



Global South

Statement of Expert Evidence: Urban Design

Draft Planning Scheme Amendment GC81:

Fishermans Bend Planning Review Panel

Prepared by Simon Joseph McPherson

Instructed by City of Port Phillip and Maddocks

26 March 2018

Table of Contents

1.0 Introduction	4
1.1 <i>Process and involvement</i>	4
1.2 <i>Qualifications and experience to prepare this Statement</i>	4
1.2.1 Qualifications and registrations	4
1.2.2 Experience	4
1.3 <i>Instructions</i>	6
1.4 <i>Preface</i>	7
1.5 <i>Summary of opinions</i>	8
1.5.1 Draft Framework	8
1.5.2 FAR and FAU provisions	8
1.5.3 Built form controls	8
1.5.4 Process matters	8
2.0 Review of the Vision and strategic intent	10
2.1 <i>The context for cities and urban development</i>	10
2.1.1 Compact city planning/development model	10
2.1.2 Urban renewal directions	11
2.1.3 Key considerations for Amendment GC81	12
2.2 <i>Vision for Fishermans Bend</i>	13
2.2.1 Summary of the Vision	13
2.2.2 Vision and built form intent, by Precinct	13
2.3 <i>Benchmark reference projects</i>	17
2.3.1 Kings Cross, London	17
2.3.2 East Village, Olympic Park, London	18
2.3.3 HafenCity, Hamburg	18
2.3.4 Hammarby Sjostad, Stockholm	19
2.3.5 Wembley Park, London	20
2.3.6 IJBurg, Amsterdam	20
2.3.7 Canary Wharf, London	21
2.3.8 Paddington, London	21
2.3.9 Potsdamer Platz, Berlin	21
2.3.10 Battery Park City, New York	22
2.3.11 Comparative tables	22
3.0 Review of the built form controls	27
3.1 <i>Floor Area Ratio</i>	27
3.1.1 Investigation of the basis of the FAR controls	27
3.1.2 Assessment of the method for determining FARs	30
3.1.3 Assessment of proposed FARs	30
3.2 <i>Review of individual site testing (Hodyl evidence)</i>	32
3.2.1 Sandridge	32
3.2.2 Montague	33

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

3.2.3 Wirraway	34
3.3 Floor Area Uplift (FAU)	36
3.3.1 Review of the application of FAU provisions	36
3.3.2 Monitoring and management	37
3.3.3 Assessment of the FAU provisions	37
3.3.4 Implications for built form	37
3.4 Dwelling density and dwelling size	38
3.4.1 Review of density controls	38
3.4.2 Assessment of density provisions	41
3.5 Height limits	42
3.5.1 Assessment of building height framework	42
3.6 Street wall heights and upper level setbacks	45
3.6.1 Street wall height	45
3.6.2 Height to side or rear boundaries	46
3.6.3 Setbacks above street wall	46
3.6.4 Side and rear setbacks (if <u>not</u> built on boundary)	47
4.0 Other matters	49
4.1 Review of the Framework in context of City of Port Phillip's recommended spatial changes	49
4.2 Water/flood management	51
4.3 Implementation considerations	53
4.4 Design quality	54
5.0 Conclusions	55
6.0 Appendix 1: Benchmark project images	56
6.1 Kings Cross, London	56
6.2 East Village, Olympic Park, London	58
6.3 HafenCity, Hamburg	60
6.4 Hammarby Sjostad, Stockholm	62
6.5 Wembley Park, London	64
6.6 IJBurg, Amsterdam	66
6.7 Canary Wharf, London	67
6.8 Paddington, London	68
6.9 Potsdamer Platz, Berlin	70
6.10 Battery Park City, New York	71

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

1.0 Introduction

1.1 Process and involvement

- (1) This Statement has been prepared by Simon Joseph McPherson, Director of Global South Pty Ltd, a new urban design consultancy based in Melbourne, which works collaboratively on a range of projects, but is effectively a sole practice.
- (2) There are no other contributors to this Statement.
- (3) My business address is The Workery, Suite 3, 8 Riddell Parade, Elsternwick 3185. My home address is 24C Foam Street, Elwood 3184.

1.2 Qualifications and experience to prepare this Statement

1.2.1 Qualifications and registrations

- (4) My academic qualifications are as follows:
 - o **Executive Masters (MSc) in Cities**, inaugural programme (September 2016 - completed February 2018, awaiting final assessment), London School of Economics and Political Sciences (LSE Cities), UK;
 - o **Master of Science (MSc): Built Environment - Urban Design** (Distinction), The Bartlett School, University College London, 2005-06, UK;
 - o **Bachelor of Architecture (BArch)** (First Class Honours), The University of Melbourne, 1996-97;
 - o **Bachelor of Planning and Design (BPD) (Architecture)**, The University of Melbourne, 1992-94.
- (5) My professional registrations and memberships are as follows:
 - o **Registered Architect, Architects Registration Board of Victoria:** individual registration number 15838;
 - o **Australian Institute of Architects:** full member.
- (6) I am engaged on the following professional organisations:
 - o Member, Victorian Design Review Panel;
 - o Member, Design Review Panel for South Australia;
 - o Global Advisor, United Nations Global Compact – Cities Programme;
 - o Member, Built Environment Task Force, Smart Cities Council – Australia/New Zealand;
 - o Member (AIA representative), National Urban Design Protocol Advisory Board.

1.2.2 Experience

Professional experience

- (7) I hold over 15 years of professional experience in urban design, including:
 - o Urban Designer, Victorian State Government (2002-2007, including study leave);
 - o Director, SJB Urban (2007-2016);
 - o Director, Global South (2016-present).

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcperson@globalsouth.net.au

www.globalsouth.net.au

- (8) I hold approximately 5 years of prior experience in architectural practice, in Australia and the UK.

Project experience

- (9) My urban design experience includes the following projects:
- Policy and guidelines:
 - Author/contributor, *Better Placed*, NSW Architecture and Urban Design Policy, Government Architect NSW (2016-17). *Benchmark design policy, winner Australia Award for Urban Design 2017*;
 - Contributor (State Government employee), Design Guidelines for Higher Density Residential Development, Activity Centre Design Guidelines;
 - Contributor, SA Medium-Density Design Guidelines;
 - Lead consultant, Urban Design Guidelines, Bowden, SA (SJB Urban, 2015);
 - Urban Design Advice:
 - Eden/Haven/Sanctuary on the River, Abbotsford, for HAMPTON (complete), (SJB Urban, 2010). *High-density, mid-rise (9-11 storeys) permeable courtyard development, winner UDIA President's Award, High-Density Housing Award (National, Victoria), Masterplanned Development Award (Victoria)*;
 - Richmond Plaza redevelopment, for Coles (SJB Urban, 2014);
 - Grocon FCAD redevelopment, Footscray Station Precinct (SJB Urban, 2011).
 - Independent reviews:
 - Various independent review of permit applications, for Councils including Yarra, Port Phillip, Brimbank, Manningham and Casey.
 - Strategic plans, structure plans and Urban Design Frameworks:
 - 1160 Sayers Road, Tarneit, Structure Plan for Wyndham City Council (landowner) (SJB Urban 2014-15). *Innovative, integrated plan for high-density, walkable precinct in greenfield setting*;
 - Footscray Station Precinct Planning and Urban Design Framework (SJB Urban, 2008-09). Winner, PIA Transport Planning Award 2008);
 - Brighton Toyota Site UDF, for LEFTA Corporation;
 - Frankston Transit Interchange Precinct UDF and Master Plan, for DPCD (SJB Urban 2009-2012);
 - Wise Foundation 'Wellness Village' UDF, Mulgrave, for landowners (SJB Urban, 2015-16).
 - Master Plans and Concept Designs
 - Caulfield Village Master Plan, for Beck Property / Probuild (SJB Urban, 2012);
 - Greensborough Activity Centre Concept Master Plan, for Banyule City Council (2017);
 - 433 Smith Street Master Plan, for Places Victoria (SJB Urban, 2015);
 - Master Plan, Binks Ford Site, Footscray, for Places Victoria (SJB Urban, 2012);
 - Caulfield-Dandenong corridor concept/feasibility studies, for VicTrack (SJB Urban, 2015).

Experience in Fishermans Bend

- (10) I have been involved in the following projects and engagements in Fishermans Bend:
- Fishermans Bend Community Infrastructure Plan, July 2013: lead consultant (SJB Urban, engaged by Places Victoria);

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

- Gravity Apartments, Montague Street (complete): urban design advice, urban context report (SJB Urban, 2013, engaged by developer/project manager);
- Carlins Site proposal, Buckhurst Street (approved, not constructed): limited urban design review/advice, urban context report (SJB Urban, 2013, engaged by project manager);
- 91-95 Montague Street (neighbouring Gravity Apartments): limited design advice, Victorian Design Review Panel participation (SJB Urban, 2015, engaged by developer) (current live permit application submitted for alternative scheme, without my involvement);
- Fishermans Bend Ministerial Advisory Committee - Innovation, Evidence and Outcomes Forum, Port Melbourne (invited participant): 21 June 2016.

Experience preparing expert evidence

- (11) I have presented evidence at VCAT and Planning Panels Victoria on numerous occasions, predominantly as Director of SJB Urban.

1.3 Instructions

- (12) I was engaged by City of Port Phillip on 30 January 2018 to prepare this Statement. My instructions are summarised below. In preparing this Statement, I have:
- Visited the subject area on multiple occasions;
 - Reviewed a range of documents as follows:
 - Fishermans Bend Vision, September 2016;
 - Fishermans Bend Urban Design Strategy (Hodyl & Co.), September 2017;
 - Fishermans Bend Framework (Draft for Consultation);
 - Planning Scheme Amendment documents (track changes versions): Clauses 21.01, 21.02, 21.03, 21.04, 21.05, 21.06, and the amended versions (issued February 2018) of Clauses 22.15, 37.04 (CCZ1), 43.02 (DDO30) and 45.09;
 - Fact Sheets (various);
 - Submission 153 (City of Port Phillip), December 2017, and updated maps received 23 March 2018;
 - Submissions relating to built form and urban design, as instructed by City of Port Phillip officers: 63, 90, 121, 131, 143, 149, 157, 167, 169, 172, 173, 180, 185, 203, 206, 215, 217, 220, 222, 242;
 - Expert Urban Design Evidence – Leanne Hodyl (prepared on behalf of DELWP), February 2018, and Addenda 1 (5 March), 2 (9 March), 3 (9 March) and 4 (13 March 2018);
 - Expert Urban Design Report – Prof Donald Bates, 27 February 2018;
 - Fishermans Bend Community Infrastructure Plan (2017);
 - Fishermans Bend Public Space Strategy (Planisphere), April 2017;
 - Fishermans Bend Ministerial Advisory Committee: Innovation, Evidence and Outcomes Forum: Final Report (I was one of 61 invited participants in this forum);
 - Fishermans Bend Integrated and Innovative Water Management report (Ramboll, March 2018).
 - Met with Council officers and Maddocks on several occasions, to be instructed, briefed on the Amendment, background, submissions and Council's 3D modelling work.

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcperson@globalsouth.net.au

www.globalsouth.net.au

- (13) My instructions are as follows, and relate to the area of Fishermans Bend within the City of Port Phillip (so excluding Lorimer):
- Review the Amendment documentation and supporting material;
 - Preparation of built form / urban design expert evidence, addressing the following matters:
 - How the proposed Amendment GC81 and its supporting material proposes to manage the built form and the future urban design of Fishermans Bend;
 - Whether the controls deliver the following relevant ‘Priority Outcomes’ and ‘What the Framework must deliver’ sections outlined in Council’s endorsed submission:
 - Priority Outcome 1.1 – Housing choice to support a diverse, family friendly community;
 - Priority Outcome 3.1 – A urban structure that reinforces place and creates diverse, mixed use neighbourhoods;
 - Priority Outcome 6.3 – A landscaped solution to flooding and water management;
 - The extent to which Amendment GC81 and the draft Framework are likely to achieve the approved Vision for Fishermans Bend;
 - The submissions made by Council relating to design controls and built form objectives;
 - Review of, and comment on up to 20 public submissions from other stakeholders as they relate to built form / urban design;
 - Make any recommendations for changes (if required) to Amendment GC81.
- (14) I am not instructed to consider the proposed planning controls in the context of, or in comparison to, current or previous controls, or to consider the planning process for Fishermans Bend to date.

1.4 Preface

- (15) While Fishermans Bend constitutes a defined, distinct locality with clear boundaries, it is not a single site or under a centralised control. It is identified as an area for significant change, and is in the early stages of a major transformation.
- (16) It is clear that a substantial planning effort has taken place to establish a strong and forward-looking vision, and mechanisms and controls towards achieving this vision. This vision seeks a regenerated urban precinct which is optimised in terms of liveability, accessibility, diversity and prosperity, by integrating and managing infrastructure, development and a mix of land uses.
- (17) The fragmented, predominantly private land ownership conditions present key challenges for implementation of urban renewal in Fishermans Bend.
- (18) The private sector, landowners and developers will be central in delivering the vision for Fishermans Bend, predominantly through construction of new residential and commercial redevelopment, along with (potentially) community facilities, other infrastructure and open space. Therefore, the planning framework must be sufficiently attractive to commercial investment, while also strongly aligned to a defined and supported vision, and reliable process for achieving it.
- (19) Therefore, an effective balance of clear intent and defined outcomes, effective controls, and a strong system for implementation and facilitation of high-quality development and innovation, is required.

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

(20) I commence this Statement from this understanding of the context.

1.5 Summary of opinions

1.5.1 Draft Framework

- (21) I support the following key aspects of the Draft Framework, noting I am not instructed to carry out a full critical review:
- Identification of key streets and civic spines, and built form management to protect amenity in these locations;
 - Demarcation of a network of linear green spaces, to connect larger parks and open spaces;
 - Distribution of community infrastructure within a series of centralised hubs which support walkable access and definition of distinct neighbourhoods;
 - Planning for high-capacity public transport to support sustainable development, noting clarity of implementation potential/timing is required;

1.5.2 FAR and FAU provisions

- (22) I support the use of FAR and FAU provisions to manage and contain development outcomes, provide for flexibility and a range of potential built form outcomes, and incentivise the provision of public benefits, in line with the vision and preferred character for each area.
- (23) I see several significant issues with the methodology and assumptions applied to determine the specific controls, resulting in substantial uncertainty around potential development outcomes.
- (24) The proposed density controls require revision, to reflect the potential for FAU beyond the 'base' floor space extent, and could become a mechanism to limit the extent of FAU that is allowable in each Precinct.

1.5.3 Built form controls

I have recommended several minor changes to the built form controls, as follows:

- Apply consistent 8-storey control to area of Montague South, west of Montague Street;
- Lower the proposed 24-storey area in Wirraway core to 14-16 storeys;
- Confirm the general 8-storey height provision in Wirraway non-core (rather than 6-storeys as suggested by the Framework);
- Increase the central area of Wirraway non-core, between Plummer Street and Woodboard Road to 10 storeys;
- Change the mandatory 4-storey controls for the southern interfaces, to discretionary, with mandatory 4-storey frontage and minimum 10m upper level setbacks.
- Increase the discretionary 4-storey area of Wirraway, to 6-storeys;
-

1.5.4 Process matters

- (25) I support a regular monitoring and response process, to manage development outcomes in line with infrastructure provision and other considerations over time.

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

- (26) I recommend an integrated, Precinct-wide approach to flood protection and water management, which can avoid the need for raised floor levels, which are detrimental to good urban design outcomes.
- (27) I recommend greater attention to design quality in the controls, and development of a Design Code or similar, to establish design quality expectations, as well as application of a Design Review Panel process.
- (28) I consider the further development of the Framework into a Master Plan, which is robust yet flexible and responsive, to clearly define the built form parameters and outcomes, although I acknowledge the process challenges this idea presents.
- (29) Creating a benchmark urban renewal precinct and cohesive, mixed-use community, will require strong design control, comprehensive integration across site boundaries and precincts, while providing opportunities for innovation and negotiation.
- (30) Therefore an ongoing 'hands on' approach to design, monitoring, management, negotiation and delivery is recommended as Fishermans Bend evolves over the long term.

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

2.0 Review of the Vision and strategic intent

2.1 The context for cities and urban development

- (31) Amendment GC81 reflects a substantial shift in the approach to planning and development control in Fishermans Bend, introducing a range of new planning mechanisms for this area, derived from an extensive process of integrated planning for land use and infrastructure.
- (32) As Australia's largest urban renewal project, in a prominent location adjoining Melbourne's CBD, with extensive planned/proposed transport infrastructure and substantial development potential, and in the context of the Vision outlined above, I consider it important to consider the planning directions in the context of international urban development directions and best practice urban renewal projects.

2.1.1 Compact city planning/development model

- (33) Many social, economic and environmental challenges are increasingly linked to the physical development of cities. A broadly accepted view has emerged that effective government intervention is required to directly address the physical shaping of cities and urban environments through steering urban development - rather than merely relying on indirect measures¹.
- (34) The 'compact city' is an influential framework for development internationally, and a spatial interpretation of sustainable development. This parallel between compact urban design and sustainability outcomes is foundational for consideration of planning for Fishermans Bend. It is reinforced by the *Better Growth, Better Climate* paper by the New Climate Economy Global Commission (2014) which proposed that developing denser, smarter cities is the best way to save energy and minimise the human footprint on the planet and global resources, by reducing travel times for people, goods and food².
- (35) The principle of co-location of activities at neighbourhood level to reduce travel requirement is essential to the direction towards 'accessibility' alongside 'movement/mobility' - connecting locations while at the same time creating places.
- (36) Implementing compact, connected urban development typically includes a focus on urban regeneration, revitalisation of urban cores, promotion of public and non-motorised transport, extensive environmental controls and high standards of urban management. It aims to increase residential populations and densities, and intensify activities in pursuit of global sustainability benefits derived from the concentration of urban functions³.
- (37) The 2016 United Nations *New Urban Agenda*, the globally adopted strategy for urban development, contains four key commitments relating to urban compactness⁴.

¹ Philipp Rode, *Governing Compact Cities*, Elgar 2018, pp.14-15.

² David Partridge, *Making Cities - Examples of Urban Development in London*. Council on Tall Buildings and Urban Habitat - Research Paper, 2015.

³ Ibid, p.20

⁴ Ibid, p.32

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcperson@globalsouth.net.au

www.globalsouth.net.au

- (38) Compact city principles have been guiding principles for London’s most prominent urban regeneration efforts, particularly Kings Cross and the Olympic Village⁵ (see below).
- (39) Criticism of the compact city model has included⁶:
- Negative side effects, including increased urban heat island effect, congestion and overcrowding, reduced access to nature and loss of open space;
 - Higher densities being less popular with urban residents;
 - Regulatory mechanisms that distort market forces leading to negative side effects such as increased house prices and lower housing quality;
 - Regulatory constraints on ‘vertical development’ that have a regressive impact on housing supply, affordability and housing equity.

2.1.2 Urban renewal directions

- (40) The widely recognised urban issues of housing affordability and increasing social disparity in cities has occurred in parallel to a shift towards building at higher densities on brownfield sites. However, “the quality of apartments has been widely criticised” internationally, and apartments are “predominantly bought by investors for renting to young professionals, while those on higher incomes still prefer older houses in established neighbourhoods. There are major doubts over whether new developments in housing renewal areas will ever work out as planned”⁷.
- (41) “Radical new mechanisms are needed both to upgrade existing neighbourhoods and to build sustainable neighbourhoods where people will really want to live”⁸.
- (42) The key for integrated land-use and transport planning is to concentrate residences, work areas and amenities to produce the shortest possible trip distances⁹. Other essential ingredients are identified as follows¹⁰:
- Fully integrate transport and land use planning;
 - Policies must be multi-modal and include both incentives and disincentives;
 - Establish clear, long-term goals, and pursue them consistently. Benchmark against competing and comparable cities;
 - Continuity is vital, with ability to change tack as circumstances change;
 - Recharge urban economies to create good new jobs to replace old ones that are being lost;
 - Build enough good-quality housing to meet demands from all kinds of households, large and small, rich and poor;
 - Create sustainable neighbourhoods with homes, jobs, shops, schools and services within easy reach on foot or by bicycle, connected to the rest of the city by good-quality public transport:
 - Build high-quality transport systems, in advance of development, to ensure that new housing areas are connected to jobs, shops, schools and services from the start.

⁵ Ibid, p.50

⁶ Rode, loc cit, pp.21-23

⁷ Peter Hall, *Good Cities, Better Lives: How Europe Discovered the Lost Art of Urbanism*, Routledge 2014, p. 33.

⁸ Ibid, p. 33

⁹ Ibid, p. 48

¹⁰ Ibid, pp. 270-310

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
 ACN 123 980 781
 ABN 81 123 980 781

M. +61 (0)448 201 344
 T. +61 3 8669 1766
 E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

- Create places where people want to live, and where they feel good about living.
- Ensure release of sufficient housing land, in parcels of sufficient size and with already-developed master plans, at a fair price, for immediate development:
 - Strong city planning departments with real planning powers and a willingness to take a positive lead, particularly in developing overall master plans as a framework for development or regeneration of specific areas;
 - Willingness/eagerness on the part of these agencies to engage with the private sector... in the subsequent detailed development process... from a position of strength through control of the master planning process”.
- Create new forms of housing tenure to supplement and provide an alternative to those already available.

2.1.3 Key considerations for Amendment GC81

(43) The above very concise review of current literature providing a background reference for the Fishermans Bend Framework and proposed policy settings, confirms:

- The consensus regarding the benefits of more compact, integrated urban development and infrastructure planning/delivery;
- Importance of optimising density;
- The potential of compact, higher density development to support a range of social, environmental and economic benefits;
- The need to manage potential negative consequences through careful design, monitoring and management;
- The need for strong leadership, regulation and direction in achieving these goals;
- Importance of clear long-term vision, and master plans to guide implementation, which embed flexibility to respond to changes over time;
- The importance of integrated transport which is delivered early, alongside good conditions for walking and cycling.

(44) The draft Framework and Urban Design Strategy illustrate a comprehensive approach to planning and guiding urban development and infrastructure provision. Key facets of the approach are strongly aligned to best practice planning for urban renewal, including:

- Defining a clear vision, and distinct character for each Precinct, with further distinction between central (core) locations and other (non-core) areas;
- Encouraging higher-density, mixed-use development throughout, while controlling density to support liveability outcomes;
- Encouraging diversity of built form, prevailing land-use, and development type across the area, creating distinct Precincts;
- Integration of transport planning with development provisions, although the early confirmation and delivery of public transport infrastructure, as well as cycling infrastructure, would be of significant benefit in attracting development and establishing sustainable transport habits;
- Establishing an integrated open space network;
- Expanding the network of streets and lanes to enhance walkability;
- Establishing clear built form parameters to provide varied urban outcomes, enhance streetscapes and ensure sunlight to key streets and open spaces;
- Guiding a genuine mix of land uses, with varying proportions across the area.

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcperson@globalsouth.net.au

www.globalsouth.net.au

2.2 Vision for Fishermans Bend

2.2.1 Summary of the Vision

- (45) The lead vision statement reflects strong aspirations and a forward-looking approach to guiding redevelopment in Fishermans Bend: “A thriving place that is a leading example for environmental sustainability, liveability, connectivity, diversity and innovation.”
- (46) The Vision (preface section, THE VISION, page C) supports a “benchmark for sustainable and resilient urban transformation”, and sets significant targets (p.7) for:
- Open space: within 200m of all residents and workers;
 - Sustainable transport: for 80% of trips;
 - Housing: diverse and affordable.
- (47) Through “good planning and design”, Fishermans Bend will support a “range of medium and higher density built form”, to influence positive change in the design and sustainability of higher density apartment developments.
- (48) The Vision introduces eight (8) Sustainability Goals, as follows:
- Inclusive and healthy: all ages/backgrounds, families, community services providing opportunities for connected and healthy lives;
 - Prosperous: employment/education opportunities, commercial and creative industries;
 - Low carbon: energy efficiency
 - Water sensitive: minimising water use, water recycling, WSUD, stormwater detention within buildings;
 - Climate adept: resilience to extreme weather, lower heat island effect;
 - Connected and liveable: integrated transport, walkable, activity centres;
 - Low-waste: management, recycling;
 - Biodiverse: Spaces and buildings create habitat, green links.
- (49) The 10 Strategic Directions are also relevant to urban design and built form, directly or indirectly:
1. The creation of 21st century jobs
 2. The timely provision of infrastructure
 3. A place that is easy to get around
 4. A vibrant mix of uses and activities
 5. Distinctive and unique neighbourhoods
 6. Diverse communities
 7. A high quality built environment
 8. A sustainable and resilient place
 9. Manage industrial legacy and ground conditions
 10. Strong partnerships, effective governance and civic leadership.
- (50) In seeking to develop “thriving place that is a leading example for environmental sustainability, liveability, connectivity, diversity and innovation”, and a “benchmark for sustainable and resilient urban transformation”, demonstrating “new benchmarks for urban renewal”, the vision is clearly bold and aspirational. I consider it adequately clear in setting the direction for planning and implementation, and a providing the reference for assessing this Amendment.

2.2.2 Vision and built form intent, by Precinct

- (51) The vision for Fishermans Bend seeks the following urban design and built form outcomes:

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

- A series of diverse, walkable, higher-density neighbourhoods;
- Safe, welcoming and vibrant places for all people;
- Leafy streets, intimate laneways and great public spaces framing contemporary architecture;
- A network of boulevards and green links connecting neighbourhoods and public spaces;
- A series of distinctive places that reflect Melbourne's past and define its future.

(52) The descriptions of the Vision for Fishermans Bend and for each Precinct are indicative only, and so cannot fully articulate the qualities and potential distinction between different precincts. These qualities will evolve over time as the Precincts develop. My interpretation of the potential urban design outcomes is also informed by the 3D modelling in Addenda 3 to Ms Hodyl's evidence, and the proposed built form controls applicable to each Precinct, which are discussed further below.

Sandridge:

(53) Vision:

- Premium office and commercial location; professional services and creative businesses;
- High quality vibrant streets and public spaces;
- Fennel-Plummer Street boulevard;
- Architecturally diverse towers, extending Melbourne's skyline towards Port Phillip Bay;
- Buildings designed to provide an attractive street-level experience, and protect public spaces from overshadowing;
- Lower scale closer to Garden City and Port Melbourne;
- Wide footpaths, cycle routes and tree-lined streets encourage healthy, active transport;
- A series of networked public spaces;
- North Port Oval is a key civic/community anchor;
- Exemplar of sustainable and resilient mixed-use development.

(54) Preferred building typologies (Urban Design Strategy):

- Core: High density mixed-use, significant jobs growth, tower developments supported;
- Non-core: Diverse built form and character, 6-24 storeys. Williamstown Road interface – 4-storey mandatory height, but with reduced depth.

(55) Interpretation from an urban design and built form perspective:

- Core:
 - Encouraging taller built form, urban intensity;
 - Vertical emphasis, significant scale and visual strength;
 - Busy, dynamic street and spaces;
 - Layered activity, vibrant;
 - High-quality streetscapes, active building interfaces across street wall levels;
 - Contemporary, international, commercial character.
- Non-core:
 - High-amenity streetscapes, defined frontages;
 - Complex, varied built form;
 - Transition down in scale in scale to the west;
 - 'Urban' character public spaces;

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

- More spacious, open setting, but with intensive residential-focussed use, and active streets.
- *Relative comparison in Melbourne:* CBD, Docklands central area.

Montague:

(56) Vision:

- Two neighbourhoods, each with its own character and identity;
- North:
 - Strong mixed-use focus, careful design for human scale at street level;
 - Community services co-located within mixed-use developments;
 - Normanby Road is a vibrant boulevard;
- South:
 - Range of building types;
 - Network of gritty streets and laneways, strong pedestrian focus;
 - Vibrant and eclectic character, myriad (smaller) businesses;
 - Heritage and character buildings are adapted for high amenity housing and commercial opportunities;
 - Lower scale residential and commercial along City Road and Boundary Street to support integration;
 - Ferrars Street provides a pleasant walking and cycling route;
 - Open space near corner Buckhurst and Ferrars Streets is a key landscape asset;
 - Buckhurst Street green spine is the heart of Montague, connecting community hubs, with activated public realm, as a cosmopolitan retail/dining destination;
 - Diverse and family-friendly community.

(57) Preferred building typologies (Urban Design Strategy):

- Tower developments supported, but reduced heights (Montague North);
- Heights reduced to increase sunlight to streets, particularly Normanby Road as a high-quality civic spine;
- Montague South heights limited to maximise amenity of Buckhurst Street local centres, and transition towards lower scale of South Melbourne;
- Generally, 8-storey heights in non-core areas, with 4-storeys at interface.

(58) Interpretation from an urban design and built form perspective

- North (Core):
 - Newer, more extensive redevelopment, more contemporary character;
 - Mixed-use, contemporary, higher scale;
 - Strong commercial character, bold built form, wide streets;
- *Relative comparison in Melbourne:* Docklands, Southbank (southern area);
- South (Core):
 - ‘Urban’ character/texture, mix of old and new;
 - Creative environment, diverse visual qualities;
 - Complex network of varied streets and lanes;
 - Mid-rise, robust, diverse, building on existing fabric;
 - Transition down in scale to southern interface;
- South (non-core)
 - Prevailing mid-rise focus, diverse forms, materials, textures;
 - Walkable streets and lanes, ‘urban’ character’, robust built form qualities.

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

- *Relative comparison in Melbourne:* Richmond (Station precinct) / Abbotsford, South Melbourne

Wirraway:

(59) Vision:

- Family-friendly neighbourhood;
- Small parks, plazas and playgrounds linked by leafy streets lined with different types of shops, businesses and homes;
- Diverse housing, including small-medium scale apartment buildings, with some higher-rise developments;
- Intimate-scale green spaces within residential developments;
- Contemporary architecture, sensitive cultural/industrial references;
- JL Murphy Reserve is a major focus, with best practice stormwater management;
- Thriving arts scene with small galleries and cultural facilities;
- Service industries, R&D hubs support real employment diversity;
- Many small businesses;
- Plummer and Salmon Streets are important public transport routes;
- Attractive and engaging experience along Plummer Street Boulevard; through specialty retail, cafes and community facilities;
- Local Centre: higher densities, with slender commercial buildings within a generally lower-rise skyline;
- A place for people of all ages.

(60) Preferred building typologies (Urban Design Strategy):

- Taller buildings supported in the activity core, but ensuring that the southern side of Plummer Street is not overshadowed;
- Generally 6-storey limit in non-core areas, with 4-storeys at southern interface.

(61) Interpretation from an urban design and built form perspective

- Core:
 - Mid-rise focus, limited vertical scale;
 - Linear main street boulevard as activity focus;
 - Broad building forms defining street blocks, some vertical extension of built form above consistent 'base'.
- Non-core:
 - Lower, more intimate scale – streets, spaces, buildings;
 - Buildings in more open, landscaped settings, but with urban edges;
 - Defined streets, buildings framing street edges, enclosing courtyards
 - Creative business and arts opportunities suggest defined streets and active frontages;
 - Varied green spaces as contiguous network.
- *Relative comparison in Melbourne:* Fitzroy, Carlton, North Melbourne.

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

2.3 Benchmark reference projects

- (62) My instruction is the consideration of urban design and built form. Therefore while other measures such as sustainability performance, infrastructure provision and economic activity will contribute to this vision, my focus is on the urban design and built form qualities and characteristics that contribute to benchmark urban renewal, and thriving, liveable, diverse, innovative urban places.
- (63) It is valid in this context to consider other recognised benchmark examples of urban renewal internationally, as well as literature on these projects, to inform my review of the proposed vision and goals, as well as comparison of built form and public realm outcomes with density and FAR figures.
- (64) While these projects have arisen in different contexts and circumstances, they generally share key aspects with Fishermans Bend, including an inner-urban regeneration focus, transport integration, mixed land uses and relatively high densities. They generally encompass a “range of medium and higher density built form”, to reflect “positive design and sustainability outcomes in higher density apartment developments”, in line with the Fishermans Bend Vision.
- (65) The Fishermans Bend Vision seeks for it to be “celebrated as an exemplar of sustainable and resilient urban transformation”. The projects outlined below are widely recognised as benchmark projects in this regard.
- (66) Images of these projects are provided at Appendix 1.

2.3.1 Kings Cross, London¹¹

- (67) London is experiencing many of the growth pressures in parallel with Melbourne - housing access and affordability, managing development, increasing house prices, social and amenity challenges, increasing inequality - but at a more advanced level, and from a larger population base, as it approaches a population of 10million.
- (68) The ongoing redevelopment of former rail/industrial land at Kings Cross in central London is characterised by mid-rise built form and a high-quality public realm. The location enjoys unparalleled transport accessibility, at local, regional and international scales, and has benefitted from substantial transport investment in recent years. Kings Cross is one of the most accessible and connected locations in Europe.
- (69) I have gained exposure to this project through my recent studies in London, including multiple visits, a guided tour and meetings/presentations with the developer.
- (70) As context for the yields and density shown below, the Master Plan includes 17 residential buildings, and 22 office buildings. The strict planning control formed by identified view corridors to St Paul’s Cathedral from elevated points to the north meant that most buildings were restricted to around 50m in height. However, the precinct was planned on ‘human city’ principles and is being delivered as a highly sought after residential and commercial location, with leading architects, high-end living and companies including Google and Facebook establishing headquarters there. The precinct has proven very successful in creating a new place and destination for events, gatherings and social activity in London.
- (71) Parallels with / relevance for Fishermans Bend:

¹¹ David Partridge, *Making Cities – Examples of Urban Development in London*. Council on Tall Buildings and Urban Habitat – Research Paper, 2015.

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcperson@globalsouth.net.au

www.globalsouth.net.au

- Prevailing mid-rise scale;
- High-quality public realm, delivered early;
- Balance of residential and commercial, with extensive retail;
- Aspirational vision/principles established at outset, though consultative process.

(72) Differences to Fishermans Bend:

- High-level transport infrastructure/accessibility in place;
- No higher-rise development;
- Single developer.

2.3.2 East Village, Olympic Park, London

(73) This regeneration project was established by/for the 2012 Olympics, and construction continues today. It comprises a residential-focused precinct of mainly mid-rise buildings, as well as the adjacent Stratford City ‘International Quarter’ of higher-scale buildings with a commercial focus.

(74) I have gained exposure to this project through my recent studies in London, including multiple visits, a guided tour and a lecture/presentation by the Development Corporation.

(75) The plan reflects a ‘village garden-type district’ reflecting the qualities of Victorian west London. Each of the 67 blocks is between 8-12 storeys in height, with lower levels comprising 2-3-storey townhouses and 1-3-storey shops and offices. Housing ranges from Studio to 5-bedroom, with a mix of low-cost and private apartments¹².

(76) Parallels with / relevance for Fishermans Bend:

- Prevailing mid-rise scale, perimeter block typology, with some higher buildings;
- Defined cluster of higher built form and commercial focus;
- Mid-rise building height proportional to street width;
- Aspirational vision/principles established at outset, though consultative process;
- Delivered by the private sector, multiple developers, long-term implementation (ongoing);
- Diverse housing;
- New school, sports facilities, open space and other community infrastructure being delivered.

(77) Differences to Fishermans Bend:

- Established through major Olympics investment;
- High-level transport infrastructure/accessibility implemented in parallel (Stratford International Station, high speed connection);
- Delivered through independent implementation body (London Legacy Development Corporation).

2.3.3 Hafencity, Hamburg¹³

(78) This waterfront regeneration project on former ports land in a central location is considered a benchmark of sustainable urban development. High ecological standards have been applied throughout.

¹² Wikipedia, *East Village, London*, https://en.wikipedia.org/wiki/East_Village,_London#cite_note-eArch-2

¹³ Hafencity website <http://www.hafencity.com/en/overview/hafencity-development-facts-and-figures.html>

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

- (79) I have not visited this project, but have gained limited exposure to it through my recent studies in London.
- (80) The whole area is raised 8-9m above sea level, except the promenades and quays.
- (81) The project is based on a flexible masterplan which is continually updated and refined as part of an ongoing development process.
- (82) It comprises various districts with distinct identities. The western and central HafenCity are more intensively urban in character, with the three eastern neighbourhoods focussed on living and leisure, creativity and culture, and business and housing respectively.
- (83) HafenCity has attracted some 10 billion Euros (\$AU16 billion approximately, at today's conversion) in private investment, with 3 billion Euros (\$AU4.8 billion) in public investment.
- (84) Parallels with / relevance for Fishermans Bend:
- o Prevailing lower-mid-rise scale;
 - o Precinct-wide integrated flood protection (see discussion below);
 - o Inner-urban location, adjoining CBD;
 - o High sustainability aspiration and targets;
 - o Distinct neighbourhoods/character areas informing built form and land use.
- (85) Differences to Fishermans Bend:
- o Smaller city, presumably lower growth rate;
 - o Single governing body.

2.3.4 Hammarby Sjostad, Stockholm ¹⁴

- (86) This project is a large, former industrial waterfront site, 5km from the city centre, with relatively high-density apartment housing built next to open park or water spaces, all centred on a single spine road and tramway. It is “extraordinarily attractive to affluent middle-class households with young children, for the communal atmosphere and easy access to jobs and services”¹⁵.
- (87) I have not visited this project, but have gained limited exposure to it through my recent studies in London.
- (88) The precinct was designed on “compact green city” principles, with an urban density comparable to the city centre. A key focus is the application of ‘closed loop’ sustainability principles encompassing district heat, waste and water recycling. It incorporated technical innovations through a rigorous masterplan, and drove innovation by harnessing competition between developers¹⁶.
- (89) The land was originally privately owned, but bought back by the city government, then sold or apportioned to developers. Stockholm is a smaller city than Melbourne (2.3 million in metropolitan area), and presumably has lower growth rates currently.
- (90) Parallels with / relevance for Fishermans Bend:

¹⁴ Future Communities, *Building a ‘Green’ City Extension*, at <http://www.futurecommunities.net/case-studies/hammarby-sjostad-stockholm-sweden-1995-2015>

¹⁵ Peter Hall, loc cit, p. 280-1.

¹⁶ FutureCommunities.net, *Building a ‘green’ city extension*, <http://www.futurecommunities.net/case-studies/hammarby-sjostad-stockholm-sweden-1995-2015>

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

- Prevailing lower-mid-rise scale;
- Precinct-wide integrated water management;
- Inner-urban location, adjoining CBD;
- High sustainability aspiration and targets.

(91) Differences to Fishermans Bend:

- Smaller city, presumably lower growth rate;
- Single governing body.

2.3.5 Wembley Park, London¹⁷

(92) This large redevelopment project adjacent to Wembley Stadium is approximately half-way through its 20-year implementation.

(93) I have gained extensive exposure to this project through my recent studies in London, including multiple visits, guided tours, lectures/presentations by the developer, and a 4-month engagement and investigation project for the developer.

(94) It is being delivered by a single developer, and all housing will be retained by the developer, for institutional rent through a centralised rental company, owned by the developer.

(95) The built form is predominantly mid-rise (4-10 levels), with provision for greater height to approximately 20 levels in defined locations, with a prevalence of perimeter block-type buildings, and a grid-based street network.

(96) Parallels with / relevance for Fishermans Bend:

- Prevailing upper-mid-rise scale, with some high-rise;
- Master Plan seeking diversity and integration with established diverse surrounding neighbourhoods;
- Long-term implementation.

(97) Differences to Fishermans Bend:

- Greater separation from central city (21km from City of London)
- High-level public transport in place (Underground and buses);
- Existing major events facilities (stadium and arena);
- Single developer and landholding;
- Innovative tenure model (build-to-rent).

2.3.6 IJBurg, Amsterdam

(98) I have visited this project during its development, in approximately 2004.

(99) It is a recent housing-focussed development on re-claimed land in Amsterdam's harbour, which effectively expands the central city area.

(100) Parallels with / relevance for Fishermans Bend:

- Prevailing mid-rise scale;
- Inner-urban waterfront location;

(101) Differences to Fishermans Bend:

- New land created with dedicated Master Plan;
- Distinct cultural context regarding transport and housing.

¹⁷ Wembley Masterplan – Supplementary Planning Document, June 2009

2.3.7 Canary Wharf, London

(102) I have visited this precinct on multiple occasions, including during my recent studies in London.

(103) It was delivered by a single developer and is recognised for predominantly commercial office uses and relatively tall buildings. I understand that Europe's tallest residential tower is currently under construction at Canary Wharf, at approximately 235m.

(104) Parallels with / relevance for Fishermans Bend:

- Prevailing high-rise scale, with some mid-rise;
- New public transport infrastructure (Underground Jubilee line extension and new Station) was essential to the development.

(105) Differences to Fishermans Bend:

- Predominantly commercial focus, but with residential uses developing recently;
- Greater separation from city centre;
- Single developer/landholding;
- The area was initially declared an Enterprise Zone, which I understand provided relaxed planning controls and other incentives to private sector investment and development.

2.3.8 Paddington, London

(106) I have visited this precinct on multiple occasions, including during my recent studies in London.

(107) It is characterised by recent commercial development, supported by Paddington Station and the Heathrow Airport Express train, as well as Underground trains.

(108) It is situated on a junction of two major canals, and its public realm benefits from this interface.

(109) Built form scale is predominantly mid-rise, up to approximately 12 levels.

(110) Parallels with / relevance for Fishermans Bend:

- Prevailing upper-mid-rise scale;
- Commercial focus in central area;
- Surrounding established residential neighbourhoods.

(111) Differences to Fishermans Bend:

- High-level public transport infrastructure in place;
- Existing amenity provided by canal frontages;

2.3.9 Potsdamer Platz, Berlin

(112) I have visited this precinct on multiple occasions, including during my recent studies in London. It was fully re-built after Germany's reunification, including a new train station.

(113) The built form is predominantly mid-rise with a mix of residential, commercial and entertainment functions, with distinct high-rise building forms at the major intersection.

(114) Parallels with / relevance for Fishermans Bend:

- Mix of mid-rise and high-rise buildings;
- Precinct-wide integrated water management;
- Inner-urban location, adjoining CBD;
- High sustainability aspiration and targets.

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcperson@globalsouth.net.au

www.globalsouth.net.au

(115) Differences to Fishermans Bend:

- Significantly smaller area;
- Supported by new train station built in parallel to redevelopment.

2.3.10 Battery Park City, New York

(116) I have not visited this project.

(117) The master plan was implemented over 30 years, and encompasses a “return” to a “streets-and-blocks” approach centred on attractive public spaces. It contains a range of building heights, including buildings of 22, 32 and 43 levels¹⁸.

(118) The master plan was developed to be both innovative and appealing to developers. It includes a central commercial hub, with residential buildings extending to the north and south along boulevards. 30% of the site was reserved for public space. It enjoys a 2.4km long waterfront.

(119) Criticism includes a lack of diversity (it is primarily inhabited by upper-income residents), and uninspired architectural design. Further, it is reported that “the block-wide parcel sizes can make even the low-rise buildings seem over-scaled”, and the area lacks the dynamism of places that have developed over time¹⁹.

(120) Parallels with / relevance for Fishermans Bend:

- Range of building heights;
- Central commercial ‘core’ or hub;
- Large development blocks (noting Fishermans Bend encompasses a range of block sizes);
- Multiple developers;
- Long-term implementation through a master plan;
- Extension of central area of a large and growing city.

(121) Differences to Fishermans Bend:

- Direct waterfront setting;
- Reclaimed land, with planned block/parcel structure for master plan purpose.

2.3.11 Comparative tables

(122) Table 1 (below) sets out comparative size, yield and density figures for the above projects, alongside Fishermans Bend, for the purposes of comparing density and Floor Area Ratio figures with potential built form and urban design outcomes. Table 2 provides additional comparisons of Plot Ratio (Floor Area Ratio) between some of the abovementioned developments.

(123) I assume the site area figures in these tables reflect gross development areas (so including streets and local open spaces), because they are based on analysis of development outcomes. However, I acknowledge that comparisons of densities and other development data between international projects can be affected by varied measurement methods and assumptions, and so these comparisons are provided for indicative purposes only.

¹⁸ Carl Yost, *Battery Park City: It's a Wrap*, Architectural Record, September 2011, at <https://www.architecturalrecord.com/articles/2299-battery-park-city-it-s-a-wrap?>

¹⁹ Ibid.

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

Table 1: Comparative data for identified benchmark projects (various sources as referenced above and below). Images at Appendix 1.

	Fishermans Bend (excluding Employment Precinct)	HafenCity, Hamburg ²⁰	London Olympic Village ²¹ ²²	IJburg, Amsterdam ²³	Kings Cross, London ²⁴	Hammarby Sjostad, Stockholm ²⁵	Wembley Park, London ^{26 27} ²⁸
Land area	248ha	127ha	27ha	455ha	25.7ha	130ha (developed area)	34.4ha
Residents	80,000	12,000	5,636*	36,000*	4000*	24,000	20,000**
Dwellings	36,900	7,000	2,818 (+2000 market homes) – first stage	18,000	2,000	11,000	7,000
Affordable housing	6%	1,500-2000 (21%-29%)	1,379 (49%)	30%	40%		Benchmark 40% (60% social rent, 40% shared ownership); Stage 1: 1,400 out of 3,727 (37.5%)
Resident density (ppl/ha)	323	55	209*	79*	156*	150	581*
Dwelling density (dw/ha)	149	110	104	74 (average, as published); 40 (as calculated)	78	85	203
Jobs	40,000	44,958	-	-	-	10,000	8,640
Jobs density (jobs/ha)	161/ha	354/ha	-	-	-	67/ha	251/ha

²⁰ Hafencity website <http://www.hafencity.com/en/overview/hafencity-development-facts-and-figures.html>

²¹ David McManus, *London Olympics Village: Architecture*, at <https://www.e-architect.co.uk/london/london-olympics-village>

²² Wikipedia, *East Village, London*, at https://en.wikipedia.org/wiki/East_Village,_London

²³ Vanessa Rutgers, *Amsterdam IJBURG – urban guest in nature*, 2015, at https://issuu.com/blogwerk/docs/ijburg_a4-final.20mb

²⁴ David Partridge, *Making Cities – Examples of Urban Development in London*. Council on Tall Buildings and Urban Habitat – Research Paper, 2015.

²⁵ Hammarby Sjostad Site Facts and Case Study, at https://www.itdp.org/wp-content/uploads/2014/07/20.-092211_ITDP_NED_Hammarby.pdf

²⁶ Quintain, Wembley Park at <http://www.quintain.co.uk/wembley-park>

²⁷ Wembley Masterplan – Supplementary Planning Document, June 2009

²⁸ Quintain, Wembley Park Masterplan, at <http://www.quintain.co.uk/wembley-park/masterplan>

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcperson@globalsouth.net.au

www.globalsouth.net.au

FAR	2.1-8.1	3.7-6.1	-	-	3.1:1	1.2-2.3 across entire TOD district ²⁹	-
Land use mix	-	-	Nearly 1000 3-4-bed homes (35%)	30% social housing, 40% medium range, 30% high-end. 100,000sq.m office, 30,000sq.m retail, 80,000sq.m community facilities	Approx. 10% retail/restaurant; 20% arts/education/leisure; 14.2ha public realm	-	Extensive retail, comm, ent'ment

* = Estimated, based on assumed average 2 persons per dwelling.

- = Data not available

** = This figure is understood to include significant student housing which is being provided at Wembley Park

(124) Other Plot Ratio measurements for recognised international redevelopment projects are provided below. I understand Plot Ratio to be equivalent to Floor Area Ratio³⁰.

Table 2: Comparative plot ratio and building height measures for benchmark projects³¹

	Site area (ha)	Site coverage	Mean no. of storeys	Plot ratio
Kings Cross, London	25.7ha	45%	8.9	3.1
Canary Wharf, London	34.8ha	35%	19.0	4.7
Paddington, London	18.2ha	32%	11.3	3.7
Potsdamer Platz, Berlin	10.4ha	50%	11.3	3.4
Battery Park City, New York	37.0ha	39%	16.5	4.9

²⁹ China Development Bank Capital, An Urban Development Case Study of Hammarby Sjöstad In Sweden, Stockholm, at <http://energyinnovation.org/wp-content/uploads/2015/12/Hammarby-Sjostad.pdf>

³⁰ Wikipedia, *Floor area ratio*, at https://en.wikipedia.org/wiki/Floor_area_ratio

³¹ David Partridge, *Making Cities – Examples of Urban Development in London*. Council on Tall Buildings and Urban Habitat – Research Paper, 2015.

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcperson@globalsouth.net.au

www.globalsouth.net.au

(125) These international examples demonstrate the general range of average Plot Ratio (FAR) figures across inner-city redevelopment areas which display a range of medium-rise and high-rise built form (in line with the vision for Fishermans Bend - refer images at Appendix 1). These locations may be aligned with the vision for different parts of Fishermans Bend, as follows:

- o Kings Cross is strongly transport-oriented with a defined arts/cultural focus, and may be likened to the vision for Wirraway core;
- o Canary Wharf is recognised for tall buildings and is a “premium” commercial centre, in line with the vision for Sandridge Core Area, with an average of 19 storeys;
- o Paddington is a mixed mid-rise commercial precinct with attractive public realm and excellent transport access, and may be aligned to the vision for Montague;
- o Potsdamer Platz is unique but integrates entertainment functions, public realm and mixed built form, in relation to the vision for Montague or Sandridge;
- o Battery Park City may be likened to the vision for Lorimer, or for Wirraway Core, as a waterfront urban development with significant open space.

(126) It is therefore pertinent to compare example FARs more specifically to Fishermans Bend Precincts, as follows:

Table 3: Proposed FAR controls, aligned to relevant case study projects

		FAR	Example aligned with vision:	FAR
Wirraway	Core	3.1	Kings Cross	3.1
	Non-Core	1.6		
Sandridge	Core	6.1	Canary Wharf	4.7
	Non-Core	2.5		
Montague	Core	4.6	Paddington	3.7
	Non-Core	2.3		
Lorimer	Core	4.0	Battery Park	4.9

(127) The specifics of FAR measurements in relation to on-site open space and streets, for example, may vary, as noted above. For example, the Fishermans Bend FARs apply to developable sites and do not include existing streets or open spaces, but it is not clear whether the above project FARs include or exclude streets. However, I consider the above indicative analysis a useful reference in considering the proposed FARs for Fishermans Bend.

(128) Fishermans Bend FARs reflect a range, spanning from well below these international project averages, to well above them. The average FAR in Fishermans Bend is identified as 3.4:1 in the Urban Design Strategy (based on 80,000 residents and 40,000 jobs), which is relatively modest by the above comparisons. However, the Precinct-specific FARs appear to generally align with relevant international examples, at this indicative level of analysis.

Comparison of FAR in other locations

(129) In considering the appropriateness of the proposed FAR controls from an urban design perspective, I have not carried out built form testing of the proposed FARs or alternative FARs in preparing this Statement. I am informed by comparisons of FAR controls in

Global South Pty Ltd

PO Box 565 Elwood VIC 3184 M. +61 (0)448 201 344
 ACN 123 980 781 T. +61 3 8669 1766
 ABN 81 123 980 781 E. simon.mcpherson@globalsouth.net.au

other cities, and by 3D modelling in Ms Hodyl's evidence, and investigative 3D model analysis carried out by City of Port Phillip officers, which I have been briefed on, but have not received. The following comparison to other locations extends the consideration of international project FARs set out above.

- (130) The *Melbourne Central City Built Form Review – Comparative Planning Controls Report* (April 2016) references allowable FARs in comparable city locations, which range from 6:1 to 16:1. Australian/New Zealand cities referenced are:
- Sydney Central City: 8:1 mandatory
 - Perth: Citi Place and St Georges Precinct: 6:1 mandatory
 - Auckland downtown: 9:1 mandatory
- (131) These cities also provide for Allowable Floor Area Uplift as follows:
- Sydney Central City: mandatory for each available item, no maximum stated;
 - Perth: Citi Place and St Georges Precinct: mandatory up to 20% or 50%;
 - Auckland downtown: mandatory up to 4:1.
- (132) Ms Hodyl's evidence compares the proposed base FARs with other Australian locations (Figure 5), demonstrating that they are "higher than most other central city precincts" (p.31).
- (133) Based on these comparisons, and the international references above, I consider the proposed Fishermans Bend base FARs to be reasonable in comparison to other relevant central city locations and urban renewal projects.
- (134) Based on this indicative analysis, and pending further consideration of the FAU potential and built form implications, and the proposed built form controls:
- I am comfortable that the FARs as proposed generally align to the built form vision for Fishermans Bend;
 - There is scope for additional floor space based on FAR comparisons, and this opportunity is provided through the FAU provisions;
 - Analysis of 3D built form testing, below, provides further context for consideration of the FARs.

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

3.0 Review of the built form controls

3.1 Floor Area Ratio

3.1.1 Investigation of the basis of the FAR controls

Basis of population projections

- (135) Technical Fact Sheet 5 points out that the residential population projection of 80,000 people for Fishermans Bend provides a density comparable to the projected densities of the Hoddle grid and Southbank, and “takes into account” proposed infrastructure provision. This projection results in an average residential density of 323 residents/gross hectare, which I derive to equate to 149 dwellings per hectare average, based on 22.17 people per dwelling. The distributed densities by Precinct, in Clause 22.15, range from 131 to 311 dwellings per hectare.
- (136) Ms Hodyl’s evidence confirms that the 80,000 population originally derives from the first Draft Vision in 2013, and has informed planning work since then. This figure has direct implications for built form outcomes, as explained below.
- (137) It is very difficult to assess the suitability of this figure for Fishermans Bend, because the physical manifestation of it is uncertain, the number may well be exceeded, as discussed below, and the built form outcome will result from other land uses as well as residential.
- (138) In the discussion of ‘compact’ urban form, density is an essential consideration, and determines the balance between ‘making the most’ of land, infrastructure and resources, while maintaining amenity, functionality and liveability. Establishing appropriate density is therefore a central challenge for urban renewal.
- (139) The New (Draft) London Plan (Policy D6) moves away from recommending specific density figures based on locational characteristics, and instead requires new development to “optimise density”, making the most efficient use of land, using a design-led and evidence-based approach to determine the capacity of the site, considering the context, connectivity and accessibility, and capacity of surrounding infrastructure. This Policy states that:
- The density of development proposals should be based on, and linked to, the provision of future planned levels of infrastructure rather than existing levels;
 - The ability to support proposed densities through encouraging active travel should be taken into account;
 - Where there is currently insufficient capacity of existing infrastructure to support proposed densities... ensure that sufficient capacity will exist at the appropriate time;
 - In exceptional circumstances, development (may be) contingent on the provision of the necessary infrastructure and public transport services.
 - Higher density developments are subject to higher design quality scrutiny.
- (140) This approach reinforces the connection between development density and infrastructure capacity, and works to both encourage higher density where the site/location can accommodate it, while also restricting development where infrastructure capacity is limited, or until it can be enhanced.
- (141) While I support this principle, which seeks optimisation of land use and efficiency, and requires the demonstration of the alignment of development with context and infrastructure, it derives from a different context to Fishermans Bend, in which I

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

understand (through my recent studies) that the limited availability of land is placing significant pressure on housing supply. Adoption of a similar approach would presumably require clarity on the timing and form of planned public transport infrastructure.

- (142) The projected average density for Fishermans Bend of 323 people/hectare allows comparisons as follows:
- Comparable with Southbank, Melbourne (308 people/hectare, projected to 2036), and Southbank is clearly developed to quite high density, with many tall residential towers;
 - Significantly higher than Docklands, which contains a variety of residential building types, including townhouses, but also extensive employment/commercial space;
 - Comparable with the CBD, which has much higher employment levels, and excellent public transport access;
 - The Southbank Structure Plan Background Report (AECOM, 2009) compares densities in a range of places, including:
 - Coin Street, London Southbank: 200 people/ha;
 - Borneo Sporenburg, Amsterdam: 200 people/ha;
 - Battery Park, New York: 240 people/ha;
 - Eixample, Barcelona: 351 people/ha.
 - The average density across London of new housing approvals in 2015/16 was 154 dwellings/ha (estimated 308 ppl/ha), while the highest average was in Tower Hamlets LGA at 488 dw/ha (estimated 976 ppl/ha), which includes Canary Wharf and part of the Queen Elizabeth Olympic Park.
- (143) If the ultimate population in Fishermans Bend reached 150,000, as has been identified as a potential in Ms Hodyl's evidence, the average density of residents would be 605 ppl/ha. The Urban Design Strategy identifies the imperative to keep residential densities below 500 people per hectare (p.43),
- (144) The above international comparisons are provided to indicate the types of built form which align with the Fishermans Bend Vision, and the corresponding densities and Floor Area Ratios as available, to inform consideration of the appropriateness of these settings for Fishermans Bend.
- (145) I consider the density and FAR provisions for Fishermans Bend to be reasonable and appropriate in this context, given that they span the range of average FARs of the comparison projects, and support a range of built form outcomes, based on these comparisons. The built form implications are explored further below.
- (146) These comparisons do not provide a basis for reliably determining the appropriateness of the projected residential population for Fishermans Bend, or for assessing whether this projection reflects 'optimising' the land available.
- (147) I recognise that planning for open space and community infrastructure is aligned to this projected population. I am not aware of whether the potential public transport infrastructure is also aligned to this projection, or if it could accommodate a higher population (noting that the population may eventually exceed the projected 80,000).
- (148) I accept that a residential population of 80,000 reflects an appropriate balance of urban intensification and infrastructure provision, based on the extensive background work to this Amendment. I will further consider the built form manifestation of this basis later in this Statement.

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcperson@globalsouth.net.au

www.globalsouth.net.au

- (149) The proposed population density is relatively high based on the indicative comparisons to international projects above, although Wembley Park, for example, reflects a higher density, but in a different context, like all the other comparison projects.
- (150) I also acknowledge that some locations and sites can accommodate higher densities than those proposed, even at mid-rise scale, with successful urban design outcomes.
- (151) As an example, I provided urban design advisory inputs to the Eden, Haven and Sanctuary development in Abbotsford (405 dw/ha, 9-11 levels, 67% site coverage, as shown in the Urban Design Strategy p.61), which I consider a successful outcome, with significant public realm/open space between buildings. I am not aware of the housing type mix for this project, but would presume the proportion of 3-bedroom units is relatively low. The residents density is presumably in the order of 600 ppl/ha.
- (152) In principle, it is my opinion that the urban renewal opportunity at Fishermans Bend should be optimised, by accommodating as many people and jobs as possible, while maintaining liveability, accessibility and service provision standards, and a high quality, amenable built environment and public realm.
- (153) I will return to the matter of the population target later, in my review of the built form controls and potential built form outcomes that result from the proposed FARs.

Method for deriving FARs

- (154) The projected residential population, along with several assumptions, forms the basis for determining the proposed Floor Area Ratio controls, as follows:
- The 80,000 projected population is used to calculate a total number of dwellings – 36,900 at 2.17 people per dwelling;
 - This total is reduced by 90% of the number of dwellings already approved or delivered (assuming 90% of approved dwellings will be delivered);
 - This number of dwellings, with an average dwelling size (floor area) based on identified proportions of 1/2/3/4 bedroom units, and assumed average size of these units, generates a total floor area (Gross Floor Area) requirement. I understand the relative proportions of apartment types/sizes is based on DELWP demographic projections;
 - The Gross Floor Area calculation includes 25% non-sellable space added on (for corridors etc), which equates to 80% building efficiency (e.g. 100sqm dwelling + 25% = 125sq.m, 100sq.m of which is sellable, or 80%). I consider this a reasonable assumption, but buildings can be more efficient than this;
 - Commercial floor space is also included, based on accommodating the projected 40,000 jobs;
 - The combined Gross Floor Area for residential and job targets is distributed across the developable sites (excluding those with current permits), based on:
 - Distribution of population between Precincts, and between core and non-core areas, informed by the Vision for each precinct;
 - Assumption that 75% of all land will be developed by 2050, so FARs or floor space allocation to 75% of developable land is increased to meet the population targets by 2050, to allow for the assumed 25% of land that will not be developed (by 2050);
 - This spatial allocation of floor space is used to calculate the FARs, by Precinct and Core/Non-Core areas.

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcperson@globalsouth.net.au

www.globalsouth.net.au

3.1.2 Assessment of the method for determining FARs

- (155) There are several acknowledged assumptions applied here, which warrant further consideration of the built form implications of other potential outcomes:
- If more than 75% of sites are developed by 2050, or if ultimately more than 75% or even 100% of sites are developed at some point beyond 2050;
 - If more than 90% of current approvals are delivered;
 - If the assumed (preferred) mix of different apartment sizes was not delivered, creating a smaller average size, allowing for more dwellings within the total floor space;
 - If greater efficiency than 80% can be achieved in buildings, potentially allowing developments to accommodate more dwellings with the FAR.
- (156) As Ms Hodyl's evidence confirms, the FARs are directly aligned with the population target, but do not limit growth to this number, because the other 25% of developable land provides extra capacity. Ms Hodyl's evidence notes that with the FAU provisions for affordable housing (discussed below), up to 150,000 residents may be accommodated (if affordable housing provision is 'capped' at the target of 2,214 (6% of 36,900) – almost double the projection. This could increase significantly further through FAU for community infrastructure and public open space. Ms Hodyl also confirms that the population target of 80,000 is aligned with infrastructure planning for this area.
- (157) This potential variation in the ultimate population may result in significant variation in built form outcomes, relative to that accommodated by the proposed FRA settings, through increased development floor space. This also has potential negative consequences for infrastructure provision.
- (158) While the method applied is logical and deterministic, the number of compounding variables serve to undermine the methodology, and by extension, potentially the built form framework and infrastructure planning. If the assumptions are incorrect and development occurs more rapidly and extensively, the built form outcomes may divert significantly from that envisaged in the vision.
- (159) There is an inherent and supportable logic in establishing the required floor space, distributing this appropriately according to the preferred character of each precinct, and utilising this total to inform the built form controls, in providing for, and limiting development to, the projected population. However the 'openness' of the actual outcome appears to challenge the logic of the approach. This assessment is extended after consideration of the FAU provisions, below.

3.1.3 Assessment of proposed FARs

- (160) Before considering the built form implications further, it is necessary to consider the appropriateness of the FAR provisions themselves, through consideration of the potential built form outcomes that result. My consideration of the FAR provisions is based on comparison with FAR controls for other relevant locations, and consideration of 3D modelling work by Ms Hodyl.
- (161) In assessing the FAR controls, I accept the distribution of population by Precinct and core/non-core areas as proposed, and the allocation of people per household rates by Precinct, which reflect a clear logic of larger households in Wirraway, and smaller in Lorimer.
- (162) The Urban Design Strategy affirms that densities which are too high can result in congestion, overcrowding, compromised liveability and a poor quality public realm. I

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

support this assertion, but cannot place a definitive maximum density or total development potential reflecting a suitable threshold of liveability.

(163) The proposed FARs are mandatory (CCZ1), as shown in Table 3, below, unless:

- o In core areas, additional floor space is non-residential (so, commercial is unlimited in core areas);
- o In core and non-core areas, a public benefit is provided, and the Uplift is calculated in agreement with the Responsible Authority.

Table 4: Proposed FAR provisions

	Core max. FAR (mand.)	Core max. FAR (rec'd Hodyl evidence)	Core min. non-resi (disc./preferred, within total FAR)	Non-resi. proportion of total (disc.)	Non-core max. FAR (mand.) (Hodyl evidence)	Non-core max. resi (UD Strategy/Hodyl evidence)
Wirraway	4.1:1	4.1:1	1.9:1	46%	2.1:1	2.0:1
Sandridge	8.1:1	7.4:1	3.7:1	46%	3.3:1	2.2:1
Montague	6.1:1	6.3:1	1.6:1	26%	3.0:1	2.8:1

(164) I support the following outcomes indicated by the above Table:

- o A wide range of FARs across the area, to support built form variation and distinction between Precincts/neighbourhoods;
- o Significant differentiation between core and non-core area FARs, supporting built form distinction and a clearly lower-scale built form in non-core areas (reinforced by the unlimited additional non-residential FAR in core areas);
- o Significant proportion of non-residential floor space in core areas, noting this is a discretionary provision. I note that Ms Hodyl has recommended that this be made mandatory.

(165) I understand that the intention of the Amendment is for the minimum non-residential FAR in core areas to be provided within the maximum total FAR, because the overall FARs have been calculated including commercial floor space, as set out in the Urban Design Strategy (p.75).

(166) The potential for development to utilise FAU to extend beyond the base FAR provisions, and the potential for additional commercial floor space in core areas above the FAR provision, means that the base FARs are not a strict limitation to potential built form outcomes.

(167) There is also potential for development in core areas to provide less than the preferred minimum commercial floor space, or to provide commercial floor space outside the FAR envelope, thereby increasing the potential built form mass, in addition to any further FAU floor space achieved through public benefits. I support the initiative to embed a significant component of commercial development in core areas, towards achieving the Vision.

(168) I acknowledge the potential building design complexities of achieving this balance, and support the provision of flexibility as provided in Clause 22.15-3. However, I note that the potential for future conversion of residential to commercial is limited, if apartments are individually owned.

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcperson@globalsouth.net.au

(169) The implications of the height and setback provisions on built form outcomes is therefore an essential consideration, given the potential variation allowed by the FAR/FAU provisions. This is explored further below.

3.2 Review of individual site testing (Hodyl evidence)

(170) I will utilise this review of Ms Hodyl's 3D modelling to consider the potential built form outcomes for the three Precincts within City of Port Phillip, to inform my assessment of the FARs.

(171) The notes below reference the 3d model testing in Ms Hodyl's evidence, as a guide to consideration of the appropriateness of the FAR controls in a range of locations. I have assumed that these models reflect:

- The maximum allowable 'base' FAR (but this is not stated);
- Reasonable building footprints in terms of 'buildability';
- Built form arrangements which comply with the proposed controls (setbacks, building separation), noting internal layouts have not been designed and these would inform setbacks and building separation;
- The extent of required car parking (presumably above-ground) has not been calculated or configured in the built form massing.

(172) I acknowledge that these are simple massing models, and do not reflect the design complexities of car parking provision, internal access for different uses, services and other building design matters, or the mix of uses and other formal/visual qualities. My assessments of these models do not fully address the site context and interfaces. Nonetheless, the models provide a useful indication of the development potential facilitated by the proposed FARs, and therefore the alignment of the built form potential with the vision for each precinct.

(173) The massing indicated by this testing illustrates one of many potential built form outcomes for each site. It is not practicable to definitively assess from these studies whether the massing reflects the 'optimal' density, or maximum acceptable built form, or whether the site could accommodate more (or less) development floor space.

3.2.1 Sandridge

Modelling review: 277-281 Ingles Street

(174) Sandridge core; 7.4:1 (minimum commercial 3.7:1 – revised as per Ms Hodyl's evidence); Unlimited height;

- Model indicates substantial development potential, reflecting an intensive, high-rise outcome above a podium base, commensurate with a central city-like location;
- Without understanding the specifics of this simplistic model such as building footprint sizes and tower separation, it reflects strong verticality and significant height, but lacks formal cohesion;
- I consider this a reasonable, acceptable urban design outcome, based on the limited information available;
- The scale is quite dramatic, but its impact is reduced by podium setbacks and space between buildings;
- Potential FAU opportunity could be significant, both in height and bulk of buildings (noting the overshadowing requirement). FAU is not shown in the illustration, but could comprise additional commercial and residential floor space;

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcperson@globalsouth.net.au

www.globalsouth.net.au

- There is potential for additional floor space while retaining an acceptable built form outcome in this unlimited height, core area setting. This could be achieved through FAU provisions.

(175) Alignment with the Precinct vision:

(176) I consider these aspects of the modelled form to be in alignment with the Vision for Sandridge Core:

- Dramatic vertical form, multiple tall buildings;
- Higher-rise emphasis, above continuous podium/base;
- Slender towers and formal variation for architectural diversity;
- Intensive development, significant height.

Modelling review: 501 Williamstown Road

(177) Sandridge non-core; 3.3:1; 4 storeys / 8 storeys;

- Model illustrates medium-scale courtyard/perimeter block development, which I consider appropriate in this interface setting;
- Modelling suggests limited potential for FAU, because the FAR built form is already at the height limit, and presumably the buildings cannot be widened significantly;
- Scale, layout and open space proximity reflects a potentially highly liveable location/development;
- Scale in the image is somewhat deceiving, in considering the 12m green link relative to the 30m high frontage building, but 8 levels are indicated by faint lines on the frontage;
- It is unclear whether commercial space is considered 'habitable' in a mixed-use setting in terms of building separation, but the space between the southern residential and commercial buildings appears to be less than the minimum proposed 12m separation;
- I consider the built form shown to be effective and appropriate for the location.

(178) Alignment with the Precinct vision:

- I consider these aspects of the modelled form to be in alignment with the Vision for Montague Core:
 - Transition down in scale towards the south;
 - Perimeter block building type, with enclosed courtyard, and buildings defining the street frontages;
 - Moderate mid-rise scale at 8 storeys, with lower height to southern interface;
 - Buildings in open space setting adjacent to North Port Oval, but with defined 'urban' character.

3.2.2 Montague

Modelling review: 123 Montague Street

(179) Montague Core; 6.1:1 (as per Amendment, but Ms Hodyl's evidence recommends 6.3:1); 12 storeys;

- I understand that the provision of new open space as required by the Framework effectively 'pushes up' the building scale to achieve the FAR;
- Ms Hodyl recommends height increase to 18 storeys to accommodate FAR. The model appears to show 17 rather than 18 storeys;
- I presume this change would apply between Buckhurst and Thistlethwaite Streets, either for the full block length, or as far east as the existing through-laneway;

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcperson@globalsouth.net.au

www.globalsouth.net.au

- While I consider this height acceptable in the context of a core area, on a major road, the transition across Thistlethwaite Street, from 8 storeys to 18 storeys, is significant, and a more incremental transition would be preferable;
- Therefore, I would recommend a more modest height of approximately 14-15 storeys in this location (despite the constraint on achieving the FAR);
- The wide building forms may cast significant shadows across Thistlethwaite Street at this height (but I have not tested this);
- The distance from Montague Street to the open space is 100m – I do not consider the intermediate through-link to be essential, but I support the break-up of the potentially long building form, in achieving the preferred character of ‘gritty streets and laneways’;
- This model indicates that the FAR for this area is appropriate and provides significant development potential.

(180) Alignment with the Precinct vision:

- I consider these aspects of the modelled form to be in alignment with the Vision for Montague Core:
 - Robust building form with moderate vertical scale;
 - Transition down in scale towards the south;
 - Contribution to network of laneways.

Modelling review: 235-243 Normanby Road

(181) Montague Core; 6.3:1 (revised as per Ms Hodyl’s evidence); 20 storeys;

- The modelling demonstrates potential for a mid-rise perimeter block-type development with single tower form up to 20 levels;
- The model demonstrates potential for significant height within the FAR, and I support the approach of a solid base to the site boundaries, at approximately 4-6 storeys, with punctuated taller form(s) above.
- I would consider a more predominantly mid-rise solution to be more appropriate, perhaps with elevated courtyard. The courtyard shown appears quite narrow and deep.
- I consider the FAR to provide adequate development potential on the site, from an urban design viewpoint.

(182) Alignment with the Precinct vision:

- I consider these aspects of the modelled form to be in alignment with the Vision for Montague Core:
 - Strong vertical form, combined with defined base and enclosed courtyard;
 - Robust building form;
 - Recessive profile to address solar access to Normanby Road;
 - Potential for integrated mix of uses in various building components;
 - Potential for diverse architectural expression in building components.

3.2.3 Wirraway

Modelling review: 50 Salmon Street

(183) Wirraway Core, 4.1:1, 12 storeys (noted as Unlimited, presumably in error);

- The built form indicated, as allowed by the FAR, appears appropriate given the requirement to avoid overshadowing to Plummer Street’s southern side (11am-2pm, equinox) and

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

- I consider the FAR of 4.1:1 to provide for sufficient development potential on this site, from an urban design viewpoint;
- FAU provisions and potential for additional commercial space would result in a larger built form, subject to overshadowing constraints;
- Subject to overshadowing testing, I would recommend a higher podium (6 storeys) and lower tower form, given the width of the adjoining streets.

(184) Alignment with the Precinct vision:

- I consider these aspects of the modelled form to be in alignment with the Vision for Wirraway Core:
 - Robust building base, with varied upper level forms;
 - Scale and setbacks to retina solar access to Plummer Street
 - Potential for distinct uses in podium and upper form.

Modelling review: 291 Williamstown Road and 1-9 Smith Street

(185) Wirraway Non-core; 2.1:1, 4 storey (mandatory at Williamstown Road) (noted as 6 storeys in the model image, with FAU extending to 6 storeys):

- I note that this is the only modelling study which incorporates Floor Area Uplift in the modelling;
- I agree with the submitter that a 4-storey height limit along Williamstown Road is restrictive, and could be discretionary, with a mandatory 4-storey street wall and upper level setback (as discussed further below), given the width of this road (approximately 30m), its heavy traffic load and the open space opposite;
- While 4-storey courtyard development is potentially highly amenable and family-friendly, it appears that this site could accommodate a larger development, up to 6-8 storeys, given the site depth of approximately 100m. I note the discretionary height control to the northern part of the site allows for increased height, as shown by the FAU component of the model.

(186) Alignment with the Precinct vision:

- I consider this form to be in alignment with the Vision for Wirraway non-core as follows, noting that my recommendation for a higher built form potential can still support the vision:
 - The lower-scale built form, defining the street frontages and enclosing an internal courtyard;
 - The form reflects a transition down in scale to the southern interface;
 - The built form scale and siting contributes to wide and open streetscapes.

Discussion

(187) The modelling discussed above indicates that generally the proposed FARs support achievement of the vision for each Precinct and Core/Non-core area, while reinforcing the limitations of this assessment, based on limited modelling of a small selection of sites.

(188) The potential for significant variation of built form outcomes through FAU provisions, but generally not shown in this modelling, suggests the potential for built form which may work against the vision and preferred character for each Precinct.

(189) Broader precinct modelling in Addenda 3 to Ms Hodyl's evidence illustrates the types of built form outcomes facilitated by the FAR controls, and suggested by the vision for each precinct.

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

(190) However, the limited modelling in Addenda 2 to Ms Hodyl’s evidence of FAU potential on selected sites, including Figures 15 and 16, illustrates the significant potential for FAU to drive substantially larger built form outcomes, in both Core and Non-core areas.

(191) While this example is for Sandridge, and building height provisions in other Precincts would be expected to limit the extent of FAU take-up, this modelling, in my opinion, reinforces the need for further built form testing, and potentially for a mechanism to limit the extent of FAU.

Recommendations

(192) While supporting the method and level of FARs, the provisions allow for significant potential variation in built form, beyond the base FARs. I would recommend further testing to fully understand what potential built forms might be achieved on various sites, and how these relate to the vision for each Precinct and area. That is, the potential outcomes under the FAR provisions, will in many or most cases not reflect the actual built form potential.

3.3 Floor Area Uplift (FAU)

(193) The proposed controls allow for a Floor Area Uplift provision, for development to exceed the applicable FAR, in exchange for provision of a community benefit, to incentivise the provision of affordable housing, community infrastructure and/or public open space.

3.3.1 Review of the application of FAU provisions

(194) The proposed mechanisms for establishing the potential additional floor area through FAU are set out in the Framework as follows:

- For every one affordable housing unit delivered, eight additional private dwellings may be constructed. Technical Fact Sheet 5 confirms that floor area for the affordable housing itself is not included in the FAR;
- For every 100sq.m of community infrastructure delivered, the equivalent value of additional residential floor area can be developed:
 - The definition of “equivalent value” is unclear, i.e. is it the construction cost of the community infrastructure, or associated land value, assessed at a particular time, and the sale value, construction cost or some other value measure for the residential floor space?
- For every 26sq.m of public open space delivered, the equivalent value of additional residential floor area can be developed:
 - The definition of “equivalent value” is unclear, i.e. is it the land value of the open space, assessed at a particular time, and the sale value, construction cost or some other value measure for the residential floor space?

(195) The GC81 explanatory note How to calculate Floor Area Uplifts and Public Benefits in Fishermans Bend applies the FAU as follows:

- Affordable housing: eight additional dwellings to each affordable housing unit:
 - While affordable housing is not defined in this context, it is required to be ‘gifted’ to a registered affordable housing association;

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

- Open space: one additional dwelling to the equivalent value of the public open space;
 - Community infrastructure: one additional dwelling to the equivalent value of the community infrastructure.
- (196) Clause 22.15 requires the Responsible Authority to consider proposed Floor Area Uplift and public benefits on a case-by-case basis, including calculation of the quality and value of the FAU, but does not explain how this should be done.
- (197) Clause 37.04 (CCZ1) requires that the public benefit and floor area uplift are calculated and specified in a manner agreed to and approved by the responsible authority.
- (198) CCZ1 also states that in core areas, additional floor space for non-residential uses may be developed (above the FAR), without an associated public benefit, so encouraging additional commercial space in core areas.
- (199) It is my understanding that the extent of additional floor space that may be leveraged through the FAU provisions is limited only by the applicable building height (predominantly discretionary) and setback provisions, as well as overshadowing controls in some locations. That is, there is not a specific 'cap' on additional FAR through the FAU mechanisms, and in core areas, additional non-residential floor space is also unlimited.
- (200) This presents potentially significant implications for built form outcomes, which will be considered further through assessment of the built form controls, below.

3.3.2 Monitoring and management

- (201) The Framework commits to an evaluation methodology to measure the progression of achieving the Fishermans Bend targets, with regular monitoring intervals to track progress.
- (202) While I support the recommendation to establish ongoing monitoring and evaluation processes to respond to progress in growth, density, population, employment and other factors, as also suggested in Ms Hodyl's evidence (page 27), it is unclear how this would affect or alter the delivery of FAU outcomes, or how this would be controlled.

3.3.3 Assessment of the FAU provisions

- (203) I support the application of FAU provisions as a mechanism to incentivise the provision of more diverse and affordable housing, open space and community infrastructure, if it is well thought-out and effectively applied.
- (204) I consider the FAU mechanism to be appropriate to Fishermans Bend, in combination with the FAR which serves to contain development, given the challenges for state or local governments to provide these facilities independently in Fishermans Bend, because of limited public landholdings.
- (205) However, the uncapped FAU provision is problematic in my opinion, because of the uncertain built form/development extent this potentially facilitates. Consideration of the potential built form controls as 'limits' to development, is therefore necessary.

3.3.4 Implications for built form

- (206) The 'open' nature of the potential for additional floor space (and so development massing) above the FAR, especially in core areas, combined with discretionary height controls, presents significant potential variation in built form outcomes from the FAR controls.

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcpherson@globalsouth.net.au

www.globalsouth.net.au

(207) It is difficult to speculate reliably on these built form potentials, but the imperative to increase floor space may lead to buildings exceeding the FAR limits, resulting in:

- Wider, bulkier building forms (but within the setback and separation limits);
- Taller buildings, and potential exceedance of the discretionary height controls;
- Prevalence of podium/tower typologies, because the mandatory street wall and setback provisions tend to lead to this.

(208) While some variation in built form outcomes is not necessarily problematic, an appropriate development outcome would rely on reasonable adherence to the height controls, noting my assessment of the height and setback controls is provided below.

(209) The mandatory setback provisions provide a degree of 'protection' to the public realm in terms of built form massing in relation to streetscapes and neighbouring buildings, and mandatory overshadowing controls also limit massing where open spaces are affected. However, the potential combined extent of development facilitated by the FAU provision requires further testing, in my opinion, in order to ensure that built form outcomes remain in alignment with the vision.

Recommendations

(210) While affordable housing, community infrastructure and open space planning are clearly beyond my expertise, it represents a significant built form and urban design implication in this case. Therefore I recommend:

- Analysis of the potential extent of additional development floor space, built form massing and residential population that could be achieved, if the supply of affordable housing is not 'capped' or stopped at a point in time;
- Consideration of an FAR limit or other form of limit to additional residential floor space (FAU) leveraged through affordable housing provision, to avoid the risk of significant development and population above the identified targets. For example, consider limiting the provision of affordable housing to a set proportion of total private housing being developed.
- Consider other mechanisms to drive housing diversity and affordable housing of various types, in association with the FAU incentive;
- Establish mechanisms to enable other forms of affordable housing, including, for example, institutional rent, rent controls or shared ownership;
- Implement a monitoring and response system, with clear mechanisms for ensuring the alignment of growth and development, affordable housing, community infrastructure and other infrastructure provision.

3.4 Dwelling density and dwelling size

3.4.1 Review of density controls

(211) The CCZ1 application requirements include explanation of proposed density with reference to the Local Policy, Clause 22.15 (Table 2), which provides maximum densities for core and non-core areas are set by the Local Policy.

(212) These are derived from the Urban Design Strategy, Table 13 (page 82). The densities by precinct and core/non-core areas are based on future Gross Developable Areas. I understand this to mean that the densities are directly aligned with the FARs, which are also based on GDA, and assumed dwelling sizes and inclusion of non-residential space:

(213) The origin of the FAR provisions is:

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcperson@globalsouth.net.au

www.globalsouth.net.au

- No. of dwellings (population / household size) x Average dwelling sizes + 25% NSA = Total residential floor area.
- Total floor area / GDA = Average FAR, which is then distributed across the area according to the precinct character and core/non-core areas.

The origin of the proposed density controls is:

- Total GDA / Total No. of dwellings (at assumed floor areas) = Average densities.

Therefore:

- Dwelling size is pivotal to determining the FAR;
- The density controls are precisely aligned to the FAR provisions.

Further:

- The Urban Design Strategy (page 98) states that “in general, the proposed FAR controls easily fit within the designated built form control, and that “in all instances, the built form envelope/controls are the overriding control over development outcomes, before FAR is considered”.

- (214) However, I understand that the FAU can occur above the proposed density controls (That is, FAU is not limited by the preferred densities), thereby reinforcing the risk of significantly expanded residential development, through uncapped FAU, given that the base FAR can generally easily fit within the built form envelope.
- (215) Technical Fact Sheet 5 explains that the application of maximum densities is intended to avoid developments providing excessive numbers of small dwellings, to accommodate more dwellings within the permissible FAR. Clause 22.15 states that the densities support achieving the overall population targets.
- (216) However, if the density limits are based on GFA this would then significantly restrict any FAU potential, because the FARs have been configured to meet the population targets. Further, if the average dwelling sizes are not achieved, the density controls (if applied) would potentially prevent even the FAR being achieved, because the maximum number of dwellings would occupy less than the FAR allowance.
- (217) I note that Ms Hodyl has recommended removing the maximum density provisions in the Local Policy, for reasons of overlap with the FAR density controls and preferred dwelling type mix provisions.
- (218) Clause 22.15 *encourages* developments of more than 300 dwellings to provide 20%-30% of 3-bedroom dwellings (depending on Precinct, but not core/non-core). The Urban Design Strategy threshold (recommended by Ms Hodyl) is developments of more than 100 dwellings or sites greater than 3,000sq.m.
- (219) Maximum densities can potentially provide a mechanism for limiting the extent of FAU in developments. However they would need to be adjusted to reflect a reasonable level above what could be achieved within the FAR allowances, based on reasonable assumptions about average dwelling sizes and mix.
- (220) In my view, it is not vital to apply maximum densities in order to achieve the vision, if the FAR and FAU potentials can be effectively managed, and a diverse mix of housing types and sizes can be achieved through the other provisions.
- (221) If maximum densities are not applied, and FUA is not otherwise capped, this presents a potential risk that substantial amounts of additional floor space and residential units could be delivered, if the FAU provision is sufficiently enticing from a commercial perspective. Potential built form implications of this potential include:
- Taller buildings and/or wider buildings;

Global South Pty Ltd

PO Box 565 Elwood VIC 3184
ACN 123 980 781
ABN 81 123 980 781

M. +61 (0)448 201 344
T. +61 3 8669 1766
E. simon.mcperson@globalsouth.net.au

www.globalsouth.net.au