northern beaches council

URBAN DESIGN STUDY

PHASE 1D

BUILT FORM CONTROL METHODOLOGY

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Tract

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Phase 1D - Built Form Control Methodology

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03	4 December 2020	Issue 3

Built Form Control Methodology

Introduction

This document outlines the methodology for Phase 2 of the Northern Beaches Council (NBC) Urban Design Study, which will establish a set of built form controls to inform NBC in their preparation of a consolidated planning framework for the Northern Beaches LGA. This Study focuses on the built form and urban design outcomes of residential, business and industrial developments.

The AJ+C | Tract team proposes the primary methodology of controlling built form be based on general building typologies (e.g. dwelling house, office building) extended by certain 'modifiers' which relate to common features (e.g. ground floor retail, surface car parking), environmental factors (e.g. scenic protection, flooding risk) and neighbourhood contexts (e.g. main streets).

A set of expected control mechanisms is provided (e.g. building line setbacks, landscaped area), including reasons for inclusion or exclusion. Commentary on Floor Space Ratio (FSR) is also further expanded upon in the 'FSR Discussion Paper' included as an appendix.

Phase 2 will also include additional sets of controls for a select number of local centres, as well as heads of consideration for certain shopping centres. The methodology for these components is described here as well.

Contents

1 General Methodology

1.1 Built Form Control Structure

Core Built Form Controls
Building Typology Controls (3.1) will outline the main controls for each major residential, business and industrial building type using dimensioned plan and section drawings. General objectives will be provided separately for each type of control mechanism (e.g. site coverage, building line set-backs) that is used across multiple typologies.

'Bespoke' typologies that are permitted in residential, business and industrial zones - such as a Church or Community Centre in an otherwise residential area - will be expected to align with the built form controls of the predominant built form type, rather than provided with a separate typology sheet. Merit arguments can then be considered where certain typological requirements require variance from the standard.

Typology Modifiers will alter or expand on the primary Building Typology Controls by proposing formal responses to particular building and/or site contexts. Typology Modifiers are broken into **Component Modifiers** (3.2), which relate to building or architectural elements, and **Context Modifiers** (3.3), which relate to particular site conditions, environmental factors or hazards or neighbourhood contexts that a building must relate to.

Other Phase 2 Components
Local Centre Controls are additional control sheets specific to certain B2 local centres within the LGA.

Heads of Consideration will provide lists of text objectives intended to inform future master plans of certain shopping centres.

1.2 Method to Establish Initial Controls

In order to initially establish each typology set, modifier, local centre control and head of consideration the AJ+C | Tract team will first refer to the existing statutory frameworks of the former Manly, Warringah and Pittwater LGAs, as well as SEPPs and State Design Guidelines. These are summarised in the Phase 1A Literature Review.

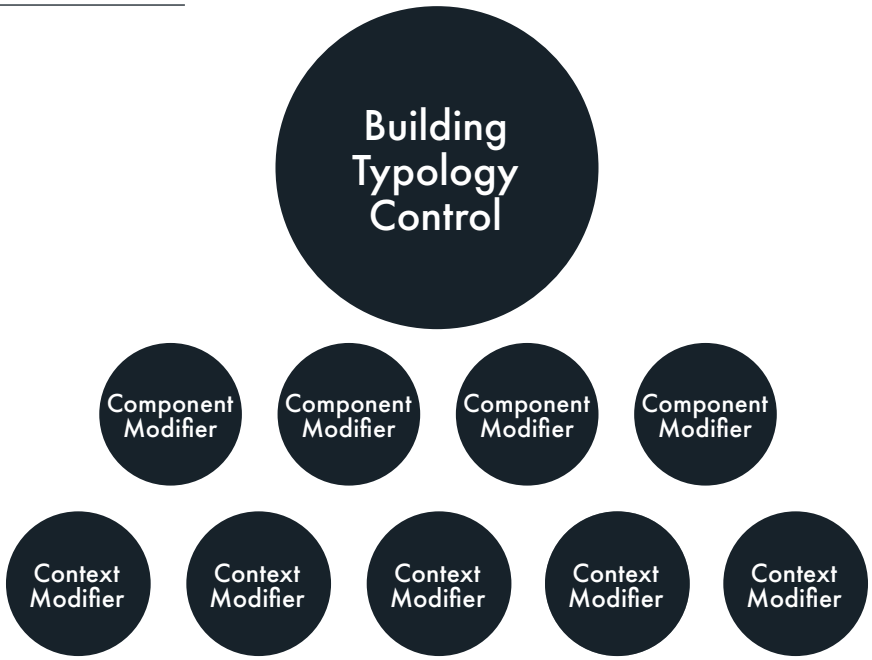
Where existing controls/attributes are only marginally different between the former LGAs, a rounded average will be used to establish the basis which will then be reviewed for appropriateness.

Where existing controls/attributes differ significantly, the character of the different LGAs (and that of the specific area the control applies to) will be reviewed against the Phase 1B Place Based Analysis to identify whether the variation is appropriate due to being location specific. If significant differences in the former LGA controls are viewed as appropriate due to a particular dominant site condition, then they can be modified through a Context Modifier (described below) based on the justifying attribute. If the differences in controls are significant but are not clearly place-based, they will then be reviewed against the Phase 1C Built Form Principles & Objectives Design Principles to judge which is the most appropriate initial control.

Where controls are overridden by relevant SEPPs and their related Design Guidelines, we recommend the SEPP control is referred to avoid confusion during assessment due to mis-matched controls that cannot be enforced. This particularly applies to the SEPP65 and Apartment Design Guide, and to a lesser degree the Affordable Housing and Seniors Housing SEPPs. Where overriding SEPP controls are viewed as inappropriate for the Northern Beaches, they will be discussed with NBC staff.

In all cases, the selection of initial controls/attributes is intended only as the starting position. These will then be reviewed for appropriateness by the AJ+C | Tract design teams with Council's input.

Built Form Control Structure



Example Use Case

Note: based on the RFB portion of DA2020/0579

2 Built Form Controls

2.1 Building Typology Controls

Specific controls for several key building typologies will be established. An example Typology sheet is provided to illustrate the basic structure and visual style.

Building typologies to be addressed are:

Residential

- Dwelling houses: Detached & Semi-detached
- Secondary dwellings*
- Dual-occupancy*
- Boarding houses*
- Group homes*
- Seniors Housing*
- Multi-dwelling Housing*
- Residential Flat Buildings including Shoptop*
- Manor homes*

Business

- Main Street Retail/Mixed-Use
- Large-format Retail
- Commercial Buildings

Industrial

- Small-format Warehouses
- Large-format Warehouses

* Typologies marked with an asterisk are those in which the built form is largely defined by SEPPs and/or state-issued design guidelines.

Each Typology is proposed to include a selection out of the list of built form controls below. In the introductory section of Phase 2, each control will be provided with a list of 2-4 objectives that indicate what the control type is seeking to address across all contexts. Additional objectives may be supplied where they are unique to a articular typology.

Controls expected to be used are:

- Building Line Setbacks: Front, Rear, Side
- Building Separation
- Building Envelope & Building Height Planes
- Building Height in Storeys (local centre controls only)
- Active Frontage
- Built-Upon Area, Site Coverage & Landscape Area
- Building Modulation: Wall Length, Wall Height, Gaps Between Openings, Threshold & Articulation Zones
- Sustainable Materials
- Minimum Tree Planting

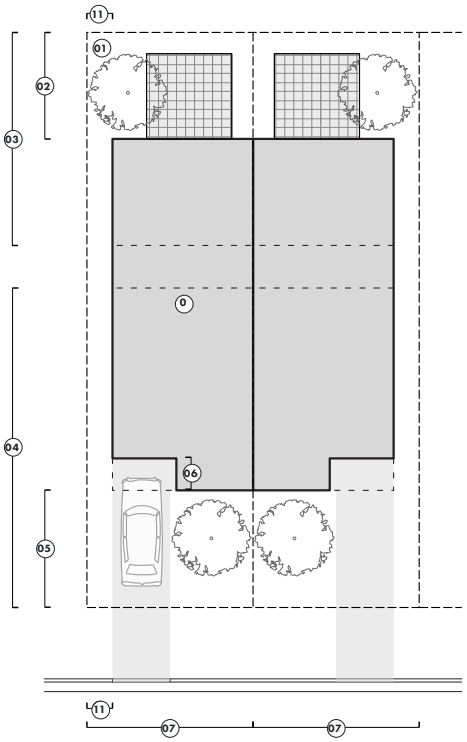
As listed above, all proposed controls in Phase 2 are expected to be DCP-level controls. Some controls, such as active frontages in the local centre controls (discussed later) may be appropriate to implement as LEP controls in future, and we support the ongoing use and expansion of most LEP controls in the Northern Beaches (such as HOB, FSR, etc.) We also recommend certain opaque, misleading and/or restrictive controls be reviewed in the consolidated LEP process.

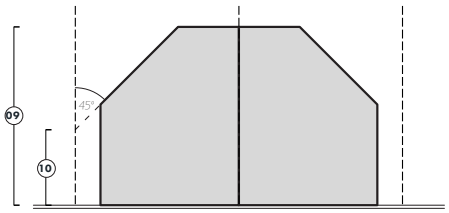
Discussion around the different types of controls is provided in Section 2.3 of this Phase 1D report, including reasoning for those controls not expected to be used.

Building Typology: Semi-Detached Dwelling House

Controls

Max Site Coverage	-	xx%
Min Landscaped Area	-	xx%
Building Line Setbacks		
Front	05	x m
Side	11	x m
Rear	02	x m
Building Envelope		
Upper Level	06	x m
Wall Height	10	x m
Height Plane	11	-





2.2 Typology Modifiers

Below the overall Building Typology Controls, we have proposed a set of 'Modifiers' that change or extend the Typologies. Two types of Modifiers are proposed: 'Component Modifiers', which are common building features or attributes that cross typologies; and 'Context Modifiers', which are site conditions or issues related to the surrounding context.

Note that the Modifiers are not intended to be a complete suite of place-specific design features that replace the need for future place-specific controls across the LGA. Specific areas of significance will continue to require focused master plans to inform built form and other controls that have been developed specifically for those places. As an LGA-wide study, Phase 2 will only look at common contexts, and modifiers are combined where they are expected to require a similar built response.

COMPONENT MODIFIERS

1. Awnings
2. Active Frontage
3. Contributory (non-active) Frontage
4. Parking, Loading & Service Frontages
5. Surface Parking
6. Garages & Enclosed Ancillary Structures
7. Carports
8. Boat Sheds & Private Wharves
9. Fences

CONTEXT MODIFIERS

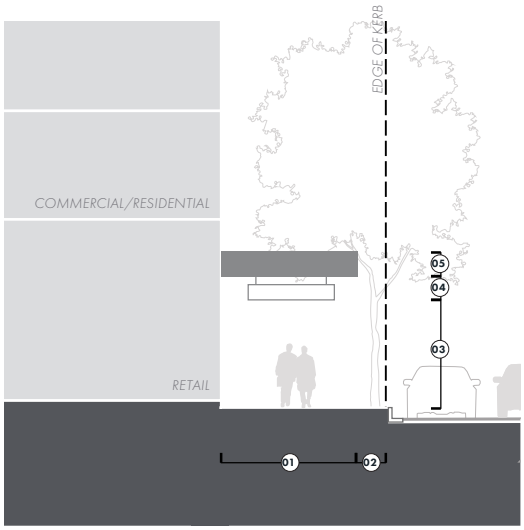
Site Character and Landform

1. Corner site
2. Dual street frontage
3. Small and/or Narrow Lots
4. Rural and/or Large Lots
5. Steeply Sloping Site
6. Hazards
7. Scenic & View Protection
8. Main Road
9. Through-site Link
10. Transition Areas (typology change to lower scale or density, public open spaces; heritage items; conservation zones & areas of Aboriginal or other cultural significance)
11. Offshore communities
12. Metropolitan rural areas
13. ESD Features (on-site sewerage, power generation and storage, canopy coverage)

Component Modifier: Awning

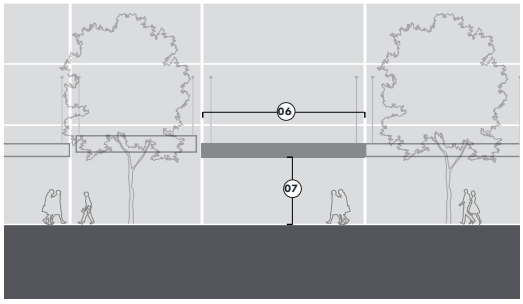
Objectives

- Awnings shall be provided along all active frontages on retail/commercial streets.
- Awnings at separate properties shall connect together to provide continuous weather protection.
- Awnings should be of a consistent height and depth along a street.

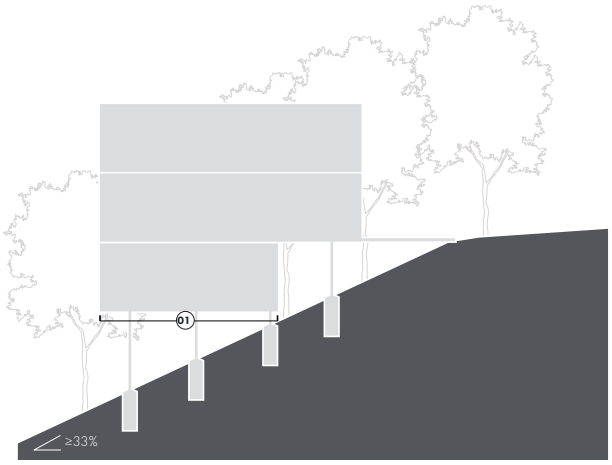


Controls

Awning depth	01	x m
Setback	02	x m
Clearance height	03	x m
Signage height	04	x m
Fascia height	05	x m
Width	06	100% frontage
Awning height	07	consistent



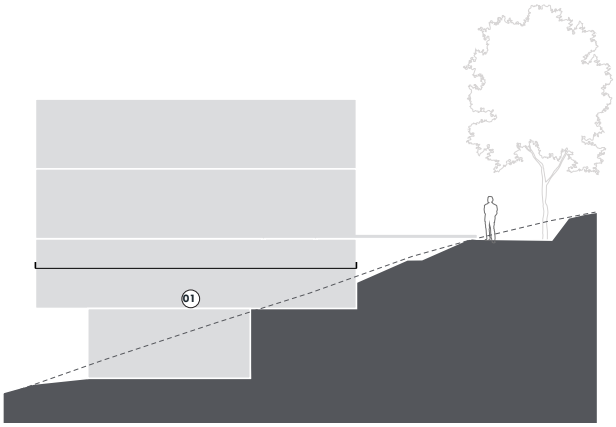
Context Modifier: Steeply Sloping Site



Controls

Slope	Construction Type
<20°	x
20°-30°	x
>30°	x

Description	Dim.
Max Depth	x
Max Height	x



2.3 Controls for Consideration

LEP-LEVEL CONTROLS

Land Use Zoning

Land Use Zoning prohibits certain building uses in certain areas, either to avoid negative adjacencies (such as polluting uses near residential, schools or public open spaces) or to protect essential services from higher/best uses (such as preventing light industrial and other job-generating uses from transitioning to residential).

Land Use Zoning is a key component of the planning framework, although current views on best practice can be highly critical of the tool as it is often used. Beyond continued separation of heavy industry and residential uses – which is not relevant to the Northern Beaches – most negative adjacencies such as noise and crowding can be controlled using less restrictive instruments.

Within the Northern Beaches, land use zoning is: used inconsistently across the three former LGAs, inexactly matched to existing density, used to deliberately constrain diversity in housing (particularly medium density) and so housing affordability, and is unnecessarily restrictive in prohibiting key attributes of walkable environments such as cafes, restaurants and small offices from being built in residential areas.

We recommend Land Use Zoning across the Northern Beaches be significantly overhauled for these reasons above, although per the project scope and brief land use zoning will not be modified through this study pending more detailed urban design analysis as well as the NBC Employment and Housing Studies currently being finalised.

In NSW, Land Use Zoning is also used to limit or direct density, with sub-categories of land use zones allowing building typologies of different densities, such as the progression of residential zones from R2 Low to R3 Medium to R4 High Density Residential. When paired with flexible building use inclusions within zones, this is a more appropriate use of the tool.

Floor Space Ratio (FSR)

The use of FSR is an effective if blunt tool to limit development, either by itself or within an envelope further established by secondary controls. FSRs currently apply to all developable areas in the former Manly LGA, to the Dee Why strategic centre only in the former Warringah LGA, and to certain industrial areas and business zones in the former Pittwater LGA.

Per the project brief, allowable FSRs will not be modified through this study, as any changes will be subject to more detailed urban design analysis in key locations as well as the NBC Employment and Housing Studies currently being finalised.

However, we do support their inclusion in all medium-to-high density areas across the entire NBC area, particularly strategic centres. We agree that FSRs should be established through varying levels of site specific study, although to a degree they can also be applied LGA-wide based on the applicable HOB controls.

We do not believe FSRs need to apply to lower-density areas such as R2 Low Density Residential and E4 Environmental Living zones, supporting an objective in the LSPS to remove FSR limitations on those zones in the former Manly LGA (the only place they current apply).

The current use of FSR in industrial and business zones in the former Pittwater LGA is acceptable to protect these areas for lower-yielding development types, although this is also achieved using other planning tools such as land use zoning.

These recommendations, with a summary of the risks and benefits of the FSR as a tool, are discussed in a separate Discussion Paper included as an appendix to this document.

Height of Building (HOB)

We support the ongoing use of HOB controls across the LGA to maintain consistency in bulk and scale.

Restricting the allowable height of buildings (HOB), a standard LEP control, has a significant impact on setting bulk and scale. Where height zones are standardised, HOB limits are also effective in enforcing scale consistency. The latter point can also reduce interest and variability, particularly in flat areas, and so should almost always include some additional variety.

Context-specific, allowable variations to the HOB limits are encouraged. Currently, the Pittwater LEP provides alternative HOB limits for flood-risk as well as sloping sites. It allows a fixed HOB increase for low-height buildings on steeply sloping sites in certain areas, and allows for several different HOB limits that are measured from the flood planning level (rather than natural ground) in areas identified as being at risk of wave innundation.

Per the project the project scope and brief, allowable HOBs will not be modified through this study. Any changes will be subject to more detailed urban design analysis in key locations as well as the NBC Employment and Housing Studies currently being finalised.

Architectural Roof Features

The standard instrument LEP clause to allow additional roof height above the HOB limit at D.A. level is supported. Alternatively, other modifying clauses may be considered to HOB controls to permit lift overruns to avoid minor incursions requiring Clause 4.6 variations.

Active Street Frontage

Active street frontages can be required by LEP Maps. We have proposed providing only DCP-level controls at this time, commentary on which follows below.

Minimum Lot Size

Minimum lot sizes are used to restrict the torrens title subdivision of land. This can be used in several ways: as an indirect prohibition on subdivision; as a way of preventing small-scale development where existing market conditions are out of step with strategic priorities; and as a way of allowing certain typologies only on larger sites, such as the restriction of dual occupancies to minimum 800sqm lots in the Pittwater LEP.

As well as a standard Minimum Lot Size Map, the Manly LEP also includes a separate Minimum Lot Size - Multi Dwelling Housing (Terraces) and Manor Houses Map. Lots are aligned to existing property sizes to effectively prohibit any multi-dwelling housing across the former Manly LGA, despite its nominal permissibility.

The use of the planning framework to impose indirect restrictions is not supported. It creates confusion and difficulty for users of the framework, and detracts from expectations of good faith in the process.

Foreshore Building Line

The Foreshore Building Line is mapped in the Manly and Pittwater LEPs, with controls in the relevant DCPs. It is used to establish a contextual setback from the coastline, adding to the general front/side/rear/corner controls that apply to all properties. This is a simple and effective tool, and is clearly appropriate given the foreshore is a clear separate contextual condition that should be directly addressed. We recommend the Foreshore Building Lines in the Manly and Pittwater be linked/ extended to continue through the former Warringah LGA.

Certain control sets in Phase 2 (particularly the Site Context Modifiers) will refer to Foreshore Building Line, in much the same way as the existing Northern Beaches DCPs.

DCP LEVEL CONTROLS

Minimum Lot Frontage

Minimum lot frontage requirements are expected to be used for component and context modifiers to limit, for example, the impact of parking on street frontages.

Minimum lot frontages can also be designed to protect the rhythm and coherence of an existing quality streetscape. We would support this use of the control in certain conservation areas, or other specific places where frontages have been field confirmed as being consistent and regular.

Minimum lot frontage requirements can also be used to indirectly prevent medium and higher density building typologies from being introduced to residential zones. Generally, we do not support this use of the control type.

Building Line Setbacks

Defined in the DPIE Draft DCP Standard Definitions as: *"the horizontal distance between the property boundary or other stated boundary (measured at 90 degrees from the boundary) and: (a) a building wall, or (b) the outside face of any balcony, deck or the like, or (c) the supporting posts of a carport or verandah roof, whichever distance is the shortest."*

Building line setbacks are core built form controls. Front, rear and side boundaries are expected to be established for all building typologies. They are also expected to be used extensively in context modifiers, where setbacks will be used to respond to site surroundings.

Building Separation

Building separation refers to minimum distances between buildings, either within one lot or across property boundaries. It is currently used in the NSW Apartment Design Guide to require separation distances that differ according to height in storeys.

Although Building Line Setbacks may be sufficient, further Building Separation controls may also be appropriate in Phase 2. For example, controls may set required distances between a detached secondary dwelling from the primary residence or from neighbouring buildings.

Building Envelopes, Building Height Planes

Defined in the DPIE Draft DCP Standard Definitions as: Building Envelope - *"the three-dimensional space within which a building is confined"*, and Building Height Plane - *"a plane projected at an angle of degrees over the actual land to be built upon from a distance of metres above ground level at the side boundaries of the site"*.

Building Envelope controls and Building Height Planes are expected to be used across a variety of typologies and modifiers, particularly to establish upper-level setbacks on street frontages and to limit overshadowing of neighbouring properties.

Building Height in Storeys

A DCP-level control can be used to further restrict the number of habitable storeys within the allowable building height set by a LEP control. For example, within the standard 8.5m HOB limit in low density residential zones, the DCP may impose the further limitation of being a maximum 2-stores, preventing a third storey being inserted in the roof space. They may also be used to enforce consistency in, for example, a main street where the dominant two-storey building height would permit three-storeys in modern construction.

We support the use of height-in-storeys controls, or equivalent floor-to-ceiling or floor-to-floor heights, where specific place-based reasons exist, and these may be included in the local centre controls. However, we do not believe that general limitations height-in-storeys sufficiently benefits the streetscape or reduces bulk and scale to justify a loss in achievable floor space, and do not currently expect to propose any such controls in the general building typology controls.

Floor-to-Ceiling and/or Floor-to-Floor Heights

Minimum floor-to-ceiling heights serve to establish a base level of amenity. They address 'lowest common denominator' development that would otherwise provide poor quality indoor space in pursuit of maximising floor space. Both the National Construction Code / Building Code of Australia and the NSW Apartment Design Guide set minimum ceiling heights for this reason. The disadvantage of additional minimum floor-to-ceiling height controls (beyond the NCC/BCA and ADG) is that they can restrict productive use of attic and other otherwise unused spaces. They can also result in floor area not being counted in FSR which is not technically habitable, even if it is functionally used as habitable space.

Minimum floor-to-floor heights are usually included for the same reason as floor-to-ceiling controls, establishing a minimum distance between floors that is based on an expected construction thickness added to minimum ceiling height. The use of floor-to-floor, rather than floor-to-ceiling, permits bulkheads and other sections of low-ceiling areas to position services inside habitable space. This provides flexibility, although at the expense of achieving consistent minimum floor-to-ceiling heights.

From a built form perspective, minimum floor-to-floor heights can also achieve identical outcomes to Building Height-in-Storeys controls, and they may be similarly appropriate for Phase 2 local centre controls. Floor-to-ceiling heights will also be considered in Phase 2.

Active Frontage

Defined in the DPIE Draft DCP Standard Definitions as *"ground floor business or retail building street frontage that has direct and level entry and openings allowing physical and visual access that encourages interaction between the inside of the building and the adjoining external areas"*

Active frontage will be addressed through a Component Modifier to establish its design, and location-specific frontage maps provided for certain local centres.

The local centre controls could be added to an LEP-level Active Frontage Map. However, given the local centre controls prepared in this project will not cover all active frontage areas across the LGA, and they address centres of lower-order importance, we recommend active frontage be used as a DCP tool rather than using LEP maps at this time. We consider active frontage is better positioned as a DCP-level control, rather than an overriding LEP control that may potentially trigger the need for relatively minor Clause 4.6 variations.

Built-Upon Area, Site Coverage and Landscape Area

Defined in the DPIE Draft DCP Standard Definitions as
Built-Upon Area - *"the area of the site covered by the building footprint and any roofed structures, and includes uncovered parking areas, driveways, other paved areas and swimming pools, but excluding minor landscape features."*
Site Coverage - "the proportion of a site area covered by buildings ... [excluding] (a) any basement, (b) any part of an awning that is outside the outer walls of a building and that adjoins the street frontage or other site boundary, (c) any eaves, (d) unenclosed balconies, decks, pergolas and the like."
Landscape Area - *"a part of a site used for growing plants, grasses and trees, but does not include any building, structure or hard paved area."*

The three surface measurement controls achieve similar outcomes, limiting the total amount of the site that can be covered by buildings and other structures. Built-Upon Area and Site Coverage in particular have significant crossover, and neither control is perfect. For example, Built-Upon Area unnecessarily includes the eaves of the primary dwelling and so disincentivises roof shading of walls and windows, but Site Coverage discounts unenclosed roofed structures that could have a significant impact on overall building bulk. Landscape Area is a critical requirement to prohibit fully paved garden spaces.

All three will therefore be considered in Phase 2, with a view to limit to the minimal use of the three controls.

Deep Soil Requirements

Deep soil is related to groundwater replenishment and stormwater infiltration, which are important environmental features that are appropriate to be addressed through controls on private development. We understand NBC is undertaking the development of an LGA-wide Stormwater Strategy for this purpose.

However, in the experience of AJ+C | Tract teams, deep soil requirements are more often imposed in pursuit of large tree growth, despite the existence of deep soil not necessarily supporting large tree growth and the fact that large trees can be still be grown without relying on deep soil. Many species of large trees with large canopies do not have deep roots, and therefore require only a certain volume of soil spread over an area sufficient to support horizontal root growth. They do not require 'deep soil' per se.

We therefore do not propose including any numeric deep soil requirements as part of the Phase 2 Built Form Controls, as we consider deep soil to be insufficiently related to built form. We expect Council may nevertheless impose deep soil requirements due to other priorities, such as that mentioned above.

Minimum Tree Planting

Minimum tree planting controls can be used to require certain size and number of trees, as well to set a replacement ratio for any removed trees. These are expected to be included in several building typologies.

Private Open Space

Private Open Space controls may set minimum areas for usable private open space, as well as direct positioning such as being directly off the living area. We do not expect to make a recommendation on minimum areas, as these are be expected to be satisfied by the landscaped area controls. Site positioning may be included in building typology controls.

Façade treatment, building modulation and articulation

Façade treatment, modulation and articulation will each be addressed in the main building typology control sheets. Controls are expected to include wall length, wall height, gaps between openings, threshold and articulation zones. Car parking frontages will be separately addressed using Component Modifiers.

Materials & Finishes

Materials & Finishes controls can include detailed requirements related to quality, sourcing and other features of sustainability, as well as colour and aesthetic. Existing controls in the Northern Beaches are largely restricted to aesthetics, which may be supportable where there is sufficient existing consistency to require new buildings or alterations to repeat the neighbouring palette.

Each of the NBC DCPs has numerous restrictions on material and colour choice, which can be inconsistent and difficult to validate. For instance, the Manly DCP identifies that "lighter colours are preferred for wall and roof materials" for reasons of sustainability, while the Pittwater DCP offers that fences, walls and roofs are to be "dark and earthy tones" with "white, light coloured" features restricted from all 16 localities identified in the DCP, with each locality using identical language.

Generally, we consider that the Northern Beaches does not have an existing material or colour palette that is sufficiently clear or dominant to warrant protection, and so do not believe aesthetically driven material or colour restrictions are necessary.

We do recommend sustainable material choice be encouraged through the built form controls, as well as notes on balancing glare and reflectivity as viewed from neighbouring properties with the need to maximise solar reflectance and minimise heat gain wherever possible.

Roof Design: Style, Ridge Height, Pitch, Eaves

Particular roof type/styles, heights, pitches etc. can be implemented through DCP controls. As with materials and finishes, these controls may be appropriate where a dominant roof type exists.

NBC DCPs include various roof design restrictions for residential properties. For instance, the former Pittwater LGA requires a minimum 450mm eave depth without counting the fascia or gutter, reduced to 300mm where gable roof forms are used. The former Warringah LGA requires roofs to be articulated "with elements such as dormers, gables, balconies, verandahs and pergolas", as well as requiring eaves without setting a minimum depth. The former Manly LGA includes a 2.5m limitation on total roof height, with a maximum pitch of 35 degrees, and various other controls such as not permitting skylights facing the street unless neighbours have already installed them.

We view most of these controls as arbitrary and restrictive, without adequate basis. The controls are inconsistent within the statutory framework across the three former LGAs, provided without outlining clear reasoning, and are inconsistent with much of the existing housing across the former LGAs.

We therefore do not propose aiming for any particular roof design, beyond requiring its envelope to fit within setback and coverage controls.

Dwelling Density Controls

Dwelling density controls are typically listed as '1 dwelling per X00sqm of site area' or set a maximum number of dwellings within a fixed area. They serve to limit the number of strata-subdivided residences below what may otherwise be achievable. They also limit torrens subdivision, however this is usually already restricted through the LEP Minimum Lot Size Map.

Dwelling density controls are used extensively in the former Manly LGA, with restrictions ranging from 1 dwelling per 50sqm of site area to 1 dwelling per 1,150sqm. Within the R2/E4 zone the dwelling density controls are exactly matched to the Minimum Lot Size LEP map, and appear designed to indirectly ban multi-dwelling housing rather than set a minimum site area for it.

Dwelling density controls are also used to a lesser degree in the former Pittwater LGA, with dwelling densities restricted to 1 per 200sqm site area in the R3 zone and 1 per 150sqm in the B1 zone. The Pittwater LEP also specifies maximum number of dwellings by sector within the Warriewood Valley Release Area, which serves a similar limiting function prior to subdivision.

We consider dwelling density controls to be related to population control only, and not directly to built form. They are designed to reduce demand on social infrastructure, traffic and parking, with the related effect of decreasing housing affordability. These issues are not directly related to built form - an identical building may be approved as a large house owned by one family or investor, but denied if the intention is to be split into two dwellings. Consequently, dwelling density controls are not proposed to be included in this study.

3 Additional Built Form Controls

Phase 2 will also include two additional components: Heads of Consideration for Shopping Centres, and Place Controls for ten locations in the LGA zoned B2 - Local Centre.

3.1 Shopping Centre Heads of Consideration

Heads of Consideration will be prepared for certain major shopping centres in the NB LGA, in order to inform and establish priorities for future master plans for these areas. The Heads of Consideration will be short text lists of qualitative objectives that apply to multiple or specific shopping centres.

Per the project brief, the Shopping Centres identified are:

1. Warriewood Square
2. Glenrose Shopping Centre
3. Stocklands Balgowlah
4. Forestway Shopping Centre
5. Belrose Super Centre
6. Warringah Mall

Given the common characteristics of shopping centres of similar sizes, there is expected to be significant overlap between many centres. Any considerations that apply to all centres will be combined, as will any that apply to only smaller or only larger centres. Sub-sections will also be provided listing any place-specific considerations of the centres listed above.

Certain centres may have few, or no, place-specific considerations. For instance, Stocklands Balgowlah is part of a mixed-use medium-rise development, being a neighbourhood shopping centre underneath a semi-public rooftop park and 6-storey strata residential buildings. It is not likely to be further developed, and so does not require a master plan to direct development.

Example Heads of Consideration

‘Maximise activation of public realm at street level by clustering external specialty on key public streets.’

Example of a general control, common to all shopping centres.

‘Encourage the night-time economy, such as by clustering food and beverage tenancies around open-air, public or 24/7 publicly accessible streets and walkways.’

Example of a general control that is only applicable to larger shopping centres.

‘Address the hostile frontages of surface car parking and service areas that face pedestrian areas.’

Example of a control specific to one shopping centre, in this case Warringah Mall.

3.2 Local Centre Place Controls

Certain areas in the LGA that are zoned B2 – Local Centre have been selected to identify centre-specific controls that may be appropriate without undertaking a full master plan of the centre:

1. Avalon (Pittwater Ward)
2. Newport (Pittwater Ward)
3. Freshwater (Curl Curl Ward)
4. Narrabeen (Narrabeen Ward)
5. Forestville (Frenchs Forest Ward)
6. Manly Vale (Manly Ward)
7. Balgowlah Sydney Road – excluding Stocklands Shopping Centre development (Manly Ward)
8. Seaforth (Manly Ward)
9. Collaroy (Narabeen Ward)
10. North Narrabeen (Narrabeen Ward)
11. The Strand - Dee Why (Curl Curl Ward)

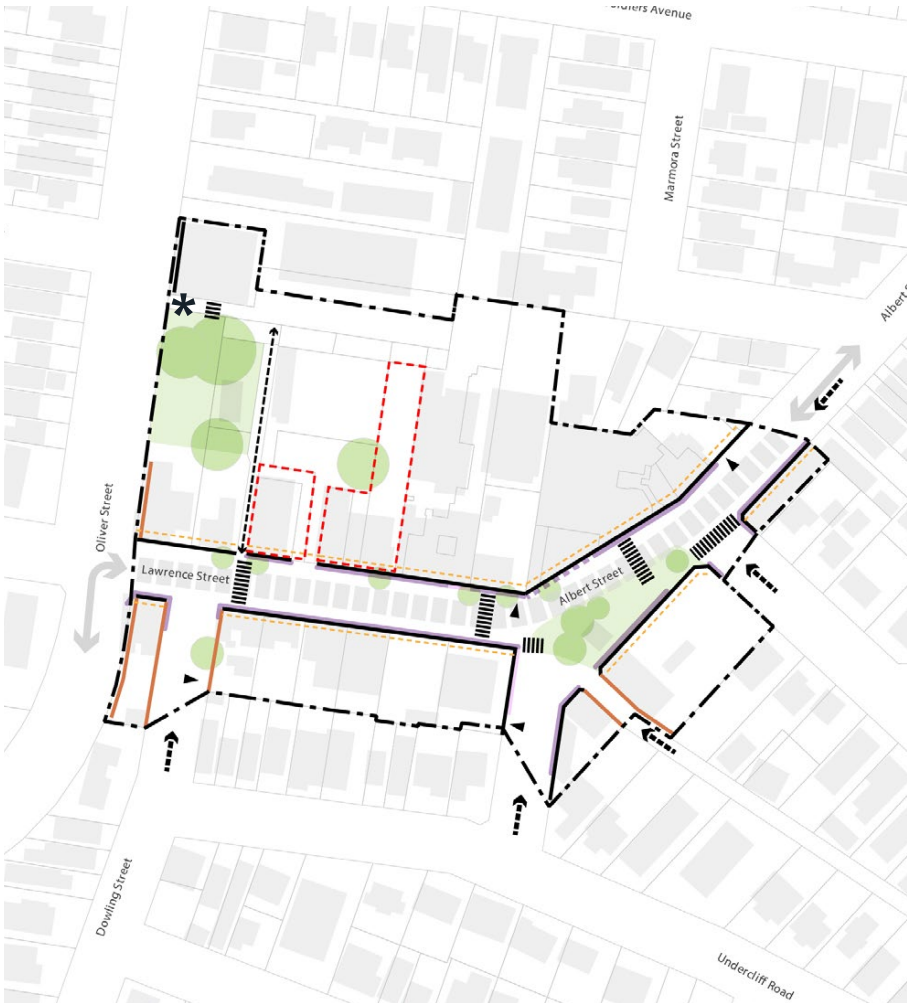
These will be prepared plan-view diagrams of each centre, ideally as a combined graphic depending on complexity. The extent of each study will match the B2 land use zoning. They will reflect prior studies such as master plans or NBC 'Place Plans'. In order that the DCP does not need to be frequently updated, the graphics and legend will not distinguish between existing attributes and proposed attributes.

The centre controls will seek to strengthen positive attributes and offset negative attributes of the current place, with the expectation that land use, height and density will remain consistent with the existing condition. Each Local Centre Place Based Controls Sheet will identify:

- Location/Extent
- Setbacks
- Active Frontages
- Awnings, landscaping & street tree planting
- Pedestrian & vehicular connections
- Vehicular access/servicing
- Amalgamation/frontage
- Through-block connections
- Public open spaces
- Building envelope controls

Example Controls Sheet: Local Centre Controls

Place Controls: Freshwater Local Centre



Building Envelope Controls

01. Ground and first floor maintain street front, second floor has 5M setback (Warringah DCP 2011)

Legend

- STUDY AREA
- POTENTIAL GATEWAY SITE
- VEHICLE ENTRANCE
- MAIN STREET WITH STREET TREES
- PEDESTRIAN ENTRANCES TO SITE
- THROUGH SITE PEDESTRIAN LINK
- PEDESTRIAN CROSSING
- APPROPRIATE LOCATION FOR PARKING/ LOADING/SERVICE
- 0M GROUND LEVEL SETBACK
- SIDE & REAR SETBACKS TO MERIT
- 5M UPPER LEVEL SETBACK
- ACTIVE FRONTAGE WITH AWNING
- ACTIVE FRONTAGE, NO AWNING
- NO ACTIVE FRONTAGE WITH AWNING
- EXISTING PUBLIC OPEN SPACE
- EXISTING TREES
- PREFERRED AMALGAMATION

4 Appendix: Discussion Paper on Use of FSR in Manly LGA

1 Introduction

This discussion paper provides commentary on the comparative advantages and disadvantages of the Floor Space Ratio (FSR) control as a method of controlling built form. It should be read in conjunction with Section 2.3 of the main body of this report.

FSR is the ratio between site area and allowable gross floor area (GFA). It is a simple method of limiting allowable GFA, effectivey creating a sliding scale that relates only to the size of a site.

The intention of this Discussion Paper is to review whether FSR is an appropriate tool for controlling development within the Northern Beaches Council (NBC) Local Government Area (LGA), as well as to specifically address whether the NBC Local Strategic Planning Statement (LSPS) outcome 15.5 "the removal of floor space ratio (FSR) controls for dwellings in Manly" is supported.

The Discussion Paper concludes with AJ+C | Tract's general support of FSR as an effective tool to limit higher-density developments as well as to protect large format employment uses. We do not view FSR as necessary for low-density typologies such as single-family homes or medium-density residential typologies.

1.1 NSW Standard LEP Instrument

Under the NSW Government's *Standard Instrument – Principal Local Environmental Plan* (Standard Template), it is optional for a council to include a standard instrument provision for defining and calculating FSR under its relevant Local Environmental Plan (LEP). This provision allows an NSW local council to control the size and form of development as one of their principal development standards along with the building height provision (Clause 4.3 – Height of buildings).

The 'Standard Instrument Practice Note' for building height and floor space ratio (PN 08–001) specifies that, although FSR is optional in the standard instrument, the Department of Planning, Industry and Environment (DPIE) policy is for building height and FSR controls to be applied at least in strategic centres. The Note also sets out a preference that density be controlled through LEPs rather than in a Development Control Plan (DCP).

Primarily, DPIE considers FSR to be appropriate for the following areas:

- Strategic centres nominated within the Metropolitan Strategy (and Local Strategic Planning Statements), e.g. business zones, R3 Medium Density and R4 zones.
- Specific local centres (towns, villages, and neighbourhoods) where increased densities are planned, or if density controls will have a beneficial impact concerning the economic value of the land.
- FSR controls where there is development pressure for taller buildings in sensitive locations (coastal and natural environments) where there is potential for environmental impacts.

- Certain growth areas where R3 Medium Density Residential and R4 High Density Residential zones apply.

Under the Standard Template's 'clause 4.4' – Floor space ratio, 'clause 4.5' – Calculation of FSR and site area, and the corresponding 'Floor Space Ratio Map', the definition for the FSR development standard and its calculation is as follows:

4.4 Floor space ratio [optional]

(1) The objectives of this clause are as follows—

(a) [set out objectives of the clause]

(2) The maximum floor space ratio for a building on any land is not to exceed the floor space ratio shown for the land on the Floor Space Ratio Map.

Direction—

Different floor space ratios may be shown on the FSR map for different zones, for different land in the same zone or for different land uses within a building. This Plan may provide that, despite subclause (2), the maximum floor space ratio for a building is to be determined partly by the FSR map and partly by other means, or wholly by other means.

4.5 Calculation of floor space ratio and site area [optional]

(1) Objectives The objectives of this clause are as follows—

(a) to define floor space ratio,

(b) to set out rules for the calculation of the site area of development for the purpose of applying permitted floor space ratios, including rules to—

(i) prevent the inclusion in the site area of an area that has no significant development being carried out on it, and

(ii) prevent the inclusion in the site area of an area that has already been included as part of a site area to maximise floor space area in another building, and

(iii) require community land and public places to be dealt with separately.

(2) Definition of "floor space ratio" The floor space ratio of buildings on a site is the ratio of the gross floor area of all buildings within the site to the site area.

(3) Site area In determining the site area of proposed development for the purpose of applying a floor space ratio, the site area is taken to be—

(a) if the proposed development is to be carried out on only one lot, the area of that lot, or

(b) if the proposed development is to be carried out on 2 or more lots, the area of any lot on which the development is proposed to be carried out that has at least one common boundary with another lot on which the development is being carried out.

In addition, subclauses (4)–(7) apply to the calculation of site area for the purposes of applying a floor space ratio to proposed development.

(4) Exclusions from site area The following land must be excluded from the site area—

(a) land on which the proposed development is prohibited, whether under this Plan or any other law,

(b) community land or a public place (except as provided by subclause (7)).

(5) Strata subdivisions The area of a lot that is wholly or partly on top of another or others in a strata subdivision is to be included in the calculation of the site area only to the extent that it does not overlap with another lot already included in the site area calculation.

6) Only significant development to be included The site area for proposed development must not include a lot additional to a lot or lots on which the development is being carried out unless the proposed development includes significant development on that additional lot.

(7) Certain public land to be separately considered For the purpose of applying a floor space ratio to any proposed development on, above or below community land or a public place, the site area must only include an area that is on, above or below that community land or public place, and is occupied or physically affected by the proposed development, and may not include any other area on which the proposed development is to be carried out.

(8) Existing buildings The gross floor area of any existing or proposed buildings within the vertical projection (above or below ground) of the boundaries of a site is to be included in the calculation of the total floor space for the purposes of applying a floor space ratio, whether or not the proposed development relates to all of the buildings.

(9) Covenants to prevent "double dipping" When development consent is granted to development on a site comprised of 2 or more lots, a condition of the consent may require a covenant to be registered that prevents the creation of floor area on a lot (the restricted lot) if the consent authority is satisfied that an equivalent quantity of floor area will be created on another lot only because the site included the restricted lot.

(10) Covenants affect consolidated sites If—

(a) a covenant of the kind referred to in subclause (9) applies to any land (affected land), and

(b) proposed development relates to the affected land and other land that together comprise the site of the proposed development,

the maximum amount of floor area allowed on the other land by the floor space ratio fixed for the site by this Plan is reduced by the quantity of floor space area the covenant prevents being created on the affected land.

(11) Definition In this clause, public place has the same meaning as it has in the Local Government Act 1993.

The key definitions for building height (HOB), and gross floor area (GFA) are:

building height (or height of building) means—

(a) in relation to the height of a building in metres—the vertical distance from ground level (existing) to the highest point of the building, or

(b) in relation to the RL of a building—the vertical distance from the Australian Height Datum to the highest point of the building,

including plant and lift overruns, but excluding communication devices, antennae, satellite dishes, masts, flagpoles, chimneys, flues and the like.

***gross floor area** means the sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, and includes—*

(a) the area of a mezzanine, and

(b) habitable rooms in a basement or an attic, and

(c) any shop, auditorium, cinema, and the like, in a basement or attic,

but excludes—

(d) any area for common vertical circulation, such as lifts and stairs, and

(e) any basement—

(i) storage, and

(ii) vehicular access, loading areas, garbage and services, and

(f) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and

(g) car parking to meet any requirements of the consent authority (including access to that car parking), and

(h) any space used for the loading or unloading of goods (including access to it), and

(i) terraces and balconies with outer walls less than 1.4 metres high, and

(j) voids above a floor at the level of a storey or storey above.

NSW Standard LEP Instrument Template (Source: NSW DPIE, 2020)

2 Review of Current Northern Beaches FSR Controls

2.1 FSR within the Northern Beaches

Within the Northern Beaches Local Government Area (LGA), FSR is used differently under the former *Manly Local Environmental Plan 2013* (MLEP 2013), *Pittwater Local Environmental Plan 2014* (PLEP 2014), and *Warringah Local Environmental Plan 2011* (WLEP 2011). FSRs are applied to:

- All developable properties within the former Manly Council LGA,
- in the Dee Why Town Centre in the former Warringah Council LGA, and
- in specific industrial and business lands within Mona Vale, North Narrabeen, and Warriewood in the former Pittwater Council LGA.

Northern Beaches Council December 2018 'Review of Development Standards Report: Building Height and FSR for dwellings' (Development Standards Report) highlighted the differences on how FSR and other bulk/scale controls are used in the Manly, Pittwater and Warringah LEPs. FSR controls have since been added to Dee Why (February, 2020).

Manly LEP 2013	Pittwater LEP 2014	Warringah LEP 2011
• *All land (excluding that zoned RE1, RE2 and SP2), and all forms of development permitted on the land, is subject to a maximum floor space ratio, as shown on the Floor Space Ratio Map of MLEP.* • *Clause 4.4 of MLEP does not provide any variations to the maximum floor space ratio, as shown on the Floor Space Ratio Map of MLEP.* • *Clause 4.1.3 (Floor Space Ratio) of MDCP provides exceptions for the floor space ratio prescribed by Clause 4.4 of MLEP, in relation to undersized lots.* • *In addition to the floor space ratio prescribed by MLEP, the size, bulk and scale of dwellings is limited by the combined effect of the height of buildings development standard and the following development controls of MDCP:* ◦ *4.1.2 Height of Buildings (Wall Height, Number of Storeys and Roof Height)* ◦ *4.1.3 Floor Space Ratio* ◦ *4.1.4 Setbacks (Front, Side and Rear) and Building Separation* ◦ *4.1.5 Open Space and Landscaping* ◦ *4.1.7 First Floor and Roof Additions*	• *The floor space ratio of Clause 4.4 of PLEP is limited to land zoned IN2 and B7, with no floor space ratio for any form of residential development.* • *The size, bulk and scale of a dwelling is limited by the combined effect of the building height development standard and a development controls in P21 DCP which relate to:* ◦ *Desired future character* ◦ *Character as viewed from a public place* ◦ *Front building line* ◦ *Side and rear building line* ◦ *Landscaped area* ◦ *Building envelope*	• *Clause 4.4 was not adopted by WLEP.* • *The size, bulk and scale of a dwelling is confined by the combined effect of the height of buildings development standard, and the following development controls of WDCP:* ◦ *B1 Wall Height* ◦ *B2 Number of Storeys* ◦ *B3 Side Boundary Envelope* ◦ *B4 Site Coverage* ◦ *B5 Side Boundary Setbacks* ◦ *B7 Front Boundary Setbacks* ◦ *B9 Rear Building Setbacks*

Table 1. Review of Development Standards - FSR (Source: Northern Beaches Council, 2018)

Figure 1 below is an extract from the Manly 2013 FSR map, showing that FSR is applied across most lots in the former Manly LGA.

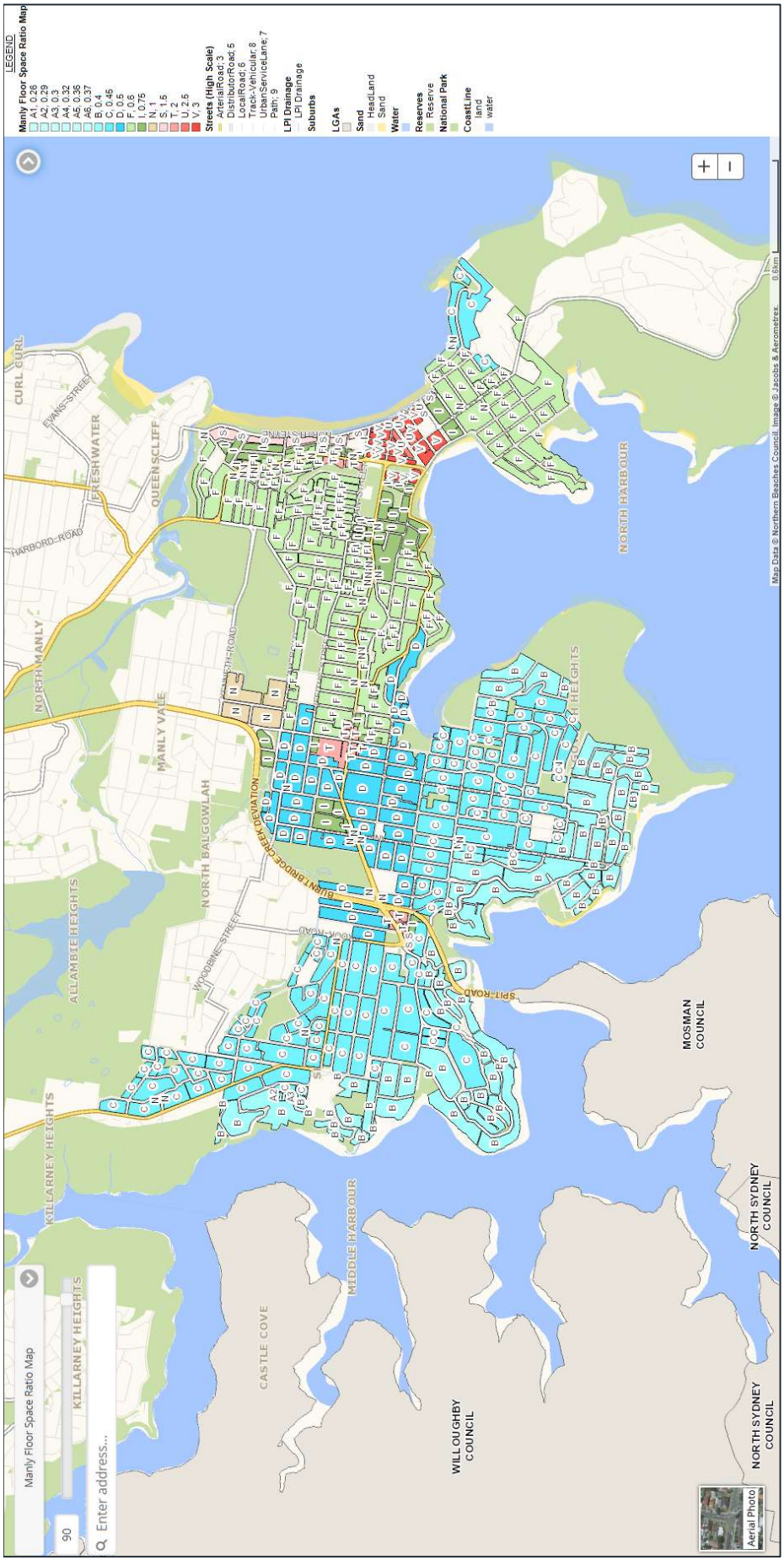


Figure 1 Manly 2013 FSR Map (Source: Northern Beaches Council, 2020)

Figure 2 below is an extract from the Warringah 2011 FSR map, which is limited to the Deewhy Town Centre.

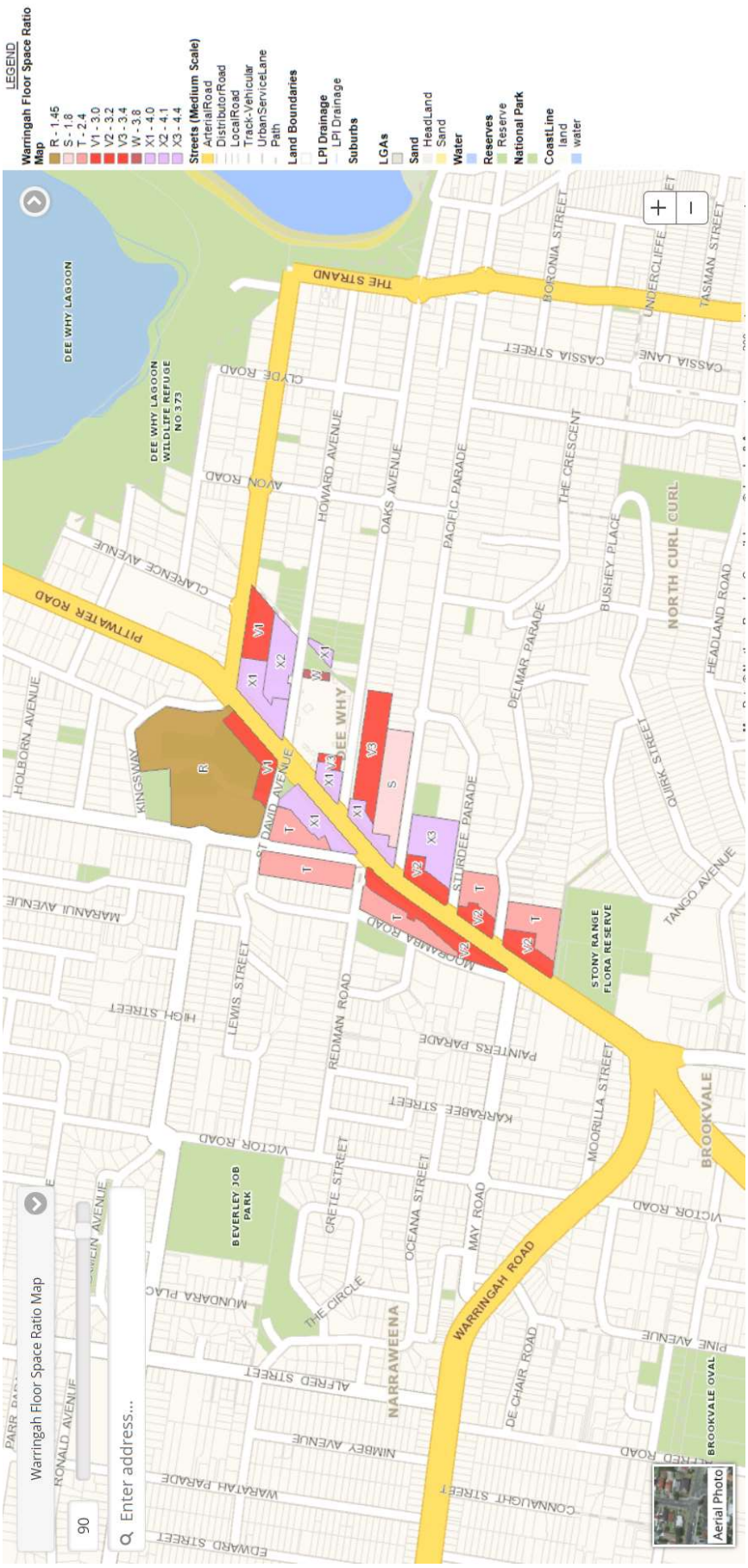


Figure 3 below is an extract from the Pittwater 2014 FSR map, which is limited to IN2 and B7 zoned areas.

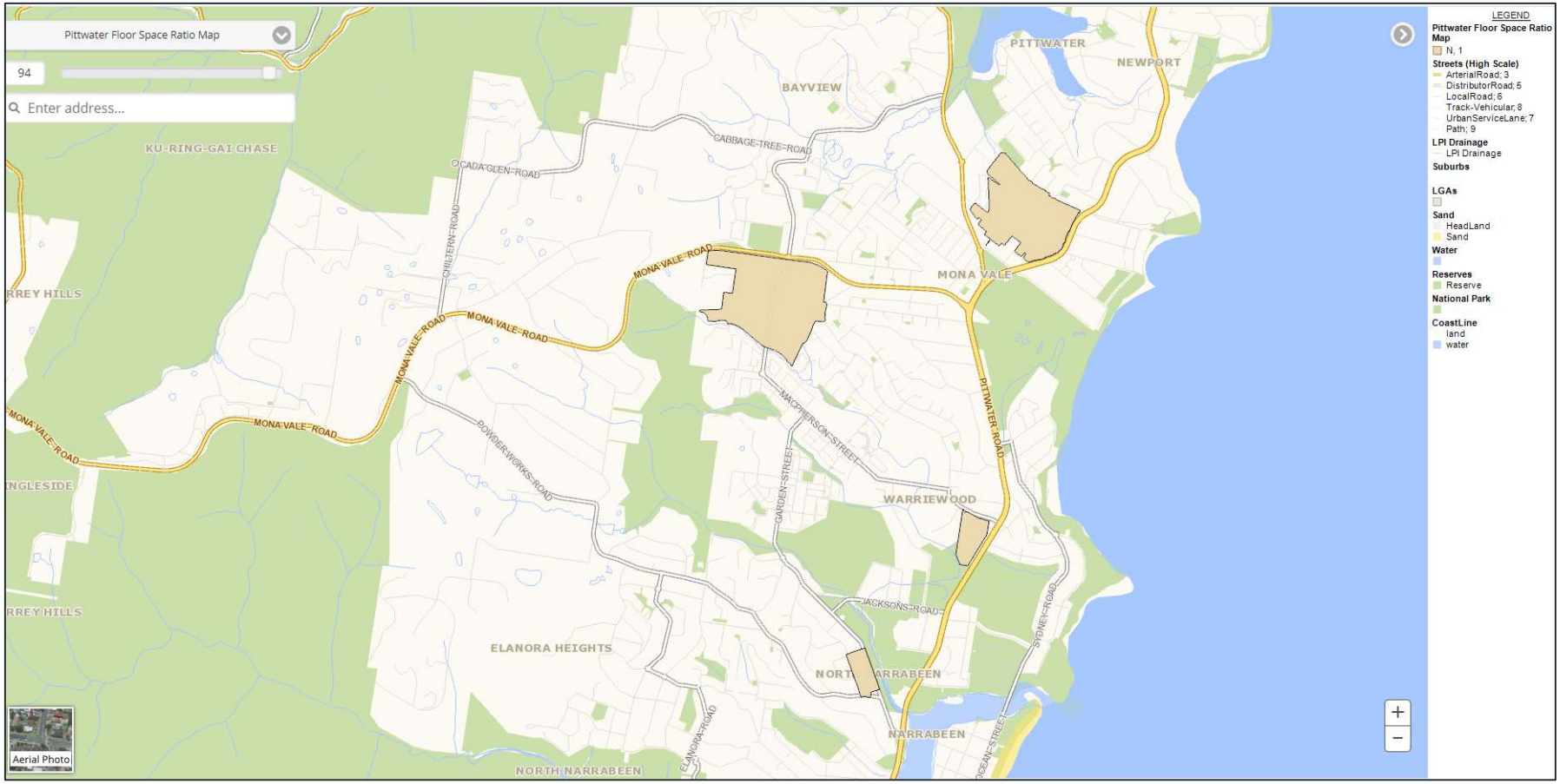


Figure 2 Pittwater 2014 FSR Map (Source: Northern Beaches Council, 2020)

2.2 Variations from the FSR Development Standards within the Northern Beaches

The Northern Beaches Development Standards Report included an analysis of variations of development standards for various development applications (DA) approved within the Northern Beaches LGA between 1 April 2017 and 31 March 2018. This highlighted the primary justifications for proposed FSR non-compliances in dwelling approvals:

- Small/undersized lots (10/44 DAs supported).
- Within the existing footprint (14/44 DAs supported).
- Not inconsistent with surrounding built form (34/44 DAs supported).
- Existing breach of FSR standard (5/44 DAs supported).

In addition to this, the Northern Beaches Variations to Development Standards Register indicated that a total of 35 Clause 4.6 variations to development standards applications relating to FSR were submitted (and approved) between January 2019 and June 2020. Most of these applications were also within the Manly LEP area for residential purposes.

2.3 Recommendations for FSR within the Northern Beaches from the Development Standards Report

The NBC Development Standards Report made the following recommendations to address particular discrepancies in how FSR applies within the Northern Beaches:

- The recommendation to undertake a workshop or develop assessment guidelines to ensure a consistent approach towards FSR assessment, calculation, inconsistencies, desired and existing character.
- The recommendation that FSR should not apply to dwelling houses and semi-detached dwellings.
- The recommendation that the desired future character of the locality should be identified clearly within a consolidated Development Control Plan for the Northern Beaches.

3 Advantages & Disadvantages of FSR

This section provides a summary of the various advantages and disadvantages of using FSR to control development.

The points below are variously referenced from government, council and theory, as well as the individual evaluations of members of the AJ+C | Tract team and Council staff (as communicated in workshops). Advantages and disadvantages have been paired as much as possible to indicate the diversity in views.

Advantages	Disadvantages
• Utilising FSR controls have provided individual NSW councils with a tool to negotiate with developers to ensure that the DCP controls are adhered to in proposed developments. [1] • Leichhardt Council's legal team had found that it had reduced the number of appeals in the Land and Environment Court.[1]	• FSR can be considered to be overall a very 'coarse' control for limiting building bulk in proportion to lot size, particularly for small scale developments or those with minor variations in FSR. [1]
• FSR has been found to provide effective development control for large sites, centres, and precincts with broad ranges of building sizes.[1] • **FSR has been found to be an effective density management tool to manage 'infrastructure demand', 'development bulk' and 'benchmarking in the granting of** [floor space] **bonuses'.** [2,3]	• FSR may be limited in its ability to provide direct influence on a building's bulk, amenity, and visual impact.[1] To be useful in establishing optimal planning and urban design results for an area, FSR requires other built form planning controls like building height, orientation, setbacks, privacy distances, roof forms and landscaped areas.[1]
• FSR has been found to be a potentially useful tool for limiting the scale of new development and establishing developer and community expectations on what the maximum yield that could be achieved on a site.[2,3]	• FSR can limit development viability on smaller sites, regardless of whether that is appropriate for the local context.[2] • Certain research finds that FSR is predominately a density control and not a built form control.[2]
• FSR has been found to allow for certain predictability in allowing designated bulk and scale outcomes within an area (not including other planning controls which may constrain a development).[2,3]	• When FSR controls are not achievable under setbacks and landscaping controls it may affect development feasibility or design outcomes.[2] • FSR can prevent development on small, irregular or otherwise 'awkward sites' [3] • Other planning overlays like heritage or solar access controls can limit the ability to achieve floor space expectations set by FSRs.[3]

[1] Inner West Council (former Leichardt Council), Attachment 2 - FSR Review – Background Document (2007)
[2] Hodyl+Co:,Central City Built Form Review Synthesis Report – Prepared for Victoria State Government, Department of Environment, Land, Water and Planning (2016)
[3] SGS Economics & Planning, Central City Built Form Review - Economic Issues. Melbourne. (2016)

• FSR controls determine a basis from which a bonus or uplift value-sharing mechanism can be established to share the economic benefits of any floor space permitted above the FSR control. An example of this is where a Design Excellence Competition scheme incentivises additional floor space or other potential community benefits providing a building achieves a level of design quality.[2] FSR can also help establish a threshold which triggers value sharing contributions towards community infrastructure.	• It was found that some proponents may seek to put forward development opportunities in growing areas that exceed the maximum FSR as currently outlined for a site which can be problematic in areas where the local character is highly valued.[5] These developments may consider the application for greater density/FSR (as indicated by the FSR) as appropriate given the areas FSR controls and growth prospects; however, density on its own does not always appropriately address design issues including local context, built form massing, and heritage impacts.
• FSR controls have been found to help to minimise land speculation driven by unrealistic beliefs about the development-related value of land and may assist in avoiding the escalation of land values in certain areas.[2,4] • Applying FSR to higher density sites can provide developers with a clear understanding of what a realistic/potential yield of a typical development could be. • It can also assist land purchasers in estimating indicative market values of a site if to be redeveloped.	• Developers may seek to consolidate sites in centres and develop to maximise floor space. This may lead to outcomes that are out of scale with the neighbourhood and does not appropriately respond to the neighbouring building context. • Through an overt focus on FSR, more nuanced grain urban design outcomes for local centres are often not pursued, which can impact upon existing streetscapes and the finer grain and local characteristics which many communities and councils' value highly.
• Increases to FSR in specific locations potentially allows developers to save on land costs and provide additional opportunities for property investors and buyers.	• FSR may add to development complexity due to other planning limitations, e.g. site configuration, localised conditions, layout, tower separation, building setbacks, building height, site coverage and other regulations.[5] • FSR was found to be a poor indicator of a buildings physical form that ignores local characteristics and green space.[6]
• Low FSR caps can protect strategic uses from higher value typologies, such as the use of 1:1 FSRs in industrial zoned land in the former Pittwater LGA.	• Higher than necessary FSR caps can incentivise otherwise unnecessary changes in use to achieve an expected quantum of floor space.
• Generic FSR controls can be set based on HOB limits, setting caps on development that are lower than necessarily achievable, making room for design excellence. • FSR controls can then be increased where they are proven by detailed site study, usually through a planning proposal.	• Generic FSR controls, as with most blanket LEP controls, will always be mismatched to certain sites, either incentivising poor quality development or unnecessarily limiting certain sites.
• Where planning controls have been justified by detailed design work, FSR sets a hard 'cap' on the floor space identified. This creates some protection against subsequent design changes that increase floor space at the expense of design quality.	• FSR controls set an expectation on future density. Where this is mismatched to what is sensibly achievable on a site, it can result in poor design outcomes due to the pursuit of an expected quantum of floor space.

[4] Rowley, S. and Phibbs, P., Delivering Diverse and Affordable Housing on Infill Development Sites (2012)
[5] Helen Day Urbanism, Comparative Planning Controls Report: Inter-city Research - Central City Built Form Review– Prepared for Victoria State Government, Department of Environment, Land, Water and Planning (2016)
[6] Duany, Andres; Plater-Zyberk, Elizabeth; Speck, Jeff, Suburban Nation: The Rise of Sprawl and the Decline of the American Dream (2000)

4 Conclusion

In reviewing the application of FSR in the Northern Beaches LGA against the advantages and disadvantages of the planning mechanism, AJ+C | Tract support the general use of the tool to help control higher density developments, particularly residential. However, we do not view FSR as an effective or necessary tool in lower-density environments such as areas with single-dwelling houses or medium-density residential typologies. Consequently, we support the removal of its applicability to dwelling houses and all low-density residential zones across the former Manly LGA, as is identified in the NBC LSPS.

We come to this conclusion because the advantages of the FSR mechanism are generally only relevant to higher density developments, and not dwelling houses. Key advantages include the opening up the use of FSR bonuses to support strategic planning priorities, the inflation of land values to support higher residential and/or job densities, and the capping of saleable floor space within a sensible limit based on building height to make room for design excellence in for-profit development. They can also be used to protect employment land from higher yielding uses, such as is the case in the former Pittwater LGA, although this can also be achieved using other tools.

Conversely, the primary disadvantages of FSR still apply to private dwelling houses, such as setting unrealistic floor space expectations where the FSR is mismatched to the site, encouraging land speculation, and reducing the viability of small or irregular sites.

Consequently, FSR should be used only where its benefits outweight its disadvantages: in employment areas as well as those environments expected to see ratios higher than 1:1, as indicated by land use zoning, height-of-building, and local/strategic centre designation.

References

- Duany, Andres, Plater-Zyberk, Elizabeth, Speck, Jeff, Suburban Nation: The Rise of Sprawl and the Decline of the American Dream (2000)
- Helen Day Urbanism, Comparative Planning Controls Report: Inter-city Research - Central City Built Form Review– Prepared for Victoria State Government, Department of Environment, Land, Water and Planning (2016)
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- Rowley, S. and Phibbs, P, Delivering Diverse and Affordable Housing on Infill Development Sites (2012)
- SGS Economics & Planning, Central City Built Form Review - Economic Issues. Melbourne. (2016)