Council 19 February 2024

Item 11

Submission - NSW Government - Changes to Create Low and Mid-Rise Housing

File No: X102116

Summary

The NSW Department of Planning, Housing and Infrastructure has prepared an 'Explanation of Intended Effects: Changes to create low and mid-rise housing' (EIE) to introduce new planning controls to encourage more low and mid-rise housing. The changes are part of a series of planning reforms that aim to meet the NSW Government's commitments under the National Housing Accord.

As drafted the changes will override local planning controls within 800 metres walking distance of a train station, light rail stop and the Metropolitan Centre zone (SP5) as well as areas zoned Commercial Centre, Local Centre or Mixed Use with a significant retail presence.

The draft changes will allow residential flat buildings and shop-top housing to be built to 21 metres (six storeys) up to 400m from a station or centre or 16 metres (four storeys) up to 800m from a station or centre. The proposed changes would apply in heritage conservation areas and to heritage items, although heritage impacts will remain a consideration. In addition, the affordable housing bonus that applies in some parts of the local area will continue to apply, increasing heights up to eight storeys.

In parts of Rosebery and Centennial Park changes will allow low-rise manor houses, terraces and townhouses with heights of 9.5 metres in the R2 Low Density residential zone within 800 metres of Moore Park light rail and the Eastlakes shopping centre. Height and density will also be increased for dual occupancy dwellings, which are already allowed.

The City supports the NSW Government's efforts to meet its commitments under the National Housing Accord. However, contrary to the NSW Government's commitments under the Accord, the proposed planning changes have not been prepared effectively with local government and have been prepared in absence of housing targets and strategies.

In our area, the EIE is likely to have perverse outcomes of slowing down housing delivery as misaligned development standards, tensions with other controls, and not dealing with hazards and infrastructure will slow development applications and encourage court appeals.

The City of Sydney's Submission on the NSW Government Changes to Create Low and Mid-Rise (submission) is provided at Attachment A. It makes a series of recommendations to recognise the housing supply delivered by the City and in its development pipeline; and to work with the City on effective strategic planning to bring additional housing into the pipeline. The submission makes further recommendations to improve outcomes while maintaining its intent to facilitate housing should Government not commit to proper strategic planning processes with the City.

The draft changes are on public exhibition and open for comment until Friday 23 February 2024. The Department have advised that submissions must be received no later than the due date if it is to be considered, however addenda information may be provided by 15 March 2023.

Recommendation

It is resolved that:

- (A) Council endorse the City of Sydney submission on the NSW Government Changes to Create Low and Mid-Rise, shown at Attachment A to the subject report, which will be sent to the NSW Department of Planning, Housing and Infrastructure by 23 February 2024;
- (B) authority be delegated to the Chief Executive Officer to make amendments to the submission prior to lodgement on 23 February 2024 which are consistent with the approved recommendations or to correct errors; and
- (C) Council note that Councillors can provide comments to the Director City Planning, Development and Transport by 11 March 2024 for inclusion in an addendum to the submission to be sent to the NSW Department of Planning, Housing and Infrastructure by 15 March 2023.

Attachments

Attachment A. City of Sydney Submission on the NSW Government Changes to Create Low and Mid-Rise Housing

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Attachment A

City of Sydney Submission on the NSW Government Changes to Create Low and Mid-Rise Housing



Department of Planning and Environment



Explanation of Intended Effect: Changes to create low-and mid-rise housing

December 2023

dpie.nsw.gov.au



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Introduction

The City of Sydney (the City) welcomes the opportunity to provide a submission to the Department of Planning, Housing and Infrastructure's (DPHI) Explanation of Intended Effect (EIE): Changes to create low-and mid-rise housing.

The City supports the National Housing Accord and the NSW Government's efforts to address the housing challenge and the commitments in the Accord.

Through the National Housing Accord, the NSW Government has committed to:

- Delivering 3,100 affordable housing homes with in-kind or financial contributions
- Improving financing for affordable and social housing projects
- Identifying immediate opportunities to free up well-located government-owned land for affordable housing projects
- Working with local government on planning and land-use reforms that will make housing supply more responsive over time
- Improving access to affordable and social housing.

This EIE is in response to the National Housing Accord target of 314,000 - 377,000 well-located new homes in NSW by 2029. Its stated aim to contribute to the target by encouraging more low and mid-rise housing options of 4-6 storeys that are in the right places and designed well.

The City supports the National Housing Accord¹

The City agrees that housing supply challenges need to be addressed to ensure Australians have access to safe, stable and affordable housing, as well as better housing choices that are close to work, schools and transport.

The City has grown rapidly over the last 15 years, providing more than 40 per cent² of the housing in the Eastern City District. Over 30,000 new private dwellings were delivered in the City between 2011 and 2021.³ Our local housing strategy includes a target of 56,000 homes in 20 years to 2036, which is one third of the entire housing target for the nine councils in Sydney's Eastern City District. We have zoned land to meet the target and have provided 61 per cent of this target – 30,000 homes built or in the pipeline in just 7 years.

We have 3,263 affordable housing dwellings built, approved, in construction or expected. We use planning levers, sell land to community housing providers at reduced cost, and provide grants to increase the amount of affordable housing in the City.

The City's urban renewal areas at Green Square, Ashmore, Ultimo Pyrmont, Harold Park and others consist primarily of residential buildings of four to 12 storey buildings, with the heights arranged to optimise overall densities while responding to a particular site location and

¹ National Housing Accord 2022 (treasury.gov.au)

² City of Sydney, Housing for All – Local Housing Strategy, p5, https://www.cityofsydney.nsw.gov.au/-/
https://www.cityofsydney.nsw.gov.au/-/
https://media/corporate/files/2020-07-migrated/files/h/housing-for-all-city-of-sydney-local-housing-strategy.pdf?download=true
https://media/corporate/files/2020-07-migrated/files/h/housing-for-all-city-of-sydney-local-housing-strategy.pdf?download=true
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interrelationships with neighbouring buildings. The City has more than 1500 buildings of six storeys and above, many more than any other area in Australia.

The City's experience in planning for, approving, and evaluating community satisfaction in established and new areas of mid-rise housing has delivered an unparalleled understanding of the requirements for successful implementation of this housing type.

The City has been at the forefront of providing the highest residential densities (people/square km at 2022) in Australia and comparable to or exceeding to inner areas of other major cities – Kings Cross 25,700, Chippendale 17,800, Haymarket 17,100, Waterloo/Zetland 15,500 and Ultimo/Pyrmont 14,000 pp/sq km⁴. Out of Australia's 20 most dense suburbs, 10 are within the City of Sydney local government area.

We continue to plan for housing capacity and deliver supporting infrastructure. By 2036 the Green Square Urban Renewal Area will have grown from 12,500 pp/sq km to 22,000 pp/sq km over 278ha. Recent planning changes aim to boost housing supply in Pyrmont / Ultimo, Central Sydney, Waterloo and Botany Road corridor.

The City's experience and expertise is available to aid the development of planning reforms in the spirit of the Accord, under which the State committed to working with Local Government. The City was not consulted during the formation of the proposal and as it stands, the proposal will have poor outcomes for communities and cause delays in development approvals and delivery of housing under the Accord. The EIE contains obvious technical flaws such as the mismatch between height in storeys and floor space ratio that will prevent it from achieving its stated aims quickly, while potentially inflating land values.

This is inconsistent with the NSW Government's statement in the National Housing Accord implementation schedules, which says the NSW Government is 'considering a package of planning reforms that it has developed with local government'⁵.

The EIE proposal in the City of Sydney

The EIE proposes to apply a set of 'non-refusal standards' for the development of new residential flat buildings in the medium density residential zone and the general residential zone. These standards would override a Council's local planning controls for new housing within 800 metres of a railway, metro or light rail station, and within 800 metres of a local centre, mixed-use, or metropolitan centre zone. The proposed non-refusal standards are as follows:

Within 400 metres of a station, centre or mixed-use zone:

• 21 metres height and 3:1 floor space ratio. Intended to deliver 6 storey buildings.

From 400 metres to 800 metres of a station, centre or mixed-use zone:

16 metres and 2:1 floor space ratio (FSR). Intended to deliver 4 storey buildings.

The non-refusal standards would apply in heritage conservation areas and to heritage items.

Figure 1 shows the areas in the City of Sydney where the EIE proposal would apply, with the darker purple area subject to the 21 metres height and 3:1 FSR. The lighter purple would be subject to 16 metres in height and 2:1 FSR.

The EIE includes research to show that many medium density residential zones are not actually delivering medium density housing as residential flat buildings are often prohibited and building heights are limited to two to three storeys.

⁴ These are SA2s (statistical areas), named after the suburbs that comprise them.

⁵ National Housing Accord – implementation schedules, p4. https://treasury.gov.au/sites/default/files/2023-11/has-nsw.pdf

The EIE has failed to recognise that the City of Sydney's general residential and mixed-use zones feature many of the densest neighbourhoods in Australia. These R1 and MU1 zones are almost entirely comprised of medium density housing, high-value businesses and entertainment and latenight uses. They will continue to, if unchanged, permit by default, residential flat buildings with greater heights than proposed in the EIE.

A better pathway to deliver mid rise housing

This submission strongly suggests that there are fundamental issues with the EIE. If the NSW Government introduces this policy in the City of Sydney, it will lead to conflict and appeals and slow down the delivery of housing and lead to poor urban outcomes for communities.

Attention to natural hazards, infrastructure planning and good design are absent in this proposal.

The misalignment between the height and floor space standards will have wildly varying outcomes with the floor space being unable to fit within the intended mid-rise heights. In urban renewal areas, which have been carefully planned to deliver the bulk of new housing in the City of Sydney, delivery of open space and streets have not been accounted for, such that the proposal will result in high-rise rather than mid-rise housing. Other master planned areas where the City and State have backed strategic planning outcomes, such as affordable housing in the Botany Road corridor or the creative and nighttime economy Oxford Street, need to be acknowledged and not undermined.

Poorly designed development applications that do not satisfy other standards or provisions will lead to court appeals and delays as the proposed controls provide no guidance on resolving the tension between the mid rise housing non-refusal standards and other controls that require consideration.

The City and State agree a program for the City's contribution to the Housing Accord

The City has a strong housing delivery record and can respond more effectively without this policy and using our renewal and intensification approach and principles. This approach would add to the 18,000 dwellings currently in the pipeline and ensure an appropriate contribution towards the Housing Accord targets. This approach would deliver faster approvals, more certainty, less congestion and the good design and infrastructure needed to make medium and high density neighbourhoods desirable places to live.

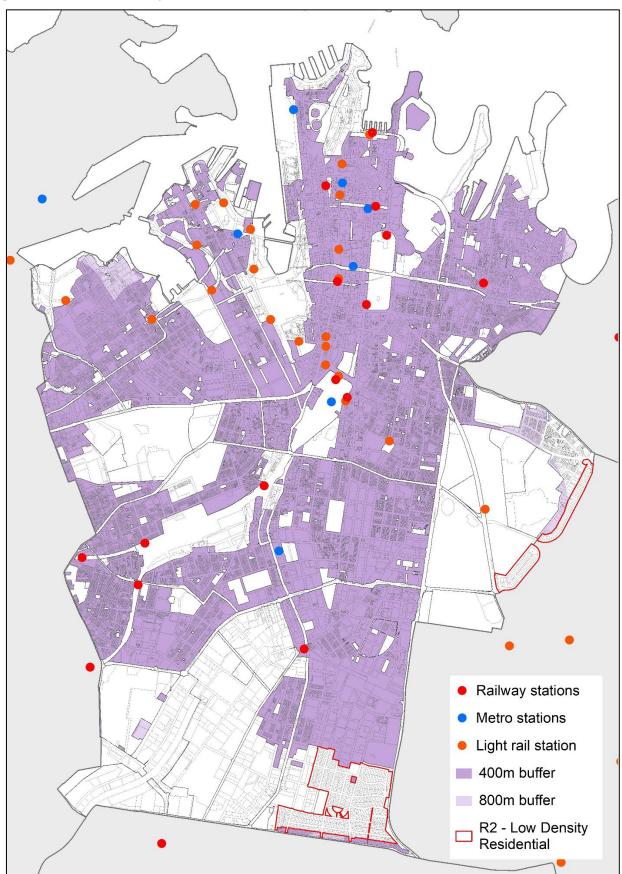
A better pathway to deliver on the NSW Government's National Housing Accord targets for 376,000 dwellings between 2024 and 2029 is to issue the updated housing targets and state strategic plans and work with the City in the next phase of local strategic planning. This alternative approach would be for the City and State to agree to a program to plan for additional housing prior to implementation of the EIE, contributing to the Housing Accord.

Where the State does not agree to strategic planning

If this alternative approach, which is strongly recommended, is not agreed to, then, at a minimum:

- agree to essential exemptions for planned renewal areas that are currently exempted from the 30% Housing SEPP bonus (Green Square, Pyrmont Ultimo, Waterloo South, Botany Road) and other planned areas with agreed strategic outcomes (Ashmore Estate, Oxford Street) as they have been carefully planned to the hilt
- ensure the mid-rise scale (height in metres) takes precedence over FSR by removing FSR as a non-refusal standard
- only apply the standards to areas close to stations only and remove 'centres' as a parameter for application
- remove the more permissive car parking rates which override the City's rates

Figure 1. City of Sydney – areas to which the EIE proposal would apply. The darker purple would be for 6 storeys, and the lighter for 4 storeys.



Recommendations

1. The EIE process is inconsistent with commitments made in the National Housing Accord

The EIE claims to be in response to the National Housing Accord announced in October 2022. In the Accord the NSW Government has committed to:

"working with local governments to deliver planning and land-use reforms that will make housing supply more responsive to demand over time".

The NSW Government has broken its commitment to the Accord as it did not work directly with local governments in preparing this planning and land use reform. As a result of the lack of collaboration the reforms are poorly constructed and need substantial change to achieve their intended aims

Recommendation 1: The NSW Government fulfil its commitment made in the Accord by working with councils to develop planning and land-use reform that will reliably and efficiently deliver housing supply.

2. Housing targets have been delayed by almost a year

The NSW Government was expected to release housing targets in mid 2023 as part of the Draft Region and District Plans. These housing targets form the basis of State and councils' future strategic planning to ensure there is sufficient land zoned land available to meet housing needs.

The NSW Government, as part of the National Cabinet, agreed to a National Planning Reform Blueprint⁶ with planning, zoning, land release and other measures to improve housing supply and affordability, including 'updating state, regional, and local strategic plans to reflect housing supply targets'.

From mid 2022, the Environmental Planning and Assessment Act 1979 required housing targets to be included in District Plans and set a deadline for the final draft Region Plan by end 2023. The expectation from the Greater Cities Commission was for the plans to be exhibited mid-2023 and finalised by February 2024. Winding up of the Commission saw draft plans handed over to the Department of Planning, Housing and Infrastructure but they have not been released and are now nine months overdue.

The NSW Government's delay on releasing the housing targets and draft Region and District Plans has delayed proper strategic planning for future housing. This strategic planning would have met the Housing Accord commitment to work with local government on housing supply including progressing rezonings. Instead the NSW Government has focused on ad hoc changes in absence of targets, strategic directions and any collaboration with councils.

Recommendation 2: Prioritise the release of the delayed housing targets and strategic plans to allow councils to undertake local strategic planning to meet the Housing Accord targets.

⁶ Meeting of National Cabinet - Working together to deliver better housing outcomes, Media release, Wednesday 16 August 2023, https://www.pm.gov.au/media/meeting-national-cabinet-working-together-deliver-better-housing-outcomes

Recommendation 3: If recommendation 2 is not agreed, then work with the City to agree to a program of planning for additional housing prior to implementation of the EIE, contributing to the Housing Accord.

Recommendation 4: If recommendations 1 to 3 are not agreed, implement the other recommendations of this submission and urgently release the formal drafting of the SEPP for public consultation to ensure the instrument is practically implementable and risks of appeals are minimised.

3. This change is not needed for the City's R1 General Residential and MU1 Mixed-Use zones.

The intent of the EIE is to overcome barriers in zoning to broaden the permissibility of medium density housing types. It notes that only 12 per cent of the Six Cities region is zoned for medium density, and of these areas only 40 per cent permit residential flat buildings⁷. This is not the case for the City of Sydney—we permit residential flat buildings extensively and we have the densest neighbourhoods in Australia.

In the City, the R1 General Residential and MU1 Mixed-use zones allow residential flat buildings and shop-top housing. In many circumstances these are at or above the 6-storey scale envisioned in the EIE. These areas are amongst the densest residential suburbs in Australia, and comparable to areas zoned R4 High Density residential. For instance, Surry Hills, Darlinghurst, Potts Point, Pyrmont and Ultimo are all a mixture of R1 and MU1, but they are more dense than all R4 zones in Sydney other than Wolli Creek and are more dense than Rhodes which is zoned R4 and considered high-density.

The EIE has relied on misleading research in the Productivity Commission's report which incorrectly characterises inner-Sydney as low density—lower than inner London, Melbourne and Brisbane. The Commission used inconsistent geographies and based its analysis on the statistical region of Sydney that includes the airport, Port Botany and south Sydney industrial areas, which have no resident population. The table in Appendix 1 shows 20 of the cities mentioned in the Commission's report compared with constant inner city land areas – at the inner 10, 20 and 100 square kilometres.

For the inner 10 square kilometres, Sydney is the 6th most dense with approximately 14,000 people per square kilometre. Closely following Vienna and Vancouver and just ahead of Seoul, London and San Francisco, and well ahead of Munich, Melbourne and Brisbane. At 20 square kilometres, Sydney is again ranked 6th while at 100 square kilometres its ranking drops dramatically to 15th.

In the Australian context, half of the 20 densest SA2 areas (suburbs) in Australia are within the City of Sydney, as shown in Appendix 2. These include high rise precincts, urban renewal areas and older terrace house areas demonstrating there are many ways to achieve high quality dense neighbourhoods.

Relying on the misleading research has meant that the Department's proposal is misdirected at the City of Sydney.

The City has unique inner-city suburbs zoned MU1 mixed-use, including carefully planned urban renewal areas and other areas which successfully incorporate an ecosystem of diverse and highly important small to medium enterprises, research, technology, media, creative economy, cultural, entertainment, leisure and night life uses within dense residential contexts. The EIE threatens the existing success of these areas and undermines significant strategic investment in its growth. The

⁷ Explanation of Intended Effect: Changes to create low-and mid-rise housing (p18). NSW Government December 2023, as at February 2024

City's planning prioritises its economic and cultural role, while significantly increasing residential development capacity.

Recommendation 4: If recommendations 1 to 4are not agreed, exclude the application of the EIE from existing high-density areas, and work with the City to find opportunities for more housing.

4. Infrastructure plans must be prepared first

The EIE relies on councils current contributions frameworks in response to the growth anticipated by these reforms. The City is very concerned that updating local contributions plans will become more challenging as a result of the proposed EIE changes. Forecasting growth and development are critical in the process of preparing local infrastructure contributions plans, as these forecasts inform decisions around infrastructure need. The proposed EIE changes have the potential to significantly increase residential densities, but the lack of clarity in the EIE makes it difficult to predict when and where this growth may occur. If contributions plans are not underpinned by sound growth forecasts, then there is a significant risk that growth will not be supported by the timely provision of local infrastructure.

The EIE asserts that by supplying new housing in existing urban areas, density can be provided in areas already well serviced by infrastructure and that providing new infrastructure in existing areas will cost less. However, The EIE fails to consider that existing infrastructure in urban areas may already be at capacity, and provision of new additional infrastructure to respond to new demand in these areas can be incredibly costly. For example, new and improved infrastructure to support the development of Green Square has cost in the order of \$1.8 billion. This has been completely ignored in the EIE proposal.

In the City there is already a limited amount of open space available for use by the existing population and the high cost of land acquisition is already a significant challenge. The increased permissibility on a blanket basis will increase property values and have the perverse effect of harming councils' ability to acquire land for local infrastructure purposes, despite there being more need for infrastructure to support population growth. Also, the cost of providing infrastructure in infill areas is often encumbered by complex site circumstances. Traffic management and night works, remediation works, demolition and utility relocation can seriously impact the cost of works in infill areas. These activities are typically not an "optional extra"—the costs cannot be avoided. The City would like to see DPHI's assessment of the impact of this proposed policy on the capacity of existing infrastructure to accommodate additional demand as well as its consideration of all the costs of providing infrastructure in already dense infill areas.

The EIE states that councils will collect more contributions revenue as more dwellings are built. While true, this is a simplistic view of a complex situation and funding will deteriorate. For many councils, this new policy will exacerbate an existing local infrastructure funding gap. The EIE fails to acknowledge that infill councils with section 7.11 contributions plans continue to be restricted to collecting a maximum contribution of \$20,000 per dwelling (unless they have an IPART reviewed plan and are subject to the Government's restrictive Essential Works List). The \$20,000 cap on contributions has not been indexed since its introduction in 2012, despite the costs of infrastructure provision rising steeply. This means that while the value of contributions has fallen in real terms over the last 12 years, councils have had to plug the infrastructure funding gap to deliver much needed infrastructure for their communities. The City estimates that for every 3 bedroom dwelling constructed in the City where the Government's contributions cap applies, the City is subject to a contributions shortfall of between \$11,000 and \$20,000 per dwelling. For every 2 bedroom dwelling, the City is subject to a contributions shortfall of between \$2,000 and \$8,000 per dwelling. The City recommends that DPHI commit to updating the IPART trigger thresholds (contributions caps) and allow them to be indexed with inflation, with a view to making them fairer and more reflective of current costs.

Recommendation 6: Permissibility and non-refusal standards (which increase land values) must not be implemented until local infrastructure plans are updated and in place.

5. Mid-rise height should prevail over floor space ratio as a non refusal development standard

The EIE sets out non-refusal standards that will override the maximum building height and floor space ratio (FSR) in local planning instruments. The intent of non-refusal standards is stated on page 28 of the EIE as 'calibrated to enable a typical 3-6 storey apartment building that can achieve an appropriate level of amenity for the apartments and to neighbouring dwellings'.

The City of Sydney is an expert in this typology of housing. It has approved more mid-rise housing than any jurisdiction in Australia.

The EIE contains no analysis, evidence or testing to demonstrate these non-refusal standards will achieve 3 to 6 storey buildings across a range of circumstances. The non-refusal standards are poorly assembled without accompanying research, analysis and testing and are consequently riddled with errors and unintended consequences.

The proposed FSR of 3:1 for mid-rise developments within 400 metres of stations will almost never fit within the 6-storey buildings described in the EIE. This is the same for the proposed 2:1 and 4 storeys between 400 metres and 800 metres. The City's testing has demonstrated that the FSR 3:1 and 2:1 FSR standards actually require building height over 6 storeys on smaller sites, and up 30 storeys on larger sites in urban renewal areas such as Green Square where land must be provided for streets and open space. The proposed FSR is also inconsistent with the NSW Government's own Apartment Design Guide which recommends heights of 9 to 12 storeys to accommodate 3:1.

Appendix 3 provides examples of built 4 to 6 storey buildings and the floor space ratios achieved.

Proceeding with FSR as a non-refusal standard will encourage speculation and delay delivery of Housing Accord targets as applications will require revision, negotiation and lead to court appeals.

To provide certainty and timely approvals, the mid-rise scale of 6 and 4-storey heights must prevail over FSR non-refusal standards.

Recommendation 7: Remove the FSR non-refusal standards and focus on implementing the 4-storey and 6-storey height limits.

Recommendation 8: Consult with the City of Sydney and others to produce new standards and provisions for 4- and 6-storey mid-rise housing.

6. Focus on density close to transport stations and not centres

The National Housing Accord seeks to deliver 'well located homes' that the NSW Government has defined as having access to a large numbers of jobs, social infrastructure (schools, hospitals etc), and other amenities (household goods and services, green space etc).⁸

Transport is essential to access the jobs, infrastructure and amenities envisaged by the Housing Accord. However, the EIE extends the definition of well-located homes beyond those areas that are served by public transport to include land around local centres. Development of the scale

⁸ National Housing Accord – implementation schedules (treasury.gov.au), Table 2: New South Wales – as at June 2023 Definition of well located homes NSW

proposed must be supported by public transport to avoid significant congestion and the associated costs to businesses and the NSW economy.

In most contexts in the City, areas zoned as local centres are small in scale with a discrete set of locally focussed services. They do not function as town centres and do not provide access to a large number of jobs and social infrastructure and other amenities. Centres that do provide such access are focussed on, and captured by, rail stations located within or nearby to them. In the City mixed-use zones are not concentrated zones to service residential areas. Instead they are extensive areas that provide a mix of employment, services and housing.

The City has undertaken detailed analysis of land zoned as local centres and mixed-use based on the criteria in the EIE to determine what centres "contain a wide range frequently of goods and services, such as, full line supermarkets, shops and restaurants are provided", and "an appropriate level of goods and amenities". In addition, the City has included the definition of well-located homes committed to be the Government in the National Housing Accord Implementation Schedule where "NSW considers the location of housing important in providing access to: large numbers of jobs, social infrastructure (schools, hospitals etc), and other amenities (household goods and services, green space etc)". 10

The analysis is included at Appendix 4.

None of the 18 zoned centres meets all of the criteria. 12 do not contain a majority of the criteria and are not considered suitable. Of the others, seven contain or are nearby rail or light rail stations and would be captured by the areas surrounding the stations. It is not necessary to include these centres in the EIE. The remaining centre is at Broadway Shopping Centre which due to the existing heavy congestion and allied safety concerns cannot support expansion.

Reinforcing the role of transport in centres has the combined effect of lowering the need for car trips by the vast majority of people, lowering the cost of living and increasing public transport revenue. Centres without rail stations have the opposite effect as they encourage car use, increasing congestion, raising the cost of living and have a downward effect on public transport revenue. They operate in opposition to centres at rail stations serving to undermine the rail stations' attributes as well located places to live near and around.

The capacity of light rail is substantially less than heavy rail and metro and supports a different urban form with similar high densities but with smaller geographic catchments. This is not studied or discussed in the EIE. In the absence of a proper study the City recommends reducing the radii of influence by half. That is 200 metres for six stories and 400 metres for 4 stories.

Recommendation 9: Density should be focussed around public transport. Local centres and mixed-use zones in the City of Sydney must not be used to generate additional density unless they are co-located with a transport station. Light rail stops should be subject to a smaller development radii.

7. This proposal will undermine housing delivery and other agreed strategic priorities in precincts already planned for higher density, including Green Square

In recent years the City of Sydney has planned for higher density housing in Green Square Urban Renewal Area, the Ashmore Estate and Waterloo among other places. Planning for this has involved neighbourhood reconfiguration to include new streets and parks, and the planning controls have been developed to acknowledge land dedication when sites are developed and the delivery of affordable housing.

⁹ Department of Planning, Housing and Infrastructure, Explanation of Intended Effect – Changes to Create Low and Mid-Rise Housing – December 2023 – Page 20 - https://www.planningportal.nsw.gov.au/draftplans/exhibition/explanation-intended-effect-changes-create-low-and-mid-rise-housing

¹⁰ National Housing Accord – implementation schedules (treasury.gov.au)Table 2: New South Wales – as at June 2023 Definition of well located homes NSW

As consequence developable lots make up around a third of all site area with the rest for streets, private open space and public space. In these areas, even small increases in FSR create significant increases in building height. On a typical site zoned at 1.5:1 FSR and layered with a community infrastructure and design excellence bonus will have an FSR of 2.2:1 available.

Development to this FSR would be expected to range from 4-15 storeys. Under the EIE proposal at 3:1 FSR, these heights would need to increase to a height of 6-30 stories. This is not mid-rise development and is not the outcome sought by the EIE.

In <u>Green Square</u>, the City also has a system of community infrastructure bonuses and contributions to implement infrastructure requirements, such as the creation of streets and public open space. Introducing these competing controls will encourage development to side-step the requirements for community infrastructure contributions by opting to develop under the EIE proposals. Basic infrastructure will not be provided.

To ensure critical infrastructure supports Green Square's redevelopment, the City developed a comprehensive \$1.8 billion infrastructure plan, to provide local services and facilities – roads and footpaths, new parks and playgrounds, public art and child-care. The City has forward funded \$550 million to date to ensure infrastructure and facilities are in place as residents move in.

Sites within the GSURA are eligible for additional floor space under clause 6.14 of Sydney LEP 2012 of between 0.25:1 and 2.2:1, reflecting the uplift in land value associated with Green Square's increased densities. This is in addition to the base floor space ratio controls that apply. Sites may access additional floor space if identified community infrastructure is provided within the development.

For equity and transparency, the City assigns a dollar value to the Community Infrastructure package based on the type of use and amount of additional floor space proposed. The detail and total agreed cost of the Community Infrastructure works to be delivered by an applicant is identified in a VPA.

The uplift in land value that developers have/will contribute to local public infrastructure cost is approximately 75% of the \$1.8 billion infrastructure plan figure (or \$1.38 billion in 2023 dollars).

There is a fiscal shortfall between developer contributions and infrastructure costs, such that the City is funding most of the balance of the costs, with smaller amounts from State and Federal government.

There are at least 11 large sites that are in the development application/planning proposal process and a further 24 significant sites yet to be redeveloped for residential/mixed-use. If the non-refusal standards come into effect, there is a high risk that the City will lose at least \$33 million in community infrastructure contributions.

<u>Botany Road</u> has been planned for higher density affordable housing and employment uses to support the Innovation Corridor. The City has already received development applications for affordable housing, commercial offices and a hotel, proving the effectiveness of the controls. If general residential development is permitted up to an FSR of 3:1, community housing providers will need to compete with general residential developers and will be unable to acquire land in the Precinct.

Oxford Street has seen revised planning controls to give significant development uplift to cultural, creative, live music and entertainment uses, strengthening the cultural and creative precinct that helps make Sydney attractive for new housing. The Oxford Street controls support the NSW Governments Vibrancy Reforms and broader vision for the night-time economy. Again, the City is receiving development applications to use the controls, provide new employment, retail, hotel, nightlife and cultural uses in the new spaces. If general residential development is permitted up to an FSR of 3:1, commercial, cultural and creative providers will need to compete with general residential developers and will be unable to acquire land in the Precinct.

On the <u>Pyrmont Peninsula the City</u> is about to publicly exhibit new planning controls that will increase housing in the area by 47% (4,100 additional dwellings) and jobs by 80% (27,000

additional jobs), consistent with the NSW Government's Pyrmont Peninsula Place Strategy¹¹. The Ultimo Pyrmont planning proposal goes well beyond the SEPP's non-refusal standards, with residential envelopes up to 33 storeys in height and commercial envelopes at 21 storeys. The EIE proposal undermines the feasibility of the City's draft alternative controls for commercial development.

Increasing the base controls for residential projects for these sites increases land values, meaning commercial outcomes are less likely to be delivered. This risks the established creative media employment cluster and the economic growth projections of the NSW Government's Pyrmont Peninsula Economic Development Strategy¹². The planning proposal for Ultimo Pyrmont achieves many strategic planning and community objectives, including employment targets, residential targets, diversity of buildings and more open space for more trees. It is also accompanied by a new contributions plan to deliver infrastructure for the new population.

Recommendation 10: The EIE proposal should not apply to areas where substantial planning for new housing and other strategic priorities has already taken place with the community, including areas currently excluded from the application of the Housing SEPP by Sydney LEP 2012 plus master planned areas being Pyrmont Ultimo, Botany Road Corridor, Waterloo Estate South, Ashmore Estate and Oxford Street.

8. The proposal is not suited to areas with narrow streets

Unlike the vast majority of greater Sydney, the City of Sydney contains small neighbourhoods where the layout predated the *Width of Streets Act 1881*. In these areas narrow streets and small lots predominate. They are relatively dense, generally over 10,000 dwellings/square kilometre, denser than the proposal would achieve. Erecting six storey buildings on these streets and lanes in these neighbourhoods is difficult, if not impossible. These streets are shown in Appendix 5.

Currently these small streets and lanes, with less than a 12 metres wide reservation, have narrow footpaths, narrower than the widths recommended by the TfNSW Walking Space Guide and narrow carriageways, unsuitable for larger vehicles and too narrow for normal use, passing on street and turning into narrow driveways. They operate well because there is low car ownership, low speeds are observed and people often walk on roadways.

Adding apartment buildings to these areas will upturn the safe operations of the streets and is not recommended. The houses in these areas are relatively small and closely packed, achieving high density. New six storey buildings are unlikely to greatly if at all increase the overall density of these areas.

Recommendation 11: The proposal should not apply in areas where the street reservation is less than 12 metres wide.

9. Changes to the Apartment Design Guide are not supported

The EIE intends to deliver new housing with an appropriate level of amenity to the new apartments and to neighbouring dwellings. It also proposes changes to the NSW Apartment Design Guide. The proposed changes to the NSW Apartment Design Guide do not support this intent. They are counterproductive and will result in dwellings with less sunlight and privacy than existing

¹¹ NSW Government, Pyrmont Peninsula Place Strategy, December 2020 https://shared-drupal-s3fs.s3.ap-southeast-2.amazonaws.com/master-test/fapub pdf/Pyrmont+Peninsula+Place+Strategy final.pdf

¹² Pyrmont Peninsula Economic Development Strategy, NSW Government, October 2020 https://shared-drupal-s3fs.s3.ap-southeast-2.amazonaws.com/master-test/fapub pdf/PPPS Economic+Development+Strategy final+(1).pdf

apartments, neighbourhoods with less trees, and streets that are congested with cars and service vehicles including waste trucks.

Examples of poorly considered changes include:

- Reduced separation between buildings at the upper floors. Building separation allows for
 acoustic and visual privacy between units and, for sun penetration to get through to apartments
 and the street. The EIE proposal will reduce the number of apartments getting appropriate
 sunlight to below the design criteria in the apartment design guide, increase the number of
 apartments receiving no sunlight to above the design criteria, reduce separation between
 apartments, and reduce sunlight in streets. The effect of the proposed change is illustrated in
 Appendix 6.
- A minimum parking rate of 1 space per apartment is too high for mid-rise high density housing in areas such as the City of Sydney. If the new mid-rise housing is focussed around transport hubs then a better approach would be to have a maximum parking rate with no mandated requirement to provide parking spaces. This is the current practice within the City of Sydney, where developers are free to provide no parking where the market does not value the cost of providing car spaces. This also results in improved construction times and lower construction costs. The cost of providing parking in apartment buildings can add significantly to the cost of construction, often more than \$50,000 \$100,000 per apartment.
- Removal of a requirement for basements to be designed to accommodate large vehicles including waste trucks where they can. City streets are already under pressure from a variety of uses including traffic, pedestrians, cyclists, tree planting and greening, servicing, loading, and resident and visitor parking. Effective waste management is essential for dense neighbourhoods to meet resident expectations for their streets and neighbourhoods to be clean, safe and accessible and free of obstructions from excessive bins. The City's preference is to avoid bins from apartment blocks being placed at the street kerb. This is unsightly, causes clutter, obstructs pedestrians and other street users. Waste trucks stopping frequently on narrow streets causes traffic congestion. To avoid this the City's preference is for waste to be managed in an off-street waste room for buildings under a certain size. Occasionally large developments generate so many bin movements it is necessary for the truck to be able to enter the basement to service the bins. It is essential that Councils be able to manage waste in a way that is best for the neighbourhood and that fits within Council's waste strategy, and in some instances this will require basement access for waste trucks. Further information about access for waste is at Appendix 7.
- A low target for deep soil, tree planting and canopy compared to NSW government targets in the Greener Neighbourhoods Guide¹³ and local targets in Council plans. The City of Sydney Council recently endorsed development control plan amendments for public exhibition that included new tree planting rates for development. When the EIE proposal is compared against these local requirements, there is a substantial reduction in tree planting. For a site of 350 square metres, the EIE would require one small tree. The City's local controls would require one medium tree and 3 small trees. This is a substantial and unjustified reduction in tree-planting at a time when the value of trees for cooling, managing flood and quality of life in urban areas is widely accepted.

Recommendation 12: The changes to the Apartment Design Guide will result in apartments of poorer quality and mid-rise neighbourhoods of lesser amenity and with substantially fewer trees than current standards would deliver. Sydney has a temperate but humid climate prone to unhealthy mould, mitigated by ventilation and sunshine. These changes are not supported and should not proceed.

¹³ NSW Government, Greener Neighbourhoods Guide 2021 https://www.planning.nsw.gov.au/policy-and-legislation/urban-greening/greener-neighbourhoods

10. The non-refusal standards will reduce certainty for developers and residents and cause delays in assessing applications for new housing

The EIE proposes new non-refusal standards for housing that will override local planning controls for height and FSR. However, it is much less clear on the relationship with other local planning controls, for instance environmental considerations.

When Councils set development standards for height and FSR, they are required by the Department to follow DPHI Practice Note PN08-001, which states that development standards provide "certainty to the community and land owners about the acceptable bulk and scale of development." It also states that "it is important that a consistent approach to identification and application of height and FSR controls is utilised so that these controls are clearly understood by development and community interests alike."

Development standards such as building height and floor space ratio set maximum expectations for the community about the future character of an area. It also sets expectations for developers about what they can achieve on a development site, and for landowners on what the value of that land should be. It is reasonable for everyone to assume that when development standards are set that those expectations can be met.

A strong evidence base and justification is required when Council amends development standards in a local environmental plan. It is not uncommon for DPHI to require Councils to complete urban design studies, flood studies, concurrence with airports and aviation authorities, contamination studies, amenity and character impact assessments, infrastructure studies and concurrence with State infrastructure agencies such as Sydney Water, Ausgrid and Transport for NSW to provide the confidence that development under the standards is achievable.

The non-refusal standards in this EIE, do not have the evidence and justification required and will introduce major uncertainty for landowners, developers, the community, and consent authorities. The non-refusal standards have not been tested for site suitability in the same way that development standards are, during the planning proposal process. This opens up developers to significant risks if issues around infrastructure provision, contamination, flooding, compliance with requirements around height of buildings below flight paths has not been tested before.

Shifting the assessment of these impacts to the development application stage, where it would be addressed on a case-by-case basis, will result in inconsistent outcomes, cumulative impacts and more complex and delayed assessments with appeals and counter-appeals that are costly and time-consuming. This may delay viable housing projects that are ready for application and assessment. It is counter to the Accord's aim to make the planning system more responsive to demand over time.

Recommendation 13: Work with councils to introduce development standards for mid rise housing based on robust analysis of relevant issues for a precinct to ensure certainty, faster approvals and the management of natural hazards and other impacts.

11. Low-rise housing in Rosebery Estate and Centennial Park

In parts of Rosebery and Centennial Park, changes will allow low-rise manor houses, terraces and townhouses with heights of 9.5 metres in the R2 Low Density residential zone within 800 metres of Moore Park light rail and the Eastlakes shopping centre. Height and density will also be increased for dual occupancy dwellings, which are already allowed.

¹⁴ NSW Government – Height and floor space ratio – practice note. https://www.planning.nsw.gov.au/sites/default/files/2023-04/practice-note-pn-08-001-height-and-floor-space-ratio.pdf

The Rosebery Estate, which is the City's largest neighbourhood zoned R2 – Low Density Residential, is identified as a special character in the LEP due to the "Garden Suburb" design, consistent subdivision pattern, consistent scale and setbacks and generous landscaping.

The local planning controls were designed to enable sensitive growth while maintaining overall compliance with the Rosebery Estate covenant. The local controls allow dual occupancies within a single storey appearance, achieved by having a building height of 6 metres within 14 metres of the front lot line and beyond that a height restriction of 7.5 metres. The controls protect character while enabling housing diversity and some intensification compatible with the low-density zone.

The proposed reforms would allow 'manor houses' and 'multi-dwelling housing' with a new height limit of 9.5 metres and building forms that contradict the requirements specified in the private covenant. The non-refusal standards in the EIE are incompatible with the special character area controls in Sydney DCP, and will cause confusion and uncertainty in assessing new applications for housing.

Recommendation 14: The Department should work with the City to implement low-density mid-rise development in Rosebery that is consistent with the Rosebery estate covenant.

12. Affordable housing requirements should be a part of the proposal

A Metropolis of Three Cities established an affordable rental housing target that 5-10 per cent of new residential floor space should be provided as affordable rental housing.

In the Six Cities Region Discussion Paper, the NSW Government committed to working with local councils, state and federal agencies and industry to improve delivery of affordable housing, including new financing mechanisms, with a "10 per cent affordable housing target for new rezonings where there will be a housing uplift."

Other NSW Government reforms to increase housing supply, including the proposed Transit Oriented Development SEPPs, act to ensure that and affordable housing contribution requirement will be applied where the development capacity of land has been increased. While the contribution requirement, particularly for the 31 stations part of the SEPP, is insufficient to meet the significant demand for affordable housing, nonetheless, this is a critical inclusion of these policies.

This EIE however, while creating new development capacity, has made no inclusion of affordable housing requirements. This is a critical oversight of the proposed changes and fails to meet the NSW Government's commitment to ensure a proportion of new floor space is affordable housing – not at the election of the developer.

In addition, the City's affordable housing program ensures that where land is rezoned to increase development capacity that a proportion of additional affordable housing contributions (above what is already required by the Sydney LEP 2012) of no less than nine per cent of the new floor space is required to be dedicated to a community housing provider for in perpetuity affordable housing. A recent example of this is approach has been applied at 923-935 Bourke Street, Waterloo, where a site was rezoned resulting in 12 affordable dwellings in total, four of which resulted from the increased contribution requirement on the new floor space.

The EIE, in bypassing the rezoning phase and increasing development capacity on land, removes opportunities by local government to negotiate long term affordable housing outcomes.

Recommendation 15: Where there is an increase in the development capacity of land an affordable housing contribution requirement (for in perpetuity affordable housing) must be applied.

13. Work with the City to plan for increased housing density

This submission identifies significant technical and conceptual shortcomings in the EIE proposal for mid-rise high density housing in the City of Sydney. The City is already as dense as the EIE proposes, but the methods put forward are not technically appropriate. They are more likely to disrupt and delay the delivery of housing than increase it during the period of the National Housing Accord.

Recommendation 16: Work with the City to plan for and deliver additional mid-rise housing that will be financially and technically feasible, of good design and well-located, for the purpose of contributing to the National Housing Accord target.

In the City of Sydney, the aims of the Housing Accord are better addressed by withdrawing and replacing the mid-rise proposal and substituting it with the following actions:

- Provide the City with a dwelling target and together with the City constructing a program to increase dwelling capacity
- Accelerating the processes of approving existing Planning Proposals that add to the capacity for the City to grow more dense
- Building on existing cooperative working practices with even closer cooperation between the Department and the City, with greater transparency, and information sharing
- Allowing the City together with the Department to more quickly to progress planning for State Government owned sites, particularly those sites that will substantially increase social and affordable housing
- The City immediately review its Conservation Areas and identifying sites capable for change and implementing upzoning at or above the heights in the EIE
- The City to examine other areas within 800 metres of stations, that maybe less dense than the EIE proposal, and identify sites capable for change and implementing upzoning at or above the heights in the EIE.

If the proposal is not withdrawn then areas of the City must be excluded as the standards in the EIE are counterproductive to the responsive delivery of housing as described in the Housing Accord.

Areas that must be excluded are:

- 1. R1 general residential and MU1 mixed-use zones. These are already denser than the proposal.¹⁵
- 2. Where planning is complete or well advanced and delivers the same or more height or density than the proposal:
 - Green Square redevelopment area
 - Ashmore estate
 - Ultimo Pyrmont
 - Botany Road corridor
 - Harold Park
 - Darlinghurst Road, Kings Cross

¹⁵ Note the list of inclusions in #2 and #3 include areas zoned R1 and MU1 as well as other areas.

- Central Sydney
- Waterloo south, north, central and metro quarter

It is unnecessary and counterproductive to apply the EIE to these areas.

- 3. Where existing densities area already, or soon will, far exceed the proposal's likely maximum density:
 - Sydney (South) Haymarket
 - Chippendale including Central Park
 - Zetland
 - Waterloo
 - Ultimo
 - Pyrmont
 - Potts Point Woolloomooloo
 - Darlinghurst
 - Surry Hills
 - Newtown (NSW)
 - Glebe Forest Lodge
 - Camperdown Darlington
 - Beaconsfield- Rosebery
 - Redfern
 - Erskineville Alexandria
 - Moore Park Paddington

It is unnecessary to apply the EIE to these areas.

- 4. Areas surrounding local Centres, these are not well located areas for the purposes of the National Housing Accord
- 5. Areas more 400 metres from a light rail stop, these are not well located areas for the purposes of the Housing Accord.
- 6. Individual Heritage Items (not heritage conservation areas), including Millers Point, as application to these sites will be ambiguous and likely to result in delay and act counter to achieving the aims of the Housing Accord for a more responsive supply of housing.

Appendices

Appendix 1: 20 inner city population density comparisons with constant geographic areas

	City	Inner 10 km2 description, area, population	Pop. density inner 10 km² rounded	additional 10 km2 description, area, population	Pop. density inner 20 km² rounded	inner 100 km2 description, area, population	Pop. density inner 100 km ² rounded
1.	Barcelona	Ciutat Vella, Eixample 11.6 km², 379k	33 k/km²	Sant Martí 10.4 km², 241k	28 k/km²	Barcelona 99 km² 1,884k	17 k/km²
2.	Paris	arrondissement 1–8, 10.2 km², 196k	19k/km²	arrondissement 7 – 9 10.2 km², 144k	17k/km²	City of Paris 105 km² 2,100k	20k/km2
3.	Manhattan	below 14th street, 11.9 km², 204k	17k/km²	south 58th street, west of Lexington Avenue 8.3 km ² , 91k	15k/km²	Manhattan 57 km² 1,596k	28 k/km²
4.	Vienna	Innerestadt, Neubau, Mariahilf, Weiden, 9.8 km², 165k	17k/km²	Josefstadt, Landstrasse, Alsergard, 10.4 km ²	15k/km²	+ Leopoldstadt, Margareten, Meidling! Rudolfsheim- Fünfhaus, Ottakring, Währing, Döbling, Brigittenau 99 km²	10 k/km²
5.	Vancouver	Downtown, West End, Fairview 9.0 km ² 143k	16k/km²	Strathcona, Mount Pleasant, Kitslano 13.0 km² 89k	13k/km²	Vancouver 115 km² 708k	6k/km²
6.	Sydney	Haymarket, Woolloomooloo, Potts Point, Pyrmont, Ultimo, Darlinghurst, Surry Hills, 9.5 km²,	14k/km²	Redfern, Chippendale, Glebe, Newtown, Camperdown, Darlington, Waterloo 11.4 km ² ,	11k/km²	Sydney, Inner West, North Sydney, Waverley, Woollahra, Mosman 103 km², 621k	6k/km²
7.	Seoul	[data not found]		Yongsan 22 km² total 226k	10k/km²	Yongsan, Jung, Jongno, Seongdong, Seodaeman, Donjak 107 km², 1,507k	14k/km ²

9.	London San Francisco	City, inner wards of Islington, Camden, Hackney 9.7 km², 114k Downtown-Northeast Neighborhoods- Treasure Island 10.1 km² 121k		inner wards of Tower Hamlets, Westmipster and Southwark 10 km², 90k SoMa-Potrero- Mission Bay 8.0 km² 61k		City, Islington, Camden, Hackney, Tower Hamlets, Westminster 100 km² 1,209k San Francisco 121 km² 808k	12 k/km²
10.	Amsterdam	Centrum 8.0 km ² 87k	11k/km²	Zuid 9.3 km², 144k	13k/km²	+ West, Oost, Nieuw West 98 km², 666k	7 k/km²
11.	Munich	Altstadt – Lehe, Maxvorstadt, Ludwigsvorstadt – Isarvorstadt 11.8 km2,	11k/km²	Schwabing-West, Au – Haidhausen 8.6 km², 130k	12k/km²	+Schwanthalerhöhe, Sendling, 107 km², 821k	8k/km²
12.	Toronto	Toronto Centre 10.4 km² 118k	11k/km²	Western centre, Riverdale, Rosedale 10.1 km ² 93k	10k/km²	Old Toronto 97 km², 798k	8k/km²
13.	Berlin	Mitte 10.8 km² 102k	10 k/km²	Tiergarten, Moabit 12.9 km² 95k	8k/km²	Mitte, Friedrichshain, Kreuzberg, Charlottenburg, Wilmersdorf, Neukolin, Schoneberg 99 km²,	11 k/km²
14.	Rome	[data not found]		Municipio I 20.1 km² total 167k total	8k/km²	Municipio I, II, V, VII 112 km² 884k	8k/km²
15.	Melbourne	City, Southbank, east Melbourne, Carlton, 9.6 km ² ,	10k/km²	North Melbourne, docklands, south Yarra, Parkville 11.8 km ²	6k/km²	Melbourne, Port Phillip, Yarra, Stonnington 103 km², 462k	5 k/km²

16. Brisbane	City, Fortitude Valley, Highgate Hill, Kangaroo Point, New Farm, South Brisbane, 10.3 km²,	7k/km²	Spring Hill, West End, Paddington, East Brisbane, Hawthorn 9.8 km ² 46k	6k/km²	Inner city 82 km², 250k	3 k/km²
17. Tokyo	Chioyda 11.7 km² 67k	6k/km²	Chuo 10.2 km² 169k	11k/km²	Chiyoda, Chuo, Minato, Shibuya, Shinjuku, Bunkyo, Taito 97 km², 1,540k	16 k/km²
18. Copenhagen	Indre By 9.4 km², 56k	6k/km²	Frederiksberg 8.8 km² 105k	9k/km²	Kobenhavn, Frederiksberg, 97 km ² 759k	8k/km²
19. Zurich	Kries 1, 4, 5, 6 11.8 km ² 74k	6k/km²	Kries 3 8.7 km ² 46k	6k/km²	Zürich 88 km² 427k	5k/km²
20. Singapore	Downtown, Outram, Singapore River, Museum, Rocher 10.7 km ² 38k	4 k/km²	Newton, Orchard, River valley, Nassim, Chatsworth, Ridout 9.5 km ² 38k	4k/km²	Central Region 133 km ² 923k	7k/km²

ABS, https://www.citypopulation.de/, authors calculations, various national statistics websites, latest available most but not all figures are post 2020

More than 2 k/km² above Sydney's density
Sydney

More than 2 k/km² below Sydney's density

Appendix 2: 20 densest SA2 areas [suburbs] in Australia, ABS

Note: City of Sydney areas are shaded green and other NSW areas are shaded blue. Glebe/Forest Lodge is 21st with 8961 persons/square kilometre.

		2022	Area	Population density 2022
	SA2 name	Population	on km2	persons/km2
1	Melbourne CBD - North	18826	0.6	33522.1
2	Southbank - East	17340	0.8	21567.2
3	Sydney (South) - Haymarket	21048	1.1	19470.9
4	Chippendale	8237	0.5	17744.5
5	Melbourne CBD - West	17299	1	17211.2
6	Wolli Creek	11408	0.7	16788.8
7	Zetland	13349	8.0	16588.8
8	Waterloo	17010	1.1	15001.3
9	Ultimo	7801	0.6	13960.3
10	Pyrmont	12965	0.9	13942.4
11	Melbourne CBD - East	10655	8.0	13285.5
12	Potts Point - Woolloomooloo	18256	1.5	12473.4
13	Darlinghurst	10617	0.9	12390.0
14	Surry Hills	15952	1.3	12117.9
15	Rhodes	11725	1.0	11655.1
16	Hurstville - Central	12373	1.2	10088.9
17	South Yarra - North	11779	1.2	10071
18	Carlton	18004	1.8	9899.4
19	West Melbourne - Residential	8014	0.8	9717.5
20	Newtown (NSW)	14853	1.6	9456.3

Appendix 3: The relationship between height and floor space ratio

The proposed floor space ratio controls result in heights well above four and six storeys.

The Apartment Design Guide Part 2D: Floor space ratio provides indicative built form massing for residential flat buildings with different floor space ratios:

- built form of 3 storeys yields gross floor area of approximately FSR 1:1;
- built form of 6-7 storeys yields approximately FSR 2:1;
- built form of 9-12 storeys yields approximately FSR 3:1.

This relationship is that for each 1:1 of floor space ratio the development must allow 3-4 storeys. The ratio in the EIE is for each 1:1 of floor space ratio the development must allow 2 storeys.

A study of the relationship of height and FSR, for the City of Sydney, by Hill Thalis and Olsson Associates, provided a number of examples of 6 storey buildings with FSR in the range FSR 2.0:1 – 2.2:1. The study has been provided to DPHI to help formulate an appropriate relationship between FSR and height controls.

Examples of four to six storey development and their height and floor space ratio

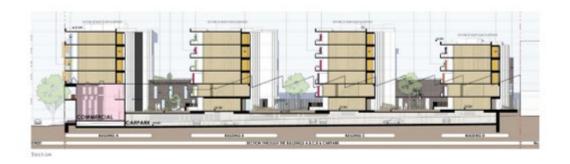
765-779 Botany Road Rosebery

FSR	2:1
Height in Storeys	6
Height in Metres	22
Completed	



356-368 George Street Waterloo

FSR	2:1
Height in Storeys	6
Height in Metres	22
Completed	







85 Bourke Street Woolloomooloo

Ground floor Plan Drawings: McGregor Westlake Architecture

FSR Height in Storeys Height in Metres Completed	2:1 5 15
Section	L3 Plan



444-450 Gardeners Road Alexandria

FSR	2:1
Height in Storeys	6
Height in Metres	25
DA Approved	
Not built	





41 Birmingham Street Alexandria

FSR	2:1
Height in Storeys	6
Height in Metres	22
Completed	







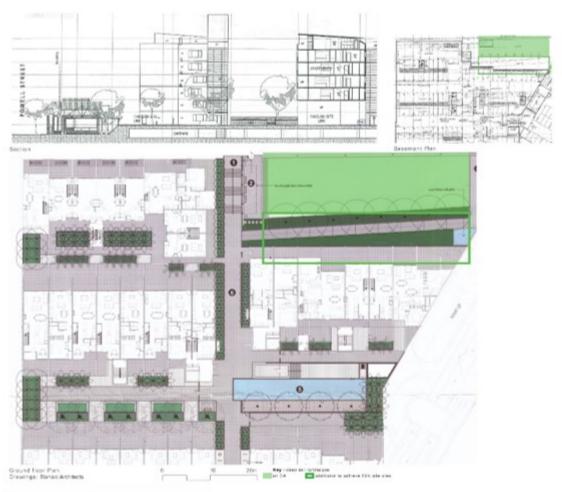
19 Ralph Street Alexandria

FSR 2:1 Height in Storeys Height in Metres Completed 6 22.6



2-4 Powell Street Waterloo

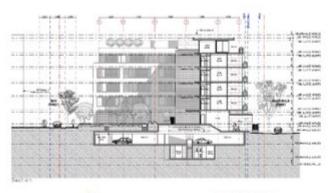
FSR 2:1 Height in Storeys 6 Height in Metres 22 Completed



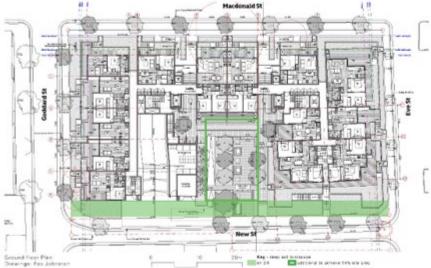


75-81 Macdonald Street Erskineville

FSR 2:1 Height in Storeys 6 Height in Metres 21 Completed



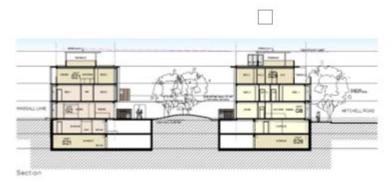






2 Mitchell Road Alexandria

FSR 1.7:1 Height in Storeys 4 Height in Metres 12 Completed







Appendix 4: Analysis of local centre zones

The City contains 18 E1 local centre zones. A summary of these zoned areas is below. The first columns provide an identification name, the second a small map, and the third the size and length of the centre. The City has assumed criteria based in the EIE to determine what centres:

"contain a wide range frequently of goods and services, such as, full line supermarkets, shops and restaurants are provided", and "an appropriate level of goods and amenities".

In addition the City has included the definition of well-located homes committed to be the Government in the National Housing Accord Implementation Schedule where:

"NSW considers the location of housing important in providing access to: large numbers of jobs, social infrastructure (schools, hospitals etc), and other amenities (household goods and services, green space etc)".

In the absence of a clear description in the EIE, the City has used the 2006 Australian and New Zealand Standard Industrial Classification (ANZSIC) to provide a framework for organising data about businesses by enabling grouping of business units carrying out similar productive activities. This code is used by the Australian Bureau of Statistics to organise their data and by the City for its Floor space and employment survey.

Eight columns of the table represent a threshold criterion based on the three definitions. From left to right these columns are:

- supermarkets at least two full line supermarkets required as indicated in the EIE¹⁶
- goods a majority of the shop types described in the ANZSIC code. ¹⁷ Additional supermarkets are listed here.
- services a majority of the business types described in the ANZSIC code .¹⁸
- amenities at least two community or public amenity centres
- food and beverage a majority of the types described in the ANZSIC standard. ¹⁹ As a proxy for restaurants described in the EIE
- primary school close by as indicated in the implementation schedule
- park close by as indicated in the implementation schedule
- rail station or light rail stop –to provide easy access to commute to jobs as indicated in the implementation schedule.

Each zone is scored with a simple yes or no against the criteria and overall yes is obtained from a complete row of yes scores.

¹⁶ Full-line supermarket means a supermarket with a full range of goods, including packaged groceries, fresh meat, bakery and deli department, fresh fruit and vegetables and frozen foods, that has a gross floor area greater than 2,500sqm.

The following business are included as goods: Supermarket, Grocery Stores, Convenience Stores, Fresh Meat, Fish and Poultry Retailing, Butchers, Fish Shops, Poultry Shops (Frozen and Cooked), Fruit and Vegetable Retailing, Liquor Retailing, Smallgoods Stores/Delicatessens, Health Foods Stores, Bakers and Bread Shops, Cakes and Pastries, Confectionary Retailing, Newsagent/Newspaper and Magazines Retailing, Department Stores, Pharmaceutical, Cosmetic and Toiletry Goods Retailing, Drugs and Medicines Retailing, Pets and Pet Accessories

¹⁸ The following business are included as services: Banking - Branch Office, Legal Services, Accounting Services, Veterinary Services, General Practice Medical Services, Specialist Medical Services, Dental Services, Optometry and Optical Dispensing, Physiotherapy Services, Chiropractic and Osteopathic Services, Other Allied Health Services, "Health and Fitness Centres and Gymnasia Operation", Hairdressing and Beauty Services, Laundry and Dry-Cleaning Services.

¹⁹ The following business are included as food and beverage: Cafes, Restaurants, Takeaway Food Services, Hot Food Retailing, Cold Food Retailing, Sandwiches Retailing, Drink Retailing, Pubs, Taverns and Bars, Small Bar, Karaoke Bar, Clubs (Hospitality)

No zone meets all or albeit of one of the criteria. That is, none are certain contenders to include. Twelve do not contain a majority of the criteria and are not considered suitable.

Four centres contain six of the eight criteria and two others contain five. These are possible contenders for suitability and are discussed below. Seven of these contain or are nearby rail or light rail stations and would be captured by the areas surrounding the stations.

The two that contain five of the eight criteria should not be included for the reasons as follows:

- Green Square town centre, Green Square it does not contain a full line supermarket, nor
 does it contain shops that provide a wide range of frequently used goods or services. It is
 captured by the Green Square rail station. It is not necessary to include, and it is not
 considered suitable.
- Erskineville Road, Erskineville it does not contain a full line supermarket, nor does it contain shops that provide a wide range of frequently used goods and has only one public amenity building. It is captured by Newtown, Erskineville, and MacDonaldtown rail stations. It is not necessary to include, and it is not considered suitable.

The four that contain six of the eight criteria should not be included for the reasons as follows:

- Darlinghurst Road, Kings Cross it does not contain a full line supermarket, nor does it contain shops that provide a wide range of frequently used goods. It is captured by the Kings Cross rail station. It is not necessary to include, and it is not considered suitable.
- King Street north, Newtown it does not contain a full line supermarket and has only one public amenity building. It is already captured by Newtown, and MacDonaldtown rail stations. It is not necessary to include, and it is not considered suitable.
- Crown and Baptist streets Surry Hills/Redfern it contains only one full line supermarket, and has no public amenity building. It is already captured by Surry Hills light rail stop. It is not necessary to include, and it is not considered suitable.
- Glebe Point Road and Broadway, Glebe and Ultimo it contains only one full line supermarket. It is not close to a rail station or light rail stop. This centre is highly congested with vehicles and pedestrians. There is too little space in the surrounding streets for pedestrians and vehicular traffic is congested. Due to the existing congestion and allied safety concerns the centre cannot be expanded. Using this centre as a proxy for greater density is not acceptably as adding to the existing congestion will necessarily increase the existing safety concerns in this area, particularly the conflicts between pedestrians and vehicles.

Name	E1 Zone	Area of zone / length of high street	AT LEAST TWO FULL-LINE SUPERMARKE TS (Number)	Wide range of frequently needed GOODS	Wide range of frequentl y needed SERVICE S	Wide range of frequently needed AMENITIE S	BEVERAG	Convenie nt access to a Public Primary School	Convenient access to a local park	Rail / light rail station	Include as Town Centre Precinct [meets EIE criteria]
			≥2 >2500m²	≥50% (8/17)	≥50% (7/14)	≥2	≥50% (6/11) or >#14	<400m	≥3,000m² <400m		n/8
Broadway/ Glebe Point Road		105,16 4 m ² 1000m	NO (1) 4,300 m ²	YES (13/17) Supermarkets 2,000 m ² 250 m ² 150 m ²	YES (11/14)	YES Communit y hall, Sports Hall	YES (9/11) #90	YES Glebe PS Om east end of zone	YES Victoria Park (9Ha) 30m south	NO	6/8 NO Only one full line supermarket, no rail or light rail
Glebe Point Road Centre	E1 E1 C3XIII C3X	11,119 m ² / 169m	NO (0)	NO (1/17) No supermarkets	YES (8/14)	NO	NO (3/11) #9	NO Forest Lodge PS 470m west	YES HJ Foley Park (5,800m²) 20m south	NO	2/8 NO

Name	E1 Zone	Area of zone / length of high street	AT LEAST TWO FULL-LINE SUPERMARKE TS (Number)	Wide range of frequently needed GOODS	Wide range of frequentl y needed SERVICE S	Wide range of frequently needed AMENITIE S	Wide range of FOOD & BEVERAG E	Convenie nt access to a Public Primary School	Convenient access to a local park	Rail / light rail station	Include as Town Centre Precinct [meets EIE criteria]
Glebe Point Road North	Et E	15,817 m ² / 296m	NO (0)	NO (7/17) No supermarkets	NO (1/14)	YES Library Communit y and arts centre	NO (4/11) #11	NO Forest Lodge PS 540m southwest	YES William Carlton Gardens (3,100m²) 90m northeast	NO	2/8 NO
King Street North		77,648 m ² / 1,110m	NO (0)	YES (9/17) Supermarket 1,000 m ²	YES (10/14)	NO Library	YES (10/11) #109	YES Newtown North PS 5m north Darlington PS 110m east Newtown PS	YES Camperdown Memorial Rest Park (3.8 Ha, IWC) 60m northwest	YES	NO no full line supermarketnot enough public amenities. captured by rail stations

Name	E1 Zone	Area of zone / length of high street	AT LEAST TWO FULL-LINE SUPERMARKE TS (Number)	Wide range of frequently needed GOODS	Wide range of frequentl y needed SERVICE S	Wide range of frequently needed AMENITIE S	BEVERAG	Convenie nt access to a Public Primary School	Convenient access to a local park	Rail / light rail station	Include as Town Centre Precinct [meets EIE criteria]
								150m south			
King Street South	Educational Establishment Total Tot	26,795 m ² / 927m	NO (0)	NO (1/17) Supermarket 250 m²	NO (4/14)	NO	YES (4/11) #18 Excluding west side	YES Newtown PS Om north end Camdenvill e PS 420m west	YES Sydney Park (40Ha) 60m south Camperdown Memorial Rest Park (3.8 Ha, IWC) 340m north	YES	NO, no full line supermarket captured by rail station

Name	E1 Zone	Area of zone / length of high street	AT LEAST TWO FULL-LINE SUPERMARKE TS (Number)	Wide range of frequently needed GOODS	Wide range of frequentl y needed SERVICE S	Wide range of frequently needed AMENITIE S	Wide range of FOOD & BEVERAG E	Convenie nt access to a Public Primary School	Convenient access to a local park	Rail / light rail station	Include as Town Centre Precinct [meets EIE criteria]
Darlighurst Road, Potts Point	Some Road	63,088 m ² / 462m	NO (0)	NO (7/17) Supermarkets 1,900 m ² 600 m ²	YES (10/14)	YES combined service centre, community rooms and library and park	YES (8/11) #71	YES Plunkett Street PS 270m west Darlinghur st PS 250m south	YES Fitzroy Gardens (5,400m²) North end	YES	6/8 NO no full line supermarke captured by rail station

Name	E1 Zone	Area of zone / length of high street	AT LEAST TWO FULL-LINE SUPERMARKE TS (Number)	Wide range of frequently needed GOODS	Wide range of frequentl y needed SERVICE S	Wide range of frequently needed AMENITIE S	Wide range of FOOD & BEVERAG E	Convenie nt access to a Public Primary School	Convenient access to a local park	Rail / light rail station	Include as Town Centre Precinct [meets EIE criteria]
Crown and Baptist Streets, Surry Hills	Cieveland Cieveland Street	46,449 m ² / 478m	NO (1 under construction) 3,633m2	YES (8/17)	YES (10/14)	NO	YES (4/11) #33	YES Bourke Street PS 100m east	YES Eddie Ward Park (9,500m²) 80m west	YES Surry Hills light rail station nearby	NO, Only one full line supermarket under constructionno amenities. captured by light rail station

Name	E1 Zone	Area of zone / length of high street	AT LEAST TWO FULL-LINE SUPERMARKE TS (Number)	Wide range of frequently needed GOODS	Wide range of frequentl y needed SERVICE S	Wide range of frequently needed AMENITIE S	BEVERAG	Convenie nt access to a Public Primary School	Convenient access to a local park	Rail / light rail station	Include as Town Centre Precinct [meets EIE criteria]
Cathederal Street, Woolloomool oo	MU1 Sp2 Aurollon St R1 Cassified Rigad Cathedral Cathedral R1 REI Street	6,240 m ²	NO (0)	NO (1/17) Supermarket 70 m ²	NO (1/14)	NO	NO (0/11) #0	YES Plunkett Street PS 140m north	YES Woolloomool oo Park (4,200m²) 160m northeast	NO	2/8 NO, captured by adjacent Central Sydney
Oxford Street West, Paddington	Campbol Grant Cupy Story	34,936 m ² / 553m	NO (0)	NO (5/17) Supermarkets 2 adjacent 1,350 m², 800 m²	NO (4/14)	NO	YES (8/11) #40	YES Crown Street PS 130m south	YES Harmony Park (7,400m²) 160m south	YES Museu m station nearby	4/8 NO, no full line supermarket captured by adjacent Central Sydney

Name	E1 Zone	Area of zone / length of high street	AT LEAST TWO FULL-LINE SUPERMARKE TS (Number)	Wide range of frequently needed GOODS	Wide range of frequentl y needed SERVICE S	Wide range of frequently needed AMENITIE S	Wide range of FOOD & BEVERAG E	Convenie nt access to a Public Primary School	Convenient access to a local park	Rail / light rail station	Include as Town Centre Precinct [meets EIE criteria]
Oxford Street East, Paddington	Story of the story	18,154 m² / 599m	NO (0)	NO (2/17) Supermarket 1 adjacent 1,300 m²	NO (4/14)	NO	YES (7/11) #17	YES Crown Street PS 75m west	YES Green Park (5,400m²) 200m north	NO	3/8 NO no full line supermarket
Redfern Street, Redfern	Mario Boss Company State		NO (0)	NO (6/17) Supermarket 1 adjacent 1,000 m²	YES (10/14)	YES Council community building and service centre	YES (5/11) #24	NO Alexandria Park CS 860m southwest Darlington PS 1km	YES Redfern Park (2.2Ha) 160m east	YES	5/8 NO, no full line supermarketcaptured by rail station

Name	E1 Zone	Area of zone / length of high street	AT LEAST TWO FULL-LINE SUPERMARKE TS (Number)	Wide range of frequently needed GOODS	Wide range of frequentl y needed SERVICE S	Wide range of frequently needed AMENITIE S	Wide range of FOOD & BEVERAG E	Convenie nt access to a Public Primary School	Convenient access to a local park	Rail / light rail station	Include as Town Centre Precinct [meets EIE criteria]
Dank Street, Waterloo	Constant of the second of the	59,728 m²	NO (1) 3,300 m ²	NO (4/17) Supermarkets1,4 00 m ² 1,300 m ² 200 m ²	NO (5/14)	NO	YES (3/11) #20	NO Bourke Street PS 720m north Alexandria Park CS 1.25km west	YES Crown Park (6,200m²) 60m south	NO	2/8 NO Only one full line supermarketspecialis ed poor public transport access due to overcrowding
Central Park E1 zone, Chippendale	Broadway Broadway	60, 766 m ²	NO (0)	NO (5/17) Supermarket 2,100 m ²	NO (3/14)	NO Cinema	NO (4/11) #12	NO Glebe PS 680m west Ultimo PS 775m north	YES Chippendale Green (8,900m²) 0m within centre	YES, Central Station is nearby	1/8 NO, captured by adjacent Central Sydney

Name	E1 Zone	Area of zone / length of high street	AT LEAST TWO FULL-LINE SUPERMARKE TS (Number)	Wide range of frequently needed GOODS	Wide range of frequentl y needed SERVICE S	Wide range of frequently needed AMENITIE S	BEVERAG	Convenie nt access to a Public Primary School	Convenient access to a local park	Rail / light rail station	Include as Town Centre Precinct [meets EIE criteria]
Harris Street North, Pyrmont	TIE CONTROL OF THE STATE OF THE	22,679 m ² / 289m	NO (0)	NO (2/17) Supermarkets 300 m ² 3 adjacent 2,150 m ² , 2,000 m ² , 400 m ²	NO (6/14)	NO recreation centre to the north	YES (4/11) #16	NO Ultimo PS 640m south	YES Pyrmont Bay Park (1.2Ha) 220m east	YES, Future Metro	3/8 NO, captured by future metro station
Harris Street South, Ultimo		9,741 m ²	NO (0)	NO (1/17) No supermarkets	NO (0/14)	YES community centre and aquatic centre	NO (1/11) #1	YES Ultimo PS 130m west	YES Mary Ann Street Park (5,660m²) 125m south	NO	3/8 NO

Name	E1 Zone	Area of zone / length of high street	AT LEAST TWO FULL-LINE SUPERMARKE TS (Number)	Wide range of frequently needed GOODS	Wide range of frequentl y needed SERVICE S	Wide range of frequently needed AMENITIE S	BEVERAG	Convenie nt access to a Public Primary School	Convenient access to a local park	Rail / light rail station	Include as Town Centre Precinct [meets EIE criteria]
George Street, Waterloo Housing Estate South	Distribution of Casaline Ref.	33,620 m ²	NO (0)	NO (0/17) No supermarkets	NO (0/14)	NO	NO (0/11) #0	NO Alexandria Park CS 540m west	YES Future Waterloo Park (2.25Ha) 20m north	YES, Future metro station	2/8 NO, Already more intensively zoned
Gadigal Avenue (East Village), Zetland	ODDM TOWN TO THE TOWN TO THE TOWN TOWN TO THE TOWN TOWN TOWN TOWN TOWN TOWN TOWN TOWN	31,321 m ²	NO (1) 3,400 m ²	YES (9/17) Supermarkets 150 m ²	YES (8/14)	NO	NO (4/11) #14	NO	YES Joynton Park (1.3Ha) 50m west	NO	3/8 NO

Name	E1 Zone	Area of zone / length of high street	AT LEAST TWO FULL-LINE SUPERMARKE TS (Number)	Wide range of frequently needed GOODS	Wide range of frequentl y needed SERVICE S	Wide range of frequently needed AMENITIE S	Wide range of FOOD & BEVERAG E	Convenie nt access to a Public Primary School	Convenient access to a local park	Rail / light rail station	Include as Town Centre Precinct [meets EIE criteria]
Botany Road, Rosebery	The state of the s	15,418 m ²	NO (0)	NO (2/17) Supermarket 550 m ²	NO (2/14)	NO	NO (2/11) #<10	NO Gardeners Road PS 520m south	YES Turruwul Park (2.2Ha) 400m southeast	NO	1/8 NO
Dalmeny Avenue, Rosebery		2,691 m ²	NO (0)	NO (1/17) No supermarkets	NO (2/14)	NO	NO (2/11) #<10	NO Gardeners Road PS 760m west	YES Turruwul Park (2.2Ha) 230m southwest	NO	1/8 NO

Name	E1 Zone	Area of zone / length of high street	AT LEAST TWO FULL-LINE SUPERMARKE TS (Number)	Wide range of frequently needed GOODS	Wide range of frequentl y needed SERVICE S	Wide range of frequently needed AMENITIE S		Convenie nt access to a Public Primary School	Convenient access to a local park	Rail / light rail station	Include as Town Centre Precinct [meets EIE criteria]
Mitchell Road, Erskinville		58,341 m ²	NO (0)	NO (2/17) Supermarket 1,500 m ²	NO (2/14)	NO park	NO (1/11) #<10	YES Erskinevill e PS 260m west	YES Future Ashmore Park >3000m² 0m	NO	2/8 NO, captured by rail stations
Erskineville Road, Eskineville	Constant Road Road Road Road Road Road Road Road	13,679 m ² / 268m	NO (0)	NO (6/17) Supermarkets 105 m² 1 adjacent 1,550 m²	YES (6/14)	NO a community centre	YES (6/11) #14	YES Erskinevill e PS 60m east	YES Harry Noble Reserve (1Ha) 350m east	YES	5/8 NO, captured by rail stations

Name	E1 Zone	Area of zone / length of high street	AT LEAST TWO FULL-LINE SUPERMARKE TS (Number)	Wide range of frequently needed GOODS	Wide range of frequentl y needed SERVICE S	Wide range of frequently needed AMENITIE S	Wide range of FOOD & BEVERAG E	Convenie nt access to a Public Primary School	Convenient access to a local park	Rail / light rail station	Include as Town Centre Precinct [meets EIE criteria]
Missenden Road, Camperdown	Street Street Street Street	12,737 m ²	NO (0)	NO (1/17) Supermarket 200 m ²	NO (2/14)	NO	NO (3/11) #<10	NO Newtown North PS 480m south	YES Camperdown Park 260m west	NO	1/8 NO
Ross Street, Glebe	SP2 Cational Dishment R1 Cational Dishment R2 E1 Cathried Ras	13,667 m ²	NO (0)	NO (2/17) No supermarkets	NO (3/14)	NO	NO (2/11) #<10	YES Forest Lodge PS 20m north	YES Orphan School Creek Park (5,000m2) 210m west	NO	2/8 NO

Name	E1 Zone	Area of zone / length of high street	AT LEAST TWO FULL-LINE SUPERMARKE TS (Number)	Wide range of frequently needed GOODS	Wide range of frequently needed SERVICE	Wide range of frequently needed AMENITIE S	Wide range of FOOD & BEVERAG E	Convenie nt access to a Public Primary School	Convenient access to a local park	Rail / light rail station	Include as Town Centre Precinct [meets EIE criteria]
St Johns Road, Glebe	R1 R1 R0 R1 R1 R1 R1 R1 R1 R1	11,158 m ²	NO (0)	NO (1/17) No supermarkets	NO (4/14)	NO a community centre adjoining	NO (3/11) #<10	YES Forest Lodge PS 140m north	YES HJ Foley Park (5840m²) 240m north east	NO	3/8 NO
Abercrombie Street, Darlington		8,846 m ²	NO (0)	NO (2/17) No supermarkets	NO (2/14)	NO	NO (4/11) #10	NO Darlington PS 520m west	NO Victoria Park (9Ha) 425m north west	NO	0/ 8 NO

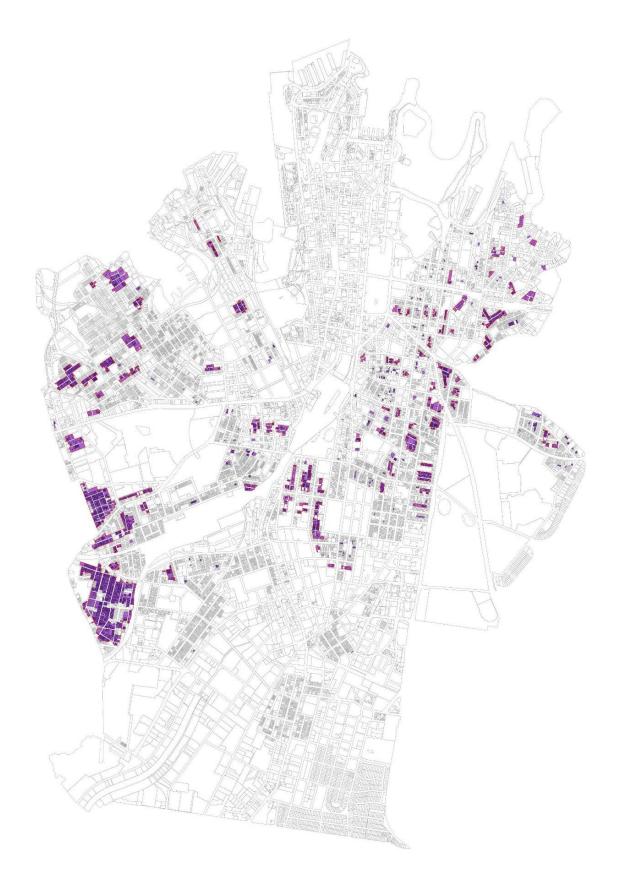
Name	E1 Zone	Area of zone / length of high street	AT LEAST TWO FULL-LINE SUPERMARKE TS (Number)	Wide range of frequently needed GOODS	Wide range of frequentl y needed SERVICE S	Wide range of frequently needed AMENITIE S	Wide range of FOOD & BEVERAG E	Convenie nt access to a Public Primary School	Convenient access to a local park	Rail / light rail station	Include as Town Centre Precinct [meets EIE criteria]
Green Square Town Centre mixed -use zones	MATERIAL MAT	149,46 7 m ²	NO (0)	NO (3/17) Supermarkets 1,400 m ² 350 m ²	NO (2/14)	YES library and aquatic centre	YES (5/11) #12	YES Future Green Square Town Centre PS Om east end	YES Drying Green Park (6,200m²) Om centre	YES	5/8 NO Captured by Rail Station

Appendix 5: Neighbourhoods with narrow streets

The map below outlines areas with narrow streets too small to support six storey buildings. It includes most of Newtown and Erskineville.

Other small neighbourhoods that have networks of small streets that should be excluded include:

- Paddington between Oxford, south Dowling Streets and Greens Road
- a series of areas either side Bourke Street in Surry Hills and Redfern
- a series of areas either side Wigram Road in Glebe
- a series of areas either side Liverpool Street in Darlinghurst
- an area around Leichhardt Street in Glebe
- an area around Surry Street in Paddington
- a series of areas in the centre of large blocks in Redfern and Surry Hills



Map of lots that front narrow streets (12m or less). Purple lots that only have frontages to narrow streets with a reservation of 12 metres or less. The bounding red lines indicates areas of predominately narrow streets that should be excluded from the proposal.

Appendix 6: Impact of reducing building separations

The City's study below demonstrates that the change will remove the ability of neighbouring buildings to achieve sufficient sun access and avoid too many apartments without sunlight.

The diagram shows a typical section between pairs of buildings at different orientations to demonstrate the effect on solar access from one building to another. The left column illustrates the building separation distances in the Apartment design guide, the right hand column the proposed change. The orientations are paired combining orientations that are perpendicular to each other, as normal rectangular building often have four sides arranged rectangularly. The %'s represent the average area of the two façades that receive uninterrupted sunlight for the appropriate times. The design criteria for solar access in the Apartment Design Guide is at least 70% of apartments receiving the sunlight within the time criteria. A score of 60% or more allows a skilled designer to arrange a building to achieve the 70% criterion. At the due north orientation three facades receive sufficient sunlight allowing the 60% guide to drop to 55%.

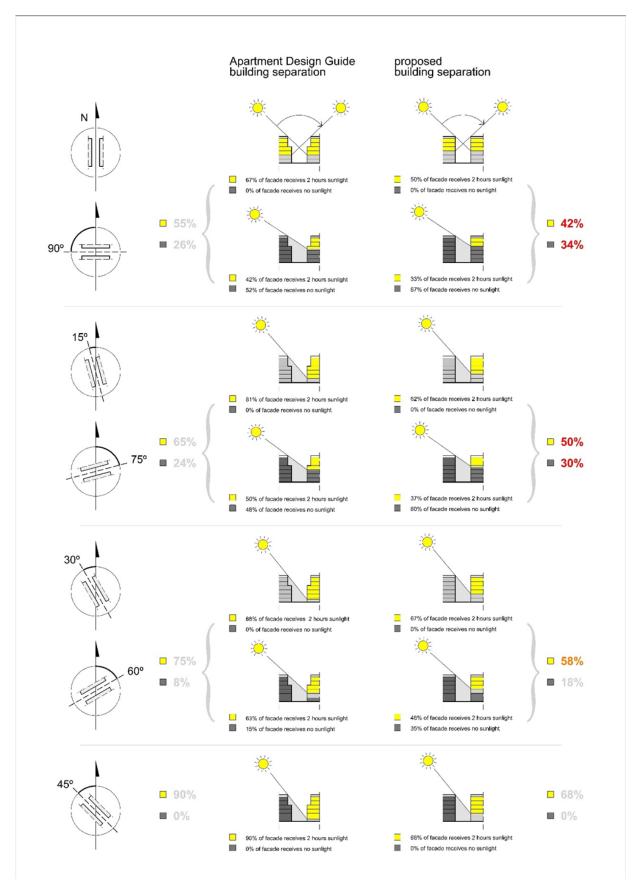
The second criteria is that no more 15% of apartments should receive no sunlight for the specified time period. Similarly, a score of 25% or less allows a skilled designer to arrange a building to achieve criterion. Another 5% allowance is reasonable for the north orientation.

The grey figures in the outer columns represent acceptable results.

The change lessens the sunlight received and increases the area of no sunlight in all cases. Only one orientation, 45 degrees, remains acceptable. All other orientation have unacceptable or very difficult results. In Sydney the predominate, although not comprehensive, grid layout is at or close to north, exaggerating the extent of the negative effect of the change. Although the change does not make the achievement of solar access impossible in some cases, it seriously restricts the ability for designers to meet the solar access criteria without other compromises. This change will add to the difficulty of preparing applications and their assessment.

The interaction of these criteria, if changed as proposed, will cause the development of one site to frustrate the development of neighbouring sites by casting more than the expected amount of shadow.

The change is unnecessary as the additional floor space provided is marginal and can mostly be accommodated in other ways.



Proposed ADG changes building separations. The %'s represent the proportion of the façade receiving sunlight, on the right hand side of each section. Each pair of orientations are averaged in the outer columns beyond the brackets. Red figures are where the totals are beyond tolerance, the orange represent a high degree of difficult not yet intolerable.

Appendix 7: Loss of access for waste servicing

Waste management is a core local government service. It typically involves ten-year contracts including vehicles calibrated to existing waste collection practices/arrangements. Councils align new development to enable this service, including on-site loading for waste vehicles, and where this is not possible ensuring that on-street loading zones are able to support a wheel in/wheel out service so that bins do not have to be put out for collection.

The below table illustrates the approximate unobstructed frontage widths needed to present bins on the kerbside for the City's residential waste collection service (Garbage & Recycling) three times weekly:

Number of units	6	15	35	50	100	
Number of bins	6 x 240L	15 X 240L	35 x 240L	50 X 240L	100 x 240L	
				11x 1,100s	22 x 1,100s	
Frontage required ¹	1.7m	4.6m	10.4m	14.5m	29m	

¹ assuming 240L bins, collected weekly, stacked 2 deep on kerbside

While the kerbside presentation of bins for a six-unit residential development may be explored, the number of bins required to service larger developments (>6 units) would have significant accessibility impacts on the street.



Image: Impacts of the kerbside presentation of bins for a 14 unit property

In addition to the frontage requirements for bin presentation, the provision of Council's weekly bulky waste service would have further impacts on the street. Presentation of bulky waste piles in the public domain are prone to illegal dumping and other impacts such as footpath and roadway obstruction.

