

# Attachment B: Submission to Explanation of Intended Effect: Changes to create low and mid-rise housing (with March addendum)



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

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Department of Planning and Environment



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

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December 2023

[dpie.nsw.gov.au](http://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.

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## The City supports the National Housing Accord<sup>1</sup>

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 cent<sup>2</sup> of the housing in the Eastern City District. Over 30,000 new private dwellings were delivered in the City between 2011 and 2021.<sup>3</sup> 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

<sup>1</sup> National Housing Accord 2022 (treasury.gov.au)

<sup>2</sup> City of Sydney, Housing for All – Local Housing Strategy, p5, [https://www.cityofsydney.nsw.gov.au/-/media/corporate/files/2020-07-migrated/files\\_h/housing-for-all-city-of-sydney-local-housing-strategy.pdf?download=true](https://www.cityofsydney.nsw.gov.au/-/media/corporate/files/2020-07-migrated/files_h/housing-for-all-city-of-sydney-local-housing-strategy.pdf?download=true)

<sup>3</sup> Australian Bureau of Statistics, Census of Population and Housing 2011 and 2021. Compiled and presented by .id (informed decisions).

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/Pymont 14,000 pp/sq km<sup>4</sup>. 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 Pymont / 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'<sup>5</sup>.

**Recommendation 1: The NSW Government extend the consultation period for a minimum of four additional weeks to allow enough time for councils and the community to understand the proposal and provide additional feedback.**

**Recommendation 2: The NSW Government use the extended consultation period to undertake meaningful consultation with local communities to help them understand impacts in specific areas.**

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## 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:

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

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

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- 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.

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 late-night uses. They will continue to, if unchanged, permit by default, residential flat buildings with greater heights than proposed in the EIE.

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## 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 a program to plan for additional housing prior to implementation of the EIE, contributing to the Housing Accord target.**

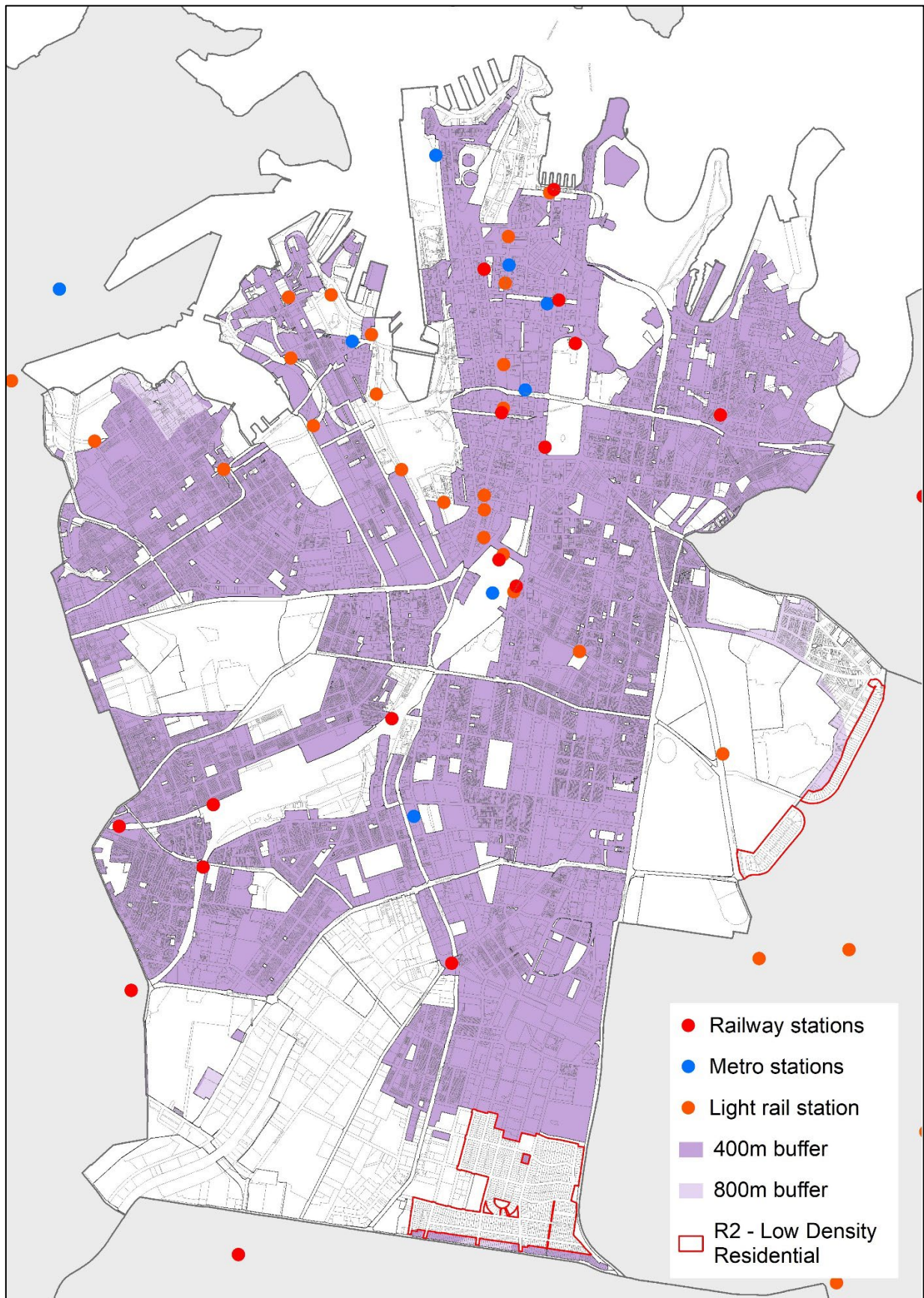
**Where the State does not agree to strategic planning**

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, Pymont 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 3: 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 Blueprint<sup>6</sup> 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.

Council supports working with the NSW Government to accelerate planning proposals which would add capacity for the City, where these are developed and implemented in cooperation with Council.

<sup>6</sup> 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 4: Prioritise the release of the housing targets and strategic plans to allow councils to undertake local strategic planning to meet the Housing Accord targets.**

**Recommendation 5: If recommendation 4 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 6: If recommendations 3 to 5 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 buildings<sup>7</sup>. 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. All but two of the City of Sydney's suburbs are in the top 30 densest suburbs in NSW as shown in Appendix 2A.

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

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

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

**Recommendation 7: If recommendations 3 to 6 are 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 8: 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 9: Remove the FSR non-refusal standards and focus on implementing the 4-storey and 6-storey height limits.**

**Recommendation 10: 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).<sup>8</sup>

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 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*"<sup>9</sup>, 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)*".<sup>10</sup>

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.

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

<sup>9</sup> 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>

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

**Recommendation 11: 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.

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 Green Square, 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.

Botany Road 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 Government's 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 Pyrmont Peninsula the City 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 Strategy<sup>11</sup>. 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 Strategy<sup>12</sup>. 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 12: 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.

<sup>11</sup> 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](https://shared-drupal-s3fs.s3.ap-southeast-2.amazonaws.com/master-test/fapub_pdf/Pyrmont+Peninsula+Place+Strategy_final.pdf)

<sup>12</sup> 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](https://shared-drupal-s3fs.s3.ap-southeast-2.amazonaws.com/master-test/fapub_pdf/PPPS_Economic+Development+Strategy_final+(1).pdf)



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 13: 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 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 sites 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. Large developments generate so many bin movements it is necessary for the truck to be able to enter the site 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 on-site 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 Guide<sup>13</sup> 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 14: 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.**

#### **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.”<sup>14</sup> 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.

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

<sup>14</sup> 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>

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 15: 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.

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 16: 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 an 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.

The City of Sydney LGA already has targets for affordable housing that exceed the National Housing Accord target of 3,100 affordable homes for NSW. The Housing Accord affordable housing target represents approximately one per cent of the overall housing target for NSW.

**Recommendation 17: Where there is an increase in the development capacity of land an affordable housing contribution requirement (for in perpetuity affordable housing) must be applied.**

**Recommendation 18: The City supports stronger affordable housing targets being established and implemented compared with the current target in the National Housing Accord.**

### **13. Larger buildings without higher densities is enabled**

Shop top housing allows a single residence above a small non-residential use. A single six storey dwelling with a small home office would meet the current definition.

In the City's high value residential areas the non-refusal standards, as proposed, allow additional height for single dwellings or, one or two, dwellings on two or more existing lots. It also allows the amalgamation of existing small houses and their replacement with shop top houses with the same or even less dwellings.

In the City large apartments exceed the square metre value of small apartments, without a standard that limits their maximum area the proposal could accelerate the existing tendency to lower density by the adaption or substitution of existing apartment buildings with buildings containing fewer apartments.

These and other work arounds will use the proposal to maintain or decrease existing housing densities contrary to the aims of the Housing Accord unless further standards or provisions are adopted. A minimum number of apartments, at least 4, that also ensures that the Apartment Design Guide is used, and a maximum apartment size say 180 square metres [twice the minimum design criteria for a three bedroom apartment] is recommended.

**Recommendation 19: Amend the definition of mid rise shop top housing and apartment buildings to require a minimum of four apartments.**

**Recommendation 20: Introduce a maximum apartment size for mid-rise shop top housing and apartments of 180 square metres.**

#### **14. 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 (refer to Appendix 8), 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 21: 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.<sup>15</sup>
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

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

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- 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

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

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| City         | Inner 10 km <sup>2</sup> description, area, population  | Pop. density inner 10 km <sup>2</sup> rounded | additional 10 km <sup>2</sup> description, area, population  | Pop. density inner 20 km <sup>2</sup> rounded | inner 100 km <sup>2</sup> description, area, population  | Pop. density inner 100 km <sup>2</sup> rounded |
|--------------|---|---|--|---|--|--|
| 1. Barcelona | Ciutat Vella, Eixample<br>11.6 km <sup>2</sup> ,<br>379k  | 33 k/km <sup>2</sup>                          | Sant Martí<br>10.4 km <sup>2</sup> ,<br>241k   | 28 k/km <sup>2</sup>                          | Barcelona<br>99 km <sup>2</sup> ,<br>1,664k  | 17 k/km <sup>2</sup>                           |
| 2. Paris     | arrondissement 1–6,<br>10.2 km <sup>2</sup> ,<br>196k   | 19k/km <sup>2</sup>                           | arrondissement 7 – 9<br>10.2 km <sup>2</sup> ,<br>144k   | 17k/km <sup>2</sup>                           | City of Paris<br>105 km <sup>2</sup> ,<br>2,100k   | 20k/km <sup>2</sup>                            |
| 3. Manhattan | below 14th street,<br>11.9 km <sup>2</sup> ,<br>204k  | 17k/km <sup>2</sup>                           | south 58th street,<br>west of Lexington<br>Avenue<br>8.3 km <sup>2</sup> ,<br>91k                                    | 15k/km <sup>2</sup>                           | Manhattan<br>57 km <sup>2</sup> ,<br>1,596k  | 28 k/km <sup>2</sup>                           |
| 4. Vienna    | Innerstadt, Neubau,<br>Mariahilf, Weiden,<br>9.8 km <sup>2</sup> ,<br>165k  | 17k/km <sup>2</sup>                           | Josefstadt,<br>Landstrasse,<br>Alsergard,<br>10.4 km <sup>2</sup> ,<br>134k  | 15k/km <sup>2</sup>                           | + Leopoldstadt,<br>Margareten, Meidling,<br>Rudolfsheim-<br>Fünfhaus, Ottakring,<br>Währing, Döbling,<br>Brigittenau<br>99 km <sup>2</sup> ,<br>984k | 10 k/km <sup>2</sup>                           |
| 5. Vancouver | Downtown, West<br>End, Fairview<br>9.0 km <sup>2</sup> ,<br>143k  | 16k/km <sup>2</sup>                           | Strathcona, Mount<br>Pleasant, Kitslano<br>13.0 km <sup>2</sup> ,<br>89k   | 13k/km <sup>2</sup>                           | Vancouver<br>115 km <sup>2</sup> ,<br>706k   | 6k/km <sup>2</sup>                             |
| 6. Sydney    | Haymarket,<br>Woolloomooloo,<br>Potts Point, Pyrmont,<br>Ultimo, Darlinghurst,<br>Surry Hills,<br>9.5 km <sup>2</sup> ,<br>137k | 14k/km <sup>2</sup>                           | Redfern,<br>Chippendale, Glebe,<br>Newtown,<br>Camperdown,<br>Darlington, Waterloo<br>11.4 km <sup>2</sup> ,<br>100k | 11k/km <sup>2</sup>                           | Sydney, Inner West,<br>North Sydney,<br>Waverley, Woollahra,<br>Mosman<br>103 km <sup>2</sup> ,<br>621k  | 6k/km <sup>2</sup>                             |
| 7. Seoul     | [data not found]  |   | Yongsan<br>22 km <sup>2</sup> total<br>226k  | 10k/km <sup>2</sup>                           | Yongsan, Jung,<br>Jongno, Seongdong,<br>Seodaeman, Donjak<br>107 km <sup>2</sup> ,<br>1,507k   | 14k/km <sup>2</sup>                            |



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|                  |  |                      |  |                     |   |                      |
|------------------|--|----------------------|--|---------------------|---|----------------------|
| 8. London        | City, inner wards of Islington, Camden, Hackney<br>9.7 km <sup>2</sup> ,<br>114k               | 12k/km <sup>2</sup>  | inner wards of Tower Hamlets, Westminster and Southwark<br>10 km <sup>2</sup> ,<br>90k | 10k/km <sup>2</sup> | City, Islington, Camden, Hackney, Tower Hamlets, Westminster<br>100 km <sup>2</sup><br>1,209k                         | 12 k/km <sup>2</sup> |
| 9. San Francisco | Downtown-Northeast Neighborhoods-Treasure Island<br>10.1 km <sup>2</sup><br>121k               | 12k/km <sup>2</sup>  | SoMa-Potrero-Mission Bay<br>8.0 km <sup>2</sup><br>61k                                 | 10k/km <sup>2</sup> | San Francisco<br>121 km <sup>2</sup><br>808k  | 7k/km <sup>2</sup>   |
| 10. Amsterdam    | Centrum<br>8.0 km <sup>2</sup><br>87k  | 11k/km <sup>2</sup>  | Zuid<br>9.3 km <sup>2</sup> ,<br>144k  | 13k/km <sup>2</sup> | + West, Oost, Nieuw West<br>98 km <sup>2</sup> ,<br>666k  | 7 k/km <sup>2</sup>  |
| 11. Munich       | Altstadt – Lehe, Maxvorstadt, Ludwigsvorstadt – Isarvorstadt<br>11.8 km <sup>2</sup> ,<br>125k | 11k/km <sup>2</sup>  | Schwabing-West, Au – Haidhausen<br>8.6 km <sup>2</sup> ,<br>130k                       | 12k/km <sup>2</sup> | +Schwanthalerhöhe, Sendling,<br>107 km <sup>2</sup> ,<br>821k   | 8k/km <sup>2</sup>   |
| 12. Toronto      | Toronto Centre<br>10.4 km <sup>2</sup><br>118k   | 11k/km <sup>2</sup>  | Western centre, Riverdale, Rosedale<br>10.1 km <sup>2</sup><br>93k                     | 10k/km <sup>2</sup> | Old Toronto<br>97 km <sup>2</sup> ,<br>798k   | 8k/km <sup>2</sup>   |
| 13. Berlin       | Mitte<br>10.6 km <sup>2</sup><br>102k  | 10 k/km <sup>2</sup> | Tiergarten, Moabit<br>12.9 km <sup>2</sup><br>95k                                      | 8k/km <sup>2</sup>  | Mitte, Friedrichshain, Kreuzberg, Charlottenburg, Wilmersdorf, Neukolln, Schoneberg<br>99 km <sup>2</sup> ,<br>1,138k | 11 k/km <sup>2</sup> |
| 14. Rome         | [data not found]   |                      | Municipio I<br>20.1 km <sup>2</sup> total<br>167k total                                | 8k/km <sup>2</sup>  | Municipio I, II, V, VII<br>112 km <sup>2</sup><br>884k  | 8k/km <sup>2</sup>   |
| 15. Melbourne    | City, Southbank, east Melbourne, Carlton,<br>9.6 km <sup>2</sup> ,<br>94k                      | 10k/km <sup>2</sup>  | North Melbourne, docklands, south Yarra, Parkville<br>11.8 km <sup>2</sup><br>37k      | 6k/km <sup>2</sup>  | Melbourne, Port Phillip, Yarra, Stonnington<br>103 km <sup>2</sup> ,<br>462k  | 5 k/km <sup>2</sup>  |

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|                |   |                     |  |                     |   |                      |
|----------------|---|---------------------|--|---------------------|---|----------------------|
| 16. Brisbane   | City, Fortitude Valley, Highgate Hill, Kangaroo Point, New Farm, South Brisbane, 10.3 km <sup>2</sup> , 70k | 7k/km <sup>2</sup>  | Spring Hill, West End, Paddington, East Brisbane, Hawthorn 9.8 km <sup>2</sup> , 46k | 6k/km <sup>2</sup>  | Inner city 82 km <sup>2</sup> , 250k  | 3 k/km <sup>2</sup>  |
| 17. Tokyo      | Chiyoda 11.7 km <sup>2</sup> , 67k  | 6k/km <sup>2</sup>  | Chuo 10.2 km <sup>2</sup> , 169k   | 11k/km <sup>2</sup> | Chiyoda, Chuo, Minato, Shibuya, Shinjuku, Bunkyo, Taito 97 km <sup>2</sup> , 1,540k | 16 k/km <sup>2</sup> |
| 18. Copenhagen | Indre By 9.4 km <sup>2</sup> , 56k  | 6k/km <sup>2</sup>  | Frederiksberg 8.8 km <sup>2</sup> , 105k   | 9k/km <sup>2</sup>  | Kobenhavn, Frederiksberg, 97 km <sup>2</sup> , 759k                                 | 8k/km <sup>2</sup>   |
| 19. Zurich     | Kries 1, 4, 5, 6 11.8 km <sup>2</sup> , 74k   | 6k/km <sup>2</sup>  | Kries 3 8.7 km <sup>2</sup> , 46k  | 6k/km <sup>2</sup>  | Zürich 88 km <sup>2</sup> , 427k  | 5k/km <sup>2</sup>   |
| 20. Singapore  | Downtown, Outram, Singapore River, Museum, Rocher 10.7 km <sup>2</sup> , 38k                                | 4 k/km <sup>2</sup> | Newton, Orchard, River valley, Nassim, Chatsworth, Ridout 9.5 km <sup>2</sup> , 38k  | 4k/km <sup>2</sup>  | Central Region 133 km <sup>2</sup> , 923k   | 7k/km <sup>2</sup>   |

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/km <sup>2</sup> above Sydney's density |
|  | Sydney   |
|  | More than 2 k/km <sup>2</sup> 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 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 Wollri Creek                  | 11408          | 0.7  | 16788.8     |                         |
| 7 Zetland                       | 13349          | 0.8  | 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          | 0.8  | 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 2A: 30 densest SA2 areas [suburbs] in NSW, ABS

|     |   | 2022  | Area | Population density 2022 |
|-----|---|-------|------|-------------------------|
|     | SA2 name  | no.   | km2  | persons/km2             |
| 1   | Sydney (South) - Haymarket  | 21048 | 1.1  | 19470.9                 |
| 2   | Chippendale   | 8237  | 0.5  | 17744.5                 |
| 3   | Wolli Creek   | 11408 | 0.7  | 16788.8                 |
| 4   | Zetland   | 13349 | 0.8  | 16588.8                 |
| 5   | Waterloo  | 17010 | 1.1  | 15001.3                 |
| 6   | Ultimo  | 7801  | 0.6  | 13960.3                 |
| 7   | Pyrmont   | 12965 | 0.9  | 13942.4                 |
| 8   | Potts Point - Woolloomooloo                                       | 18256 | 1.5  | 12473.4                 |
| 9   | Darlinghurst  | 10617 | 0.9  | 12390.0                 |
| 10  | Surry Hills   | 15952 | 1.3  | 12117.9                 |
| 11  | Rhodes  | 11725 | 1.0  | 11655.1                 |
| 12* | Redfern excluding the former Eveleigh rail yards                  | 13488 | 1.1  | 11568                   |
| 12  | Hurstville - Central  | 12373 | 1.2  | 10088.9                 |
| 13  | Newtown (NSW)   | 14853 | 1.6  | 9456.3                  |
| 14  | Glebe - Forest Lodge  | 20628 | 2.3  | 8961.7                  |
| 15  | Burwood (NSW)   | 16528 | 1.9  | 8676.1                  |
| 16  | Dee Why - North   | 18027 | 2.1  | 8660.2                  |
| 17  | Bondi Beach - North Bondi   | 21095 | 2.5  | 8573.8                  |
| 18  | Randwick - North  | 16173 | 1.9  | 8355.5                  |
| 19  | Redfern   | 14098 | 1.7  | 8298.3                  |
| 20* | Erskineville - Alexandria excluding the southern employment lands | 21269 | 2.6  | 8276                    |
| 20  | Liverpool - East  | 18627 | 2.3  | 8241.7                  |
| 21  | Campsie - South   | 8997  | 1.1  | 8033.0                  |
| 22  | Ryde - South  | 12359 | 1.6  | 7930.6                  |
| 23  | Rosebery - Beaconsfield   | 12914 | 1.6  | 7863.4                  |
| 24  | Neutral Bay – Kirribilli  | 17213 | 2.2  | 7783.1                  |
| 25  | Lakemba   | 16891 | 2.2  | 7724.8                  |
| 26  | Bondi - Tamarama - Bronte   | 19258 | 2.5  | 7714.9                  |
| 28* | Camperdown - Darlington excluding the University of Sydney        | 6933  | 0.92 | 7536                    |
| 27  | Campsie - North   | 11809 | 1.6  | 7535.1                  |
| 28  | Mascot  | 22778 | 3.1  | 7468.0                  |
| 29  | Ashfield - North  | 11445 | 1.6  | 7332.3                  |
| 30  | Wiley Park  | 10066 | 1.4  | 7224.6                  |

Top 30 densest suburbs [ABS-SA2 suburbs] rows in green are in or mainly in the City of Sydney.

\*Rows in red are City of Sydney suburbs [ABS-SA2] adjusted to exclude large non-residential areas and large areas outside the City of Sydney. Including the adjusted areas, 16 of the City of Sydney's 18 suburbs are in of the top 30 densest suburbs in New South Wales. Excluding the commercial core of the north part of central Sydney, and Paddington/Moore Park, and with adjusted geographies described, all City of Sydney suburbs are in the top 30 densest of New South Wales 640 suburb areas and are denser than the proposals outcome.

## 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.

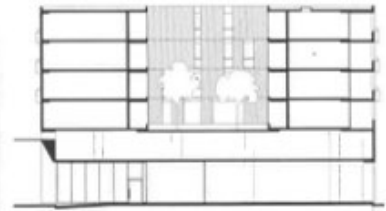
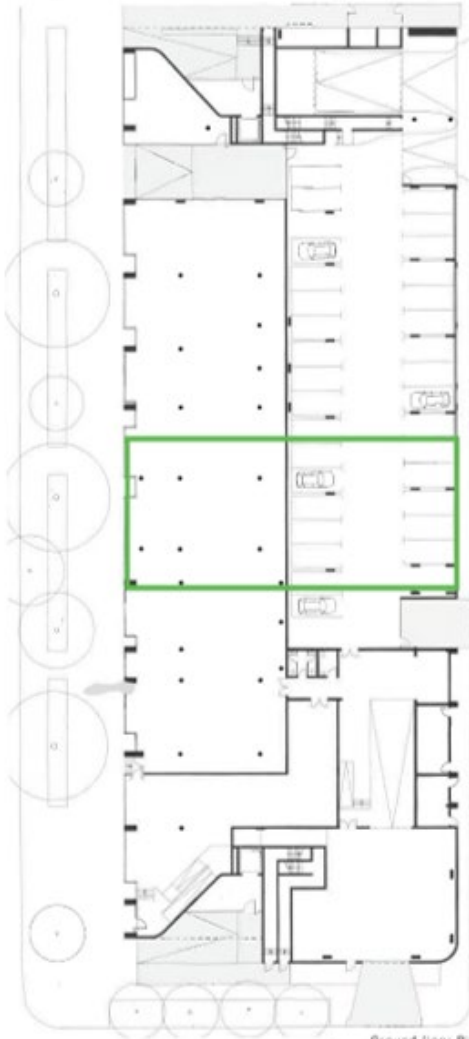
A study of the relationship of height and FSR, for the City of Sydney, by Hill Thalys and Olsson Associates, provided a number of examples of 6 storey buildings with FSR in the range FSR 2.0:1 – 2.2:1. The study has been provided to DPHI to help formulate an appropriate relationship between FSR and height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

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

**765-779 Botany Road Rosebery**

FSR  
Height in Storeys  
Height in Metres  
Completed

2:1  
6  
22



Section

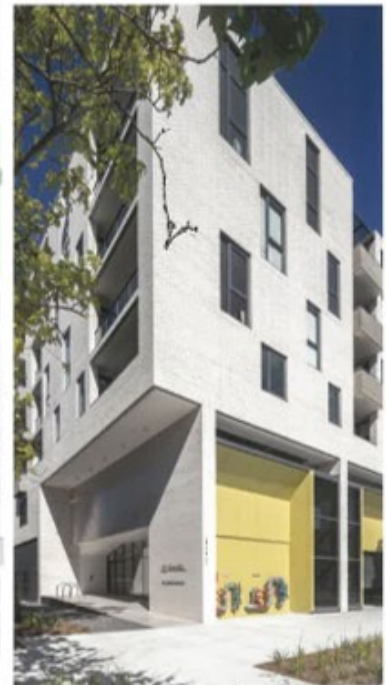


Photo: Tom Ferguson

Ground floor Plan  
Drawings: Turner Studio

L2 Plan



Key - deep soil landscape on DA  
additional to achieve 15% site area

**356-368 George Street Waterloo**

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



### 85 Bourke Street Woolloomooloo

FSR 2:1  
Height in Storeys 5  
Height in Metres 15  
Completed





**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         |     |



Section



Typical Plan  
Drawing: SUB

Deep well structure  
On CA

Additional to achieve 15% strata

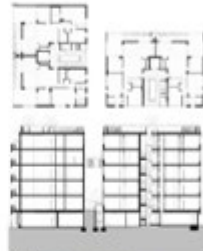
0 10 20m



Photo: Brett Boardman

### 19 Ralph Street Alexandria

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



Drawings: S/B  
0 10 20m  
Red - 2002 B11 (2002 B11) (2002 B11)  
Green - 2002 B11 (2002 B11) (2002 B11)



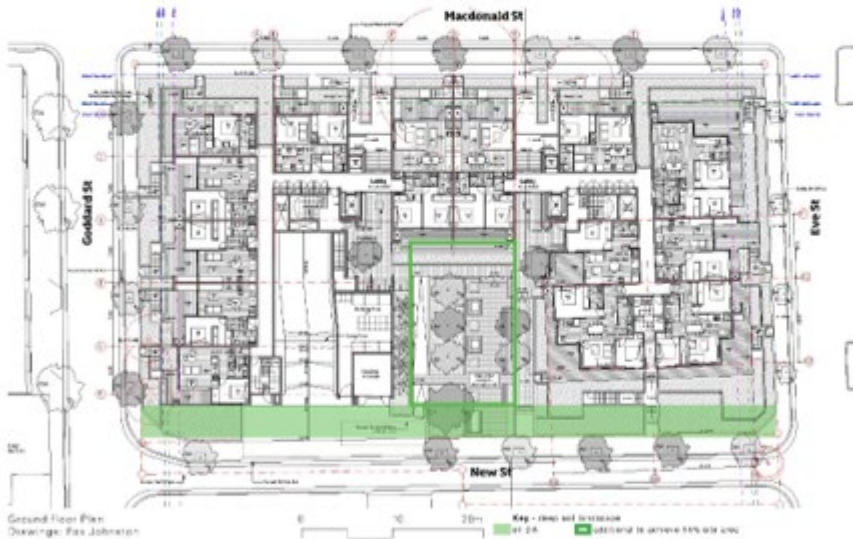
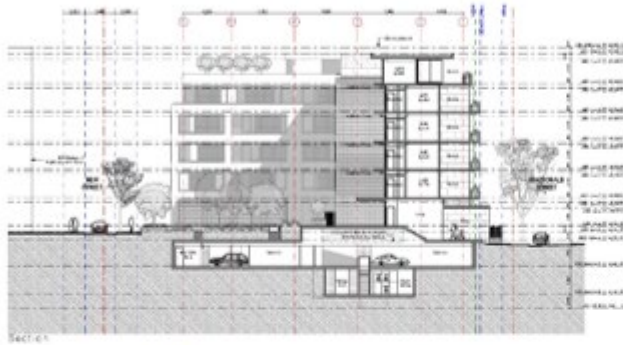
### 2-4 Powell Street Waterloo

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



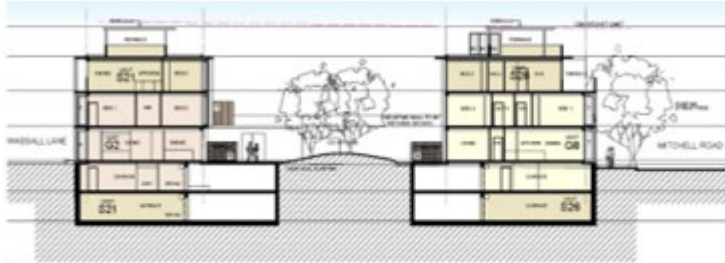
**75-81 Macdonald Street  
Erskineville**

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 EIE<sup>16</sup>
- goods - a majority of the shop types described in the ANZSIC code. <sup>17</sup> Additional supermarkets are listed here.
- services - a majority of the business types described in the ANZSIC code.<sup>18</sup>
- amenities – at least two community or public amenity centres
- food and beverage - a majority of the types described in the ANZSIC standard. <sup>19</sup> 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.

<sup>16</sup> 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.

<sup>17</sup> 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

<sup>18</sup> 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

<sup>19</sup> 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)

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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 MacDonalddtown 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 MacDonalddtown 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.



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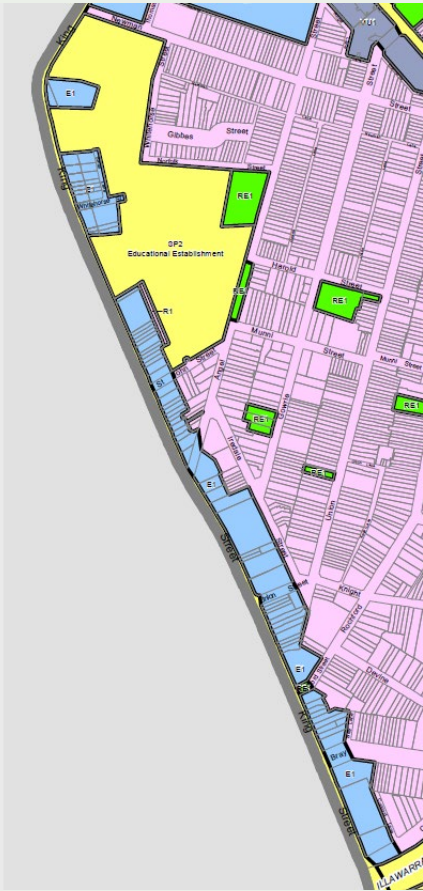
| Name                             | E1 Zone  | Area of zone / length of high street | AT LEAST TWO FULL-LINE SUPERMARKETS (Number) | Wide range of frequently needed GOODS | Wide range of frequently needed SERVICES | Wide range of frequently needed AMENITIES | Wide range of FOOD & BEVERAGES | Convenient 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<br>>2500m <sup>2</sup>                    | ≥50% (8/17)                           | ≥50% (7/14)                              | ≥2  | ≥50% (6/11) or >#14            | <400m  | ≥3,000m <sup>2</sup><br><400m                                  |                           | n/8  |
| Broadway/<br>Glebe Point<br>Road |   | 105,164 m <sup>2</sup><br>1000m      | NO<br>(1)<br>4,300 m <sup>2</sup>            | YES<br>(13/17)                        | YES<br>(11/14)                           | YES<br>Community hall,<br>Sports Hall     | YES<br>(9/11)<br>#90           | YES<br>Glebe PS<br>0m east<br>end of<br>zone | YES<br>Victoria Park<br>(9Ha) 30m<br>south                     | NO                        | 6/8<br>NO<br>Only one full line<br>supermarket, no rail<br>or light rail |
| Glebe Point<br>Road Centre       |  | 11,119 m <sup>2</sup><br>/ 169m      | NO<br>(0)                                    | NO<br>(1/17)                          | YES<br>(8/14)                            | NO  | NO<br>(3/11)<br>#9             | NO<br>Forest<br>Lodge PS<br>470m west        | YES<br>HJ Foley<br>Park<br>(5,800m <sup>2</sup> )<br>20m south | NO                        | 2/8<br>NO<br>No supermarkets   |

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| Name                   | E1 Zone  | Area of zone / length of high street | AT LEAST TWO FULL-LINE SUPERMARKETS (Number) | Wide range of frequently needed GOODS                     | Wide range of frequently needed SERVICES | Wide range of frequently needed AMENITIES       | Wide range of FOOD & BEVERAGES | Convenient 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 |   | 15,817 m <sup>2</sup> / 296m         | NO (0)                                       | NO (7/17)<br><br>No supermarkets                          | NO (1/14)                                | YES<br>Library<br><br>Community and arts centre | NO (4/11)<br>#11               | NO<br>Forest Lodge PS 540m southwest  | YES<br>William Gardens (3,100m <sup>2</sup> )<br><br>90m northeast | NO                        | 2/8<br><br>NO   |
| King Street North      |  | 77,648 m <sup>2</sup> / 1,110m       | NO (0)                                       | YES (9/17)<br><br>Supermarket<br><br>1,000 m <sup>2</sup> | YES (10/14)                              | NO<br>Library                                   | YES (10/11)<br>#109            | YES<br>Newtown North PS 5m north<br><br>Darlington PS 110m east<br><br>Newtown PS | YES<br>Camperdown Memorial Rest Park (3.8 Ha, IWC) 60m northwest   | YES                       | 6/8<br><br>NO<br><br>no full line supermarket not enough public amenities.<br><br>captured by rail stations |

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


| Name | E1 Zone | Area of zone / length of high street | AT LEAST TWO FULL-LINE SUPERMARKETS (Number) | Wide range of frequently needed GOODS | Wide range of frequently needed SERVICES | Wide range of frequently needed AMENITIES | Wide range of FOOD & BEVERAGES | Convenient access to a Public Primary School | Convenient access to a local park | Rail / light rail station | Include as Town Centre Precinct [meets EIE criteria] |
|------|---------|--------------------------------------|--|---------------------------------------|--|---|--------------------------------|--|-----------------------------------|---------------------------|--|
|------|---------|--------------------------------------|--|---------------------------------------|--|---|--------------------------------|--|-----------------------------------|---------------------------|--|

|                   |  |                              |        |  |           |    |                                       |  |  |     |   |
|-------------------|--|------------------------------|--------|--|-----------|----|---------------------------------------|--|--|-----|---|
| King Street South |  | 26,795 m <sup>2</sup> / 927m | NO (0) | NO (1/17)<br><br>Supermarket<br>250 m <sup>2</sup> | NO (4/14) | NO | YES (4/11)<br><br>Excluding west side | YES<br><br>Newtown PS<br>0m north end<br><br>Camdenville PS<br>420m west | YES<br><br>Sydney Park (40Ha) 60m south<br><br>Camperdown Memorial Rest Park (3.8 Ha, IWC)<br>340m north | YES | 4/8<br><br>NO,<br><br>no full line supermarket captured by rail station |
|-------------------|--|------------------------------|--------|--|-----------|----|---------------------------------------|--|--|-----|---|

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

| Name                           | E1 Zone   | Area of zone / length of high street | AT LEAST TWO FULL-LINE SUPERMARKETS (Number) | Wide range of frequently needed GOODS   | Wide range of frequently needed SERVICES | Wide range of frequently needed AMENITIES                         | Wide range of FOOD & BEVERAGES | Convenient access to a Public Primary School                             | Convenient access to a local park                       | Rail / light rail station | Include as Town Centre Precinct [meets EIE criteria]          |
|--------------------------------|---|--------------------------------------|--|---|--|---|--------------------------------|--|---|---------------------------|---|
| Darlinghurst Road, Potts Point |  | 63,088 m <sup>2</sup> / 462m         | NO (0)                                       | NO (7/17)<br><br>Supermarkets<br>1,900 m <sup>2</sup><br>600 m <sup>2</sup><br>600 m <sup>2</sup> | YES (10/14)                              | YES combined service centre, community rooms and library and park | YES (8/11) #71                 | YES Plunkett Street PS<br>270m west<br><br>Darlinghurst PS<br>250m south | YES Fitzroy Gardens (5,400m <sup>2</sup> )<br>North end | YES                       | 6/8<br>NO no full line supermarke<br>captured by rail station |

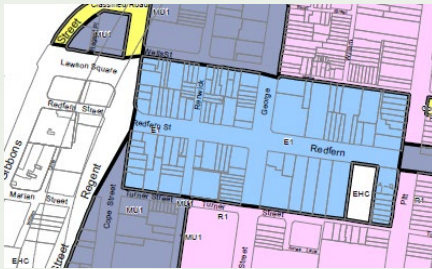
Submission to Explanation of Intended Effect: Changes to create low-and mid-rise housing

| Name                                   | E1 Zone  | Area of zone / length of high street | AT LEAST TWO FULL-LINE SUPERMARKETS (Number)        | Wide range of frequently needed GOODS | Wide range of frequently needed SERVICES | Wide range of frequently needed AMENITIES | Wide range of FOOD & BEVERAGES | Convenient 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 |  | 46,449 m <sup>2</sup> / 478m         | NO<br>(1 under construction)<br>3,633m <sup>2</sup> | YES<br>(8/17)                         | YES<br>(10/14)                           | NO  | YES<br>(4/11)<br>#33           | YES<br>Bourke Street PS<br>100m east         | YES<br>Eddie Ward Park<br>(9,500m <sup>2</sup> )<br>80m west | YES<br>light rail station nearby | 6/8<br>NO,<br>Only one full line supermarket under construction<br>no amenities.<br><br>captured by light rail station |


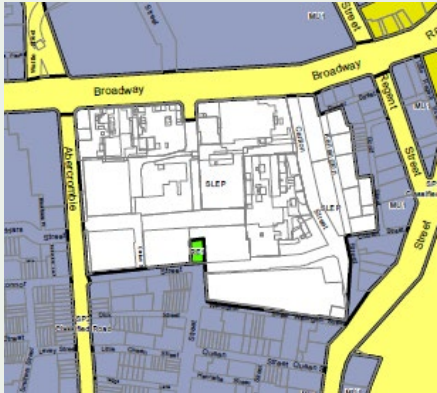
Submission to Explanation of Intended Effect: Changes to create low-and mid-rise housing

| Name                            | E1 Zone  | Area of zone / length of high street | AT LEAST TWO FULL-LINE SUPERMARKETS (Number) | Wide range of frequently needed GOODS  | Wide range of frequently needed SERVICES | Wide range of frequently needed AMENITIES | Wide range of FOOD & BEVERAGES | Convenient access to a Public Primary School    | Convenient access to a local park   | Rail / light rail station        | Include as Town Centre Precinct [meets EIE criteria]                               |
|---------------------------------|--|--------------------------------------|--|--|--|---|--------------------------------|---|---|----------------------------------|--|
| Cathedral Street, Woolloomooloo |   | 6,240 m <sup>2</sup>                 | NO (0)                                       | NO (1/17)<br><br>Supermarket<br><br>70 m <sup>2</sup>  | NO (1/14)                                | NO  | NO (0/11)<br><br>#0            | YES<br><br>Plunkett Street PS<br><br>140m north | YES<br><br>Woolloomooloo Park<br><br>(4,200m <sup>2</sup> )<br><br>160m northeast | NO                               | 2/8<br><br>NO, captured by adjacent Central Sydney                                 |
| Oxford Street West, Paddington  |  | 34,936 m <sup>2</sup> / 553m         | NO (0)                                       | NO (5/17)<br><br>Supermarkets<br><br>2 adjacent 1,350 m <sup>2</sup> ,<br>800 m <sup>2</sup> | NO (4/14)                                | NO  | YES (8/11)<br><br>#40          | YES<br><br>Crown Street PS<br><br>130m south    | YES<br><br>Harmony Park<br><br>(7,400m <sup>2</sup> )<br><br>160m south           | YES<br><br>Museum station nearby | 4/8<br><br>NO,<br><br>no full line supermarket captured by adjacent Central Sydney |

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

| Name                           | E1 Zone   | Area of zone / length of high street | AT LEAST TWO FULL-LINE SUPERMARKETS (Number) | Wide range of frequently needed GOODS | Wide range of frequently needed SERVICES | Wide range of frequently needed AMENITIES         | Wide range of FOOD & BEVERAGES | Convenient 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 |  | 18,154 m <sup>2</sup> / 599m         | NO (0)                                       | NO (2/17)                             | NO (4/14)                                | NO  | YES (7/11) #17                 | YES Crown Street PS 75m west                              | YES Green Park (5,400m <sup>2</sup> ) 200m north | NO                        | 3/8<br>NO<br>no full line supermarket                           |
| Redfern Street, Redfern        |  | 39,576 m <sup>2</sup> / 290m         | NO (0)                                       | NO (6/17)                             | YES (10/14)                              | YES Council community building and service centre | YES (5/11) #24                 | NO Alexandria Park CS 860m southwest<br>Darlington PS 1km | YES Redfern Park (2.2Ha) 160m east               | YES                       | 5/8<br>NO,<br>no full line supermarket captured by rail station |

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

| Name                              | E1 Zone  | Area of zone / length of high street          | AT LEAST TWO FULL-LINE SUPERMARKETS (Number) | Wide range of frequently needed GOODS   | Wide range of frequently needed SERVICES | Wide range of frequently needed AMENITIES | Wide range of FOOD & BEVERAGES | Convenient 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             |   | 59,728 m <sup>2</sup><br>3,300 m <sup>2</sup> | NO<br>(1)                                    | NO<br>(4/17)<br><br>Supermarkets 1,400 m <sup>2</sup><br>1,300 m <sup>2</sup><br>200 m <sup>2</sup> | NO<br>(5/14)                             | NO<br>Cinema                              | YES<br>(3/11)<br>#20           | NO<br>Bourke Street PS 720m north<br><br>Alexandria Park CS<br><br>1.25km west | YES<br>Crown Park (6,200m <sup>2</sup> )<br>60m south               | NO                                | 2/8<br><br>NO<br><br>Only one full line supermarketspecialised<br><br>poor public transport access due to overcrowding |
| Central Park E1 zone, Chippendale |  | 60,766 m <sup>2</sup>                         | NO<br>(0)                                    | NO<br>(5/17)<br><br>Supermarket<br>2,100 m <sup>2</sup>   | NO<br>(3/14)                             | NO<br>Cinema                              | NO<br>(4/11)<br>#12            | NO<br>Glebe PS 680m west<br><br>Ultimo PS<br>775m north                        | YES<br>Chippendale Green (8,900m <sup>2</sup> )<br>0m within centre | YES,<br>Central Station is nearby | 1/8<br><br>NO,<br>captured by adjacent Central Sydney  |



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

| Name                        | E1 Zone  | Area of zone / length of high street | AT LEAST TWO FULL-LINE SUPERMARKETS (Number) | Wide range of frequently needed GOODS  | Wide range of frequently needed SERVICES | Wide range of frequently needed AMENITIES | Wide range of FOOD & BEVERAGES | Convenient 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, Pymont |   | 22,679 m <sup>2</sup> / 289m         | NO (0)                                       | NO (2/17)<br><br>Supermarkets<br>300 m <sup>2</sup><br>3 adjacent 2,150 m <sup>2</sup> , 2,000 m <sup>2</sup> , 400 m <sup>2</sup> | NO (6/14)                                | NO recreation centre to the north         | YES (4/11) #16                 | NO Ultimo PS 640m south                      | YES Pymont Bay Park (1.2Ha) 220m east                      | YES, Future Metro         | 3/8<br><br>NO, captured by future metro station      |
| Harris Street South, Ultimo |  | 9,741 m <sup>2</sup>                 | NO (0)                                       | 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 (5,660m <sup>2</sup> ) 125m south | NO                        | 3/8<br><br>NO  |

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

| Name   | E1 Zone  | Area of zone / length of high street              | AT LEAST TWO FULL-LINE SUPERMARKETS (Number) | Wide range of frequently needed GOODS                    | Wide range of frequently needed SERVICES | Wide range of frequently needed AMENITIES | Wide range of FOOD & BEVERAGES | Convenient 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 |   | 33,620 m <sup>2</sup>                             | NO (0)                                       | NO (0/17)<br><br>No supermarkets                         | NO (0/14)                                | NO  | NO (0/11)<br><br>#0            | NO<br><br>Alexandria Park CS<br><br>540m west | YES<br><br>Future Waterloo Park<br><br>(2.25Ha)<br><br>20m north | YES,<br><br>Future metro station | 2/8<br><br>NO,<br><br>Already more intensively zoned |
| Gadigal Avenue (East Village), Zetland       |  | 31,321 m <sup>2</sup><br><br>3,400 m <sup>2</sup> | NO (1)                                       | YES (9/17)<br><br>Supermarkets<br><br>150 m <sup>2</sup> | YES (8/14)                               | NO  | NO (4/11)<br><br>#14           | NO  | YES<br><br>Joynton Park (1.3Ha) 50m west                         | NO                               | 3/8<br><br>NO  |

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|--------------------------|--|--------------------------------------|--|--|--|---|--------------------------------|--|--|---------------------------|--|
| Botany Road, Rosebery    |   | 15,418 m <sup>2</sup>                | NO (0)                                       | NO (2/17)<br><br>Supermarket<br>550 m <sup>2</sup> | NO (2/14)                                | NO  | NO (2/11)<br>#<10              | NO<br>Gardeners Road PS<br>520m south        | YES<br>Turruwul Park (2.2Ha)<br>400m southeast | NO                        | 1/8<br><br>NO  |
| Dalmeny Avenue, Rosebery |  | 2,691 m <sup>2</sup>                 | NO (0)                                       | NO (1/17)<br><br>No supermarkets                   | NO (2/14)                                | NO  | NO (2/11)<br>#<10              | NO<br>Gardeners Road PS<br>760m west         | YES<br>Turruwul Park (2.2Ha)<br>230m southwest | NO                        | 1/8<br><br>NO  |

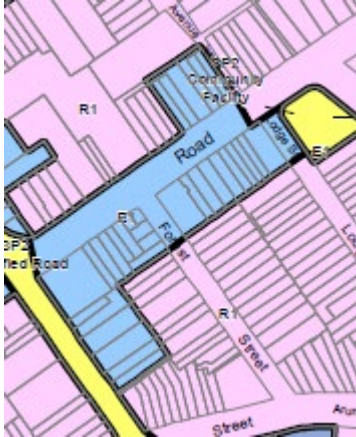

Submission to Explanation of Intended Effect: Changes to create low-and mid-rise housing

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|---------------------------------|--|--------------------------------------|--|--|--|---|--------------------------------|--|---|---------------------------|--|
| Mitchell Road, Erskineville     |   | 58,341 m <sup>2</sup>                | NO (0)                                       | NO (2/17)<br><br>Supermarket<br>1,500 m <sup>2</sup>                                   | NO (2/14)                                | NO park                                   | NO (1/11)<br>#<10              | YES<br>Erskineville PS<br>260m west          | YES<br>Future Ashmore Park<br>>3000m <sup>2</sup><br>0m | NO                        | 2/8<br><br>NO,<br>captured by rail stations          |
| Erskineville Road, Erskineville |  | 13,679 m <sup>2</sup> / 268m         | NO (0)                                       | NO (6/17)<br><br>Supermarkets<br>105 m <sup>2</sup><br>1 adjacent 1,550 m <sup>2</sup> | YES (6/14)                               | NO a community centre                     | YES (6/11)<br>#14              | YES<br>Erskineville PS<br>60m east           | YES<br>Harry Noble Reserve (1Ha)<br>350m east           | YES                       | 5/8<br><br>NO,<br>captured by rail stations          |

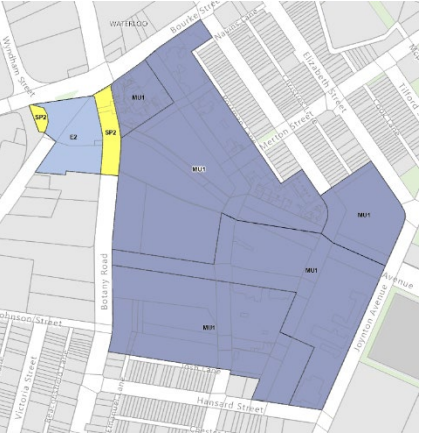
Submission to Explanation of Intended Effect: Changes to create low-and mid-rise housing

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|----------------------------|--|--------------------------------------|--|--|--|---|--------------------------------|--|---|---------------------------|--|
| Missenden Road, Camperdown |   | 12,737 m <sup>2</sup>                | NO (0)                                       | NO (1/17)<br><br>Supermarket<br>200 m <sup>2</sup> | NO (2/14)                                | NO  | NO (3/11)<br>#<10              | NO<br>Newtown North PS<br>480m south         | YES<br>Camperdown Park<br>260m west                       | NO                        | 1/8<br><br>NO  |
| Ross Street, Glebe         |  | 13,667 m <sup>2</sup>                | NO (0)                                       | NO (2/17)<br><br>No supermarkets                   | NO (3/14)                                | NO  | NO (2/11)<br>#<10              | YES<br>Forest Lodge PS<br>20m north          | YES<br>Orphan School Creek Park<br>(5,000m2)<br>210m west | NO                        | 2/8<br><br>NO  |

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

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|--------------------------------|--|--------------------------------------|--|---------------------------------------|--|---|--------------------------------|--|---|---------------------------|--|
| St Johns Road, Glebe           |   | 11,158 m <sup>2</sup>                | NO (0)                                       | NO (1/17)<br><br>No supermarkets      | NO (4/14)                                | NO<br><br>a community centre adjoining    | NO (3/11)<br><br>#<10          | YES<br><br>Forest Lodge PS<br><br>140m north | YES<br><br>HJ Foley Park (5840m <sup>2</sup> )<br><br>240m north east | NO                        | 3/8<br><br>NO  |
| Abercrombie Street, Darlington |  | 8,846 m <sup>2</sup>                 | NO (0)                                       | NO (2/17)<br><br>No supermarkets      | NO (2/14)                                | NO  | NO (4/11)<br><br>#10           | NO<br><br>Darlington PS<br><br>520m west     | NO<br><br>Victoria Park (9Ha)<br><br>425m north west                  | NO                        | 0/ 8<br><br>NO                                       |

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

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|--|---|--------------------------------------|--|---|--|---|--------------------------------|--|--|---------------------------|--|
| Green Square Town Centre mixed-use zones |  | 149,467 m <sup>2</sup>               | NO (0)                                       | NO (3/17)<br><br>Supermarkets<br>1,400 m <sup>2</sup><br>350 m <sup>2</sup> | NO (2/14)                                | YES<br>library and aquatic centre         | YES (5/11)<br>#12              | YES<br>Future Green Square Town Centre PS<br>0m east end | YES<br>Drying Green Park (6,200m <sup>2</sup> )<br>0m centre | YES                       | 5/8<br>NO<br>Captured by Rail Station                |

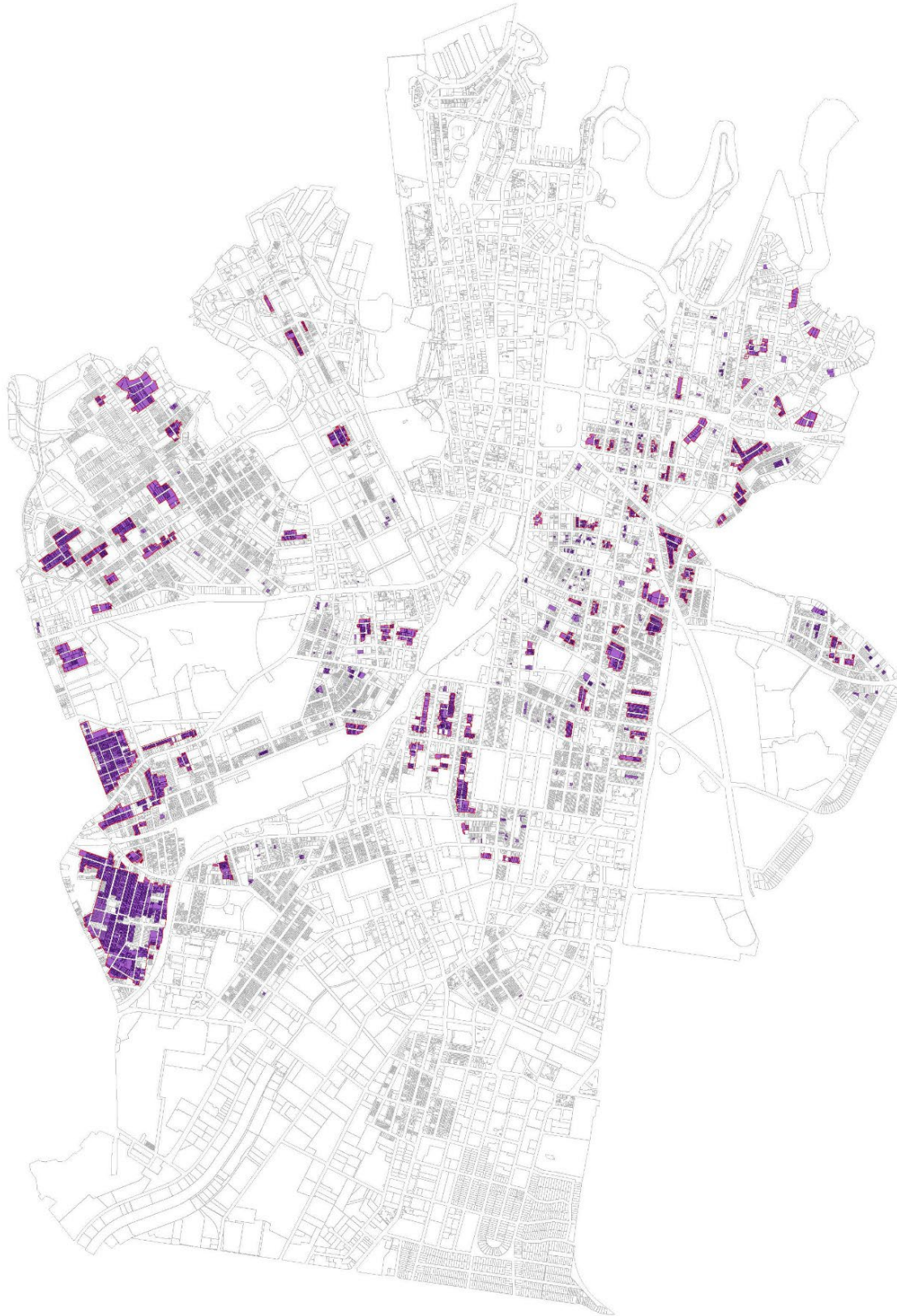
## Appendix 5: Neighbourhoods with narrow streets

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%.

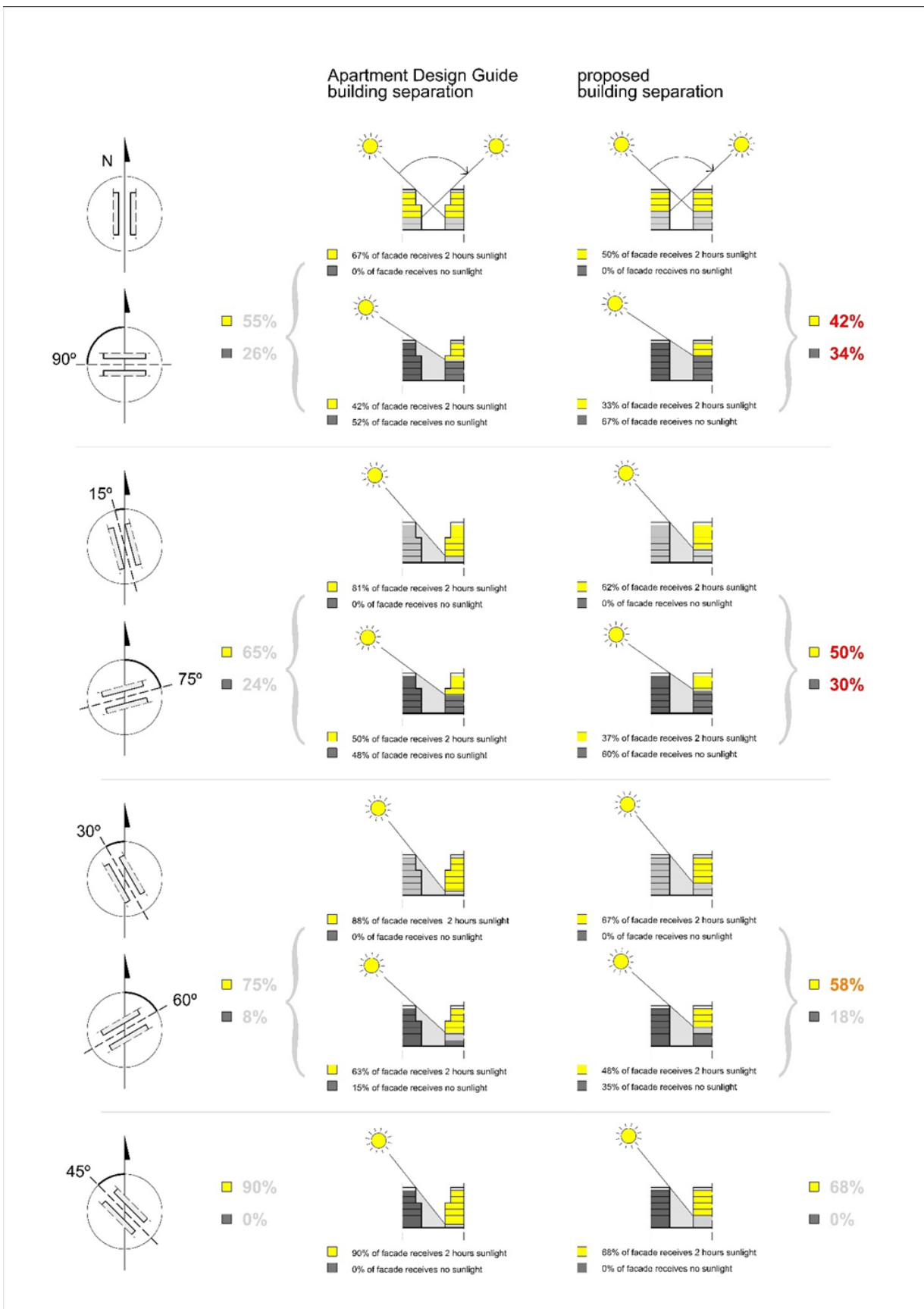
The second criteria is that no more 15% of apartments should receive no sunlight for the specified time period. Similarly, a score of 25% or less allows a skilled designer to arrange a building to achieve criterion. Another 5% allowance is reasonable for the north orientation.

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<br>11x 1,100s | 100 x 240L<br>22 x 1,100s |
| Frontage required <sup>1</sup> | 1.7m     | 4.6m      | 10.4m     | 14.5m                   | 29m                       |

<sup>1</sup> 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.

## Appendix 8: Cursory rounded calculation of the maximum effective population density of the proposal

A cursory rounded calculation of the maximum effective population density that could be obtained by a reasonably comprehensive uptake of the proposal is as follows:

- say 50% of the urban area is occupied by public space – streets, parks, infrastructure, public and community buildings
- 1du = 100m<sup>2</sup> of gross floor area per apartment [including measured areas external to apartment – corridors, ground level entry, etc]
- 6 stories = 2.0:1\* floor space ratio for 1/4 area [400 metre radius]
- 4 stories = 1.25:1\* floor space ratio for 3/4 area [400-800 metre radius]
- say 50% of private sites, in the City of Sydney, do not develop due to existing high density buildings, individually listed heritage items, existing valuable non-residential uses, complex ownership arrangements, existing long term leases, etc
- of the undeveloped site assume 50% remain non-residential and 50% remain at 0.7:1
- 2 persons per apartment

For a typical square kilometre:

$$1\,000\,000 \times 0.5 \times \{[(2.0/4 + 1.25 \times 3/4) \times 0.5] + [(0.7 \times 0.5) \times 0.5]\} / 100 \times 2 =$$

Approximately 8938 say **9000 persons/square kilometre**

Note: The Transport Oriented Development State Environmental Planning Policy for 400 metre radii around stations produces a similar outcome, even though the lower density 400-800 metre zone is not included in that proposal. Therefore, the estimate here is a likely overestimate. If the 4 storey area is taken as having 2/3 the density an equivalent density derived from the **stations SEPP** is 6750 persons/square kilometre **say 7000 persons/square kilometre**

The likely effective long term outcome of the proposal is areas around stations having a population density of **between 7000 – 9000 persons/ square kilometre**

\* Assuming floor space ratio is adjusted to concur with number of stories

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# Zoning in the City of Sydney

This information is an addition to the comments under Item 3 in the City's submission.

The submission provides further evidence as to why the proposed changes have unintended consequences or little effect. It notes that the City permits residential flat buildings and shop-top housing in all of its residential and mixed-use zoned areas, with the exception of the Rosebery Estate and the edge of Centennial Park, which are zoned R2 Low Density Residential. Together these R2 areas make up only 11.6 per cent of land zoned for residential uses in the local government area. Overall, 88.4 per cent of residential-zoned land in the City permits residential flat buildings and shop-top housing as shown in Figure 1.

The City's residential areas are generally zoned either R1 General Residential or MU1 Mixed-Use and are amongst the densest residential areas in Australia. Figure 2 shows the density of suburbs in the LGA.

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Figure 1. Areas in the City of Sydney where residential flat buildings are permitted

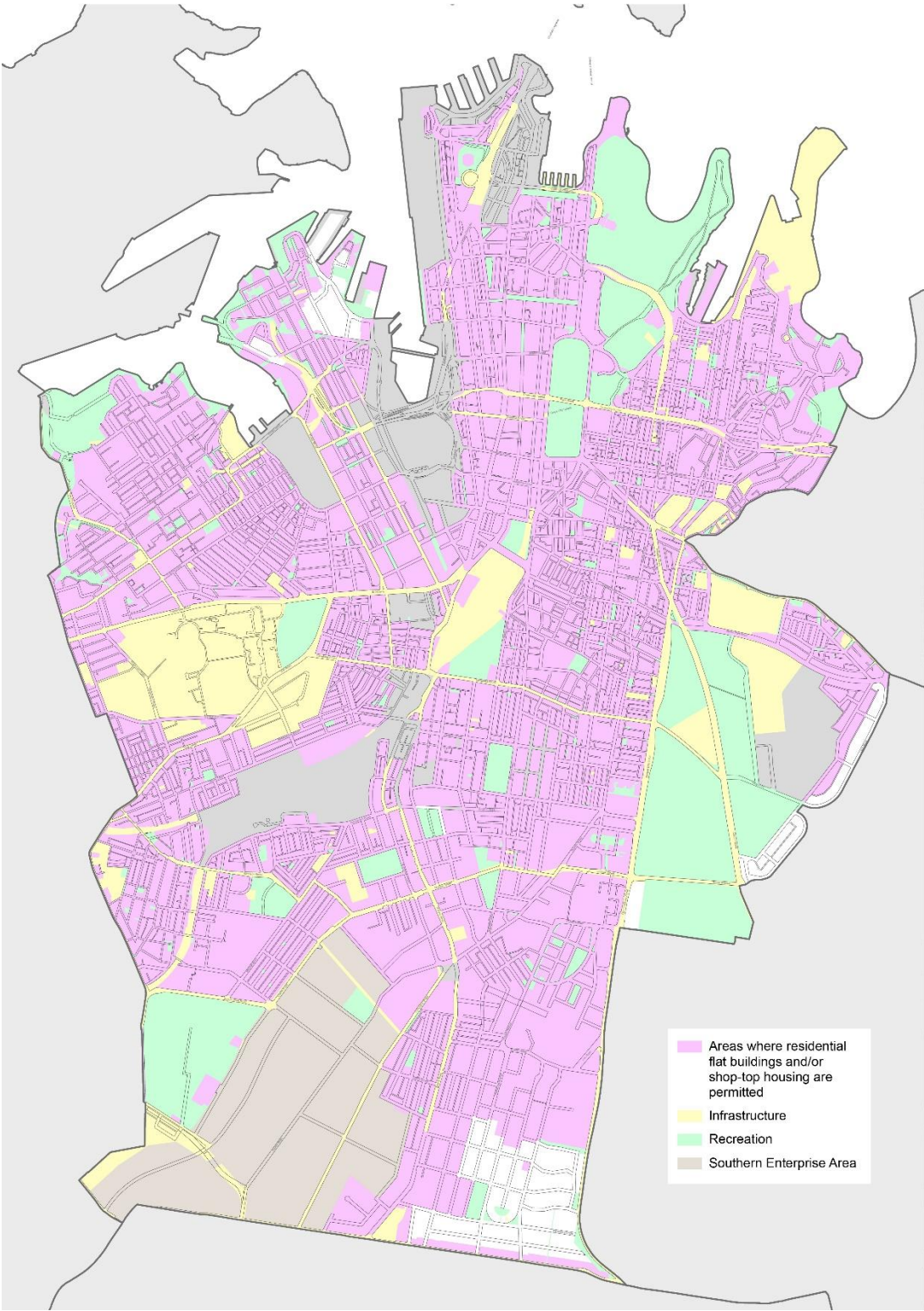
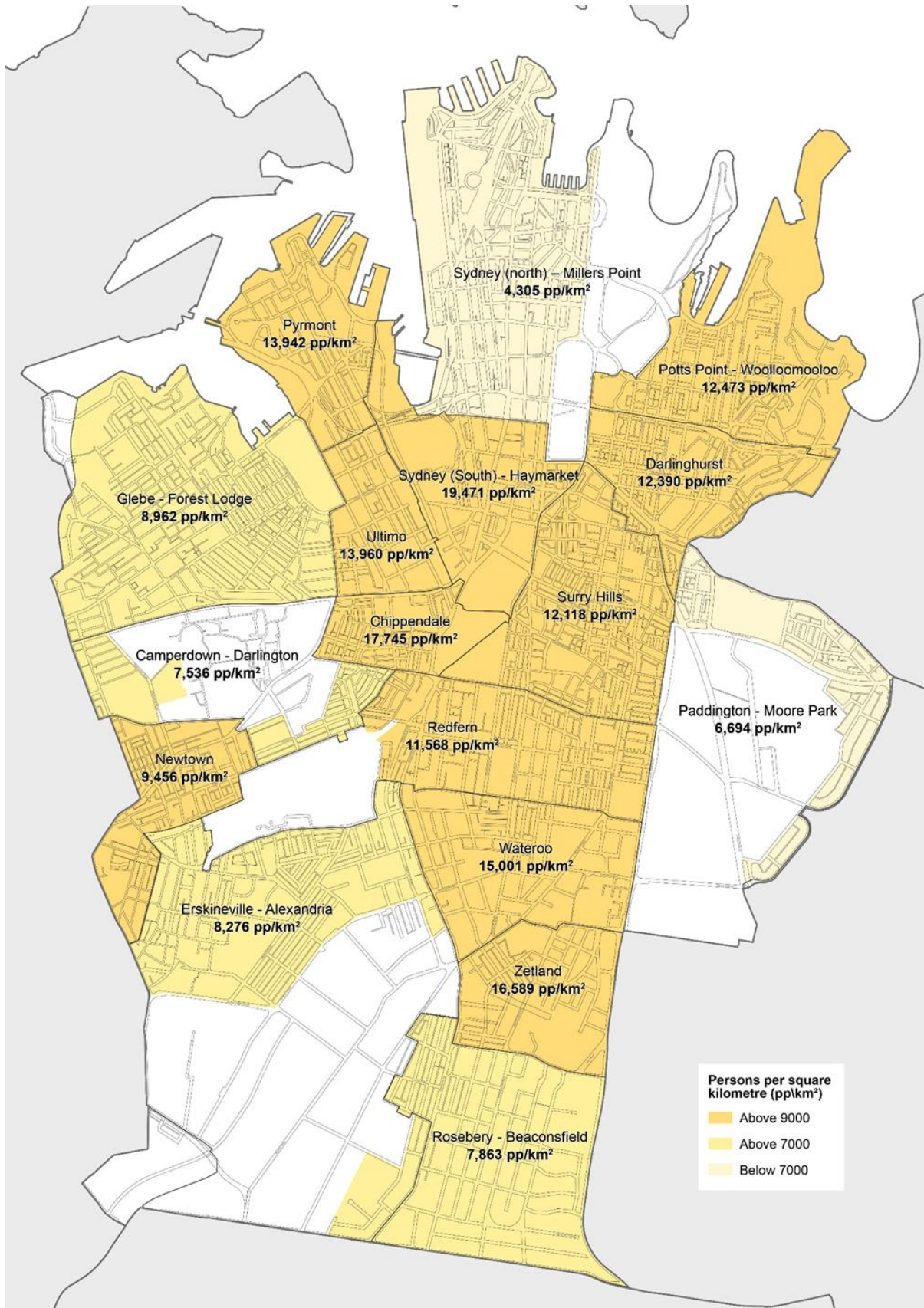


Figure 2. Suburbs in the City of Sydney and their respective density



## **R1 General Residential zone in the City of Sydney**

The submission notes that the City's R1 General Residential areas are already denser than all but one of the R4 High Density Residential areas in New South Wales, and more dense than the outcomes envisaged by this EIE. The City's R1 zones all permit terrace houses, residential flat buildings and shop-top housing.

The NSW Standard instrument envisages the R1 zone being used for areas that have a variety of housing types, scales and site densities which don't fit easily within the more constrained R2 Low Density, R3 Medium Density and R4 High Density zones<sup>1</sup>.

The City uses the R1 zone for dense residential areas in suburbs such as Newtown, Erskineville, Potts Point, Redfern, and Surry Hills. The City's R1 zones are unique. They were developed for urban uses before the use of the private motor car and before widespread land-use zoning in Sydney.

Consequently, they have a unique pattern of development that is varied, dense and low-scale. Much of the housing in these R1 zones is dense Victorian terrace developments on small lots with narrow frontages and little private open space. Over time these areas have accommodated in-fill residential flat buildings from various periods of the City's growth. Some areas, like Elizabeth Bay and Potts Point consist almost entirely of residential flat buildings.

These areas have very narrow streets and lanes because they were developed before the Width of Streets Act 1881 and the private motor car. Often the streets are less than 12 metres wide, compared to the standard Sydney street of approximately 20 metres. This allows the housing to be dense as very little land area is needed for streets and so can be used for housing. However, the narrow streets make it very difficult to achieve six-storey residential flat buildings with expected levels of daylight to homes and sufficient space for access and servicing, including for waste management. A universal six storey approach will have high, rather than the intended medium, levels of population density. The City's submission includes a map of these areas with narrow streets at Appendix 5.

The R1 zones are flexible and constantly changing in response to circumstances. They allow for the development of further density including residential flat buildings, even within conservation areas. For instance, the City has recently issued an approval for a 6-storey boarding house at 274-276 Glebe Point Road. The site is within the Glebe Point Road conservation area but was identified as neutral with respect to the heritage character. Redevelopment at this scale will provide new residential accommodation while improving the architectural outcome on the site. The outcome is shown in Figure 1. Similar redevelopments exist throughout the R1 zone, including in conservation areas.

<sup>1</sup>NSW Government – Preparing LEPs using the Standard Instrument – standard zones. Published 10 March 2011. Accessed 15 February 2024 [www.planning.nsw.gov.au/sites/default/files/2023-04/practice-note-pn-11-002-preparing-leps-using-the-standard-instrument-standard-zones.pdf](http://www.planning.nsw.gov.au/sites/default/files/2023-04/practice-note-pn-11-002-preparing-leps-using-the-standard-instrument-standard-zones.pdf)

### Figure 3. 6-storey residential development on a neutral site within a conservation area



#### **MU1 Mixed-Use zone in the City of Sydney – dense housing and key industry clusters**

The City applies the MU1 Mixed-Use zone in a variety of circumstances. These include planned high-density urban renewal areas such as Harold Park and Green Square where new residential flat buildings incorporate retail, service and commercial uses that support the daily life of residents and supply local jobs. They also include areas with a historical mixed-use character or have transformed from 19<sup>th</sup> century industrial areas such as parts of Redfern, Surry Hills, Potts Point, Darlinghurst, Chippendale and Pyrmont.

In these areas dense housing and employment were developed side-by-side through the late 19<sup>th</sup> Century and have continued. Other Standard Instrument zones would be overly restrictive with respect to the range of current uses. All of the City's Mixed-Use zones permit residential flat buildings and shop-top housing and are already very dense.

The Sydney LGA is unique in the role that it plays - accommodating the Sydney CBD, its satellite and fringe markets that altogether form a network of land uses which are critical to Greater Sydney's economic health and prosperity. The MU1 – Mixed Use zone has been successful in supporting a diverse economic and cultural base in the City Fringe, providing more than 30,000 new jobs between 2012 and 2022.

The area houses specialised and economically significant knowledge-based clusters of health, education, creative industries, professional services and information media. Figure 2 shows the location and variety of important industry clusters in the City Fringe. Many of these businesses seek a less 'corporate' address and the ability to combine office, research and development, product development and warehousing functions under the one roof and the amenity of neighbourhoods with character buildings, night time uses and active streets.

These businesses do not have the capacity to pay premium rents but need to be close to the businesses they serve, and therefore seek premises outside of core commercial centres. There are many such buildings in Surry Hills, Darlinghurst, Camperdown and Forest Lodge that fit this description.

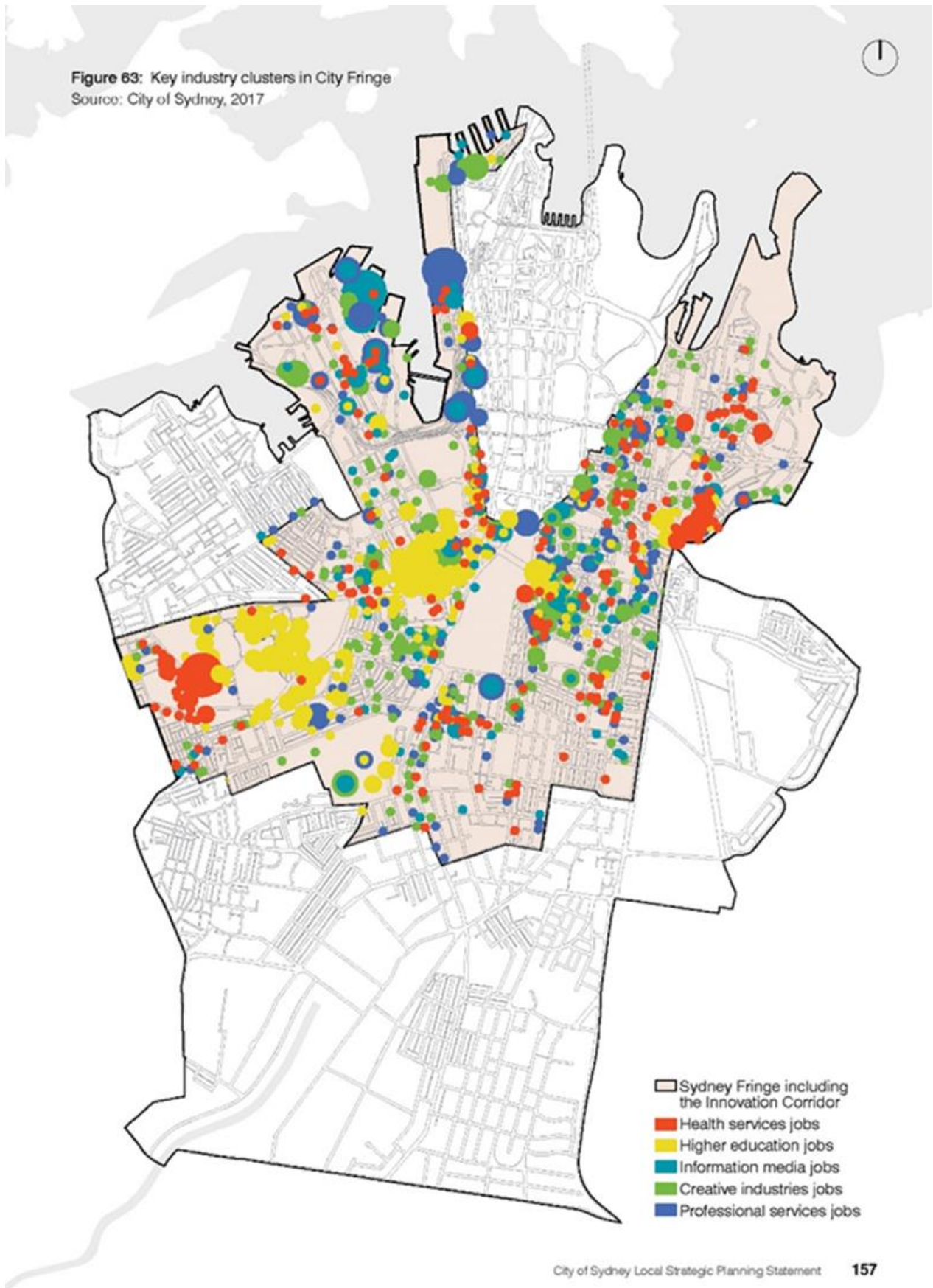
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Key actions from the City's Local Strategic Planning Statement, the Eastern City District Plan, and Camperdown Ultimo Place Strategy aim to support these industry clusters. Together, these actions aim to enhance the competitiveness and vibrancy of the Harbour CBD by balancing residential and commercial development, promoting cultural and leisure activities, fostering a vibrant night-time economy, establishing an innovation corridor with affordable spaces. They are also supporting business interaction, developing health and education precincts, retaining and attracting businesses, safeguarding commercial activities, and developing innovative business clusters in the City Fringe area.

These actions have informed precinct planning for the Pyrmont Peninsula, Botany Road Precinct, Waterloo Estate, Broadway and site-specific planning proposals in the area, delivering significant uplift while carefully protecting and expanding space for these targeted economic and cultural activities.

Testing of the non-refusal standards has found they will displace the fine grain commercial floor space that supports business activity in the innovation corridor, Tech Central and the City Fringe, weakening key innovation focused industry clusters and future economic productivity.

## Figure 4. Key industry clusters in the City Fringe



# Areas already planned for high density should not be disrupted

This information is an addition to the comments under Item 7 in the City's submission.

The City has undertaken detailed planning in urban renewal areas over a long time in consultation with the Department and the community to deliver housing, jobs and infrastructure. Application of the EIE non-refusal standards to these areas undermine that work and jeopardise the timely delivery of the development and infrastructure outcomes.

---

## Delivery of infrastructure necessary to support development will be compromised in the Green Square Urban Renewal Area

The Green Square Urban Renewal Area (GSURA) is Australia's first large scale urban renewal project. In 1996, the State Government appointed a dedicated State agency to oversee the project. Since 2005, the City has led the successful delivery of this project, which is anticipated to deliver 35,000 dwellings by 2036. GSURA is delivering on its housing objectives with around 65% of planned housing delivered to date, alongside critical major infrastructure.

### **FSR controls and land dedication**

Item 7 of the City's submission raises the issue of applying the EIE non-refusal standard of FSR 3:1 to the GSURA. Due to the careful calibration of floor space ratio controls and land dedication requirements in the GSURA the EIE 3:1 FSR will have severe unintended consequences for development and built form outcomes in this area and will result in heights far in excess of the mid-rise intended by the EIE.

Before regeneration, GSURA did not have the streets and lanes, parks, community facilities, schools retail and services needed to support a high-density residential community. Instead, it consisted of contaminated, flood prone industrial land on extra-large landholdings with battle-axe driveways and few streets or parks. When redeveloping for housing and mixed-use significant land dedications are required to provide essential infrastructure needed for:

- access and circulation, both within sites and between neighbourhoods,
- amenity and recreation, as both public and private open space, and
- flood mitigation, to manage surface drainage and flood events.

In Green Square the FSR is applied to the entire lot, that is, before streets and parks are dedicated. Many of the largest landholdings in Green Square are required to dedicate upwards of 35 per cent of their site area for essential infrastructure. As a result, residual developable lots are much reduced compared with the size of the original landholding. The floor space from the entire lot is then delivered on the smaller developable portion of the site. On the resultant developable lots, even small increases in FSR are multiplied to create significant increases in building height.

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New neighbourhoods across the Urban Renewal Area have been comprehensively planned over time to determine a rational location and hierarchy of streets, maximised open space, functional flood mitigation, viable developable lots and the optimal built form arrangement on each site.

The City's experience has consistently shown that FSR's of 1.5:1 plus a 0.5:1 allowance for community infrastructure and 10% design excellence represents a workable maximum FSR (2.2:1) in the Green Square locality for apartment buildings that are designed well, have good amenity for themselves and neighbouring apartments, and deliver essential community infrastructure. This can still result in development 6-20 storeys high.

Overlaying the low and mid-rise SEPP proposals with controls designed for this planned, high-density neighbourhood will compromise and delay its realisation. It will enable much higher densities to be achieved without the provision of necessary community infrastructure and render them unable to be approved. It will also cause unanticipated built form outcomes against established infrastructure and design requirements.

---

## The new Pyrmont Place Strategy will be undermined

Item 7 of the City's submission notes that implementation of the EIE in Ultimo/Pyrmont will undermine significant work undertaken by the City, the Department and the community to deliver on the NSW Government's Pyrmont Place Strategy. The Place Strategy ensures the NSW Government's investment in the Pyrmont Metro station is harnessed to deliver jobs and 4,100 new dwellings.

Ultimo Pyrmont is already home to a diverse range of housing types. Over 18,000 residents live in the area, making it one of Australia's most densely populated suburbs. Of the 10,680 dwellings in the area 91% are high density housing (3 storeys or more) and 8% in medium density housing (predominantly terraces)<sup>2</sup>.

At the same time the area is also home to 34,000 workers, one of Australia's largest creative media employment clusters and multi-national corporations including Google. In 2014, Ultimo Pyrmont was the 14th largest centre for economic activity in Australia and the 5th in NSW, at \$5.8 billion<sup>3</sup>. Today it supports \$7 billion per annum of economic activity which will increase to \$12 billion by 2041 with the delivery of Sydney Metro West and through realisation of the City's draft planning framework<sup>4</sup>.

The infill development supported by the City's draft planning framework is diverse in density, scale and typology. Its diversity achieves those aims espoused by the EIE in catering for different needs and preferences. For the Ultimo Pyrmont, these aims extend beyond housing to the diversity of employment spaces the commercial market has stated that they are after.

The added benefit of the building typology diversity promoted by the City's draft planning framework is that it can be delivered by a diversity of developers, from owner-occupiers/mums and dads to tier one developers. This means that the delivery of the City's planning framework is not solely reliant on one tier of developer that may require specific economic conditions in which to develop.

<sup>2</sup><https://profile.id.com.au/sydney/dwellings?WebID=240>

<sup>3</sup> Grattan Institute, Mapping Australia's economy: cities as engines of prosperity, Jane-Frances Kelly, Paul Donegan, July 2014

<sup>4</sup> Pyrmont Peninsula Economic Development Strategy, NSW Government, July 2020



### **The draft Pyrmont planning controls are the result of years of coordinated work**

From 2019 to 2023 (four years), the NSW Government worked to establish a place strategy for the area and rezone government land. The City was then tasked with reviewing planning controls for the remainder of the area in line with the Pyrmont Peninsula Place Strategy.

The NSW Government's Pyrmont Peninsula Place Strategy sets a clear vision and direction for Ultimo Pyrmont to ensure the area becomes an attractor for global investment and a globally connected place with jobs in arts, culture, entertainment, and the innovation economy.

In 2020, the City committed to work with the NSW Government to review our planning framework where a Sydney Metro West station in Pyrmont was committed<sup>5</sup>.

The City's review of the controls for Ultimo Pyrmont was undertaken within 18 months and shows that councils can complete reviews of planning controls efficiently and effectively in partnership with community, giving the community the opportunity to own change within their locality.

The City's review was informed by extensive community engagement<sup>6</sup> and detailed urban design analysis. The result is a draft planning framework that is evidenced based, has a good level of community support and provides a greater level of certainty about the future character of the area.

The City's draft planning framework is supported by an Affordable Rental Housing Program and a new local infrastructure contributions plan that will deliver \$148 million dollars' worth of new and improved local infrastructure, including 6,200sqm of new publicly accessible open space.

### **The SEPP will reduce certainty and compromise site-specific outcomes**

The City's draft planning framework introduces detailed site-specific planning controls, outlining a more certain planning pathway for community and developers alike, where clear outcomes are described by the planning controls.

Introducing the EIE non-refusal standards for residential flat buildings and shop-top housing for all sites in Ultimo and Pyrmont sets an expectation that all sites can achieve these non-refusal standards, when the City's detailed urban design review has determined that many cannot.

Future development applications for these sites will be contested and time consuming. Non-refusal standards will produce compromised outcomes where site specific considerations addressed by the City's draft planning framework (deep soil, tree canopy, access to sun light etc.), are set aside to accommodate the untested EIE non-refusal standards.

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## **Delivery of affordable housing, infrastructure and business space will be compromised in the Botany Road precinct**

In 2022, the City introduced increased FSR and height controls for affordable housing and businesses uses along the corridor.

The Botany Road Precinct is strategically located within the Innovation Corridor (Tech Central), between Central Sydney and the Southern Enterprise Area, and adjacent to the Camperdown-Ultimo Health and Education Precinct and the former Australian Technology Park at South Eveleigh.

It has the advantage of being serviced by Redfern, Green Square and Waterloo Metro stations. It is an opportunity to provide commercial spaces at a lower cost than Central Sydney, supporting a diversity of business types at different stages of their evolution. These businesses are important in

<sup>5</sup> City of Sydney, Ultimo Pyrmont Urban Design Study, November 2023

<sup>6</sup> City of Sydney, Ultimo Pyrmont Strategic Review, Early Engagement Report, December 2023

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linking and supporting major employment precincts. Provision of a variety of these types of commercial spaces is crucial to sustaining and growing the business ecosystem of the City.

It can deliver affordable housing for key workers in these and other essential industries in an area of high need.

The City's planning framework for the Botany Road Precinct has been developed to ensure any residential development achieved high amenity in responding to the noise and air pollution on Botany Road.

### **The EIE non-refusal standards will make commercial and affordable housing financially unfeasible**

Testing has shown that the non-refusal standards for proposed in the SEPP of 3:1 FSR and 21m HOB for market residential uses will compromise the ability for the Botany Road Precinct to deliver both affordable housing and jobs. Development that uses the non-refusal standards will be more financially attractive than the incentives for affordable housing and business uses.

Community housing providers will need to compete with general residential developers and will be unable to acquire land for affordable housing in the Precinct. Commercial developers will also be unable to compete on price with residential developers compromising the ability to deliver jobs close to the Waterloo Metro station and close to where people live.

The City's planning framework was finalised in November 2022 and since then two sites have either lodged applications or commenced the pre-DA process for developments delivering more than 200 affordable rental dwellings.

There is an application for an 8-storey commercial office building and a Pre-DA for a hotel with 108 rooms under assessment by the City, generating jobs and activity in the precinct to complement the 3,000 new dwellings within walking distance of the Waterloo Metro. The City's planning framework is delivering on its goals, but our financial feasibility analysis shows that these results will be undermined. The Botany Road Precinct adjoins the Waterloo Estate, which will already deliver.

### **The EIE will not deliver a good pedestrian environment for workers and residents**

The envisioned pedestrian volumes moving through the precinct to the Waterloo Metro Station will require additional permeability and a safe and pleasant environment along Botany Road, which cannot be achieved unless buildings are serviced from new rear lanes.

The City's Botany Road Precinct planning framework requires development to provide essential pedestrian infrastructure and access to improve permeability of the precinct and provide for servicing in rear lanes.

If development proceeds using the EIE non-refusal standards, then pedestrian infrastructure and access improvements will not be delivered. The Botany Road Precinct will not become the walkable mixed-use precinct needed for a location in close proximity to the Waterloo Metro station.

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## **Delivery of cultural and creative precinct on Oxford Street will be compromised**

Oxford Street is one of Sydney's iconic night time and cultural places. The City has positioned Oxford Street as a key cultural, creative, entertainment and nightlife area within the Eastern Creative precinct through the Oxford Street Cultural and Creative Precinct Planning Proposal and Oxford Street LGBTIQ+ social and cultural place strategy.

The City provides development incentives for cultural, creative and entertainment floor space as a driver of creativity and enterprise, a source of job creation and potential for place-making. This approach strengthens existing and emerging employment and creative business clusters within the area, capitalises on the proximity of the area to long term establishments including the National Art

School and UNSW Art and Design Campus, and boosts the diversity of late-night and entertainment options.

Oxford Street's character is built on its diverse uses, activities and building forms and scales from a variety of periods. The Oxford Street Cultural and Creative Precinct Planning Proposal acknowledges this and accommodates growth and change in a way that is sensitive to this important character. It incentivises sensitive vertical additions to heritage buildings but only where cultural, creative or entertainment floor space is provided.

### **The EIE non-refusal standards will make cultural, creative and entertainment floor space financially unfeasible**

Analysis shows that if the EIE non-refusal standards applied, there would be no incentive to deliver the cultural, creative and entertainment spaces in the Oxford Street precinct.

The replacement of cultural, creative, entertainment and other commercial floor space in the Oxford Street precinct with residential development will further damage the economic role and function of the City Fringe area, in addition to those losses in the MU1 Mixed-Use zone discussed elsewhere in this submission.

### **The EIE compromises the NSW Vibrancy Reforms and Oxford Street's entertainment and late night economy**

The NSW Government's Vibrancy Reforms support live music, dining and creative economy sectors with the stated aim of bringing vibrancy to the night-time economy and the wider community. Oxford Street has long been a key entertainment and night-time economy area.

The proposed changes in the EIE threaten the Vibrancy Reforms by incentivising residential development of existing venues and introducing land use conflicts in existing and planned entertainment precincts.

The EIE could result in significant residential development being added to existing and emerging live music and entertainment clusters, including Oxford Street. Without the opportunity for careful strategic planning to avoid conflict between late-night noise and amenity for neighbouring residents, the changes proposed in the EIE may result in sterilising existing late-night economy areas and potential new entertainment precincts. This goes against the strategic direction in the Vibrancy Reforms to identify special entertainment precincts (SEPs) and protect them from land use conflicts from new residential development. The loss of entertainment and cultural spaces will also damage the competitive advantage of the City fringe in attracting businesses as Oxford Street will lose its ability to continue as a cultural and entertainment destination.

### **The City's Oxford Street planning framework is achieving its goals**

The planning controls for the Oxford Street Precinct were finalised in December 2022 and since then landowners have pursued a number of redevelopments. The following developments are delivering cultural, creative and business uses, but would not occur if the EIE applied in the Oxford Street Precinct.

#### Examples: 58-78, 82-106 and 110-122 Oxford Street

Alterations and vertical additions to 58-78, 82-106 and 110-122 Oxford Street, Darlinghurst for office, hotel, cultural and creative uses. Vertical additions were approved up to 25 metres (5 storeys) above existing 3 storey heritage listed buildings with an FSR of 4.3:1. The approval secured 4,545sqm of creative and cultural floor space.

## Figure 5. Development at 58-78, 82-106 and 110-122 Oxford Street, Darlinghurst for office, hotel, cultural and creative uses



### 21-35 Oxford Street

Alterations and vertical additions to 21-35 Oxford Street, Darlinghurst for office, cultural and creative uses. Vertical additions were approved up to 20 metres (5 storeys) above an existing 2 storey heritage listed building with an FSR of 3.8:1. The approval secured 675sqm of creative and cultural floor space.

Figure 6. Alterations and vertical additions to 21-35 Oxford Street, Darlinghurst for office, cultural and creative uses



#### 17 Oxford Street

Alterations and vertical additions to 17 Oxford Street, Darlinghurst for office, cultural and creative uses. Vertical additions were approved up to 23 metres (5 storeys) above existing 2 storey building with an FSR of 4.3:1. The approval secured 1,024sqm of creative and cultural floor space.

Figure 7. Alterations and vertical additions to 17 Oxford Street, Darlinghurst for office, cultural and creative uses.



## Waterloo Estate South

Waterloo Estate South has recently been the subject of a complex master planning process which has determined new planning controls that will deliver a precinct with a mix of market, social and affordable dwellings.

The planning proposal for Waterloo Estate South was finalised on 11 November 2022, with the new planning controls coming into effect on 28 February 2023. The new planning controls were determined on a site by site basis as a result of a precinct-based masterplan and are supported by a design guide.

The new planning framework was the result of a years-long process involving LAHC, DPHI and the City with significant involvement with the existing community.

The HOB controls for the Estate vary from 9m to RL126.4 (33 storeys) and the FSRs vary from 0.95:1 to 8.41:1, resulting in a dense and carefully designed precinct. The planning framework provides for 3,012 dwellings on the government owned land, including about 847 social housing homes and around 227 affordable housing. The building heights and FSRs were carefully calibrated to ensure sufficient solar access onto streets, to allow views to the sky and to provide for the healthy growth of trees and plants.

Applying the EIE non-refusal standards to the Waterloo Estate South will undermine the delivery of the redevelopment with certain sites able to achieve greater height and FSR under the EIE than was envisioned during the master plan process. This will compromise place outcomes such as solar access and tree canopy growth and further undermine the long planning process which the Waterloo Estate South has undergone. It will introduce confusion, particularly for existing residents who will be greatly affected by the redevelopment of the Estate.

# Transport capacity and development

The EIE proposal considers light rail, heavy rail and metro stops as having the same potential to support new development. This ignores the different capacity and reach of each system, and the available capacity at any given station. Light rail connects fewer people to fewer jobs more slowly than either metro rail or heavy rail.

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## Light rail capacity and reach

Light rail supports a different urban form with a smaller geographic catchment. In the absence of a proper study by the Department to support the EIE approach the City recommends reducing the radii of influence of light rail by half to a 200 metres radius for six stories and 400 metres radius for 4 stories.

### Line Capacity

Sydney's new Metro railway lines will have a target capacity of about 40,000 people per hour, similar to other metro systems worldwide<sup>7</sup>. The existing Sydney trains heavy railway lines can reliably carry 24,000 people an hour per line<sup>8</sup>. In comparison, the maximum capacity of Sydney's light rail is around 13,500 people per hour<sup>9</sup>.

The number of passengers that can be carried by light rail per hour will be about one third of that of the new metro rail, and just over half that of existing heavy rail.

### Reach

Well-located homes should have access to a large a number of jobs, with the NSW government establishing a 30 minute commute 'convenient access'.<sup>10</sup> Metro rail, heavy rail and light rail have different reach for accessing jobs.

Metro rail provides fastest access and so has greatest reach. Heavy rail provides slightly slower speed access, and light rail slower again than either metro or heavy rail. Light rail has the smallest reach of the three systems.

For example, within a 30 minute trip from Waterloo Metro station a person will be able to reach employment locations at Macquarie Park, North Ryde, Chatswood, St Leonards, North Sydney, Sydney CBD and Ultimo Pymont.

In comparison, within a 30 minute trip from Jubilee Park in Glebe light rail stop, a person can access employment locations at Pymont, Central and the southern sections of the city centre but not city north.

<sup>7</sup> <https://www.sydneymetro.info/about>

<sup>8</sup> <https://www.sydneymetro.info/about>

<sup>9</sup> <https://www.arup.com/projects/sydney-cbd-and-south-east-light-rail>

<sup>10</sup> National Housing Accord – implementation schedule NSW <https://treasury.gov.au/sites/default/files/2023-Summary11/has-nsw.pdf>

The number of jobs that can be reached within a 30-minute commute is substantially lower using light rail than using metro or heavy rail.

The EIE proposes a wider range of influence for light rail stations than the light rail system will be able to support. Around light rail stations the radii should be reduced, with the area of higher densities to within 200 metres for six storeys and between 200 and 400 metres for four storeys.<sup>11</sup> This is to acknowledge that light rail connects fewer people to fewer jobs more slowly than either metro rail or heavy rail.

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## Station capacity

The Department should release the analysis that demonstrates available transport capacity at the stations affected by the EIE.

Station capacity needs to be considered when zoning for high density development. The EIE does not contain any information about the available transport capacity at the affected rail stations and light rail stops. If there is no additional capacity available, then planning for additional density is not warranted.

At any station the ability for people to make new trips is governed by the available capacity of the transport system. Sydney's heavy rail is focussed on moving passengers to Central Sydney, and trains tend to fill with passengers along the route. At some stations towards the end of the line such as Green Square or Redfern, there is little available capacity. Sydney's new Metro railway lines are not so focussed on Central Sydney and have destinations along their route. This means that Metro stations have less capacity constraints towards Central Sydney than heavy rail stations.

The proposed Transport Oriented Development SEPP program, which is being proposed alongside this EIE, has considered the available capacity and reach of stations. It has identified 8 major rail hubs and 31 other stations that have known available capacity and where development density could be increased. In that program, density will be increased for 1200 metres around Metro stations which have less capacity constraints and greater reach, and only 400 metres around heavy rail stations which are generally more constrained.

These factors have been ignored in this EIE. It seeks to apply a uniform and untested density increase around all stations, irrespective of their available capacity. Constraints on transport systems must be considered in planning for density to maximise the benefits of capacity and reach where available.

<sup>11</sup> The distances align with the recommended practice of the American Public Transport Association in their standard APTA SUDS-UD-RP-001-09 Defining Transit Areas of Influence and the Victorian government publication VicUrban, Sustainability Charter 2006.



# Mapping the 800 metre walking catchment

The EIE seeks to apply non-refusal standards including maximum building height and floor space ratio but without clearly identifying the land to which they will apply.

Without clear identification of the affected land there will be confusion and uncertainty about where the development standards apply to, leading to an increase in speculative applications and appeals to the Land and Environment Court, causing delays in the delivery of housing.

To avoid these delays, it is imperative that the Department provide clarity for how to implement the direction that the standards apply '**within 800 metres walking distance**' of a heavy rail, metro rail and light rail station or a nominated centre. Describing an 800 metres walking catchment is a useful rule of thumb for identifying the area influenced by a station, but it does not produce fair or logical results that can be applied consistently. For that, a more detailed approach is needed.

This submission identifies a number of areas where there will be the opportunity for different interpretations and applications of that direction. The Department should issue guidelines to resolve those differences. The Guidelines should provide instructions to Councils on how to prepare Local Environmental Plan maps to provide certainty about where those development standards apply. Without the certainty provided by LEP maps, the application of the non-refusal standards will be continually open to reinterpretation and conflict.

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## Some inconsistencies in the making and interpretation of GIS mapping

The GIS outputs maps of walking distances can easily vary depending how the **origin** (starting point) for each station is identified. For instance, it could be in the centre of an entry point, or at each end, at the gateline or at the property boundary of the station. Each of these will lead to a different mapped 800 metre walking catchment.

Where streets intersect the crossing of the street can be shorter or longer depending on how crossing is mapped. These differences may only be one or two metres for each crossing but will accumulate along the length of the walking path. Isolated properties or holes in the catchment can also occur due to the overlapping of multiple walking routes.

These inconsistencies and counterintuitive results will lead to disputed interpretations of the walking catchments. These disputes and delays can be avoided by providing guidelines to Councils to allow them to prepare LEP maps that will identify where the non-refusal standards will apply.

### **Assigning development standards to street blocks.**

A street block is a contiguous group of private lots fully enclosed by public space - streets, laneways, walkways, parks, waterways, infrastructure corridors and the like. When mapping distances from station entrances the effect will not be the same for all parts of that street block. For instance, parts of the street block furthest from the stations may not be affected at all. This can produce illogical and iniquitous circumstances and should be avoided where possible.

## Guidelines for developing walking catchment maps

Councils should use reasonable discretion in applying the guidelines.

The intent of the LEP walking catchment maps is to clearly identify properties affected by the application of the EIE non-refusal standards. If given weight in an LEP, the maps should replace the wording of the SEPP that will result in inconsistencies and therefore disputable application.

There are three parts to the process:

- Establishing the origin from where the distances are measured
- Describing the path of walking
- Deciding the properties to be included on a street block basis to eliminate the inequity arising from adjoining properties subject to widely varying standards

The diagrams at Figures 7, 8 and 9 illustrate the process.

### Origin

The origin must be consistently identified and applied across all maps In identifying the origin:

For rail stations-

- each accessible entry onto public space or private right of way with unalienable public access at all times.
- use the centrepoint of the entry opening.

For light rail stops-

- each place where the light rail platform meets a footpath or street crossing.
- use the centrepoint of the place where they join.

For centres-

- distances from centres should not mapped . Centres should not be used for the purpose proposed

### Pathway

The pathway must be continuous, safe, and accessible for all. In mapping the walking pathway the following should be applied:

Continuous:

- Only include continuous paved areas for walking on footpaths in streets, parks, walkways and squares; and paved pathways in private rights of way with unalienable public access at all times.
- Use the centreline of the paths.
- Gravel or compacted earth footways can be included.
- Public bridges and tunnels with footpaths are included.

Safe:

- Roadways are not included as they are not safe walking, except for shared zones.
- Street crossings can only be at signalised intersections, pedestrian (zebra) crossings or where there are opposing pram ramps on local access streets.

Accessible:

- Grassed areas are excluded as they are not always suitable or available for walking for all people.
- Stairs are excluded as they are not accessible for walking for all people.

**Included properties**

The guidelines vary the distances to property frontages from the proposed 800 metre and 400 metre standards by assessing the majority of the street frontage of individual street blocks to eliminate the unintended consequences of disputed measuring of distances, adjoining properties subject to widely varying standards, and isolated properties. The majority of frontage is used as the determinate to balance the catchment extent.

To avoid poor and iniquitous outcomes within street blocks, the maps should apply the following principles when identifying affected properties:

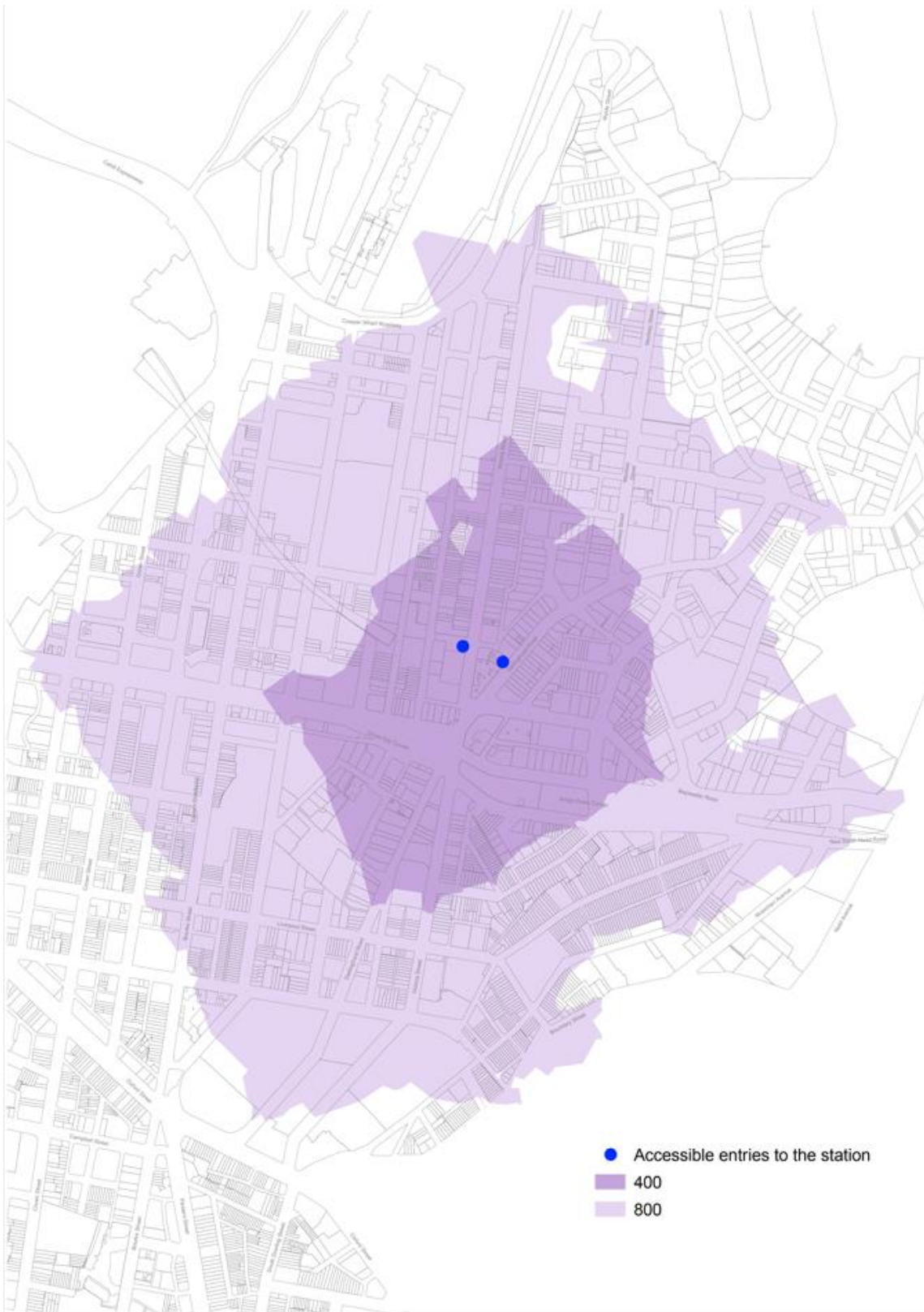
- If the majority of the total frontage of a street block measured in metres is adjacent to the pathway within the proscribed distance (800 metres for rail and metro stations, 400 metres for light rail stops) - all properties within the street block are included.
- If the minority of the total frontage of a street block measured in metres is adjacent to the pathway within the proscribed distance (800 metres for rail and metro stations, 400 metres for light rail stops) - no properties within the street block are included.
- For street blocks with frontage subject to both the inner catchment (400 metres for rail and metro stations, 200 metres for light rail stops) and the outer catchment (800 metres for rail and 400 metres for light rail) the majority of the frontage will determine the application for the whole street block.
- A street block is a contiguous group of private lots fully enclosed by public space: streets, laneways, walkways, parks, waterways, infrastructure corridors and the like.

Figure 8. Identifying the origin and plotting the walking network



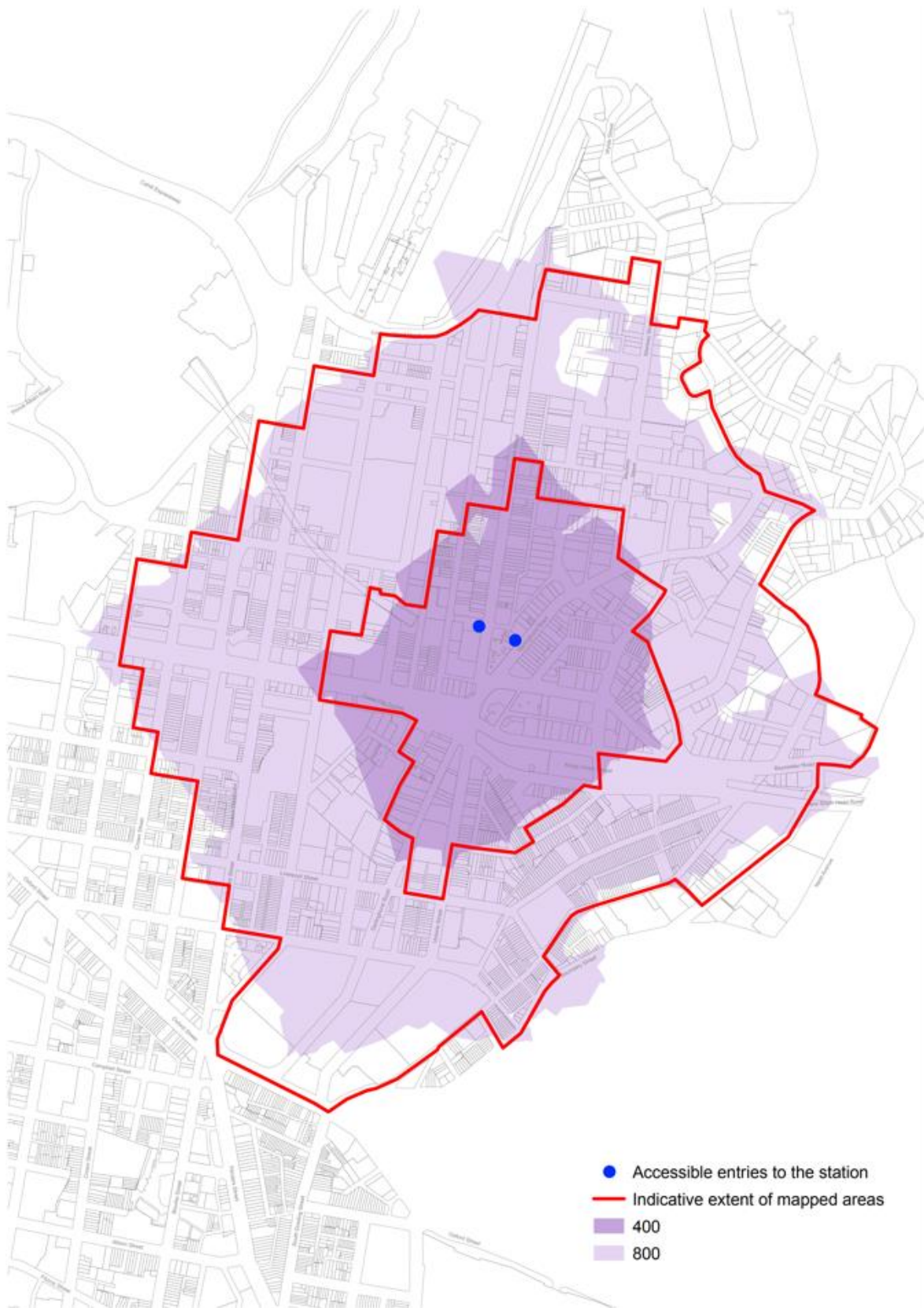
This figure shows the origin for the walking network marked with blue circles. The walking routes are plotted with blue lines, with red lines showing 'informal' crossings.

## Figure 9. Mapping the walking catchment areas



This figure shows both the 400 metre and 800 metre walking catchments mapped from the network in Figure 7. When mapped the catchments can produce illogical results, including 'holes' in the catchments, and instances where street blocks are split by the catchment coverage.

Figure 10. Refining the catchment area



This figure shows how the boundaries of the walking catchments can be refined to produce logical and fair results. The red lines indicate the new catchment boundaries. This is just one example of how decisions for the consistent treatment of street blocks could be applied.

