

QUEENSLAND FLOODS
COMMISSION OF INQUIRY

STATEMENT OF PAUL LUCAS

I, **Paul Thomas Lucas**, of c/- Level 12, Executive Building, 100 George Street, Brisbane in the State of Queensland, Deputy Premier and Attorney General Minister for Local Government and Special Minister for State, solemnly and sincerely affirm and declare:

1. I make this statement pursuant to a requirement dated 25 August 2011 served on me to provide information to the Queensland Floods Commission of Inquiry.
2. On 21 February 2011 I was appointed Deputy Premier and Attorney General, Minister for Local Government and Planning and Special Minister of State.
3. In my current capacity as Minister, I have administrative responsibilities for local government and planning matters for all areas in Queensland. This includes planning under the *Urban Land Development Authority Act 2007* (ULDA Act), with the exception of the Tannum Sands Urban Development Area.
4. I was also the Deputy Premier and Minister for Infrastructure and Planning between 13 September 2007 and 26 March 2009. During this period I also had administrative responsibility for planning matters for all areas in Queensland, including the ULDA Act.
5. The decision to create the Urban Land Development Authority (ULDA) was formalised by a Cabinet decision on 3 August 2007. This was prior to my appointment as Deputy Premier and Minister for Infrastructure and Planning.
6. Pursuant to a decision by Cabinet on 20 August 2007 the ULDA Bill was introduced to Parliament (Cabinet Decision 7628, dated 20 August 2007).
7. The ULDA Act was passed by Parliament on 6 September 2007 and commenced on 27 September 2007. As stated above, I commenced my role as Deputy Premier and Minister for Infrastructure and Planning on 13 September 2007.

Background

8. The Queensland Government convened a Queensland Housing and Land Supply Forum in December 2006. The purpose of the Forum was to provide an opportunity to discuss key issues to determine a way forward in finding solutions and strategies to address housing affordability in Queensland. The Queensland Housing and Land Supply Forum was attended by representatives of housing, development and finance industries and senior level

representatives from State Agencies and Local Government including the Local Government Association of Queensland (LGAQ).

9. The key issues considered to be impacting on housing affordability and discussed at the Queensland Housing and Land Supply Forum included land availability; development assessment; infrastructure charging including innovative funding arrangements; building standards and codes. A discussion paper was provided to stakeholders leading up to the Queensland Housing and Land Supply Forum to assist discussions (**Attachment 1**). The outcomes of the Forum were used to inform the preparation of the Queensland Housing Affordability Strategy and the Delivering the Queensland Housing Affordability Strategy Greenfield Land Supply in South East Queensland (Attachment 2 and Attachment 3).
10. At the time, housing affordability was a key issue facing the State and was one of national significance. In 2007 the Urban Design Institute of Australia (UDIA) released a three part report on affordable home ownership in Australia. Part one of this report indicates that Queensland was subject to 'serious affordability constraints' (page 7). Furthermore, the median detached dwelling price in Queensland increased by 221 per cent from 2001 to 2006. This was above the total median increase in detached house prices across Australia across of 194 per cent (page 12) (Attachment 4).
11. The Queensland Housing Affordability Strategy was released on 25 July 2007 by the then Premier and Minister for Trade, the Honourable Peter Beattie MP and the then Deputy Premier, Treasurer and Minister for Infrastructure, the Honourable Anna Bligh MP, now Premier and Minister for Reconstruction (**Attachment 2**).
12. The intent of the Queensland Housing Affordability Strategy was to provide a strategic framework to improve housing affordability and provide a wide range of housing choices for Queenslanders. The strategy included a number of actions that would enable the market to respond more effectively to housing supply. These actions included the establishment of the Urban Land Development Authority.
13. The Delivering the Queensland Housing Affordability Strategy Greenfield Land Supply in South East Queensland identified committed areas (already appropriately zoned for urban purposes) and potential areas to bring forward development in the the short to medium term, subject to appropriate planning and infrastructure frameworks.
14. I am of the understanding that the areas identified in the strategy reflected the existing work undertaken by South East Queensland local governments either through the development of their *Integrated Planning Act 1997* (IPA) planning schemes, through extensive consultation during the development of the South East Queensland Regional Plan 2005-2026 and the Queensland Housing and Land Supply Forum.

15. As outlined by the then Deputy Premier, Treasurer and Minister for Infrastructure, the Honourable Anna Bligh MP, now Premier and Minister for Reconstruction, in her second reading speech, the key objectives of the ULDA Bill were to:

‘Improve the operation of the land supply pipeline from raw land to completed development; to improve the efficiency of the integrated development assessment system; to enhance the level of involvement of the Queensland government in the land supply pipeline; to improve the monitoring of the land supply; and to improve the operation, transparency and accountability of infrastructure funding and charges for new development’.

16. In accordance with section 3 of the ULDA Act the purpose of the ULDA Act is to facilitate the following:

- a) The availability of land for urban purposes
- b) The provision of a range of housing options to address diverse community needs
- c) The provision of infrastructure for urban purposes
- d) Planning principles that give effect to ecological sustainability and best practice urban design
- e) The provision of an ongoing availability of affordable housing options for low to moderate income households.

17. At the time of introduction, I am advised that the ULDA Bill was similar to existing planning models throughout Australia. State land development agencies in Australia include LandCom (NSW), VicUrban (Vic), Land Development Agency (ACT), City West Housing (NSW), Land Management Corporation (SA), Land Development Corporation (NT) and LandCorp (WA). I am advised that the ULDA model was considered most similar to the East Perth Redevelopment Authority model, as both entities have the ability to undertake statutory land use planning and assessment, and land development activities. However, I am advised that the ULDA also includes features from other models in Australia (Cabinet Decision 7628, dated 20 August 2011, clause 25).

18. I am also of the understanding that the delivery of priority areas does not solely rely on the use of the ULDA Act. Rather, Queensland’s planning system includes a variety of planning processes that can be adopted depending on individual circumstances.

Role of the ULDA

19. The ULDA’s role, as set out in Cabinet Decision 7848 (dated 19 November 2007, Attachment 1), is to facilitate the development of declared urban development areas to move land quickly to market in order to achieve housing affordability and urban development outcomes.

20. In accordance with section 96 of the ULDA Act, the main functions of the ULDA involve:
- Planning, development and managing land in urban development areas, for urban purposes;
 - Deciding UDA development applications; and
 - Coordinating the provision of infrastructure for urban development areas
21. The ULDA may also help the development of, or carry out development activities or services relating to land that adjoins an urban development area if it considers that doing so will help the ULDA's functions for the area (section 96(3) of the ULDA Act).

The ULDA Board

22. I was the Minister responsible for recommending to Cabinet the appointment of the initial ULDA board in 2007.
23. In accordance with section 106 of the ULDA Act and to ensure that the ULDA operates effectively, a high calibre team of qualified professionals committed to improving housing affordability and urban planning in Queensland were appointed to the ULDA Board.
24. The initial ULDA board established in 2007, comprised of the following members:
- a) [REDACTED] (Chair)
 - b) Mr Michael Kerry
 - c) [REDACTED]
 - d) [REDACTED]
 - e) [REDACTED]
 - f) [REDACTED]
 - g) [REDACTED]
25. The ULDA board was selected to make use of each member's individual expertise to ensure the board was supported by a variety of qualifications (Attachment 5).
26. I note that there have been changes to the board since the initial appointments.
27. Furthermore, for the entirety of its existence, Mr Paul Eagles has been the Chief Executive Officer of the ULDA. At the time of appointment, I am advised that Mr Eagles had 30 years experience in mixed use developments and projects with a diverse mix of housing in both local government and the private sector.

Process for declaration and Interim Land Use Plan

28. Section 7 of the ULDA Act requires the declaration of a UDA to be made by regulation. Section 8 of the ULDA Act also requires an interim land use plan to be made.
29. In response to item 1 of the Queensland Flood Commission of Inquiry's request, it is important to note that the Minister's role in deciding to declare a UDA and approve the associated interim land use plan is to seek endorsement of a recommendation to Governor in Council for the making of a declaration regulation.
30. Importantly, it is government policy that any proposed declaration and interim land use plan be submitted to Cabinet prior to being recommended to Governor in Council for the making of a regulation. As such, my decisions in relation to this matter are not final; they are decisions for government consideration and approval through the Cabinet process.
31. I am advised that in preparing the Cabinet submission, DLGP follows the process outlined in the Queensland Cabinet Handbook. Consultation is an essential part of the development of all Cabinet submissions, and must be held with all relevant agencies or organisations affected by the proposal.
32. Each Cabinet Minister is briefed prior to considering the Cabinet submission where their respective agencies have a view on the proposed declaration of the urban development area and its associated interim land use plan.
33. The government considers a number of criteria when deciding to declare a UDA, including land ownership, the growth and housing stress of the area, and the commercial viability of the potential project (Cabinet Decision 7848, dated 19 November 2007).
34. As outlined in clause 14, a number of UDAs were selected through an extensive consultation process including, but not limited to, the Housing and Land Supply Forum, the Housing Affordability Strategy and the South East Queensland Regional Plan 2005-2026 and 2009-2031.
35. For example, the Queensland Housing Affordability Strategy initially identified five sites that were expected to come under the control of the Urban Land Development Authority:
 - Bowen Hills
 - Northshore Hamilton
 - Fitzgibbon
 - Woolloongabba
 - Mackay Showgrounds
36. I am also aware that the declaration of other UDAs has been a result of independent investigations undertaken by the ULDA resulting in the resource

towns housing affordability program area which is intended to provide timely development of land and to provide key worker housing in those areas experiencing significant mining activity (Cabinet Decision 9931, dated 25 July 2011, clause 3).

37. A number of regional local governments expressed an interest in the use of the ULDA in their local government areas. I am of the understanding that this was in part due to the lack of resources and technical expertise available in these areas (Attachment 6).
38. I am of the understanding that the ULDA and DLGP consult with the relevant local government and industry stakeholders to determine whether an urban development area is appropriate.
39. As with many urban areas in Queensland, UDAs may include areas that have the potential to flood.
40. The expectation of government is that the planning process will proceed, in this instance by the ULDA, to ensure flood risks are mitigated and land uses are allocated appropriately. For example land uses that are not inconsistent with flooding are frequently allowed by local governments such as sporting fields and parks.
41. I have been responsible for recommending to Cabinet and Governor in Council the declaration of the following UDAs:
 - Bowen Hills, Brisbane (28 March 2008)
 - Northshore Hamilton, Brisbane (28 March 2008)
 - Fitzgibbon, Brisbane (25 July 2008)
42. The sites listed above had been subject to extensive planning studies prior to their declaration as UDAs, as outlined in subsequent sections of this statement.
43. For the declaration of the Bowen Hills, Northshore Hamilton and Fitzgibbon UDAs, I am advised that a State agency workshop was held to engage with State agencies. Following this, State agencies were required to provide the ULDA with State interest comments. An example of the consultation process undertaken at Fitzgibbon, held between 17 and 24 April 2008, is provided in Attachment 7.
44. As future regional plans come into effect across the State it is likely that these will also facilitate the identification of potential UDAs.
45. Although I have not recommended any subsequent UDA declarations to Cabinet, I am advised that as the ULDA practices have changed, in more recent times, to a discussion paper setting out the key characteristics and issues for a proposed UDA has been prepared and provided to State agencies. An example of the discussion papers, maps and associated correspondence

prepared for the then proposed Blackwater and Moranbah UDAs is provided at (Attachment 8 and Attachment 9).

46. I am further advised that this paper provides the basis for a whole of Government workshop convened by DLGP. I am informed that the ULDA is invited to present at the meeting, which involves an open dialogue between the ULDA and State agencies, allowing the opportunity for all parties to ask and respond to questions.
47. Following this initial meeting, I am advised that the ULDA and DLGP work in collaboration to determine suitable UDA boundaries, developing Government objectives to guide the planning and development of each UDA and preparing a draft interim land use plan. The ULDA then seeks comments on these proposals from all relevant State agencies, including DLGP.
48. As an example, the preparation of the interim land use plan for Fitzgibbon involved consultation with local government and State agencies, as outlined above.
49. At the time, I was advised that the Fitzgibbon interim land use plan largely reflected Brisbane City Council's existing planning requirements under the Brisbane City Council's Bracken Ridge and District Neighbourhood Plan. It is important to note that the interim land use plan only included a relatively small area of 'early release' precincts. These precincts followed similar development boundaries to that anticipated under the Bracken Ridge and District Neighbourhood Plan. I am advised that these precincts were selected as a result of the planning already undertaken through the Bracken Ridge and District Neighbourhood Plan which enabled the ULDA to lodge and assess development applications using similar provisions in the short term (Cabinet Decision 8250, dated 30 June 2008) (Attachment 10 and Attachment 11).
50. I am also of the understanding that the interim land use plan included consultation with the Department of Emergency Services who provide advice with respect to *State Planning Policy 1/03 Mitigating the adverse impacts of bushfire, flood and landslide* (SPP1/03), and in fact, was amended to reflect advice provided by this agency. This was attached to the Cabinet Submission that I progressed to Cabinet for its consideration following the completion of the actions described above (Cabinet Decision 8250, dated 30 June 2008, Attachment 7).
51. In the instances where I was involved with a declaration, a brief for decision, including the proposed Cabinet documentation was progressed by the then Department of Infrastructure and Planning (DIP) for my consideration following the actions completed the actions described above. In the briefs for decision provided by the then Department of Infrastructure and Planning issues relating to flood matters were not brought to my attention. However the supplementary Cabinet submission and attachments did address the consultation undertaken with State agencies as outlined in the following sections of this statement.

52. My role in this process was to endorse the brief for Cabinet consideration. The Cabinet process itself includes another round of consultation with State agencies prior to the matter proceeding to Cabinet. Ideally, all State agencies will resolve any outstanding matters prior to the matter being discussed at Cabinet.
53. The details of the other UDA declarations I have been involved in are detailed in the following clauses.

Bowen Hills

54. Bowen Hills is a strategic site in inner city Brisbane, given its proximity to public transport, public recreation and employment and entertainment precincts such as the Brisbane CBD, Fortitude Valley and Royal Brisbane Hospital.
55. I am of the understanding that the Office of Urban Management, and later the Transit Oriented Development Taskforce established under the *South East Queensland Regional Plan 2005-2026*, worked closely with a range of stakeholders, including Brisbane City Council and other State agencies to develop a master plan for this area, prior to the establishment of the ULDA. This included the Bowen Hills Transit Oriented Development Concept Plan and the Inner Northern Regeneration Precinct (**Attachment 12 and Attachment 13**).
56. I am advised that the above planning work identified and assessed a range of planning considerations, including flood issues associated with the area.
57. I am also advised that while the land use categories have been intensified under the interim land use plan, the extent of land proposed for urban development is similar to that proposed under the Brisbane City Council's planning scheme (Attachment 14 and Attachment 15).
58. Any new development, including industrial development, requires habitable rooms and non-habitable areas to have acceptable levels of flood immunity. I note that the interim land use plan did not include detailed requirements such as a freeboard height above the defined flood event (Attachment 16, page 23).
59. Although I was not the responsible Minister in relation to the final development scheme, I am advised that the final development scheme also includes provisions relating to flood immunity.
60. The flood mapping available suggests that the UDA did not flood substantially in the 2010-2011 flood event and furthermore, flooding was contained to the existing general industrial uses and public recreational areas identified in the development scheme, and the previous Brisbane planning scheme. I am of the understanding that no proposed residential areas of the UDA flooded. The extent of the flood water over the UDA is included in Attachment 17.

Northshore Hamilton

61. Northshore Hamilton was owned in part by the Port of Brisbane Corporation and in part either under the ownership or regulatory control of Brisbane City Council (Attachment 18).
62. Prior to the ULDA, Brisbane City Council and the Port of Brisbane Corporation worked in collaboration to prepare a *Draft Northshore Hamilton Master Plan* that was proposed to be incorporated as an amendment to Brisbane City Council's planning scheme, CityPlan 2000 (Attachment 19).
63. The planning objective of both State and local government was to relocate port development to the mouth of the Brisbane River and allow this inner city area to be redeveloped for urban purposes.
64. I am advised the draft Neighbourhood Plan had proceeded to the point where BCC had, on 13 June 2007, requested the former Minister for Local Government and Planning, the Honourable Andrew Fraser MP, to endorse the planning scheme amendment for public notification. I am advised that the whole of government review was undertaken during June to October 2007.
65. The draft plan did not proceed as a result of the introduction of the ULDA. The planning provisions it contained did however, provide the basis for the interim land use plan and final development scheme for the Northshore Hamilton UDA (Attachment 20 and Attachment 21).
66. Of particular importance, I am advised that the proposed residential footprint has not increased since the inception of the interim land use plan. Furthermore I am advised the primary difference between the two plans related to an increase in building height under the ULDA's interim land use plan. As such, in either case, the *Draft Northshore Hamilton Master Plan* and the final development scheme did not permit residential areas in the flood affected part of the UDA.
67. I am also of the understanding that a greater building height would in no way impact on the severity of a flood event or the inhabitants of these buildings.
68. The *Draft Northshore Hamilton Master Plan* notes that the site, while naturally flat, has never flooded (Attachment 19, executive summary page 8)
69. The flood mapping available suggests that the UDA only flooded in areas set aside for recreational purposes, such as the existing Royal Queensland golf course during the 2010-2011 flood event.
70. The extent of the flood water over the UDA is included in Attachment 22.

Fitzgibbon

71. The Fitzgibbon UDA was a large parcel under the ownership of the then Queensland Department of Housing. It also included land owned or controlled by Brisbane City Council (Attachment 23).
72. I am advised that in 2005 the then Queensland Department of Housing submitted a development application to Brisbane City Council for a development application for a preliminary approval to override the planning scheme under the *Integrated Planning Act 1997*.
73. Preliminary approvals to override the planning scheme are often used to stage or sequence development or alternatively to propose land uses not previously anticipated by the planning scheme, but may be appropriate, in the changing circumstances of the particular area. For example, future urban areas becoming appropriate for urban development as a result of infrastructure upgrades or the revitalisation of an area from low density to medium density or mixed use such as around an inner city transport node.
74. I am advised that the material submitted to Brisbane City Council by the Queensland Department of Housing in support of their planning application dealt with a range of planning issues, including the assessment of flood plain, waterway and stormwater management, as outlined in correspondence to the ULDA on this matter (Attachment 24). For the purposes of the preparing the ILUP, which I point out only allowed development in limited areas of the UDA which were considered 'constraint free', I am advised that the ILUP was also largely consistent with the draft Neighbourhood Plan for Bracken Ridge and Districts, which I am further advised had adopted the outcomes of earlier studies by Brisbane City Council.
75. I am advised that the development application did not proceed as the original proposal was generally for a large low density detached residential estate rather than a development proposal that addressed the transit orientated development and urban intensification objectives of the South East Queensland Regional Plan 2005-2026. However, the information supporting the application indicated that the area was suitable for a UDA.
76. Cabinet was also advised that the early release areas (precinct 1) in the interim land use plan were largely consistent with Brisbane City Council's draft Bracken Ridge and District Neighbourhood Plan (Cabinet Decision 8250, dated 30 June 2008, Attachment 5). For example, Cabinet was advised that precinct 1 was consistent in that development within this area should provide a new local centre; be developed at higher densities than surrounding areas; provide a range of housing choice; provide for community activities; integrate pedestrian and cycle connections through and across the site and manage the environmental constraints appropriately.
77. The flood mapping available suggests that residential areas in the UDA did not flood Attachment 25. DLGP have also been advised by the ULDA that this

UDA did not flood (Attachment 26). Furthermore, I am advised that the Fitzgibbon UDA includes open space areas and drainage channels specifically designed to manage stormwater.

78. Notwithstanding the above, I am informed that the ULDA has subsequently undertaken further studies in August 2010, leading to the preparation of flooding and stormwater management plans for development in Fitzgibbon (Attachment 27).

Process for the Minister endorsing a Development Scheme

79. In accordance with section 22 of the ULDA Act, the ULDA must make a development scheme as soon as practicable after the making of the declaration. I note that under section 9(1) of the ULDA Act the interim land use plan lapses after 12 months from the date it was made.
80. In accordance with section 24 of the ULDA Act, prior to preparing a development scheme the ULDA must consult, in the way it considers appropriate, with the local government. It must also make reasonable endeavours to consult with a government entity or indeed any other person or entity the ULDA will be affected by the development scheme.
81. A detailed description of the way in which the ULDA is required to consult with local government and State agencies is detailed in the following section of this statement.
82. In accordance with section 25 and 27 of the ULDA Act, following the preparation of the development scheme the ULDA is required to undertake public notification of the development scheme for a period of at least 30 business days. The ULDA is also required to consider any public submissions received during this period and amend the proposed scheme in the way it considers appropriate.
83. In accordance with section 29 of the ULDA Act, once the development scheme is finalised, the ULDA is required to submit the development scheme to the relevant Minister.
84. Until this point, as the relevant Minister, I am not involved in the preparation or detailed decisions associated with the development scheme, however I may be approached by relevant stakeholders including the ULDA, DLGP, local government, the community and industry.
85. In response to part of item 3 of the Queensland Flood Commission of Inquiry's request, the material put before me, as relevant Minister, in making my decision about whether to recommend the making of a regulation, comprises of:

- (1) the submitted scheme;

(2) the submissions report

86. The submissions report covers merits of the submissions and the extent to which the development scheme was amended based on those submissions. In addition, I as the relevant Minister receive submissions made by affected owners about the development scheme.
87. However, as the relevant Minister, I am confined to only considering whether it is appropriate to amend the ULDA's submitted development scheme to protect the interests of affected owners pursuant to section 31 of the ULDA Act. Furthermore, if I consider that the amendment of the submitted development scheme significantly changes the submitted development scheme, I must give the ULDA a written direction to undertake additional public notification (Section 32 of the ULDA Act).
88. Under the statutory provisions of the ULDA Act, I have 40 business days after the development scheme is submitted to me to make an amendment (Section 31(b) of the ULDA Act).
89. In response to item 2 of the Queensland Flood Commission of Inquiry's request, my role is therefore limited to matters only relating to 'affected land owner submissions'. Accordingly, if an affected land owner's submission gives rise to an issue relating to flooding, including stormwater matters, then DLGP would advise me and provide the relevant reports and relevant technical assessments prior to me making my decision to process the matter to Cabinet.
90. In accordance with section 33 of the ULDA Act when the development scheme is finalised, it only takes effect through a regulation. As the Minister responsible for administering the ULDA Act, I am therefore required to recommend the Governor in Council approve the regulation.
91. Once I am satisfied that affected owner interests have been addressed, I approve the preparation of a Cabinet submission seeking Cabinet endorsement for me to recommend the Governor in Council approve the development scheme through an amendment to the *Urban Land Development Authority Regulation 2008*. The Cabinet submission is prepared by DLGP.
92. In approving the Cabinet submission I would need to be satisfied that all the necessary steps for creation of the development scheme under the ULDA Act have been complied with, and that the approval of the development scheme by regulation would be consistent with the general purposes and objects of the ULDA Act.
93. While the Cabinet process is not required under the ULDA Act, it is government policy for this to occur. The Cabinet process provides a safeguard that all State agency interests have been appropriately reflected in the development scheme.

94. I am advised that in preparing the Cabinet submission, DLGP follows the process outlined in the Queensland Cabinet Handbook. Consultation is an essential part of the development of all Cabinet submissions, and must be held with all relevant agencies or organisations affected by the proposal.
95. Each Cabinet Minister is briefed prior to considering the Cabinet submission as to whether their respective agencies support the proposal, thereby providing a final opportunity to ensure State interests have been adequately addressed in the development schemes.
96. Supporting documents are typically attached to the Cabinet submission to ensure that all relevant material can be considered. Generally, these include:
- a map of the UDA
 - the Development Scheme
 - an assessment of the impact of the making of the regulation
 - the Submissions Report from the ULDA
 - any other relevant material.
97. I have recommended the following final development schemes to Governor in Council:
- Oonoonba (15 April 2011)
 - Roma (15 April 2011)
 - Woollongabba (15 April 2011)
 - Fitzgibbon amended development scheme (29 July 2011)
 - Blackwater (29 July 2011)
 - Moranbah (29 July 2011)
98. I have been involved in progressing the following development schemes to Cabinet (pending Cabinet consideration):
- Yarrabilba
 - Greater Flagstone
 - Ripley Valley
 - Caloundra
99. A brief description of each UDAs outlined above is provided in the following clauses.

Oonoonba, Townsville

100. The Oonoonba UDA in Townsville falls under the Regional Housing Diversity Program area, the aim of which is to demonstrate quality, high density planning and development outcomes and deliver affordable housing outcomes through diversity of lot and house sizes.
101. The UDA is a former Tropical and Aquatic Animal Health Laboratory, comprising administration buildings, paddocks and aquaculture ponds, and

was owned by the Department of Employment Economic Development and Innovation. The site is now owned by the ULDA.

102. I am advised that the land was zoned Government and community purposes under the Townsville City Council planning scheme, however the Council's Structure Plan dated 2005 indicates the long-term intention was to transition the site to residential uses. No development application had been made over the site.
103. I am advised a detailed flood and stormwater management study was undertaken in 2010 which considered the affects of flooding (Attachment 28). Development limits and constraints have been set on the basis of this study. The study shows development of the site will have no adverse impact on flooding in the Ross River or on adjoining owners. The study has taken storm surge, sea level rises and effects of climate change into consideration to provide a minimum acceptable lot level elevation (Cabinet decision 9759, clause 26).
104. I note that the Townville Planning Scheme adopts a 1:50 Defined Flood Event at this location (Volume 1, Part 6, Works Code at page 460, Attachment 29). The ULDA has adopted a significantly higher standard than that of the Townsville Planning Scheme in the Oonoonba development scheme by including a Defined Flood Event at 1:100 (Attachment 30)
105. I am advised that this local government area was not flood affected by the 2010-2011 flood events.

Woolloongabba, Brisbane

106. The Woolloongabba UDA is strategically located to make best use of valuable inner city land offering an opportunity to develop a mix of high density residential, commercial, retail and community uses focussed around the busway and future rail station.
107. While the development scheme does not include flood immunity requirements (Attachment 31), I am advised that the Woolloongabba UDA is situated on land that sits between 10 and 20 metres above the Australian Height Datum (AHD), well above any potential riverine flood risk. It is widely reported that the 2011 floods reached a level of 4.46 metres (AHD) in the city section of the Brisbane River on 13 January 2011.
108. The flood mapping available suggests that the UDA did not flood in the 2010-2011 flood event Attachment 32.

Blackwater

109. I am advised that Blackwater falls within the resource towns housing affordability program area, which is intended to provide timely development of land and to provide key worker housing in those areas experiencing

significant mining activity (Cabinet Decision 9931, dated 25 July 2011, clause 3).

110. The ULDA's presence in this resource town was welcomed by Central Highlands Regional Council. By way of media release on 26 July 2010, Central Highlands Regional Council's Mayor stated that the Council had liaised with the ULDA about options for increasing the supply of land for housing in Blackwater and the most attractive option was to have the town declared as a UDA (Attachment 33).
111. I am advised that an area of the town west of Mackenzie Street was impacted by the recent floods. The development scheme excludes urban development in this area until further assessment of issues such as flooding are addressed. Consequently, the development scheme requires development to achieve an appropriate level of flood immunity (Attachment 34, footnote 5 and page 26).
112. Importantly, the development scheme includes reference to development being subject to any relevant outcomes of the Queensland Floods Commission of Inquiry (Attachment 34).

Moranbah

113. I am advised that Moranbah falls within the resource towns housing affordability program area, which is intended to provide timely development of land and to provide key worker housing in those areas experiencing significant mining activity (Cabinet Decision 9931, dated 25 July 2011, clause 3).
114. The Isaac Regional Council was supportive of the ULDA's involvement in urban development in Moranbah (Attachment 35).
115. There is some land adjacent to Grosvenor Creek that has the potential to be impacted by a 1:100 year flood (Attachment 36). However, I am advised that the ULDA is proposing either to locate either urban development outside this area or condition residential development to ensure it is above the 1 in 100 year flood level. Land expected to be impacted by a 1 in 100 year flood incident has been included in either the Rural or Civic and Open Space zones which preclude residential development. The development scheme also requires development to appropriately mitigate flood hazards (page 29, Implementation Strategy) (Cabinet Decision 9931, clause 27)
116. Importantly, the development scheme includes reference to development being subject to any relevant outcomes of the Queensland Floods Commission of Inquiry (Attachment 37, footnote 2).

Roma

117. I am advised that Roma falls within the resource towns housing affordability program area, which is intended to provide timely development of land and to

provide key worker housing in those areas experiencing significant mining activity (Cabinet Decision 9931, dated 25 July 2011, clause 3).

118. I am advised that parts of Maranoa Downs Regional Council area were affected by the 2010-2011 flood events, and access roads to the town were subject to flooding. However, the Roma UDA site was not affected by flooding (Attachment 38). Stormwater management and impacts from the UDA will be addressed at development applications stage (Cabinet Decision 9759, clause 53).
119. The flood mapping overlay included in the Planning Scheme for the Town of Roma show that the Roma UDA is well above a 1 in 100 year flooding event (Attachment 39). I am advised that the 1 in 100 year flooding event occurs at around 300 metres AHD in Roma. The Roma UDA sits on land that falls between 314 and 324 metres AHD.
120. I am advised that the Roma UDA composes largely of an area designated for residential development a potential community service hub and other recreational facilities contributing to the amenity and character of the area (Cabinet Decision 9759, clause 48).

Yarrabilba

121. Yarrabilba UDA was declared to support the key planning principles of the SEQ Regional Plan; to deliver key strategic sites; and to provide for the delivery of affordable housing accommodating approximately 20,000 new dwellings. The land was also subject to a development application which had undertaken substantial planning work.
122. There is land in this UDA that is below the 1 in 100 year flood level. However, I am advised provisions within the submitted development scheme require that any new residential development will achieve flood immunity under the planning schemes administered by Logan City Council (Attachment 40, page 20). This will facilitate the transition of these provisions when the UDA is handed back to the local government to administer planning and development.
123. I am advised that the area did not flood (Attachment 41). Notwithstanding the submitted Development scheme includes specific flood requirements as well as a development constraints map which clearly identifies the Q100 flood line.
124. This development scheme has not been approved by government at this point in time and therefore will be subject to the Cabinet process and associated State agency consultation as previously outlined in this statement.
125. I also note that the ULDA's involvement with this project is welcomed by Logan City Council.

Greater Flagstone

126. Greater Flagstone UDA was declared to support the key planning principles of the SEQ Regional Plan; to deliver key strategic sites; and to provide for the delivery of affordable housing accommodation approximately 50,000 new dwellings. It was also considered to be an opportunity to coordinate planning and development in a holistic manner due to the area's fragmented ownership.
127. I am advised that Logan City Council had commenced its planning for the area and this formed a basis for the interim land use plan and the development scheme.
128. There is land in this UDA that is below the 1 in 100 year flood level. However, the submitted development scheme includes provisions which require any new residential development to achieve flood immunity in line with the planning scheme provisions administered by Logan City Council (Attachment 42, page 20).
129. I am advised that the area did not flood (Attachment 43). Notwithstanding the submitted Development scheme includes specific flood requirements as well as a development constraints map which clearly identifies the Q100 flood line.
130. This development scheme has not been approved by government at this point in time and therefore will be subject to the Cabinet process and associated State agency consultation as previously outlined in this statement.
131. I also note that the ULDA's involvement with this project is welcomed by Logan City Council.

Ripley Valley

132. Ripley Valley UDA was declared to support the key planning principles of the SEQ Regional Plan; to deliver key strategic sites; and to provide for the delivery of affordable housing accommodation approximately 52000 dwellings.
133. I am advised that the submitted development scheme reflects in large, the Ipswich City Council's previous planning for the area, including flood constraints mapping (Attachment 44).
134. I am advised there is land in this UDA that is below the 1 in 100 year flood level. However, the submitted development scheme requires any new residential development to achieve flood immunity in line with the provisions under the Ipswich City Council planning scheme (Attachment 45, page15).
135. I am advised that land subject to the Ripley Valley UDA partially flooded in the 2010-2011 flood event, however this was confined to areas located along natural watercourses (Attachment 46). I am advised that these areas have been

set aside for open space and recreational purposes in the development scheme (Attachment 47).

136. This development scheme has not been approved by government at this point in time and therefore will be subject to the Cabinet process and associated State agency consultation as previously outlined in this statement.
137. I also note that the ULDA's involvement with this project is welcomed by Logan City Council.

Caloundra South

138. Caloundra South was declared to respond to the lack of housing affordability in Sunshine Coast.
139. I am advised that as part of the preparation of the Caloundra South development scheme the ULDA commissioned a further independent flood study and a subsequent peer review of the abovementioned study and previous flood studies undertaken for Sunshine Coast Regional Council.
140. The independent review concluded that the proposed development footprint can be achieved without producing unacceptable flood level impacts and that there was no dispute in relation to previous detailed hydraulic modelling undertaken on behalf of Sunshine Coast Regional Council (Attachment 48).
141. The review identified the need for further detailed flood modelling to resolve specific issues that will be undertaken in accordance with ULDA draft Guideline no. 15 Flood and Storm Tide Inundation. The submitted development scheme includes a specific note that the ULDA's policy position and requirements for flood protection will be reviewed and revised to take into account the recommendations to flood policy arising from the Queensland Flood Inquiry.
142. I am advised that the Caloundra South UDA did experience some recent flooding in low lying areas as a result of recent heavy rains. There is land in the UDA which is below the 1 in 100 year flood level.
143. However, any new residential development will be required to achieve flood immunity as prescribed by the Sunshine Coast Regional Council. (Attachment 49, page 22, footnote 5 and footnote 8)
144. This development scheme has not been approved by government at this point in time and therefore will be subject to the Cabinet process and associated State agency consultation as previously outlined in this statement.
145. As outlined in relation to the above declarations and interim land use plans and development schemes that I as relevant Minister have progressed to Cabinet for government consideration, I am advised that the planning processes and relevant background reports generally used to account for flooding (i.e.

hydrological and hydraulic assessments) had been exemplified at those UDA sites.

146. Attachment 50 provides the references relating to flood immunity and flood provisions more generally. In relation to this, I am advised that the Woolloongabba and Roma UDAs are distinct in that they are both located in areas where the Australian Height Datum is well above that normally associated areas subject to flooding (i.e. outside the 1 in 100 year flood event). For example Roma Town Council Planning Scheme Map R6 1 in 100 year Flood Event demonstrating that the UDA is well outside the areas subject to flooding.

ULDAs obligations with consulting with other agencies

147. In response to the remaining part of item 3 of the Queensland Flood Commission of Inquiry's request, I am advised that the ULDA and DLGP rely on technical advice from other State agencies in preparing both the interim land use plan and development scheme. Consultation with State agencies is detailed in the following sections of this statement.
148. Pursuant to section 23(1) of the ULDA Act *'the development scheme may provide for any matter that the authority considers will promote the proper and orderly planning, development and management of the area'*.
149. However, while the ULDA 'must consider' a requirement under a planning instrument or a plan, policy or code made under the former *Integrated Planning Act 1997* (and now *Sustainable Planning Act 2009*), 'it is not bound by' these requirements (section 23(5), ULDA ACT). This includes SPP1/03.
150. Pursuant to the ULDA ACT explanatory notes, *'the purpose of this provision is to clarify the relationship between the development scheme and planning instruments prepared by other State agencies and local governments. This reflects the policy that the Authority will negotiate a whole of government response for government policy on planning issues within an urban development area'*.
151. There are currently approximately eleven SPPs for Queensland, these address a diverse range of matters such as housing affordability, extractive resources, good quality agricultural land, coastal management and natural hazards. In addition in July this year, the State Government endorsed the 2011-2012 SPI program, which sets out the forward program of reviewing existing and making new State Planning Policies and State Planning Regulatory Provisions. The combined 2010-2011 and 2011-2012 programs, includes a review of three existing SPPs, eleven new SPPs proposed and two SPRPs.
152. There is a need to balance all objectives in these SPPs and the interests of each agency effectively and efficiently to achieve the intended objectives of the ULDA Act in responding to housing affordability.

153. Despite section 23(5) of the ULDA Act, as part of the introduction of the Urban Land Development Authority Bill, Cabinet required it to be a 'matter of good practice' to consult and negotiate with agencies in relation to land, future land use plans and infrastructure delivery (Cabinet Decision 5817, clause 17).
154. In fact, prior to the commencement of the relevant part of the ULDA Bill, a guideline was produced and endorsed by Cabinet to set out the policy and procedures that will guide the ULDA's functions (Cabinet Decision 5817, clause 19).
155. On 19 November 2007 Cabinet endorsed a governance policy relating to how the ULDA was to act and consult with State agencies (Cabinet Decision 7848, Attachment 1).
156. This guideline sets out the roles and responsibilities of the Minister, the ULDA, the former Department of Infrastructure and Planning (now the Department of Local Government and Planning) other State agencies and the relevant local government.
157. The guideline also states:
- 'The ULDA is required to consult with state agencies, other government entities, the relevant local government, land owners, residents and other key stakeholders in the preparation of the development scheme. Early and regular consultation with State agencies is essential as State interests will be frontloaded into the development scheme and substantial commitments from government will be required particularly in relation to the provision of infrastructure. (Cabinet Decision 7848, dated 19 November 2007, Attachment 1, page 12)'.
158. A review of the interim land use plans and development schemes I have been involved in, with the exception to Woolloongabba and Roma (as previously identified) have included requirements for development to respond to flood mitigation requirements (Attachment 50).
159. In April 2011, the ULDA released a draft guideline entitled *Protection from Flood and Storm Tide Inundation* post the January 2010-2011 flood events (ULDA Guideline no. 15) for consultation (Attachment 51). The guideline is consistent with the requirements of both SPP1/03 *Mitigating the Adverse Impacts of Flood, Bushfire and Landslide* and the *Queensland Coastal Plan* that stipulates the specific planning requirements for the predicted impacts of climate change. The ULDA guideline includes a specific note that the ULDA's policy position and requirements for flood protection will be reviewed and revised to take into account of the recommended changes to flood policy arising from the Queensland Floods Commission of Inquiry.
160. Furthermore, the more recent development schemes of Yarrabilba, Greater Flagstone, Ripley Valley and Caloundra South have included a standard statement as follows:

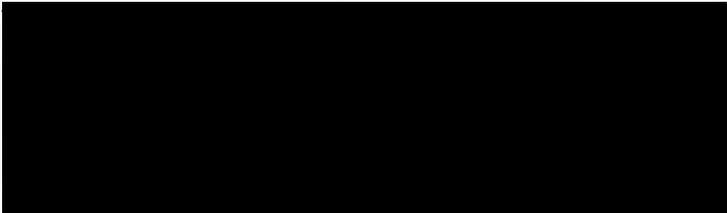
'The Queensland Flood Commission of Inquiry is investigating the flood disaster including a review of existing provisions relating to flooding and flood risk mitigation. Consequently the provisions of this development scheme with respect to flooding and flood risk mitigation may be subject to change at the direction of the Queensland government in the near future. This should be taken into account by applicants and assessment managers when considering development in this UDA. Applicants are advised to make relevant enquiries regarding the status of the provisions relating to flooding at the time of lodgement'.

161. I am of the understanding that the ULDA is also working closely with the relevant Councils and State agencies to ensure that the requirements on development will be consistent with the findings of the Queensland Flood Commission of Inquiry (Cabinet Decision 9931, Clause 66).

162. To date it has not been necessary for me to provide a Ministerial direction to the ULDA in relation to flooding. However, section 130 of the ULDA Act provides me with the appropriate power to give a Ministerial direction to the ULDA in relation to the performance of its functions which will include the ability to direct amendments to an interim land use plan or development scheme.

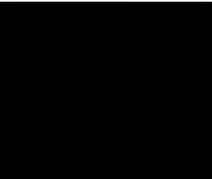
163. Any documents referred to in this statement, but not attached, can be provided to the Queensland Flood Commission of Inquiry if required.

I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of the *Oaths Act 1867*



Paul Thomas Lucas

Taken and declared before me, at Brisbane this *20th* day of September 2011.

Witness. 

Dean Andrew Misso
Solicitor



Queensland Housing and Land Supply Forum

5 December 2005
The Ithaca Auditorium
Level 2, Brisbane City Hall
9am to 12noon

Agenda

1. Introduction and context
2. Opening comments by stakeholders
3. Discussion of key issues and strategies
 - Discussion Paper No 1: Land Availability
 - Discussion Paper No 2: Development Assessment
 - Discussion Paper No 3: Infrastructure Charging
 - Discussion Paper No 4: Building Standards and Codes
4. Summary
5. Way forward and close

Note: morning tea will be provided



Papers prepared by the Office of Urban Management
on behalf of The Coordinator-General

Website: www.oum.qld.gov.au
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Email: enquiries@oum.qld.gov.au





Invitees:

- ANZ Infrastructure Services
- Austcorp Group Ltd
- Brisbane City Council
- Council of Mayors (SEQ)
- Department of Housing
- Department of Local Government, Planning, Sport and Recreation
- Department of Premier and Cabinet
- Department of Public Works
- Devine Ltd
- Housing Industry Association
- Indigo
- Local Government Association of Queensland
- Master Builders Association
- Planning Institute of Australia (Qld)
- Property Council of Australia (Qld)
- Queensland Treasury
- Residential Development Council of Australia
- Stockland (Qld)
- The Coordinator-General
- The Office of Urban Management
- Urban Development Institute of Australia (Qld)
- Urban Pacific Ltd





Queensland Housing and Land Supply Forum

Discussion Papers

5 December 2006



Queensland Housing and Land Supply Forum
Draft for discussion purposes
Not government policy





Queensland Housing and Land Supply Forum

Draft for discussion purposes

Not government policy

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Queensland Housing and Land Supply Forum

Background information

The cost of housing in Australia has historically fluctuated, however house prices across Australia have risen significantly in the past three to five years. Industry information shows that the price of Australian houses grew strongly in the more expensive areas of Melbourne and Sydney but soon spread across these capitals to the other capital cities and to regional centres. Accordingly, the boom in house prices has been Australia wide, and Perth, Brisbane and Adelaide house prices have in fact continued to rise since 2003¹.

Queensland, in particular, has recorded some of the most significant and sustained growth in house prices over the past five years. Home ownership is currently at around 5 per cent less than the national average and declining. Therefore, housing affordability is recognised as a major issue, particularly given the substantial growth pressures currently being experienced within the state. Housing affordability pressures are highest in the high population growth areas of South East Queensland (SEQ), coastal regional centres (Cairns, Townsville, Hervey Bay etc) and in the mining areas (Maroochy, Moranbah, Emerald etc). Inner city and coastal locations have been subject to increased rent and purchase prices and in rural areas, housing shortages associated with major projects (such as mining activities) have also increased housing prices.

In these areas the availability of affordable housing will influence the capacity of industry to attract and retain workers, including those required to maintain essential transport, medical, educational and administrative services. In the longer term this could detrimentally affect the ability of an area to sustain economic growth.

High housing costs also have a disproportional impact on different sectors of the community. High housing costs in particular affect entry level for first home buyers and then low- to middle-income earners, particularly as interest rates rise.

There are no demographic trends that indicate that rising land and housing costs and increasing housing stress will improve in the short or long term, and in fact the demographic trends of population growth, smaller household sizes and the ageing of the population may make it more difficult. The rate of increase in housing prices has far exceeded the increase in average household incomes over the past five years.

¹ *Background Paper on Housing Affordability*, M Powell and G Withers, July 2006



The estimated resident population of Queensland at the end of June 2005 was 3.96 million people. This represented 19.5 per cent of Australia's total, a marginally greater share than in the previous year (19.4 per cent).

In the year to June 2005, Queensland accounted for 32 per cent of the nation's population growth, considerably higher than the contribution made by Victoria (25 per cent) or New South Wales (22.5 per cent)². Queensland remains one of the fastest growing states in Australia and this has significant consequences for the demand for housing which can adversely impact on housing affordability (*CEO's Report*).

Various sectors of the development industry, including the Urban Development Institute of Australia (UDIA), the Housing Industry Association (HIA), the Property Council of Australia (PCA), and the Master Builders Association (MBA) have raised the housing affordability issue with government in the past three months.

The development industry has generally argued that the leading causes of housing price growth in Queensland have been due to:

1. restricted land release;
2. inefficient development approval process;
3. excessive infrastructure charges; and,
4. inconsistent building standards and requirements.

Other analysis including from the Local Government Association of Queensland (LGAQ) indicates that these matters are not the most significant to impact on the price growth; rather it is market fundamentals and higher order macroeconomic issues, such as interest rates and the availability of finance.

There is a differentiation between housing affordability and affordable housing. The Chief Executive Officers' Sub-Committee on Affordable Housing (October 2006) defines affordable housing as the physical housing that is appropriate for the needs of households and priced so that low and moderate incomes are able to meet other essential basic living costs.

² Department of Local Government, Planning, Sport and Recreation – Planning and information Forecasting Unit



Housing affordability reflects the cost of buying or renting housing within the regulatory frameworks and subject to general economic activity that will impact on housing prices. This therefore includes the combined cost impact of the planning regime, infrastructure charging, interest rates, availability of borrowings etc to deliver the physical asset. It is housing affordability that is the focus of these papers.

It is recognised that there are a multitude of factors affecting housing affordability and that housing affordability covers a wide range of issues and community needs. The best approach to address these issues is considered to be through a targeted approach to individual issues, feeding back into and informing a broader housing affordability strategy.

To commence this process, the Queensland Government proposes to consider in detail the issues that relate to the housing and land supply dimension. By doing this, it is intended to ensure the overall development system for land and housing supply in Queensland operates efficiently and effectively within the state's overall planning and legislative framework.

The topics are:

1. Land Availability;
2. Development Assessment
3. Infrastructure Charging;
4. Building Standards and Codes.

The Queensland Government will consider the effect of these factors and progress a Housing Affordability Strategy – aimed at improving housing affordability across Queensland. The following four Discussion Papers outline salient points for these factors.



Queensland Housing and Land Supply Forum Discussion Paper No.1 - Land Availability

1. Background

Land supply will continue to be a key issue for future planning as it has significant implications for housing. The most challenging aspect of the land supply issue is the need to accommodate Queensland's future population. There is a need to better link decisions about land supply, infrastructure efficiency, residential development intensity and the protection of open space.

In recent months the Prime Minister announced that housing affordability problems were a result of the states not releasing sufficient land for development. This view is contrary to the Productivity Commission's *First Home Ownership Report* (March 2004) which found that most of the increase in housing prices could be explained by market fundamentals such as cheaper and more easily available financing, increased demand and higher incomes.

2. Issues

Government and industry representatives have identified a number of land supply issues affecting housing affordability, including, but not limited to, the following:

- The adequacy of the supply of serviced land to meet housing demand and the distribution of land to meet different market types and location needs to be determined. In doing this, there is a need to identify any unnecessary constraints to the land and housing supply chain.
- The development industry is concerned that insufficient land is being released by government, which is increasing land costs and therefore impacting on housing affordability. However, the Local Government Association of Queensland (LGAQ) has found that an analysis of lot approvals and production trends by councils in Queensland relative to developer demand and take-up demonstrates that sufficient land is being provided to the market (*AECgroup, 2006*).





- DLGPSR's Broadhectare Land Supply Study classifies residential land into four timeframes, providing an indication of when development has the potential to occur. Using this classification, urban land in Brisbane will be consumed at the following rates:

- 0-2 years	681 hectares
- 2-5 years	1098 hectares
- 5-10 years	929 hectares
- 10+ years	172 hectares
- Land that is shown in planning schemes or regional plans as being available for urban development may have a number of constraints or other government controls (for example, vegetation controls, waterway riparian areas, koala management plans) that significantly limit the land area actually able to be developed.
- Land, infrastructure and housing need to be delivered in a coordinated manner. This issue is being addressed in SEQ through the *South East Queensland Regional Plan 2005 - 2026* (SEQ Regional Plan) with the requirement for all local governments in SEQ to prepare Local Growth Management Strategies (LGMS) by June 2007.
- The use of excess government lands should be optimised. This issue is being addressed in part through improved processes associated with the sale of excess state land by the Department of Local Government Planning, Sport and Recreation (DLGPSR).
- Land and housing markets and availability need to be monitored. The Urban Development Monitoring project is required for monitoring the affects of the policies, strategic directions, notional population projections and dwellings targets outlined within the SEQ Regional Plan. This project produces quarterly Urban Development Monitoring reports based on the proven and tested processes established in the development and publication of the quarterly Queensland Residential Land and Dwelling Activity Monitor reports, produced by the DLGPSR (PIFU). The reports are based on information collected from local governments and the Australian Bureau of Statistics.



The Urban Development Monitoring program is being developed in stages. Stage 1 (current), will focus on dwelling activity, lot production/consumption/registration/ approvals and median house, unit/townhouse and vacant land sales. Stage 2 (anticipated in 2007), will investigate the monitoring of commercial and industrial development. Stage 3 (anticipated in late 2007, following release of the LGMS's) will assist in monitoring land supply and availability. This program expands on the DLGPSR model and is reported quarterly via the internet.

- Land for short-, medium- and long-term development needs to be adequately evaluated or identified. The Broadhectare Study process identifies future residential land in terms of four time frames when development is expected to occur. The time frames are determined based on local governments' servicing intent and developers' intentions. The Broadhectare Study processes will be enhanced to provide for improved consultation with the development industry. This issue is also being addressed in SEQ through the preparation of LGMS's which will include development sequencing strategies until 2026 and beyond.
- Lands for infill and redevelopment should be effectively identified and/or amalgamated. This issue is being addressed partly through LGMS's, which will identify sites for infill development.
- There can be difficulties and high costs associated with amalgamating suitable infill sites, particularly if a key lot is not able to be purchased.
- Unlike other states, the Queensland Government does not play a major role in land purchasing or holding for infill or greenfield developments.
- Several stakeholders have identified a possible concern that consolidation within the development industry has reduced the number of developers and potentially competitive pressure.
- Land banking by raw landowners or developers can create bottle necks where the land held is in a strategic location. Land banking by major developers limits opportunities for small- to medium-developers to acquire appropriate land for their needs.





3. Case studies

Although not an exhaustive sample, there are a number of relevant case studies, summarised below. (Please note: these have been predominantly provided by the development industry).

Broadhectare land supply

- A study commissioned by UrbisJHD found that excessive delays in gaining development approval are a significant cost to the new home buyer. Examples of timeframes are provided below:

Region	Approval (months)	Construction (months)
Council A	15	32
Council B	9	28
Council C	30	48

This issue is further considered in *Discussion Paper 2 – Development Approvals* which also highlights cost implications.



Developable land

- The development industry has raised concerns that certain local government's planning schemes include inappropriate constraints to the development of land, resulting in a significant reduction in net developable area.

For example, a Major Development Area (MDA) has been identified in SEQ which comprises 145 hectares. Constraints overlays contained in the local government planning scheme reduce the developable area to 66 hectares. The constrained areas are considered to be well beyond minimum environmental buffers or standard practices. A recent review has indicated that the available urban area is likely to increase to 83 hectares but provide only a 57 per cent gross urban land yield. This site has been impacted by the SEQ Regional Plan Interim Guideline: Koalas and Development, State Coastal Management Plan, Flood Prone, Storm Tide and Drainage Constrained Land Overlay, Waterways, Wetlands and Moreton Bay Overlay, Habitat Protection Overlay, Road and Rail Noise Impacts Overlay, Bushfire Hazards Overlay and Acid Sulfate Soils Overlay.

- The development industry has raised concerns regarding the availability of land suitable for urban development, in particular, large greenfield land is becoming scarce, and the majority of available land suitable for urban development is contained in smaller lots and/or fragmented land. Developing smaller land parcels will often increase development costs (associated with acquisition, amalgamation, etc).

For example, examination of land supply information with council staff in a major local government area in 2003 found approximately 18 per cent of the identified supply would only be available on a very slow and haphazard basis as land parcels were:

- less than 1.5 hectares in size;
- not forming a group of greater than five hectares; and
- not adjoining existing subdivisions.

Developers have indicated that land acquisition managers have not been able to secure appropriate land for development, despite generous budget resources.





- Density targets contained within local government planning schemes and policies relating to density under the SEQ Regional Plan are considered to be unachievable, making effective saleable yield much lower. For example, if a five-story building is required in order to achieve target yield in an area where this density is unsaleable in the short-term, then the yield will be much lower until the apartments can be sold in 10 years' time. Therefore, housing costs are much higher as they are the only cashflow in the short-term and need to pay the holding costs on the remaining development. This has been demonstrated in one SEQ local government area where developers are having to walk away from options on land that they have held for 2.5 years because this issue is making the development economically infeasible.
- The development industry raises concerns regarding the amount of land available for urban development, and the restrictions now in place on urban growth in SEQ as a result of the SEQ Regional Plan. Some land considered suitable for urban development by the industry has been excluded from the Urban Footprint under the SEQ Regional Plan. For example, a proposed 520 lot subdivision was located in an area the relevant planning scheme indicated for possible future development, was well serviced and opposite an existing shopping centre. This area has been excluded from the Urban Footprint under the SEQ Regional Plan.

4. Comparative analysis with other states

DLGPSR (PIFU) has prepared a comparison of land monitoring authorities in Victoria and Western Australia. The following summarises the key findings:

- The Victorian government has committed to maintaining a 15-year minimum land supply for housing and industrial development. The “urban growth boundary” in Melbourne is expected to provide for at least 25 years of future growth (based on current projections). The government monitors the supply and demand for residential and industrial land, and reports on an annual basis. A similar situation exists in Queensland, where local government planning instruments plan for 15 year growth projections, and between 20 to 25 years future growth is accommodated within the various regional planning documents throughout key growth areas in Queensland. Monitoring reports on dwelling approvals and land supply are released on a quarterly basis.



- The Urban Development Program (UDP) in Victoria aims to secure the ongoing ability to supply land and supporting infrastructure to meet residential land and industrial needs of the Melbourne and Geelong regions. The UDP assists decision makers to:
 - maintain an adequate supply of broadhectare residential land in the designated growth areas (10 years of supply of zoned and 15 years supply of total broadhectare residential land stocks);
 - maintain an adequate supply of broadhectare residential land stocks in the Geelong region; and
 - instigate early action to address potential land supply shortfalls and infrastructure constraints.

A similar tool exists in Queensland with the various regional planning instruments in key growth areas of the state. The most recent, and only statutory regional plan, the SEQ Regional Plan, plans for at least 20 years growth within the SEQ area. The SEQ Regional Plan is to be reviewed every five years, based on updated land supply monitoring, and local government regional strategies for growth management (included in LGMS's).

- Two industry working groups have been convened in Victoria which meet quarterly to supplement and confirm intelligence on land supply issues associated with the UDP. The Development Industry Working Group provides a forum for the exchange of timely information on the status of residential land and housing activity between the development industry and the Department. Similarly, the Industrial Land Advisory Committee provides industry advice on industrial land development issues and land supply.

The primary purpose of both groups is to improve the quality of the information included in the UDP and to assist the Victorian government to:

- establish an up-to-date, comprehensive and common understanding of the supply and demand of residential/industrial land;
- identify the factors affecting the operation of the land development industry, including the impact of Victorian Government policy initiatives;
- identify potential supply shortfalls or affordability pressures and their possible cause; and
- recommend actions that might be taken to address identified shortfalls or pressures.



- The Western Australian Planning Commission (WAPC), established in 1995, is the peak representative body of land use planning and development in Western Australia. The WAPC undertakes a major coordinating role across all aspects of the state's planning process and operates as a partnership between the community, business and all levels and sectors of government.

Responsibilities include:

- Preparing, auditing and reviewing a *State Planning Strategy* and implementing the strategy through more detailed regional plans and strategies.
 - Preparing and implementing statements of planning policy and other non-statutory regional and operational policies.
 - Subdivision, development, strata title and license approvals and advising the Minister for Planning and Infrastructure on local government town planning schemes.
 - Establishing and reviewing regional planning schemes including updating the Perth Metropolitan Region Scheme to cater for anticipated population growth.
 - Advising the Minister for Planning and Infrastructure on legislative and regulatory reform.
 - Monitoring and forecasting land supply throughout the state and developing strategies to ensure a timely supply of affordable residential land.
 - Initiating research projects and gathering information to keep abreast of contemporary trends in planning.
- The Metropolitan Development Program (MDP) in Western Australia includes the Urban Land Release Plan forms part of the MDP. The aim of the Land Release Plan is to facilitate orderly social, economic and environmental development through the timely provision of land, services, facilities and infrastructure, consistent with the state's overall budgetary objectives and guidelines. The Land Release Plan reports on the research results of the Metropolitan Development Plan by examining the data collected and by making analyses and projections of development in the short term (one to three years), medium term (three to five years) and longer term (beyond five years).
 - The Urban Land Release Plan: Strategic Development Activity Statement has a major focus on residential development activity. The Plan focuses on past, current and projected land development activity. The Plans are prepared annually in consultation with local government, state agencies, service providers and the building and development industry.



- Both Victoria and Western Australia have ability to prevent developers from withholding land in serviced areas. Both have differential rating systems which are applied to certain parcels designated for urban development that are withheld by developers. Local government authorities have scope to apply higher rates in such cases, provided that it contributes to good governance. Such a system is not provided in Queensland.
- Both Victoria and Western Australia have tools in place to form development corporations to overcome land fragmentation as a barrier to orderly and efficient development of future urban areas. WA government has an ability to form ad-hoc (or as required) development corporations to free up developable land designated for urban development. The Queensland Government does not currently have ability to form development corporations.

5. Strategies

Current strategies

A number of strategies exist which are and will continue to assist in addressing housing and land supply throughout Queensland. These strategies should continue and where appropriate be enhanced and expanded.

- DLGPSR's Residential Land and Dwelling Activity Monitoring Program by including an additional measuring point in the residential development pipeline to identify 'active' developments and expanding the geographical coverage of the Program.
- The Urban Development Monitoring program prepared jointly by the Office of Urban Management and DLGPSR (PIFU) in association with State and local governments and the development industry.
- The Redland Land Supply Study, a joint project undertaken by the Redland Shire Council and UDIA in cooperation with the Office of Urban Management and DLGPSR, will shortly report on investigations into more accurately measuring future land supply. Depending on the report's findings on factors that impact on land availability, improvements will be incorporated into the Broadhectare Study methodology for inclusion into future Broadhectare Studies across Queensland.
- Review the broadhectare land evaluation process.



- LGMS's - in response to the SEQ Regional Plan all SEQ councils are required to prepare LGMS's by June 2007. These strategies will evaluate land supply and identify how and where councils will accommodate forecast urban growth. Through this process all councils will be reviewing their planning schemes to determine if existing policies and development controls will deliver desired development outcomes. Mechanisms will be available to councils to fast-track changes to their planning schemes if those changes are necessary to meet desired regional planning outcomes. The LGMS will inform the Urban Footprint capacity review.
- The detailed Structure Plan areas identified as part of the LGMS will identify land for development and infrastructure provision.
- Support the roll-out of statutory regional plans in key growth areas of Queensland to formalise 20-year planning strategies, and investigate the potential for local governments outside of SEQ to develop Local Growth Management Strategies aimed at coordinating infrastructure and land use planning.

Possible strategies

The following strategies require further detailed investigations to be undertaken to determine their effectiveness in assisting housing and land supply throughout Queensland.

- Undertake a review of Federal, State and local government land holdings to identify short, medium and long term urban development opportunities.
- Undertake a full review of the Urban Footprint capacity, having regard to enhanced broadhectare processes for greenfield sites and establishment of a complimentary process for infill areas (scheduled for 2007/08 following completion of LGMSs).
- Review primary constraints mapping for Regional Landscape and Rural Production Area - environmental values, rural values, water catchment management etc. Undertake review in 2007/08 to inform review of Regional Plan and urban development opportunities.
- Identify long term options for development of future satellite towns and cities to potentially come on line beyond 2026, for consideration in the 2009/10 review of the SEQ Regional Plan.



- Investigate the establishment of a Queensland Government Development Corporation to facilitate amalgamation of state lands and development of infill and redevelopment projects. This could include delivery of low-cost housing opportunities as part of re-development.
- Facilitate the establishment of government-industry alliances to amalgamate, fund and develop new greenfield and infill urban development areas.
- Consider the appointment of a suitable professional to advise on ways which the state and local governments can promote a more competitive structure in the development industry, in order to avoid a limited number of developers constraining the land market.
- Review legislation to allow for the ability for a proportion of greenfield and infill land to be developed as affordable housing.
- Establish Development Reference Forums based on the Victorian model - where Development Forums have been established as part of the annual review of the Urban Development Program for Melbourne. It is proposed to establish a similar arrangement for Queensland's active development areas.

The Development Reference Forums, convened by DLGPSR and the Office of Urban Management, would be established to collect and confirm information with a range of stakeholders about the supply and demand for residential land for a defined geographical area.

Developers, real estate agents, local councils and infrastructure providers are engaged to reach a shared understanding about:

- current development activity trends;
 - current availability of land for future residential development;
 - the adequacy of land supplies to meet future needs;
 - the actions required to overcome potential land supply shortfalls; and infrastructure/service constraints and requirements.
- Investigate mechanisms to prevent landowners from withholding developable land in serviced areas.
 - Use structure plans to clearly identify developable and non-developable areas and possibly fast-track options for development of approved land areas.



- Options for government/Department involvement outlined in DLGPSR's housing issues paper include:
 - Explore ways to improve the surplus government land disposal process to give greater priority to affordable housing outcomes;
 - Commit to monitoring land supply, demographic influences on housing and housing markets to provide objective baseline data for both the public and private sectors;
 - Explore the establishment of land development authority with a head of power to acquire, amalgamate, master plan, and/or seek preliminary approval to make land available in well serviced locations for affordable housing that could then be sold to the private sector to market and develop.





Queensland Housing and Land Supply Forum Discussion Paper No.2 – Development Assessment

1. Background

Local governments and state agencies are involved in the assessment and determination of residential development applications such as subdivisions, housing projects and multiple unit developments. The timing, assessment and decision making procedures are set out in the *Integrated Planning Act 1997* (IPA) under the Integrated Development Assessment System (IDAS). The impact of development application delays on housing delivery and affordability remains a contentious issue. Industry stakeholders argue that prolonged development approval processes have added to the burden of land affordability.

In February 2006, the Department of Local Government, Planning, Sport and Recreation (DLGPSR) initiated its IPA/IDAS Review Project which is currently nearing completion.

During consultation for the project in early 2006, a number of submitters raised the issue of IPA/IDAS's influence on housing costs and low cost accommodation. Submissions identified the issue of IPA and its implications for the cost of housing generally. Further work is likely to be required given the range of factors directly influencing housing costs and affordability. In this regard DLGPSR has indicated the IPA/IDAS review is most likely to look to the overall efficiency of the development assessment system.

2. Issues

Government and industry representatives have identified a number of issues affecting housing affordability, including but not limited to:

Timeframes

- The precise impact of development assessment turn around times and delays on the cost of getting residential product to the market is difficult to quantify beyond specific projects.



- Development feasibility and capital investment is invariably predicated on assumptions of estimated development approval timeframes. Developers face cash flow management issues and higher interest repayments if timeframes are not achieved and product can't be delivered to coincide with market cycles.
- Industry stakeholders collectively support the view that the IDAS system adds to delays for development assessment. More specifically, the application 'stops' where information or a response is outstanding.
- Development assessment timelines are not independently reviewed or monitored, to determine how a local authority is tracking against the IDAS timeframes.
- Despite IDAS being an applicant-driven process, there are no penalties or consequences for a local authority if a timeframe is missed. Acknowledgement Notices, Information Requests and Decision Notices are often frequently delayed, particularly if council officers need to resolve internal differences of opinion or the key officers are not available.

Resources and experience

- The difficulty in recruiting and retaining planners experienced in both development assessment and the nuances of Queensland's IDAS system, means that planning resources in local authorities are under continuing pressure. A loss of planners in a development assessment team can create a flow on effect and peaked workloads, with planners regularly leaving to pursue other employment opportunities in the private sector or in other government areas.
- With local authorities and the LGAQ continuing to focus on resourcing difficulties, there may be merit in initiatives such as funding and resourcing support for planners working in development assessment.

Other

- The CEO's Report included the following issues:
 - Zoning for affordable housing (inclusionary zoning) and the collection of contributions (either in the form of housing or in lieu fees) as a condition of development approval is not permitted by the *Integrated Planning Act 1997*.
 - Strong opposition from the development community and uncertainty about the potential affordable housing yield have worked against the widespread adoption of these mechanisms in Australia to date.



- Mandatory affordable housing mechanisms represent a relatively new land use planning concept throughout Australia. Consequently, the inclusionary zoning programs that have been implemented elsewhere in Australia are small in scale and have only yielded modest affordable housing outcomes to date.

3. Case studies

Although not an exhaustive sample, there are a number of relevant case studies, summarised below. (Please note: these have been predominantly provided by the development industry).

Timeframes

- A developer noted delays and costs on their projects as below. After taking into account increases in infrastructure charges, construction costs, consultant's fees and interest charges bought about by delays caused by council (ie. operating outside IDAS timeframes), the financial impact was a cost of \$3,822,000 or an impost of \$6,700 per lot.

	Assessment type	Timeframe allowed under IDAS	Actual assessment timeframe	Comments
Project 1	Code assessment	6 months	18 months	Council required a full Plan of Development which set every house type.
Project 2	Code assessment	6 months	27 months	Council changed their park (dedication) requirements several times.
Project 3	Code assessment	6 months	27 months	None given.
Project 4	Code assessment	6 months	21 months	Council changed the location of the proposed park.
Cost of assessment delays = \$3.822M total cost, or \$6,700 per lot (for the above projects).				





- At an infill site in SEQ in the designated growth area, a development approval took approximately two years even though there were no serious issues. The developer calculates they could have charged \$25,000 per lot less for the land - to achieve the same returns to the developer - if the development approval had come out in about nine months, as provided for under the IDAS timelines.
- In another example, the 20 months allowed for approvals, construction and settlement extended out to 40 months due to resourcing difficulties at council. The developer calculated that if they had been able to stick to the original program they would have made returns close to company benchmarks for an average selling price of \$185,000 per lot. Given the 20-month delay, the developer will not achieve normal returns, and will need to keep prices to \$205,000 per lot. The developer indicated that the consumer will pay \$20,000 more for smaller lots, and that the project will be moth balled if the market cannot carry the increased price per lot (until it can), adding to a supply shortfall and limiting choice and competition for consumers.

Resources and experience

- A recent SEQ subdivision of 55 lots in an emerging communities (future urban) zone took 27 months to be approved, with resulting additional holding costs of \$579,947 which added to land costs. The developer suggested that council staffing issues seemed to be a major factor in the delay.

Other

- The remaining case studies provided by UDIA highlighted a range of factors which were considered to contribute to development delays, including:
 - protracted negotiations regarding unreasonable engineering and environmental requirements (particularly for residential subdivisions in greenfields locations);
 - protracted approval processes as a result of planning scheme reviews and council structure plan processes;
 - changes in staff at the local authority level resulting in reassessment of the application and additional issues being raised;
 - inadequate council staff resources, particularly engineering staff and subsequent delays in operational works (earthworks) approvals prior to construction and land release;
 - some council staff not being sufficiently experienced to make reasonable and relevant judgements to progress the approval process, and hence relying on time-poor experienced staff for guidance;



- changing council policies during development assessment (for example, on parks dedication requirements, engineering design standards, and changing requirements necessitating a full engineering redesign); and
 - the inability of the council's assessment manager to manage the application and resolving conflicting requirements of the engineering, parks, traffic and planning departments within council.
- To provide another view on this subject, the 'Development Application Survey' conducted by the LGAQ in 2006, indicated that:
 - at the aggregate level, local government is performing at a reasonable standard in terms of processing and determination of development applications. The results suggests that more than half of the elapsed time between an application being received and determined is taken up waiting for applicants to provide the information contained in the council's information request;
 - in only a relatively small number of councils, there is evidence that staff resources and workloads result in some delays in application processing; and,
 - in some councils, particularly rural councils, increased delegation of decision making would improve processing times. A relatively high proportion (65%) of applications determined under delegated authority are determined within 20 business days from the start of the decision stage.
 - These opposing views on development assessment turn around times represent the general positions and line of argument for both developers and councils working within the IDAS system.
 - The strong view offered by the Planning Institute of Australia (PIA) in their submission on the IPA/IDAS Review is that the development approvals process has become unnecessarily cumbersome due to over-regulation by State and local government in administering IPA/IDAS and related matters of state policy.



4. Comparative analysis with other states

In comparing the Queensland system with the other states, the following information has been identified:

- In South Australia, the system is modelled on the Commonwealth Development Assessment Forum model. The local authority adopts the planning scheme and associated urban policy items, and all development applications are then assessed by an independent panel. The model is generally considered to be efficient, and enables the local authorities to focus on strategic planning, relieving them of the development assessment obligation. The local authorities remain involved in the overall process through the preparation of their planning schemes.

- There is generally a higher satisfaction rating with the South Australian system than with the other states. PIA's *Planning Report Card* collected information from qualified planning practitioners in each state, who were asked to rate the performance of their planning assessment process. The percentage of practitioners who voted their system as '*performing well*', are as follows:
 - 30.9 per cent in Queensland (conversely, this would mean that the balance 70 per cent of recipients were presumably either undecided, neutral or thought it was not performing well).
 - 30.3 per cent in Victoria.
 - 16.9 per cent in Western Australia.
 - 52.3 per cent in South Australia (representing the highest satisfaction rating of these states).
 - These results lend strong support for the model of an independent panel for development assessment.

5. Strategies

It is difficult to quantify the extent to which development assessment delays influence the delivery of housing product to the market. However, there appears to be strong agreement from industry stakeholders that these delays add to housing and consumer costs and reduce consumer choice in the interim.



Current strategies

A number of strategies are currently in place or will be in the near future which will assist the development assessment process. These include:

- The proposed improvements as outlined in DLGPSR's 'Discussion Paper' include:
 - *Smart eDA*

The Smart electronic Development Assessment (Smart eDA) initiative is currently being developed by the Department of Local Government, Planning, Sport and Recreation (DLGPSR). The concept is to establish an online portal for the lodgement and processing of development applications. A prototype Smart eDA system is to be developed by January 2007, with a completed solution within two years. A similar process has been initiated by Cairns City Council and the LGAQ, to establish the National electronic Development Assessment Project (NeDA). Smart eDA is proposed to include a capacity for comprehensive statistical analysis of applications, including timeframes for all stages of IDAS. This should assist in highlighting specific issues or areas where assessment managers or applicants are not meeting IDAS timeframes.
 - *SEQ Regulation Reduction Incentive Fund Project*

The Regulation Reduction Incentive Fund (RRIF) provided by the Federal Government was designed to streamline development approval processes using various mechanisms, including development tracking, planning scheme requirements online, and facilitation of the independent development assessment process established by Brisbane City Council and known as 'Risk Smart'. The process is in the early roll-out stage with strong involvement from the Department of Local Government, Planning, Sport and Recreation (DLGPSR).

Possible strategies

As stated previously the DLGPSR has been undertaking an operational review of the IPA/IDAS system under the title 'Dynamic Planning for a Growing State'. It is understood that the effect of development assessment delays on applications and the affordability of housing was raised as an issue in the substantial community forums conducted.



The Discussion Paper prepared by DLGPSR proposes a number of key strategies to improve the IPA and IDAS to ensure the key principles which underpin the IPA figure throughout the entire planning and development assessment system, from stakeholder engagement, state and local planning, through to the specific stages of IDAS as well as dispute resolution and capacity-building. The key strategies to improve the IPA and IDAS include stakeholder engagement, state and regional planning, local government planning policy, infrastructure planning and charging, IDAS, dispute resolution and building capacity.

Strategies which, if adopted, would assist in improvements to the IDAS process and timeframes include:

1. Strategy 13 – Introduce specific initiatives to reduce the complexity, and improve the efficiency and effectiveness of IDAS.
2. Strategy 13.10 – accelerate implementation of the smart eDA project.
3. Strategy 14 – Review and improve the quantity and quality of information submitted with the development applications.
4. Strategy 6 – Improve community engagement and effective input into the development of council planning schemes, through partnerships with councils and the LGAQ.
5. Strategy 8 – Assist councils to improve the quality of IPA planning schemes, including the introduction of a mandatory and consistent format.
6. Strategies 13.12 and 16 – DLGPSR will investigate extending the jurisdiction of the Building and Development Tribunal to include the power to make binding determinations about aspects of the application stage of IDAS, such as the referral agencies for an application, and the content and timeliness of acknowledgement notices, as well as the tribunal's appeals jurisdiction.
7. Strategy 21 – Increase the supply and practical knowledge of planning graduates and para-professionals.

A suite of measures may be required to address these issues with the support of local authorities and state agencies.

Timeframes

- Investigate opportunities for the State or LGAQ to take on a review role and monitor local authority's development assessment turn around times. This would require the meaningful cooperation of councils.



- Investigate options to provide incentives or impose penalties in regard to local government turnaround times. In the United Kingdom model, this approach helps to deliver decisions quickly. However, with this model, there is an inherent risk in exacerbating the town planning resource and retention problems already facing Queensland councils. Note: this would require developers to comply with requirements to provide councils with the necessary information.
- Under IDAS provide fast-track processes for low-scale and compliant residential development and subdivision (for example, house and subdivision applications proceed straight to decision stage where informal information requests and discussion can resolve any outstanding issues, which is the situation that happens now. This would save 6 to 12 months on the IDAS and council processes).
- Establish or fund a specific 'fast-track' development assessment team in councils for consideration of compliant housing and subdivision schemes. (ie similar to the current system utilised by Brisbane City Council).
- Alter planning schemes to have a 'dwelling house' as self assessable development in all local authority areas (where complying with identified acceptable solutions) and any higher level of assessment by exception only, meaning that houses could proceed directly to building certification approval where the relevant acceptable solutions in a House Code are complied with.
- Encourage adoption of code assessment in local government planning schemes, particularly for residential development and subdivision.
- Apply the existing Brisbane City Council 'Risk Smart' model to residential and subdivision proposals, for approval by pre-qualified town planning consultants. Establish this independent development assessment model for councils on a voluntary basis, and provide funding and resources to help establish this model.
- Fast-track the IPA/IDAS review process being undertaken by DLGPSR. It is understood there are no specific responses to deal with housing affordability matters, although the anticipated improvements in development assessment timeframes would be beneficial.



- Amend IPA to enable structure plans under the SEQ Regional Plan to amend the level of assessment and apply development codes, that establish 'self assessable' houses in structure plan areas.
- Initiate the proposed changes to the *State Development and Public Works Organisation Act 1971* to enable The Coordinator-General to take over the development assessment process where a decision is not made within the prescribed IDAS timeframe.
- Options for government/Department involvement outlined in DLGPSR's housing issues paper include: Explore ways to provide greater certainty and quicker assessment in the system by making IDAS applications that meet a set minimum target of affordable housing dwellings - code assessable under a state housing code.



Queensland Housing and Land Supply Forum Discussion Paper No.3 – Infrastructure Charging

1. Background

Significant additional infrastructure will be required to service forecast population and economic growth occurring in SEQ. The cost of providing urban infrastructure and services has increased significantly in recent years.

The IPA infrastructure charging system provides a high degree of transparency. The IPA has 'raised the bar' significantly in terms of the level of rigour, accountability and transparency of infrastructure planning and the charges that result.

The IPA infrastructure planning and funding framework is based on the principles of user pays and requires nexus to be established between planned development infrastructure and charges. The IPA requires local governments to prepare Priority Infrastructure Plans (PIPs). PIPs set out a local government's plans for its key infrastructure networks, the planning assumptions that underpin these plans, indicative costings, and a charges schedule that apportions costs equitably to beneficiaries.

No local government has yet adopted its PIP, and recent increases in charges have been via new or amended policies permitted under the IPA transitional arrangements. The level of public scrutiny for these policies is not as high as is required for a PIP.

The development industry has raised concerns that:

- councils are charging for infrastructure services beyond that intended by the IPA (for example, community services and facilities);
- design standards and cost estimates are often inflated, so as to maximise cost recovery;
- there is no review of the accuracy or appropriateness of the charges being applied by councils. Currently the Queensland Government checks that the council has followed the IPA requirements, but does not check the validity of the actual charge-out rate;



- the new charges are brought in with little advanced warning. This may add significantly to the developers costs where these amounts were not anticipated in the purchase price of the land; and
- there are inconsistencies in how charges are calculated and applied, including inconsistencies in regards to the types of infrastructure included in the charges.

2. Issues

Government and industry representatives have identified a number of issues affecting housing affordability, including, but not limited to, the following:

- The key issue of the infrastructure charging debate is determining the most efficient and equitable way to funding infrastructure (for example, taxation, user charges, developer contributions, council rates, private industry, borrowings).
- There is a view that infrastructure charges are not major drivers of housing affordability. The Australian Government's *Productivity Commission Report on First Home Ownership* (March 2004) found that most of the primary drivers of housing affordability are not related to infrastructure charges and are outside of Queensland Government control. Primary drivers of affordability include:
 - national financial influences such as interest rates, negative gearing and other tax policy;
 - demographic trends, such as dual income households;
 - cyclical nature of the housing market (using UDIA figures, the percentage of housing income required to purchase the average house was 46 per cent in 1990, 33 per cent in 1995, 24 per cent in 2000 and 39 per cent in 2005);
 - community expectations regarding the nature and quality of housing products; and
 - market forces more generally, including strong demand for housing in desirable locations, such as inner city and coastal areas.
- In relation to infrastructure charges the Productivity Commission found that:
 - infrastructure charges cannot explain the surge in house prices since the mid-1990s;
 - most categories of charges are justified and indeed are desirable on efficiency and equity grounds; and
 - housing affordability should not be significantly affected by greater reliance on upfront infrastructure charging.



- Notwithstanding these findings, the development industry maintains that government taxes and charges, including infrastructure charges, do have a significant impact on house prices and housing affordability. UDIA research suggests government charges account for 22.5 per cent of the typical cost of a detached house and land package in Queensland.
- UDIA research estimates infrastructure charges average \$14,409 or 3.8 per cent of the estimated average housing cost of \$383,990.
- The LGAQ dispute elements of the UDIA research and maintain that the impact of infrastructure charges on housing affordability have been significantly overstated, while the impact of other 'market fundamentals' are ignored.
- Some infrastructure charges have escalated rapidly in recent years. This is partly due to movement in construction costs and partly due to councils more closely aligning charges with the real costs of provision of infrastructure. This has come through councils increasing their understanding of infrastructure requirements and whole-of-life costs.
- Regardless of the above, infrastructure charges as a proportion of the overall development costs and purchase price are relatively minor (UDIA research suggests 3.8 per cent).
- There are inconsistencies in the way councils apply revised charges. Councils have considerable discretion about the proportion of costs recovered, the networks charged for and the rate at which they introduce new charges. Some councils have agreed to progressively increase charges over a number of years. Other councils have elected to pass on full increases immediately to maximise cost recovery. These decisions are made independently by each council as part of their Budget deliberations.
- There may be considerable variation in infrastructure charges across council boundaries and within council areas due to the relationship between local conditions and infrastructure costs. For example, infrastructure charges vary significantly between the Brisbane inner suburbs of Bulimba and New Farm. This variation may influence, in a minor way, market behaviour.



- In addition to establishing a revenue stream for councils, PIPs provide the development industry with greater certainty and transparency regarding the scope and timing of infrastructure provision. This information reduces development risk and increases investor confidence.
- In a market economy there is no guarantee that reduced infrastructure charges will result in greater housing affordability. Reduced development costs are not necessarily passed on to the consumer.
- Despite increases in infrastructure charges in recent years many major property developers in Queensland have significantly increased their market capitalisation and maintained returns on investment of around 20 per cent. The development industry has been one of the primary beneficiaries of market processes in recent times.
- Alternative infrastructure funding mechanisms exist and require further investigation. Approaches must be carefully assessed to minimise the shifting of costs onto other rate payers who may not use the infrastructure. This, in turn, may impact on general liveability and reduce community acceptance of new development.

3. Case studies

Although not an exhaustive sample, there are a number of relevant case studies, summarised below. (Please note: these have been predominantly provided by the development industry).

- There is often uncertainty regarding the infrastructure charges that may apply to a development project. Sometimes charges increase significantly between project feasibility, preliminary discussions with councils and final development approval. Significant unanticipated increases in charges are likely impact on project viability and increase sale price.

For example, headworks charges (covering water, sewerage and stormwater) for a large residential development proposal were estimated at \$5250 per allotment in January 2004. A development application was lodged in June 2004 for 166 dwellings. The application was then amended to meet council's increased density requirements. The proposal was revised to yield 216 dwellings. During this time the council reviewed its infrastructure charges applying to the site.



Charges increased from \$1.01 million for 166 dwellings (approximately \$6000/dwelling) to \$10.49 million for 216 dwellings (approximately \$48,500/dwelling). Even if the original application (166 dwellings) proceeded infrastructure charges would have increased from \$1.006 million in 2005 to \$8.437 million in 2006 (an increase of 838 per cent). It should be noted the charges for this application have since been considerably revised down.

- Councils often apply infrastructure charges that relate to assumed yields on development sites. Yield assumptions are necessary to inform infrastructure planning and design. It is reasonable for councils to recover costs for infrastructure that has been optimised to service planned growth. However sometimes planning or development constraints (for example, protected vegetation, heritage controls, steep land) prevent assumed yields being realised.

For example, a council identified a theoretical residential yield for a development site as 230 Equivalent Tenements (ET). However when environmental constraints, parkland contributions and market viability were taken into account the maximum yield achievable on the site was 170ET. A development application was approved for 170ET, but council charges were applied on the basis of 230ET. The difference between the practical and theoretical development yield on the site (60ET) equates to \$784,440 or \$4,600 per lot.

- Councils need to recover costs associated with the provision of infrastructure and services and developer contributions have evolved as an efficient way (for councils) of doing this. The development industry advocates that up-front charges applied to individual premises should be spread more widely, however this approach is inconsistent with the user pays principles underpinning the IPA.

For example, the LGAQ has estimated that reductions in up-front development charges will have a substantial negative impact on local government finances and will shift costs to ratepayers. Table 1 summarises the impact of reducing up-front development charges by 50 per cent on council finances and general rates.



Table 1: Estimated impact of 50 per cent reduction in up-front development charges¹

Local government	Average infrastructure charges (per lot) ²	Estimated lots/units approved per annum ³	Estimated council funding shortfall (\$million)	Additional annual cost increase for average general rates
Broadhectare land only (per lot)				
Gold Coast City	\$15,250	4,585	\$35.0	+\$158
Ipswich City	\$15,000	3,379	\$25.3	+\$477
Redland Shire	\$14,250	986	\$7.0	+\$131
Maroochy Shire	\$13,500	1,969	\$13.3	+\$203
Medium Density Only (per unit)				
Brisbane City	\$6,250	4,840	\$15.1	+\$40
Gold Coast City	\$10,400	3,051	\$15.9	+\$72

Source: LGAQ, October 2006; Urbis JHD, 2006; DLGPSR, 2006.

4. Comparative analysis with other states

- Comparative analysis has identified that Queensland, New South Wales Victoria, Western Australia and the Northern Territory share similar infrastructure charging philosophies and frameworks. While the actual scope, type of infrastructure and terminology varies between states the common principles of nexus, user pays, fair-share apportionment and transparency generally apply in all cases.
- Direct comparison of charges between states is difficult due to different jurisdictional responsibilities and large variations in what agencies and councils choose to charge for and the rates used in calculating charges.
- The relative impact of infrastructure charges is strongly linked to prevailing market conditions. These vary significantly between states, regions and across metropolitan areas.
- In general terms infrastructure charges being applied by Queensland councils are similar or significantly lower than those applied in other states. Indicative charges are documented in Tables 2 and 3.
- In other states it is common for state agencies to charge for a range of development infrastructure. However in Queensland under the IPA charging regime the opportunity to recover contributions towards state infrastructure is limited to contributions towards the local function of state-controlled roads.





- All states, including Queensland, have provisions for voluntary infrastructure agreements.
- In some states different charging approaches have been adopted in different areas. Victoria and NSW have recently launched new charging regimes for growth areas with the intent of recovering prescribed proportions of state infrastructure costs (NSW seeking 75 per cent cost recovery, Victoria seeking 25 to 50 per cent cost recovery depending on infrastructure type and location).
- Infrastructure charges for state infrastructure are significantly lower in Queensland than in all other states.
- State infrastructure charges in Victorian growth areas range between \$95,000 and \$135,000 per hectare. Charges in NSW growth areas range between \$18,000 and \$47,000 per dwelling.

Table 2: Indicative NSW and Victorian Infrastructure Charges¹ (\$ per residential lot)

State/Local Authority	Open-space	Transport	Storm-water	Comm-ty Facilities	Water ²	Sewerage ³	Median Charge	Min - Max Charge
NSW								
Inner								
North Sydney	✓	✓	X	✓	✓	X	\$20,240	
Leichhardt	✓	X	X	✓	X	X	\$24,643	\$20,569 - \$28,796
Lane Cove	✓	✓	X	✓	✓	X	\$25,640	
Middle								
Canterbury	✓	✓	X	✓	✓	✓	\$13,357	
Ryde	✓	✓	✓	✓	✓	X	\$13,794	
Parramatta	✓	✓	X	✓	✓	X	\$6,178	\$5,941 - \$7,643
Outer								
Baulkham Hills	✓	✓	✓	✓	✓	✓	\$32,521	\$13,969 - \$46,770
Hornsby	✓	✓	✓	✓	✓	✓	\$30,809	
VIC								
Middle								
Darebin	✓	✓	✓	✓	✓	✓	\$4,537	\$2,849 - \$8,131
Maribymong	✓	X	✓	✓	✓	✓	\$5,733	
Outer								
Whittlesea	✓	✓	✓	✓	✓	✓	\$13,350	\$8,790 - \$14,833
Wyndham	✓	✓	✓	✓	✓	✓	\$7,588	

Notes:

1. Infrastructure Charges from Development Control Plan (Vic), Section 94 Contribution Plan (NSW)
2. Water charges from relevant water board authority
3. Sewerage charges from relevant water board authority.





Table 2: Indicative Infrastructure charges in SEQ

Local Authority (Locality)	Water Supply	Sewerage	Waterways	Transport	Parkland	Community Facilities	Total charge per residential hectare ¹	Total charge per residential lot ²
Brisbane (Wakerley) ³	\$19,016	\$27,879	\$50,197	\$40,097	\$37,236	\$0	\$174,425	\$15,857
Ipswich (Ripley – Yamanto) ⁴	\$26,405	\$19,706	\$0	\$35,729	\$26,405	\$4,118	\$112,362	\$10,215
Gold Coast (Coomera) ⁵	\$34,391	\$57,431	\$0	\$16,510	\$55,283	\$0	\$163,615	\$14,874

Notes:

1. Infrastructure charges for the 2005-06 financial year
2. Based on residential density of 11 dwellings per hectare
3. Based on residential density of 10 to 12 dwellings per hectare
4. Based on residential density of 10 to 12 dwellings per hectare
5. Based on residential density of 11 dwellings per hectare

5. Possible strategies

There are a variety of potential strategies that could be put in place dealing with infrastructure charging including:

- As part of the IPA/IDAS review process investigate opportunities to expand the Regulated Infrastructure Charge provisions in the IPA to provide a means of simplifying or standardising charges for some infrastructure items, and broadening their use by councils.
- As part of the IPA/IDAS review process provide greater clarification and ensure much greater consistency as to the infrastructure that:
 - provides services to that development only and is required only because of that development (for example, headworks infrastructure);
 - provides services to the entire community as increasing the amenity of the entire community, existing and new (for example, community/social/recreational/open space infrastructure including walking tracks, bikeways, sports facilities, general transport)



- Establish a protocol for application of charges in circumstances where DA approval timeframes exceed prescribed timeframes (for example, charge applied should reflect charge applicable when approval could have reasonably been anticipated).
- Mandate cost escalation indices to be applied to update charges on an annual basis (for example, CPI, ABS data, Rawlinsons construction index)
- Establish a protocol for the introduction of charges that have been increased significantly above index rates. Protocol possibly to include:
 - advance notification of intent to increase charges above a specified percent; and/or
 - incremental increase over defined timeframes (for example, phase in over several years).
- Investigate prohibition of upfront charging for trunk networks which are partly funded through a periodic charging regime (for example, water and sewerage). This practice is already used for the trunk component electricity and telecommunications networks.
- Investigate alternative infrastructure charging options such as redistributing infrastructure charges to the raw land component, benefited area levies or State and local government entering into infrastructure funding agreements.
- State or LGAQ to establish an infrastructure charges monitoring and verification program that could assist in investigating industry concerns with specific councils and charging systems, as well as monitoring the impact on affordability.
- Establish an industry advisory panel to assist councils to identify appropriate/viable development yield assumptions to underpin infrastructure planning.
- Continue to support local governments in the preparation of PIPs as a priority.
- Developers fund the infrastructure, paying with upfront development levies.





- For new development, the Queensland Government could provide greater clarification and ensure much greater consistency regarding the infrastructure that:
 - provides services to that development only and is required only because of that development (for example, headworks infrastructure); and
 - provides services to the entire community which increases the amenity of the entire community, existing and new (for example community/social/recreational/open space infrastructure including walking tracks, bikeways, sports facilities, general transport).

- Investigate alternative options for funding infrastructure services, particularly social, recreational, community and open space infrastructure that provide wider community benefits. Alternative funding mechanisms may include:
 - Development infrastructure could be funded entirely by the development concerned, however councils could provide more payment options, such as:
 - Developers fund the infrastructure, paying with upfront development levies (as is the present case).
 - Councils fund the infrastructure (through borrowings), and recover the cost through development specific rates surcharges which apply for a maximum of say 20 years. In this case, it will be important that the lot-specific “infrastructure liability” is fixed at the time of the approval of the development and appropriately disclosed to interested purchasers of that land so that purchasers are fully informed for pricing purposes.
 - An infrastructure charge of around \$20,000 per lot would translate into an annual rate surcharge of about \$2000 pa (20 years at 8 per cent) - in addition to annual rates (of around \$1600 pa).
 - Councils provide for staged payment of infrastructure charges where a proportion of charges are paid upfront, with the balance of payments staged over a set time period once sales of development occur.
 - Community infrastructure, including that identified on the “Priority Infrastructure Plan” under the IPA could be funded by councils using borrowings repayable from general rate revenue.
 - In this way it can be made clear to the community that the infrastructure provided in the “Priority Infrastructure Plan” is to be funded by the community, albeit that council may defer items of infrastructure until the rate base grows sufficiently (or may proceed with infrastructure on the basis that the infrastructure will lead to a growth in the rate base).



- The Queensland Treasury Corporation could develop specific borrowing products for the funding of development infrastructure. Recovery of the costs could be against specified lots, for example a specific rates surcharge set at time of development approval for a specific period (for example, 20 years)
- The Queensland Government, through the Public Private Partnerships initiative (The Coordinator-General), could explore the benefits and costs of councils engaging the private sector more in the delivery of community infrastructure services (for example, engaging the private sector in one or more steps such as planning, design, construction, ownership, operation, facilities management, maintenance).
- State community infrastructure could be funded from the state base.





Queensland Housing and Land Supply Forum

Discussion Paper No.4 – Building Standards and Codes

1. Background

Across Queensland, the design standards for houses and residential subdivision will vary depending on the local authority's planning scheme. Combined with this, the Queensland Government oversees a number of standard or 'baseline' regulations and standards, including the *Building Act 1975* and the associated Standard Building Regulation, and the Queensland Development Code.

Sustainable housing measures are being implemented through the *Standard Building Amendment Regulation (No. 1) 2006* and the *Queensland Development Code* (Parts 25 – Rainwater Tanks and Parts 29 – Sustainable Buildings).

Housing industry stakeholders have suggested that a lack of consistency regarding building and subdivision standards across the state - combined with the overregulation of approvals processes by State and local government - is making the delivery of housing products more cumbersome.

2. Issues

Government and industry representatives have identified a number of issues affecting housing affordability, including, but not limited to, the following:

- Building standards and requirements for development in Queensland are contained in a number of different statutory and non-statutory documents:
 - The consistent themes for dwellings are the Queensland Development Code (QDC), and the overarching Building Code of Australia, which provides the benchmark on structural design matters;
 - Schedule 13 of the *Standard Building Regulation 1993* contains parts of the QDC that have legislative effect. All other parts of the QDC are advisory standards only.



- The Queensland Development Code consolidates building standards, such as those covered by the *Building Act 1975*, and other legislation containing building related provisions specific to Queensland, into a single document. The standards cover matters outside the scope of, and in addition to, the Building Code of Australia. In addition to standards which can be enforced by a building certifier, there are model standards, which can be used for councils in their planning schemes (these include standards for rainwater tanks, sustainable building design, child care centres, building and fire safety matters, building requirements for special entertainment precincts).
- Parts 11 and 12 of the Queensland Development Code contain standards for dwellings that can be used as 'default' provisions, unless where a council's planning scheme contains 'alternative standards' for dwellings (which is the situation with most council planning schemes). These standards are separated into provisions for dwellings on lots less than 450m², and for those greater than 450m² in area.

As a result, within Queensland, a dwelling house built in different parts of the state will have different requirements, depending on the planning scheme put in place by the local authority. These varying requirements can impact upon housing costs.

- Changes to the building approvals system (as contained in the IPA) mean that a building certifier can approve a building for a location anywhere in Queensland, to provide greater flexibility in obtaining building certification standards. *Note – the role of building certification and the regulatory environment has not been raised for consideration in this paper.*
- The key stakeholders, represented by the HIA, have demonstrated frustrations for builders and designers in applying different local authority standards and requirements across Queensland.
- The *Chief Executive Officer's Sub-Committee on Affordable Housing: Final Report to the Premier* included an initiative to improve the effectiveness of regulatory and other tools to increase the availability of housing to lower income earners. Precise recommendations for how to achieve these changes to the regulatory environment were not explored in the report.



- DLGPSR has been undertaking an operational review of the IPA/IDAS system, and suggesting operational improvements. There are no specific plans to roll-out consistent building standards as part of this review. The matters of the operational efficiency are addressed in *Discussion Paper No. 2 – Development Assessment*.
- The RRIF provided by the Federal Government is designed to streamline development approval processes, by providing development tracking and assessment services on line. The process is in the early roll-out stage in Queensland, and DLGPSR are involved in the project inception and delivery stages of the online development assessment components. This is also discussed further in *Discussion Paper No. 2 – Development Assessment*.
- The *Building and Other Legislation Amendment Act (BOLA)* was introduced in Queensland in 2002, establishing fire safety requirements for budget accommodation buildings. Such legislation has potentially added to the cost of some forms of housing.
- Recent changes to the *Local Government Act 1993* allow local governments to declare special entertainment precincts through an amendment to their planning schemes under the IPA and apply a local law and a model code for new entertainment venues or dwellings within a declared precinct. The application of the model code may have cost implications on infill development, requiring dwellings to be built with noise attenuation measures.

3. Case studies

Although not an exhaustive sample, there are a number of relevant case studies, summarised below. (Please note: these have been predominantly provided by the development industry).

The following information has been provided to the Office of Urban Management:

- One of the biggest concerns identified by the HIA with most new planning schemes is the duplication of a range of requirements already covered in the Building Code of Australia or the Queensland Building Regulations. Typically, these issues tend to be in the areas of energy efficiency and siting requirements. Duplicating these requirements takes these issues from being building matters that will be addressed during assessment of the building application and turns them into planning matters that potentially trigger a development (planning) application. The flow on effects can be significant in both time and money.



For example, a council currently charges \$225.00 for a detached house siting relaxation application which is usually dealt with in five working days for the council's building certifier. Under the provisions of the new planning scheme, to achieve the same outcome, a code assessable development (planning) application is required attracting a fee of \$600.00 which given council's current delivery times, will take in the vicinity of ten (10) weeks to assess. This does not include the very probable need to engage a specialist planning consultant to prepare a development application (\$2,000 - \$3,000) addressing all of council's requirements as set out in their House Code.

- Previously, a council could approve building relaxation applications (boundary setbacks) for small lots in emerging community areas and traditional lots after reconfiguration approval through a blanket building relaxation process. Recent changes to the State's Standard Building Act and Regulations have removed this ability, meaning that:
 - For traditional lots, individual building relaxations must now be lodged at the building stage at a cost of \$461 per lot instead of \$52 per lot; and
 - For small lots (that do not comply with the council's small lot code), a development application for Preliminary Approval to override the planning scheme and the Small Lot Code is required. These applications require public notification even though the original subdivision approval creating the small lot creates an expectation that small lots are envisaged.

- It has been suggested that Queensland has moved from a system that was working adequately, incorporating a reasonable fee and a relatively quick turn around, to one where the fee is tripled, not including the planning consultant and an application that can take months instead of days to be considered. Very little value is added in this process as HIA's information is that only a small percentage of these building siting relaxation development applications are ever refused.

- The comment was made in the case studies that while there may be positive examples in industry, they are in the main being initiated by individual council officers and are not being endorsed by councils at large.



- To provide some context, the RRIF 2005 considered that introducing the RiskSmart Development Assessment process to SEQ would result in savings in the order of \$118,736,350 to business. This process relies on independent assessment of development applications by pre-qualified town planning consultancies, and a suite of measures including online development tracking systems. Further cost savings of \$29,684,087 per annum were estimated for the councils with the introduction of this system.
- Developers have established detailed spreadsheets and programs to run their house designs through the layers of siting and local authority building standards, and this sophisticated process works relatively well.
- The cost of complying with recent amendments to the Building Code – such as the recent Sustainable Housing amendments – has been raised as a concern by UDIA’s developer clients.
- Local governments are taking a haphazard approach to addressing housing affordability issues. For example, a local government in SEQ has adopted a series of policies to improve housing affordability. This includes encouraging applicants for multi-family dwellings to consider some provision for low cost accommodation in well serviced locations, by providing for alternative acceptable solutions for gross floor area increases and car parking decreases and by some reimbursements for infrastructure charges.

4. Comparative analysis with other states

From the information obtained, we understand there is no pre-determined set of standards for a dwelling house in the other states.

It is acknowledged that Western Australia has introduced a standardised format and terminology in local government planning schemes, which is applied consistently across the state.



5. Possible strategies

There has long been support for a consistent approach to development standards across Queensland, and some measures are suggested below:

Possible strategies:

- Investigate options to standardise planning and building requirements for dwellings throughout Queensland, including the following possible options:
 - A standard 'House Code' could be introduced throughout Queensland so that there are consistent requirements all throughout Queensland. This could be established through the Queensland Development Code, administered by Building Standards Queensland within the Department of Local Government, Planning, Sport and Recreation. This could be undertaken on a voluntary basis by councils, where the council wishes to establish certainty regarding building standards. Imposing this as a mandatory requirement would remove the traditional autonomy of councils in adjusting the building standards to reflect the local community and political imperatives.
 - Alternatively, alter Queensland planning schemes to have a 'dwelling house' as self assessable development in all local authority areas, where they comply with the standard 'House Code' in the Queensland Development Code. This option would be simpler than amending all local authority schemes to include a standard House Code. The challenge here is to find a 'common' set of standards for dwellings across the state (ie. building height could not be varied for local conditions, or side boundary setbacks determined for local political or neighbourhood environments such as currently occurs in Brisbane City).
 - Consider introducing standard siting requirements for a House through a standard code (similar to those standards provided for now in the Queensland Development Code), and to allow local authorities to set any local variations (which occurs now in local authority planning schemes as the 'alternative' standards which sit over the top of the 'default' standards in the Queensland Development Code.
 - Potentially combine the house standards existing already in the Queensland Development Code and the Standard Building Regulation into a mandatory 'House Code'.



- Potentially introduce a baseline set of subdivision and design standards.
- Investigate the establishment of 'fast-track' development assessment teams in councils for consideration of compliant housing and subdivision schemes. BCC established a similar group with substantial success.
- Investigate the application of the existing Brisbane City Council 'Risk Smart' model to residential and subdivision proposals, for approval by pre-qualified town planning consultants.
- Fast-track the delivery of the RRIF project, to bring forward streamlining in development approval processes for material change of use applications relating to housing projects.
- Consider ways to deliver a RRIF style project to encompass local authority areas outside SEQ.
- Simplifying building standards across Queensland and introducing a consistent and mandatory standard.
- Options for government/Department involvement outlined in DLGPSR's housing issues paper include exploring to what degree expectations of housing standards contribute adversely to the provision of housing to meet community housing needs.



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**Papers prepared by the
Office of Urban Management
on behalf of
The Coordinator-General**

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Queensland Government
The Coordinator-General



Queensland Housing Affordability Strategy



Housing Affordability

The Strategy

The Queensland Housing Affordability Strategy will ensure that the State's land and housing is on the market quickly and at the lowest cost.

The actions will provide for a more competitive and responsive land and housing market by significantly reducing the timelines and associated holding costs of bringing new housing to the market.

Through the Queensland Housing Affordability Strategy, the Queensland Government will:

- establish an Urban Land Development Authority;
- make immediate changes which improve the planning and development assessment process;
- increase the supply of land ready for development;
- regulate infrastructure charging plans across Queensland;
- designate land for housing in regional areas of high demand;
- identify and develop appropriate underutilised government land for urban proposals; and
- allow local governments to facilitate private sector financing of infrastructure.



Message from the Premier and Deputy Premier

Housing affordability is a matter of national concern

The Queensland Government is committed to improving housing affordability and providing a wide range of housing choices for Queenslanders. We need to meet ever changing household needs and the demands of rapid population growth.

Housing affordability is influenced by many factors, such as market influences, interest rates and mortgage deregulation – factors over which the Queensland Government has little control.

However, through the Queensland Housing Affordability Strategy, the Queensland Government is acting on land and housing supply matters – areas where we can improve factors that enable the market to respond more effectively to providing housing.

Our government is delivering through the Queensland Housing Affordability Strategy. The Strategy provides immediate actions to deliver:

- an Urban Land Development Authority;
- an efficient planning and development system;
- an improved supply of land for development;
- more efficient use of existing urban land; and
- simple, standard and transparent infrastructure charging.

The Queensland Housing Affordability Strategy will be delivered by the Queensland Government and will apply across the State. Immediate actions will focus on areas where housing and economic growth pressures are highest.

The Strategy is an essential part of the Queensland Government's actions on housing affordability for the State's economic and social prosperity.

A handwritten signature in black ink, appearing to read 'P Beattie'.

The Honourable Peter Beattie
Premier

A handwritten signature in black ink, appearing to read 'Anna Bligh'.

The Honourable Anna Bligh
Deputy Premier
Treasurer and Minister for Infrastructure



Urban Land Development Authority

The Queensland Government understands the importance of developing a diverse mix of housing choice for current and future communities within the State's major growth areas. To deliver this, the Government will establish an Urban Land Development Authority by November 2007.

For sites nominated by the Queensland government, the role of the Authority will be to undertake land use planning, land amalgamation and acquisition, land improvement, development assessment and then on-sell land and development rights to private sector developers.

The Authority will have the power to deliver a range of housing products to meet the changing needs of the community. In particular, this will allow the Authority to attach conditions of sale to land to require a set contribution of affordable housing and meet other Government policy outcomes that improve access to housing.

The Queensland Government has nominated the following five initial development sites and will add additional sites:

- Woolloongabba
- Bowen Hills
- Northshore Hamilton
- Fitzgibbon
- Mackay Showgrounds

These sites cover more than 700 hectares of land and deliver housing for more than 20,000 Queenslanders.

The Urban Land Development Authority will complement existing private industry investment in urban infill and redevelopment projects by focusing on the planning, management and delivery of strategic urban sites in South East Queensland (SEQ) and regional cities declared by the Queensland Government.

Legislation to establish the Land Development Authority will be introduced to Queensland Parliament in August 2007. We will move quickly to establish the Board of the Authority and will commence consultation with industry and local government to establish the Authority by November 2007.

Making Queensland's planning and development assessment systems more efficient

Queensland has a comprehensive planning and development assessment system. However, unnecessary delays in the development assessment process, particularly in areas of high growth, can lead to higher development costs and substantial delays in bringing land and housing to the market.

Development holding costs during the assessment period can add between \$15,000 - \$20,000 per dwelling. This cost is passed on to the end purchaser but can be significantly reduced by a more efficient planning and development assessment system.



The Queensland Government will immediately amend the *Integrated Planning Act 1997* to:

- improve the efficiency and timeliness of the development assessment system, particularly in relation to high growth areas;
- enable the Planning Minister to resolve conflicts between agencies early in the assessment process including a power to direct a decision to be made;
- regulate to require Structure Planning for major urban development areas; and
- enable councils to deal with low risk approvals through a simplified process.

Increasing supply of land for development

Historically, land supply issues in Queensland have primarily related to providing new lands on the urban fringe for extension of low density residential suburbs.

Queensland's current and emerging communities are expressing a desire for a wider range of housing choice and better integration of housing, employment, public transport, community services and recreational opportunities. This requires a smarter approach to planning and development of future land and housing, which can also assist in improving housing affordability across all sectors of the community.

In SEQ, the Queensland Government has clearly identified lands for future urban development through the *South East Queensland Regional Plan 2005-2026*.

By December 2007, the State Government will undertake a review of greenfield land in the Urban Footprint to identify which parcels can be developed ahead of the time frames currently identified. Examples include:

- Yarrabilba
- Caloundra South
- Coomera
- Ripley Valley

This approach will enable additional lands to be brought onto the market in the short to medium term, increasing market competition and choice. This assessment will also include consideration of the provision of associated infrastructure and services.

Regional Queensland is also experiencing unprecedented population and employment growth, resulting in increased need for land and housing. A similar process will be undertaken in high growth areas including regional centres such as Cairns, Townsville, Thuringowa and Mackay.



Monitoring the supply of land and housing

To ensure the Queensland Government is provided with the most up-to-date and comprehensive information on land and housing supply, existing government land supply monitoring programs will be improved. Specific new initiatives include:

- monitoring of land and housing prices;
- assessment of land fragmentation and land availability for development;
- consultation with industry on future development activities and trends; and
- extending monitoring to all high growth areas in Queensland.

This will provide government, industry and the community with up-to-date information on the land and housing supply market and enable government to respond appropriately to emerging housing supply issues.

Regulated and transparent infrastructure charging system

A critical element for new greenfield and infill development is the provision of major infrastructure services. These services include water treatment, storage and supply, sewerage treatment facilities, drainage trunk networks, arterial and sub-arterial roads, local parks and lands for community facilities.

Local governments are required to develop Priority Infrastructure Plans (PIPs) to outline their infrastructure program and to develop infrastructure charging schedules to fund these services. Most local governments have had difficulties in developing these plans and charges, leading to industry uncertainty about the level of services and the infrastructure charges proposed. This uncertainty has led to difficulties for developers in determining their costs, often resulting in increased end-sale prices for land.

Under the Queensland Housing Affordability Strategy, the State Government will immediately review and simplify the process for determining infrastructure charges by:

- introducing a more simplified and transparent infrastructure assessment and reporting process;
- introducing standard infrastructure charging schedules for councils who do not complete PIPs by June 2008;
- requiring local governments to advertise and phase in new charges;
- empowering the Queensland Competition Authority to review and set infrastructure charging schedules; and
- enabling the Building and Development Tribunal to decide disputes with respect to developer charges for specific applications by September 2007.



Financing infrastructure services

Infrastructure services are financed predominantly by State and local government, with industry support through infrastructure charges on new development. Mechanisms also exist for local governments to partner with developers or require developers to provide all or part of the initial infrastructure establishment costs for new growth areas.

The Queensland Housing Affordability Strategy will provide greater flexibility as to how and by whom infrastructure services are financed. In particular, this Strategy will facilitate a mechanism to improve opportunities for local government to approve third party financing for the provision of infrastructure.

When will the Queensland Government deliver on these promises?

By the end of 2007, the Queensland Government will:

- establish an Urban Land Development Authority;
- implement changes to the planning and development assessment process;
- designate land suitable for development in the short term; and
- implement standard infrastructure charging regimes.

Further information

For more information on the Queensland Housing Affordability Strategy, contact the Office of Urban Management, Department of Infrastructure:

Freecall 1800 021 818

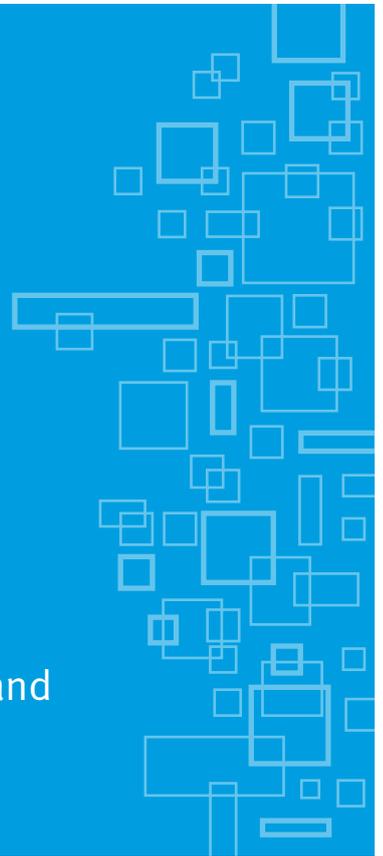
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Delivering the Queensland Housing Affordability Strategy

Greenfield land supply in South East Queensland



Queensland Housing Affordability Strategy

The Queensland Government released the Queensland Housing Affordability Strategy (the Strategy) in July 2007 to ensure that the state's land and housing is on the market quickly and at the lowest cost.

The Strategy identified several initiatives to be delivered by the Queensland Government, some of which have already been delivered such as:

- establishing an Urban Land Development Authority
- implementing changes to the planning and development assessment process.

Another main aim of the Strategy is to increase the short to medium term supply of greenfield land in South East Queensland (SEQ).

The Queensland Government has already clearly identified lands for urban development in SEQ through the Urban Footprint of the *South East Queensland Regional Plan 2005-2026* (SEQ Regional Plan).

The greenfield land supply strategy is about ensuring appropriate and available land in the Urban Footprint is brought to the market in a timely, cost-effective and efficient manner.

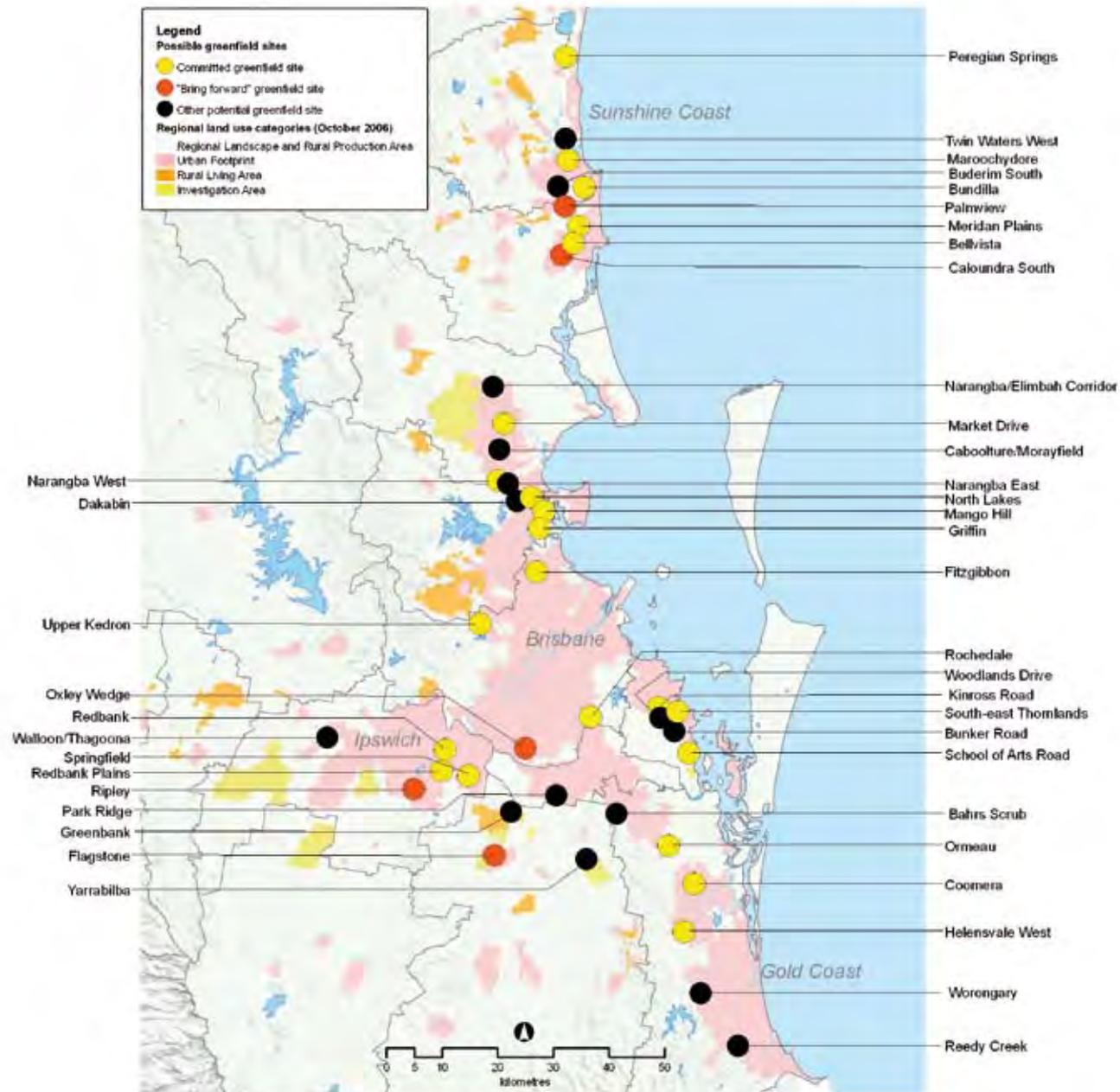
South East Queensland greenfield land review

Greenfield lands are areas of undeveloped land in the Urban Footprint suitable for urban development. Greenfield lands are generally located on the fringes of existing urban areas and often require significant extension or provision of new infrastructure and transport services to facilitate development.

The state government has recently undertaken a review of greenfield land in the Urban Footprint to identify parcels that could commence development in the short term.

The review identified around 42 greenfield areas, ranging in size from 100ha to 5,000ha which are either 'committed' or 'potentially' available for development.





Information on this map is not intended for reference to specific parcels of land, and should be treated as indicative only and subject to ongoing refinement.

The Southern Region Division, Department of Infrastructure and Planning does not guarantee or make representations as to the accuracy or completeness of the information shown on this map, nor does it accept responsibility or liability for any loss or damage arising from its use.

Committed areas have a combination of the following characteristics:

- established or committed infrastructure
- urban zoning
- existing development approvals
- advanced planning in place
- limited development impediments
- consolidated land ownership or agreements
- short term development timeframe (0-5 years).

Potential areas (bring forward and other) have a combination of the following characteristics:

- outlying from existing activity centres and services
- suitable for urban development
- regulatory planning frameworks not in place
- inadequate infrastructure
- fragmented land ownership
- currently identified for possible development in the medium to long term (10-20 years) but are capable of being developed in the short to medium term.



Bring forward objective

SEQ is experiencing significant and sustained growth, with a forecast average of around 50,000 to 60,000 new residents per year to 2026.

The 42 identified greenfield areas total around 40,000 hectares of land potentially suitable or available for development within the Urban Footprint. The greenfield areas have the capacity to accommodate around 240,000 new dwellings or up to 600,000 people, based on a range of assumptions such as utilising only half of the site areas for residential development (taking into account non-residential uses and land constraints) with an average net density of 12 dwellings per hectare and 2.5 persons per dwelling. The dwelling potential and population capacity will vary for each area, recognising the individual opportunities some sites will have for higher densities and mixed use development or individual physical characteristics which may reduce yield.

There are also a number of regional challenges with developing the greenfield areas. A significant amount of the land is outside the current local government planning scheme development areas and are generally targeted for meeting growth demands post 2016. Additionally, not all of the greenfield land will be designated for

residential development, as the region's urban fabric needs to provide for a range of activities including residential, employment, infrastructure, recreation, open space and environmental management. Robust planning processes are required to identify lands most appropriate for residential and mixed-use activities.

The identified areas will potentially accommodate 75 per cent of the targeted greenfield growth to 2026 under the SEQ Regional Plan (2005). The balance of greenfield growth is to be accommodated through existing development fronts, inland urban centres and greenfield sites less than 100 hectares.

Bring forward principles

The following principles will guide the Queensland Government's actions to accelerate the development of greenfield areas:

1. The action plan only applies to land within the SEQ Regional Plan Urban Footprint.
2. The development of greenfield areas must be spread across SEQ so that growth pressures are not concentrated in one area alone.
3. Greenfield areas must be planned and delivered as integrated communities with access to employment opportunities.
4. The planning approval process will be managed by the relevant local government.
5. The efficient, timely and cost-effective delivery of infrastructure is critical to the development of greenfield areas.
6. Development will provide a mixture of housing needs and contribute to reducing regional housing affordability stress.
7. Planning and approval processes must be streamlined and facilitate the development of appropriate areas.
8. The action plan must deliver certainty for government and industry investment (i.e. time and resources).



Photo supplied by Delfin

Committed areas – bring forward actions

South East Queensland has significant greenfield areas that are already appropriately zoned or designated for development within the Urban Footprint. These include areas such as:

- Maroochydore and Meridan Plains on the Sunshine Coast
- Market Drive and North Lakes in Moreton Bay
- Upper Kedron and Rochedale in Brisbane
- Coomera and Helensvale on the Gold Coast
- Springfield and Redbank Plains in Ipswich
- Kinross Road and South East Thornlands in Redland

Committed areas should be able to be brought more quickly to the market to meet the region's present needs.

The Queensland Government will facilitate the release of committed greenfield areas by immediately:

1. Appointing a dedicated implementation team within the Department of Infrastructure and Planning. This implementation team will be set the task of working with local government, state agencies and industry to remove any regulatory hurdles to committed areas coming to market within six months.
2. Prioritising government consideration of planning scheme amendments that facilitate development of committed greenfield areas.
3. Actively monitoring the development assessment program, construction and land release timelines of key sites.

The focus of the implementation team is to accelerate the development of committed greenfield areas by actively removing bottlenecks. The implementation team will use a variety of mechanisms to deliver outcomes. These will include site-by-site consultation with landowners, local government and state agencies, establish delivery timeframes, and utilise the Ministerial powers of the *Integrated Planning Act 1997* (IPA) to ensure delivery timeframes.



Potential areas – bring forward actions

There are a number of greenfield areas that are currently identified for development in a 10-20 year timeframe but are capable of being developed in the short-medium term, subject to appropriate planning and infrastructure frameworks.

The relative ease in bringing forward these potential greenfield areas varies based on factors such as state and local government priorities and programs, access to infrastructure, land fragmentation and access to employment opportunities.

The Queensland Government will manage the bring forward of suitable sites by:

1. Immediately bringing forward the planning for the following greenfield areas, which have the capacity to deliver integrated communities of 15,000 people or more:
 - Palmview on the Sunshine Coast
 - Caloundra South on the Sunshine Coast
 - Oxley Wedge in Brisbane
 - Flagstone in Logan
 - Ripley Valley in Ipswich.

To achieve this the Queensland Government will work with councils and industry to make these sites developer ready within 12 months. This may involve the use of ministerial powers to declare master planned areas where necessary.

2. Establishing additional priority greenfield areas across the region by consulting with the development industry and local government on preferred bring forward areas, based on the criteria identified below.

Identifying delivery mechanisms to establish appropriate planning and infrastructure frameworks for each priority area.

Potential areas – bring forward criteria

Potential greenfield areas will be considered for bring forward where the following criteria can be met:

- delivery of infrastructure and funding arrangements
- provision of employment opportunities
- provision of a range of housing options, including affordable housing

- ensuring land is developer-ready in regard to planning, sequencing and landowner agreements
- public transport initiatives
- consistency with the objectives of the SEQ Regional Plan (i.e. orderly and efficient urban development sequence).

Infrastructure

The potential greenfield areas are generally outside of current state and local government infrastructure delivery programs. In order to bring any potential greenfield site forward, the proponents will need to clearly demonstrate how necessary infrastructure is going to be delivered and funded.

The Queensland Government committed to a number of actions for reviewing and simplifying the process for determining infrastructure charges in addition to promoting third party financing under the *Queensland Housing Affordability Strategy*.



Integrated communities

New greenfield areas must achieve high standards with regard to neighbourhood design, public transport accessibility, environmental sustainability and housing yields, choice and affordability in order to meet the needs and expectations of people moving into these areas.

Our communities should be designed as a coherent pattern of neighbourhoods, with each neighbourhood focussed on a centre serviced by public transport and supported by a legible street network, quality open space, community and cultural facilities, and mixed use development in appropriate locations.

Structure planning is fundamental to delivering the higher standards for emerging urban communities.

Structure plans address core issues such as:

- land use mix, including residential densities
- employment locations
- infrastructure, including public transport
- open space and conservation areas
- development sequencing and future master planning areas.

Structure planning will become an increasingly important tool for establishing the broad layout, land use mix and infrastructure requirements for the identified greenfield areas.

SEQ Regional Plan review

The SEQ greenfield land review considered land within the Urban Footprint only.

The review of the SEQ Regional Plan is currently underway and will consider the current Urban Footprint in addition to a number of other issues such as climate change, economic development and transport.

The draft SEQ Regional Plan 2009-2031 will be released for public consultation in December 2008, which will close in late March 2009. The final SEQ Regional Plan will be released in mid-2009.

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URBAN DEVELOPMENT INSTITUTE OF AUSTRALIA

An industry report into affordable home ownership in Australia



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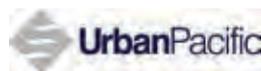
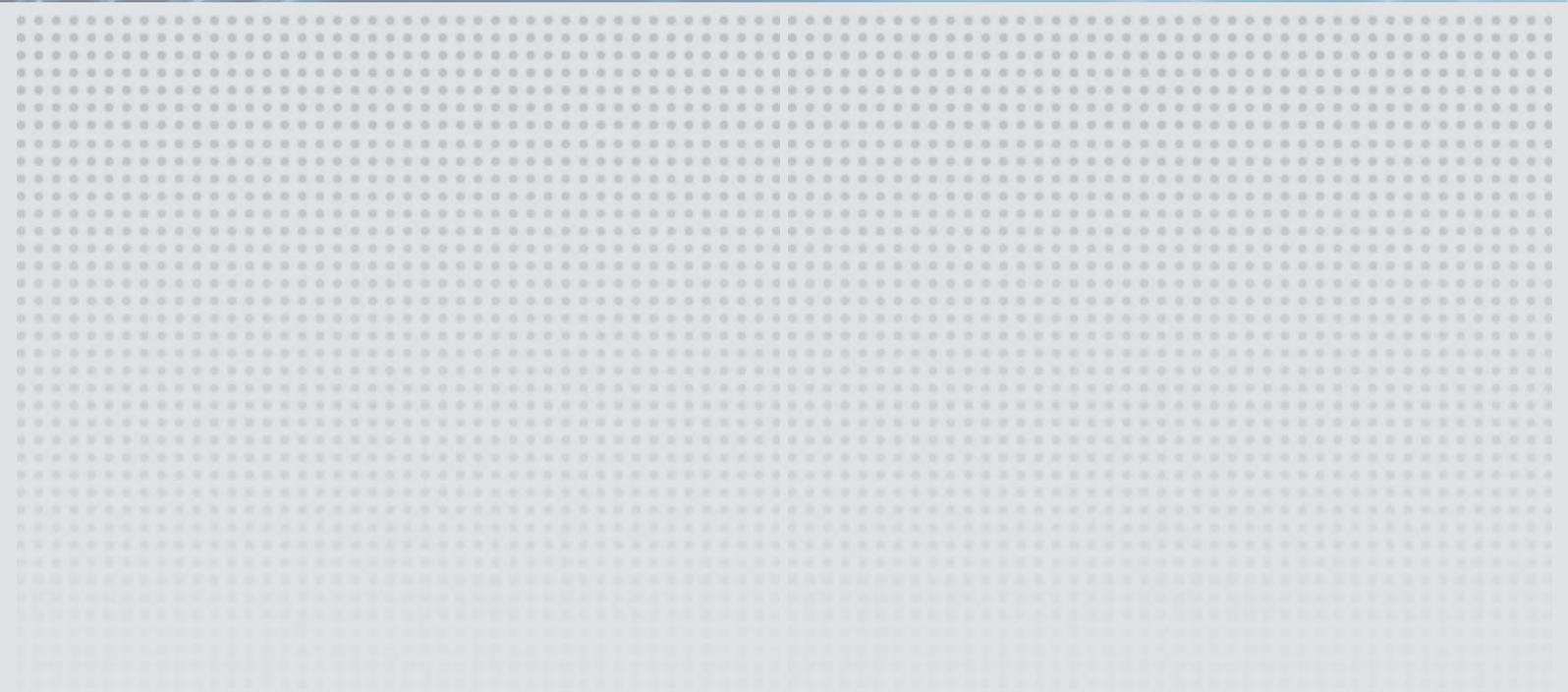


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Foreword

Almost 12 months ago I expressed the opinion that affordability of home ownership in Australia would become a major issue in the 2007 federal election. Regrettably, for home purchasers that prediction appears to have been correct with the issue now being on the agendas of both the federal government and the federal opposition. Indeed, the social dimensions of the problem of affordability are profound, with increased pressure being placed on public housing, social housing, homelessness and those families and individuals in rental markets.

The issue is also prominent at the state level of politics with strategies being released by state governments in an attempt to deal with particular state-based aspects of what is now acknowledged to be an emerging affordability crisis.

In raising the Institute's concerns, I have followed the lead of state presidents and state councils of the Urban Development Institute of Australia (UDIA) who have been in the vanguard of those raising concerns for at least the last four years. Those in the industry who are most aware of the scope and extent of the problem have been best placed to identify this as an issue and have done so at all levels of politics throughout the country.

This development industry report was commissioned by the National Council of the UDIA in early 2007. Its purposes are threefold. They are:

- To more accurately identify the scope of the problem of declining affordability of home ownership in a national context;
- To identify and comment on the current status of affordability and its causes in each state and territory which has a UDIA presence; and
- To identify problems and make recommendations to address those problems that are of national significance and require federal, state and local government intervention.

The recommendations made in this report have been developed through an extensive process that has involved research and analysis of a broad range of solutions put forward by UDIA members, regional branches, state councils and the Institute's professional staff. They have been tested at state council level and then subjected to the most rigorous review at national council level before being unanimously accepted by state and national councils. As such, they represent the professional views and advice of the key industry leaders of Australia's property development, property management and housing industry – an industry that, in direct and indirect contributions, represents 20 per cent of the national economy.

There will be assertions, from those whose personal interests or whose value systems are challenged, that this report is a self-serving document produced solely for the benefit of the industry. I acknowledge this as a potential complication. However, the debate must be on the merits of the recommendations, their validity and likelihood of success and not merely from where they arose.

The industry is acutely aware that whatever happens as a consequence of this debate the undersupply of housing in Australia will not be turned around overnight. In all likelihood affordability levels will continue to decline for the next two to three years until accelerated supply of dwellings for ownership and rental returns the market to equilibrium and shortages are eradicated or otherwise addressed in key markets.

This is a complex and contemporary problem that calls for strong leadership and cooperation from all levels of Australian government and the implementation of bold and decisive action.

Grant Dennis

B.B.A (USA), FDIA, MAICD

National President

Urban Development Institute of Australia

August 2007

Executive Summary

This report has been prepared by the UDIA as a contribution to the debate on solutions to address the housing affordability crisis in Australia today.

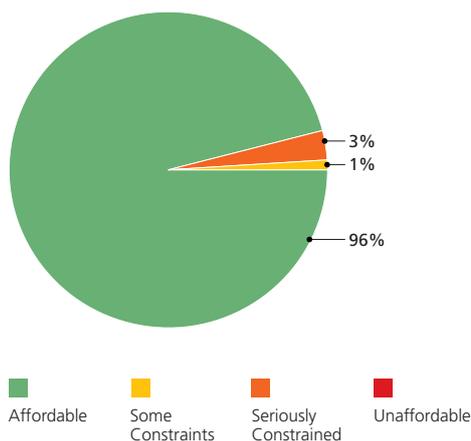
Commencing with an analysis of housing affordability and the importance of home ownership, this report analyses affordability using the UDIA/Matusik Affordability Measure developed by UDIA Queensland and Matusik Property Insights in 2006.

Research was undertaken across 70 designated population centres in Australia with centres being categorised as being either affordable, having some constraints, being seriously constrained or unaffordable on the basis of the capacity of households on average incomes to purchase specified percentages of the housing sold in their local area. Those centres where there is a capacity to purchase between 31 and 50 per cent, between 16 and 30 per cent and less than 15 per cent respectively during a specified period were considered as having some constraints, being seriously constrained, and unaffordable respectively. Markets were considered affordable where those on average incomes can purchase more than half of the houses in a centre. Data was analysed for calendar years 2001 and 2006.

This research has confirmed the validity of concerns about affordability and added a further dimension to the affordability indices used in Australia.

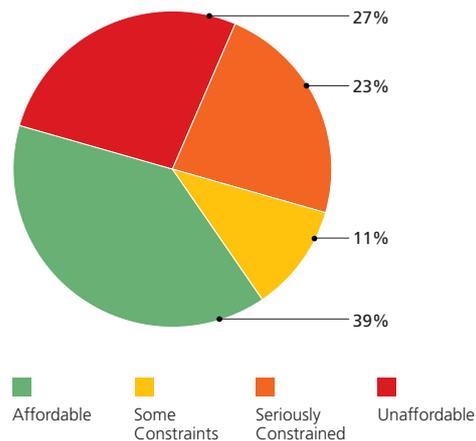
The following charts (Figures 1 and 2) show the general transformation across Australia for the 70 centres studied from affordable in 2001 to a situation where there is a lack of affordability in 2006.

Figure 1
2001 - National Detached House Affordability (% Areas)



Based on data from the UDIA/Matusik Affordability Measure, 2007

Figure 2
2006 - National Detached House Affordability (% Areas)



Based on data from the UDIA/Matusik Affordability Measure, 2007

The heat maps (Figure 3) identify the current situation in each state based on the performance of centres in those states.

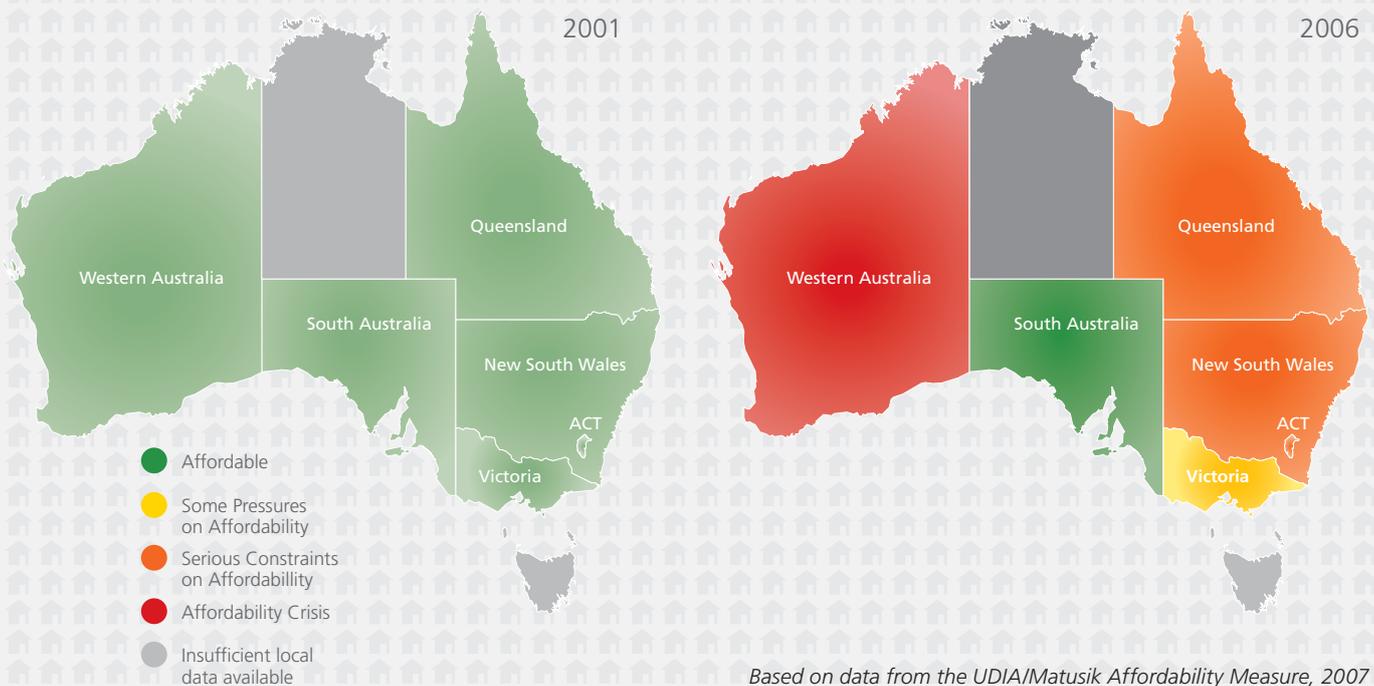
This report also examines the current situation in each mainland Australian state and the Australian Capital Territory from the perspective of each state branch. It also details strategies recommended by UDIA state branches to address diminishing levels of affordability.

Subsequently, the report identifies the issue of housing affordability as being one of national significance and requiring coordinated national, state and local government actions to address it.

The UDIA has analysed a broad range of options that would improve affordability if implemented. This report makes a series of recommendations that have arisen out of those options and these are detailed in the report.

In summary, the view of UDIA is that there is an overwhelming need for the development and implementation of strategies and plans to deliver joint national/state initiatives to improve housing affordability in Australia.

Figure 3
National UDIA/Matusik Affordability Measure Comparison 2001/2006



Recommendations

1. The federal government should liaise with state and local governments to ensure the development of national growth management strategies that underpin state and local authority growth management strategies and which deliver coordinated plans for new and emerging communities particularly with respect to the provision of major infrastructure, such as transport, employment and government services.
2. The federal government, in conjunction with state and local governments should establish a Ministerial Council on Housing Affordability, that includes industry representation.
3. The Ministerial Council on Housing Affordability should have oversight of the development and implementation of appropriate mechanisms to ensure that:
 - An independent Housing Affordability Authority (HAA) such as the United Kingdom's National Housing and Planning Advice Unit is established to provide economic modelling and advice to all relevant levels of government on the impact of planning and other legislation and planning schemes on housing affordability;
 - Monitoring and reporting of housing affordability is undertaken under an agreed methodology by the HAA;
 - Targets for the affordability of home ownership are set at appropriate levels for all relevant Australian markets;
 - State-based land release programs ensure ample greenfield, infill and re-development land supply is available to meet demand requirements to achieve the agreed affordability targets; and
 - Oversight and immediate review of planning and development legislation and processes occurs in order to improve the efficiency and effectiveness of residential property development in Australia.
4. The development of federal policies and funding schemes should take place to reduce the reliance of state and local governments on upfront levies, taxes and charges, (including stamp duty and land tax), particularly for the provision of infrastructure, and taxation incentives to encourage dwelling supply. Specifically, federal government expenditure on urban infrastructure should be substantially increased at least consistent with population growth.
5. The implementation of coordinated strategies at federal, state and local levels should occur to ensure adequate numbers of appropriately skilled employees are available for the residential property sector.
6. Funded programs should be developed to restore affordability and intergenerational equity for first home purchasers of existing and new residential dwellings in addition or complementary to the existing First Home Owners Scheme.

National Housing Affordability

“The present situation of declining housing affordability is contrary to the vision for Australia as a prosperous place where people can enjoy an enviable lifestyle and ‘the great Australian dream’.”

1. Overview of national housing affordability

The goal of owning one's own home is a widely held aspiration in our society. To some it signifies security, to others perhaps an economic legacy, and to others the cornerstone of societal stability, morale or even national pride. The realistic possibility of home ownership is often conceptually linked to a level of satisfaction with lifestyle and financial security and the hope of young generations that they can have a secure and prosperous future and live their personal version of the great Australian dream. The potential for younger generations to be ‘priced out’ of home ownership, poses some serious questions about the future of our society and the issue of intergenerational equity.

Regardless of whether or not people own their own home, it is imperative that people have access to decent accommodation at a price they can afford. This should allow people to live near employment and, ideally, the opportunity to live in a community of their choice. Rental accommodation, whether for financial, personal choice or other reasons, plays an important role in the delivery of appropriate and affordable housing.

Others have also considered the benefits high levels of home ownership and the availability of affordable housing can have on social issues,¹ such as homelessness, and the demand for government services. The role of affordable housing in enabling key workers to locate close to employment is also frequently discussed.

As well as social effects, housing affordability also plays a significant role in the economic prosperity of the nation. Declining housing affordability can have a double negative effect on the economy. It can reduce the activity of the development industry - a significant contributor to the economy - providing over 20 per cent of gross domestic product (GDP),² contributing over \$860 billion to GDP in the 2004-5 financial year,³ and incorporating over 1,000,000 housing related businesses.⁴ A lack of housing affordability can also reduce the incentives for growth and investment more broadly. While there are many factors considered in business location and investment decisions, raising the cost of living in some major centres, and the cost of business through related increases in the costs of commercial and industrial developments and locations, risks discouraging investment and employment growth.

The present situation of declining housing affordability is contrary to the vision for Australia as a prosperous place where people can enjoy an enviable lifestyle and ‘the great Australian dream’.

Overview of issues

While there is often discussion of housing cycles and indeed evidence of such trends, there are also strong indicators that house prices are much higher in Australia now, compared to people's ability to pay, than over the previous decades. Figure 4, on the following page, charts the increase in house prices as well as the increase in earnings, both in nominal terms. The data shows that between 1984 and 2006 house prices have risen by approximately 493 per cent,⁵ while earnings have risen by approximately 183 per cent.⁶ Over this time period (22 years) house prices have risen to almost six times their prices in 1984 while earnings have not even trebled.

¹See for example, Mullins, Patrick and Western, John, (2001) “Examining the links between housing and nine key socio cultural factors”, Australian Housing and Urban Research Institute Queensland Research Centre November 2001 ISBN: 1 877005 13 4 (project) ISBN: 1 877005 14 2 (final report) <http://www.ahuri.edu.au/publications/projects/p20004>; ²Based on Australian Bureau of Statistics (ABS) and Reserve Bank of Australia data; ³Reserve Bank of Australia (RBA) August 2005 Statement on Monetary Policy; ⁴ABS, Australian Industry 2005-06; ⁵Based on REIA data; ⁶Based on ABS data series A594404K

Figure 4
National House Prices and Earnings (\$)

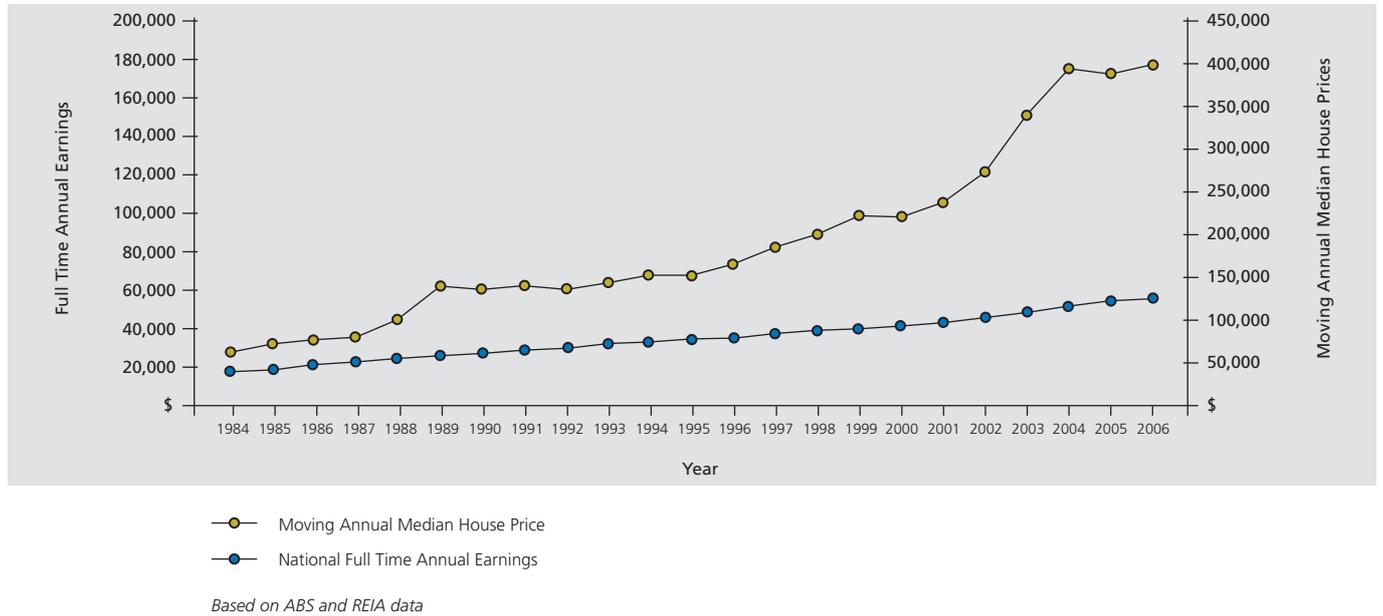
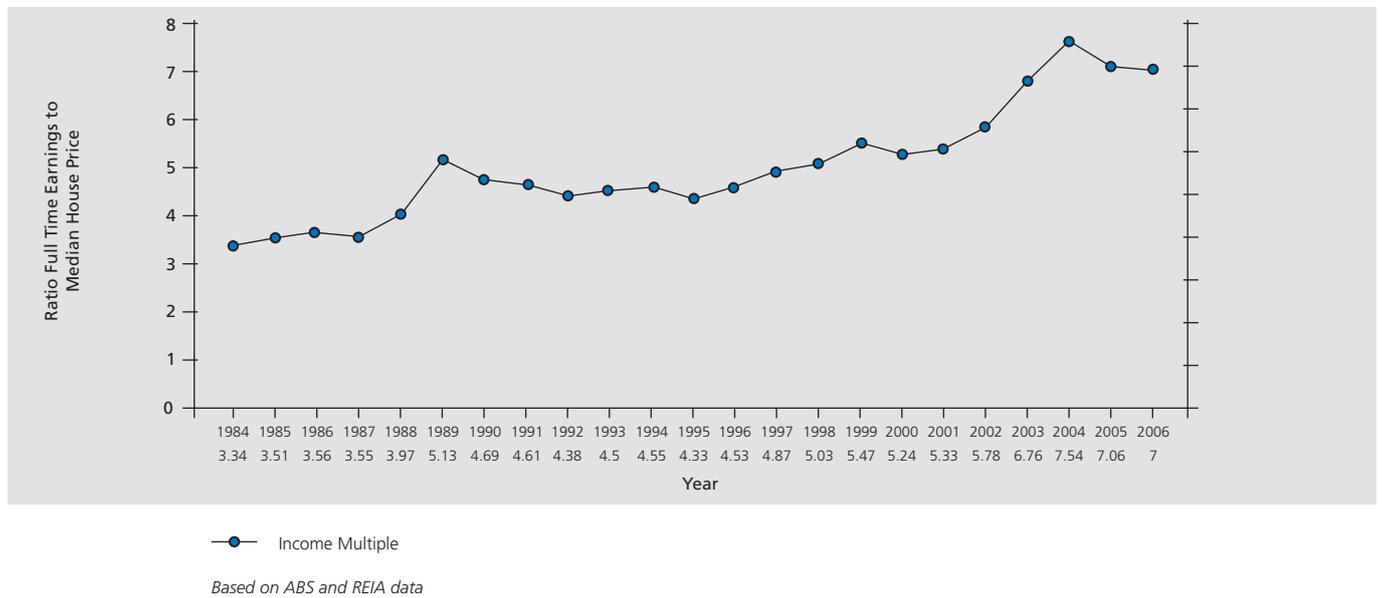


Figure 5
National Income Multiple



Although there are a number of indicators of housing affordability, they are fundamentally based on the relationship of ratios of housing costs to income. Some include specific costs related to housing such as council rates and mortgage servicing or other assumptions of capacity to pay. However, to clearly see how house prices have risen compared to incomes, a simple multiple is often calculated (i.e. the factor by which house prices compare to incomes).

The ratio of property prices to annual income is a relatively simple means of exploring changes in affordability over a period of time. It gives a quick indication of how house prices have changed compared to one of the most fundamental determinants of people's purchasing power – their income. It is also interesting due to the correlation between individual earnings and other economic indicators.

Figure 5 (opposite) charts the ratio between Australian Bureau of Statistics data for average full time adult earnings and moving annual median house prices (June) data from the Real Estate Institute of Australia. The scale shows the number of times larger house prices are than gross earnings (not the available income after tax or expenses). It shows that in this time period house prices have generally increased more rapidly than earnings. However, it also shows that although the income multiple increased steadily from approximately 3.5 to 5.5 between 1984 and 2002, it has risen dramatically since this time to figures in the range of 7.5 to 7.0.⁷

There may be other issues which encourage or enable people to use more of their income to purchase houses. However, it seems that these factors do not fully account for this dramatic change. For example, Westpac notes that changes in tax rates may have increased people's 'take home' pay and therefore contributed to the high demand for houses. However, it was found that this effect only increased total net pay slightly more than gross pay (i.e. by 38 per cent compared to 33 per cent between June 2000 and 2006).⁸

While household income has increased more than individual income, it did not rise at the same rate as house prices.⁹ However, this does not mean that income increased to this extent in all households. Indeed, the rise in dual income households¹⁰ in the marketplace may have also contributed to the difficulties many single income households face in regards to affordability of home ownership.

It should be noted that, like most indicators, income multiples (and variations such as median multiples, and quartile multiples) have limitations and what they actually show must be kept in mind. For example, such multiples often don't factor in the impact of changes to interest rates, although these clearly impact on the ease with which people on a particular income can buy a home. Nor do they factor in changes to taxation structures or subsidies which may impact on whether a person can afford to buy a house.

Other affordability measures offer insights into these aspects. For example, the ratio of housing payments to personal income can also offer an indication of housing stress and it is often quoted that when greater than 30 per cent of income is being expended on housing costs this can tend to represent a concerning lack of housing affordability.

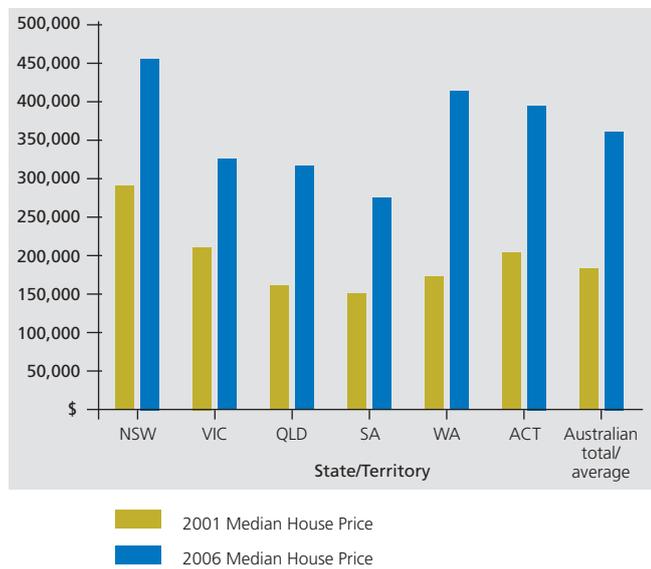
2006 Census data discloses an interesting anomaly in that while total home ownership has declined only marginally (from 66 per cent in 2001 to 65 per cent in 2006) significant changes have occurred in the level of outright ownership.¹¹ The rate of home ownership has declined from 41 per cent outright ownership in 1996 to 33 per cent in 2006, a significant decline from 40 per cent in 2001.¹² This data is of particular concern given that it has been recorded in the context of an ageing population.

Over the 10 years to 2006 the median monthly housing loan repayment also rose from \$780 to \$1300¹³ (an increase of \$520 (40 per cent)), 22 per cent in real terms. 2006 Census data notes that in Australia the median loan repayments were 29.2 per cent of median household income. This situation is coupled with a national decline in the marketplace of first home owners across Australia from 23 per cent in 2001-2002 to 16.6 per cent in 2007.¹⁴ Further, the age of first home buyers increased from 27 years in 1981-1982 to 32 years in 2000-2001.¹⁵

⁷Note this differs from the multiples quoted in the Matusik Report which are calculated from household income data.; ⁸Westpac Analysis "Residential Owner Occupier Demand... What is the Driving Force?"

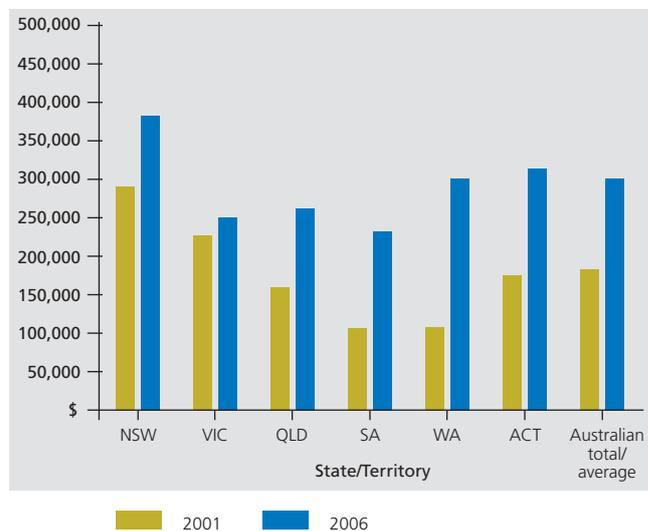
⁹Data from the Australian Bureau of Statistics, 1994-5 and 2003-4 comprising gross nominal household income and house prices; ¹⁰ABS data from Cat. No. 6523, 1994-2001 and 2003-04; ¹¹ABS, 2006 Census fact sheet "Fewer Australian homes are paid off: Census"; ¹²ABS, 2006 Census fact sheet "Fewer Australian homes are paid off: Census"; ¹³ABS, 2006 Census fact sheet "Fewer Australian homes are paid off: Census"; ¹⁴ABS, "Housing Finance Data May 2007" Cat. No. 5609.0 and Australian Social Trends, 2003, Cat. No. 4102.0; ¹⁵ABS Survey of Income and Housing Costs Cat. No. 6541.0.30.001

Figure 6
Detached Median House Prices (State & Territory) 2001-2006 (\$)



Source: UDIA/Matusik Affordability Measure, 2007

Figure 7
Attached Median House Prices (State & Territory) 2001-2006 (\$)



Source: UDIA/Matusik Affordability Measure, 2007

Figure 8
Detached House Sales, Median Price and Growth

State/Territory	Total Sold in 2006	Median Price in 2006	Change in \$ - 2001 to 2006
New South Wales	63,755	\$455,500	167%
Victoria	69,663	\$322,750	158%
Queensland	70,997	\$317,000	221%
South Australia	23,591	\$272,500	186%
Western Australia	40,498	\$415,500	258%
Australian Capital Territory	4,839	\$397,750	195%
Australian Total/Average	273,343	\$363,000	194%

Source: Matusik Property Insights, RPData, Australian Tax Office & the Reserve Bank of Australia, June 2007

UDIA / Matusik Affordability Measure

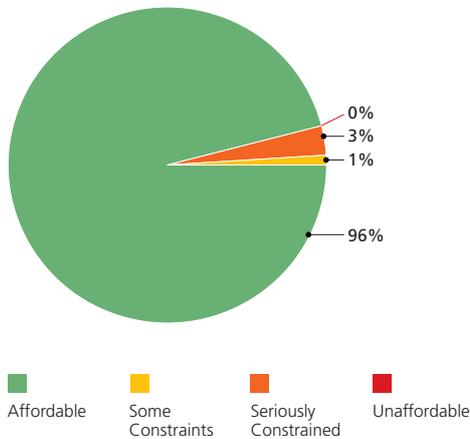
Following the impact of the UDIA (Qld)/Matusik Affordability Measure Report 2006, an Australia-wide report was commissioned to explore national affordability issues.

The national report on the UDIA / Matusik Affordability Measure – Australia 2007 compares house price and affordability indicators across 70 urban areas throughout Australia. In this instance it compares data from 2001 with that from 2006. Figures 6 and 7 above show the average house prices in the states and territories studied in both of those years for detached and attached housing respectively.

The distinctive increase in prices is apparent with house prices almost doubling on average in this period (see Figure 6 above). Similar trends can also be seen in the median prices of attached dwellings in Figure 7.

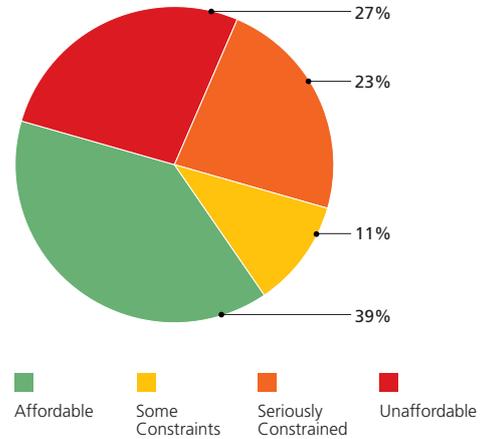
Figure 8 above indicates both the levels of turnover and the prices achieved for detached houses in 2006 and 2001 respectively. Given that Census data indicates that in 2006, 74.8 per cent of people lived in separate detached houses, and that the UDIA / Matusik Affordability Measure – Australia 2007 indicated that during 2006 detached house sales outnumbered attached sales over 2.3:1, the data for detached houses is presented here. However, the equivalent data for attached housing can be found in the UDIA / Matusik Affordability Measure – Australia 2007 report in Part 3 of this report.

Figure 9
2001 - National Detached House Affordability (% Areas)



Based on data from the UDIA/Matusik Affordability Measure, 2007

Figure 10
2006 - National Detached House Affordability (% Areas)



Based on data from the UDIA/Matusik Affordability Measure, 2007

The UDIA / Matusik Affordability Measure provides a more focused view on housing affordability than other indices by comparing the proportion of the houses sold in a particular region with what the population of that region could actually afford to buy. By assuming the average household was willing to spend 30 per cent of their income on repayments and had managed to save a 10 per cent deposit, the UDIA / Matusik Affordability Measure compares house prices to the size of the loan the average household would be able to service at prevailing interest rates. Thus the UDIA / Matusik Affordability Measure is able to categorise the level of affordability based on what proportion of the houses in a region the average household would be able to purchase. Where the average household can afford to buy 51 per cent or more of residences actually sold the market is categorised as "affordable". Where the average household can afford to purchase 31 per cent - 50 per cent this is defined as having "some constraints", while if the proportion is 16 per cent - 30 per cent this is categorised as "seriously constrained". Below 15 per cent is defined as "unaffordable".

It should be noted that constraints upon the percentage of homes that may be purchased is significant and that reduced affordability decreases the likelihood of being able to purchase a home that matches a household's requirements. Serious compromises in terms of dwelling condition, location or number of bedrooms may need to be made.

On the basis of this categorisation into four levels of affordability, Figures 9,10, 11 and 12 clearly depict the changes in affordability over this time for detached housing, noting that the proportion of areas where detached housing is affordable has decreased from 96 per cent in 2001 to 39 per cent by 2006.¹⁶

In 2006, over one quarter of the subject areas (27 per cent) were categorised unaffordable compared with none in 2001. Figures 13 and 14 show similar trends for attached housing, with a change from all the areas being affordable in 2001 to just 67 per cent in 2006.

As can be seen in Figures 15 and 16, these trends in declining affordability were consistent across the states and territories researched. Within each state and territory the affordability decline also occurred within both detached and attached housing markets.

Overall, as can be seen in the 'heat maps' (Figure 17), the decline in affordability across Australia has been striking. Whereas all the researched states and territories were affordable in 2001, there are many now where affordability is at least seriously constrained, and in respect of Western Australia, unaffordable.

The results of this review are alarming. Notwithstanding that there are corrections that take place to housing prices from time to time the clear trend is for affordability to continue declining. Affordability in Australia is generally at its worst level within the history for which data has been available.

¹⁶The data on number of areas affordable, as presented above for detached housing, can be found in the UDIA / Matusik Affordability Measure 2007.

Figure 11

2001 - Detached Houses – Affordability Summary

UDIA/Matusik Affordability Measure	No urban areas	% of total urban areas
Affordable	67	96%
Some Constraints	1	1%
Serious Constrained	2	3%
Unaffordable	None	0%
Australian Total	70	100%

Source: Matusik Property Insights, RPData, Australian Tax Office & the Reserve Bank of Australia, June 2007

Figure 12

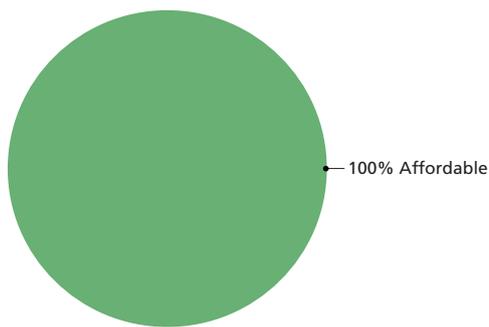
2006 - Detached Houses – Affordability Summary

UDIA/Matusik Affordability Measure	No urban areas	% of total urban areas
Affordable	27	39%
Some Constraints	8	11%
Seriously Constrained	16	23%
Unaffordable	19	27%
Australian Total	70	100%

Source: Matusik Property Insights, RPData, Australian Tax Office & the Reserve Bank of Australia, June 2007

Figure 13

2001 - National Attached House Affordability (% Areas)

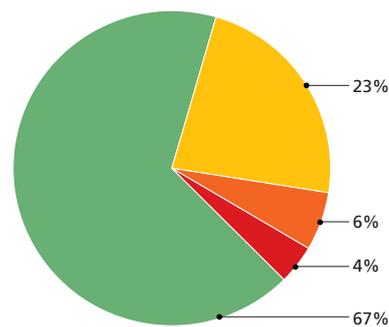


Affordable Some Constraints Seriously Constrained Unaffordable

Based on data from the UDIA/Matusik Affordability Measure. 2007

Figure 14

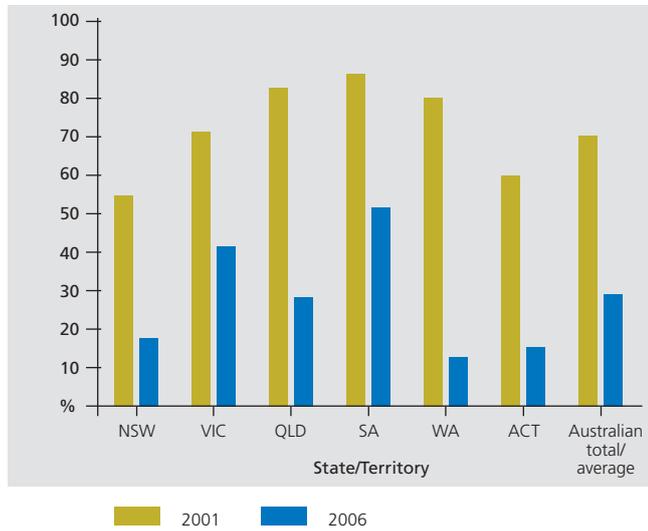
2006 - National Attached House Affordability (% Areas)



Affordable Some Constraints Seriously Constrained Unaffordable

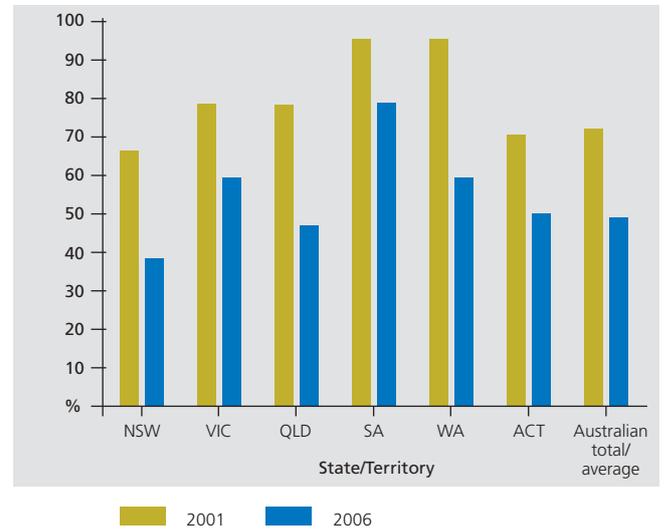
Based on data from the UDIA/Matusik Affordability Measure. 2007

Figure 15
% Detached Dwellings Affordability by State/Territory



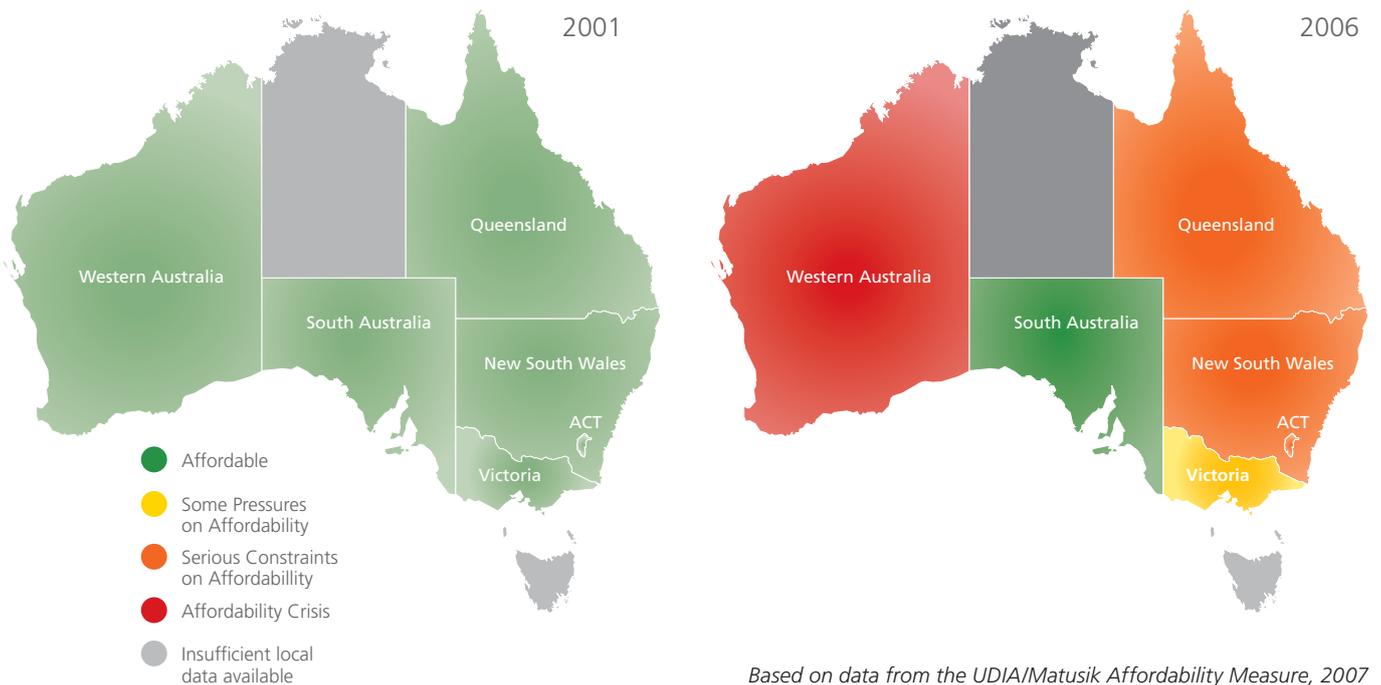
Source: UDIA/Matusik Affordability Measure, 2007

Figure 16
% Attached Dwellings Affordability by State & Territory: 2001-2006



Source: UDIA/Matusik Affordability Measure, 2007

Figure 17
National UDIA/Matusik Affordability Measure Comparison 2001/2006



Based on data from the UDIA/Matusik Affordability Measure, 2007

2. Current factors contributing to the lack of affordability

As an industry organisation the UDIA is well positioned to hear first hand examples of many of the factors contributing to housing affordability problems. Further, more specific details are provided in the reports of individual states and territories later in this report. Many of these are also corroborated in a range of industry, academic and government research and reports.¹⁷ Over recent years a broad range of factors have been identified as contributing to the current situation.

In no specific order these include:

- Restrictions in land supply in some markets;
- Holding charges caused by extensive delays in approving land for future sub-division and developments;
- Costs associated with the preparation of development applications;
- Undersupply of housing in a number of markets;
- Substantial increases in infrastructure charges;
- Increases in taxes and charges including the introduction of the Goods and Services Tax (GST);
- Interest rate increases;
- The ripple effect on housing markets caused by housing prices in key population centres;
- Additional requirements imposed on new home purchasers for enhanced services;
- Lack of infill sites for higher density dwellings;
- The trend toward the construction of larger houses, although this is balanced against declining lot sizes in some locations;
- Policies that restrict land supply as a means to encourage higher density and consolidation of population;
- Increased construction costs, particularly for higher density dwellings;
- Skills shortages;
- Costs of compliance with increased environmental requirements; and
- Demand pressures, which may have increased due to the accessibility of finance, growth in household incomes, or the movement between investment classes.

Not all of these factors necessarily operate at the same time, however, at present there are a substantial number of these factors operating in the majority of marketplaces throughout Australia. While dissecting the causal contributors to housing affordability can be a complex issue, there are some trends in recent years which industry experience and research have clearly exposed to have a significant and detrimental impact on affordability.

Supply issues

Concerns about land supply constraints and the subsequent ability of the industry to deliver sufficient housing product to meet housing needs are frequently raised, both in relation to particular local areas and the general ability to meet the needs of population growth and demographic changes. Several analysts have recently estimated that at current construction levels supply shortfalls are in the vicinity of 23,000 dwellings per annum,¹⁸ and under-provision in the order of 115,000 dwellings is anticipated by 2010.^{19,20} Others have estimated that land supply could already be in arrears by 18,000 lots in some individual markets and that the cumulative lot shortfall could be much worse within 10 years.²¹

Although the proportion that land costs comprise of the ultimate house cost varies considerably between locations,²² land costs generally make up a significant portion of the cost of delivering housing. Given the general relationship between supply and prices, it is unsurprising that constrained land supply has been shown to increase land prices.²³ Hence, consolidation policies which constrain land supply inherently increase the scarcity value of land.²⁴ It has also been calculated that an overly optimistic forecast of land supply by as little as 10 per cent could (through the insufficient supply of land for housing) have a significant impact on jobs and the economy and also lead to an increase in land prices. For example, increases of 94 per cent from current prices have been forecast in some Queensland locations by 2010 in that circumstance.²⁵

Causes for the constrained supply can be attributable to overestimation of the available land supply, overestimation of the density of housing achievable (and the resulting failure to provide sufficient land for population growth), increases in land restricted by environmental legislation, delays in achieving appropriate rezoning and geographic constraints. Sometimes the constraint is a deliberate mechanism to 'encourage' greater consolidation and density. However, the effective removal of choice is not seen as the ideal way to encourage people to live in greater density. Investments in public spaces, transport and infrastructure that might make such lifestyle choices more highly desired by a greater portion of the population might prove more palatable and achieve better outcomes.

¹⁷This report is not intended to be a thorough review of all such reports but to provide some background to the issues, the basis for UDIA policy development and an understanding of the issues that may be contributing to the decline in affordability as evidenced in the UDIA / Matusik Affordability Measure 2007; ¹⁸For example BIS Shrapnel, Residential Land Market - Outlook For Demand And Supply, 2006-2011, using ABS data; ANZ's Saul Eslake; Matusik Property Insights; Housing Industry Association; ¹⁹BIS Shrapnel, Residential Land Market - Outlook For Demand And Supply, 2006-2011, using ABS data estimates to 2011-2012 financial year; ²⁰Presentation by Saul Eslake, Chief Economist ANZ, June 2007; ²¹See details in later sections of this report and Residential Development Council (2007) "Australia's Land Supply Crisis"; ²²See for example UrbisJHD (2006) "Residential Development Cost Benchmarking Study", Residential Development Council; ²³See for example the section of this report detailing the Western Australian situation; Moran, A. (2006) The Tragedy of Planning: Losing the Great Australian Dream, Institute of Public Affairs; UDIA State of the Land report (2006), Productivity Commission (2004) Inquiry Report: First Home Ownership, No 28, March 2004; 2006 UDIA State of the Land report; UrbisJHD (2006) "The Impacts of Potential Overestimation of Land Supply", available as attachment to Stewart (2006) Report of An Industry Inquiry into Affordable Home Ownership in Queensland; UDIA, Beer, A., Kearins, B., Pieters, H., (2007) Housing Affordability and Planning in Australia: The Challenge of Policy Under Neo-liberalism, Housing Studies Vol 22, January 2007, No. 1, p 11-24 etc for an overview. UrbisJHD Redland Shire Land Supply Analysis offers local scale analysis and insights can also be gained from analysis of geographically isolated markets such as Mackay where negative rental vacancies are mirrored by rapidly escalating house and apartment prices. Examples will be evident in most states; ²⁴Beer, A., Kearins, B., Pieters, H., (2007) Housing Affordability and Planning in Australia: The Challenge of Policy Under Neo-liberalism, Housing Studies Vol 22, January 2007, No. 1, p 11-24; ²⁵UrbisJHD (2006) "The Impacts of Potential Overestimation of Land Supply", available as attachment to Stewart (2006) Report of An Industry Inquiry into Affordable Home Ownership in Queensland, UDIA.

The accuracy of estimation of land supply and availability is of concern in some regions, particularly where this does not adequately include recognition of economic feasibility, legislative and physical constraints. This is exacerbated when the level of land supply is not amended when new constraints on land supply or achievable yield are introduced.

Although land supply is often a major contributing factor to constraints in housing supply, it is not the only cause. Policies and processes which impact on the ability to build more dwellings in infill locations as well as on zoned land can also be problematic for housing supply. Character and heritage legislation can have impacts in this regard, as can delays in building approvals for example.

It is important to realise that, particularly when supply is limited, factors which increase the costs for new dwellings also impact on the prices of existing dwellings. Fundamentally, supply of new dwellings will not be sustainable below cost price. Hence, if demand exceeds existing dwelling supply, there is little incentive for existing houses to be sold below the price of new houses (at least to the extent that new and existing buildings are like goods). Hence, although new homes only contribute a relatively small portion of the total housing pool, prices for existing houses are potentially vulnerable to price increases driven by increases in costs.

Supply shortages in one location can have an impact on other nearby locations and other Australian capital cities in Australia. Economists such as Macquarie Bank's Rod Cornish are developing and using modeling packages that attempt to quantify and predict this element among others. This research is based on the proposition that substantially higher prices in one city (brought about by restricted land supply or otherwise) can result in increased demand due to population shift to another city or region.

Delays

The 'stickiness' of supply of dwellings can also restrict supply and increase costs. A level of time delay between a developer's decision to purchase land and the completion of dwellings is somewhat inevitable due to the timeframes for approvals and construction. However, surveys of members of the development industry have indicated there are regularly further delays to this process, in some cases over ten years even in areas where development already had government and community support. The holding costs of particular developments, even for an extra year, have been shown through specific examples to quite frequently add in the vicinity of \$7000, or more, to the cost of individual lots. Of course this will vary, primarily depending on land prices. This inefficiency serves no purpose. Indeed such delays substantially inhibit the industry's ability to respond to market demands.

Performance based planning systems have much to commend them and in theory, quality development, and appropriate flexibility, should be generated by such processes. However, the reality experienced has been that the aggregation of regulatory impacts on development has in many instances resulted in substantially increased costs for development as mentioned above. Where it was possible to deliver land from an unzoned state to fully completed lots on the urban fringe within 12 months some 10 years ago there is now a tendency in many parts of Australia for the process to take between two to five years. This is as a consequence of complicated planning schemes and state legislation and extensive processes required to change the underlying zoning for development, coupled with substantial delays brought about by the process of making and assessing development applications and negotiation through a myriad of development conditions. The need to ameliorate such delays and their causes was recommended by the Productivity Commission in 2004.²⁶ However, the delays are ongoing.

Costs and charges

During the last 30 years the role of government as provider of services such as the essential services of electricity, water and transport has been questioned under the competition policy agenda and strategies implemented to deliver higher levels of openness, accountability and competition. Government services that were seen to be subsidised, have been identified and addressed under the proposition that higher levels of competition and openness will bring down prices and provide fairer systems for tax payers. Arising out of this change, however, has been a philosophy that infrastructure provided should be paid for up-front, by the private sector, rather than through ongoing charges such as property rates.

Previously the approach was for sub-divisions to be established with minimum services and then for further services (such as regional parks and libraries) to be provided progressively by the community. To a large extent water supply and sewage treatment systems, as well as transport systems, had been supplied up-front with such services being paid off over a period of time through rates and taxes.

Bodies such as the Australian Local Government Association assert that there is a profound vertical fiscal imbalance between federal, state and local governments, as a result of different taxing powers. Consequently, this has limited the resources available to state governments and local authorities for the provision of services. To a degree this problem could have been resolved by the provision of increased rates, taxes and charges at state and local authority level, however, this was seen to be politically unacceptable in many jurisdictions.

²⁶Australian Government Productivity Commission (2004) *First Home Ownership Productivity Commission Inquiry report No 28, 31 March 2004.*

The federal government's introduction of the GST in 1999/2000, detrimentally impacted on the charges paid on houses but also provided a growth tax that enabled funding to be directed to state governments. However, this did not solve funding problems at local authority level. This situation may have been resolved had not the Senate amendment effectively removed the proposal for a portion of GST revenue to be provided directly to local authorities.

As a consequence, there continues to be a strong concern within local government in Australia that there is inadequate growth funding to enable them to deliver the range of services that are required. This has in turn placed pressure on local authorities to impose additional taxes and charges on new entrants to the housing market.

The mantra that has now been adopted by many state and local governments is that services such as water supply, sewage, storm water and transport systems and social, recreational and environmental infrastructure should be paid for up-front by new entrants (through charges to developers). This approach is totally at odds with that which has been historically followed whereby such services have largely been paid for by users over a period of time.

UDIA research has unearthed numerous examples where infrastructure charges increased both substantially and rapidly. While the extremes are often quoted (e.g. a rise in water charges of over 1300 per cent in 4 years, an increase from \$6,000 to \$50,000 per lot for infrastructure charges in one direct jump or a new charge being introduced of around \$12,000 per lot), examples where infrastructure charges and other charges have increased between \$5,000 and \$40,000 per lot during the time taken for development assessment are unfortunately quite common, and in some regions charges of \$100,000 per lot are also common. Indeed research by UrbisJHD indicates that in many instances the charges for indirect infrastructure (not essential to the development) substantially outweigh the costs for the direct infrastructure (e.g. water and sewerage).²⁷ While some increase in costs may be expected, these exponential increases were often not anticipated, by industry or indeed by state governments under whose legislative framework local authorities have acted.

Although more palatably marketed to the public as developer charges, given the operation of market forces, such charges are passed on in the marketplace to new home purchasers. Although it is intuitive that increasing cost will increase prices, the relationship between increased property prices and increased headworks and infrastructure charges in all Australian jurisdictions has been documented by the Residential Development Council.²⁸

In many instances the lack of transparency and the rapid increases in such charges have not allowed these charges to be adequately considered at the time of conducting feasibility studies and purchasing land, leaving little option but to raise house and land prices. In select instances these charges have caused projects to be abandoned altogether, further constraining supply.

These charges have a direct impact on the cost of new houses, and through the impact on the market, also on established houses. Whereas historically it may have been possible to provide residential dwellings at urban fringes at prices lower than the prevailing rates for accommodation closer to employment and commercial centres, the dramatic increase in infrastructure charges has made this less realistic in many markets. This can directly elevate prices in what was traditionally the lower priced sector of the market, which can, in turn, also drive up prices in more desirable locations.

Further, increases in regulatory standards and people's expectations of higher standards of living and larger homes add to the cost of new homes. This includes improvements in dwellings and their fittings, public facilities including parks, recreation areas, transport and roads. While the former can be added directly to the cost of the dwelling, usually at the purchaser's discretion, the latter are often the subject of development infrastructure charges. Specifically, there are also costs imposed on new home purchasers as a result of changes to the Building Code and various environmental requirements, such as the recent compulsory inclusion of rainwater tanks of a minimum size in many states.

This inequity over time from these changes in policy and increases in charges creates intergenerational wealth inequities. Existing homeowners can benefit from both the subsidies and the increase in house prices, unlike first home purchasers, who simply find it more expensive to take the first step onto the property ladder.

Balancing the triple bottom line

During the last 20 to 30 years there has been a rapidly escalating awareness of the impact that human habitation has on the environment. Across Australia over recent years, and particularly the last decade, there has been a dramatic increase in government regulations and strategies aimed at environmental protection. Whole movements have become established to oppose change; save our suburbs, environmental defenders and the anti-sprawl movement are among those who have opposed development. While few would argue against the merit of environmental protection and conservation per se, and much good has come from the growth in environmental awareness and responsibility, concerns have been raised about the need for a more balanced approach.

²⁷UrbisJHD (2006) "National Housing Infrastructure Costs", Residential Development Council; ²⁸UrbisJHD (2006) "National Housing Infrastructure Costs", Residential Development Council.

Whereas environmental impacts are often required to be considered first and foremost in consideration of development projects, as noted by Barker,^{29,30,31} it is important to also consider the costs to society of not developing and whether a particular location is the most appropriate for environmental conservation. The restrictions to land supply and costs added through the high levels of red tape can impact significantly on both the supply of housing and the costs of its provision. As is stated by Stewart, communities that are unaffordable can hardly be considered to be sustainable.³²

Recent years have also seen an increase in charges for social infrastructure, which was traditionally funded through rates and broad-based taxes. There has also been interest from some governments in the idea of 'inclusionary zoning' which is effectively another charge on development whereby, in order to develop a particular project the developer must also agree to provide 'affordable housing' at a subsidised rate. Examination of such systems overseas has seen this lead to higher and higher charges,³³ thereby driving up the costs for the market-based product and leading to greater polarisation between those who can afford to purchase housing in the marketplace and those who cannot. In turn this has also led to the need for more schemes to facilitate the housing of 'key workers'. Hence such systems, while offering some relief in the short term, appear to exacerbate the problem in the longer term.

Recent economic influences

Another feature which complicates the residential development market is that Australia is experiencing a number of profound economic changes. The introduction of compulsory superannuation has, in effect, taken money out of household budgets and placed them in superannuation savings. It is interesting to note that superannuation savings have increased at the same time as outright property ownership has fallen.

An extensive transformation has also occurred in the financial services market in recent decades and this is reflected within the Australian development industry. From an industry that was largely operated by sole traders using family based structures until the mid 1970's, the development industry operating in the 21st century is one that has a different level of responsiveness to market forces as a result of many corporations now operating as publicly listed entities.

High wealth individuals may have been prepared to maintain prices whilst attempting to ride out pressure to reduce prices brought about by reduced demand. Others unable to ride out market forces and with extremely limited cash flow went into liquidation or bankruptcy. Consequently, industry structure may have contributed to the boom or bust aspect of the residential property market in some locations. The requirement for consistent long term

shareholder returns by corporations places different requirements on stock-in-hand than was previously the case. There may therefore be a requirement for larger supplies of future development land.

With current demand in Australia for approximately 170,000 residences per year³⁴ there is an ongoing increase in supply requirements to meet demand. More research needs to be undertaken to ascertain, in detail, the implications of these changes.

3. Overview of common issues across states and territories

As can be seen in Figure 18 overleaf, a substantial decrease in affordability has occurred across all urban centres monitored, across all states. This trend was consistent in both detached and attached dwellings.

This is unsurprising. As may be seen in each of the detailed state reports, despite differences in markets and policies, to some extent each state and territory has encountered similar issues. Each has had concerns about land supply in recent years, and indeed the Western Australian report provides a useful graphical insight into this. However, there were also differences. For example, South Australia, the only state now rated affordable overall under the UDIA / Matusik Affordability Measure 2007, has not been subjected to the move towards high infrastructure charges.

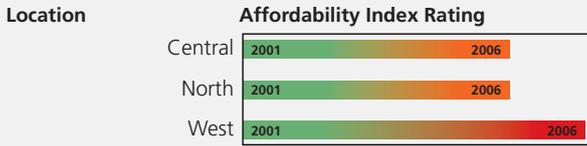
Additionally, one common feature that has arisen is the growing level of consultation between government and industry on land supply monitoring issues and the evaluation of projected land supply under planning schemes. Industry based knowledge from astute and reliable sources is progressively being seen as essential also for infrastructure supply and scheduling strategies in the critical Sydney, Melbourne, Perth and Brisbane markets.

Involvement of both public and private sectors also has the advantage of ensuring that demand and supply side issues are fully taken into consideration and that realistic infill/greenfield/consolidation targets are set and met.

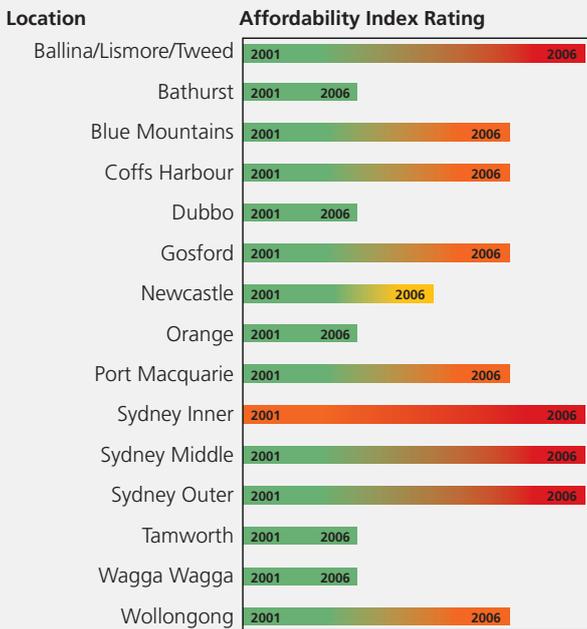
²⁹Barker, K., (December 2003) *Review of Housing Supply: Securing our Future Housing Needs Interim Report – Analysis*; ³⁰Barker, K., (March 2004) *Review of Housing Supply: Securing our Future Housing Needs Final Report – Recommendations*; ³¹Barker, K., (December 2006) *Barker Review of Land Use Planning Final Report – Recommendations*; ³²Stewart, J., (2002) "Building-a-crisis, Housing under-supply in England", *The House Builders Federation UK*; ³³See for example policies of the Greater London Authority; ³⁴BIS Shrapnel, *Residential Land Market - Outlook For Demand And Supply, 2006-2011, using ABS data*.

Figure 18
Affordability Shift - Detached Housing Australia (2001-2006)

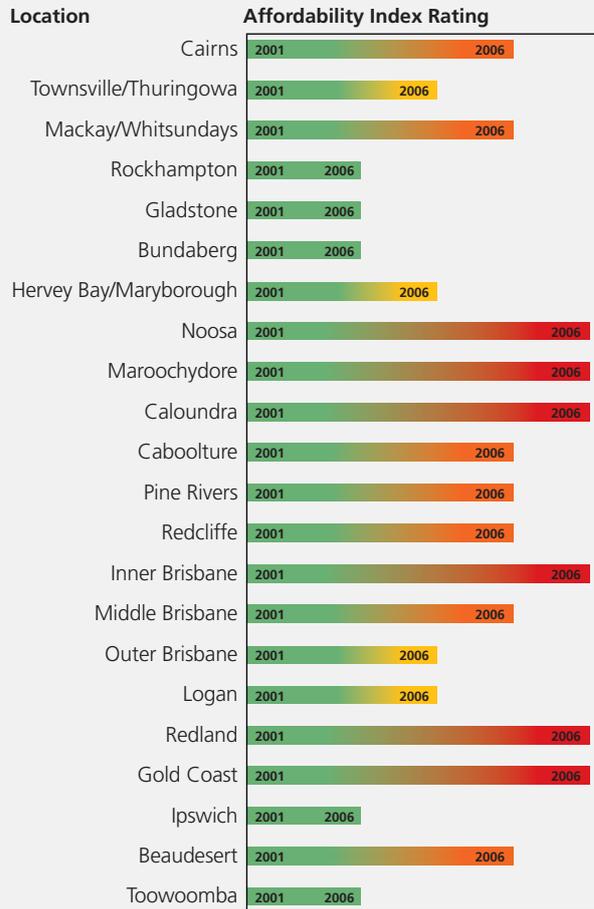
Australian Capital Territory



New South Wales



Queensland



4. Responses in other jurisdictions

Australia’s affordability crisis has arisen rapidly in recent years, and has taken many by surprise. Yet, fortunately Australia has the opportunity to address the issue before it compounds. In doing so, it would seem wise to learn from the approaches taken in other countries.

The United Kingdom is currently experiencing under supply of housing of some 200,000 units and it was believed that if not addressed the situation was likely to result in housing shortages of 1.5 million dwellings within 20 years.³⁵

Research undertaken by the House Builders Federation of the United Kingdom identified this problem in 2002 and as a consequence of major public concern, the British government, under the direction

of the Chancellor of the Exchequer, initiated two of the most far reaching reviews associated with residential housing that have been undertaken in any part of the world. The inquiries were conducted by Kate Barker, an economist with the Bank of England, and the first review focused on the housing market and its management by government.^{36,37} The second review examined planning schemes and processes under the United Kingdom’s Town and Country Planning Act.³⁸ The recommendations contained in Kate Barker’s reports are far reaching and have substantially been endorsed and implemented by the British government.

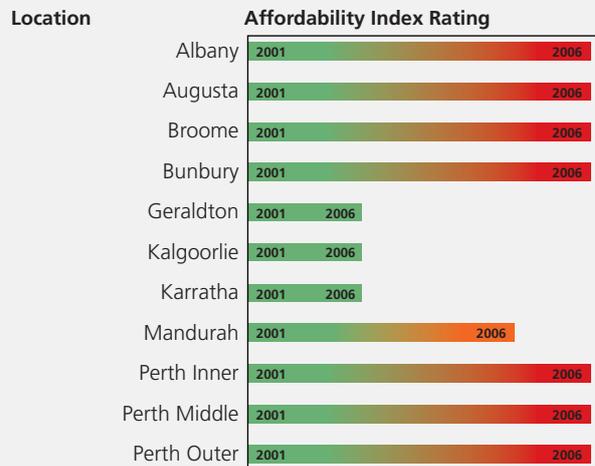
Key recommendations included a requirement that the potential impacts on housing affordability be considered in drafting planning schemes and regulations, and that strategies be implemented to ensure sufficient land supply to achieve affordability targets. This led

³⁵Stewart, John (2002) “Building-a-crisis, Housing under-supply in England”, The House Builders Federation UK; ³⁶Barker, K., (December 2003) Review of Housing Supply: Securing our Future Housing Needs Interim Report – Analysis; ³⁷Barker, K., (March 2004) Review of Housing Supply: Securing our Future Housing Needs Final Report – Recommendations; ³⁸Barker, K., (December 2006) Barker Review of Land Use Planning Final Report – Recommendations.

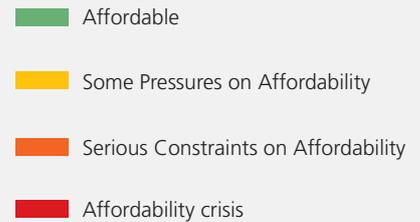
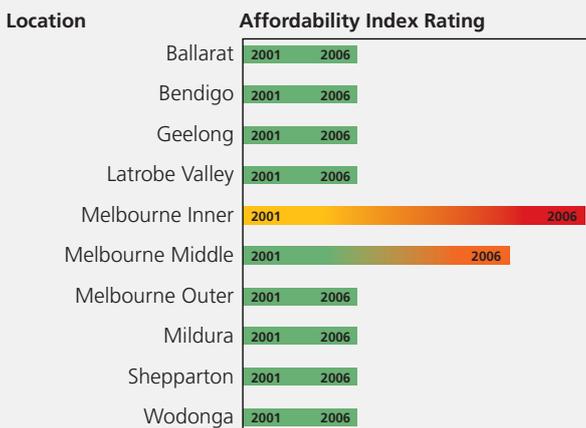
South Australia



Western Australia



Victoria



Based on data from the UDIA/Matusik Affordability Measure, 2007

to the establishment of the National Housing and Planning Advice Unit (NHPAU) whose primary role is to improve affordability across the housing market. It is a non-departmental public body that is directed to provide independent advice on affordability matters to the UK Government, regional and local governments and other stakeholders with an interest in the housing market. The focus of the authority covers three major areas:

- Contributing advice on market affordability matters throughout the Regional Spatial Strategy process, including in the development, review and monitoring phases.
- Developing and delivering an affordability toolkit. This will enable forward looking econometric and statistical analysis on the impact of planned housing provision. The focus will be at national, regional and ultimately sub-regional levels.

- Building a centre of expertise and an evidence base as a resource for regional partners and other stakeholders on matters relating to housing market affordability. This will include delivery of a new programme of research.”³⁹

New Zealand has also experienced grossly restricted land supply, which is said to have caused an ongoing situation of undersupply in the market.⁴⁰ The New Zealand Government, acting as a result of substantial concerns raised by the development industry, the media and the public has established a Parliamentary Committee of Inquiry into affordability of home ownership. The terms of reference require the Parliamentary Committee to explore all aspects of causation of the affordability situation and to make recommendations with respect to its remediation.⁴¹

³⁹UK Department of Communities and Local Government (<http://www.communities.gov.uk/index.asp?id=1510912>); ⁴⁰Pavletich, H., "Restoring Housing Affordability", Submission to the New Zealand Parliament, Commerce Committee Housing Affordability Inquiry; ⁴¹That review is currently under way.

In terms of developing options and mechanisms for funding of infrastructure other than from public funds and up-front payments, developments in the United States in respect of investment in urban infrastructure by public sector pension (superannuation funds) appear worthy of further investigation. One such review is being undertaken by a joint research project of Harvard Law School and the University of Oxford under a grant from the Rockefeller and Ford Foundations.⁴²

Additional research into the role of superannuation funds in Australia investing in public infrastructure would also be of benefit, as would a national review of the role of the private sector in owning what was previously categorised as public infrastructure such as water and waste management hard assets and systems.

5. Restoring housing affordability

Earlier sections of this report, together with the UDIA / Matusik Affordability Measure 2007 (as found in Part 3), have identified decreasing levels of housing affordability in Australia today. Regardless of the affordability index that is used, a common finding is that current levels of affordability are at historically low levels. Plotting the repayment to income ratio, and also the housing affordability index demonstrates that the current situation is worse than in 1989⁴³ when the Reserve Bank of Australia indicates that interest rates were 15.5 per cent. Given that interest rates are currently substantially lower and mortgages are substantially higher,⁴⁴ this is of great concern, particularly given the possibility of interest rate increases.

With many observers expressing the opinion that interest rates are likely to rise marginally in 2008 as inflationary pressure mounts, affordability is unlikely to recover in the medium term without direct intervention. Rent increases that bring higher investment returns to owners have also been cited as potentially contributing to continuing housing price increases and thus stifling better levels of affordability.⁴⁵

A major risk identified for restoration is an increasing gap between supply and demand for housing as a consequence of the inability of the industry to deliver the right product, at the right price and in the right place. Addressing this issue, as well as the need to provide for efficient and effective mechanisms to produce development sites, is a responsibility of state and local government under existing constitutional structures. Moreover, most, but not all, taxes and charges are state or local authority based.

This situation has frequently, and appropriately, prompted the question to be asked "what role does the Australian Federal Government have in improving housing affordability?". During the last four years, that question has been asked in the context of a number of critical aspects that include:

- Maintenance of the existing taxation structure on owner-occupied dwellings;
- Maintenance of the existing taxation treatment of investment properties;
- Maintenance of, or increasing, the level of the First Home Owners Grant; and
- Additional funding for local and state infrastructure to reduce pressure for the imposition of charges and levies on property and property development.

As noted in UDIA policy documents,⁴⁶ these aspects are strongly supported by the Institute and will continue to be of significance although they are not explored in detail in this report. Instead this report focuses its recommendations primarily on systemic supply-side solutions, which are directly relevant to the development industry, and include actions that are most likely to produce more effective long-term resolutions to the affordability problem.

Given that the Australian housing market has real and tangible "national" aspects that are of economic and social significance to the country it is believed that the affordability of home ownership is of national significance and would benefit from national coordination. Historically, home ownership has been a concern for all sides of politics at federal level. In light of current concerns about affordability, it is rightly becoming so again.

There is an overwhelming need for Australian governments to show leadership in addressing housing affordability in Australia using contemporary and forward-thinking solutions to this contemporary problem. There is arguably a need to view the problem in a different light to that which has occurred before given the parlous state of affordability today. Given also the intensive government involvement and control, at various levels, of matters that impact on housing affordability (e.g. planning, the economy, interest rates, taxes and charges) governments must also take responsibility for their role in ensuring the sustainability of communities by providing affordable accommodation in all of its forms.

In order to improve affordability it is essential to overcome a number of key problems that have been identified in this report. It is acknowledged that the vast majority of steps that need to be taken (and in some jurisdictions are being taken) are at local government and state government level. However, the temptation to use the property industry and home ownership as a tax raising mechanism remains an attractive option for cash-strapped local authorities in particular.

⁴²See www.urban.ouce.ox.ac.uk; ⁴³McTaggart, D., QIC, presentation "From one cycle to the next", July 2007; ⁴⁴McTaggart, D., QIC, presentation "From one cycle to the next", July 2007; ⁴⁵For example, Michael Matusik, Matusik Property Insights; ⁴⁶UDIA National Policy 2007.

Further, given the need to balance economic growth with environmental sustainability there will always be a challenge in achieving major amendments to planning legislation that result in tangible improvements to the efficiency of the industry as a whole. However, along with the current focus on environmental issues, the impact on society, through a decline in housing affordability, should also be addressed up-front and given weight in government decision-making.

It is the view of the UDIA that these challenges need to be overcome by a significantly higher level of consultation between all Australian governments. This level of cohesion, longevity and strategic direction will only be achieved by the establishment of formal inter-governmental mechanisms.

As previously mentioned, the United Kingdom Government recently initiated a comprehensive program to address the substantial undersupply of its housing markets and the lack of affordability. Some of those initiatives have been mirrored by initiatives throughout the Australian states.

Two major themes emerged from restoration strategies and were strongly embraced by the United Kingdom Government. These were the necessity for specific targets to be set for the achievement of affordability and the need for the development and refinement of independent monitoring of planning schemes to ensure that affordability is achieved and that dysfunctional relationships between regional markets did not occur thus driving up prices even in those markets that were well supplied.

The resulting National Housing and Planning Advice Unit (NHPAU) is a statutory authority established under the U.K. Department for Communities and Local Government. Its legislative charter is to "...provide independent advice on affordability matters to the Government, Regional Assemblies and other stakeholders with an interest in the housing market...", including the provision of "... advice to Regional and Local Planning Bodies about the impact of their housing provision proposals on affordability in the region...". Established in late 2006, the NHPAU is now fully staffed and released its first report in June 2007. Using comprehensive and professional modelling, the NHPAU will provide a much needed independent review of the aggregation of factors that impact on affordability within and across the various levels of government.

In economic and social terms, the minimal cost in implementing a similar approach within Australia would be negligible compared to the economic and social costs associated with further decline in housing affordability. Given the size of Australia, and the need for coordination between regions and levels of government, it is the Institute's view that such a body should be established and funded at federal level in a similar manner to that of the Australian Institute of Criminology or the Australian Bureau of Statistics, for example.

The value of such bodies to Australia is unquestioned as should be the value of a unit similar to the NHPAU when established. Such a body would necessarily be independent, thus reducing contention from disputes regarding land supply and potential yield of sites.

Further, given that planning law and land supply as well as infrastructure charging regimes are implemented under state law there is an overwhelming argument that such a body should provide regular reports to a joint Commonwealth/State Ministerial Council.

Standing Committees of Ministers are regularly convened by the Commonwealth and states to deal with specific portfolio interests such as justice, education, health and the like. In rare instances, there is a need for Ministerial Councils to be established with representatives of more than one portfolio to address matters of profound national significance. One such example in recent years is the Ministerial Council on Drug Strategy which comprised Law Enforcement, Justice and Health Ministers, while another was the Inter-Governmental Committee responsible for the establishment and monitoring of the National Crime Authority which comprised law enforcement and justice portfolios.

Housing affordability is a critical national issue that should be coordinated with leadership provided by the Commonwealth and all state governments at a ministerial forum on housing affordability. Such a body would enable much needed coordination of national, state, regional and local planning to oversee targets and to ensure better delivery and roll-out of services and infrastructure. It could also facilitate coordination for the delivery of new and developing cities, as further growth becomes restricted in major population centres. Furthermore, it could address much needed reform of planning law, to improve efficiencies and the review and implementation of recommendations such as those made by the Development Assessment Forum.

During the last 20 years there have been major changes brought about by Commonwealth/state policy on competition and on greater disclosure of the costs associated with government services. Additionally, attitudes by government and financial markets to levels of government debt and government accounting have also changed. As a consequence there has been a major shift in the imposition of infrastructure and headworks charges in many jurisdictions from the broader rate base or from state government coffers to charges imposed on development on an up-front basis. Many reports, including this one, reveal the extent of these substantial charges. Such research has also revealed that the cost of development sites in a supply-constrained but competitive market, combined with increased taxes and charges has caused considerable increases in development costs, and consequently new housing prices, throughout Australia.

In market terms, the commonly accepted industry view is that new home prices have regulated the prices of existing dwellings to a considerable degree. Consequently, cost increases on new homes have driven up existing home values substantially beyond what free market forces would otherwise have done. There is an urgent need, in the Institute's view, for funding mechanisms to be put in place to provide assistance and/or mechanisms for debt servicing for local authorities to provide much needed infrastructure works to address bottlenecks, remove some of these pressures from the residential housing market, and address intergenerational equity concerns.

Many commentators are swift to point out the impact that an increase in the First Home Owners Grant would have in inflationary terms on the housing market. However, when increases of \$45,000 and \$50,000 are imposed on new residential land there has been a resounding silence from most commentators regarding the inflationary effect that such an increase has on both new housing and existing housing that is situated in adjacent areas.

This report does not extensively examine the detail of solutions to address infrastructure charging, although it does raise a number of areas for further research. It also points out the gross inequity that has occurred as a consequence of these policies that are either in place in all Australian states or under active consideration.

Solutions to restore affordability will, of necessity, take a considerable period of time and involve actions at federal, state and local authority level. However, the issue of housing affordability must be tackled in earnest to avoid the deterioration in housing affordability continuing almost unabated.

6. National housing affordability restoration recommendations

The key recommendations are below.

1. The federal government should liaise with state and local governments to ensure the development of national growth management strategies that underpin state and local authority growth management strategies and which deliver coordinated plans for new and emerging communities particularly with respect to the provision of major infrastructure, such as transport, employment and government services.
2. The federal government, in conjunction with state and local governments should establish a Ministerial Council on Housing Affordability, that includes industry representation.
3. The Ministerial Council on Housing Affordability should have oversight of the development and implementation of appropriate mechanisms to ensure that:
 - An independent Housing Affordability Authority (HAA) such as the United Kingdom's National Housing and Planning Advice Unit is established to provide economic modelling and advice to all relevant levels of government on the impact of planning and other legislation and planning schemes on housing affordability;
 - Monitoring and reporting of housing affordability is undertaken under an agreed methodology by the HAA;
 - Targets for the affordability of home ownership are set at appropriate levels for all relevant Australian markets;
 - State-based land release programs ensure ample greenfield, infill and re-development land supply is available to meet demand requirements to achieve the agreed affordability targets; and
 - Oversight and immediate review of planning and development legislation and processes occurs in order to improve the efficiency and effectiveness of residential property development in Australia.
4. The development of federal policies and funding schemes should take place to reduce the reliance of state and local governments on upfront levies, taxes and charges, (including stamp duty and land tax), particularly for the provision of infrastructure, and taxation incentives to encourage dwelling supply. Specifically, federal government expenditure on urban infrastructure should be substantially increased at least consistent with population growth.
5. The implementation of coordinated strategies at federal, state and local levels should occur to ensure adequate numbers of appropriately skilled employees are available for the residential property sector.
6. Funded programs should be developed to restore affordability and intergenerational equity for first home purchasers of existing and new residential dwellings in addition or complementary to the existing First Home Owners Scheme.

Initial Urban Land Development Authority Board Members

CHAIR



PROFESSIONAL QUALIFICATION

Company Directors Diploma (Credit pass), University of New England and Australian Institute of Company Directors
Certifies Commercial Mediator, Australian Commercial Disputes Centre
Marketing Management Certificate, Institute of Administration, University of New South Wales
Associate Diploma in Local Government, Charles Sturt University
Industrial Law Course, University of Sydney (Post Graduate Studies – Department of Law)

RECENT EMPLOYMENT EXPERIENCE

CEO South Bank – Brisbane – 1997 – June 2005

EXPERIENCE RELEVANT TO THIS APPOINTMENT

CEO South Bank – Brisbane – 1997 - June 2005
CEO Newcastle City Council – April 1992 - Jan 1997
CRI Project Management, Regional Manager Indonesia
Nov 1989 - Feb 1992
CEO Gosford City Council Aug 1982 - Feb 1988

OTHER BOARD MEMBERSHIPS

CURRENT Brisbane Airport Corporation
New Hope Corporation
Life Without Barriers (National Disabilities org)
Queensland Performing Arts Trust
(Trustee and Deputy Chair)
PREVIOUS South Bank Business Association

MEMBERSHIP OF AND/OR AFFILIATION WITH PROFESSIONAL BODIES, CLUBS AND ORGANISATIONS:

Advisor Brisbane Development Association
Business Advisor Arkhefield Architects

APPOINTED MEMBERS

Michael Kerry

Mr Kerry currently works at Babcock and Brown and is the immediate Past President of the Queensland division of the Planning Institute of Australia.

He was formerly the Director of Planning and Strategic Infrastructure with Springfield Land Corporation, and prior to that, was the Executive Director of the Office of Urban Management responsible for the development of the *SEQ Regional Plan* and *SEQ Infrastructure Plan*. He has also been a director of the South Bank Corporation.

Mr Kerry has experience in city and regional planning, major projects and urban development and has worked for Brisbane City Council, the West Australian Government, the Joondalup Development Corporation in Perth, Metropolitan Adelaide in SA, the Northern Territory Government and the Albury-Wodonga Development Corporation. He is an adjunct professor at the University of Queensland.

[REDACTED]

[REDACTED] is currently a senior partner and head of the Brisbane office of Freehills, where he advises on major property developments and infrastructure projects.

He has expertise in relation to the environmental and planning aspects of such projects, and also advises in relation to the undertaking and reporting of environmental audits, compliance and management programs.

[REDACTED] has experience in advising Australian and overseas clients on investing and developing property both here, and in east Asia. He has also lectured in environmental law at University of Queensland.

[REDACTED]

[REDACTED] is Leighton's Strategic Development Manager for the northern region and has played a crucial role in winning, and delivering, billions of dollars worth of infrastructure projects in Queensland.

She is a registered architect and also has a degree in project management which has been deployed during her 17 years' experience in the construction industry.

[REDACTED] has led project bids, advised and led construction alliances, and managed the business development and communications functions on these teams. She has won awards for her promotion of women in the construction sector and has been a member of the University of Queensland's senate.

Julie Boyd

Ms Boyd is the Mayor of Mackay after being elected to Mackay City Council in 1988 as an Alderman. She was first elected Mayor in 1997 and re-elected in 2000 and again in 2004.

Councillor Boyd sits on the boards of Sunwater and Museum and Gallery Services Queensland, and is also the deputy chair of the Australian Institute of Management, Mackay branch.

Councillor Boyd chairs the Mackay Water Recycling Committee, Audit Committee, Natural Environment Advisory Committee, Mackay Local Government Counter Disaster Committee, WHaMB Roc and WHAM Regional Planning Advisory Committee. She is also on the Pioneer River Improvement Trust and sits on the City Centre Revitalisation Board and is deputy chair of the Mackay Whitsunday REDC.

[REDACTED]

[REDACTED] is a professor at Griffith University and is currently director of the urban research program at the University's School for Environmental Planning.

His research interests include urban planning and governance, urban social policy, disability studies and environmental theory and policy. He has co-authored a number of books on sustainable development and the environment.

[REDACTED] has worked in the UK, USA, Germany, New Zealand and Australia. In 2002, he was appointed by the ACT Government to act as a key adviser on a major restructuring of the territory's planning and land development administration.

[REDACTED]

[REDACTED] is the Deputy Vice Chancellor (Academic) at the University of Queensland, and was previously the Executive Dean of Faculty of Engineering, Physical Sciences and Architecture, Head of the Department of Architecture, and inaugural Head of the School of Geography, Planning and Architecture.

He is a Life Fellow and Past President of the Royal Australian Institute of Architects (Qld), a Fellow of the Australian Academy of Technological Sciences and Engineering and a Fellow of the Queensland Academy of Arts and Sciences.

[REDACTED] was Queensland 'architect of the year' in 1998 and held the advisory post of Queensland Government Architect from 1999-2006. He is a member of the South Bank Corporation and has been appointed by Brisbane City Council as the inaugural chair of Urban Futures Brisbane. He was a member of the Sydney 2000 Olympic Design Review panel and was a design advisor to the National Museum project in Canberra. Professor Keniger also provided advice on the design competitions for the Queensland Gallery of Modern Art and the Queensland Millennium Library.

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The Urban Land Development Authority's (ULDA) approval of the Isaac Views Stage Six development application is welcome news for Moranbah. The site, owned by BHP Billiton Mitsubishi Alliance, may provide homes for up to 350 residents.

Isaac Regional Council Mayor Cedric Marshall said any effort to increase accommodation choice and sustainable development within Isaac communities is a positive step for the region.

'This is not just about providing more housing, but providing more diverse housing as well,' he said. 'This means developing smaller dwellings, which are more affordable, or multi-family units, which make more efficient use of available space.'

Another positive for Moranbah was the announcement last week regarding the Council-owned Belyando Estate site. Development of the 104-hectare land will now be fast-tracked by the ULDA to help improve the supply of residential housing.

Isaac Regional Council Mayor Cedric Marshall says capitalising on recent growth is integral to the region's sustainability.

'Residents made it clear during the consultation process of the need to address the affordable housing situation and the ULDA have responded appropriately,' he said.

'In addition to the latest announcements, the ULDA also plan to finalise a targeted release process to be implemented within the Moranbah UDA.

This process will be an important step in addressing affordable housing concerns,' he said. 'It will give households of a set income level, as well as local residents who intend to be owner/occupiers for at least twelve months, the first opportunity to purchase a home when they are released onto the market.'

The ULDA is investing funds directly into affordable housing in Moranbah as part of a three year rolling program. The aim of the program is to deliver subsidised housing for workers outside of the mining industry who are finding it difficult to afford to live in Moranbah. The ULDA has committed \$1m for 2011/12 and is currently working with Council to design and implement this project for delivery by June 2012.

ENDS

For further information contact:

Isaac Regional Council CEO Mark Crawley

Isaac Regional Council Mayor Cedric Marshall

Isaac Regional Council PR & Media Officer

This media release was issued on 21 June 2011.

REGISTER OF ISSUES – RESULTS OF STATE AGENCY CONSULTATION (17 April – 24 April 2008)

Fitzgibbon draft Interim Land Use Plan

Context

The Urban Land Development Authority (“the Authority”) is an independent statutory body under the *Urban Land Development Authority Act 2007* (“the Act”).

The role of the authority is to facilitate the development of declared urban development areas (UDA) to quickly move land to market in order to achieve housing affordability and urban development outcomes. Under the provisions of the Act the Authority undertakes the following functions in declared Urban Development Areas:-

- Preparing Interim Land Use Plans and Development Schemes;
- Developing and managing land in urban development areas for urban purposes;
- Facilitating the availability of land for urban purposes;
- Providing a range of housing options to address diverse affordable housing needs;
- Providing infrastructure to support such urban development;
- Achieving best practice urban design and ecologically sustainable urban development, and providing suitable housing for low to moderate income households;
- Acquiring, amalgamating, holding and disposing of land for urban development purposes;
- The on-selling of the land and development rights to the private sector with appropriate development conditions attached;
- Entering into contractual arrangements with other public and private sector urban developers and housing providers;
- Coordinating the provision of funding of infrastructure in declared urban development areas; and
- Assessing and deciding development applications in declared urban development areas.

There are several opportunities for State agencies to influence the process under the Act. These opportunities are:

- At the time of site selection and preparation of the ILUP and Government’s development objectives for the site; and
- At the time of preparation of the Development Scheme.

Under the Act, most State agencies do not have a formal role in the assessment of applications for development within the UDA. However, the Authority is committed to engaging State agencies and key stakeholders in the preparation of both the Interim Land Use Plan (ILUP) and Development Scheme (DS) for a particular site. The Department of Infrastructure and Planning (DIP) plays an integral role in coordinating this State agency input on the ILUP.

The ILUP provides the policy against which the Authority will assess development applications lodged while the longer term development scheme for the site is being prepared. The ILUP will only permit new development within identified precincts of the UDA. This is intended to prevent development pre-empting the development outcomes of the development scheme and provides the Authority the time needed to undertake master planning for the entire area.

Once an UDA has been declared, Schedule 9 of the *Integrated Planning Act 1997* (IPA) exempts development in the UDA from assessment against the relevant local government planning scheme. Schedule 8 of the IPA has also been amended such that certain State agency assessments will no longer be triggered as assessable within an UDA. Other State and regional planning instruments (e.g. State Planning Policies, SEQ Regional Plan, SEQ Coastal Management Plan) which are given effect under the IDAS assessment and decision rules also do not apply to an UDA. Instead, State agency interests need to be canvassed up-front during the preparation of the development scheme.

The Development Scheme for an UDA will include a land use plan, infrastructure plan, and an implementation strategy. The Development Scheme will integrate State and local land use planning, infrastructure planning and delivery, and other operational matters for the management of urban development outcomes. The Development Scheme is also required to represent a whole-of-government approach to the planning and development of a declared UDA.

Whilst there are no formal consultation requirements under the ULDA Act 2007 in relation to the preparation of a Development Scheme, the Authority is committed to consultation with State agency entities, local government and other key stakeholders such as landholders, residents and community organisations. Early and regular consultation with State agencies is essential so that the State agency 'site specific' interests can be identified and integrated up-front into the Development Scheme and substantial commitments from Government can be made with regard to the provision of essential infrastructure.

STATE AGENCY COMMENTS AND RESPONSES

Department of Education, Training and the Arts

Number	Issue	Explanation	Outcome
1	General	<p>Education finds this an important and exciting initiative, in terms of a number of goals including Affordable housing and renewal of strategically located land.</p> <p>As is assumed to be the case with many of the State infrastructure providers, the infill, renewal, and re-densification of existing urban areas, in which there is already some infrastructure provision (in the case of Education – schools), is in many ways a preferred solution to that of ever-extending Greenfield development located well beyond the current settlement pattern. Education has some considerable concern with the number of Greenfield proposals currently active or about to be active throughout the state, which will each trigger a new ‘set’ of schools.</p> <p>There is a potential scenario by which several of these schools will open within a short time of each other by way of infrastructure agreement, but due to the amount of choice in the market thus created, some will succeed and some will not. In a period of severe constraints upon infrastructure funding, to have new schools underutilized will not look good – even if State funding can be extended to cover all of the initial start-up situations and their (non-subsidised) ‘consequential’ schools.</p> <p>An overriding concern for sustainability must start to give some credibility, it is felt, to an approach that seeks to provide families with attractive, affordable and comprehensive accommodation at medium densities close to the place of work. The proximity to a large and varied job market, such as that provided uniquely by Brisbane,</p>	Noted

Number	Issue	Explanation	Outcome
		<p>would the 'payoff' for medium-density dwellings being chosen by young families, rather than the traditional detached house. This option of medium density developments, it is suggested, is worthy of further exploration by the ULDA team.</p> <p>This preference for renewal of older areas with existing service networks still holds, notwithstanding the fact that there will be issues of schools that are of a considerable age requiring renewal, and which may have less than optimal locations on major roads.</p> <p>The issue of residential densities is perhaps raised appropriately here again. Education has been criticised for the size (spatial extent) of its school catchments, from the point of view of walkability or accessibility generally. Education would reply to the effect that the accepted ruling size of a school must be a compromise between the Educational pressures (large viable schools) and accessibility (smaller, more frequently-located schools). Given that this relatively fixed size range of an urban school has been largely agreed upon within the Department, the proportion of the resultant catchment that is walkable then becomes a matter of the residential densities. Given the prevailing low urban densities of most of Brisbane City, a little less than half of the school's catchment, hypothetically (eg if the catchment is seen as a 'perfect circle' and taking direct rather than road distance) is walkable (using the 400m criterion currently favoured by planning documents). If (net) residential density increases to something in excess of 30 dwellings per (net) hectare, the catchment, hypothetically speaking, may be fully walkable.</p> <p>Education also sometimes raises the related issue of nature of the school buildings. It is often put to Education that the standard primary school, with its 6.5 to 7 hectare site, is a</p>	

Number	Issue	Explanation	Outcome
2	Defining the precinct	<p>gross consumer of limited space; Education should build in multiple storey and consume less land. Education would reply to the effect that while the prevailing residential density of the area is low, and spatially expansive, then Education should not be made the scapegoat vis a vis wasteful use of land. A community that favours large private spaces may well expect a school to be similarly located in garden surroundings and to use a parallel single-storey building style. However, should the prevailing residential density increase, Education would feel itself to be under a greater obligation to match this 'style' of lot size and buildings, but still to the scale of the density factor, no greater.</p> <p>Education would press for planning to take place within the larger rather than the smaller context. This includes considering:-</p> <ul style="list-style-type: none"> • The whole of the Council land holdings, rather than simply Precinct 1. This would include the dump; which is believed to reach its desirable level of settling or useability by 2015. • Whether or not the area or 'precinct' to be subject to detailed planning should be extended to cover the land to the west of the rail corridor/future bus tunnel. There are some small individual parcels of vacant land identified by the Brisbane Broadhcartare study (PIFU), and a low density of existing houses. This is part of the wider question as to whether the bus/rail corridor should be regarded as a barrier and thus form the western boundary of the study area, or whether the Bruce Highway, further to the west, should form this 'hard edge'. Education, and possibly some other infrastructure agencies, spends much of its time 	<p>The suggestions regarding the proposed UDA boundary are being considered and final boundary will be provided before final lodgement.</p> <p>The development scheme will plan for the balance area including Council landholdings.</p>

Number	Issue	Explanation	Outcome
		<p>defining service areas, school catchments, where the centre of gravity of the student population of the future will occur, and so on. This is done regularly in order to check the adequacy of the location of the existing pattern of schools. Should the Bruce Highway be seen as the ultimate barrier, there should perhaps be some measures taken to reduce the impermeability of the railway/tunnel corridor (eg to have some of the corridor partially underground?)</p> <ul style="list-style-type: none"> The frame of the area. To the north, the substantial upgrading of Telegraph Road as an important subregional link will form a barrier. The west has already been discussed. The east is limited by a significant waterway (despite the fact that the school that under present catchment delineation (as determined by the road pattern) that will service the majority of Precinct One, Taigum SS, is located beyond this barrier). However to the south there is a 'softer' blending with the Carseldine ex-QUT campus, the strip of warehousing/commercial and industrial uses, relocatable home parks, etc. While much of this land would be under private ownership, it would seem to be ripe for more intense development of one kind or another. This 'fringe' area also includes the Pineapple St used government car sales area and driving test centre. While these uses are no doubt important, and the land is no doubt low-lying, it would seem that there could be a more enhanced usage of this site (which may be held by the State government). 	
3	Current school provision	Education has an existing pattern of schools serving the area. This pattern, on current catchment drafting based on	Noted

Number	Issue	Explanation	Outcome
		<p>the existing road pattern, splits the larger and smaller precincts amongst several state primary schools (most of Precinct 1 falls within the catchment of Aspley SHS). There is also a Special school adjoining Aspley SHS to the immediate west. A plan of the existing schools of the area and their catchments can be made available on request. On very initial estimates, the schools serving the area would be able to cope with the increased numbers expected from the development of Precinct 1. There would be no need for any further primary or secondary school provision. The size and composition of the expected population would be salient factors in assessing future school requirement more closely. This would in turn depend on density decisions and decisions concerning the scope of the project. It is assumed that there would be a degree of heterogeneity in the planned population composition.</p> <p>However, comments concerning what is and is not a precinct, and the approach of Education to always have regard to the centre of gravity of the future student population when assessing how well its schools are located, can be recalled. There may be the opportunity for future discussion on this point.</p> <p>If any change to the current pattern is proposed, some assistance with mechanisms for land reservation for a school site would be needed. If some usage of part of the Carseldine Campus for secondary school facilities was deemed feasible, for example, Education would need some assistance and support in order to discuss this matter with appropriate organisations.</p> <p>However, expectations cannot be raised in this regard to too great an extent as there are limits on the availability of funds for further school infrastructure provision from Education's annual appropriation.</p>	

Department of Emergency Services

Number	Issue	Explanation	Outcome
4	ILUP Part 6, Table 2	<p><u>State Planning Policy 1/03</u> Natural Hazard Flood The Queensland Government's position is that, generally, the appropriate flood event for determining a natural hazard management area (flood) is the 1% Annual Exceedance Probability (1% AEP). This figure has equivalence to the 100 year ARI used in ILUP/Table 2 Flood Immunity Levels/Creek or Waterway. In certain instances it may be appropriate to adopt a different DFE depending on circumstances at a given locality. Table ILUP/Table 2 Flood Immunity Levels/Localised overland flowpath or designed open channel/ Habitable Floor Level gives a 50 year ARI + 500mm freeboard. This is not in line with the Government's position set out in SPP 1/03 requiring 100 year ARI + freeboard. DES recommends substituting the value 50 year ARI + 500mm for 100 year ARI to align with SPP 1/03 requirements, unless evidence can be provided that the less conservative 50 year ARI is appropriate to the locality.</p>	<p>Agreed and Table 2 has been amended accordingly</p>
5		<p>Emergency Response Provision DES requires a briefing session for Queensland Fire and Rescue Service, Queensland Ambulance Service and Emergency Management Queensland prior to construction. Issues of primary concern are site access (ingress & egress), changed traffic conditions and storage and location of hazardous materials onsite during and after construction.</p>	<p>Noted. This request has been provided to the ULDA.</p>

Department of Housing

Number	Issue	Explanation	Outcome
6	Statement of Intent	<p>The Department of Housing notes and supports the eight planning principles for the Fitzgibbon Urban development Area. In particular the department supports:</p> <ul style="list-style-type: none"> • Promote a sustainable and diverse community through the creation of a range of housing types and densities including a component of affordable housing. • Facilitate the efficient and effective development of the UDA and maximise the urban and housing outcomes with the involvement of the housing sector. 	Noted
7	ILUP, Part 1, Section 2(2)	The Department supports the inclusion of this background section outlining what the ULDA Act is seeking to facilitate generally in urban development areas.	Noted
8	ILUP, Part 2, Section 1(1)(b)	The department supports this principle to allow development in this precinct prior to the development scheme taking effect.	Noted
9	ILUP, Part 2, Sect 3(1)	The department supports this principle to create an area which “supports a healthy and diverse community with access to a variety of house types’ and “a choice in transport modes”.	Noted
10	ILUP, part 2, Sect 3(2)(c)	In particular, the department supports the principle “to create a safe, diverse and inclusive community through the provision of a range and mixture of housing types, densities and designs which deliver a component of affordable housing.”	Noted
11	Precinct Intent Section 1(2)(a)	The department supports proposals to establish minimum densities as means of supporting efficient use of land and public transport services.	Noted
12	ILUP, part 4, Column 2	The department supports the proposal to make detached dwellings, multi unit dwellings and lot reconfigurations self assessable.	Noted

Number	Issue	Explanation	Outcome
13	ILUP, part 5, Development Assessment, Sect 2	The department supports the basis for determining an application outlined in this section.	Noted
14	ILUP, Part 6, Sect 2(b)	Affordability (i) The department supports this assessment criterion which states - "Where development precincts are intended to include a residential component, applicants will be expected to demonstrate how the proposed development will contribute to house choice to meet a diversity of needs".	Noted
15	ILUP, Part 6, Section 2(b)	Affordability (ii) The department supports this assessment criterion which states – "Contributions towards affordable housing may be required, in built form or by way of a monetary contribution, where the ULDA deems that the proposed development does not adequately address the urban development area's diversity of housing needs. Such requirements will be enforced through conditions attached to any development approval".	Noted
16	ILUP, Part 6, Section 2(c)(iii)	The department supports this assessment criterion which states that (multi-unit dwelling) "development will contribute to meet a diversity of housing needs".	Noted
17	Consideration of affordable housing targets	In the presentations at the State Agency Workshop on Thursday 17 April 2008, attendees were advised that Precinct 1 of the Fitzgibbon UDA could accommodate between 600 and 900 dwellings. Feedback on the proposed Fitzgibbon Interim Land Use Plan at this workshop from the four state agency groups included a recommendation that consideration be given to incorporating affordable housing targets for low to moderate income households. In support of this proposition the department offers the following comments for consideration. Overview The main purposes of the ULDA Act indicate that, in addition to providing land and infrastructure for urban purposes and supporting sustainable urban design, urban	Agreed, Part 6, Section 2 (b) (i) has been amended as follows: Where development precincts are intended to include a residential component, applicants will be expected to demonstrate how the proposed development will contribute to housing choice to meet a diversity of needs by including as a minimum 10% of dwellings must be affordable by households on a gross income of less than \$80,000 per annum.

Number

Issue

Explanation

Outcome

development areas should address:

- the provision of a range of housing options to address diverse community needs.
- the provision of an ongoing availability of affordable housing options for low to moderate income households.

Housing Options and Affordability

It is anticipated that “the provision of a range of housing options to address diversity community needs” will be a minimum housing policy setting for urban development areas as it effectively is with some larger private sector master planned areas in greenfield locations. This is distinct from smaller, more exclusive, developments in greenfield or brownfield locations which tend to target a less diverse range of community need. These different business model approaches are attributable to the scale of the development, the size of the pool of change-over home purchasers and investors, and the level of competition for their custom. A key feature of both approaches is the controlled release of product, a process which is of particular importance to the approach for delivering a more exclusive product.

In instances, where the ULDA may offer smaller individual development parcels to different developers within UDAs, the temptation for these developers to pursue a more exclusive model, means the interpretation and process for determining what represents an acceptable range of housing options to address diversity of community needs is likely to become more important and more complex.

Delfin Lend Lease is a development group that has been delivering a range of housing options for different households over an extended period of time. They have achieved this by providing a range of lot sizes matched to a

Number	Issue	Explanation	Outcome
		<p>mix of dwelling types and sizes at a range of price points suited to different household types, sizes and incomes in their master planned areas (communities). Provision of information on housing options from developers at the application stage will enable the ULDA to assess whether they have met the requirement for “the provision of a range of housing options to address diversity community needs”. This approach raises the issue of the need for the ULDA to consider the broad UDA parameters for preferred ranges of lot and dwelling types and sizes suited to preferred ranges of household types, sizes and incomes. The department is able to work with the ULDA to develop models that establish these parameters for UDAs. The importance of this issue is reinforced by the development assessment criteria on Affordability (Part 6 Section 2 (i) and (ii)) which indicates that where the ULDA has determined that a developer has not satisfactorily addressed the UDA’s diversity of housing needs, the developer may be required to contribute towards affordable housing, in built form or by way of a monetary contribution.</p> <p>Affordable Housing</p> <p>The draft Fitzgibbon Interim Land Use Plan defines “affordable housing” as being housing which can be reasonably afforded by low to moderate income households (including housing for first home buyers). The discussion in the previous section raises the issue of where this definition of affordable housing will sit in relation to the housing spectrum established by the broad UDA diversity needs parameters and at what point this affordable housing might be triggered for possible consideration due to a developer failing to adequately comply with this housing spectrum.</p>	

Number	Issue	Outcome
		<p>The draft Fitzgibbon Interim Land Use Plan assumes that affordable housing will sit outside of this housing spectrum. This issue is raised because this affordable housing definition is sufficient to capture housing for purchase by moderate income households that can be delivered by the private sector without subsidy in greenfield locations. The approach involves an extension of the range of housing option approach whereby the normal range of smaller lots and dwellings is extended further to achieve a lower house and land package price point that is affordable to moderate income households.</p> <p>That is, the size and type of the land and house package is predicated on conventional market returns with price points worked backwards from affordable housing payments for moderate income households. This approach is employed by Delfin Lend Lease who achieve moderate income target price points in their master planned areas (communities) by building small dwellings matched to small lots.</p> <p>While this potential overlap issue is raised, it should be stressed that this department has used this approach to encourage developers to deliver housing for moderate income households (which it has treated as affordable housing) on surplus land released from the Government Land Register. The developers for these sites have been amenable to this approach as a means of delivering agreed percentages of purchasable “affordable” housing for moderate income households on agreed income levels.</p> <p>The issue of the fit between a range of housing options, non subsidised “affordable housing” and subsidised affordable housing is raised because of their importance to the operationalising of the affordability development assessment criteria. In addition, it will be difficult to operationalise these provisions without establishing broad</p>

Number	Issue	Explanation	Outcome
		<p>UDA parameters for preferred affordable housing types and sizes and household types, sizes and incomes, inclusive of targets. E.g. If the range of housing options offered by the developer is not acceptable, and the ULDA chooses to seek an affordable housing contribution, then what type and how much affordable housing will it request from the developer. Please note the above comments are not intended to exclude consideration of the potential for a complementary approach linked to rental models, such as the National Rent Affordability Scheme, once the parameters for its operation have been established.</p> <p>Affordable Housing and Housing Options in the Draft Fitzgibbon Interim Land Use Plan</p> <p>The generous site density provisions in the draft Fitzgibbon Interim Land Use Plan mean that the ULDA will need to closely monitor developer proposals to deliver a range of housing options addressing diverse community needs as the plan provisions do not discourage large dwellings being established on small allotments. If these housing options are to cover non-subsidised small house and lot packages for moderate households then the ULDA proposals for vetting developer applications for housing option compliance will enable this housing option segment to be reviewed.</p> <p>If this housing is to be treated as affordable housing, in the same way as subsidised housing, the plan provides the means for reviewing the appropriate provision of this housing.</p> <p>The effective review of housing options and affordable housing within the UDA will be dependent upon complementary work on acceptable housing option and affordable housing ranges and targets.</p>	

Department of Infrastructure and Planning

Number	Issue	Explanation	Outcome
18	Proposed UDA boundary	Speculation is possible about the basis for delineation of certain areas and the "structure planning logic" behind the arrangement of and planning intent for various parts of Precinct 1.	ULDA suggests that the planning logic behind the boundary be addressed via the communication strategy.
19	Relationship to public transport / development intensity	<p>Need to consider:</p> <ul style="list-style-type: none"> • the relationship of the proposed precinct structure to the alignment of the existing and future transport corridor(s), the location of future busway and/or railway station(s) and the type and density of future development near and to the south of Carseldine Railway Station; • the basis for the definition of the proposed, rather low, densities and building height provisions for the proposed Sub Precincts and whether they will deliver a responsible development outcome in line with the intent of the SEQ Regional Plan; • whether the population in Precinct 1 is capable of supporting the establishment of a viable service/employment/transit centre. • Suggest set certain minimum standards for development that would secure a responsible outcome on one of the last, large remaining greenfield sites in Brisbane. 	<p>Maximum heights have been raised from three to five storeys in the sub-precincts adjoining the existing transit station.</p> <p>Precinct boundary has been amended to avoid potential conflict with existing and future transport corridor(s). The new precinct excludes multi-unit dwellings other than detached dwelling scale duplex-triplex and quadplex units. Therefore the storey height is limited to three storeys. Higher densities will be investigated during the preparation of the development scheme.</p>

Department of Main Roads

Number		Issue	Explanation	Outcome
20	General		Main Roads supports the principles and objectives of the interim land use plan.	Noted
21	Strategic importance of Telegraph Road		Brisbane City Council (BCC) considers Telegraph Road, between Lacey Road at Bald Hills and the Gateway Motorway at Deagon, a strategic regional link between the industrial area of Brendale and the Gateway Motorway. The road is also a part of the local roads of Regional Significance network for Brisbane. It is BCC's intention in the short to medium term to upgrade the road to four lanes as the current standard is not suitable for its role in the road hierarchy. Main Roads supports this project and has agreed to a joint planning study with BCC. The planning will also look at preserving an ultimate six lane median divided road and eliminating the open level rail crossing on Telegraph Road. In conjunction with BCC, Main Roads is seeking to ensure that the land necessary for the upgrade of Telegraph Road and the elimination of the open level crossing is not compromised, and any planning within the UDA is cognisant of the future role that Telegraph Road will have in the road network.	The issues regarding this strategic road link will be taken into consideration during the development scheme preparation. While traffic and transport issues need to be considered when deciding applications lodged under the ILUP, the subject road corridor is unlikely to be affected given that the ILUP prohibits development in the balance area of the UDA (i.e. excluding Precinct 1).
22	Early public transport provision		As Telegraph Road and Beams Road are already under stress, every effort should be made to ensure public transport provisions are an integral part of and early inclusion into the development.	The ULDA acknowledges the need to consider the provision of public transport to meet the needs for the ultimate population for the UDA. Development within Precincts 1b & c is proximate to the Carseldine Railway Station, and will be connected to the Northern Busway in due course. It is therefore incumbent upon the ULDA to consider a road and pathway network that provides good connections to these key transit modes. These issues will be addressed in the master planning for the future Development Scheme for the UDA and considered during

Issue		Explanation		Outcome
23	Part 2, Section 3, point (b)	This principle should include the word “preserve” in addition to recognise.		the assessment of future development applications made under the ILUP and Development Scheme. “Respond to” has been included rather than “preserve”
24	Part 3 (Precinct Intent), Precinct 1b (7 & 8)	Precinct reference should be 1b not 1a.		Agreed and ILUP has been amended accordingly
25	Part 6, Section 2, Table 5 Residential Street Network	The ILUP states that footpaths are not required for secondary street frontages or access places/streets and footpaths are only required on one side of collector streets. Such an approach runs counter to the notion of a walkable community with high levels of pedestrian and cycle access.		Amend ILUP to stipulate footpaths for secondary street frontages where they will form a logical connection in the pedestrian network.
26	Part 6 (Development Assessment Criteria), Section 2(j)(iii)	A Site Development Plan should also illustrate the pedestrian and cycle network and how it is integrated into the overall site (i.e. UDA)		Agreed.

Department of Primary Industries and Fisheries

Issue		Explanation		Outcome
27	Government Statement of Intent	Last dot point should be amended to read: “Recognise, protect and where possible rehabilitate, the environmental and natural values of the area”.		“Respond to” has been included instead of protect
28	ILUP, Part 2, Section 3, 2(b)	Paragraph should be amended to read: “... conservation area that recognises, protects and where possible enhances the area’s environmental...”		“Respond to” has been included instead of protect
29	ILUP, Section (e)	Should be amended to read “...and recognises, protects and enhances the areas biodiversity values...”		“Respond to” has been included instead of protect
30	ILUP, Development Assessment Criterion (k)(i) - development is restricted from occurring within 10 metres of the centre line of a waterway corridor to maintain the flood carrying capacity of the	DPI&F supports strategies designed to maintain the ecological processes of waterways, however the department normally supports the retention of a vegetated buffer between a development and aquatic features and marine plants. DPI&F’s policy recommends a minimum buffer of 50m of		Several drainage lines traverse the UDA as well as a small section of Cabbage Tree Creek. One of the drainage lines traverses sub-precincts 1b. The imposition of a 50 metre setback distance to this corridor is not considered a practical measure as it will reduce the development potential of lands within sub-

Number	Issue	Explanation	Outcome
	<p>corridor and the ecological values of the corridor</p>	<p>established natural vegetation between developments and freshwater aquatic features and a 100m buffer of established vegetation between developments, tidal aquatic features or marine plants. These policy recommendations should form the basis of buffer considerations from a fisheries perspective.</p> <p>DPI&F recommends that the ILUP reflects the departments' buffer policies ensuring that buffers are of a substantial nature (100m to marine plants, 50m to freshwater features) as a starting point, which may then be reduced by appropriate justification, as mentioned above (e.g. type of proposal, environmental characteristics etc). Additionally, it is noted that Schedule 1 of the ILUP advises that the clearing of marine plants is not exempt development within the UDA. DPI&F supports this approach as marine plants form the basis of the estuarine food chain and provide a suite of functions essential for the maintenance of normal ecological processes occurring in tidal environments. Further, marine plants are a community resource which should not be removed to benefit of a few. It should be noted by the ULDA that the <i>Integrated Planning Act 1997</i> does not remove DPI&F's role as a concurrence agency for applications for waterway barrier works in a UDA. To ensure proponents are clear as to the types of development not exempt from assessment in the UDA, DPI&F suggests that the ILUP includes a paragraph / section / footnote etc that clearly advises that Fisheries Development approvals for the raising / construction of waterway barrier works may require assessment by DPI&F.</p>	<p>precincts 1b and adversely impact the ULDA's ability to deliver affordable housing.</p> <p>Having regard to these issues, it is suggested that assessment of suitable setback distances to the major drainage line in the north and Cabbage Tree creek be considered at the time of preparation of the development scheme. Should a development application be lodged in the meantime, the Authority can request further information from the development proponent to make an informed judgement of the appropriate buffer.</p> <p>It is noted that DPI&F's concurrence agency responsibilities, in relation to waterway barrier works, have been preserved in the IPA. The insertion of a notation in the ILUP which alerts prospective applicants of potential concurrence agency triggers is unnecessary.</p>

Department of Tourism, Regional Development and Industry

Number	Issue	Explanation	Outcome
31	Sequencing of public infrastructure upgrades	DTRDI supports the Draft Fitzgibbon Interim Land Use Plan. Whilst future public infrastructure upgrades are planned to support residential development within the Fitzgibbon UDA, DTRDI is concerned that the sequencing of these upgrades may need to be further considered to ensure that sufficient infrastructure upgrades are delivered in line with the staged development of the Fitzgibbon UDA and that traffic and rail congestion does not impact the efficiency of the rail and Beams Road corridor for business and industry related transport.	This information has been provided to the ULDA and will be considered during the preparation of the permanent development scheme for the UDA in consultation with transport agencies.

Queensland Health

Number	Issue	Explanation	Outcome
32	Health service planning	Currently Queensland Health is developing two different levels of service plans that include the Fitzgibbon area. These are the <i>Northside Health Service District Plan</i> and <i>Northside, Royal Brisbane Women's Hospital and Royal Children's Hospital (NRR) Cluster Plan 2008-2013</i> . Our comments are limited to the extent of potential effects the UDA may have on current and future health service delivery for the future Fitzgibbon's population. It is important to note that in terms of health service delivery, we plan services based on population characteristics and needs. The Interim Land Use Plan describes mixed densities within the precinct, but does not describe its future population. According to Figure 2 we can assume the population growth would not be significant to provide major concerns in terms of increased demand to services.	Noted. ULDA will provide further information to support health service planning as this becomes available.

Queensland Police Service

Number	Issue	Explanation	Outcome
33	Impact upon policing services	<p>Unfortunately, the short timeframe makes it difficult for the QPS to provide any valuable feedback as to how the development may impact upon policing services. The population estimates were not available in the time frame allocated for comments and therefore further consideration will be given to detailed policing requirements in due course.</p> <p>Consideration of other micro-level issues including growth, residence numbers, types of commercial interests, socio-economic characteristics and the nature and capacity of transport infrastructure will undoubtedly provide a greater capability to forecast issues relevant to providing policing support to the proposed development.</p> <p>The development will be within the boundaries of the Boondall Police Division, North Brisbane District and as such consultation with the District Officer North Brisbane District telephone 3364 3433 would be appreciated as emerging facets of the development arise. This will enable police to plan for the ongoing delivery of policing services during the construction phase and once the development has been completed.</p> <p>Metro North Police Region has also noted the recent discussions of other matters of interest in the area such as integration with other major users of the area including Carseldine Campus of the Queensland University of Technology. It is understood however, that the campus is proposed to close in 2009 and become the subject of development itself. This would undoubtedly impact on service delivery plans.</p>	<p>Noted. ULDA will provide population estimates to support QPS service planning when available.</p>

Queensland Transport

Number	Issue	Explanation	Outcome
34	<p>ILUP- Part 6 Development assessment criteria, (vii) Busway, page 17</p>	<p>States “A site development plan will demonstrate how development will incorporate a potential future busway and busway station.” This, combined with Figure 2 (see below), is not sufficient guidance to allow assessment. This should be relabelled “public transport” and should include the following:</p> <ul style="list-style-type: none"> • “A site development plan will demonstrate how development will incorporate a potential future busway and busway station(s) (including supporting facilities) consistent with the TransLink Infrastructure Manual and the Busway Planning & Design Manual and the objectives of the Northern Busway as defined by TransLink.” • “A site development plan will demonstrate how development will incorporate on-street bus connections and facilities consistent with the TransLink Network Plan, the TransLink Infrastructure Manual and proposed interim bus operations via the site.” • “A site development plan will demonstrate how development will incorporate pedestrian, cycle and vehicular access to public transport stations (bus and rail) and stops consistent with the TransLink Infrastructure Manual.” <p>Interest / Comment & Legislative / Policy Basis: Part 2A Land use and transport coordination Act 8A Object of pt 2A-</p> <p>(a) ensuring, as far as practicable, development does not have a significant adverse impact on existing and future public passenger transport.</p>	<p>Agreed and ILUP has been amended accordingly</p> <p>Precinct boundary has been amended to avoid potential conflict with existing and future transport corridor(s). Therefore QTs advice has been reflected in the new precinct boundary. No public Transport criteria now required in the Site development Plan.</p>

Number	Issue	Explanation	Outcome
35	ILUP- Part 3 Development Intent- Figure 2: Concept Plan for Precinct 1, page 8	<p>Figure 2 shows an indicative busway alignment that is not considered technically feasible or desirable. TransLink has undertaken pre-feasibility planning for the Northern Busway (Kedron to Bracken Ridge) which has identified a future requirement through Fitzgibbon UDA and TransLink would have great concern about the potential for site plans to be developed and assessed based upon this indicative alignment.</p> <p>Amend Figure 2 to include the dimensions of the public transport corridor, that being a corridor with a minimum width of 15 metres.</p> <p>A decision on a concept design is not expected for 18 to 24 months as detailed planning cannot commence until the WBTNI process is completed.</p>	Precinct boundary has been amended to avoid potential conflict with existing and future transport corridor(s). Therefore QTs advice has been reflected in the new precinct boundary.
36	ILUP, Part 3, Precinct Intent, Section 1 (5), page 6	<p>Add words to Part 3, section 1(5). The last sentence could be modified to include the following additions: "The Site Development Plan will include such matters as the land use, rail corridor set back distance, lot layout, the form and density of development, landscape intent and building control requirements.</p> <p>The ILUP does not contain any words about development set back from the rail corridor which adjoins the western boundary of the UDA.</p>	Precinct boundary has been amended to avoid potential conflict with existing and future transport corridor(s). Therefore QTs advice has been reflected in the new precinct boundary.
37	ILUP- Part 3 Development Intent- Figure 2: Concept Plan for Precinct 1, page 8; AND Figure 1, Fitzgibbon- Urban Development Area	<p>Figures 1 & 2 identify Precinct 1c as supporting increased residential densities relative to precinct 1b. It is requested that consideration be given to extending the reach of Precinct 1c further to the North in an effort to increase residential densities within the walkable catchment of the Carseldine rail station.</p>	To be considered during the preparation of the development scheme.
38	ILUP, Part 3, Precinct Intent 1 (2) (d), page 6	<p>Add an additional Concept Plan to include the following: "future rail level crossing grade separations for Telegraph road and Beams road"</p> <p>Interest / Comment & Legislative / Policy Basis:</p>	No change. This is part of the balance area, to be considered in preparation of development scheme

Number		Issue	Explanation	Outcome
			To safeguard the jurisdiction of Queensland Transport's responsibilities with the operational safety and integrity of railways and future railways.	
39	ILUP- Part 3 Development Intent- Figure 2: Concept Plan for Precinct 1, page 8		The figure should be amended to include annotated reference to the future grade separations for Telegraph Road and Beams Road.	No change. This is part of the balance area to be considered in preparation of development scheme
40	Attachment 2, Government Statement of Intent		Add to Attachment 2, Government Statement of Intent to include the following to ensure an appropriate position is reached. 'Development in the UDA does not compromise, and makes appropriate provision for future rail service operations and rail infrastructure requirements for the North Coast rail line to support future passenger and freight services using the rail corridor.'	Agreed and Attachment 2 amended accordingly Additional words added to the ILUP
41	Schedule 1, UDA Exempt Development, Reconfiguring a Lot, (g), page 20		References to strategic port land are not relevant to this planning scheme and should be deleted.	Agreed and ILUP amended accordingly
42	Attachment 2, Government Statement of Intent		QT notes that the QUT Carseldine Campus future needs and land uses are changing. The last dot point on the Government Statement of Intent states that "Development within the UDA precincts integrates with major landuses including the QUT Carseldine Campus, sporting facilities, conservation areas and surrounding residential neighbourhoods". This statement may require further clarification.	Agreed, the Statement of intent has been amended to: <ul style="list-style-type: none"> ▪ "Development within the UDA precincts integrates with major landuses including existing and future uses of the QUT Carseldine Campus, sporting facilities, conservation areas and surrounding residential neighbourhoods".
43	Protect site for potential station serving QUT site		A potential station serving the QUT site should be protected for to allow service to any future uses of that site and the surrounding community.	Noted. This is in the balance area and will be considered as part of the preparation of the Development Scheme.
44	Busway construction impacts		Provision should also be made for the construction of the Busway which would require at least a 10metre buffer which could provide access for Busway construction. A construction depot will also be required on the proposed Park and Ride site.	Precinct boundary has been amended to avoid potential conflict with existing and future transport corridor(s). Therefore QT's advice has been reflected in the new precinct boundary.

Number	Issue	Explanation	Outcome
45	Busway as exempt development	TransLink notes that the <i>Busway</i> is included in schedule 1 UDA Exempt Development. This is welcomed and is consistent with the local government approach.	Noted
46	Mitigation of severance impacts	Any public transport corridor should seek to mitigate severance impacts through innovative design opportunities. TransLink can advise regarding such design opportunities.	Noted
47	Priority bus access	Priority bus access to the following must be protected for: <ul style="list-style-type: none"> • Telegraph Rd (to north via Norris Rd and eastwards) • Linkfield Rd, including any future grade-separation • Roghan Rd (to Handford/Lemke and Sandgate Rds) • Potential Park and Ride site to northwest • Beams/Dorville/Zillmere Rds (to South) 	Noted. In balance area, therefore to be considered during preparation of the Development Scheme.
48	Regular communication	TransLink strongly recommends that continued communication with the ULDA be maintained on a regular basis during the planning process to avoid any inaccuracies or conflicts either in the Master planning process or Busway planning.	Agreed and referred to ULDA.

Department of Local Government, Sport and Recreation

Number	Issue	Explanation	Outcome
		No feedback received at 25 April 2008	

Department of Natural Resources and Water

Number	Issue	Explanation	Outcome
		No feedback received as at 25 April 2008	

Department of the Premier and Cabinet

Number	Issue	Explanation	Outcome
		No feedback received as at 25 April 2008	

Energex

Number	Issue	Explanation	Outcome
	Modification of exempt development status for electrical distribution works	An existing Energex distribution line crosses the UDA. Energex want to ensure that works consistent with the Electricity Act 1994 that may need to occur on the line are exempt development. Include appropriate definition	Appropriate wording has been incorporated into Schedule 1 and 2.
	New sub station requirements	Development in Precinct 1 may require a new substation. Request that development of a new substation be made permissible development in Table 1.	ULUP proposes to amend Schedule 1 to allow new substations to be exempt development subject to specific criteria.

Environmental Protection Agency

Number	Issue	Explanation	Outcome
		No feedback received at 25 April 2008	

Powerlink Queensland

Number	Issue	Explanation	Outcome
	Modification of exempt development status for electrical transmission works	A proposed new transmission line crosses the UDA. Powerlink want to ensure that works consistent with the Electricity Act 1994 that may need to occur on the new line are exempt development. Include appropriate definition	Appropriate wording has been incorporated into Schedule 1 and 2.

Queensland Rail

Number	Issue	Explanation	Outcome
		No feedback received at 25 April 2008	

1 March 2010

Gary White
Deputy Director - General
Department of Infrastructure and Planning
PO Box 15009
CITY EAST QLD 4002

Dear Gary

**RE: STATE AGENCY REVIEW OF PROPOSED NEW URBAN DEVELOPMENT AREAS
– BLACKWATER & MORANBAH**

On 13 October 2009 Minister Hinchliffe wrote to all of his Ministerial colleagues to advise them of the future activities of the Urban Land Development Authority (ULDA). The Minister's letter (Attachment A) outlined the following program areas for future Urban Development Areas (UDAs):

- Regional Housing Diversity
- Resource Towns Housing Affordability
- South East Queensland (SEQ) Strategic Sites.

The purpose of this letter is to seek your agency's input and response to the ULDA's preparatory work for sites considered under the Resource Towns Housing Affordability program.

The potential UDAs under consideration encompass the following areas:

- a) Blackwater - the majority of the town situated north of the Capricorn Highway. The proposed UDA is shown on the map in Attachment B and an overview of the town's history, key features and planning and development opportunities is outlined in a Background Report for Blackwater in Attachment C.
- b) Moranbah – a number of non-contiguous sites as shown on the map in Attachment D. An overview of the town's history, key features and planning and development opportunities is outlined in a Background Report for Moranbah in Attachment E.

To progress the declaration of these UDAs, input from state agencies is necessary to inform:

- i. the appropriate areas/boundaries for the UDAs
- ii. the statement of government objectives for each UDA that will accompany the declaration
- iii. the suitability of identifying a site/sites within the UDAs for development consideration during the 12 months after the declaration of the UDA. This site/s will need to be included in an Interim Land Use Plan that will come into force with the declaration
- iv. issues to be addressed during the preparation of the UDA Development Scheme (developed and approved within 12 months of the UDA declaration)
- v. the preferred point/s of contact in your agency for matters pertaining to this UDA.

Input from State agencies in relation to the above needs to be forwarded to the ULDA by cob **15 March 2010**. We appreciate that the timeframe is short but it is necessary so that the ULDA can subsequently work with the Department of Infrastructure and Planning to proceed with the declaration of both the Blackwater and Moranbah UDAs through Cabinet.

More information about the ULDA and the planning process undertaken within UDAs is included in the attached Background Reports and outlined in Fact Sheets 1 and 2 in Attachment F.

[REDACTED] is the ULDA's contact for Blackwater and can be contacted in relation to any queries on [REDACTED] or via email at [REDACTED]

[REDACTED] is the ULDA's contact for Moranbah and can be contacted in relation to any queries on [REDACTED] or via email at [REDACTED]

Yours sincerely

[REDACTED]

P A Eagles
CHIEF EXECUTIVE OFFICER

Enclosures:

- Attachment A: Minister's letter
- Attachment B: Proposed UDA for Blackwater
- Attachment C: Blackwater Background Report
- Attachment D: Proposed UDA for Moranbah
- Attachment E: Moranbah Background Report
- Attachment F: ULDA Fact Sheets 1 and 2

Attachment A

Template of letter sent by Minister Hinchliffe

Our ref: 09/32251

Insert name

Address line 1

Address line 2 [then press enter to add further lines as needed]

I seek your support for a consolidated whole of Government approach to the establishment of new Urban Development Areas (UDAs) to further deliver the Queensland Housing Affordability Strategy.

Earlier this year I asked the Department of Infrastructure and Planning (DIP) and the Urban Land Development Authority (ULDA) to give consideration to new areas which could be declared as UDAs. A number of sites have been considered and it has been proposed to progress new sites in stages on the basis of three program areas:

- Regional Housing Diversity
- Resource Towns Housing Affordability
- South East Queensland (SEQ) Strategic Sites.

Across these three program areas ULDA will be seeking to deliver the objectives of the *Urban Land Development Authority Act* by:

- improving land supply and housing diversity
- delivering infrastructure and creating employment
- utilising best practice design principles to deliver a range of affordable housing options
- maximising sustainable outcomes.

The three program areas provide for a greater diversity and spread of UDAs enabling a range of housing issues to be addressed. All the program areas will require DIP and ULDA to work with State Government agencies to prepare coordinated strategies to deliver high quality outcomes.

The aim of the Regional Housing Diversity program will be to:

- demonstrate quality higher density planning and development policy outcomes
- deliver affordable housing through diversity of lot and house sizes.

Potential UDAs within the Regional Housing Diversity program could include surplus Government land in:

- Cairns
- Gladstone
- Mackay
- Townsville.

The aim of the Resource Towns Housing Affordability program will be to:

- address land and housing supply issues in resource areas to meet the urgent need for affordable key worker housing
- identify and develop surplus Government land to respond to market peaks
- establish mechanisms for overcoming impediments to the reliable supply of suitable housing stock.

Potential UDAs within the Resource Towns Housing Affordability program could include parts of:

- Blackwater
- Dysart
- Moranbah
- Wandoan.

The aim of the SEQ Strategic Sites program would be to:

- support and demonstrate the key planning principles of the SEQ Regional Plan
- deliver key strategic sites
- deliver housing affordability and diversity.

A number of potential UDAs within the SEQ Strategic Sites program including Government owned land are under consideration.

I have now asked DIP and ULDA to commence the necessary consultation with State agencies, Local Governments and local communities to enable Cabinet to support the declaration of new sites as UDAs in stages across the three new proposed program areas.

I look forward to working with you and trust that your Department will provide ULDA with every assistance to ensure all State interests are appropriately considered in the planning and subsequent declaration of any new UDAs.

If you require any further information, please contact [REDACTED] Manager
Planning and Policy, ULDA, or [REDACTED] who will be pleased to assist.

Yours sincerely

Stirling Hinchliffe MP
Minister for Infrastructure and Planning

Key

 Blackwater UDA Boundary



Working Draft not Commonwealth, State or Local Government Policy

To the extent permitted by law, The Department of Infrastructure and Planning and The Urban Land Development Authority [2010] gives no warranty in relation to the material or information contained in this Data (including accuracy, reliability, completeness or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damage or costs (including indirect or consequential damage) relating to any use of the material or information contained in this Data; and responsibility or liability for any loss or damage arising from its use.



Map Produced by: Department of Infrastructure and Planning Spatial Services 2010



Potential Urban Development Area

Blackwater

Background Report to inform State Agency Review



**Not Government Policy
For state agency consultation
purposes only**

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Who are the ULDA and what is a UDA?

The Urban Land Development Authority (ULDA) was established as part of the Queensland Housing Affordability Strategy.

Within declared Urban Development Areas (UDAs) the ULDA will facilitate the availability of land, the provision of infrastructure and a greater range of housing options including affordable housing.

The ULDA's role is to plan, implement and coordinate the development of land and apply world-class sustainability and urban design principles to planning within declared UDAs.

The ULDA will work with local and state government, community, local landholders and the development industry to help deliver commercially viable developments that meet the changing needs of the community.

For further information on the ULDA or the ULDA Planning Process refer to Fact Sheets 1 and 2 included in this information pack as Attachment F or the ULDA website www.ulda.qld.gov.au

Implications of a UDA declaration for State Agencies

In accordance with the *Urban Land Development Authority Act 2007* the ULDA assumes the planning powers of local government and state agencies within declared UDAs – including assessing and deciding development applications.

As such state agencies do not have concurrence powers within these areas. In addition the development assessment process stated in the Act differs from the current provisions and timeframes specified in the *Sustainable Planning Act 2009*.

The ULDA Act 2007 specifies a 40-business day statutory timeframe in which to determine most development applications and these applications are to be assessed against the ULDA Act 2007 and initially the Interim Land Use Plan until a Development Scheme becomes effective for the area.

In light of the above we are consequently seeking comments from state agencies in order to progress the site's declaration and inform the drafting of an Interim Land Use Plan (to become effective upon declaration) and the subsequent Development Scheme (to be gazetted within 12 months of declaration).

The comments provided will enable the ULDA to understand and accommodate, where possible, the various state agencies intentions for this area and any state government land that the agency may own within the UDA boundary.

State agencies will again be consulted post declaration to inform the detailed planning considerations which will be needed to inform the Land Use Plan, Infrastructure Plan and Implementation Plan to be contained within the Development Scheme.

Proposed UDA location

Blackwater is located within the Bowen Basin coal belt, approximately 200km west of Rockhampton in Central Queensland. It is situated within the area governed by Central Highlands Regional Council (CHRC).

The proposed UDA encompasses the full extent of the town to the northern side of the Capricorn Highway and therefore includes approximately 1,800 existing dwellings in addition to short term accommodation facilities, commercial and industrial facilities and associated social infrastructure (See Figure A). Land ownership within the proposed boundary is therefore fractured, however a significant ownership of dwellings is maintained by both Curragh Queensland and BHP Billiton Mitsubishi Alliance (BMA), two of the significant mining companies within the area, along with the Department of Communities.

Land adjoining the proposed UDA to the west and north is owned by a private rural landowner. Land adjoining the proposed UDA to the east is currently a State Reserve for Township purposes.

Within the town lies at least 20ha of vacant land that is zoned for residential purposes under the current planning scheme, and further recreation spaces for which investigations will be undertaken to confirm their utilisation by the community. A significant component of this vacant land is constrained from development in the short term by State Reserve tenure and a requirement for investigation of potential native title claims.



Figure A – ULDA Potential Urban Development Area

ULDAs desired outcomes and opportunities within the UDA

The selection of Blackwater as a potential UDA is in line with the core mission of the ULDA to help make housing more affordable and to deliver a range of housing options for the changing needs of the community.

In an effort to alleviate the current affordability and housing option problems for Blackwater, it is the ULDA's intention to act in its capacities as both planning authority and developer.

Planning role

Considering the objectives of the ULDA Act and the preliminary investigations undertaken of the area's features and constraints, declaring Blackwater as a UDA presents significant opportunities for the ULDA to work with CHRC. Consequently it is considered appropriate to declare the majority of the town of Blackwater (north of the Capricorn Highway) so that the ULDA can work with CHRC and the State Agencies to:

- Undertake a comprehensive Development Scheme for the entire UDA. The Development Scheme incorporates a Land Use Plan, Infrastructure Plan and Implementation Plan and in relation to these aspects consideration would be given to the following:
 - Land Use Plan*
 - resolution of zoning constraints that may potentially be hampering expansion, development and redevelopment opportunities,
 - potentially undertaking changes to the existing residential zoning outcomes,
 - reviewing the planning regime for the town centre and location of other commercial/business uses,
 - development of guidelines to address issues associated with locating mining villages within/near town boundaries, including the social and design elements,
 - improving the walkability of the town as well as bikeway planning, and
 - considering the potential highest and best use of state government land within the UDA and reflecting this appropriately within the scheme.
 - Infrastructure Plan*
 - capacity analysis review of existing infrastructure,
 - identification of significant infrastructure items required by the town for the future as well as associated timings.
 - Implementation Plan*
 - development of a master plan to guide the future town amenity enhancements including identification of pocket park elements,
 - prioritising of identified civic enhancements,
 - Consideration of ownership tenure and potential solutions to implement redevelopment opportunities, and
 - consideration of converting oversized street reserves to decrease asset expenditure and increase usable land within the town.
 - timing for the delivery of infrastructure.

Please note: Consideration is currently being given to calling up the existing Central Highlands Regional Council Planning Scheme within the ILUP to allow it to continue to apply to the majority of town during the 12 months that the Development Scheme is being prepared. This is being considered given the fractured ownership of the proposed UDA, the unknown nature of future development proposals, and the potential for exacerbating affordability problems should future development be inadvertently stifled during the drafting of the Development Scheme.

Development role

The ULDA Act 2007 requires UDAs to provide, among other things, for a range of housing options and the provision of affordable housing options for low to moderate income households. Considering the objectives of the ULDA Act and the preliminary investigations undertaken within Blackwater, the declaration of a UDA presents development opportunities, in both the short and long term, for the town which include the following:

- Identification and resolution of constraints on land suitable for future development to enable timely market response upon future demand acceleration when, for instance mining investment decisions are confirmed,
- Facilitation and delivery of multiple residential developments in varying localities throughout Blackwater. The number of dwellings and dwelling mix will be subject to detailed planning and market analysis,
- Delivery of an innovative mix of housing of different sizes, types and price points, and
- Exemplary residential development that demonstrates best practice in urban design, energy and water use efficiency, materials usage and climatic responsiveness.

In the early phases of implementation it is expected that delivery of product to the market will be in the form of completed houses rather than land lots. This will result in a direct contribution to housing supply, rather than risking land banking by private investors and avoiding the difficulties historically experienced by private home builders in accessing construction labour in times of peak mining sector labour demand.

A key task within Blackwater is to continue to identify vacant or underutilised State land for potential housing purposes.

Staging and possible early development area

The ULDA is eager to contribute to the supply of housing for Blackwater as soon as possible, and have therefore identified a priority site for early development consideration prior to the finalisation of the UDA Development Scheme.

A currently vacant lot fronting Rufus, Arthur and Doon Streets (Lot 11 B33758, 2,838sqm) has been identified as a priority development site for the ULDA. This site is being considered as a potential early development site to be specifically identified within the ILUP.



Possible early development site Lot 11 B33758 – view from Doon St looking north up Arthur St.

Appendix 1: Town Overview

History

The area has been settled since the late 1850's for grazing and farming purposes. Growth occurred in the late 1800's following the opening of the railway line in 1876, with Blackwater itself being established in 1886.

Significant growth occurred in the town in the 1960's following the discovery of coking coal to the south of the town. A mining lease was granted in 1965 and the first open cut mine began operating in 1967 (Utah Development Company). Since the 1960's Blackwater's economy has been heavily reliant on the coal mining industry.

Surrounding mining tenures

A number of operational mines surround Blackwater, including:

MINE	OWNER	DISTANCE FROM BLACKWATER
Blackwater	BMA (partnership btw BHP Billiton and Mitsubishi Development Pty Ltd)	Approx 24km south
Curragh	Wesfarmers Curragh	Approx 14km north-west
Jellinbah East	Jellinbah Mining	Approx 25km north
Yarrabee	Felix Resources	Approx 40km north-east
Cook	Caledon Coal	Approx 20km south

In December 2009 Aquila Resources lodged a mining lease application for their Washpool project approximately 22km north-west of Blackwater. Commencement of construction for this project, if it does eventuate, is estimated to be approximately 2 years away.

Several Mineral Development Licenses or MDL Applications are current in the area surrounding Blackwater, mostly surrounding existing mining lease tenures. Of note is Caledon Coal's MDL Application 424 which covers an area including the entire Blackwater town and surrounds. We understand that underground mining is being considered should a mining lease be sought within the area covered by this MDL application.

Access

The proposed Blackwater UDA area adjoins the northern side of the Capricorn Highway, which runs east west dissecting the town. The highway separates Blackwater's southern industrial area from the northern largely residential and commercial area (albeit some industrial users are also located north of the highway).

There are five existing access points in to the northern side of Blackwater from the Highway: Littlefield St, MacKenzie St, Columba St, Bluff St and Arthur St.

Environmental Constraints

No State significant vegetation exists within the area.

Under the *Environment Protection and Biodiversity Conservation Act 1999* the area has several threatened species that will need to be investigated prior to development however it is considered unlikely that these species will be found within areas of development.

The town is bracketed by two branches of Blackwater Creek, a tributary of the Mackenzie River which flows north east into the Fitzroy River. The tributaries converge north of the town and are controlled through Curragh mine. There is no evidence of flooding within the town.

Infrastructure

The town is serviced by CHRC water and sewer infrastructure. Capacity of this infrastructure to accommodate town expansion is currently unknown and will require investigation.

Road infrastructure within the town is considered generous and potentially excessive. Where appropriate, and after relevant traffic studies have been undertaken, consideration as to road closures or narrowing of roads may be considered for the future.

Access to existing infrastructure will be required to be assessed on a site by site basis as appropriate development sites are identified and planning progressed.



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Potential Urban Development Area

Moranbah

Background Report to inform State Agency Review



**Not Government Policy
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purposes only**

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Who are the ULDA and what is a UDA?

The Urban Land Development Authority (ULDA) was established as part of the Queensland Housing Affordability Strategy.

Within declared Urban Development Areas (UDAs) the ULDA will facilitate the availability of land, the provision of infrastructure and a greater range of housing options including affordable housing.

The ULDA's role is to plan, implement and coordinate the development of land and apply world-class sustainability and urban design principles to planning within declared UDAs.

The ULDA will work with local and state government, community, local landholders and the development industry to help deliver commercially viable developments that meet the changing needs of the community.

For further information on the ULDA or the ULDA Planning Process refer to Fact Sheets 1 and 2 included in this information pack as Attachment F or the ULDA website www.ulda.qld.gov.au

Implications of a UDA declaration for State Agencies

In accordance with the *Urban Land Development Authority Act 2007* the ULDA assumes the planning powers of local government and state agencies within declared UDAs – including assessing and deciding development applications.

As such state agencies do not have concurrence powers within these areas. In addition the development assessment process stated in the Act differs from the current provisions and timeframes specified in the *Sustainable Planning Act 2009*.

The ULDA Act 2007 specifies a 40-business day statutory timeframe in which to determine most development applications and these applications are to be assessed against the ULDA Act 2007 and initially the Interim Land Use Plan until a Development Scheme becomes effective for the area.

In light of the above we are consequently seeking comments from state agencies in order to progress the site's declaration and inform the drafting of an Interim Land Use Plan (to become effective upon declaration) and the subsequent Development Scheme (to be gazetted within 12 months of declaration).

The comments provided will enable the ULDA to understand and accommodate, where possible, the various state agencies intentions for this area and any state government land that the agency may own within the UDA.

State agencies will again be consulted post declaration to inform the detailed planning considerations which will be needed to inform the Land Use Plan, Infrastructure Plan and Implementation Plan to be contained within the Development Scheme.

Proposed UDA location

Moranbah is located within the Bowen Basin coal belt, approximately 200km south-west of Mackay in Central Queensland. It is situated within the area governed by Isaac Regional Council.

The proposed Urban Development Area as illustrated in Figure A encompasses large areas of vacant land, the town centre, as well as part of the golf club and a small proportion of sites currently improved with privately owned residential dwellings or industrial operations. Comment on the proposed UDA and land to be included is sought from State agencies.

Land ownership within the proposed area is somewhat fractured however BMA (BHP Billiton Mitsubishi Alliance), Isaac Regional Council and two private land owners maintain ownership of a large proportion of land within the proposed boundaries.

A number of parcels of State Land are included within the proposed boundaries and will be considered for future development. Some of this land is constrained from development in the short term by State Reserve tenure and a requirement for investigation of potential native title claims.



Figure A – ULDA Potential Urban Development Area

ULDAs desired outcomes and opportunities within the UDA

The selection of Moranbah as a potential UDA is in line with the core mission of the ULDA to help make housing more affordable and to deliver a range of housing options for the changing needs of the community.

In an effort to alleviate the current affordability problems for Moranbah, it is the ULDA's intention to act in its capacities as both planning authority and developer.

Planning role

Within the proposed Moranbah UDA the ULDA will deliver planning outcomes to:

- facilitate the availability of land for urban purposes,

- support the development of a range of housing options to address diverse community needs, including best practice design for mining accommodation in partnership with the Council and mining companies,
- foster the development of a sustainable and liveable resource community, and
- work with the local Council and State agencies to deliver infrastructure.

An ILUP will be drafted to provide for the expected early development sites and to ensure that public and private development is not inadvertently stifled during the ILUP period.

Specific planning tasks to be undertaken as part of the preparation of a Development Scheme for the UDA area include:

- review and finalisation of a structure plan for the potential South West town expansion area
- master planning of the Town Centre, and
- infrastructure and civic works planning.

Development role

The ULDA Act 2007 requires UDAs to provide, among other things, for a range of housing options and the provision of affordable housing options for low to moderate income households. Considering the objectives of the ULDA Act and the preliminary investigations undertaken of the site features and constraints, the UDA presents a significant development opportunity for Moranbah and will include the following:

- identification and resolution of constraints on land suitable for future development to enable timely market response upon future demand acceleration when, for instance mining investment decisions are confirmed,
- facilitation and delivery of multiple developments in varying localities throughout Moranbah. The number of dwellings and dwelling mix will be subject to detailed planning and market analysis,
- delivery of an innovative mix of housing of different sizes, types and price points, and
- exemplary residential development that demonstrates best practice in urban design, energy and water use efficiency, materials usage and climatic responsiveness.

In the early phases of implementation it is expected that delivery of product to the market will be in the form of completed houses rather than land lots. This will result in a direct contribution to housing supply, rather than risking land banking by private investors and avoiding the difficulties historically experienced by private home builders in accessing construction labour in times of peak mining sector labour demand.

A key task within Moranbah is to continue to identify vacant or underutilised State land for housing purposes.

Staging and possible early development area

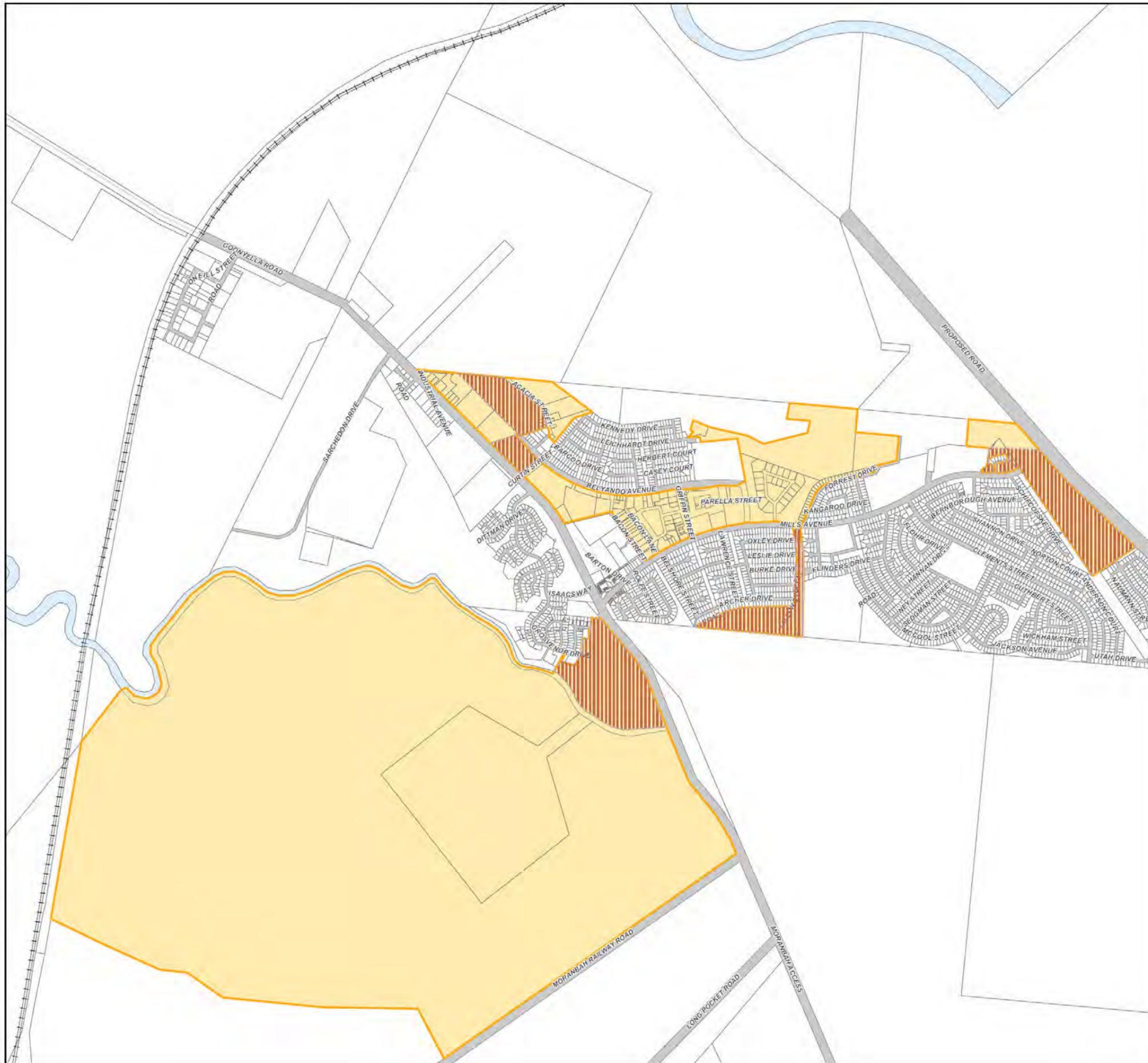
The ULDA is eager to contribute to the supply of housing for Moranbah as soon as possible, and have therefore identified possible sites for early development consideration prior to the finalisation of the UDA Development Scheme. Development of these sites may be delivered by the ULDA or private land owners. Refer to Figure B for recommended early development sites under the ILUP.

An ILUP will be drafted to provide for the expected early development sites and to ensure that development is not inadvertently stifled during the ILUP period. It is expected that the draft Structure Plan for the expansion area to the South West will be reviewed and a final structure plan included in the ultimate UDA Development Scheme.

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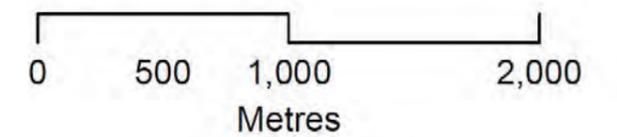
Figure B

Proposed Moranbah Urban Development Area



Key

-  Proposed Urban Development Area
-  Possible early release areas
-  Cadastre



Source: Digital Cadastre Database, Department of Environment and Resource Management December 2009

Map generated by Spatial Services Branch of the Department of Infrastructure and Planning.

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Appendix 1: Town Overview

History

The area has been settled since the late 1850's for grazing and farming purposes, however Moranbah was established by Utah Development Company in 1971 to accommodate mine workers and their families for the company's Goonyella and Peak Downs coal mines. These mines remain operational today.

Surrounding mining tenures

A number of operational mines surround Moranbah, including:

MINE	OWNER
Moranbah North	Anglo Coal
Broadmeadow	BMA
Goonyella Riverside	BMA
Peak Downs	BMA
Poitrel	BMA
Burton	Peabody Energy
Millennium	Peabody Energy
North Goonyella , Eaglefield	Peabody Energy
Broadlea	Vale
Carborough Downs	Vale
Isaac Plains	Vale

Moranbah is constrained from expansion to the north and east due to mining leases granted to Anglo Coal, and potentially constrained to the south and south-west by Mineral Development Licenses 273 and 377 also granted to Anglo Coal. It is noted that MDL 273 expired 31/1/10 however is currently under application for renewal.

The town expansion area at the south-west of the proposed UDA is within the Restricted Area 352 proclaimed under the Mineral Resources Regulation 2003, which prohibits the grant of all mining tenements over the area. This restriction was put in place to facilitate the future urban expansion of Moranbah. However MDL 273 (and subsequently granted MDL 377) and exploration permits EPC 552 and EPC900 may still use these tenements that were in place at the time of restriction to apply for future mineral development licenses or mining leases.

Access

The proposed Moranbah UDA area includes areas adjoining both the eastern and western sides of Goonyella Rd. Goonyella Rd is the main access point in to town, and connects Moranbah to the Peak Downs Highway approximately 10km to the south-east.

Access to Moranbah east of Goonyella Rd is serviced via Curtain St and Mills Ave. Access points into the future town expansion area to the western side of Goonyella Rd will require further consideration and planning and will be dealt with during the preparation of the Development Scheme.

Environmental Constraints

Grosvenor Creek runs south-east through the proposed UDA area to the south of existing development in Moranbah. The Isaac River flows in a similar direction to the east of Moranbah and adjoins Grosvenor Creek at the Peak Downs Highway, west of Moranbah.

Flood modelling indicates some level of localised flooding adjoining both Grosvenor Creek and Isaac River. The Isaac River flood levels do not appear to impact development within the proposed UDA, however further modelling may be required to confirm development in the vicinity of Grosvenor Creek.

Some level of State significant vegetation exists along watercourses. A small area of remnant “of concern” vegetation may be located along the eastern-most boundary of the proposed UDA.



View towards Grosvenor Creek from Grosvenor Estate.



Retaining wall to Grosvenor Creek from Grosvenor Estate

Under the *Environment Protection and Biodiversity Conservation Act 1999* the area has several threatened and migratory species that will need to be investigated prior to development however it is considered unlikely that these species will be found within areas of development.

Air quality, particularly to the south-western portion of the proposed UDA, may be of concern due to the proximity of open cut mining operations and will require further investigation. The proposed development of BMA’s Caval Ridge mine may further impact on developable land in this area. EIS air quality reports submitted by BMA indicate that a portion of this area will be adversely affected however a large portion of land will maintain air quality better than the desired level under normal operating conditions. Cumulative air quality impacts will require consideration.

It is understood that an Orica explosives store to be located adjoining the north-western extremity of the proposed UDA.

Infrastructure

The town is serviced by Isaac Regional Council water and sewer infrastructure. Whilst some capacity for infill expansion appears to be available, upgrades and augmentation will be required to facilitate full development capacity within the proposed UDA.

Development within parts of the proposed UDA, particularly the south-west corner, may require significant infrastructure delivery including water, sewer, roads and power.

Access to existing infrastructure will be required to be assessed on a site by site basis as appropriate development sites are identified and planning progressed. Infrastructure planning and charging will be dealt with as part of the preparation of the Development Scheme.

Attachment F

ULDA Fact Sheets 1 & 2



About the Urban Land Development Authority

What is the Urban Land Development Authority?

The Urban Land Development Authority (ULDA) was established as part of the Queensland Housing Affordability Strategy.

Within declared Urban Development Areas (UDAs) the ULDA will facilitate the availability of land, the provision of infrastructure and a greater range of housing options including affordable housing.

The ULDA's role is to plan, implement and coordinate the development of land and apply world-class sustainability and urban design principles to planning within declared UDAs.

The ULDA will work with local and state government, community, local landholders and the development industry to help deliver commercially viable developments that meet the changing needs of the community.

How does the Urban Land Development Authority work?

Within areas that have been declared UDAs, the ULDA will assume the planning powers of local government and some state agencies – including assessing and deciding development applications.

As well as planning and development assessment, the ULDA will also develop key sites and selected infrastructure within UDAs.

The ULDA will work collaboratively with local government and developers to provide affordable housing in declared areas. Once development has been completed, UDAs will be handed back to Councils.



Where are the Urban Development Areas (UDAs) located?

The Minister for Planning nominates UDAs. Selection criteria for UDAs include areas of high growth or high housing stress, areas that contain significant portions of government land, areas that are close to public transport and employment opportunities and other services.

The ULDA will first focus on areas within:

- Bowen Hills
- Northshore Hamilton
- Woolloongabba
- Fitzgibbon
- Mackay.

The Bowen Hills and Northshore Hamilton UDAs were declared on 27 March 2008, Fitzgibbon UDA was declared on 24 July 2008, the remaining areas are not yet declared.

Other strategic areas are expected to be identified and declared UDAs by the State Government over time.

Who will be consulted when planning the UDAs?

When planning the UDAs, the ULDA will work with local and state government, community, local landholders and the development industry.

What will the UDAs deliver?

All UDAs will be different, reflecting the surrounding areas' history and circumstances, however most will include a mix of uses such as residential, community, recreational, retail and commercial.

The ULDA will work with stakeholders to deliver well designed urban developments that include a range of housing styles and densities at a variety of price points, incorporating best practice sustainability and where possible demonstrate transit oriented principles.



The ULDA Team

Led by CEO Paul Eagles, the ULDA employs professionals across a range of disciplines including:

- Town Planning and Urban design
- Urban development economics
- Property marketing
- GIS analysis

Contact the ULDA

If you would like to get in touch with the Urban Land Development Authority, please contact us at:

Urban Land Development Authority

Telephone: 1300 130 215

Post: PO Box 3643
South Brisbane QLD 4101

Email: ulda@ulda.qld.gov.au

Website: www.ulda.qld.gov.au





Urban Land Development Authority Planning Process

What is the Urban Land Development Authority?

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The ULDA will work with local and state government, community, local landholders and the development industry to help deliver commercially viable developments that meet the changing needs of the community.

What is an Interim Land Use Plan?

The Interim Land Use Plan for a UDA is used to assess Development Applications within UDAs while the Development Scheme is being prepared.

What is a Development Scheme?

The Development Scheme reflects the master plan for the UDA. The ULDA will consult with local and state government, the community, landholders and residents when preparing the Development Scheme. The Development Scheme will detail land uses, infrastructure requirements and deliver on government objectives for the UDA.



What processes will the ULDA use when planning for Urban Development Areas (UDAs)?

Site Investigation

Potential sites are identified and investigated and an Interim Land Use Plan is developed.



Site Declaration

Minister for Planning “declares” an Urban Development Area (UDA). This declaration includes:

- ▷ Government objectives for the UDA
- ▷ Interim Land Use Plan
- ▷ UDA boundaries.



Preparation of Development Scheme

ULDA prepares a Development Scheme for the area to meet the government’s objectives and seek community and stakeholder input.



Development Scheme Issued

Development Scheme is issued. The Development Scheme includes:

- ▷ Land use plan
- ▷ Infrastructure plan
- ▷ Implementation strategy.



Development Applications Assessed

ULDA assesses development applications against the Interim Land Use Plan until the Development Scheme becomes effective.

Once the Development Scheme is issued all development is assessed against it.

What is the role of local government within the UDAs?

Local government planning schemes will not apply within UDAs.

The ULDA will consider the policy framework from the local government planning scheme and state government plans and policies such as:

- ▷ Regional plans
- ▷ Environmental protection policies
- ▷ State planning policies
- ▷ Coastal management plans.

What is an Urban Development Area (UDA)?

The Minister for Planning nominates Urban Development Areas (UDAs). Selection criteria for UDAs include areas of high growth or high housing stress, areas that contain significant portions of government land, areas that are close to public transport and employment opportunities and other services.

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central highlands
regional council

Central Highlands Regional Council
PO Box 21
EMERALD QLD 4720

Media Release

Contact: **Peter Maguire**
Phone: [REDACTED]

FOR IMMEDIATE RELEASE
Date July 26, 2010

MAYOR APPLAUDS PREMIERS UDA ANNOUNCEMENT FOR BLACKWATER

Central Highlands Mayor Cr Peter Maguire has welcomed the joint announcement by the Premier and Minister for Infrastructure and Planning that most of Blackwater would be declared an Urban Development Area.

"This is very good news for Blackwater, and the region," he said. "We have been talking with the ULDA for a few months about options for increasing the supply of land for housing in Blackwater, and one of the most attractive options was to basically have the town declared a UDA. This will enable the ULDA to develop a plan for the area that addresses issues in the town such as the lack of housing affordability and diversity.

"We believe that the involvement of the ULDA will help us to attract people to live and work in Blackwater. We need to develop more housing options for the people of Blackwater, and their employers, so that Blackwater can continue to grow and expand in a manner that is sustainable, affordable and appropriate.

"The ULDA has the capacity and the powers to fast track planning decisions so that land is made available for housing much faster than the current system allows.

"Of course, this means that Council and the community will need to be closely involved in the consultation and development process so that decisions that are made are based on the best local information, and in the best interests of the community.

"The ULDA have indicated all along that they want to have a close working relationship with us and with the residents, and we are looking forward to doing just that."

End

For further details or to arrange an interview please contact:

Name Peter Maguire, Mayor
Central Highlands Regional Council
Phone [REDACTED]

Urban Land Development Authority

**FITZGIBBON
INTERIM LAND USE PLAN 2008**

July 2008

Version 1

FITZGIBBON - INTERIM LAND USE PLAN

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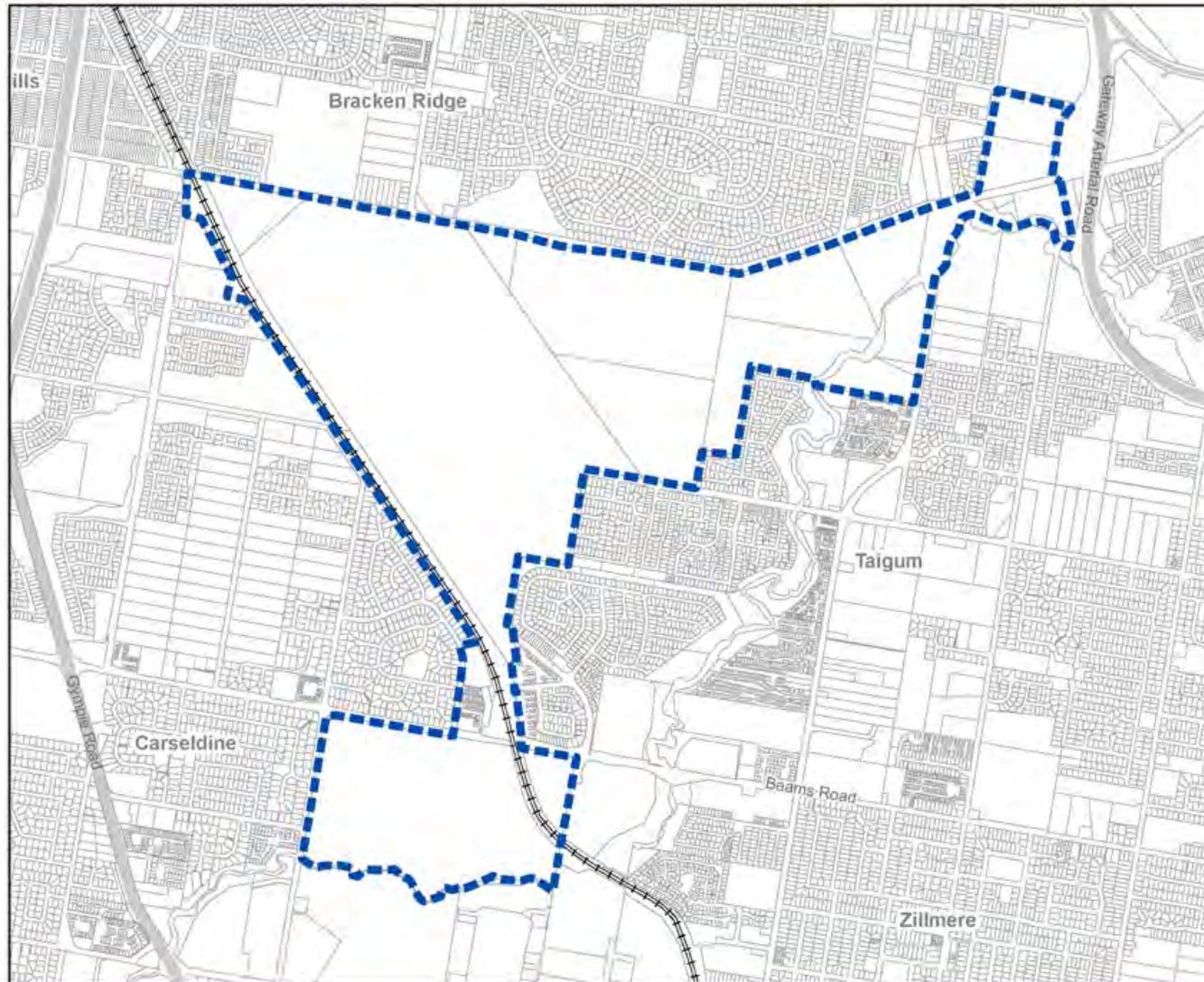
Part 1 Preliminary

1. Introduction

- (1) This interim land use plan may be cited as the Fitzgibbon Interim Land Use Plan.
- (2) This interim land use plan has been prepared pursuant to Section 8 of the *Urban Land Development Authority Act 2007*.
- (3) This interim land use plan applies only to the Fitzgibbon Urban Development Area, as identified in Figure 1.

2. Background

- (1) The Fitzgibbon Urban Development Area was declared by a regulation, pursuant to Part 2 Division 1 Section 7 of the *Urban Land Development Authority Act 2007*.
- (2) The main purposes of the *Urban Land Development Authority Act 2007* are to facilitate the following in the urban development areas -
 - (a) the availability of land for urban purposes;
 - (b) the provision of a range of housing options to address diverse community needs;
 - (c) the provision of infrastructure for urban purposes;
 - (d) planning principles that give effect to ecological sustainability and best practice urban design; and
 - (e) the provision of an ongoing availability of affordable housing options for low to moderate income households.



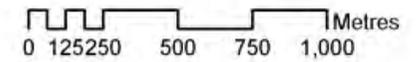
Urban Land Development Authority
Regulation 2008

Urban Development Area
Brisbane City

Map No: UDA3 - Fitzgibbon

Key

-  Urban Development Area Boundary
-  Cadastre
-  Queensland Rail



Source: Digital Cadastre Database, Department of
Natural Resources and Water April 2008

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the Department of Infrastructure and Planning
Map No. 000418-31

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for any damages, injury, damages (including material or
consequential damages and costs) that may occur as a result of the
product being used under any circumstances in any state or territory.



Part 2 Land use planning

1. Purpose of interim land use plan

- (1) The purpose of this interim land use plan is to:
 - (a) ensure that the future development opportunities of the urban development area to be expressed in the development scheme are protected from incompatible land uses and activities; and
 - (b) identify a nominated precinct in which it is appropriate to facilitate development prior to the development scheme taking effect; and
 - (c) regulate orderly development and provide direction as to the preferred form of development within the nominated precinct.

2. Development in the urban development area

- (1) This interim land use plan nominates 1 precinct and 3 sub-precincts within which particular development may be allowed. Precinct 1 and sub-precincts 1a, 1b and 1c are shown in Figure 2.
- (2) Land within the declared Urban Development Area (UDA) not included in a precinct or sub-precinct is part of the balance area.
- (3) All development in the balance area, except for development mentioned in Schedule 1 which is exempt development, is UDA Assessable Development - Prohibited. UDA Assessable Development - Prohibited is development that is inconsistent with the interim land use plan and may not be carried out in the UDA.

3. Urban Development Area development principles

- (1) This Fitzgibbon Urban Development Area will be a quality, sustainable and environmentally responsive urban environment which supports a healthy and diverse community with access to a variety of housing types, community and commercial facilities, open space and a choice in transport modes.
- (2) Development within the Fitzgibbon Urban Development Area will:
 - (a) create a quality urban area that takes advantage of existing and proposed public transport opportunities focusing on the Carseldine rail station and existing transport infrastructure such as Gympie Road and the Gateway Motorway;
 - (b) include a quality open space and conservation area that recognises and responds to the area's environmental and natural values;
 - (c) create a safe, diverse and inclusive community through the provision of a range and mixture of housing types, densities, and designs which deliver a component of affordable housing;
 - (d) provide a functional, safe and permeable urban environment that promotes a healthy and safe lifestyle with high levels of pedestrian

and bicycle access, integrated open space networks and a quality public realm that promotes a strong sense of community;

- (e) create a sustainable and environmentally responsive urban environment with a distinct character which incorporates eco-friendly and innovative building design, layout and construction methods, minimises waste, energy and water usage, maintains satisfactory air, water and acoustic standards, and recognises and responds to the area's biodiversity values;
- (f) not compromise existing and future opportunities for rail and road infrastructure; and
- (g) integrate with major uses such as the existing and future uses of the Queensland University of Technology - Carseldine Campus, a proposed recreation reserve, major transport infrastructure and the surrounding residential communities.

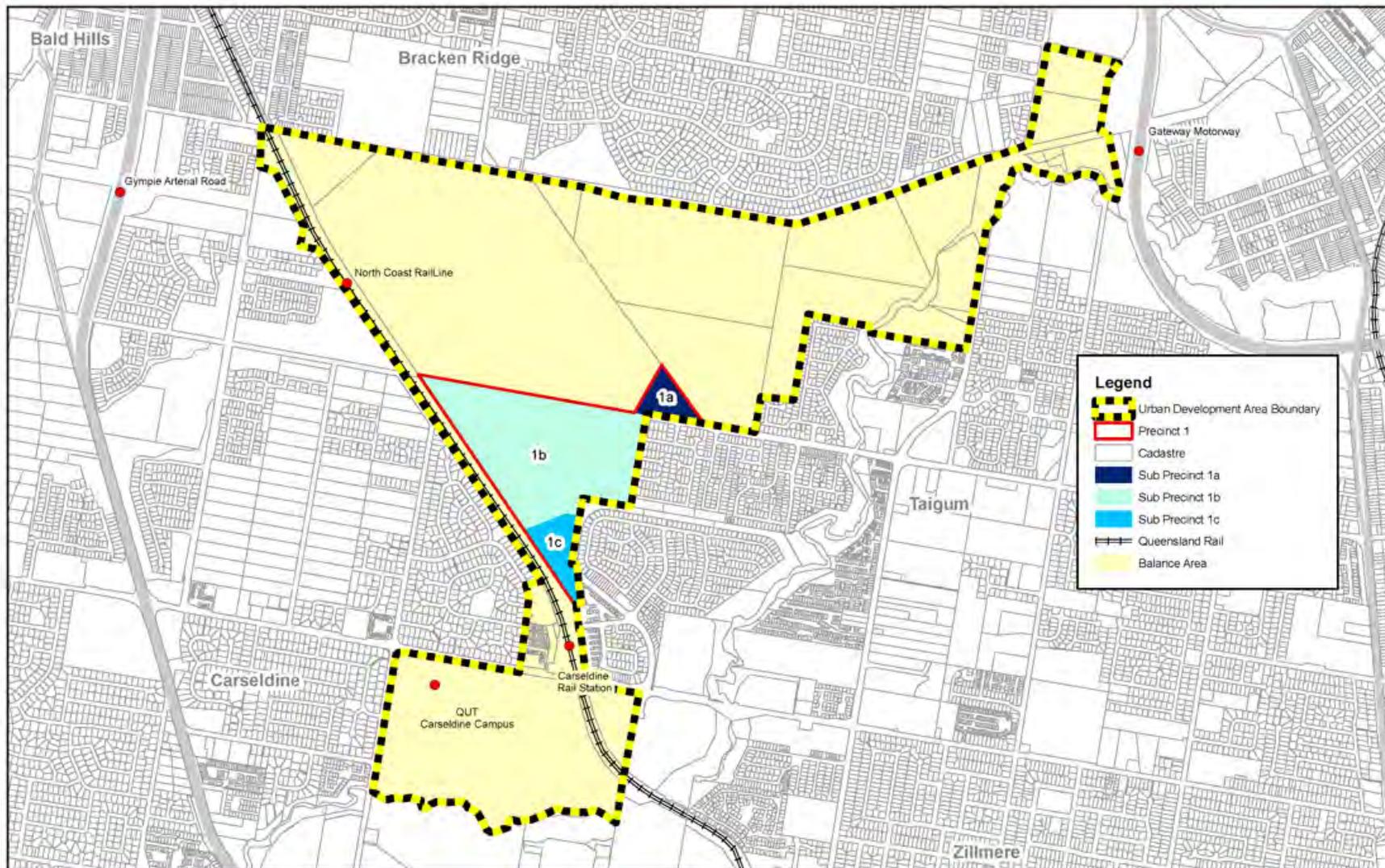
Part 3 Precinct Intent

1. Precinct 1

- (1) Development in Precinct 1 will be a mixture of residential dwellings ranging from single detached to multi-unit dwellings with opportunities for retail, commercial and community use development. Development will focus on the existing and future public transport opportunities of the area provided by Carseldine rail station and the proposed Northern Busway.
- (2) Development in Precinct 1 will be generally in accordance with the Concept Plan, as identified in Figure 3. The Concept Plan identifies:
 - (a) the proposed land uses
 - (b) minimum and maximum density of dwelling per hectare and building height limit;
 - (c) major open space network and required open space contribution; and
 - (d) a road network that connects Carselgrove Avenue and Roghan Road.
- (3) Development in Precinct 1 will be generally integrated with surrounding areas in terms of built form, access and services including rail, road, pedestrian and cycle access.
- (4) Building and landscape design will be of a sub-tropical character.
- (5) Development in Precinct 1 recognises and responds to the area's environmental and natural values through open space preservation and tree retention where practicable.
- (6) Development in Precinct 1 will be carried out in accordance with a Site Development Plan(s) to be provided in conjunction with a Reconfiguring

a Lot application¹. The Site Development Plan(s) will include such matters as the land use, lot layout, the form and density of development, landscape intent and building control requirements as detailed in Part 6 clause 2(k).

¹ The provision of a site development plan is linked to the Reconfiguring a Lot application as the Precinct will require reconfiguration prior to, or at the same time, other development.



Source: Digital Cadastre Database, Department of Natural Resources and Water April 2008
 Map generated by Spatial Information Planning Services of the Department of Infrastructure and Planning

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Fitzgibbon Development Precinct and Boundary

Sub-precinct 1a

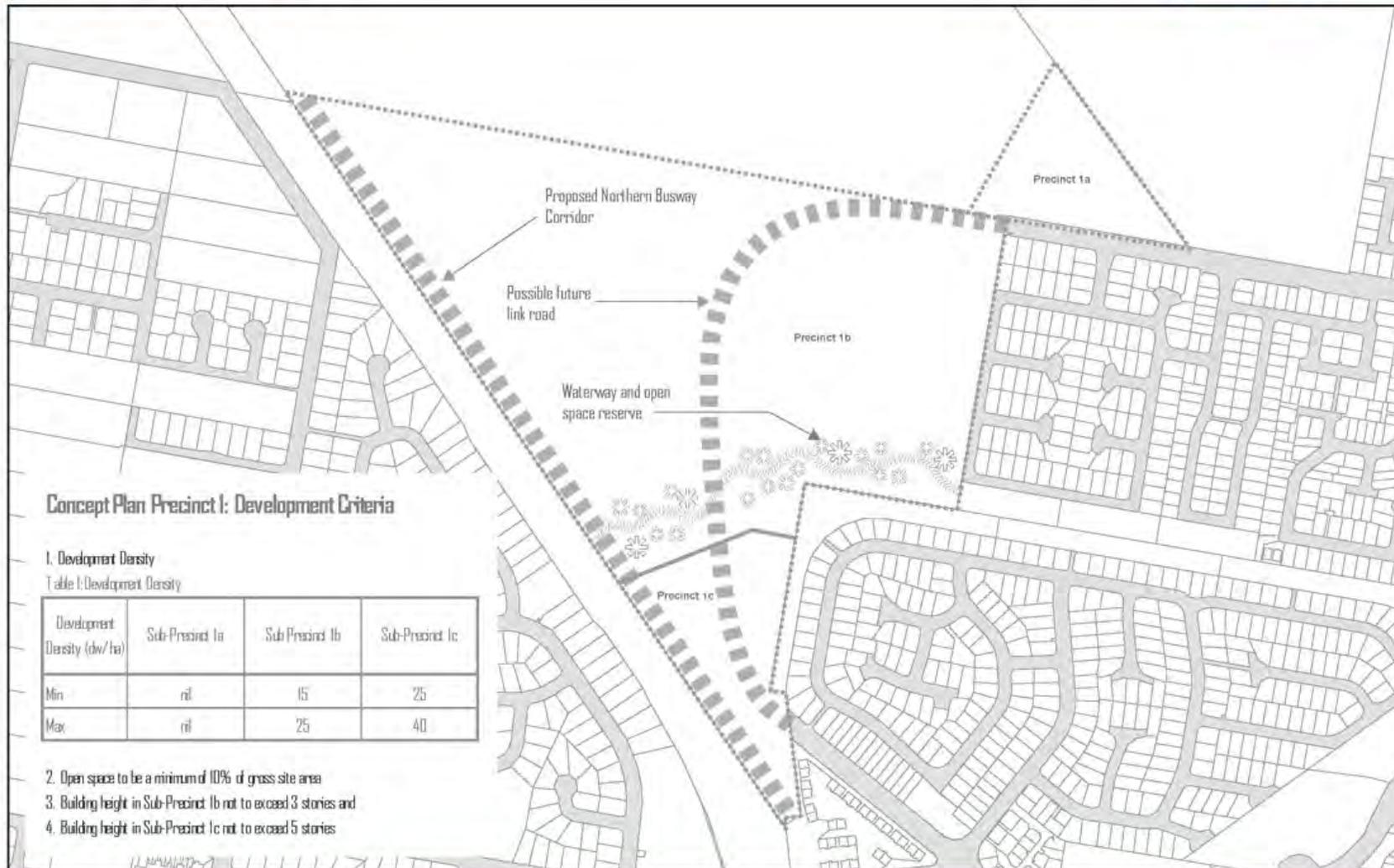
- (7) Sub-precinct 1a contains a conservation area and stormwater mitigation measures associated with development in sub-precinct 1b.

Sub-precinct 1b

- (8) Sub-precinct 1b will contain predominantly detached dwellings with some small scale multi-unit dwellings. A small number of multi-unit dwellings can occur in the south west portion of the sub-precinct adjacent to the waterway corridor and the rail corridor.
- (9) The southern area of sub-precinct 1b includes a waterway corridor that will be rehabilitated and landscaped to create a quality open space environment.

Sub-precinct 1c

- (10) Sub-precinct 1c will be a predominantly mixed use area containing detached and low to medium-rise multi-unit dwellings.
- (11) Sub-precinct 1c will cater for ground level home business, shop, office or restaurant uses and function as a local centre to maximise opportunities afforded by the Carseldine rail station and the future Northern Busway.
- (12) Sub-precinct 1c may also include other uses such as a child care facility, indoor sports and recreation opportunities and community facilities.



Source: Digital Cadastre Database, Department of Natural Resources and Water April 2008

Map generated by Spatial Services Branch of the Department of Infrastructure and Planning

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**Fitzgibbon Development
Concept Plan**

Part 4 Development

1. Levels of assessment

- (1) Table 1 of the interim land use plan identifies whether development is -
 - (a) UDA Self Assessable Development (Column 2) or
 - (b) UDA Assessable Development - Permissible (Column 3A) or
 - (c) UDA Assessable Development - Prohibited (Column 3B)
- (2) Development not identified in this interim land use plan as UDA Assessable Development - Permissible, UDA Assessable Development - Prohibited or UDA Self Assessable Development is UDA Exempt Development (see Schedule 1). A UDA development approval is not required for UDA Exempt Development nor UDA Self Assessable Development complying with the requirements of this interim land use plan for the UDA Self Assessable Development.
- (3) All UDA Assessable Development - Permissible, which is UDA Assessable Development that is identified in column 3A, requires a UDA development application to be lodged with the Urban Land Development Authority (ULDA) for assessment and decision as set out in Part 5 of this interim land use plan. Approval is required for development to be undertaken.
- (4) Identification of development as UDA Assessable Development - Permissible does not mean that a UDA development approval (with or without conditions) will be granted.
- (5) UDA Assessable Development - Permissible that is inconsistent with the Interim Land Use Plan must be refused.
- (6) UDA Assessable Development - Prohibited is UDA Assessable Development that is inconsistent with the interim land use plan. UDA Assessable Development - Prohibited may not be carried out in the Urban Development Area.
- (7) UDA Self Assessable Development can only occur on land the subject to an approved site development plan. All UDA Self Assessable Development must be carried out in accordance with the approved site development plan. UDA Self Assessable Development which is not in accordance with the approved site development plan does not comply with the interim land use plan.

Table 1 - Table of Development

Column 1	Column 2	Column 3 - UDA Assessable Development	
Areas	UDA Self Assessable Development	Column 3A	Column 3B
		Permissible development	Prohibited development
Balance Area	Nil	Nil	All development except development mentioned in Schedule 1.
Sub - precinct 1a	<p>Where on land subject to an approved Site Development Plan</p> <p>1. Carrying out operational work for:</p> <p>(a) filling or excavation</p> <p>(b) the reconfiguration of a lot</p> <p>2. All aspects of development for:</p> <p>(a) Park</p>	<p>1. Carrying out operational work for:</p> <p>(a) Filling or excavation</p> <p>2. Reconfiguring a lot (with a Site Development Plan)</p> <p>3. Where on land subject to an approved Site Development Plan all aspects of development for:</p> <p>(a) Utility installation</p>	All other development except development mentioned in Column 2, Column 3A and Schedule 1.
Sub - precinct 1b	<p>Where on land subject to an approved Site Development Plan</p> <p>1. Making a material change of use for:</p> <p>(a) Home Business where located on ground level not exceeding 100m² of GFA for each use</p> <p>(b) Detached dwelling</p> <p>(c) Multi-unit dwelling</p> <p>2. Carrying out operational work for:</p> <p>(a) filling or excavation</p> <p>(b) the reconfiguration of a lot</p> <p>3. All aspects of development for:</p> <p>(a) Park</p>	<p>1. Carrying out operational work for:</p> <p>(a) Filling or excavation</p> <p>2. Reconfiguring a lot (with a Site Development Plan)</p> <p>3. Where on land subject to an approved Site Development Plan all aspects of development for:</p> <p>(a) Utility installation</p>	All other development except development mentioned in Column 2, Column 3A and Schedule 1.

Column 1	Column 2	Column 3 - UDA Assessable Development	
Areas	UDA Self Assessable Development	Column 3A	Column 3B
		Permissible development	Prohibited development
Sub - precinct 1c	<p>Where on land subject to an approved Site Development Plan</p> <p>1. Making a material change of use for:</p> <p>(a) Home Business where located on ground level not exceeding 100m² of GFA for each use</p> <p>(b) Detached dwelling</p> <p>(c) Multi-unit dwelling</p> <p>2. Carrying out operational work for:</p> <p>(a) filling or excavation</p> <p>(b) the reconfiguration of a lot</p> <p>3. All aspects of development for:</p> <p>(a) Park</p>	<p>1. Where on land subject to an approved Site Development Plan making a material change of use for:</p> <p>(a) Child care facility</p> <p>(b) Community facility</p> <p>(c) Indoor sports and recreation where located on ground level not exceeding 250m² of GFA for each tenancy</p> <p>(d) Office where located on ground level not exceeding 250m² of GFA for each tenancy</p> <p>(e) Restaurant where located on ground level not exceeding 250m² of GFA for each tenancy</p> <p>(f) Shop where located on ground level not exceeding 250m² of GFA for each tenancy</p> <p>2. Carrying out operational work for:</p> <p>(a) Filling or excavation</p> <p>3. Reconfiguring a lot (with a Site Development Plan)</p> <p>4. Where on land subject to an approved Site Development Plan all aspects of development for:</p> <p>(a) Utility installation</p>	<p>All other development except development mentioned in Column 2, Column 3A and Schedule 1.</p>

Part 5 Development assessment

1. Making an application

- (1) A UDA development application must be made to the ULDA in accordance with Part 4 Division 3 Subdivision 1 of the *Urban Land Development Authority Act 2007*.

2. Notice of application

- (1) Public notice is required for all UDA Assessable Development - Permissible except for the following:
 - (a) carrying out operational work - excavation and filling; and
 - (b) all aspects of development for utility installation.

3. Deciding an application

- (1) Development in the UDA is assessed and decided by the ULDA under the provisions of the *Urban Land Development Authority Act 2007* and this interim land use plan.
- (2) The ULDA must refuse a UDA development application where it is inconsistent with the following:
 - (a) the UDA development principles (Part 2);
 - (b) the intent of the development precinct (Part 3);
 - (c) Table 1 - Table of development (Part 4);
 - (d) the development assessment criteria² (Part 6);
 - (e) the infrastructure contribution requirements (Part 7).

² References sections 1 and 2 of Part 6.

Part 6 Development assessment criteria

1. Introduction

- (1) The development assessment criteria represent one way of complying with the urban development area development principles and the intent of the development precincts.
- (2) The ULDA may consider and accept an alternative development solution to adequately address the development assessment criteria where:
 - (a) the proposed development is a superior outcome; and
 - (b) the proposed development does not prejudice the ability to achieve the Urban Development Area development principles and the intent of the development precinct.

2. Development assessment criteria

(a) Acoustic amenity

- (i) To the extent determined appropriate by the ULDA, a noise-sensitive use i.e. detached and multi-unit dwellings, child care facility and community facility, within 100m of the north south rail line must meet indoor design level noise criteria to achieve average maximum sound level (10 pm - 6 am) not greater than 50dB(A). The noise criteria should be achieved within bedrooms, living areas and noise-sensitive areas of non residential uses.

(b) Affordability

- (i) Where development precincts are intended to include a residential component, applicants will be expected to demonstrate how the proposed development will contribute to housing choice to meet a diversity of needs by demonstrating that a minimum of two-thirds of dwellings will be available at or below the median house price in Brisbane (currently \$388,000, ABS 6416.0)
- (ii) Further, applicants will be expected to demonstrate that a minimum of one fifth of dwellings will be available for purchase or rental to low to moderate income households.
- (iii) Contributions towards affordable housing may be required, in built form or by way of a monetary contribution, where the ULDA deems that the proposed development does not adequately address the urban development area's diversity of housing needs. Such requirements will be enforced through conditions attached to any development approval.

(c) Building height, scale and design

Detached dwelling

- (i) Is consistent with the requirements of an approved Site Development Plan(s).

Multi-unit dwelling

- (ii) Is consistent with the requirements of an approved Site Development Plan(s); and
- (iii) Development will achieve a minimum energy rating of six (6) stars under the Australian National House Energy Rating Scheme (NatHERS). A building services report from an accredited assessor will be required with a UDA development application.

(d) Child care facility

- (i) A child care facility can be located within sub-precinct 1c.
- (ii) To the extent determined appropriate by the ULDA, a child care facility is consistent with the *Child Care Facility Code* as identified in the *Brisbane City Plan 2000*.

(e) Community facility

- (i) A community facility can be located within sub-precinct 1c.
- (ii) To the extent determined appropriate by the ULDA, a community facility is consistent with the *Community Use Code* as identified in the *Brisbane City Plan 2000*.

(f) Filling and excavation

- (i) To the extent determined appropriate by the ULDA, filling and excavation is consistent with the *Fill and Excavation Code* as identified in the *Brisbane City Plan 2000*.

(g) Flood immunity

- (i) The floor level of all new habitable rooms and non-habitable areas (including utility areas, garage, laundry and storage room) is not less than those set out in *Table 2: Flood immunity levels*.

(h) Home Business

- (i) To the extent determined appropriate by the ULDA, undertaking a home business is consistent with the *Home Business Code* as identified in the *Brisbane City Plan 2000*.

(i) Indoor sports and recreation

- (i) An indoor sport and recreation facility can be located within sub-precinct 1c.
- (ii) The appropriate scale, form and function for an indoor sport and recreation facility will be determined by the ULDA through the application process.

(j) Reconfiguring a lot

- (i) To the extent determined appropriate by the ULDA, reconfiguring a lot applications and accompanying Site Development Plan(s) must be consistent with the Concept Plan shown in Figure 3.
- (ii) To the extent determined appropriate by the ULDA, reconfiguring a lot achieves good urban design outcomes by creating:
 - (a) safe, convenient and attractive neighbourhoods;
 - (b) neighbourhoods with high levels of accessibility, legibility, permeability and movement through the incorporation of appropriate mobility paths, building design and layout and is integrated with public transport accessibility, pedestrian, cyclist and visual connectivity.

(k) Site Development Plan(s)

- (i) Any development (except excavation and filling and exempt development listed in Schedule 1) can not occur within Precinct 1 prior to approval of a site development plan. As the Precinct will require reconfiguration prior to other development occurring (or at the same time) each reconfiguring a lot application must be accompanied by a site development plan. The site development plan must be consistent with the Concept Plan shown in Figure 3.
- (ii) Any variation to an approved site development plan will require a subsequent application for reconfiguring of lot which must be accompanied by a new site development plan for the area to be reconfigured.
- (iii) UDA Assessable Development - Permissible must comply with an approved site development plan.
- (iv) UDA Self Assessable Development must comply with an approved site development plan.
- (v) To the extent determined appropriate by the ULDA, site development plan(s) must include at a minimum the following elements:

Land use type and lot layouts

- (vi) Site development plan(s) must show land use type and lot layouts for the following:
 - (a) detached dwellings:
 - 1) setbacks for buildings and structures (including garages) consistent with *Table 3: Setbacks*;
 - 2) zero lot line locations if utilised; and
 - 3) the number of lots and dwelling units;
 - (b) multi unit dwellings:
 - 1) design guidelines and setbacks for building and structures (including garages);
 - 2) the maximum number of dwelling units on a lot;

- (c) a site that is less than the lot size specified in *Table 4: Lot sizes and dimensions*:
 - 1) sufficient detail, such as building floor plans, elevations and construction methods, to show how the development complies with the urban development area principles, intent of the development precinct and the development assessment criteria of the interim land use plan; and
 - 2) preferred access locations, parking and landscaping areas; and
 - 3) the maximum number of lots and, where relevant, the maximum number of dwelling units.

(vii) Site development plan(s) lot layout is to be consistent with *Table 5: Residential Street Network*;

Open Space

(viii) Site development plan(s) will include a minimum of 25% of all public open space³ for Precinct 1 as local parks.

Public transport

- (ix) Site development plan(s) will demonstrate how the development will:
 - (a) allow for on-street bus connections and facilities along the proposed Carselgrove Avenue and Roghan Road connector road consistent with the *Transport Planning and Coordination Regulation 2005*;
 - (b) incorporate pedestrian, and cycle access to public transport stations (bus and rail), stops and across the sites to existing pedestrian and cycle networks consistent with the current best practice in Queensland.

Parking and access

- (x) Site development plan(s) will:
 - (a) for residential uses be consistent with *Table 6: Parking*;
 - (b) for non residential uses be consistent with *Table 12 of the Transport, Access, Parking and Servicing Planning Scheme Policy* as identified in the *Brisbane City Plan 2000*; and
 - (c) detail the preferred access locations.

Site Coverage

(xi) Site development plan(s) will specify that site coverage for each proposed lot does not exceed 70% of the lot.

Stormwater Management

³ Figure 3 states that a minimum of 10% of the gross site area of Precinct 1 will be open space.

- (xii) Site development plan(s) should demonstrate how the development has included best practice water sensitive urban design principles as an integral component of the design.
- (xiii) Stormwater management is consistent with the *Stormwater Management Code* as identified in the *Brisbane City Plan 2000*.

Landscaping

- (xiv) Site development plan(s) should demonstrate:
 - (a) that the development will retain existing trees within the development to the extent practicable;
 - (b) how the waterway corridor and associated ecological values will be maintained;
 - (c) that landscape areas will include at least 50% locally occurring native plants or species and species that provide habitat and food resources for local fauna and incorporates native drought tolerant species where possible;
 - (d) that any plants that are non locally occurring are non invasive and non dispersive; and
 - (e) that landscaping will provide an attractive and safe quality streetscape that provides on-site recreation opportunities and for non-residential development, landscaping should provide a positive visual and amenity contribution to the public realm.

Amenity

- (xv) Site Development Plan(s) to include details on:
 - (a) fencing and retaining wall details;
 - (b) finished levels;
 - (c) acoustic quality;
 - (d) pedestrian and cycle networks; and
 - (e) gateway/entry statements.

(l) Waterway

- (i) Development must not occur within 10m from the centre line of the waterway corridor to maintain:
 - (a) the flood carrying capacity of the waterway corridor;
 - (b) ecological values of the waterway corridor.
- (ii) The waterway corridor should be able to be used for open space and recreational uses to the extent that this does not compromise the other waterway values of the corridor.

3. Development assessment criteria tables

Table 2: Flood immunity levels

Minimum Ground Level after filling (where permitted)	Habitable Floor Level	Non-habitable Floor Level (i.e. utility areas, garage, laundry and storage)
100 year ARI + 300mm	100 year ARI + 500mm	100 year ARI + 300mm

Table 3: Setbacks - detached dwellings (in metres)

Width of Frontage (in metres)								
	10m-12.4m		12.5m-13.9m		14m-19.9m		20m+	
	Ground Floor	Other Floors						
Front	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5
Side - Build to boundary line	0	1.0	0	1.0	0	1.0	N/A	N/A
- Non build to boundary line	0.75	0.9	1.0	1.0	1.0	1.5	1.2	2.0
Rear	0.9	1.0	0.9	1.0	0.9	1.0	1.0	2.0
Corner Lots (Secondary Frontage)	1.5	1.5	1.5	1.5	2.0	2.0	3.0 (2.0)	3.0 (2.0)
Park - Side of lot	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5
- Rear of lot	0.9	1.0	0.9	1.0	0.9	1.0	1.5	1.5
Lane - Side of lot	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5
- Rear of lot	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5

Table 4: Lot sizes and dimensions

Circumstance	Minimum Area (m ²)	Minimum Frontage (m)	Minimum Width of Access Strip Or Easement (m)	Maximum ratio of average depth to width
Detached dwelling	250	10	4.5	3.2
Multi-unit dwellings	300 ⁽¹⁾	15	4.5	3.2
Non-Residential Uses	600	14	4.5	4.1

Note (1): A minimum dwelling unit lot size (freehold or community title) of 150m².

Table 5: Residential Street Network

Aspect	Street Type			
	Second Frontage Street	Access Place or Access Street	Collector Street	Bus Collector Street
Traffic Catchment (Max. No. of lots)	40	75	300	300
Direct Access to lot	yes	yes	yes	yes
Min. Reserve Width (metres) (2)	14.5	14.5	16.5	19
Min. Carriageway Width (metres) (2)	7.5	7.5	7.5	10.0
Min. Verge Width (metres) (2)	3.5 2.5 adjacent to a park	3.5 2.5 adjacent to a park	4.5	4.5
Footpath	No	No	One side	Both sides

Notes:

- (i) For other aspects of the street network principles not covered in Table 5, Queensland Streets and the *Transport, Access, Parking and Servicing Code* of the *Brisbane City Plan 2000* apply;
- (ii) A reduction in road reserve width to 12.5m and a reduction in pavement width to 5.5m may be considered where traffic generation and demand for on street parking is minimal. Rear lane lots may be serviced by a 6m road reserve and pavement width;
- (iii) A footpath may be required for a secondary street frontage where it would provide a logical connection between pedestrian networks, in accordance with Part 6, Section 2, J,(ii)(b).

Table 6: Parking

Type of accommodation	Min No of Parking Spaces per unit
Multi-unit dwelling - 1 Bed/1 Bathroom	None
Multi-unit dwelling - 2 Bed/1 Bathroom	1
Multi-unit dwelling - 2 Bed or more/ 2 Bathroom or more	2
All other dwellings	2

Notes:

- (i) Spaces may be provided in tandem;
- (ii) It is a requirement of attached and detached dwellings that at least one parking space be provided in the form of a garage.

Part 7 Infrastructure Contributions

1. Introduction

- (1) Under the *Urban Land Development Authority Act 2007*, the ULDA may impose conditions relating to the provision of infrastructure, the payment of infrastructure contributions or the surrendering of land for infrastructure.

2. Infrastructure requirements

- (1) Under this interim land use plan, infrastructure contributions within the urban development area will be required and enforced through conditions attached to any UDA development approvals.
- (2) As a part of the preparation of the permanent development scheme for the urban development area, the ULDA will prepare an infrastructure contribution policy. Until that time, by negotiation with the ULDA, development approved under this interim land use plan will be required to contribute towards essential infrastructure elements which will include (but not be limited to) the delivery of:
 - (a) public passenger transport infrastructure
 - (b) streetscape improvements
 - (c) new roads and improvements to existing roads
 - (d) bicycle and pedestrian paths
 - (e) water supply infrastructure
 - (f) sewerage drainage infrastructure
 - (g) stormwater drainage infrastructure
 - (h) community facilities and public recreation land
- (3) Contribution towards infrastructure may be in kind or by way of monetary contributions as considered appropriate by the ULDA.

Schedule 1

UDA EXEMPT DEVELOPMENT

Development exempt from assessment against the Interim Land Use Plan.

Building work
Minor building work or minor demolition work as identified as exempt development in the <i>Brisbane City Plan 2000</i> . Building work associated with construction of, addition to or maintenance of a single house on a lot or house related elements (in association with a house) such as pool, garage or tennis court that comply with all self assessable acceptable solutions of the relevant codes of the <i>Brisbane City Plan 2000</i> , i.e. House Code and Residential Design - Small Lot Code.
Material change of use of premises
Making a material change of use of premises implied by building work, plumbing work, drainage work or operational work if the work was substantially commenced by the State or an entity acting for the State, before 31 March 2000.
Reconfiguring a lot
Reconfiguring a lot under the <i>Land Title Act 1994</i> , where the plan of subdivision necessary for the reconfiguration - <ul style="list-style-type: none">a. is a building format plan of subdivision that does not subdivide land on or below the surface of the land; orb. is for the amalgamation of two or more lots; orc. is for incorporation, under the <i>Body Corporate and Community Management Act 1997</i>, section 41, of a lot with common property for a community titles scheme; ord. is for the conversion, under the <i>Body Corporate and Community Management Act 1997</i>, section 43, of lessee common property within the meaning of that Act to a lot in a community titles scheme; ore. is in relation to the acquisition, including by agreement, under the <i>Acquisition of Land Act 1967</i> or otherwise, or land by -<ul style="list-style-type: none">i. a constructing authority, as defined under that Act, for a purpose set out in paragraph (a) of the schedule to that Act; orii. an authorised electricity entity; orf. is in relation to land held by the State, or a statutory body representing the State and the land is being subdivided for a purpose set out in the <i>Acquisition of Land Act 1967</i>, schedule, paragraph (a) whether or not the land relates to an acquisition; org. is for the <i>Transport Infrastructure Act 1994</i>, section 240; orh. is in relation to the acquisition of land for a water infrastructure facility.
Subdivision involving road widening and truncations required as a condition of UDA development approval
Operational work

Clearing of vegetation other than marine plants
Operational work or plumbing or drainage work (including maintenance and repair work) if the work is carried out by or on behalf of a public sector entity authorised under a State law to carry out the work.
Erecting no more than one satellite dish on a premises, where the satellite dish has no dimension greater than 1.2 metres.
Filling or excavation where: <ul style="list-style-type: none"> a. to a depth of one vertical metre or less from ground level on land that is not subject to the 100 year ARI event, in the waterway corridor identified on Figure 3 or where the site is not listed on the Contaminated Land Register or Environmental Management Register; <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> b. top dressing to a depth of less than 100 vertical millimetres from ground level on land that is not subject to the 100 year ARI event or in the waterway corridor identified on Figure 3.
All aspects of development
Development a person is directed to carry out under a notice, order or direction made under a State law.
Development including maintenance that is incidental to and necessarily associated with a Park or on land currently controlled by the Queensland University of Technology.
Development for a utility installation, being an undertaking for the supply of water, hydraulic power, electricity or gas, of any development required for: <ul style="list-style-type: none"> a. development of any description at or below the surface of the ground; or b. the installation of any plant inside a building or the installation or erection within the premises of a generating station of any plant or other structures or erections required in connection with the station; or c. the installation or erection of an electricity distribution or supply network (and any components of such a network) which operates at voltages up to and including 33 kilovolts, excluding new substations not consistent with (d); or d. any new Energex Zone substation (that supplies 11kV powerlines only) where it: <ul style="list-style-type: none"> i. ensures that there is appropriate capacity and reliability of supply for the area; ii. is not located on land within a residential area or adjacent to a noise sensitive place (excluding parks); iii. contains no more than two transformers; iv. is designed to (as much as is practical) blend in with the locality; v. has landscaping along boundaries to provide a partial visual screen for the facility; and vi. is accessible for plant and equipment replacements and at all times in emergency situations; e. the installation or erection of new electrical distribution works on land on which

such a line has already been erected and on land which is identified as a future line on Plan No. A3-H-136322-01 - Powerlink Electricity Network and Energex Drawing No. 7775 - Fitzgibbon - 21-Apr-2008; or

- f. the placing of pipes above the surface of the ground for the supply of water, the installation in a water distribution system of booster stations and meter or switchgear houses; or
- g. any other development not specifically referred to above except where it involves erection of new buildings or reconstruction or alteration of existing buildings that would materially affect their design or external appearance.

This exemption does not apply for a utility installation, where it involves:

- a. the erection of new buildings (except those specifically referred to above); or
- b. power generation plant where burning 100kg or more of fuel an hour; or
- c. reconstruction or alteration of existing buildings that would materially affect their design or external appearance (except those specifically referred to above); or
- d. waste handling, treatment and disposal facility

Development involving the construction, maintenance or operation of roads, busways and rail transport infrastructure, and things associated with roads, busways and rail transport infrastructure by or on behalf of or under contract with the ULDA, Brisbane City Council or the Queensland Government.

Things associated with roads, busways and rail transport infrastructure include but are not limited to:

- a. Activities undertaken for road construction; or
- b. Traffic signs and controls; or
- c. Depots; or
- d. Road access works; or
- e. Road construction site buildings; or
- f. Drainage works; or
- g. Ventilation facilities, including exhaust fans and outlets; or
- h. Rest area facilities and landscaping; or
- i. Parking areas; or
- j. Public passenger transport infrastructure; or
- k. Control buildings; or
- l. Toll plazas; or
- m. Rail transport infrastructure.

Development of any display dwellings, temporary buildings or estates sales office for a period of no more that 4 years.

Schedule 2

Definitions

Affordable housing refers to housing which can be reasonably afforded by low to moderate income households. This includes housing aimed at the first home buyer

Balance area refers to land in the Urban Development Area not included within a precinct

Building work is as defined in the *Urban Land Development Authority Act 2007*

Busway is as defined within the *Transport Planning and Coordination Act 1994*

Child care facilities is as defined in the *Brisbane City Plan 2000*

Community facilities is as defined in the *Brisbane City Plan 2000*

Concept Plan a plan showing generally the form, type and density of future development

Detached dwelling means any building comprising a self-contained unit used or intended for the exclusive use of premises principally for residential occupation by a domestic group or individual/s that may include a secondary dwelling

Display dwelling is as defined in the *Brisbane City Plan 2000*

Development is as defined in the *Urban Land Development Authority Act 2007*

Development scheme is as defined in the *Urban Land Development Authority Act 2007*

Estate sales office is as defined in the *Brisbane City Plan 2000*

Filling or excavation is as defined in the *Brisbane City Plan 2000*

Gross Floor Area is as defined in the *Brisbane City Plan 2000*

GFA means Gross Floor Area

Gross hectare basis means the total area of a sub-precinct

Gross site area means the total area of the development precinct

Habitable Room is as defined in the *Building Code of Australia 1996*

Home Business is as defined in the *Brisbane City Plan 2000*

Indoor sport and recreation is as defined in the *Brisbane City Plan 2000*

Interim land use plan is as defined in the *Urban Land Development Authority Act 2007*

Master developer means the entity responsible for the preparation and implementation of development identified in the Concept Plan, currently the Urban Land Development Authority. The Urban Land Development Authority may assign the rights of Master Developer to an alternative party at its discretion

Minor building work is as defined in the *Brisbane City Plan 2000*

Minor demolition work is as defined in the *Brisbane City Plan 2000*

Multi-unit dwelling is as defined in the *Brisbane City Plan 2000*

Office is as defined in the *Brisbane City Plan 2000*

Operational work is as defined in the *Urban Land Development Authority Act 2007*

Park is as defined in the *Brisbane City Plan 2000*

Public passenger transport infrastructure is as defined within the *Transport Planning and Coordination Act 1994*

Rail transport infrastructure is as defined within the *Transport Infrastructure Act 1994*

Reconfiguring a lot is as defined in the *Urban Land Development Authority Act 2007*

Restaurant is as defined in the *Brisbane City Plan 2000*

Road is as defined in the *Urban Land Development Authority Act 2007*

Shop is as defined in the *Brisbane City Plan 2000*

Site Development Plan is a plan that accompanies a reconfiguring a lot application lodged by a Master Developer and details land use, lot layout, the form and density of development, landscape intent and building control requirements

Urban Development Area is as defined in the *Urban Land Development Authority Act 2007*

UDA Assessable Development means UDA Assessable Development - Permissible and UDA Assessable Development - Prohibited

UDA Exempt Development means development that is exempt from assessment

UDA Self Assessable Development means development that is self assessable against the Interim Land Use Plan

ULDA refers to the Urban Land Development Authority

Utility installation is as defined in the *Brisbane City Plan 2000*

Water sensitive urban design is as defined by South East Queensland Healthy Waterways in their WSUD Technical Design Guidelines & Factsheets

Works (for a Transmission or Distribution Entity) is defined in the *Electricity Act 1994*

Bracken Ridge and District Neighbourhood Plan

1 Introduction

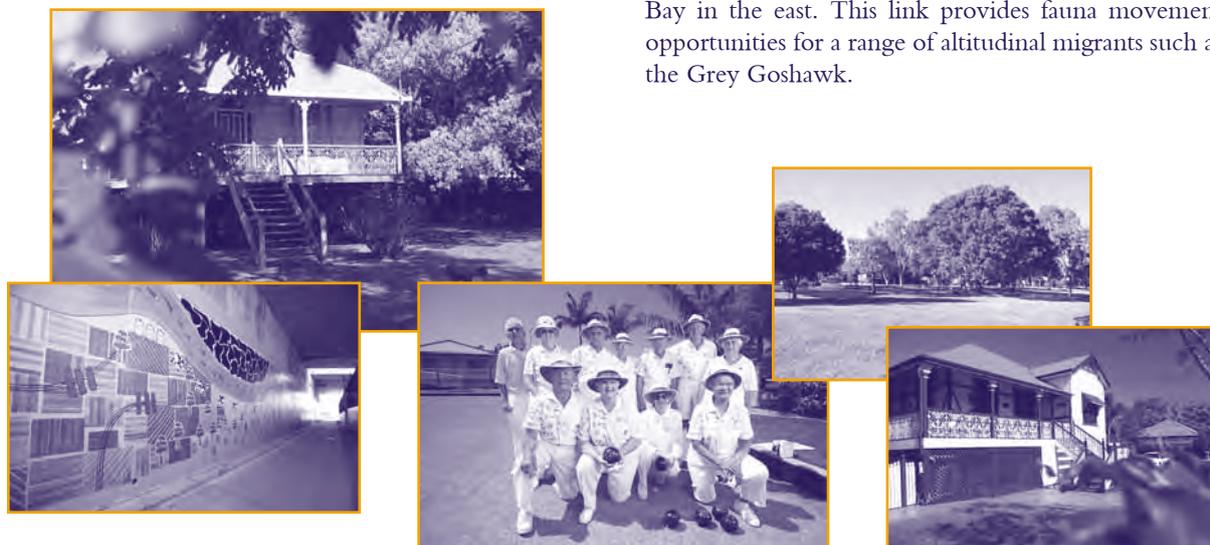
This Neighbourhood Plan contains specific additional local planning requirements. Where it conflicts with the requirements of the City Plan, this Neighbourhood Plan prevails. The Fitzgibbon Urban Development Area (depicted in *Map B*) is not subject to the provisions of City Plan or this Neighbourhood Plan.

In using this Neighbourhood Plan, reference should also be made to Section 1.1—Using a Neighbourhood Plan at the front of this chapter.

The Bracken Ridge and District Neighbourhood Plan comprises a number of distinctive established residential communities that cater for a variety of households with a strong emphasis on detached homes on well vegetated lots, accessible parks and areas of natural assets.

The intent of this Neighbourhood Plan is to support the establishment of similar residential outcomes in new urban developments, providing opportunities at specific locations for housing diversity and increased density in well serviced locations. The Neighbourhood Plan recognises that areas of rural land are retained for contribution to housing diversity and retention of habitat and biodiversity values. Natural assets exist across the district and have been identified to ensure their retention.

This Neighbourhood Plan aims to reflect community values identified in the Neighbourhood Planning engagement meetings for the Bracken Ridge and District Neighbourhood Plan area. The associated Enhancement Program (see Appendix 4), is a non-statutory supporting document, that outlines Council actions to support the intent of this plan.



2 Elements

Refer to Section 4.2—Elements at the front of the Local Plans for Outer Suburbs section of this Chapter for general guidance on the intent for the different elements of the Neighbourhood Plan as indicated on *Maps A, B* and *C*. The following text provides locally specific information which is supported, where relevant, by precinct *Maps D* to *M*. This information is to be considered in addition to the general requirements for Local Plans for Outer Suburbs.

2.1 Environmental and Scenic Values

2.1.1 Habitat and Biodiversity Values

The Neighbourhood Plan supports planning undertaken for the 'Brisbane Urban Open Space Strategy in the draft CityShape Implementation Strategy'.

This strategy accords with the South East Queensland Regional Nature Conservation Strategy 2003–2008 and the SEQ Regional Plan 2005–2031's Desired Regional Outcome for Natural Environment.

Habitat and biodiversity values are identified on *Map A* and relevant precinct plans.

The Bracken Ridge and District area is significant due to its proximity to coastal wetlands such as Tinchi Tamba and Boondall Wetlands (and relationship with the Moreton Bay RAMSAR site) and because of the diversity and quality of the biodiversity values it contains.

The Bracken Ridge and District area supports habitat for significant species such as the squirrel gliders, several birds of prey, and migratory wader birds.

The remaining natural habitat areas within the district form part of the Cabbage Tree Creek Ecological Corridor which is of State biodiversity significance, and is the only continuous link from the D'Aguiar Range in the west to Boondall Wetlands and Moreton Bay in the east. This link provides fauna movement opportunities for a range of altitudinal migrants such as the Grey Goshawk.

The ecological corridors in the Plan area contain regionally significant vegetation communities that provide significant habitat and wildlife movement opportunities for a range of fauna including squirrel gliders and raptors. Other ecological corridors include Bald Hills Creek (a tributary into Tinchi Tamba wetlands) and South Pine River and Albany Creek that contain significant wetland and vegetation communities. Isolated patches of vegetation also provide local opportunity for fauna movement and are important local landscape value.

The Queensland Government lands at Fitzgibbon are significant due to the size and capacity of remaining natural habitat areas to support the majority of remaining wildlife species in the northern suburbs of Brisbane, especially Squirrel Gliders.

The District contains significant remnant areas of *Eucalyptus tereticornis* (Forest Red Gum) and *Corymbia intermedia* (Pink Bloodwood), which comprise an endangered regional ecosystem.

Development must demonstrate its contribution towards maintaining and enhancing biodiversity, habitat and fauna movement. Development responses may include, depending on the determination of habitat and biodiversity values:

- retention of established and re-emergent vegetation
- rehabilitation of degraded vegetation and/or negotiation of off-sets within the same site
- innovation in site design, allotment layouts and infrastructure build-outs (for example swale drainage) to retain habitat linkages
- property management solutions including voluntary environment covenants, building location envelopes
- wildlife movement solutions at key points designed to facilitate safe wildlife movement.

2.1.2 Waterway Corridors

The waterway corridors of the area, particularly Albany Creek, South Pine River, Bald Hills Creek, Cabbage Tree and Little Cabbage Tree Creeks and their tributaries, as shown in *Map A*, are protected and shall be enhanced, so that they continue to fulfil and improve their hydrological, ecological and recreation functions and contribute to the overall sustainability and biodiversity of the region. Public ownership of a waterway corridor may be appropriate when identified in a precinct plan to have multiple values, for linking public parks, habitat and biodiversity values or public pedestrian and cycle pathways.

Development of land will not encroach into the waterway corridors. Development must demonstrate

compliance with State and City Plan Planning Scheme Policies on flood impacts.

Development that contains a waterway corridor will be required to rehabilitate the corridor to enhance hydrological and ecological functions. Key waterway corridors that provide recreational functions and opportunities for pedestrian and cycle linkages will be considered for public ownership for community use.

Albany Creek and South Pine River form the western border to the plan area as shown on *Map A*. These waterway corridors are sited within a predominantly non-urban residential area that maintains waterway and habitat functions. Development must retain the Albany Creek and South Pine River waterway corridors as important hydrological and ecological features.

2.2 Parks and Community Facilities

2.2.1 Corridor link parks

Cabbage Tree Creek and its tributaries constitute ecological corridors of citywide significance, and also function as a system of parks accommodating a range of recreation uses.

Development will provide esplanade roads abutting the corridor link parks, as shown on precinct plans, to provide surveillance and to maximise accessibility and useability. Corridor link parks are to be integrated with larger recreation nodes located outside of the waterway corridor to facilitate public access to the corridor link parks, visibility of activities, surveillance opportunities and safety for park users.

2.2.2 Sports parks and community facilities

A metropolitan park catering for sports, active and informal recreation, together with co-located community facilities, will be developed between Roghan Road and Telegraph Road, Fitzgibbon.

The future metropolitan park will incorporate the former land fill site and development will occur when remediation and stabilisation works have been completed. The park will be integrated with surrounding recreation uses and other parks by a network of walkways and bikeways.

2.2.3 Pedestrian/cycle network

The primary pedestrian and bikeway network shall be enhanced to encourage both recreation and commuting uses. The network will provide safe and legible connections between residential areas and key destinations including shopping centres, community facilities, major parks and conservation reserves, and public transport nodes.

Council's City Plan strategic movement systems supports the SEQ Principal Cycle Network plan.

The pedestrian and cycle network consists of on-road and off-road components.

The Neighbourhood Plan supports all elements of the current and future pedestrian/cycle network.

In addition there are proposed network connectivity outcomes, indicated on *Map A* and in precinct plans that show priority outcomes to be achieved through implementation of the Neighbourhood Plan. These are in addition to the city-wide pedestrian/cycle network.

2.3 Potential Development Areas—Residential

2.3.1 Fitzgibbon Urban Development Area

The Fitzgibbon Urban Development Area (FUDA) (as identified on *Map B*) was formally declared by the State Government on the 24th July 2008 in accordance with the *Urban Land Development Authority Act 2007*. The *Urban Land Development Authority (ULDA)* is responsible for planning, development assessment and development approvals within the area.

The Fitzgibbon Development Scheme (24/07/09) regulates development assessment within the area

Outcomes sought for in the FUDA are:

- promote a sustainable and diverse community through the creation of a range of housing types and densities including housing which can reasonably be afforded by low to moderate income households, including first home buyers. This will include a social transit oriented development principles to sites within the catchment of the railway station and future bus station/s, ensuring effective land use–transport integration and optimum access to public transport
- make appropriate provision for and not compromise future rail service operations and rail infrastructure requirements for the North Coast rail line to support future passenger and freight services using the rail corridor
- facilitate a range and mix of uses, infrastructure and services in a new local centre to support a vibrant community
- facilitate the efficient and effective development of the UDA and maximise the urban and housing outcomes with the involvement of the private sector
- recognise and respond to the environmental and natural values of the area
- establish an urban form that incorporates the State Government's housing sustainability measures, and

innovative building designs and architecture with a sub-tropical character

- design a safe, functional and permeable urban environment that promotes a healthy lifestyle with high levels of pedestrian and bicycle access, integrated open space networks and high levels of visibility and connectivity.

Development within the UDA precincts integrates with major land uses including existing and future uses of the QUT Carseldine Campus, sporting facilities, conservation areas and surrounding residential neighbourhoods.

2.3.2 Carseldine

Development of the remaining land classified as Emerging Community Area between Gympie Road and Dorville Road for residential uses will be in accordance with *Map D*.

Remaining native vegetation forms a corridor link that supports north–south fauna movement between QUT Carseldine campus and the waterway corridor adjoining Roghan Road.

2.3.3 Bridgeman Downs Residential

Development of the remaining land classified as Emerging Community Area located in the vicinity of Ridley Road and Retreat Street will be in accordance with *Map E*. A local park, as shown on *Map E*, will be provided catering for a range of informal recreation pursuits. Orderly subdivision of emerging community areas in Retreat Street will facilitate a transition from rural to higher intensity allotments consistent with low density residential areas. Where identified on *Map E*, minimum allotment sizes of 2,500m² will be achieved.

Patches of Forest Red Gum open forest provide important habitat for many significant species including the squirrel gliders, raptors and altitudinal migrants. Remaining native vegetation provides an opportunity to retain and strengthen land based east–west links from the South Pine River to Boondall Wetlands via Bridgeman Downs and Cabbage Tree Creek.

2.3.4 Taigum

Development of the remaining Emerging Community lots within Taigum will be in accordance with *Map F*.

Provision of a shared pedestrian/bicycle path will provide the major connection for this emerging residential community to improve access to the North Boondall Railway Station.

Future development of the retirement village sites on Handford and Roghan Roads will include a public road that allows for integration with the surrounding community, access to community services, shopping and other facilities. To facilitate access to local retail needs, a convenience centre is supported at the junction of Roghan and Handford Roads.

The development of multi-unit dwellings that support aged person households on significant public transport routes near the Taigum centre is encouraged.

This precinct supports variation in building height up to 5 storeys on appropriate sized sites, where identified on *Map C*, that can accommodate a variety in built-form through a diversity of designs and mix in heights. Building design should ensure that new multi-unit development integrates with surrounding established residential areas. In order to manage building siting, landscaping, vehicle movement and relationship to adjacent sites a minimum site area of 1.5 Hectares is required in order for Council to consider development at this scale.

Wetland areas support the ecological functions of the Taigum tributary of Cabbage Tree Creek. Areas of the endangered regional ecosystem *Eucalyptus tereticornis* and *Corymbia intermedia* are found throughout this precinct and are to be protected wherever possible.

2.3.5 West Aspley

This precinct is undergoing a transition from rural land and other uses to a residential community. Development in this precinct will be in accordance with *Map G*, which provides a framework for well integrated low density residential development that protects and enhances the waterway corridor, environmental and recreation values of Cabbage Tree Creek. Native vegetation within the vicinity of Cabbage Tree Creek contributes to its biodiversity values and is to be protected wherever possible.

2.3.6 Relocatable Home Parks

The area contains two relocatable home park sites, shown as 2.3.6A and 2.3.6B in Precinct *Map B*, providing low cost affordable housing and short term tourist accommodation. These relocatable home facilities are encouraged to remain in the area.

Redevelopment of these sites for other than Caravan Park uses will only be considered where low cost affordable housing is secured for low income households.

2.3.7 Bracken Ridge East

The Emerging Community sites in this precinct are fragmented due to an earlier pattern of semi-rural subdivision. This precinct is notable due to the existence

of habitat and biodiversity values including wetland and waterway corridors that support fauna movement from the Deagon wetlands to Cabbage Tree Creek.

Development of the remaining Emerging Community lots within this precinct will achieve locally significant vegetation and waterway corridor connectivity in accordance with *Map H*.

2.4 Potential Development Areas—Non Residential

2.4.1 Bald Hills Village Centre

Bald Hills Village (refer to *Map I*), will continue to function as a centre catering for the convenience, service and hotel/restaurant needs of the community. The village will include a safe, pedestrian friendly street shopping environment and places for people to meet and interact. Any future development will be contained within the existing village centre boundary, minimise impacts on surrounding residential amenity and maintain and enhance the existing character streetscape.

2.4.2 Educational Precinct

The Aspley State High School and Aspley Special School form an educational focal point in the district. Cabbage Tree Creek is a major waterway corridor in this precinct that supports significant habitat and biodiversity values for key species including squirrel gliders and raptors. The Queensland Government is encouraged to maximise the protection and enhancement of remaining native vegetation, biodiversity values and processes in all future development.

Any redevelopment of the Aspley schools must be located outside the boundary of the waterway corridor, in the cleared areas near Zillmere Road.

2.4.3 Zillmere Industrial Precinct

The industrial precinct located on Zillmere Road (refer to *Map J*) will continue to provide a source of local employment. The precinct is, however, in close proximity to established residential areas and the education precinct. Any new industrial developments and associated activities will be managed to minimise and mitigate impacts on residents in these surrounding sensitive uses.

The Queensland Government is encouraged to complete the pedestrian and cycle access link between Carseldine and Zillmere Railway Stations in future development of the State controlled land in Pineapple Street. This will support north-south connectivity as proposed in the SEQ Principal Cycle Network Plan.

This area contains significant habitat and biodiversity values in a corridor along Cabbage Tree Creek. Development must support the viability of this corridor.

2.4.4 Gawain Road Centre

Gawain Road Centre is a convenience centre catering for the needs of the local community.

Future development of the centre must result in a safe, pedestrian friendly street shopping environment, be well connected to the Harold Dean Park and provide spaces that support social interaction and community uses.

Any future development will be contained within the existing centre, minimise impacts on surrounding residential amenity, and maintain and enhance the existing low-density residential streetscape.

Future development within the centre precinct should provide a mix of centre activities including community facilities and multi-unit dwellings that can provide for a variety of housing options.

2.5 Rural Areas

2.5.1 Bald Hills/Bridgeman Downs Precinct

Areas of unserviced land in Bald Hills & Bridgeman Downs are shown in *Map C* and will not be considered for urban development until such time as the Pine Rivers North and Pine Rivers South Key Resource Areas (KRA 59 and KRA 60 respectively) are amended or deleted from the State Planning Policy 2/07: Protection of Extractive Resources. The Key Resource Areas shown in *Map C*, Development Intent Areas, incorporates a separation area to provide a suitable distance between incompatible uses to ameliorate impacts.

It is acknowledged that this land is within the urban footprint as defined by the South East Queensland Regional Plan 2005–2031; however the majority of the precinct is subject to significant flooding impacts and lacks local infrastructure that could support urban residential outcomes. This area contributes significantly to the habitat and biodiversity values of South Pine River, including biodiversity rich wetland communities.

Given the restrictions detailed in this section, no development than otherwise permitted in the Rural Area Classification will be supported by Council until the restrictions detailed above have been resolved and Council undertakes necessary master planning and determines the infrastructure requirements.

In this event, a master plan for the redevelopment of the precinct to achieve a sustainable urban community should include the following principles:

- provide a road network that is interconnected with the established road hierarchy and minimises the number of vehicular entry points to Linkfield Connection Road, Millar Road, Carseldine Road and Gympie Road
- provide pedestrian and bicycle pathway connections to local destinations including the Bald Hills Railway Station to the north, and recreation and sporting facilities to the east
- ensure connection to the Cabbage Tree Creek sewerage catchment system using gravity feed without relying on pressurised sewer pipelines
- ensure the interface between land to be developed and land to be conserved as open space is delineated by a public road allowing for surveillance opportunities and enhanced public safety
- incorporate Integrated Water Cycle Management strategies in any new development
- ensure development outcomes are compatible with established uses and do not result in increased hazard and/or risk
- ensure that the area contained within the defined waterway corridor remains free of development to conserve and protect wetlands and to provide a corridor link along the South Pine River catchment that will:
 - contribute to community life and identity with the provision of conveniently located active open space and recreation opportunities, including pedestrian paths and bikeways
 - actively manage waterway corridors, wetlands and vegetation areas via an environment master plan.

2.5.2 Bridgeman Downs Precinct

Areas of unserviced land in Bridgeman Downs are shown in *Map C* and will not be considered for urban development during the life of this Neighbourhood Plan.

The area has been developed as large residential lots with onsite water and sewerage services. Development of this precinct will preserve and enhance waterway corridors, locally significant habitat and biodiversity values, native vegetation and productive agricultural land.

Vegetation scattered throughout this precinct and along South Pine River have ecological significance and provide habitat for raptors (birds of prey) and squirrel gliders and is to be retained and enhance wherever possible.

Sites south of Graham Road are largely within the Cabbage Tree Creek catchment but are not directly serviced by a sewer main. In the event that

a comprehensive infrastructure scheme can provide sewer main access then Council will review the area classification designation consistent with the aims of the Bracken Ridge and District Neighbourhood Plan and the McDowall/Bridgeman Downs North Precinct of the McDowall/Bridgeman Downs Local Plan.

Sites north of Graham Road are largely within the unserviced South Pine River catchment and are difficult and expensive to service by a sewer main.

In the event that a comprehensive infrastructure scheme is provided, then Council will review the area classification designation where consistent with the aims of the Bridgeman Downs Residential Precinct.

While the balance of the Bridgeman Downs Precinct is located within the urban footprint as defined by the South East Queensland Regional Plan 2005–2031, no development than otherwise envisaged in the Rural Area Classification will be supported until Council undertakes the necessary master planning and determines the infrastructure requirements. This is not anticipated until after 2018.

2.5.3 North Bald Hills Precinct

This area of unserviced land is located between Wyampa Road, Gympie Road and the Gateway Motorway in North Bald Hills. The site contains local waterway corridors and vegetation that support the Tinchi Tamba Wetlands, (refer to *Map K*), and lacks infrastructure that could support urban development. No development than otherwise permitted in the Rural Area Classification will be supported by Council.

2.5.4 Bracken Ridge Road Precinct

This precinct is located between Bracken Ridge Road and the Gateway Motorway.

This precinct can be redeveloped for low density residential purposes in accordance with *Map L*. A sport and recreation activity sub-precinct is located

at the eastern end of the precinct to cater for a range of sporting activities. Development must provide a landscaped buffer to the Gateway Motorway and Tinchi Tamba Wetlands and adequately mitigate noise impacts generated by the Gateway Motorway. Council owned land at 401 Bracken Ridge Road (part Lot 194, RP208282) is potentially developable in conjunction with adjoining lots.

2.5.5 North Bracken Ridge Precinct

This precinct is located north of the Gateway Motorway and west of the Deagon Deviation.

The area immediately to the east of Bald Hills Creek serves as a buffer between residential development and the Tinchi Tamba Wetlands, (refer to the area sited between Forestlea Street and the Tinchi Tamba Wetlands *Map M*). The rural use of this sensitive area will continue due to constraints including flooding, environmental values, waterway corridors and proximity to the Gateway Motorway. No further reconfiguration or development of other urban uses will be supported in this part of the precinct.

The area located between Rainwood Street and the Gateway Motorway can be developed for low-density residential development. Development will be consistent with *Map M*, provide a landscape buffer to the Gateway Motorway and mitigate noise impacts generated by the Gateway Motorway.

3 Level of assessment

The following tables contain exceptions to the level of assessment, overriding the levels of assessment in Chapter 3.

A preliminary approval may change the level of assessment identified in these tables.

The trigger for assessment in the level of assessment table is material change of use and/or building work (associated with a use or structure specified in the level of assessment table) unless otherwise specified.

3.1 Relocatable Home Parks Precinct — (2.3.6A and 2.3.6B)

Code Assessment	Relevant Codes
Caravan Park	Caravan Park and Relocatable Home Park Code
Impact Assessment	Relevant Codes
Generally appropriate	
Multi Unit Dwelling where complying with the Residential Design—Low Density, Character and Low-medium Density Code AND securing low cost affordable housing for low-income households in accordance with performance criteria — P23	Bracken Ridge and District Neighbourhood Plan and Residential Design—Low Density, Character and Low-medium Density Code

Impact Assessment	Relevant Codes
Generally inappropriate	
Any other material change of use	

3.2 Zillmere Industrial Precinct — (2.4.3) where within 150m of a sensitive receiving environment

Impact Assessment	Relevant Codes
Generally appropriate	
Industry where not identified in <i>Schedule 1</i> and <i>2</i> in Chapter 3	Bracken Ridge and District Neighbourhood Plan Code, Industrial Amenity and Performance Code and Industrial Design Code
Generally inappropriate	
Industry where identified in <i>Schedule 1</i> or <i>2</i> in Chapter 3	

3.3 Bracken Ridge Road Precinct — (2.5.4)

Impact Assessment	Relevant Codes
Generally appropriate	
Indoor Sport and Recreation where within the Sport and Recreation Area	Bracken Ridge and District Neighbourhood Plan Code

4 Bracken Ridge and District Neighbourhood Plan Code

This Code provides additional and/or alternative Performance Criteria and Acceptable Solutions to the generic Codes in Chapter 5. Where directly varying with a Code in Chapter 5, the Performance Criteria and

Acceptable Solutions in this Neighbourhood Plan Code take precedence. All remaining Performance Criteria and Acceptable Solutions of the Codes in Chapter 5 will continue to apply.

The purpose of this Code is to ensure that development in the Neighbourhood Plan area is consistent with the intent for the Elements of this Neighbourhood Plan.

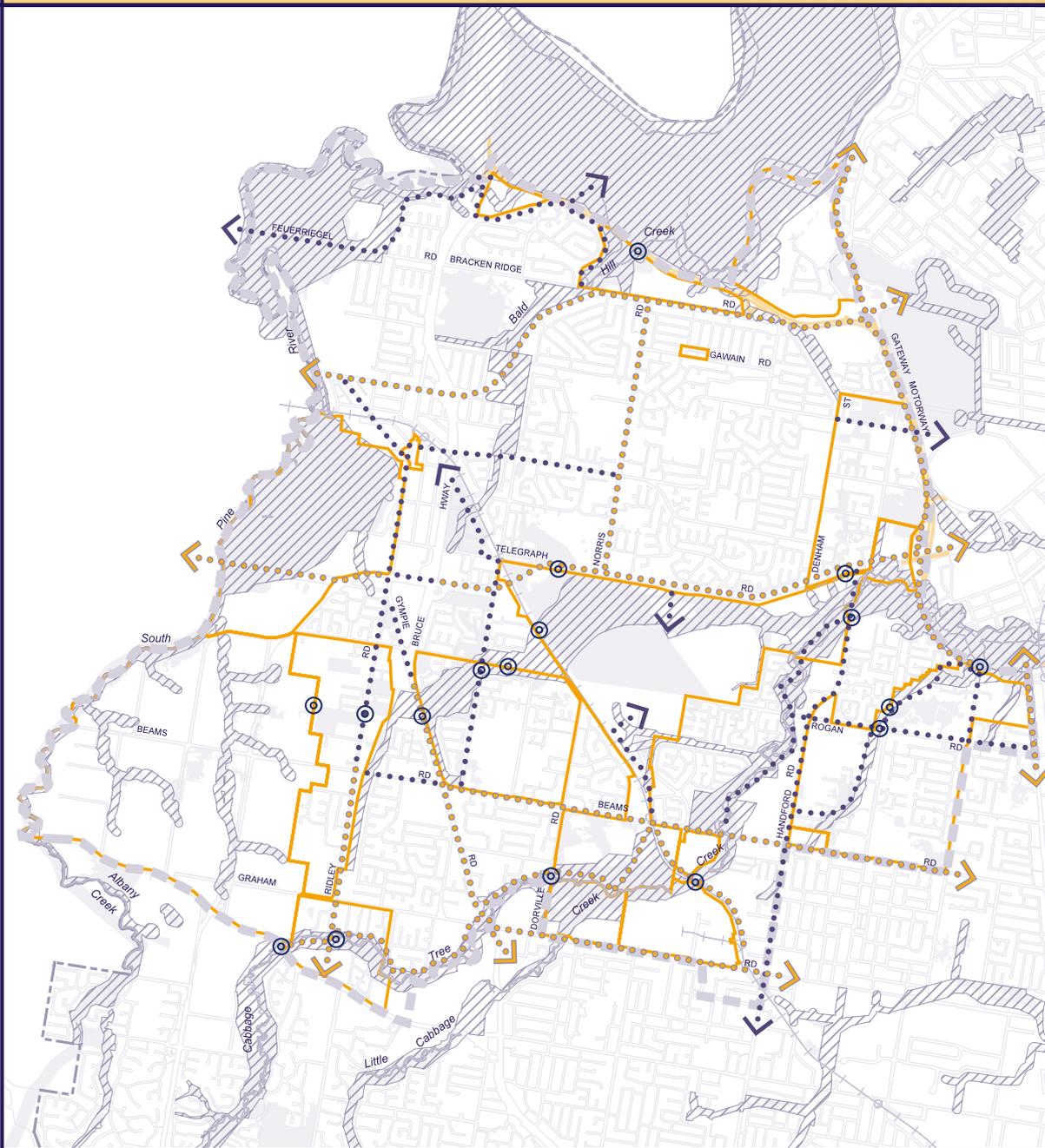
Performance Criteria	Acceptable Solutions
General within the Neighbourhood Plan Area except Self Assessable Development	
<p>P1 Development (except a House, Display Dwelling, Estate Sales Office, Home Business, Satellite Dish, Telecommunications Tower) must incorporate Integrated Water Cycle Management strategies to:</p> <ul style="list-style-type: none"> • achieve positive benefits across the entire water cycle • minimise water demand • maximise use of alternative water sources • maximise surface water infiltration and minimise stormwater run-off • minimise water use in landscaping • protect and enhance waterway corridor values • protect waterway health by improving stormwater quality by reducing and slowing site run-off • incorporate water reuse and recycling opportunities where appropriate 	<p>A1 A site based Integrated Water Management Plan (IWMP) is provided demonstrating how the development achieves the performance criteria</p> <p><i>Note: Compliance may be demonstrated by an Integrated Water Management Plan (IWMP) which identifies the range of strategies and actions proposed to integrate water supply, wastewater and stormwater and thus ensure protection and enhancement of affected waterways and catchment areas. An IWMP also identifies those Water Sensitive Urban Design measures proposed to be incorporated in a development</i></p>
<p>P2 Infrastructure is designed and constructed to facilitate the safe movement of fauna between habitat and biodiversity areas</p>	<p>A2 Wildlife Movement Solution infrastructure is provided at locations on <i>Map A</i></p> <p><i>Note: Wildlife Movement Solution techniques are available via Brisbane City Council—Natural Environment and Sustainability Branch</i></p>
Where within the Bald Hills Village Centre	
<p>P3 Centre development design must ensure a built form that is consistent with a traditional suburban street commercial built form, remains compact and walkable, and ensures integration with the surrounding residential areas and links to public transport</p>	<p>A3.1 Development is in accordance with <i>Map I: Bald Hills Village Centre</i></p> <p>A3.2 Building form includes:</p> <ul style="list-style-type: none"> • a maximum of three storeys • an active commercial frontage incorporating display windows and customer entry points • A pedestrian pavement width consistent with existing development is provided to allow on-street activity • awnings structures provided over pedestrian footpaths • buildings are sited on the property alignment facing the road

Performance Criteria	Acceptable Solutions
Where within the (a) Carseldine Residential Precinct, (b) Bridgeman Downs Residential Precinct, (c) Taigum Precinct, (d) West Aspley Residential Precinct, (e) Bracken Ridge East, (f) Bracken Ridge Road Precinct, (g) North Bracken Ridge Precinct	
P4.1 Residential development must integrate and connect with surrounding communities, including provision of adequate open space for recreation purposes. Development containing habitat and biodiversity values must facilitate fauna movements through the area	A4.1 Development is consistent with: <ul style="list-style-type: none"> • <i>Map D—Carseldine Residential Precinct</i> • <i>Map E—Bridgeman Downs Residential Precinct</i> • <i>Map F—Taigum Residential Precinct</i> • <i>Map G—West Aspley Residential Precinct</i> • <i>Map H—Bracken Ridge East Precinct</i> • <i>Map L—Bracken Ridge Road Precinct</i> • <i>Map M—North Bracken Ridge Precinct</i>
P4.2 Development must be designed to provide surveillance of parks, and pedestrian and bicycle paths from permeable and well connected public roads and spaces to maximise safety for the users	A4.2 Development is in accordance with the Crime Prevention Through Environmental Design Planning Scheme Policy
P4.3 Development must protect habitat and biodiversity and waterway corridor values	A4.3 Development is contained outside of the waterway corridor and minimise adverse impacts on habitat and biodiversity areas
P4.4 Development must utilise established district sewerage infrastructure	A4.4 Development is designed and constructed to access the existing Cabbage Tree Creek sewerage system via gravity feed
Where within the Taigum Residential precinct	
Multi-Unit Dwelling on Emerging Community Area sites, and 15,000m² or greater in area and identified on Development Intent Area <i>Map C</i> and <i>Map F</i> Taigum Residential Precinct	
P5 Development size and bulk must result in a low-medium to medium density building form that integrates with the established built-form and minimises impacts, including overshadowing and overlooking, on adjoining low and low-medium density developments Development must maintain a low to low-medium density streetscape	A5.1 Gross floor area is no more than 0.8 times the site area A5.2 Building height at the side or rear boundaries of the site (at a distance of 10m from the boundary) is: <ul style="list-style-type: none"> • a maximum of 2 storeys where adjoining 1 storey residential uses • a maximum of 3 storeys where adjoining 2 storey residential uses, A5.3 Building height in the centre of the site is a maximum of 5 storeys, and is a maximum height of 16m A5.4 Building height at the street frontage is a maximum of 2 storeys A5.5 A landscape buffer is planted with advanced species along boundaries to adjoining sites that have been developed at lower building heights

Performance Criteria		Acceptable Solutions	
Where in the West Aspley, Bridgeman Downs, Bracken Ridge Road and North Bracken Ridge Residential Precincts			
Material change of use or reconfiguration of a lot			
P6	Development along Albany Creek Road, the Main Roads Future Road Corridor, adjoining the Gateway Motorway or Bracken Ridge Road must provide high quality streetscape outcomes while providing a suitable acoustic environment for future residents	A6	Development; <ul style="list-style-type: none"> Provides acoustic treatment and landscaping in accordance with the requirements of the Noise Impact Assessment Planning Scheme Policy Where along Albany Creek Road or the Main Roads Future Road Corridor, development provides a 4m native vegetation buffers along the frontage with 2m planted on either side of the boundary
Where within the Gawain Road Centre precinct			
Multi-unit Dwelling in Multi-purpose Centre (4)			
P7	Development size and bulk must result in a low-medium density building form that integrates with the established centre's built-form and minimises impacts (including overshadowing and overlooking) on adjoining low density residential developments	A7.1	Building height at any point is no more than 3 storeys and 9.5m to the underside of the eaves
		A7.2	Where development is 3 storeys in height, a minimum of 2 of the storeys are provided for residential purposes
Where within the Bracken Ridge Road Precinct in the Sport and Recreation area as shown on Map L			
Indoor Sport and Recreation			
P8	Development size and bulk must result in a building form that integrates with the established residential community	A8	Building height where within 6m of an adjoining residential property is no more than 8.5m and maximum building height does not exceed 15m
P9	The surrounding road system must be capable of accommodating additional traffic generated by the proposal without adverse impacts on the residential amenity	A9	No Acceptable Solution
P10	Development must minimise noise impacts on the surrounding residential community and mitigate noise impacts from the Gateway Motorway	A10	The use complies with the Noise Impact Assessment Planning Scheme Policy
P11	The development must provide: <ul style="list-style-type: none"> opportunities for casual surveillance and direct sightlines from the buildings' doors and windows to the car park and community areas an exterior building design that promotes safety with active frontages and entrances adequate lighting appropriate way finding mechanisms 	A11	The development complies with the Crime Prevention Through Environmental Design Planning Scheme Policy

Performance Criteria	Acceptable Solutions
<p>P12 The development must provide adequate visual screening to the adjoining residential community and to the Gateway Motorway</p>	<p>A12.1 A landscape buffer of 3m is along the common boundary with residential uses</p> <p>A12.2 A landscape buffer of 6m is provided along the site boundary to the Gateway Motorway</p>
<p>Generally Appropriate Development where within the Relocatable Home Precinct 2.3.6A and 2.3.6B</p>	
<p>P13 The development must address and mitigate the social and health impacts created by the removal of the caravan park</p>	<p>A13 Prepare a Community Impact Assessment Report in accordance with the Community Impact Assessment Planning Scheme Policy</p>

Map A - Principal Environment/Waterway Corridors and Desired District Cycle Connections



-  Neighbourhood Plan boundary
-  Precinct boundary
-  Brisbane City boundary
-  Major pedestrian/cycle network in accordance with SEQ Cycle Plan
-  Desired district cycle connections - to be achieved with approved development or BCC projects
-  Habitat and biodiversity values
-  Waterway corridors
-  Wildlife movement solutions



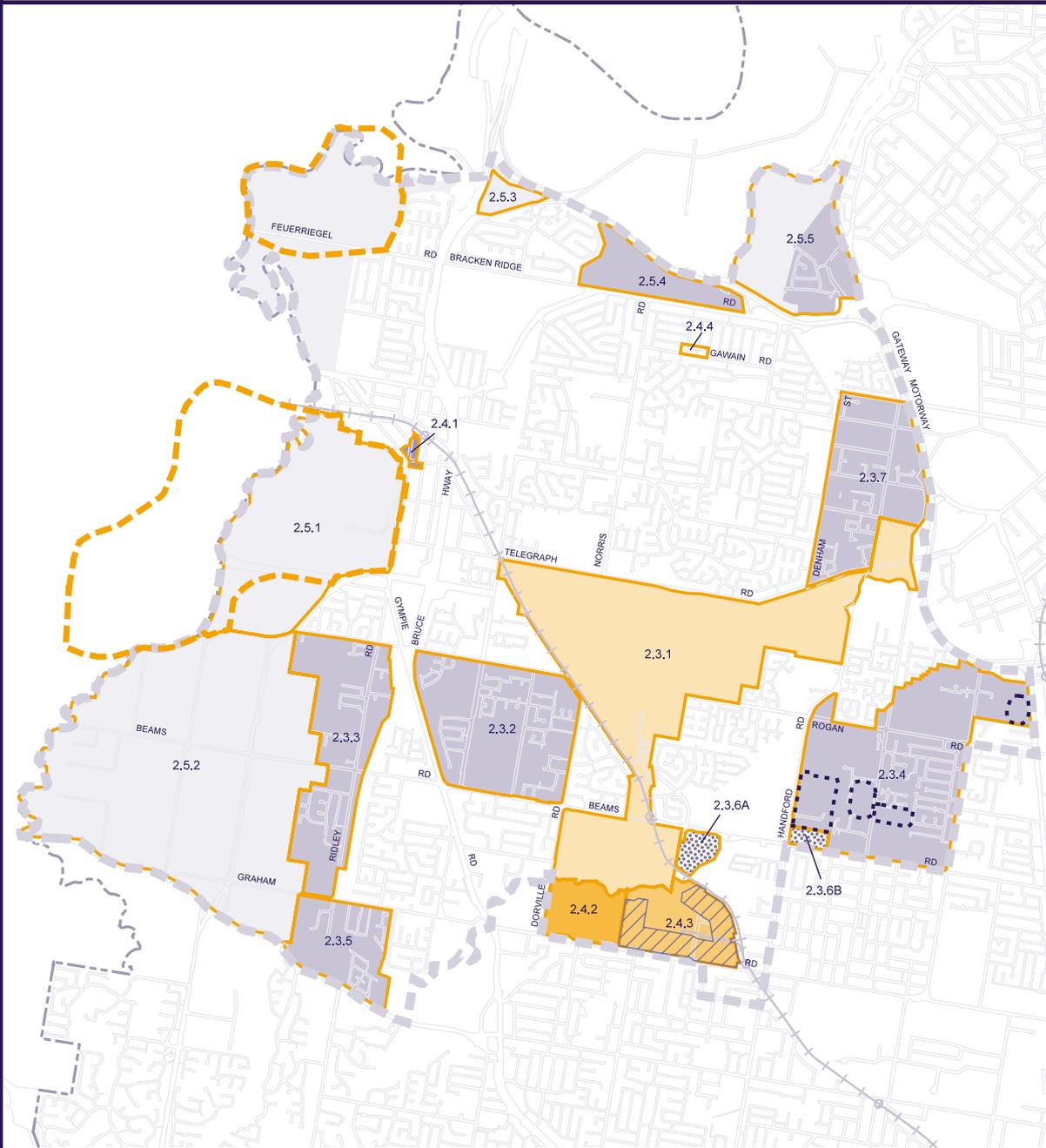
Map B - Precincts



-  Neighbourhood Plan boundary
-  Precinct boundary
-  Brisbane City boundary



Map C - Development Intent Areas



- | | | | |
|--|-----------------------------------|--|---|
| | Neighbourhood Plan boundary | | Unserviced land |
| | Precinct boundary | | Precinct plan |
| | Brisbane City boundary | | Local centre precinct (2.4.1 only) |
| | State key resource area boundary | | Relocatable home-park |
| | Education precinct | | Industry area close to sensitive receiving environment |
| | Zillmere industry | | Indicative sites for Taigum multi-unit-dwellings (to 5 storeys) |
| | Fitzgibbon urban development area | | |



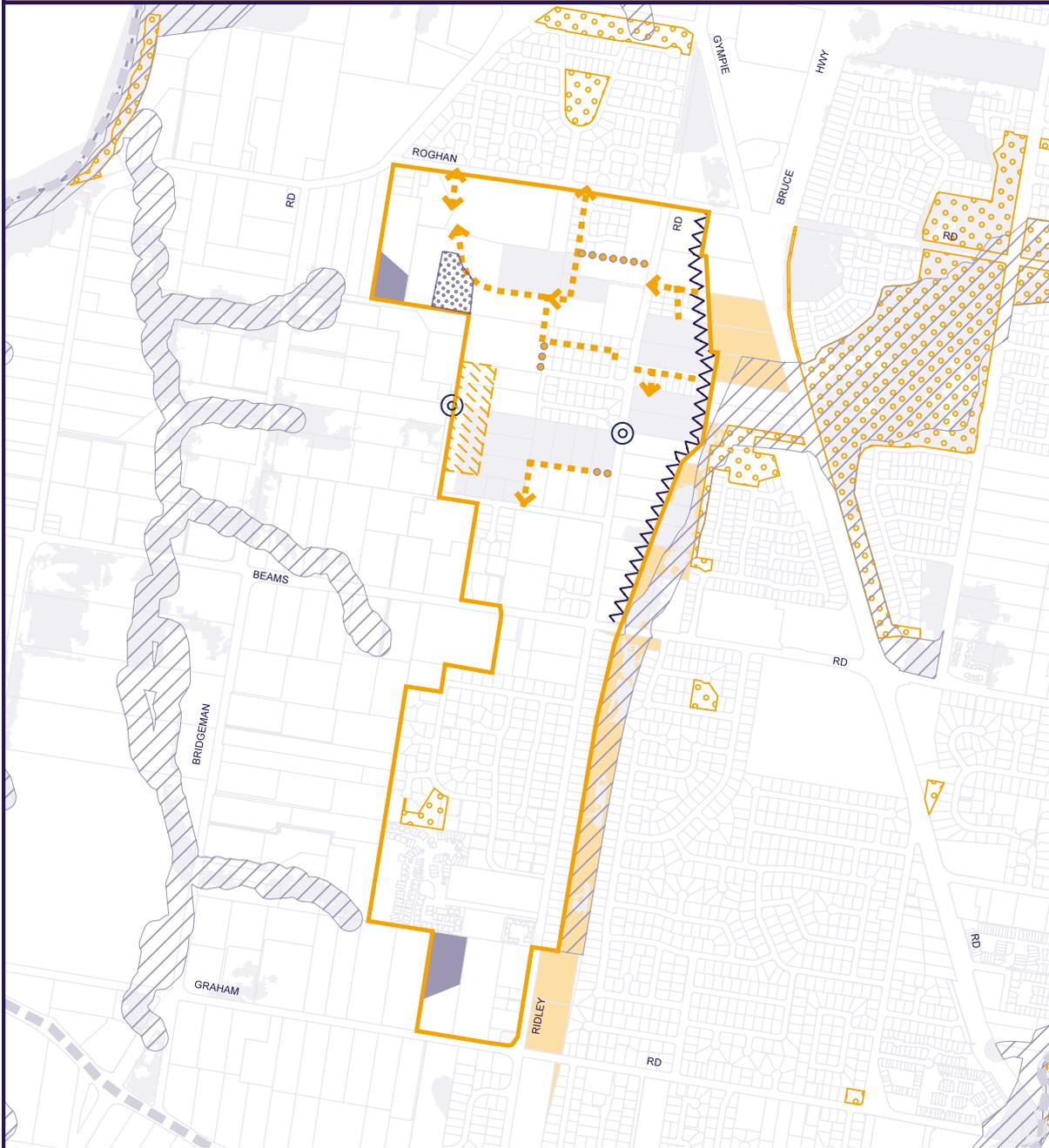
Map D - 2.3.2 Carseldine Residential Precinct



-  Precinct boundary
-  Waterway corridor
-  Habitat and biodiversity values
-  Existing park
-  Desired future park
-  Indicative road layout
-  Desired pedestrian link
-  Wildlife movement solution



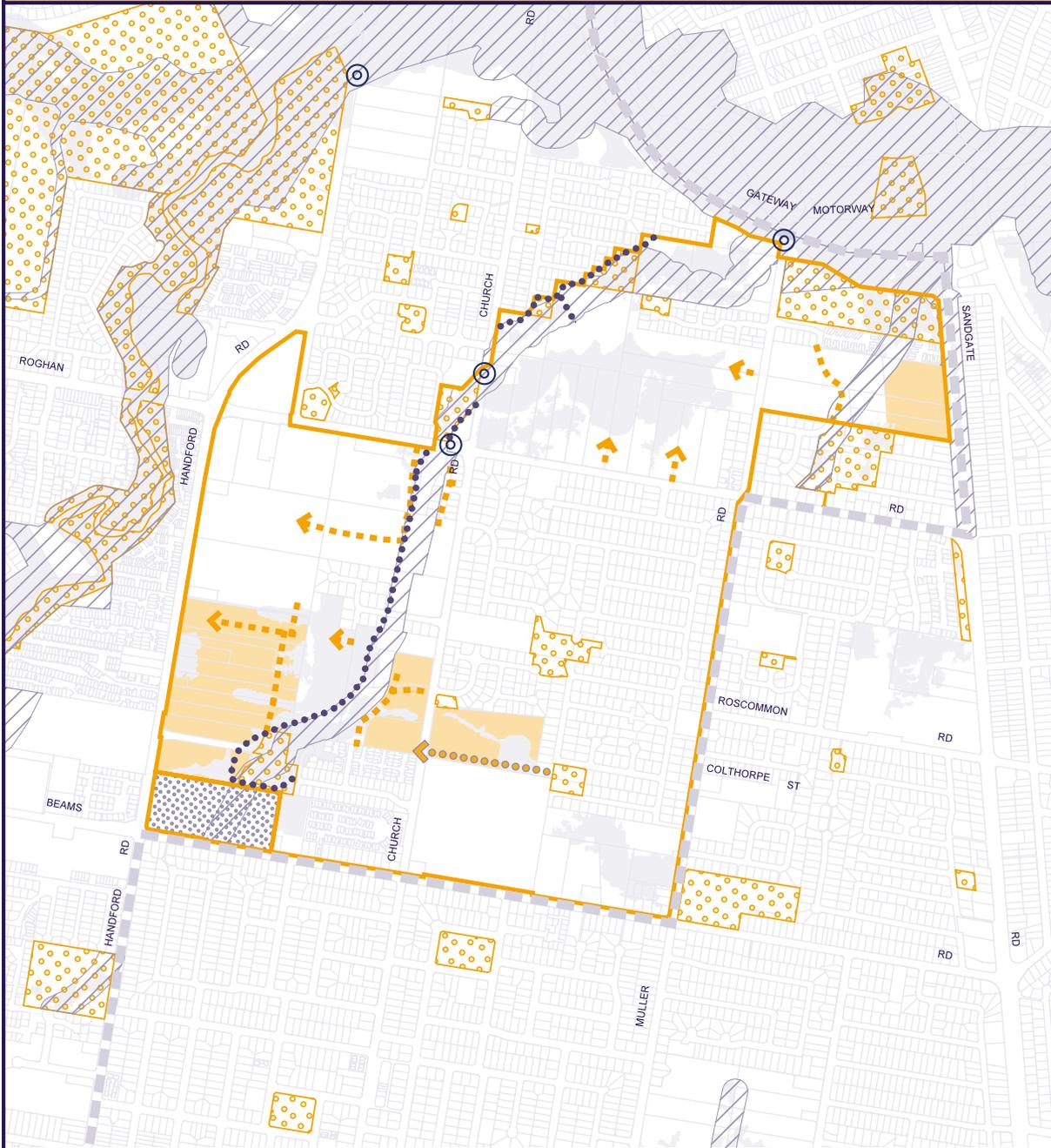
Map E - 2.3.3 Bridgeman Downs Residential Precinct



-  Neighbourhood Plan boundary
-  Precinct boundary
-  Brisbane City boundary
-  Waterway corridor
-  Habitat and biodiversity values
-  Existing park
-  Unserved area
-  Desired park
-  Main Roads Department Future transport corridor (final location to be confirmed)
-  Minimum lot size 2,500 m²
-  Indicative road layout
-  Desired pedestrian link
-  Wildlife movement solution
-  Vegetated/acoustic buffer



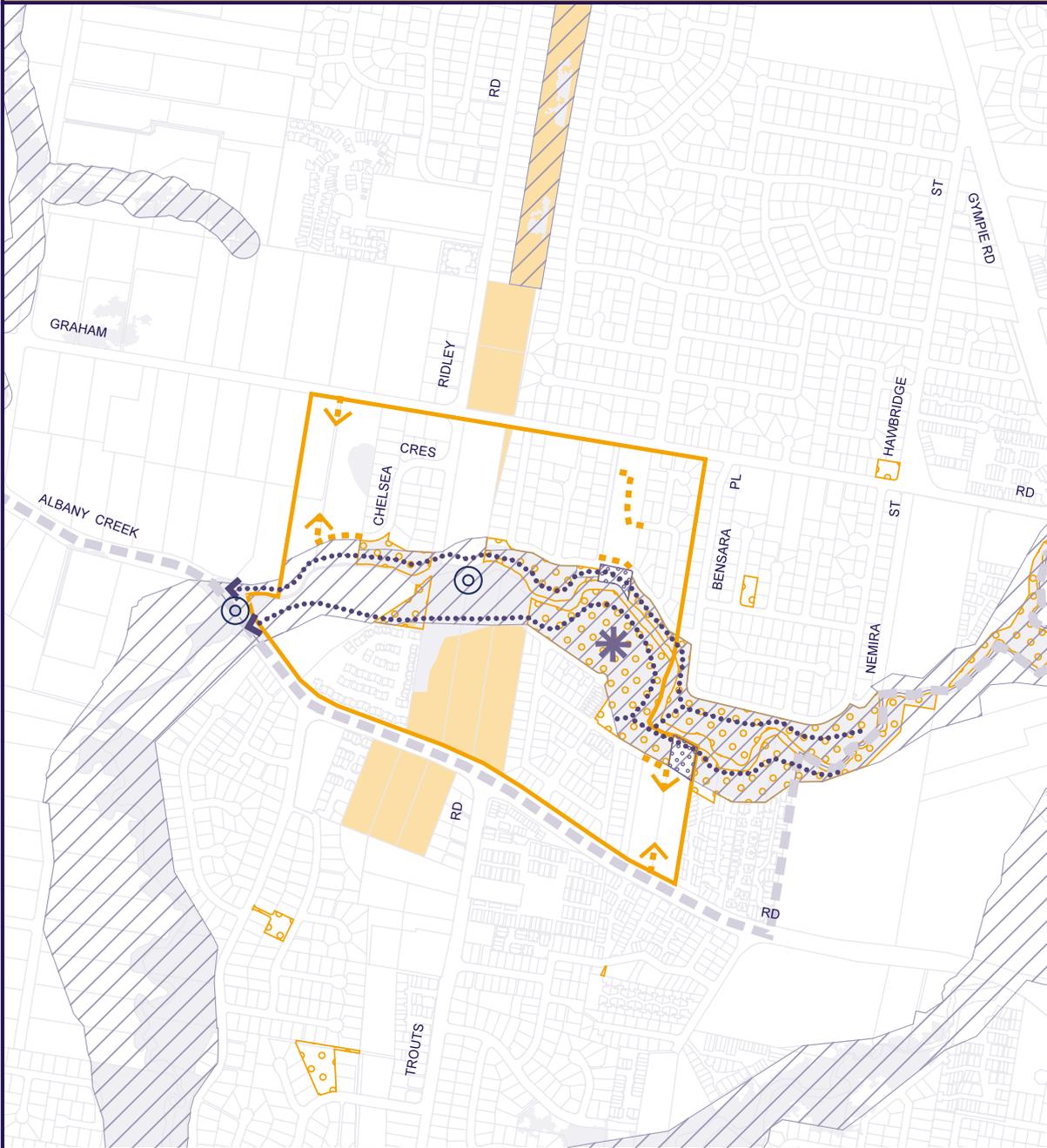
Map F - 2.3.4 Taigum Residential Precinct



- | | | | |
|---|-------------------------------------|---|----------------------------|
|  | Neighbourhood Plan boundary |  | Indicative road layout |
|  | Precinct boundary |  | Cycle path |
|  | Waterway corridor |  | Desired pedestrian link |
|  | Habitat and biodiversity values |  | Wildlife movement solution |
|  | Existing park | | |
|  | 2.3.6 Relocatable home park | | |
|  | Multi-unit-dwellings (to 5 storeys) | | |



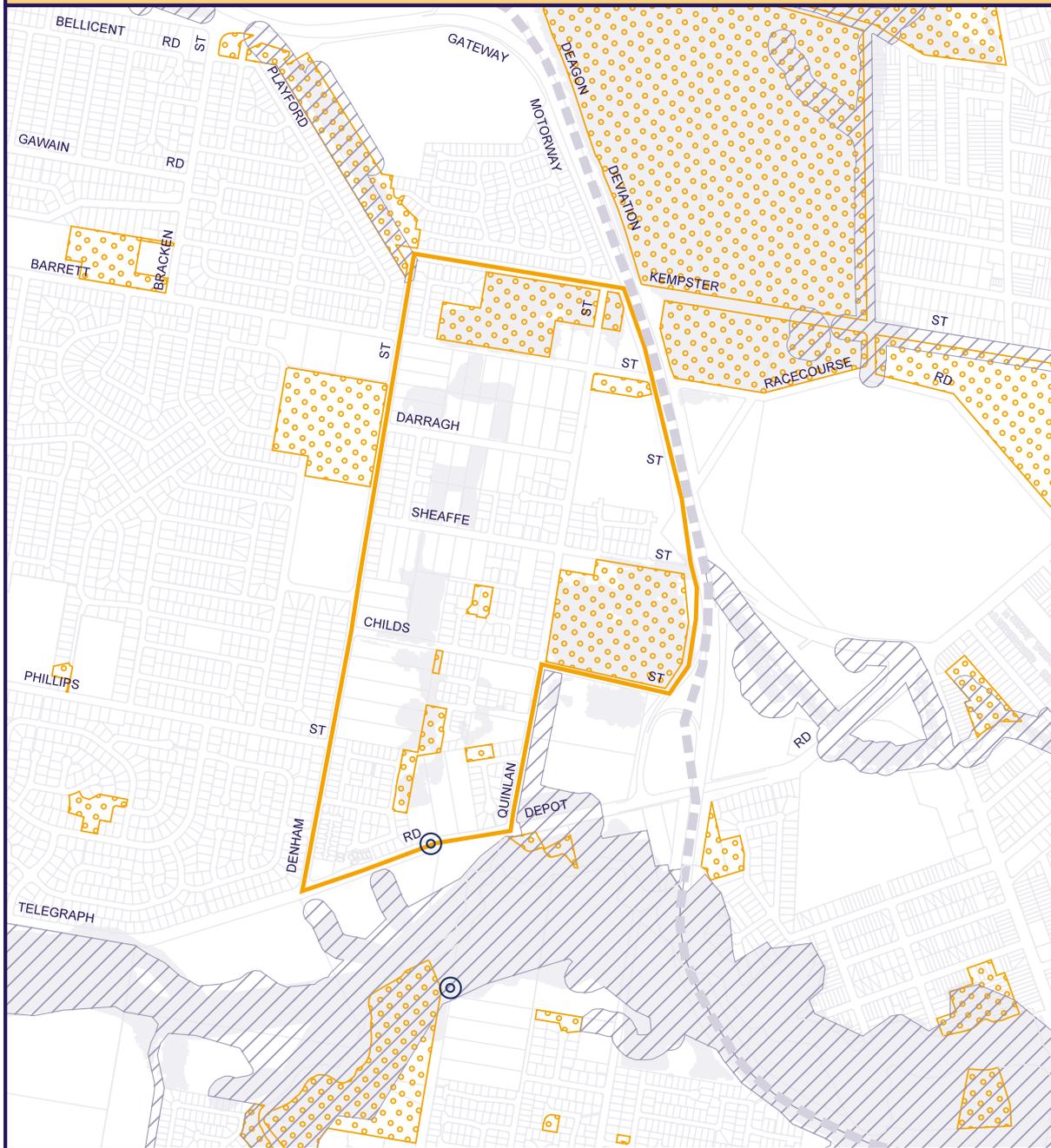
Map G - 2.3.5 West Aspley Residential Precinct



-  Neighbourhood Plan boundary
-  Precinct boundary
-  Waterway corridor
-  Habitat and biodiversity values
-  Existing park
-  Desired future park
-  Main Roads Department Future transport corridor (final location to be confirmed)
-  Indicative road layout (links must be completed when development triggers demand on local road network)
-  Desired cycle path
-  Wildlife movement solution
-  Park activity node



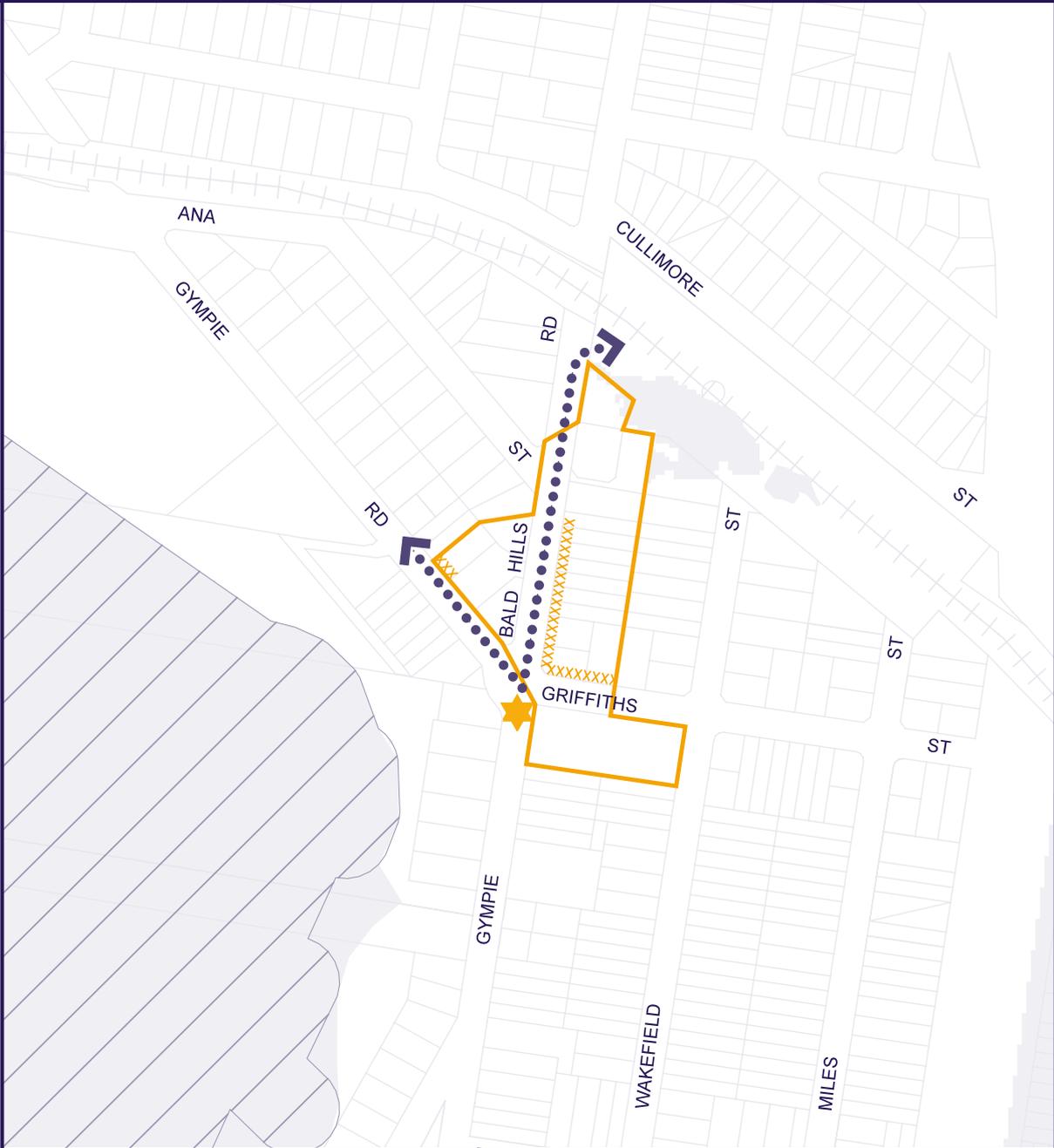
Map H - 2.3.7 Bracken Ridge East Precinct



-  Neighbourhood Plan boundary
-  Precinct boundary
-  Waterway corridor
-  Habitat and biodiversity values
-  Existing park
-  Wildlife movement solution



Map I - 2.4.1 Bald Hills Village Centre



-  Precinct boundary
-  Waterway corridor
-  Habitat and biodiversity values
-  Public access route
-  Character shop street frontage
-  Entry feature



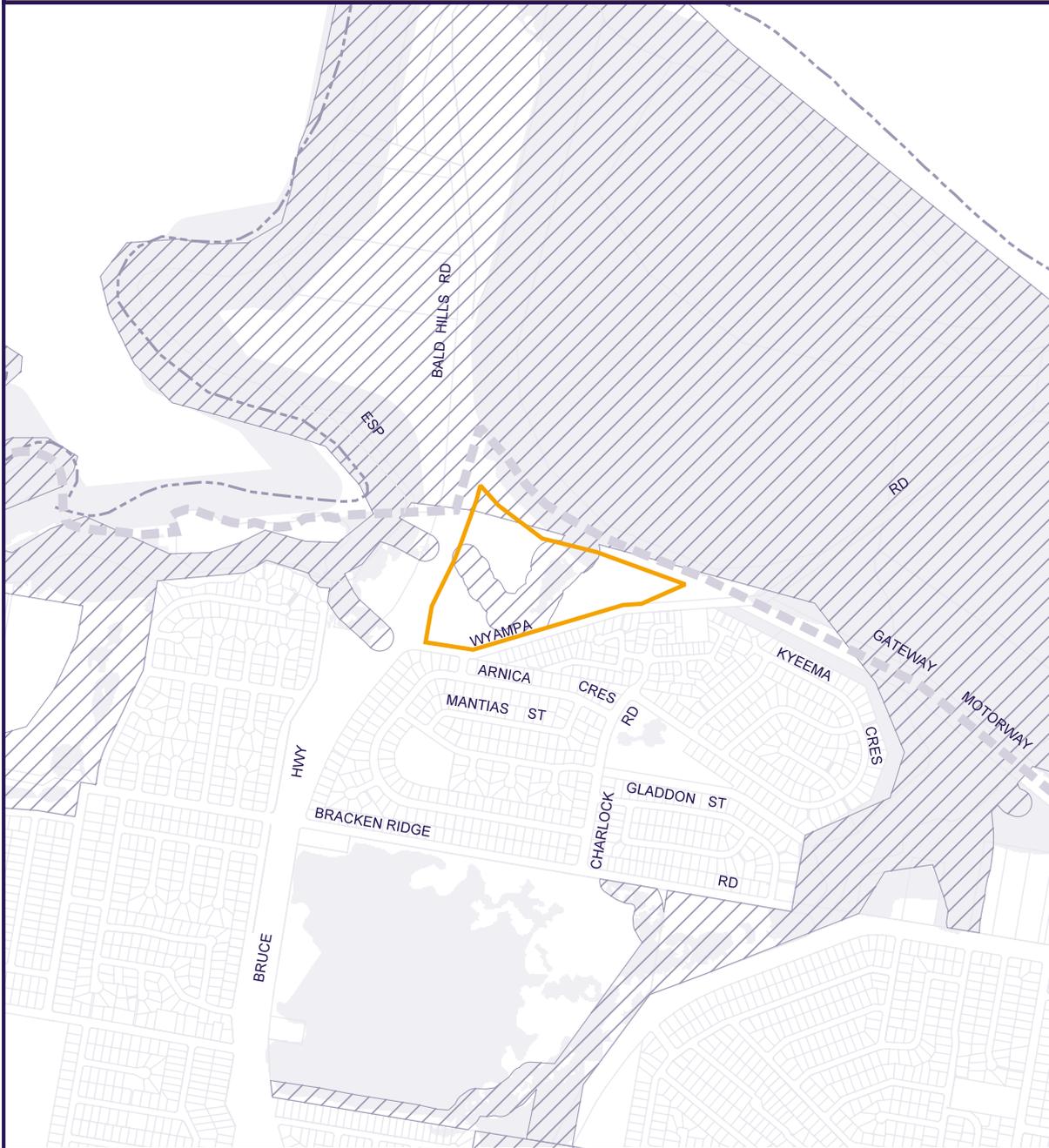
Map J - 2.4.3 Zillmere Industrial Precinct



-  Neighbourhood Plan boundary
-  Precinct boundary
-  Waterway corridor
-  Habitat and biodiversity values
-  Existing park
-  Industry areas close to sensitive receiving environments
-  Desired cycle path
-  Wildlife movement solution



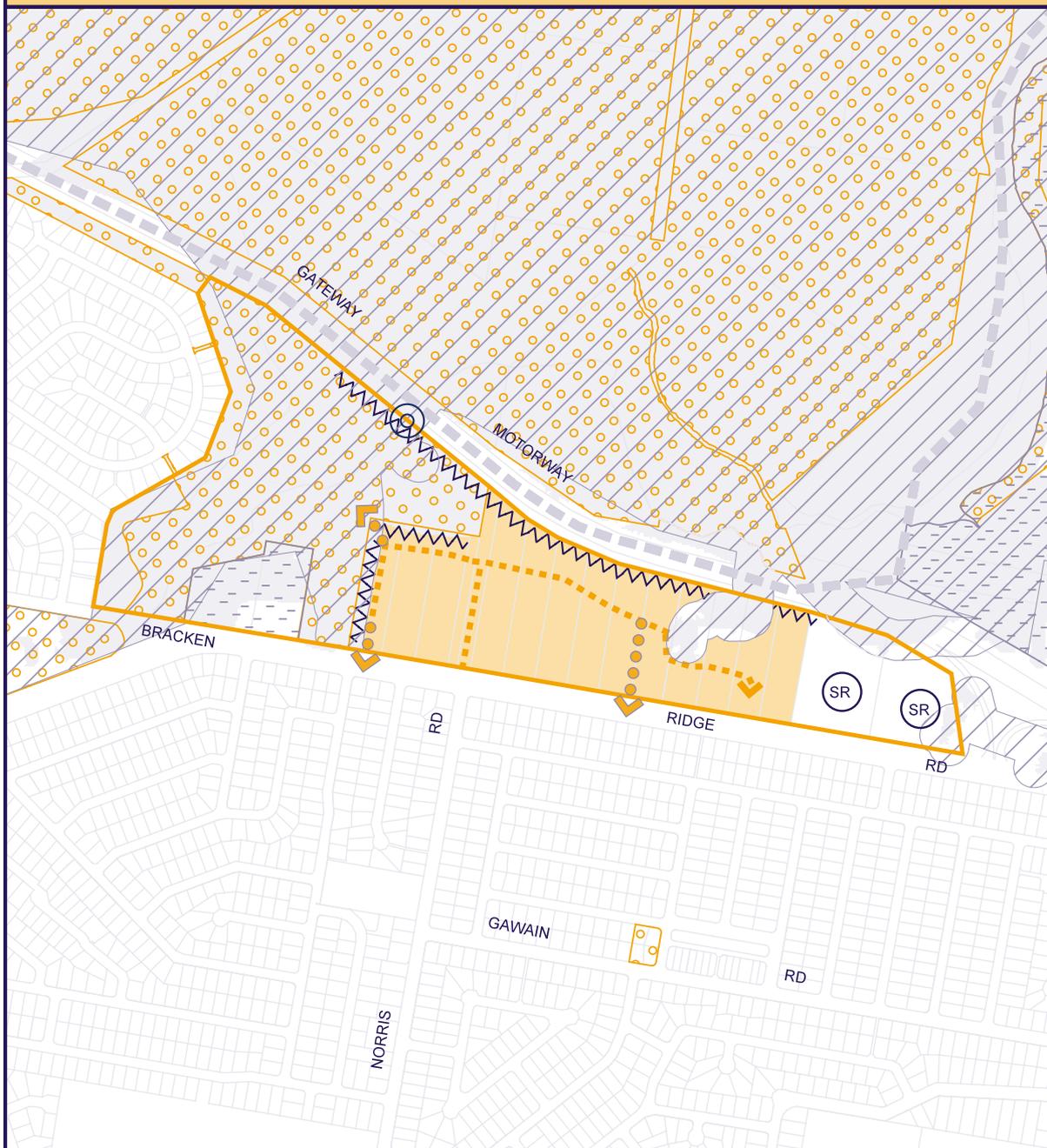
Map K - 2.5.3 North Bald Hills Structure Plan



-  Neighbourhood Plan boundary
-  Precinct boundary
-  Brisbane City boundary
-  Waterway corridor
-  Habitat and biodiversity values



Map L - 2.5.4 Bracken Ridge Road Precinct



- | | | | |
|---|-------------------------------------|---|----------------------------|
|  | Neighbourhood Plan boundary |  | Indicative road layout |
|  | Precinct boundary |  | Desired pedestrian link |
|  | Waterway corridor |  | Vegetated/acoustic buffer |
|  | Habitat and biodiversity values |  | Sport and recreation |
|  | Existing park |  | Wildlife movement solution |
|  | Area to remain rural | | |
|  | Emerging community development area | | |



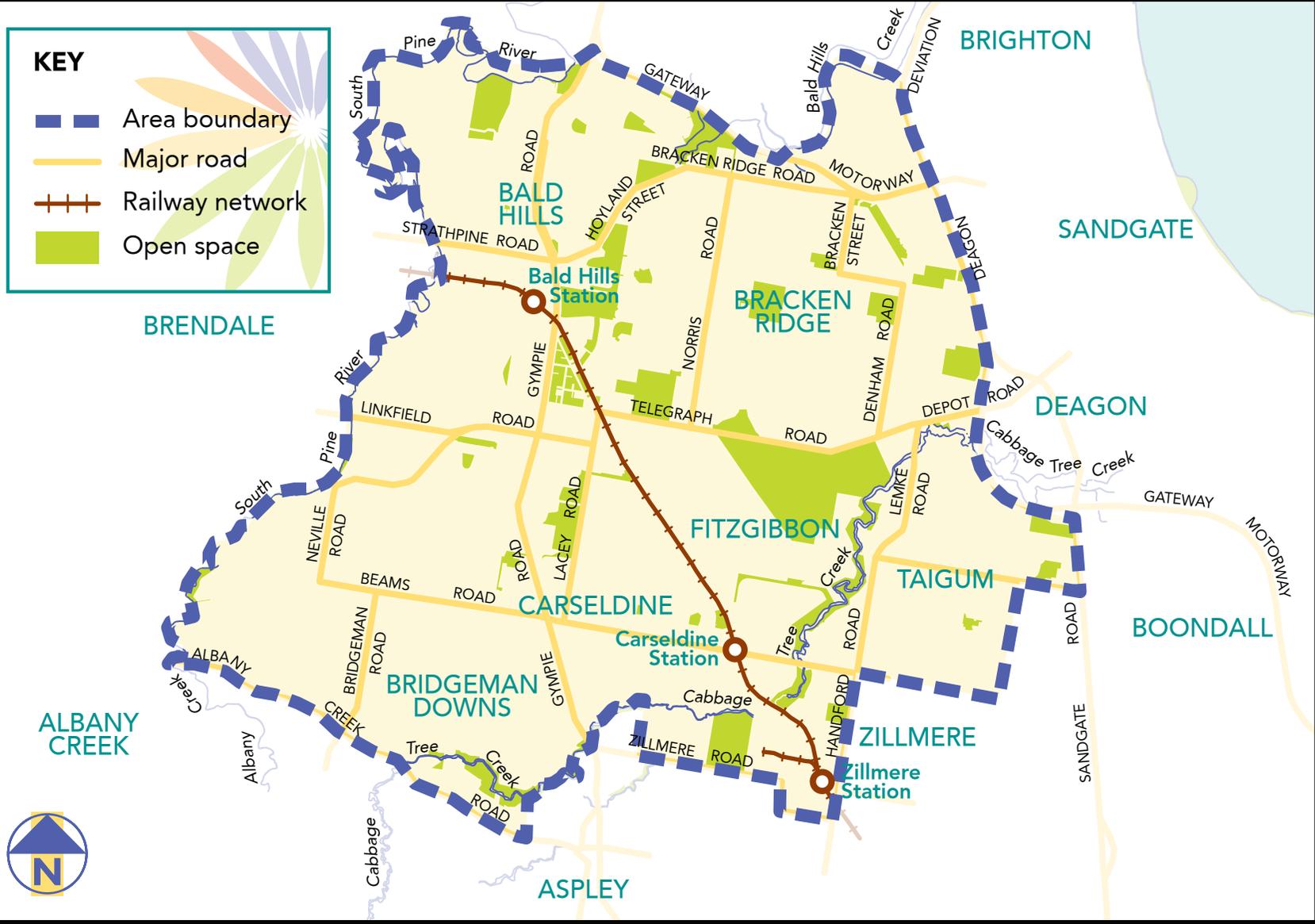
Map M - 2.5.5 North Bracken Ridge Precinct



-  Neighbourhood Plan boundary
-  Precinct boundary
-  Brisbane City boundary
-  Waterway corridor
-  Habitat and biodiversity values
-  Existing park
-  Area to remain rural
-  Emerging community development area
-  Indicative road layout
-  Desired pedestrian link
-  Community uses - Emergency services
-  Vegetated/acoustic buffer



BRACKEN RIDGE & DISTRICT NEIGHBOURHOOD PLANNING AREA



KEY

-  Area boundary
-  Major road
-  Railway network
-  Open space



Bowen Hills Transit Oriented Development Concept Plan

Submission for Master Planning

Prepared for the Office of Urban Management, Department of Infrastructure
May 2007



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Section

Document Issue Status Record

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- 1 Understanding of Project Objectives
- 2 Methodology
- 3 Innovation, Design Excellence and Creative Thinking
- 4 Resources and Staff
- 5 Project Management, Program and Fees

Appendices

Appendix A: Curricula Vitae

Appendix B: Project Sheets

Appendix C: Transport Infrastructure Capability Statement

Appendix D: Detailed Resource Strategy

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DOCUMENT ISSUE STATUS RECORD

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DOCUMENT ISSUE NUMBER	PAGE REVISION NUMBER	DATE	DESCRIPTION	CHECKED
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Introduction

We are pleased to be invited to submit a proposal to assist the Office of Urban Management produce a Development Concept Plan for the Bowen Hills area. We have based our submission on our recent experience with similar projects in the inner city of Brisbane and the well developed approach outlined in the project brief.

Development Concept Plan will establish the overall vision for the Bowen Hills area and deliver a development framework as the basis for future detailed master planning and implementation of TOD outcomes.



140 William Street, Perth

Understanding of Project Objectives

1 Understanding of Project Objectives



Kelvin Grove Urban Village is the first inner-city development of its kind in Australia. It is a master-planned community that demonstrates best practice in sustainable, mixed-use urban development and brings together educational, residential, health, retail, recreational and business opportunities.

The creation of place making through the master plan and landscape master plan has ensured that significant densities have been achieved at Kelvin Grove.

HASSELL also developed the Design Guidelines for Kelvin Grove Urban Village which push developers to meet the high standards that are set for the precinct. Many provisions within these guidelines are innovative and best practice.

Innovation and process driven

The solution for Bowen Hills will emerge through a well considered and aspirational approach to placemaking.

Our approach will involve the following.

- We will review the extensive material already available about the study area and work with key people within the working group.
- We will consider relevant projects nationally and internationally to add to our knowledge of the key principles and ingredients for success.
- We are committed to a highly interactive process via workshops.
- We will collaborate with key stakeholders and landowners to deliver engagement and action.
- We will use the opportunity for review of our ideas through the Independent Design Advisory Panel associated with the Urban Futures Board.
- We will use sketches and 3D representation of plans through computer modelling to ensure an appreciation of the strategy.
- We will seek community feedback on the strategy for the Valley.
- We will develop a Development Concept with vision and clarity, underpinned by a pragmatic implementation framework – a platform for leadership.

Targeted Outputs

We understand that the OUM is seeking a Development Concept Plan to guide development in the Valley, including built form (height + bulk); movement; public realm improvements and catalyst sites. The Plan will focus on implementation through infrastructure; public realm, transport; asset management and sustainability. Our recent work on the Fortitude Valley Masterplan for Urban Renewal Brisbane is an example of short time frame urban framework studies that can synthesise a large body of existing studies, establish a strong vision and provide a foundation for the directing of future development.

Engagement with influential stakeholders is critical

We are familiar with the drivers for development in the study area, having been involved in the design and delivery of all forms of development anticipated in the precinct. This will provide an in-depth understanding of the urban design and commercial requirements that will initiate change. We have worked with many of the key stakeholders before and will ensure that the outcomes of this study are developable and attractive to industry.

1 Understanding of Project Objectives



The Pathways Centre at North Lakes was delivered by bringing a range of stakeholders to the table to agree a joint vision for the project. Common ground was identified from conflicting and often divergent interests, and formed a basis for a win, win, win outcome. In a period of 3 weeks HASSELL was able to have an agreed master plan and way forward.

Building the value proposition

The identification of catalyst sites is a key outcome and could possibly be through 'soft iconic' project anchors combined with synergistic clusters of uses. We are experienced in identifying creative opportunities for developers and building on the value proposition of a place.

A destination approach to master planning

We recognise the importance of 'Place' and the role of attractive destinations in order to facilitate regeneration and renewal. For example, we are currently working with Multiplex to develop Portside as a major destination for Brisbane, and we have initiated social research within a wide region in terms of community expectations and desires.

Collaboration with the Working Group

The local knowledge and expertise of the Working Group is well recognised. We propose that throughout the course of the commission our internal design team collaborates with key members of the working group.

Targeted Community Engagement

A targeted approach to engagement is proposed that facilitates early community involvement through a Visioning Workshop – the key formative stage of the process. Following a period of design investigation and refinement, in collaboration with the working group and stakeholder reference group, community feedback will be sought on the preferred concept option.



Darwin Waterfront, Darwin

Methodology

2 Methodology

HASSELL will provide an integrated urban design service with specialists from the planning, architecture, and landscape architecture disciplines. ARUP have been included on the team to provide technical advice during the site analysis stage and will have design and strategy input during the refinement and review of concepts as they evolve.

We have invited Rider Hunt and Savills to provide high level costing and market input during the Preferred Concept stage of work to establish a high level feasibility of the concept plan.

During the course of the project the internal design team will engage with the Working Group for technical support and information about the project, including engineering, transport, traffic and environmental services.

Our methodology is targeted at harnessing the knowledge and expertise of our foremost urban designers. The experience and knowledge leadership these designers bring to the table is a founding element for the focused, expertise driven approach we propose.

The Project Brief provides a well considered method for the project and clear expectations regarding project deliverables. We have structured our method around the 7 stage methodology provided, with a targeted engagement process to involve key stakeholders and the community during the formative and review stages of the project.

The detailed programme and reporting arrangements for the project will be discussed and agreed at the inception meeting. Given the demanding timeframe for the project the extent of reporting between key milestones will need to be managed to ensure the momentum of design development and refinement is not lost

1 SITE ANALYSIS

Intent

The site analysis stage will focus on establishing the 'baseline' information for the study. It will bring together and synthesise the findings and recommendations of existing studies and reports with stakeholder interviews and further work to 'ground truth' opportunities and constraints.

Inputs

Site and strategic analysis reports, background papers and reference material

Base mapping and Bimap information, City plan LAP, codes and SEQ Regional Plan

Activities

Project Initiation Meeting

Stakeholder Mapping (up to 8 interviews) and collation of key findings, aspirations and issues

Desktop review of existing studies and material

Site visit

'Ground Truthing' and identification of Opportunities and Constraints (strategic and pragmatic)

- Land use, heritage, open space, views, amenity and community (HASSELL)
- Movement and green transport (ARUP)
- Environment (ARUP)
- Civil and infrastructure (ARUP)
- Economic (Appointed by OUM)

Preparation of Preliminary Site Analysis report and workshop collateral

Working Group Presentation

Outputs

Preliminary Site Analysis Report (including site observations and photos)

Workshop collateral (including site analysis presentation boards)

Record of stakeholder meetings

Fee Estimate

HASSELL - \$27,000

ARUP - \$8,000

2 Methodology

Brief Commentary

The stakeholder interviews carried out during this stage of work will be an important input and primary source for current information and directions for initiatives within the study area.

The timeframe allocated to this phase of work is tight, particularly given the need to co-ordinate and conduct interviews with a range of stakeholders, in addition to reporting the collated findings. It is recommended that a Preliminary Site Analysis report be produced with the findings confirmed during the course of the following stages for incorporation into the draft and final concept reports.

The full range of existing studies will provide a substantial input to the desktop review. These studies will need to be made available from the outset of this stage to enable an efficient and timely review to ensure the program can be achieved.

Key input will be required from BCC and other members of the working group in relation to movement and the existing capacity of infrastructure in the area.

It is assumed that any detailed economic findings specific to the study area will be provided by the OUM appointed Urban Economist.

The community and social assessment will be based on available Census data and more current information provided in background reports

2 VISIONING WORKSHOP

Intent

This workshop will focus on the identification of a vision for the study area. A combination of qualitative and quantitative techniques will be applied to facilitate input to the visioning process. The workshop will provide a forum for confirming the opportunities and constraints and establish core project values and guiding principles.

Inputs

Preliminary Site Analysis report

Activities

Visioning Workshop

Identify project values, principles and input to criteria for the assessment of concept options

Outputs

Workshop collateral

Record of workshop proceedings

Fee Estimate

HASSELL - \$ 6,000

ARUP - \$ 2,000

2 Methodology

3 DRAFT CONCEPT OPTIONS

Intent

This is the key creative stage of the project focused on ideas generation and exploring the scope of opportunity for the study area. The creative 'engine' for this stage will be an internal design workshop held over two days involving the consultant team and members of the working group for a daily review. Rough directions explored in the design workshop will be refined and presented in the Draft Concepts Report.

Inputs

Site analysis report
Vision, project values and guiding principles

Activities

Two Day internal Design Workshop (including: land use, built form and height, movement, public realm, infrastructure elements)
Internal HASSELL peer review and critique
Option refinement and Strategy development
Preparation of illustrations and plans
Specific meetings with working group as required to refine strategies and options
Preparation of Draft Concepts and reporting

Outputs

Draft Concepts Report

Fee Estimate

HASSELL - \$ 30,000
ARUP - \$ 6,000

4 CONCEPTS REVIEW AND ASSESSMENT

Intent

This stage focuses upon the refinement of concept options and the identification of a potential preferred option in consultation with the working group and Stakeholder Reference Group.

Inputs

Assessment Criteria
Draft Concepts Report

Activities

Rating of Concept Options against assessment criteria
Presentation to the Working Group
Refinement of options / assessment if required
Presentation to the Stakeholder Reference Group
Finalise Concepts Report with feedback from presentations and agreed preferred option

Outputs

Final Concepts Report

Fee Estimate

HASSELL - \$ 10,000
ARUP - \$ 2,000

2 Methodology

5 PREFERRED CONCEPT DEVELOPMENT

Intent

This stage focuses on the evolution and refinement of the preferred concept option. The option will be reviewed in terms of key infrastructure costs and potential feasibility. Strategies underpinning the concept will be developed further and validated. Illustrative material will be prepared including a 3D model.

A \$15,000 fee has been allocated to produce the 3D model.

Activities

Internal Design Development sessions focused on evolving the preferred concept and strategies (including: land use, built form and height, movement, public realm, infrastructure elements etc.)

Targeted engagement with input from Working Group to inform design evolution of required

Identification of potential staging, implementation and other measures to facilitate delivery of the concept plan

Presentation to Working Group and incorporation of amendments if required

Outputs

Draft Concept Plan and illustrative material

Fee Estimate

HASSELL - \$ 15,000

ARUP - \$ 1,000

6 CONCEPT PLAN COMMUNITY WORKSHOP

Intent

This stage facilitates engagement with the community to receive feedback on the preferred concept for the study area. It involves the completion of preparatory work for the workshop and facilitating the workshop.

Inputs

Draft Concept Plan and illustrative material

Activities

Preferred Concept Plan workshop

Facilitated feedback and discussion (value management techniques)

Agree 'what's important' and areas of consensus/ divergence

Discuss implementation approach and barriers to success

Outputs

Consultation Collateral

Recorded workshop proceedings

Fee Estimate

HASSELL - \$ 8,000

ARUP - \$ 1,000

2 Methodology

7 FINALISATION OF CONCEPT PLAN

Intent

Review stakeholder feedback and agree final amendments to the Concept Plan.

Activities

Finalise Concept Plan

Presentation to Stakeholder Reference Group

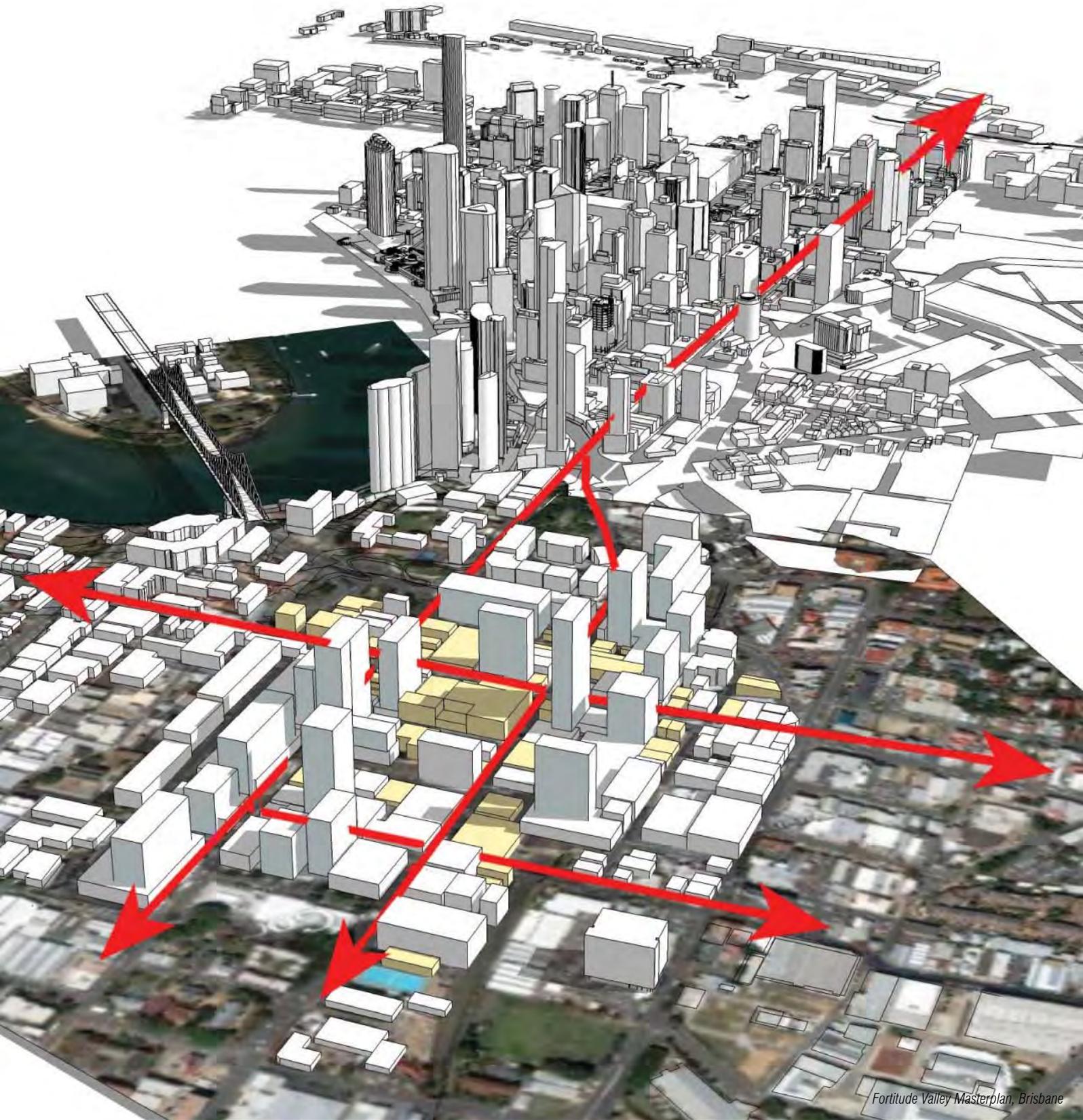
Outputs

Final Concept Plan

Fee Estimate

HASELL - \$ 10,000

ARUP - \$ 1,000



Fortitude Valley Masterplan, Brisbane

Innovation, Design Excellence, Creative Thinking

3 Innovation, Design Excellence and Creative Thinking

A Practice of Innovation

HASELL is the only multidisciplinary planning and design firm that harnesses the in-house collaboration of architecture, planning, as well as landscape architecture - the three core components for designing the built environment. We specialise in the design and delivery of exceptional places, and work collaboratively with engineers and other specialists to ensure our projects are innovative and lead best practice.

We have a track record for innovation across all of our disciplines and a sound grounding in technical knowledge about the delivery and implementation of major projects and the realities of market pressures and trends. We believe that innovation is important not only in the buildings and places we design but the way we design and the tools we use.

We bring to this project a store house of intellectual capital harboured over a decade of working on urban design projects in Brisbane and South-East Queensland. Our expertise in the subject site and, more broadly, the macro corridor comes through a continual investment in our key urban design intelligence and research in our local context.

HASELL have developed a range of innovative creative processes that allow for short time frame design studies to engage with broad stakeholder groups facilitated by leading urban thinking. This makes for creative outcomes that have broad stakeholder advocacy underpinned by a robust intellectual rigor.

We believe this commitment to innovation is one reason we are one of the most awarded design and planning practices in Australia.

3 Innovation, Design Excellence and Creative Thinking

INNOVATIVE PROCESS

We have designed our approach to the study to meet the demanding timeframes proposed and realise the potential benefits of the project. We include in our approach a range of innovative work practices that will add value to the design process.

Collaborative approach – We propose a highly collaborative approach that harnesses the joint thinking of the team through a series of internal and client engagement design sessions. Our approach will be outcome driven, and rely upon iterative input from Internal Working Group experts and the client group to inform the development and refinement of the precinct plan.

The broader stakeholder engagement strategy has been developed to facilitate targeted feedback and direction from the key land owning and community stakeholders through two facilitate engagement workshops and a stakeholder review and feedback period.

Standing on the shoulders of giants – A large body of work has already been completed in recent years. We recognise the wealth of knowledge and insight authors of recent studies and the Working Group can offer the project. In developing our approach we have assumed that a level of access to these parties will be possible.

Radar review – As part of our commitment to quality assurance, a regular internal project review process is held which draws on the expertise, skill and experience of employees across all disciplines. This review regime is an invaluable opportunity for projects to be examined by a number of multi-disciplinary project principles, project leaders, employees with specific expertise and where appropriate external specialists.

Through the RADAR process, constructive criticism is provided which allows for the identification of any issues and provides opportunity for reconsidering and re-working any aspects of the project. After many years of implementing our review process, we have found the outcomes to be extremely positive. Not only does the review process allow our internal assets to be effectively drawn upon, but also is an essential component of the way we progress and develop projects beyond the expected.

Visually focused outputs – We suggest a process geared to the production of a highly visual precinct plan, with supporting strategies, plans, illustrations and action plan. This will avoid extensive work involved in the production of a text orientated report and allow us to focus our efforts on the production of a refined precinct plan with robust strategies.

Focused Stakeholder Engagement – We propose two focused community workshops in addition to meetings with the working group and stakeholder reference group. These sessions will be aimed at the facilitation of feedback and input to each stage of the concept development and refinement process.

A workshop-based approach – In the consideration of the demanding timeframe of the project and the range of issues to be considered, we believe a workshop orientated approach is critical to ensuring an integrated and sustainable outcome. We intend to harness the creative power of a design workshop an ideas engine early in the concept option development process, and allow sufficient time for the testing, refinement and reconfiguration of options to ensure a degree of design rigour. A workshop-based process will bring this broad ranging expertise to the table to expedite the study process and generate a more integrated result. HASSELL has the knowledge, expertise and leadership to implement innovation through a proactive and interactive process with the OUM, the working group and key stakeholders in this project.

We propose a participatory design approach through targeted workshops with the client group and stakeholders, facilitated by Andrew Hammonds. Andrew is accredited as a facilitator of Value Management Workshops, and highly experienced in producing endorsed outcomes within a limited time frame.

3 Innovation, Design Excellence and Creative Thinking

Digital modelling – With state of the art digital modeling software and more than 50 architects in our Brisbane office we have the capability to harness 3D animation technology in the exploration of alternative development scenarios for the valley. With several major projects underway in the valley and CBD we have developed a digital model to enable a greater appreciation of the central city and inner north east. This will be an important element in the testing of capacity scenarios and different built form outcomes for Bowen Hills.

It will be important to include the 3D model prepared for the Valley area, commissioned by BCC, and more recently augmented by HASSELL with the Fortitude Valley Urban Design Framework. Furthermore, it would be beneficial to include the 3D model HASSELL have prepared recently for the Roma Street precinct for the Department of Public Works. Our proposed timing, cost estimate and scope assume access to these models.

3 Innovation, Design Excellence and Creative Thinking

DEMONSTRATED INNOVATION AND CAPABILITY

Our Brisbane office and the design team assembled for the project have been involved in a range of relevant projects. Our experience locally, nationally and internationally demonstrates an ability to undertake complex projects and deliver leading outcomes for the regeneration of urban areas and inner city precincts.

Key benchmark projects we have been involved with include the following. Further details of selected projects are included in appendix 2.

Kelvin Grove Urban Village – A critical focus for the Urban Village was delivering a vital mix of education, retail and commercial uses to ensure round the clock activity and a multilayered offer and experience. Our involvement included the preparation of the original master plan and more recently the preparation of more detailed urban design guidance to supplement the direction offered in the LAP.

Role: *Master Planning, Landscape Architecture, Architecture (Creative Industries Precinct), Urban Design Guidelines, ESD Guidelines, Subtropical Design Guidelines, Urban Design Manager and Design Review Committee, and Workshop Facilitation*

Portside Wharf Master Plan – The objective for Portside was the creation of a multilayered master plan for a vibrant inner city waterfront precinct centred on an international cruise port. Work is continuing based on audience profiling to establish a long term action plan to position Portside as one of Brisbane's most visited destinations.

Role: *Master Planning, Architecture (design and documentation), Strategic Action Plan, Best Practice and Benchmarking Review*

Port Adelaide Revitalisation – This project focused on the regeneration and revitalisation of a highly valued inner city heritage precinct in collaboration with an internationally renowned urban designer Jahn Gehl. Key issues for Port Adelaide were the integration of new development with heritage buildings and the delivery of a network of urban and green spaces and a pedestrian movement network for the precinct.

Role: *Structure Planning, Action Planning, Planning Amendments, Architecture and Landscape Architecture, and Workshop Facilitation*

Waterfront City, Melbourne Docklands – This project is facilitating the regeneration of the historic wharf area and waterfront city fringe of Melbourne. Key objectives were to deliver a city scale gathering space, and strong connections to the existing pedestrian network of the CBD. The integration of significant new buildings and a critical mass and mix of active uses is a critical element in delivering vitality to this new city fringe precinct.

Role: *Master Planning, Architecture (design and documentation), Landscape Architecture, Best Practice and Benchmarking Review*

Perth Waterfront – This project is positioned at the edge of the core urban areas of Perth and focuses on the redevelopment of a brownfield site. The objective was to stitch a mixed-use residential precinct back into the existing urban core and facilitate connections to the Perth Water and Swann River. A range of building form and height scenarios were explored to determine the most desirable levels of enclosure and definition of public spaces.

Role: *Master Planning, Architecture (design and documentation), Landscape Architecture*

Northbank – The objective for Northbank was to recapture the riverfront for the residents, workers and visitors to the CBD. The creation of an attractive, convenient and legible movement network combined with the delivery of new urban spaces and a mix of uses was the driver for the masterplan.

Role: *Structure Planning, Architecture, Landscape Architecture, and Workshop Facilitation*



Waterfront City, Melbourne



Perth Waterfront, Perth

3 Innovation, Design Excellence and Creative Thinking



Darwin Waterfront, Darwin

Valley Metro Redevelopment – Positioned above the Fortitude Valley railway station this significant development site sits at the heart of the pedestrian and public transport network of the Valley. Key challenges for the project are the integration of new buildings into the existing characterful urban fabric and delivery of a mix of uses to activate this part of the precinct.

Role: *Architecture (design and documentation), Planning, Urban Design, Landscape Architecture, Best Practice and Benchmarking Review*

Boggo Road Gaol – This study was underpinned by targeted consultation with the community, business and research sectors. The master plan sought to deliver a mixed use and knowledge based research precinct in Brisbane's inner south and to integrate new development with significant heritage buildings. A key issue was to strike a balance between market divers for efficient building footprints and placemaking objectives for a fine grained urban outcome .

Role: *Master Planning, Architecture (design and documentation of KBRB Building), Best Practice and Benchmarking Review, and Workshop Facilitation*



Port Adelaide, Adelaide

Darwin Waterfront – A significant redevelopment of the Darwin Harbour. Careful integration of the architectural proposals with the existing city fabric was achieved through a master plan sensitive to the latent urban structures of Darwin City. HASSELL's ongoing role as Master Planners and Architects, will see Stage 1 completed in 2009, including significant medium density residential and Darwin's signature Entertainment and Convention Centre..

Role: *Master Planning, Architecture, Landscape Architecture, Best Practice and Benchmarking Review*



140 William Street, Perth

140 William Street, Perth – The redevelopment of 140 William Street is one of the most significant construction projects in Perth. This exciting mixed use development will tower above the new underground railway platforms on William Street and bring new life into Perth's retail centre. Unveiling a scale-model of the development, Planning and Infrastructure Minister Alannah MacTiernan said "The 140 William Street project achieved a host of urban planning goals, including restoring heritage buildings, setting new standards in energy and water efficiency and intensifying development around the railway stations."

Role: *Master Planning, Architecture (design and documentation), Landscape Architecture, and Workshop Facilitation*

Gold Coast Rapid Transit Project – As the urban design advisors for the GCRT, a key task has been to maintain a balance between the imperative for an efficient city wide transit system and the need to nurture engaging, pedestrian friendly and locally distinctive places.

Role: *Urban Design, Architecture, Landscape Architecture, Best Practice and Benchmarking Review, and Workshop Facilitation*



Ningbo City, China

Darra, Richlands and Ellengrove Urban Design Charrettes – A two day enquiry by design process was facilitated to explore the future location of stations on the Springfield line extension. The delivery of transit supportive land use and urban design outcomes underpinned the development of precinct plans surrounding each station – including heights, densities, pedestrian and vehicular movement 'layers'.

Role: *Master Planning, Architecture, Landscape Architecture, Best Practice and Benchmarking Review, and Workshop Facilitation*

Ningbo City Plan – Won as a major international design competition, the master plan for the new city of Ningbo is an ongoing project for HASSELL. As a new city for 2.5 million people, the master plan builds on existing urban structures based around the Yangtze River delta canal networks and will become the new 'Venice' of China.



Resources and Staff

4 Resources and Staff

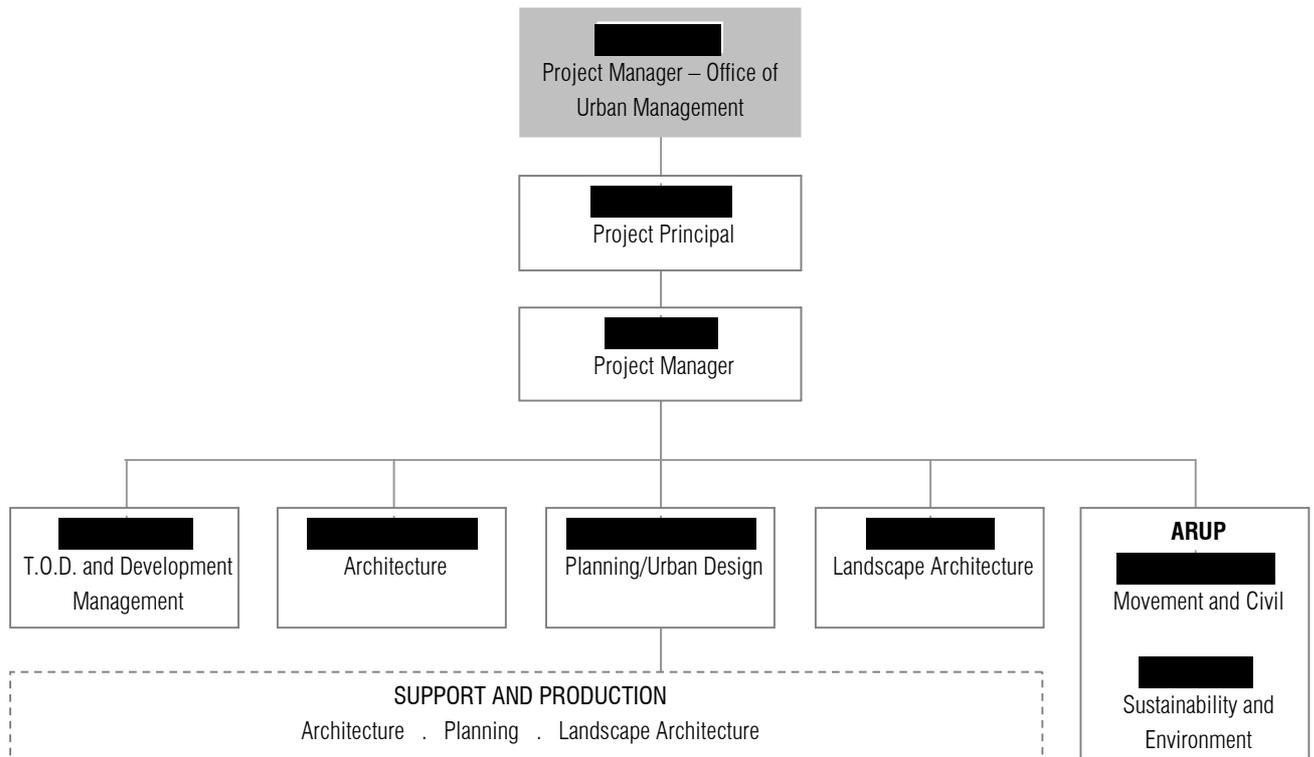
HASSELL has demonstrated, at the highest levels within Government and the private sector, the ability to deliver projects of outstanding design quality, on time and budget. Strong leadership has been essential to this outcome.

Peter Edwards and Toby Lodge will lead the Design Team for the urban planning of Fortitude Valley. Both Peter and Toby bring to the project extensive expertise in urban regeneration and a proven track record of delivering projects.

Working with Peter Edwards, Toby will be responsible for the day to day running of the project. He brings with him two years experience in town centre and city regeneration in London and UK combined with 7 years of master planning experience in Queensland and northern NSW.

is a range of specialists from the HASSELL disciplines of Architecture, Landscape Architecture, and Planning. This includes the national design expert Christopher Wren who has more than 30 years experience and Chris Melsom, who was previously an Executive Director of E.P.R.A.

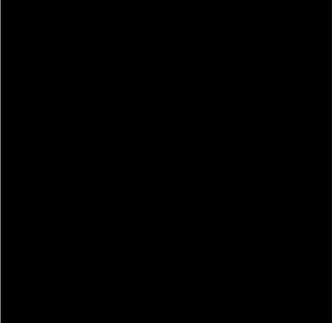
ARUP will support the HASSELL design team with technical input to the site analysis and design development and refinement stages of the project. ARUP will provide input in relation to Traffic and Transport, Environment and Sustainability, Civil and Infrastructure and high-level geotechnical advice.



Project Interests

HASSELL acting in the role of 'Busway Planning' for the Northern Busway project.

4 Resources and Staff



██████████ – Principal Architecture, HASSELL

Role: Project Principal

██████████ has been with HASSELL since 1998 and has over 15 years of experience in award winning architecture and urban design projects. ██████████ has is a recognised urban design leader combining years of work on major projects with key involvement in urban design professional bodies. He is regularly sort as a design team leader, authors and facilitates workshops for UDAL, RAIA, BDA, Dept of Transport, Project Services and other government and non-government bodies. In 2001 he authored and convened the UDAL/BDA North Bank Urban Design Workshop, which set new benchmarks for participatory, enquiry by design workshops in Brisbane and led to the initiation by government of the North Bank Project. He has demonstrated experience with diverse and divergent stakeholder and reference groups and has experience with many third party facilitators.

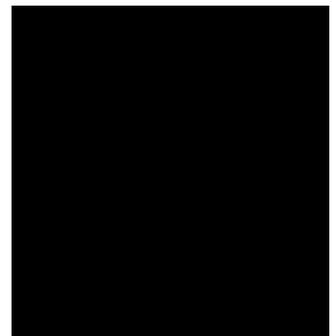
██████████ is a leading design architect at HASSELL. His focus is on an ideas based, strategic architectural process aimed at providing creative and innovative outcomes that strike a balance between poetic vision and pragmatic concerns. He developed the "Launchpad" workshop model now utilised by HASSELL nationally. He has had key involvement of many of HASSELL's award winning projects locally and interstate.

Availability: 40%

Referee: ██████████

Investa

Ph: ██████████



██████████ – Associate Planning, HASSELL

Role: Project Manager

██████████ has nearly ten years experience in the fields of master planning, feasibility, and statutory planning. He has worked on a number of significant master planning and development projects in Queensland and New South Wales, and a number of Town Centre renewal projects in the United Kingdom. His main areas of expertise are the development of master plan and development concepts for sites of various sizes, and development facilitation within the framework of Local Government Planning Schemes and the Integrated Planning Act.

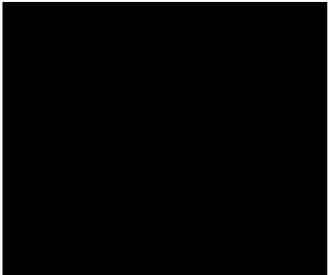
██████████ is the Project Manager for the Palmview Structure Planning Process, Westgate Structure Plan and was Assistant Project Manager for the Boggo Road Gaol Master Plan, Pathways @ Northlakes, Kangaroo Point TAFE Master Plan, and the Warwick CBD Revitalisation.

Availability: 60%

Referee: ██████████

The Hornery Institute

Ph: ██████████



██████████ – Principal of Planning, HASSELL Perth

Role – Development Management Advisor

"Prior to joining HASSELL, ██████████ was an Executive Director at the East Perth Redevelopment Authority. In addition to his planning and urban design contribution to the project ██████████ will be advising on the Development Management aspects of the plan and implementation framework."

4 Resources and Staff

██████████ – Principal Planning, HASSELL

Role: Urban Planning / Urban Design

██████████ has a broad range of experience in the public and private sectors where he has developed specialised skills in planning and design. Andrew has led several similar projects including Boggo Road Gaol precinct, the Mt Gravatt Research Park, Brisbane Technology Park, and Sippy Downs Technology Park. He will utilise his experience in Strategic Asset Management on this project.

██████████ was awarded The AV Jennings Churchill Fellowship for 2001 to investigate innovative sustainable urban development.

Availability: 20%

Referee: ██████████

Department of Housing

Ph: ██████████

██████████ – Principal Architecture, HASSELL

Role: Architecture/ Urban Design

██████████ has over 30 years experience as an architect, landscape architect and urban designer, working in most states of Australia and overseas, in the UK, USA and Asia. He has also taught in the USA and in Australia. He is Chair of the BCC Sustainability Advisory Committee and member of the Premier's Round Table. ██████████ has a wealth of experience as a former Director of our International Board, overseeing the growth of the practice into the largest multidisciplinary planning and design practice in Australasia.

Availability: 20%

Referee: ██████████

Executive Director, Strategic Projects

Ph: ██████████

██████████ Senior Associate Landscape Architecture, HASSELL

Role: Landscape Architecture/ Urban Design

██████████ is a Senior Landscape Architect and Urban Designer with over 15 years' experience. Shaun's strengths lie in the ability to interpret the initial concept ideas generated by stakeholders and community feedback into exciting, integrated, responsive and buildable design solutions. Coupled with this, ██████████ carried out research on "Supportive Environments for Physical Activity" and "Master Planned Communities". Both of these involve the integrated design of our neighbourhoods and cities, through appropriate density mix and location, community social and retail facilities, open space provisions, public transport proximity and the road network accessibility to reduce the use of the motor vehicle and in turn promote a healthier population and environment by promoting walking and cycling. This research and knowledge in this field and its application to sustainable solutions is of great assistance to all projects.

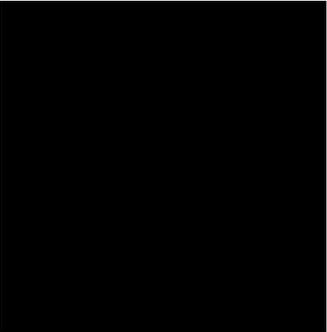
Availability: 35%

Referee: ██████████

Greenway and Banks (Project Manager for Lakeview Development)

Ph: ██████████

4 Resources and Staff



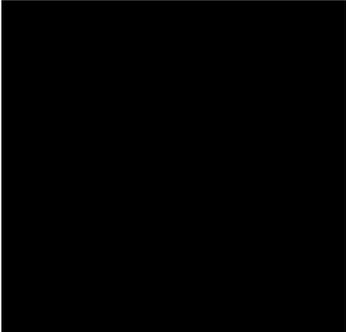
Principal Manager Transport Planning

Role: Movement

has almost twenty years varied experience in traffic engineering and road planning, manages the Brisbane office transport group. He has particular expertise in arterial road traffic management, traffic signal operations, road safety, bicycle planning, transport policy and evaluation.

has managed a number of significant projects including the current Ballymore Traffic Management Improvements, and traffic planning for the Olympic Football matches held at The Gabba. He has played a similar role on the Coronation Drive Traffic Management Study, Bicycle Brisbane Plan, Brisbane, Cairns and Singapore Convention Centres. Waterworks Road Tidal Flow Traffic Study and Beaudesert Road TRACS Study.

He also co-ordinated all engineering input from offices within Australia and Singapore into the 450,000m² Maritime Square Master Plan Project, which will include a new Singapore Cruise Terminal, new MRT Station, light rail, monorail, ferry terminal, cable car, coach terminal, bus interchange and elevated semi-expressway.



- Senior Civil Technician

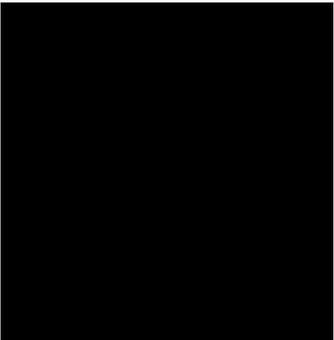
Role: Civil and Infrastructure

an experienced design technician with his role in the civil group including drawing production, supervision of design teams, providing input during planning to detailed design of all aspects of civil design.

has an excellent knowledge of road design concepts and is proficient using MX Road and Autotrack design software. He is also skilled in developing drainage and sewerage networks and then designing these with PCdrain, XP Storm and PCsewer software.

has considerable experience in master planning, concept design and detailed design of subdivisional infrastructure. He also carries out site inspections and has a familiarity with the superintendent's role during construction.

He also prepares and compiles documents for tendering purposes and provides clients with feasibility studies which include preliminary layouts, services search, preliminary design, quantity schedule preparation and costing of all items. He is also proficient with MS Project to develop programs from the concept phase right through to construction completion.



- Environmental Consultant

Role: Environment, Sustainability and Infrastructure

s an Environmental Consultant in the Arup Brisbane Office. Since joining Arup in 2004 has had a major role in several planning studies for large infrastructure projects and has also gained experience in environmental auditing, sustainability assessment and the preparation of Major Development Plans for airport projects.



Kelvin Grove Urrah Villane Brisbane

Project Management, Program and Fees

5 Project Management, Program and Fees

Project Management

Peter Edwards will be the Principal responsible for the overall delivery of the project and definition of key design directions. Toby Lodge will manage the day to day operation of the project including fortnightly progress reporting and the preparation of a Project Quality Plan which establishes the protocols and work planning for the project.

Our weekly project reviews and fortnightly status reporting ensure that projects remain on time, on budget and to the expected standard, and enable the proactive management of any issues that may be arising on a project. We also implement annual Client Surveys to ensure our current and ongoing clients have an opportunity to provide positive or negative feedback.

HASSELL are QA accredited and follow standard project initiation, review and refinement methodologies that ensure projects are well coordinated and managed. Further detail of our QA system is outlined below.

Programme

We have developed our approach to the study to meet the requirement for the visioning workshop to be held in mid June and deliver the Draft Concept Plan report by mid July. An indicative programme is included below for discussion and confirmation at the initiation meeting.

BOWEN HILLS DEVELOPMENT CONCEPT PLAN INDICATIVE PROGRAMME		JUNE				JULY				
		1	2	3	4	1	2	3	4	
	Client Reporting (Progress Report or Working Group Meeting)	★		★		★		★		★
1.0	Site Analysis, Opportunities and Constraints	■								
2.0	Vision Workshop			▲						
3.0	Draft Concept Development			■						
	Internal Design Workshop			▲						
4.0	Concepts' Review and Assessment (Refined Concepts Report)				■					
	Stakeholder Reference Group							▲		
5.0	Preferred Concept Development					■				
6.0	Concept Plan Community Workshop								▲	
7.0	Finalisation of Concept Plan								■	
	Final Report and Presentation									▲

Task
 Progress Reporting
 Workshop

5 Project Management, Program and Fees

CAPACITY

Based on the proposed timescale and scope of work we are able to confirm that the nominated staff and support staff will be available to complete the commission.

With significant demand for planning and design services we are committed to ensuring our projects are adequately resourced with the appropriate staff to complete the job on time, within budget and to the expected standard.

HASSELL believe strongly in the consistency of the client contact and project team. This promotes greater effectiveness and efficiency and ease of communication with the client. In order to maintain our project teams we hold weekly meetings to review project resourcing, progress against agreed programme and other emerging commitments. Importantly, new projects and their resourcing requirements are considered during the bid stage to minimise disruption to other projects.

5 Project Management, Program and Fees

Fee Estimate

The fees estimate is based on the scope of work and key personnel outlined above. The following fee structure is proposed for this commission.

ARUP will be engaged to provide desktop and strategic engineering advice to support the design team. As the extent and currency of available information is to be determined, a notional lump sum fee has been allocated to enable a desktop review of the information available and high level engineering advice through the course of the project. The need for further detailed investigations will be identified during the site analysis stage of works and completed subject to further agreement.

FEE SUMMARY	HASELL	ARUP
STAGE 1 - SITE ANALYSIS	\$27,000	\$8,000
STAGE 2 - VISIONING WORKSHOP	\$6,000	\$2,000
STAGE 3 - DRAFT CONCEPT OPTIONS	\$30,000	\$6,000
STAGE 4 - CONCEPTS REVIEW AND ASSESSMENT	\$10,000	\$2,000
STAGE 5 - PREFERRED CONCEPT DEVELOPMENT	\$15,000	\$1,000
STAGE 6 - CONCEPT PLAN COMMUNITY WORKSHOP	\$8,000	N/A
STAGE 7 - FINAL MASTER PLAN	\$10,000	\$1,000
Subtotal (exclusive of GST)	\$106,000	\$15,000
Disbursements: Printing and office costs		\$6,500
Flights and Accommodation (Chris Melsom)		\$4,500
3D model (by bureau or HASELL)		\$15,000
Subtotal (exclusive of GST)		\$25,000
TOTAL (EXCLUSIVE OF GST)		\$146,000

Hourly Rates

<i>Key Personnel</i>	<i>Hourly Rate (exc. GST)</i>	<i>Hourly Rate incl. GST</i>
██████████ Principal Architecture	\$220	\$242
██████████ – Associate Planning	\$160	\$176
██████████ – Principal Planning	\$220	\$242
██████████ – Principal Architecture	\$250	\$275
██████████ – Principal Planning	\$220	\$242
██████████ – Senior Associate Landscape	\$180	\$198

5 Project Management, Program and Fees

Fee Conditions

The conditions defined in our proposal are as follows.

- Changes to substantially completed work due to causes beyond our control shall attract additional fees and expenses as applicable at the project hourly charge-out rates listed.
- Should the duration of the programme or scope of work be extended for reasons beyond our control, a reasonable extension of time will be granted if required and any additional costs will be reimbursable on a pro-rata basis or based on charge-out rates as agreed at the time.
- All fees and charges (ie Scrutiny, Audit Inspection and Miscellaneous fees) or fees to other governmental or statutory authorities are not included in our fee.
- Where appropriate primary stakeholders will make available selected staff to provide input into the process at no cost to the consultants.
- Accounts will be submitted in accordance with the proposed Billing Schedule during the first week of each month for the preceding month and payment is required within 21 days of when the invoice is received.
- Key personnel will be responsible for and involved as required to complete the commission
- Client review time frames to be in accordance with the methodology, with clear review feedback / direction provided by the end of the review period and prior to proceeding with the program.

Exclusions to fees include:

- Maps, cadastral, contour and land information to be supplied by the Client or by HASSELL subject to further agreement.
- Workshop costs.
- Feedback stage allows for preparation of 'copy' and coordination of images for Newsletter.
- Project fee assumes access to internal working group and reference report authors for technical input.
- Fee proposal assumes minimal changes in Stage 10 Finalisation and Reporting.

5 Project Management, Program and Fees

Quality Assurance/ Quality Management

HASSELL's primary quality objective is to ensure that our clients' requirements for a quality project are met.

Quality is managed through an in-house quality system comprising a documented set of policies, procedures, systems and forms used for the operation of the business.

HASSELL is quality assured to AS/NZS ISO 9001:1994 and is regularly audited by Benchmark Certification Pty Ltd. Our current certification is attached and enquiries can be directed to Brisbane's Quality Manager, [REDACTED] on (07) [REDACTED]

Quality Plan

For this project a preliminary quality plan will be prepared. The plan will be updated at the start of the project and then as changes occur during the project. Its purpose is to describe the quality management practices to be adopted by HASSELL, specify the design output, identify the personnel responsible for the work and provide evidence of the process being followed by the team.

Corporate Quality Policy Statement

The business of HASSELL is design and planning. The quality and consistency of our services is the concern of all personnel. For any project, we can bring together the applicable skills from a united resource of experienced, highly trained planning and design disciplines.

With this integrated resource and the management techniques we have developed, we enjoy working in partnership with our clients to define requirements and develop innovative concepts. Through empathy, vision and rigour this process can deliver results that exceed the expectations of our clients and the requirements of society.

The HASSELL commitment to quality stems from our knowledge of how to consistently achieve positive solutions in a collaborative environment. It is requested that all levels of management and personnel actively support and contribute to the ongoing implementation and maintenance of this quality policy.

The quality and consistency of HASSELL's services are due to the rigorous and entrenched management system, which is extremely important to our practice. We regard our Quality System as an internal management system which aims to ensure the provision of our professional services consistently meet or exceed our clients' requirements.

Our management systems are regularly monitored by external and internal audits to ensure their applicability and efficiency in delivering our services on time and within budget. The structured training and assessment of our personnel is a critical activity, which assists in achieving our quality objectives.

Our quality system is client focussed. It not only meets the requirements of AS/NZS ISO 9001 but defines the way we work and the way we ensure we meet the requirements of our clients. Our engineering consultants have an equal commitment to quality management as evidenced by their PQC rating.

Contractual Matters

If successful, HASSELL needs to review the agreement on the basis of a completed Schedule, as this is required to confirm that we are able to comply with the Consultancy Services as detailed in the Invitation to Offer.



Chifley Square - Sydney

Appendices

Appendix A – Curricula Vitae

Principal

HASSELL

██████████ has been with HASSELL since 1998 and has over 15 years of experience in award winning architecture and urban design projects. ██████████ is a recognised urban design leader combining years of work on major projects with key involvement in urban design professional bodies. ██████████ is the current Vice President of the Urban Design Alliance, Queensland. Pe ██████████ a leading design architect at HASSELL. His focus is on an ideas based, strategic architectural process aimed at providing creative and innovative outcomes that strike a balance between poetic vision and pragmatic concerns. He developed the "Launchpad" workshop model now utilised by HASSELL nationally. He has had key involvement of many of HASSELL's award winning projects locally and interstate.

Qualification

Bachelor of Architecture, University of Queensland
Bachelor of Built Environment, Queensland
University of Technology

Professional Experience

Principal, HASSELL

Professional Affiliations

Vice President, Urban Design Alliance Qld
Affiliate Member, Royal Australian Institute of
Architects

Project Experience

Ipswich Law Courts Competition, Qld
Portside Masterplan, Hamilton, Qld
Cathedral Square Office Tower, Brisbane, Qld
Tribune Office Building, Southbank
Pathways at North Lakes, Brisbane
Waterfront City, Docklands, Melbourne
Kelvin Grove Urban Village, Brisbane
Westgate Structure Plan, Brisbane
Boggo Road Masterplan, Brisbane
Northbank Masterplan, Brisbane
Portside Masterplan, Brisbane
Warwick CBD Revitalisation, Qld
Millennium Library Competition, Qld
Gallery of Modern Art Competition, Qld
Brisbane Magistrates Court Competition, Qld
QUT South East Precinct Competition, Qld
Northlakes Golf Country Club, Qld
Stonequarry Golf Resort Masterplan, NSW

Urban Design Workshops

Design Team Facilitator, "Catalyse" CBD
Masterplan Workshop, 2005
Team Leader, UDAL Cairns Edmonton
Enquiry-by-Design Workshop, Department of
Transport, 2005
Author/ Convenor UDAL/BDA Northbank Design
Workshop, Qld Department of Public Works, 2002
BDA Focus Northern Corridor Charette,
Department of State Development, 2001
BDA Focus Woolloongabba Charette,
Department of State Development, 2000

Specialist Expertise

Architecture, master planning, urban design.

Awards and Prizes

1994 Artright 'Art in a Public Place' Winner
1996 UIA Convivial Spaces Design Competition,
Regional Commendation
1997 IAMA awards Finalist.

has nearly ten years experience in the fields of master planning, feasibility, and statutory planning. He has worked on a number of significant master planning and development projects in Queensland, New South Wales and a number of Town Centre renewal projects in the United Kingdom. His main areas of expertise are the development of master plan and development concepts for sites of various sizes, and development facilitation within the framework of Local Government Planning Schemes and the Integrated Planning Act.

is the Project Manager for the Fortitude Valley Precinct Planning Study, the Horton Park Golf Course Redevelopment Project, Palmview Structure Planning Process, Westgate Structure Plan and was Assistant Project Manager for the Boggo Road Gaol Master Plan, Pathways @ Northlakes, Kangaroo Point TAFE Master Plan, and the Warwick CBD Revitalisation.

Qualification

Bachelor of the Built Environment, Majoring in Urban and Regional Planning, Queensland University of Technology, 1997

Graduate Diploma of Urban and Regional Planning (with distinction), Queensland University of Technology, 2002

Professional Experience

Associate, HASSELL Brisbane 2005 to present

Urban Planner, Building Design Partnership (London, UK) 2004 –2005

Regeneration Officer and Urban Designer, Basingstoke & Deane Borough Council (UK) 2003

Senior Planner, HASSELL Brisbane 1999 - 2003

Town Planner, Gold Coast Heilbronn & Partners 1998 –1999

Professional Affiliations

Corporate Member Planning Institute of Australia (Regional Planning and Urban Design Chapters)

Judging Panel for PIA Awards, 2000 & 2001

Member Urban Design Alliance (Qld)

Specialist Expertise

Urban Design and Master Planning

Urban and Regional Planning

Development Feasibilities and Statutory Planning

Awards

PIA Award for Excellence in Planning (1999, 2006)

Conference Papers and Education
International Cities, Town Centre and Communities Conference, 2006

Subtropical Cities Conference 2006

Lecturer of Urban Design Studio, QUT 2007

Project Experience

Fortitude Valley Precinct Study (130Ha)

Horton Park / Maroochydore Master Plan (59Ha)

Gold Coast Rapid Transit Project

Darra, Ellengrove and Richlands Station Master Plans

Portside Development Proposition and Master Plan

Palmview Structure and Master Plans (800 Ha)

Bellflower Estate Master Plan (80 Ha)

Toondah Harbour Master Planning Concepts (16 Ha)

Hamilton Station Yard Master Plan (9 Ha)

Yeppoon Station Yard Master Plan (4 Ha)

Westgate Structure Plan (1,400 Ha)

Maryborough Downs Structure Plan (1,700 Ha)

Boggo Road Gaol Precinct (9 Ha)

Pathways Centre (North Lakes)

Yeppoon Civic Centre Master Plan

Kelvin Grove Urban Village, Kelvin Grove

Warwick CBD Revitalisation, Warwick

Caloundra CBA Built Form Modelling

Kangaroo Point TAFE Development Feasibility

Proximity mixed use development, Sydney

Design Guidelines for 'Telco' Facilities, Australia

During a 2 year leave of absence in the UK Toby was involved in the following projects.

Watford Town Centre Master Plan

Luton High Town Action Plan

Newbury Town Centre Regeneration

Basingstoke High Town Strategic Vision

Greenhithe Urban Design Appeal

Westminster Academy (1200 Pupils)

██████████ has over 30 years experience as an architect, landscape architect and urban designer, working in most states of Australia and overseas, in the UK, USA and Asia. He has also taught in the USA and in Australia. He is Chair of the BCC Sustainability Advisory Committee, member of the Premier's Round Table and Adjunct Professor at QUT. In addition to the management and design of large scale complex urban projects, he has specific expertise and experience in master planning and design of mixed-use urban development, commercial offices, cultural facilities, education facilities, health facilities, residential and retail projects, and a particular focus on sustainable design. ██████████ has a wealth of experience as a former Director of our International Board, overseeing the growth of the practice into the largest multidisciplinary planning and design practice in Australasia.

Qualification

Bachelor of Architecture, University of Adelaide, 1971

Master of Landscape Architecture, University of Massachusetts, 1975

Professional Licenses

Registered as an Architect in Queensland

Registered as an Architect in Victoria

Registered as an Architect in South Australia

Professional Affiliations

Fellow RAIA

Fellow AILA

Member Premier's Business Round Table

Chair, BCC Sustainability Advisory Committee

Adjunct Professor, Queensland University of Technology

Professional Experience

██████████ joined HASSELL in 1975, founded and became the Managing Director of Land Systems in 1979 and was appointed a Director of HASSELL Pty Ltd in 1985.

Selected Project Experience

He has worked on a variety of architectural, landscape architectural, planning and urban design projects including the following.

Kelvin Grove Urban Village, Qld

North Bank Master Plan, Qld

120 Edward Street, Qld

North Lakes Centre, Qld (senior school, community library and recreation centre)

Waterfront City, Docklands, Melbourne, Vic

Boggo Road Mixed Use Village, Qld

Milton Railway Station Redevelopment, Qld

South Bank Redevelopment and Carpark, Brisbane, Qld

Robina Hospital, Gold Coast, Qld

Cairns Base Hospital, Qld

Empire Theatre, Toowoomba

PA and QEII Hospital master plans, Brisbane, Qld

Coomera Charrette, Qld

Bundaberg Housing Study, Qld

Mackay Housing, Qld

East Preston Medium Density Housing, Vic

Bundaberg Aged Care Housing, Qld

The Range Residential Development, Williamstown, Vic

Kensington Banks Medium Density Housing, Vic

Beacon Cove Residential Development, Vic

Portside Development, Qld

University of Queensland, Multi-storey Carparks

Melbourne Central, Vic

Leigh Creek South New Town, SA

River Torrens Co-ordinated Development Scheme, SA

Awards and Prizes

Since joining HASSELL, he has been instrumental in winning numerous awards from professional organisations for projects such as the Kelvin Grove Urban Village, 120 Edward Street, Margate Foreshore (Redcliffe), Empire Theatre in Queensland, Werribee Zoo in Victoria, Noarlunga Regional Centre in SA, Craigburn and numerous residential estates, the Crafers / Adelaide Highway, Enfield Medium Density Housing in SA, The Range residential project in Victoria and the River Torrens Linear Park and Flood Mitigation Project in SA.

is a Principal with HASSELL responsible for Planning and Urban Design in our Perth office. He is responsible for establishing HASSELL as a key name in the Perth market for the provision of town planning, urban design and master planning services, both through the significant existing skill base within the local and national HASSELL team, and the growth of these key areas within Western Australia. He has specialist skills in urban design, project and strategic planning; and team coordination with particular strength in master planning and urban design of major urban redevelopment projects. His key roles have included that as Executive Director, East Perth and Subiaco Redevelopment Authorities.

Qualifications

Bachelor of Architecture (Hons), Curtin University
Bachelor of Arts (Hons) Urban and Regional
Planning, Curtin University
Registered Architect (Western Australia)

Professional Affiliations

Member, Royal Australian Institute of Architects
Member, Planning Institute Australia
Australian Association of Planning Consultants
Committee Member 1996, 1998, 1999, Western
Australian Civic Design Awards
Judge 1997, Architecture Awards
Urban Design Forum
Inner City Housing Developers Association
Australian Institute of Urban Studies

Project Experience

Perth Cultural Centre Urban Renewal Strategy
Hope Valley Wattleup Structure Planning
Cocos Keeling Islands Resort Consultancy
Procurement
Noalimba Joint Venture Proposal Assessment
Perry Lakes Stadium Redevelopment Joint Venture
Proposal Assessment
Wanneroo Regional Town Centre Museum, Art
Gallery and Library Concept Plan
Bunbury Outer Harbour Redevelopment Preliminary
Feasibility, Due Diligence and Master Planning
Albany Foreshore Redevelopment Preliminary
Feasibility, Due Diligence and Master Planning

EPRA Gateway Precinct Master Planning, Project
Business Case, Land Acquisition and Project
Implementation

The Village Northbridge (Redevelopment Area)
Subdivision Planning and Implementation.
Secondment to Minister for Planning and
Infrastructure as Principal Policy Officer and
Projects Advisor

Specialist Expertise

Urban design, project and strategic planning, and
team coordination with particular strength in master
planning and urban design of major urban
redevelopment projects.

As discipline leader of planning for HASSELL, and Principal of the Brisbane office [REDACTED] oversees one of the truly International planning teams. He has more than 15 years experience in urban planning and urban design in Queensland, in the public and private sectors. The current President of the AIUS (Qld Division), he has taught design and planning and presented papers at several national and International conferences. He has extensive experience with major projects including the Palmview Structure Master Plan, Pathways@North Lakes and the award winning master plan for the Kelvin Grove Urban Village. Andrew was awarded The AV Jennings Churchill Fellowship for 2001. He is recognised for his role in promoting sustainable development within South-East Queensland.

Qualifications

Master of Built Environment (Urban Design), 1998, QUT.

Graduate Diploma in Urban and Regional Planning, 1992, QUT.

Graduate Certificate of Strategic Asset Management, 1999, University of Canberra.

Bachelor of Science (Australian Environmental Studies), 1990, Griffith University.

Professional Experience

Manager Planning, HASSELL 2000

Senior Planner, Department of Public Works

Planner, Brisbane City Council

Planner, Dept of Local Government and Planning

Professional Affiliations

Chairperson of the AIUS (Qld Division)

Member, Royal Australian Planning Institute

Committee Member of the Urban Design Alliance of Queensland (UDAL)

Member UDIA (Qld)

Project Experience

Horton Park Master Plan, Maroochydore

Gold Coast University Hospital

Tutong Waterfront Masterplan, Brunei

Maryborough Downs Structure Plan, Hervey Bay

James Cook University Master Plan, Townsville

Ripley Valley Town Centre, Ipswich

Palmview Structure Plan, Sunshine Coast

Boggo Road Gaol Master Plan, Brisbane

Kelvin Grove Urban Village Master Plan, Brisbane

KGUV – Urban Design Manager, Brisbane

Pathways@North Lakes

Aitkenvale LAP, Townsville

Palmerston Recreation Centre, Darwin

Brisbane Suburb Improvement Strategy

Barrier Reef Institute of TAFE – Infrastructure Options

Cronulla Leagues Club Master Plan, Sydney

Flagstone Creek Master Plan, Beaudesert

Emu Park Town Centre Concept, Emu Park

Brisbane Technology Park Redevelopment Plan

Southern Pacific Sands Master Plan, Ningi

Mt Gravatt Research Park Master Plan Review

Emerald CBD revitalisation, Emerald

Kangaroo Point TAFE Development Assessment

Warwick CBD Revitalisation, Warwick

Seaview Height Subdivision Plan, Gladstone

Sunshine Coast Knowledge Precinct Structure Plan

Specialist Expertise

Urban Planning, Urban Design, Master Planning,

Project Management, Workshop Facilitation,

Community Consultation, Strategy Development,

Development Facilitation, Urban Design Manager,

Awards

The Award of a Churchill Fellowship (AV Jennings), tenable in 2001

Commendation for the "Sustainable Process" - RAPI (Qld Division) Awards for Excellence, 1998

Conference Papers

7th ICTC Conference – 06, Newcastle

NZPIA 06 National Congress – Gold Coast

6th ICTC Conference – 05, Yeppoon

AILA 04 National Conference, Brisbane

PIA National Conference – 04, Hobart

Urbanism Down Under – 03, Auckland

ATEM/AAPA 02 Conference, Brisbane

Nat. Conference of Aust. Universities, 02, Melbourne..

Study Tours

2006 James Hardie Streetscape Study Tour – USA

2001 Sustainable Urbanism – USA + Europe

Advisory Panels

BCC TradeCoast Central Evaluation Panel 2005

Publications

BDP Case Study Nov 05, "Kelvin Grove Urban Village"

Teaching

Planning/design - subject coordinator 2007 QUT

██████████ holds a Bachelor of Regional Town Planning from the University of Queensland (Honours), is the recipient of several academic excellence awards and has practiced in both the private and public sectors. ██████████ has experience in statutory planning, with expertise in the preparation of development applications. ██████████ also has experience in regional planning, having been involved in large-scale developments and regional planning research projects in South East Queensland. ██████████ exposure to both regional planning and development assessment provides valuable input into company projects.

Qualification

Bachelor of Regional Town Planning, University of Queensland, 2003 (Honours)

Professional Experience

Town Planner, Delfin Lend Lease
Urban Planner, Brisbane City Council
Planner, Hassell

Professional Affiliations

Planning Institute of Australia

Project Experience

Since joining HASELL, ██████████ has been involved in the following projects:

- Kelvin Grove Urban Village
- Valley Metro
- Gold Coast Rapid Transit Project
- Due Diligence

Prior to HASELL, ██████████ has been involved in:

- Development Assessment (South-Brisbane City Council)
- Forest Lake (Masterplanned Community)
- Varsity Lakes (Masterplanned Community)
- Yarrabilba (Proposed Masterplanned Community)
- Springfield Lakes (Masterplanned Community)
- North New South Wales Development Proposals
- South-East Queensland Regional Planning Research Projects

Specialist Expertise

- Statutory Planning
- Regional Planning
- Project Management
- Due Diligence
- Community Consultation

Published Articles

Planning Institute of Australia, Queensland Planner, June 2005 Vol 45 No 3, *Transit Oriented Developments: Are they the solution to Brisbane's Infill Dwelling Target?*

Planning Institute of Australia, Queensland Planner, June 2005 Vol 45 No 3, *Brisbane Built Form Density Study*

Awards

The Planning Institute of Australia, Queensland Division, Prize 2002

University of Queensland, Town Planning Thesis Prize 2003

University of Queensland, Award for the Best Final Year Advanced Planning Project Report 2003

University of Queensland, Academic Excellence (2002,2003)

is a Senior Landscape Architect and Urban Designer with over 15 years' experience. strengths lie in the ability to interpret the initial concept ideas generated by stakeholders and community feedback into exciting, integrated, responsive and buildable design solutions. Coupled with this, carried out research on "Supportive Environments for Physical Activity" and "Master Planned Communities". Both of these involve the integrated design of our neighbourhoods and cities, through appropriate density mix and location, community social and retail facilities, open space provisions, public transport proximity and the road network accessibility to reduce the use of the motor vehicle and in turn promote a healthier population and environment by promoting walking and cycling. This research and knowledge in this field and its application to sustainable solutions is of great assistance to all projects.

Qualification

Masters of Built Environment, Urban Design, QUT, 2001
Graduate Diploma in Landscape Architecture, QUT, 1991
Bachelor of Applied Science -Built Environment, QUT, 1989

Professional Experience

Senior Associate, HASSELL
Associate, SPLAT

Professional Affiliations

Associate, Australian Institute of Landscape Architects

Project Experience

Brisbane Higher Courts Design Competition, Qld
Houghton Highway Duplication, Qld

Prior to joining HASSELL, Shaun worked on the following projects.

Fernbrooke Residential Estate Master Plan, Qld
Edenbrooke Estate Master Plan, Qld
Brisbane Airport Landscape Master Plan, Qld
Number 1 Airport Drive Landscape Master Plan, Qld
Brisbane Airport Landscape Design Guidelines, Qld
Export Park Landscape Master Plan, Qld
Da Vinci Park Landscape Master Plan, Qld
Southbank Waterplay, Qld
Lakeview at Mermaid Landscape Master Plan and Stage 1 Design, Qld

Coolum Ridges Estate Landscape Master Plan, Qld
Northlakes – second lake and assoc residential Landscape Design, Qld
Bulcock Beach Master Plan, Qld
Capalaba Streetscape and Bus Interchange, Qld
Old Logan Rd, Camira Urban Centre, Qld
Milton-Roma St Strategy, Qld
Fontana Golf and Country Club, The Philippines
Serangan Island Landscape Masterplan, Bali
Goodna Centre Master Plan, Qld
Parkwood Estate Landscape Design, Qld
Isles of Newport Estate Landscape Design, Qld
Bedugal Lakes resort, Bali
Radisson Tan Jung Rhu, Lankawi Island
Keperra Sanctuary Landscape Design, Qld
Kooralbyn Valley Resort Landscape Design, Qld
Royal Pines Resort Residential Landscape Design, Qld
Waterbury Park Landscape Design, Qld

Specialist Expertise

Master Planned Communities
Environmental
Open Space
Recreational
Civic Design
Water Sensitive Urban Design

[REDACTED]

Key Data

[REDACTED] has almost twenty years varied experience in traffic engineering and road planning, manages the Brisbane office transport group. He has particular expertise in arterial road traffic management, traffic signal operations, road safety, bicycle planning, transport policy and evaluation.

[REDACTED] has managed a number of significant projects including the current Ballymore Traffic Management Improvements, and traffic planning for the Olympic Football matches held at The Gabba. He has played a similar role on the Coronation Drive Traffic Management Study, Bicycle Brisbane Plan, Brisbane, Cairns and Singapore Convention Centres. Waterworks Road Tidal Flow Traffic Study and Beaudesert Road TRACS Study.

He also co-ordinated all engineering input from offices within Australia and Singapore into the 450,000m² Maritime Square Master Plan Project, which will include a new Singapore Cruise Terminal, new MRT Station, light rail, monorail, ferry terminal, cable car, coach terminal, bus interchange and elevated semi-expressway.

Special Fields of Competence

- Traffic Management
- Traffic planning and traffic impact
- Bus priority measures
- Pedestrian and Cyclist Studies
- Urban traffic control
- Developer Contributions
- Signal Design & Co-ordination
- Mobility Studies
- Highway Feasibility Studies
- Road Safety Audits
- Strategy Development
- Urban Traffic Studies
- Public Consultation
- Expert Witness

Relevant Projects

Maritime Square Masterplan, Singapore

[REDACTED] responsible for project managing the traffic engineering input to the Masterplan for the Maritime Square Waterfront area. This project involved the redevelopment of the existing World Trade Centre Exhibition facilities into a major mixed use development. It necessitated preliminary planning of a proposed semi-elevated expressway, MRT, LRT, monorail loop, bus and coach interchanges and multi-story car parks.

[REDACTED]

Profession

Traffic Engineer

Current Position

Principal
Manager Transport Planning –
QLD/NT

Joined Arup

1992

Qualifications

BE (Hons)
MSc (Envir. Man.)

Professional Associations

Committee Member, Association
of Professional Engineers and
Scientists (Northern Territory
Branch) 1991

Member, Institution of Engineers
Australia

Awards

IEAust, Engineering Excellence
Awards 2003
High Commendation in the
Category of Project Infrastructure
for The Advanced Lane Control
System for Coronation Drive

[REDACTED]

Brisbane Convention and Exhibition Centre

[REDACTED] project managed the traffic input into the 1600 space multi-storey carpark for this \$150M project which also included structural, civil and geotechnical engineering advice. [REDACTED] provided access management, servicing and public transport arrangements, and in particular how they were integrated with pedestrian access and movement within the 25,000m² exhibition halls. [REDACTED] also prepared the traffic management plan to facilitate the construction of the Convention Centre.

Singapore Mega Exhibition Centre

Project managed the traffic advice for this 60,000 sqm Exhibition Centre. Visitor numbers and trip characteristics were carried out using observed data and EMME/2 model output. Requirements for on-site parking, bus and taxi bays were determined. A traffic impact assessment for the existing and proposed intersections in the vicinity of the site was also carried out using SIDRA 5.2 and TRANSYT8 software. Other traffic advice included vehicle and pedestrian access, road and parking layouts, off-site signage and servicing arrangements

Mount Tambourine Tourist Resort

Project manager for a proposed tourist complex incorporating accommodation units, restaurants, theatre, function rooms, rainforest walkways, glow worm cave and lookout. Advice included pavements and road layouts to minimise environmental impact on rainforest gully and the adjoining Palm Grove National Park.

Queensland University of Technology, Kelvin Grove

[REDACTED] project managed the provision of traffic and parking master planning advice for the rapidly expanding University campus in Brisbane's inner suburbs. The project included an evaluation of parking demand, location and control, together with access and circulation options in conjunction with landscape/urban design.

Princess Alexandra Hospital Redevelopment, Brisbane

[REDACTED] was responsible for the project management of this project, which involved the provision of traffic advice and preparation of various traffic management plans as part of the redevelopment of Princess Alexandra Hospital. Key issues included vehicle and pedestrian circulation and signage, parking, disabled facilities and access, servicing and emergency vehicle operations.

Indooroopilly Major Centre Plan

[REDACTED] was involved in the assessment of the impact of a major centre development in Indooroopilly. The study is to examine the road hierarchy and traffic management issues, pedestrian/cycle networks, public transport, parking and access for the major centre. To assess the impact of the centre fully, a local traffic model will be built from a comprehensive data collection exercise using the SATURN suite of transport modelling programs. The findings of the study will be incorporated into the Indooroopilly Local Plan.


Key Data

██████████ is an experienced design technician with his role in the civil group including drawing production, supervision of design teams, providing input during planning to detailed design of all aspects of civil design.

██████████ has an excellent knowledge of road design concepts and is proficient using MX Road and Autotrack design software. He is also skilled in developing drainage and sewerage networks and then designing these with PCdrain, XP Storm and PCsewer software.

██████████ has considerable experience in masterplanning, concept design and detailed design of subdivisional infrastructure. He also carries out site inspections and has a familiarity with the superintendent's role during construction.

He also prepares and compiles documents for tendering purposes and provides clients with feasibility studies which include preliminary layouts, services search, preliminary design, quantity schedule preparation and costing of all items. He is also proficient with MS Project to develop programs from the concept phase right through to construction completion.

Relevant Projects

Caloundra Regional Business Park - Qld

Arup are part of a consortium that have been commissioned to address infrastructure requirements, environmental issues and planning options for a business park south of Caloundra Road. ██████████'s role is to assess the demand and supply for water, sewer, stormwater, roads, gas and electricity to the proposed development. Innovative water recycling strategies are being addressed in the report.

Griffith University Student Accommodation - Gold Coast

██████████ was responsible for initial civil, hydraulic, and construction aspects for \$36M student accommodation facilities for the Gold Coast Campus of Griffith University. Hydraulic analysis and design included routing a large upstream catchment through the development site.

Number 1 Airport Drive Masterplanning - Brisbane Airport, Qld

The masterplanning of this development required the assessment of existing infrastructure to cater for mixed large scale retail and commercial precincts which include offices, child care, car showrooms, supermarkets, roads and carparks. ██████████'s role was to provide concept design drawings for the construction staging, road and car park layouts, bulk earthworks, stormwater drainage, water and sewer reticulation and connections of services to trunk mains. Water re-use and WSUD concepts were also proposed for the development.

Southbank Education & Training Precinct – Brisbane, Qld

Presently supporting PPP consortia bid for redevelopment of South Bank TAFE and Brisbane State High School, which involves the refurbishment, or demolition of existing buildings and construction of new buildings. ██████████'s role was to assess the existing infrastructure as well as existing overland flow paths through the site.


Profession

Design Technician

Current Position

Senior Civil Technician

Joined Arup

2001

Qualifications

Diploma of Civil Engineering

Bachelor of Civil Engineering
(Ongoing)

Professional Associations

Member, Institution of Engineers
Australia

Key Data

is an Environmental Consultant in the Arup Brisbane Office. Since joining Arup in 2004 has had a major role in several planning studies for large infrastructure projects and has also gained experience in environmental auditing, sustainability assessment and the preparation of Major Development Plans for airport projects.

Relevant Projects

2007 Fitzroy Pipeline Project

s currently working on the Fitzroy Pipeline project for the Gladstone Area Water Board. involvement includes the preparation of the initial approval documentation for the Department of Infrastructure and the Department of Environment and Water. has also undertaken desktop baseline assessments to inform the route selection and infrastructure siting. will be involved throughout the project and play a major role in the coordination of sub consultants and preparation of the Environmental Impact Statement.

2005 - 2007 Environmental Auditing

has undertaken environmental audits for a car rental facility and for two aircraft maintenance facilities at Brisbane Airport, as well periodic construction audits for the Queensland Brain Institute at the University of Queensland. has also undertaken an audit for the construction phase of the Mitchelton to Keperra rail project to ensure the measures in the Environmental Management Plan are adhered to. These audits have required site visits and thorough assessment of potential environmental impacts. was the key client liaison for the projects, and was responsible for all reporting.

2006 Margate Village Urban Development Project Environmental Assessment and EMP

This Redcliffe City Council Urban Development Project required a desk based environmental assessment and construction EMP for the upgrade of Oxley Avenue in Margate. The environmental assessment considered the relevant issues for the site including contamination, water quality and ecology. also worked with the project engineers to identify opportunities for environmental mitigation through design. The EMP detailed the measures required for successful environmental management during the construction phase to prevent environmental harm.

2005 -2006 Mitchelton to Keperra Rail Duplication

was responsible for the Environmental and Planning study for this rail project in north Brisbane. The project involves duplication of an existing rail track on the Ferny Grove Line, for which an Environmental and Planning Study and Management Plan is required under the legislation. The study has required research into the baseline conditions in the area and assessment of potential impacts and legislative requirements. also used GIS for the mapping components of the report and helped to coordinate the public consultation process. This included attendance at public displays and response to community submissions.

2005 -2006 Brisbane Airport Major Development Plans

has been involved with the reporting, research and assessment for several Major Development Plans and associated Environmental Management Plans required under the *Airports Act 1996* for Brisbane Airport infrastructure projects. This has required knowledge of the environmental issues and relevant planning and legislative requirements associated with the airport and surrounding areas.

Current Position

Environmental Consultant

Joined Arup

2004

Qualifications

M Env.Mgt.

Professional Associations

Member, Environment Institute
Australia New Zealand

Appendix B – Detailed Project Descriptions

Darwin City Waterfront, NT

Client: Northern Territory Government

The 'Darwin Cove Consortium', to which HASSELL is a key advisor and master planner, has been awarded the Darwin waterfront development project by the Northern Territory Government. The project, which focuses on a new public waterfront park for Darwin residents and visitors, includes safe, year round swimming beaches, cultural facilities and public art. Strong linkage is also provided to the Darwin CBD.

Supporting this public space is an apartment hotel, retail units, residential apartments and a convention and exhibition centre. This project will create a world class, mixed-use urban community that will rival the best waterfront developments in Australia and Asia for design excellence, amenity and desirability.

HASSELL is designing a 138 apartment mixed-use residential development; the public domain, including swimming beaches, parkland and community facilities; and a mixed-use hospitality building, comprising 141 apartment suites. HASSELL is also collaborating on the design of the new Darwin Convention and Exhibition Centre. These projects provide new typologies for urban living in Darwin's tropical environment.



Ningbo City Extension and New City Centre, Ningbo, PRC

Client: Ningbo Planning Bureau

Ningbo is a city that is growing and evolving into one of the greatest cities in China, and the world. After winning an invited international design competition in December 2002, HASSELL and Hyder Consulting were appointed by the Ningbo Urban Planning Bureau to develop urban design principles to guide the expansion of the city to the east, including a new urban core and the surrounding 39km² urban precinct. The design principles accentuate and capitalize on the unique mix of elements present in Ningbo, such as the city's maritime tradition, strong culture, river and canal system, and longstanding intellectual tradition. Features of the design include major linear parks and urban axis, a strong link to the existing city centre and a strong environmental agenda.



Waterfront City, Docklands, Vic

Client: ING Real Estate Development Australia

Waterfront City is a major mixed-use development of some 20 hectares in Melbourne's newly revitalised Docklands Precinct adjacent to the city's Central Business District and bordering Melbourne's waterfront. Waterfront City will provide a waterfront place of character and quality in which to live and work and to create a tourism asset and boost to the State's prosperity. The Development will offer some 70,000 square metres of retail space, principally on two levels, 33,000 square metres of entertainment activities including a giant ferris wheel, puppet theatres, ice-rink, cinemas and bowling alleys and approximately 500 residential dwellings generally atop the retail offering. Along with hotel, commercial, car park and public facilities, the buildings form a fully integrated urban environment with car-free streets, major public squares and parkland. Transport links include trams, buses, motor vehicles, bicycles, water craft and a ferry terminal. In line with the project's commitment to low energy use, the Development will provide a wind farm.



Kelvin Grove Urban Village Design Guidelines, Brisbane, Qld

Client: Queensland Department of Housing and the Queensland University of Technology

HASSELL has had a pivotal role in the development of the Kelvin Grove Urban Village, from early design workshops to master planning, landscape and building design. We are pleased to have an ongoing role in Kelvin Grove Urban Village, implementing the Design Guidelines HASSELL developed as Urban Design Manager. This ensures that the principles and quality of the master plan are maintained during the design and construction of the infrastructure and the buildings.

Relevant Team Members

Innovation and Design Excellence

- High density housing outcomes in a detached housing context – a leading example in Australia.
- Design guidelines to ensure architectural excellence, subtropical design, and positive urban design.
- Strong focus on public transport through integration with the busway system and minimisation of car parking provisions.
- A destination was created through a focus on cultural activities such as La Boite Theatre, boutique retail and dining, and open space recreation areas.
- Truly mix use environment integrating education, residential, commercial facilities seamlessly - also includes a high proportion of affordable accommodation.
- At the forefront of sustainability with buildings required to meet best practice green star benchmarks and ratings also applied to education facilities.
- Buildings required to engage, activate and contribute to the public realm.
- Subtropical Design Guidelines for medium density buildings – a first for Queensland.



Boggo Road Gaol Precinct Master Plan, Queensland

Client: Queensland Department of Public Works

This 9.5ha site is one of the largest undeveloped sites in Brisbane's inner city. In recognition of the importance of the site, the Queensland Government commissioned HASSELL to lead an extensive master planning study to guide its redevelopment. This study has been informed by comprehensive consultation with the community, business and research sectors. The master planning process involved site analysis, design and issues workshops and a feasibility study of the potential for the inclusion of knowledge-based research and business activity on the site. The plan facilitates a vibrant urban precinct with a mix of uses including residential, knowledge-based research and business (KBRB), and retail and conference facilities that will create a community with a distinct character and a town centre of regional appeal. Boggo Road will be a place to live, to work, to recreate and to be a part of a mutually supportive, safe and sustainable environment. This master plan complements the cultural heritage values of the site and potential for the gaol to be a museum.

Relevant Team Members

Innovation and Design Excellence

- An exemplar of public-led master planning process which recognises the importance of the culturally significant site – one of the largest undeveloped sites in Brisbane's inner suburbs.
- The Plan, supported by an extensive master planning study led by HASSELL, proposes an urban precinct with a mix of uses including residential, knowledge-based research and business (KBRB), retail and conference facilities.
- Complementing the cultural heritage values of the site and potential for the gaol to be a museum – showcasing and preserving a vestige of Brisbane's rich, historical past.

Promoting the creation of an infill community that embodies a distinct character and a town centre of regional appeal.



James Cook University – University Village Master Plan

Client: CRA Australia Pty Limited

James Cook University is reviewing its position to create a vision for its future that optimises the assets of the University and integrates it with the wider community. The University's aspiration is to promote "a sense of local ownership of the university". JCU's vision is "to be acknowledged by 2010 as one of the top five universities in the world enhancing life in the tropics through education and research." The overriding objective of the master plan for UV is to support JCU in its vision by providing the catalyst for a built environment with the amenity expected of a leading tropical university. JCU intends to use commercial and residential development of its land resource at Douglas Campus as a principal source of funds to achieve the vision.

The master plan is to provide direction for the development and refinement of the campus for the next 20 years in the context of the UV project and in line with JCU's academic and social goals, capturing the potential for significant qualitative gains for Douglas Campus as well as research spinoffs. It is supported by a separate Strategic Asset Management Plan which will provide the necessary financial and implementation inputs to allow JCU to develop its strategic business plan for UV.

Relevant Team Members

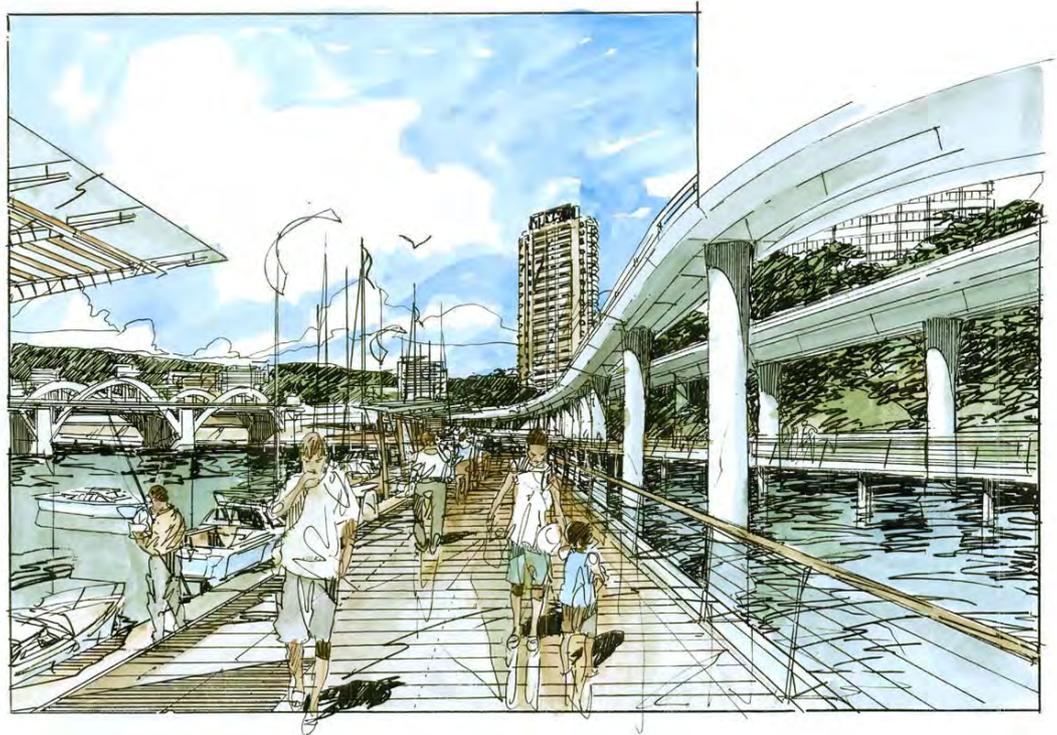


North Bank

Client: Bovis Lend Lease

North Bank Master Plan will change the face of Brisbane and the way the CBD interacts with the River. As such it is an extremely significant urban design strategy that will encourage greater use of the waterfront, provide continuous bicycle paths and a waterfront promenade, accommodate recreation facilities and a mix of tourist, retail, residential and commercial uses. These facilities, along with improved access from the CBD to the waterfront, will reinforce this important reach of the River as the primary recreational and events focus in Brisbane by complementing South Bank, encouraging greater use of the River and mitigating the impact of the Riverside Expressway. This project was undertaken in collaboration with Bovis Lend Lease and is currently under consideration by the State Government.

Relevant Team Members



Gold Coast Rapid Transit

Client: GHD

HASSELL is responsible for the urban design associated with this significant public transport initiative on the Gold Coast. As part of the team working on behalf of Translink and Gold Coast City Council, the scope includes generating design options for either Light Rail or Rapid bus modes, from Helensvale Rail Station, eastwards through to Southport, and then south, passing through Broadbeach, Burleigh and finally Coolangatta Town Centres. The design phase is expected to be complete in 2007, with Implementation of Stages 1A, 1B and 2 to be undertaken through to 2015

Relevant Team Members



Palmview Structure Plan

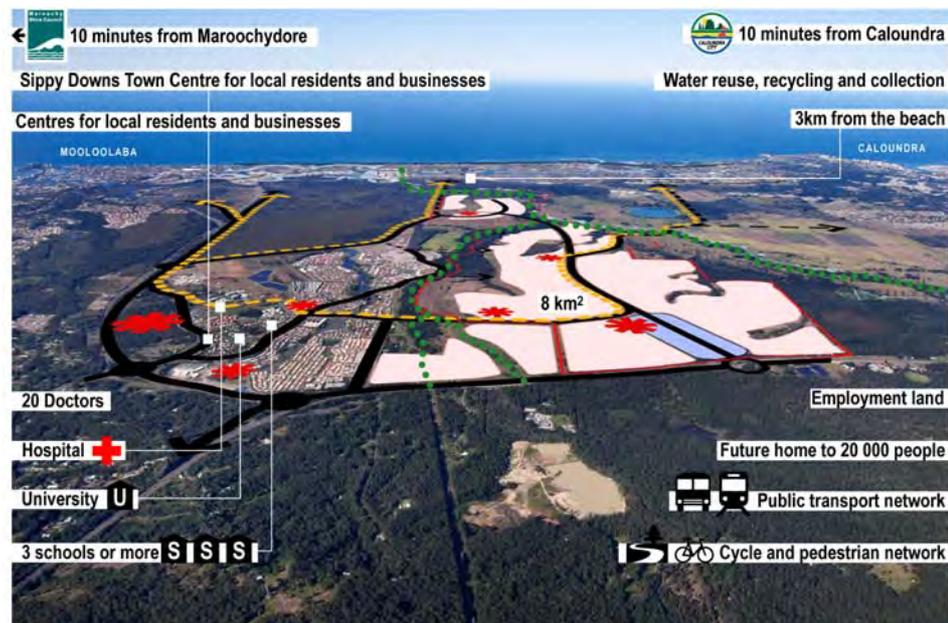
Client: Investa Property Group

HASSELL has prepared a structure plan for this 800ha site strategically positioned at the heart of South East Queensland's Sunshine Coast. The structure plan will be a key input into the Local Growth Management Strategy currently being prepared for Caloundra City. This significant development will be a flagship residential and mixed use project for Investa, with a 10 to 15 year horizon. We are working closely with the adjoining landowners and the adjacent Sunshine Coast University to integrate Palmview with this regionally important facility and the emerging town centre of Sippy Downs.

Relevant Team Members

Innovation and Design Excellence

- Achieving housing growth required to support town centre and respond to SEQ Regional Plan projections.
- Initiating public transport connections between Caloundra and Sippy Downs.
- Drawing people to the area through uses that complement the Sippy Downs Town Centre such as knowledge based research and business.
- Enhancing local waterways and making optimal use of scarce developable land.
- Detailed market understanding gained through studies on existing demographics, current trends, local opportunities, market gaps, and visioning.
- Development of a strong vision based on community, education, recreation and public transport.



Pathways @ North Lakes, North Lakes, Brisbane, Queensland

Client: Pine Rivers Shire Council

The Pathways development consists of two facilities, “Pathways Learning” and “Pathways Leisure”. The learning building was created to provide a resource for the North Lakes community to gain knowledge and skills. It consists of a library, a learning centre, community meeting rooms and tenancies to activate the ground floor. There are also technology based class rooms and a video editing suite that are to be used by Education Queensland when a school is constructed on adjacent sites. The Leisure Centre consists of a sports hall, 25m lap pool, 20m indoor heated pool and free form children’s leisure pool, along with associated changing and administration facilities. There are also additional rooms to be used by Education Queensland for fitness classes.

Relevant Team Members

[REDACTED]

Innovation and Design Excellence

- Establishing an invaluable public resource for the continuing development of North Lakes – supporting the wider community by providing the opportunity to gain knowledge and new skills.
- The two facilities support a strong commitment to delivering climate-responsive design and architecture.
- Supporting a mix of uses – the two facilities consist of a library, a learning centre, community meeting rooms and tenancies to activate the ground floor.
- Designed to support a range of other internalised uses including technology-based class rooms and video-editing suites to be used by students from a proposed school on adjacent sites.
- Strongly promoting health and well-being for all members of the wider North Lakes community.
- The buildings form a strong and legible destination for the community of North Lakes.



Aitkenvale LAP

Client: Townsville City Council

Convert one of the busiest 4 way intersections in Queensland, with big box shopping centres on either corner, into a centre, was the brief from Townsville City Council. Aitkenvale is the geographical centre for Townsville and complements the traditional main street CBD. HASSELL held a short design workshop with Council to prepare a formative option focused on a 'new' main street and hub for the centre. HASSELL has produced a Local Area Code (LAC), to be included within the Townsville City Plan to provide an overall framework of growth for Aitkenvale.

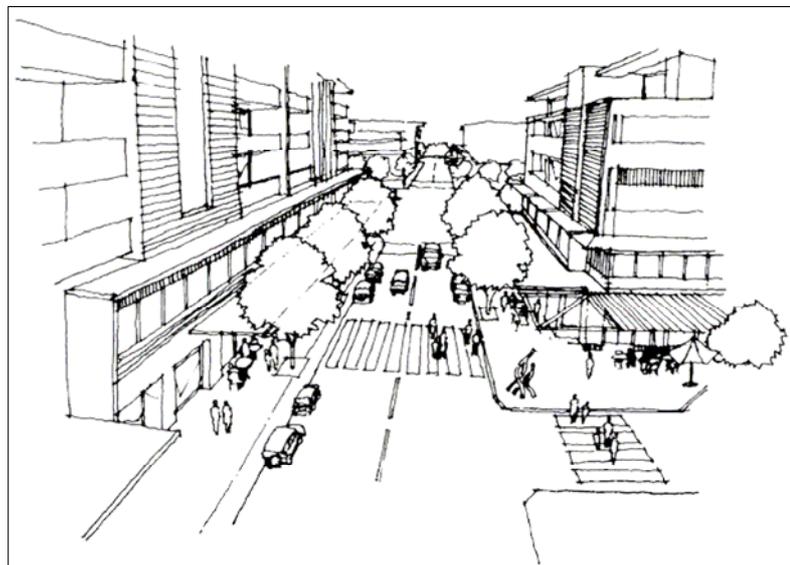
The Aitkenvale Local Area Code (LAC) promotes the growth of Aitkenvale as an important urban centre outside of Townsville's CBD. The LAC centres the hub of activity around Elizabeth Street, which will function as a "Main Street", with high emphasis on street - based activity, such as shopping, dining and gathering. Ross River Road is to be created into an inviting boulevard for pedestrians, along which the core retail and business activities will be located. The LAC promotes an increase in residential densities around the centre precincts, to support the increase in non-residential uses.

Relevant Team Members:



Innovation and Design:

- Inclusion of climatic responsive design.
- Inclusion of architects and landscape architects into code process.
- Promotion of active, pedestrian orientated edges.
- The amalgamation of blocks fronting onto Ross River Road, creating larger development sites and reducing the number of crossovers and thereby reducing potential pedestrian/ vehicular conflicts.



Emu Park Town Centre Design Guidelines

Client: Livingstone Shire Council

Livingstone Shire Council identified an opportunity to strengthen the design guidance in place for the Emu Park Town Centre. This would assist the Council to achieve the desired built form intent of the Town Centre in this growing coastal community. The Design Guidelines aim to ensure the Town Centre develops appropriately as it begins to outgrow existing planning provisions.

HASSELL was able to assist in this process by setting a robust platform from which to develop the guidelines. This included steering community consultation, site analysis, a best practice review, and identification of emerging trends for the area. The Design Guidelines for the Town Centre will fully capture the needs and aspirations of the community while also realising best practices.

Relevant Team Members



Innovation and Design Excellence

- Ensuring major vistas to the ocean area maintained and celebrated.
- Increasing densities to support a wider range of facilities and services.
- Supporting public events in Bells Park.
- Ensuring buildings engage and activate public spaces such as streets, parks and water frontages.
- Consolidating the commercial land uses to support a main street outcome.
- Promoting tropical design and ESD outcomes.



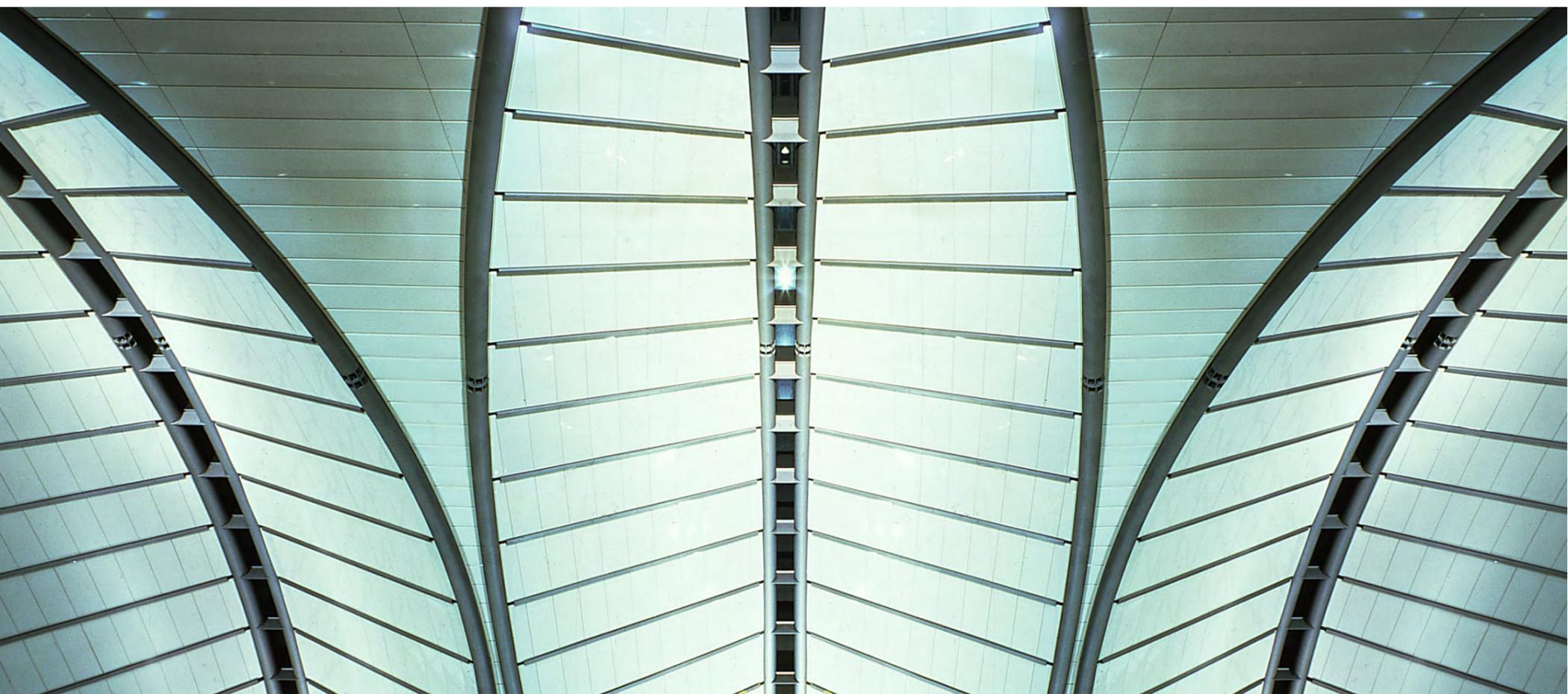
Appendix C – Infrastructure Capability

INFRASTRUCTURE CAPABILITY STATEMENT



CONTENTS

1. HASSELL
2. OUR PHILOSOPHY
3. PROJECT EXPERIENCE
4. CAPABILITY AND CAPACITY



1. HASSELL

The Company

HASSELL is a multidisciplinary planning and design practice with Australian origins that has grown into an international company.

Our areas of professional expertise are focused on architecture, interior design, landscape architecture, urban design, and urban and strategic planning.

Our values are based on the profound believe in the benefits of collaboration, and a rigorous and creative pursuit of design and technology.

Our commitment is to work with our clients to understand their needs, and by thoughtful design, achieve exceptional and sustainable design solutions.

Through these processes we seek outcomes that are unique to their circumstances, add value and anticipate the future.

HASSELL is owned by its Principals, has been in business since 1938, and has offices in Australia throughout the Peoples Republic of China, and in Hong Kong and Thailand.

As the largest planning and design consulting practice in Australasia we have considerable resources on which to draw, with professionals with diverse expertise and capabilities.

Our Approach

HASSELL is committed to creating exceptional places for people through quality planning and design with commercial realism to add value to all forms of development for the benefit of the community and our clients.

Our disciplines contribute to the detailed execution of our work resulting in a holistic view of any planning or design project.

We are collaborative in both a corporate sense and in the way we work with one another, project managers, our clients and in association with other consultants. This strong commitment is based upon our firm belief in the synergy of group problem solving.

We are committed to providing our clients with the best possible service. Our planning and design solutions build upon their strategic and corporate aims, and this results in projects that achieve an intelligent resolution of the issues involved, suited to each client's unique requirements and financial capabilities.

Our planning and design approach is a rigorous process which has its roots in the environmental sciences and builds upon and is respectful of the context and culture in which each project is located. It also involves good management and extensive quality control procedures at all stages of a project.

Our approach has led us to be involved in a wide variety of commissions. Through experience, research and testing we approach projects from first principles and as a result have often established the bench mark for particular project types.

2. OUR PHILOSOPHY

A guiding philosophy of HASSELL is that the most successful outcomes are achieved by a collaborative approach in which our clients and consultants are engaged in the design process.

We firmly believe that the synergy created by working with a team produces a better result than the sum of the individual efforts.

Our strength lies in the quality and diverse experience of our personnel, our commitment to collaboration as a creative problem solving technique and our dedication to the provision of the highest possible standard of service and adding value to our clients projects and opportunities. This is reflected in our multi-disciplinary team of professionals which has the necessary range of skills to undertake large and complex projects.

Our planning and design approach is a rigorous process which has its roots in the environmental sciences and builds upon and is respectful of the context and culture in which each project is located. It also involves good management and extensive quality control procedures at all stages of a project.

We believe good planning and design are the thoughtful arrangement and the making of places which reveal new insights into society and are a reflection of our time. Therefore each project demands invention to evolve a unique but appropriate solution. Each project has its own story to tell. As a result of our inclusive attitude and approach to our work we believe we are able to arrive at pragmatic and cost effective, yet innovative and culturally significant contributions to the environment.

The diversity of our work and consistent quality are evident of our broad minded and totally committed attitude to our work and serving our clients' corporate, strategic and financial objectives.

We also believe that good designs which are appropriate for clients, are a result of understanding the culture of the client's organisation and ensuring the product is appropriate to the use, function, time and place, but also client image.

While we need vision to create strong concepts, we do not promote a particular style. All our projects are different from one another. Our projects result from client needs, expectations, overt directions / desires and more subtle qualitative issues.

Our process is very clear, involving simple step by step methods, requiring continuous client involvement to ensure logical decision making and the support of those involved.

3. PROJECT EXPERIENCE

Road Infrastructure Experience



Tugun Bypass, QLD

Client: Pacific Link Alliance

The Tugun Bypass is a major infrastructure project which passes through some of the state's most significant flora and fauna habitats. Currently Main Roads' most ambitious new road undertaking in Queensland, the 7km of new road will finally connect Queensland and New South Wales with an efficient, state-of-the-art motorway.

HASSELL is an integral member of the PacificLink Alliance (Abi Group/SMEC/Main Roads) that successfully won the tender to design and construct this significant project. The brief demanded a focussed strategy on integrating urban design, landscape, environment and engineering. HASSELL has now entered into the next Phase to facilitate the delivery of this project by 2008.

3. PROJECT EXPERIENCE

Road Infrastructure Experience



Cross City Tunnel and Tunnel Control Centre, Sydney, NSW

Client: Connell Wagner/ Baulderstone Hornibrook

Our design approach to the Cross City Tunnel project is informed by a series of guiding principles that we believe will promote the use of public transport and improve accessibility for bicycles and pedestrians as well as promoting street edge activity and reinforcing desired built form and street edge alignments. The Cross City Tunnel project will provide a new legible, safe and efficient road system that contributes to and enhances the visual quality of the city's built environment by addressing the form and detail of the portals where the tunnel emerges above ground in the city context.

3. PROJECT EXPERIENCE

Road Infrastructure Experience



North-South Bypass Tunnel, Qld

HASSELL was involved with the EIS and engineering phases, associated with this significant piece of infrastructure, through Brisbane's CBD. Our role was to work with the SKM/CW joint venture to generate the urban design in parallel with the engineering design, and to assess the impact of this work concurrently. HASSELL was also responsible for generating potential urban renewal opportunities, associated with significant project.



Western Distributor Amplification, Sydney, NSW

The Western Distributor is a major arterial road connecting the Sydney central business district to North Sydney and the western suburbs. HASSELL was commissioned by the Roads and Traffic Authority to assist in the design for the amplification of this viaduct, to accommodate existing and projected traffic volumes. HASSELL provided innovative concept designs in response to the constraints of the existing structure. As one of the principal gateways to and from the city, a threshold to one of the architectural and engineering icons of the Twentieth Century and the site of major redevelopment in and around Darling Harbour, this precinct demands a design response of aesthetic beauty, cohesion, clarity and delight.



M4 Motorway, Parramatta, Noise Attenuation Walls, NSW

The addition of noise attenuation walls to a motorway can be a negative and visually intrusive addition to the urban landscape. HASSELL, working collaboratively with artist Simeon Nelson, proposed an innovative solution for the design of noise attenuation walls, utilising leading edge digital design and visualisation techniques. Using a combination of extruded, colourful wall relief designs and additional artworks, together with lengths of transparent wall panels, this project will provide a visually vibrant, high quality contribution along this major viaduct.



Lane Cove River Bridge, NSW

The \$1.4 billion Parramatta Rail Link is the NSW government's flagship infrastructure project. Our concept design for the Lane Cove River crossing comprises a 235 metre long, low level, triple span, concrete finger arch bridge. The tapered and trapezoidal arches and columns spring from 'tree' forms on the valley floor to support the deck at 35m intervals.



Melbourne Park Footbridge, Melbourne, VIC

An elevated pedestrian walkway some 315 metres in length connects Melbourne Park with the western edge of the MCG. The footbridge provides a sheltered pathway over the barrier of the Richmond rail and tram corridor and Brunton Avenue, encouraging north-south pedestrian movement and serving major events in the precinct stadia.

3. PROJECT EXPERIENCE

Rail, Bus and Interchange Experience



Trackstar Alliance, Varsity Lakes, Qld

Client: Queensland Rail, Queensland Transport, Translink

Recently HASSELL was selected as the Architect for the TrackStar Alliance. The Alliance, made up of QR, Thiess, United Group, Maunsell Australia and Connell Wagner, is tasked with an initial four complex rail projects in South East Queensland worth around \$700 million. One of the key projects we are working on with the Alliance is the design and construction of the extension to the Gold Coast rail corridor, including Varsity Lakes Station. Our work with the Alliance builds on our previous rail experience and our understanding of integrating rail, bus and vehicular transport modes. Over the coming years HASSELL will be part of the team delivering integrated public transport solutions on the Gold Coast.

3. PROJECT EXPERIENCE

Rail, Bus and Interchange Experience



Gold Coast Rapid Transit

Client: Translink

HASSELL is responsible for the urban design associated with this significant public transport initiative on the Gold Coast on behalf of GHD, working with Translink and Gold Coast City Council. The project includes generating design options for either Light Rail or Rapid bus modes, from Helensvale Rail Station, through to Southport, and then south passing through Broadbeach, Burleigh and finally Coolangatta Town Centres. The design phase is expected to be complete in 2007, with implementation of Stages 1A, 1B and 2 to be undertaken through to 2015.

3. PROJECT EXPERIENCE

Rail, Bus and Interchange Experience



Vulture Street Railway Station Upgrade, South Brisbane, QLD

Client: Queensland Rail

Queensland Rail commissioned HASSELL to design and document the upgrade of the existing Vulture Street railway station (recently renamed South Bank station). With a limited palette of materials made available by the client, HASSELL chose vitrepanel and ceramic tiles to clad the lift structures and ticket office. Plate steel was used for the canopies over the lift doors. The upgrade involved the construction of two new lifts from Vulture Street to the station platforms below; a new lift from the platform to a tunnel link to Colchester Street and South Bank TAFE; new platform shelters; a new ticket office; and new signage structures.

3. PROJECT EXPERIENCE

Rail, Bus and Interchange Experience



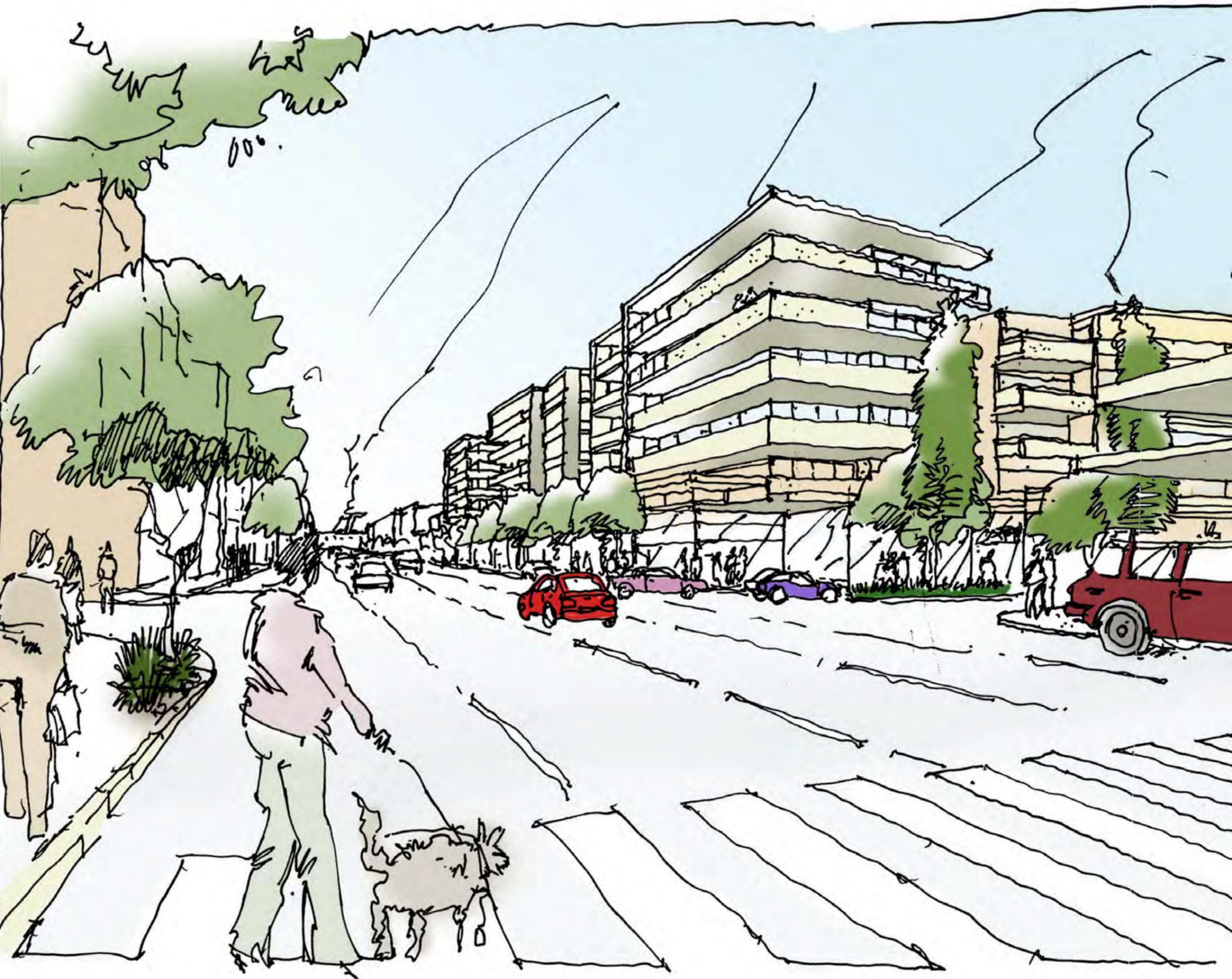
Perth Metrorail, Perth, WA

Client: Perth Transit Authority

HASSELL is undertaking the design and documentation of two new stations in Perth for the Leighton/Kumagai Gumi Joint Venture. The stations will establish a new benchmark in station design for Perth and draw upon the extensive experience of the firm on rail projects in Asia, Sydney and Melbourne.

3. PROJECT EXPERIENCE

Rail, Bus and Interchange Experience



Queensland Rail Feasibility Studies, QLD

Client: Queensland Rail

A range of master planning and feasibility studies have been undertaken for QR to explore opportunities for the redevelopment of underutilised land. The range of projects has included land immediately surrounding railway stations, surplus operational land and land remaining after infrastructure improvement works.

Key challenges have included the delivery of appropriate densities able to support transit systems within the existing planning and political environment; assembly of sites capable of achieving critical mass and delivering a coherent and rewarding urban outcome; and achieving commercial objectives within the constraints associated with development adjoining rail infrastructure.

The approach adopted for each project varied depending upon the specific circumstances and opportunities presented by each site.

An emphasis was placed upon promoting access to transport infrastructure, CPTED, the delivery of higher density development in appropriate locations to support public transport and the delivery of a high public realm. The delivery of an appropriate built form and fabric in each area was also a key driver.

3. PROJECT EXPERIENCE

Rail, Bus and Interchange Experience



Olympic Park Station, Homebush Bay, Sydney, NSW

Client: SOCOG

The Olympic Park Station forms the major public entrance to the Homebush Bay Olympic Park site. Three 200 metre long below-ground platforms and uni-directional stairs, escalator ramps and lifts provide a design throughput of 50,000 passengers per hour. The station design has a clear and direct expression of structure and function, with a delicate elevated steel canopy providing a distinctive character. The large volume space is dramatically illuminated and is contiguous with the adjoining public square. Appropriate use of materials and refined detailing raises the building above the ordinary, combining space, structure and light to create a memorable passenger experience.

Awards

- 1999 Australian Institute of Landscape Architects (NSW and ACT State Groups) Awards – Design Merit Award, Category – Urban and Civic Design*
- 1999 Australian Institute of Steel Construction (New South Wales) Awards – Architectural Steel Design Award*
- 1998 Royal Australian Institute of Architects National Awards – Sir Zelman Cowen Award for Public Buildings*
- 1998 Royal Australian Institute of Architects National Awards – Access Citation*
- 1998 Royal Australian Institute of Architects (New South Wales Chapter) Awards – Sir John Sulman Award for Outstanding Architecture*
- 1998 Royal Australian Institute of Architects (New South Wales Chapter) Awards – BHP Colorbond Award for the Innovative use of Steel in Architecture*
- 1998 Metal Building Awards – Award of Excellence*
- 1998 Metal Building Awards – Award, Category – Civil Engineering*

3. PROJECT EXPERIENCE

Rail, Bus and Interchange Experience



Epping-Chatswood Rail Line, Sydney, NSW

Client: Parramatta Rail Link Company

HASSELL completed concept designs for ten stations on the proposed Parramatta-Chatswood Rail Link for StateRail in 2000. Subsequently HASSELL has completed detailed design and documentation of four underground stations between Epping and Chatswood on behalf of the Transport Infrastructure Development Corporation.

The designs use the sculptural form of underground spaces, daylight and sophisticated lighting to aid orientation and to create a safe and secure environment. A consistent range of building elements and materials will create a new rail line with a distinct visual identity. Construction of the \$1.62b first stage of this project is well advanced and will be complete in 2008.

3. PROJECT EXPERIENCE

Rail, Bus and Interchange Experience



Parramatta Transport Interchange, Sydney, NSW

Client: Parramatta Rail Link Authority

HASSELL's involvement with the \$1.62b Epping-Chatswood Rail Line includes the Parramatta Transport Interchange.

HASSELL's role in this \$120m project, completed in early 2006, involved the preparation of a development master plan for the station environs, design and documentation of the redevelopment and expansion of the existing railway station, new surface interchange accommodating 300 bus movements per hour and adjacent commercial and retail development.

The new 4500m² station roof creates a new civic presence in Parramatta and provides welcome shade and shelter yet allows daylight and breezes to pass through the station, enhancing passenger amenity and experience.

3. PROJECT EXPERIENCE

Rail, Bus and Interchange Experience



Inner Northern Busway Package 5, Brisbane, QLD

Client: Halliburton KBR/Seymour Whyte

Section 5 of the Inner Northern Busway is a key component of Brisbane's transport link to the northern suburbs. Through considered urban landscape strategies, the Busway has been successfully integrated into a sensitive environment that includes the Victoria Park Golf Course, the Queensland University of Technology and the residents of Herston. The Bus Protection Screen responds to a complex range of issues with a simple construction system. It incorporates a series of portal frames, tensioned cables and protective mesh. The landscape strategy mitigates the impact of the Busway in a creative way and addresses functional requirements, sustainability, maintenance issues and aesthetics.

Awards

2005 Australian Institute of Landscape Architects Awards – Design Merit Award, Category - Transport and Infrastructure

3. PROJECT EXPERIENCE

Rail, Bus and Interchange Experience



Singapore Circle Line Contract 870C

HASSELL has completed design and documentation of the Bartley, Serangoon, Lorong Chuan, Bishan Street 11 and Mary Mount Stations on the Circle Line underground railway system in Singapore on behalf of the Land Transit Authority. One of the stations will be designed as an interchange with an existing railway line and several of the stations are being designed to play a role in Singapore's civil defence network.



Dandenong Transport Interchange, VIC

This award winning multi-modal transport interchange in the greater Melbourne area has been designed to service approximately 8,000 commuters daily. A two-storey exposed steel structure clad with solar tinted glass was designed by HASSELL, in association with Forbes Fitzhardinge & Woodland, to ensure ease of construction and to achieve a transparent, user-friendly facility. The station building spans existing tracks to link the island platform to the north and south of the site. Pedestrian ramps and lifts are provided for ease of access for all commuters.

In 2005 HASSELL was commissioned by the Department of Infrastructure to undertake urban design studies for the station precinct.



Homebush Bay Rail Link, Sydney, NSW

HASSELL developed the overall urban design concept for the Homebush Bay Rail Link working for the Olympic Coordination Authority. The design expresses the lineal nature of the rail corridor traversing the landscape via a series of walls, bridges and cuttings rather than relying on the earth embankments and screen planting. The project includes detention ponds which gather and clean the stormwater runoff from surrounding sites.

Subsequently HASSELL was commissioned by Leighton Contractors to design the architectural elements, walls, bridges and portals for the \$90m, 3.5km link.



North West Rail Link Concept Design, NSW

HASSELL was commissioned by SRA to undertake the concept design of the nine stations on the proposed North West Rail Link. As part of the NSW Government's Action for Transport initiative this multi-million dollar project is planned to connect the new Rouse Hill town centre at Mungerie Park to the existing Northern Line at Epping. The rail line traverses existing and proposed residential areas, major regional commercial centres at Castle Hill and Norwest Business Park and an array of existing semi-rural communities. Significantly the project is being planned in concert with the extension of the rapid bus network throughout north western Sydney.

Working closely with SRA, RTA/Transitways, Department of Transport, Rail Infrastructure Corporation, Landcom and the various local councils HASSELL has developed nine station concept designs which are integrated with the local community aspirations, the preliminary engineering designs and the complex transport interchange requirements arising from the close interaction of the Transitway and local bus systems and the proposed duplication of Windsor Road.

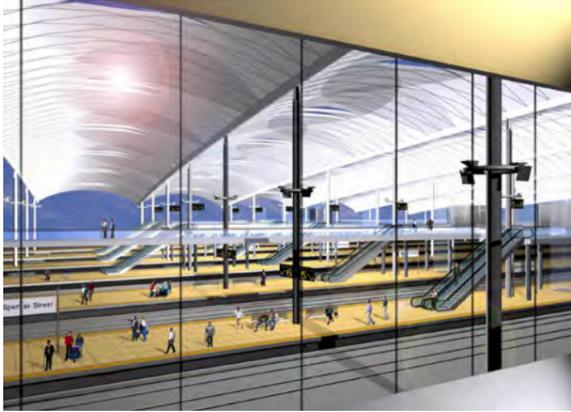


Speedrail - Very High Speed Train Stations, NSW and ACT

HASSELL was commissioned to assist in the winning submission by providing design options for the various train stations associated with the VHST link between Sydney and Canberra. The main design centred on Central Railway Station in Sydney with concentration on the connection between the existing infrastructure and the new VHST terminal. Studies were also completed on the air rights available in the vicinity of Central Station associated with the development. Other stations included Campbelltown where the station design was supplemented by studies on the Urban Infrastructure associated with connecting the station to the town.

3. PROJECT EXPERIENCE

Rail, Bus and Interchange Experience



Spencer Street Station Redevelopment, Melbourne, VIC

HASSELL was engaged by the Department of Infrastructure as architectural and urban design consultants for the proposed redevelopment of Melbourne's Spencer Street Station. The consultancy included site evaluation, site master planning, identification of commercial development opportunities and preparation of station concept design options.



Liverpool-Parramatta Transitway Stations and Station Precincts, NSW

HASSELL won a limited design competition to design the station precincts for the Liverpool-Parramatta Transitway. The key design principle for the stations is to create a system of flexible components that can be utilised across a range of sites and conditions. The station designs provide a robust, high quality station environment that is easy to maintain and provides high levels of passenger comfort and safety. The station environments incorporate the latest in Real Time Information technology, CCTV surveillance and graphic information. All the stations and their environments provide an easily recognisable, cohesive and strong visual identity to the Transitway Route.



Epping Station & Interchange, NSW

HASSELL has been commissioned to design a new station concourse and bus interchange at Epping, a major station on the Main North Link. The station will provide interchange facilities two new underground platforms, designed by HASSELL, for the Epping to Chatswood Rail Line.

The proposed design features a new elevated concourse covered by a canopy supported on structural timber 'trees'.

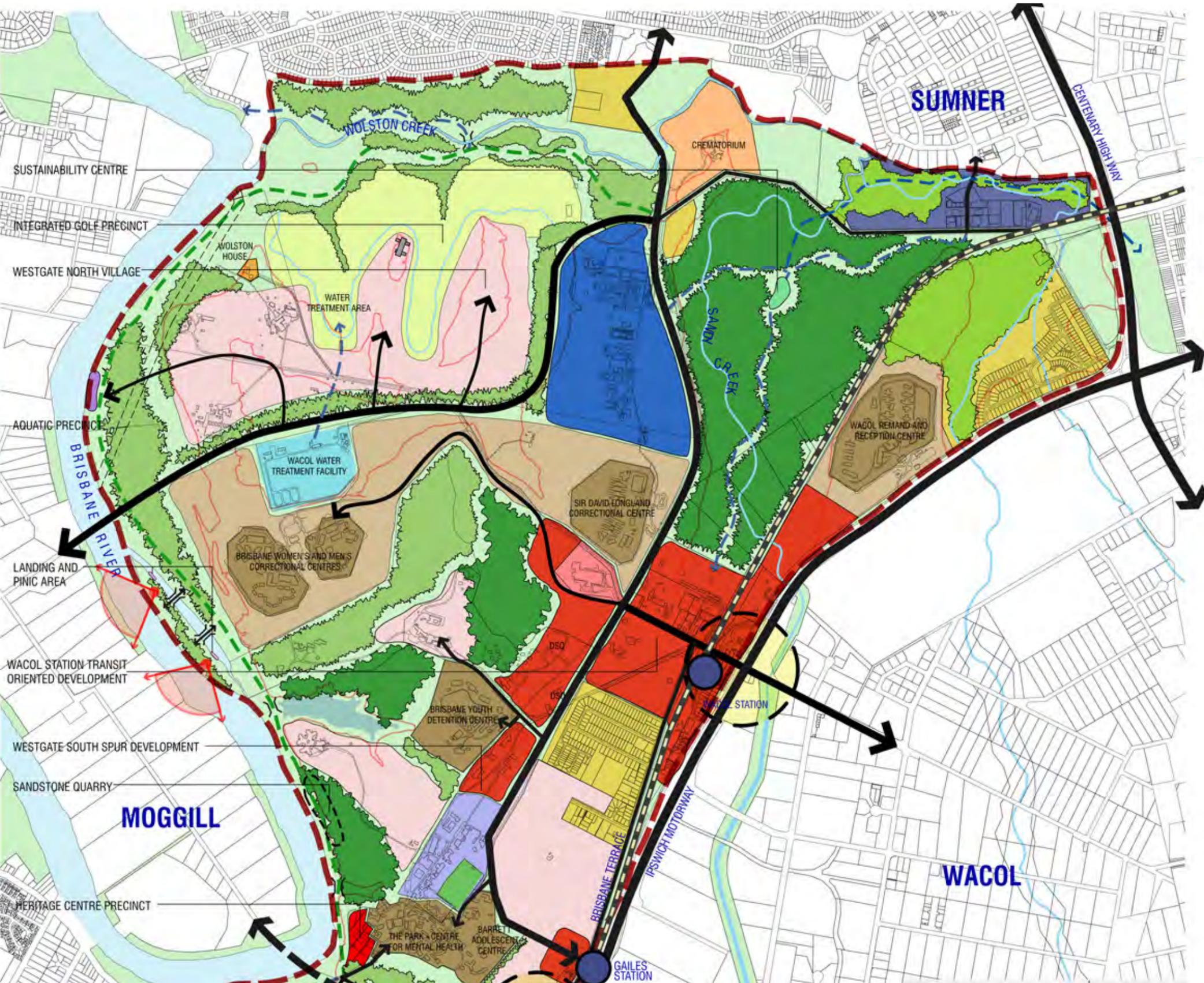


MTRC Station Design, Hong Kong, PRC

This project involved the upgrade of 15 entrances to six major stations on the Hong Kong Island Line utilising a previously developed prototype design. Upgrade works include new canopies, entry structures, security provisions, new signage to comply with upgraded corporate image and incorporation, where possible, of handicap access. Entrances comprise dedicated on-street, stand-alone structures as well as those incorporated within commercial developments. Entrances were upgraded whilst the rail system is operational.

3. PROJECT EXPERIENCE

Transit Oriented Development Experience



Westgate Strategic Plan, QLD

Client: Office of the Coordinator-General

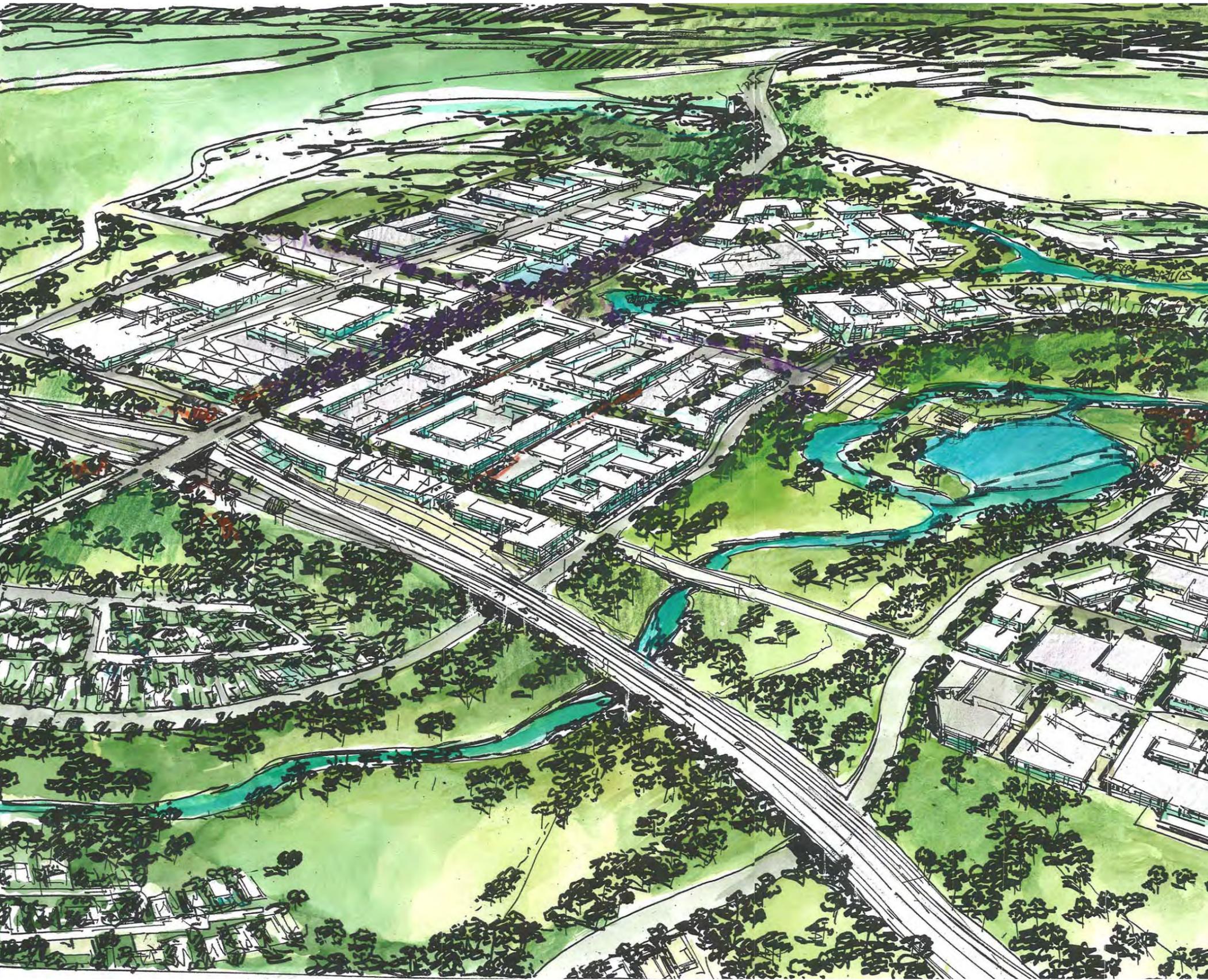
HASSELL is preparing the structure plan for this 750ha site at the gateway of the western corridor. Transit oriented development focused around the two existing rail stations, and implementation and the delivery of employment opportunities are key aspects of the structure plan.

Sequencing of development opportunities developed as a key issue that would impact on the long term outcome. The site includes a number of government uses, some of which may stay in the short term but possibly relocate in the longer term. Accommodating existing and future government land requirements without compromising future development options that will achieve the highest and best use for the site and government objectives outlined in the SEQ Regional Plan. Establishing land use priorities to maximise existing infrastructure and take advantage of the highly attractive views of the Brisbane River was another key consideration in determining final options. Implementation of a TOD precinct at Westgate could require land amalgamations around the station and land swaps to relocate the existing Golf Courses.

Five development options were prepared for public consultation, exploring a variety of different land use and density scenarios. Further work is continuing to incorporate community and government stakeholder concerns with a view to producing two options for further consideration by the State Government.

3. PROJECT EXPERIENCE

Transit Oriented Development Experience



Ripley Town Centre, Ipswich, QLD

Client: Wingate Properties

The 85 hectare site is the cornerstone of the Ripley Valley. As the Town Centre it will function as the business, civic, community and recreational heart of the surrounding Ripley future urban area. The centre will serve a future population of approximately 100,000 people. The Master Plan represents a Centre based on best practice urban design and planning principles.

The State Government confirmed that the South West Transport Corridor will be extended to the town centre. The exact alignment of the Corridor will be critical to the planning of the town centre, including the opportunity to plan for transit oriented development. The development will also secure land for a town centre core area and a town center frame area through a Preliminary Approval Planning Application.

The success of the Ripley Valley will hinge on the successful planning, staging and delivery of the town centre. The town centre master plan process to feed into the development of the Ripley Valley Master plan. The master planning for the town centre should anticipate and respond to Task Force directions and requests.

3. PROJECT EXPERIENCE

Transit Oriented Development Experience



Boggo Road Gaol Precinct Master Plan, Brisbane, QLD

Client: Queensland Department of Public Works

This 9.5 hectare site is one of the largest undeveloped sites in Brisbane's inner city. In recognition of the importance of the Boggo Road Gaol site, the Queensland Government commissioned HASSELL to lead an extensive master planning study to guide its redevelopment. This study has been informed by comprehensive consultation with the community, business and research sectors. Key challenges included integration of the Park Road railway station, incorporation of a possible bus corridor and retention of heritage buildings.

The master planning process involved site analysis, design and issues workshops and a feasibility study of the potential for the inclusion of knowledge-based research and business activity on the site. The plan facilitates a vibrant urban precinct with a mix of uses including residential, knowledge based research and business (KBRB), retail and conference facilities that will create a community with a distinct character and a town centre of regional appeal.

Boggo Road will be a place to live, to work, to recreate and to be a part of a mutually supportive, safe and sustainable environment. This master plan complements the cultural heritage values of the site and potential for the goal to be a museum.

3. PROJECT EXPERIENCE

Transit Oriented Development Experience



Flagstone Creek Master Plan, QLD

HASELL has undertaken a review of the approved master plan for this site on the outskirts of Brisbane. The local council proposed a sub-regional centre, increasing the potential site population from 11,000 to 33,000 people. The site straddles the Sydney to Brisbane rail corridor. A transit oriented town centre will be proposed for this development.

The South - East Queensland Regional Plan has presented a number of exciting opportunities for development, particularly for land on the periphery of the Brisbane area. For Flagstone Creek, in the Shire of Beaudesert, the Regional Plan translates to a re-branding of what is a rural-residential estate into an urban community.



Palmview Structure Plan, Caloundra, QLD

HASELL has prepared a structure plan for this 8km² site strategically positioned at the heart of South East Queensland's Sunshine Coast. The structure plan will be a key input to the Local Growth Management Strategy currently being prepared for Caloundra City. This significant development will be a flagship residential and mixed-use project for Investa, with a 10 to 15 year horizon. We are working closely with the adjoining land owners and the adjacent Sunshine Coast University to integrate Palmview with this regionally important facility and the emerging town centre at Sippy Downs.

A number of challenges have been identified for the regional transport network on the sunshine coast. Key regional centres are not well connected with regional facilities and services, and movement between the key activity generators is difficult. A major issue to be addressed by the Palmview structure plan is the reduction of private vehicle trips.



Horton Park Golf Course Master Plan, QLD

Strategically located in the heart of Maroochydore, HASELL has been commissioned to produce an Indicative Master Plan for the redevelopment of the Horton Park Golf Course. The Concept is intended to represent a realistic outcome for the site with a conservative development yield for this significant 60 hectare strategically positioned parcel of land. The consultancy was completed within a short 3 week time frame and will form the basis for a high level business case feasibility currently being prepared by Babcock and Brown. Key challenges have included the incorporation of the planned terminus of the Sunshine Coast train line and management of local traffic and commuter traffic.



Waterfront City, Melbourne, VIC

Waterfront City is one of the largest urban renewal projects to be undertaken in Victoria. Covering 20 hectares, it forms the final stage in the redevelopment of the Docklands on the edge of Melbourne's Central Business District. HASELL, together with BDP, has been engaged by ING Real Estate to design the massive waterfront redevelopment, including restaurants, cafes and entertainment, offices and housing. The network for pedestrian, vehicular and public transport access and circulation has been designed to allow people visiting, working and living within Waterfront City to enjoy convenient and physical linkages between the different land use throughout the Greater Melbourne precinct, as well as integrating with the broader Melbourne Docklands Area and Melbourne's Central Business District. Public transport linkages to the site, particularly with the development of a tram 'Supertop' node through the centre of the development will enhance accessibility from a number of advantage points in the surrounding area and encourage the integration of the tram service from the CBD. Bus services access routes have been expanded through the development site and the pedestrian network has been designed to link the public realm areas through the precinct and to public transport nodes.

3. PROJECT EXPERIENCE

Aviation Experience



Qantas Domestic Terminal Upgrade, Brisbane, QLD

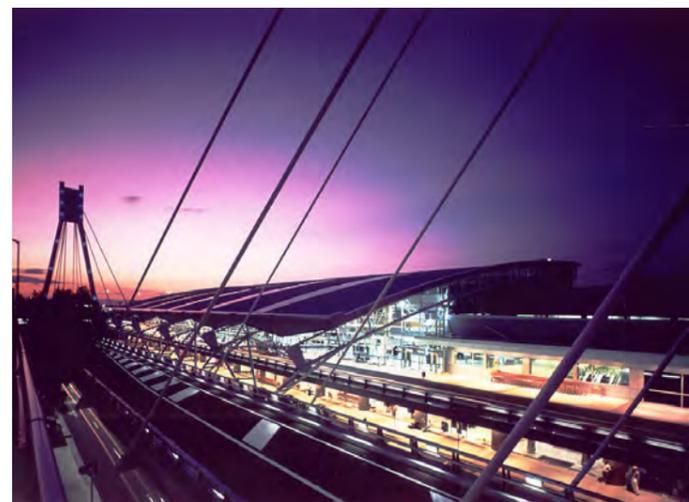
Client: Qantas Airways Limited

Over a 13 year period HASSELL acted as project managers, architects and interior designers to replan the Brisbane Terminal and upgrade baggage handling, security check-in procedure, gates and satellite design.

This \$25 million project was undertaken in stages, with Qantas able to operate as a fully functional terminal even during the construction phase. HASSELL prepared both the staging and construction phasing.

3. PROJECT EXPERIENCE

Aviation Experience



Qantas Domestic Terminal Upgrade, Sydney, NSW

Client: Qantas Airways Limited

A total reconstruction of the existing Qantas terminal has provided Sydney with a major international standard facility. HASSELL worked with Qantas to develop a new theme for the interior spaces, using high quality, enduring materials and finishes which could be adopted for other national and international facilities. HASSELL's role has included preparing retail tenancy guidelines and the design of a number of tenancies. The first stage of the expansion, including two new gates and new departures and arrivals halls, was completed in 1993. Subsequently, a satellite with six gates, a Qantas Club and international transfer lounge was completed while the terminal remained fully operational.

Awards

2000 Royal Australian Institute of Architects (NSW Chapter) Awards - Commercial Building Architecture Award, Category - Commercial Building

1998 Metal Building Awards - Award of Merit, Category - Commercial

1997 H.H. Robertson Awards - Award of Excellence for Outstanding Architectural Design

1997 Australian Institute of Steel Construction (NSW) Awards - Architectural Steel Design Award

3. PROJECT EXPERIENCE

Aviation Experience



Adelaide Multi-User Integrated Terminal, Adelaide, SA

Client: Adelaide Airport Limited

A new Multi-User Integrated Terminal comprising domestic and international airport facilities is planned for the redevelopment of Adelaide Airport and HASSELL is designing the airport facilities to improve efficiency of airport operations and upgrade comfort and convenience for both domestic and international travellers. Our concept design seeks to provide Adelaide with a world class airport capable of handling a 50% increase in passenger numbers to 6 million a year by 2010, allowing for incremental expansion to meet future demand.

3. PROJECT EXPERIENCE

Aviation Experience



Christchurch International Airport, Christchurch, NZ

The terminal is located in a busy international tourist region, and is the starting point for Antarctic expeditions. The upgrade and expansion undertaken doubled the passenger handling capacity of this airport to 1000 passengers per hour. The new terminal development is designed to ensure that passengers enjoy a relaxed environment that diffuses the anxieties associated with the formalities of international travel, whilst enhancing the associated joy and excitement. The terminal maintained full operations during the construction process, catering to the demands imposed by extremely busy summer and winter tourist seasons.



Qantas Domestic Terminals - QuickCheck Self Check-in Facilities, Sydney, NSW

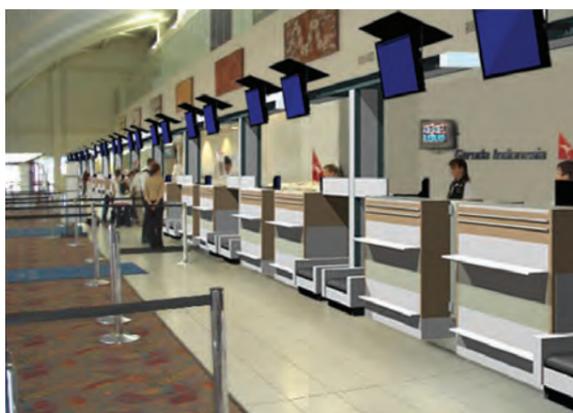
Qantas introduced state-of-the-art self check-in facilities at Sydney and Melbourne domestic terminals in August 2002. The unique and simple to use touch-screen systems have been introduced in two formats – stand-alone kiosks for passengers without baggage and specially modified counters for passengers with baggage. HASSELL, in conjunction with Moon Design, developed product-specific branding such that the service is readily identifiable within the terminal. QuickCheck counters and kiosks are now being rolled-out in Qantas Terminals nationally.



Melbourne International Terminal, Tullamarine, VIC

The expansion of Melbourne Airport's International Terminal has doubled the total floor area from 35,000 metres to 70,000 metres, and increased the passenger handling capacity from 600 to 1,800 passengers per hour. The result is a commercially viable, state-of-the-art facility, that provides flexibility while readily adapting to the changing needs of what is a dynamic market-driven industry.

The design has created an interior that is uniquely Melbourne. Elegant materials give each area of the terminal its own individual character. Stainless steel panels, expressed metal, green granite and bluestone reflect the design elements found in city streets and buildings.



Darwin International Terminal, Darwin, NT

Since designing the award-winning Darwin International Airport (DIA) in the early nineties, HASSELL has continued to be involved in its development. HASSELL has recently been commissioned by NT Airports to design the redevelopment of the Darwin International Airport including areas such as the departures hall, baggage handling system including CBS, gate lounges, car rental and tourist operators, aerobridge installation, international passenger transfer area, and a security upgrade to their airside/landside barrier.



Jetstar National Roll-out, Australian Domestic Terminals

Full architectural and interior design services for the implementation of the new airline, Jetstar, within domestic terminals nationally. The works included the conceptual design and documentation of check-in counters, gate lounges, administration and amenities area as well as signage and graphics required for the operation of the airline within the terminals.

4. CAPABILITY + CAPACITY

Recognition

HASSELL has an enviable reputation for the design, documentation and management of a wide range of projects, in architecture, interior design, urban design, landscape architecture and planning.

Our work has been recognised by the following organisations.

- Royal Australian Institute of Architects.
- New Zealand Institute of Architects.
- Design Institute of Australia.
- Australian Institute of Landscape Architects.
- Hong Kong Institute of Landscape Architects.
- Royal Australian Planning Institute.
- Building Owners and Managers Association of Australia (now the Property Council).
- Building Owners and Managers of New Zealand.
- Urban Development Institute of Australia.

Since our establishment we have received over 280 awards, including awards for leading edge sustainable design. We have also won numerous commissions through design competitions.

Sustainability

While there are many claims about sustainable designs, there are still relatively few buildings in Australia that have achieved accredited energy star ratings.

120 Edward Street was the first major commercial building in Australia to achieve a 4 ½ star rating ABGRS and accordingly was highly awarded for this achievement including the major Property Council Australia award in 2004 in Australia. This building included new standards of design that has not been previously incorporated into a building in Queensland and required invention and persistence. In particular, the photovoltaic cells required us to design the entire solar panel and roof system from first principles as an installation of this scale had not been undertaken before in Australia and the materials and techniques were unavailable commercially.

The Bendigo Performing Arts Centre design relies on a thermal rock storage system, the first commercial application in Australia that required desk-top laboratory studies and small scale precedent modelling.

The wall panels we developed for the Central City Studios in Melbourne's Docklands pioneered a low-cost composite wall that is now being marketed overseas.

The Kelvin Grove Urban Village set new ESD standards for an entire urban infill project that has raised expectations in the development industry about achievable sustainable economic outcomes. Major achievements include the mandating of gas hot water for the residential development in lieu of electrical power (at a minimum). This, if adopted Australia-wide, would have a major impact on greenhouse gas production.

The National Institute for Dramatic Art (NIDA) Sydney includes significant energy saving measures that are dramatically expressed in the building form. The central architectural feature, a louvred veil, helps to ventilate and reflects natural light into the foyer.

Information Technology

We use AutoCAD ADT and LDD, Microstation V8, Triforma, Sketchup, 3D Studio Viz, Microsoft Office Suite of software, Adobe, Indesign, Illustrator, Photoshop and Microsoft Project. We also have our own project reporting software and Sun System/ Vision project and accounting software.

All our offices are linked by an Intranet and we have a Knowledge Sharing system that is virtually the university of HASSELL, providing a vast array of information from project information, to research, employment and corporate data. This powerful system enables all our offices to be fully integrated, enabling projects to be accessed and worked on remotely and the resources and expertise in various locations to be tapped into when required.

4. CAPABILITY + CAPACITY

HASSELL Management System (Quality Assurance)

HASSELL's primary quality objective is to ensure that our clients' requirements for a quality project are met.

Quality is managed through an in-house quality system comprising a documented set of policies, procedures, systems and forms used for the operation of the business.

We have third party certification of our Quality System that complies with ISO 9001:2000. Indeed the system is incorporated in our Work Practices System that defines the way we work. This system also complies with the Environmental Management System ISO 1401:2004 and Occupational, Health and Safety Policy AS/NZS 4801.

Our current certification is attached and enquiries can be directed to Brisbane's HMS Manager, Matthew Larme on (07) 3017 5757.

Quality Plan

For this project a preliminary quality plan will be prepared. The plan will be updated at the start of the project and then as changes occur during the project. Its purpose is to describe the quality management practices to be adopted by HASSELL, specify the design output, identify the personnel responsible for the work and provide evidence of the process being followed by the team.

Corporate Quality Policy Statement

The business of HASSELL is design and planning. The quality and consistency of our services is the concern of all personnel. For any project, we can bring together the applicable skills from a united resource of experienced, highly trained planning and design disciplines.

With this integrated resource and the management techniques we have developed, we enjoy working in partnership with our clients to define requirements and develop innovative concepts. Through empathy, vision

and rigour this process can deliver results that exceed the expectations of our clients and the requirements of society.

The HASSELL commitment to quality stems from our knowledge of how to consistently achieve positive solutions in a collaborative environment. It is requested that all levels of management and personnel actively support and contribute to the ongoing implementation and maintenance of this quality policy.

Insurance

HASSELL has the following insurance and indemnity coverage.

Professional Indemnity

Insurer: Suncorp Metway Insurance Limited

Policy No.: [REDACTED]

Sum Insured: \$10,000,000.00

Expiry Date: 30 September 2006

Public Liability

Insurer: ACE Insurance Ltd

Policy No.: [REDACTED]

Sum Insured: \$20,000,000.00

Expiry Date: 30 June 2007

Workers' Compensation

Insurer: Workcover Queensland

Policy No.: [REDACTED]

Sum Covered: In accordance with statutory requirements

Expiry Date: 30 June 2007

Financial Stability

HASSELL is a large practice with in excess of 550 professional staff and over 30 owners, all Principals of the company.

Our average turnover is an excess of \$50 million and we work on well in excess of \$1 billion projects each year.

Our spread of disciplines and locations, professional business support and longevity ensures stability.

4. CAPABILITY + CAPACITY



Referees

Boggo Road Gaol Precinct Master Plan

██████████
Acting Project Manager
Department of Public Works
██████████

Kelvin Grove Urban Village

██████████
Coordinator-General (Strategic Development)
Office of the Coordinator-General
T: ██████████

QR Feasibility Studies

██████████
Principal Property Management Officer
Queensland Rail
██████████

Various Aviation Projects

██████████
Project Director - Terminals Expansion
Brisbane Airport Corporation Ltd
██████████

North West Rail Link

██████████
State Rail Authority
██████████

Epping to Chatswood Rail Line

██████████
Transport Infrastructure Development
Corporation
██████████

Parramatta Rail Link Company

██████████
Delivery Manager
Parramatta Rail Link Company
██████████

Olympic Park Station

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3. PROJECT EXPERIENCE

Transit Oriented Development Experience



Union @ Milton TOD Development, Brisbane, Qld

Client: FKP

The Union @ Milton TOD development is the culmination of a partnership between FKP, Queensland Rail and HASSELL in the delivery of Queensland's first transit oriented development. The coupled residential, hotel, commercial, and retail air rights development adopts intuitive planning strategies to present a transit oriented formula connecting major cafe/dinning precincts to rail infrastructure improving commercial sustainability and safety of rail patrons to successfully achieve CPTED and South East Queensland Regional Plan objectives and increase QR ridership.

The Milton station heralds being the first of the 'real' TOD developments for the Queensland Government and our client FKP. The office propositions involve an air rights development which will see a dynamic mega structure span 35 metres over 4 rail platforms, from which a public concourse of approximately 3000m² will hang while supporting 13500 m² of office above.

Appendix D – Detailed Resource Strategy

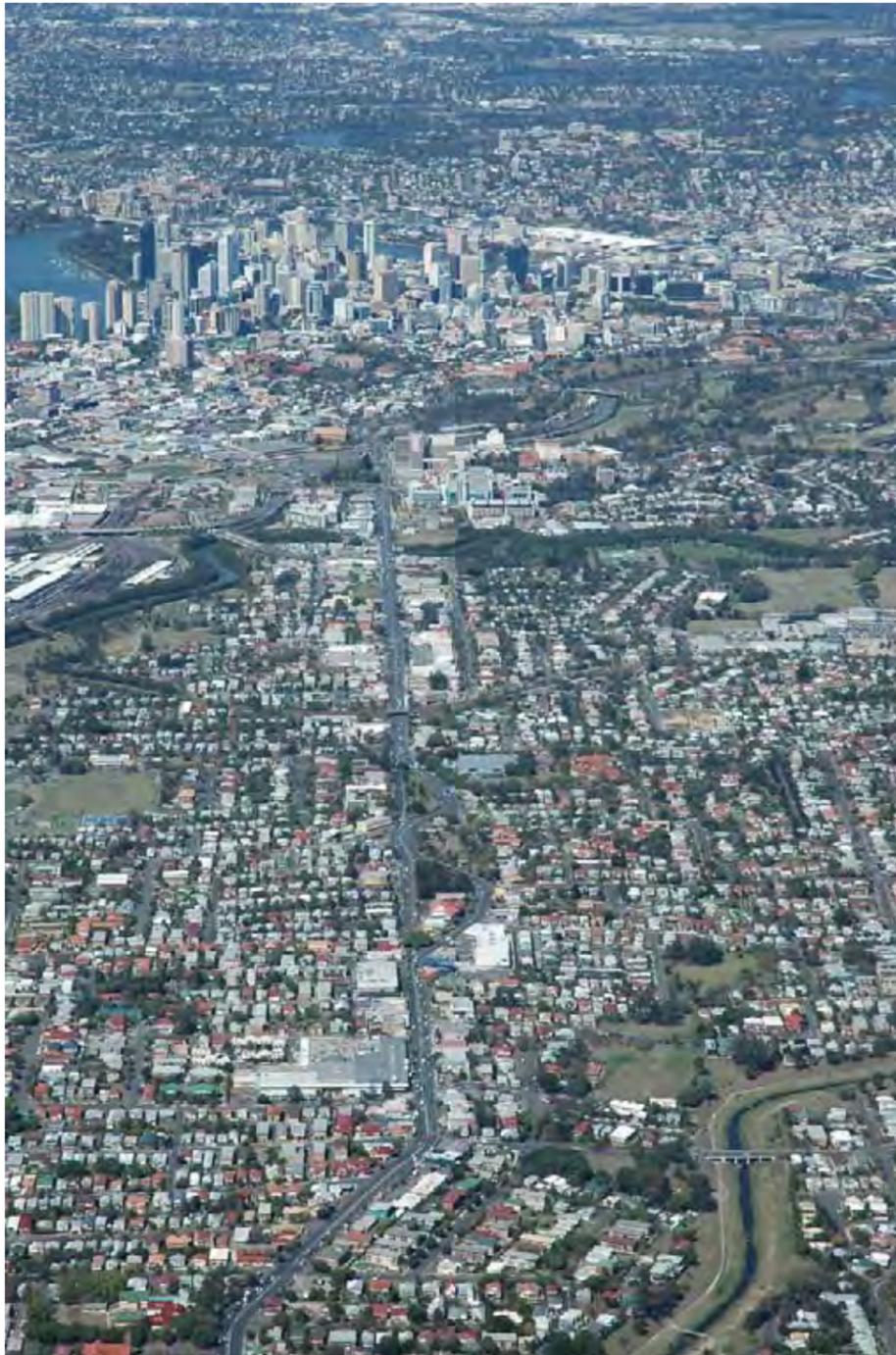
	PE	TL	CWW	AH	SE	ST	C.Melsom	Architect	bring andProduct	Admin	Expenses	TOTAL
Charge Out Rate	\$220	\$160	\$220	\$220	\$180	\$130	\$220	\$110	\$80	\$60		
Total Project Hours	89	121	40	32	42	90	26	75	130	92		0.00
Total Project Cost	\$19,560	\$19,360	\$8,800	\$7,040	\$7,560	\$11,700	\$5,720	\$8,250	\$10,400	\$7,360		\$ 105,770.00
Attributed Time & Cost Total												
STAGE 1 - SITE ANALYSIS												
1 Initiation Meeting, PDP and site visit	6	6	4	4	4	4				10		38
Sub total	\$ 1,320	\$ 960	\$ 880	\$ 880	\$ 720	\$ 520	\$ -	\$ -	\$ -	\$ 600	\$ -	\$ 6,080
2 Review of existing Studies and Site Investigations	2	4			2	15				0		23
Sub total	\$ 440	\$ 640	\$ -	\$ -	\$ 360	\$ 1,950	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,390
3 Stakeholder Mapping sessions and follow up work	16	16							8	6		36
Sub total	\$ 3,520	\$ 2,560	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 640	\$ 480	\$ -	\$ 7,200
4 Identification of opportunities and constraints	1	5	1	1	8				10	10	0	36
Sub total	\$ 220	\$ 800	\$ 220	\$ 220	\$ 1,440	\$ -	\$ -	\$ -	\$ 1,100	\$ 800	\$ -	\$ 4,800
5 Reporting	2	4							20	15	15	56
Sub total	\$ 440	\$ 640	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,200	\$ 1,200	\$ 1,200	\$ 5,680.00
STAGE TOTAL (HOURS)	27	35	5	5	14	19	0	30	33	31		199
STAGE TOTAL (DOLLARS)	\$5,940	\$5,600	\$1,100	\$1,100	\$2,520	\$2,470	\$0	\$3,300	\$2,640	\$2,480	\$1,000	\$ 27,150
STAGE 2 - VISIONING WORKSHOP												
1 Visioning Workshop	4	6		4		4						18
Sub total	\$ 880	\$ 960	\$ -	\$ 880	\$ -	\$ 520	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,240
2 Prepare Vision, Guiding Principles and Concept Criteria	1	6	1	1		4						23
Sub total	\$ 220	\$ 960	\$ 220	\$ 220	\$ -	\$ 520	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,140
5 Reporting									3	3		6
Sub total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 240	\$ 240	\$ -	\$ 480
Sub total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
STAGE TOTAL (HOURS)	5	12	1	6	0	8	0	0	3	3		37
STAGE TOTAL (DOLLARS)	\$1,100	\$1,920	\$220	\$1,100	\$0	\$1,040	\$0	\$0	\$240	\$240	\$	\$ 5,860
STAGE 3 - DRAFT CONCEPT OPTIONS												
1 Internal design workshop	14	14	14	14	14				8			92
Sub total	\$ 3,080	\$ 2,240	\$ 3,080	\$ 3,080	\$ 2,520	\$ -	\$ 3,080	\$ -	\$ 640	\$ -	\$ -	\$ 17,720
2 Option refinement	2	2			1				4	6		27
Sub total	\$ 440	\$ 320	\$ 440	\$ -	\$ 180	\$ -	\$ 880	\$ -	\$ 800	\$ 480	\$ -	\$ 3,540
3 Strategy development	2	2			1				4	2		13
Sub total	\$ 440	\$ 320	\$ 440	\$ -	\$ 180	\$ -	\$ 880	\$ -	\$ 160	\$ 160	\$ -	\$ 2,420
4 Reporting	1	4				18			15	10	10	58
Sub total	\$ 220	\$ 640	\$ -	\$ -	\$ -	\$ 2,340	\$ -	\$ 1,650	\$ 800	\$ 800	\$ -	\$ 6,450
Sub total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
STAGE TOTAL (HOURS)	19	22	18	14	16	18	0	15	28	18		190
STAGE TOTAL (DOLLARS)	\$ 4,180	\$ 3,520	\$ 3,960	\$ 3,080	\$ 2,880	\$ 2,340	\$ 4,840	\$ 1,650	\$ 2,240	\$ 1,440	\$ 5,000	\$ 30,130
STAGE 4 - CONCEPTS REVIEW AND ASSESSMENT												
1 Presentation to Working Group	3	3								8		14
Sub total	\$ 660	\$ 480	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 640	\$ -	\$ -	\$ 1,780
2 Review and assessment of options and refinement of report	5	5	2	2	2	15	2		4	15		52
Sub total	\$ 1,100	\$ 800	\$ 440	\$ 440	\$ 360	\$ 1,950	\$ 440	\$ -	\$ 320	\$ 1,200	\$ -	\$ 7,050
3 Presentation to Stakeholder Reference Group	3	3										6
Sub total	\$ 660	\$ 480	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,140
STAGE TOTAL (HOURS)	11	11	2	2	2	15	2	0	4	23		72
STAGE TOTAL (DOLLARS)	\$ 2,420	\$ 1,760	\$ 440	\$ 440	\$ 360	\$ 1,950	\$ 440	\$ -	\$ 320	\$ 1,840	\$ -	\$ 9,970
STAGE 5 - PREFERRED CONCEPT DEVELOPMENT												
1 Design Development and Initial Implementation Strategies	8	8	8	2	4				2			32
Sub total	\$ 1,760	\$ 1,280	\$ 1,760	\$ 440	\$ 720	\$ -	\$ 440	\$ -	\$ -	\$ -	\$ -	\$ 6,400
2 Working Group Engagement and Presentation	4	4			2							10
Sub total	\$ 880	\$ 640	\$ -	\$ -	\$ 360	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,880
3 Reporting	4	8				15			10	15	5	57
Sub total	\$ 880	\$ 1,280	\$ -	\$ -	\$ -	\$ 1,950	\$ -	\$ 1,100	\$ 1,200	\$ 400	\$ -	\$ 6,810
STAGE TOTAL (HOURS)	16	20	8	2	6	15	2	10	15	5		99
STAGE TOTAL (DOLLARS)	\$ 3,520	\$ 3,200	\$ 1,760	\$ 440	\$ 1,080	\$ 1,950	\$ 440	\$ 1,100	\$ 1,200	\$ 400	\$ 15,000	\$ 15,090
STAGE 6 - CONCEPT PLAN COMMUNITY WORKSHOP												
1 Prepare Consultation Collateral	2	4							12	12		30
Sub total	\$ 440	\$ 640	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,320	\$ 960	\$ -	\$ -	\$ 3,360
2 Concept Plan Workshop	4	4	4	4	4					2		22
Sub total	\$ 880	\$ 640	\$ 880	\$ 880	\$ 720	\$ -	\$ -	\$ -	\$ -	\$ 160	\$ -	\$ 4,160
3 Reporting										4		4
Sub total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 320	\$ -	\$ 320
STAGE TOTAL (HOURS)	6	8	4	4	4	0	0	12	12	6		56
STAGE TOTAL (DOLLARS)	\$ 1,320	\$ 1,280	\$ 880	\$ 880	\$ 720	\$ -	\$ -	\$ 1,320	\$ 960	\$ 480	\$ 3,000	\$ 7,840
STAGE 7 FINAL MASTER PLAN												
Plan amendments	2	2	2					8	15			29
Sub total	\$ 440	\$ 320	\$ 440	\$ -	\$ -	\$ -	\$ -	\$ 880	\$ 1,200	\$ -	\$ -	\$ 3,280
Final Reporting		8				15			20			43
Sub total	\$ 0.00	\$ 1,280.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 1,950.00	\$ 0.00	\$ 0.00	\$ 1,600.00	\$ 0.00	\$ -	\$ 4,830
Presentation	3	3								6		12
Sub total	\$ 660	\$ 480	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 480	\$ -	\$ 1,620
Sub total (hours)	5.00	13.00	2.00	0.00	0.00	15.00	0.00	8.00	35.00	6.00		64
Stage total	1,100.00	2,080.00	440.00	0.00	0.00	1,950.00	0.00	880.00	2,800.00	480.00	1,000.00	9,730
STAGE 1-5 TOTAL (HOURS)	62	90	30	28	34	60	22	65	111	64		
STAGE 1-5 TOTAL (DOLLARS)	\$ 19,580	\$ 19,360	\$ 8,800	\$ 7,040	\$ 7,560	\$ 11,700	\$ 5,720	\$ 8,250	\$ 10,400	\$ 7,360	\$ 25,000	\$ 105,770



INRP

Inner Northern Regeneration Precinct Master Plan

Stage 2 Report **DRAFT** 15 March 2006 05085_Stg2_F



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Prepared by Deicke Richards, assisted by Knight Frank.

Project Context

The Inner Northern Regeneration Precinct (INRP) Masterplan Project was commissioned by the OUM in a co-funding arrangement with TransLink, Queensland Transport (QT) and Brisbane City Council (BCC) to support the integration of land use and transport in relation to the Airport Link and Northern Busway projects. The INRP project is overseen by the Transit Oriented Development Project Executive Group (TOD PEG) and a sub-committee of that group known as the INRP Working Group. This report forms Stage 2 of the project.

Successful integration of transport infrastructure and land use planning in the study area will provide significant economic and community benefits which, whilst difficult to calculate, are likely to be sizeable and ongoing. It will also greatly contribute towards a more efficient use of urban land sought by the South East Queensland Regional Plan 2005-2026. Conversely a failure to successfully integrate these elements is likely to result in ongoing long term costs including inefficient use of transport infrastructure, and a lost opportunity to improve community health, well being and amenity within the study area.

Report Confidentiality

This study helps inform the TOD PEG's recommendations for route alignment and design in relation to the Airport Link and Northern Busway infrastructure projects.

A Cabinet Submission for Airport Link and Northern Busway, including a business case, will be submitted to Cabinet in April 2006. The business case will address issues being dealt with as part of this study.

This study is intended to form part of briefing papers for use by the Minister or the Chief Executive Officer in relation to the cabinet submission, including the business case.

As such, this study and associated documentation are cabinet documents and therefore must be kept confidential.

This study is also exempt matter for the purposes of the Freedom of Information Act 1992.

Relationship to Brisbane City Council's City Shape and Neighbourhood Planning Process. The INRP Masterplan Project is overseen by the Transit Oriented Development Project Executive Group (TOD PEG) and a sub-committee of that group known as the INRP Working Group. Brisbane City Council are represented on the TOD PEG and have officers on the INRP Working Group. As such, OUM plan to release findings of the INRP to the co-funding agencies of TransLink, Queensland Transport (QT) and Brisbane City Council (BCC). These findings will inform BCC's City Shape and Neighbourhood Planning Process, which in turn will inform and be subject to development of BCC's Local Growth Management Strategy.

Introduction



Study area

This Stage Two Report follows on from the Stage 1 Report prepared by consultants, Urbis JHD for the Office of Urban Management

The Stage One Report provides a comprehensive summary and commentary on the Inner Northern Regeneration Precinct (INRP) and focuses on summarising the context which will inform the development of the Master Plan Vision. The report provides reviews of the land use, community and property opportunities for the area as well as a working paper which identifies transit oriented development catalyst locations.

This Stage 2 report focuses on Transit Oriented Development (TOD).

The Inner Northern Regeneration Precinct (INRP) will be an opportunity to demonstrate the possibilities for application of the transit oriented development principles outlined in the SEQ Regional Plan, to the creation of Transit Oriented Communities in the region. In this regard there is significant potential to capture the opportunities provided by the transport projects, the state of the property market and the commitment of the Qld Government and Brisbane City Council to design excellence and the creation of sustainable communities (Urbis, Section 8.7, pages 75-78).

Key to achieving the desired outcomes for the project will be the provision of locationally appropriate mixes of housing and community infrastructure, and attracting a workable mix of socio-economic groups and lifestyle choices. The projects should identify key locations for transit oriented development on new and existing infrastructure (busway and rail) that will potentially maximise transport efficiencies derived from changes in residential densities. The INRP provides the opportunity to demonstrate best practice in integrating transport and land use development to benefit the broader community.

Stage 2 involves identifying and documenting the land use relationships between the transport projects and the external environment, including:

- The integration of land uses
- Catalyst opportunities
- Access and mobility
- Desired community profile
- Staged development scenarios
- Criteria for the assessment of options, sub-options and staging options

Key Site Attributes

The INRP is a complex area with a long history. The precinct contains many heritage places that date from the early settlement of Brisbane. It has undergone considerable transformation particularly over the last 40 years to become a rich mix of land uses, built forms, building types and residential densities.

The area contains a number of historic commercial centres, broad swathes of pre-war character housing, large areas of earlier walk-up apartments buildings of Brisbane, some recent high density and high rise apartments along with traditional light industrial areas generally on lower land near to Breakfast Creek (see Development Examples on pages 6 and 7). The Mayne Railway Yards are a major land use in the southern quarter of the Precinct.

The area is very accessible to the major roads through Brisbane. Lutwyche Road and Sandgate Roads are key arteries within the area as well as being significant bus corridors. Two railway lines pass through the area with six stations providing excellent opportunities for public transport integration. The City to Ferny Grove and Caboolture/ Airport split at Bowen Hills making it a strategic location with the Brisbane metropolitan area.

Two significant green corridors form boundaries. Kedron Brook to the north and Breakfast / Enogerra Creek to the south. Significant open spaces, parkland and recreational lands are located along the creek corridors, although some have poor access from residential areas. Eildon Hill, Toorak Hill, Bowen Hill are three hill top features. In part, both Lutwyche Road and Sandgate Road travel from low ground to ridgelines, following the ridges that provide significant views to the surrounds.

Major infrastructure, the RBH and RNA, is located outside the study area to the south.

The Inner Northern Regeneration Precinct already exhibits some qualities of Transit Oriented Development and has significant potential to develop further higher intensity TODs to achieve a more sustainable future envisioned in the Regional Plan.



View of the southern part of the study area looking towards the City



North east view of study area from Clayfield, Woolowin, Eagle Junction and Kalinga. Mercer Park and Kalinga Park in the middle distance



View over study area from north west. Gordon Park bottom left, City centre, top right



View to north with Bowen Hills bottom centre



Heritage Commercial along Main Streets



Commercial



Rail



Larger Scale Institutions, Royal Brisbane Hospital



Detached Houses Pre-1947, character value, renovated, higher economic value



Detached Housing pre 1947, more modest economic value



Pre 1970's LMR

Older style Apartments, pre 1970, in poorer condition



Recent Low Medium Density developments

Methodology

The methodology adopted for this work has been a design based iterative process. In order to provide commentary on the Airport Link and Busway corridors and their potential impacts in the Inner Northern Regeneration Precinct, specific analysis of the study area has been undertaken and strategic design responses have been developed.

Key outcomes from the Stage 1 work have been identified and tested, particularly where long and short term TOD opportunities have been recommended and development opportunities proposed.

This review has been assisted by additional analysis undertaken by the Brisbane City Council and Matthew Stafford Consulting, not available during the Stage 1 work. This work has classified every site within the Study area under a number of criteria, by age and condition of development for dwellings and apartments. Key classifications of recent development, pre-1970 LMR, heritage, describes the patchwork of development patterns over the last 40 years.

This analysis informs design responses to test whether certain areas have the potential to consolidate, beyond the theoretical notion of areas within walkable catchments of proposed TOD's.

In making these recommendations, changes to the City Plan may be required. These are strategic recommendations that need ground truthing and discussion with BCC during Stage 3, Master Plan Options Preparation.

Overview of Stage 2 Report Structure

The overview of the report is as follows:

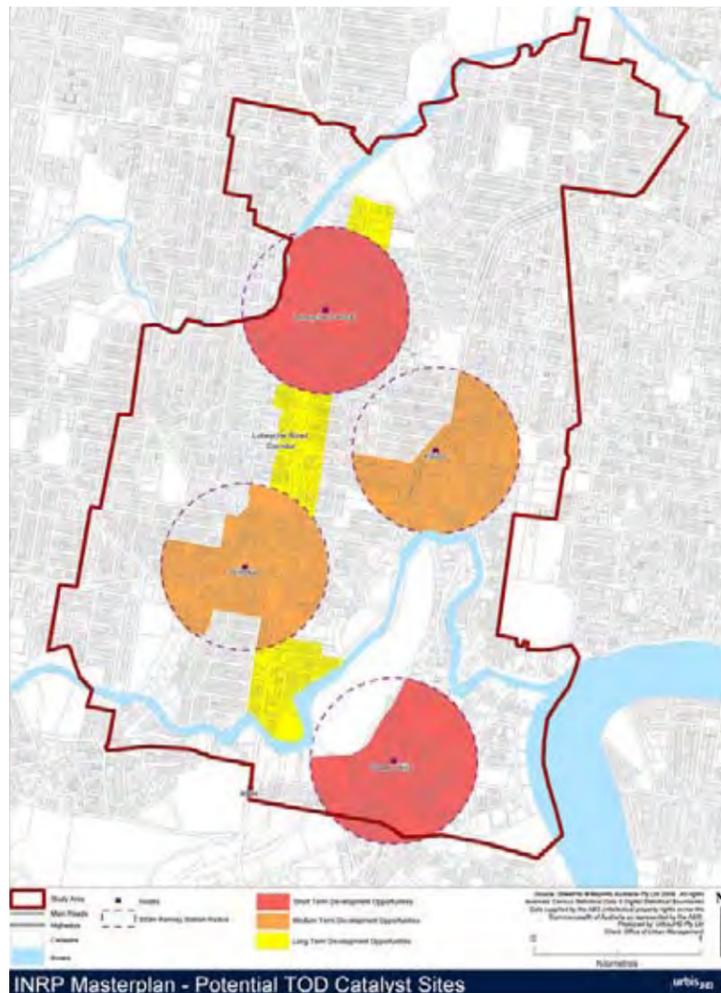
- Review of Stage 1 Outcomes
- Strategic Vision and Rationale
- Specific TOD Visions and Issues
- Commentary on potential impacts of the Northern Busway and Airport Link
- Land-use/development types analysis, opportunities for development

Overview of Outcomes

The Recommendations include:

- The identification of primary TODs including an additional TOD
- The reinforcement of other TODs within the precinct
- Specific cadastre based areas to achieve the vision of the primary TODs
- Role of existing zonings for possible incremental change in areas of secondary TODs
- Concepts to transition density from lower scale dwellings to taller buildings
- Commentary on the 5 TODs, their specific vision and issues for consideration in achieving this vision.

Stage 1 Outcomes: Key Issues and Constraints



Potential TOD Catalyst Sites

TOD CATALYST LOCATIONS

A key outcome of the Stage 1 Report was the identification of four TOD catalyst locations, two short term and two medium term, as well as a long term development opportunity along the Lutwyche Road corridor. The short term TODs were Bowen Hills and Lutwyche with the medium term TODs at Albion and Windsor. The rationales for these locations were as follows:

BOWEN HILLS

- Most land surrounding railway station, identified as being suitable for centre activities, mixed uses and office parks.
- Land within vicinity of rail station largely absent of Development Control Precinct and heritage places.
- Serviced by existing railway station with high frequency of transit services.
- Establish links with RBH and RNA show grounds.
- Influence of RBH and Media industry provide opportunity for 'Arts and Science' TOD
- Create a valuable contribution to affordable housing.

LUTWYCHE CENTRAL

- TOD opportunity presented by existing district level shopping centre, and Lutwyche Road frontage.
- Northern Busway to provide necessary public transport.
- TOD to be focused on retail, commercial office and residential development.
- Despite large amount of land within DCP, much is not of preservation quality, and area has already experienced a degree of transition.

ALBION

- Already exhibits some qualities of TOD, eg. good bus services, well serviced rail station.
- Higher density developments could connect existing infrastructure and provide more intense development.
- Redevelopment potential represented by large land holdings, such as Flour Mill.
- Likely to present opportunities for mixed-use development including retail, commercial, restaurant/ entertainment and residential land uses.

WINDSOR

- Proximity to Windsor/ Wilston railway stations, and potential Northern busway.
- Located along major bus route at major Road junction (Newmarket and Lutwyche)
- Development should seek to compliment existing residential characteristics whilst ensuring gradation in residential densities.
- Effective land use function, mixed use development incorporating residential retail.

In addition to the TODs, a longer term urban corridor was recommended for Lutwyche Road. The corridor runs from Breakfast Creek to almost Kedron Brook and included residential land east of Lutwyche Road near Breakfast Creek in the south-east.

These TOD opportunities in the Stage 1 report represented a range of urban land-use types.

- Brownfield sites - sites already empty, awaiting redevelopment, eg. around Bowen Hills station, air rights over stations.
- Disused industrial sites - Albion Flour Mill (on the market), Qld Newspapers (at some stage in the future).
- Old industrial sites - e.g. near Breakfast Creek, these locations have constraints to development, such as flooding issues and the local community still needs these services in relatively close proximity.
- Lower order commercial uses - eg. Bulky goods Retailing - Bretts, Freedom. Some of these developments such as Freedom, Bretts are single storey construction, but many are recent developments with active leases.
- Existing detached housing - not new, not renovated not heritage and not in Demolition Control precincts.
- Existing 70's apartments and LMR in poor condition - Medium term change although different strata titled ownerships need to be acquired.

A number of issues were raised in the Stage One Report that presented challenges to the creation of TOD's, eg. Demolition Control requirements of Council on the character housing and high value of properties in the area.

The Property Economics section of the Report identified the value of property as a significant issue for redevelopment. Over the years, the value of properties has increased with many dwellings, both renovated and new of high value. These improved values dramatically increased potential development yields, in order for the market to create profitable development. The report concluded,

'... increases in density required to make a project feasible within the current market are in the order of two to three times current plot ratios...' (Urbis, p.76).

Doubling densities of the LMR is a Gross Floor Area for development of 1 and trebling LMR becomes 1.5. 1.5 equates to High Density Residential in City Plan, which allows 10 storey buildings, although these densities can be achieved with lower height buildings, which may result in better urban outcomes.

A significant portion of the study area was established low density residential but with LMR designation. The stage 2 work reported,

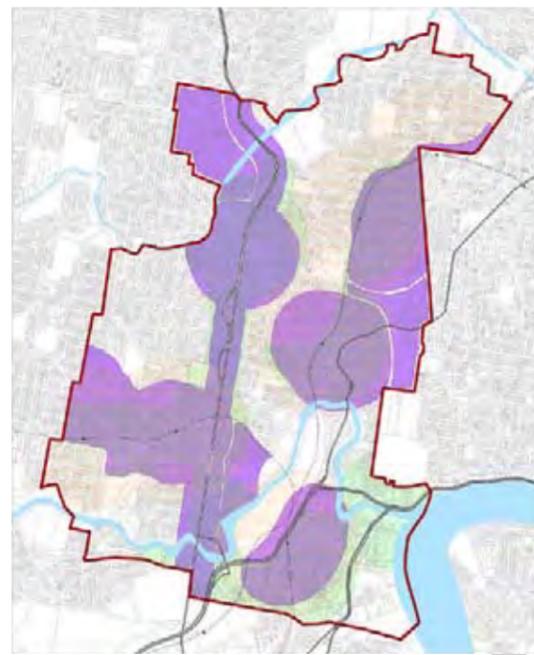
'Significant tracts of land within the study area are located within the bounds of a Demolition Control Precinct or are identified as having important character value.' (p.49).

Large portions of these areas were in prime locations for potential TOD, within the 400m radii of railway stations, especially Wilston, Windsor, Albion, Woolloowin and Eagle Junction.

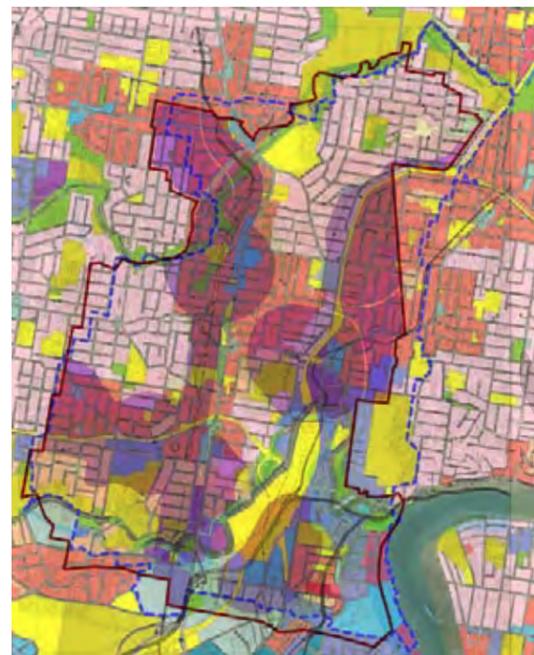
Urban Analysis



CITY PLAN 2000 ZONINGS



POTENTIAL URBAN REGENERATION OPPORTUNITIES
Stage 2 Report



The underlying principles of Transit Oriented Development are reflected in the current City Plan 2000 land use designations of the Inner Northern Regeneration Precinct. City Plan shows large areas of Low/Medium Residential within 400m of the primary public transport routes, Lutwyche Road and Sandgate Road, as well as the railway lines. An inherent contradiction of urban Brisbane is also evident with large swathes of detached housing in strategic locations, particularly to the north of the railway line in Woolwin, Eagle Junction and Kalinga as well as the higher lands of Windsor and Wilston. There are also large expanses of character housing towards the south of the study area in Wilston and Windsor south, close to the RBH.

Prior to making recommendations about TOD catalyst sites, the Stage 1 Report labelled potential urban regeneration opportunities. This map closely accords with the City Plan and reinforces the underlying appropriateness of the City Plan designations.

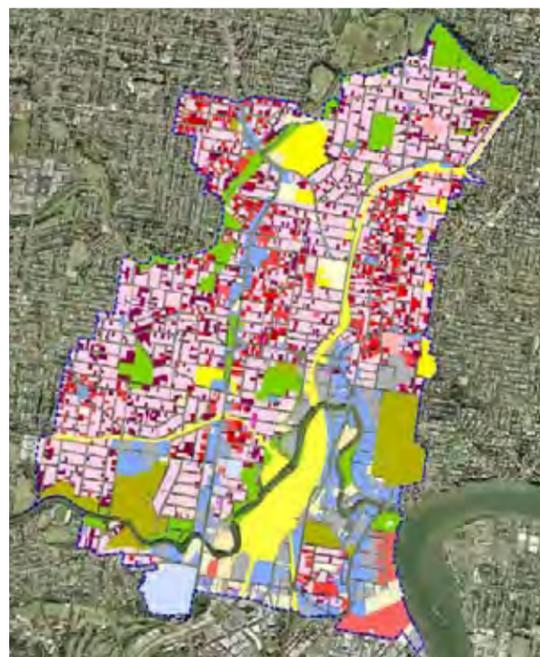
Brisbane City Council has prepared detailed and specific analysis of the INRP area in categorising the age and form of development with new LMR, older LMR, poor condition, new housing etc.. This work has been overlaid on the cadastre and shows a rich patchwork of development, although pre-war housing predominates with patches of newer housing interspersed.

of the maps short-term opportunity. While identified in the Stage 1 report map 'Identified TOD's', Gordon Park was not identified as a TOD catalyst site. The BCC analysis included this area currently designated LMR as a short term opportunity. It already contains a commercial centre on the Stafford Road/Lutwyche Road corner with some lower grade businesses. The area is predominantly LMR.

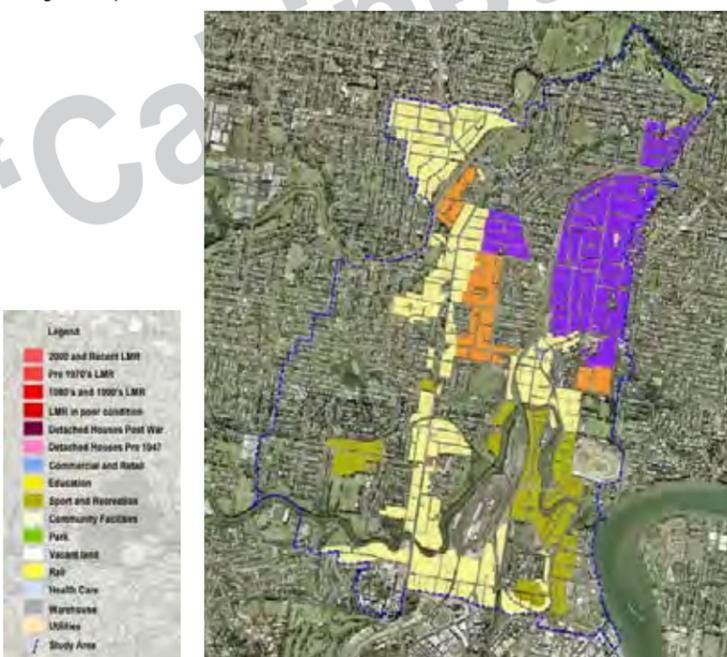
The Airport Link is planned to continue to this location and connect into the urban street network of Lutwyche Road and possibly Stafford Rd. The primary east/ west link and north/ south link in Brisbane intersect at this point. Furthermore, the area has the potential for high urban amenity as it is adjacent the Kedron Brook riparian corridor and Mercer Park. Kedron Brook is the primary east west green corridor north of the city, so this area benefits from both excellent access and amenity. It's potential for a TOD with a significant residential focus should not be underestimated. Indeed, the area probably has more potential than Lutwyche for higher density housing.

The BCC work prepared a very detailed and useful inventory of actual developments and particularly maps LMR of poor quality and pre 1970's LMR. LMR is not a new concept in Brisbane and many developments have been completed within the last 10-20 years. See photographic examples p.6-7.

Figure 1 indicates that to a certain extent, centres and associated TODs are already present, with the existing LMR clustered within the 400m walkable catchments. However, the small amount of medium/ high density residential is located on the outskirts, or even outside, these catchments with the location appearing to have a stronger correlation to views and high amenity rather than proximity to centres and railway stations.



BCC LAND USE ANALYSIS



BCC ANALYSIS

An example of this is the former St Columban's College site on Sandgate Road in Albion, has been developed for high density residential due to the large site being available in one ownership, not necessarily the proximity to the centre or railway station.

Opportunities to increase the amount of medium/ high density residential within the centres depend upon site availability and should be explored further. Whilst the Toombul/ Nundah centre is located outside the study area, it is important and demonstrates these principles, clearly denoted by medium/ high density residential surrounding the shopping centre and train station.

Figure 2 revisits the patchwork land use pattern discovered by the BCC Land Use Analysis. Post 1980's and recent LMR developments are scattered throughout the study area and are unlikely to change.

There is a large area of LMR located in strategic positions within the study area however the majority of this also falls within Demolition Control Precincts. Higher density residential development needs to be located within the 400m walkable catchments. The current zonings of LMR and Demolition Control will need to be reviewed in order to achieve good TOD outcomes.

Figure 3 demonstrates the challenge that any short or medium term development of LMR poses. There are a number of sites identified as Pre-1970's or Poor Condition LMR which would be suitable for redevelopment. These sites, however, are scattered throughout the study area, clustered particularly around the Clayfield area, and not in always strategic locations within one of the Primary TOD walkable catchments. Their redevelopment alone will not reinforce the concept of primary TODs that has been identified.

There are a limited number of LMR sites outside the Demolition Control precinct, and within the walkable catchments, which could be redeveloped. The challenge exists that these sites contain reasonable density and are predominantly brick, residential unit blocks. Whilst this form of residential development is not the highest quality and is of multiple ownerships, an economy exists for this form of housing and therefore redevelopment of these sites should be considered a more medium to long term opportunity.

Note: This map has been developed to consider the availability of redevelopable land around existing and potential public transport stations (locations generally indicated by the centroid of circles). Redevelopable land generally includes land that has an existing area classification of Multi-purpose Centre, Multi-uni residential or is currently characterised by postwar development. Information on this map does not represent a proposal to alter existing area classifications, but is a preliminary mapping exercise by consultants to the Office of Urban Management. Information developed by the Office of Urban Management has yet to be coordinated with the Brisbane City Council's Neighbourhood Planning process.

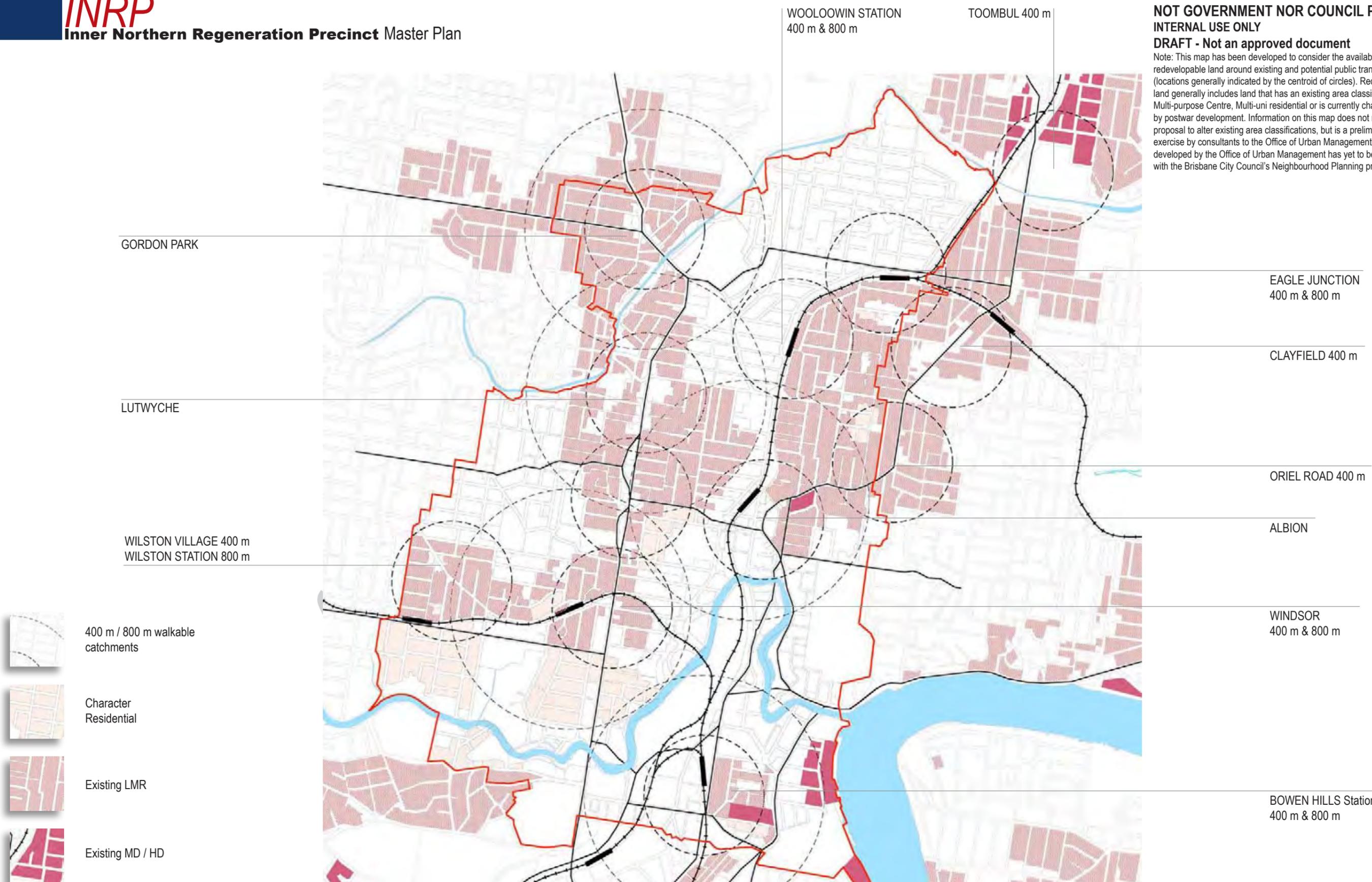
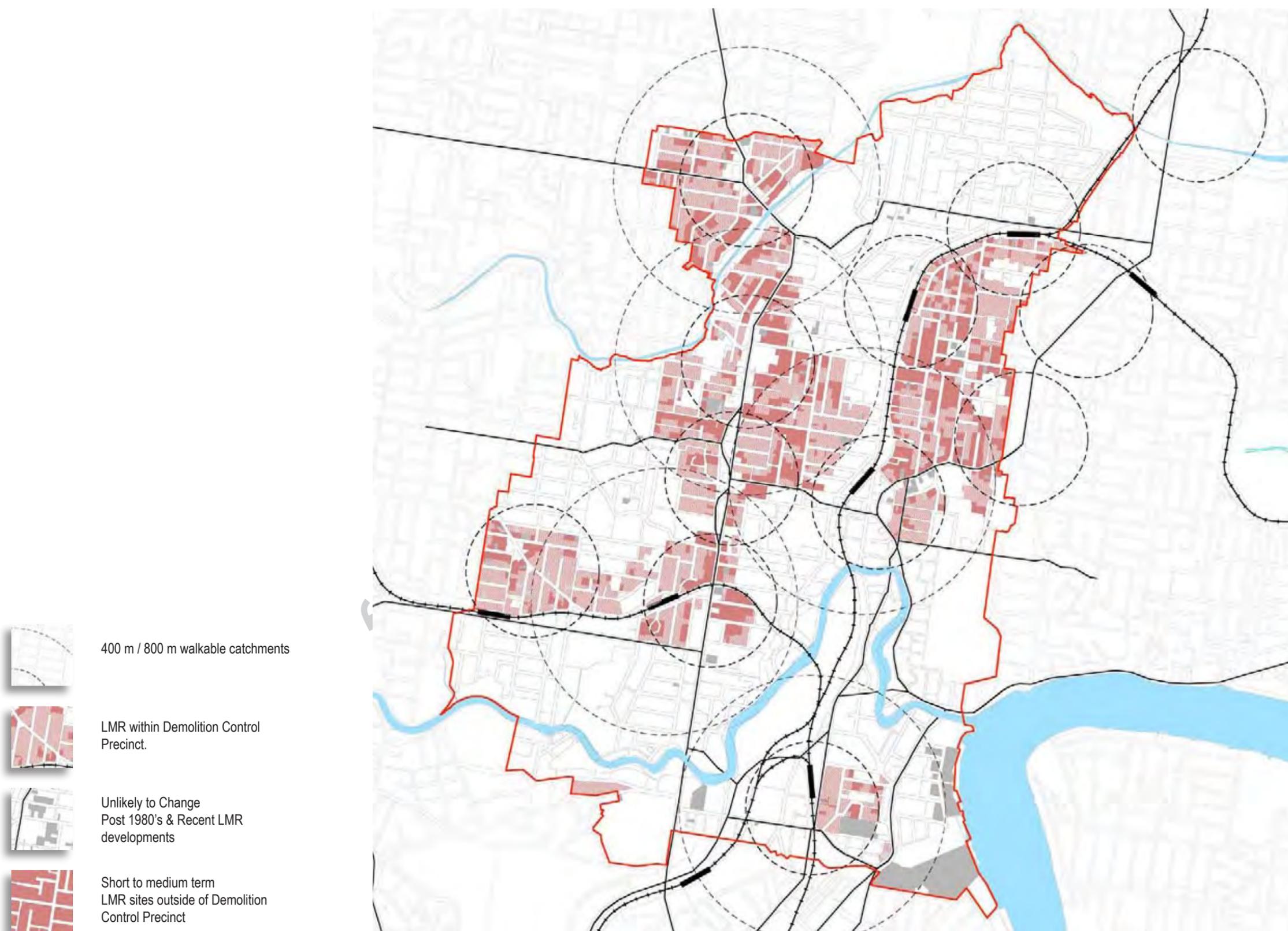


Figure 1: Walkable Catchments 400m (5 minutes) & 800m (10 minutes)
for all centres overlaid on LMR and MD/HD zonings

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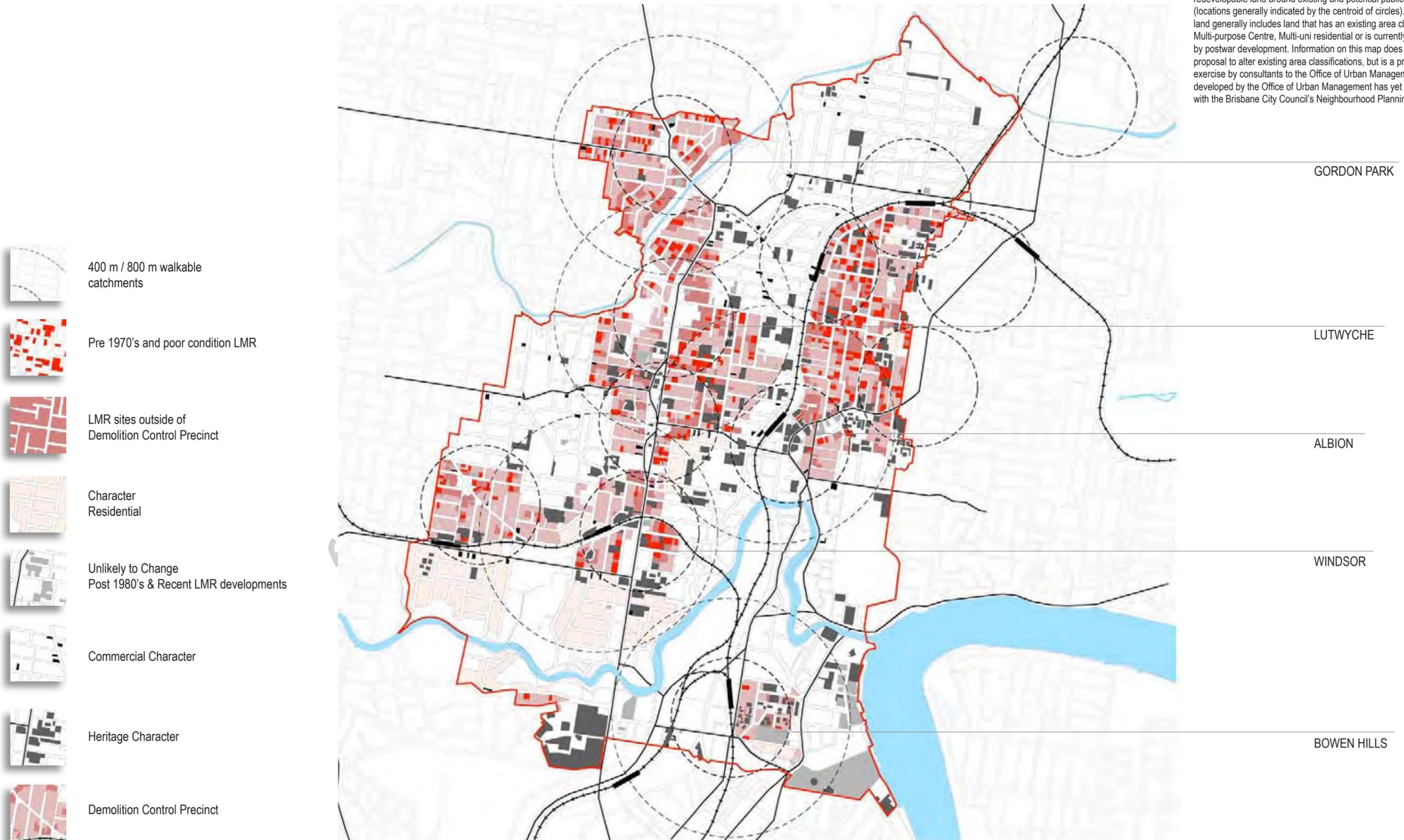


Figure 3: Development Opportunities

The Strategic Response, Rationale & Key Challenges

This Stage Two Report refines the outcomes of the Stage One work and proposes a Strategic Master Plan, it makes the following recommendations:

- Land use
 - Primary TODs: Areas of major change
 - Secondary TODs: Areas of Incremental change
- Access & Mobility
- Integration With Infrastructure
 - Integration of the Northern Busway
 - Integration with Airport Link



LAND USE:

Primary TODs: Areas Of Major Change

Five primary TOD locations are recommended within the study area. These are :

- Bowen Hills,
- Windsor,
- Albion,
- Lutwyche and
- Gordon Park/ Kedron. (In addition to Stage 1 Report)

The Primary TODs are shown on Figure 1 with associated walkable catchments of 400 metres; 5 minute, and 800 metres; 10 minutes.

In order to achieve the TOD outcomes proposed, the appropriate design response is to choose areas of intensification carefully in specific precincts and substantially increase development potential. These areas are within walkable catchments of the TODs with defined boundaries such as through streets, primary green corridors, railway lines etc.. and make high-density precincts. In order to achieve transitions from taller development to the existing two storey development, precincts of at least 10 Hectares are recommended.

This form of development is not one that can be made in small pockets of incremental development, in a salt and pepper fashion, as the impacts are too great and the contrasts between new and traditional development too extreme. The areas of major change are shown on Figure 3 indicated with a yellow fill overlaid onto Figure 1.

Secondary TODs: Areas Of Incremental Change

As the study area already has a number of urban arterial roads and railway corridors, other locations can be seen as TODs and contribute to urban consolidation. These places are Secondary TODs as follows:

- Windsor South; Northey St./ Lutwyche Road
- Wilston Village and Station

- Clayfield South; Oriel Rd../ Sandgate Rd..
- Clayfield Central
- Woolwin Station
- Eagle Junction Station

Much of the area within these TOD catchments are already LMR. Areas designated LMR as well as Character Residential in the study area are shown on this Figure together with additional major and minor TOD walkable catchments. This diagram demonstrates existing opportunities for urban consolidation within walkable catchments of centres.

Within LMR a different development form can be proposed. This area can incrementally redevelop, potentially with slightly higher densities than the current LMR. Some LMR could be higher if the impacts of a higher development form can be minimised. With appropriate built form controls, some areas of LMR could be allowed to be four storeys in order to achieve appropriate apartment development forms.

In order to minimise impacts, any four storey element could be 9m from street side or rear boundaries. This will resolve overlooking and overshadowing and maintain a low-rise streetscape. To achieve this the following options could be incorporated,

- Sites within 400m of busway/ railway stations and not in areas of major change LMR+30%
- Sites with 50m or more frontages within 400m of busway/ railway stations outside of areas of major change LMR+30%
- Other LMR sites outside of Demolition Control, LMR+10%
- Sites on major through routes LMR+20%
- LMR within Demolition Control outside areas of major change, no change, existing provisions apply.

The implementation of these principles remains a challenge. A number of overlay maps have been used to understand the complexity of this initiative. Figure 5 combines areas of major change overlaid with LMR designations. The areas generally accord with LMR and commercial zonings with a substantial area of low-density (and character) housing south of Windsor.

Figure 6 refers to designated LMR located within, and outside of the Demolition Control Precinct as well as post 1980's and recent LMR areas of unlikely change as conveyed in the grey fill. LMR sites situated outside of the Demolition Control Precinct are considered short to medium term opportunities.

Figure 7 shows the pre 1970's and LMR in poor condition as well as proposed areas of incremental change overlaid on Figure 6.

Figure 8 outlines both the major and minor TOD walkable catchments and differentiates between areas of redevelopment potential in High Density Development and areas of incremental change within existing LMR in Medium Density Development.



Typical walkable catchment analysis (Lutwyche)

Access and Mobility

As walkability and ready accessibility within a TOD are essential characteristics, the potential walkable catchment for each TOD needs to be carefully mapped. To do this, the actual pedestrian routes from centres along streets are measured using 400m, 5 minute walk, and 800m, ten minute walk radii. Locations of traffic signals for crossing of busy streets are taken into account. Routes deemed to be unsafe such as along the rear or sides of properties or buildings, through service areas, next to multi-deck and open car parks, along lane ways that are not overlooked or visible from public areas or poorly lit are usually not included as a pedestrian route.

Parts of streets within 400 metres of centres are shown with a black line. The paler grey line shows routes along streets between 400m and 800m. These diagrams easily demonstrate the amount of development that is in close proximity of centres, which are the key streets for accessibility, and if the street network actually provides direct routes to centres. In considering the insertion of new transport infrastructure through these areas, the black streets are the mandatory pedestrian routes for preserving and not severing. The pale grey routes could be severed or altered to accommodate new road infrastructure as long as the primary routes to centres are not compromised. The walkable catchments of each major TOD are shown on Figure 2.

Some observations can be made. There are a number of TODs within the precinct and their 10 minute catchments overlap with generally good connectivity of the broader street network. This shows the close relationship of the various centres and the capacity of the area to create excellent interconnected transit oriented communities.

Within the overall street network, it is worthwhile noting the importance of Albion Road as a primary and secondary walkable route notwithstanding the steep topography in the area. Albion Road is one of the few east west connecting streets in the precinct. It joins the Albion centre and railway station to Lutwyche Road. There is a small centre at that corner about half way between Lutwyche and Windsor, thus reinforcing the smaller 400m catchments, well as the good connectivity in the area between the Windsor, Lutwyche and Albion TODs.

In some areas, the street network is poor and connectivity should be improved with redevelopment. Lutwyche, for example has very narrow streets, with cul-de-sac running off Lutwyche Road and poor north south connections. Albion is compromised by the Railway line, which acts as a barrier to the centre for land in its northwest sector. The land south east of Windsor has a poor street network with little connectivity within the broader sector.

Figure 2 provides a representation of the area within 5 minute walk (400m) and 10 minute walk (800m) of the centres locations and define areas that have the potential to be within the walkable catchment in each TOD.

Note: This map has been developed to consider the availability of redevelopable land around existing and potential public transport stations (locations generally indicated by the centroid of circles). Redevelopable land generally includes land that has an existing area classification of Multi-purpose Centre, Multi-uni residential or is currently characterised by postwar development. Information on this map does not represent a proposal to alter existing area classifications, but is a preliminary mapping exercise by consultants to the Office of Urban Management. Information developed by the Office of Urban Management has yet to be coordinated with the Brisbane City Council's Neighbourhood Planning process.

GORDON PARK

LUTWYCHE

ALBION

WINDSOR
400 m & 800 m

BOWEN HILLS Station
400 m & 800 m

Study area

400 m / 800 m TOD
walkable catchments



Figure 4: Primary TODs
with associated walkable catchments

Note: This map has been developed to consider the availability of redevelopable land around existing and potential public transport stations (locations generally indicated by the centroid of circles). Redevelopable land generally includes land that has an existing area classification of Multi-purpose Centre, Multi-uni residential or is currently characterised by postwar development. Information on this map does not represent a proposal to alter existing area classifications, but is a preliminary mapping exercise by consultants to the Office of Urban Management. Information developed by the Office of Urban Management has yet to be coordinated with the Brisbane City Council's Neighbourhood Planning process.

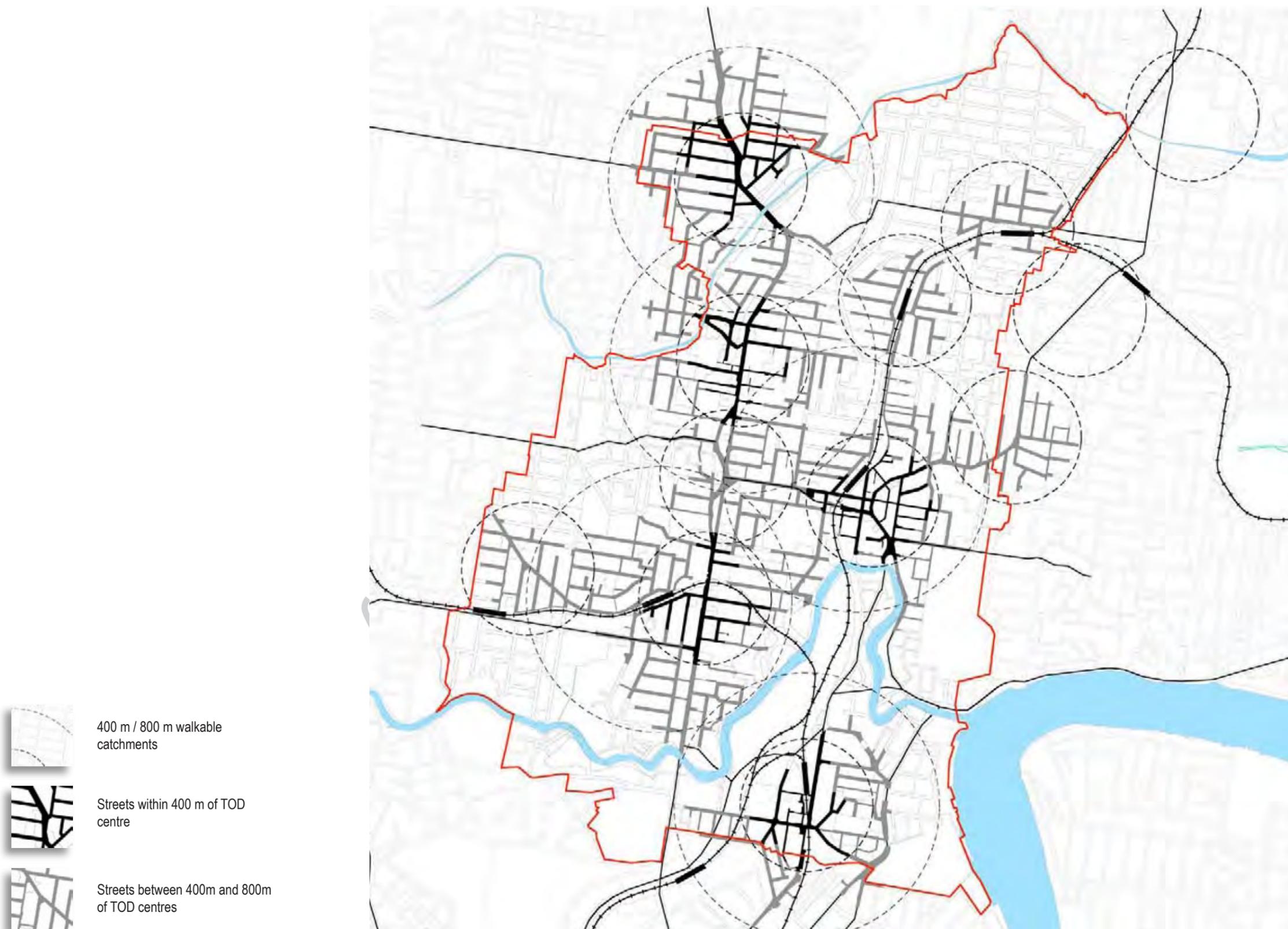


Figure 5: Primary TODs Walkability Analysis
400m & 800m measured along existing street network over cadastre

Note: This map has been developed to consider the availability of redevelopable land around existing and potential public transport stations (locations generally indicated by the centroid of circles). Redevelopable land generally includes land that has an existing area classification of Multi-purpose Centre, Multi-uni residential or is currently characterised by postwar development. Information on this map does not represent a proposal to alter existing area classifications, but is a preliminary mapping exercise by consultants to the Office of Urban Management. Information developed by the Office of Urban Management has yet to be coordinated with the Brisbane City Council's Neighbourhood Planning process.

GORDON PARK

LUTWYCHE

ALBION

WINDSOR
400 m & 800 m

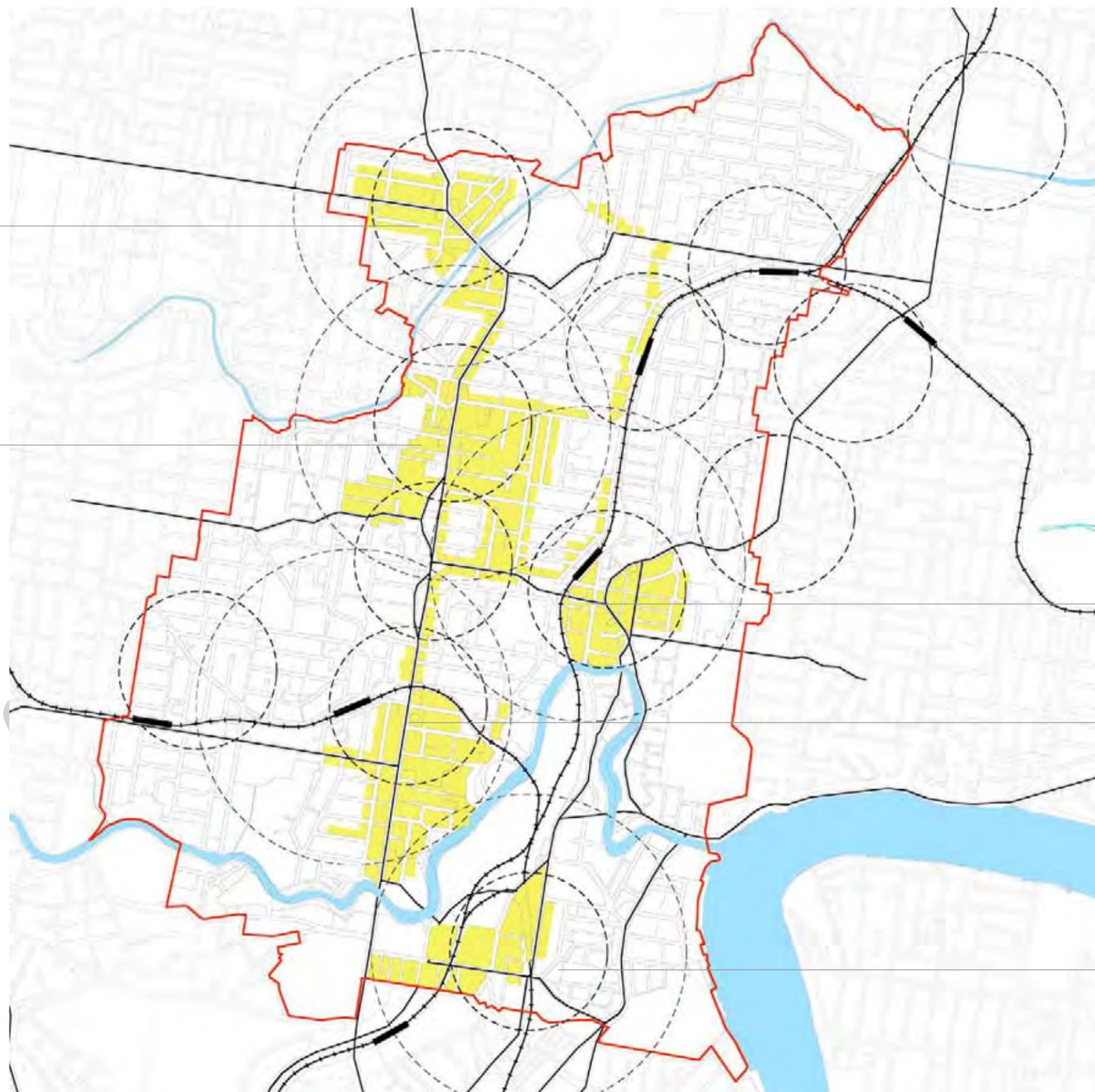
BOWEN HILLS Station
400 m & 800 m



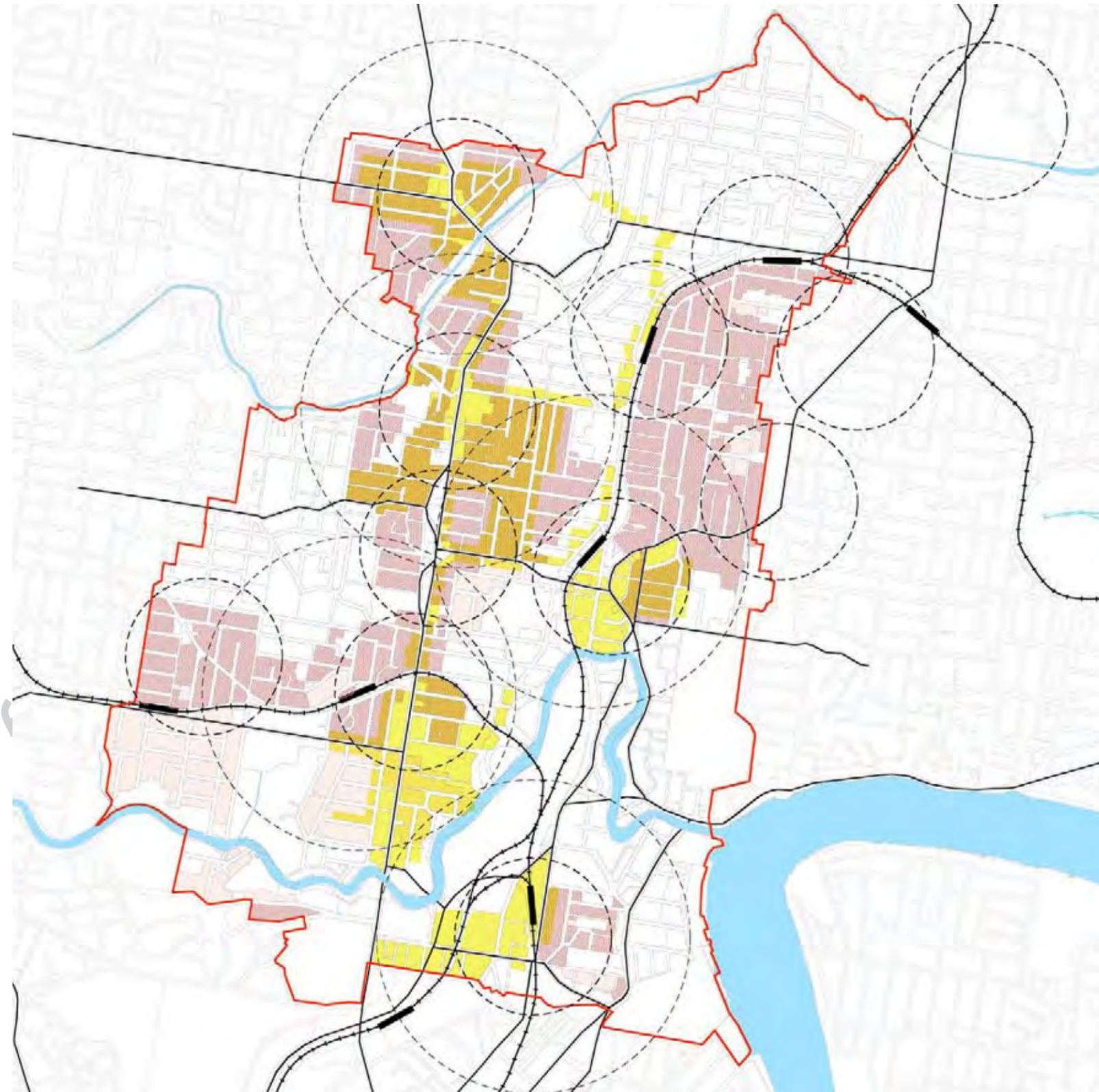
400 m / 800 m walkable catchments



Preliminary analysis of land availability



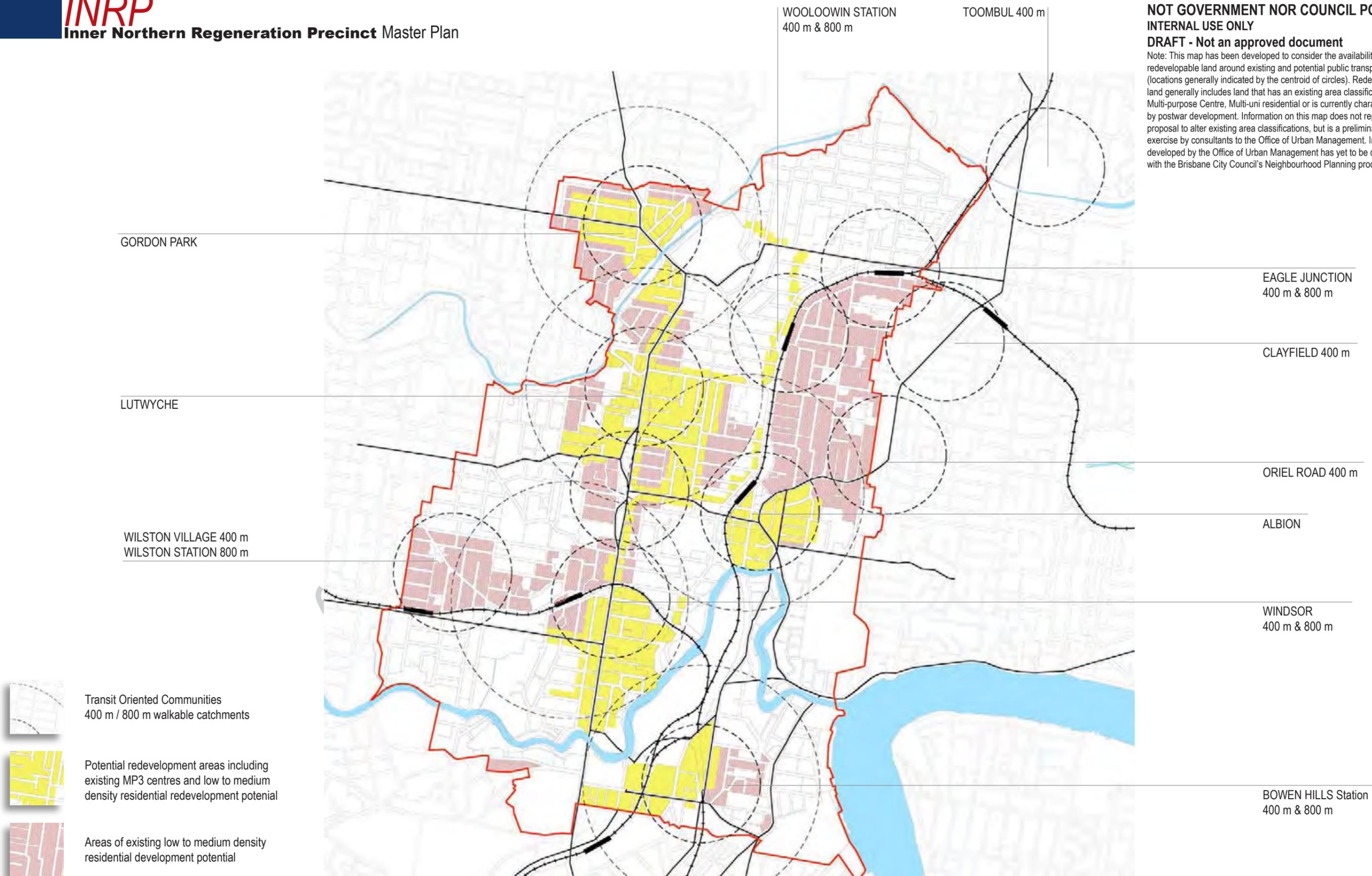
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-  400 m / 800 m walkable catchments
-  Character Residential
-  Preliminary analysis of land availability including LMR
-  LMR Areas of incremental change

Figure 7: Primary and Secondary TODs
showing areas of preliminary analysis of land availability and incremental change

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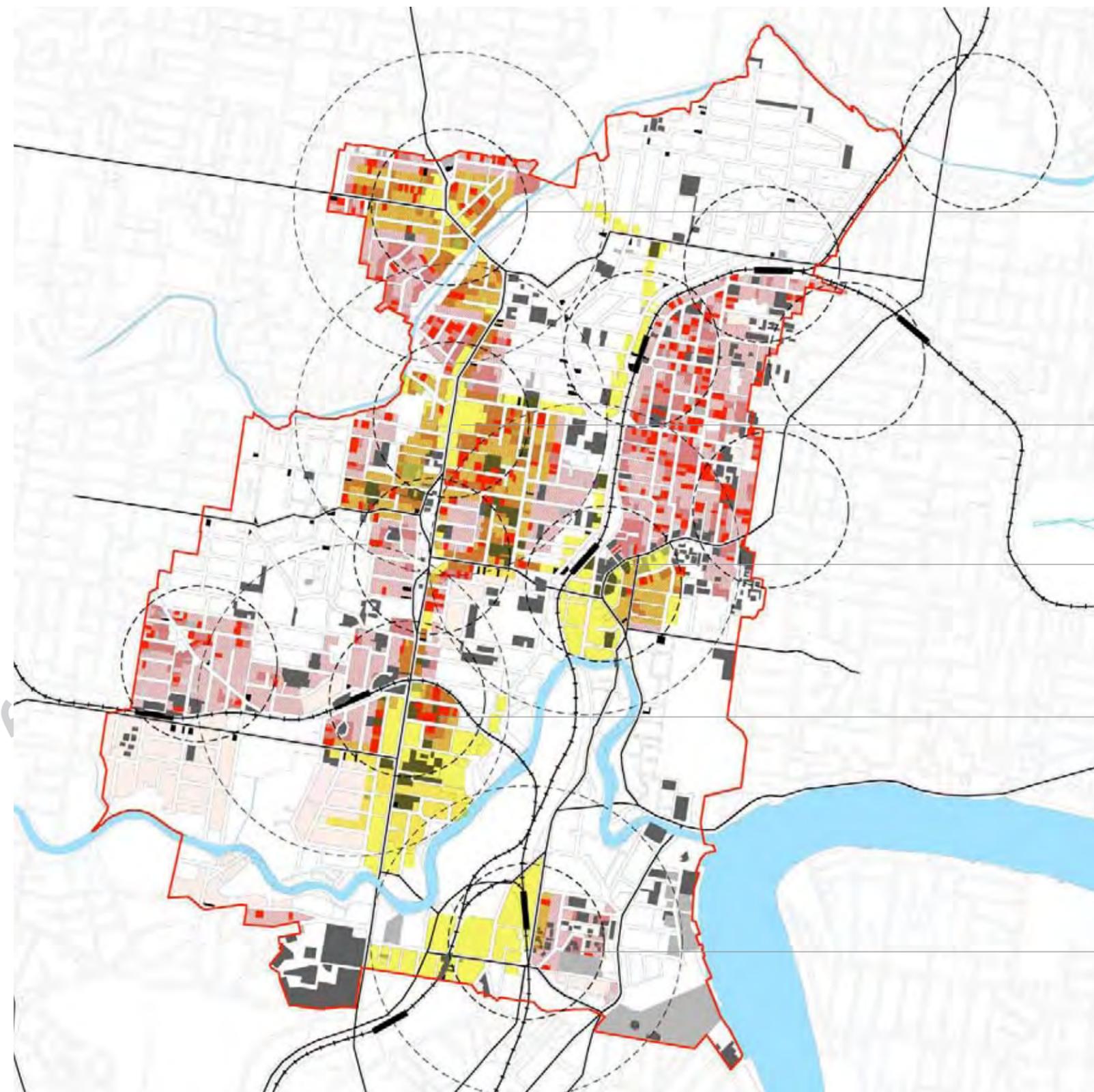


-  Transit Oriented Communities
400 m / 800 m walkable catchments
-  Potential redevelopment areas including
existing MP3 centres and low to medium
density residential redevelopment potential
-  Areas of existing low to medium density
residential development potential

**Figure 8: Inner Northern Regeneration Precinct
Transit Oriented Communities**

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-  400 m / 800 m walkable catchments
-  Pre 1970's and poor condition LMR
-  LMR sites outside of Demolition Control Precinct
-  Character Residential
-  Unlikely to Change Post 1980's & Recent LMR developments
-  Commercial Character
-  Heritage Character
-  Demolition Control Precinct
-  Proposed areas of major change



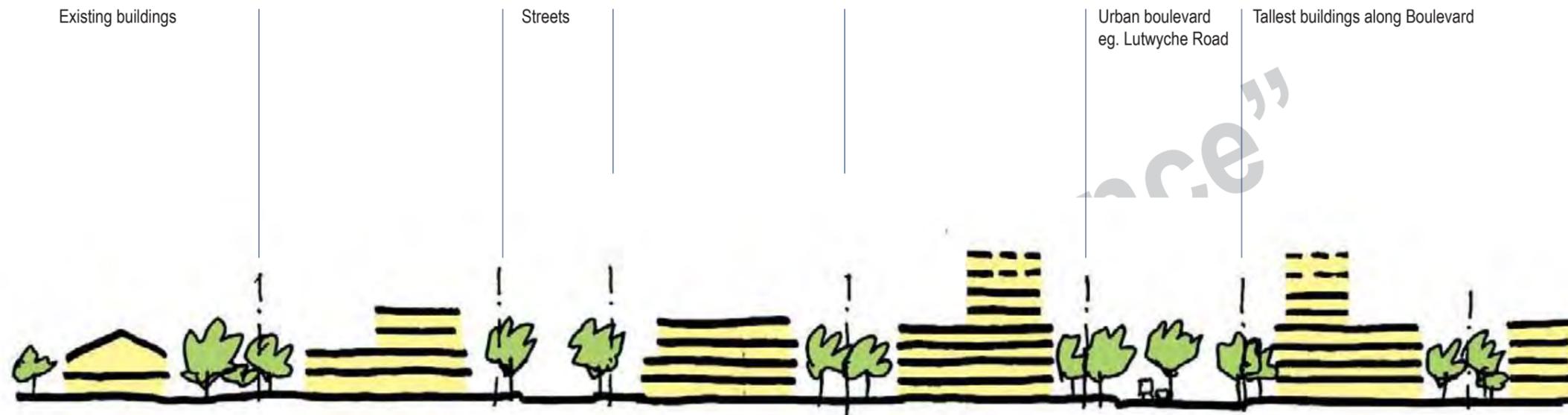
GORDON PARK

LUTWYCHE

ALBION

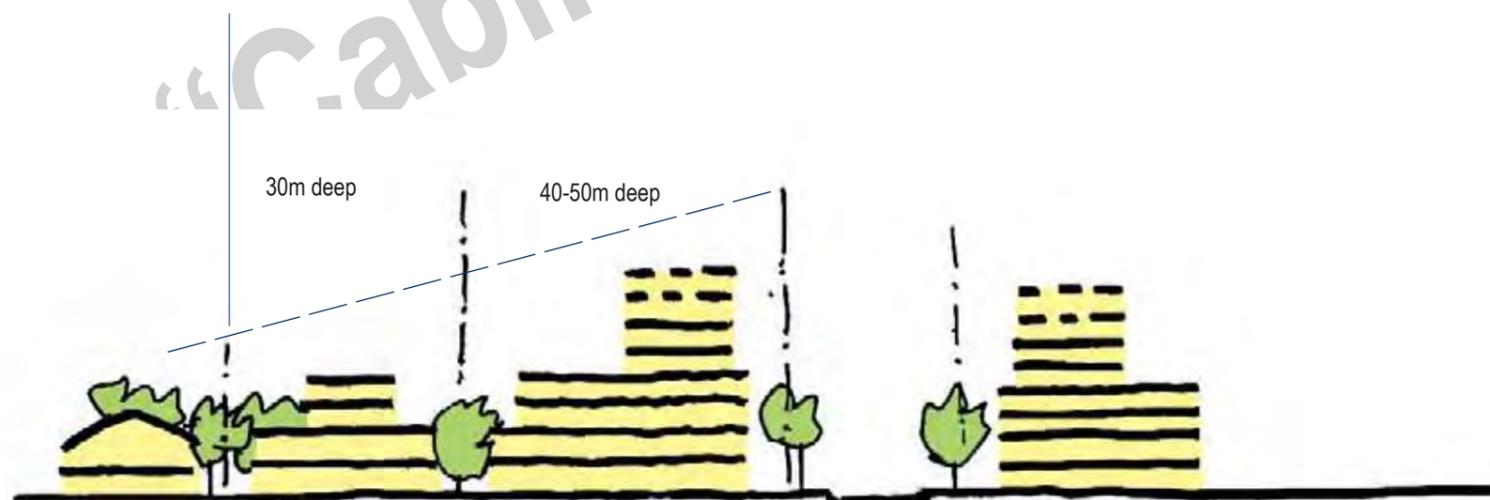
WINDSOR

BOWEN HILLS



Intensification on streets parallel to major boulevards

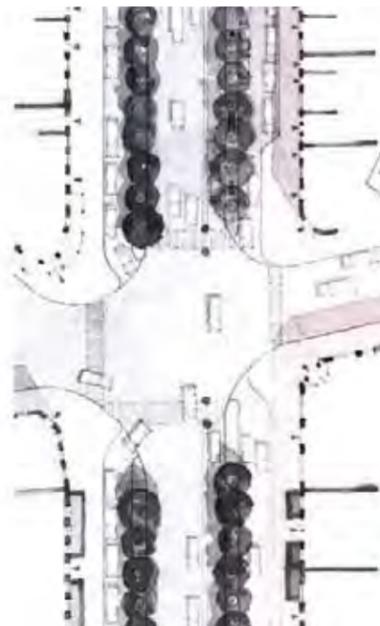
NOTE: This diagram should not be interpreted literally. It does not represent densities and building height, it is conceptual to illustrate density transition



Intensification on streets right angles to urban boulevards

NOTE: This diagram should not be interpreted literally. It does not represent densities and building height, it is conceptual to illustrate density transition

Integration of Transport Infrastructure



LOS ANGELES: Freeway interchange grade separated, land consumptive, creating awkward sites that are hard to redevelop and gain access to, creates urban blight



URBAN BOULEVARDS : High volume traffic route that provides an excellent street address for desirable real estate with a high quality public realm and pedestrian environment.



BARCELONA: Seamless integration of street networks and built form creating a memorable urbanism

The integration of major transport infrastructure within urban areas is a challenge in every city.

Where road infrastructure is developed, movement to other destinations is the primary focus and, turns need to be made at speed with grade separated intersections. The typical freeway conditions result that are very evident in places like Los Angeles.

These designs create places you move past at speed, not places of arrival and welcome. They are land consumptive. Their geometries are such that large inaccessible sites are created. In short, they create urban blight. In solving a traffic task well, virtually every other urban quality requirement is ignored.

Many cities, however, are more successful at integrating transport infrastructure and built form. Places like Barcelona have a seamless integration of streets and buildings and create generous boulevards to move high volumes of traffic. There are many intersections of different types and characters. In some ways, an example of Barcelona is inappropriate as the urban environment was designed after the streets, the streets were not retrofitted through communities at a later stage.

In a traffic movement mind set, stopping vehicles at traffic signals is bad for the environment from the fumes of idling cards. But lights offer other users, especially pedestrians, the ability to cross. Signalised intersections of streets create accessible destinations and addresses for development, the predominant reason to locate places of commerce.

These observations are well known but need to be continually reinforced to achieve good outcomes for the urban environment where large scale road infrastructure is planned. Clearly, freeway road design responses do not integrate into TODs. The urban boulevard response is supportive of TOD.

Irrespective of the preferred corridors for new road infrastructure, at some point, the road connects into the existing street networks. In these locations, the urban boulevards of Barcelona provide the appropriate design character and built form interface.

The Busway needs to better serve the existing communities and centres and has a fundamental relationship to the study area. The Airport Link continues the NSBT to the east-west arterial with a branch to Lutwyche Road. The Airport Link has a different requirement. It has little to do with the areas except connect into the street networks at 3 or 4 locations.

The prefeasibility report for the Airport Link is the information used to inform this report.



NSBT INTERSECTION

Freeway type intersection, visually intrusive, land consumptive, leaving awkward sites with poor access



Flyover connections into Gympie Road

Airport Link Integration

The Airport Link is a major road proposal that connects to and extends the NSBT to the east-west arterial to the Airport. Lutwyche Road at Kedron is one of two possible alignments through the study area. The form of the two options are a combination of bridges, driven and cut and cover tunnels.

While the purpose of the busway is to make the area function better, the Airport Link should not make it worse.

Neither option provides better vehicle access to the TOD centres within the precinct although the eastern alignment will connect to Albion Road. Both options however, have tunnel portals, bridges and elevated roadways at Kedron and Windsor (west option).

The way the freeway style roads meet the existing street network is of critical concern.

The connections to the existing street network at the ends of the proposed high speed roads are urban in character, i.e. occur at signalised intersections.

Where passing through primary TODs, and where open to the sky, the airport link is configured as grand urban boulevards that allows future development frontage (vehicle access from adjacent streets).

Where freeway style grade separated interchanges are required, they minimise land take, allow for access to development within, and occur beyond the 400m walkable catchment of Primary TODs.

Ventilation stacks are outside of the Primary and Secondary TOD catchments and where possible away from residential uses.

Northern Busway Integration

Irrespective of the alignment of the Northern Busway, Lutwyche Road will still maintain a local bus service in a bus transit or T3. This form of transit can comfortably integrate with the urban environment. This bus can stop at more regular intervals and make more connections to the Sandgate Road corridor and to Albion and Eagle Junction stations as well as to the west along Stafford and Maygar Roads. These buses can join into the Northern Busway at the RBH.

The purpose of the Airport Link is to free up the arterial street network within the precinct for local trips and allow better incorporation of public transport. The Northern Busway presents a different urban condition to the transit way and is more like the Airport Link. The busway is higher speed, serves users on longer trips and possibly greater spacing, there fore potentially less stations in the precinct. It has no traffic signals, grade separated turns where possible and is effectively a 'freeway' for buses.

The busway, as a divided walled highspeed route, similar to South East busway, is on a different alignment to the west of Lutwyche Road.

Recommendations include:

The busway does not sever any primary links within the 400 metre primary catchment of TODs.

Northern bus way provides direct connection to the primary TOD locations along preferred corridors (800 metre radius; 1km spacing).

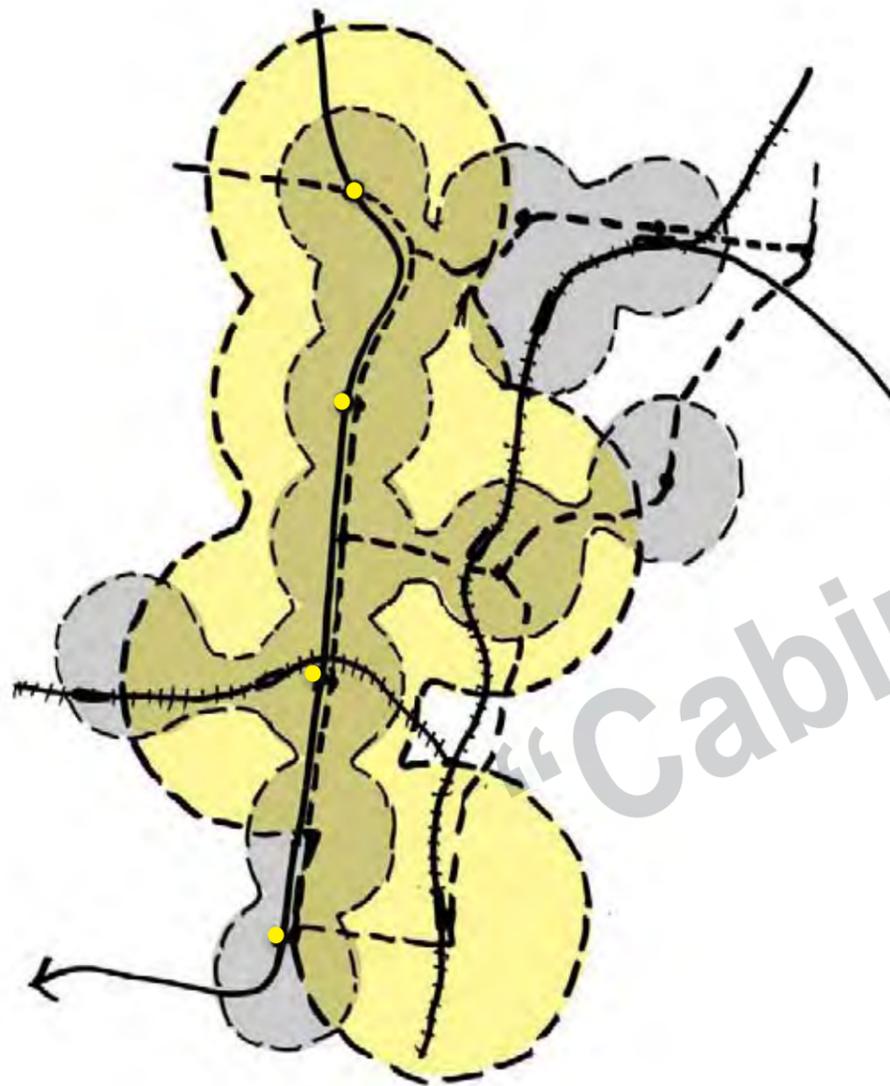
- East: Bowen Hills, Albion, Lutwyche, Gordon Park/Kedron
- West: Windsor, Lutwyche

Additional stops can be located if speed and service is not compromised.

Lutwyche Road is formed as a bus transit way or T3 allowing higher amenity along the street resulting in mixed use development with a predominance of residential.

Bus transit ways connect the Inner Northern Busway stops with a series of smaller TODs of 400 metre radius and to areas outside of the study area.

- Kedron Hotel
- Albion Road
- Windsor South / Northey Street
- Sandgate Road / Oriel Road
- Kalinga
- Wooloowin
- Eagle Junction



Social Infrastructure

The development of TODs could significantly increase population densities and change the population characteristics and subsequent needs for facilities and services over time. It is anticipated that the successful creation of a TOD will generate the impetus for expansion and upgrading of existing facilities and services and create the need for new social infrastructure. Assessment, monitoring and planning for social infrastructure will be required as an integral part of the planning for TODs.

Social infrastructure includes the following:

- Hard Physical Components - schools, hospitals, police stations, community, social, cultural and recreational facilities including sports and recreational parks
- Service Delivery Functions undertaken by professionals, community based organisations, voluntary groups, private sector, and all levels of government
- Structures, Processes and Implementation Mechanisms that contribute to informed and collaborative planning and service delivery. Planning refers to the means by which community needs and aspirations are identified, articulated, formulated and implemented. It incorporates the concepts of community development, collaborative, community and social planning, and includes the networks and organisations/ structures required to support such planning and implementation processes.

KEY ISSUES

1. Population Change and Lifestyle Expectations

It is likely that the development of a TOD will lead to a change in the character of the existing residential population in areas surrounding TOD sites over time. While identification of the actual needs of the current and incoming population will be required, the application of the characteristics identified in other Australian studies give an indication of the broad characteristics and lifestyle expectations that may be relevant to the study area. They include:

Characteristic	Lifestyle Expectations
Significant growth in older age group	Whilst the majority of older residents will not require intensive support services, they will need access to a range of services and infrastructure to support active and healthy lifestyles. In this context, provision will need to be made for: <ul style="list-style-type: none"> • Access to a variety of passive and active recreational opportunities suitable to the needs and ability of older residents (eg lawn bowls, safe and connected walking paths, seating located along walking paths) • Facilities that promote and enable older people to meet and socialise. This could be for formalised activity such as adult education or informal and group gatherings such as senior citizens • Housing models that cater for an aging population i.e. retirement homes.
Increase in the number of young children	Growth in the number of children will place added pressure on childcare, early childhood education services, and child health services.
Young people	A need for more informal venues for young people which offer a place to meet, information, resources, leisure opportunities, and access to technology.
Community/ culture for all age groups	Residents across all age groups will need access to meeting spaces for a variety of purposes including recreational/ leisure, education, social and cultural activities.
Increase in the number of couples without children and lone households	Sole persons and couples without children will be attracted to the mixed density housing. It is important that green space and local parks are located near and connected by safe, interesting walking paths. Persons in these demographic groups also require good access to sporting clubs, multiuse indoor facilities and sporting fields. Those living in single person dwellings may have pets and may need dog off leash areas and access to walking paths to exercise their dogs, especially the elderly.
Single parents	Ensuring that community facilities remain affordable, flexible and accessible will be important in meeting the recreational needs of single parent households. Providing youth spaces, childcare, parklands, bikeways, and access to low cost meeting space for mother's groups or cultural workshops is important. Having public transport routes that enable people to access these facilities is central.

2. Social Infrastructure

Social infrastructure requirements for the study area will vary significantly as the population grows and changes in character and housing densities increase. It is anticipated that existing facilities and services may require expansion, upgrading and management modifications and a range of new facilities, services and planning and delivery mechanisms of a different composition than that found in traditional suburbs will be required. This will be determined once the development options is determined and in response to the finalized design of the Northern Busway and Airport Link Project. The following issues provide an indication of the pressures and demands that may result from an increase in population and development of a TOD.

Type	Issues
Sporting and recreational facilities	<ul style="list-style-type: none"> Although the study area is currently well supplied with pools, there may be potential for a new pool with densification. Inner northern outdoor sporting facilities are highly accessible for the region, but there will be a need for more local/ district use options with a larger population in the area. The development of TODs could impact adversely on sporting parkland, including reverse amenity impacts associated with higher density residential units abutting sporting venues. Walking infrastructure for leisure and fitness walkers is required as walking is the most popular physical activity pursuit. Clayfield and Hendra are low in park supply. There is a low level of provision of youth targeted facilities available in the inner northern suburbs. Newmarket, Nundah and Kedron are hubs for recreational infrastructure provision.
Community services	<ul style="list-style-type: none"> The viability of the high number of smaller community services and facilities that are currently in high demand may be placed under pressure and displaced as land values increase. Provision rates of libraries are above average in the study area, although there may be a deficiency of library floor space. Nundah library needs major refurbishment or an alternative solution is needed. There is a concentration of community support functions in the Newmarket area. Childcare and educational functions: relatively high number in the study area but this requires careful analysis as many inner city childcare centres meet metropolitan needs as opposed to more localised needs. They are generally found in Clayfield, Herston, Nundah and Spring Hill areas. There is a lack of provision of youth based facilities.

Affordable housing	<ul style="list-style-type: none"> Affordable housing in the inner northern areas is already under stress and could increase rapidly as the demand and land prices increase and the return derived from affordable housing is not able to compete with the demand to use the land for higher return uses. Pressure will increase on low income housing such as boarding houses and caravan parks to use to use for higher return uses and the private rental market rents are increasing in line with the value of the land and market purchase value.
Community based organisations and groups	<ul style="list-style-type: none"> The viability and sustainability of a range of services and activities may be at risk if the voluntary members are dispersed through the redevelopment. Affordable community services spaces may be an issue particularly as community services need to located in easily accessible places which are often characterised by high land values.
Cultural facilities	<ul style="list-style-type: none"> The number of cultural facilities is low compared with the provision rates of other types of community facilities. They are mostly found in Bowen Hills and Spring Hill. Visual arts and crafts based facilities comprise approximately one half of these, with performing arts closely behind. Arts fabrication spaces with community education access (industrial specs) are in demand. Performing arts facilities are in low supply in the mid northern suburbs.

Source: Brisbane City Council City Life

Recommendations

The development of a TOD requires the application of sound social sustainability and effective social infrastructure provision principles. Some of these include the following:

- It is critical that the planning, implementation and monitoring of social infrastructure is part of the planning processes for TODs. The full cumulative impact of TODs on community infrastructure and services should be assessed and appropriate mitigation measures identified. It is also imperative that there is integrated social infrastructure planning across the INRP, the Airport Links Project and the Northern Busway Project.
- Community profile analysis needs to go beyond an assessment of the demographic profile. Social infrastructure and service needs should be determined, based on the anticipated future profile: for example, if there is likely to be a significant young person profile in some SLAs/ suburbs, then there is likely to be a need for requisite youth spaces, skate parks etc., if the supply of such is insufficient for this future profile. Housing characteristics may also influence such needs eg unit dwellers may be seeking community gardens, indoor sports facilities and informal use spaces, in preference to the traditional suburban mix of expansive sports fields.
- Community consultation is critical given the importance of the objective to achieve connectivity and integration with the existing community, and the provision and development of appropriate facilities and services. As well, to create a catalyst for the establishment of new or modified forms of community organisations which will be required to deliver much of the needed social infrastructure.
- In the provision of community infrastructure the catchment of facilities should be considered. Many existing community services and facilities serve a city-wide, SEQ or state clientele, and may not directly service local populations. The retention of such facilities and services is of paramount importance. Local and district level needs would be in addition to such provision.
- Collocating community facilities near current and proposed community infrastructure eg near to school sites, urban common parks, and commercial centres will improve access and can lead to improved efficiencies.
- Utilise available public land as opportunities for social infrastructure and community housing provision and make interim use of the residential resumptions through leases to community housing providers and community organisations.
- It is critical that community facilities on private land are retained. Services and facilities on land not owned by the occupant are at risk due to the development pressures and land value changes.
- Significant heritage and cultural values which are highly valued by the existing community are attributed to some precincts, such as the Windsor Town Hall /Windsor Memorial Park precinct and should be retained and enhanced.
- Reinforce the cultural hub of the inner north through additional cultural facilities.
- Access to parklands by foot, cycle and other modes will require attention to the east-west access as the larger tracts of sporting parkland and associated community facilities lie on either side of the major road corridors.
- Enhancement of existing environmental assets and amenity in parklands: development of Kedron Brook and Enoggera Creek; Pedestrian and cycle access to Kalinga, Melrose and Windsor Parks.
- Maximise opportunities to increase the provision of adequate parkland which provides recreational and open space appropriate to the densities and changing population characteristics of the study area.

- Open space near bus ways, creating an urban common within the TOD context, creating shade ways for pedestrians and places for people to gather and enjoy, and therefore adding to a sense of community and place.
- Local bus and bike networks should connect the new TODs to community facility hubs and sporting parkland.
- Ensure that reverse amenity impacts of placing high-density residential precincts abutting high use parkland and community facilities are addressed by suitable buffering, density designations and detailed design guidance.
- High land values necessitate mechanisms that will lead to new or enhanced community facilities.
- High land values also mean affordable housing provision will be hard to achieve unless changes in the legislation allow for appropriate infrastructure charging, planning and other incentives to be applied. Mechanisms are required to establish partnerships and joint ventures with community housing services/churches/the private sector and State and Local Government.

Note: This map has been developed to consider the availability of redevelopable land around existing and potential public transport stations (locations generally indicated by the centroid of circles). Redevelopable land generally includes land that has an existing area classification of Multi-purpose Centre, Multi-uni residential or is currently characterised by postwar development. Information on this map does not represent a proposal to alter existing area classifications, but is a preliminary mapping exercise by consultants to the Office of Urban Management. Information developed by the Office of Urban Management has yet to be coordinated with the Brisbane City Council's Neighbourhood Planning process.



Figure 11: Open Space and Community Facilities

TOD

Connectivity

Urban Amenity

Development Opportunities

Response

Bowen Hills/ RBH



The Bowen Hills' street network is well connected to Campbell Street and Abbotsford Road, close to large employers RBH. New development with need to create additional links within. The railway station is situated in a strategic location within the proposed TOD. Bowen Hills will be impacted by the NSBT/Airport Link Inner City Bypass Connection.

Perry Park provides a green outlook otherwise dominated by major roads. There are panoramic views from the hilltop with relatively close proximity to the River but through light industrial area. There is little amenity elsewhere and will therefore need to be created within developments - urban parks, greens, avenues and boulevards.



A large area of vacant land and low grade industrial uses exists around the railway station and is relatively self contained, with few impacts on surrounding residential land adjacent station. Established commercial uses such as QR Operations Centre can't be moved. Established residential area on Bowen Hill with high value residential and higher density housing unlikely to change in medium term. Light industry facing Abbotsford Road across the road from residential uses allows opportunities for a good street address for the precinct.



Significant opportunities on vacant land for high density mixed use development including employment.



From north



From south west



From west and RBH towards Bowen Hills

TOD

Connectivity

Urban Amenity

Development Opportunities

Response

Windsor

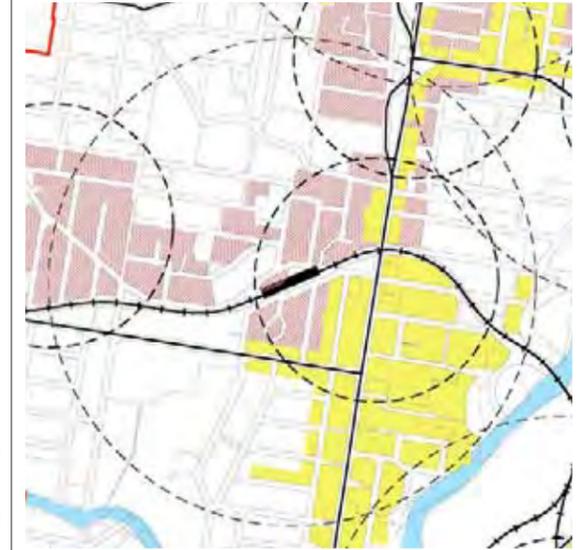


Bowen Bridge Road/ Lutwyche Road forms the central spine. Connection to the NSBT and ICB is at southern end of the precinct.
 Newmarket Road and Albion Road are the only east-west connections.
 The railway line acts as a physical barrier with little connectivity to the north. The station is not well connected to centre along Lutwyche road.

Large open space corridors frame the southern boundary of the precinct.
 Breakfast Creek corridor and parkland is to south and east with playing fields to southwest.
 The pedestrian and cycleway links to the west along Breakfast Creek.



A wide mix of development forms of many use types exist, with some old lower grade light industrial uses.
 There is a large area of character, detached housing in Demolition Control.
 Recent developments include service trades (Bretts) and Bulky Goods Retail (Freedom), office buildings (Windsor) and motels along Bowen Bridge Roads as well as large investments in general industry, concrete batching plant next to Bowen Bridge Road and Breakfast Creek.



Major opportunities south of railway line with Bowen Bridge Road becoming a major urban boulevard from RBH to Windsor.
 The south east quadrant has good proximity to the Breakfast Creek open space corridor with a number of parks.



TOD

Connectivity

Urban Amenity

Development Opportunities

Response

Lutwyche Village

Corner Lutwyche Road/ Chalk Street



Lutwyche Road dominates the Lutwyche Village. There is poor connectivity on overly narrow streets. Stronger north-south connections are needed on both sides of the street. East-west connections are poor. Chalk Street links indirectly to Albion Road and Bradshaw Street feeds a small area of Gordon Park. Maygar Street links to the Grange, but to little beyond.

Located on a ridge line with some views to west, parklands to west connecting to Kedron Brook. The Central Parks with established vegetation within Lutwyche Road, just south of the centre, are an asset.



Lutwyche is an established centre that has had many waves of development. Large area of LMR surrounds the commercial centre. Some LMR opportunities with residential amalgamations needed. Demolition Control Precincts in strategic locations within 400m of the centre. There are large amounts of recent developments near centre.



High density integrated around shopping centre and land to the east that acknowledges the many recent lower rise development. More opportunities east of Lutwyche Road. Lutwyche Road reinvented as an urban boulevard. Stronger links to Kedron Brook.



TOD

Connectivity

Urban Amenity

Development Opportunities

Response

Albion Village

Corner Sandgate Rd/Albion Rd.. Junction



Albion is located on the corner of Albion Road and Sandgate Road with the Main Street along Sandgate Road. The railway station is well integrated in this precinct.

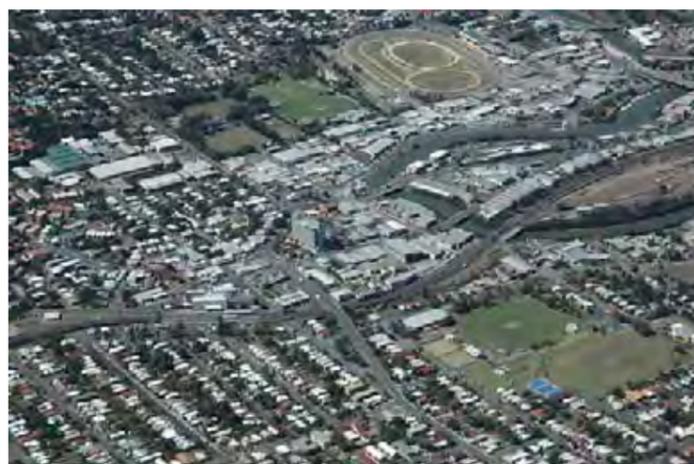
High location with city views. Indirect access to playing fields west of railway line and Crosby Park although few community green spaces. Breakfast Creek is relatively accessible although there is little open space and urban amenity due to the poor interface with industrial land.



There is a large amount of heritage including commercial heritage along Albion Road which remains a relatively intact Main Street. Flour Mill is a strategic site that has just been sold and will incorporate residential towers. There is a variety of lot sizes and shapes as Sandgate Road follows ridge line, with many steep sites. Large area of Demolition Control within 400m of centre proposed to become higher density. Large area of commercial uses on high land south of the centre that could develop as high rise commercial, mixed use or residential precincts. The TAB already provides a precedent for the scale of buildings.



Significant opportunities in short and longer term for development to create a high density TOD. Improved treatments and provision of open space along Breakfast Creek with better connections to the centre. The Main Street retains its small scale commercial character as the community focus of the precinct with large areas in the south and east proposed for major change. These include areas of LMR with Demolition Control.



TOD

Connectivity

Urban Amenity

Development Opportunities

Response

Gordon Park/Kedron

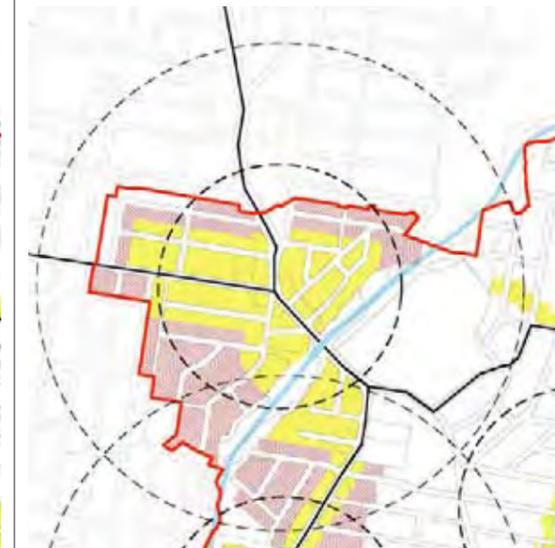


Gordon Park/Kedron is a regionally strategic location on the corner of Lutwyche Road and Stafford Road at the beginning of the Airport Link. It will most likely have a stop on the Northern Busway route. It has a good street network within 400m catchment and the area is relatively flat.

Adjacent to significant green space Kedron Brook corridor and Mercer Parklands.



The area has a commercial centre with a number of lower grade uses that could be redeveloped. Largely zoned LMR with large areas of Demolition Control. There are a number of typical residential lots so amalgamation from various owners will be needed. Small pockets of recent development also exist. This area will have major impacts from the development for the Airport Link and Northern Busway that could provide one catalyst for the repositioning of the area.



Significant potential for a high density TOD at the connection of major north south and east street arterials in northern Brisbane and adjacent to the major east-west green corridor with links 10-15km to the west.

The location will have significant impacts from the Airport Link and the Northern Busway, so the infrastructure formed as major urban Boulevards within a new TOD.

Opportunities for businesses along major urban boulevards screening precincts of higher density residential areas facing green spaces.



Criteria for the Assessment of Options

The following are a preliminary list of criteria to assist in evaluating TOD Opportunities in the Inner Northern Regeneration Area.

- Ability to develop with short/ medium term.
- Well connected with a choice of vehicular and pedestrian routes to the variety of pedestrian destinations within the TOD catchment.
- Ability to create a precinct with its own desired character (min. 10 hectares) i.e. streets have similar land uses and character. Uses change on boundary.
- Adequate transition of density in the street network to existing two storey housing stock street by street.
- Public transport infrastructure improves access from users within ten minutes of stations. Spaces stations at intervals that serve the maximum amount of the study area within 400m and 800m stops.
- New transport infrastructure does not compromise existing local pedestrian and vehicular connectivity, particularly pedestrian routes within 400m of TOD centres.
- If new corridors are created on grade or cut and cover, they support the local street network eg new north/ south corridors parallel to Lutwyche Road as urban avenues and boulevards with new development fronting onto them.
- Infrastructure site acquisition, and location of infrastructure creates residual development sites with good street addresses that can be readily developed i.e. depths of 35-40m.
- Intersections of major road infrastructure within TODs have an urban (Barcelona) not freeway (Los Angeles) character.

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Note: This map has been developed to consider the availability of redevelopable land around existing and potential public transport stations (locations generally indicated by the centroid of circles). Redevelopable land generally includes land that has an existing area classification of Multi-purpose Centre, Multi-uni residential or is currently characterised by postwar development. Information on this map does not represent a proposal to alter existing area classifications, but is a preliminary mapping exercise by consultants to the Office of Urban Management. Information developed by the Office of Urban Management has yet to be coordinated with the Brisbane City Council's Neighbourhood Planning process.

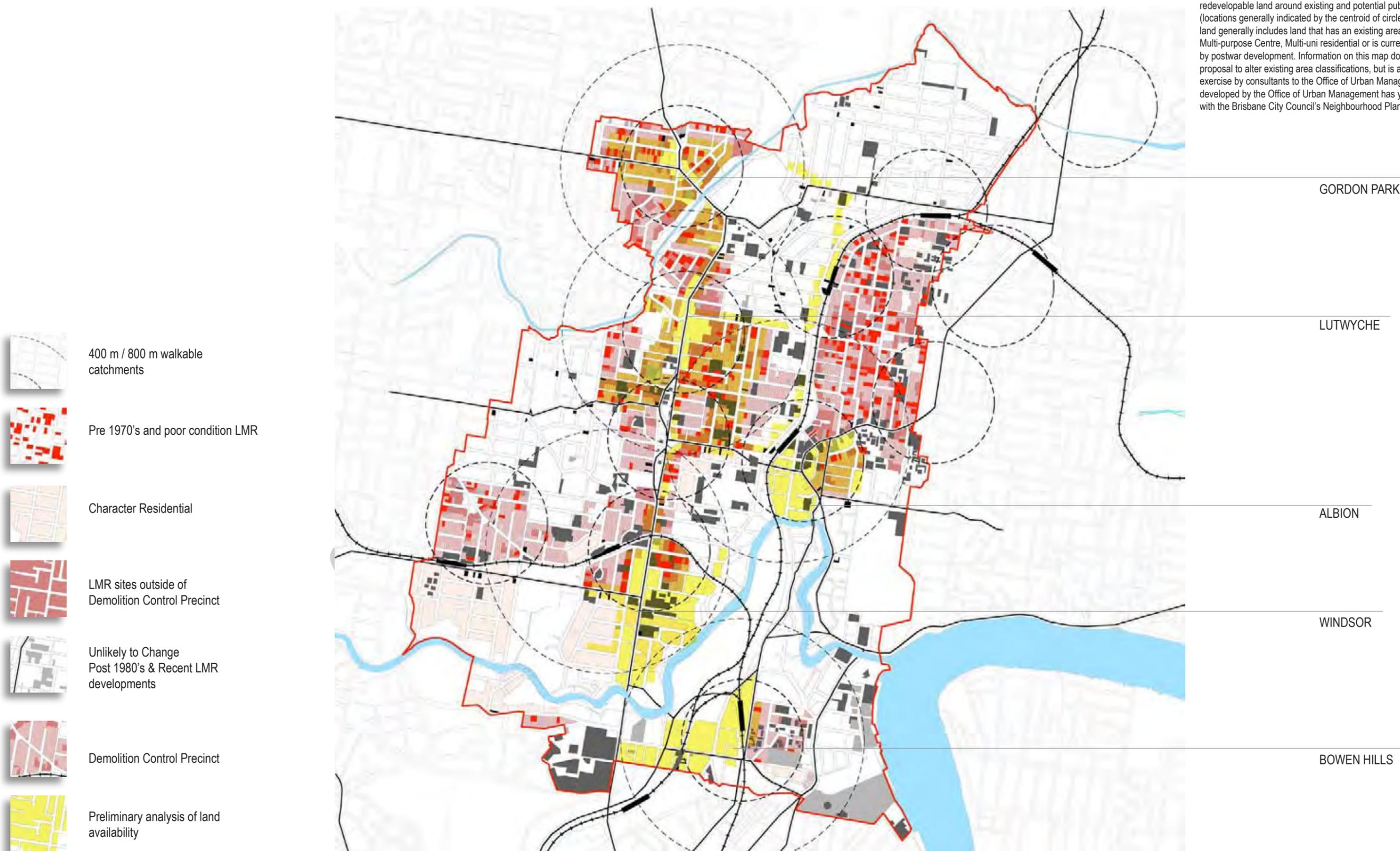


Figure 8: Development Opportunities
overlaid over preliminary analysis of land availability



INRP

Inner Northern Regeneration Precinct
Master Plan

Stage 3 Report **DRAFT** 7 APRIL 2006

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Project Context

TransLink, Queensland Transport (QT) and Brisbane City Council (BCC) to support the integration of land use and transport in relation to the Airport Link and Northern Busway projects. The INRP project is overseen by the Transit Oriented Development Project Executive Group (TOD PEG) and a sub-committee of that group known as the INRP Working Group. This report forms stage 3 of the project.

Successful integration of transport is difficult to calculate, are likely to be significant and ongoing. It will also significantly contribute towards a more efficient use of urban land sought by the South East Queensland Regional Plan 2000. Inefficient use of land is a major constraint on the region's growth.

Report Confidentiality

This study helps inform the TOD PEG's recommendations for route alignment and design in relation to the Airport Link and Northern Busway infrastructure projects. A Cabinet Submission for Airport Link and Northern Busway, including a business case, will be submitted to Cabinet in April 2006. The business case will address issues being dealt with as part of this study.

This study is intended to form part of briefing papers for use by the Minister or the Chief Executive Officer in relation to the cabinet submission, including the business case.

As such, this study and associated documentation are cabinet documents and therefore must be kept confidential.

This study is also exempt matter for the purposes of the Freedom of Information Act 1992.

Key Findings from Stages 1 & 2

Findings of Stage 1 and 2 have confirmed that Albion, Bowen Hills, and nodes on the Lutwyche corridor including Windsor, Lutwyche Central and Kedron Brook/Gordon Park provide important opportunities for future local planning.

Relationship to Brisbane City Council's City Shape and Neighbourhood Planning Process

The INRP Masterplan Project is overseen by the Transit Oriented Development Project Executive Group (TOD PEG) and a sub-committee of that group known as the INRP Working Group. Brisbane City Council are represented on the TOD PEG and have officers on the INRP Working Group. As such, OUM plan to release findings of the INRP to the co-funding agencies of TransLink, Queensland Transport (QT) and Brisbane City Council (BCC). These findings will inform BCC's City Shape and Neighbourhood Planning Process, which in turn will inform and be subject to development of BCC's Local Growth Management Strategy.

Section 1: Introduction

This document forms a preliminary draft of the Stage 3 INRP Master Plan. The challenges of urban consolidation in this part of Brisbane have been addressed by providing a number of strategies to inform urban consolidation objectives for TODs. These include qualities that need to be preserved, enhanced or created in response to the population growth identified within the Regional Plan.

A recurring theme in the work is a key conclusion of the Stage 1 report, that the best opportunity for TOD is on the already vacant land. Other than that, due to the high value of property in the area, densities will need to increase for the market to respond. This issue alone suggests that in any area of change, whether it be the few pockets of b

This draft document doe

responses. These are at the scale of the entire precinct and each individual TOD. Further principles are elaborated in diagrams of TOD option types, based upon potential densities and built form transitions. Specific design outcomes within each TOD are not proposed. This will require more detailed investigations and response to the finalised design of the Northern Busway and Airport Link.

This work needs further refinement based upon information from a number of parallel projects. This work is yet to have a formal interface with the BCC LGMS City Shape process being undertaken by Metropolitan and Neighbourhood Planning at BCC. Similarly, the most recent work by Urban Renewal Task Force for Albion or Bowen Hills is not yet available.

The Busway alignments are not finalised and while the strategic locations of stations are determined, ie in TOD centres, the exact locations of stations are not yet determined. While a number of road design options for Airport Link have been sighted, no preferred options and connections to the existing street network have been available. As a consequence, concept plans do not respond to any specific design proposal.

OBJECTIVE

A primary objective of this study is the planning will provide significant and ongoing economic and community benefits. It will also contribute to a more efficient use of urban land sought by the SEQ Regional Plan. Conversely, a failure to successfully integrate these elements is likely to result in ongoing long term costs including inefficient use of transport infrastructure, and a lost opportunity to improve community health, wellbeing and amenity.

This objective will be achieved through:

- Identification of opportunities (for a
- An Inner Northern Regeneration Precin
- Application of the INRP framework to form options for the study area, which are critiqued and consolidated to form three developed options; and
- Concept plans for each node which illustrate design and public realm principles. These principles are directly linked to the SEQ Regional Plan - Section 8.7 Integrated Land Use and Planning.

STRATEGIES

The INRP framework identifies nine strategies to guide the final TOD design outcomes.

- **Connectivity Strategy: Existing Street Network**
This strategy identifies specific existing street connections and their importance. These streets should be retained and not severed by the Busway or Airport link, if possible.
- **Connectivity Strategy: Proposed Additional Connectivity**
In order for areas
- **Open Space/Urban Amenity Strategy**
Boulevard planting, improved street treatments, additional open spaces and new green links to improve connectivity
- **'Precinct': Major Change Investigation Strategy**
Redevelopment opportunities where moderate to higher density could be located.

- **'Corridor': Major Change Investigation Strategy**
Redevelopment of physical boundaries such as the railway line. These are also generally consistent with areas that will have direct impacts from the new busway and Airport Link infrastructure. abutting open space corridors or
- **Incremental Change Strategy**
Recognises the existing LMR zonings and the ability of these areas to incrementally intensify over time.
- **Stormwater Management Strategy**
Demonstrating how storm water management and water quality measures can be incorporated. These concepts and locations should not be compromised by the Busway and Airport Link Infrastructure.
- **TOD Density and Land Use Transitions Strategy**
Demonstrates the potential scales and densities of various TOD types. This demonstrates the extent of TOD primary catchments of 400 metres.
- **Busway Station Integration Strategy**
Concept plans for the scale of potential development and integration with Busway stations. These concepts are examples of the scale, density and configuration of possible signature projects that include

OPTIONS

Nine options for intensification are proposed. These options have been developed in response to the strategies and analysis from the Stage 1 and Stage 2 Reports. Strategies to more change of varying densities in smaller pockets or less change spread through larger areas.

- **Business as Usual**
This option proposes a moderate increase in density within existing LMR. This Option assumes a review of the current demolition control precincts. Residential uses predominate.
- **Moderate Increase**
This option proposes a moderate increase in density within existing LMR. This Option assumes a review of the current demolition control precincts. Residential uses predominate.
- **Signature Projects**
Larger scale development projects at TOD centres integrated with the busway stations and adjacent sites - Higher density mixed use projects.
- **Focused Nodes**
This option proposes TODS as urban villages with higher density housing beyond.
- **Corridor**
The Corridor focuses major development in the corridor area with business with some mixed use
- **Infrastructure**
An infrastructure led consolidation of land uses
- **Salt and Pepper**
This approach involves small scale development projects
- **Major Centre**
Major increase in a defined area around the Lutwyche centre - higher intensity retail, business and residential uses
- **Blanket**
Blanket intensification across the LMR

DEVELOPED OPTIONS

Three developed options are:

- *Major Centre, Corridor and Business as Usual*
- *Focused Nodes, Signature Projects and Moderate Increase*
- *Infrastructure, Corridor, Signature Projects and Moderate Increase*

CONCEPT PLANS

Concept Plans for TOD centres have been developed. These concepts do not show specific land-uses and densities and possible forms of development, but public realm improvements that will be needed for each place to effectively emerge as a true Transit Oriented Community. These diagrams act as 'urban design briefs' for each TOD that can inform the design process for the Airport Link and Busway Infrastructure Projects. The concept plans demonstrate the following:

- New street connections
- New pedestrian connections
- Plazas
- New open spaces
- Boulevard treatments
- Possible Busway station integration

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Section 2: Strategies

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Strategy 1: Connectivity Strategy - Existing Street Network

The existing street system is the primary circulation network for a TOD. The INRP areas has a relatively robust street network that forms a good basis for consolidation. As walkability and ready accessibility within a TOD are essential characteristics, the potential walkable catchment for each TOD is carefully mapped. To do this, the actual physical signals for crossing of busy streets are taken into account. The route next to multi-deck and open car park is also considered as a route.

Parts of streets within 400 metres of centres are shown with a black line. The paler grey line shows routes along streets between 400m and 800m. These diagrams easily demonstrate the amount of street network that actually provides direct routes to centres. The walkable catchments of each major TOD are shown on Figure 1.

Recommendations

Preserve the existing street network within walkable catchment of primary and secondary TOD's. In considering the insertion of new transport infrastructure through these areas, the black streets are those that should be reinstated as soon as possible. The pale grey routes could be severed or altered to accommodate new road infrastructure as long as the primary routes to centres are not compromised.

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-  Study Area Boundary
-  400 m / 800 m walkable catchments
-  Streets within 400 m of TOD centre
-  Streets within 800 m of TOD centre

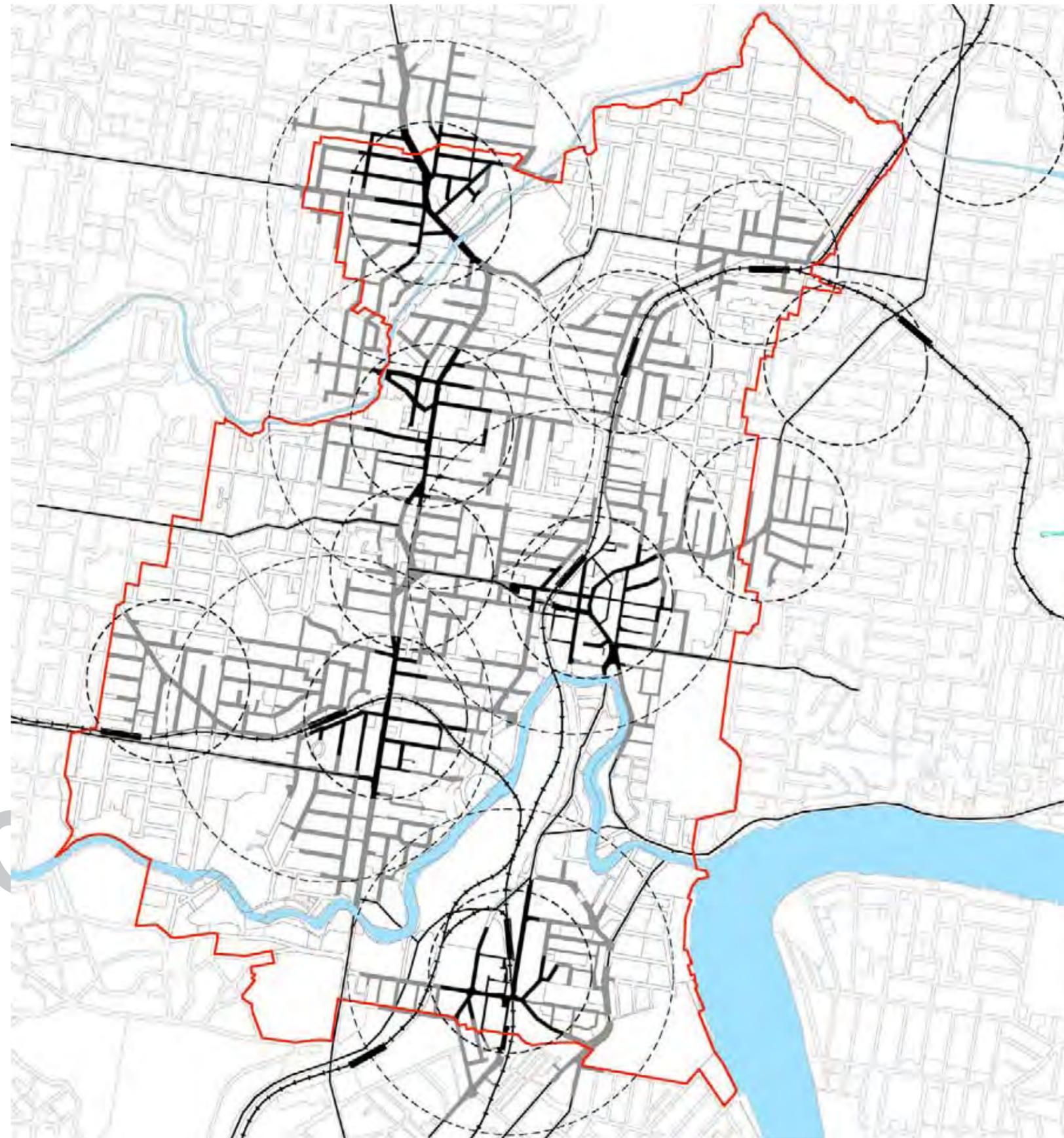


Figure 1: Existing Connectivity

Strategy 2: Connectivity Strategy - Proposed Additional Connectivity

In order for the TOD precincts to provide TOD walkable catchments. This enables densification to occur and to improve urban amenity through redevelopment.

The historic development form of many parts of the study area does not function well for TOD as:

- Incremental
- Predominance of streets running at 90° to the major roads with poor connectivity running parallel to the major routes
- Overly narrow streets that need to be widened through redevelopment

New street connections are generally located within areas of potential redevelopment as these streets need development frontage.

These connections are

- North/South connections parallel to main arterials
- Better local connections across major arterials
- Improving connectivity to cul-de-sac street movements.

local

New dedicated pedestrian routes are proposed

- Improved access, connectivity and views from the street network to parks and open spaces and enhance public safety
- Provide safe access along the routes
- Addition of routes through existing and proposed parks

These additional routes are shown on figure 2 and are elaborated in the TOD Concept Plans. These routes are generally localised in nature and relate specifically to individual TODs, no broad new street connections are proposed.

Recommendations

Explore opportunities for the surplus Main Roads Freeway land for additional connectivity.

New street:

- Local traffic movements
- Development frontage and street address for new development sites

New pedestrian routes are created to provide better scale and access to key pedestrian destinations:

- Crossings at major intersections
- Safe overpasses and underpasses
- Access and vistas to open space
- Frontage to development where present subdivision pattern has lots backing onto open space

New cycle linkages to provide better access to existing and planned local/regional cycle networks:

- Crossings at major intersections
- Safe overpasses and underpasses

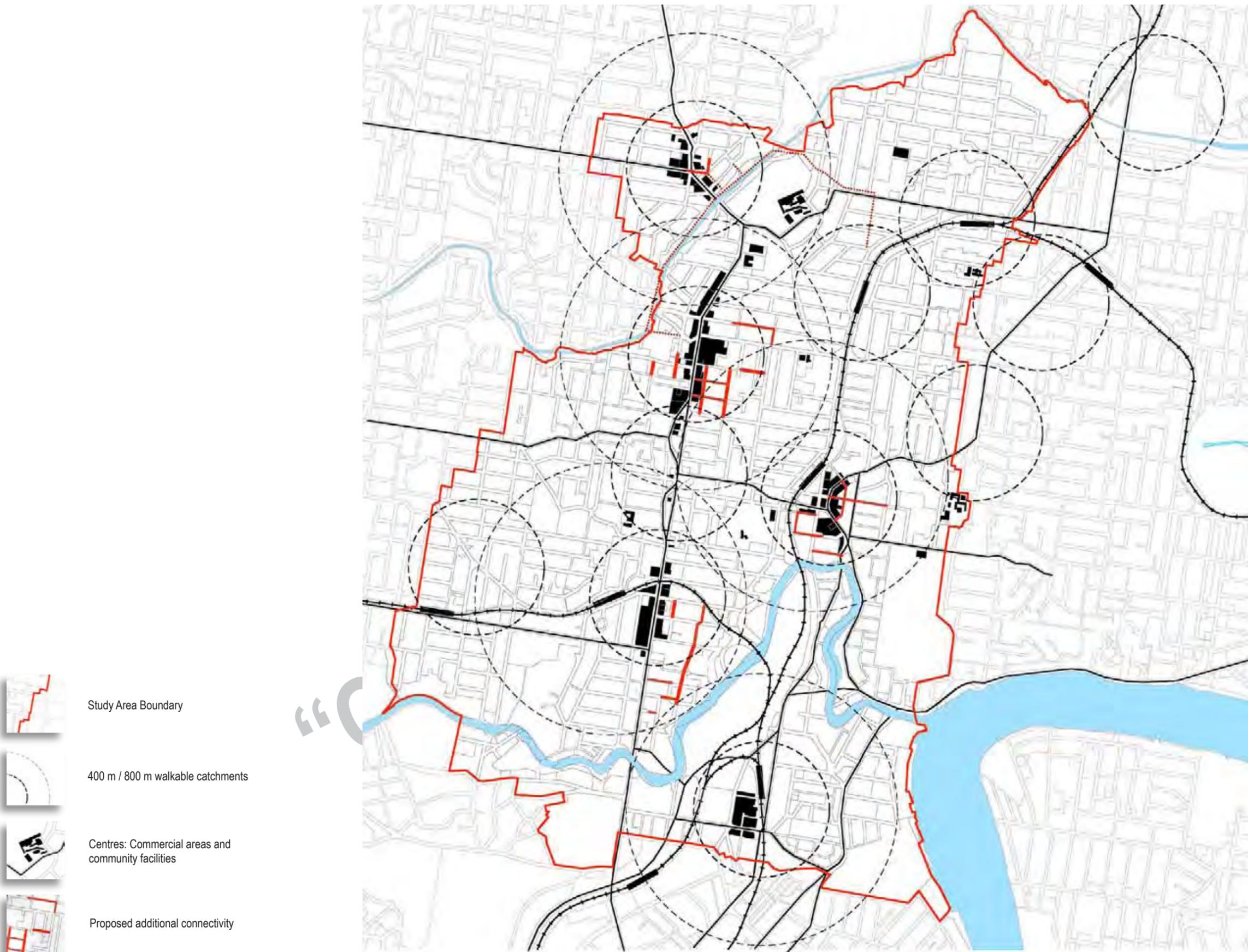


Figure 2: Proposed Additional Connectivity

Strategy 3: Open Space and Urban Amenity

The development of TODs creates additional population that will use alternative modes of transport such as walking and cycling. There is a need for improved urban amenity on streets for pedestrian and cycle access. That provide safe and memorable journeys to TOD centres, public transport routes, other pedestrian destinations within the TOD and adjacent TODs.

□

For urban consolidation to be attractive to the marketplaces places of high and improved urban amenity need to be created.

The additional population will also require increased parks and open space and improvements to existing parks.

The strategy identifies key pedestrian routes for primary and secondary pedestrian movements for enhancement.

Street treatments such as:

- Tree lined streets, avenues and boulevards with substantial planting creating continuous canopies where possible
- Pedestrian footpaths on both sides of the street
- Improved pedestrian crossing points along pedestrian *word* lines and across busier streets.
- Open spaces are enhanced by more shade and facilities
- Enlargement of existing parks, removing □
Northey Street

The strategy is described in Figure 3.

The strategy includes existing parks, creek corridors, public buildings and associated open spaces.

Recommendations

Create a mesh of high amenity streets that enable safe and direct pedestrian movements.

Create additional parks and open spaces that are visible, accessible and overlooked by development.

Create urban plazas integrated with development at local points within TODs.

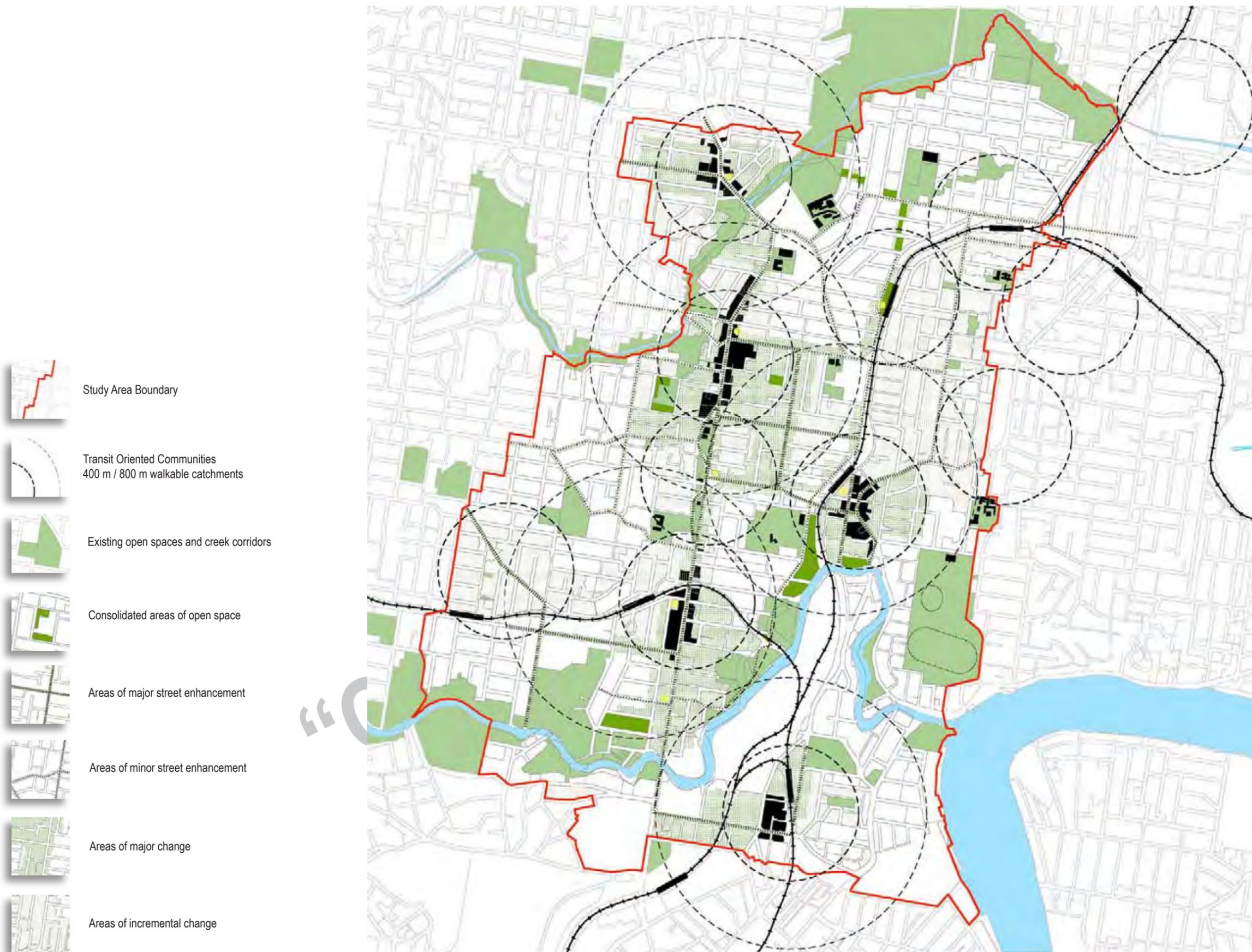


Figure 3: Open Space and Urban Amenity

Strategy 4: Major Opportunity Areas: ‘Precinct’

Five primary TOD locations are recommended within the study area. These are :

- Bowen Hills,
- Windsor,
- Albion,
- Lutwyche and
- Gordon Park/Kedron. (In addition to Stage 1 Report)

The Primary TODs were shown on Figure 4 with associated walkable catchments of 400 metres; 5 minute, and 800 metres; 10 minutes.

In order to achieve the TOD outcomes specific precincts where development could substantially increase. This form of development is not one that can be made in small pockets incrementally, in a salt and pepper fashion, as the impacts are too great and the contrasts between new and traditional development too extreme. These areas are chosen based on the following criteria:

- Within primary walkable catchments of the TODs
- Defined boundaries such as through streets
- Primary green corridors and parks
- Railway lines

Areas of major change may not result in wholesale redevelopment and these areas have a long development history:

- Recent developments of acceptable density to achieve TOD outcomes
- Existing viable business eg. Officeworks, Freedom
- High value detached dwellings, often on steeper land
- Character housing in some pockets
- Demolition control precincts

The areas of major change investigation are indicated with the red fill. This equates to 140ha or 20% of developable land in the precinct.

A number of population scenarios are shown in the Regional Plan. This represents limited, reasonable and major development intervention. Varying density amounts could be applied, 25-50 du/ha (reasonable), 50-100 du/ha (moderate) and 100-200 du/ha (high). It should be noted that densities of 2/3 times were recommended in the Stage 1 Report for the market to achieve commercial viability.

The population outcomes, assuming a base net density of 25du/ha, are as follows:

ha	density (du/ha)		
140ha	50-100	100-150	150-200
Redevelopment percentage to 2026			
25% (35ha)	875-2625	2625-4375	4375-6125
50% (70ha)	1750-5250	5250-8750	8750-12250
75% (105ha)	2625-7875	7875-13125	13125-18375



-  Study Area Boundary
-  Transit Oriented Communities 400 m / 800 m walkable catchments
-  Proposed areas of major change

Figure 4: Major opportunity areas: Precinct

Strategy 5: Major opportunity areas: ‘Corridor’

Major roads through urban areas present both opportunities and challenges for urban consolidation.

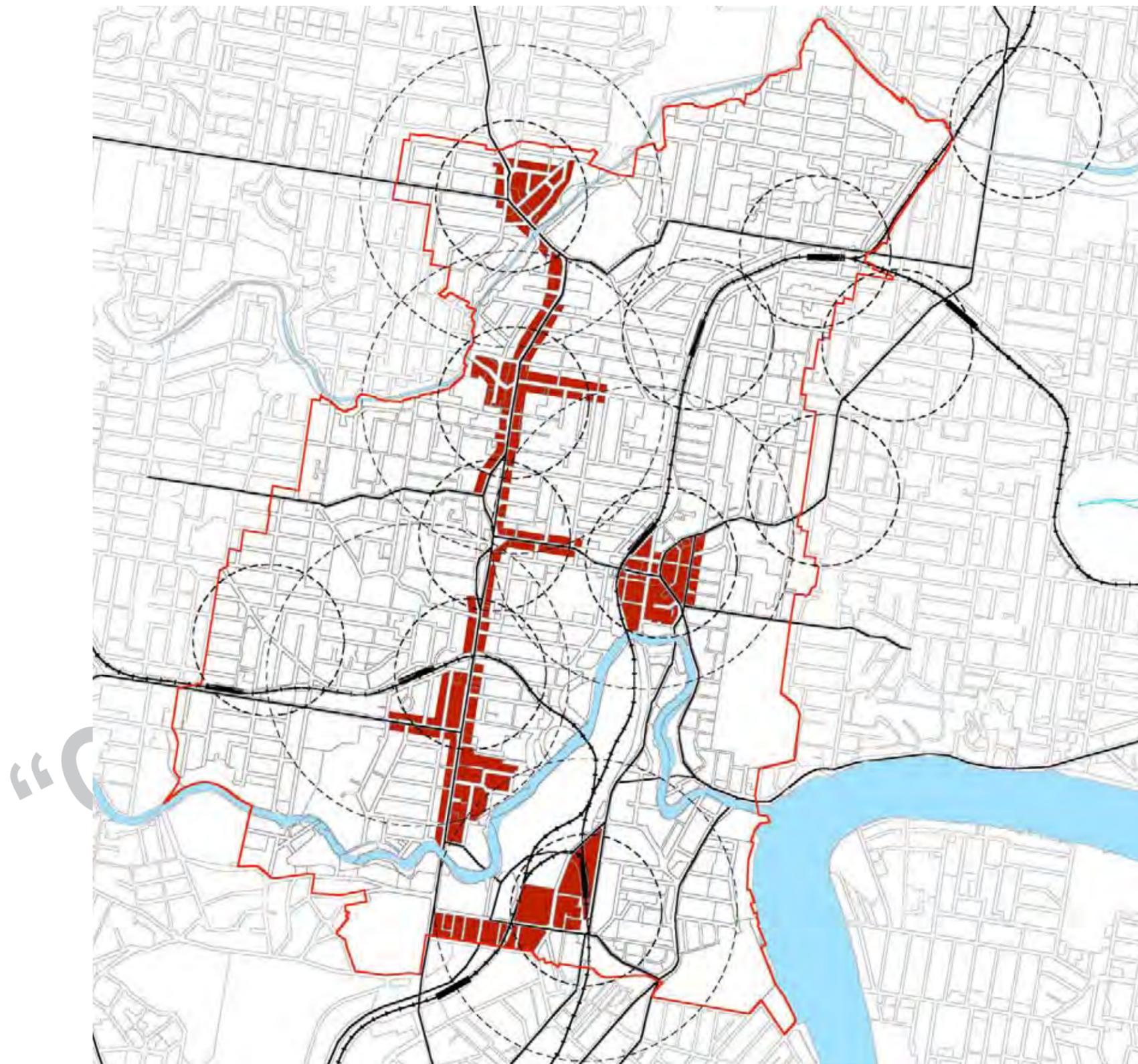
Major urban road corridors have high visibility, potentially good access for traffic, and from public transport, but are noisy and polluted. While boulevard treatments can provide higher amenity. Major Lutwyche, housing can be more appropriate.

The corridor strategy promotes the major arterials and in

Possible Yields and jobs (assuming a base density of 0.5)

30ha	GFA 1	GFA 1.5	GFA 2
Redevelopment percentage			
25%	37 500	75 000	150 000
50%	75 000	150 000	300 000
75%	150 000	300 000	600 000

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-  Study Area Boundary
-  400 m / 800 m walkable catchments
-  Areas for major change

Figure 5: Major opportunity areas: Corridor

Strategy 6: Incremental Change Strategy

As the study area already has a number of urban arterial roads and railway corridors, other locations can be seen as TODs and contribute to urban consolidation. These places are Secondary TODs as follows:

- Windsor South; Northey St/Lutwyche Road
- Wilston Village and Station
- Clayfield South; Oriel Rd/Sandgate Rd
- Clayfield Central
- Woolloowin Station
- Eagle Junction Station

Woolloowin and Wilston Stations are not located with their associated shopping areas, limiting potential for higher density TODs.

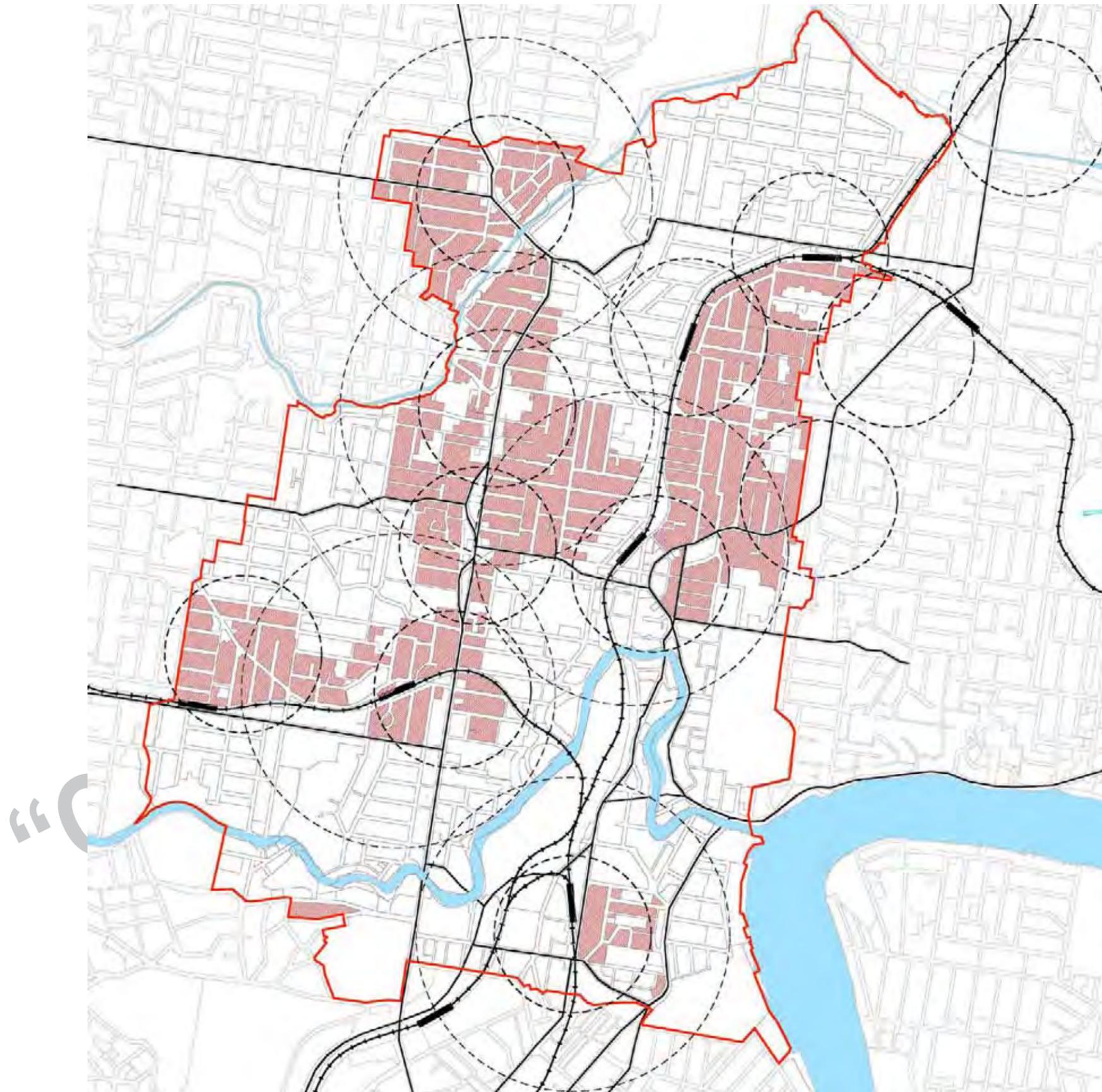
The remaining LMR outside of the areas designated for major change are the areas for incremental change. These areas can potentially redevelop with slightly higher densities than the current controls, some areas of LMR can be increased to four storeys.

In order to minimise impacts, any four storey element could be further set back from street, side or rear boundaries. This will resolve overlooking and overshadowing or lower density neighbours and maintain a low-rise streetscape. To achieve this the following bonuses could be considered,

- Sites within 400m of busway/railway stations and not in areas of major change LMR+30%
- Sites with 50m or more frontages within 400m of busway/railway stations outside of areas of major change LMR+30%
- Other LMR sites outside of Demolition Control, LMR+10%
- Sites on major through routes LMR+20%
- LMR within Demolition Control outside areas of major change, no change, existing provisions apply.

The population outcomes area, assuming a base net density of 25du/ha, are as follows:

200ha	25 - 50 du/ha	50-100ha
Redevelopment percentage to 2026		
25% (50ha)	1 250-2 500	2 500-5 000
50% (100ha)	2 500-5 000	5 000-10 000
75% (150ha)	5 000-10 000	10 000-20 000



-  Study Area Boundary
-  Transit Oriented Communities
400 m / 800 m walkable catchments
-  Medium Density Development
Incremental Change within existing LMR

Figure 6: Opportunities for Incremental Change

Strategy 7: Stormwater Management

Being situated between two s[...]
lower land along the creek corridors as well as a number of low hills, Eildon Hill and Toorak Hill.

Traditi[...]
Areas of lower ground that
could not be built on today, are urbanised. Piped stormwater systems are incomplete or non-existent.

The traditional development form [...]
The small footprints and raised houses allowed water to flow overland.

The opposite applies [...]

The strategy does not att[...]
development. There are no recommendations for acquiring additional open spaces for stormwater treatment although this was different with more detailed studies.



Stormwater treatment integrated into new urban parklands. Victoria Park, Sydney

Recommendations

Streetscape upgrades with improved parking shade trees but also integrate swales and other stormwater collection areas

Incorporating wetlands and other WSUD treatments in existing parklands as part of open space upgrades.

Incorporating wetlands and stormwater [...]
treatment.

Design controls for development [...]
Site coverage allows vegetation in front, side and rear setbacks.



Pedestrian routes down to drainage corridors create urban amenity and overland flow



Stormwater infiltration within urban streetscape, double rows of trees

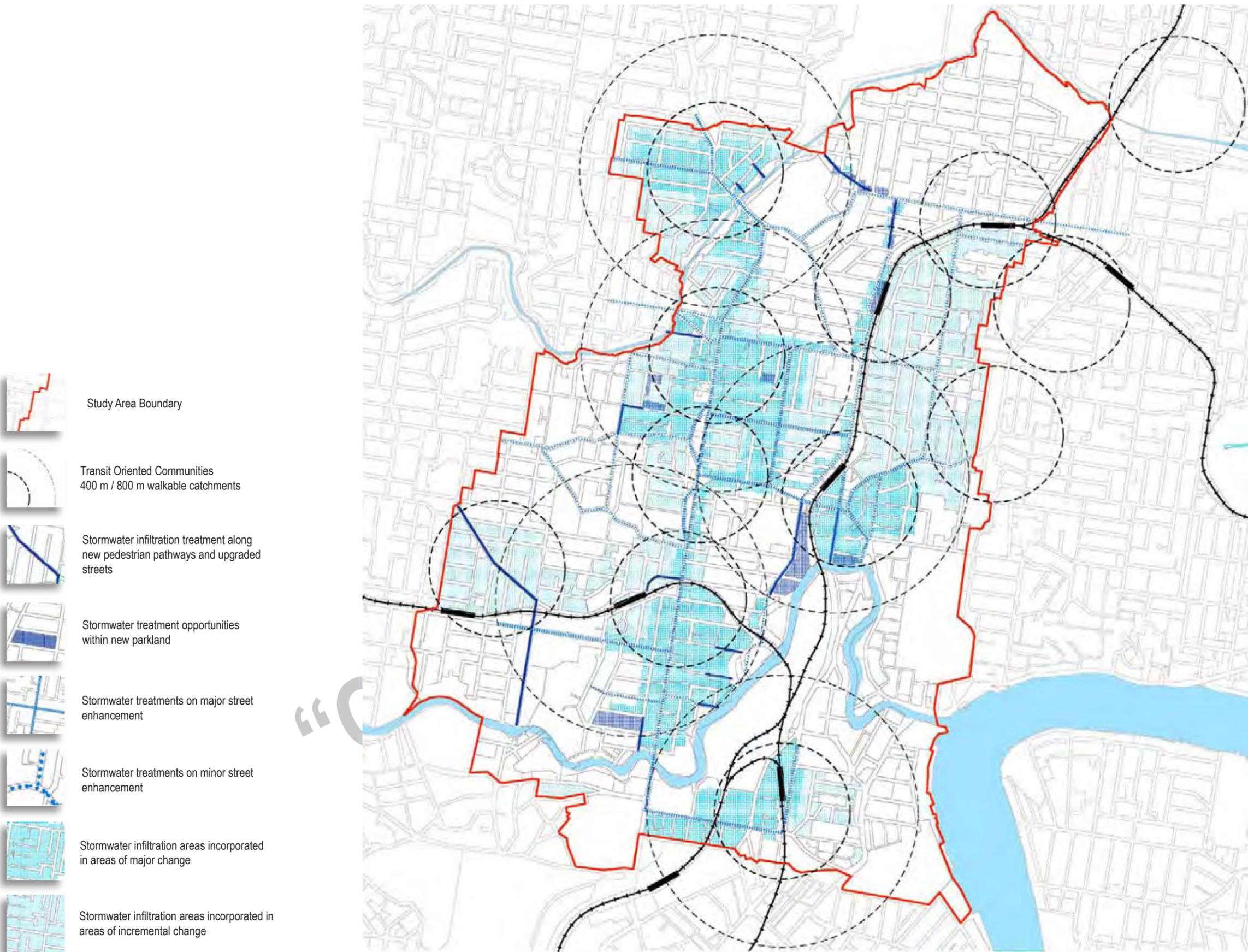


Figure 7: Opportunities for Stormwater Management

Strategy 8: TOD Urban Qualities

The Precinct urban qualities plan brings together a number of strategies and principles for the development of TOD's within the INRP and improved urban quality and amenity of the precinct generally that will create an improved quality of life for existing future residents

- Walkable catchments
- Connectivity
- Urban amenity

The elements of the plan are described as follows:



The 400m radius circle shows the generic 5 minute walkable catchment



Primary pedestrian routes within the TOD. These streets need to be retained for primary catchments local movements accessed by the streets within 5 minutes walk of the TOD centre



Walkable catchment shown in grey fills are the primary TOD catchments



Signature projects - potential locations for TOD integration projects



The Boulevard streets are those major arterials and sub arterials through the INRP area



Avenue planting. Both Boulevards and Avenues are higher amenity streets, pavement on both sides, additional street trees, stormwater management within streets



The red lines show new street connections (thick) and road widenings (thin)



New pedestrian linkages are shown by the continuous line of red dots



New parks

-  Study Area Boundary
-  Primary Pedestrian routes within catchment
-  Primary TOD catchments
-  Signature Projects
-  Main Boulevards
-  Minor Avenues
-  New street connections
-  New Pedestrian linkages
-  New Parks
-  Existing Parks
-  400m Walkable Catchment

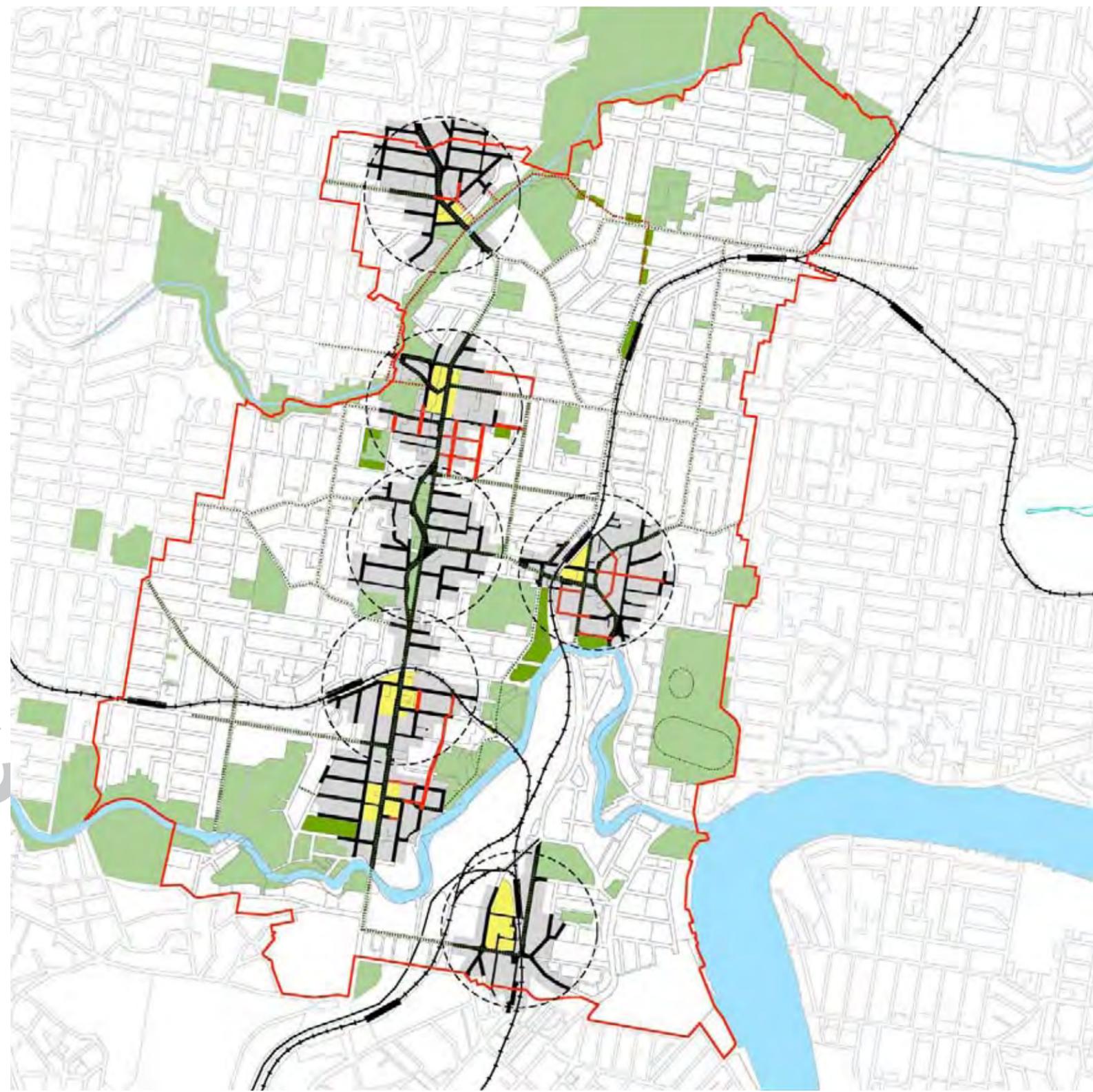


Figure 8: TOD Urban Qualities

Strategy 9: TOD Density and Land-use Transitions Strategy

TOD is a development form that has a primary and larger walkable catchments. TOD is not a singular project on a specific site adjacent to a proposed public transport spot.

THE CATCHMENTS

250 metres - three minute walk, 6 hectares

- Major employment/retail

400 metres - 5 minute walk

- Primary catchment for more intense residential/mixed use.
- This catchment is 50-60 hectares.

800 metres - up to 10 minute walk

- Less intense residential development
- This catchment equates to an area of 200-240 hectares.

Highest intensity around transit nodes, along primary arterials/public transport routes, significant parks and open spaces.

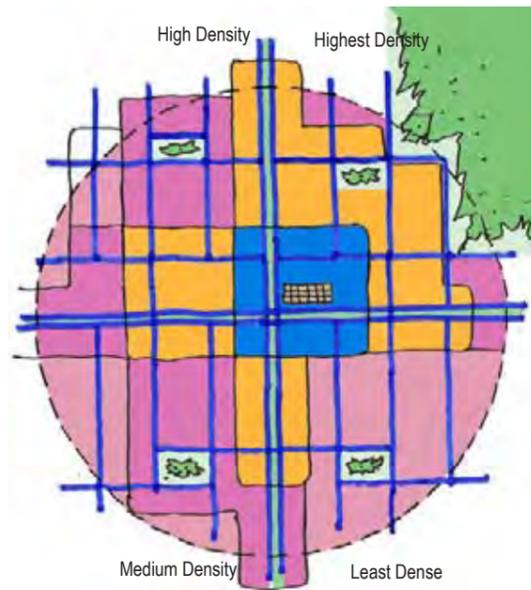
Higher intensity development forms across the street. Development forms and density transitions occur along rear boundaries.

DENSITY GRADIENT

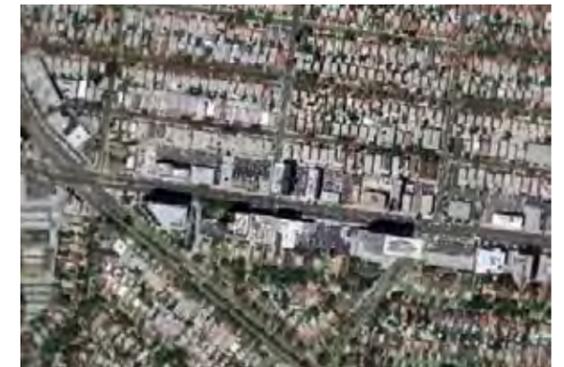
The density

Highest density (150-200 du/ha) is located in TOD centres in 6-8 storey buildings. High density (100-150 du/ha) along arterial corridors in 4-6 storey buildings. Those densities could extend further defined pockets near centres interfacing with existing green corridors and around existing or newly created parks.

Medium densities (50-100 du/ha) catchment or in area where lower densities within TODs is appropriate. In general terms densities should transition from highest to lowest in sequence to manage and minimise impacts between different forms of development. However in some situations, highest densities may be adjacent to lowest densities.



- Highest Density 150-200 du/ha in TOD centre
- High Density 100-150 du/ha on primary corridors, facing open spaces
- Medium Density 50-100 du/ha in close proximity
- Low Density 25-50 du/ha
- Parks
- Square/Plaza
- Boulevard



Wilshire Boulevard, Los Angeles - high density interface with low density areas

"Cabinet in Confidence"

4-6 storey building
120-160 du/ha within
250m of TOD core

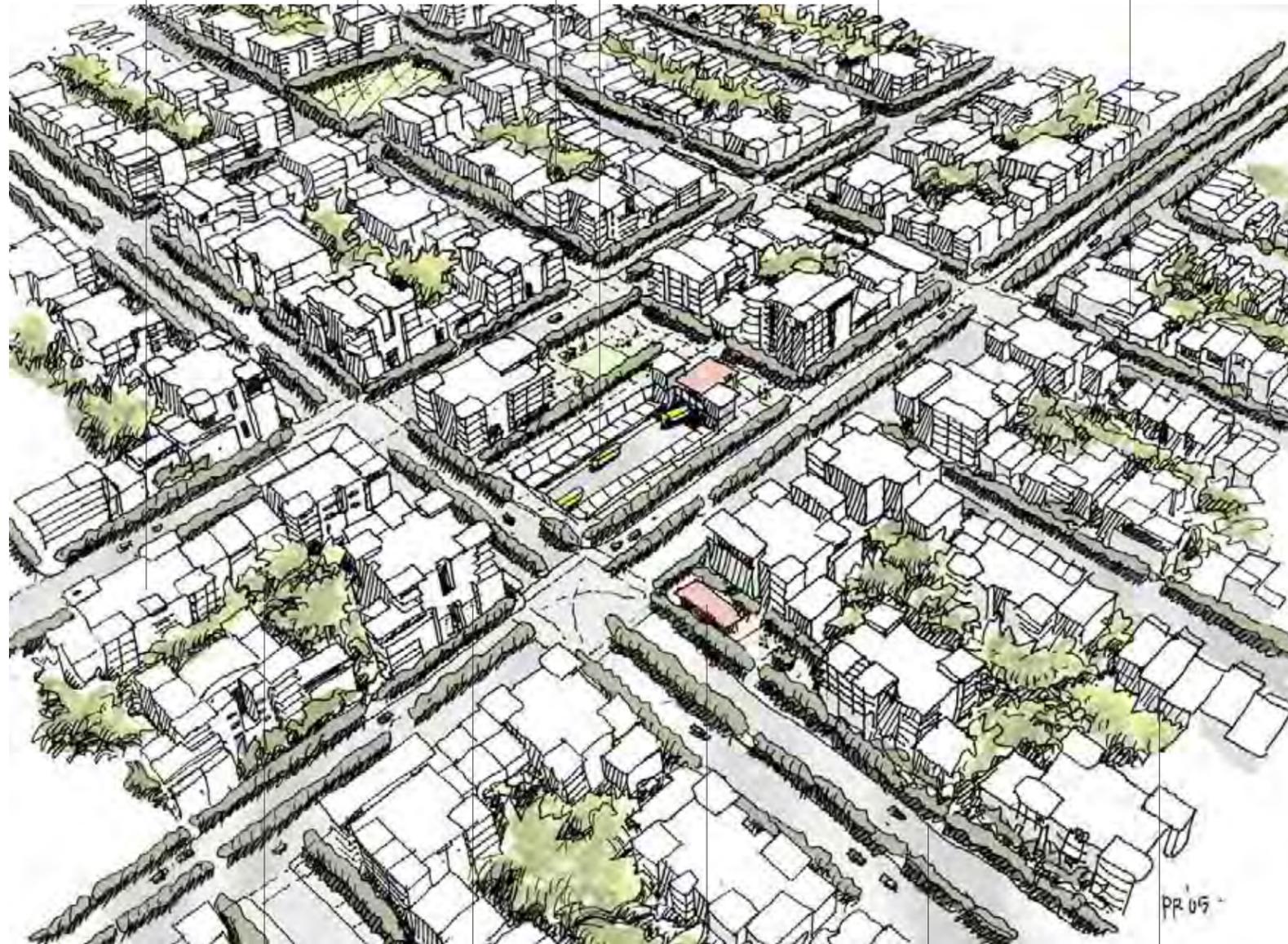
Higher intensity
development around
places of amenity, parks,
green corridors

2/3 storey terraces and 4
storey apartments mixed
closer to the centre

Bus Station and civic plaza
integrated with TOD centre.
Underground tunnels built over
parallel streets assists local trip
movements to centre and allow more
intense development along them

Lower intensity development on
secondary, less busy streets,
generally beyond 250metres of
TOD centre. Small lot houses
and terraces 25 du/ha

Deep planting
within blocks



Building design incorporates
deep planting zones and
stormwater integration on
site

Most intense development
within TOD core Up to
6-8 storey buildings with
densities up to 150-200
du/ha (net)

Intensified development
form creates opportunities
for smaller scale plazas,
parks

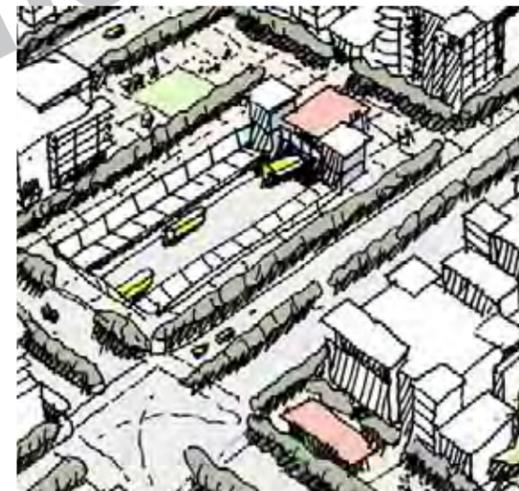
Arterials treated as
Boulevards, more intense
development including
commercial development
along these arterials

Terrace housing
35 du/ha on
surrounding streets



An interconnected street network provides opportunities for diversity of development form with a range of densities. Good transitions to lower intensity development is managed through street and lot design. The major through roads can contain higher densities. Perpendicular streets, with less through traffic accommodate a number of less intense development forms.

Closer to centre, these streets could contain four storey apartments, with three storey terraces and small lot housing towards the edges of the walkable catchments. Uses change along rear boundaries and at corners



The focus of the TOD community integrates the Bus Station in a visible and accessible location associated with the primary activity of the TOD. High density housing around public transport stop at TOD centre

Associated with the TOD centre is an urban plaza. Building forms create and define high quality streets and public spaces



The urban amenity of parks and green corridors encourages the development of higher residential densities on its edges overlooking the space. In renewal areas, new parks with edging streets can be provided to create, with the open space, a new residential address, improve connectivity and manage stormwater while enhancing the urban amenity of the higher intensity development.

Strategy 10: Busway Station Integration: Signature projects

The project

TOD principles.

Acquisition for the Busway corridor that incorporate adjacent sites. The Busway stations provide opportunities for new TOD development as well as reinforcing existing TOD's such as Windsor and Lutwyche.

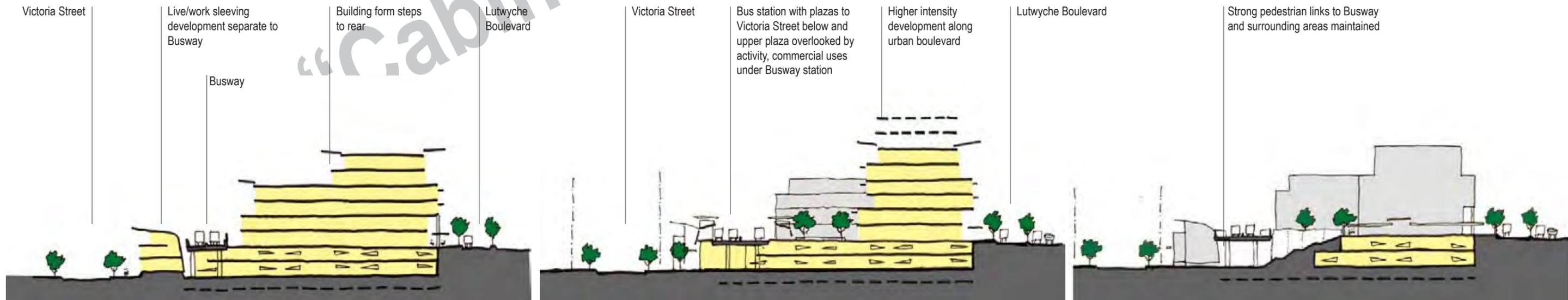
The general objectives for the urban design of Busway stations is as follows:

- Visible and accessible to surrounding streets and public spaces
- Equitable access with lifts
- Open to the sky (between stations travel lanes should be covered)
- Integrated into substantial surrounding development.

Possible stations along Lutwyche Road are used as a demonstration of these design principles. Two scenarios are developed. One has an elevated bus station close to but not on Lutwyche Road. The other is adjacent to Lutwyche Road, but is sunken below the road:

- Bus station integrated into and a feature of a high intensity development, preferably mixed use
- Access to bus station from surrounding streets
- On grade crossings of Lutwyche Road
- Good visual relationship to surrounding streets and development whether elevated or sunken

"Cabinet in Confidence"



Strong legible pedestrian routes to all sections of TOD with links from Busway station to Lutwyche Boulevard

High density development surrounding bus station. Employment uses along urban boulevard. Residential facing away from street overlooking public spaces.

Good pedestrian access across signalised intersections

Highest buildings face major arterial. Buildings step to rear.

Major arterial as urban boulevard incorporating bus/T3 transit lanes

Elevated Busway Station

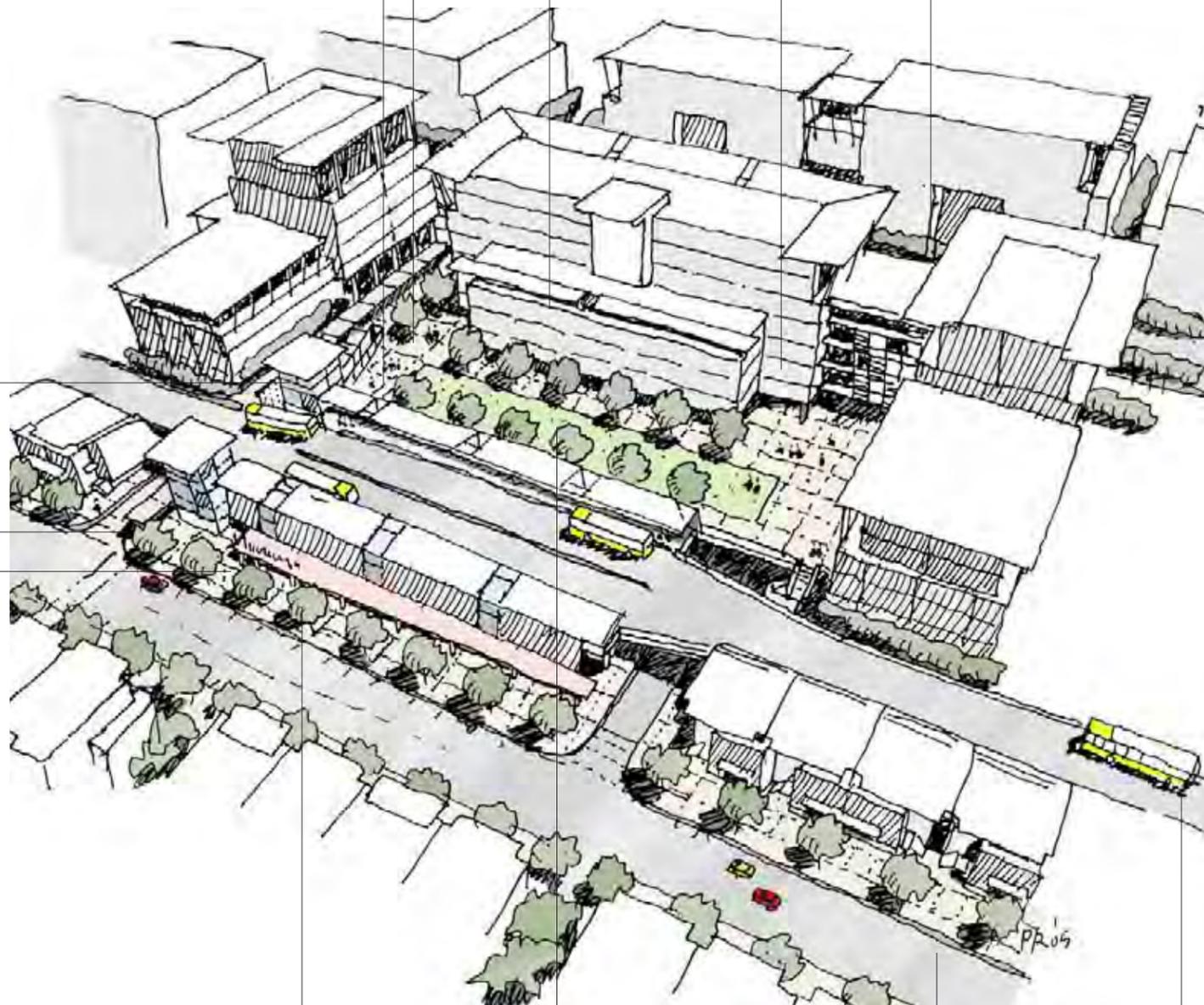


Opportunity for innovative developments on residual sites 13.5m deep nominal, 3 storey live/work. Building form 'leans' away from Busway and buffers noise and vibration.

Roof terraces provide additional open spaces for higher intensity development

'Sleeving' development facing secondary street such as 3 storey live/work terraces

Safe pedestrian access through Busway station precinct incorporating additional stairs where needed



Busway station with commercial uses under visually prominent to street, open to sky (not within buildings)

Public plazas associated with Busway stations oriented for sunlight penetration defined by building frontage and overlooked from surrounding buildings

Street connectivity maintained around Busway

Elevated Busway

Figure 9: Busway Station Integration Examples

Strategy 11: Study Area Preferred Precincts

The analysis has shown that the Study Area can be broken up into specific precincts. Each precinct can be utilised in various options and varying densities can be given to each one when final Options are selected. The precincts are:

- Core precincts
- Corridor Precincts on major roads within centres
- Corridor Precincts on major roads outside of centres and on less busy cross streets
- Inner precincts in close proximity to Core precincts
- Outer precincts towards the edges of primary walkable catchments
- Incremental change precincts, generally corresponding with the existing LMR zonings within the study area

“Cabinet in Confidence”

-  Study Area Boundary
-  Commercial Corridor
-  Mixed Use Corridor
-  Urban Core Precincts
-  Inner Areas of Precinct
-  Outer Areas of Precinct
-  Incremental Change

Cabinet in Confidence

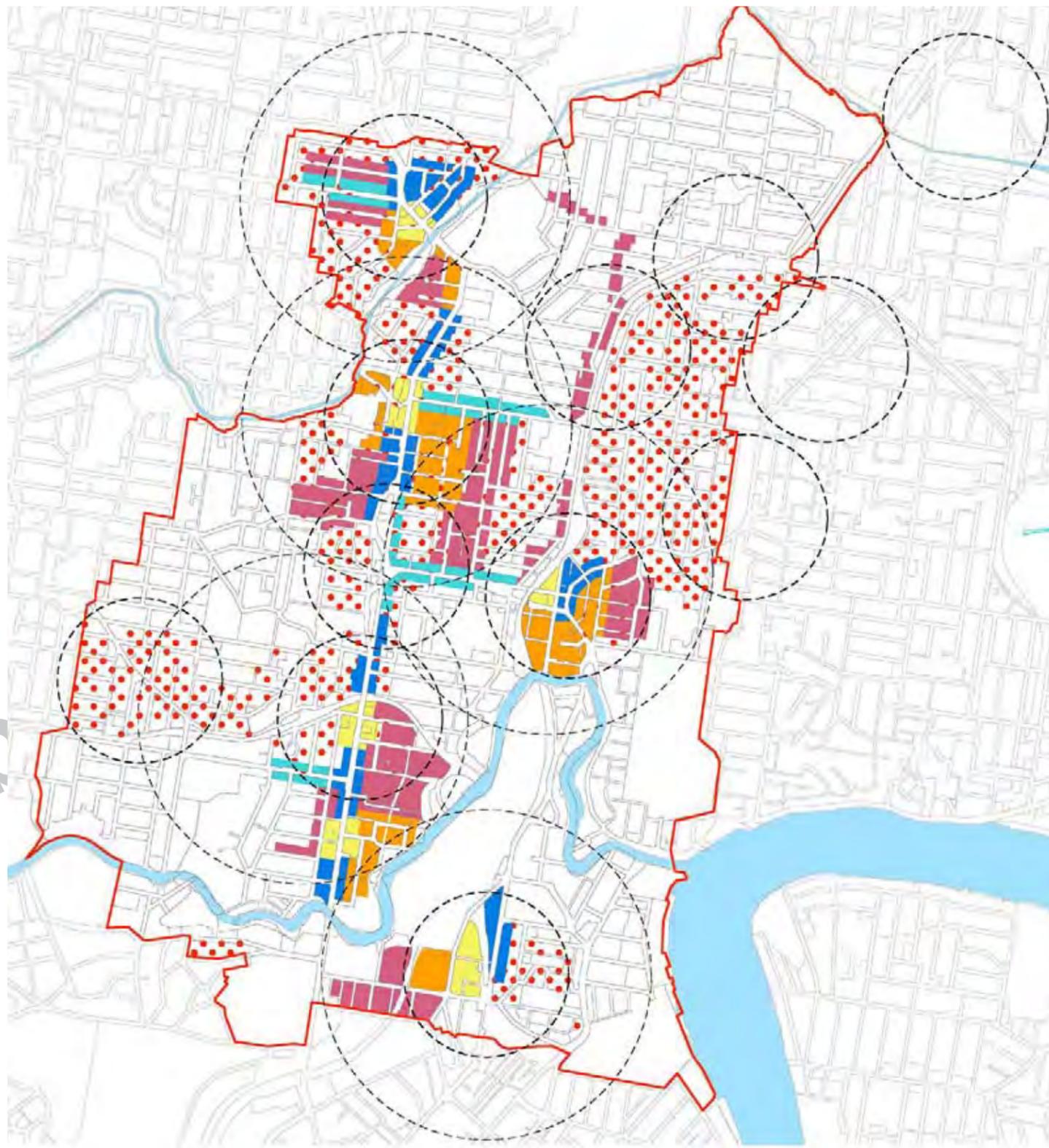


Figure 10:

Section 3: Options for Development

OPTIONS

Nine options for intensification are proposed. These options have been developed in response to the strategies and analysis from the Stage 1 and Stage 2 Reports. Strategies to more change of varying densities in smaller pockets or less change spread through larger areas.

Figure A: The existing areas of LMR are found in the INRP area.

Figure B: This map, demolition Control with cross hatching and Heritage in Black. The following two maps distil this information.

Figure C: This map shows the remaining areas when heritage, recent LMR and Demolition Control are removed. The remaining area is a fragmented patchwork with most opportunity away from TOD catchments within Clayfield. This potential development area is 30ha and is used for the Business- As-Usual development option.

Figure D: Remaining land excluding a larger area of potential site amalgamation and redevelopment.



“Cabinet in Confidence”

Confidence



Figure A

Figure B

Figure C

Figure D

- **Business as Usual**
This option proposes a moderate increase in density within existing LMR. This Option assumes a review of the current demolition control precincts. Residential uses predominate.
- **Moderate Increase**
This option proposes a moderate increase in density within existing LMR. This Option assumes a review of the current demolition control precincts. Residential uses predominate.
- **Signature Projects**
Larger scale development projects at TOD centres integrated with the busway stations and adjacent sites - Higher density mixed use projects.
- **Focused Nodes**
This option proposes TODS as urban viii housing beyond.
- **Corridor**
The Corridor focuses major development i business with some mixed use
- **Infrastructure**
An infrastructure led consolidation fo ii
- **Salt and Pepper**
This approach involve iii
- **Major Centre**
Major increase in a defined area around the Lutwyche centre - higher intensity retail, business and residential uses
- **Blanket**
Bol iv

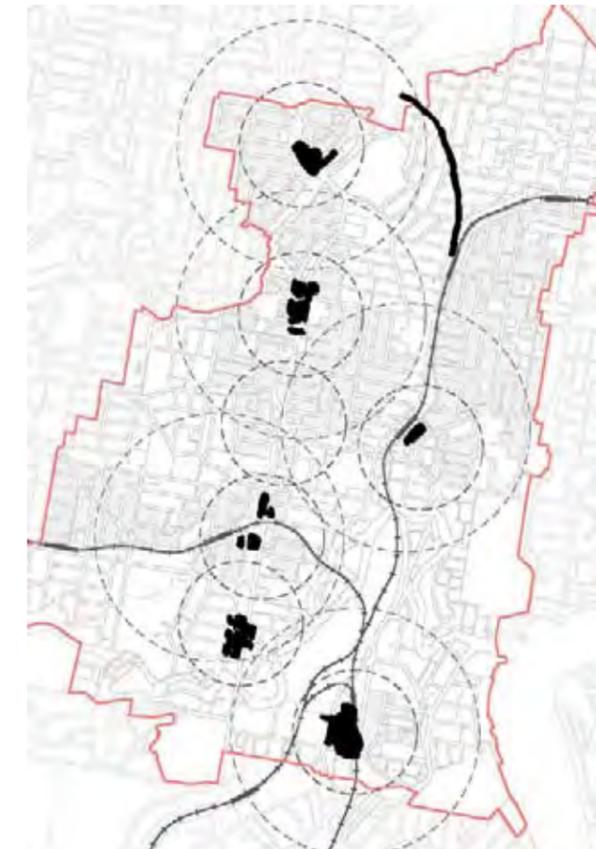
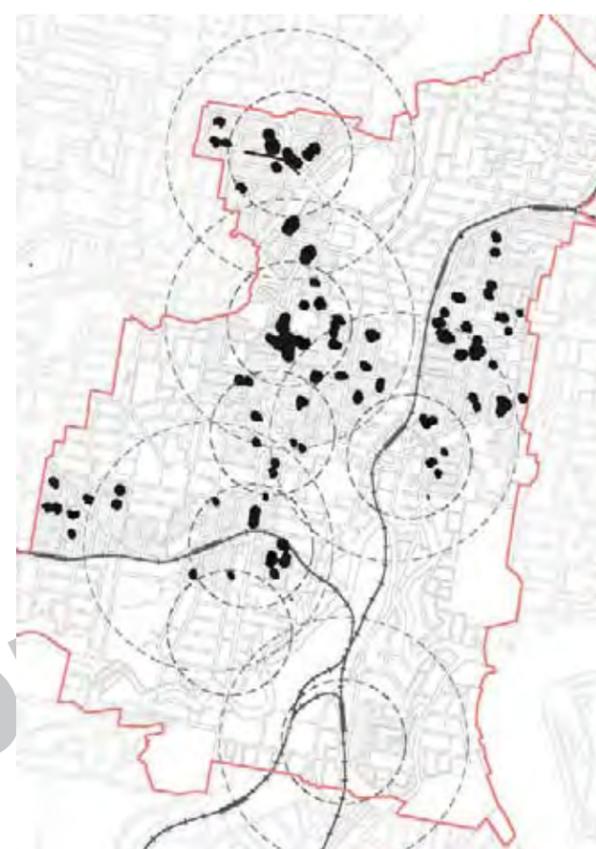
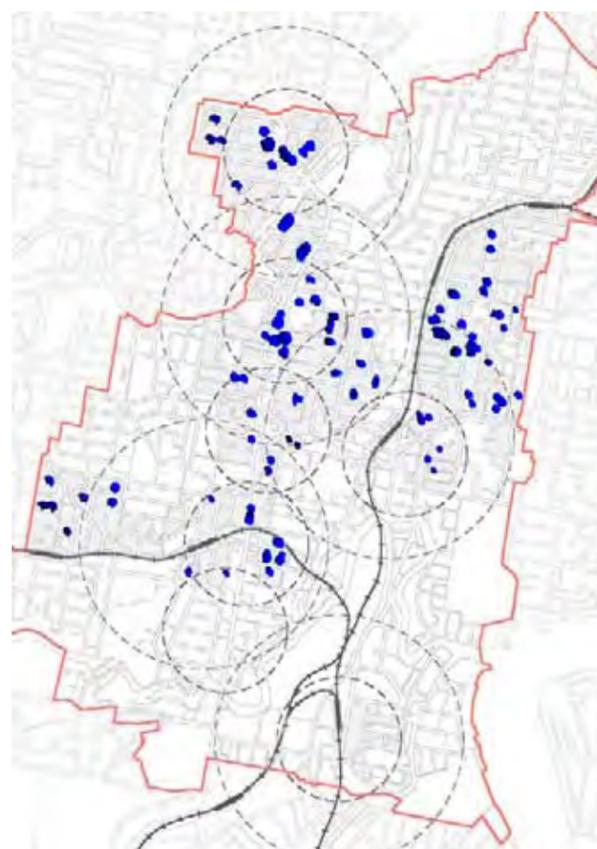
The general areas in hectares of each development strategy are provided with a number of scenarios based on different densities. Densities are net (site) densities in dwelling units/hectare consistent with the Regional Plan.

Du/Ha	Possible Development Form	FSR
25-50	Small lot and terraces	0.3-0.5
50-100	Terraces and up to 4 storey apartments	0.5-1
100-150	4-6 storey apartment buildings	1-1.5
>150	6-8 storey apartment buildings	1.5-2.0

Potential household numbers based upon these assumptions have been determined. Jobs are measured at 20m²/person of developed floor area.

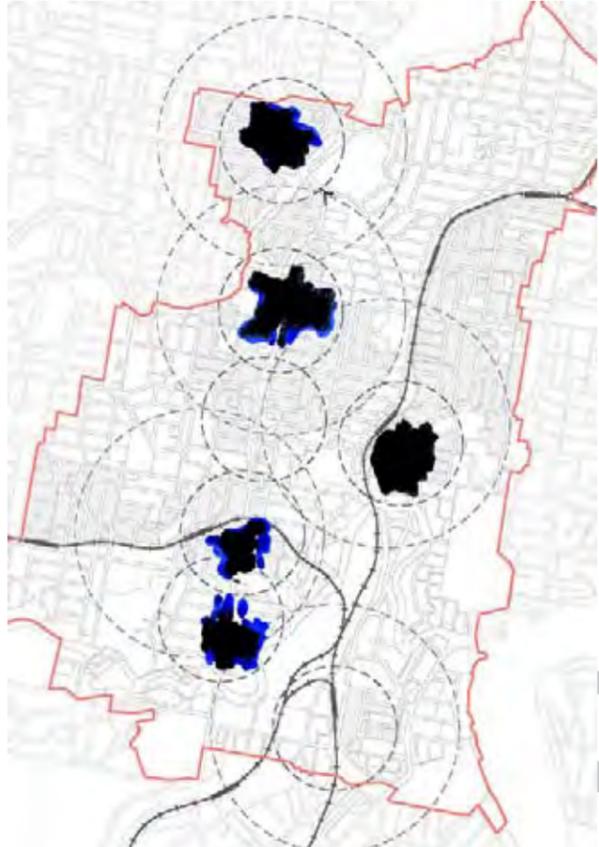
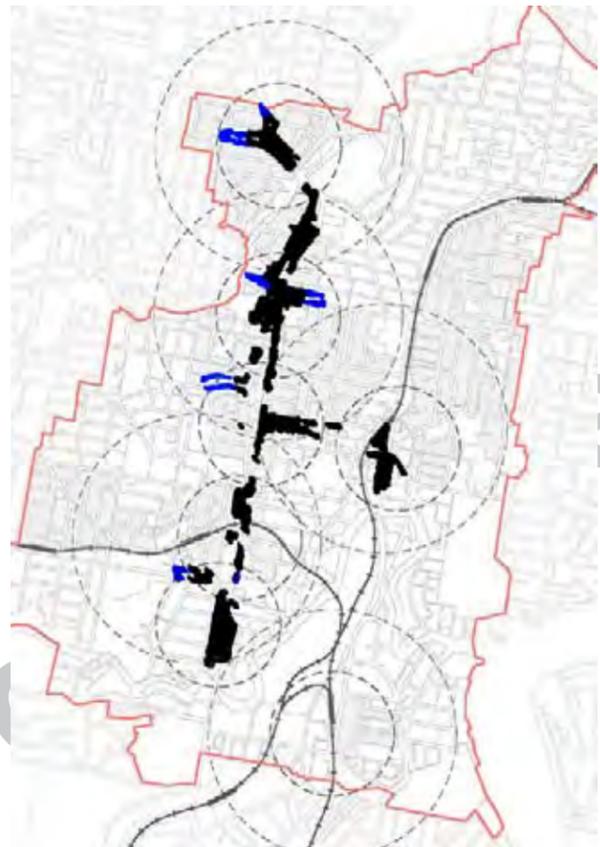
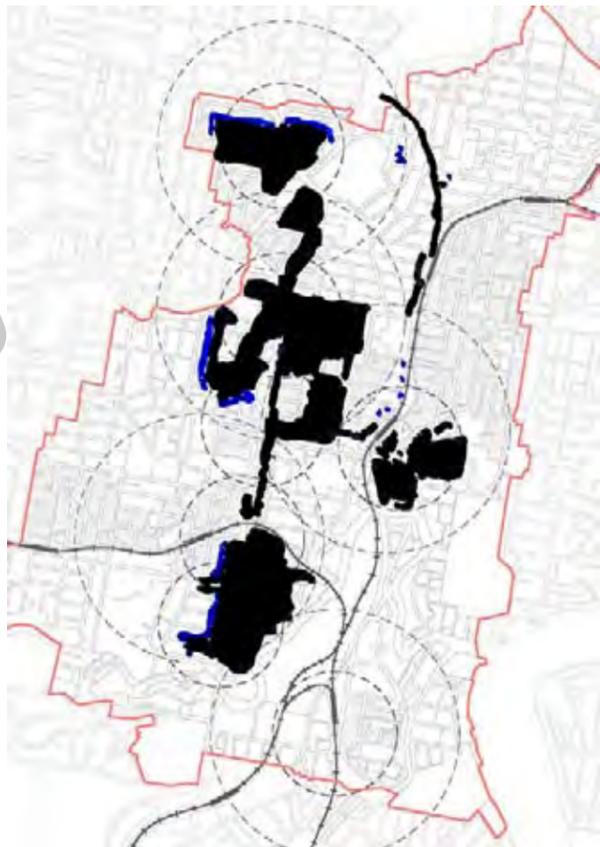
Options

- - Incremental change
- - Major opportunity

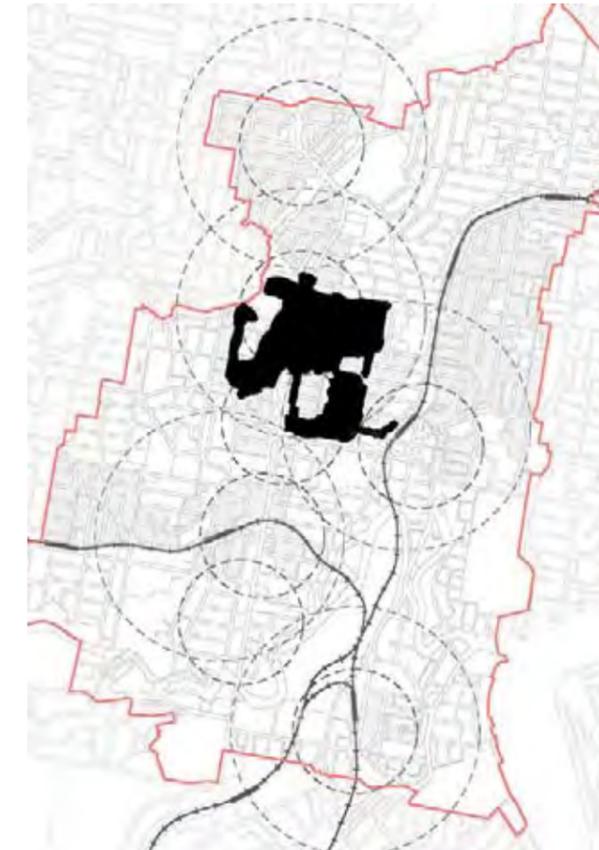
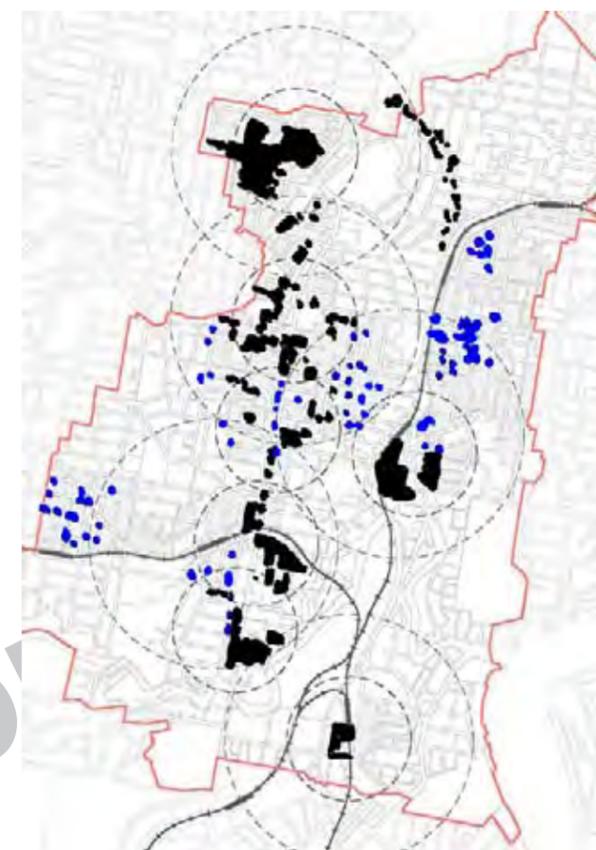
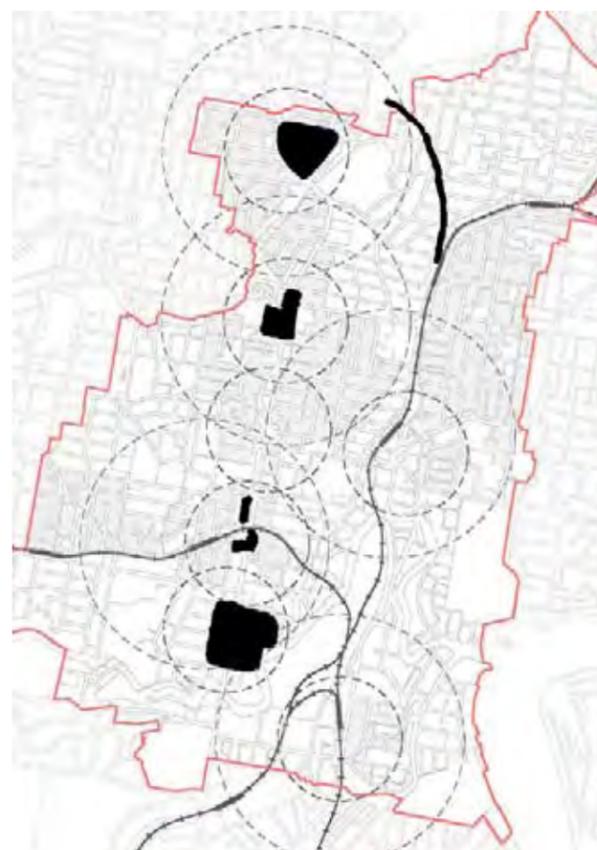


DESCRIPTION	Business As Usual	Moderate Increase	Signature Projects																																																		
	<p>This option allows existing LMR to incrementally redevelop within current City Plan requirements. This option would result in small scale projects spread through the 30 hectares of existing LMR area. About 100ha is unlikely to significantly develop due to recent redevelopments and broad demolition control requirements. Residential uses would predominate with mixed uses within centres.</p> <p>A number of population outcomes based upon different amounts of redevelopment. A density of about 25du/ha over and above existing densities has been assumed.</p>	<p>This option proposes a moderate increase in density within existing LMR. A 30% increase would be half way between LMR and MR. This option would encourage site amalgamation for larger scale developments with impacts spread across the entire LMR area. Removing demolition control from these precincts would be needed to encourage redevelopment. Buildings up to 4 storeys could be expected in certain locations with impacts spread throughout the area.</p> <p>A number of population outcomes based upon different amounts of redevelopment. A density of about 25du/ha over and above existing densities has been assumed.</p>	<p>Signature projects are larger scale, more intense development projects at TOD centres on vacant land, integrated with the busway stations and adjacent sites. These projects would be considerably higher densities. Signature projects of this type could require Government intervention or public/private/partnerships with acquisition of sites adjacent to bus stations.</p> <p>Each signature project of 3-5 hectares could equate to development panels of 25ha</p>																																																		
LAND AREA	30 ha net within 130ha of LMR designated land	130ha or 20% of INRP area	25 ha or 3% of INRP area																																																		
POPULATION & EMPLOYMENT a base density of 25 du/ha is assumed	<table border="1"> <thead> <tr> <th colspan="2">30 ha</th> <th>Incremental Change</th> </tr> <tr> <th>Redevelopment %</th> <th>Area (ha)</th> <th>25 du/ha over and above</th> </tr> </thead> <tbody> <tr> <td>25%</td> <td>7.5</td> <td>187</td> </tr> <tr> <td>50%</td> <td>15</td> <td>375</td> </tr> <tr> <td>75%</td> <td>22.5</td> <td>562</td> </tr> </tbody> </table>	30 ha		Incremental Change	Redevelopment %	Area (ha)	25 du/ha over and above	25%	7.5	187	50%	15	375	75%	22.5	562	<table border="1"> <thead> <tr> <th colspan="2">130ha</th> <th>Incremental Change</th> </tr> <tr> <th>Redevelopment %</th> <th>Area</th> <th>25-50 du/ha over and above</th> </tr> </thead> <tbody> <tr> <td>25%</td> <td>32.5</td> <td>813-1625</td> </tr> <tr> <td>50%</td> <td>65</td> <td>1625-3250</td> </tr> <tr> <td>75%</td> <td>97.5</td> <td>2438-4875</td> </tr> </tbody> </table>	130ha		Incremental Change	Redevelopment %	Area	25-50 du/ha over and above	25%	32.5	813-1625	50%	65	1625-3250	75%	97.5	2438-4875	<table border="1"> <thead> <tr> <th colspan="2">25ha</th> <th colspan="3">Major Change (du/ha)</th> </tr> <tr> <th>Redevelopment %</th> <th>Area</th> <th>50-100</th> <th>100-150</th> <th>150-200</th> </tr> </thead> <tbody> <tr> <td>50%</td> <td>13ha</td> <td>325-975</td> <td>975-1625</td> <td>1625-2275</td> </tr> <tr> <td>75%</td> <td>20ha</td> <td>500-1500</td> <td>1500-2500</td> <td>2500-3500</td> </tr> </tbody> </table>	25ha		Major Change (du/ha)			Redevelopment %	Area	50-100	100-150	150-200	50%	13ha	325-975	975-1625	1625-2275	75%	20ha	500-1500	1500-2500	2500-3500
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TOD OUTCOMES	Will marginally contribute to TOD outcomes with minimal population increase.	Better population increase but in a scatter gun configuration where land is available. No guarantee that development would be in a pattern that would reinforce TOD	As larger scale development in the heart of the TOD precinct, Signature Projects can demonstrate significant mixed used outcomes. Seeding project can catalyse surrounding development so will need to be combined with other scenarios to cap.																																																		

Options

																																																																														
DESCRIPTION	<p>Focused Nodes This option proposes TODs as urban villages focusing higher intensity development in centres. Areas of redevelopment would be 20-30ha for each TOD with major increases in densities. These precincts are within the identified land areas. Such a strategy strongly reinforces the TOD of each centre.</p> <p>A number of redevelopment scenarios have been correlated with three possible densities.</p>	<p>Corridor The study area is characterised by the major arterial of Lutwyche Road and to a lesser extent Sandgate Road. The corridor focuses major development on these arterials, specifically Lutwyche Road. Opportunities for business on major roads, major increase in density of residential on minor roads. There is potential for significant increase along this street with businesses predominating. Residential - the area of land fronting onto the arterial and sub arterials such as Newmarket Road, Albion Road, Chalk St and Stafford Road.</p>	<p>Blanket The blanket approach targets bold change on all areas identified as major change opportunities and allows the market to determine and target development strategies. At 140 hectares this area has the most potential for the study area to contribute to the population projections in the Regional Plan, and the most potential change within the Study area and consequently, the most impact on the existing community.</p> <p>Implementation could be fragmented with housing located where amenity or views are afforded. Does not reinforce TOD.?</p>																																																																											
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75%	105ha	2625-7875	7875-13125	13125-18375																																																																										
TOD OUTCOMES	Excellent TOD outcomes in most important TOD catchments. Focused change in specific precincts. Little impact on balance of INRP area.	Moderate TOD Outcomes with good contribution to jobs growth in the region. Implementation may be scatter gun based upon land availability.	Significant TOD outcomes of varying scales and types, but realised later in the development phase. Given many opportunities, the market may not target TODs as the sites are harder to develop.																																																																											

Options



<p>DESCRIPTION</p>	<p>Infrastructure An infrastructure led consolidation focuses on bus stations and extending into lands with major infrastructure impacts, where the portals and connections to the existing road network occur. This option would require major increases in density in precisely defined areas of two to three times in order to catalyse market interest. Underpinning this approach is a view that area impacted by infrastructure can be regenerated integrating higher density development and open space. These sites could also be the locations of works depots during construction. The Main Roads land through Woolloowin presents an opportunity for smaller scale infill development associated with a linear park network.</p>	<p>Salt and Pepper The salt and pepper approach accepts the challenges of significant redevelopment of established areas and proposes moderately higher densities spread through a large area. Moderately higher densities would need to be incorporated in areas of possible major change with lesser increases in the incremental change areas. This will result in change in a broad area with moderate impacts spread through a larger area.</p>	<p>Major Centre Lutwyche is the major centre of the INRP. This option proposes a major increase in a defined area around the Lutwyche centre. Impacts are extensive in a small area - 5% of the INRP area, but equals significant opportunity for urban improvements</p>																																																																						
<p>LAND AREA</p>	<p>30ha</p>	<p>130ha</p>	<p>50ha</p>																																																																						
<p>POPULATION & EMPLOYMENT a base density of 25du/ha is assumed</p>	<table border="1"> <thead> <tr> <th colspan="2">30ha</th> <th colspan="3">Major Change (du/ha)</th> </tr> <tr> <th>Redevelopment %</th> <th>Area</th> <th>50-100</th> <th>100-150</th> <th>150-200</th> </tr> </thead> <tbody> <tr> <td>25%</td> <td>7.5ha</td> <td>188-563</td> <td>563-938</td> <td>938-1313</td> </tr> <tr> <td>50%</td> <td>15ha</td> <td>375-1125</td> <td>1125-1875</td> <td>1875-2625</td> </tr> <tr> <td>75%</td> <td>22.5ha</td> <td>563-1688</td> <td>1688-2813</td> <td>2813-3938</td> </tr> </tbody> </table>	30ha		Major Change (du/ha)			Redevelopment %	Area	50-100	100-150	150-200	25%	7.5ha	188-563	563-938	938-1313	50%	15ha	375-1125	1125-1875	1875-2625	75%	22.5ha	563-1688	1688-2813	2813-3938	<table border="1"> <thead> <tr> <th colspan="2">130ha</th> <th>Incremental Change du/ha</th> <th>Major Change (du/ha)</th> </tr> <tr> <th>Redevelopment %</th> <th>Area</th> <th>25-50</th> <th>50-100</th> </tr> </thead> <tbody> <tr> <td>25%</td> <td>32.5</td> <td>813</td> <td>813-2438</td> </tr> <tr> <td>50%</td> <td>65</td> <td>1625</td> <td>1625-4875</td> </tr> <tr> <td>75%</td> <td>97.5</td> <td>2438</td> <td>2438-7313</td> </tr> </tbody> </table>	130ha		Incremental Change du/ha	Major Change (du/ha)	Redevelopment %	Area	25-50	50-100	25%	32.5	813	813-2438	50%	65	1625	1625-4875	75%	97.5	2438	2438-7313	<table border="1"> <thead> <tr> <th colspan="2">50ha</th> <th colspan="3">Major Change (du/ha)</th> </tr> <tr> <th>Redevelopment %</th> <th>Area</th> <th>50-100</th> <th>100-150</th> <th>150-200</th> </tr> </thead> <tbody> <tr> <td>25%</td> <td>12.5ha</td> <td>313-938</td> <td>938-1563</td> <td>1563-2188</td> </tr> <tr> <td>50%</td> <td>25ha</td> <td>625-1875</td> <td>1875-3125</td> <td>3125-4375</td> </tr> <tr> <td>75%</td> <td>37.5ha</td> <td>938-2813</td> <td>2813-4688</td> <td>4688-6563</td> </tr> </tbody> </table>	50ha		Major Change (du/ha)			Redevelopment %	Area	50-100	100-150	150-200	25%	12.5ha	313-938	938-1563	1563-2188	50%	25ha	625-1875	1875-3125	3125-4375	75%	37.5ha	938-2813	2813-4688	4688-6563
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<p>TOD OUTCOMES</p>	<p>Clear focus on TOD outcomes within the study area will need to be combined with other options to realise outcomes in Albion and Bowen Hills.</p>	<p>Acceptable TOD outcomes with reasonable population growth</p>	<p>Excellent TOD outcome for Lutwyche reinforcing its significance in the study area. Major impacts on Lutwyche, but with major urban improvements.</p>																																																																						

Developed Options

The development options combine these conceptual options and overlay the Urban Amenity and Open Space, Connectivity strategies to provide a more complete illustration of the developed option.

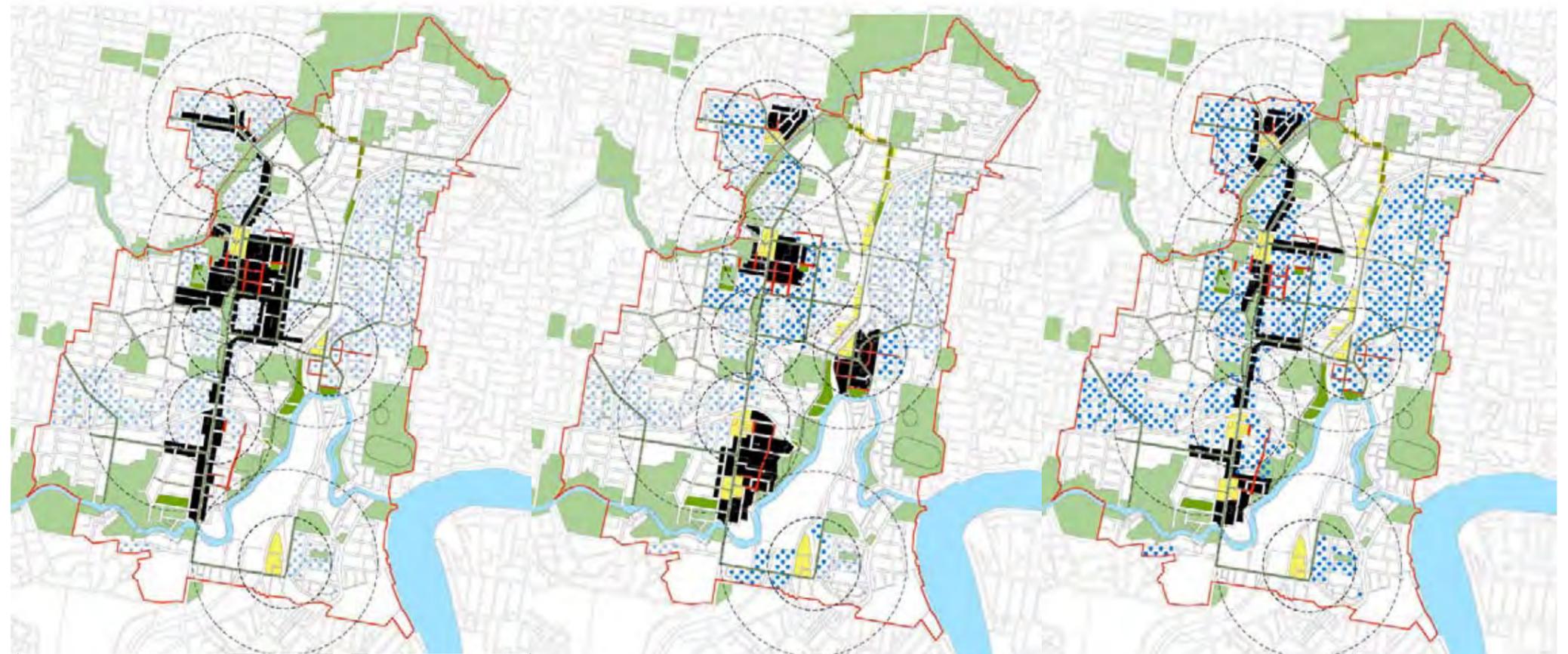
The development options proposed different philosophies of approach to development.

- Major TOD centre vs spread of smaller TOD centres
- Nodes vs corridors - whether development is focused in precinct or stretched out along road corridors
- Moderate incremental change vs business as usual
- More change in smaller precincts vs less change spread across broader areas.

The 3 options are

- Major Centre / Corridor / Business as Usual
- Focused Nodes, Signature Projects, Business as Usual
- Infrastructure / Corridor / Signature Projects / Moderate increase

“Cabinet in Confidence”



**MAJOR CENTRE
CORRIDOR
BUSINESS AS USUAL**

This option identifies and reinforces the major centre of Lutwyche in the INRP study area as well as the importance of the Lutwyche Road corridor as a catalyst for change. The other TOD sites are developed on brown field sites and sites adjacent major road corridors.

Lutwyche Centre would have significant increases in density with a signature TOD demonstration project at its centre. More street linkages, new parks will be needed to allow the TOD to function as a high quality urban environment. The existing LMR is allowed to intensify under present planning controls. This approach presents a more focused implementation and maximised development impact in a single location.

**FOCUSED NODES
SIGNATURE PROJECTS
BUSINESS AS USUAL**

This option spreads the development equally through each TOD, with each one containing a signature project integrating with the Busway or Railway Station. These projects would be of higher density with a mix of uses in the balance areas in TOD catchments where development opportunities exist have moderate increases. This will involve the review of demolition control and character housing in a number of specific precincts. The balance of the TOD area has, 'business as usual' encouraging salt and pepper like change over time.

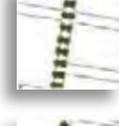
This approach creates a greater need for control of potentially many projects to implement.

**INFRASTRUCTURE
CORRIDOR
SIGNATURE PROJECTS
MODERATE INCREASE**

The final option responds specifically to the proposed infrastructure and to the physical impact of the infrastructure provision as a catalyst for urban regeneration. This approach is anchored by signature projects and by urban regeneration precincts in close proximity to Lutwyche Road and Airport Link portals, in particular Gordon Park, Kedron and Windsor South. This strategy requires careful design consideration of the infrastructure in relation to visual and noise impacts, so as not to compromise future development opportunities.

These precincts would be of higher density with businesses addressing major roads sleeving residential precincts addresses open spaces. The balance of the study area in locations for incremental change have a moderate increase. This would require a review of demolition control in a wide area, with salt and pepper form of development over time.

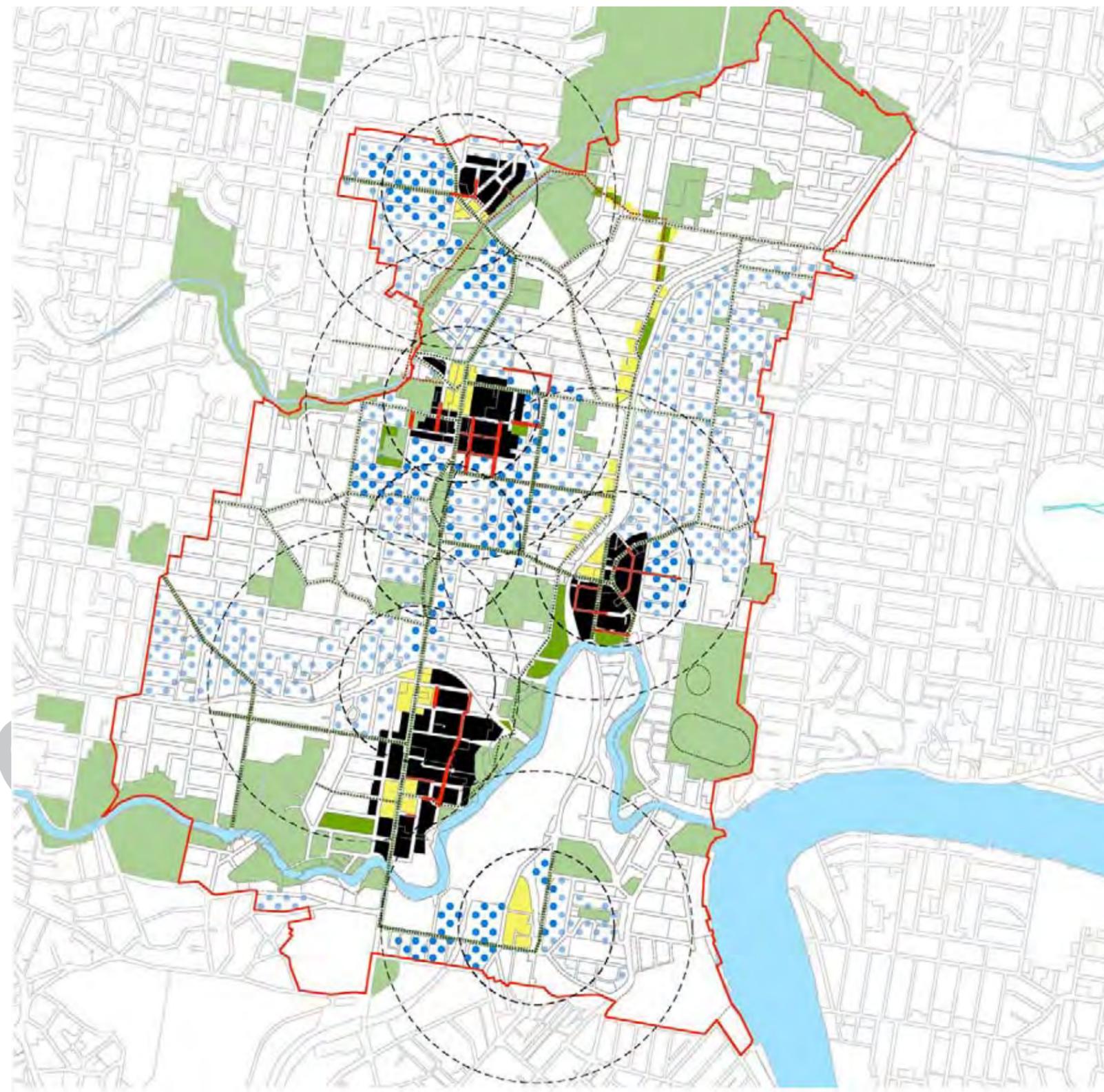
Figure 11: Developed Options

-  Study Area Boundary
-  Signature Project Opportunities
-  Major Change
-  Business As Usual
-  Major Road Boulevards
-  Minor Road Avenues
-  New Street Connections
-  New Pedestrian Linkage
-  New Park
-  Existing Parks



“

-  Study Area Boundary
-  Signature Project Opportunities
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-  New Park
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Option 2: Focused Nodes, Signature Projects, Business as Usual