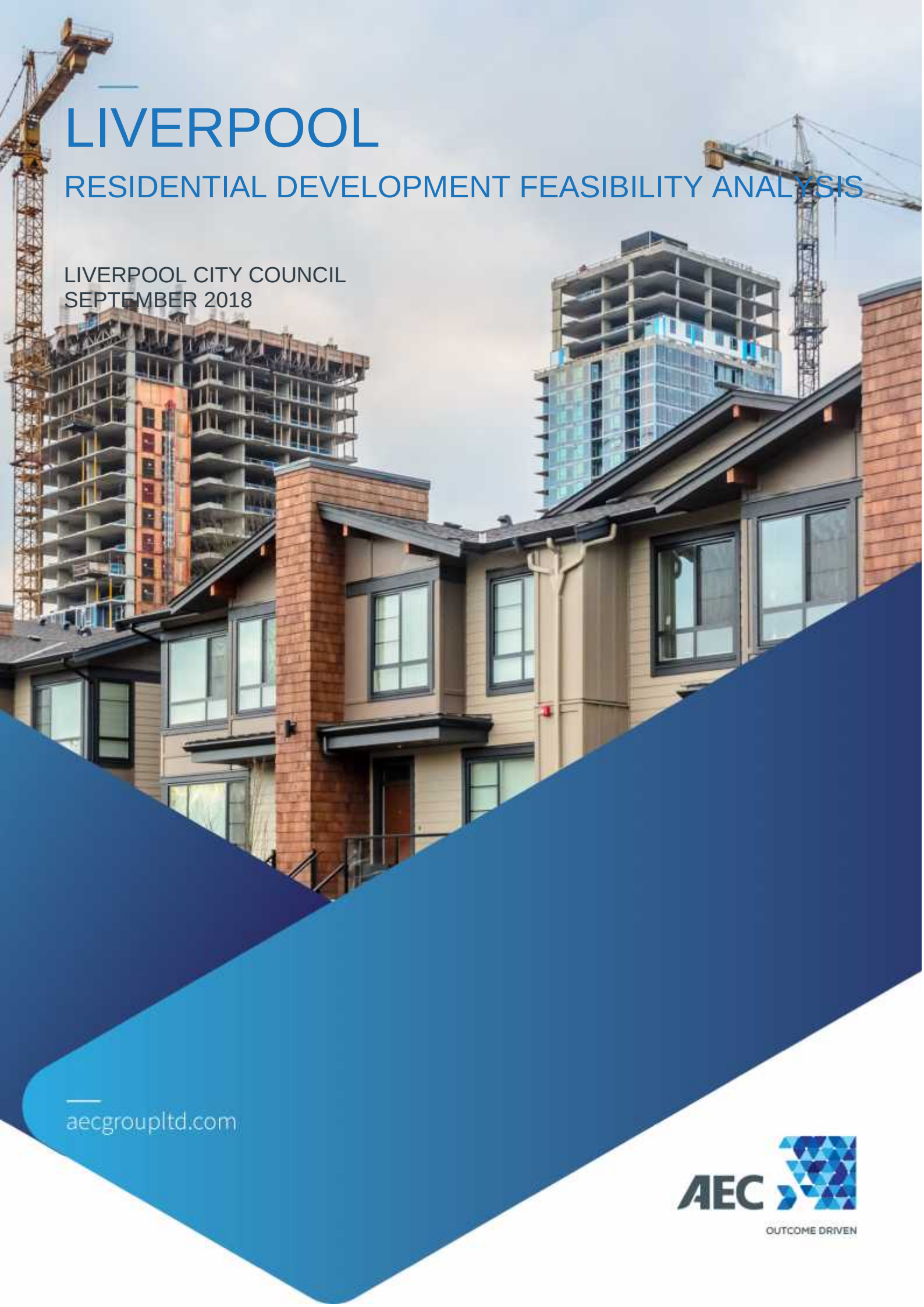

LIVERPOOL

RESIDENTIAL DEVELOPMENT FEASIBILITY ANALYSIS

LIVERPOOL CITY COUNCIL
SEPTEMBER 2018

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EXECUTIVE SUMMARY

BACKGROUND AND OVERVIEW

Liverpool LGA spans over 300 kilometres in area and situated approximately 35 and 18 kilometres southwest of the Sydney and Parramatta CBDs. The Liverpool LGA is a major urban area of metropolitan Sydney and is anchored by the Liverpool City Centre which is a major commercial, civic, cultural and employment centre for South-West Sydney. The future Western Sydney Airport is located immediately west of the Liverpool City Centre.

The Liverpool LGA is forecasted to experience significant population and employment growth over the coming two decades. In support of Liverpool's economic and population growth pursuant to strategic objectives, Liverpool City Council (Council) is carrying out a review of the Liverpool Local Environmental Plan (2008).

AEC Group (AEC) is commissioned to carry out a Residential Development Feasibility Analysis to understand:

- Market attitudes, levels of acceptance and residential typologies.
  - Analysis of the market for higher density residential in Liverpool and comparable areas outside the LGA, identifying the evolution of this market sector and drivers that have contributed to its growth.
  - Analysis of affordability and price thresholds (sale prices and rental levels) in a representative sample of R3 and R4 areas in Liverpool in comparison to low density areas.
- The financial feasibility of a sample of nominated sites in existing R3 Medium Density Residential and R4 High Density Residential zones. The intention is to understand if current planning controls facilitate financial feasible redevelopment of sites in nominated precincts, and if not, what amendments might be required.

The Development Feasibility Analysis will assist Council understand if planning controls are feasible in the R3 and R4 zones, and if necessary explore alternate controls that may be required for feasible development.

GENERIC FEASIBILITY TESTING

Generic feasibility testing was undertaken on four sample precincts nominated by Council. Notional developments schemes are premised on specific densities and land use types. The four key precincts tested are subject to varying degrees of density and height controls.

Table ES.1: Summary of Generic Feasibility Testing Outcomes

Precinct	Locality	Density Tested	Development Type	Feasible?	Comments/Issues
1	Casula	0.5:1	Townhouses, duplexes	No	The precinct contains many well-presented, modern and valuable properties, therefore making it expensive to amalgamate a site. The results do not suggest that medium density product (at FSR 0.5:1) is not feasible in Casula. The constraining element to this is the valuable pocket of residential dwellings located in Precinct 1.
2	Moorebank	1.2:1	Townhouses, units	Marginal	Relative high cost to assemble a development site. Testing of an alternate scenario at FSR 1.5:1 shows feasibility is marginal.
3	Miller	1.1:1, 1.5:1	Units	Marginal	While the market preference for medium-density product in Miller persists, higher-density unit development is a marginal proposition.
4	Liverpool (Castlereagh St)	2.0:1	Units	Yes	Landowner expectations have increased over last 3 years. At an assumed land cost of $2,200/sqm of site area development is feasible.

Source: AEC

A number of observations emerge from the feasibility analysis.

- **Existing 'as is' uses**
  Where sites in their existing use are still performing well and offering good functional utility, property values are typically more reflective of existing, 'as is' uses. In Precinct 1 for example, the pocket of land under investigation is well presented and relatively valued by the market rendering redevelopment unviable.

- **Lower end sale values**
  In areas like Busby, Cartwright and Lurnea where end sale values are relatively low, feasibility may not necessarily respond to density as well as other areas like Liverpool (suburb) and Warwick Farm. In order for more dense development to be feasible, the incremental cost of buildings needs to be sufficiently offset by incremental revenue of higher density units. As a consequence, the designation of higher densities does not always result in more feasible development.

- **Ownership fragmentation**
  The number of sites required to assemble a development block affects the cost of site acquisition. Fragmented ownership patterns often results in the payment of a premium over and above market value.

- **Townhouse developments**
  Supply of new townhouse product across the Liverpool LGA remains significant. These developments are typically confined to sites that cost no more than $1,000/sqm-$1,400/sqm of site area to assemble, in some cases old and dilapidated cottages have been acquired at prices as low as $800/sqm of site area.

- **Amenity requirement for marketability of units**
  Market attitudes in Liverpool favour residential units where they are located within or in close proximity to a major centre where retail and transport facilities are present. In suburban locations, owing to the demographic composition of the resident population, residential units can struggle for market acceptance where larger formats of housing are available at prices not too much more expensive. That said, a number of new apartment developments have begun to emerge across suburban locations with market attitudes beginning to shift.

CONCLUSIONS AND RECOMMENDATIONS

Market research and feasibility modelling suggests that high density controls do not necessarily incentivise change on all sites. While planning and development controls are intended at stimulating redevelopment and renewal in Liverpool, large scale development is difficult and challenged for a number of reasons.

Not all development will be feasible in Liverpool (particularly where existing uses are valuable or sites are fragmented in ownership). These are market issues, beyond the control of planning authorities.

We recommend Council consider the following:

- Retain medium density residential zonings accepting that infill townhouse developments will occur incrementally over time. While density bonuses are available to encourage site amalgamations for multi-dwelling housing, it is conceivable that this incentive is not receiving widespread take-up. Attached and detached dwellings including townhouses do not necessarily respond to density, i.e. unlike in the case of residential flat buildings. More critical to the feasibility of multi-dwelling housing is the cost of site acquisition.

- Consider increasing the FSR in Precinct 2 to encourage development just northeast of the Moorebank Shopping Centre which is at present a marginal proposition. An urban design study would uncover the capacity of the precinct to accommodate more density and floorspace.

- A site minimum of 1,000sqm for residential flat buildings may be fine from an ease of site assembly perspective, it is questionable if it would be sufficiently large for a higher density development where basement parking is to be provided. Nevertheless, development design and configuration would be subject to design guidelines which would accordingly impact on the capacity of smaller sites to accommodate higher density development.

- Review frontage requirements as these can hamper the assembly of sites for medium density development.

- Consider if parking ratios can be revised, particularly where 2 spaces are required for each three bedroom unit. A reduced requirement even to 1.5 spaces will help reduce the overall cost to develop.

Aside from a select number of centres where high-density living is demonstrated to have market acceptance, it would be preferable for Council to work to encourage continued infill development across the LGA. Incremental infill development will in time bring about a renewal of suburbs, thereby generating a lift to profile and thereby to property prices. Eventually the prices of medium and higher density product will then be able to justify and sustain their development.

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1. INTRODUCTION

1.1 BACKGROUND AND OVERVIEW

In support of Liverpool's economic and population growth pursuant to strategic objectives, Liverpool City Council (Council) is carrying out a review of the Liverpool Local Environmental Plan (2008).

AEC Group (AEC) is commissioned to carry out a Residential Development Feasibility Analysis to understand:

- Market attitudes, levels of acceptance and residential typologies.
    - Analysis of the market for higher density residential in Liverpool and comparable areas outside the LGA, identifying the evolution of this market sector and drivers that have contributed to its growth.
    - Analysis of affordability and price thresholds (sale prices and rental levels) in a representative sample of R3 and R4 areas in Liverpool in comparison to low density areas.

    People will ultimately purchase what they can afford. This may involve compromising on space and accommodation requirements. The intention of the analysis is to understand how and if medium and high density residential typologies are meeting housing demand.
- The financial feasibility of a sample of nominated sites in existing R3 Medium Density Residential and R4 High Density Residential zones. The intention is to understand if current planning controls facilitate financial feasible redevelopment of sites in nominated precincts, and if not, what amendments might be required.

The Development Feasibility Analysis will assist Council understand is current planning controls facilitate feasible development in the R3 and R4 zones, and if necessary explore alternate controls that may be required for feasible development.

AEC's work is carried out in two parts: Liverpool Residential Development Feasibility Analysis (this report) and the Liverpool Housing Market Needs Analysis which examines patterns of housing supply and demand in Liverpool.

1.2 APPROACH

AEC worked with Council to review existing planning and development controls to understand if they are effective in encouraging renewal and redevelopment in the Liverpool LGA. A total of four precincts within the LGA were nominated for this purpose.

The following tasks have been carried out in undertaking the analysis:

- Review of local planning policies and findings.
- Contextual review of four precincts to establish site context, adjoining development and potential development options. An appreciation of the value of existing improvements is critical to understanding why development in some instances may be difficult to achieve.
- Property market research into residential property market to identify patterns of supply and demand, understand market and development activity and purchaser preferences and requirements.
- Review of development pipeline (developments approved and in those in planning) to understand the drivers and nature of new residential development.
- Generic feasibility testing of sites within the nominated precincts to examine various densities and building typologies against current planning controls (height and FSR) and development controls (setbacks, site cover, parking).
- Consider potential incentives and likely timeframe for development if not immediately feasible.
- Principles and recommendations for Council's planning framework to facilitate and accommodate residential growth in the LGA.

1.3 STRUCTURE OF THE STUDY

The Study is structured in the following chapters:

- Chapter 2 considers the locational context of the Liverpool LGA and the nominated precincts under analysis in this study. The chapter also considers the planning and development controls that would apply to development in these precincts.
- Chapter 3 examines property and market trends in the Study Area, specifically the nature of purchaser activity and investor interest in residential accommodation (new and existing). Liverpool's market appeal (or lack thereof) ultimately underpins the ability of sites to be redeveloped. The chapter considers market activity including the types of development currently being progressed, price points and market desirability/resistance.
- Chapter 4 carries out generic feasibility testing to examine if new development might be feasible in the nominated precincts. Where appropriate, analysis and commentary on factors for poor feasibility results are made.
- Chapter 5 outlines potential actions for Council to consider to help facilitate continued accommodation of residential growth in Liverpool.

1.4 LIMITATIONS OF THE STUDY

AEC acknowledges a number of limitations associated with the generic feasibility analysis.

- Generic development options are formulated for feasibility testing based on permissible FSRs. This is useful for the purposes of considering the financial feasibility of development options however the development schemes are notional only, and have not been capacity, urban design or engineering tested. AEC are not urban designers or architects. As such the financial feasibility testing carried out is a numerical exercise with no regard to physical site capacity, shadow impacts, building separation or other design considerations.
- Desktop appraisal of 'as is' property values, without the benefit of internal inspections.
- Generic feasibility testing does not consider nuances of a site typically considered in detailed feasibility analysis. Development costs assumed are 'generic', based on construction cost publications and past industry experience. No provision is made for extraordinary development costs that may be necessary as a result of ground conditions or environmental constraints.

Notwithstanding the limitations above, the approach is considered appropriate for the purposes of reviewing if planning controls are financially feasible in the Study Area.

2. LIVERPOOL IN CONTEXT

2.1 LOCAL CONTEXT AND KEY PRECINCTS

The Liverpool LGA is over 300km in area and is located some 35km to the southwest of the Sydney CBD. Liverpool LGA is bounded by Penrith and Fairfield LGAs in the north, Bankstown LGA in the east, Sutherland Shire in the southeast, Campbelltown and Camden LGAs in the south and Wollondilly Shire in the west.

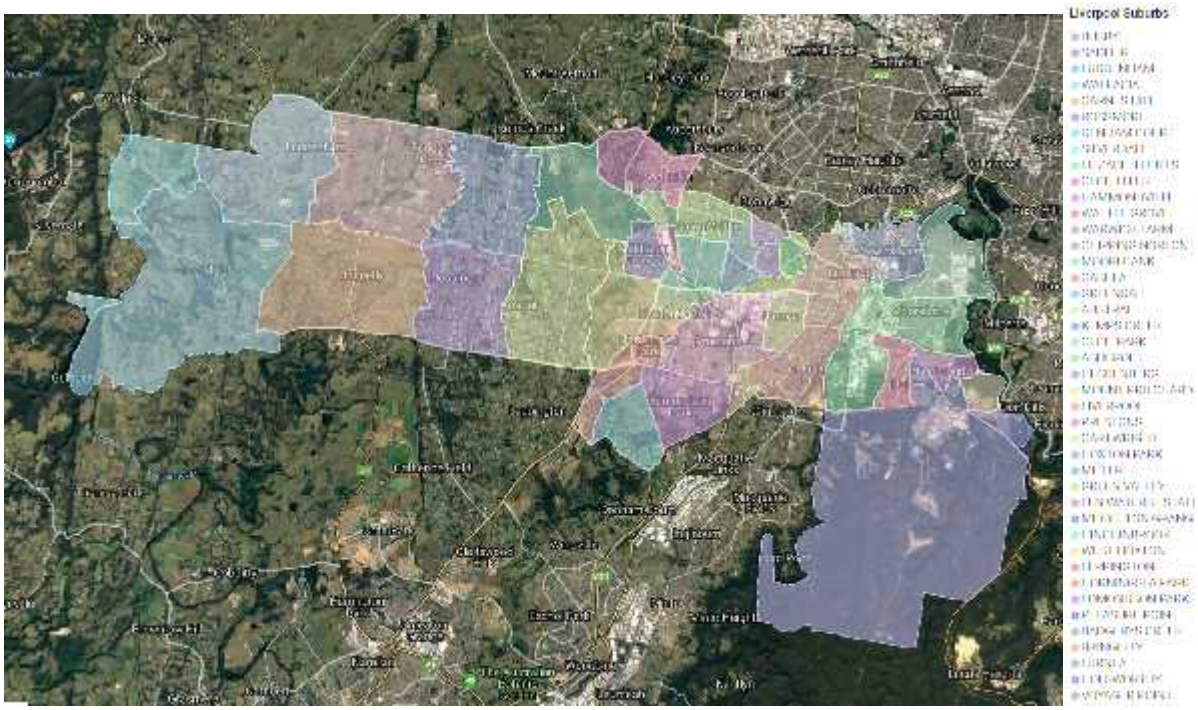
Liverpool train station is served by a converging of three train lines - Cumberland, Inner West & South and Bankstown lines. Other train stations in the LGA include Warwick Farm and Casula. The recently completed South West Rail Link (SWRL) additionally services Edmondson Park and Leppington with train stations therein.

The former South West Growth Centre was approximately 17,000ha in size and straddled the local government areas of Liverpool, Camden and Campbelltown. A large proportion of lands in Liverpool LGA's western jurisdiction falls within the newly-realigned South West Growth Area (South West GA), which was formed following a commitment of Government funding to the Western Sydney Airport in 2017.

The South West GA now comprises circa 10-13 precincts, with parts of Bringelly, Rossmore and Leppington North falling within the new boundaries however it is understood that detailed alignment of both Growth Areas is still under review.

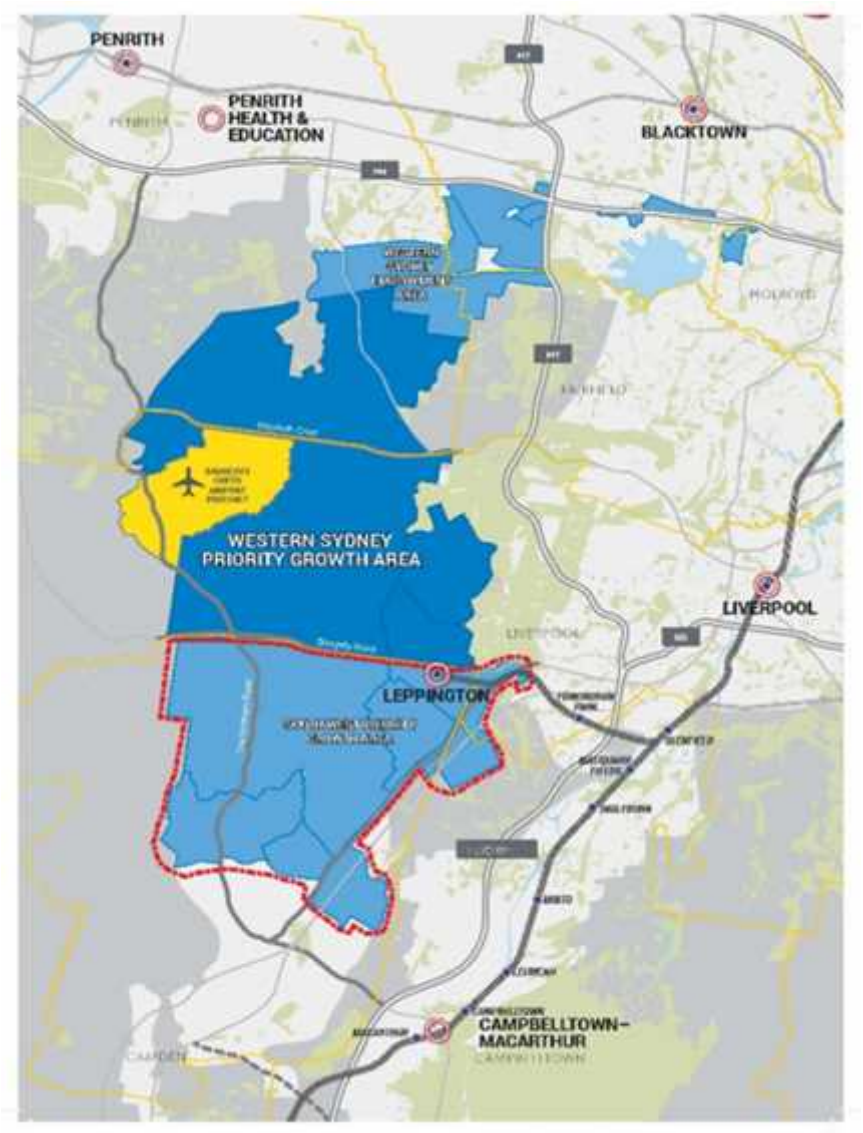
Figure 2.1 depicts the extent of the Liverpool LGA boundaries and the suburbs contained therein, and Figure 2.2 shows the newly formed South West Growth Area.

Figure 2.1: Liverpool LGA by Suburb



Source: LCC

Figure 2.2: Boundary Realignment, South West Growth Area



The Liverpool LGA is a nuanced and layered market, influenced by a myriad factors which ultimately shape the patterns of supply and demand of dwellings. For the purposes understanding sub-markets which co-exist within the LGA, we have grouped multiple suburbs by geographical location and where they have, in aggregate, comparable characteristics and market perception.

Table 2.1: Liverpool LGA Suburbs and Dwelling Composition (2016)

Suburb	Detached		Semi-Detach., Townhouses		Flats, Unit, Apartments		Other		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Liverpool East										
Pleasure Point	160	100.0%	0	0.0%	0	0.0%	0	0.0%	160	100.0%
Voyager Point	475	93.2%	34	6.8%	0	0.0%	0	0.0%	509	100.0%
Chipping Norton	2,505	81.4%	359	11.7%	210	6.8%	3	0.1%	3,078	100.0%
Warwick Farm	551	20.9%	181	6.9%	1,889	71.7%	13	0.5%	2,633	100.0%
Hammondville	755	61.7%	375	30.7%	90	7.3%	3	0.2%	1,223	100.0%
Moorebank	2,816	85.6%	412	12.5%	62	1.9%	0	0.0%	3,290	100.0%
Holsworthy	1,230	80.0%	304	19.8%	3	0.2%	0	0.0%	1,537	100.0%

Suburb	Detached		Semi-Detach., Townhouses		Flats, Unit, Apartments		Other		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Wattle Grove (NSW)	2,802	96.0%	83	2.9%	0	0.0%	34	1.2%	2,919	100.0%
Total	11,293	73.6%	1,749	11.4%	2,254	14.7%	53	0.3%	15,349	100.0%
Liverpool City Centre										
Liverpool	2,903	28.9%	1,105	11.0%	6,013	59.8%	31	0.3%	10,052	100.0%
South Liverpool										
Casula	3,697	72.5%	1,287	25.2%	108	2.1%	6	0.1%	5,098	100.0%
Prestons	4,068	95.8%	180	4.2%	0	0.0%	0	0.0%	4,248	100.0%
Total	7,764	40.0%	2,572	13.3%	6,121	31.6%	37	0.2%	19,398	100.0%
Liverpool Central										
Ashcroft	909	73.9%	22	1.8%	299	24.3%	0	0.0%	1,230	100.0%
Busby	1,237	89.5%	112	8.1%	33	2.4%	0	0.0%	1,382	100.0%
Cartwright	579	59.4%	41	4.2%	356	36.4%	0	0.0%	976	100.0%
Heckenberg	842	85.0%	77	7.8%	72	7.3%	0	0.0%	991	100.0%
Miller	828	65.5%	50	4.0%	385	30.5%	0	0.0%	1,263	100.0%
Lurnea	2,325	75.6%	702	22.8%	50	1.6%	0	0.0%	3,077	100.0%
Sadleir	941	85.5%	28	2.6%	131	11.9%	0	0.0%	1,101	100.0%
Total	7,661	76.5%	1,032	10.3%	1,327	13.2%	0	0.0%	10,020	100.0%
Liverpool West										
Edmondson Park	654	97.9%	10	1.5%	0	0.0%	4	0.6%	668	100.0%
Middleton Grange	1,405	88.3%	168	10.5%	19	1.2%	0	0.0%	1,592	100.0%
Cecil Hills	1,847	95.4%	89	4.6%	0	0.0%	0	0.0%	1,936	100.0%
Horningsea Park	1,036	99.7%	3	0.3%	0	0.0%	0	0.0%	1,039	100.0%
Hoxton Park	1,093	87.7%	149	11.9%	0	0.0%	4	0.3%	1,246	100.0%
Green Valley	2,924	81.8%	650	18.2%	3	0.1%	0	0.0%	3,577	100.0%
Hinchinbrook	2,800	87.9%	383	12.0%	3	0.1%	0	0.0%	3,186	100.0%
West Hoxton	2,571	94.5%	146	5.4%	0	0.0%	3	0.1%	2,720	100.0%
Cecil Park	233	100.0%	0	0.0%	0	0.0%	0	0.0%	233	100.0%
Denham Court	591	89.9%	0	0.0%	17	2.5%	50	7.6%	658	100.0%
Total	15,154	89.9%	1,598	9.5%	42	0.2%	61	0.4%	16,855	100.0%
South West Growth Area*										
Kemps Creek	695	99.1%	3	0.4%	0	0.0%	3	0.4%	701	100.0%
Austral	1,004	98.1%	8	0.8%	3	0.3%	9	0.9%	1,024	100.0%
Leppington	1,201	96.8%	17	1.4%	0	0.0%	22	1.8%	1,241	100.0%
Badgerys Creek	74	100.0%	0	0.0%	0	0.0%	0	0.0%	74	100.0%
Bringelly	773	98.4%	9	1.2%	0	0.0%	3	0.4%	785	100.0%
Rossmore	718	99.6%	0	0.0%	0	0.0%	3	0.4%	721	100.0%
Greendale	113	100.0%	0	0.0%	0	0.0%	0	0.0%	113	100.0%
Luddenham	548	99.4%	3	0.6%	0	0.0%	0	0.0%	551	100.0%
Wallacia	504	85.0%	3	0.5%	57	9.7%	28	4.8%	593	100.0%
Total	5,630	97.0%	43	0.7%	61	1.0%	69	1.2%	5,803	100.0%

*Not all suburbs within the South West Growth Area fall within the boundaries of the Liverpool LGA
Source: ABS (2017a)

*While the Liverpool City Centre is excluded from the Study Area, in the interest of context and completeness dwelling composition is included here.

These area groupings reflect broad comparable locational and market characteristics to enable market profile analysis by group.

Key Precincts Considered

Table 2.2 outlines the four precincts nominated by Council for feasibility testing with a brief description of site area and current improvements. The development types tested for feasibility correspond to the respective land use zones and FSR controls.

Table 2.2: Key Precincts for Feasibility Testing

Precinct	Locality	Existing Improvements	Zone (FSR)	Potential Development Type
1	Casula (land bound by Ingham Dr, Strawberry Rd, along Arwon Ave and Toporoa Cl)	Detached houses (1 and 2 storey)	R3 (0.5:1)	Townhouse, villas or semi-detached houses
2	Moorebank (land bound by McKay Ave, Lucas Ave, Harvey Ave and Dredge Ave)	Detached houses (1 and 2 storey)	R4 (1.2:1)	Townhouse, villas or semi-detached houses Residential flat building
3	Miller (land along Shropshire St and Romney Ave)	Old cottages (mostly 1 storey)	R4 (1.1:1-1.5:1)	Townhouse, villas or semi-detached houses Residential flat building
4	Liverpool City Centre (land bound by Castlereagh St, Campbell St and Copeland St)	Apartment buildings, old cottages	R4 (2.0:1)	Townhouse, villas or semi-detached houses Residential flat building

Source: LCC, AEC

More detailed description of the key precincts is contained in section 4.3.

2.2 LOCAL PLANNING CONTEXT

Liverpool Local Environmental Plan (2008)

Land use and development in the Liverpool LGA is governed by the Liverpool Local Environmental Plan (2008) and Liverpool Development Control Plan (2008). These local policy documents set the strategic direction for development under various zones including residential zones R1 General Residential, R2 Low Density Residential, R3 Medium Density Residential, and R4 High Density Residential in addition to the business zones which permit residential uses. A review of the local planning instruments and local policy relevant to the Study Area is provided below.

Table 2.3: Land Use Zones and Objectives

Zones	Objectives
Residential Zones	
R1 General Residential	) To provide for the housing needs of the community.) To provide for a variety of housing types and densities.) To enable other land uses that provide facilities or services to meet the day to day needs of residents.) To ensure that housing densities are broadly concentrated in locations accessible to public transport, employment, services and facilities.) To facilitate development of social and community infrastructure to meet the needs of future residents.
R2 Low Density Residential	) To provide a range of retail, business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area.) To encourage employment opportunities in accessible locations.) To maximise public transport patronage and encourage walking and cycling.) To allow for residential and other accommodation while maintaining active retail, business or other non-residential uses at street level.) To facilitate a high standard of urban design and a unique character that contributes to achieving a sense of place for the local community.
R3 Medium Density Residential	) To provide for the housing needs of the community within a medium density residential environment.) To provide a variety of housing types within a medium density residential environment.) To enable other land uses that provide facilities or services to meet the day to day needs of residents.) To provide for a concentration of housing with access to services and facilities.

Zones	Objectives
	• To provide for a suitable visual transition between high density residential areas and lower density areas. • To ensure that a high level of residential amenity is achieved and maintained.
R4 High Density Residential	• To provide for the housing needs of the community within a high density residential environment. • To provide a variety of housing types within a high density residential environment. • To enable other land uses that provide facilities or services to meet the day to day needs of residents. • To provide for a high concentration of housing with good access to transport, services and facilities. • To minimise the fragmentation of land that would prevent the achievement of high density residential development.

Source: LCC (2008)

LEP density and height controls refer to the maximum limits that may be achieved on a site. FSRs in residential and business zones range from FSR 0.5:1 to FSR 1.7:1 in suburban locations and up to FSR 10:1 in the Liverpool City Centre.

The LEP additionally contains controls that guide dwelling density, lot configuration and land use mix.

- Minimum lot size controls.
- Minimum dwelling density and maximum number of lots.
- Minimum lot widths and minimum building street frontage.
- Ground floor development in B1, B2 and B4 zones to comprise non-residential uses.
- Maximum floor area for business or retail premises in certain business zones.
- Residential uses in B6 zone subject to additional setback requirements.

LEP density and height controls designated for the four nominated precincts are as follows.

Table 2.4: Density and Height Controls

Precinct	Description	Zone	FSR	Height
1	Casula	R3	0.5:1	8.5m
2	Moorebank	R4	1.2:1	18.0m
3	Miller	R4	1.1-1.5:1	15m-21m
4	Liverpool (Castlereagh Street)	R4	2.0:1	35m

Source: LCC

Liverpool Local Environmental Plan 2008 (Amendment No 52)

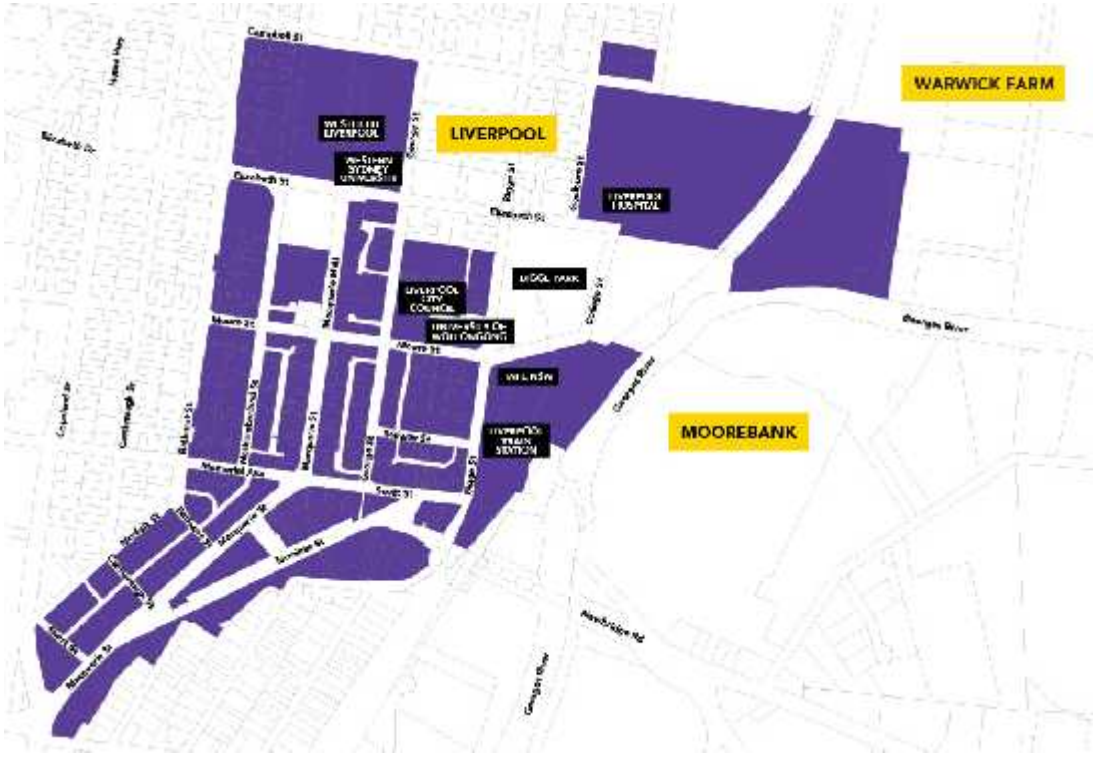
Under Amendment No 52, approximately 25 hectares of land in the Liverpool City Centre was proposed to be rezoned from B3 Commercial Core to B4 Mixed Use to encourage mixed use development, business growth and an '18-hour economy' in the City Centre.

The purpose of the amendment to the LEP was to incentivise greater private sector development and encourage greater densities on large key sites based on a range of criteria related to public domain, facilities and amenity.

In August 2018, Amendment No 52 was formally approved by the NSW State Government.

The areas of the Liverpool City Centre which Amendment No 52 were applied to are illustrated in Figure 2.3

Figure 2.3: Areas Covered Under Amendment No 52



Source: LCC

Liverpool Development Control Plan (2008)

The Liverpool Development Control Plan (2008) applies to all land in the Liverpool LGA. The DCP contains general controls for all development and locality specific controls for specified areas. The DCP additionally contains specific controls that apply to development in residential zones, guiding the development of various housing typologies in the various residential zones.

Table 2.5: Medium and High Density Development Controls in Residential Zones

Development Type	Description	Zone	Min. Lot Size	Min. Width
Semi-detached and attached dwellings	Duplexes and terraces	R2, R3, R4	None	None
Multi-dwelling housing	Townhouses and villas	R3, R4	1,000sqm or 650sqm for 2 bedroom townhouses	22m or 18m for 2 bedroom townhouses
Residential flat buildings	Units and apartments	R4	Varies	24m

Source: LCC

3. RESIDENTIAL MARKET APPRAISAL

3.1 TRENDS AND DRIVERS OF DEMAND

A range of trends and drivers influence demand for housing. Many of these factors are broad, macroeconomic influences; general market conditions, population and wage growth and monetary policy impact all property markets. Other influences are more market or location specific, referred to as microeconomic trends.

This section briefly discusses the macro and micro trends observed to be influencing demand for housing across both metropolitan Sydney and in the Liverpool LGA.

3.1.1 Macroecnomic Trends

Population Growth

Demand for housing is fundamentally driven by population growth. Population growth within NSW has been significant over the 2006-2016 period with just under 1 million new residents recorded over this period to a total population of 7.7 million, indicative of a 14.8% increase (ABS, 2017a). Greater Sydney has accommodated the vast majority of this growth, currently recording a population of just over 5 million residents, reflective of an 18.2% increase (ABS, 2017a).

Population growth across Greater Sydney is forecasted to continue over the coming 25 years, with an additional 1.7 million forecasted by 2036, increasing to 3.2 million residents by 2056 (Greater Sydney Commission, 2018a). This has obvious repercussions for Greater Sydney's housing market.

General Market Conditions

Metropolitan Sydney's housing market has continued to cool in most regions over past 12-18 months. Auction clearance rates across Sydney were recorded at 50.7% in October 2018, down from 58.3% recorded 12 months prior in October 2017 (CoreLogic RP Data, 2018). In the South West region of Sydney, a lower clearance rate of just over 31% was recorded in October 2018.

In conjunction with falling auction clearance rates, median house values across metropolitan Sydney have fallen by 7.6% over the 12 months to September 2018 (CoreLogic RP Data, 2018). This is in line with Australia's combined national cities median house price falling 0.7% in the same period for the first time in six years.

With softening market conditions, purchasers are acting more prudently with many preferring to negotiate via private treaty rather than participate at public auctions. Most selling agents across metropolitan Sydney highlight vendors are struggling to accept the new conditions and setting reserve prices based on market conditions more readily observed during the 2016-17 period.

We note general market sentiment plays a fundamental role in the health of residential property markets. The state of metropolitan Sydney's housing market has been subject to intense media speculation over the past 12 months, with widespread commentary regarding a potential downturn in prices likely also feeding into the above described conditions.

Wage and Inflation Growth

Wage growth within Australia has been sluggish for several years with little real wage growth (i.e. net of inflation) observed since 2013. Recent data from the ABS indicates national wage growth (seasonally adjusted) rose by 2.1% over the 12 months to June 2018, slightly above previous quarter results (ABS, 2018a). This can be largely attributed to the 3.3% increase in national minimum wage rates commencing in July 2017 as opposed to any meaningful wage increase.

There is economic consensus regarding the future outlook for wage growth in coming years, that wage growth will remain relatively flat in the short-term after which the spare capacity in the labour market will deliver some modest wage growth in the medium term (Business Insider, 2017).

The inflation rate is currently recorded at 2.1% as at June 2018 having risen 0.2% since March 2018 (RBA, 2018). Whilst inflation has generally ranged from 1.8% to 2.1% over the past six quarters to March 2017 (which falls in the

lower end of the Reserve Bank of Australia's target inflation band of 2% to 3%), inflation has overall been consistently low over the past three years and remained below 2% until March 2017 (RBA, 2018). This has had direct implications on monetary policy as set by the Reserve Bank of Australia.

Monetary Policy and Lending Requirements

Monetary policy, more specifically the cash rate, has significant implications for asset valuations including residential property. The cash rate is the base interest rate used by all major Australian financial lenders in setting commercial interest rates and thus invariably influences the borrowing capacity of households and investors.

The Reserve Bank of Australia (RBA) held the cash rate at 1.5% in November 2018, the 27th consecutive month of no change since a 25 basis point cut in August 2016. Low inflation and subdued private investment are providing little scope to raise interest rates in the short-term.

While the official cash rate setting undoubtedly influences local mortgage rates, recent rate hikes by Australian lenders illustrate it is not the only driver of funding costs. ANZ, Westpac and CBA each raised by their variable mortgage interest rates by circa 0.14 to 0.16 basis points in September 2018 due to an increase in the cost of short-term financing. It is largely expected that NAB will also raise variable interest rates in the short-term also.

The impact of the Australian Prudential Regulatory Authority's (APRA) tighter macro-prudential measures for Australian financial landers has been significant; the overall mortgage market has fallen by circa 8% over the 12 months to August 2018. This decline has been predominantly driven by a fall in with interest-only lending with the value of interest-only loans falling by almost $100 billion over the 12 months to August 2018, or a 23% fall (ABS, 2018b).

The Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry has further exacerbated current conditions as banks tighten lending standards amidst the high level of public scrutiny around poor lending practices. Stricter financing requirements has reduced the borrowing capacity of the overall market which has in turn reduced the overall buyer pool and potential for price growth similar to that observed over the 2013-2016 period.

Warnings on commercial lending practices issued by APRA in early 2017 have resulted in most lenders seeking higher pre-sale requirements from developers prior to drawdown of construction finance. These have cumulative impact on project risk and holding costs.

3.1.2 Microeconomic Trends

Housing Affordability

Australia's east coast housing boom over 2012-2017 resulted in strong growth in capital values across most regions across metropolitan Sydney. Coinciding with soft wage growth, the housing boom has resulted in many buyers being priced out of many housing markets, particularly first home buyers (FHBs). Consequently, a growing contingent of buyers have shifted their preference towards smaller lot product.

With affordability becoming a key consideration for many younger households or first home buyers, the shift towards smaller dwellings and lot sizes in many greenfield precincts such as the North West Growth Area and South West Growth Area has gained momentum over the past 12-24 months. Developers have responded in-kind within the South West; numerous residential subdivisions progressed over the course of 2017 comprising high proportions of lots sized under 350sqm which have been met with strong demand evidenced by strong take-up.

Liverpool LGA

There are two key factors driving a shift in the nature of demand in Liverpool - housing affordability and demographic need. Completion of the South West Rail Link (SWRL) has also driven demand for dwellings particularly in Edmondson Park. Even though Leppington benefits from a train service, development activity is much slower given the lot and ownership patterns which make it difficult for developers to assemble sites.

Purchaser interest and demand in Liverpool over the course of 2018 is predominantly observed from owner occupiers who are subject to affordability constraints. Buyers typically look to purchase what they can afford, potentially compromising on requirements such as size, location and amenity. Investors who were a particularly

active buyer cohort over the course of 2015-2017 have largely withdrawn from the market given the increasing difficulty in obtaining finance.

While many owner occupier purchasers typically already reside in the local area (including the areas of Campbelltown and Camden), there is strong anecdotal evidence that increasing numbers of residents of Bankstown LGA are moving into Liverpool due to the relative affordability of dwellings in the Liverpool LGA.

The on-going apartment boom observed in the Liverpool City Centre is not unique to Liverpool. Many centres have experienced a boom in demand for residential living in major centres where there is an amenity-rich environment. Centres such as Burwood, Chatswood, Hurstville and Bankstown have all witnessed this apparent awakening of the benefits of city living.

A growing desire for convenience and lifestyle has driven a structural shift in the market, wherein many residents now seek the conveniences of city living at the expense of space and higher maintenance obligations. As a centre gains a critical mass of residents, so too will grow a critical mass of retail and non-retail services to support the population base.

3.2 MARKET ACTIVITY

This section seeks to investigate property market conditions to understand:

- Local property market dynamics in Liverpool, in particular current market activity, ongoing and new projects, buyer profiles, product, price points and take-up.
- Existing-use ('as is') values of single lot dwellings in each of the precincts. This is important to understand potential realisation if sold 'as is', but also if new development (e.g. into townhouses or units) is attractive enough to displace the existing uses in favour of redevelopment.
- Dwelling types sought after and the drivers for their demand.

3.2.1 Sales Activity in the Precincts

The following section identifies recent sales transactions of various housing types with the select precincts under investigation.

Precinct 1 - Casula

Casula is comparatively less prominent on the radar of home buyers, largely owing to the presence of a waste tip. Dwellings are considered to be mid-range in comparison to Chipping Norton/Moorebank which is at the upper end and Ashcroft/Busby at the lower end.

There appears to be a growing popularity with medium density dwellings in Casula, also reflected in the development pipeline. While freestanding home are still sought after, price sensitivity suggests a cap of $850,000 on these houses unless they have development potential.

Townhouses are notably performing well (2, 3 and 4 bedrooms) as they offer a low maintenance option and entry point both to investors and owner occupiers. As an example, a number of new townhouses at 1-3 Lang Road (3b 2b townhouse) are currently marketing with prices ranging from $650,000-$660,000. This is comparable to a new residential unit in the City Centre. Depending on their lifestyle objectives purchasers weigh up the trade-off between a townhouse in a suburban location and a unit in a city location.

Specifically in and around the Precinct, the popularity of medium density dwellings with renters also makes them attractive with investors. A 3 bedroom 2 bathroom townhouse at 1/1-3 Myall Road recently sold for $610,000. It was tenanted at $420 per week, equating to a gross yield fully leased of 3.5%.

Precinct 2 - Moorebank

Moorebank is perceived as a desirable location, older stock generally priced between $800,000 and $950,000 with newer homes able to achieve in excess of $1m and up to $1.3m.

Townhouses are performing well in these areas, providing a 'compromise solution' to purchasers who may not be able to afford a freestanding home (as these generally exceed $800,000) but want more space than that which a unit offers. A number of townhouses are currently marketing off-the-plan across Moorebank including at 149 Nuwarra Road and 200 Newbridge Road. Two bedroom townhouses are currently priced at $660,000 to $695,000 with three bedroom townhouses from $740,000 to $760,000.

Very few apartment sales have been observed across Moorebank; the most recent off-the-plan activity being the 5-storey RFB at 80-82 Lucas Avenue. Two bedroom units are understood to have ranged from $550,000 to $600,000 with three bedroom units from $625,000 to $650,000.

Within the Precinct itself, a number of detached houses have been acquired and consolidated into development blocks with developers progressing residential flat buildings from 5-6 storeys however no approvals have been secured to date.

Precinct 3 - Miller

The suburbs of Ashcroft, Busby, Cartwright, Heckenberg, Miller, Sadleir and Lurnea are collectively perceived as offering a cheaper product compared to the rest of the LGA. Market activity is understood to be steady with interest primarily from new migrants seeking their first home. These suburbs generally incorporate a high concentration of social housing, from 17% of total dwellings in Lurnea to over 40% in Miller.

A new/renovated home in Busby achieves $600,000-$700,000 while an older style home in the area may be priced at $500,000-$600,000. Dwellings at price points below $600,000 are generally understood to be competitively sought after, despite their proximity to social housing clusters. Comparative to say Liverpool, where an older style home may be priced at $700,000-$800,000, these areas offer a compelling value proposition.

Anecdotal information from discussion with selling agents suggest attitudes of some migrants does not discourage them from considering housing in these areas despite the high concentration of social housing tenants.

A distinct observation in this area grouping is the popularity and prevalence of the granny flat. Detached houses that incorporate a granny flat are highly sought after by both investors and owner occupiers. They offer an attractive return to investors (in some cases 5.5% gross yield) and offer a flexible accommodation option to large families or inter-generational families.

Specifically in the Precinct, despite its proximity to Miller Central, there are no townhouse or other medium density developments progressed. This is due to the lower price points and size of accommodation in the area, consequently detached houses are the dominant type of housing with most market appeal.

Precinct 4 - Liverpool (Castlereagh Street)

A large drawcard to Liverpool city centre is the availability of access to the Liverpool train station. While freestanding homes may have a price point of $750,000-$825,000 (older style), new medium density product is achieving prices in the same order. A new townhouse development at 164-166 Memorial Avenue is currently on the market with 3 bedroom, 2 bathroom townhouses priced from $700,000 to $760,000.

Whilst the housing market has undoubtedly softened over the course of 2018, many agents still comment that demand remains relatively steady with the proposed revitalisation of the City Centre providing confidence to the market. The proximity of Liverpool to public transport facilities and town centre amenity is valued by the market and accordingly carries a premium.

A premium is reflected in prices paid for new residential units, for example existing two bedroom units can range from $350,000 to $475,000 whereas new two bedroom units are currently pricing off-the-plan at $540,000 up to $750,000.

Precinct 4 is observed to be largely progressed for high density redevelopment. A number of development applications are in the pipeline while several sites along Castlereagh Street and Copeland Street have been assembled for development.

3.2.2 New Residential Units

New unit developments in the Liverpool City Centre are understood to be progressing well, albeit take-up rates have slowed in recent months as prospective purchasers face greater difficulty obtaining finance. Activity in select developments is detailed in **Table 3.1**.

Table 3.1: New Apartment Sales, Liverpool

Development	Type	Internal Area (sqm)	Sale Price		
			Low	High	Analysis ($/sqm)
Atrium 21 Atkinson St	1BR	52-63	$450,000	$515,000	$8,200-$8,700
	2BR	70-100	$540,000	$610,000	$6,100-$7,700
	3BR	97-116	$640,000	$700,000	$6,000-$6,600
Pinnacle Liverpool Cnr Castlereagh St and Norfolk Serviceway	1BR	56-60	$440,000	$550,000	$7,850-$9,150
	2BR	92	$540,000	$770,000	$5,900-$8,400
	3BR	100	$765,000	$865,000	$$7,650-$8,650
The Paper Mill 19-33 Shepherd St	1BR	51-69	$445,000	$490,000	$8,700
	2BR	72-126	$580,000	$600,000	$4,700-$8,100
	3BR	92-154	$715,000	$760,000	$4,900-$7,800

Source: AEC

3.2.3 Sales Evidence of Existing Uses

Dwellings in Liverpool are improved by a variety of built forms including fibro, weatherboard and brick homes. Some properties have undergone refurbishments which have resulted in higher sale prices. Sales values also depend on size, location and quality of improvements with properties in a state of disrepair, expectedly achieving lower prices.

It is important to understand existing-use values as they underpin how much a developer will have to pay to consolidate a development site. If the existing buildings are in good condition and provide functional utility, the existing-use value of the property may too valuable for a developer to pay.

The following analysis is of freestanding homes in the select precincts under investigation.

Table 3.2: Sales Evidence within Select Precincts

Address	Improvements	Site Area (sqm)	Sale Price (Date)	$/sqm site area
Precinct 1 (Casula)				
13 Gunsynd Ave	Recently constructed 2 level brick house 4 bed 2 bath, air conditioning and 2 door garage. Small block.	273	$765,000 (Sep 2018)	$2,802
10 Toparoa Cl	2 level brick house comprising 4 bed 2 bath, air conditioning, double garage and large year yard. Relatively dated; originally marketed for $950,000.	798	$915,000 (July 2018)	$1,150
6 Anjundy Cl	2 level brick house comprising 6 bed 2 bath, air conditioning, double garage and in-ground pool.	720	$1,160,000 (June 2018)	$1,610
5 Strawberry Rd	2 level brick house comprising 4 bed 3 bath, air conditioning, double garage and in-ground pool.	741	$1,075,000 (Dec 2017)	$1,450
7 Baguette Cl	2 level brick house comprising 4 bed 3 bath, air conditioning, double garage and large rear yard.	655	$850,000 (Dec 2016)	$1,297
18 Doncaster Avenue	1 level brick house with 4bed 2bath, modern kitchen and granite benchtops, pool and entertainment areas	679	$860,000 (June 2016)	$1,266
12 Anjudy Close	2 storey modern house with 4bed 3bath located close to Casula Mall	709	$989,000 (May 2016)	$1,395
Precinct 2 (Moorebank)				
14 McKay Ave	Large single storey detached brick house comprising 3 bedrooms 2 bathrooms, air conditioning and in-ground pool. Dated interior.	683	$1,120,000 (July 2017)	$1,639
61-65 Lucas Ave, 36 McKay Ave & 31 Harvey Ave	Five detached houses sold in one-line for construction of a 5-storey RFB comprising 76 apartments.	3,656	$5,955,000 (July 2017)	$1,625

Address	Improvements	Site Area (sqm)	Sale Price (Date)	$/sqm site area
24-26 McKay Ave	Two single storey detached brick houses acquired for construction of a 6-storey RFB with 26 apartments.	1,387	$2,340,000 (Mar 2017)	$1,687
16 Harvey Ave	1 level brick house with 4bed 2 bath, in ground pool and entertainment areas	689	$850,000 (May 2016)	$1,234
28-30 McKay Ave	2 properties sold in one-line - older style single level houses each with 3bed 2 bath. At a combined rental potential of $1,000 per week, the sale price analyses to 3.9% gross yield fully leased. Marketed as development opportunity however no DA to date.	1,366	$1,350,000 (Mar 2016)	$988
23-29 Harvey Av	4 detached homes sold in one-line, marketed as a development opportunity (being in the R4 zone and with FSR 1.2:1). At a combined rental potential of $2,300 per week, the sale price analyses to 2.8% gross yield fully leased.	2,720	$4,320,000 (Feb 2016)	$1,588
Precinct 3 (Miller)				
58 Shropshire St	Aged, single storey fibro-clad brick houses comprising 5 bed 2 bath and single carport.	563	$782,500 (Oct 2016)	$1,389
10 Romney Cres	Single level weatherboard home with 4bed 1bath, in-ground pool and entertainment areas.	575	$573,000 (May 2016)	$996
21 Shropshire St	1 storey weatherboard home with 4bed 1bath, air-conditioning, modern kitchen and entertainment area	564	$570,000 (May 2016)	$1,011
15 Boonoke St	Single level brick home with 3bed 1bath, noted to be in need of repairs	658	$490,000 (Apr 2016)	$745
73 Cabramatta Ave	Older style 1 storey fibro house with 4bed 2 bath and space for 5 cars.	475	$580,000 (Nov 2015)	$1,221
Precinct 4 (Liverpool - Castlereagh Street)				
6 Copeland St	Aged, single storey fibro-clad cottage purchased by investor. Was offered to market in early 2017 and subsequently withdrawn.	689	$750,000 (June 2015)	$1,088
15 Castlereagh St	Vacant parcel of land purchased by a developer.	1,831	$3,900,000 (Sept 2014)	$2,130
11 Castlereagh St	1 level brick house with 3bed 1 bath. Purchased by a developer.	411	$950,000 (Aug 2014)	$2,311
13 Castlereagh St	1 level brick house with 3bed 1 bath. Purchased by a developer.	411	$910,000 (Aug 2014)	$2,214
32 Castlereagh St	1 level brick home purchased by a developer.	911	$1,200,000 (Aug 2014)	$1,317
7-9 Castlereagh St 8-12 Copeland St	5 houses purchased in one-line by a developer.	3,600	$5,300,000 (June 2014)	$1,472
30 Castlereagh St	Modern 1 level brick home with 3bed 2bath, modern appliances and bathroom.	1,018	$1,240,000 (July 2013)	$1,218
1A-1D Castlereagh St 3-5 Castlereagh St Lot 1 Copeland St	6 detached houses and a vacant parcel of land acquired off-market by a local developer. No DA has been lodged to date.	4,587	$6,549,000 (April 2013)	$1,428

Source: AEC

A number of observations can be made of the sales evidence of detached dwellings in Liverpool.

- In many locations a single detached dwelling in an R3 or R4 zone is rarely distinguished on price based on the zone.
- Sale prices in Table 3.2 suggests they are underpinned by individual dwelling characteristics, e.g. location and proximity to shopping facilities, site area, whether a property is of an older style and basic accommodation or if it has been updated, size of internal accommodation (e.g. number of bedrooms), etc.
- Due to their lower price points (<$1,000/sqm of site area), houses in more modestly priced areas of Casula, Lurnea, Miller, Sadleir, Ashcroft are frequently marketed as development opportunities. They also often feature a granny flat.

- In most cases where improvements are modern and/or well located in a sought after locality (e.g. Chipping Norton, Moorebank, Green Valley, etc.), price points when viewed on a price per square metre of site area are in excess of $1,500/sqm and in cases exceeding $2,000/sqm.

The analysis of existing-use values ('as is' values) is relevant for understanding the development potential of an area. Existing-use values that exceed the prices paid for development sites suggest a property is not ripe for development, i.e. the existing use represents a higher and better use than a development use. The next section investigates development activity in the respective precincts and surrounds, and prices paid for development sites.

3.3 DEVELOPMENT ACTIVITY

3.3.1 Development Pipeline

There is a notable residential development pipeline in the Liverpool LGA, these projects in various stages of planning or development, with the potential to deliver just over 13,000 dwellings over the next decade. Some are in the initial stages of planning and may not be approved or eventuate into delivered development.

The nature of development activity is distinct across the LGA, with high density development focused in and around the City Centre. This is influenced by planning permissibility, i.e. what the current planning framework permits, but is also influenced by market dynamics.

The nature and quantum of development activity is useful in understanding market preference as well as market capacity, i.e. residential types that have requisite market acceptance and are financially feasible to develop. This section highlights key observations of development projects proposed in each residential area grouping.

Precinct 1 - Casula

There is a notable pipeline of townhouse and attached residential proposed in Casula, totalling just over 400 dwellings. Developers are in the main targeting ageing detached dwellings for consolidation into larger development blocks to progress medium density developments (often 5-15 townhouses per project). A number of apartment developments are currently being progressed, the largest being a 5-storey residential flat building proposed at 30-30 Ironbark Avenue.

Properties in close proximity to Casula Mall are observed to be well kept, of fairly modern construction and consequently of valuable utility. High existing-use values do not bode well for development prospects especially where market capacity to pay for completed product is fragile.

Precinct 2 - Moorebank

A mix of development types are proposed, including lot subdivisions, townhouses/attached dwellings and 4 to 7 storey residential flat buildings. Owing to high-existing use values across much of the suburb, development opportunities are generally restricted to ageing detached houses approaching the end of their economic useful life.

The number of medium and higher-density developments currently being progressed are relatively evenly matched with the number of apartment projects increasing substantially since 2016.

Precinct 3 - Miller

There is a modest level of development activity ongoing in Miller, including high-density apartments (5-6 storeys) and medium-density townhouses. The refurbishment of Miller Central has improved the retail offer as well as the overall amenity of the area.

Precinct 4 - Liverpool (Castlereagh Street)

Development activity is overwhelmingly focused in the City Centre where proposals are characterised by unit developments of varying building heights. There are more than 6,100 dwellings in various stages of the pipeline in the suburb of Liverpool which includes the City Centre.

3.3.2 Development Site Sales

The price paid for a development site can vary substantially depending on whether a site has the benefit of development consent. Sites that are approved for development typically achieve at least 25% more than sites that are appropriately zoned but without development consent. In comparison, sites that require a rezoning achieve even lower prices.

The price paid for a development site is directly related to the development potential of the site, in turn underpinned by permissibility of uses as under the planning framework. For example, all things being equal, a high density residential site will sell for more than a low density residential site.

The following site transactions represent a sample of development sites sold in each of the precincts and surrounds. Strong market conditions were observed over the 2015-2017 period however have moderated over the past 12 months.

Table 3.3: Development Site Sales

Address	Site Area (sqm)	Sale Price (Date)	Analysis		Comments
			$/sqm of site area	$/unit	
Casula					
25 Box Rd Casula	1,291	$1,700,000 (Apr 2018)	$1,300	$243,000	Single storey house acquired for construction of 7x2 storey townhouses.
11-13 Marsh Pde Casula	1,392	$2,100,000 (Aug 2017)	$1,500	$263,000	Two cottages acquired for construction of 8x2 storey townhouses.
15 Casula Rd Casula	1,176	$1,340,000 (June 2017)	$1,150	$223,000	Single storey detached house on large block acquired for construction of 6x2 storey townhouses.
46-48 Fitzpatrick Cr	1,113	$1,405,000 (Aug 2016)	$1,250	$281,000	Two aged, single storey houses acquired for construction of 5x2 storey townhouses.
20 Blackwood Ave	792	$765,000 (Apr 2015)	$968	$153,000	Single house. Since submitted for DA for 5 townhouses (3b).
19-21 Rowe Ave	1,429	$1,430,000 (May 2016)	$1,001	$204,300	Two cottages. No DA, potentially 7 townhouses.
Moorebank					
118 Nuwarra Rd Moorebank	820	$1,030,000 (July 2018)	$1,250	$79,000	Two storey brick house in good condition acquired by local developer-builder for construction of a 4-storey RFB with 13 units.
89 Jack O'Sullivan Rd Moorebank	677	$920,000 (Oct 2017)	$1,350	$307,000	Aged single storey cottage sold for construction of 3x2 storey townhouses.
61-65 Lucas Ave, 36 McKay Ave & 31 Harvey Ave Moorebank	3,656	$5,955,000 (July 2017)	$1,625	$78,500	Five detached houses sold in one-line for construction of a 5-storey RFB comprising 76 apartments.
87-91 Nuwarra Rd Moorebank	2,013	$3,600,000 (July 2017)	$1,775	$86,000	Three detached houses acquired in one-line for construction of a 6-storey RFB comprising 42 apartments.
24-26 Mckay Ave Moorebank	1,387	$2,340,000 (Mar 2017)	$1,700	$90,000	Two detached houses sold for development of a 5-storey RFB comprising 26 units.
28-30 McKay Avenue	1,366	$1,350,000 (Mar 2016)	$988	-	2 properties sold in one-line - older style single level with 3bed 2 bath. Marketed as development opportunity.
Miller (and surrounds)					
6-8 Wanganella St Miller	1,361	$1,820,000 (Oct 2017)	$1,350	$73,000	Two aged, single storey houses acquired for construction of a 5-storey RFB with 25 units.
71-75 Cabramatta Ave Miller	1,728	$2,670,000 (Feb 2017)	$1,550	$68,500	Three houses acquired for an Affordable Housing development with 39 units.
12-22 Willan Dr Cartwright	3,313	$4,825,000 (Sep 2016)	$1,450	$75,500	Six houses acquired for construction of a 3-storey Affordable Housing development with 64 untis.
11-15 Woolnough Pl Cartwright	1,723	$2,250,000 (Feb 2016)	$1,300	$98,000	Three houses acquired for construction of a 5-storey RFB with 23 apartments.

Address	Site Area (sqm)	Sale Price (Date)	Analysis		Comments
			$/sqm of site area	$/unit	
13 Maxwells Ave 4 Devlin St Ashcroft	1,246	$1,210,000 (Jun 2015)	$971	$172,900	2 cottages subsequently submitted for DA for 7 townhouses (2b and 3b).
39 Heckenberg Ave Sadleir	1,777	$1,419,000 (Nov 2014)	$798	$177,375	Vacant block sold with approval for 8 townhouses (2b and 3b).
153 Hoxton Park Rd Cartwright	1,361	$605,000 (Aug 2014)	$444	$33,600	Marketed as potential for additional 3b home and granny flat. Since developed into 5 storey apartments (18 units).
Liverpool City Centre					
41-43 Forbes St Liverpool	1,188	$4,450,000 (June 2018)	$3,750	$101,000	Single storey detached house and adjoining vacant block directly north of Liverpool Hospital sold for construction of a 9-storey mixed use development with 45 units.
311 Hume Hwy Liverpool	4,631	$22,500,000 (Sep 2017)	$4,850	$73,000	DA approved site for construction of a 34-storey mixed used development comprising 307 units and ground floor retail.
387-397 Macquarie St Liverpool	2,931	$13,100,000 (Nov 2016)	$5,475	$81,000	Existing commercial building with DA approval for construction of 24 storey mixed use development comprising 162 units and 6 ground floor tenancies.
1-5 Bathurst St Liverpool	2,744	$9,100,000 (Feb 2016)	$3,300	$94,000	Two double storey, brick 'walk up' freehold unit blocks and a single storey detatched dwelling acquired for development of a nine storey RFB comprising 97 units.
15 Castlereagh St	1,831	$3,900,000 (Sep 2014)	$2,130	$70,900	Approval for 55 units (6 storeys) and 72 basement spaces.
7-9 Castlereagh St 8-12 Copeland St	3,600	$5,300,000 (Jun 2014)	$1,472	$44,167	DA submitted for 120 units (9 storeys) and 140 basement spaces.

A number of observations are drawn from the analysis in Table 3.3.

- **Hierarchy of prices**
  Prices paid for development sites varies according to the likely end sale values of completed product. For example, an apartment site in the Liverpool City Centre expectedly sells for a higher rate per unit/site ($100,000 per townhouse) compared to say Miller ($60,000-$70,000 per unit/site) where the end sale values of completed units will be lower.

- **Strengthening of market**
  Residential development sites have generally increased in value between the 2014-2018 period. For instance, 15 Castlereagh Street sold for $71,000 per unit/site in September 2014 whereas a similar yielding development at 41-43 Forbes Street recently sold for just over $100,000 per unit/site in June 2018.

  The ongoing revitalisation of the City Centre is a major factor behind strengthening market conditions therein. Proposed changes to planning controls to facilitate mixed-use development at greater building heights coupled with major projects such as the expansion of the Liverpool Hospital and new university campuses has resulted in increasing sale prices for both new residential product and development sites.

- **Unit v townhouse development sites**
  On a rate per square metre of site area, with the exception of unit sites in Liverpool and Warwick Farm where demand for higher density product is mature, overall, townhouse and unit sites achieve similar rates on a dollar per square metre.

The analysis of development site sales suggests that townhouse and higher-density unit developments are often similarly attractive to pursue. Prices paid for apartment sites has strengthened considerably over the 2015-2018 period and has thus made townhouse or unit development equally compelling for developers. That said, little unit development is observed to be occurring in key sub-markets away from the City Centre (Liverpool Central, South Liverpool) suggesting a market preference for medium density product in many locations within the LGA, particularly in more suburban locations.

Therefore, even if the planning framework permitted residential units in a multi-storey residential building, given end sale values of residential units and the cost to construct high density buildings in certain locations, there may be little incentive for residential developers to target sites for unit development over medium density product.

It is expected that current market factors may further influence housing supply across the Liverpool LGA and reinforce current market trends. For instance, stricter lending practices for higher-density apartment development may result in developers opting to progress medium-density development across the LGA which is seen as less risky by lenders given their inherently smaller scale (and overall project costs).

3.4 SUMMARY OF FINDINGS

There is relatively strong market demand for residential accommodation across the LGA. Key market considerations for new residential development in each precinct are as follows.

Sales achieved will vary depending on size, position within development, quality of views, quality of finishes and other factors.

- **Existing detached dwellings**
  Purchasers (and renters) have an array of options. Those with larger budgets typically target modern homes in more affluent suburbs like Moorebank and Chipping Norton as well as areas like Edmondson Park and Green Valley.

  Purchasers with tighter budgets typically target suburbs such as Casula and Miller. Many of these suburbs have a higher concentration of social housing units therein, and consequently prices and growth have been somewhat inhibited. Informal discussions with real estate agents suggests new migrants are less sensitive to the presence of a high number of social housing and show less resistance to these locations.

  Notably, in many lower priced suburbs, the value placed on a granny flat (or allotment that is large enough for one) is significant. This is important to the owner occupier market for a number of reasons they are able to accommodate a larger or extended, and intergenerational family. It also represents a potential source of rental income. To the investor, the annual rental yield on this type of dwelling is attractive, as high as 5.5% in some cases.

  As a result of the high and attractive rental returns, many detached dwellings (with granny flats) in the lower priced suburbs are marketed as development opportunities with a holding income. Many an investor are known to have purchased these properties with a view for future development.

- **New medium residential** (townhouses, dual occupancy)
  Townhouses, duplexes and terraces are well sought after in the market, particular by young families and those seeking to enter the property market. Prices achieved for new development will vary by location (and by precinct).

  The likely range of sale prices for new medium density residential is in the order of:

  - Precinct 1 - Casula: townhouses ($650,000) and dual occupancy ($725,000).
  - Precinct 2 - Moorebank: townhouses ($675,000) and residential units ($450,000-$650,000).

- **New units and apartments**
  Market appetite for units and apartments is observed to generally be confined to the Liverpool City Centre and other locations in and around transport nodes and in proximate to retail and other urban support services. In some R4 High Density Residential areas, even though residential units are permitted, there would appear to be a market preference for medium density product. Accordingly, the prices a developer might be able to sell completed residential units for do not justify the higher cost of constructing them.

  Likely average sale prices for units in Precincts 4 (fringe of Liverpool City Centre) are in the order of:

  - 1 bedroom units - $475,000 ($7,900/sqm).
  - 2 bedroom units - $550,000 ($7,600/sqm).
  - 3 bedroom units - $675,000 ($7,100/sqm).

There is limited residential development occurring in Miller or its surrounds. To determine likely sale prices in Miller, anecdotal suggests reducing prices by 10%-12% when compared to Liverpool City Centre. Accordingly, the likely range of sale prices for units in Miller (Precinct 3) is in the order of:

- 1 bedroom units $400,000 ($6,667/sqm).
- 2 bedroom units $500,000 ($6,667/sqm).
- 3 bedroom units $550,000 ($5,789/sqm).

The relative market pricing of houses in Miller arguably sets a ceiling on what the market might be prepared to pay for a unit. This makes it challenging for unit developments to be commercially viable propositions.

Generally 2 bedroom units are the most popular product offering with affordable price points. The addition of the First Home Owners Grant has also made new developments attractive to buyers in Liverpool.

The next chapter considers the feasibility of new development in each precinct, incorporating the above observations.

4. GENERIC FEASIBILITY TESTING

4.1 INTRODUCTION

The capacity of residential zoned land to accommodate new dwellings can be thought of as two-fold: planning capacity and market capacity.

- **Planning capacity** (or theoretical capacity) refers to the physical ability of land to be developed, taking into account permissibility under planning framework, environmental and infrastructure constraints, etc.
- Market capacity refers to issues of commercial viability - whether pricing levels, development costs, etc. make development a commercial proposition, i.e. if development is financially feasible.

In some instances constraints to housing supply could be as a result of market capacity, relating to market and economic factors, in which case those impediments are beyond the control of planning authorities.

This chapter assesses the 'market capacity' of nominated sites to be developed and suggests amendments to the planning framework where appropriate.

The Hypothetical Development or Residual Land Value (RLV) approach has been adopted as the method of assessment, utilising development feasibility software Estate Master. The RLV approach involves assessing the value of the end product of the development, allowing for development costs, and making a further deduction for the profit and risk that a developer would require to take on the project.

The Residual Land Value (RLV) can be defined to be the maximum price a developer would be prepared to pay for a site in exchange for the opportunity to develop the site, whilst achieving target hurdle rates for profit and project return. This approach involves assessing the value of the completed product, making a deduction for development costs and further deduction for profit and risk whilst ensuring the development achieves the target project margin and return.

A key metric for development feasibility is land value, which is a 'residual' after all costs and revenues are taken into account. The figure must be of a sufficient amount to encourage the owner to sell and/or displace the current use. In order for development of the Site to be viable, the Residual Land Value must exceed the 'as is' value of the land, i.e. the value of the land in its existing use including all improvements.

4.2 FACTORS AFFECTING THE FINANCIAL FEASIBILITY OF DEVELOPMENT

There are a considerable number of factors affecting the feasibility of individual sites for redevelopment and rarely is a single factor the only cause of poor development feasibility. It is important to understand that urban land is subject to pressures for redevelopment which directly affect their land values and the feasibility of developing into higher and better uses.

The following are a selection of common factors that affect the feasibility of development, particularly in the key precincts.

Land Value and Site Assembly

In order to economically acquire and develop land, the proposed use must translate into a higher value than the existing use including any improvements on it (or 'As Is' value). Development will only occur if the proposed use is valuable enough to displace existing uses. While existing improvements may be dated and due for replacement, in many instances they may still be providing a good level of functional utility and thereby still be relatively valuable.

As a consequence, the acquisition of land can be a high-risk and high-resource activity for developers, particularly in established urban areas where numerous lots have to be amalgamated prior to development.

Where numerous lots are required to be assembled, the payment of incentives over and above market value is often required to incentivise individual landowners. This analysis assumes a 25% premium incentive is necessary for site assembly.

When sites are upzoned to higher densities landowner expectations often increase in tandem, unrealistic landowner expectations can thwart site assembly efforts.

In the case of the Study Area, analysis of sites sales reveals that even though zoned for high density development, development of medium density product is pursued, or in some cases no new development. This suggests that in some areas, new development is insufficient to displace existing uses - there being little incentive to redevelop.

Effective Demand

Residential markets are diverse. Market acceptance for higher density product is good within most inner suburbs of Sydney, hence end sale prices of the completed product justify the higher cost of construction.

Effective demand, rather than underlying demand, is relevant for development feasibility. The ability of households to pay for housing underpins the type and nature of development the market can respond with.

While market attitudes in the LGA are shifting and smaller residential product is enjoying increasing market acceptance, prices achieved for residential units are nevertheless limited by prices paid for detached dwellings. For example, if a 3 bedroom detached dwelling is available for $750,000-$800,000, it is unlikely a 3 bedroom unit will be able to achieve the same level of pricing.

Construction Costs

The cost of construction can increase substantially as buildings become taller. Service requirements will dictate that more lifts will be required so that vertical transportation times are not compromised. Service shafts and fire escapes are correspondingly wider too.

In deciding the amount of capital to apply to a site, i.e. how intensely the site should be developed, developer capital will be applied to the point where incremental revenue is equal to incremental cost.

Table 4.1 outlines the potential cost and revenue differential as buildings become taller in the Study Area. For comparison purposes, indicative revenue differential observed in Sydney CBD is also provided.

Table 4.1: Indicative Cost v Revenue Comparison

No. of Storeys	Liverpool ($/sqm)		Sydney CBD ($/sqm)	
	Ave. Cost	Ave. Revenue	Ave. Cost	Ave Revenue
<3 storeys	$2,100	$6,000	$2,100	$12,000
4-7 storeys	$2,500	$7,000	$2,500	$15,000
7-20 storeys	$3,000	$8,000	$3,000	$25,000
21-35 storeys	>$3,800	$10,000	>$3,800	$30,000

Source: Rawlinsons (2018), RLB (2018), AEC

Tall buildings will only be developed in locations where developers can expect to offset the increased cost of construction (taller buildings and more basement levels) and risk with higher revenue levels. It is therefore no surprise that residential towers are feasible to develop in limited markets, particularly in the Sydney CBD.

Planning/Development Controls

Planning and development controls have the ability to affect feasibility through changes in land use zoning and densities but also through the costs associated with design requirements and securing planning approvals.

Codes for parking, open space, sustainability, etc. all have the ability to influence the cost of development. As an example of the influence of development controls, an increase in density will increase height and cost of construction but may also impact on code-based requirements such as car parking areas.

The cost of code compliance could have a disproportionate impact on cost, e.g. where additional basement parking is required, and could severely undermine the economics/ feasibility of development.

Summary

In established urban areas in close proximity to transport networks and major centres, site amalgamation and assembly is arguably the largest challenge for development and renewal. In some instances redevelopment into

higher densities is sufficient to displace existing uses and facilitate site assembly for development, however landowner objectives are not always financial in nature and do not always align to enable development.

In areas further away from train stations, effective demand (i.e. what the market is prepared to pay for a type of product) will dictate what is financially feasible to develop. In many locations in Western Sydney, the market for higher density product is much less established than inner city locations, in large part due to the capacity of households to pay for the higher cost associated with tall building construction. Townhouses and villas are a cost effective typology to deliver, offering more living space than a unit and more economical to construct (i.e. without the need for basement carparking and building code requirements that are associated with multi-storey buildings).

There is considerable residential development ongoing in Liverpool, however it is commonly observed in areas where existing buildings are nearing the end of their economic useful lives or where vacant blocks of land are available. Existing-use values, small lot patterns and ownership fragmentation issues (supply side issues) and modest end sale values and market attitudes (demand side issues) are all significant challenges for new development to overcome.

4.3 KEY PRECINCTS TESTED

This section provides an overview of feasibility testing carried out on four sites nominated by Council. Notional developments schemes premised on specific densities and land use types are tested for development feasibility. These planning controls do not necessarily correspond to existing controls. The requirements of the Apartment Design Guide (ADG) are incorporated where appropriate.

As outlined in section 3.2.3, prevailing property values (‘as is’ values) are a key factor to development feasibility. Sites with significant and valuable buildings will expectedly have higher property values and therefore cost more to amalgamate into a development block. In some instances the redevelopment of these (more valuable) sites can be incentivised with higher densities. A desktop review of existing uses and buildings was undertaken, estimates of ‘as is’ values made from observations in ongoing market activity.

The key sites tested are subject to varying degrees of density and height controls.

4.3.1 Precinct 1 (Casula)

The precinct is located just south of Casula Mall and is conveniently accessible from the Hume Highway. Currently zoned R3 and designed with an FSR of 0.5:1, the Precinct is comprised of detached dwellings arranged over 1 and 2 storeys. Overall the precinct is comprised of modern brick homes, some provided with in-ground pool and generous entertainment areas.

Figure 4.1: Precinct 1 Aerial Image

Source: Nearmap

The following notional development yields are subject to feasibility testing to ascertain if the existing density of FSR 0.5:1 supports feasible redevelopment in the precinct.

For the purposes of generic feasibility testing the following assumptions are made:

- Development site comprised of 2 allotments (average of 700sqm each) to total 1,400sqm.
- Under the R3 zone and at FSR 0.5:1, two notional development options are investigated - 6 townhouses and 4 attached dwellings (dual occupancy).
- Analysis of existing-use values in Table 3.2 suggests a developer will have to pay a price $1,200/sqm-$1,400/sqm of site area to acquire the sites. A 25% incentive is included in addition, required to entice landowners to sell their land. A total of $1,600/sqm of site area is therefore adopted (to total $2.24m), intended to reflect the likely cost required to consolidate a development site in the Precinct.
- Townhouses are observed to be sought after in Casula, various accommodation sizes and price points suiting different segments of the market. Duplexes are also sought after, these are however subject to a higher price point.

Table 4.2: Precinct 1 Notional Development Options

	Notional Option 1	Notional Option 2
Site Area	1,400sqm	1,400sqm
Gross Floor Area (FSR 0.5:1) Development Yield	700sqm 7 townhouses	700sqm 5 attached dwellings
Feasibility	No	No
Assumed Cost of Land ($2.24m)	$320,000 per unit/site	$448,000 per unit/site
	$1,600/sqm of site area	

Source: AEC

The likely cost to assemble a development site in the Precinct is cost-prohibitive for new development. After incorporating a 25% incentive premium to entice landowners to part with their property, the cost of land of $2.24m indicates that sites within the Precinct are currently in their highest and best use, i.e. as good quality and well presented detached dwellings. The proximity of the Precinct to Casula Mall conceivably influences the valuable nature of these assets.

By comparison, properties to the northeast of the Precinct (in and around De Meyrick Avenue) are older and generally of lower value. This has enabled developers to consolidate sites for townhouse developments. An example is a sale of 6-8 De Meyrick Avenue (1,404sqm) which consolidated two adjacent detached houses. 6 De Meyrick Avenue was acquired in November 2016 for $850,000 while 8 Meyrick Avenue was purchased 12 months later for $930,000, equating to a total purchase price of $1.78m. The sale price analyses to a rate of $1,268/sqm of site area or $222,000 per proposed townhouse/site. The price paid for the development site at 6-8 De Meyrick Avenue is just over 25% less than which might be required to paid to assemble a development site in the Precinct.

Notwithstanding the negative feasibility results, townhouses exhibit strong market demand in Casula and are clearly a dwelling type that was wide market acceptance. The results do not suggest that medium density product (at FSR of 0.5:1) is not feasible in Casula. The numerous ongoing projects affirm their popularity in the market and willingness of the development industry to deliver them. The constraining element to this is the valuable pocket of residential dwellings located in Precinct 1.

4.3.2 Precinct 2 (Moorebank)

The precinct is located just northeast of Moorebank Shopping Centre and is conveniently accessible from Newbridge Road to the north. Currently zoned R4 and designed with an FSR of 1.2:1, the Precinct is comprised of detached dwellings arranged over 1 and 2 storeys. Much of the precinct has been acquired by developers over the past 24-36 months with multiple lots consolidated into larger development blocks.

Some of the houses in the Precinct are generously proportioned, some featuring in-ground pool and generous entertainment areas.

Figure 4.2: Precinct 2 Aerial Image

Source: Nearmap

The following notional development yields are subject to feasibility testing to ascertain if the existing density of FSR 1.2:1 supports feasible redevelopment in the precinct.

For the purposes of generic feasibility testing the following assumptions are made:

- Development site comprised of 2 allotments (average of 700sqm each) to total 1,400sqm.
- Under the R4 zone and at FSR 1.2:1, two notional development options are investigated - 8 townhouses and 22 residential units in an apartment building. Under the townhouse scenario, the FSR capacity would not entirely be utilised.

- Analysis of existing-use values in Table 3.2 suggests a developer will have to pay a price $1,200/sqm-$1,600/sqm of site area. A 25% incentive is included in addition, required to entice landowners to sell their land. A total of $1,750/sqm of site area is therefore adopted (to total $2.45m), intended to reflect the likely cost required to consolidate a development site in the Precinct.
- Townhouses and units are observed to be progressed in Moorebank, various accommodation sizes and price points suiting different segments of the market. Duplexes are also sought after, these are however subject to a higher price point.

Table 4.3: Precinct 2 Notional Development Options

	Notional Option 1	Notional Option 2
Site Area	1,400sqm	1,400sqm
Gross Floor Area (FSR 1.2:1) Development Yield	1,680sqm 8 townhouses	1,680sqm 22 residential units
Feasibility	No	No
Assumed Cost of Land ($2.45m)	$306,250 per unit/site	$111,400 per unit/site
	$1,750/sqm of site area	

Source: AEC

At present controls, development is not feasible to undertake unless a site can be assembled at $1,000/sqm to $1,300/sqm of site area. This can be also observed from recent sales evidence and development applications; recent site sales in the precinct are generally in excess of $1,600/sqm of site area with developers subsequently submitting development proposals in excess of FSR 1.5:1.

Similar to Precinct 1, the results do not suggest that medium density product (at FSR of 0.5:1) is not feasible in Moorebank. The numerous ongoing projects affirm their popularity in the market and willingness of the development industry to deliver them. The constraining element to this is the valuable pocket of residential dwellings located in Precinct 2.

Alternate testing at an FSR of 1.5:1 suggests that development feasibility is marginal. Subject to efficient design and site optimisation, development yield could be optimised and thereby making it feasible for properties to be redeveloped.

4.3.3 Precinct 3 (Miller)

The precinct is located just southwest of Miller Central shopping centre and is conveniently accessible from Cartwright Avenue. Currently zoned R4 and designed with an FSR of 1.1:1 to 1.5:1, the Precinct is comprised of older style detached dwellings, many of weatherboard and fibro construction.

Figure 4.3: Precinct 3 Aerial Image

Source: Neamap

The following notional development yields are subject to feasibility testing to ascertain if the existing density of FSR 1.1:1 to 1.5:1 supports feasible redevelopment in the precinct.

For the purposes of generic feasibility testing the following assumptions are made:

- Development site comprised of 3 allotments (average of 500sqm each) to total 1,500sqm.
- Under the R4 zone, two density scenarios are investigated - 22 residential units (FSR 1.1:1) and 30 residential units (FSR 1.5:1) in an apartment building. Accordingly, two notional development options are examined, Option 1 at FSR 1.1:1 (22 residential units) and Option 2 at FSR 1.5:1 (30 residential units).
- Analysis of existing-use values in Table 3.2 suggests current values of houses in the Precinct are at $1,000/sqm-$1,300/sqm of site area. A 25% incentive is included in addition, required to entice landowners to sell their land. A total of $1,250/sqm of site area is therefore adopted (to total $1.875m), intended to reflect the likely cost required to consolidate a development site in the Precinct.
- There is a modest level of development activity ongoing in Miller, including high-density apartments (5-6 storeys) and medium-density townhouses.

Table 4.4: Precinct 3 Notional Development Options

	Notional Option 1	Notional Option 2
Site Area	1,500sqm	1,500sqm
Gross Floor Area (FSR 1.1:1 to 1.5:1) Development Yield	1,650sqm (FSR 1.1:1) 22 residential units	2,250sqm (FSR 1.5:1) 30 residential units
Feasibility	No	Marginal
Assumed Cost of Land ($1.875m)	$82,200 per unit/site	$62,500 per unit/site
	$1,250/sqm of site area	

Source: AEC

Development is observed to be marginal in Precinct 3; development at a density of FSR 1:1 is not viable however development at FSR 1.5:1 is marginally feasible.

An example of a site that is financially feasible to develop is 6-8 Wanganella Street, Miller which was acquired for a collective price of $1,820,000 ($1,337/sqm of site area) in October 2017. A development application to progress a 5-storey residential flat building comprising 25 apartments is currently being assessed by Liverpool City Council. The sale analyses to $72,800 per unit/site and just under $950/sqm of gross floor area.

Miller Central has undergone a recent refurbishment and accommodates a strong mix of national tenants which served to reposition profile and raise its market profile. A development application has been submitted for additional retail uses and shop top housing which could further assist in repositioning Miller as a more desirable residential market.

Council has also undertaken a masterplanning exercise for the Miller Central and surrounding area, identifying ways in which the overall amenity, security and utility of the area may be improved. A lift to the profile of the locality will in turn result in an increase in the area's desirability which will in turn underpin higher end sale values for medium density product over the longer term.

Market conditions in Miller are a good illustration of the shifting sentiment towards higher-density development in the outer suburbs of the Liverpool LGA as developers target areas where sites can be economically acquired and consolidated. That said, medium-density development remains the most common form of development in these areas and experiences stronger market acceptance than unit product.

4.3.4 Precinct 4 (Castlereagh Street, Liverpool)

The precinct is located on the western fringe of the Liverpool city centre. It is bound by Copeland Street in the west which affords access to the Hume Highway. Currently zoned R4 and designed with an FSR of 2:1, the Precinct is already undergoing renewal with the completion and construction of several high-rise apartment developments. Since 2013-2014, all detached houses in the precinct have been acquired by developers and/or investors with the intention of redevelopment. Two privately-owned strata titled duplexes remain in the southern end of the precinct (four duplexes in total) which have not been acquired to date

Figure 4.4: Precinct 4 Aerial Image

Source: Nearmap

The following notional development yields are subject to feasibility testing to ascertain if the existing density of FSR 2:1 supports feasible redevelopment in the precinct.

For the purposes of generic feasibility testing the following assumptions are made:

- Development site comprised of 3 allotments (average of 400sqm each) to total 1,200sqm.
- Under the R4 zone and at FSR 2:1, 32 residential units can theoretically be achieved per the GFA permitted.

- Depending on when sites were negotiated, analysis of existing-use values in Table 3.2 suggests prices paid ranged from $1,200/sqm to $1,500/sqm of site area in 2013 and increasing to in excess of $2,000/sqm of site area in 2014.
- A land cost of $2,200/sqm of site area is adopted (to total $2.64m), intended to reflect the likely cost required to acquire and consolidate a development site in the Precinct.

Table 4.5: Precinct 4 Notional Development Options

	Notional Option
Site Area	1,200sqm
Gross Floor Area (FSR 2:1) Development Yield	2,400sqm 32 residential units
Feasibility	Yes
Assumed Cost of Land ($2.64m)	$82,500 per unit/site
	$2,200/sqm of site area

Source: AEC

From the range of prices paid for development sites over the last three years, landowner expectations are observed to be increasing. At an assumed land cost of $2,200/sqm of site area, development to an FSR of 2:1 is feasible. Should however landowner expectations exceed $2,200/sqm a higher FSR threshold could conceivably be needed for feasible redevelopment.

4.4 SUMMARY OF FINDINGS

The section summarises and discusses the results of the feasibility testing, identifying areas for consideration and where Council could consider amendments to planning controls.

Table 4.6: Summary of Generic Feasibility Testing Outcomes

Precinct	Locality	Density Tested	Development Type	Feasible?	Comments/Issues
1	Casula	0.5:1	Townhouses, duplexes	No	The precinct contains many well-presented, modern and valuable properties, therefore making it expensive to amalgamate a site.
2	Moorebank	1.2:1	Townhouses, units	Marginal	Relative high cost to assemble a development site. Testing of an alternate scenario at FSR 1.5:1 shows feasibility is marginal.
3	Miller	1.1:1, 1.5:1	Units	Marginal	While the a market preference for medium-density product in Miller persists, higher-density unit development is a marginal proposition.
4	Liverpool (Castlereagh St)	2.0:1	Units	Yes	Landowner expectations have increased over last 3 years. At an assumed land cost of $2,200/sqm of site area development is feasible.

Source: AEC

A number of observations emerge from the feasibility analysis.

- **Existing 'as is' uses**

  Where sites in their existing use are still performing well and offering good functional utility, property values are typically more reflective of existing, 'as is' uses. In Precinct 1 for example, the pocket of land under investigation is well presented and relatively valued by the market, as evident from prices paid for existing residences.

  While townhouses are sought after and feasible to construct in areas of Casula, Precinct 1 in particular does not present a viable development proposition owing to the relatively valuable nature of existing buildings.

  Observations across Liverpool indicate sites are successfully acquired and consolidated as development sites where they are either vacant or the buildings are nearing the end of their economic useful life. Where the buildings are yielding an attractive rental return and/or provide a good level of functional utility, those sites are expensive to acquire for site amalgamation.

- **Lower end sale values**

  In areas like Busby, Cartwright and Lurnea where end sale values are relatively low, feasibility may not necessarily respond to density as well as other areas like Liverpool (suburb) and Warwick Farm might. In order for more dense development to be feasible, the incremental cost of buildings needs to be sufficiently offset by incremental revenue of higher density units. As a consequence, the designation of higher densities does not always result in more feasible development.

  In suburbs where socio-demographic characteristics are commensurate with lower house prices, the capacity for the market to pay an economic price for a townhouse is not present. If a detached home can be purchased at $600,000 there is little incentive to pay $600,000 for a townhouse.

- **Ownership fragmentation**

  The number of sites required to assemble a development block affects the cost of site acquisition. Fragmented ownership patterns generally result in the payment of a premium over and above market value to a number of landowners to incentivise them to sell.

- **Townhouse developments**

  Supply of new townhouse product across the Liverpool LGA remains significant. These developments are typically confined to sites that cost no more than $1,000/sqm-$1,400/sqm of site area to assemble, in some cases old and dilapidated cottages have been acquired at prices as low as $800/sqm of site area.

  Townhouse developments are generally observed to be progressed on two residential lots, with a single lot development site and a four-lot development site also observed to be progressed. They are a common form of infill development and typically occur where there are only opportunities to amalgamate only a small number of lots. This could be due to the presence of apartment blocks on either side or where existing land uses are too valuable for redevelopment.

- **Amenity requirement for marketability of units**

  Market attitudes in Liverpool favour residential units where they are located within or in close proximity to a major centre where retail and transport facilities are present. In suburban locations, owing to the demographic composition of the resident population, residential units can struggle for market acceptance where larger formats of housing are available at prices not too much more expensive. That said, a number of new apartment developments have begun to emerge across suburban locations in the Liverpool with market attitudes beginning to shift towards higher-density living.

5. CONCLUSION AND RECOMMENDATIONS

Recognising that the feasibility of development is complex and influenced by a myriad factors, the following observations from the market and feasibility analysis are instructive to formulating some broad and high level recommendations.

5.1 OBSERVATIONS AND INFLUENCING FACTORS

Development and Market Activity

Residential development is observed to be responding to market need as the population grows. Residential flat buildings and mixed use residential buildings are the most dominant development type in Liverpool City Centre. This is not surprising as the City Centre generally has the most market acceptance for high density product, consistent with the requirement for resident amenity. This results in stronger end sale values, contributing to better feasibility outcomes.

Suburbs like Casula, Lurnea, Cartwright, Miller etc. accommodate a lower socio-economic profile and residential product is accordingly priced. Notwithstanding, Miller's profile is understood to have lifted in recent years following the expansion of retail offer in the centre. Whilst yet to be witnessed, development in the centre and progress of Council's masterplan for Miller will help improve the overall amenity and desirability of the area.

Development and market activity can be observed to be reflective of these market dynamics.

- Development to higher intensity in Liverpool City Centre and Warwick Farm where the market and end sale values respond to higher densities and greater heights. Higher-density development is beginning to be observed in some suburban markets (Moorebank, Miller) as market sentiment shifts towards higher density living.
- The principle of substitution can be observed to be working in a number of sub-markets. The price of existing detached houses generally forms a ceiling for prices able to be achieved by higher density product. For example, if a 4bed detached house is available in Busby for $550,000, there is low prospect of a townhouse selling for a price in the same order of magnitude. For this reason, the price threshold of new product in some scenarios is below the economic price that is required for feasible development.
- Due to the lower intensity of development on a site, development sites proposing townhouses can afford to pay less for site assembly if compared to a site that proposes a 9-storey apartment building. As a consequence, townhouses will only be developed where a site can be assembled for no more than $1,000-$1,400/sqm of site area. This would imply that in order to assemble a 1,000sqm site, an acquisition price of no more than $1.4m (or $700,000 for 2 lots of 500sqm each) can afford to be paid.

Fragmentation of Lots and Ownership

Some sites are feasible to redevelop at the designated densities only if they are in single ownership, i.e. no premium payment is necessary to incentivise numerous landowners to sell. The reality of brownfield or infill development though, is that sites are typically small in size and owned by a number of parties, necessitating payment over and above market value.

Landowner expectations generally shift with planning controls, i.e. higher expectations accompany higher permissible densities and higher order uses. As a result, areas that retain a low density zoning that permit townhouse/villa developments will over time, be redeveloped with this form of infill development as existing dwellings reach the end of their economic useful life. This form of development activity is already occurring in pockets of Liverpool where sites can be procured at relatively cheap cost.

Density Thresholds for Feasible Development

Generic feasibility testing undertaken in this study finds that minimum density thresholds for feasibility varies and depends on a number of factors:

- **Valuable existing 'as is' land uses**
  Existing improvements that are substantial and offer a good level of functional utility are generally accompanied by high property values. The value associated with the redevelopment of a site into an alternate use is required to be greater that the value associated with the existing use in order to displace that existing use.

  'As is' land values underpin the cost of site assembly of a development block, directly impacting the feasibility of development. As a result, higher densities are required in centres where existing improvements accommodate retail/commercial uses. The issue of ownership fragmentation and expectations further compounds the challenges of development. Results of generic feasibility testing in Precinct 4 suggests that existing FSRs are feasible.

  Where existing improvements are cottages, development feasibility is fragile particularly where existing-use values are in excess of the $1,400/sqm site area threshold. While there may be market desire for townhouse and medium density product, the market's capacity to pay is nevertheless constrained by the price to acquire a substitute, larger property.

  The amenity offered by proximity to retail centres can sometimes be a double edged sword. Existing dwellings will be valuable on account of their proximity to a local centre, yet at the same time preclude feasible renewal and redevelopment owing to high 'as is' values.

- **Existing planning controls** (zoning and FSR)
  Discussed in the paragraph above, one of the drivers of the value of property is the level of functional utility offered by the asset. For example, if the property accommodates a newly constructed modern detached home, its value would be underpinned by its utility as a detached dwelling, i.e. potential purchasers would conceivably pay a price reflective of its existing use, having less regard to its development potential under relevant planning controls.

  If however, the same lot accommodated a dilapidated cottage in need of significant repairs to render it habitable, its value would be underpinned by its ability to be redeveloped. Its development potential would be dependent on the prevailing planning controls, potential purchasers would pay a price reflective of the capacity of the site to accommodate new dwellings.

  In many instances the value of property will be reflective of prevailing planning controls, consequently influencing landowner expectations. Market perception of value is predominantly influenced by zone and FSR controls. In some instances, particularly if the height and FSR controls do not align (e.g. maximum height control insufficient to accommodate the permitted floorspace), market expectations could exceed actual site value based on permitted site capacity. These situations can present difficulties for site assembly and feasible development.

- **Overall desirability of the location**
  Market acceptance (or lack of) of an area influences how much the market will pay for newly developed residential product. Outside the city centre, our enquiries suggest that areas like Chipping Norton and Moorebank generally enjoy the most market acceptance, followed by Casula, Lurnea, Cartwright, Miller, etc. The cost of construction in all of these locations is broadly similar, the feasibility of development first and foremost underpinned by the end sale values of completed product and secondly by the cost of site assembly.

  Overall market acceptance is conceivably the main reason for lower levels of development activity in Miller and Ashcroft. Concerns about amenity and security issues also impede the price the market is willing to pay for new dwellings.

- **Lot and ownership patterns**
  When lot patterns are of a fine grain and in multiple ownership, site assembly can be challenging. It is for this reason that the redevelopment of strata complexes are a rarity. The activity of site acquisition is often one of high risk and high resource for developers seeking to assemble a development block.

5.2 DEVELOPMENT ACTIVITY AND TAKE-UP

Development activity in Liverpool is generally characterised by small and medium size developments (<100 units). This reflects the developer profile that is active in Liverpool - smaller builder/developers who are based locally.

Larger developments require significant debt funding, pre-sales, increased equity and higher developer margins to reflect the higher risks in the construction and sales process. Higher density developments also require larger/amalgamated sites due to setbacks and carparking requirements, etc.

Demand-led v Supply-led Development

Development take-up is subject to demand-side and supply-side factors. The direct relationship between population growth and housing need requires no explanation. In deciding where and what they will be accommodated in, households will have regard to factors including cost, location and convenience to their place of work by selecting accommodation of the type and quality within their financial capability.

It is effective demand that underpins development activity, developers responding to the willingness and ability of households to pay for new accommodation. Given the comparatively lower income profile of households in the Liverpool LGA, the financial capability of households to pay for housing is fragile.

In some instances, demand for housing can be supply-led, particularly where there is insufficient choice being offered and/or the housing product is unaffordable. Supply-led development will only occur when it is feasible.

The feasibility of development in Liverpool City Centre is generally positive in the fringe of the centre where existing uses are cheaper to assemble. Many retail/commercial properties that are well positioned in the core of a centre are at present too valuable to be redeveloped. Development activity in the fringe of centres is expected to endure as developers assemble cottage sites.

While development activity is largely focused in and around centres (Liverpool city centre, Warwick Farm), development is also being progressed in residential zones (R3, and R4). Generic feasibility testing demonstrates that in many suburban locations medium density residential is more attractive to develop than high density residential, the modest pricing of apartments insufficient to justify the increased cost to construct apartment buildings.

Townhouse developments do not respond to density and height, consequently are able to occur as infill development where a smaller number of sites are available. This type of development activity is ongoing across the Liverpool LGA, typically confined to areas where old and dilapidated cottages can be assembled cheaply. This type of development will continue to occur incrementally.

The number of higher-density apartment developments in suburban locations (Moorebank, Miller, etc.) across the Liverpool LGA has increased over the past 24 months. This is a result of both shifting market attitudes towards higher-density living and growing affordability issues for residents who have been priced out of the house and townhouse market who are willing to compromise for a smaller housing format.

5.3 RECOMMENDATIONS

Market research and feasibility modelling suggests that high density controls do not necessarily incentivise change on all sites. Vacant sites and sites with minimal improvements present the most immediate opportunities for redevelopment.

While planning and development controls are intended at stimulating redevelopment and renewal in Liverpool, large scale development is difficult and challenged for a number of reasons.

Numerous small and medium size developments are being progressed in the LGA, developers typically assembling sites for under 100 residential units. The availability of suitable sites is a major impediment to development in any established urban area. In some instances market cycles and factors (e.g. valuable existing uses, poor effective demand) are the reason for the lack of development activity, this beyond the control of the planning authorities.

Not all development will be feasible in Liverpool (particularly where existing uses are valuable or sites are fragmented in ownership). These are market issues, beyond the control of planning authorities.

We recommend Council consider the following:

- Retain medium density residential zonings accepting that infill townhouse developments will occur incrementally over time as existing buildings deteriorate. While density bonuses are available to encourage site amalgamations for multi-dwelling housing by virtue of Clause 4.4 (2A) of the LEP, it is conceivable that

this incentive is not receiving widespread take-up. Attached and detached dwellings including townhouses do not necessarily respond to density, i.e. unlike in the case of residential flat buildings the provision of additional floorspace in townhouses does not necessarily translate into positive net incremental revenue. More critical to the feasibility of multi-dwelling housing is the cost of site acquisition.

- Consider increasing the FSR in Precinct 2 to encourage development just northeast of the Moorebank Shopping Centre which is at present a marginal proposition. An urban design study would uncover the capacity of the precinct to accommodate more density and floorspace.
- A site minimum of 1,000sqm for residential flat buildings may be fine from an ease of site assembly perspective, it is questionable if it would be sufficiently large for a higher density development where basement parking is to be provided. Nevertheless, development design and configuration would be subject to design guidelines which would accordingly impact on the capacity of smaller sites to accommodate higher density development.
- Review minimum frontage requirements as these can hamper the assembly of sites for medium density development. Sites that do not have the frontages currently stipulated, if they are large enough are still capable of development albeit with an access handle incorporated into site design.
- Consider if parking ratios can be revised, particularly where 2 spaces are required for each 3 bedroom unit. A reduced requirement even to 1.5 spaces will help reduce the overall cost to develop.

There are many elements of the development process in which costs are fixed. The cost to develop a 6 storey apartment building is broadly the same in Liverpool as it is in Chatswood. These fixed cost elements do not vary much between geographical locations. In regions such as Liverpool where the capacity to pay is limited, a focus on housing formats that are cheaper to develop is a logical approach.

The market has demonstrated its capacity and willingness to pay for high density product in the City Centre. This is in line with an apparent awakening to the benefits of city living.

Aside from a select number of centres where high density living is demonstrated to have market acceptance, it would be preferable for Council to work to encourage continued infill development across the LGA. Incremental infill development will in time bring about a renewal of suburbs, thereby generating a lift to profile and thereby to property prices. Eventually the prices of medium and higher density product will then be able to justify and sustain their development.

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APPENDIX A: GENERIC FEASIBILITY TESTING ASSUMPTIONS

Generic feasibility testing in the Feasibility Analysis adopts the Residual Land Value approach. This involves assessing the value of the end product of a hypothetical development, then deducting all of the development costs (including site acquisition costs, site demolition and/or clearance, construction costs, consultant fees for design and project management, statutory fees) and making a further deduction for the profit and risk that a developer would require to take on the project.

The land value is the 'residual' that remains, i.e. the amount a developer could afford to pay in exchange for the opportunity to develop the site.

Project Timing

Development application is assumed to be progressed immediately upon settlement with pre-sales occurring shortly thereafter. Construction is assumed to begin in Month 12 and span for 12-18 months depending on the scale of the development. For the development of the townhouses in Precincts 1 and 2, construction timeframe is assumed to be 6 months.

Development Yield

Development yield assumed at unit mix of: 1 bedroom: 2 bedroom: 3 bedroom (25%: 70%: 5%) and at internal unit sizes of 60sqm, 75sqm and 95sqm respectively.

Revenue Assumptions

- Casula (Precinct 1):
  - Average townhouses at $650,000.
  - Average dual occupancy at $725,000.
- Moorebank (Precinct 2):
  - Average townhouses at $675,000.
  - Average residential units ($450,000 to $650,000).
- Miller (Precinct 3):
  - Average 1 bedroom units at 400,000.
  - Average 2 bedroom units at $500,000.
  - Average 3 bedroom units at $550,000.
- Liverpool (Precincts 4 and 5):
  - Average 1 bedroom units at $475,000.
  - Average 2 bedroom units at $550,000.
  - Average 3 bedroom units at $675,000.
- Revenue was assumed to escalate at 3.0% per annum.
- It was assumed that 100% of apartments would be pre-sold prior to construction and the balance would be settled after construction at the rate of 5-7 units per month.
- Other revenue assumptions
  - GST is included on the residential sales.
  - Sales commission and legal costs on sales was included at 3% of gross residential sales.

- Legal cost on sales was included at 0.3% of gross sales.

Cost Assumptions

- Land purchase cost based on a desktop analysis of 'as is' values within the area.
- Legal costs, valuation and due diligence was assumed at 0.5% of land price and stamp duty was included. These costs to be paid at settlement assumed in Month 3.
- Cost escalation of 3% per annum was assumed to commencement of construction.
- Construction of residential units was assumed at $2,600/sqm of building area with balconies assumed at $800/sqm. The construction cost for townhouses is assumed to be $1,800/sqm.
- Basement car parking was included at $40,000 per space.
- Demolition and clearing costs were costed at $100 per square metre of site area.
- Landscaping allowed at $200/sqm of site area.
- A further 5% construction contingency allowance was included.
- Professional fees at 9% of construction costs.
- Development management fee at 1% of project cost (excluding land and finance).
- Section 94A charges as per the Development Contributions Plan.
- Advertising and marketing costs were included at 1.5% of gross sales.
- Land holding costs including land tax, Council and water rates based on assumed unimproved land values.
- Project contingency of 5.0% (of total project costs net of land and finance).
- Other cost assumptions include:
  - Developers equity is assumed at 25% of land acquisition cost. Equity is progressively injected when required.
  - The balance of project cost is assumed to be debt funded with interest capitalised monthly (nominal 7.0% per annum).
  - Finance establishment costs at 0.35% of project debt.

Hurdle Rates and Performance Indicators

Target hurdle rates are dependent on the perceived risk associated with a project (planning, market, financial and construction risk). The more risk associated with a project, the higher the hurdle rate. A number of performance indicators are relied upon when ascertaining the feasibility or otherwise of a development.

- Development margin is the profit divided by total development costs (including selling costs). A target hurdle rate is assumed at 18%.
- Discount Rate - this refers to the project internal rate of return (IRR) at which the net present values of an investment becomes zero.
- Residual Land Value - this has been determined by establishing the maximum land value a developer is willing to pay based on a 18% internal rate of return (IRR) taking into account all other costs and project revenue.
- Development Profit – this represents the total revenue less total cost including interest paid and received.

If the resulting profit from this feasibility analysis is large enough to meet the target hurdles (in this case the discount rate and development margin), the project is considered financially viable for redevelopment.

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