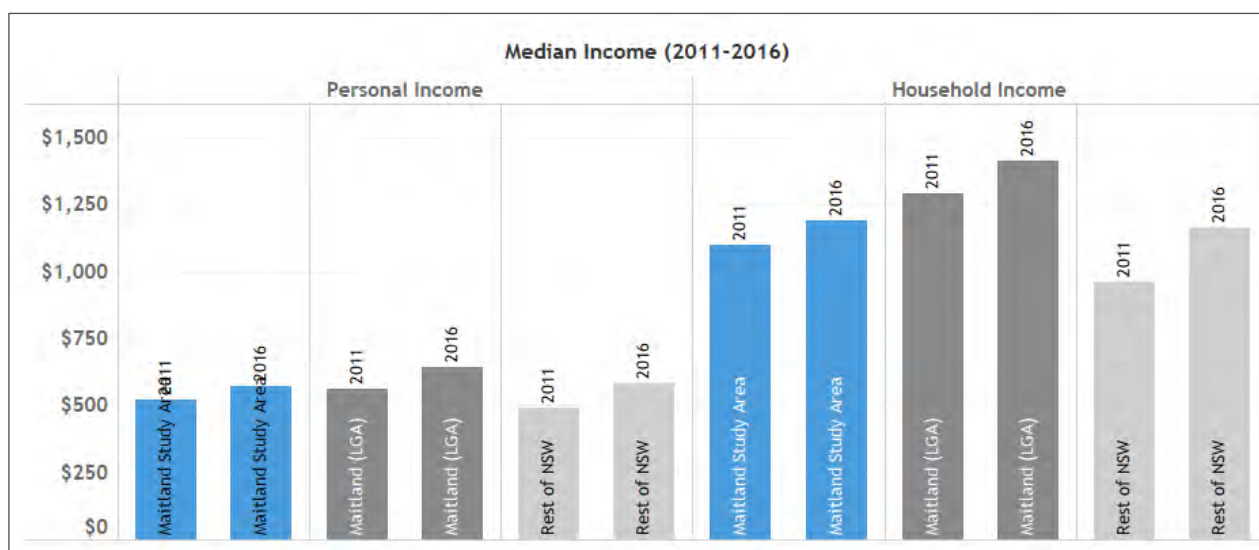


SOURCE – Australian Bureau of Statistics; Charter Keck Cramer

Median personal and household income both increased in Maitland LGA between the 2011 and 2016 census periods (14.6% and 9.5% respectively) and exceed incomes within the combined infill study areas and Rest of NSW locations.

Median personal income in Maitland LGA is \$644 per week with household income \$1,415 per week.

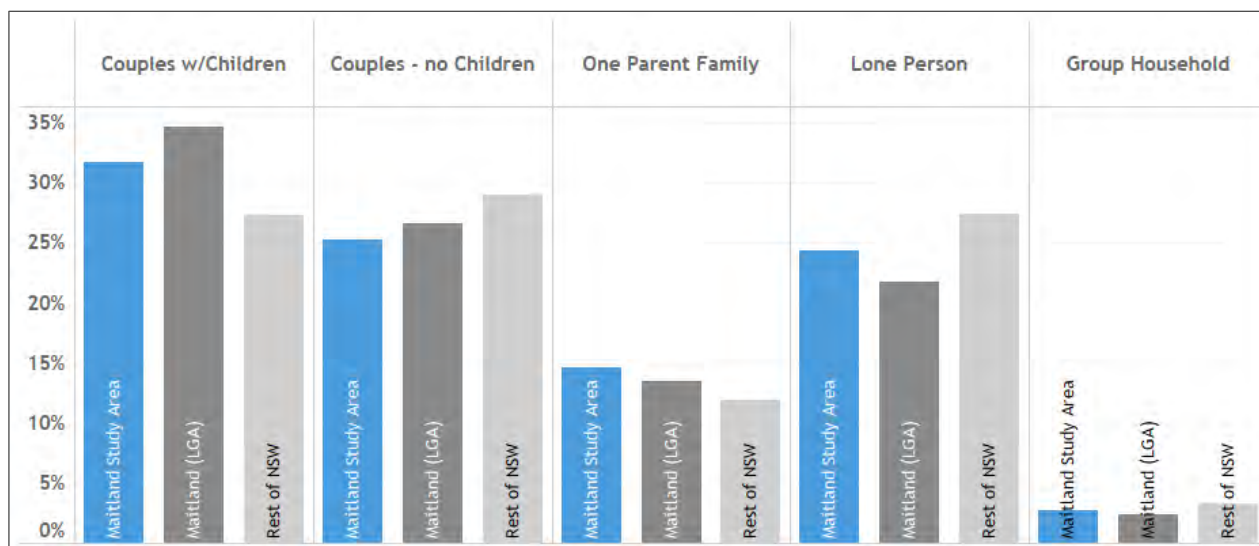
Figure 6: Median Income - Maitland LGA



SOURCE – Australian Bureau of Statistics; Charter Keck Cramer

Household structure in Maitland LGA is dominated by couples with children accounting for almost 34.6% of households. Couples with no children are the next highest household group at 26.7% following by lone person households at 21.7%. One parent families at 13.5% and group households at 2.4% account for the fewest households in the LGA.

Figure 7: Household Structure - Maitland LGA

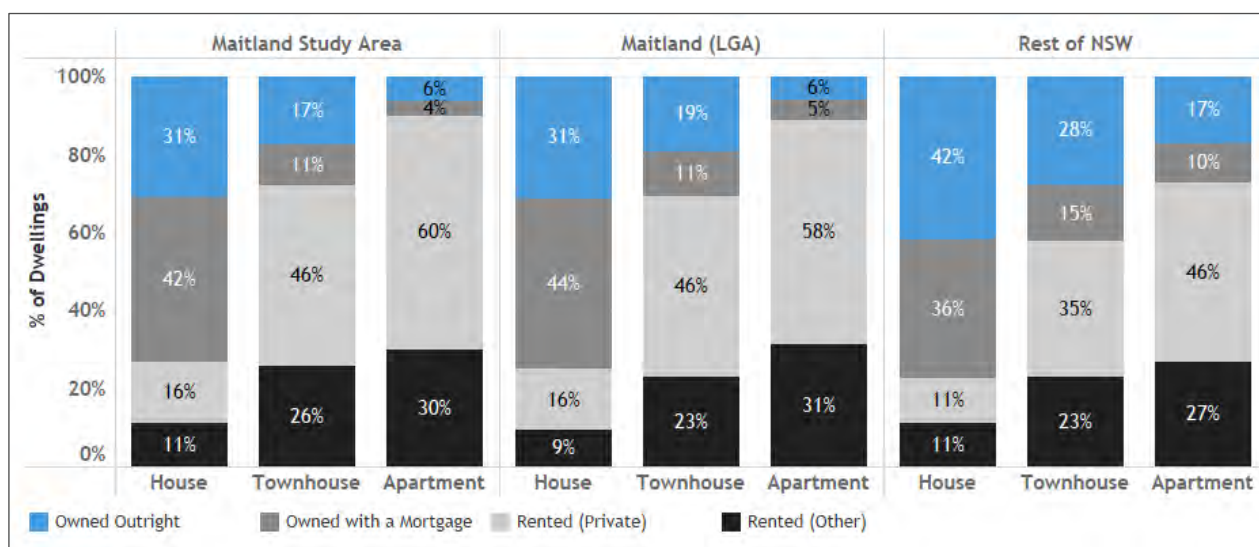


SOURCE – Australian Bureau of Statistics; Charter Keck Cramer

In terms of **dwelling structure by tenure**, overall a total of 28.9% of all dwellings are owned outright, 38.3% are owned with a mortgage and 29.5% are rented.

More specifically by dwelling type, 31% of dwelling houses are owned outright compared with only 19% townhouses and 6% apartments. A total of 44% of dwelling houses in the LGA are owned with a mortgage, compared with only 11% of townhouses and 5% of apartments. A quarter of all dwelling houses are rented with townhouses and apartments substantially higher at 69% and 89% respectively indicating that infill type housing is preferred as an investment.

Figure 8: Dwelling Structure by Tenure - Maitland LGA



SOURCE – Australian Bureau of Statistics; Charter Keck Cramer

3.3.3 Dwelling Characteristics

In 2016, Maitland LGA accommodated a total of 30,583 dwellings. The dwelling count shows a modest increase of 4,138 dwellings (15.6%) from 26,445 in 2011.

Dwelling mix by type in Maitland LGA is outlined as follows:

- Majority of occupied private dwellings within Maitland LGA are separate houses, accounting for 87.1% of dwellings in 2016.

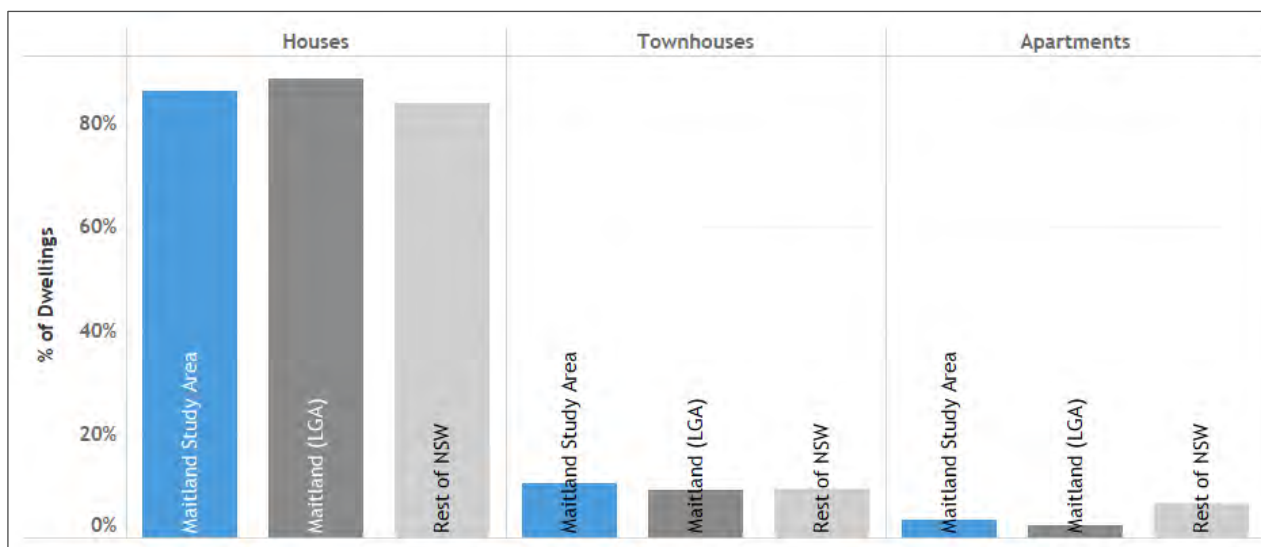
- Medium density dwellings account for 8.9% of stock
- Flats / apartments make up only 2.2% of stock with the remaining 0.4% classified as “other dwelling”.

Number of bedrooms statistics for Maitland LGA indicate that four or more bedroom dwellings are most prevalent at 43.8%, followed by three bedrooms at 39.8%, two bedrooms at 11.1%, one bedroom and 2.8% and no bedrooms (including bedsitters) at 0.2%.

Overall, less than 14% of all dwellings in Maitland LGA accommodate two bedrooms or less which is not considered to align with the content of lone and two person households which account for over 48% of all households in the LGA. This also indicates that a considerable content of houses in the LGA have additional or unused bedrooms.

The average number of bedrooms per occupied private dwelling is 3.4.

Figure 9: Dwelling Mix - Maitland LGA



SOURCE – Australian Bureau of Statistics; Charter Keck Cramer

3.4 Median Price Points

To assist in identifying local housing market trends throughout Maitland LGA, we have investigated historic median prices and sales volumes of dwelling houses, residential units and vacant land within the area. Furthermore, we have analysed recent transactions over the past 18 months (including recent non-settled sales) to understand current housing stock and market preferences.

3.4.1 Dwelling Houses

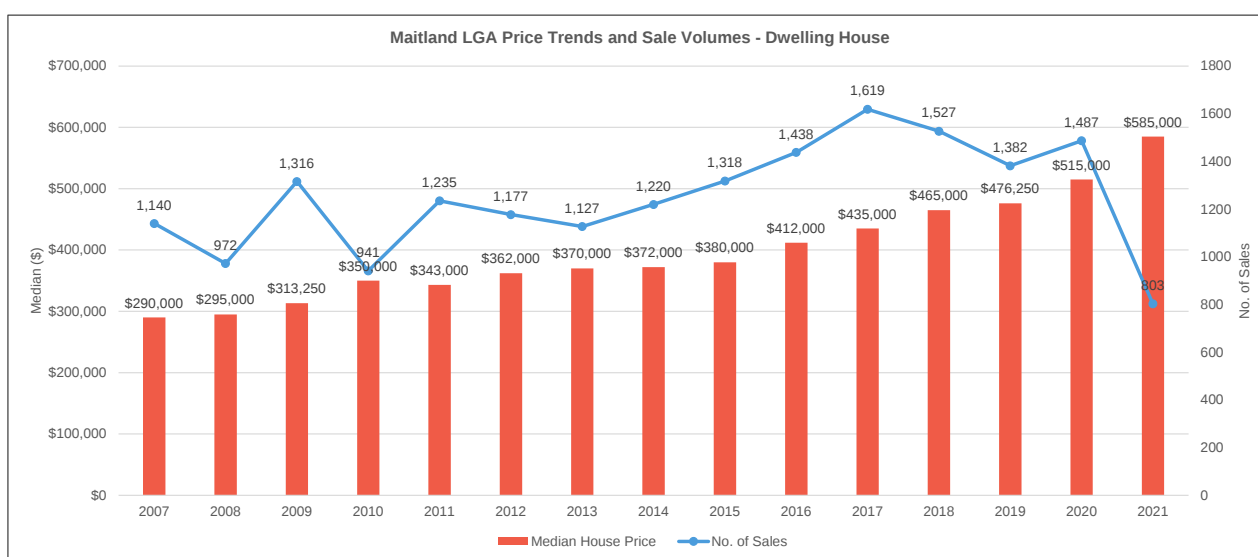
Historic median dwelling house price and sales volume trends for Maitland LGA are outlined as follows:

- Median dwelling house prices throughout Maitland LGA have uniformly increased over the past 15 years from \$290,000 in up to \$585,000 in 2021 (to date). An average growth rate of approximately 4.79% p.a. has been demonstrated throughout this period including a notable increase of almost 14% between median prices in 2020 and 2021.
- The volume of annual sales has fluctuated between a low of 941 sales p.a. in 2010 to a maximum of 1,619 sales p.a. in 2017. Sale volumes per annum have typically increased throughout the 15 years with a number of peaks in 2009, 2011, 2017 and 2020. To date there have been 803 sales for the first six months of 2021 indicating circa 1,600 potential annual sales for the calendar current year representing an increase over recent years. The volume of sales and recent growth in median dwelling house prices indicates a strongly performing residential dwelling house market.
- The increase in sales volumes of dwelling houses over time is also attributable to growing supply given ongoing new land releases in the LGA.
- Over the past 18 months, dwelling houses achieved broad ranging sale prices between \$175,000 for a 291 sq.m. allotment with a dilapidated two bed dwelling up to \$1,650,000 for a 1,941 sq.m. corner allotment improved with a

high quality single level five bedroom residence. The sale properties collectively feature an average land size of 686 sq.m. although sizes range broadly from 215 sq.m. up to 2,000 sq.m.

- Four bedroom dwellings were the most highly transacted accounting for 52.8% of sales followed by three bedrooms at 36.4% and five bedrooms at 6.4%.
- The following locations have featured notable volumes of dwelling house sales over the past 18 months:
 - Aberglasslyn (205 transactions)
 - Ashtonfield (100 transactions)
 - Chisholm (172 transactions)
 - East Maitland (246 transactions)
 - Gillieston Heights (117 transactions)
 - Metford (87 transactions)
 - Rutherford (357 transactions)
 - Telarah (82 transactions)
 - Thornton (243 transactions)

Figure 10: Maitland LGA Median Price Trends and Sales Volumes – Dwelling Houses



Note: 2021 price and volume data represents first half of calendar year only

SOURCE – Pricerfinder; Charter Keck Cramer

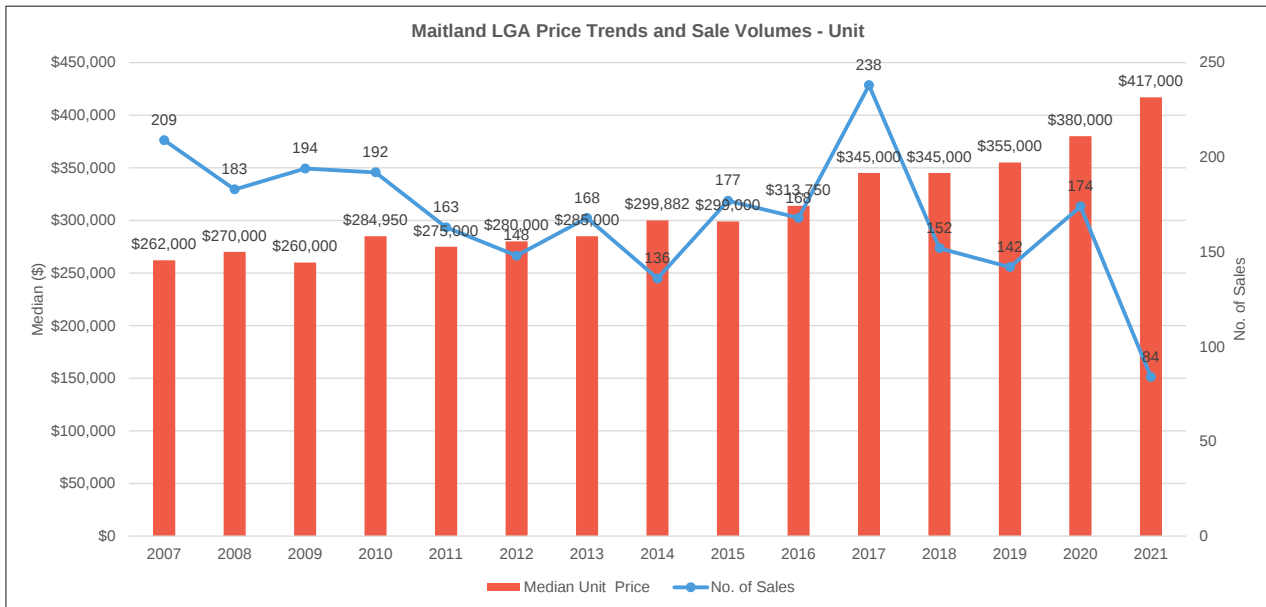
3.4.2 Residential Units

Historic median residential unit price and sales volume trends are outlined as follows:

- Median residential unit prices in Maitland LGA have increased steadily over the past 15 years from \$262,000 in 2007 up to \$417,000 in 2021 (to date). An average growth rate of approximately 3.15% p.a. has been demonstrated throughout this period.
- Excluding the current in complete year, the volume of annual sales has fluctuated between a low of 136 sales p.a. in 2014 to a maximum of 238 sales p.a. in 2017. There have been an average of 175 sales p.a. throughout the 15 year review period. Sale volumes in recent years have been below this longer term average. To date there have been 84 identified unit sales for the first six months of 2021 indicating a potential sales volume in keeping with the 15 year average. The volume of sales and recent growth in median dwelling house prices indicates a strongly performing residential dwelling house market.
- Over the past 18 months, circa 260 residential units have transacted in Maitland LGA. This has included a broad range of dwellings from duplexes through to apartments. Sale prices have ranged between \$170,000 for a one bed low rise apartment in Telarah up to \$625,000 for a three bed heritage apartment in Central Maitland.
- Two bedroom units were the most highly transacted accounting for 43.8% of sales followed by three bedrooms at 43.2%.
- The following locations have featured notable volumes of residential unit sales over the past 18 months:

- Aberglasslyn (20 transactions)
- East Maitland (74 transactions)
- Maitland (20 transactions)
- Metford (19 transactions)
- Rutherford (36 transactions)
- Thornton (41 transactions)

Figure 11: Maitland LGA Median Price Trends and Sales Volumes – Residential Units



Note: 2021 price and volume data represents first half of calendar year only

SOURCE – Pricerfinder; Charter Keck Cramer

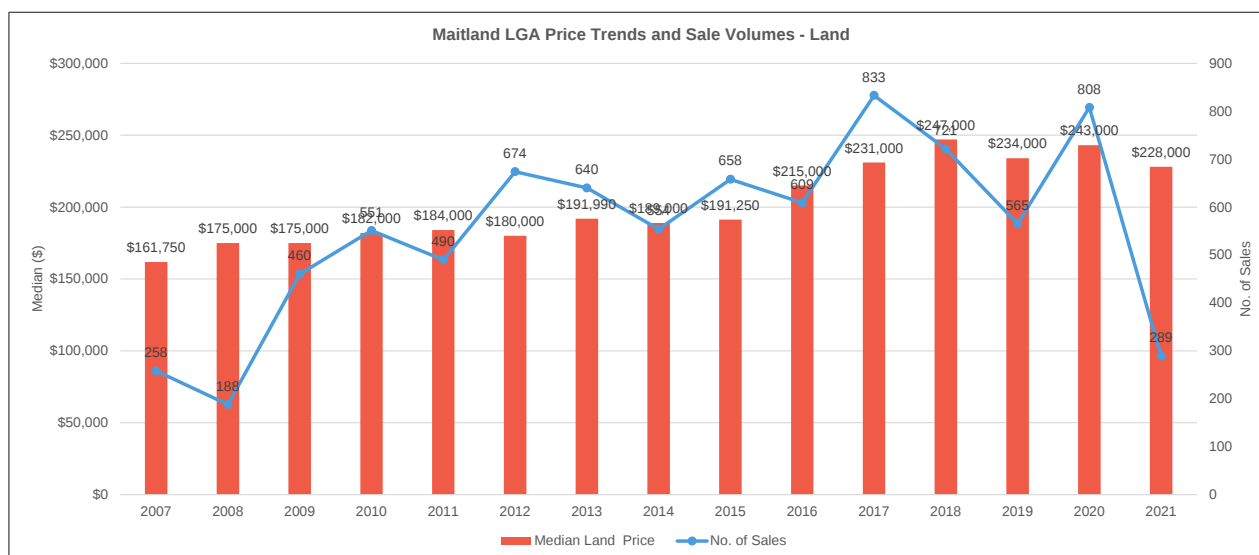
3.4.3 Land

Historic median land house price and sales volume trends are outlined as follows:

- Over the past 15 years, median land prices fluctuated between \$161,750 in 2007 to a high of \$247,000 in 2017 before reducing to the current median of \$228,000 in 2021 (year to date). Average annual growth over the period 2007 to 2021 has been 2.32% p.a.
- The volume of sales annually has fluctuated extensively coinciding with new land releases and variations in market conditions throughout the review period. Overall however, the volume of land sales has trended upwards particularly from 2012 onwards with the release of major land estates.
- Excluding the current calendar year, sales have ranged from 188 in 2008 to a peak of 833 sales in 2017. Based on sales to date in 2021, between 570 and 590 sales are anticipated for the full 2021 year assuming there is adequate supply of land for sale. This indicates a notable decline from 808 sales in 2020 but is in keeping with the 2019 total of 565 sales.
- The average land area of vacant allotments that have sold throughout the 15 year review period has trended downwards with average sizes ranging from 816 sq.m. to 837 sq.m. between 2007 to 2009 whilst average sizes have ranged from 694 sq.m. to 725 sq.m. between 2019 to 2021. This gradual decline over time is potentially attributable to a range of factors including some / all of the following:
 - Reduced availability of greenfield land used for new estates;
 - Developers seeking to rationalise land sizes to yield an increased number of allotments (and saleable product);
 - Planning changes enabling / facilitating smaller lot sizes; and
 - Market related factors such as affordability where smaller allotments are more affordable resulting in demand for appropriately priced product.
- Over the past 18 months circa 1,100 vacant allotments have transacted in Maitland LGA. land sales ranged in size from 309 sq.m. up to 2,000 sq.m. at an average size of 695 sq.m. Sale prices ranged from \$100,000 (675 sq.m.) up to \$500,000 (1,680 sq.m.).

- The following locations have featured notable volumes of land sales over the past 18 months:
 - Aberglasslyn (64 transactions)
 - Chisholm (207 transactions)
 - Cliftleigh (91 transactions)
 - Farley (146 transactions)
 - Gillieston Heights (69 transactions)
 - Lochinvar (102 transactions)
 - Rutherford (132 transactions)
 - Thornton (158 transactions)

Figure 12: Maitland LGA Median Price Trends and Sales Volumes – Land



Note: 2021 price and volume data represents first half of calendar year only

SOURCE – Pricefinder; Charter Keck Cramer

3.5 Summary

In summary, we note the following key characteristics in relation to Maitland LGA:

- Maitland is a regional strategic centre within the Lower Hunter region with a current population of circa 85,000 people. Population forecasts indicate an increase of 25,650 persons by 2041. This translates to a requirement for 13,550 additional dwellings by 2041 with strategic plans proposing that a notably higher content be provided within infill locations to support sustainable housing growth. The present ratio of new housing provision in Maitland LGA is 94% greenfield and 6% infill which is not considered sustainable in the long term.
- The majority of existing dwelling supply is accordingly provided in a low density format. Dwelling houses account for 87.4% of all housing stock with infill typologies representing a modest proportion of existing stock including medium density dwellings at 8.9% and flats / apartments 2.2%. There is a broad range of infill style housing provided throughout the LGA including duplex / dual occupancy dwellings up to apartment buildings. This stock ranges in age with some dating to the 1960's through to recently completed developments.
- Three quarter of households in the LGA are families whilst lone person households accounting for a notable 21.7%.
- Almost half of the resident population is aged over 45 years which includes 14% at over 65 years. The most dominant age groups are 0 – 17 years and 45 – 64 years which coincides with the family demographic.
- Close to 84% of dwellings feature three or more bedrooms with only circa 14% featuring two or less bedrooms. This indicates limited current housing choice for lone persons, couples and downsizers throughout the LGA as dwellings with a higher number of bedrooms typically equate to family households. Accordingly, from a demographic standpoint there appears very good opportunity to provide additional infill housing in Maitland LGA.
- Dwelling house prices have increased substantially over the past year by close to 14% to a median of \$585,000. Residential units are priced at a median of \$417,000 after continued solid growth in recent years.

- Maitland LGA is well traded in terms of dwelling houses and vacant land remains in high demand. Newly released medium density and apartment stock has typically been well received in recent years as median dwelling prices have increased. This stock has been well sought by investors.
-

4. Central Maitland.

To gain an understanding of the local housing market characteristics of the Central Maitland Study Area, we have analysed dwelling & household ABS census data collected and analysed residential property sales recorded over the past 15 years. The sales analysis has included a thorough review of dwelling house, residential unit and vacant land markets. To appropriately identify demographic and local housing market characteristics and trends, the review has focussed on the entire suburb of Maitland.

4.1 Central Maitland Study Area

The Central Maitland Study Area incorporates the main residential and retail / commercial centre of Maitland suburb and includes the residential component of suburb Horseshoe Bend (north-east section of the study area). The Maitland suburb boundaries extend further to the south and west of the study area with these lands typically rural themed or featuring environmental constraints such as Telarah Lagoon. The suburb boundary of Horseshoe Bend extend further east of the study area featuring mostly rural properties.

Central Maitland is located within the heart of Maitland LGA, approximately 34 kilometres north-west of Newcastle CBD and 160 kilometres north-east of the Sydney CBD.

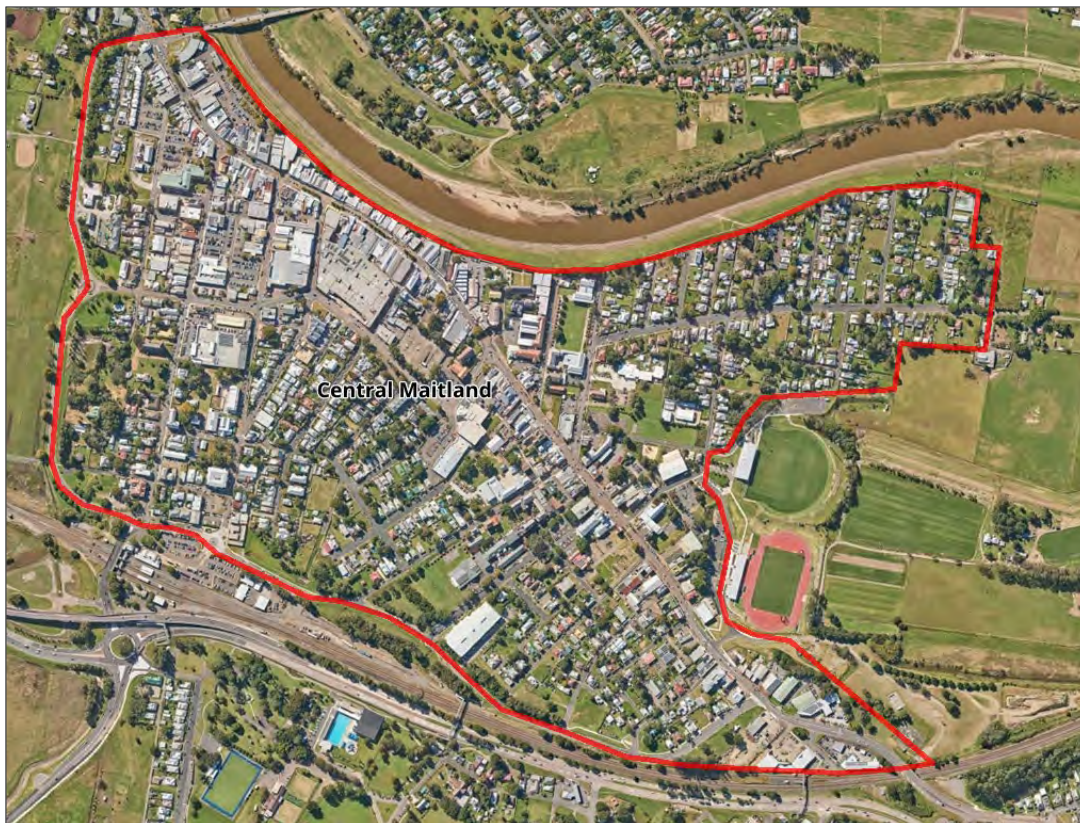
Existing residential development is characterised by detached dwellings including a mix of Victorian style typologies and mid-20th century dwellings. There is a limited content of townhouse and villa dwellings in the study area. There are few unit typologies however those available are typically low rise apartment buildings including some contemporary developments.

The area is well serviced by retail amenity with two shopping centres (Maitland Riverside Plaza and Pender Place Shopping Centre) and a small retail strip located in the northern part of the study region. Anchor tenants of Maitland Riverside Plaza include Aldi and Kmart and the anchor tenant of Pender Place is Woolworths.

Central Maitland is serviced by two railway stations including Maitland Railway Station at the south-western corner of the Study Area and High Street Railway Station at the south-eastern corner.

The aerial photograph below provides an outline of the Central Maitland Study Area.

Figure 13: Central Maitland Infill Study Area



SOURCE – Maitland City Council

4.2 Dwelling & Household Characteristics

4.2.1 Household Characteristics

Household demographic metrics for Central Maitland based on ABS and DPIE data are highlighted in the below charts with a summary provided overleaf.

Figure 14: Central Maitland Demographic Characteristics



SOURCE – Australian Bureau of Statistics; NSW Department of Planning; Charter Keck Cramer

Demographic summary:

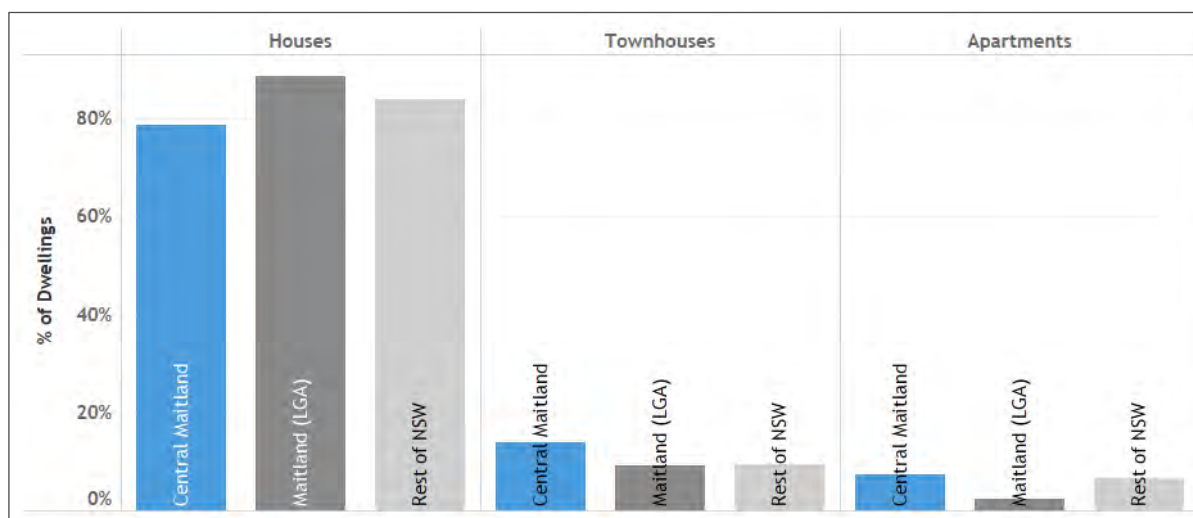
- In 2016 Central Maitland featured a population of 2,268 people with a median age of 43 years. The majority of this population (1,885 people) were located in Maitland suburb.
- The most prevalent age bracket is 45 – 64 years accounting for 29% of local residents followed by 0 – 17 years at 19% and 65+ years at 18%. This spread of ages indicates an aging population at this location.
- Between 2011 and 2016 the most notable changes in age groups were an increase in 18 – 24 year old residents which increased by 8.1%. This was followed by 45 – 64 year old residents with an increase of 3.1%. In contrast there were reductions in the number of residents aged 0 - 17, 25 - 34 and 35 - 44 years.
- Central Maitland has a household size of 2.2 persons which is less than the LGA size of 2.7 persons.
- Median personal and household income both increased between the 2011 and 2016 census periods (11.9% and 11.3% respectively) although remain below the Maitland LGA median incomes. Household income in Maitland suburb at \$1,034 p.w. is \$382 p.w. below the LGA.
- Household structure in Maitland is dominated by lone person households accounting for almost 34.7% of households. This is notably higher than Maitland LGA at just under 22%. Couples with no children (23.4%) represent the second highest household group followed by couples with children (19.8%).
- In terms of household composition, 58.7% of households are families, 34.7% are single / lone person and 5.5% are group households. Maitland LGA features a higher content of family households at 75.8%
- A total of 30.5% of all dwellings are owned outright, 29.4% are owned with a mortgage and 35.7% are rented.

4.2.2 Dwelling Characteristics

Dwelling characteristics in Central Maitland are outlined as follows

- In 2016, Central Maitland accommodated a total of 1,050 dwellings (approximately 3.4% of all dwellings in Maitland LGA). The dwelling count shows a modest increase of only 16 dwellings from 2011.
- Dwelling structure in Central Maitland is as follows:
 - Majority of occupied private dwellings within Central Maitland are separate houses, accounting for 78.7% of dwellings in 2016.
 - Medium density dwellings account for 14.0% of stock
 - Flats / apartments make up 7.3% of stock.
- “Number of bedrooms” statistics are detailed as follows:
 - Three bedrooms are most prevalent accounting 42.6% of dwellings followed by two bedrooms (26.7%), four or more bedrooms (18.7%), one bedroom (8.1%) and bedsit (0.5%). The average number of bedrooms per occupied private dwelling was circa 2.8.
 - By comparison Maitland LGA offers more four or more bedroom dwellings (43.8%), a similar content of three bedrooms but notably less two bedroom dwellings (11.1%). The average number of bedrooms per occupied private dwelling was greater at 3.4.

Figure 15: Central Maitland Dwelling Mix



SOURCE – Australian Bureau of Statistics; Charter Keck Cramer

4.3 Median Price Points

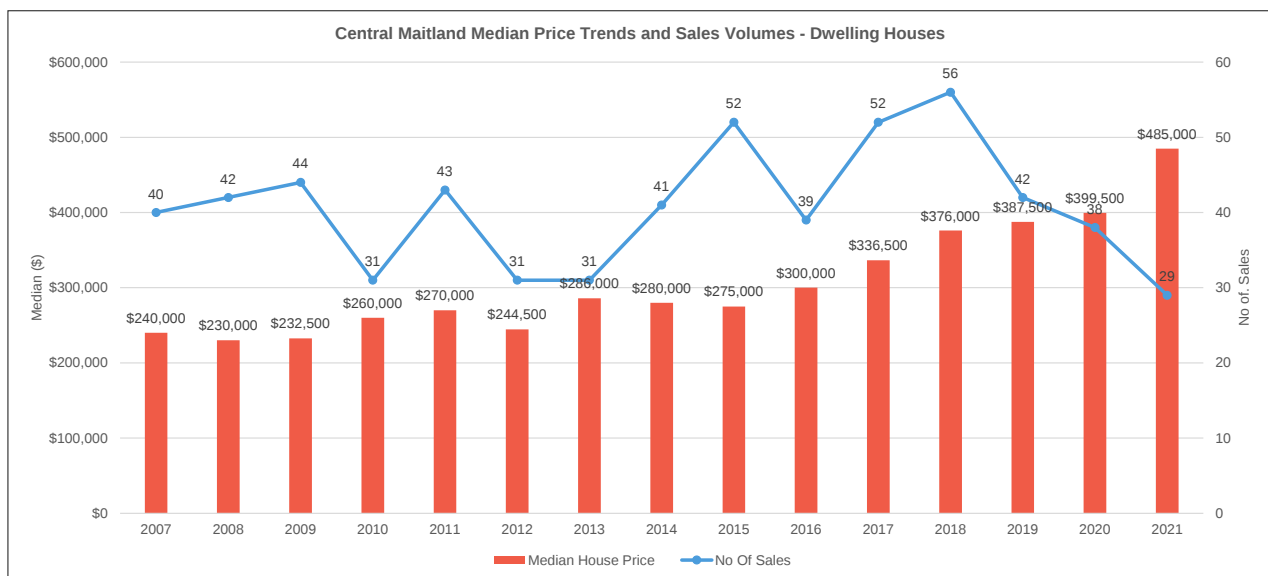
To assist in identifying local housing market trends in Central Maitland, we have investigated historic median prices and sales volumes of dwelling houses, residential units and vacant land within the area. Furthermore, we have analysed recent transactions over the past 18 months (including recent non-settled sales) to understand current housing stock and market preferences.

4.3.1 Dwelling Houses

Historic median dwelling house price and sales volume trends are outlined as follows:

- Median dwelling house prices in Central Maitland increased from \$240,000 (2007) to \$485,000 (2021), demonstrating an overall upward trend with an average growth rate of approximately 4.80% annually.
- The volume of annual sales has fluctuated between a low of 31 sales p.a. in 2010, 2012 & 2013 to a maximum of 56 sales p.a. in 2018. Sale volumes per annum have typically increased throughout the 15 years with a number of peaks in 2015, 2017 and 2018 coinciding with periods where the housing market was robust. To date there have been 29 sales for the first six months of 2021 at a comparatively high median price of \$485,000 indicating the current strength of the dwelling house market.
- Over the past 18 months, dwelling houses achieved broad ranging sale prices between \$175,000 for a 291 sq.m. allotment with a dilapidated two bed dwelling up to \$1,250,000 for a 1,176 sq.m. allotment improved with a five bed Victorian residence constructed c1887.
- The properties sale feature an average land size of 651 sq.m. although sizes range broadly from 234 sq.m. up to 1,695 sq.m. Three bedroom dwellings were the most highly transacted accounting for 59% of sales followed by two bedrooms at 19% and four bedrooms at 16%.

Figure 16: Central Maitland Median Price Trends and Sales Volumes – Dwelling Houses



Note: 2021 price and volume data represents first half of calendar year only

SOURCE – Pricefinder; Charter Keck Cramer

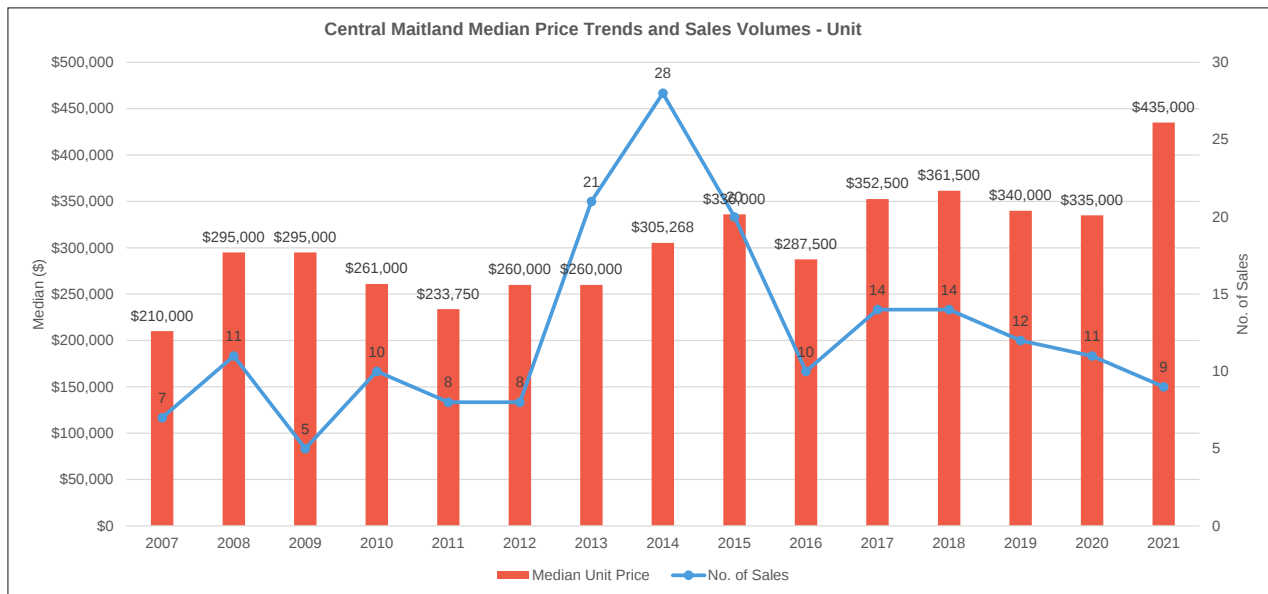
4.3.2 Residential Units

Historic median residential unit price and sales volume trends are outlined as follows:

- Throughout the review period all residential unit sales were located in Maitland suburb with no transactions in Horseshoe Bend. Median residential unit prices in Maitland increased from \$210,000 (2007) to \$435,000 (2021), demonstrating an overall upward trend with an average growth rate of approximately 4.97% annually.
- Throughout the majority of the 15 year timeframe median residential unit prices fluctuated between \$233,750 and \$361,500 until a notable increase in the 2021 year to date where median pricing increased from \$335,000 in 2020 to \$435,000. The notable recent increase is due to the release of higher priced villa stock at 40 Bonar Street, Maitland.
- The volume of residential unit sales has ranged broadly between 5 sales p.a. and 28 sales p.a., with the maximum volumes recorded between 2013 and 2015 coinciding with the introduction of new stock. Sales volumes subsequently have trended between 10 to 14 transactions per year subsequently.

- We note that 20 residential unit sales were recorded in Maitland suburb over the past 18 months, featuring a mix of villas, townhouses and low rise apartments. Sales have tended to be of contemporary higher priced stock with 60% (12 units) priced \$350,000 or higher. Prices ranged from \$265,000 for an older style two bed apartment up to \$625,000 for a three bed heritage apartment.
- Of the residential units sold in the past 18 months approximately 50% have 3 bedrooms and 35% have 2 bedrooms.

Figure 17: Central Maitland Median Price Trends and Sales Volumes – Residential Units



Note: 2021 price and volume data represents first half of calendar year only

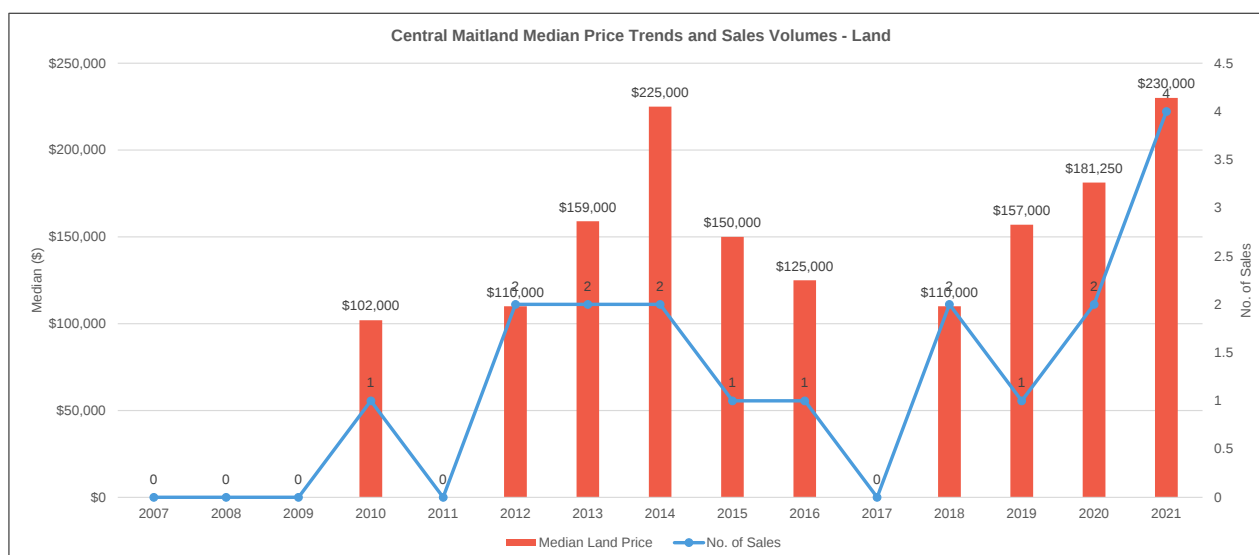
SOURCE – Pricefinder; Charter Keck Cramer

4.3.3 Land

Historic median land house price and sales volume trends are outlined as follows:

- Given the well-established nature of Central Maitland there have been very few sales of vacant allotments throughout the 15 year review period. There were no sales in five of the years, one sale per year in another five of the years and two sales per year within four years and four sales to date within the current calendar year.
- Given the limited number of sales over the 15 years it is difficult to draw meaningful conclusions from the available data. This is evident within the chart below which does not indicate any particular pricing trend.
- Throughout the 15 years prices have ranged from \$93,000 up to \$240,000 with land sizes ranging from 463 sq.m. up to 1,751 sq.m.
- There have been only six identified sales over the past 18 months, sized between 470 sq.m. up to 1,712 sq.m. with prices ranging from \$100,000 to \$240,000.

Figure 18: Central Maitland Median Price Trends and Sales Volumes – Land



Note: 2021 price and volume data represents first half of calendar year only

SOURCE – Pricerfinder; Charter Keck Cramer

4.4 Summary

In summary, we note the following key characteristics in relation to Central Maitland:

- The Central Maitland Study Area incorporates the main residential and retail / commercial centre of Maitland suburb and the residential component of Horseshoe Bend. Maitland is serviced by two train stations although neither are positioned adjacent to the High Street retail centre. However, location of the two stations within the Study Area provides an opportunity to incorporate transit-oriented development in a location which supports the greatest content of modern higher density development (low rise apartment buildings).
- Although Central Maitland is the commercial centre of the region, the suburb accommodates only 3.4% of all dwellings in Maitland LGA primarily in a low density format. Dwelling houses account for 78.7% of all housing stock and there is a reasonable content of medium density dwellings (14.%) and flats / apartments (7.3%). There is a broad range of infill style housing from small lot housing to medium density developments, heritage conversions and modern apartment buildings (typically up to four storeys).
- There is a lower proportion of family households in Central Maitland at 58.7% compared with the LGA at circa 75% with lone person households accounting for almost 35% of households. This is reflected in the below average household size of only 2.2 persons.
- Almost half of the resident population is aged over 45 years which includes 18% of residents aged over 65 years.
- Circa 61% of dwellings feature three or more bedrooms with 35% featuring two or less bedrooms. Whilst this would appear to indicate there is reasonable choice of smaller scale housing for lone persons, couples and downsizers. However, strong demand for property at this location combined with a shortage of modern quality stock and below average personal / household incomes in reality means that options are limited. Accordingly, there appears opportunity to provide additional infill housing in Central Maitland.
- Dwelling house prices have increased substantially over the past year by over 21% to a median of \$485,000. This price point remains below the LGA median price. Residential units are priced at a median of \$435,000 after strong recent increases given the addition of new higher priced stock. The differential between median dwelling house and residential unit prices has continued to narrow.
- Central Maitland is well traded in terms of dwelling houses and there are regular sales of residential units although over the past five years the annual total has not exceeded 14 sales. There have been no residential unit sales in Horseshoe Bend within the past 15 years. Given the well-established nature of Central Maitland there have been very few vacant land sales with only nine sales in the past five years.

5. East Maitland.

To gain an understanding of the local housing market characteristics of the East Maitland Study Area, we have analysed dwelling & household ABS census data collected and analysed residential property sales recorded over the past 15 years. The sales analysis has included a thorough review of dwelling house, residential unit and vacant land markets. To appropriately identify demographic and local housing market characteristics and trends, the review has focussed on the entire suburb of East Maitland.

5.1 East Maitland Study Area

The East Maitland Study Area incorporates a large established primarily low-density residential component of East Maitland suburb. The suburb boundaries extend further to the east, north and south of the study area with these lands comprising a mix of larger lot residences and rural themed dwellings or featuring environmental constraints such as Four Mile Creek.

East Maitland is located 750 metres east of central Maitland, approximately 31 kilometres north-west of Newcastle CBD and 160 kilometres north-east of Sydney CBD.

Residences typically comprise detached dwellings built in the mid to late 20th century including a limited content heritage dwellings. East Maitland features a growing content of infill themed housing primarily in the form of villa / townhouse typologies. There is a content of flats / apartments although these are typically established.

East Maitland is serviced by two railway stations including East Maitland Station which is positioned within the northern end of the Study Area and the heritage listed Victoria Street Station which is located within the western section of the Study Area.

There is limited retail provision with the area serviced by retail strips along Lawes Street and Melbourne Street. Retail includes a number of restaurants, pubs and specialty stores.

The aerial photograph below provides an outline of the East Maitland Study Area.

Figure 19: East Maitland Infill Study Area



SOURCE – Maitland City Council

5.2 Dwelling & Household Characteristics

5.2.1 Household Characteristics

Household demographic metrics for Maitland suburb based on ABS and DPIE data are highlighted in the below charts with a summary provided overleaf.

Figure 20: East Maitland Demographic Characteristics



SOURCE – Australian Bureau of Statistics; NSW Department of Planning; Charter Keck Cramer

Demographic summary:

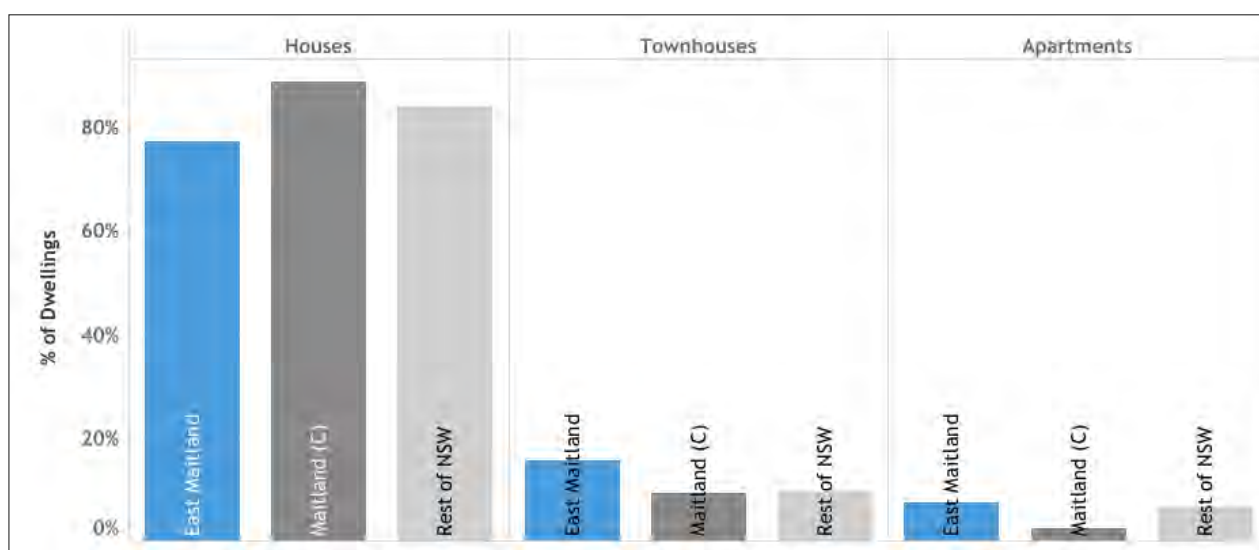
- In 2016 East Maitland suburb featured a population of 11,782 people with a median age of 40 years.
- The most prevalent age bracket is 45 – 64 years accounting for 25% of local residents followed by 0 – 17 years at 22% and 65+ years at 20%. This spread of ages indicates an aging population at this location.
- Between 2011 and 2016 the most notable changes in age groups were an increase in 25 – 34 year old residents which increased by 3.0% followed by 65+ year olds with an increase of 2.6%. In contrast there were reductions in the number of residents aged 18 – 24 and 35 – 44 years.
- East Maitland has a household size 2.3 persons which is less than the LGA size of 2.7 persons.
- Median personal and household income both increased between the 2011 and 2016 census periods (15.0% and 13.7% respectively) although remain below the Maitland LGA median incomes. Household income in East Maitland suburb at \$1,178 p.w. is \$237 p.w. below the LGA.
- Household structure in East Maitland is dominated by lone person households accounting for 30.8% of households. This is notably higher than Maitland LGA at just under 22%. Couples with no children (26.3%) represent the second highest household group followed by couples with children (25.9%).
- In terms of household composition, 66.4% of households are families, 30.8% are single / lone person and 2.9% are group households. Maitland LGA features a higher content of family households at 75.8%
- A total of 30.7% of all dwellings are owned outright, 30.1% are owned with a mortgage and 35.3% are rented.

5.2.2 Dwelling Characteristics

Dwelling characteristics in East Maitland suburb are outlined as follows

- In 2016, East Maitland accommodated a total of 5,286 dwellings (approximately 17% of all dwellings in Maitland LGA). The dwelling count shows an increase of 343 dwellings from 2011.
- Dwelling structure in East Maitland is as follows:
 - Majority of occupied private dwellings within East Maitland are separate houses, accounting for 75.3% of dwellings in 2016.
 - Medium density dwellings account for 15.0% of stock
 - Flats / apartments make up 7.2% of stock with the remaining 0.1% classified as “other dwelling”.
- “Number of bedrooms” statistics are detailed as follows:
 - Three bedrooms are most prevalent accounting 42.1% of dwellings followed by four bedrooms or more (28.5%), two bedrooms (20.2%), one bedroom (6.5%) and bedsit (0.2%). The average number of bedrooms per occupied private dwelling was 3.
 - By comparison Maitland LGA offers slightly less three bedrooms (39.8%), a greater content of four or more bedroom dwellings (43.8%) and a lesser content of both one and two bedrooms. The average number of bedrooms per occupied private dwelling was greater at 3.4.

Figure 21: East Maitland Dwelling Mix



SOURCE – Australian Bureau of Statistics; Charter Keck Cramer

5.3 Median Price Points

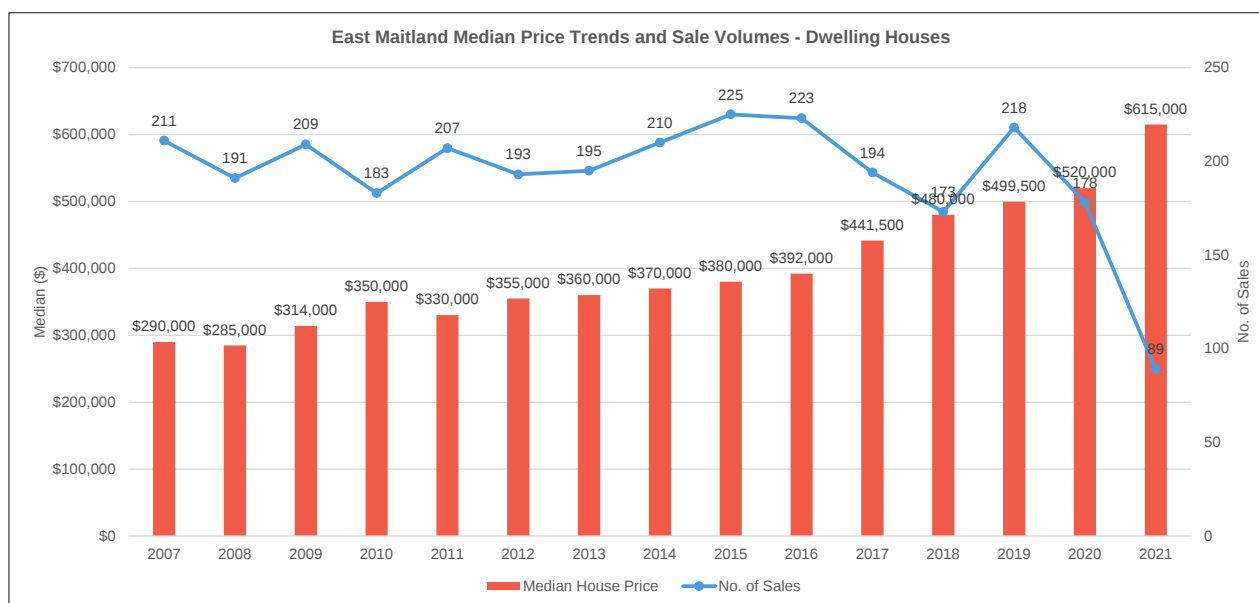
To assist in identifying local housing market trends in the suburb of East Maitland, we have investigated historic median prices and sales volumes of dwelling houses, residential units and vacant land within the area. Furthermore, we have analysed recent transactions over the past 18 months (including recent non-settled sales) to understand current housing stock and market preferences.

5.3.1 Dwelling Houses

Historic median dwelling house price and sales volume trends are outlined as follows:

- Median dwelling house prices in East Maitland increased from \$290,000 (2007) to \$615,000 (2021), demonstrating an overall upward trend with an average growth rate of approximately 5.14% annually. The median price increased notably (18.27%) between 2020 and the year to date 2021.
- Excluding the current incomplete year, the volume of annual sales has fluctuated between a low of 173 sales p.a. in 2018 and a maximum of 225 sales p.a. in 2015. Sale volumes per annum appear to have been broadly consistent although in recent years volumes appear below. Based on the sales to date in year 2021 a similar volume of sales to 2020 is anticipated.
- Over the past 18 months, dwelling houses have continued to increase in capital value with notable growth in 2021. Sale prices have ranged between \$220,000 for very modest three bedroom cottage up to \$1,025,000 for a 1,220 sq.m. allotment improved with a renovated four bed Victorian residence constructed c1840. The sale properties feature an average land size of 717 sq.m. although sizes range broadly from 309 sq.m. up to 1,643 sq.m. Three bedroom dwellings were the most highly transacted accounting for half of sales followed by four bedrooms at 34% and five bedrooms at 7%.

Figure 22: East Maitland Median Price Trends and Sales Volumes – Dwelling Houses



Note: 2021 price and volume data represents first half of calendar year only

SOURCE – Pricerfinder; Charter Keck Cramer

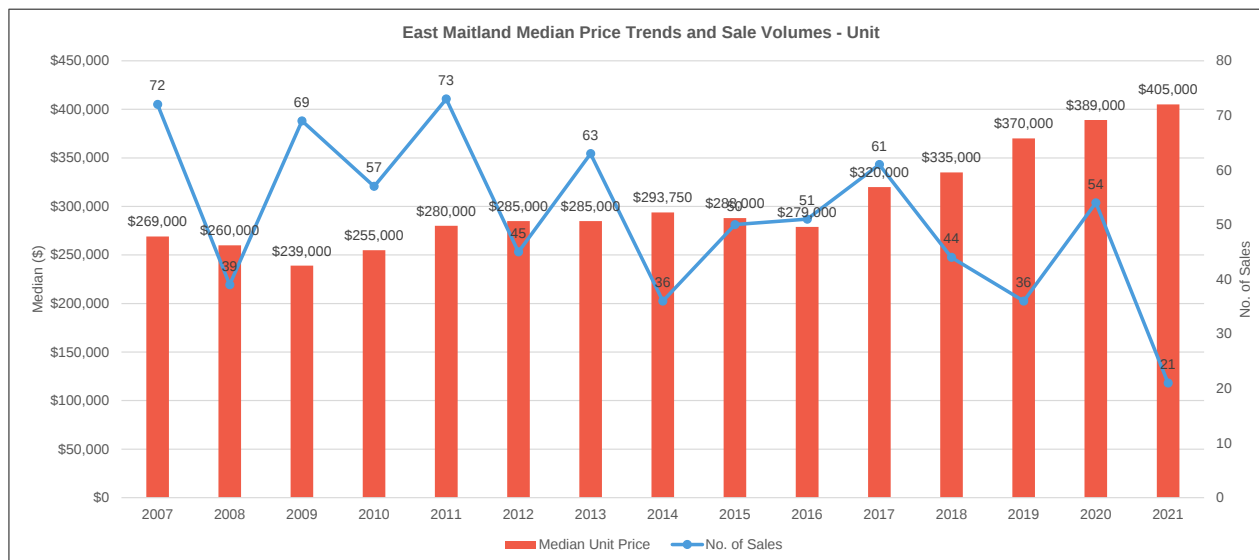
5.3.2 Residential Units

Historic median residential unit price and sales volume trends are outlined as follows:

- Median residential unit prices in East Maitland increased from \$269,000 (2007) to \$405,000 (2021), demonstrating an overall upward trend with an average growth rate of approximately 2.77% annually.
- Throughout the 15 year timeframe median residential unit prices fluctuated from a low of \$239,000 in 2009 up to \$405,000 in 2021 (year to date). Median prices have shown consistent increases since from 2017 to now.
- The volume of annual residential unit sales was highest between 2007 to 2013 with over 60 annual sales in four out of these seven years. Within the years subsequent (excluding 2021 to date) there has been a lower volume of sales with only 2017 featuring in excess of 60 annual sales. These periods typically reflect a mix of either peak market conditions or release of new stock.

- A total of circa 74 residential unit sales have been recorded in East Maitland over the past 18 months, featuring a mix of primarily villas and townhouses varying in age and quality. Sale prices have ranged broadly from \$199,000 for an established one bed villa up to \$615,000 for a new townhouse within a complex of eight. Of all sales 80% (60 units) have transacted within a price range of \$300,000 to \$470,000.
- Of the sales over the past 18 months where accommodation information has been available, approximately 56% have featured 2 bedrooms and 38% have accommodated 3 bedrooms.

Figure 23: East Maitland Median Price Trends and Sales Volumes – Residential Units



Note: 2021 price and volume data represents first half of calendar year only

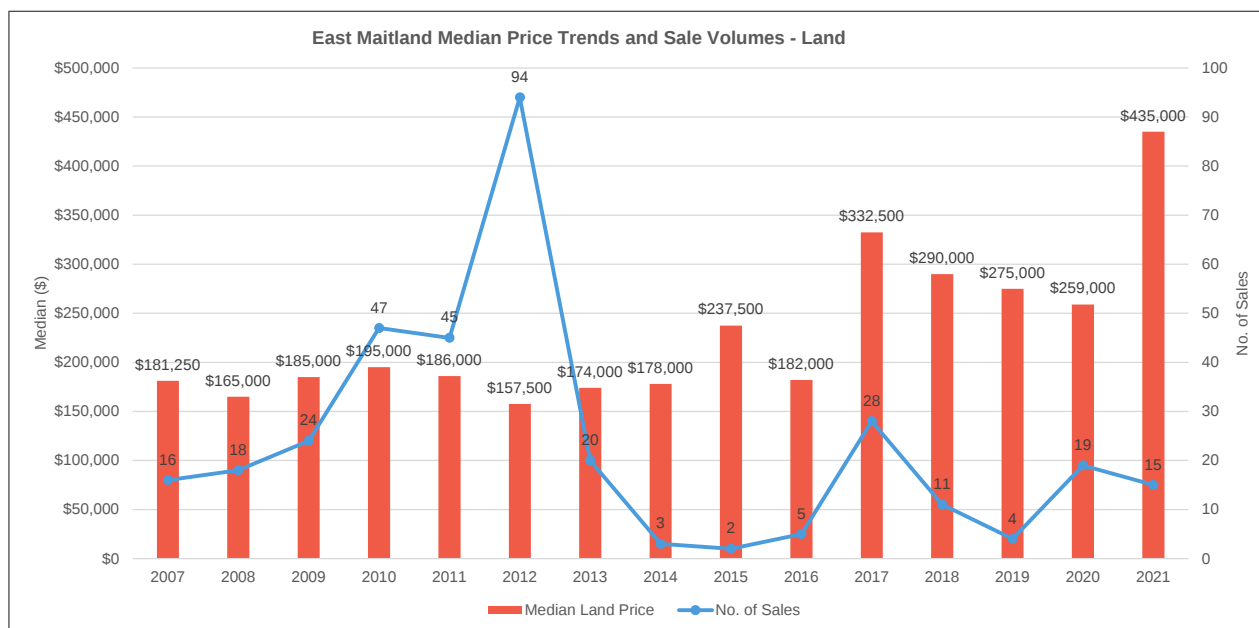
SOURCE – Pricerfinder; Charter Keck Cramer

5.3.3 Land

Historic median land house price and sales volume trends are outlined as follows:

- Over the past 15 years, median land prices fluctuated between \$181,250 to a high of \$435,000 in East Maitland. The peak price was achieved in 2017 subsequent to which the median fell to \$259,000 in 2020 before peaking in the year to date at \$435,000. It is noted that 14 of the 15 sales in 2021 form part of a new estate having exchanged but not settled.
- Average annual growth over the period 2007 to 2021 has been 6.01% with the high rate due in part to the sales achieved in the current calendar year.
- The volume of sales fluctuated extensively to coincide with land releases and market conditions. A notable spike was evident in 2012 with a total of 94 sales recorded after large land releases by FKP Maitland Developments and the NSW Government. But for this year land sales ranged in number from two to 47 sales per annum. Land sales have intermittently peaked when new estates have been made available at various times.
- The average size of vacant allotments sold throughout the period has varied between 570sq.m. and 877sq.m. however there is no discernible trend that land sizes have increased or decreased over the past 15 years.
- Over the past 18 months, land sales ranged in size from 368 sq.m. up to 1,026 sq.m. at an average size of 716 sq.m. Sale prices ranged from \$110,000 (368 sq.m.) up to \$460,000 (1,019 sq.m.). The 2021 have been located within “Rathluba” estate and have trended larger in size with an average site area of 861 sq.m.

Figure 24: East Maitland Median Price Trends and Sales Volumes – Land



Note: 2021 price and volume data represents first half of calendar year only

SOURCE – Pricerfinder; Charter Keck Cramer

5.4 Summary

In summary, we note the following key characteristics in relation to East Maitland:

- An established residential location positioned to the east of Central Maitland. The study area is benefitted by the provision of two railway stations both of which are centrally positioned. East Maitland Station at the northern end of the study area adjacent to a range of businesses / limited strip retail along Melbourne Street and is surrounded by notable tracts of under-developed land. Victoria Street Station features mostly low-density either side of the station and is to the east of the main content of retail on Lawes Street.
- East Maitland suburb accommodates circa 17% of all dwellings in Maitland LGA mostly in a low density format dominated by dwelling houses (over 75% of all housing stock). There is a notable content of residential units at this location accounting for over 22% of all housing stock. This includes small scale apartment complexes and medium density villas / townhouses ranging from established to contemporary stock.
- There is a prominence of family households (66.4% of households) and parent / child age groups. However, lone person households at 30.8% account for the highest number of households in East Maitland suburb. This is followed by couples with no children 26.3% indicating that Couples with children indicating that over 57% of households comprise two or less residents.
- Over 70% of dwellings feature three or more bedrooms indicating limited current housing choice for lone persons, couples and downsizers as more bedrooms typically equate to larger family households. In terms of downsizers, 20% of the local population is aged 65+ years indicating a strong potential base of demand for smaller modern dwelling stock.
- Circa 27% of dwellings feature two bedrooms or less indicating a misalignment between household characteristics and accommodation currently provided within existing dwellings. The limited dwelling choice for smaller households is also highlighted. Particularly for residents seeking one bedroom stock which accounts for only 6.5% of existing dwellings.
- Both personal and household median incomes are below Maitland LGA levels. In contrast, median dwelling and vacant land prices exceed the LGA median whilst residential units are marginally below.
- Dwelling house prices have increased substantially over the past year by over 18% to a median of \$615,000. Residential units are priced at a median of \$405,000 after steady increases in recent years in line with new stock additions. The recent release of new vacant land has significantly increased the median land price to \$435,000.
- East Maitland is well traded in terms of dwelling house and residential units. Given the well-established nature of location the volume of vacant land sales fluctuates but there appears strong demand for stock when made available.

6. East Maitland Catalyst Area.

To gain an understanding of the local housing market characteristics of the East Maitland Catalyst Area, we have analysed dwelling & household ABS census data collected and analysed residential property sales recorded over the past 15 years. The sales analysis has included a thorough review of dwelling house, residential unit and vacant land markets. To appropriately identify demographic and local housing market characteristics and trends, the review has focussed on the entire suburbs of Ashtonfield and Metford.

6.1 East Maitland Catalyst Area Study Region

The East Maitland Catalyst Area Study Region incorporates established residential components of Ashtonfield, East Maitland and Metford suburbs. The suburb boundaries extend further to the south, west and north-west of the study area with these lands either forming part of another Infill Study Area (East Maitland to the north-west), rural themed or featuring environmental constraints such as bushland. It is noted that only a very modest residential component of East Maitland suburb is contained within the Catalyst Study Area and accordingly **the demographic and housing market analysis has focused on Ashtonfield and Metford suburbs which are considered to best characterise the location.**

The East Maitland Catalyst Area is located 3.7 kilometres south of the central Maitland, approximately 27 kilometres north-east of Newcastle CBD and 160 kilometres north-west of the Sydney CBD.

Residences typically comprise detached dwellings built in the mid to late 20th century although more contemporary dwellings also feature at this location. Medium density residential dwellings range from established villas through to modern townhouses although overall there is generally limited stock.

The Study Region is well serviced by retail amenity with Stockland Green Hills Shopping Centre located within the western component. The shopping centre features some 195 retailers with anchor tenants including Big W, Woolworths, Coles and JB Hi Fi. The Study Region will also accommodate the new Maitland Hospital Precinct, a major new facility to be located within the north-eastern section of the study area.

The area is serviced by Metford railway station which is positioned remotely within the western periphery of the EMCA being somewhat removed from key retail and service industry locations.

The aerial photograph below provides an outline of the East Maitland Catalyst Study Region.

Figure 25: East Maitland Catalyst Area Infill Study Region



SOURCE – Maitland City Council

6.2 Dwelling & Household Characteristics

6.2.1 Household Characteristics

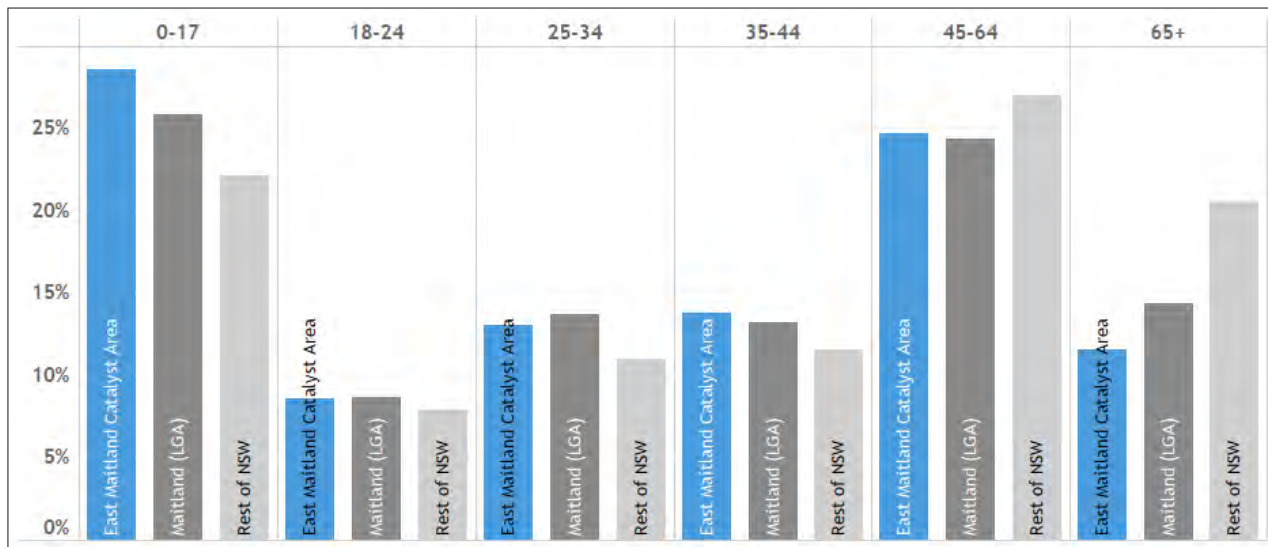
Household demographic metrics for the suburbs of Ashtonfield and Metford within the East Maitland Catalyst Area are based on ABS census data and highlighted in the below charts and summary.

The EMCA suburbs feature a household size of 2.7 persons which is in keeping with the LGA size of 2.7 persons.

In 2016, the EMCA suburbs featured a population of 9,409 people with a median age of circa 34 years.

The most prevalent age bracket is 0 – 17 years accounting for 29% of local residents followed by 45 – 64 years at 25% and 34 – 44 years at 14%. The 18 – 24 years group accounts for the lowest percentage at 9%.

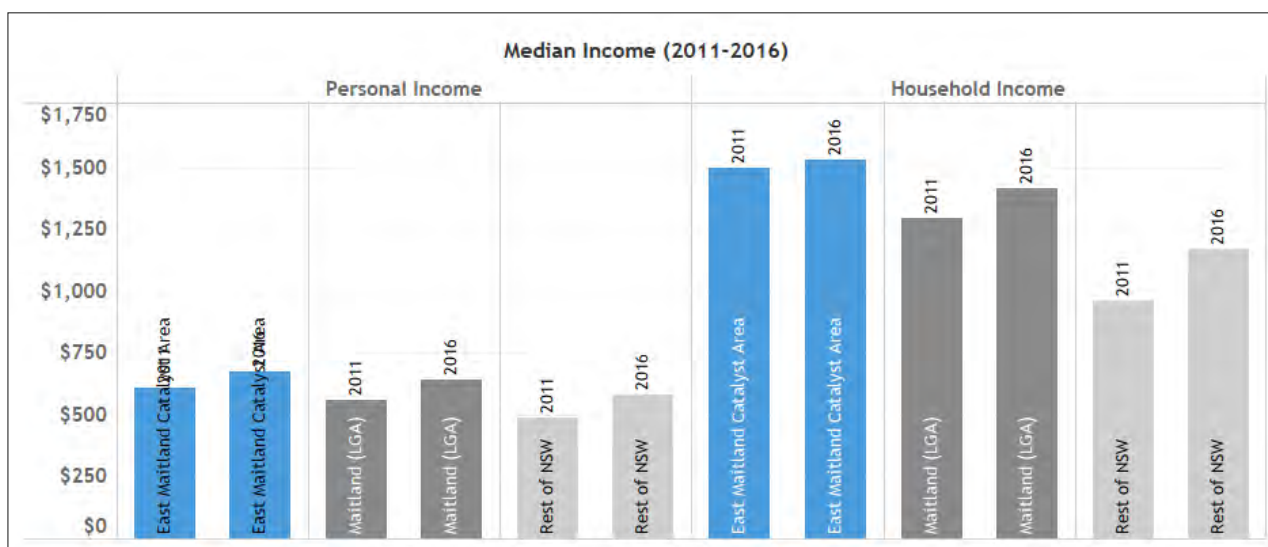
Figure 26: Age Distribution – East Maitland Catalyst Area



SOURCE – Australian Bureau of Statistics; Charter Keck Cramer

Median personal and household income both increased between the 2011 and 2016 census periods (10.2% and 2.1% respectively) which exceed Maitland LGA median incomes. Household income in the EMCA suburbs at \$1,531 p.w. is \$116 p.w. above the LGA. The median personal income at \$674 p.w. is \$112 p.w. higher than the LGA median.

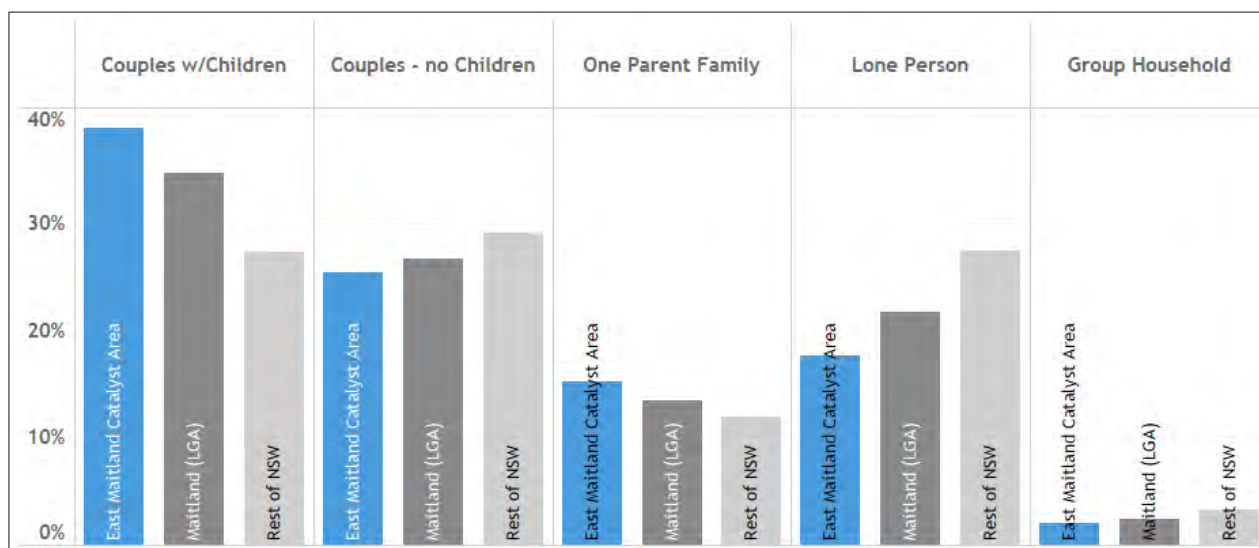
Figure 27: Median Income – EMCA Suburbs



SOURCE – Australian Bureau of Statistics; Charter Keck Cramer

Household structure in the EMCA suburbs is dominated by couples with children accounting for almost 38.8% of households. This is higher than the LGA at 34.6%. Couples with no children are the next highest household group at 25.4% following by lone person households at 17.6% and one parent families at 15.3%.

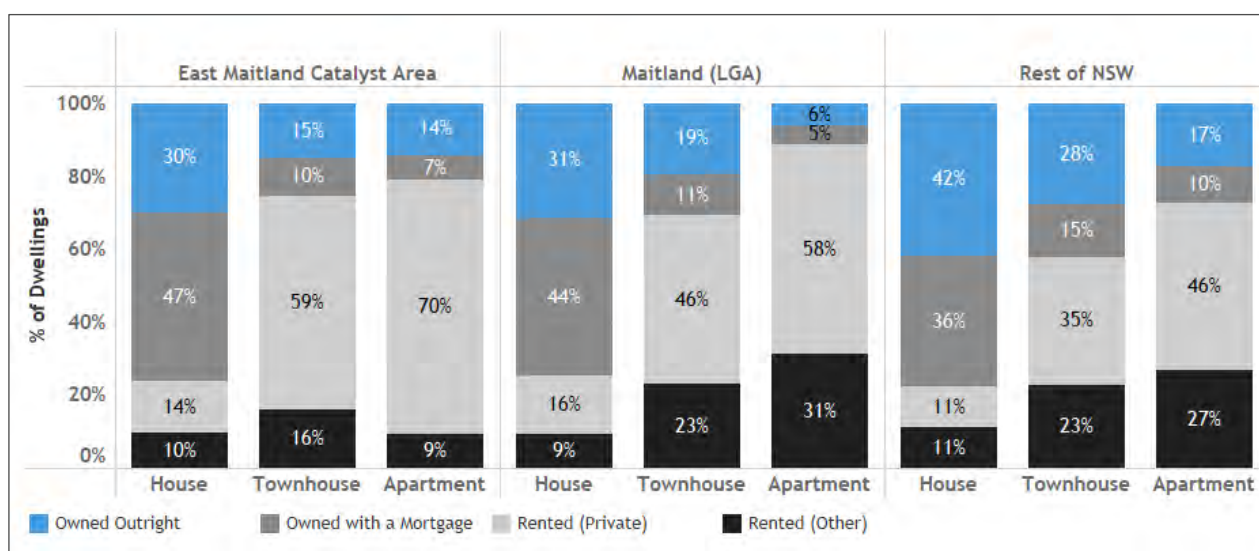
Figure 28: Household Structure – EMCA Suburbs



SOURCE – Australian Bureau of Statistics; Charter Keck Cramer

In terms of dwelling tenure, 30% of dwelling houses are owned outright compared with only 15% townhouses and 14% apartments. A total of 47% of dwelling houses in the EMCA suburbs are owned with a mortgage, compared with only 10% of townhouses and 7% of apartments. Almost a quarter of all dwelling houses are rented with townhouses and apartments substantially higher at 75% and 79% respectively indicating that infill type housing is preferred as an investment.

Figure 29: Dwelling Structure by Tenure – EMCA Suburbs



SOURCE – Australian Bureau of Statistics; Charter Keck Cramer

6.2.2 Dwelling Characteristics

In 2016, the EMCA suburbs accommodated a total of 3,499 dwellings (approximately 11.4% of all dwellings in Maitland LGA). The dwelling count shows a modest increase of only 98 dwellings from 2011.

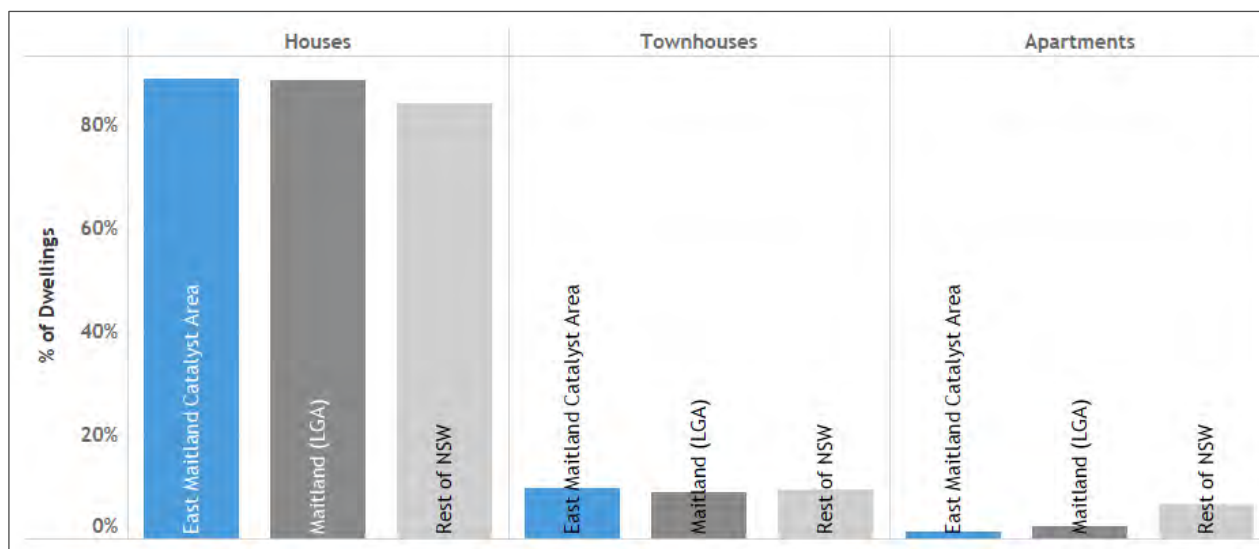
Dwelling structure in the EMCA suburbs is as follows:

- Majority of occupied private dwellings are separate houses, accounting for 88.9% of dwellings in 2016.
- Medium density dwellings account for 9.7% of stock.
- Flats / apartments make up only 1.4% of stock.

“Number of bedrooms” statistics are detailed as follows:

- Four or more bedrooms are most prevalent accounting 48.8% of dwellings followed by three bedrooms at 42.0%, two bedrooms at 6.1% and one bedroom at 1.7%.
- By comparison Maitland LGA offers fewer three and four or more bedrooms but a higher content of one and two bedroom dwellings.

Figure 30: Dwelling Mix – EMCA Suburbs



SOURCE – Australian Bureau of Statistics; Charter Keck Cramer

6.3 Median Price Points

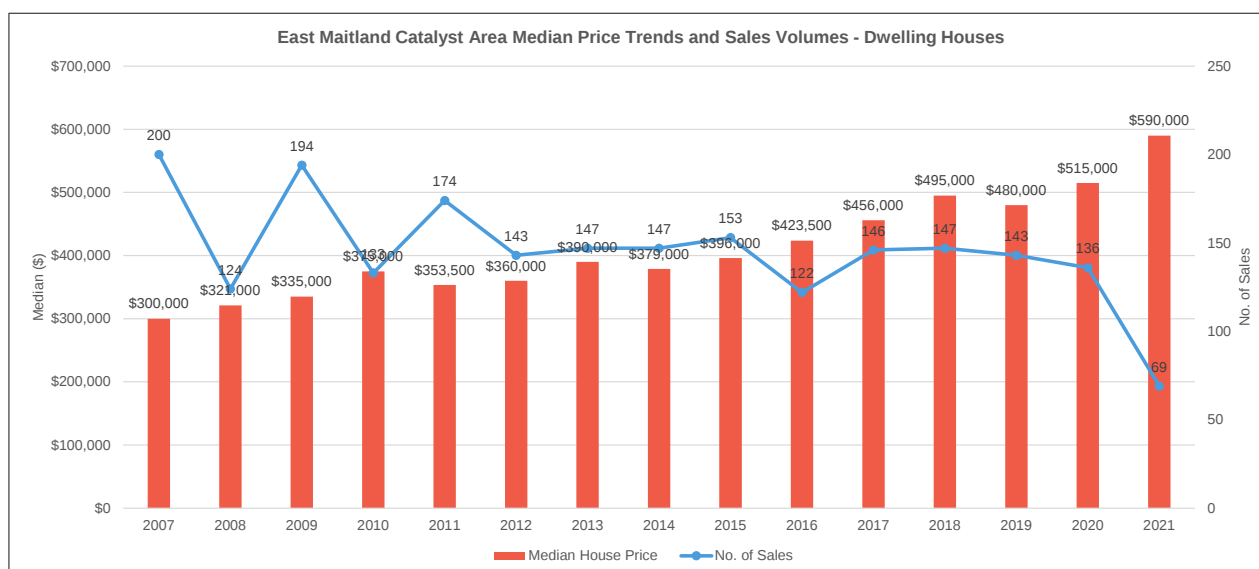
To assist in identifying local housing market trends in the East Maitland Catalyst Area, we have investigated historic median prices and sales volumes of dwelling houses, residential units and vacant land within the area. Furthermore, we have analysed recent transactions over the past 18 months (including recent non-settled sales) to understand current housing stock and market preferences.

6.3.1 Dwelling Houses

Historic median dwelling house price and sales volume trends are outlined as follows:

- Median dwelling house prices in the EMCA increased from \$300,000 (2007) to a current high of \$590,000 (2021), demonstrating an overall upward trend with an average growth rate of approximately 4.61% annually. There has been a notable increase of over 14% between 2020 and 2021 to date. The graph below highlights a generally uniform increase throughout the review period.
- Excluding the current incomplete year, the volume of annual sales has fluctuated between a low of 122 sales p.a. in 2016 and a maximum of 200 sales p.a. in 2007. Sale volumes have typically fluctuated between 140 to 150 sales per annum subsequent to 2012. Based on the sales to date in year 2021 a similar volume of sales to 2020 is anticipated.
- Over the past 18 months, dwelling houses have continued to increase in capital value with notable growth in 2021. Sale prices have ranged between \$265,000 for a 603 sq.m. allotment improved with a termite damaged three bedroom cottage up to \$951,000 for a 907 sq.m. allotment improved with a modern four bed two storey residence with four car garage.
- The 205 properties that have sold over past 18 months sale properties feature an average land size of 700 sq.m. although sizes range broadly from 333 sq.m. up to 2,073 sq.m. Three bedroom dwellings were the most highly transacted accounting for 54% of sales followed by three bedrooms at 34%.

Figure 31: EMCA Median Price Trends and Sales Volumes – Dwelling Houses



Note: 2021 price and volume data represents first half of calendar year only

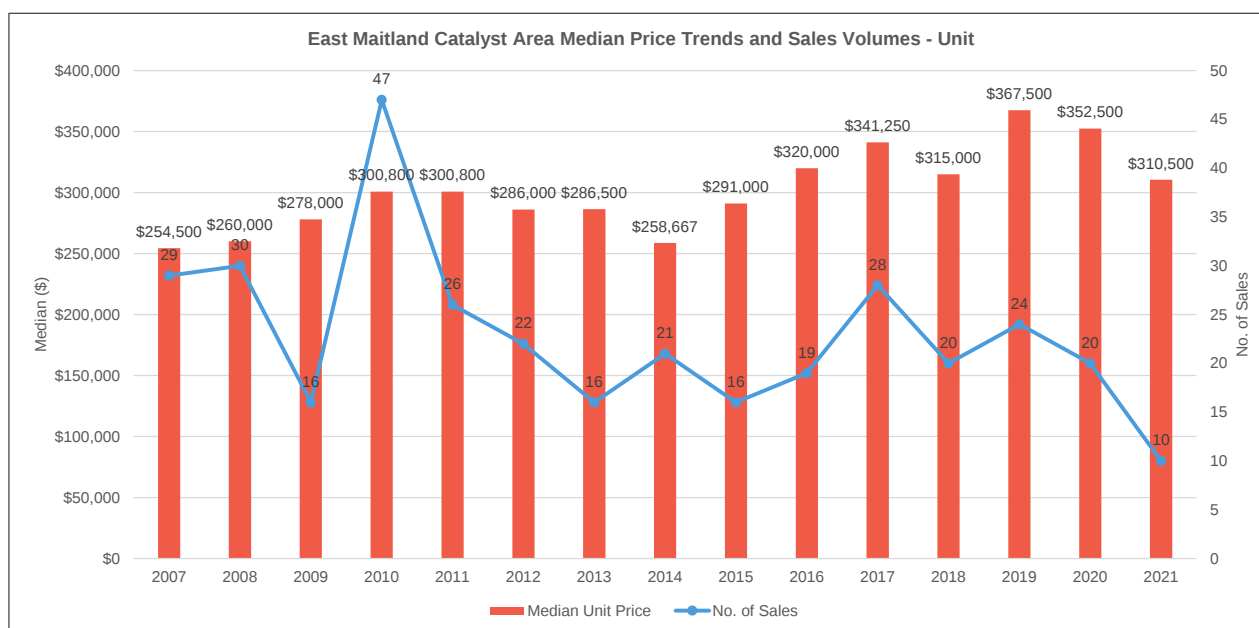
SOURCE – Pricerfinder; Charter Keck Cramer

6.3.2 Residential Units

Historic median residential unit price and sales volume trends are outlined as follows:

- Median residential unit prices in the EMCA increased from \$254,500 in 2007 to a maximum of \$367,500 (after the introduction of new stock) before declining to \$310,500 in 2021 to date. Between 2007 and 2021 average growth has been approximately 1.33% per annum.
- Although the overall quantum of stock is growing there is not a significant content of residential units located in the EMCA. Accordingly, throughout the 15 year timeframe median residential unit prices have fluctuated including price peaks when new stock is introduced. Once the new stock is absorbed median prices typically reduce as market activity tends to be of lower priced established stock. However, median prices have trended upwards overall throughout the review period
- The volume of annual residential unit sales has varied between 16 and 47 sales per annum with the peak being in 2010. Within most years sale volumes have ranged between circa 20 to 30 sales per annum. The 2021 year is on track to achieve circa 20 sales based on year to date transactions.
- A total of circa 30 residential unit sales have been recorded in the EMCA over the past 18 months, featuring a mix of villas, townhouses and duplex dwellings varying in age and quality. Sale prices have ranged broadly from \$205,000 for an established one bed unit up to \$515,000 for a new three bedroom duplex dwelling. Of all sales 30% (9 units) have transacted below \$300,000, 50% (15 units) have transacted between \$300,000 to \$400,000 and the remaining 20% (6 units) within a price range over \$400,000.
- Of the sales over the past 18 months where accommodation information has been available, 54% have featured 3 bedrooms and 29% have accommodated 2 bedrooms.

Figure 32: EMCA Median Price Trends and Sales Volumes – Residential Units



Note: 2021 price and volume data represents first half of calendar year only

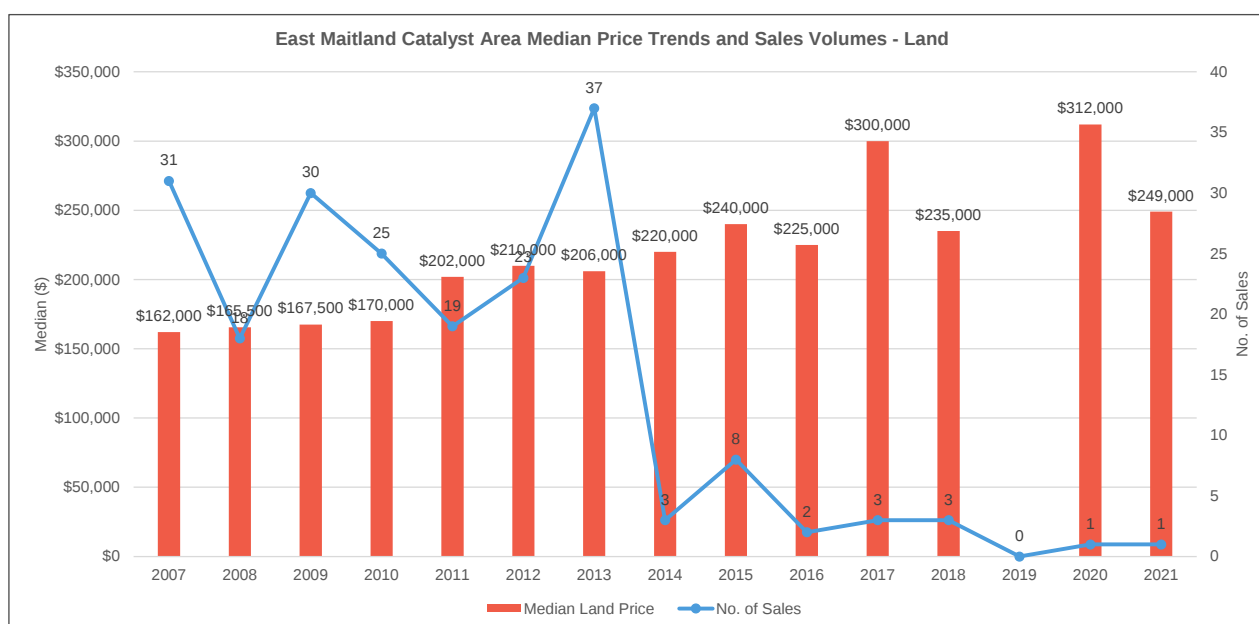
SOURCE – Pricefinder; Charter Keck Cramer

6.3.3 Land

Historic median land house price and sales volume trends are outlined as follows:

- Over the past 15 years, median land prices have trended upwards although in recent years there have been few transactions. Between 2007 and 2013 large land estates were released by FRD Nominees and Greater Newcastle Land Developments resulting in annual sale volumes of between 18 to 37 transactions within this period. Between 2014 and 2021 to date sales have declined notably to between 0 to eight annual sales.
- The median land was \$162,000 in 2007 with current pricing based on the limited number of transactions in recent years trending around \$300,000.
- The average size of vacant allotments sold throughout the period has remained relatively consistent at around 800 sq.m.

Figure 33: EMCA Median Price Trends and Sales Volumes – Land



Note: 2021 price and volume data represents first half of calendar year only

SOURCE – Pricefinder; Charter Keck Cramer

6.4 Summary

In summary, we note the following key characteristics in relation to the East Maitland Catalyst Area suburbs:

- An established residential location positioned in relatively close proximity to Central Maitland only 3.7 kilometres south-east. Features a railway station located within the western periphery of the study area.
 - The East Maitland Catalyst Area is comprised of the three adjoining suburbs of Ashtonfield, East Maitland and Metford. However, only a modest content of East Maitland residential housing stock is located within the Catalyst area and accordingly the demographic and housing analysis has focussed on the suburbs of Ashtonfield and Metford.
 - The location is relatively large in size featuring mostly low density residential suburb dominated by dwelling houses (close to 89% of all housing stock). Features less than 10% of infill housing typologies limited primarily to medium density dwellings ranging from established to contemporary stock.
 - High prevalence of family households (79.5% of households) and parent / child age groups. Couples with children make up the highest percentage of households at 38.8% followed by couples with no children at 25.4%.
 - Over 90% of dwellings feature three or more bedrooms indicating limited current housing choice for lone persons, couples and downsizers as more bedrooms typically equate to family households.
 - Less than 8% of dwellings feature two bedrooms or less indicating a considerable misalignment between household characteristics and accommodation currently provided within existing dwellings. The limited dwelling choice for smaller households is also highlighted.
 - Both personal and household median incomes exceed Maitland LGA. Median prices for dwelling houses and vacant land are also above median prices Maitland LGA although the differential is not substantial. In contrast, residential unit prices are well below the LGA median.
 - Dwelling house prices have increased considerably over the past year by over 14% to a median of \$590,000. Residential units are priced at a median of \$310,000 after declining in recent years. There have been few vacant land sales in the EMCA suburbs although available transactions indicate prices above the LGA median.
 - The EMCA is one of the more traded locations in terms of dwelling houses with sale volumes having typically fluctuated between 140 to 150 sales per annum subsequent to 2012. In contrast, residential unit sales typically range between 20 to 30 residential unit sales per annum. Given the well-established nature of location there have been less than three vacant land transactions each year over the past five years.
-

7. Rutherford.

To gain an understanding of the local housing market characteristics of the Rutherford Study Area, we have analysed dwelling & household ABS census data collected and analysed residential property sales recorded over the past 15 years. The sales analysis has included a thorough review of dwelling house, residential unit and vacant land markets. To appropriately identify demographic and local housing market characteristics and trends, the review has focussed on the entire suburb of Rutherford.

7.1 Rutherford Study Area

The Rutherford Study Area incorporates a large established primarily low-density residential component of Rutherford suburb. The suburb boundaries extend further to the north, east, south and west of the study area with these lands comprising a range of alternate land uses including industrial, rural and open space.

Rutherford is located 4.5 kilometres north-west of central Maitland, approximately 37 kilometres north-west of Newcastle CBD and 164 kilometres north-west of Sydney CBD.

Rutherford comprises primarily detached dwellings built in the mid to late 20th century although there is a content of contemporary houses. There are very few units / apartments and a range of medium density dwelling typologies varying in age and quality.

The area is well serviced by retail amenity with Rutherford Marketplace shopping centre located within the centre of the Study Area. The centre features a variety of stores and is anchored by a Woolworths supermarket.

Max McMahon Oval is located to the north of the Study Area and there is limited public recreation space within the study area.

The aerial photograph below provides an outline of the Rutherford Study Area.

Figure 34: Rutherford Infill Study Area



SOURCE - Maitland City Council

7.2 Dwelling & Household Characteristics

7.2.1 Household Characteristics

Household demographic metrics for Rutherford suburb are based on ABS and DPIE data are highlighted in the below charts with a summary provided overleaf.

Figure 35: Rutherford Demographic Characteristics



SOURCE – Australian Bureau of Statistics; NSW Department of Planning; Charter Keck Cramer

Demographic summary:

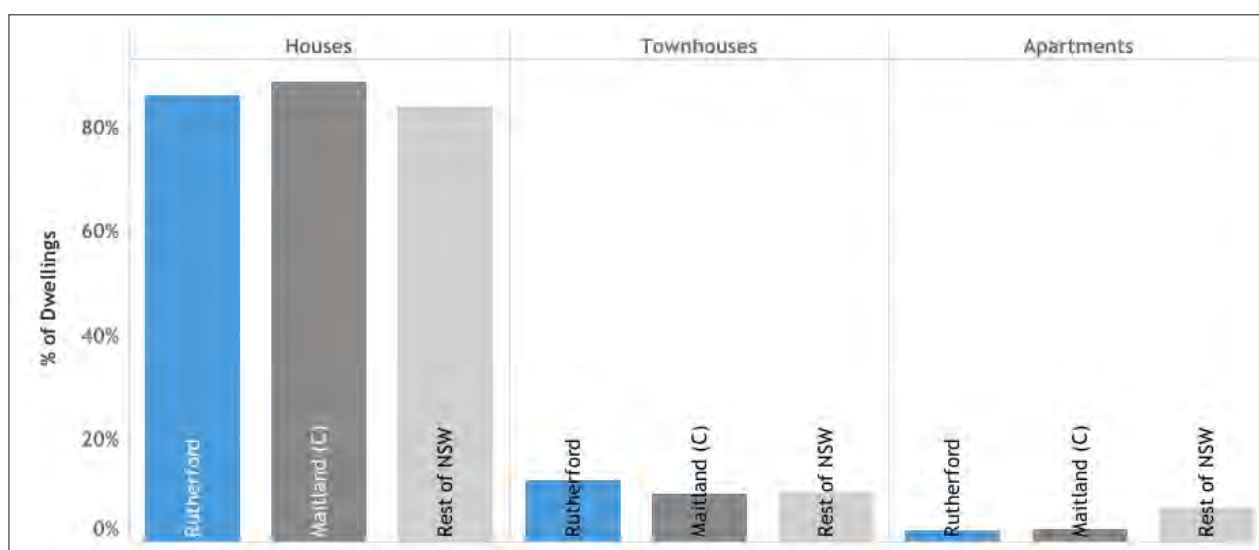
- In 2016, Rutherford suburb featured a population of 11,884 people with a median age of 34 years.
- The most prevalent age bracket is 0 – 17 years accounting for 27% of local residents followed by 45 – 64 years at 21% and both the 25 – 34 and 65+ years groups each at 15%.
- Between 2011 and 2016 all age brackets increased in number with the 65+ year bracket showing the greatest change at 8.2%. This was followed by 18 – 24 years at 3.9% and 25 – 34 years at 2.7%.
- Rutherford has a household size 2.6 persons which is marginally less than the LGA size of 2.7 persons.
- Median personal and household income both increased between the 2011 and 2016 census periods (9.7% and 3.4% respectively) although remain below the Maitland LGA median incomes. Household income in Rutherford at \$1,202 p.w. is \$213 p.w. below the LGA.
- Household structure in Rutherford is dominated by couples with children accounting for 29.8% of households. This is below Maitland LGA at just under 35%. Lone person households (26.6%) represent the second highest household group followed by couples with no children (23.9%).
- In terms of household composition, 70.5% of households are families, 26.6% are single / lone person and 3.0% are group households. Maitland LGA features a higher content of family households at 75.8%
- A total of 24.1% of all dwellings are owned outright, 31.7% are owned with a mortgage and 38.3% are rented.

7.2.2 Dwelling Characteristics

Dwelling characteristics in Rutherford are outlined as follows

- In 2016, Rutherford accommodated a total of 4,847 dwellings (approximately 16% of all dwellings in Maitland LGA). The dwelling count shows a notable increase of 783 dwellings from 2011.
- Dwelling structure in Rutherford is as follows:
 - Majority of occupied private dwellings within Rutherford are separate houses, accounting for 84.5% of dwellings in 2016.
 - Medium density dwellings account for 11.6% of stock
 - Flats / apartments make up only 2.0% of stock with the remaining 0.1% classified as “other dwelling”.
- “Number of bedrooms” statistics are detailed as follows:
 - Three bedrooms are most prevalent accounting 44.3% of dwellings followed by four bedrooms or more (35.4%), two bedrooms (12.3%), one bedroom (3.5%) and bedsit (0.1%). The average number of bedrooms per occupied private dwelling was 3.2.
 - By comparison Maitland LGA offers less three bedroom dwellings (39.8%), a greater content of four or more bedroom dwellings (43.8%), and a broadly similar content of one and two bedroom dwellings. The average number of bedrooms per occupied private dwelling was slightly higher at 3.4.

Figure 36: Rutherford Catalyst Area Dwelling Mix



SOURCE – Australian Bureau of Statistics; Charter Keck Cramer

7.3 Median Price Points

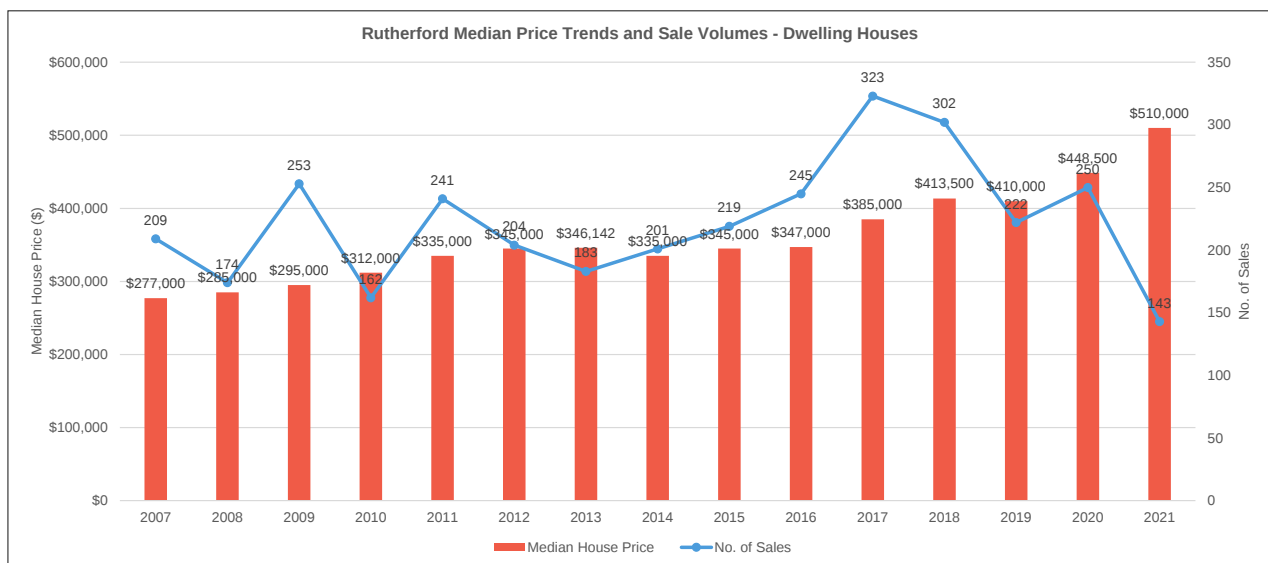
To assist in identifying local housing market trends in the suburb of Rutherford, we have investigated historic median prices and sales volumes of dwelling houses, residential units and vacant land within the area. Furthermore, we have analysed recent transactions over the past 18 months (including recent non-settled sales) to understand current housing stock and market preferences.

7.3.1 Dwelling Houses

Historic median dwelling house price and sales volume trends are outlined as follows:

- Median dwelling house prices in Rutherford increased from \$277,000 in 2007 to a current high of \$510,000 in 2021, demonstrating an overall upward trend with an average annual growth rate of approximately 4.15% per annum. There has been a notable increase of nearly 14% between 2020 and 2021 to date. The graph below highlights a generally uniform increase throughout the review period.
- Excluding the current incomplete year, the volume of annual sales has fluctuated between a low of 162 sales p.a. in 2010 and a maximum of 323 sales p.a. in 2017. Rutherford is a highly transacted location given the large base of dwelling stock with 11 out of 14 years achieving in excess of 200 transactions. Based on the sales to date in year 2021 it is anticipated that between 280 to 300 sales will be achieved within the full calendar year (assuming enough supply).
- Over the past 18 months there have been close to 400 dwelling house sales with median prices continuing to increase. Sale prices have ranged between \$270,000 for a 607 sq.m. allotment improved with a very basic standard three bedroom cottage on a major highway up to \$800,000 for a 708 sq.m. allotment improved with a new single storey four bed residence.
- The properties that have sold over past 18 months sale properties feature an average land size of 681sq.m. although sizes range broadly from 300 sq.m. up to 1,874 sq.m. Four bedroom dwellings were the most highly transacted accounting for 48% of sales followed closely by three bedrooms at 44%.

Figure 37: Rutherford Median Price Trends and Sales Volumes – Dwelling Houses



Note: 2021 price and volume data represents first half of calendar year only

SOURCE – Pricefinder; Charter Keck Cramer

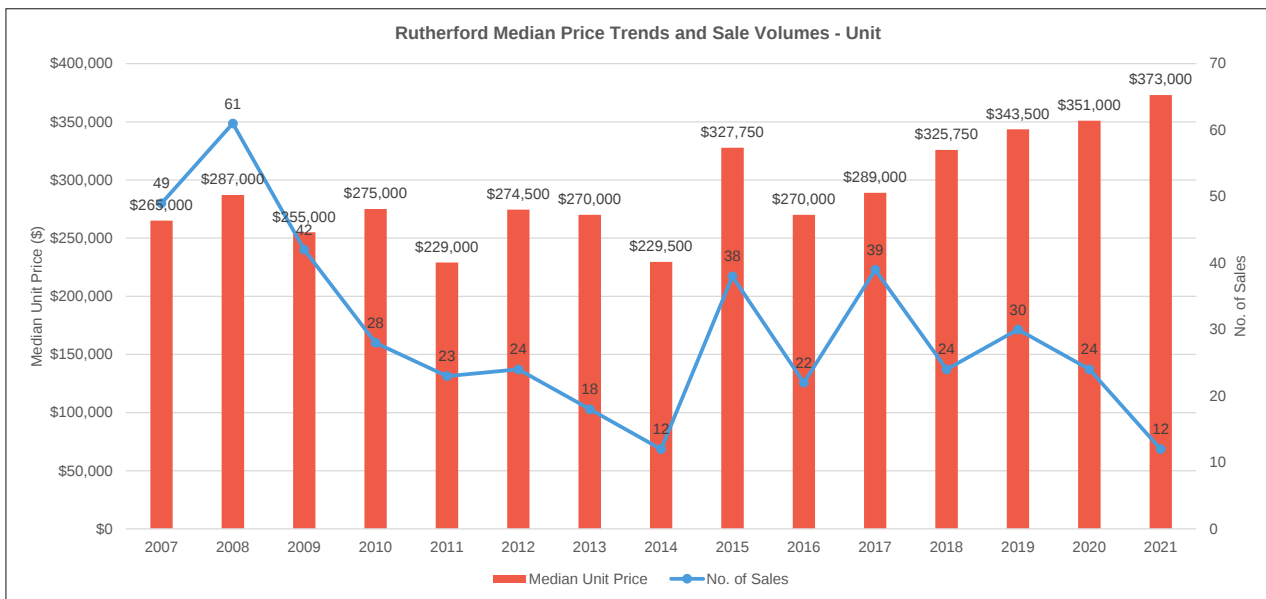
7.3.2 Residential Units

Historic median residential unit price and sales volume trends are outlined as follows:

- Median residential unit prices in Rutherford increased from \$269,000 in 2007 to a maximum of \$373,000 in 2021. Throughout the 15 years there has been average annualised growth in the order of 2.31% per annum.
- Peaks in pricing were noticeably evident in 2007 - 2009, 2012 and 2015 which coincided with growth in transaction volumes indicating the introduction of new (higher priced) stock. Typically throughout the 15 year timeframe median residential unit prices have fluctuated including price peaks when new stock is introduced and reductions in pricing when new stock is absorbed more established lower priced established stock transacts. However, median prices have trended upwards overall throughout the review period.

- The volume of annual residential unit sales has varied between 12 and 61 sales per annum with the peak being in 2008. Within most years sale volumes have ranged between circa 18 to 39 sales per annum. The 2021 year is on track to achieve circa 24 sales based on year to date transactions.
- A total of circa 36 residential unit sales have been recorded in Rutherford over the past 18 months, featuring a mix of mostly villas and townhouses varying in age and quality. Sale prices have ranged broadly from \$260,000 for a two bed medium density villa up to \$450,000 for a new three bedroom townhouse. Of all sales 14% (5 units) have transacted below \$300,000, 67% (24 units) have transacted between \$300,000 to \$400,000 and the remaining 19% (7 units) within a price range over \$400,000.
- Of the sales over the past 18 months where accommodation information has been available, 58% have featured 3 bedrooms and 39% have accommodated 2 bedrooms.

Figure 38: Rutherford Median Price Trends and Sales Volumes – Residential Units



Note: 2021 price and volume data represents first half of calendar year only

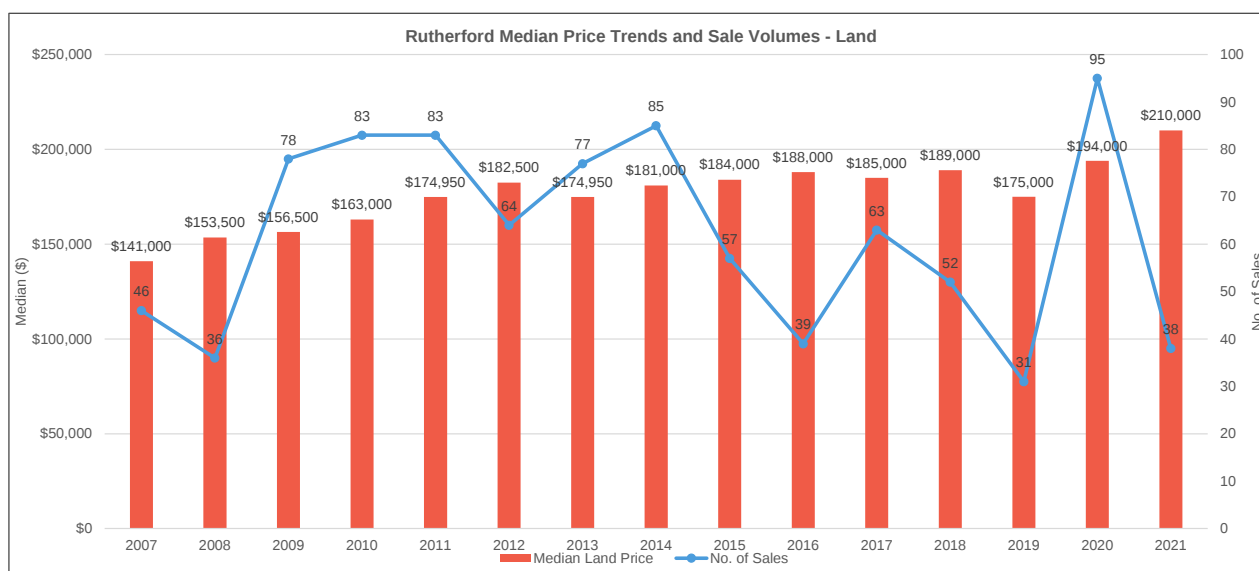
SOURCE – Pricefinder; Charter Keck Cramer

7.3.3 Land

Historic median land house price and sales volume trends are outlined as follows:

- Over the past 15 years, median land prices fluctuated from \$141,000 in 2007 to a high of \$210,000 in 2021. Average annual growth over the period 2007 to 2021 has been 2.69% per annum. Prices have progressively increased over the course of the 15 year review period as highlighted in the graph below.
- The volume of sales fluctuated extensively throughout the 15 years which appears to coincide with land releases and variations in market conditions. Notable spikes in transaction numbers were evident in 2009 – 2011, 2014 and more recently in 2020 (95 sales). Various stage releases within the master planned “Heritage Parc” estate by the McCloy Group have contributed to considerable new supply in Rutherford and resulted in many sales. In 10 of the 15 years reviewed annual land sales have exceeded 50 transactions.
- The average size of vacant allotments sold throughout the period has varied between 570sq.m. (2019) and 916sq.m. (2008) and over time the average sizes appear to have trended downward. Between 2007 and 2012 all averages were between 717 sq.m. and 916 sq.m. whilst within the period subsequent sizes have typically averaged below 700 sq.m. This appears to indicate a downward trend in new release allotment sizes at this location.
- Over the past 18 months, land sales ranged in size from 455 sq.m. up to 1,552 sq.m. at an average size of 632 sq.m. Sale prices ranged from \$125,000 (607 sq.m.) up to \$275,000 (841 sq.m.).

Figure 39: Rutherford Median Price Trends and Sales Volumes – Land



Note: 2021 price and volume data represents first half of calendar year only

SOURCE – Pricerfinder; Charter Keck Cramer

7.4 Summary

In summary, we note the following key characteristics in relation to Rutherford:

- An established residential location positioned in relatively close proximity to Central Maitland only 4.5 kilometres north-west.
- Rutherford is a sizeable mostly low density residential suburb dominated by dwelling houses (close to 85% of all housing stock). Features close to 14% of infill housing typologies limited primarily to medium density dwellings ranging from established to contemporary stock.
- High prevalence of family households (70.5% of households) and parent / child age groups. Couples with children make up the highest percentage of households at 29.8% although this is followed closely by lone person households at 26.6%.
- Close to 80% of dwellings feature three or more bedrooms indicating limited current housing choice for lone persons, couples and downsizers as more bedrooms typically equate to family households.
- Just under 16% of dwellings feature two bedrooms or less highlighting the limited choice smaller households.
- There is a growing content of older residents in Rutherford with the 65+ year age bracket showing the greatest increase by percentage between the previous two census periods. Although the median age at 34 is below the LGA, there are signs of an aging population.
- Both personal and household median incomes are below those in Maitland LGA. Likewise, median prices for dwelling houses, residential units and vacant land are all below Maitland LGA although the differential is not substantial. This is particularly the case for residential units given the growing content of new medium density stock.
- Dwelling house prices have increased considerably over the past year by nearly 14% to a median of \$510,000. Residential units are priced at a median of \$373,000 with steady growth in recent years. Median prices for vacant land have historically shown nominal growth however this is appearing to accelerate as supplies become more limited.
- Rutherford is one of the more traded locations in terms of dwelling house and land transactions. In addition, the volume of residential unit sales has increased over the past five years as new supply has come online.

8. Telarah.

To gain an understanding of the local housing market characteristics of the Telarah Study Area, we have analysed dwelling & household ABS census data collected and analysed residential property sales recorded over the past 15 years. The sales analysis has included a thorough review of dwelling house, residential unit and vacant land markets. To appropriately identify demographic and local housing market characteristics and trends, the review has focussed on the entire suburb of Telarah.

8.1 Telarah Study Area

The Telarah Study Area incorporates a large established primarily low-density residential component of Telarah suburb. The suburb boundaries extend further to the south of the study area with these lands typically rural themed or featuring environmental constraints such as Swamp Creek.

Telarah is located 3.4 kilometres north-west of central Maitland, approximately 37 kilometres north-west of Newcastle CBD and 163 kilometres north-west of Sydney CBD.

Existing dwellings are typically characterised as mid-20th century dwellings. There is limited townhouse and villa stock, with available stock typically dated.

Telarah is serviced a railway station located at the eastern end of the Study Area. A large content of land adjacent to west of the train station is occupied by cemetery limiting potential future transit oriented development at this location. Coronation Oval, Hatcher Field and Telarah Bowling Club are located to the immediate south of this cemetery.

There is limited retail amenity within the suburb of Telarah however there is a small retail strip in the southern portion of the Study Area.

The aerial photograph below provides an outline of the Telarah Study Area.

Figure 40: Telarah Infill Study Area



SOURCE - Maitland City Council

8.2 Dwelling & Household Characteristics

8.2.1 Household Characteristics

Household demographic metrics for Telarah suburb are based on ABS and DPIE data are highlighted in the below charts with a summary provided overleaf.

Figure 41: Telarah Demographic Characteristics



SOURCE – Australian Bureau of Statistics; NSW Department of Planning; Charter Keck Cramer

Demographic summary:

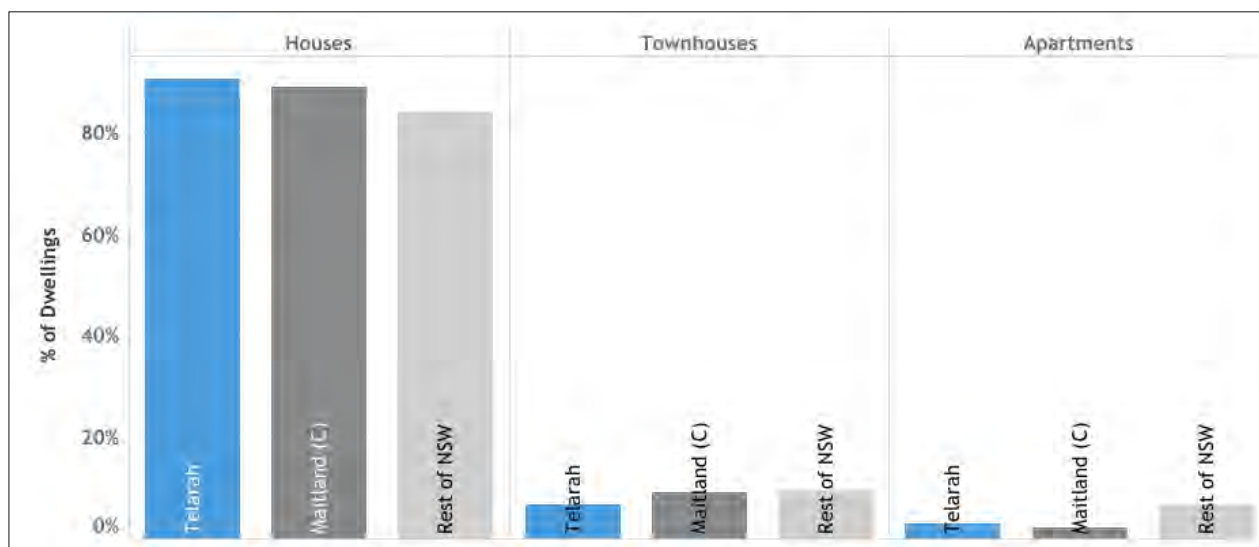
- In 2016, Telarah featured a population of 2,329 people with a median age of 36 years.
- The most prevalent age bracket is 45 – 64 years accounting for 24% of local residents followed by 0 – 17 years at 23% and 25 – 34 years at 17%.
- Between 2011 and 2016 the most notable changes in age groups were an increase in 35 – 44 year old residents which increased by 3.3% followed by both 25 – 34 and 45 – 64 brackets each with an increase of 1.6%. In contrast there were reductions in the number of residents aged 18 – 24 (-1.2%) and 65+ years (-0.7%).
- Telarah has a household size 2.3 persons which is less than the LGA size of 2.7 persons.
- Median personal and household income both increased between the 2011 and 2016 census periods (12.6% and 12.4% respectively) although remain below the Maitland LGA median incomes. Household income in Telarah at \$1,017 p.w. is \$398 p.w. below the LGA.
- Household structure in Telarah is dominated by lone person households accounting for 30.9% of households. This is notably higher than Maitland LGA at just under 22%. Couples with children (23.8%) represent the second highest household group followed by couples with no children (22.9%).
- In terms of household composition, 66.5% of households are families, 30.8% are single / lone person and 2.7% are group households. Maitland LGA features a higher content of family households at 75.8%
- A total of 29.2% of all dwellings are owned outright, 33.6% are owned with a mortgage and 33.8% are rented.

8.2.2 Dwelling Characteristics

Dwelling characteristics in Telarah are outlined as follows

- In 2016, Telarah accommodated a total of 1,057 dwellings (approximately 3.5% of all dwellings in Maitland LGA). The dwelling count shows an increase of only 58 dwellings from 2011.
- Dwelling structure in Telarah is as follows:
 - Majority of occupied private dwellings within East Maitland are separate houses, accounting for 89.8% of dwellings in 2016.
 - Medium density dwellings account for 7.2% of stock.
 - Flats / apartments make up only 3.0% of stock.
- “Number of bedrooms” statistics are detailed as follows:
 - Three bedrooms are most prevalent accounting 58.4% of dwellings followed by two bedrooms (21.8%), four bedrooms or more (13.8%) and one bedroom (3.6%). The average number of bedrooms per occupied private dwelling was 2.9.
 - By comparison Maitland LGA offers less three bedroom dwellings (39.8%), less two bedroom dwellings (11.1%), more four or more bedroom dwellings (43.8%) and slightly less one bedders (2.8%). The average number of bedrooms per occupied private dwelling was greater at 3.4.

Figure 42: Telarah Dwelling Mix



SOURCE – Australian Bureau of Statistics; Charter Keck Cramer

8.3 Median Price Points

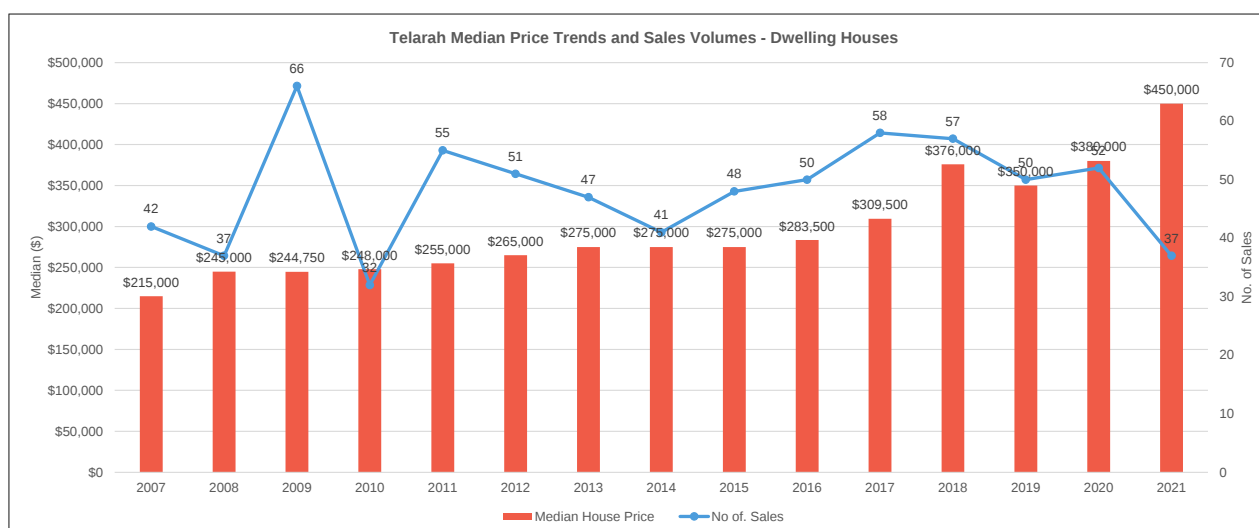
To assist in identifying local housing market trends in the suburb of Telarah, we have investigated historic median prices and sales volumes of dwelling houses, residential units and vacant land within the area. Furthermore, we have analysed recent transactions over the past 18 months (including recent non-settled sales) to understand current housing stock and market preferences.

8.3.1 Dwelling Houses

Historic median dwelling house price and sales volume trends are outlined as follows:

- Median dwelling house prices in Telarah increased from \$215,000 in 2007 to a current high of \$450,000 in 2021, demonstrating an overall upward trend with an average annual growth rate of approximately 5.05% per annum. There has been a notable increase of over 18% between 2020 and 2021 to date. The graph below highlights a generally uniform increase throughout the review period.
- The volume of annual sales has fluctuated between a low of 32 sales p.a. in 2010 which immediately followed a high of 66 sales in 2009. Within most years the volume of transactions has typically ranged between circa 40 and 60 sales p.a. Based on the sales to date in year 2021 it is anticipated that sales could potentially exceed the high of 66 achieved in 2009 (assuming enough supply).
- Over the past 18 months there have been 89 dwelling house sales with median prices continuing to increase. Sale prices have ranged between \$198,000 for a 487 sq.m. allotment improved with a very basic standard three bedroom cottage up to \$640,000 for a 683 sq.m. allotment improved with a renovated single storey four bed residence.
- The properties that have sold over past 18 months sale properties feature an average land size of 554sq.m. although sizes range broadly from 269 sq.m. up to 809 sq.m. Three bedroom dwellings were the most highly transacted accounting for 62% of sales followed by four bedrooms at 18% and two bedroom dwellings at 14%.

Figure 43: Telarah Median Price Trends and Sales Volumes – Dwelling Houses



Note: 2021 price and volume data represents first half of calendar year only

SOURCE – Pricerfinder; Charter Keck Cramer

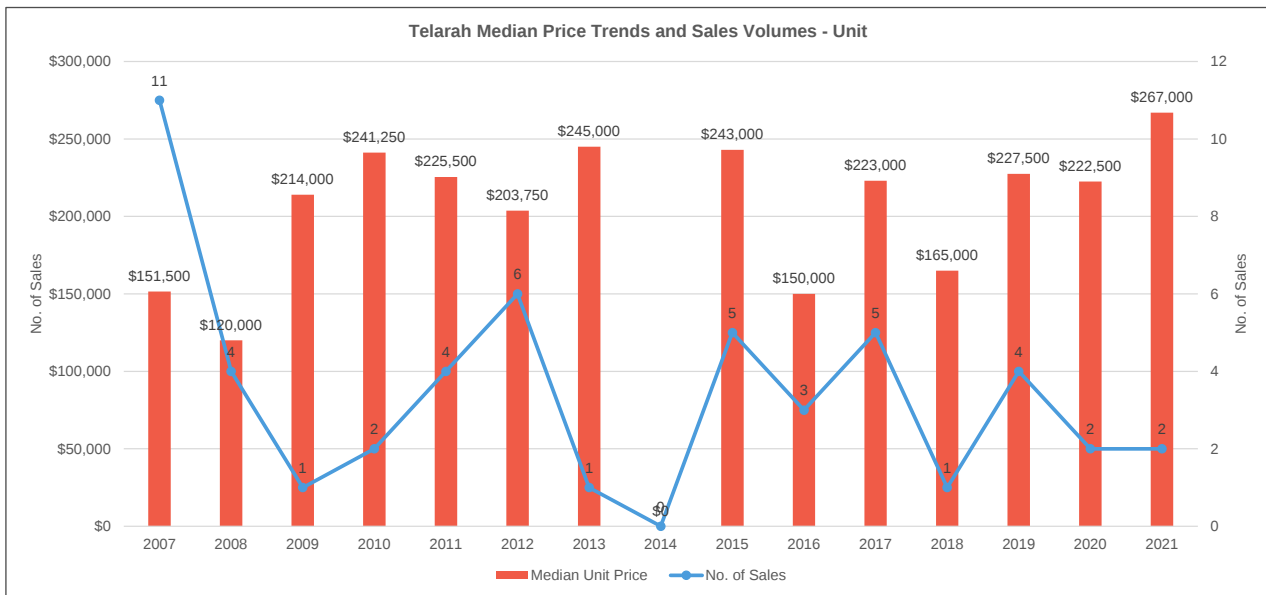
8.3.2 Residential Units

Historic median residential unit price and sales volume trends are outlined as follows:

- Telarah accommodates a limited supply of residential units and over the past 15 years there have typically been less than six sales per annum. The highest volume of sales was in 2007 with 11 sales whilst there were no sales in 2014.
- Accordingly, with such a limited number of sales it is difficult to identify median residential unit prices and trends. Throughout the review period available data indicates an upward trend in pricing with the lowest median price of \$120,000 in 2008 and the highest \$267,000 in 2021. Throughout the 15 years there has been average annualised growth in the order of 3.85% per annum based on the limited sample size.
- The 2021 year is on track to achieve circa four to five sales based on year to date transactions.

- A total of only four residential unit sales have been recorded in Telarah over the past 18 months, featuring townhouses and a low rise apartment. Sale prices have ranged from \$170,000 for a one bed low rise apartment up to \$267,000 for a two bedroom townhouse..
- Of the sales over the past 18 months, three of the four sales featured 2 bedrooms with the remainder one bedroom.

Figure 44: Telarah Median Price Trends and Sales Volumes – Residential Units



Note: 2021 price and volume data represents first half of calendar year only

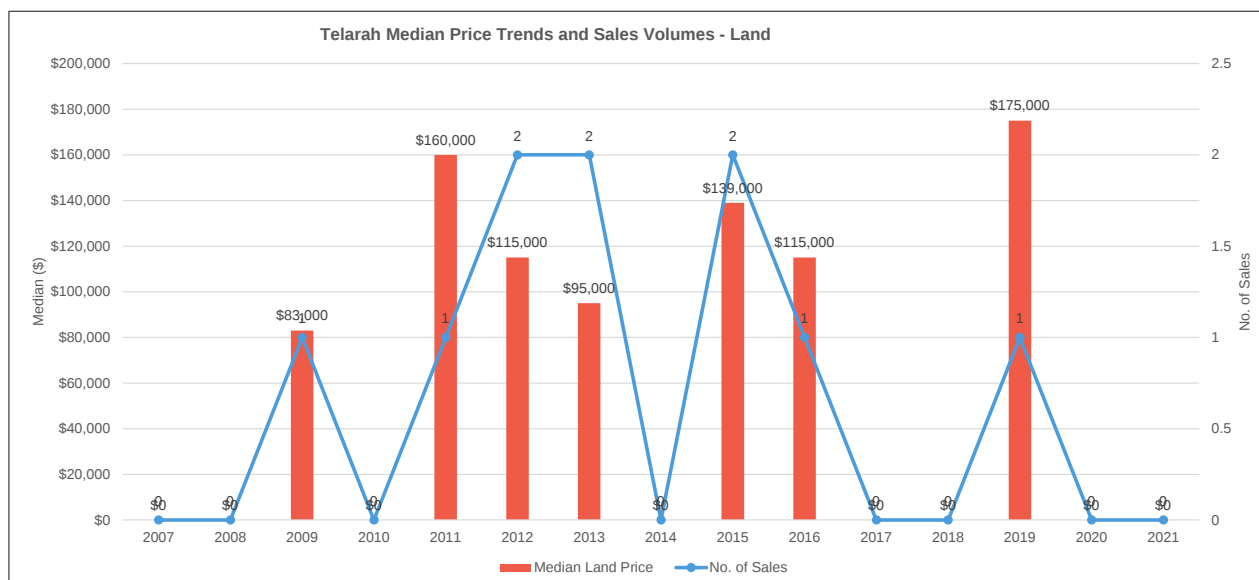
SOURCE – Pricefinder; Charter Keck Cramer

8.3.3 Land

Historic median land house price and sales volume trends are outlined as follows:

- Given the well-established nature of Telarah there have been very few sales of vacant allotments throughout the 15 year review period. There were no sales in eight of the 15 years reviewed and only one or two sales each year in the remaining seven years.
- Given the limited number of sales over the 15 years it is difficult to draw meaningful conclusions from the available data. This is evident within the chart below which does not indicate any particular pricing trend.
- Throughout the 15 years prices have ranged from \$83,000 in 2009 up to \$175,000 in 2019 (the latest land sale) with land sizes ranging from 346 sq.m. up to 866 sq.m.
- There have been no identified land sales within the past 18 months.

Figure 45: Telarah Median Price Trends and Sales Volumes – Land



Note: 2021 price and volume data represents first half of calendar year only

SOURCE – Pricefinder; Charter Keck Cramer

8.4 Summary

In summary, we note the following key characteristics in relation to Telarah:

- Telarah is an established location positioned to the immediate west of Central Maitland. The suburb features a relatively modest total number of dwellings (less than 4% of all dwelling stock in Maitland LGA) with the current supply dominated by dwelling houses (close to 90% of all housing stock). There is a very limited content of infill housing dwelling stock most of which is dated. There have been no recent land releases.
- Telarah is benefitted by the provision of a railway station which is located in the eastern component of the study area. However, due to surrounding land uses there appear some limitations to focusing density at this location.
- There is a below average content of family households at only 66.8% of the total however this remains the most prevalent type given that many residents are within parent / child age brackets. Lone person households however make up the highest percentage of households at 30.9%.
- Over 72% of dwellings features three or more bedrooms with two or less bedrooms above average in quantity accounting for a quarter of all dwellings. However it would appear that many of these are dwelling houses given the low number of residential units at this location. Accordingly, it would appear there is inadequate smaller scale / low maintenance stock at this location for the high number of lone person and couple households.
- Both personal and household median incomes are notably lower than in all Maitland LGA. Likewise, median prices for dwelling houses, residential units and vacant land are all well below Maitland LGA with Telarah one of the more affordable study areas.
- Dwelling house prices have however increased by over 18% between 2020 and 2021 to a median \$450,000.
- Although there have been recent few unit sales, available evidence indicates recent price growth in the order of 20% and a current indicative median of circa \$267,000.
- Telarah is regularly traded in terms of dwelling houses but over the 15 year review period there have been no more 11 residential units and two vacant allotments sold within a single year.

9. Thornton.

To gain an understanding of the local housing market characteristics of the Thornton Study Area, we have analysed dwelling & household ABS census data collected and analysed residential property sales recorded over the past 15 years. The sales analysis has included a thorough review of dwelling house, residential unit and vacant land markets. To appropriately identify demographic and local housing market characteristics and trends, the review has focussed on the entire suburb of Thornton.

9.1 Thornton Study Area

The Thornton Study Area incorporates a large primarily low-density residential component of Thornton suburb. The suburb boundaries extend further to the north, east, south and west of the study area with these lands typically rural themed or featuring environmental constraints such as Scotch Dairy Creek.

Thornton is located 11 kilometres south-east of Central Maitland, approximately 24 kilometres north-west of Newcastle CBD and 159 kilometres north-east of Sydney CBD.

Dwelling typologies typically comprise detached dwellings consisting mainly of late 20th century build with a growing content of contemporary dwellings. There is a limited content of villa / townhouse complexes within the study area including a mix of modern and dated stock. The majority of new townhouse projects are located to the north (outside) of the study area.

Thornton features a railway station which is located at the southern end of the Study Area.

Thornton Shopping centre is located in the centre of the Study Area where the anchor tenant is Coles.

The aerial photograph below provides an outline of the Thornton Study Area.

Figure 46: Thornton Infill Study Area



SOURCE – Maitland City Council\

9.2 Dwelling & Household Characteristics

9.2.1 Household Characteristics

Household demographic metrics for Thornton suburb are based on ABS and DPIE data are highlighted in the below charts with a summary provided overleaf.

Figure 47: Thornton Demographic Characteristics



SOURCE – Australian Bureau of Statistics; NSW Department of Planning; Charter Keck Cramer

Demographic summary:

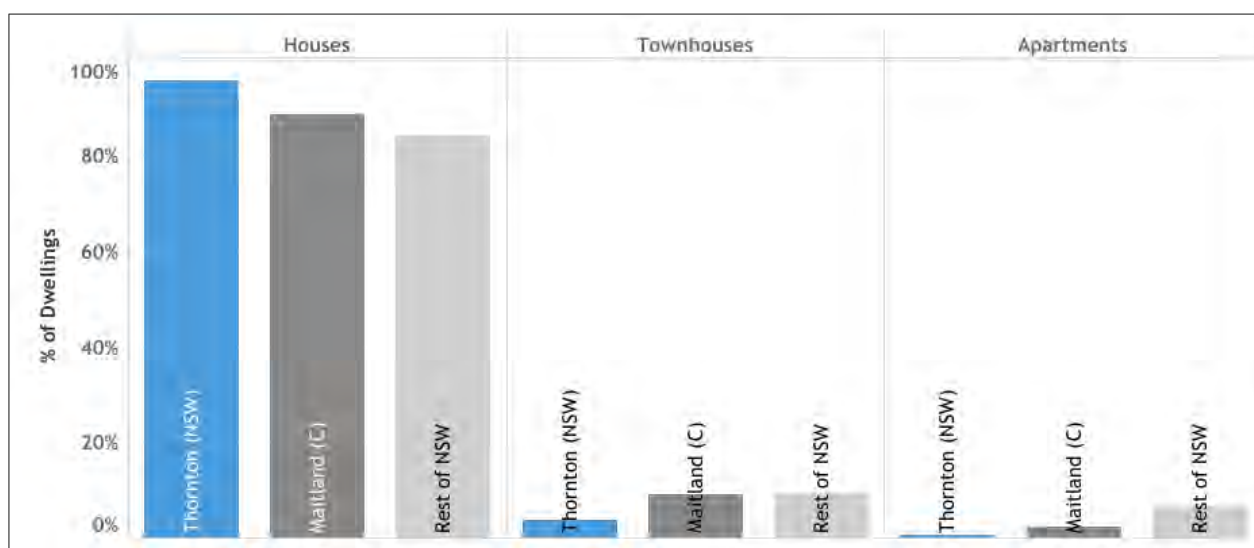
- In 2016, Thornton featured a population of 8,062 people with a median age of 35 years.
- The most prevalent age brackets are 0 – 17 and 45 – 64 years each accounting for 27% of local residents followed by 35 – 44 years at 14% and 25 – 34 years at 13%.
- Between 2011 and 2016 the most notable changes in age groups were an increase in 65+ year old residents which increased by 8.2% followed by 45 – 64 year olds with an increase of 1.4%. In contrast there were reductions in all other age brackets with the most notable decline being 2.3% within the 35 – 44 year old bracket.
- Thornton has a household size 2.9 persons which exceeds the LGA size of 2.7 persons.
- Median personal and household income both increased between the 2011 and 2016 census periods (6.4% and 1.1% respectively) with both above the Maitland LGA median incomes. Household income in Thornton at \$1,647 p.w. is \$232 p.w. above the LGA.
- Household structure in Thornton is dominated by couples with children accounting for 44.26% of households. This is notably higher than Maitland LGA at just under 35%. Couples with no children (27.5%) represent the second highest household group followed by lone person households (13.4%).
- In terms of household composition, 84.9% of households are families, 13.4% are single / lone person and 1.7% are group households. Maitland LGA features a lower content of family households at 75.8%.
- A total of 27.8% of all dwellings are owned outright, 49.6% are owned with a mortgage and 20.9% are rented. Thornton is a more contemporary location dominated by owner occupiers.

9.2.2 Dwelling Characteristics

Dwelling characteristics in Thornton are outlined as follows

- In 2016, Thornton accommodated a total of 2,912 dwellings (approximately 9.5% of all dwellings in Maitland LGA). The dwelling count shows an increase of 193 dwellings from 2011.
- Dwelling structure in Thornton is as follows:
 - Majority of occupied private dwellings within Thornton are separate houses, accounting for 95.6% of dwellings in 2016. This exceeds Maitland LGA at 87.1%.
 - Medium density dwellings account for only 3.7% of stock.
 - Flats / apartments make up just 0.6% of stock.
- “Number of bedrooms” statistics are detailed as follows:
 - Four or more bedrooms are most prevalent accounting for 55.9% of dwellings followed by three bedrooms (36.7%), two bedrooms (5.3%), one bedroom (0.7%) and bedsit (0.1%). The average number of bedrooms per occupied private dwelling was 3.6.
 - By comparison Maitland LGA offers less four or more bedroom dwellings (43.8%), a slightly lesser content of three bedrooms (39.8%) and more one and two bedroom dwellings. The average number of bedrooms per occupied private dwelling was slightly less at 3.6.

Figure 48: Thornton Dwelling Mix



SOURCE – Australian Bureau of Statistics; Charter Keck Cramer

9.3 Median Price Points

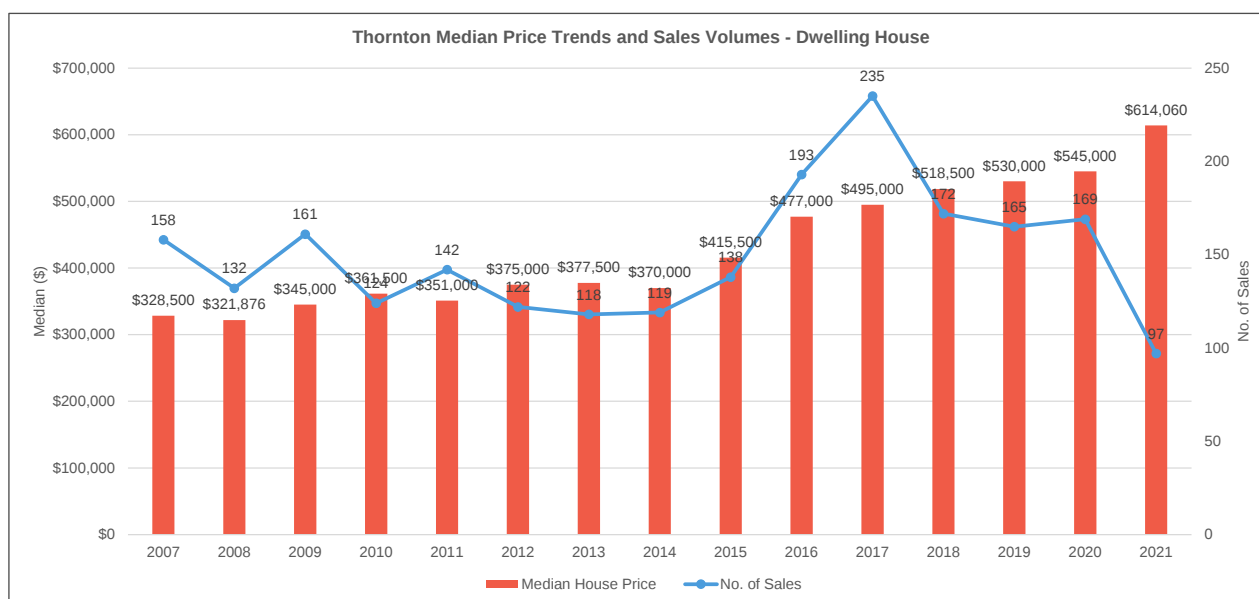
To assist in identifying local housing market trends in the suburb of Thornton, we have investigated historic median prices and sales volumes of dwelling houses, residential units and vacant land within the area. Furthermore, we have analysed recent transactions over the past 18 months (including recent non-settled sales) to understand current housing stock and market preferences.

9.3.1 Dwelling Houses

Historic median dwelling house price and sales volume trends are outlined as follows:

- Median dwelling house prices in Thornton increased from \$328,500 in 2007 to a current high of \$614,060 in 2021, demonstrating an overall upward trend with an average annual growth rate of approximately 4.26% per annum. There has been a notable increase of close to 13% between 2020 and 2021 to date. The graph below highlights a broadly uniform increase throughout the review period.
- Thornton is one of the higher transacted locations in Maitland LGA. Excluding the current incomplete year, the volume of annual sales has fluctuated between a low of 118 sales p.a. in 2013 and a maximum of 235 sales p.a. in 2017. Given the large base of dwelling stock, many of the years feature between circa 120 and 170 transactions per year. Based on the sales to date in year 2021 it is anticipated that between 180 to 200 sales will be achieved within the full calendar year (assuming enough supply).
- Over the past 18 months there have been 266 dwelling house sales with median prices continuing to increase. Sale prices have ranged broadly between \$310,000 for a 562 sq.m. allotment improved with a basic standard three bedroom cottage up to \$1,200,000 for a 1,807 sq.m. allotment improved with a new single storey five bed residence.
- The properties that have sold over past 18 months sale properties feature an average land size of 652sq.m. although sizes range from 300 sq.m. up to 1,898 sq.m. Four bedroom dwellings were the most highly transacted accounting for 55% of sales followed by three bedrooms at 36%.

Figure 49: Thornton Median Price Trends and Sales Volumes – Dwelling Houses



Note: 2021 price and volume data represents first half of calendar year only

SOURCE – Pricerfinder; Charter Keck Cramer

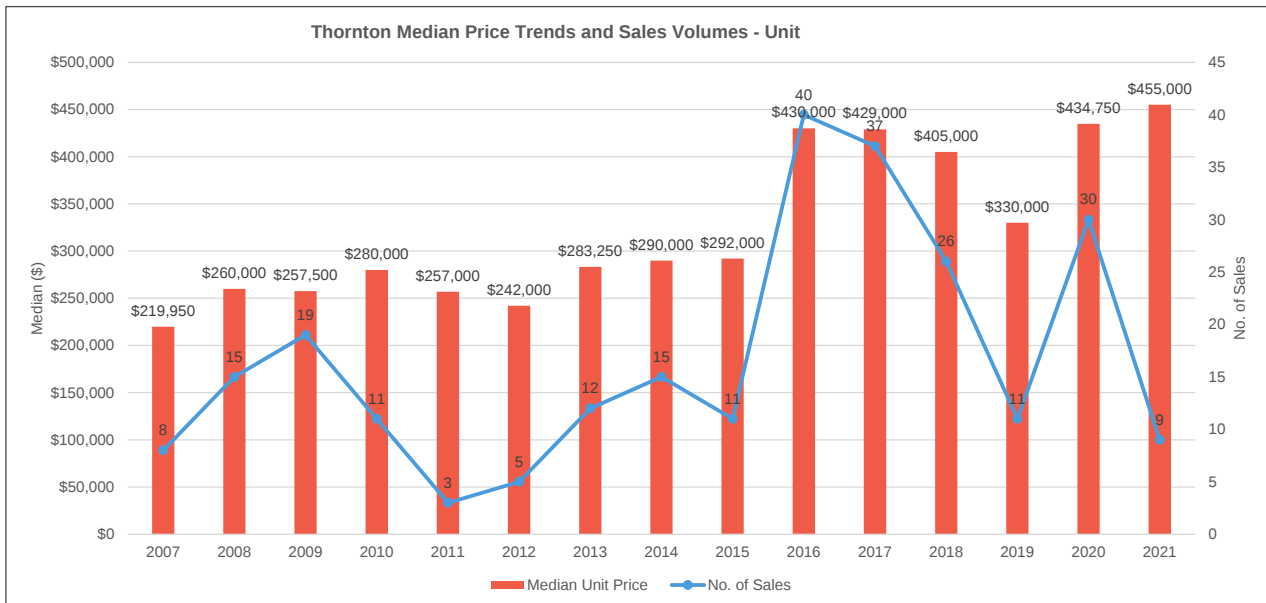
9.3.2 Residential Units

Historic median residential unit price and sales volume trends are outlined as follows:

- Median residential unit prices in Rutherford increased from a low of \$219,950 in 2007 to a maximum of \$455,000 in 2021. Throughout the 15 years there has been average annualised growth in the order of 4.97% per annum.
- A notable spike in sales volumes and pricing was evident in 2016 where median prices jumped by 47% and sales from 11 in 2015 to 40 in 2016. This was a result of new medium density townhouse stock being introduced such as the “Chisholm Gardens Estate” in Skylark Avenue. Prior to 2016 annual sales volumes had fluctuated between three and 19 sales per annum whilst subsequent to this there have been 25+ annual sales four times due to the ongoing introduction of new stock and favourable market conditions.

- The 2021 year is on track to achieve circa 10 sales based on year to date transactions.
- A total of circa 39 residential unit sales have been recorded in Thornton over the past 18 months, featuring a mix of mostly villas and townhouses varying in age and quality. Sale prices have ranged from \$320,000 for a contemporary two bed medium density villa up to \$482,000 for a new three bedroom townhouse. Of all sales 33% (13 units) have transacted between \$300,000 to \$400,000 and 67% (26 units) have transacted between \$400,000 to \$500,000.
- Of the sales over the past 18 months where accommodation information has been available, 42% have featured 2 bedrooms, 33% have accommodated 4 bedrooms and 25% have accommodated 3 bedrooms.

Figure 50: Thornton Median Price Trends and Sales Volumes – Residential Units



Note: 2021 price and volume data represents first half of calendar year only

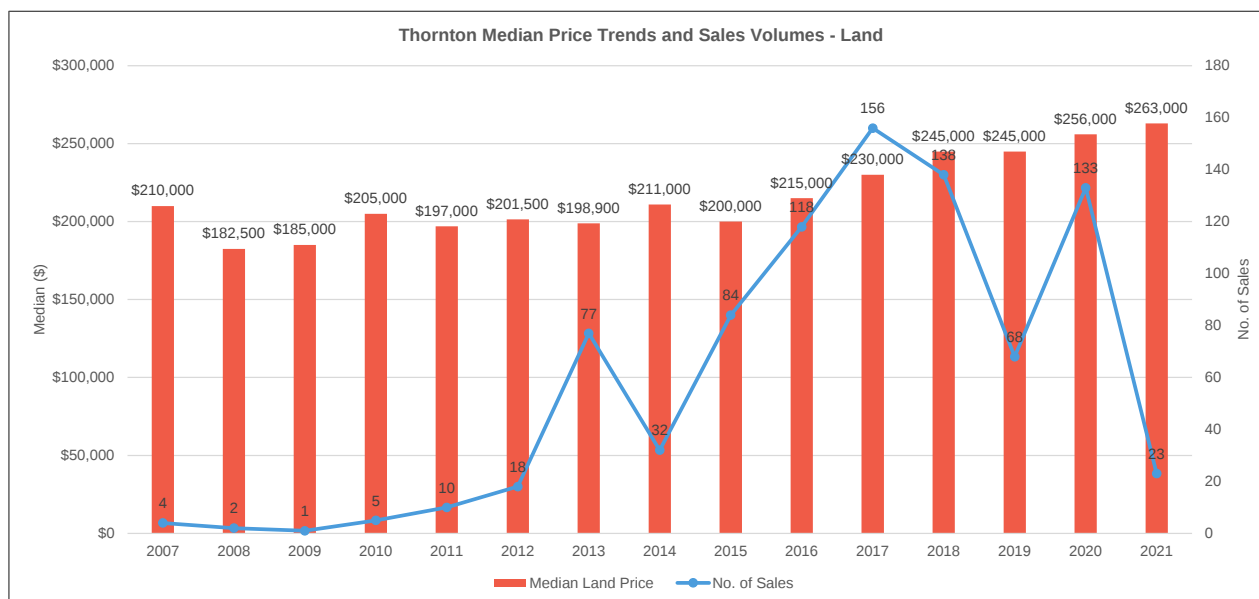
SOURCE – Pricerfinder; Charter Keck Cramer

9.3.3 Land

Historic median land house price and sales volume trends are outlined as follows:

- Over the past 15 years, median land prices fluctuated from \$210,000 in 2007 to a high of \$263,000 in 2021. Average annual growth over the period 2007 to 2021 has been 1.51% per annum. Prices were relatively stable between 2007 and 2016 and have progressively increased subsequently from \$215,000 in 2016. Trends are highlighted in the graph below.
- The volume of sales has fluctuated extensively throughout the 15 years which appears to coincide with land releases and variations in market conditions. Between 2007 to 2012 annual sales did not exceed 18 sales subsequent to which sales have ranged from 32 to 156 per annum. Notable spikes in transaction numbers were evident in 2013, 2015 – 2018 and 2020. Greenfield land releases such as Landlink’s 175 lot development “Brentwood Thornton”, “Karinya” by Yeramba Estates and the 471 lot land release “Wirraway” by the Defence Housing Authority have increased transaction numbers notably.
- The average size of vacant allotments sold throughout the period has varied between 540sq.m. (2017) and 871sq.m. (2007) and over time the average sizes appear to have trended downward. Between 2007 and 2012 all averages were between 735 sq.m. and 871 sq.m. whilst within the period subsequent sizes have typically averaged between 540 sq.m. and 652sq.m. This appears to indicate a downward trend in new release allotment sizes at this location coinciding with the release of larger scale estates.
- Over the past 18 months, land sales ranged in size from 450 sq.m. up to 990 sq.m. at an average size of 589 sq.m. Sale prices ranged from \$227,000 (450 sq.m.) up to \$309,950 (650 sq.m.).

Figure 51: Thornton Median Price Trends and Sales Volumes – Land



Note: 2021 price and volume data represents first half of calendar year only

SOURCE – Pricerfinder; Charter Keck Cramer

9.4 Summary

In summary, we note the following key characteristics in relation to Thornton:

- A large mostly low density residential suburb dominated by dwelling houses (close to 96% of all housing stock). Limited content of infill housing which is primarily in the form of duplex and medium density dwellings.
- Thornton is benefitted by the provision of a train station which is located at the southern end of the study area.
- High prevalence of family households and parent / child age groups. Couples with children make up the highest percentage of households at 44%.
- Most dwellings features either four or more bedrooms in line with the local family demographic.
- Only 6% of dwellings feature two bedrooms or less indicating very limited choice for lone person households and downsizers.
- Limited population at this location aged 65+ with the median age only 35 years.
- Both personal and household median incomes exceed those in Maitland LGA. Likewise, median prices for dwelling houses, residential units and vacant land all exceed Maitland LGA with Thornton one of the highest priced study areas. Dwelling house prices have increased considerably over the past year.
- Thornton is one of the more traded locations in terms of dwelling house and land transactions. In addition, the volume of residential unit sales has increased over the past five years as new supply has come online.

10. Woodberry.

To gain an understanding of the local housing market characteristics of the Woodberry Study Area, we have analysed dwelling & household ABS census data collected and analysed residential property sales recorded over the past 15 years. The sales analysis has included a thorough review of dwelling house, residential unit and vacant land markets. To appropriately identify demographic and local housing market characteristics and trends, the review has focussed on the entire suburb of Woodberry.

10.1 Woodberry Study Area

The Woodberry Study Area incorporates a large established primarily low-density residential component of Woodberry suburb. The suburb boundaries extend further to the north and west of the study area with these lands typically rural themed.

Woodberry is located 11 kilometres south-east of central Maitland, approximately 23 kilometres north-west of Newcastle CBD and 157 kilometres north-east of Sydney CBD.

Existing dwelling are typically characterised as detached mid-20th century dwellings which are in original condition or newly built detached dwellings. There is a modest supply of townhouse and villa stock which is typically established in nature.

There is limited retail amenity within the Study Area however there is a small retail centre which includes a bottle shop and various restaurants.

There are various localised recreation facilities in the Study Area including Woodberry Playground and Fred Harvard Sporting Complex.

The aerial photograph below provides an outline of the Woodberry Study Area.

Figure 52: Woodberry Infill Study Area



SOURCE – Maitland City Council

10.2 Dwelling & Household Characteristics

10.2.1 Household Characteristics

Household demographic metrics for Woodberry suburb are based on ABS and DPIE data are highlighted in the below charts with a summary provided overleaf.

Figure 53: Woodberry Demographic Characteristics



SOURCE – Australian Bureau of Statistics; NSW Department of Planning; Charter Keck Cramer

Demographic summary:

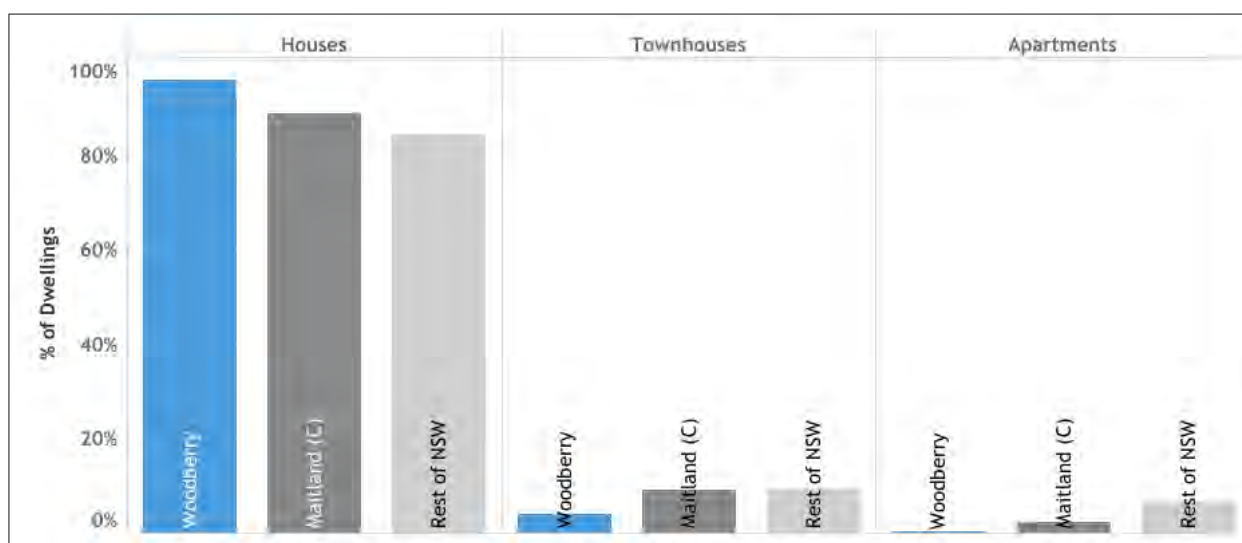
- In 2016 Woodberry featured a population of 2,993 people with a median age of 38 years.
- The most prevalent age bracket is 45 – 64 years accounting for 27% of local residents followed by 0 – 17 years at 25% and 65+ years at 14%. This spread of ages indicates an aging population at this location and family households.
- Between 2011 and 2016 the most notable changes in age groups were an increase in 65+ year old residents which increased by 5.1% followed by a modest increase in the 25 – 34 year bracket with an increase of 0.5%. In contrast there were reductions in the number of residents aged 0 – 17 (-4.4%) and 35 – 44 years (-3.9%).
- Woodberry has a household size 2.6 persons which is marginally less than the LGA size of 2.7 persons.
- Median personal and household income both increased between the 2011 and 2016 census periods (12.7% and 10.5% respectively) although remain below the Maitland LGA median incomes. Household income in Woodberry at \$1,032 p.w. is \$383 p.w. below the LGA.
- Household structure in Woodberry is quite evenly spread. Couples with children account for 27.5% of households followed closely by lone person and couples with no children (each 22.7%) and one parent family households (22%). There's a greater content of couples with children in Maitland LGA with 34.7% although a notably lesser content of one parent families at 13.5%.
- In terms of household composition, 74.0% of households are families, 22.8% are single / lone person and 3.2% are group households. Maitland LGA features a slightly higher content of family households at 75.8%
- A total of 27.8% of all dwellings are owned outright, 36.2% are owned with a mortgage and 33.0% are rented.

10.2.2 Dwelling Characteristics

Dwelling characteristics in Woodberry are outlined as follows

- In 2016, Woodberry accommodated a total of 1,187 dwellings (approximately 3.8% of all dwellings in Maitland LGA). The dwelling count shows a decrease of 10 dwellings from 2011.
- Dwelling structure in Woodberry is as follows:
 - Majority of occupied private dwellings within Thornton are separate houses, accounting for 95.7% of dwellings in 2016.
 - Medium density dwellings account for only 4.1% of stock.
 - Flats / apartments make up only 0.3% of stock.
- “Number of bedrooms” statistics are detailed as follows:
 - Three bedrooms are most prevalent accounting 70.2% of dwellings followed by four bedrooms or more (22.1%), two bedrooms (3.5%) and one bedroom (1.7%). The average number of bedrooms per occupied private dwelling was 3.2.
 - By comparison Maitland LGA offers less three bedroom dwellings (39.5%), more four or more bedroom dwellings (43.8%), and a greater content of both one and two bedroom dwellings. The average number of bedrooms per occupied private dwelling was marginally greater at 3.4.

Figure 54: Woodberry Dwelling Mix



SOURCE – Australian Bureau of Statistics; Charter Keck Cramer

10.3 Median Price Points

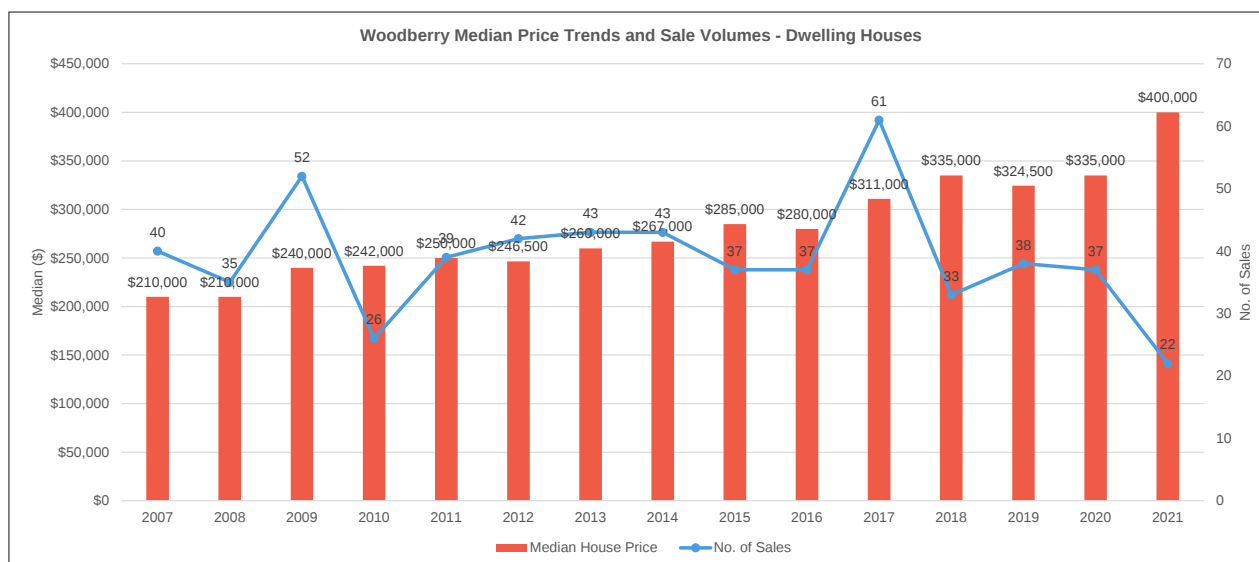
To assist in identifying local housing market trends in the suburb of Woodberry, we have investigated historic median prices and sales volumes of dwelling houses, residential units and vacant land within the area. Furthermore, we have analysed recent transactions over the past 18 months (including recent non-settled sales) to understand current housing stock and market preferences.

10.3.1 Dwelling Houses

Historic median dwelling house price and sales volume trends are outlined as follows:

- Median dwelling house prices in Woodberry increased from \$210,000 in 2007 to a current high of \$400,000 in 2021, demonstrating an overall upward trend with an average annual growth rate of approximately 4.39% per annum. There has been a notable increase of close to 20% between 2020 and 2021 to date. The graph below highlights the upward trend in median prices throughout the review period.
- Excluding the current year, the volume of annual sales has fluctuated between a low of 26 sales p.a. in 2010 and a high of 61 sales in 2017. Within most years the volume of transactions has typically ranged between circa 35 and 45 sales p.a. Based on the sales to date in year 2021 it is anticipated that circa 44 sales could potentially be achieved for the full calendar year (assuming enough supply).
- Over the past 18 months there have been 59 dwelling house sales with median prices continuing to increase. Sale prices have ranged between \$239,000 for a 607 sq.m. allotment improved with a dilapidated three bedroom cottage up to \$555,000 for a 345 sq.m. allotment improved with a new single storey four bedroom residence.
- The properties that have sold over past 18 months sale properties feature an average land size of 552sq.m. although sizes range broadly from 345 sq.m. up to 923 sq.m. Three bedroom dwellings were the most highly transacted accounting for 81% of sales followed by four bedrooms at 19%.

Figure 55: Woodberry Median Price Trends and Sales Volumes – Dwelling Houses



Note: 2021 price and volume data represents first half of calendar year only

SOURCE – Pricerfinder; Charter Keck Cramer

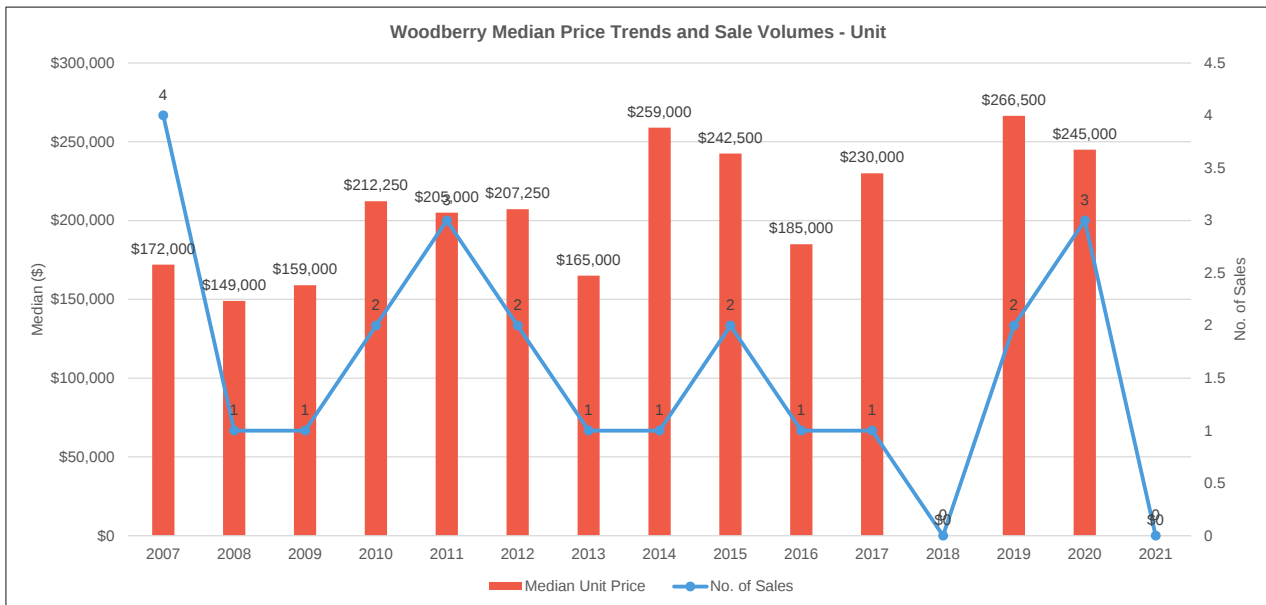
10.3.2 Residential Units

Historic median residential unit price and sales volume trends are outlined as follows:

- Telarah accommodates a limited supply of residential units and over the past 15 years there have typically been less than four sales per annum. The highest volume of sales was in 2007 with 4 sales whilst there were no sales in 2018 or to date in 2021.
- Accordingly, with such a limited number of sales it is difficult to identify median residential unit prices and trends. Throughout the review period available data indicates a general upward direction in pricing with the lowest median price of \$149,000 in 2008 and the highest \$266,500 in 2019. Throughout the period 2007 to 2020 there has been average annualised growth in the order of 2.56% per annum based on the limited sample size.

- A total of only three residential unit sales have been recorded in Woodberry over the past 18 months, featuring two townhouses and a villa. Sale prices have ranged from \$215,000 for the one bed villa up to \$255,000 for one of the two bedroom townhouses.

Figure 56: Woodberry Median Price Trends and Sales Volumes – Residential Units



Note: 2021 price and volume data represents first half of calendar year only

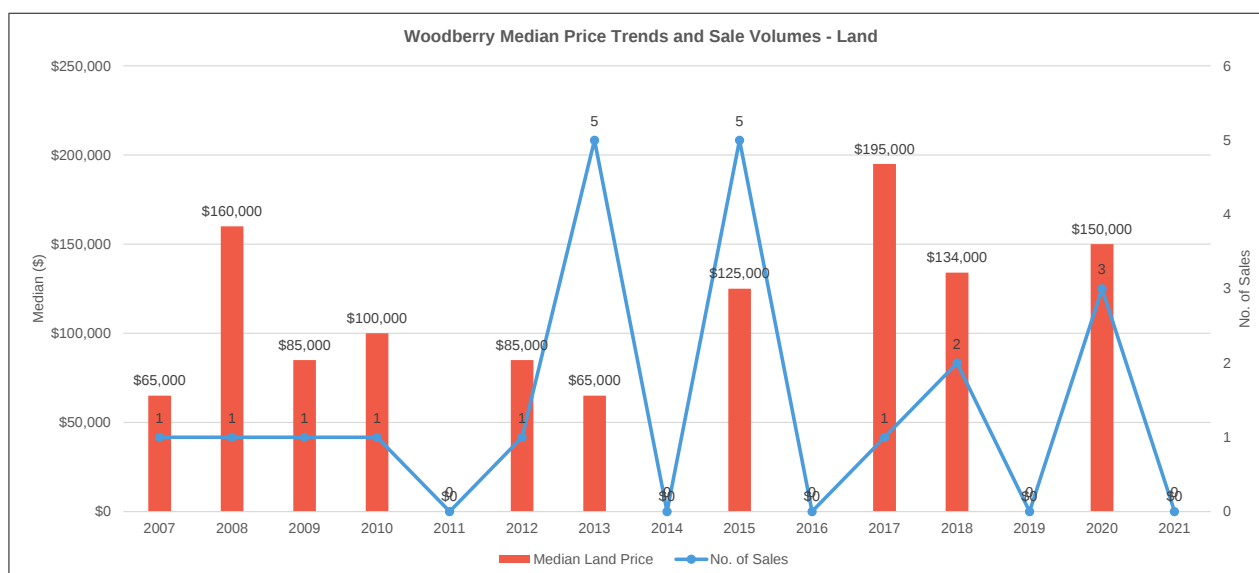
SOURCE – Pricefinder; Charter Keck Cramer

10.3.3 Land

Historic median land house price and sales volume trends are outlined as follows:

- Given the well-established nature of Telarah there have been very few sales of vacant allotments throughout the 15 year review period. There were no sales in four of the 15 years reviewed and between one and five sales each year in the remaining 11 years.
- Given the limited number of sales over the 15 years it is difficult to draw meaningful conclusions from the available data. This is evident within the chart below which does not indicate any particular pricing trend.
- Throughout the 15 years median prices have ranged from \$65,000 in 2007 up to \$195,000 (single sale) in 2017 with land sizes overall ranging from 345 sq.m. up to 1,359 sq.m.
- There have been no identified land sales within the 2021 year to date with only three sales in the 2020 calendar year. within the past 18 months. These three sales ranged in price from \$129,000 to \$150,000 and featured land areas between 351 sq.m. and 462 sq.m.

Figure 57: Woodberry Median Price Trends and Sales Volumes – Land



Note: 2021 price and volume data represents first half of calendar year only

SOURCE – Pricerfinder; Charter Keck Cramer

10.4 Summary

In summary, we note the following key characteristics in relation to Woodberry:

- Woodberry is the furthest distance from Central Maitland of all the infill locations reviewed although is closest to Newcastle city centre.
- Woodberry is an established location that features a relatively modest quantum of dwellings (less than 4% of all dwelling stock in Maitland LGA) with the current supply dominated by dwelling houses (close to 96% of all housing stock). Very limited content of infill housing typologies most of which is dated. There have been no recent land releases.
- High prevalence of family households (74%) and parent / child age groups. Couples with children make up the highest percentage of households.
- Most dwellings features either three or more bedrooms in line with the local family demographic.
- Only 5% of dwellings feature two bedrooms or less indicating very limited choice for lone person households and downsizers.
- There has been a recent increase of residents aged 65+ at this location. The median age in Woodberry at 38 is higher than the LGA median.
- Both personal and household median incomes are notably lower than for all Maitland LGA. Likewise, median prices for dwelling houses, residential units and vacant land are all well below Maitland LGA with Woodberry one of the more affordable study areas. Dwelling house prices have however increased by close to 20% over the past year to \$400,000.
- Woodberry is regularly traded in terms of dwelling houses but over the 15 year review period there have been no more four residential units and five vacant allotments sold within a single year.

11. Summary & Key Findings.

11.1 Overview

Charter Keck Cramer was appointed by Maitland City Council as part of a consultant group led by Tract Consultants to undertake a Demographic & Local Housing Market Analysis as part of a broader Maitland Infill Housing Analysis. In addition to a review of Maitland Local Government Area, the following seven infill study areas have formed the basis of our analysis:

- Central Maitland (suburbs of Maitland & Horseshoe Bend);
- East Maitland;
- East Maitland Catalyst Area (suburbs of Ashtonfield, Metford & Part East Maitland);
- Rutherford;
- Telarah;
- Thornton: &
- Woodberry

The analysis included an extensive demographic and residential market review both at LGA level and individually for each location to identify housing market characteristics and trends which will assist to guide future infill development design options and future financial feasibility assessments (forming part of a subsequent review).

It is anticipated that within most of the proposed infill locations, design opportunities will be reviewed to develop either small lot dwelling houses or medium density dwellings. In more centralised locations, close to railway stations and where market acceptance has already been demonstrated there may also be opportunity to plan for residential flat buildings. Flats can be well sought after particularly in central locations due to access to services and facilities.

Market fundamentals dictate that where the price differential between dwelling houses and residential units is comparatively low then the market preference will typically be to acquire the superior product at the marginally higher cost. As such, until such time that demand drivers improve within a number of the locations reviewed and there is greater disparity between price points for dwelling houses and residential units, it is anticipated that there will be limited market acceptance of medium density and apartment stock.

Whilst pricing is typically a major factor when identifying market demand for residential product, other indicators can typically include demographic, geographic and supply considerations.

In locations where demographic characteristics continue to evolve resulting in smaller household sizes, the future provision of reduced scale medium density housing and residential units will be important. This will be particularly relevant in locations with a growing number of lone person households, areas with an aging demographic / empty-nesters (a growing proportion of the Maitland LGA population) and locations with a high proportion of low income earners.

Most locations provide a content of medium density dwellings with some also featuring small scale (typically dated) low rise apartments. As part of any potential future infill housing exercise, the following considerations will be of relevance in identifying the potential to intensify residential development density:

- The scale of medium density dwelling complexes should be appropriate so as to not “overstate” density particularly in locations with limited such supply.
- New small lot dwelling house and medium density dwellings should ideally offer innovative / creative design characteristics, superior visual amenity and where feasible be positioned adjacent to or overlooking parkland and public open space. An example of an innovative design may include the provision of two level terraces or single storey attached row homes as an alternative to more traditional villas and townhouses.
- Medium density dwelling stock should ideally be located close to local centres which accommodate a range of retail and service amenities. This may include a supermarket, specialty stores and community spaces. Locations in close proximity to such centres are typically well sought after by residents.
- Proximity to public transport is typically beneficial and can enable transit-oriented development. This is particularly the case in close proximity to train stations of which there are a considerable number in the study areas. Location in close proximity to public transport can also reduce the reliance on private motor vehicles.
- Adequate road infrastructure and connectivity to centres.

- Given the aging demographic in certain locations there may be potential to review opportunities to provide seniors living type developments.
- In areas accommodating very low income earners and where a high content of residents experience mortgage / rental stress there may be the opportunity to review opportunities for affordable housing providers to develop medium density and higher density dwelling stock.

Whilst market fundamentals and demographic characteristics may not currently suit the provision of broad ranging infill housing typologies in all study areas, it is important to be cognisant that such development may become more appropriate in the medium to longer term and accordingly should be considered in future strategic planning.

11.2 Demographic Summary

The below table provides a demographic summary of household and dwelling characteristics for Maitland LGA and each of the infill study areas.

Figure 58: Demographic Summary

Demographic Summary – Household & Dwelling Characteristics								
Item	LGA	Central Maitland	East Maitland	EMCA	R'ford	Telarah	Thornton	W'berry
Demographics (2016)								
Population	77,305	2,268	11,782	9,409	11,884	2,329	8,062	2,993
Median Age (yrs)	36	43	40	34	34	36	35	38
Prevalent Age Bracket	0 – 17 (26%)	45 – 64 (29%)	45 – 64 (25%)	0 – 17 (29%)	0 – 17 (27%)	45 – 64 (24%)	0 – 17 / 45 – 64 (27%)	45 – 64 (27%)
Household Size (p.p.h.)	2.7	2.2	2.3	2.7	2.6	2.3	2.9	2.6
Prevalent H'hold Structure	Couples with Children	Lone Person	Lone Person	Couples with Children	Couples with Children	Lone Person	Couples with Children	Couples with Children
<i>Dwelling H'holds (occupied):</i>								
Family Household	75.8%	58.7%	66.4%	79.5%	70.5%	66.5%	84.9%	74.0%
Single / Lone Person	21.7%	34.7%	30.8%	17.6%	26.6%	30.8%	13.4%	22.8%
Group	2.4%	5.3%	2.9%	2.9%	3.0%	2.7%	1.7%	3.2%
<i>Dwelling Numbers:</i>	30,583	1,050	5,286	3,499	4,847	1,057	2,912	1,187
<i>Dwelling Structure (occupied):</i>								
Separate House	87.1%	78.7%	75.3%	88.9%	84.5%	89.8%	95.6%	95.7%
Medium Density	8.9%	14.0%	15.0%	9.7%	11.6%	7.2%	3.7%	4.1%
Flat / Apartment	2.2%	7.3%	7.2%	1.4%	2.0%	3.0%	0.6%	0.3%
Other Dwelling	0.4%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%
<i>Number Bedrooms (occupied):</i>								
None	0.2%	0.5%	0.2%	0.0%	0.1%	0.0%	0.1%	0.0%
1 bedroom	2.8%	8.1%	6.5%	1.7%	3.5%	3.6%	0.7%	1.7%
2 bedroom	11.1%	26.7%	20.2%	6.1%	12.3%	21.8%	5.3%	3.3%
3 bedroom	39.8%	42.6%	42.1%	42.0%	44.3%	58.4%	36.7%	70.2%
4 bedroom or More	43.8%	18.7%	28.5%	48.8%	35.4%	13.8%	55.9%	22.1%
Avg. # of Beds / occ..dwelling	3.4	2.8	3.0	3.4	3.2	2.9	3.6	3.2

SOURCE – ABS; Charter Keck Cramer

11.3 Market Analysis & Trends Summary

The below table provides a summary of housing market characteristics including median prices and trends for dwelling houses, residential units and vacant land in Maitland LGA and each of the infill study areas.

Figure 59: Median Price Point Summary

Median Price Point Summary								
Item	LGA	Maitland	East Maitland	EMCA	R'ford	Telarah	Thornton	W'berry
Market Analysis & Trends (2007 – 2021)								
<i>Dwelling House</i>								
Current Median Price	\$585,000	\$485,000	\$615,000	\$590,000	\$510,000	\$450,000	\$614,060	\$400,000
Avg. Growth p.a. (%)	4.79%	4.80%	5.14%	4.61%	4.14%	5.05%	4.26%	4.39%
Sales Range p.a. ¹	941-1,619	31 - 56	173 - 225	122 - 200	162 - 323	32 - 66	118 - 235	26 - 61
Avg Sales p.a. ²	1,279	41	201	151	227	49	153	40
<i>Residential Unit</i>								
Current Median Price	\$417,000	\$435,000	\$405,000	\$310,500	\$373,000	\$267,000	\$455,000	\$245,000 ⁴
Avg. Growth p.a. (%)	3.15%	4.97%	2.77%	1.33%	2.31%	3.85%	4.97%	2.56% ⁵
Sales Range p.a. ¹	136-238	5 - 28	36 - 73	16 - 47	12 - 61	0 - 11	3 - 40	0 - 4
Avg Sales p.a. ²	175	13	54	24	31	4	17	1.7
<i>Vacant Land</i>								
Current Median Price	\$228,000	NA ³	\$435,000	\$249,000	\$210,000	NA ³	\$263,000	NA ³
Avg. Growth p.a. (%)	2.32%	NA ³	6.01%	2.91%	2.69%	NA ³	1.51%	NA ³
Sales Range p.a. ¹	188-833	0 - 4	2 - 94	0 - 37	31 - 95	0 - 2	1 - 156	0 - 5
Avg Sales p.a. ²	572	1.2	24	15	63	0.7	60	1.5

1. Reflects the range of total sales achieved each year between 2007 to 2020. Excludes the current year 2021 which features sales for circa six months and not a full calendar year.
2. Excludes the current year 2021 which features sales for circa six months and not a full calendar year.
3. Insufficient sales to draw accurate conclusion.
4. Median price in 2020.
5. Represents growth rate between 2007 and 2020 as there have been no transactions to date in 2021.

SOURCE – Pricerfinder; Charter Keck Cramer

11.4 Key Findings & Recommendations

Maitland Local Strategic Planning Statement 2040+ released in June 2020 aims to support sustainable housing growth by balancing greenfield and infill housing in Maitland LGA. Local new housing provision is at present heavily weighted towards greenfield land releases.

Throughout the Greater Newcastle Region it is proposed that 60% of all future housing supply will be provided in the form of infill housing and 40% greenfield. This represents a dramatic shift from current new housing provision. Although this ratio is a regional target, the expectation will be that all locations including Maitland LGA increase the quantum of infill housing.

The seven infill study areas have been recognised by Maitland Council as key locations to accommodate a considerable content of future infill housing and the key findings and recommendations provided below outline appropriate typologies for each location based on the demographic and local housing market analysis completed as part of this review.

It is noted that whilst not all infill housing identified may be appropriate at the time of reporting (due to market, planning and location attributes), there is considered potential in the medium to longer term.

11.4.1 Central Maitland

Central Maitland accommodates the lowest number of dwellings of all seven study areas accounting for only 3.4% of total LGA stock. This location is also home to the city centre being a focal point for business in the region. Residents in Central Maitland enjoy the benefit of living close to work, having access to retail amenity / services and reducing reliance

on private motor vehicle usage. As such, Central Maitland presents as a location well suited to accommodate new infill dwelling supply.

From both demographic and market perspectives, Central Maitland is considered one of the more viable study areas for new infill housing. This has regard to the following characteristics:

- Central Maitland is dominated by lone person households accounting for almost 35% of residents. Combined with couple households 58% of households within the suburb feature two persons or less. At present, current dwelling supplies indicate a misalignment between household size and bedroom numbers with most stock notably larger than would typically be required. One option is to provide a greater content of stock with fewer bedrooms (one and two bedroom stock) which is well suited to residential apartments.
- Almost 79% of dwellings are freestanding and configured in a low density format. Accordingly there is a good supply of favourable sized existing allotments at this location that could be redeveloped in isolation or consolidated to develop medium / high density dwellings.
- Almost half of the resident population is aged over 45 years which includes 18% at over 65 years. At present there are very few options for older residents currently residing in larger dwellings to downsize into modern / appropriate dwellings. This could be in the form of senior's living facilities or lower maintenance medium / high density stock of which there is very limited new stock. Local agents have indicated that downsizers relocating from large family homes often seek three bedroom medium density accommodation.
- In recent years, a range of medium density townhouse and higher density four storey apartment buildings have been constructed in Central Maitland. Discussions with local agents and a review of sale prices achieved indicate solid market acceptance of these product types. Additionally, Central Maitland accommodates the greatest volume of residential units (by percentage).
- Local active agents note an inherent undersupply and unprecedented recent capital growth for residential unit stock. This is evidenced by the low volume of transactions over the past five years, strong increase in median prices and narrowing differential between dwelling houses and residential units.
- The price points of residential units are less than dwelling houses which could assist in reducing mortgage and rental stress for local residents. This is particularly relevant given median personal / household incomes are below LGA median levels.
- There is strong demand for residential units from investors.

With Central Maitland accommodating the town centre it is suggested that the focus be on the provision of higher density dwelling types such as apartments along with medium density dwellings appropriate to city centre locations such as small lot terrace style housing.

Central Maitland features two train stations which enhances marketability of this location due to the excellent connectivity. However, both stations are set away from the main retail / commercial strip along High Street. There may be future opportunity to explore intensification of uses surrounding the stations and creation of mixed-use precincts (incorporating residential).

To date most contemporary apartments have been to a scale of four storeys. There may be longer term opportunities for greater height on key sites which could be further explored on a site specific basis.

11.4.2 East Maitland

East Maitland accommodates the highest number of dwellings of all seven study areas accounting for 17% of total LGA stock. Three quarters of this stock comprises dwelling houses plus 15% configured as villas / townhouses and over 7% apartments. With circa 22% of existing residential stock in the form of residential units this would indicate a general market acceptance of such dwelling typologies at this location. Much of this stock is however well-established and the apartments are set within complexes typically over only two levels.

Residents in East Maitland enjoy the benefit of living close to Central Maitland which accommodates the city centre and places of employment. This location is also benefitted by strong connectivity by road and rail. East Maitland accommodates two train stations with both surrounded by low intensity land uses.

From both demographic and market perspectives, East Maitland is considered one of the more viable study areas to accommodate new infill housing. This has regard to the following characteristics:

- East Maitland is dominated by lone person households accounting for almost 31% of residents. Combined with couples, almost 60% of households within the suburb feature two persons or less. At present, there is a misalignment between household size and bedroom numbers with 70% of dwellings featuring a greater number of bedrooms (three or more) than would normally be required for one or two person households. Larger stock is also

more expensive affecting affordability. ABS statistics indicate that only 27% of dwellings features two bedrooms or less. This potentially translates to 60% of households competing for 27% of dwelling stock based on household size and dwelling supply based on bedrooms numbers. The provision of new smaller scale infill housing with one and two bedroom would assist in providing greater housing choice.

- Over 75% of dwellings are freestanding and configured in a low density format. Accordingly there is considered a very good supply of favourable sized existing allotments at this location that could be redeveloped either in isolation or consolidated to accommodate new infill housing.
- There is a growing content of residents aged 65+ which at present account for one fifth of all residents (circa 2,350 people). At present there are limited options for older residents to downsize with many occupying larger and family homes. The provision of new lower maintenance stock (villas, senior's living facilities) would enable greater housing choice and an option for local residents to remain in the area rather than relocate to where such stock is available. At present there is a modest supply of contemporary infill stock for downsizers and empty nesters.
- In recent years, a range of medium density projects have been completed in East Maitland with this product absorbed well in the market at price points well below median prices for dwelling houses. Local agents have indicated strong demand for such stock and an inherent undersupply.
- The price points of residential units are notably less than dwelling houses which could assist in reducing mortgage and rental stress for local residents seeking such product. This is particularly relevant given median personal / household incomes are below LGA median levels.
- There is strong demand for residential units from investors at this location.

East Maitland is considered a favourable location to accommodate infill housing in the current market. There would appear an inherent undersupply based on both demographic and market factors with dual occupancies, medium density dwellings and smaller scale residential apartment complexes considered suitable and appropriate at this location. This could include a mix of villas, townhouses, terrace style housing (dependent on specific location) and manor houses.

At this stage there is limited new apartment supply in East Maitland however given the favourable location close to Central Maitland and provision of two train stations, there may be future longer term opportunities to explore provision of this dwelling typology including intensification of uses surrounding the stations and creation of mixed-use precincts (incorporating residential).

Both train stations appear surrounded by notable tracts of under-developed land and accordingly this may present a medium to longer term option as the requirement for new infill supply intensifies given the 60% target. The scale of such development would likely be limited to circa four storeys plus basement parking.

11.4.3 East Maitland Catalyst Area

The East Maitland Catalyst Area is a geographically large residential location comprising the suburbs of Ashtonfield, East Maitland and Metford. The Catalyst Area is dominated by dwelling houses configured in a low density format accounting for close to 90% of all housing stock. Over 90% of all dwellings feature at least three bedrooms and there is a very modest content of residential units and dwellings with two bedrooms or less.

The Catalyst Area accommodates the third highest number of dwellings (3,499) of all seven study areas. Approximately 350 of these dwellings are infill typologies (flats, villas, townhouses etc) representing a modest supply. Most of these dwellings appear well established and there has been limited new contemporary stock introduced highlighting a potential market preference for lower density dwellings. This could also relate to local residents achieving median personal and household incomes above the LGA medians enabling greater purchasing power for higher priced stock (typically dwelling houses).

This location features a notable content of retail, service industry and industrial uses providing a source of both employment and amenity to local residents. Additionally, the Catalyst Area accommodates a number of schools which is of benefit to family households with children. This means that many residents would not be required to leave the area on a day to day basis if living and working at this location. There appears a heavy reliance on private vehicle usage particularly as Metford train station is within a peripheral western location some distance from retail, schools and places of employment.

From a demographic perspective, the East Maitland Catalyst is considered to have potential to accommodate new infill housing over the short to medium term. There is considered an inherent undersupply of dwellings with one or two bedrooms which account for less than 8% of current dwelling stock yet 43% of households feature only one or two residents. This misalignment highlights the limited dwelling choice for smaller households such as lone persons, couples and downsizers.

From a market perspective, although there are typically between 20 to 30 residential unit sales each year the location is somewhat untested for modern higher priced stock. Market acceptance can be further investigated by means of

financial feasibility testing but assuming a reasonable price point differential between dwelling houses and residential units there is likely to be sound demand for infill housing.

The most appropriate infill typologies are considered to be dual occupancies, medium density dwellings and smaller scale residential apartment complexes that could accommodate dwellings with fewer bedrooms. This could include a mix of duplex dwellings, villas, townhouses and manor houses. Given the geographic spread of the location, demand for infill housing will likely be greater if located in close proximity to services, amenities, public open space and public transport.

There may also be potential for higher density apartments in key locations such as close to Stockland Green Hills Shopping Centre and the new Maitland Hospital Precinct.

There appears limited ability to leverage off the benefits of having a train station at Metford given the somewhat remote position within the eastern periphery of the study area. However, opportunity may increase once the new hospital precinct is developed which is located a relatively close distance north.

The train station is bound by non-urban land to the east (outside the study area) and a large sporting reserve / low density development to the west. Accordingly, there currently appears limited opportunity to notably intensify higher density land uses surrounding the station. Although, proximity to a train station can enhance marketability of medium density dwellings and dual occupancies.

11.4.4 Rutherford

Rutherford accommodates the second highest number of dwellings of all seven study areas accounting for 16% of total LGA stock. Close to 85% this stock comprises dwelling houses and circa 14% is configured as villas / townhouses and apartments (albeit only 2.0% of stock is made up of apartments).

There has been a growing content of medium density development with incremental growth in price points and a reasonable differential between the price of dwelling houses and residential units. However, there continue to be land releases within the broader location with vacant land the most sought after product type. Accordingly, for market acceptance of infill dwelling typologies a notable differential between the price for established dwelling houses and new medium density stock will be required.

Based on the demographic and market reviews completed, Rutherford appears capable of accommodating an increased content of new infill housing. This has regard to the following considerations:

- Lone person households represent the second highest household group and couples with no children represent the third largest. Combined these groups account for half of all households. However, just under 16% of dwellings features two bedrooms or less highlighting the limited choice smaller households. Accordingly there is a considerable misalignment of dwelling configurations based on current demographics. The provision of new smaller scale infill housing with one and two bedroom would assist in providing greater housing choice.
- Close to 80% of dwellings are freestanding and configured in a low density format. Accordingly there is considered a very good supply of favourable sized existing allotments at this location that could be redeveloped either in isolation or consolidated to accommodate new infill housing.
- There is a growing content of older residents in Rutherford with the 65+ year age bracket showing the greatest increase by percentage between the previous two census periods. Although the median age at 34 is below the LGA, there are signs of an aging population. At present there are limited options for older residents to downsize with many currently occupying larger and family homes. The provision of new lower maintenance stock (villas, senior's living facilities) would enable greater housing choice and an option for local residents to remain in the area rather than relocate to where such stock is available.
- In recent years, a range of medium density projects have been completed in Rutherford with this product absorbed well in the market at price points well below median prices for dwelling houses. Local agents have indicated strong demand for such stock.
- The price points of residential units are notably less than dwelling houses which could assist in reducing mortgage and rental stress for local residents seeking such product. This is particularly relevant given median personal / household incomes are below LGA median levels.

Appropriate infill housing typologies at this location include dual occupancies and medium density villas and townhouses. The market for contemporary residential apartments appears untested at this location and there is considered limited opportunity for this typology in Rutherford.

11.4.5 Telarah

Telarah is an established location positioned to the immediate west of Central Maitland. The suburb accommodates the second lowest number of dwellings in all seven study areas accounting for less than 4% of total LGA stock. Given the close proximity to Central Maitland, demand for residential dwellings has increased considerably in Telarah which is evidenced by recent strong capital growth (particularly for dwelling houses).

The vast majority of dwelling stock is catered towards family households with 90% in the form of dwelling houses. Close to three quarters of all stock comprises three or more bedrooms. Only 10% of dwellings are medium density dwellings or apartments with the latter accounting for only 3% of this stock. Additionally, most of the infill themed development is well-established / dated.

Demographic characteristics of Telarah indicate a notable misalignment between household type and dwelling size. Lone person households make up the highest percentage of Telarah households at 30.9% and combined with couple households over half of all households comprise two or less persons. Accordingly, it would appear there is inadequate smaller scale / low maintenance stock at this location for the high number of lone person and couple households.

The provision of new infill housing in Telarah would represent a fundamental shift for the location and many of the potential dwelling typologies have not been tested in the market. Based on the favourable centralised location of Telarah combined with demographic characteristics, there is considered sound potential to increase the content of infill housing. However, the current low median price points of dwelling houses and residential units may limit any such potential for new stock. This will require further testing by means of a financial feasibility assessment.

The infill housing typologies considered most suited to this location include dual occupancies, medium density dwellings and smaller scale residential apartment complexes. This could include a mix of duplex dwellings, villas, townhouses and manor houses.

Although in close proximity to Central Maitland, there is considered limited opportunity to intensify residential land uses beyond these typologies at this location. This is in part due to the limited provision of notable retail and amenity in Telarah where such development is typically focussed and also due to land uses and constraints surrounding Telarah Train Station.

11.4.6 Thornton

Thornton continues to develop as a residential location offering a mix of established and new dwelling houses, a growing content of medium density dwellings and continued supply of greenfield land releases. Median price points for all three of these categories are highest of all study areas.

Thornton accommodates a high number of dwellings which is dominated by dwelling houses accounting for 96% of all housing stock. There is a limited content of infill housing which is primarily in the form of contemporary duplex and medium density dwellings.

Family groups are most prevalent in Thornton making up circa 85% of all households. This is one reason why there is such a high content of dwellings featuring three or more bedrooms (92.6% of all housing).

Dwellings with two bedrooms or less account for only 6% of total dwellings indicating very limited choice for lone person households, couples and downsizers which collectively make up 41% of households.

Although dominated by dwelling houses, there is considered opportunity to increase the content of infill housing in Thornton. Having regard to location, demographic and market considerations the infill housing typologies considered most suited to this location include dual occupancies and medium density dwellings (villas and townhouses). Although median prices of residential units are comparatively high in Thornton, median incomes also exceed all other study areas and the LGA.

There is considered limited opportunity to intensify residential land uses beyond a medium density scale in Thornton. Any greater scale of development may represent a long term proposition as the area evolves. The viability of such will be largely dependent on location.

Transit-oriented development in established locations is often considered an opportunity to intensify land uses. In this instance such an opportunity would relate to development adjacent to Thornton train station. However, this station is positioned in the southern periphery of the study area amongst low intensity land uses (northern side) and industrial premises (southern side). There may be a future long term opportunity to provide mixed-use development at this location however master-planning and a thorough market assessment would be required to validate such potential.

11.4.7 Woodberry

Woodberry is an established residential suburb located the furthest distance of all study areas from Central Maitland. The suburb accommodates a very modest content of dwellings (1,187) with this supply dominated by dwelling houses (circa 96% of all housing stock). There is very limited supply of infill housing and accordingly no established market for such stock.

Woodberry is dominated by family households (74%) and this is somewhat reflected in the high content of dwellings houses featuring three or more bedrooms (92%).

Demographic characteristics of Woodberry do however indicate a misalignment between household type and dwelling size. Lone person households account for 22.8% of Woodberry households yet only 5% of dwellings feature two or less bedrooms. Accordingly, it would appear there is inadequate smaller scale / low maintenance stock at this location for the high number of lone person households. This also means that many lone people reside in family scale dwellings. There appears opportunity to provide additional smaller scale dwelling stock in the form of infill housing to assist with realigning household type and dwelling size .

From a market perspective there may be some limitations in providing new infill housing typologies given that median prices of dwelling houses are the lowest in all of the study areas at only \$400,000. This price is similar or less than the price of new medium density dwellings in locations such as Thornton. Below average income levels for Woodberry residents also place questions on affordability.

With an apparent requirement for infill housing, the most appropriate dwelling typologies are considered medium density dwellings and small scale apartment buildings (such as two level manor houses or similar). There is considered limited opportunity to intensify residential land uses beyond a medium density scale in Woodberry.

It will be important to undertake financial feasibility testing on the identified infill housing options to provide greater visibility on whether such development is feasible in the current market or represents a medium or longer term option.

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Appendix C

Maitland Infill Housing Analysis

Part 2 - Financial Feasibility Assessment of Development Options

Prepared for
Maitland Council (c/ Tract Consultants)

January 2022

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Summary of Main Findings

Financial Feasibility Assessment of Development Options

Central Maitland.

Financial feasibility of the following development schemes has been tested for the Opportunity Site:

- Base Scheme: Dual occupancy (attached) with two x 3 bed dwellings each with a single garage & car space.
- Alternate Scheme: Four x 2 bed apartments within a residential flat building no lift and undercroft parking.

The Opportunity Site features a land area of 578 sq.m. There have been minimal vacant land transactions in recent years in Central Maitland however available market evidence suggests residential allotments of this size have the potential to achieve prices in the order of \$360,000.

The outcomes of the feasibility assessments indicate that in order for a developer to achieve the target profit margin of 15% they are able to outlay \$373,890 for land if developing the Base Scheme option and \$228,081 for the Alternate Scheme.

The only option considered feasible in the current market is the Base Scheme. The project related site value in this instance indicates a land value premium above current price as a single residential allotment. The Alternate Scheme indicates a land value below current price as a single residential allotment.

To identify the development scale required for the Alternate Scheme to be considered feasible, a tipping point review has been completed. The scheme is considered financially feasible with an increased apartment yield from 4 to 6.4 units. This represents an increase in GFA from 391 sq.m. up to 624 sq.m. which would likely require two additional residential floors. It is assumed that additional parking requirements could be accommodated within the ground floor undercroft carpark.

Based on this yield a developer could afford to outlay \$360,000 for the land (single lot price) whilst achieving a profit margin of 15%. Although such a scheme may not be appropriate in terms of massing and scale, the exercise indicates what development scale would be required in order to be considered financially feasible.

East Maitland.

Financial feasibility of the following development schemes has been tested for the Opportunity Site:

- Base Scheme 1: Dual occupancy (attached) with two x 4 bed dwellings each with a single garage & car space.
- Base Scheme 2: Manor house with two x 1 bed & two x 2 bed dwellings, no lift and at-grade parking.
- Alternate Scheme: Residential flat building featuring three x 1 bed, four x 2 bed dwellings, a lift and basement parking.

The Opportunity Site features a land area of 720 sq.m. Market evidence suggests residential allotments of this size in East Maitland are currently achieving prices in the order of \$400,000.

The outcomes of the feasibility assessments indicate that in order for a developer to achieve the target profit margin of 15% they are able to outlay \$401,008 for land if developing the Base Scheme 1 option, \$337,408 for Base Scheme 2 option and \$209,479 for the Alternate Scheme.

The only option considered potentially feasible in the current market is Base Scheme 1 which produces a residual land value in keeping with land price as a single residential allotment.

Base Scheme 2 and the Alternate Scheme indicate a land value below current price as a single residential allotment. Accordingly these options are not considered feasible under current market conditions.

To identify the development scale required for the Alternate Scheme to be considered feasible, a tipping point review has been completed. This scheme proposes seven apartments within a low rise apartment building with basement parking. The tipping point scheme assumes undercroft parking in lieu of basement parking. Given the considerable construction cost savings that result from the parking changes, the revised scheme produces a residual land value of \$469,401 and is

now considered financially feasible. This increase in land price results without any alternation to the scheme other than parking configuration.

East Maitland Catalyst Area.

Financial feasibility of the following development schemes has been tested for the Opportunity Site:

- Base Scheme: Multi-Dwelling Terraces with three x 4 bed dwellings each with a single garage and at car space.
- Alternate Scheme: Residential flat building featuring three x 1 bed, four x 2 bed dwellings, a lift and basement parking.

The Opportunity Site features a land area of 700 sq.m. There have been minimal vacant land transactions in recent years in the East Maitland Catalyst Area however available market evidence suggests residential allotments of this size have the potential to achieve prices in the order of \$380,000.

The outcomes of the feasibility assessments indicate that in order for a developer to achieve the target profit margin of 15% they are able to outlay \$390,301 for land if developing the Base Scheme option and \$105,082 for the Alternate Scheme.

The only option considered feasible in the current market is the Base Scheme. The project related site value in this instance indicates a land value premium above current price as a single residential allotment.

The Alternate Scheme indicates a land value below current price as a single residential allotment. Accordingly this option is not considered feasible under current market conditions. Financial viability is primarily impacted by the exorbitant costs associated with the construction of basement parking.

To identify the development scale required for the Alternate Scheme to be considered feasible, a tipping point review has been completed. The scheme is considered financially feasible after a substantial increase in apartment yield from seven units up to 27.3 units. This represents an increase in GFA from 585 sq.m. up to 2,279 sq.m. which would potentially require circa 12 floors (nine additional to the Alternate Scheme). In addition, multiple basement parking levels would be required.

As the site features a land area of only 700 sq.m. it is considered unlikely that a development of this scale could be accommodated given massing and height requirements. However, this is the scale that would be required under current market conditions and as per the adopted assumptions in order for a developer to afford an initial \$380,000 land purchase price (single lot price) whilst achieving a profit margin of 15%. Such a development would be considered out of character with existing development at this location.

Rutherford.

Financial feasibility of the following development schemes has been tested for the Opportunity Site:

- Base Scheme: Dual occupancy (attached) with two x 3 bed dwellings each with a single garage & car space.
- Alternate Scheme 1: Manor house with two x 1 bed & two x 2 bed dwellings, no lift and at-grade parking.
- Alternate Scheme 2: Four x 2 bed apartments within a residential flat building no lift and undercroft parking.

The Opportunity Site features a land area of 629 sq.m. Market evidence suggests considerable recent capital growth in Rutherford land values resulting from strong market conditions, high demand and limited supply. Residential allotments of this size in Rutherford are currently achieving prices in the order of \$330,000.

The outcomes of the feasibility assessments indicate that in order for a developer to achieve the target profit margin of 15% they are able to outlay \$331,380 for land if developing the Base Scheme option, \$212,827 for the Alternate Scheme 1 and \$199,444 for Alternate Scheme 2.

The only option considered feasible in the current market is the Base Scheme. The project related site value in this instance indicates a land value in keeping with current price as a single residential allotment.

Both Alternate Schemes indicate a residual land value less than current price as a single residential allotment and accordingly are not considered feasible under current market conditions.

To identify the development scale required for the Alternate Scheme to be considered feasible, a tipping point review has been completed. The scheme is considered financially feasible with an increased apartment yield from 4 to 6.7 units. This represents an increase in GFA from 391 sq.m. up to 653 sq.m. which would likely require two additional residential

floors. It is assumed that additional parking requirements could be accommodated within the ground floor undercroft carpark.

Based on this yield a developer could afford to outlay \$330,000 for the land (single lot price) whilst achieving a profit margin of 15%. Whilst such a scheme may not be appropriate in terms of massing and scale, the exercise indicates what development scale would be required in order to be considered financially feasible.

Telarah.

Financial feasibility of the following development schemes has been tested for the Opportunity Site:

- Base Scheme: Dual occupancy (detached) with one x 2 bed & one x 3 bed dwellings, each with a single garage & car space.
- Alternate Scheme : Manor house with two x 1 bed & two x 2 bed dwellings, no lift and basement parking.

The Opportunity Site features a land area of 408 sq.m. for the Base Scheme and 816 sq.m. for the Alternate Scheme (assumes consolidation of two lots). The very limited market evidence available suggests residential allotments sized circa 408 sq.m. in Telarah are currently achieving prices in the order of \$200,000. In order to acquire two neighbouring lots comprising a consolidated land area of circa 816 sq.m. the land price would be in the order of \$400,000.

The outcomes of the feasibility assessments indicate that in order for a developer to achieve the target profit margin of 15% they are able to outlay \$227,995 for land if developing the Base Scheme option and -\$30,637 for the Alternate Scheme.

The only option considered feasible in the current market is the Base Scheme. The project related site value in this instance indicates a land value premium above current price as a single residential allotment.

The Alternate Scheme indicates a negative land value and accordingly this option is not considered feasible under current market conditions. The Alternate Scheme requires the purchase of two allotments and construction of basement parking with these exorbitant costs significantly impacting viability of the project. Given the above average land content within the Alternate Scheme a multi-level apartment building may have a greater chance of financial viability although such a development would be out of character with existing dwelling typologies at this location.

A tipping point review has not been completed for Telarah due to the proposed dwelling typology.

Thornton.

Financial feasibility of the following development schemes has been tested for the Opportunity Site:

- Base Scheme: Multi-Dwelling Terraces with three x 4 bed dwellings each with a single garage and at car space.
- Alternate Scheme : Manor house with two x 1 bed & one x 3 bed dwellings, no lift and at-grade parking.

The Opportunity Site features a land area of 680 sq.m. Market evidence suggests considerable recent capital growth in Thornton land values resulting from strong market conditions, high demand and limited supply. Residential allotments of this size in Thornton are currently achieving prices in the order of \$350,000.

The outcomes of the feasibility assessments indicate that in order for a developer to achieve the target profit margin of 15% they are able to outlay \$363,038 for land if developing the Base Scheme option and \$229,395 for the Alternate Scheme.

The only option considered feasible in the current market is the Base Scheme. The project related site value in this instance indicates a land value premium above current price as a single residential allotment.

The Alternate Scheme indicates a land value below current price as a single residential allotment. Accordingly this option is not considered feasible under current market conditions. Yield potential of the manor house typology is limited by the allotment size / configuration. The three units all offer modest internal floor areas which impacts gross realisation potential whilst in contrast the construction costs for this typology are higher than dual occupancy and triplex style dwellings. Collectively this has resulted in the scheme not being financially feasible.

A tipping point review has not been completed for Thornton due to the proposed dwelling typology.

Woodberry.

Financial feasibility of the following development schemes has been tested for the Opportunity Site:

- Base Scheme: Dual occupancy (attached) with two x 4 bed dwellings, each with a single garage & car space.
- Alternate Scheme : Manor house with two x 1 bed & one x 3 bed dwellings, no lift and at-grade parking.

The Opportunity Site features a land area of 495 sq.m. There have been minimal vacant land transactions in recent years in Woodberry however available market evidence suggests residential allotments of this size have the potential to achieve prices in the order of \$280,000.

The outcomes of the feasibility assessments indicate that in order for a developer to achieve the target profit margin of 15% they are able to outlay \$286,159 for land if developing the Base Scheme option and \$154,507 for the Alternate Scheme.

The only option considered feasible in the current market is the Base Scheme which produces a residual land value above land price as a single residential allotment.

The Alternate Scheme indicates a land value below current price as a single residential allotment. Accordingly this option is not considered feasible under current market conditions. Yield potential of the manor house typology is limited by the allotment size / configuration. The three units all offer modest internal floor areas which impacts gross realisation potential whilst in contrast the construction costs for this typology are higher than dual occupancy and triplex style dwellings. Collectively this has resulted in the scheme not being financially feasible.

A tipping point review has not been completed for Woodberry due to the proposed dwelling typology.

Maitland Infill Housing Analysis

Financial Feasibility Assessment of Development Options

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Instructions.

Instructing Party	Maitland Council c/ Tract Consultants Pty Ltd Level 8, 80 Mount Street North Sydney NSW 2060 (Sophie Powell) Telephone +61 (0) 2 8077 1218 Email spowell@tract.net.au	
Purpose	This Part 2 Feasibility Assessment of Residential Development Options report has been prepared to provide a preliminary assessment of the financial feasibility of base and alternate development scheme/s prepared by Tract Consulting on hypothetical "Opportunity Sites" within seven identified Maitland LGA infill locations. This report includes an overview of the Base and Alternate design scheme/s prepared by Tract, an outline of the methodology adopted, assumptions relied upon in completing the financial feasibility assessments and a summary of the outcomes.	
Disclaimer	This report has been prepared for the exclusive use of the party to whom it is addressed and for no other purpose. No responsibility is accepted for any third party who may use or rely on the whole or any part of the content of this report. It should be noted that any subsequent amendments or changes in any form to this report would only be notified to and known by the parties to whom it is addressed. This report has been carefully prepared by Charter Keck Cramer Strategic Research and the information contained herein should not be relied upon to replace professional advice on specific matters. © 2022 (Charter Keck Cramer)	
Our Reference	Charter Contact	Brendan Woolley
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	Version	Final (V2) - issued January 2022 (Initial Draft issued October 2021)

Definitions.

There is considerable variance in terminology pertaining to dwelling typology as reported by various Government agencies and research providers. Accordingly, to ensure consistency of terminology and provide clarification of terms utilised within this report, the following definitions section is provided.

The definitions are listed in alphabetical order and are sourced from agencies including Maitland Local Environmental Plan 2011, the Medium Density Design Guide, NSW Legislation and the Australian Bureau of Statistics ("ABS").

Attached Dwelling: a building containing three or more dwellings, where:

- each dwelling is attached to another dwelling by a common wall, and
- each of the dwellings is on its own lot of land, and
- none of the dwellings are located above any part of another dwelling.

Dwelling: is the collective term used to describe all residential accommodation and is described as a room or suite of rooms occupied or used or so constructed or adapted as to be capable of being occupied or used as a separate domicile. Dwellings can include the following typologies:

- attached dwellings,
- boarding houses,
- dual occupancies,
- dwelling houses,
- group homes,
- hostels,
- multi dwelling housing,
- residential flat buildings,
- rural workers' dwellings,
- secondary dwellings,
- semi-detached dwellings,
- seniors housing,
- shop top housing,

Dwelling House: a Torrens title allotment improved with a building containing only one dwelling. In the majority of instances such a dwelling will be freestanding being described as a **separate house**. The dwelling house typology has been utilised within the median price point analysis as the source data (PriceFinder) is provided in this format.

Dual Occupancy (Attached): two dwellings on one lot of land that are attached to each other, but does not include a secondary dwelling.

Dual Occupancy (Detached): two detached dwellings on one lot of land, but does not include a secondary dwelling.

Manor House: a residential flat building containing three or four dwellings, where:

- each dwelling is attached to another dwelling by a common wall or floor, and
- at least one dwelling is partially or wholly located above another dwelling, and
- the building contains no more than two storeys (excluding any basement)

Medium Density Dwelling: a common reference to a group of **Strata** title dwellings (typically four or more) which can be either attached, semi-detached or freestanding. These dwellings have their own private grounds and no other dwelling above or below them. They are either attached in some structural way to one or more dwellings or are separated from neighbouring dwellings by less than half a metre. Common typologies include townhouses, villas and terraces. The medium density dwelling typology has been utilised within the "Dwelling & Household Characteristics" analysis given the ABS Census data is compiled using this dwelling typology.

Multi-Dwelling House: three or more dwellings (whether attached or detached) on one lot of land, each with access at ground level, but does not include a residential flat building.

Multi-Dwelling House (Terraces): all dwellings (three plus) are attached and face, and are generally aligned along, one or more public roads.

Occupied Private Dwelling: An occupied private dwelling is a private dwelling occupied by one or more people. A private dwelling is most often a dwelling house or residential unit. It can also be a caravan, houseboat, tent, or a house attached to an office, or rooms above a shop. Occupied dwellings in caravan/residential parks or camping grounds are treated as occupied private dwellings. In preparing this review, the majority of “Dwelling & Households Characteristics” analysis relies on occupied dwelling data with the typical exceptions being total dwelling and population numbers. In the locations reviewed the number of occupied dwellings is considered satisfactory to obtain a suitable spread of demographic data.

Residential Flat Building: a building containing three plus dwellings (**flats / apartments**), but does not include an attached dwelling or multi-dwelling housing. This category includes all dwellings in blocks of flats / apartments. These dwellings do not have their own private grounds and usually share a common entrance foyer or stairwell. Flats are often referred to as **high density dwellings**. The ABS adopts the residential flat building (flats / apartments) dwelling typology in compiling its Census data and our “Dwelling & Household Characteristics” analysis is accordingly based on this information.

Residential Unit: a broad term which refers to a dwelling held under **Strata title**. This could include medium density dwellings, a semi-detached dwelling and flats / apartments. The residential unit typology has been utilised within the median price point analysis as the source data (PriceFinder) is provided in this format.

Semi-Detached Dwelling: a dwelling that is on its own lot of land and is attached to only one other dwelling. Also referred to as a **duplex dwelling**.

Separate House: a house which is separated from other dwellings by a space of at least half a metre. A separate house may have a flat attached to it, such as a granny flat or converted garage. The ABS adopts the separate house dwelling typology in compiling its Census data and our “Dwelling & Household Characteristics” analysis is accordingly based on this information.

Strata Title: enables individual ownership of part of a property (“lot”) combined with shared ownership in the remainder (“Common Property”) through a legal entity called the owners corporation / body corporate.

Torrens Title: a land ownership system where the purchaser owns both the land and buildings constructed upon it. It is the most common method of property ownership in Australia with each state having a central register of all land and owners. Once an owner is registered they own the property above all others.

Unoccupied Private Dwelling: These are structures built specifically for living purposes which are habitable, but unoccupied on Census night. Vacant houses, holiday homes, huts and cabins (other than seasonal workers' quarters) are counted as unoccupied private dwellings. Also included are newly completed dwellings not yet occupied, dwellings which are vacant because they are due for demolition or repair, and dwellings to let. Unoccupied private dwellings in caravan/residential parks, marinas and manufactured home estates are not counted in the Census. The exception to this is residences of owners, managers or caretakers of the establishment and, from the 2006 Census, unoccupied residences in retirement villages (self-contained).

1. Introduction.

Charter Keck Cramer (“Charter”) has been appointed by Maitland City Council as part of a consultant group led by Tract Consultants (“Tract”) to complete financial feasibility assessments on hypothetical “Opportunity Sites” within seven identified potential infill housing locations spread throughout Maitland Local Government Area (“LGA”). Assessments have been completed on hypothetical sites within the following locations:

- Central Maitland (suburbs of Maitland & Horseshoe);
- East Maitland;
- East Maitland Catalyst Area (suburbs of Ashtonfield, Metford & Part East Maitland);
- Rutherford;
- Telarah;
- Thornton; &
- Woodberry

The purpose of the review is to assess the financial feasibility of base and alternate development scheme/s prepared by Tract Consulting. All of the schemes propose a range of small scale residential infill developments typically at an increased density to most surrounding properties (between two and seven dwellings). Dwelling typologies reviewed include dual occupancy dwellings (attached & detached), multi- dwelling terraces, manor houses and residential flat buildings.

The development feasibility assessments have been completed utilising industry recognised Estate Master software. Given the very preliminary nature of the review, an extensive set of market based assumptions have been relied upon in relation to potential gross realisation of completed products, project costs (including construction, professional fees, contingencies), land holding costs, developer finance and purchase / selling expenses. Assumptions have also been made in relation to anticipated project timing and hurdle rates.

The feasibility assessments enable us to identify the project related site value of each scheme and determine whether such a scheme is considered feasible in the current market. To assist in determining feasibility, the outcomes of the assessments have been compared against current pricing of equivalent sized single residential allotments at each location. Where the project related site value is similar or greater than current pricing the scheme is considered financially feasible.

It is noted that this review is based on a hypothetical Opportunity Site within each location and hypothetical development schemes. As such, the outcomes of the review should be used as an initial guide only to compare financial feasibility outcomes based on alternate development typologies at each location. This review does not constitute a formal Valuation assessment.

2. Methodology & Assumptions.

2.1 Methodology

Financial viability of each development option at the seven identified infill locations has been assessed by way of a preliminary feasibility assessment (hypothetical development scenario) based on the alternative typologies reviewed. This has included a base scheme and alternate scheme/s prepared by Tract as part of the Infill Housing Analysis.

Tract has initially prepared indicative 3d massing on a base scheme for each Opportunity Site. This has relied on existing planning controls. Tract has prepared up to two additional alternate schemes for each Opportunity Site, based on residential typologies that may be suited to each location. The alternate schemes typically exceed current planning controls. From this, Tract has estimated the potential development yield, mix of accommodation, building areas and parking requirements which have been relied upon within each financial feasibility assessment.

The development feasibility (hypothetical development assessment) has been prepared utilising Estate Master software which involves assessment of a gross realisation on all completed products by way of Direct Comparison. Various deductions have then been made from this amount to reflect allowances for development costs (including servicing, construction, development management, design / consultant fees and contingencies), time, profit and risk, holding costs, interest and other associated expenses all of which form part of a potential development exercise. The outcome of the development feasibility exercise is a residual land value of the property as a development site.

Key tasks undertaken to complete the feasibility analysis have included:

- Determine anticipated “upon completion” values for each of the dwelling types, benchmarked against comparable developments. Where this is limited sales evidence of similar new dwellings evidence from broader locations has been relied upon to provide a guide as to potential gross realisation.
- Understand likely development timeframes, sales rates and general market acceptance, which will assist in overall project timing.
- Provide insight into other relevant developer considerations, such as target hurdle rates including developer profit margin and project internal rate of return (IRR), cost assumptions and financing and embed these within the model.

Market based assumptions have been relied upon in relation to potential project costs including construction, professional fees, contingencies, land holding costs and purchase / selling expenses.

The feasibility analysis has enabled us to identify the project related site value (residual land value) and potential project profit at each location for the development schemes. The assessed residual land value for each scheme is then compared against indicative price of the land as a single residential allotment to determine if the scheme is considered financially viable. If the residual land value is similar or above land price as a single allotment then the scheme is considered feasible. If below, the scheme is not considered financially feasible in the current market.

In instances where the development schemes feature residential apartment buildings that are not considered financially feasible, a tipping point review has been undertaken to provide an indication as to the number of apartments that may be required in order for the development to be considered viable. That is, where the residual land value assessment is equal to or greater than land price as a single residential allotment.

2.2 Assumptions

Given the preliminary / hypothetical nature of each Opportunity Site, it has been necessary to rely on a considerable number of assumptions in completing the development feasibility assessments. A number of these assumptions have been applied to all assessments (such as financing parameters) whilst others are specific to each location (such as gross realisations on the various dwelling types).

Key assumptions are outlined below:

Development Scheme Summary

A broad mix of residential infill dwelling typologies are proposed at the various infill locations. These typologies are outlined below and include a range of assumptions which have been relied upon in undertaking this review:

Central Maitland

- Base Scheme: Dual occupancy (attached) with two x 3 bed dwellings each with a single garage & car space.
- Alternate Scheme: Four x 2 bed apartments within a residential flat building no lift and undercroft parking.

East Maitland

- Base Scheme 1: Dual occupancy (attached) with two x 4 bed dwellings each with a single garage & car space.
- Base Scheme 2: Manor house with two x 1 bed & two x 2 bed dwellings, no lift and at-grade parking.
- Alternate Scheme: Residential flat building featuring three x 1 bed, four x 2 bed dwellings, a lift and basement parking.

East Maitland Catalyst Area

- Base Scheme: Multi-Dwelling Terraces with three x 4 bed dwellings each with a single garage and at car space.
- Alternate Scheme: Residential flat building featuring three x 1 bed, four x 2 bed dwellings, a lift and basement parking.

Rutherford

- Base Scheme: Dual occupancy (attached) with two x 3 bed dwellings each with a single garage & car space.
- Alternate Scheme 1: Manor house with two x 1 bed & two x 2 bed dwellings, no lift and at-grade parking.
- Alternate Scheme 2: Four x 2 bed apartments within a residential flat building no lift and undercroft parking.

Telarah

- Base Scheme: Dual occupancy (detached) with one x 2 bed & one x 3 bed dwellings, each with a single garage & car space.
- Alternate Scheme : Manor house with two x 1 bed & two x 2 bed dwellings, no lift and basement parking.

Thornton

- Base Scheme: Multi-Dwelling Terraces with three x 4 bed dwellings each with a single garage and at car space.
- Alternate Scheme : Manor house with two x 1 bed & one x 3 bed dwellings, no lift and at-grade parking.

Woodberry

- Base Scheme: Dual occupancy (attached) with two x 4 bed dwellings, each with a single garage & car space.
- Alternate Scheme : Manor house with two x 1 bed & one x 3 bed dwellings, no lift and at-grade parking.

Gross Realisation

In arriving at appropriate gross realisations for the various product types, an extensive market evidence review has been completed throughout the Maitland region. The majority of proposed product types will be of a higher density than existing stock in numerous locations and accordingly sales evidence of comparable dwellings is limited and in instances not available. Accordingly, in adopting initial gross realisation estimates we have relied on available evidence within broader geographic locations taking into considerations variations in market conditions / pricing, median price points and similar. In some locations, similar dwelling typologies are currently in place however the stock is dated and of a far inferior standard to what would be expected from a new build. As such, premiums have been applied to the subject dwellings in these instances.

A summary of the adopted gross realisation for each dwelling type at each Opportunity Site location is provided in the table overleaf. All prices are listed on a “per individual dwelling” basis. As a point of comparison, median dwelling prices for separate houses and residential units are also provided (as identified within the Stage 1 review).

Initial Gross Realisation Estimates							
Dwelling Type	Central Maitland	East Maitland	EMCA	Rutherford	Telarah	Thornton	Woodberry
Dual Occupancy							
2 Bedroom	-		-		\$400,000	-	-
3 Bedroom	\$580,000	-	-	\$550,000	\$480,000	-	-
4 Bedroom	-	\$635,000	-	-	-	-	\$560,000
Multi- Dwelling Terraces							
4 Bedroom	-	-	\$600,000	-	-	\$575,000	-
Manor House							
1 Bedroom	-	\$340,000	-	\$300,000	\$310,000	\$310,000	\$280,000
2 Bedroom	-	\$400,000	-	\$350,000	\$370,000	-	-
3 Bedroom	-	-	-	-	-	\$470,000	\$425,000
Residential Flat Building							
1 Bedroom	-	\$350,000	\$325,000	-	-	-	-
2 Bedroom	\$450,000	\$440,000	\$430,000	\$440,000	-	-	-
For Comparison Purposes							
Median Dwelling Price							
Separate House	\$485,000	\$615,000	\$590,000	\$510,000	\$450,000	\$614,060	\$400,000
Residential Unit	\$435,000	\$405,000	\$310,500	\$373,000	\$267,000	\$455,000	\$245,000

It is noted that variances in gross realisation estimates for similar products in different suburbs are a result of variations in market conditions at each location combined with differences in land content and building size.

The above realisations have been applied within the respective hypothetical development exercises.

Hurdle Rate Analysis

In assessing the appropriate hurdle rates, we have had regard to the following attributes of the development schemes:

- Proposed residential use / typology and associated risk where there is not an established market.
- Indicative site characteristics.
- Development scale and likely timing required to complete.
- Residential market conditions including demand / supply.
- Development standard / quality.
- Location

Having regard to the above and particularly the proposed development yields of between two and seven dwellings, we consider that a small scale local developer would undertake most of the proposed schemes. Such a developer would moreso be driven by a profit and risk factor than an internal rate of return (IRR) and we consider a factor of 15% as being appropriate. Although likely to be less of a driver we would similarly expect a 15% minimum IRR as being appropriate.

Development Approval

As instructed, our assessment has been completed on the basis that each Opportunity Site is zoned appropriately for the development concept proposed and development approval has been obtained. As such, it is assumed that development can be undertaken immediately post initial site purchase.

Development Timing

Timing varies based on the type and scale of each development scheme. Individual anticipated development timeframes are outlined within each infill location summary section.

Development Staging

All development concepts range between two and seven dwellings and it is assumed all would be completed / released in a single stage.

Sales Rate Analysis

Given the modest scale of each development it is assumed for the purposes of this review that all dwellings would be marketed during construction and would transact / settle immediately post completion.

Developer Contributions

Maitland Council has provided the following developer contribution rates as per the 2016 City Wide Development Contributions Plan. The rates have been adopted for the purposes of this review:

Developer Contributions – Residential Development			
Contribution	1 Bedroom Dwelling	2 Bedroom Dwelling	3 Bedroom Dwelling
Per Dwelling Type	\$4,173	\$5,560	\$7,505

Construction Costs

Current formal cost estimates have not been provided as part of the review. As such we have applied construction cost estimates based on the required scope of works and anticipated standard of fit-out for the different dwelling types at each location. This has included a mix of costs applied on a rate per square metre basis (eg. rate per square metre of proposed gross floor area) and rate per unit basis (eg. cost per basement car space). These costs are primarily based on Rawlinsons Australian Construction Handbook 2021 (Edition 29) but also have regard to our experience for similar development projects.

We have assumed that the standard of fit-out will be similar to contemporary new developments that are being undertaken throughout the Maitland region. Much of this is of a “project home” standard which is considered appropriate for the purposes of undertaking financial feasibility analyses. Adopting a more “premium” standard product could potentially result in an overcapitalisation for the infill locations.

For the purposes of this review, construction costs have been uniformly adopted for each dwelling typology at all locations. As the Opportunity Sites are hypothetical in nature and design schemes preliminary only, the costs estimates do not take into consideration site specific variances such as topography and other geographic / geological features.

The following construction costs (excluding GST) have been adopted per dwelling type for the purposes of this review:

- Dual Occupancy \$1,500 p.s.m. of GFA
- Multi- Dwelling Terraces \$1,800 p.s.m. of GFA
- Manor House \$1,980 p.s.m. of GFA
- Residential Flat Building \$2,015 p.s.m. of GFA
- Balconies \$650 p.s.m.
- At-grade parking \$3,000 per space
- Single ground floor attached garage \$890 p.s.m.
- Basement parking \$60,000 per space
- Undercroft parking \$25,000 per space

Total adopted construction amounts are listed within the summary section of each infill location.

Please note we are not Quantity Surveyors and it is strongly recommended given the variance and range of dwelling types that a qualified Quantity Surveyor be appointed to prepare detailed development cost estimates. Should formal costings vary from those adopted within this review, the costs should be referred back to us for further consideration and re-assessment, if necessary.

Tipping Point Review

A tipping point review has been completed for the infill locations where a residential apartment building is proposed as one of the development schemes but is not considered financially viable in the current market. Such development typologies are capable of accommodating larger scale buildings in terms of height and could theoretically accommodate additional dwellings.

Whilst remaining hypothetical, the review provides an indication as to the number of apartments that may be required in order for the development to be considered financially feasible in the current market. In this regard, the review considers similar unit typologies as per the initial scheme proposed but would increase in scale. Accordingly, more apartments would be provided producing additional revenue, additional construction costs and a longer construction period. The Estate Master model is then configured to undertake a goal seek exercise where all inputs are linked to determine the number of apartments required to achieve the 15% target development margin. This assumes the adopted initial land

purchase price is the same as the identified single residential allotment price. The result of the goal seek is identification of the number of apartments required and equivalent gross floor area.

3. Central Maitland.

3.1 Development Schemes

Tract has prepared “Base” and “Alternate” development schemes for the Central Maitland infill study area. The schemes are considered preliminary only although have been relied upon in completing the feasibility assessments. Key features of the schemes are outlined as follows:

Base Scheme

- Dwelling Type	Dual Occupancy (attached)
- Total Land Area	578 sq.m.
- Land Title	Strata
- Yield	2 dwellings
- GFA / NSA	250 sq.m.
- Internal Area per dwelling type	125 sq.m. (3 bed)
- Parking	Single garage & single car space per dwelling (4 spaces in total)

Alternate Scheme

- Dwelling Type	Residential Flat Building – 3 floors including ground floor undercroft parking
- Total Land Area	578 sq.m.
- Land Title	Strata
- Yield	4 dwellings
- GFA / NSA	391 sq.m. / 332 sq.m.
- Internal Area per dwelling type	83 sq.m. (2 bed)
- Parking	Undercroft car park – 1 per 2 bed, 1 visitor (5 total)

Tract has noted that the land and floor areas provided are indicatively based on an overall massing envelope, with percentage efficiencies applied to each typology to approximate the Gross Floor Area and Net Saleable Area / Internal Areas.

3.2 Assumption Summary

Assumption Summary

A summary of our assumptions incorporated within the hypothetical development analysis is provided within the following table:

Assumption Summary – Central Maitland Study Area		
Key Assumptions	Base Scheme	Alternate Scheme
Proposed Use	Attached dual occupancy with 2 x 3 bed dwellings, each with a single garage & car space.	4 apartments within a residential flat building featuring undercroft parking.
Sale and Settlement Period – Land Acquisition	10% deposit, balance paid upon settlement - 2 Months	10% deposit, balance paid upon settlement - 2 Months
Time Horizon		
Development Application & Approval (Assumes Site Rezoned)	Assumes appropriate zoning and planning approval.	Assumes appropriate zoning and planning approval.
Core Construction	8 months assuming a single development stage.	13 months assuming a single development stage.
Settlement	1 Month	1 Month
Total Project Timeframe	10 Months	15 Months
Key Cost and Assumptions		
Land Purchase Price (Residual Land Value)	Analysed Based on Target Development Margin	Analysed Based on Target Development Margin
Stamp Duty	As per NSW rates	As per NSW rates
Other Land Purchase Costs (Legals and Due Diligence)	\$5,000	\$5,000
Professional Fees including Development Management (8%)	\$37,514	\$88,334
Core Construction (Rawlinsons Construction Handbook / Charter Estimate)	\$446,600	\$1,051,600
Construction Contingency (5%)	\$22,330	\$52,580
Developer Contributions (Rates as advised by Maitland Council)	\$15,010	\$22,240
Land Holding Costs (Charter Estimate)	\$2,500 p.a.	\$2,500 p.a.
Marketing Costs and Legals on Sale	1.0% of Gross Revenue	1.0% of Gross Revenue
Agent's Commission	2.0% of Gross Revenue	2.0% of Gross Revenue
Revenue and Assumptions		
Gross Realisation	\$1,160,000	\$1,800,000
Finance & Target Rates		
Senior Debt Interest	4.50% p.a.	4.50% p.a.
Approximate Equity Contribution	30% equity / 70% debt funded	30% equity / 70% debt funded
Target Development/Profit Margin	15%	15%
Target Internal Rate of Return (IRR)	15%	15%

3.3 Feasibility Analysis Summary

Feasibility Analysis Summary – Central Maitland Study Area		
Feasibility Summary	Base Scheme	Alternate Scheme
REVENUE		
Gross Sales Revenue	\$1,160,000	\$1,800,000
Less Selling Costs	\$38,280	\$59,400
Total Revenue Before GST Paid	\$1,121,720	\$1,740,600
Less GST Paid	\$105,455	\$163,636
Total Revenue After GST Paid	\$1,016,265	\$1,576,964
COSTS		
Development Site Purchase Cost (Price + GST)	\$411,279	\$250,889
Acquisition Costs	\$19,498	\$12,771
Construction (incl Contingency)	\$468,930	\$1,104,180
Professional Fees	\$37,514	\$88,334
Statutory Fees	\$15,010	\$22,240
Land Holding Costs	\$1,875	\$3,125
Interest Expense	\$12,049	\$19,073
Total Costs Before GST Reclaimed	\$966,155	\$1,500,612
Less GST Reclaimed	\$87,409	\$137,119
Total Costs After GST Reclaimed	\$878,746	\$1,363,494
PERFORMANCE INDICATORS		
Project Related Site Value (15% Target Profit Margin)	\$373,900	\$228,081
Net Development Profit	\$137,520	\$213,470
Development Margin (or Profit / Risk Margin)	15.00%	15.00%
Project IRR	29.66%	24.42%

3.4 Summary

In summary, we note the following key outcomes:

- The Opportunity Site features a land area of 578 sq.m. There have been minimal vacant land transactions in recent years in Central Maitland however available market evidence suggests residential allotments of this size have the potential to achieve prices in the order of \$360,000. Our review has included analysis of recently transacted improved properties featuring a similar land content and allowances for the added value of the improvements to assist in identifying land price points.
- The outcomes of the feasibility assessments indicate that in order for a developer to achieve the target profit margin of 15% they are able to outlay \$373,890 for land if developing the Base Scheme option and \$228,081 for the Alternate Scheme.
- The only option considered feasible in the current market is the Base Scheme. The project related site value in this instance indicates a land value premium above current price as a single residential allotment.
- The Alternate Scheme indicates a land value below current price as a single residential allotment. Accordingly this option is not considered feasible under current market conditions. The scheme yields only four apartments which do not collectively produce a gross realisation that is high enough to cover construction costs, an initial land purchase price of at least \$360,000 whilst achieving the desired profit margin. Greater scale is warranted for the scheme to have an opportunity at being considered financially feasible.

A tipping point review has been completed based on the Alternate Scheme assumptions. The Alternate Scheme featured four apartments in a residential flat building plus undercroft parking (not considered financially feasible in the current market).

After completing a tipping point exercise, the scheme is considered financially feasible with an increased apartment yield of 6.4 units. This represents an increase in GFA from 391 sq.m. up to 624 sq.m. which would likely require two additional residential floors. It is assumed that additional parking requirements could be accommodated within the ground floor undercroft carpark.

Based on this yield a developer could afford to outlay \$360,000 for the land (single lot price) whilst achieving a profit margin of 15%. Although such a scheme may not be appropriate in terms of massing and scale, the exercise indicates what development scale would be required in order to be considered financially feasible.

4. East Maitland.

4.1 Development Schemes

Tract has prepared “Base” and “Alternate” development schemes for the East Maitland infill study area. The schemes are considered preliminary only although have been relied upon in completing the feasibility assessments. Key features of the schemes are outlined as follows:

Base Scheme 1

- Dwelling Type	Dual Occupancy (detached)
- Total Land Area	720 sq.m.
- Land Title	Torrens
- Yield	2 dwellings
- GFA / NSA	269 sq.m.
- Internal Area per dwelling type	133.6 sq.m. and 135 sq.m. (both 4 bed)
- Parking	Single garage & single car space for dwelling 1, double garage for dwelling 2 (4 spaces in total)

Base Scheme 2

- Dwelling Type	Manor House – two storey
- Total Land Area	720 sq.m.
- Land Title	Strata
- Yield	4 dwellings
- GFA / NSA	312 sq.m. / 265 sq.m.
- Internal Area per dwelling type	62.5 sq.m. (two x 1 bed), 70 sq.m. (two x 2 bed)
- Parking	Rear at-grade car park – 1 per 1 & 2 bed plus 1 visitor (5 required in total). Site has capacity for only 4 spaces.

Alternate Scheme

- Dwelling Type	Residential Flat Building – 3 floors plus basement parking.
- Total Land Area	720 sq.m.
- Land Title	Strata
- Yield	7 dwellings
- GFA / NSA	584 sq.m. / 496 sq.m.
- Internal Area per dwelling type	55 sq.m. (three x 1 bed), 82 sq.m. (four x 2 bed)
- Parking	Basement car park – 1 per 1 & 2 bed, 2 visitor (9 required in total). Site has capacity for only 7 spaces.

Tract has noted that the land and floor areas provided are indicatively based on an overall massing envelope, with percentage efficiencies applied to each typology to approximate the Gross Floor Area and Net Saleable Area / Internal Areas.

4.2 Assumption Summary

A summary of our assumptions incorporated within the hypothetical development analysis is provided within the following table:

Assumption Summary – East Maitland Study Area			
Key Assumptions	Base Scheme 1	Base Scheme 2	Alternate Scheme
Proposed Use	Detached dual occupancy with 2 x 4 bed dwellings, one featuring a single garage & car space with the second a double garage.	Two storey manor house with 4 dwellings, no lift and at-grade parking.	7 x apartments within a residential flat building featuring a lift and basement parking.
Sale and Settlement Period – Land Acquisition	10% deposit, balance paid upon settlement - 2 Months	10% deposit, balance paid upon settlement - 2 Months	10% deposit, balance paid upon settlement - 2 Months
Time Horizon			
Development Application & Approval (Assumes Site Rezoned)	Assumes appropriate zoning and planning approval.	Assumes appropriate zoning and planning approval.	Assumes appropriate zoning and planning approval.
Core Construction	9 months over a single development stage.	12 months over a single development stage.	16 months over a single development stage.
Settlement	1 Month	1 Month	1 Month
Total Project Timeframe	11 Months	14 Months	18 Months
Key Cost and Assumptions			
Land Purchase Price (Residual Land Value)	Analysed based on Target Development Margin	Analysed based on Target Development Margin	Analysed based on Target Development Margin
Stamp Duty	As per NSW rates	As per NSW rates	As per NSW rates
Other Land Purchase Costs (Legals and Due Diligence)	\$5,000	\$5,000	\$7,500
Professional Fees including Development Management (8%)	\$41,765	\$59,506	\$150,058
Core Construction (Rawlinsons Construction Handbook / Charter Estimate)	\$497,200	\$708,400	\$1,786,400
Construction Contingency (5%)	\$24,860	\$35,420	\$89,320
Developer Contributions (Rates as advised by Maitland Council)	\$15,010	\$19,466	\$34,759
Land Holding Costs (Charter Estimate)	\$2,500 p.a.	\$2,500 p.a.	\$2,500 p.a.
Marketing Costs and Legals on Sale	1.0% of Gross Revenue	1.0% of Gross Revenue	1.0% of Gross Revenue
Agent's Commission	2.0% of Gross Revenue	2.0% of Gross Revenue	2.0% of Gross Revenue
Revenue and Assumptions			
Gross Realisation	\$1,270,000	\$1,480,000	\$2,810,000
Finance & Target Rates			
Senior Debt Interest	4.50% p.a.	4.50% p.a.	4.50% p.a.
Approximate Equity Contribution	30% equity / 70% debt funded	30% equity / 70% debt funded	30% equity / 70% debt funded
Target Development/Profit Margin	15%	15%	15%
Target Internal Rate of Return (IRR)	15%	15%	15%

4.3 Feasibility Analysis Summary

Feasibility Analysis Summary – East Maitland Study Area			
Feasibility Summary	Base Scheme 1	Base Scheme 2	Alternate Scheme
REVENUE			
Gross Sales Revenue	\$1,270,000	\$1,480,000	\$2,810,000
Less Selling Costs	\$41,910	\$48,840	\$92,370
Total Revenue Before GST Paid	\$1,228,090	\$1,431,160	\$2,717,270
Less GST Paid	\$115,455	\$134,545	\$255,455
Total Revenue After GST Paid	\$1,112,635	\$1,296,615	\$2,461,815
COSTS			
Development Site Purchase Cost (Price + GST)	\$441,109	\$371,149	\$230,427
Acquisition Costs	\$20,840	\$17,692	\$14,805
Construction (incl Contingency)	\$522,060	\$743,820	\$1,875,720
Professional Fees	\$41,765	\$59,506	\$150,058
Statutory Fees	\$15,010	\$19,466	\$34,759
Land Holding Costs	\$2,500	\$3,125	\$3,750
Interest Expense	\$14,392	\$18,109	\$33,301
Total Costs Before GST Reclaimed	\$1,057,676	\$1,232,866	\$2,342,819
Less GST Reclaimed	\$95,668	\$111,710	\$214,290
Total Costs After GST Reclaimed	\$962,008	\$1,121,156	\$2,128,530
PERFORMANCE INDICATORS			
Project Related Site Value (15% Target Profit Margin)	\$401,008	\$337,408	\$209,479
Net Development Profit	\$150,627	\$175,459	\$333,286
Development Margin (or Profit / Risk Margin)	15.00%	15.00%	15.00%
Project IRR	27.18%	23.24%	21.88%

4.4 Summary

In summary, we note the following key outcomes:

- The Opportunity Site features a land area of 720 sq.m. Market evidence suggests residential allotments of this size in East Maitland are currently achieving prices in the order of \$400,000.
- The outcomes of the feasibility assessments indicate that in order for a developer to achieve the target profit margin of 15% they are able to outlay \$401,008 for land if developing the Base Scheme 1 option, \$337,408 for Base Scheme 2 option and \$209,479 for the Alternate Scheme.
- The only option considered potentially feasible in the current market is Base Scheme 1 which produces a residual land value in keeping with land price as a single residential allotment.
- Base Scheme 2 and the Alternate Scheme indicate a land value below current price as a single residential allotment. Accordingly these options are not considered feasible under current market conditions.
- Base Scheme 2 manor house yield potential is limited by the allotment size / configuration. The four units all offer modest internal floor areas which impacts gross realisation potential whilst in contrast the construction costs for this typology are higher than dual occupancy and triplex style dwellings. Collectively this has resulted in the scheme not being financially feasible.
- The Alternate Scheme yields only four apartments which do not collectively produce a gross realisation that is high enough to cover construction costs, an initial land purchase price of at least \$400,000 whilst achieving the desired profit margin. It is additionally noted that construction costs are inflated by the provision of basement parking. Greater scale is warranted for the scheme to have an opportunity at being considered financially feasible.

A tipping point review has been completed which is based on the Alternate Scheme assumptions. This scheme proposes seven apartments within a low rise apartment building with basement parking. As requested, the tipping point scheme assumes undercroft parking in lieu of basement parking. Given the considerable construction cost savings that result from the parking changes, the revised scheme produces a residual land value of \$469,401 and is now considered financially feasible. This increase in land price results without any alternation to the scheme other than parking configuration.

5. East Maitland Catalyst Area.

5.1 Development Schemes

Tract has prepared “Base” and “Alternate” development schemes for the East Maitland Catalyst infill study area. The schemes are considered preliminary only although have been relied upon in completing the feasibility assessments. Key features of the schemes are outlined as follows:

Base Scheme

- Dwelling Type	Multi-Dwelling Terraces
- Total Land Area	700 sq.m.
- Land Title	Strata
- Yield	3 dwellings
- GFA / NSA	420 sq.m.
- Internal Area per dwelling type	139 sq.m. - 140.8 sq.m. (4 bed)
- Parking	Single garage & single car space per dwelling (6 spaces in total)

Alternate Scheme

- Dwelling Type	Residential Flat Building – 3 floors plus basement parking.
- Total Land Area	700 sq.m.
- Land Title	Strata
- Yield	7 dwellings
- GFA / NSA	585 sq.m. / 497 sq.m.
- Internal Area per dwelling type	55 sq.m. (three x 1 bed), 83 sq.m. (four x 2 bed)
- Parking	Basement car park – 1 per 1 & 2 bed, 2 visitor (8 required in total). Site has capacity for only 7 spaces.

Tract has noted that the land and floor areas provided are indicatively based on an overall massing envelope, with percentage efficiencies applied to each typology to approximate the Gross Floor Area and Net Saleable Area / Internal Areas.

5.2 Assumption Summary

Assumption Summary

A summary of our assumptions incorporated within the hypothetical development analysis is provided within the following table:

Assumption Summary – EMCA		
Key Assumptions	Base Scheme	Alternate Scheme
Proposed Use	3 x 4 bedroom Strata title terraces, set over 2 levels and with each featuring a single garage and car space	7 x apartments within a residential flat building featuring a lift and basement parking.
Sale and Settlement Period – Land Acquisition	10% deposit, balance paid upon settlement - 2 Months	10% deposit, balance paid upon settlement - 2 Months
Time Horizon		
Development Application & Approval (Assumes Site Rezoned)	Assumes appropriate zoning and planning approval.	Assumes appropriate zoning and planning approval.
Core Construction	12 months assuming a single development stage.	16 months assuming a single development stage.
Settlement	1 Month	1 Month
Total Project Timeframe	14 Months	18 Months
Key Cost and Assumptions		
Land Purchase Price (Residual Land Value)	Analysed Based on Target Development Margin	Analysed Based on Target Development Margin
Stamp Duty	As per NSW rates	As per NSW rates
Other Land Purchase Costs (Legals and Due Diligence)	\$5,000	\$7,500
Professional Fees including Development Management (8%)	\$74,290	\$151,998
Core Construction * (Rawlinsons Construction Handbook / Charter Estimate)	\$884,400	\$1,809,500
Construction Contingency (5%)	\$44,220	\$90,475
Developer Contributions (Rates as advised by Maitland Council)	\$22,515	\$34,759
Land Holding Costs (Charter Estimate)	\$2,500 p.a.	\$2,500 p.a.
Marketing Costs and Legals on Sale	1.0% of Gross Revenue	1.0% of Gross Revenue
Agent's Commission	2.0% of Gross Revenue	2.0% of Gross Revenue
Revenue and Assumptions		
Gross Realisation	\$1,800,000	\$2,695,000
Finance & Target Rates		
Senior Debt Interest	4.50% p.a.	4.50% p.a.
Approximate Equity Contribution	30% equity / 70% debt funded	30% equity / 70% debt funded
Target Development/Profit Margin	15%	15%
Target Internal Rate of Return (IRR)	15%	15%

5.3 Feasibility Analysis Summary

Feasibility Analysis Summary – EMCA		
Feasibility Summary	Base Scheme	Alternate Scheme
REVENUE		
Gross Sales Revenue	\$1,800,000	\$2,695,000
Less Selling Costs	\$59,400	\$88,935
Total Revenue Before GST Paid	\$1,740,600	\$2,606,065
Less GST Paid	\$163,636	\$245,000
Total Revenue After GST Paid	\$1,576,964	\$2,361,000
COSTS		
Development Site Purchase Cost (Price + GST)	\$429,331	\$115,590
Acquisition Costs	\$20,310	\$10,786
Construction (incl Contingency)	\$928,620	\$1,899,975
Professional Fees	\$74,290	\$151,998
Statutory Fees	\$22,515	\$34,759
Land Holding Costs	\$3,125	\$3,750
Interest Expense	\$21,402	\$30,476
Total Costs Before GST Reclaimed	\$1,499,593	\$2,247,334
Less GST Reclaimed	\$136,104	\$205,886
Total Costs After GST Reclaimed	\$1,363,489	\$2,041,448
PERFORMANCE INDICATORS		
Project Related Site Value (15% Target Profit Margin)	\$390,301	\$105,082
Net Development Profit	\$213,474	\$319,617
Development Margin (or Profit / Risk Margin)	15.00%	15.00%
Project IRR	23.53%	23.03%

5.4 Summary

In summary, we note the following key outcomes:

- The Opportunity Site features a land area of 700 sq.m. There have been minimal vacant land transactions in recent years in the East Maitland Catalyst Area however available market evidence suggests residential allotments of this size have the potential to achieve prices in the order of \$380,000. Our review has included analysis of recently transacted improved properties featuring a similar land content and allowances for the added value of the improvements to assist in identifying land price points.
- The outcomes of the feasibility assessments indicate that in order for a developer to achieve the target profit margin of 15% they are able to outlay \$390,301 for land if developing the Base Scheme option and \$105,082 for the Alternate Scheme.
- The only option considered feasible in the current market is the Base Scheme. The project related site value in this instance indicates a land value premium above current price as a single residential allotment.
- The Alternate Scheme indicates a land value below current price as a single residential allotment. Accordingly this option is not considered feasible under current market conditions. Financial viability is primarily impacted by the exorbitant costs associated with the construction of basement parking.

A tipping point review has been completed based on the Alternate Scheme assumptions. The Alternate Scheme featured seven apartments in a residential flat building plus basement parking (not considered financially feasible in the current market). **After completing a tipping point review, the scheme is considered financially feasible after a substantial increase in apartment yield from seven units up to 27.3 units. This represents an increase in GFA from 585 sq.m. up to 2,279 sq.m. which would potentially require circa 12 floors (nine additional to the Alternate Scheme).** In addition, multiple basement parking levels would be required. **The tipping point review highlights the considerable number of apartments required to offset basement parking costs.**

As the site features a land area of only 700 sq.m. it is considered unlikely that a development of this scale could be accommodated given massing and height requirements. However, this is the scale that would be required under current market conditions and as per the adopted assumptions in order for a developer to afford an initial \$380,000 land purchase price (single lot price) whilst achieving a profit margin of 15%. Such a development would be considered out of character with existing development at this location.

6. Rutherford.

6.1 Development Schemes

Tract has prepared “Base” and “Alternate” development schemes for the Rutherford infill study area. The schemes are considered preliminary only although have been relied upon in completing the feasibility assessments. Key features of the schemes are outlined as follows:

Base Scheme

- Dwelling Type	Dual Occupancy (Attached)
- Total Land Area	629 sq.m.
- Land Title	Torrens
- Yield	2 dwellings
- GFA / NSA	250 sq.m.
- Living Area per dwelling type	125 sq.m. (3 bed)
- Parking	Single garage & single car space per dwelling (4 spaces in total)

Alternate Scheme 1

- Dwelling Type	Manor House – two storey
- Total Land Area	629 sq.m.
- Land Title	Strata
- Yield	4 dwellings
- GFA / NSA	312 sq.m. / 265 sq.m.
- Internal Area per dwelling type	62 sq.m. (two x 1 bed), 70 sq.m. (two x 2 bed)
- Parking	Rear at-grade car park – 1 per 1 & 2 bed plus 1 visitor (5 required in total). Site has capacity for only 4 spaces.

Alternate Scheme 2

- Dwelling Type	Residential Flat Building – 3 floors including ground floor undercroft parking
- Total Land Area	629 sq.m.
- Land Title	Strata
- Yield	4 dwellings
- GFA / NSA	391 sq.m. / 332 sq.m.
- Internal Area per dwelling type	83 sq.m. (2 bed)
- Parking	Undercroft car park – 1 per 2 bed, 1 visitor (5 total)

Tract has noted that the land and floor areas provided are indicatively based on an overall massing envelope, with percentage efficiencies applied to each typology to approximate the Gross Floor Area and Net Saleable Area / Internal Areas.

6.2 Assumption Summary

A summary of our assumptions incorporated within the hypothetical development analysis is provided within the following table:

Assumption Summary – Rutherford Study Area			
Key Assumptions	Base Scheme	Alternate Scheme 1	Alternate Scheme 2
Proposed Use	Attached dual occupancy with 2 x 3 bed dwellings, each with a single garage & car space.	Two storey manor house with 4 dwellings, no lift and at-grade parking.	4 apartments within a residential flat building featuring undercroft parking.
Sale and Settlement Period – Land Acquisition	10% deposit, balance paid upon settlement - 2 Months	10% deposit, balance paid upon settlement - 2 Months	10% deposit, balance paid upon settlement - 2 Months
Time Horizon			
Development Application & Approval (Assumes Site Rezoned)	Assumes appropriate zoning and planning approval.	Assumes appropriate zoning and planning approval.	Assumes appropriate zoning and planning approval.
Core Construction	8 months assuming a single development stage.	10 months assuming a single development stage.	13 months assuming a single development stage.
Settlement	1 Month	1 Month	1 Month
Total Project Timeframe	10 Months	12 Months	15 Months
Key Cost and Assumptions			
Land Purchase Price (Residual Land Value)	Analysed Based on Target Development Margin	Analysed Based on Target Development Margin	Analysed Based on Target Development Margin
Stamp Duty	As per NSW rates	As per NSW rates	As per NSW rates
Other Land Purchase Costs (Legals and Due Diligence)	\$5,000	\$5,000	\$5,000
Professional Fees including Development Management (8%)	\$37,514	\$59,506	\$88,334
Core Construction (Rawlinsons Construction Handbook / Charter Estimate)	\$446,600	\$708,400	\$1,051,600
Construction Contingency (5%)	\$22,330	\$35,420	\$52,580
Developer Contributions (Rates as advised by Maitland Council)	\$15,010	\$19,466	\$22,240
Land Holding Costs (Charter Estimate)	\$2,500 p.a.	\$2,500 p.a.	\$2,500 p.a.
Marketing Costs and Legals on Sale	1.0% of Gross Revenue	1.0% of Gross Revenue	1.0% of Gross Revenue
Agent's Commission	2.0% of Gross Revenue	2.0% of Gross Revenue	2.0% of Gross Revenue
Revenue and Assumptions			
Gross Realisation	\$1,100,000	\$1,300,000	\$1,760,000
Finance & Target Rates			
Senior Debt Interest	4.50% p.a.	4.50% p.a.	4.50% p.a.
Approximate Equity Contribution	30% equity / 70% debt funded	30% equity / 70% debt funded	30% equity / 70% debt funded
Target Development/Profit Margin	15%	15%	15%
Target Internal Rate of Return (IRR)	15%	15%	15%

6.3 Feasibility Analysis Summary

Feasibility Analysis Summary – Rutherford Study Area			
Feasibility Summary	Base Scheme	Alternate Scheme 1	Alternate Scheme 2
REVENUE			
Gross Sales Revenue	\$1,100,000	\$1,300,000	\$1,760,000
Less Selling Costs	\$36,300	\$42,900	\$58,080
Total Revenue Before GST Paid	\$1,063,700	\$1,257,100	\$1,701,920
Less GST Paid	\$100,000	\$118,182	\$160,000
Total Revenue After GST Paid	\$963,700	\$1,138,918	\$1,541,920
COSTS			
Development Site Purchase Cost (Price + GST)	\$364,518	\$234,110	\$219,388
Acquisition Costs	\$17,393	\$12,184	\$11,669
Construction (incl Contingency)	\$468,930	\$743,820	\$1,104,180
Professional Fees	\$37,514	\$59,506	\$88,334
Statutory Fees	\$15,010	\$19,466	\$22,240
Land Holding Costs	\$1,875	\$2,500	\$3,125
Interest Expense	\$10,975	\$11,859	\$18,410
Total Costs Before GST Reclaimed	\$916,216	\$1,083,444	\$1,467,347
Less GST Reclaimed	\$82,978	\$98,712	\$134,135
Total Costs After GST Reclaimed	\$833,237	\$984,732	\$1,333,212
PERFORMANCE INDICATORS			
Project Related Site Value (15% Target Profit Margin)	\$331,380	\$212,827	\$199,444
Net Development Profit	\$130,463	\$154,186	\$208,708
Development Margin (or Profit / Risk Margin)	15.00%	15.00%	15.00%
Project IRR	30.25%	28.94%	24.76%

6.4 Summary

In summary, we note the following key outcomes:

- The Opportunity Site features a land area of 629 sq.m. Market evidence suggests considerable recent capital growth in Rutherford land values resulting from strong market conditions, high demand and limited supply. Residential allotments of this size in Rutherford are currently achieving prices in the order of \$330,000.
- The outcomes of the feasibility assessments indicate that in order for a developer to achieve the target profit margin of 15% they are able to outlay \$331,380 for land if developing the Base Scheme option, \$212,827 for the Alternate Scheme 1 and \$199,444 for Alternate Scheme 2.
- The only option considered feasible in the current market is the Base Scheme. The project related site value in this instance indicates a land value in keeping with current price as a single residential allotment.
- Both Alternate Schemes indicate a residual land value less than current price as a single residential allotment and accordingly are not considered feasible under current market conditions.
- Alternate Scheme 1 manor house yield potential is limited by the allotment size / configuration. The four units all offer modest internal floor areas which impacts gross realisation potential whilst in contrast the construction costs for this typology are higher than dual occupancy and triplex style dwellings. Collectively this has resulted in the scheme not being financially feasible.
- Alternate Scheme 2 is not considered of a large enough scale to be considered financially feasible. The scheme yields only four apartments which do not collectively produce a gross realisation that is high enough to cover construction costs, an initial land purchase price of at least \$330,000 whilst achieving the desired profit margin. Greater scale is warranted for the scheme to have an opportunity at being considered financially feasible.

A tipping point review has been completed based on the Alternate Scheme 2 assumptions. The Alternate Scheme featured four apartments in a residential flat building plus undercroft parking (not considered financially feasible in the current market).

After completing a tipping point exercise, the scheme is considered financially feasible with an increased apartment yield of 6.7 units. This represents an increase in GFA from 391 sq.m. up to 653 sq.m. which would likely require two additional residential floors. It is assumed that additional parking requirements could be accommodated within the ground floor undercroft carpark.

Based on this yield a developer could afford to outlay \$330,000 for the land (single lot price) whilst achieving a profit margin of 15%. Whilst such a scheme may not be appropriate in terms of massing and scale, the exercise indicates what development scale would be required in order to be considered financially feasible.

7. Telarah.

7.1 Development Schemes

Tract has prepared “Base” and “Alternate” development schemes for the Telarah infill study area. The schemes are considered preliminary only although have been relied upon in completing the feasibility assessments. Key features of the schemes are outlined as follows:

Base Scheme

- Dwelling Type	Dual Occupancy (detached)
- Total Land Area	408 sq.m.
- Land Title	Strata
- Yield	2 dwellings
- GFA / NSA	217 sq.m.
- Living Area per dwelling type	93.6 sq.m. (2 bed), 123 sq.m. (3 bed)
- Parking	Single garage & single car space per dwelling (2 spaces in total)

Alternate Scheme

- Dwelling Type	Manor House – two storey plus basement parking
- Total Land Area	816 sq.m.
- Land Title	Strata
- Yield	4 dwellings
- GFA / NSA	295 sq.m. / 251 sq.m.
- Living Area per dwelling type	55 sq.m. (two x 1 bed), 70 sq.m. (two x 2 bed)
- Parking	Basement car park – 1 per 1 & 2 bed, 2 per 3 bed, 1 visitor (5 total)

Tract has noted that the land and floor areas provided are indicatively based on an overall massing envelope, with percentage efficiencies applied to each typology to approximate the Gross Floor Area and Net Saleable Area / Internal Areas.

7.2 Assumption Summary

Assumption Summary

A summary of our assumptions incorporated within the hypothetical development analysis is provided within the following table:

Assumption Summary – Telarah Study Area		
Key Assumptions	Base Scheme	Alternate Scheme
Proposed Use	Detached dual occupancy with 2 x 3 bed dwellings, each with a single garage & car space.	Two storey manor house with 4 dwellings, no lift and basement parking.
Sale and Settlement Period – Land Acquisition	10% deposit, balance paid upon settlement - 2 Months	10% deposit, balance paid upon settlement - 2 Months
Time Horizon		
Development Application & Approval (Assumes Site Rezoned)	Assumes appropriate zoning and planning approval.	Assumes appropriate zoning and planning approval.
Core Construction	8 months assuming a single development stage.	12 months assuming a single development stage.
Settlement	1 Month	1 Month
Total Project Timeframe	10 Months	14 Months
Key Cost and Assumptions		
Land Purchase Price (Residual Land Value)	Analysed Based on Target Development Margin	Analysed Based on Target Development Margin
Stamp Duty	As per NSW rates	As per NSW rates
Other Land Purchase Costs (Legals and Due Diligence)	\$5,000	\$7,5000
Professional Fees including Development Management (8%)	\$33,079	\$83,160
Core Construction (Rawlinsons Construction Handbook / Charter Estimate)	\$393,800	\$990,000
Construction Contingency (5%)	\$19,690	\$49,500
Developer Contributions (Rates as advised by Maitland Council)	\$13,065	\$19,466
Land Holding Costs (Charter Estimate)	\$2,500 p.a.	\$5,000 p.a.
Marketing Costs and Legals on Sale	1.0% of Gross Revenue	1.0% of Gross Revenue
Agent's Commission	2.0% of Gross Revenue	2.0% of Gross Revenue
Revenue and Assumptions		
Gross Realisation	\$880,000	\$1,360,000
Finance & Target Rates		
Senior Debt Interest	4.50% p.a.	4.50% p.a.
Approximate Equity Contribution	30% equity / 70% debt funded	30% equity / 70% debt funded
Target Development/Profit Margin	15%	15%
Target Internal Rate of Return (IRR)	15%	15%

7.3 Feasibility Analysis Summary

Feasibility Analysis Summary – Telarah Study Area		
Feasibility Summary	Base Scheme	Alternate Scheme
REVENUE		
Gross Sales Revenue	\$880,000	\$1,360,000
Less Selling Costs	\$29,040	\$44,880
Total Revenue Before GST Paid	\$850,960	\$1,315,120
Less GST Paid	\$80,000	\$123,636
Total Revenue After GST Paid	\$770,960	\$1,191,484
COSTS		
Development Site Purchase Cost (Price + GST)	\$250,795	\$33,701 (Negative Land Value)
Acquisition Costs	\$12,768	\$8,250
Construction (incl Contingency)	\$413,490	\$1,039,500
Professional Fees	\$33,079	\$83,160
Statutory Fees	\$13,065	\$19,466
Land Holding Costs	\$1,875	\$6,250
Interest Expense	\$8,068	\$11,108
Total Costs Before GST Reclaimed	\$733,139	\$1,134,034
Less GST Reclaimed	\$66,537	\$103,826
Total Costs After GST Reclaimed	\$666,603	\$1,030,207
PERFORMANCE INDICATORS		
Project Related Site Value (15% Target Profit Margin)	\$227,995	\$30,637
Net Development Profit	\$104,357	\$161,276
Development Margin (or Profit / Risk Margin)	15.00%	15.00%
Project IRR	31.48%	32.46%

7.4 Summary

In summary, we note the following key outcomes:

- The Opportunity Site features a land area of 408 sq.m. for the Base Scheme and 816 sq.m. for the Alternate Scheme (assumes consolidation of two lots). The very limited market evidence available suggests residential allotments sized circa 408 sq.m. in Telarah are currently achieving prices in the order of \$200,000. In order to acquire two neighbouring lots comprising a consolidated land area of circa 816 sq.m. the land price would be in the order of \$400,000.
- The outcomes of the feasibility assessments indicate that in order for a developer to achieve the target profit margin of 15% they are able to outlay \$227,995 for land if developing the Base Scheme option and -\$30,637 for the Alternate Scheme.
- The only option considered feasible in the current market is the Base Scheme. The project related site value in this instance indicates a land value premium above current price as a single residential allotment.
- The Alternate Scheme indicates a negative land value and accordingly this option is not considered feasible under current market conditions. The Alternate Scheme requires the purchase of two allotments and construction of basement parking with these exorbitant costs significantly impacting viability of the project. Given the above average land content within the Alternate Scheme a multi-level apartment building may have a greater chance of financial viability although such a development would be out of character with existing dwelling typologies at this location.
- A tipping point review has not been completed for Telarah due to the dwelling typology.

8. Thornton.

8.1 Development Schemes

Tract has prepared “Base” and “Alternate” development schemes for the Thornton infill study area. The schemes are considered preliminary only although have been relied upon in completing the feasibility assessments. Key features of the schemes are outlined as follows:

Base Scheme

- Dwelling Type	Multi-Dwelling Terraces
- Total Land Area	680 sq.m.
- Land Title	Strata
- Yield	3 dwellings
- GFA / NSA	406 sq.m.
- Living Area per dwelling type	134 sq.m. – 136 sq.m. (4 bed)
- Parking	Single garage & single car space per dwelling (6 spaces in total)

Alternate Scheme

- Dwelling Type	Manor House – two storey
- Total Land Area	680 sq.m.
- Land Title	Strata
- Yield	3 dwellings
- GFA / NSA	239 sq.m. / 203 sq.m.
- Living Area per dwelling type	53 sq.m. (two x 1 bed), 96 sq.m. (one x 3 bed)
- Parking	Rear at-grade car park – 1 per 1 & 2 bed plus 1 visitor (5 required in total). Site has capacity for only 3 spaces.

Tract has noted that the land and floor areas provided are indicatively based on an overall massing envelope, with percentage efficiencies applied to each typology to approximate the Gross Floor Area and Net Saleable Area / Internal Areas.

8.2 Assumption Summary

Assumption Summary

A summary of our assumptions incorporated within the hypothetical development analysis is provided within the following table:

Assumption Summary – Thornton Study Area		
Key Assumptions	Base Scheme	Alternate Scheme
Proposed Use	3 x 4 bedroom Strata title terraces, set over 2 levels and with each featuring a single garage and car space	Two storey manor house with 3 dwellings, no lift and at-grade parking.
Sale and Settlement Period – Land Acquisition	10% deposit, balance paid upon settlement - 2 Months	10% deposit, balance paid upon settlement - 2 Months
Time Horizon		
Development Application & Approval (Assumes Site Rezoned)	Assumes appropriate zoning and planning approval.	Assumes appropriate zoning and planning approval.
Core Construction	12 months assuming a single development stage.	10 months assuming a single development stage.
Settlement	1 Month	1 Month
Total Project Timeframe	14 Months	12 Months
Key Cost and Assumptions		
Land Purchase Price (Residual Land Value)	Analysed Based on Target Development Margin	Analysed Based on Target Development Margin
Stamp Duty	As per NSW rates	As per NSW rates
Other Land Purchase Costs (Legals and Due Diligence)	\$5,000	\$5,000
Professional Fees including Development Management (8%)	\$72,072	\$45,461
Core Construction (Rawlinsons Construction Handbook / Charter Estimate)	\$900,900	\$541,200
Construction Contingency (5%)	\$42,900	\$27,060
Developer Contributions (Rates as advised by Maitland Council)	\$1,200	\$15,851
Land Holding Costs (Charter Estimate)	\$2,500 p.a.	\$2,500 p.a.
Marketing Costs and Legals on Sale	1.0% of Gross Revenue	1.0% of Gross Revenue
Agent's Commission	2.0% of Gross Revenue	2.0% of Gross Revenue
Revenue and Assumptions		
Gross Realisation	\$1,725,000	\$1,090,000
Finance & Target Rates		
Senior Debt Interest	4.50% p.a.	4.50% p.a.
Approximate Equity Contribution	30% equity / 70% debt funded	30% equity / 70% debt funded
Target Development/Profit Margin	15%	15%
Target Internal Rate of Return (IRR)	15%	15%

8.3 Feasibility Analysis Summary

Feasibility Analysis Summary – Thornton Study Area		
Feasibility Summary	Base Scheme	Alternate Scheme
REVENUE		
Gross Sales Revenue	\$1,725,000	\$1,090,000
Less Selling Costs	\$56,925	\$35,970
Total Revenue Before GST Paid	\$1,668,075	\$1,054,030
Less GST Paid	\$156,818	\$99,091
Total Revenue After GST Paid	\$1,511,257	\$954,939
COSTS		
Development Site Purchase Cost (Price + GST)	\$399,342	\$252,335
Acquisition Costs	\$18,960	\$12,822
Construction (incl Contingency)	\$900,900	\$568,260
Professional Fees	\$72,072	\$45,461
Statutory Fees	\$22,515	\$15,851
Land Holding Costs	\$3,125	\$2,500
Interest Expense	\$20,227	\$10,951
Total Costs Before GST Reclaimed	\$1,437,141	\$908,179
Less GST Reclaimed	\$130,431	\$82,502
Total Costs After GST Reclaimed	\$1,306,711	\$825,676
PERFORMANCE INDICATORS		
Project Related Site Value (15% Target Profit Margin)	\$363,038	\$229,395
Net Development Profit	\$204,546	\$129,263
Development Margin (or Profit / Risk Margin)	15.00%	15.00%
Project IRR	23.67%	27.46%

8.4 Summary

In summary, we note the following key outcomes:

- The Opportunity Site features a land area of 680 sq.m. Market evidence suggests considerable recent capital growth in Thornton land values resulting from strong market conditions, high demand and limited supply. Residential allotments of this size in Thornton are currently achieving prices in the order of \$350,000.
- The outcomes of the feasibility assessments indicate that in order for a developer to achieve the target profit margin of 15% they are able to outlay \$363,038 for land if developing the Base Scheme option and \$229,395 for the Alternate Scheme.
- The only option considered feasible in the current market is the Base Scheme. The project related site value in this instance indicates a land value premium above current price as a single residential allotment.
- The Alternate Scheme indicates a land value below current price as a single residential allotment. Accordingly this option is not considered feasible under current market conditions. Yield potential of the manor house typology is limited by the allotment size / configuration. The three units all offer modest internal floor areas which impacts gross realisation potential whilst in contrast the construction costs for this typology are higher than dual occupancy and triplex style dwellings. Collectively this has resulted in the scheme not being financially feasible.
- A tipping point review has not been completed for Thornton due to the dwelling typology.

9. Woodberry.

9.1 Development Schemes

Tract has prepared “Base” and “Alternate” development schemes for the Woodford infill study area. The schemes are considered preliminary only although have been relied upon in completing the feasibility assessments. Key features of the schemes are outlined as follows:

Base Scheme

- Dwelling Type	Dual Occupancy (attached)
- Total Land Area	495 sq.m.
- Land Title	Strata
- Yield	2 dwellings
- GFA / NSA	286 sq.m.
- Living Area per dwelling type	150 sq.m. (4 bed)
- Parking	Single garage & single car space per dwelling (4 spaces in total)

Alternate Scheme

- Dwelling Type	Manor House – two storey
- Total Land Area	495 sq.m.
- Land Title	Strata
- Yield	3 dwellings
- GFA / NSA	239 sq.m. / 203 sq.m.
- Living Area per dwelling type	53 sq.m. (two x 1 bed), 96 sq.m. (one x 3 bed)
- Parking	Rear at-grade car park – 1 per 1 & 2 bed plus 1 visitor (5 required in total). Site has capacity for only 3 spaces.

Tract has noted that the land and floor areas provided are indicatively based on an overall massing envelope, with percentage efficiencies applied to each typology to approximate the Gross Floor Area and Net Saleable Area / Internal Areas.

9.2 Assumption Summary

Assumption Summary

A summary of our assumptions incorporated within the hypothetical development analysis is provided within the following table:

Assumption Summary – Woodberry Study Area		
Key Assumptions	Base Scheme	Alternate Scheme
Proposed Use	Attached dual occupancy with 2 x 4 bed dwellings, one featuring a single garage & car space with the second a double garage.	Two storey manor house with 3 dwellings, no lift and at-grade parking.
Sale and Settlement Period – Land Acquisition	10% deposit, balance paid upon settlement - 2 Months	10% deposit, balance paid upon settlement - 2 Months
Time Horizon		
Development Application & Approval (Assumes Site Rezoned)	Assumes appropriate zoning and planning approval.	Assumes appropriate zoning and planning approval.
Core Construction	8 months assuming a single development stage.	10 months assuming a single development stage.
Settlement	1 Month	1 Month
Total Project Timeframe	10 Months	12 Months
Key Cost and Assumptions		
Land Purchase Price (Residual Land Value)	Analysed Based on Target Development Margin	Analysed Based on Target Development Margin
Stamp Duty	As per NSW rates	As per NSW rates
Other Land Purchase Costs (Legals and Due Diligence)	\$5,000	\$5,000
Professional Fees including Development Management (8%)	\$42,689	\$45,461
Core Construction (Rawlinsons Construction Handbook / Charter Estimate)	\$508,200	\$541,200
Construction Contingency (5%)	\$25,410	\$27,060
Developer Contributions (Rates as advised by Maitland Council)	\$15,010	\$15,851
Land Holding Costs (Charter Estimate)	\$2,500 p.a.	\$2,500 p.a.
Marketing Costs and Legals on Sale	1.0% of Gross Revenue	1.0% of Gross Revenue
Agent's Commission	2.0% of Gross Revenue	2.0% of Gross Revenue
Revenue and Assumptions		
Gross Realisation	\$1,120,000	\$985,000
Finance & Target Rates		
Senior Debt Interest	4.50% p.a.	4.50% p.a.
Approximate Equity Contribution	30% equity / 70% debt funded	30% equity / 70% debt funded
Target Development/Profit Margin	15%	15%
Target Internal Rate of Return (IRR)	15%	15%

9.3 Feasibility Analysis Summary

Feasibility Analysis Summary – Woodberry Study Area		
Feasibility Summary	Base Scheme	Alternate Scheme
REVENUE		
Gross Sales Revenue	\$1,120,000	\$985,000
Less Selling Costs	\$36,960	\$32,505
Total Revenue Before GST Paid	\$1,083,040	\$952,495
Less GST Paid	\$101,818	\$89,545
Total Revenue After GST Paid	\$981,222	\$862,950
COSTS		
Development Site Purchase Cost (Price + GST)	\$314,775	\$169,958
Acquisition Costs	\$15,155	\$9,939
Construction (incl Contingency)	\$533,610	\$568,260
Professional Fees	\$42,689	\$45,461
Statutory Fees	\$15,010	\$15,851
Land Holding Costs	\$1,875	\$2,500
Interest Expense	\$10,145	\$8,909
Total Costs Before GST Reclaimed	\$933,258	\$820,877
Less GST Reclaimed	\$84,867	\$74,699
Total Costs After GST Reclaimed	\$848,392	\$746,178
PERFORMANCE INDICATORS		
Project Related Site Value (15% Target Profit Margin)	\$286,159	\$154,507
Net Development Profit	\$132,830	\$116,771
Development Margin (or Profit / Risk Margin)	15.00%	15.00%
Project IRR	31.66%	29.10%

9.4 Summary

In summary, we note the following key outcomes:

- The Opportunity Site features a land area of 495 sq.m. There have been minimal vacant land transactions in recent years in Woodberry however available market evidence suggests residential allotments of this size have the potential to achieve prices in the order of \$280,000. Our review has included analysis of recently transacted improved properties featuring a similar land content and allowances for the added value of the improvements to assist in identifying land price points.
- The outcomes of the feasibility assessments indicate that in order for a developer to achieve the target profit margin of 15% they are able to outlay \$286,159 for land if developing the Base Scheme option and \$154,507 for the Alternate Scheme.
- The only option considered feasible in the current market is the Base Scheme which produces a residual land value above land price as a single residential allotment.
- The Alternate Scheme indicates a land value below current price as a single residential allotment. Accordingly this option is not considered feasible under current market conditions. Yield potential of the manor house typology is limited by the allotment size / configuration. The three units all offer modest internal floor areas which impacts gross realisation potential whilst in contrast the construction costs for this typology are higher than dual occupancy and triplex style dwellings. Collectively this has resulted in the scheme not being financially feasible.
- A tipping point review has not been completed for Woodberry due to the dwelling typology.

10. Summary & Key Findings.

10.1 Overview

Charter Keck Cramer has completed financial feasibility assessments on hypothetical “Opportunity Sites” within seven potential infill housing locations spread throughout Maitland Local Government Area (“LGA”). Assessments have been completed on hypothetical sites within the following study areas:

- Central Maitland (suburbs of Maitland & Horseshoe);
- East Maitland;
- East Maitland Catalyst Area (suburbs of Ashtonfield, Metford & Part East Maitland);
- Rutherford;
- Telarah;
- Thornton: &
- Woodberry

The review has been completed to assess the financial feasibility of base and alternate development scheme/s prepared by Tract Consulting. A total of 16 development schemes have been reviewed collectively across all study areas. Additionally, four tipping point reviews have been completed.

The feasibility assessments have enabled us to identify the project related site value of each scheme and determine whether such a scheme is considered feasible in the current market. To assist in determining feasibility, the outcomes of the assessments have been compared against current pricing of equivalent sized single residential allotments. Where the project related site value is similar or greater the scheme is considered financially feasible.

It is reaffirmed that this review is based on a hypothetical Opportunity Site within each location and hypothetical development schemes. As such, the outcomes of the review should be used as an initial guide only to compare financial feasibility outcomes based on alternate development typologies at each location. This review does not constitute a formal Valuation assessment.

10.2 Comparison Summary Table

The project related site values for each feasibility assessment are listed in the below table:

Financial Feasibility Assessment Summary							
Development Scheme	Central Maitland	East Maitland	EMCA	Rutherford	Telarah	Thornton	Woodberry
Base Scheme 1	\$373,900	\$401,008	\$390,301	\$331,380	\$227,995	\$363,038	\$286,159
Base Scheme 2	-	\$337,408	-	-	-	-	-
Alternate Scheme 1	\$228,081	\$209,479	\$105,082	\$212,827	(\$30,637)	\$229,395	\$154,507
Alternate Scheme 2	-	-	-	\$199,444	-	-	-
Single Residential Lot Price							
Land Area	578 sq.m.	720 sq.m.	700 sq.m.	629 sq.m.	408 sq.m.	680 sq.m.	495 sq.m.
Indicative Price	\$360,000	\$400,000	\$380,000	\$330,000	\$200,000	\$350,000	\$280,000

Based on the preliminary development schemes proposed, the following schemes are considered financially feasible in the current market:

- **Central Maitland:** Base Scheme
- **East Maitland:** Base Scheme
- **East Maitland Catalyst Area:** Base Scheme
- **Rutherford:** Base Scheme
- **Telarah:** Base Scheme
- **Thornton:** Base Scheme
- **Woodberry:** Base Scheme

The schemes considered financially feasible feature project related site values which are **in excess of** or **in keeping with** the current price of an equivalent sized single residential allotment. In all of these options the developer achieves their target profit margin. It is noted that in all locations the base schemes are considered financially feasible.

In all remaining options the project related site value is **less than** the current price of an equivalent single residential allotment. In these instances the developer would not achieve their target profit margin if the land was purchased at a price point in keeping with an equivalent sized single residential allotment. Accordingly, the schemes are not considered financially feasible at present.

10.3 Conclusions

Based on the financial feasibility assessments completed on the various development schemes at each location, there is considered excellent potential in the current market for dual occupancy and terrace style infill housing typologies to be developed at each location reviewed. This is on the proviso that appropriate land similar to the Opportunity Sites becomes available for development.

Many of the base case schemes presented are considered realistic options in the current market and represent a possibility to alleviate pressure on additional growth / expansion of Greenfield locations.

The higher density manor house and apartment building schemes reviewed as part of the analysis are not considered financially feasible based on the assessments completed. This is not to say that any higher density project won't be feasible, however the schemes reviewed are not which is primarily due to scale limitations. The tipping point reviews for apartment typologies within Central Maitland, East Maitland, East Maitland Catalyst Area and Rutherford all indicate that apartment building developments are potentially feasible in the current market if of an appropriate scale.

Reasons for the sample schemes not being considered financially feasible include one or a mix of the following:

- The sample sites are too small in size to adequately accommodate larger scale infill developments. For example, single residential allotments are not considered ideal for apartment buildings given modest apartment yield potential (three to seven units), height limitations and inability to accommodate adequate parking (or provide cost prohibitive parking at basement level).
- Manor house unit and apartment typologies feature modest size internal floor areas which limit gross realisation potential.
- Construction costs for apartment themed typologies are comparatively high (particularly when basement parking is required).
- The provision of basement parking in small scale development schemes is typically cost prohibitive. This is particularly evident within the Alternate Schemes for the East Maitland Catalyst Area and Telarah. The EMCA tipping point review highlights the considerable number of apartments required to offset basement parking costs.
- Market conditions are not currently suited to the provision of certain dwelling types. Accordingly, infill development in some locations may represent a longer term proposition. Further, some of the dwelling typologies have not been tested (in locations such as Telarah and Woodberry) and market acceptance may present an issue. It will be important to periodically monitor the market over the next five to ten year period to assist in identifying future infill opportunities in these locations. This will include a review of median price points, transaction volumes and developer preferences.
- Recent exorbitant capital growth in vacant land prices making the buy-in price for development sites notably higher. This has become evident in most of the infill locations where typical vacant allotments are now priced between \$300,000 to \$400,000. In 2019 and 2020 many of these allotments were priced between \$200,000 to \$250,000. In addition, pricing of established stock has also shown notable capital growth. From a financial perspective has lessened opportunities for knockdown and rebuild projects that propose infill stock. The infill housing market is not considered to have matured to a point where gross realisations of infill product can be increased to absorb the notable recent growth in land prices.

Additional considerations relating to infill housing potential in Maitland LGA include the following:

- At the time of reporting there is limited market maturity for infill housing in Maitland LGA, particularly for larger scale projects. Most infill typologies include a small lot housing, dual occupancies, terraces, manor houses and villas / townhouses however there are very limited apartment complexes of scale (yield and height). Overall there is a present of modest content of these typologies throughout Maitland LGA.
- Greenfield land remains a preference to many purchasers given freestanding new houses remain in high demand and are still considered affordable to many.

- Although affordability is becoming a greater issue, price points of low density housing are typically considered within reach of many potential purchasers. The residential property market has experienced considerable capital growth in 2021 and this growth is likely to continue whilst interest rates remain low and demand for regional locations remains strong. The favourable market conditions have resulted in notable growth across the board but particularly for vacant land and established low density houses. The increase in capital values will continue to impact on housing affordability and will likely create additional pressure on households. Should such growth levels continue, the demand for alternative lower priced infill typologies will likely increase.
- There is limited differential between pricing for established dwelling housing and residential apartments. In this instance most demand is likely to emanate for larger / lower density dwellings if similarly priced to higher density product.
- There have been limited public domain upgrades throughout potential infill locations. When such upgrades are supported by amendments to planning controls and a maturing property market, there is greater potential for gentrification in these locations. The result can be a notable increase in density and improved character of the location. Examples where this has occurred in Newcastle LGA include Carrington (Young Street), Cooks Hill (Derby Street) and Hamilton (Beaumont Street). Larger scale infill.

Higher density development may represent a longer term proposition for most infill locations in Maitland LGA and it will be important to make allowance for such typologies within planning policies. With an increased requirement for future infill housing supply, it will be important that planning controls enable such development when market conditions (and acceptance) improve to a point where higher density projects become financially viable.

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PROJECTS

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ADVISORY

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Rental Assessment
Statutory Valuation

RESEARCH & STRATEGY

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National Apartment Database
National Land Survey Program
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