



LIVERPOOL HOUSING STUDY – MOOREBANK REZONING ADVICE



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1. INTRODUCTION

SGS Economics and Planning has been commissioned by Liverpool Council to prepare a study into local housing in the Liverpool LGA to inform the preparation of Liverpool's local strategic planning statement and an update of the Liverpool Local Environmental Plan 2008. This document forms a small component of the overall study and provides detailed advice on proposed changes to the land zoning for some properties in Moorebank.

The larger part of the housing study (referred to henceforth as the LHS) discusses local housing supply, needs and demand and the characteristics of the local housing market in more length. In the LHS, SGS found that there is a demand for medium density dwellings in the Liverpool LGA, that an R3 zone may be more appropriate in parts of Moorebank and elsewhere than the current R4 zoning. An R3 zone would be likely to increase development feasibility, be more appropriate given the lack of accessibility to mass transit and be more compatible with existing and desired future local character. This study provides more analysis of the development feasibility and impact on housing capacity of a specific proposed rezoning from R4 to R3.

This document contains the following sections:

- Section 2: Feasibility Testing – This section outlines SGS's development feasibility method and the results of feasibility testing for the proposed rezoning.
- Section 3 – Capacity and realisation analysis – This section contains analysis of the impact of the proposed changes on overall dwellings capacity in the Liverpool LGA and on the likely future realisation of dwellings.

In this document, the following kinds of housing are discussed:

- **Attached dwellings** are attached on one or more walls, including semi-detached, terraced and villa-style housing. In planning instruments these are called dual occupancies, semi-detached dwellings, attached dwellings and multi-dwelling housing.
- **Flats or apartments** can be two or more storeys, with dwellings sharing vertical as well as horizontal walls. In planning instruments these are called shop-top housing and residential flat buildings.

These terms will be used in place of planning instrument definitions, except where discussion focuses on specific development types as described by planning instruments.

Planning controls

Moorebank is east of the Liverpool City Centre and south of Newbridge Road, (refer to Figure 1). The investigation area surrounds the Moorebank Town Centre and covers the R4 High Density Residential Zone.

Part of the R4 zone have been zoned for high density residential development for several years but have not attracted development in the form of residential flat buildings (RFBs). Parts of this zone are proposed to be rezoned to R3 Medium Density Residential, which is the land zone that covers the surrounding housing.

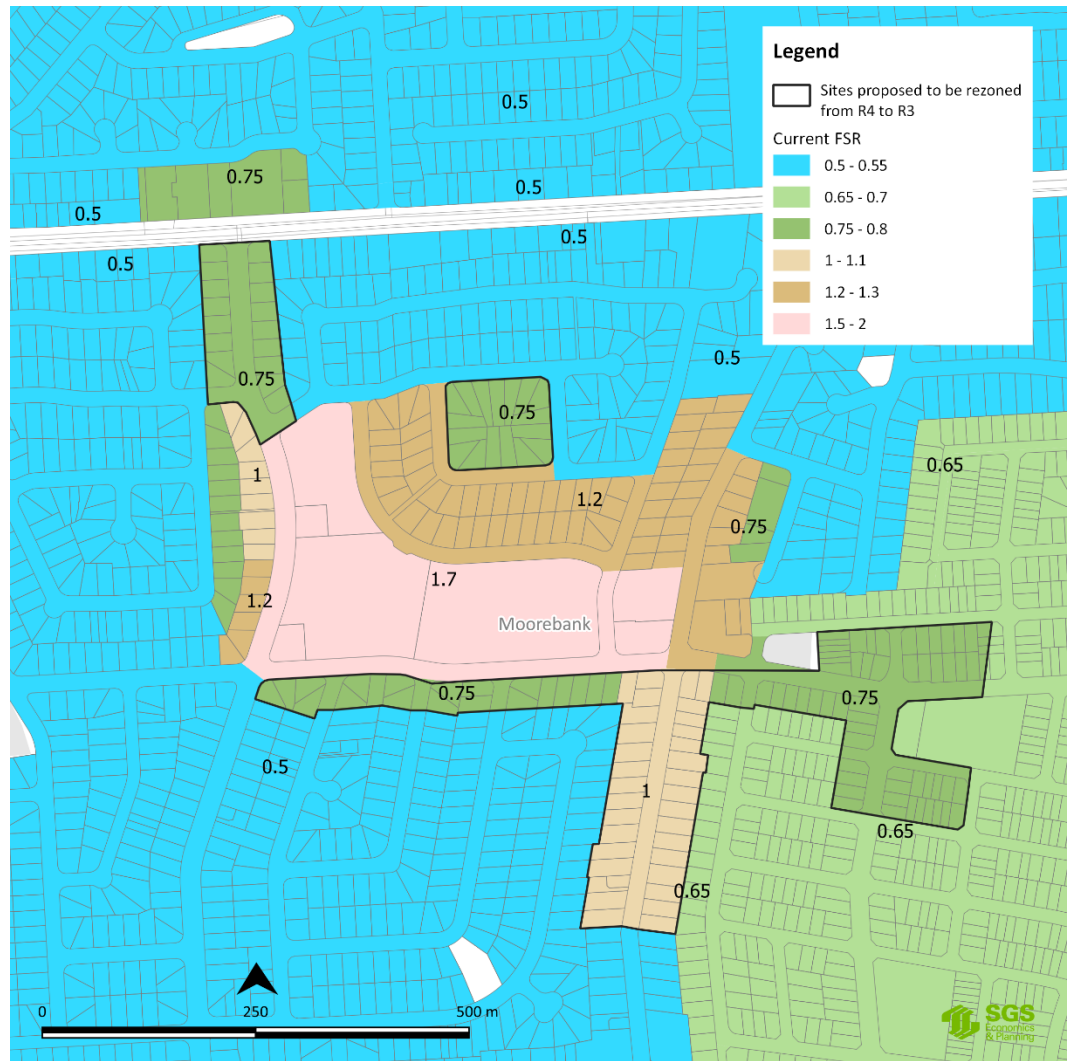
FIGURE 1: LAND ZONES IN THE MOOREBANK FEASIBILITY INVESTIGATION AREA



Current floor space ratio (FSR) controls applying to the investigation area are shown in Figure 2. The portion of the R4 zone closest to the Town Centre on the northern side of the Centre has a FSR control of 1.2:1, while the areas which are proposed to be rezoned have FSR controls of 0.75:1 and 1:1. If the FSR of these areas was to match current FSRs in the surrounding area, it would need to be reduced to 0.5:1. This is proposed to occur.

The R3 zone in Moorebank is subject to a small FSR bonus under Clause 4.4 (2A) of the Liverpool LEP 2008. Under this clause development of attached dwellings, multi-dwelling housing, semi-detached dwellings and secondary dwellings may have a maximum floor space ratio of 0.05:1 higher than the base FSR control.

FIGURE 2: FLOOR SPACE RATIO (FSR) CONTROLS IN THE MOOREBANK FEASIBILITY INVESTIGATION AREA



2. FEASIBILITY TESTING

This section provides a detailed overview of feasibility modelling for housing on selected sites in Moorebank LGA including method, scenarios, assumptions and results.

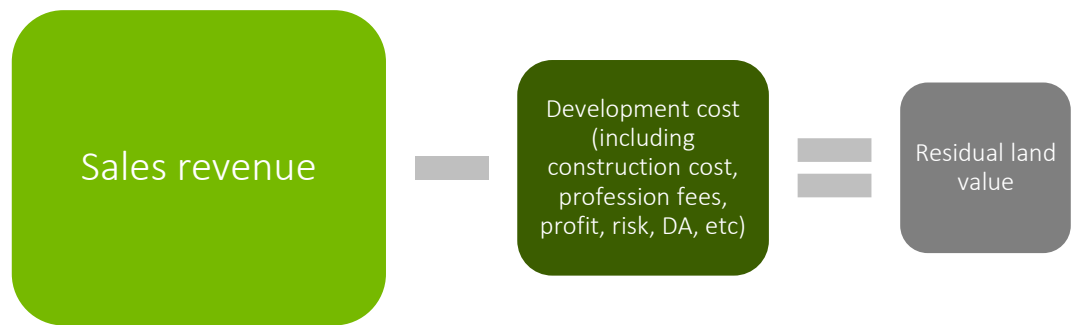
2.1 Methodology

The feasibility of residential development on target sites has been tested with a residual land value (RLV) model. The RLV is the maximum amount that a rational developer could pay for a site for redevelopment while still making a profit.

The RLV is calculated by deducting all the costs of a development from the sales revenues in the current market. The development costs include construction costs and contingencies, external works and other site works, professional fees, a developer’s profit margin, infrastructure levies or contributions and other council fees. This calculation is illustrated in Figure 3.

If the RLV is much greater than a site’s current value including existing improvements such as dwellings, a developer could afford to pay more than the current market value for a site. In this case development is likely to be feasible. If the RLV is much less than a site’s value, a developer would not be able to make a sufficient profit from a development to cover the cost of site acquisition, and development would be unfeasible.

FIGURE 3: RESIDUAL LAND VALUE CALCULATION



Source: SGS Economics and Planning, 2019

Feasibility under a RLV model is usually reported with a ratio of RLV to current land value. If this ratio is 1.25 or greater, a developer could afford to pay a 25% premium on the existing land value to acquire a site for development. This means that a developer could afford to pay a premium to entice a landowner to sell a site for development. This price premium would facilitate the amalgamation of sites for development. In this case, development is reported to be feasible.

A feasibility ratio of between 1 - 1.25 indicates that development may be feasible. At this feasibility ratio a developer would be able to make enough profit from a development to cover the cost of acquisition of the land if a landowner is willing to sell their land for a smaller price margin than 25%. However, as there is less room for a price premium in the event of an increase in land value, development may become unfeasible in the future. Developers may

also be unable to acquire multiple sites for amalgamation. In this case, development is reported to be marginally feasible.

A feasibility ratio of less than 1 indicates that a developer would not make enough profit to make development viable.

2.2 Feasibility sites and scenarios

Sites

Feasibility has been tested on three sets of two adjacent sites currently occupied by detached housing shown in Table 1, on the assumptions that two existing properties would need to be amalgamated to permit a viable attached dwelling or apartment development. On each development site, feasibility has been tested for attached dwelling development under an R3 zone and apartment development under the existing R4 zone.

TABLE 1: FEASIBILITY TESTING SITES

Combined Lots			
Combined Land Area (sqm)	1336	1641	1640

Several properties in the part of Moorebank with an FSR control of 1.2:1 have been acquired and amalgamated by developers. However, there is limited development activity in the parts of the R4 zone which have a lower floor space ratio and which are proposed to be rezoned, which suggests a current lack of development feasibility. A development application has been lodged for apartment development at 113-115 Newbridge Road and is discussed below.

Feasibility scenarios

Feasibility has been tested under three scenarios:

- Development of apartments (in the form of residential flat buildings) under the current planning controls, including an R4 land zone and the current floor space ratio of 0.75.
- Development of attached dwellings (in the form of multi-dwelling housing) under the proposed R3 zone and with a floor space ratio of 0.5:1, which is consistent with current nearby floor space ratios under the R3 zone.
- Development of attached dwellings (in the form of multi-dwelling housing under the proposed R3 zone with an increased floor space ratio of 0.8:1, which would represent the current base floor space ratio of 0.75:1 and a bonus of 0.05:1.

Different land prices have been used for testing development feasibility under the R3 scenarios than under the R4 scenarios. This reflects the assumption that a downzoning from R4 to R3 would reduce the perception of how much development can be achieved on the land and so the price which would be likely to be paid for the land. Recent sales prices from parts of Moorebank near the Town Centre show that houses on land zoned R3 sell for less than houses zoned R4 (see Table 3), and so the R3 prices are likely to be closer to the use value for dwelling houses in this area.

A summary of the feasibility testing sites, and the assumptions used for each site, is shown in Table 2.

TABLE 2: SUMMARY OF THE LAND PRICE AND DEVELOPMENT REVENUE ASSUMPTIONS USED FOR DIFFERENT LAND ZONES

Land zone	R3	R4
Development type	Multi dwelling housing	Residential flat building
Number of properties needed to be 2 amalgamated to permit development	2	
Land price/sqm	\$1,120	\$1,629
Approximate development sale price	\$650,000 per 110sqm town house	\$570,000 per 82sqm apartment

2.3 Feasibility Assumptions

There are a number of inputs into the feasibility testing process:

- Construction and demolition costs (sourced from Rawlinson’s Construction Handbook 2017)
- Land acquisition costs (sourced from localised median sales value analysis for each site)
- Professional fees (various sources using industry standards)

Built form assumptions from the housing capacity analysis conducted in the LHS have been used but have been modified to reflect local sales data in Moorebank. The allowable floor area per development has been determined by multiplying the site area by the applicable FSR control. It has been assumed that 82 sqm of floor-space is required per apartment dwelling. This is the average floor area per dwelling in apartment developments reported in the Liverpool LGA in the available BASIX data.

It has been assumed that 110 sqm of floor-space is required per townhouse or attached dwelling, with only three-bedroom townhouses considered in this analysis. This is below the average floor area per townhouse from attached dwelling development in the Liverpool LGA as reported in available BASIC data, which is approximately 125 sqm. However, there are nearby examples of attached dwellings being constructed and sold with areas of 110sqm and smaller than average attached dwelling size would be consistent with the context of the investigation area. The area is located within walking distance of the Moorebank Town Centre, which is likely to increase demand for medium density dwellings and so reduce the size of dwellings required to be saleable.

Development contribution rates have been determined based upon the *Liverpool Contributions Plan 2018 (Established Areas)*. Given the lack of available mass transit nearby, it has been assumed that one car parking space is delivered per dwelling, with an additional visitor space per 10 apartment dwellings. This is above the rate required by the *Liverpool Development Control Plan 2008*, however dwellings without car spaces would be unlikely to be saleable in this area. All car parking in apartment developments have been assumed to be delivered underground.

Land price and revenue assumptions

Per-square-metre land prices for site acquisition for each feasibility testing area have been determined based on the average recent sale price in several recent nearby sales. A sample of these sales is shown in Table 3.

Expected development sales prices have been determined based upon reported sales prices for new apartments and townhouses in the Moorebank area.

TABLE 3: MOOREBANK RECENT LAND TRANSACTIONS

Zone	Land size	Sale Price		
R4	702m ²	\$740,000		
R4	670m ²	\$855,000		
R4	664m ²	\$770,000		
R4	650m ²	\$1,140,000		
R4	269m ²	\$780,000		
R3	664m ²	\$761,000		
R3	689m ²	\$920,000		
R3	664m ²	\$525,500		
R3	740m ²	\$960,000		

Source: Corelogic, RPdata

2.4 Feasibility Results

R4 - Current planning controls

Feasibility results for residential flat building development are shown in Table 4. Development is likely to be broadly unfeasible under current floor space ratios. Development returns would be greater than development costs excluding land acquisition, as indicated by the positive RLV ratio. However, developers would be unlikely to be able to make a large enough profit to acquire development sites.

TABLE 4: FEASIBILITY RESULTS FOR RESIDENTIAL FLAT BUILDING DEVELOPMENT

	Column 1	Column 2	Column 3
FSR	0.75	0.75	1.0
Dwelling yield	12	15	20
Feasibility ratio	0.52	0.48	0.73
Feasible?	No	No	No

R3 - proposed changes

Feasibility under the proposed scenario with an R3 zone and an FSR of 0.5:1 is shown in Table 5. The development feasibility ratio across all sites is below 1 indicating an attached dwelling development would be unlikely to be feasible under this FSR. While sales revenues would exceed development costs (excluding site acquisition), the return generated would not be high enough to fund site acquisition and amalgamation.

TABLE 5: FEASIBILITY RESULTS FOR MULTI DWELLING HOUSING DEVELOPMENT WITH AN FSR OF 0.5:1

	Column 1	Column 2	Column 3
FSR	0.5	0.5	0.5
Dwelling yield	6	8	8
Feasibility ratio	0.71	0.77	0.77
Feasible?	No	No	No

R3 – Increased FSR

Under a scenario where a base FSR of 0.75:1 is used with an R3 zone, attached dwelling development (for example multi-dwelling housing) would have total allowable FSR of 0.8:1, including the current allowance of an additional FSR bonus of 0.05:1.

In this case, the dwelling yield at each development site would increase from the yield under an FSR of 0.5:1, increasing the feasibility ratio. Each of the ratios for the tested sites is approximately the same and each is greater than 1. This indicates that a developer could develop the sites at a profit, including the cost of site acquisition.

As the feasibility ratio is less than 1.25, a developer could not afford to pay a 25% premium for site acquisition in order to amalgamate development sites. In this case development is likely to be marginally feasible. Future increases in land prices or site-specific additional development costs may make development unfeasible.

Some owners may be willing to sell their sites for less than a 25% premium, and in these cases development would be likely to be feasible. In addition, in some cases development costs may be lower than the estimates used here, or development sites may be able to be acquired for less than has been assumed. This would increase development feasibility.

TABLE 6: FEASIBILITY RESULTS FOR THE MOOREBANK FEASIBILITY INVESTIGATION AREA

	Column 1	Column 2	Column 3
FSR	0.8	0.8	0.8
Dwelling yield	9	11	11
Feasibility ratio	1.07	1.07	1.07
Feasible?	Marginal	Marginal	Marginal

An FSR of 0.8:1 is the maximum allowable under the Medium Density Housing Code (although the Code does not currently apply to the Liverpool LGA). However, it is greater than the FSR currently allowed in the Liverpool LGA in R3 zones, including in the suburb of Liverpool where several attached dwelling developments are taking place. It is likely that the lower house price in the suburb of Liverpool makes attached dwelling development more feasible than development in Moorebank.

If the allowable FSR in Moorebank or any other R3 zone were to increase, Council would also need to consider whether DCP controls and other LEP controls permitted feasible development yields.

2.5 Summary of feasibility results

Development of residential flat buildings under current FSR controls is likely to be unfeasible on the sites tested. Rezoning the land to the R3 Medium Density Residential Zone would be likely to decrease site acquisition costs, which would make attached dwelling development more feasible than residential flat building development, even if the allowable FSR was decreased to 0.5:1.

At an FSR of 0.55:1, multi-dwelling housing development is likely to be generally unfeasible on the tested sites. Increasing the FSR to 0.8:1 would mean that development is likely to be marginally feasible. In this case, some developments would be likely to be feasible, however developers have difficulty amalgamating sites.

A larger increase in the allowable FSR would ensure greater development feasibility in Moorebank but may lead to poor built form outcomes. Consideration of an appropriate FSR should follow from what kinds of built form are acceptable to the local community as well as from current development feasibility. Even if development is slightly unfeasible or marginally feasible, future changes in market conditions may alter this equation and may make

development more feasible. This would be likely if the transport accessibility or public domain of Moorebank were improved through infrastructure investment.

A summary of feasibility results for each of the investigation areas is shown in Table 7.

TABLE 7: SUMMARY OF FEASIBILITY RESULTS

Development scenario	Development type	Feasibility under current/base controls
R4 – Current controls	Residential flat building	Unfeasible
R3 – FSR 0.55:1	Town Houses	Unfeasible
R3 – FSR 0.8:1	Town Houses	Marginally feasible

2.6 Discussion

Development feasibility analysis uses standard development cost assumptions as well as land price and development revenue assumptions derived from the surrounding area. This analysis is not intended to say whether every development in an area will be feasible or not. It is rather intended to show at a high level the suitability of current and proposed planning controls in terms of feasibility in the local housing and development market.

The analysis in this section found that residential flat building development under the current R4 zoning and FSRs is likely to be unfeasible on the lots proposed to be rezoned. Attached dwelling development is also likely to be unfeasible under the proposed controls, but would be closer to being feasible as indicated by a higher feasibility ratio.

In each case in this analysis, development returns were higher than expected costs (including the profit margin for a developer) when land acquisition costs were excluded. This means that a development would generate a profit, but it would not be high enough to cover the cost of land acquisition. A landowner would be likely to be able to sell their land for more than a developer could afford to pay. If sites could be acquired more cheaply than SGS has estimated, development may be feasible. Site-specific and development-specific factors may increase or decrease feasibility, and some developments may cost less than predicted in this analysis. This would increase development feasibility.

A development application has been lodged for a residential flat building at 113-115 Newbridge Road, within the area proposed to be rezoned to R3. Until development has occurred on this site it is unclear whether the development proponent intends to develop the site (indicating potential development feasibility) or merely wishes to gain development approval to increase site value or preserve future development rights.

Reduced site acquisition costs (for example if the development proponents have owned the land for some time) and reduced development expenses may contribute to development at 113-115 Newbridge Road being more feasible than SGS's analysis has indicated. Nonetheless, SGS's analysis has shown that most residential flat building development on the land proposed to be rezoning area is likely to be unfeasible. This is particularly true where the FSR control is 0.75:1 rather than 1:1 (113-115 Newbridge Road currently has a 1:1 FSR control).

3. CAPACITY IMPACTS

This section provides the results of an analysis of how the proposed changes to land zones will impact on housing capacity.

3.1 Housing capacity method

Net housing capacity in Moorebank has been determined under the current planning controls and under the proposed changes to planning controls. The same assumptions have been used to calculate this capacity as were used in the LHS. The housing capacity method is summarised in Figure 4.

FIGURE 4: HOUSING CAPACITY METHOD



A summary of development assumptions used to calculate housing capacity in the R4 and proposed R3 zone in Moorebank are shown in Table 8. The yield of each property is calculated for each development type for which it meets the site requirements. As shown in Figure 4, the net capacity is calculated by subtracting the number of existing dwellings from the development yield.

TABLE 8: DEVELOPMENT ASSUMPTIONS USED TO CALCULATE HOUSING CAPACITY

Development type	Site requirements	Rationale	Yield	Rationale
Attached dwellings	A site of less than 600sqm cannot be subdivided with a minimum subdivision lot size of 300sqm or greater, or a frontage of less than 10m.		Minimum of: <ul style="list-style-type: none"> (lot size)/ (minimum subdivision lot size) (lot frontage/5) 	Minimum lot area per dwelling set by the Liverpool LEP cl 4.1. Road frontages of less than 5m per dwelling would not comply with the LDCP 2008 Part 3.4 requirement for garage doors to comprise <= 50% of the lot frontage if there is one single garage per dwelling and all dwellings face a road.
Multi-dwelling housing	Area >= 650 sqm, frontage >= 18m	Minimum lot requirements set by LDCP 2008 Part 3.6 – 2	Lot size/ minimum lot area per dwelling	Minimum lot area per dwelling set by the Liverpool LEP cl 4.1 (4A)
Residential flat buildings	No minimum requirements	Assume lots can be amalgamated as RFBs are a substantial development uplift	Based upon: <ul style="list-style-type: none"> Allowable floorspace under FSR control One dwelling per 82 sqm of floor area 	82sqm is the average floorspace per dwelling in the suburb of Liverpool from the available BASIX data.

3.2 Housing capacity results

The impact of the proposed amendments on net housing capacity is shown in Table 9. If minimal site amalgamation was allowed, many of the rezoned sites would need to be developed as attached dwellings and the capacity of the current R4 zone would drop by 35% (535 dwellings). If site amalgamation occurs to permit multi-dwelling housing development in all cases, housing capacity would drop by only 26% (399 dwellings). These percentages reflect that majority of the capacity for residential flat buildings in the current R4 zone in Moorebank is in the area which is not proposed to be rezoned.

TABLE 9: IMPACT OF PROPOSED ZONE CHANGES ON NET HOUSING CAPACITY IN MOOREBANK'S R4 ZONE

	Current capacity	Proposed capacity (without site amalgamation)	Proposed capacity (with site amalgamation)
R4 area proposed to be rezoned	712	177	313
R4 area proposed to be retained	807	807	807
Total	1,519	984	1,120

The current housing capacity in the Eastern District of the Liverpool LGA, of which Moorebank is a part, is shown in Table 10. The capacity if the proposed rezoning were to occur is shown in Table 11. The proposed rezoning would only reduce the overall capacity in the Eastern

District by around 6%. There would still be large amounts of capacity left for both residential flat buildings and shop-top housing. A map of Liverpool's districts is shown in Appendix A.

TABLE 10: CURRENT NET HOUSING CAPACITY IN THE EASTERN DISTRICT OF THE LIVERPOOL LGA

Zone	Attached dwellings	Multi-dwelling housing	Non-greenfield subdivision	Residential flat building	Shop-top housing	Total
B1					256	256
B2					713	713
R2	2,804		16			2820
R3	1,307	2207	223			3737
R4				1746		1746
Total	4,111	2,207	239	1,746	969	9273

TABLE 11: NET HOUSING CAPACITY UNDER THE PROPOSED CONTROLS IN THE EASTERN DISTRICT OF THE LIVERPOOL LGA

Zone	Attached dwellings	Multi-dwelling housing	Non-greenfield subdivision	Residential flat building	Shop-top housing	Total
B1					256	256
B2					713	713
R2	2,804		16			2,820
R3	1,335	2,356	223			3,989
R4				1,034		1,034
Total	4,139	2,356	239	1,034	969	8,738

The housing capacity in the Liverpool LGA under the current and proposed controls is shown in Table 12. As with the capacity in the Eastern District, the overall impact of the proposed rezoning on housing capacity in the Liverpool LGA is minimal. Most capacity for residential flat buildings is in the Liverpool City Centre, with smaller amounts of capacity around Town Centres such as Moorebank. This overall distribution is unchanged by the proposed amendment.

TABLE 12: TOTAL NET HOUSING CAPACITY IN THE LIVERPOOL LGA BY DWELLING TYPE UNDER CURRENT AND PROPOSED PLANNING CONTROLS

	Attached dwelling	Greenfield Subdivision	Multi-dwelling housing	Non-greenfield subdivision	Residential flat building	Shop top housing	Total
Current controls	14,117	23,233	4,376	939	15,634	31,353	89,652
Proposed controls	14,145	23,233	4,525	939	14,922	31,353	89,117

The LHS contains a housing scenario which shows how many dwellings of each type are likely to be built in each part of the Liverpool LGA in each five-year period until 2036. This is based on an analysis of housing capacity, likely housing demand by dwelling type and recent development trends. Under this scenario, the remaining capacity for dwellings in 2036 is shown in Table 13.

This development scenario shows that there is likely to be a substantial amount of capacity remaining in 2036 for residential flat building and attached dwelling development in each of the 2168, City Centre, Eastern and Established districts. The only capacity constraint in the

Liverpool LGA is likely to be for dwellings in greenfield precincts, for which available land is likely to run out between 2031-2036.

TABLE 13: LIKELY REMAINING HOUSING CAPACITY IN 2036 IN THE LIVERPOOL LGA

Dwelling type	2168 District	City Centre District	Eastern District	Established District	New Release District	Total
Separate house	0	0	0	0		
Attached dwelling	3,345	0	4,871	4,134	-2,935	Constrained
Flat, unit or apartment	6,476	17,362	2,715	6,033	6,473	39,059
Total	9,821	17,362	7,586	10,167	<i>Constrained</i>	<i>Constrained</i>

As there is likely to be significant dwelling capacity remaining in the Eastern District in 2036, there is more housing capacity under current planning controls than likely demand for that housing to be developed. This is particularly true for flats, units and apartments, for which there is a very large amount of capacity in the Liverpool City Centre and elsewhere. The capacity for residential flat buildings in Moorebank which would be lost under the proposed rezoning is unlikely to be required to meet housing demand.

4. DISCUSSION

This section provides a discussion of the implications of the results presented above, and how the proposed rezoning aligns with the policy directions for plan making and the findings of the LHS.

Policy directions for plan making

A planning proposal, which is required to change land use zoning, must be consistent with the policy directions for plan making which are issued under section 9.1 of the *Environmental Planning and Assessment Act 1979*. The most relevant direction for the proposed rezoning in Moorebank is Direction 3.1: Residential Zones. This direction applies to proposals which affect existing or proposed residential zones. This direction aims to:

- Encourage a variety and choice of housing types to provide for existing and future housing needs,
- Make efficient use of existing infrastructure and services and ensure that new housing has appropriate access to infrastructure and services, and
- Minimise the impact of residential development on the environment and resource lands.

If this direction applies, a planning proposal must include provisions that will:

- Broaden the choice of building types and locations available in the housing market,
- Make more efficient use of existing infrastructure and services,
- Reduce the consumption of land for housing and associated urban development on the urban fringe, and
- Be of good design.

The more specific directions which elaborate on these objectives are that a planning proposal must:

- Contain a requirement that residential development is not permitted until land is adequately serviced, and
- Not contain provisions which will reduce the permissible residential density of land.

The proposed rezoning is inconsistent with the second of these provisions, as it is proposed to rezone land currently zoned for high density residential development to permit only medium density residential development as well as to reduce the allowable FSR. For a planning proposal to be inconsistent with the terms of the direction, one of four conditions must apply:

- It is justified by a strategy which gives consideration to the objects of this direction, identifies the land which is the subject of the planning proposal and is approved by the Director-General of the Department of Planning,
- It is justified by a study prepared in support of the planning proposal which gives consideration to the objective of this direction,
- It is in accordance with the relevant Regional Strategy, Regional Plan or Sub-Regional Strategy which gives consideration to the objectives of the direction, or
- It is of minor significance.

Justification of inconsistency

While the proposed rezoning is inconsistent with the direction in that it proposes to decrease the allowable density of several lots, it is consistent with the objectives and intended outcomes of the direction.

Under the existing planning controls, apartment development is unlikely to be feasible on the lots which are proposed to be rezoned. While these lots are zoned R4, little development is likely to occur under current market conditions. Due to the R4 zone, landowners and purchasers have high expectations of development yield and are unlikely to sell the land for the same price as land zoned R3, or to want to develop the land with anything that yields less than an apartment development. As residential flat buildings are likely to be unfeasible, this land is likely to continue to be occupied by separate dwellings, which are the predominant dwelling type in this area.

The current R4 zone in combination with the allowable floor space ratio is therefore likely to be discouraging development. As housing redevelopment would result in greater housing choice and more efficient use of existing infrastructure and services, this is contrary to the aims and objectives of the direction.

This analysis has shown that redevelopment of lots is likely to be more feasible under an R3 zone. The feasibility ratio for attached dwelling development under an R3 zone is higher than the feasibility ratio for residential flat building development under the current R4 zone and 0.75:1 FSR. This indicates that development would be expected to have a greater net return relative to the land price. While development is still expected to be unfeasible in most cases with an FSR control of 0.5:1, the lower expected land prices under an R3 zone means that less alteration in market conditions would be required for development to be considered feasible, and that it is more likely that site or development specific variations from SGS's cost and revenue assumptions would cause development to be feasible.

As site redevelopment is more feasible under the proposed R3 zone than under the current R4 zone, the R3 zone would be more consistent with the objectives and intended outcomes of the policy direction. More specifically:

- Redevelopment would be more likely to occur, which would increase the supply of attached dwellings in the Liverpool LGA's Eastern District. Both attached dwellings and apartments are relatively rare in the Eastern District, so this would increase dwelling choice.
- Redevelopment will increase housing density, which would make more efficient use of existing infrastructure and services.
- This part of Moorebank is relatively free of environmental constraints, and so increased density here would minimise the impact of residential development on environment and resource lands.

Alignment with findings of Liverpool Housing Study

The key findings of the Liverpool Housing Study which are relevant to the land use zoning in Moorebank are that:

- Liverpool is on track to meet its dwelling targets as set in the *Western City District Plan* and there is no need to rezone land for additional dwellings in the short-medium term.
- While there are a variety of dwelling types in the Liverpool LGA, many parts of the LGA do not contain housing diversity and some people may struggle to enter the housing market as affordability decreases.
- While there is enough dwelling capacity, but some capacity is not feasible, particularly for apartment development outside the Liverpool City Centre.
- The greatest infill development opportunities are in Moorebank, Chipping Norton, Liverpool, part of Lurnea and Casula and the 2168 housing estate. However, Moorebank and Chipping Norton also have consistent low-density suburban characters which should be considered as part of any planned redevelopment.

These findings support the proposed rezoning in Moorebank.

Liverpool has more than enough capacity to meet dwelling targets and demand, and as demonstrated in Section 3.2 above, the capacity in Moorebank which would be lost will not cause any capacity constraints. As development of apartments is likely to be unfeasible on the

land which is proposed to be rezoned, there will be essentially no impact on feasible housing capacity in the Liverpool LGA.

There is a lack of dwelling diversity in the Eastern District of LGA, which contains mostly detached dwellings. Revising planning controls to make redevelopment of some of these detached dwellings more feasible by rezoning from R4 to R3 will facilitate an increase of dwelling diversity in this area.

The LHS found that Moorebank has a consistent low-density suburban character, and that large parts of the suburb have seen little redevelopment for medium or higher-density dwellings. Multi-dwelling housing, which are the highest yielding permissible development type in the R3 zone, would be more consistent with this character than residential flat buildings which are permissible in the R4 zone.

The current planning controls seek to create a transition in density by using a transition in FSRs within the R4 zone. However, SGS's analysis has shown that as a result of development feasibility, significant amounts of development in the parts of R4 zone with reduced FSRs is unlikely.

Further considerations in setting planning controls

SGS's analysis has shown that attached dwelling development would be likely to be marginally feasible with an increased FSR of 0.8 (a base of 0.75:1 with the existing bonus of 0.05:1). In this case, a developer would make a large enough profit from development to acquire development sites but would not be able to pay a 25% premium on expected land prices based on recent sales.

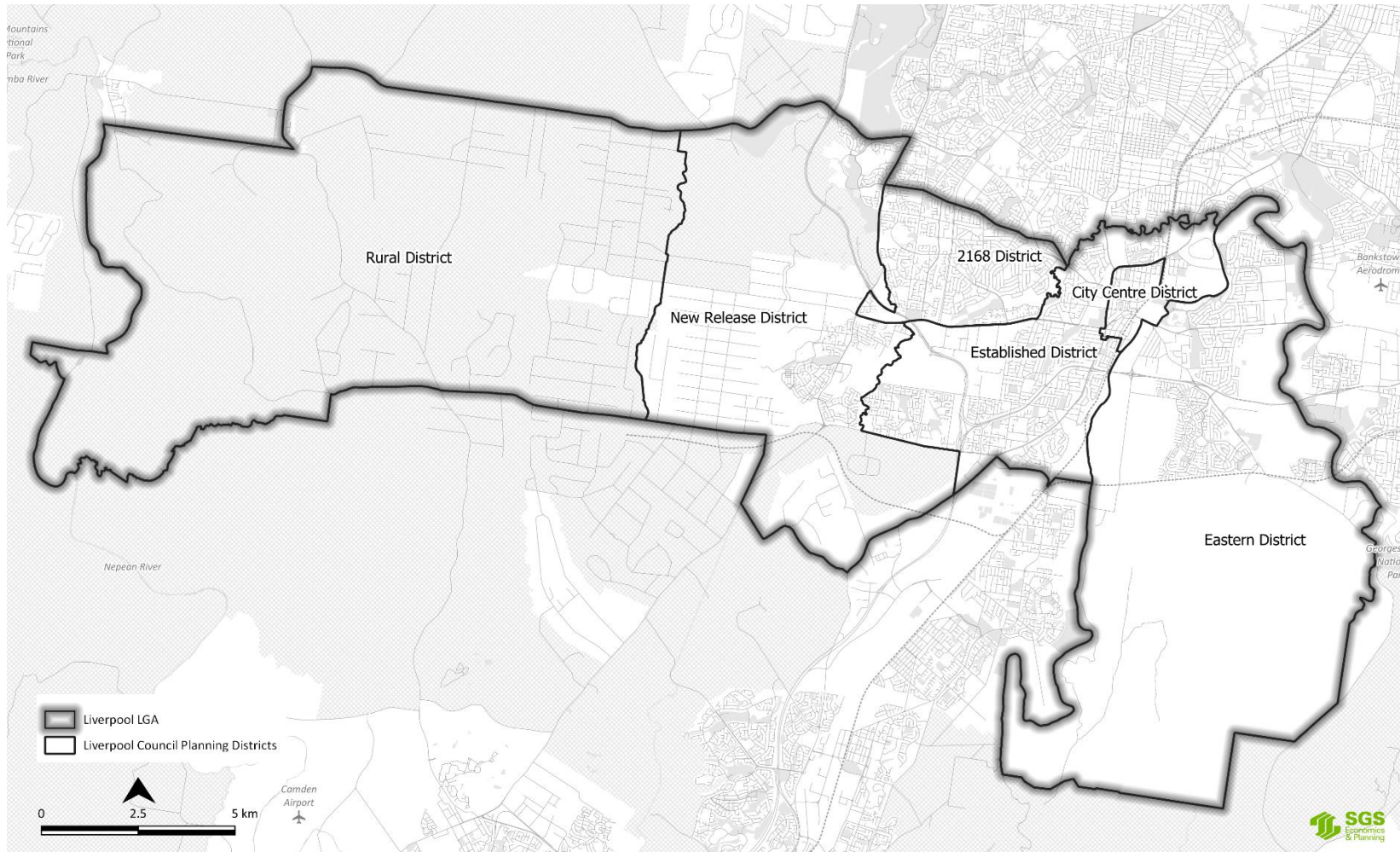
This result suggests that it may be appropriate to apply an FSR control of 0.75:1 with an R3 zone in Moorebank rather than an FSR control of 0.5:1. However, an FSR of 0.75:1 would be higher than the FSR control applying to the surrounding R3 zone, and in other R3 zones in the established parts of the Liverpool LGA, which is 0.5:1. An FSR control of 0.75:1 would therefore represent an effective increase in allowable density from the established medium-density FSR control in the Liverpool LGA. Before this increase in density could occur, Liverpool Council would need to conduct built form testing to determine if an increased FSR would provide an appropriate built form outcome which would be consistent with local character and which would constitute good design.

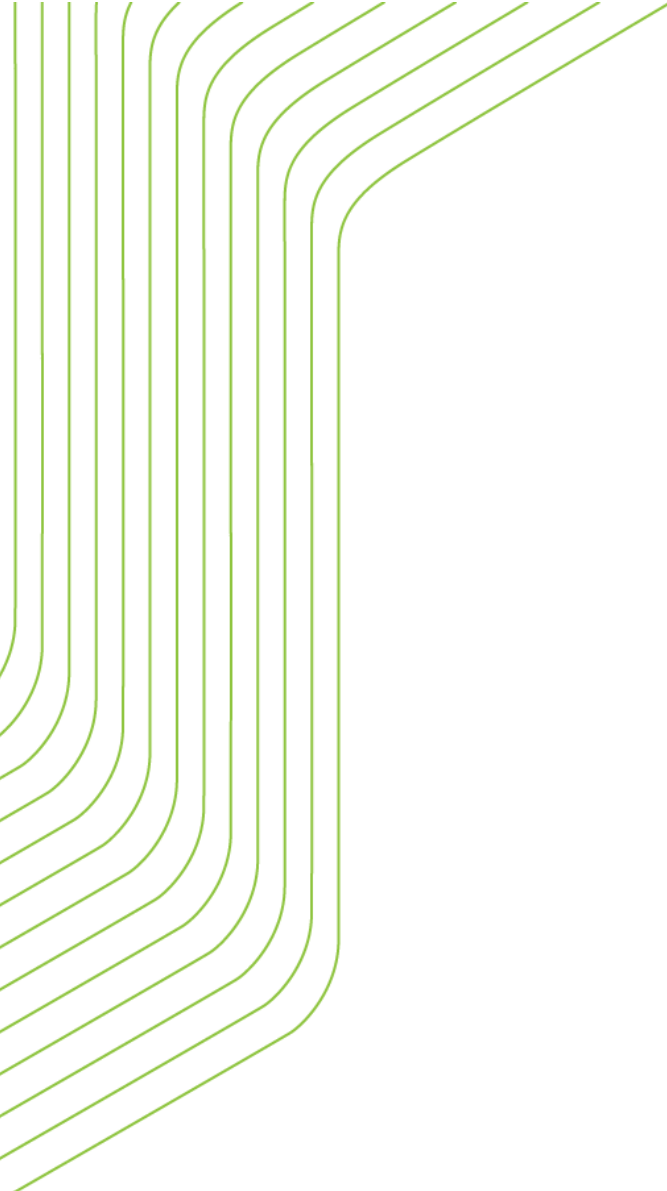
Development feasibility is only one of the considerations should form inform land use planning. Other important considerations include local character, community needs and preferences, sustainability and alignment of development with local infrastructure availability. Even if development is unlikely to be feasible under current market conditions, development feasibility may change in the future in response to changes in the housing market.

The appropriate land use zone and FSR control in Moorebank will be informed by all of the above considerations. In the absence of built form analysis of an FSR of 0.75:1 in an R3 zone, an R3 zone and an FSR of 0.5:1 would be more appropriate than the current planning controls on the sites proposed to be rezoned. This would be consistent with the planning controls in the surrounding area. In comparison with the current R4 zone, it would be more in line with the surrounding housing character and would be more likely to facilitate housing redevelopment which is feasible in the event of shifts in the local housing market.

APPENDIX A: DISTRICTS

FIGURE 5: PLANNING DISTRICTS IN THE LIVERPOOL LGA





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