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**CCL 24/11/20 - ENDORSE A PLANNING PROPOSAL TO REZONE
AND RECLASSIFY LAND AT 233 WHARF ROAD AND REZONE
LAND 150 & 150A, 250 SCOTT STREET NEWCASTLE**

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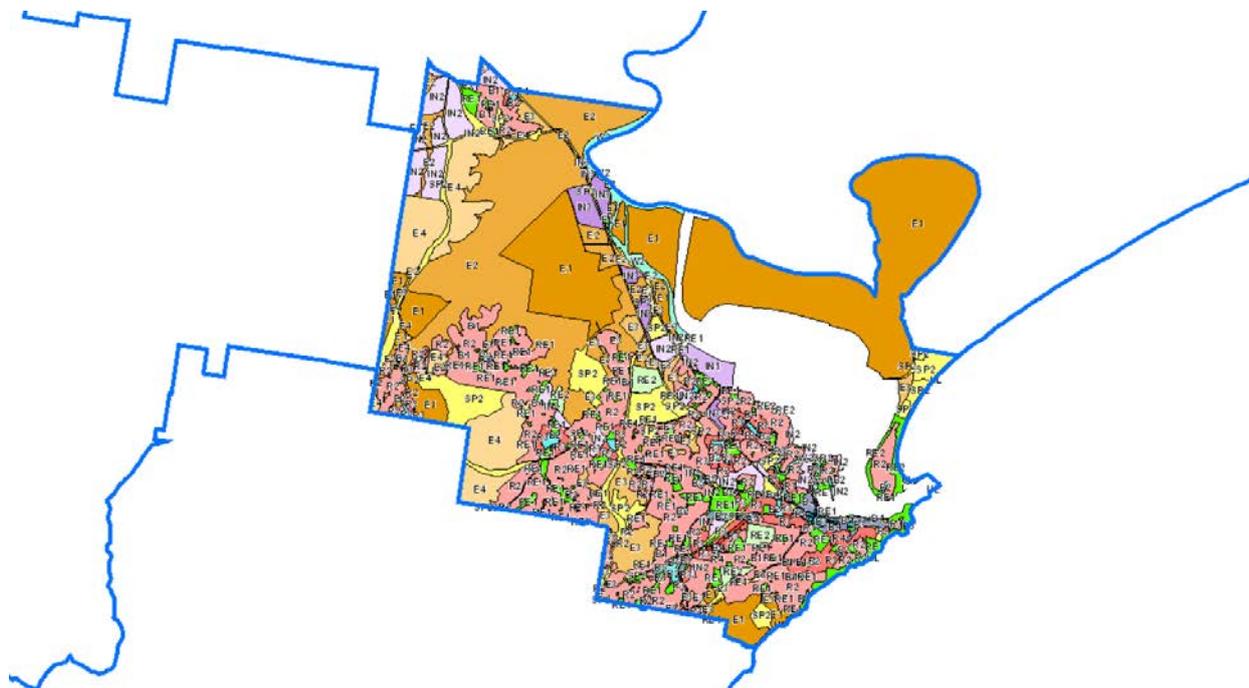
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**CCL 24/11/20 - ADOPTION OF PLANNING PROPOSAL TO REZONE
AND RECLASSIFY LAND AT 233 WHARF ROAD AND REZONE
LAND 150 & 150A, 250 SCOTT STREET NEWCASTLE**

ITEM-91 **Attachment A:** Planning Proposal – 233 Wharf Road and 250
Scott Street Newcastle - Proposed Amendments
to Newcastle Local Environmental Plan 2012

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Planning Proposal Reclassify 233 Wharf Road, Newcastle, rezone various lots to SP3 Tourist and rezone two part lots to consolidate zones with adjoining lots

Proposed Amendments to Newcastle Local Environmental Plan 2012
Instrument | Schedule | Mapping

Version	Description	Date
1.	Council endorsement	26 March 2019
2.	Altered Gateway requested	22 November 2019
3.	Altered Gateway issued / Public exhibition	7 January 2020
4.	Final adoption	16 October 2020

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Summary of proposal

Proposed amendment to Newcastle LEP 2012	<p>Amend mapping with respect to the land:</p> <ul style="list-style-type: none"> – Apply Height of Building of 14 metres – Apply Floor Space Ratio of 2:1 and part 1.5:1 – Change the zone from RE1 Public Recreation and SP2 Infrastructure to SP3 Tourism and part B4 Mixed Use and part RE1 Public Recreation – Include site on Key Site Map <p>Amend Schedule 4, Part 1 to include 233 Wharf Road, Newcastle</p> <ul style="list-style-type: none"> – Reclassification of 233 Wharf Road, Newcastle from Community to Operational Land
Land application	233 Wharf Road, Newcastle (described as Lot 1 DP 1158422, and 250 Scott Street, (Lot 9 DP 1251435), 150 Scott Street, (Lot 10 DP 1251435), Part 150A Scott Street, Newcastle (described as part Lot 3DP 1226551), and Part 280 Hunter Street (Lot 8 DP 1251435)
Land Ownership	<p>233 Wharf Road, Newcastle – City of Newcastle (CN)</p> <p>250 Scott Street, Newcastle – City of Newcastle (CN)</p> <p>150 Scott Street – City of Newcastle (CN)</p> <p>280 Hunter Street – City of Newcastle (CN)</p> <p>150A Scott Street, Newcastle – Transport for NSW</p>
Initiated by	City of Newcastle

Overview

Council resolved on 27 September 2016 to endorse a Planning Proposal for surplus rail corridor land between Worth Place and Watt Street, Newcastle and to forward the Planning Proposal to the Minister for Planning and Environment for Gateway Determination. On 13 December 2016, Gateway Determination was issued by the NSW Department of Planning and Environment (DPE).

The Gateway Determination included several conditions, including the removal of Parcel 12 (250 Scott Street, Newcastle) from the Planning Proposal; the DPE provided the following reasons for their decision:

"In making this determination, I have carefully considered the proposed rezoning of Parcel 12. I understand the challenges that this site has posed for Council when determining planning controls, particularly considering the uncertainty regarding the longer term future of the adjacent land. As such I have determined not to support Parcel 12 proceeding as part of the broader planning proposal. I am of the opinion that Parcel 12 should not proceed separately but as a consolidated proposal for both the site and the adjacent council owned land."

Newcastle Local Environmental Plan 2012 (Amendment No 32) in relation to the rezoning of the Rail Corridor, was Gazetted on the 17 April 2018.

Further investigation into the future use of Parcel 12 (recently transferred to City of Newcastle (CN) from the Hunter and Central Coast Development Corporation (HCCDC)) and 233 Wharf Road Newcastle has been undertaken by staff in consultation with HCCDC. It is proposed to consolidate the sites and include on the key sites map to ensure a high-quality design outcome is achieved.

Development application DA2018/00463 was approved under delegation on 7 February 2019 for the subdivision of the land to provide for separate allotments for the Newcastle Station, Market Street Lawn, the Signal Box and Parcel 12. The subdivision will facilitate the dedication of Parcel 12 and Market Street Lawn to CN.

233 Wharf Road, Newcastle will continue to be used as a car park in the short to medium term.

Following the deferral of Parcel 12, the lot was subdivided to facilitate the light rail works. 150A Scott Street Newcastle is currently owned by Transport for NSW but will be dedicated to City of Newcastle as the site comprises, footpath, light poles and street trees. This site is also zoned SP2 Infrastructure and as such is proposed to be included in this Planning Proposal to ensure an appropriate zone is applied to the site. No. 280 Hunter Street is owned by Hunter Central Coast Development Corporation and this small portion of land is to be zoned B4 to reflect adjoining zoning.

On the 7th of January 2020, an Altered Gateway Determination was issued by the NSW Department of Planning, Industry and Environment which changed the description of this Planning Proposal to consolidate zoning following a change in ownership of land within the subject area. The Altered Gateway Determination changed the description of this Planning Proposal

from

“Planning proposal (Department Ref: PP_2019_NEWCA_001_00): to reclassify 233 Wharf Road, Newcastle and rezone 233 Wharf Road, part 150 Scott Street and part 150A Scott Street, Newcastle to SP3 Tourist.”

to

“Planning proposal (Department Ref: PP_2019_NEWCA_001_00): to reclassify 233 Wharf Road, Newcastle and rezone various lots to SP3 Tourist and rezone two part lots to consolidate zones with adjoining lots.”

The effect of this Gateway Alteration was to change the zoning of the two part lots within the subject area to align with the zoning of their remainder outside the subject area (as indicated in *Figures 4 & 5* below).

On the 3rd of September 2020, an Altered Gateway Determination was issued by the NSW Department of Planning, Industry and Environment to extend the timeframe for completing the LEP by an additional six months. The extension was granted following a request from CN that highlighted the COVID-related delays associated with holding the public hearing in a face-to-face forum. The Altered Gateway Determination replaced condition 6 which now reads *“The time frame for completing the LEP is by 12 February 2021.”*

Site Context



Part 1 - Objectives or intended outcomes

To amend Newcastle Local Environmental Plan 2012 to enable:

- a. rezoning of land to reflect current and envisaged future use
- b. Reclassification of 233 Wharf Road Newcastle from Community to Operational land
- c. redevelopment of the site as a multi-purpose community space incorporating a community facility and public domain space that complements the surrounding land uses.

Part 2 - Explanation of provisions

It is proposed to amend the Newcastle Local Environmental Plan 2012 by:

- Including 233 Wharf Road Newcastle within Part 1 – Land classified or reclassified, as operational land – no interests changed within Schedule 4 Classification and reclassification of public land, as follows:
 - a) Column 1 to read “*Newcastle*”
 - b) Column 2 to read “Lot 1, DP 1158422, 233 Wharf Road”.
- Amending Map LZN_004G by rezoning 233 Wharf Road Newcastle from RE1 Public Recreation to SP3 Tourist and rezone part 150, 250, part 150A Scott Street and part 280 Hunter Street Newcastle from SP2 Infrastructure (Railway) to SP3 Tourist, B4 Mixed Use and RE1 Public Recreation.
- Amending Map HOB_004G by including a maximum building height of 14 metres to all sites except part 150 Scott Street Newcastle.
- Amending Map FSR_004G to include a maximum permissible floor space ratio of 2:1 to 250 Scott Street, part 150A Scott Street and 233 Wharf Road and a floor space ratio of 1.5:1 to part 280 Hunter Street
- Amending Map LSZ_004G to remove the minimum lot size for 233 Wharf Road Newcastle
- Amending Map CL1_004G to include 233 Wharf Road and 250 Scott Street and Part 150A Scott Street Newcastle on the Key Sites Map.

Figure 2 – Existing Land Classification



Figure 3 – Proposed Land Classification

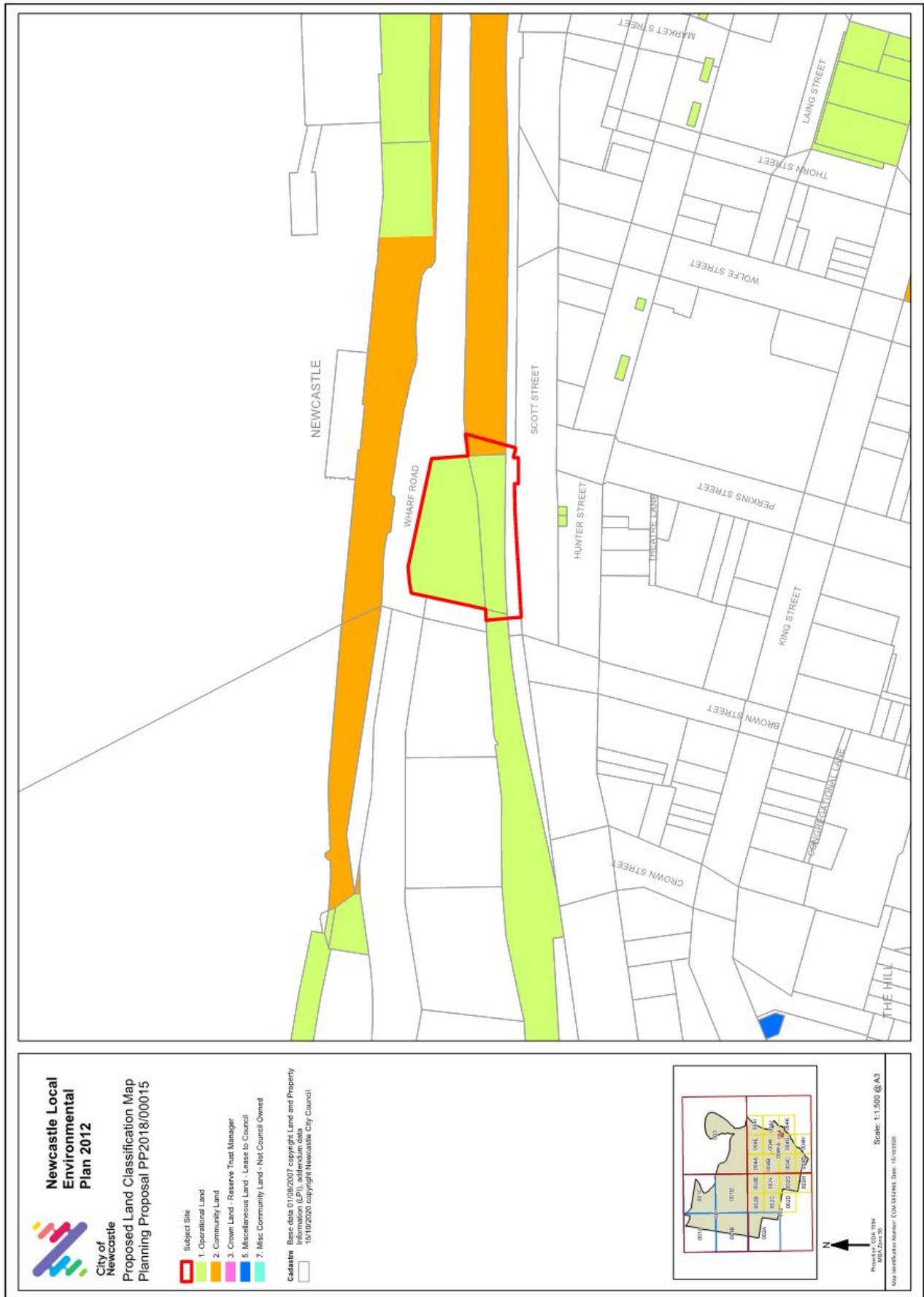


Figure 4 – Existing Zone



Figure 5 – Proposed Zone



Figure 6 – Existing Height of Building

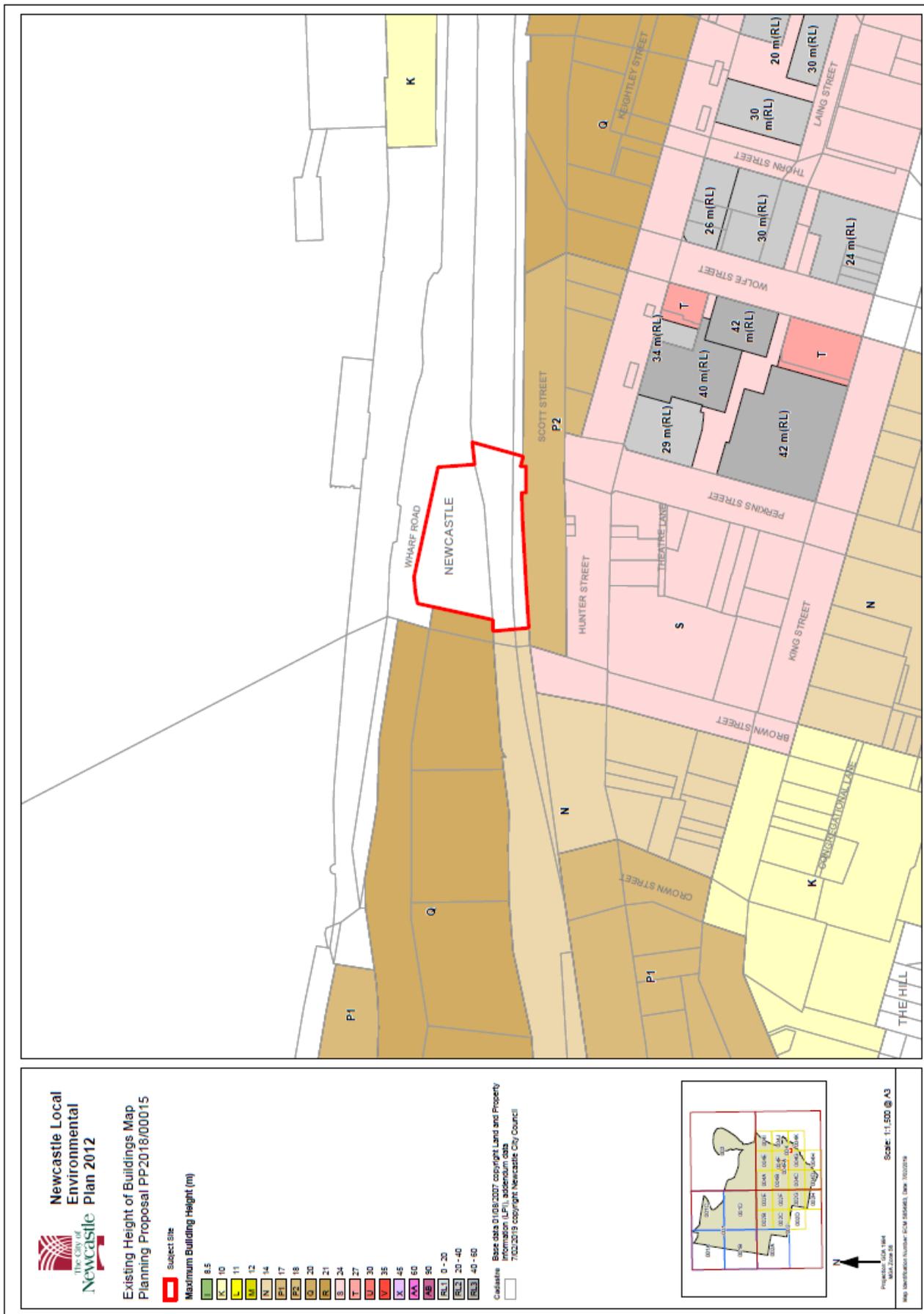


Figure 7 – Proposed Height of Building

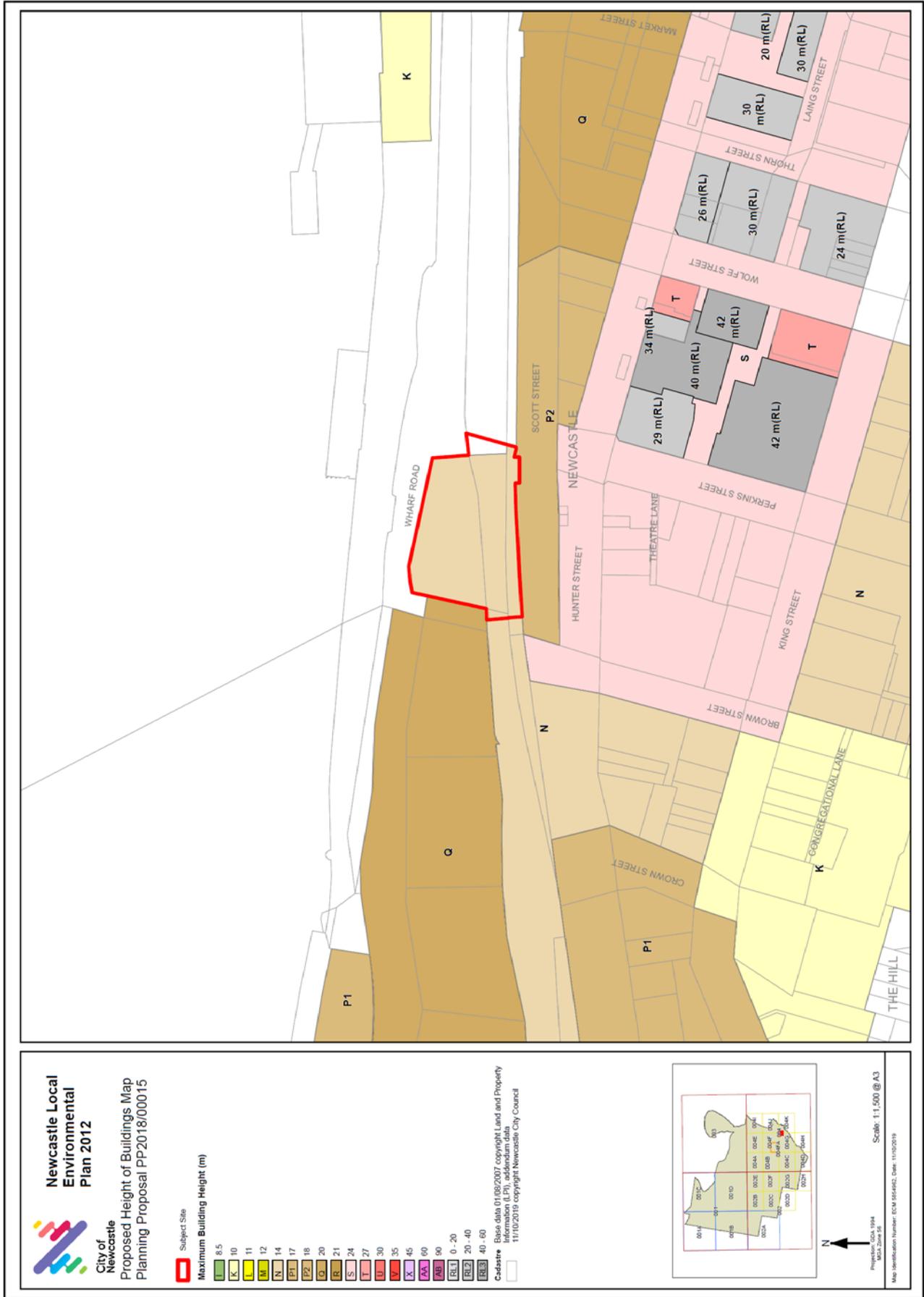


Figure 8 – Existing Floor Space Ratio

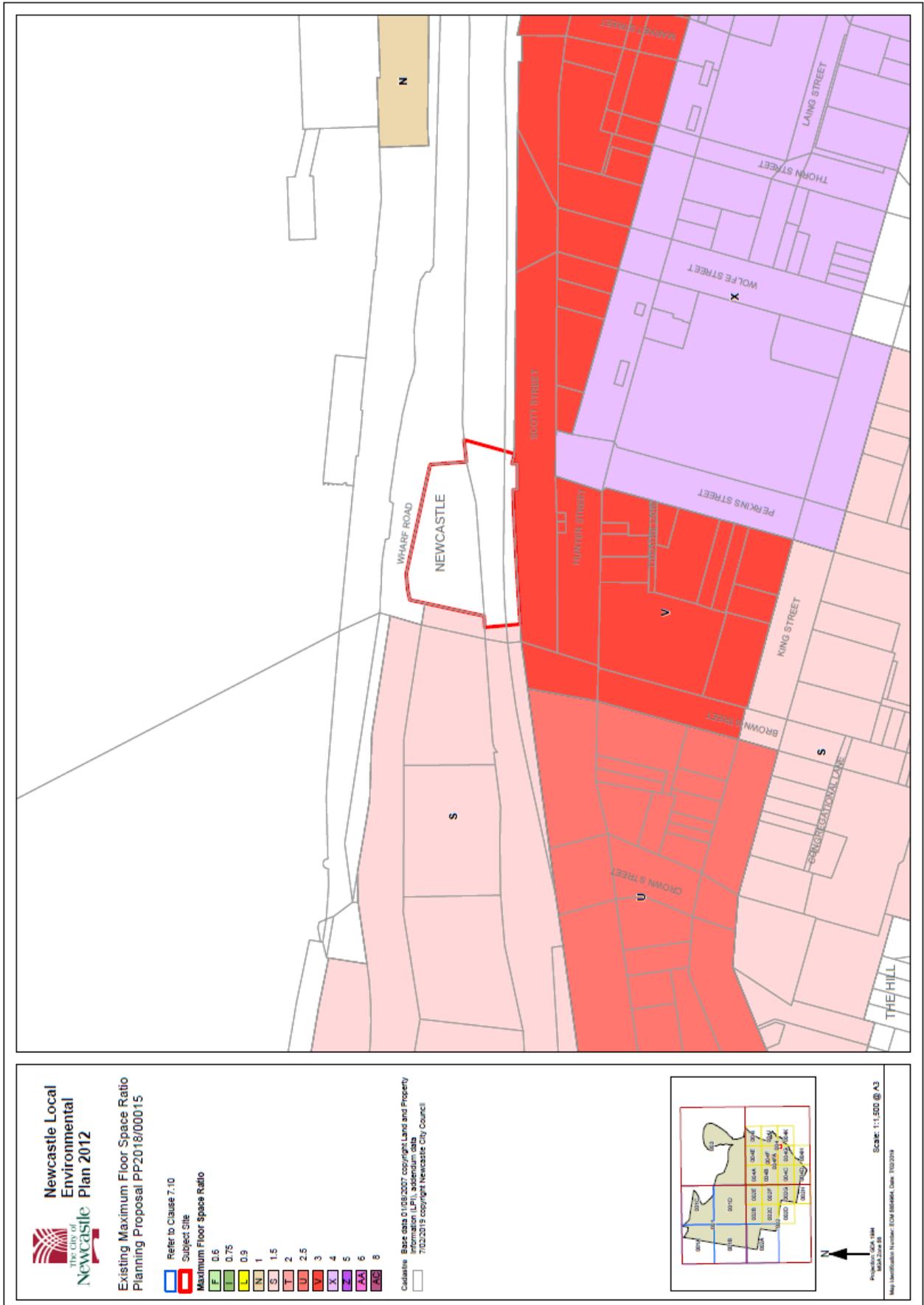


Figure 9 – Proposed Floor Space Ratio

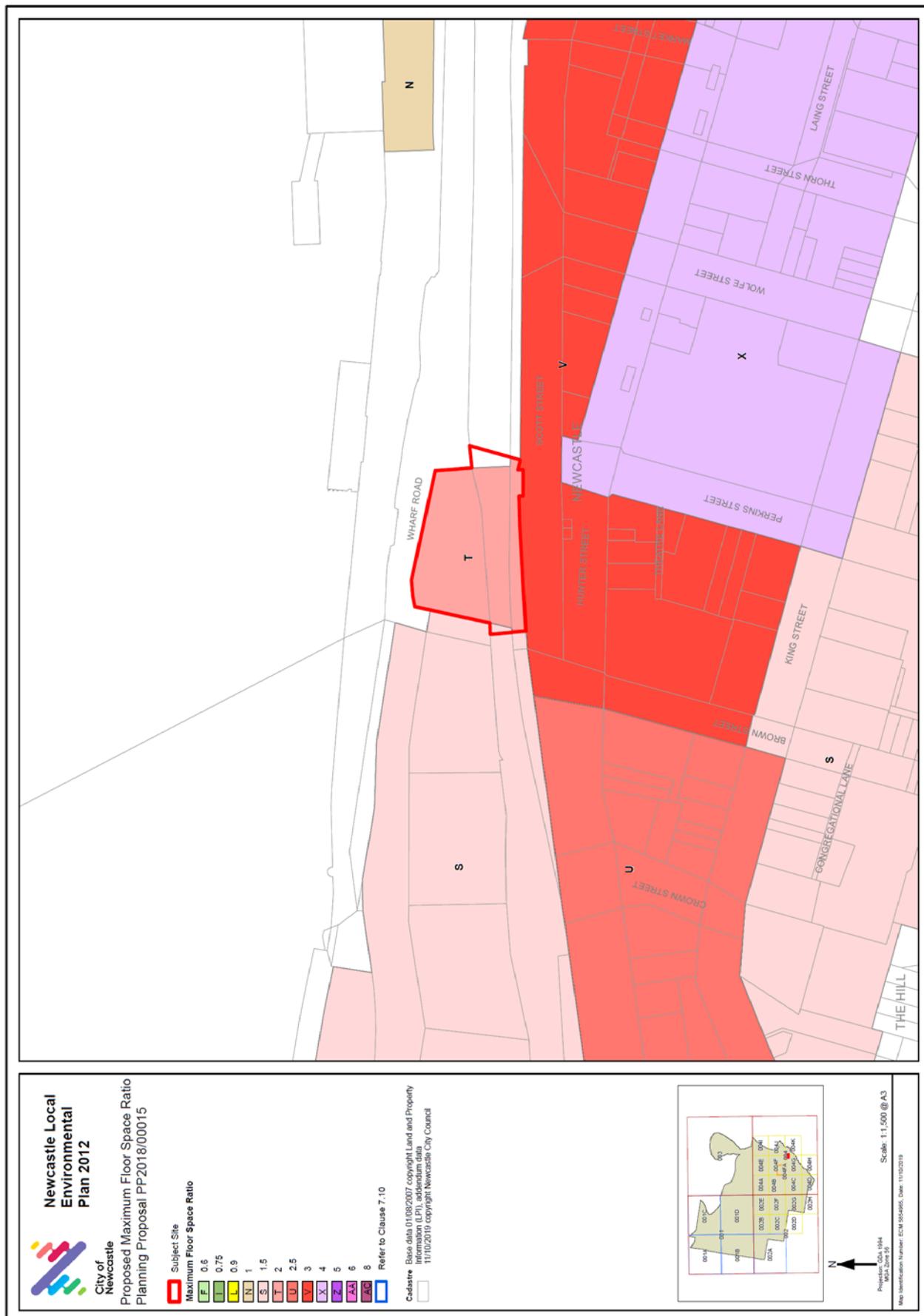


Figure 10 – Existing Minimum Lot Size

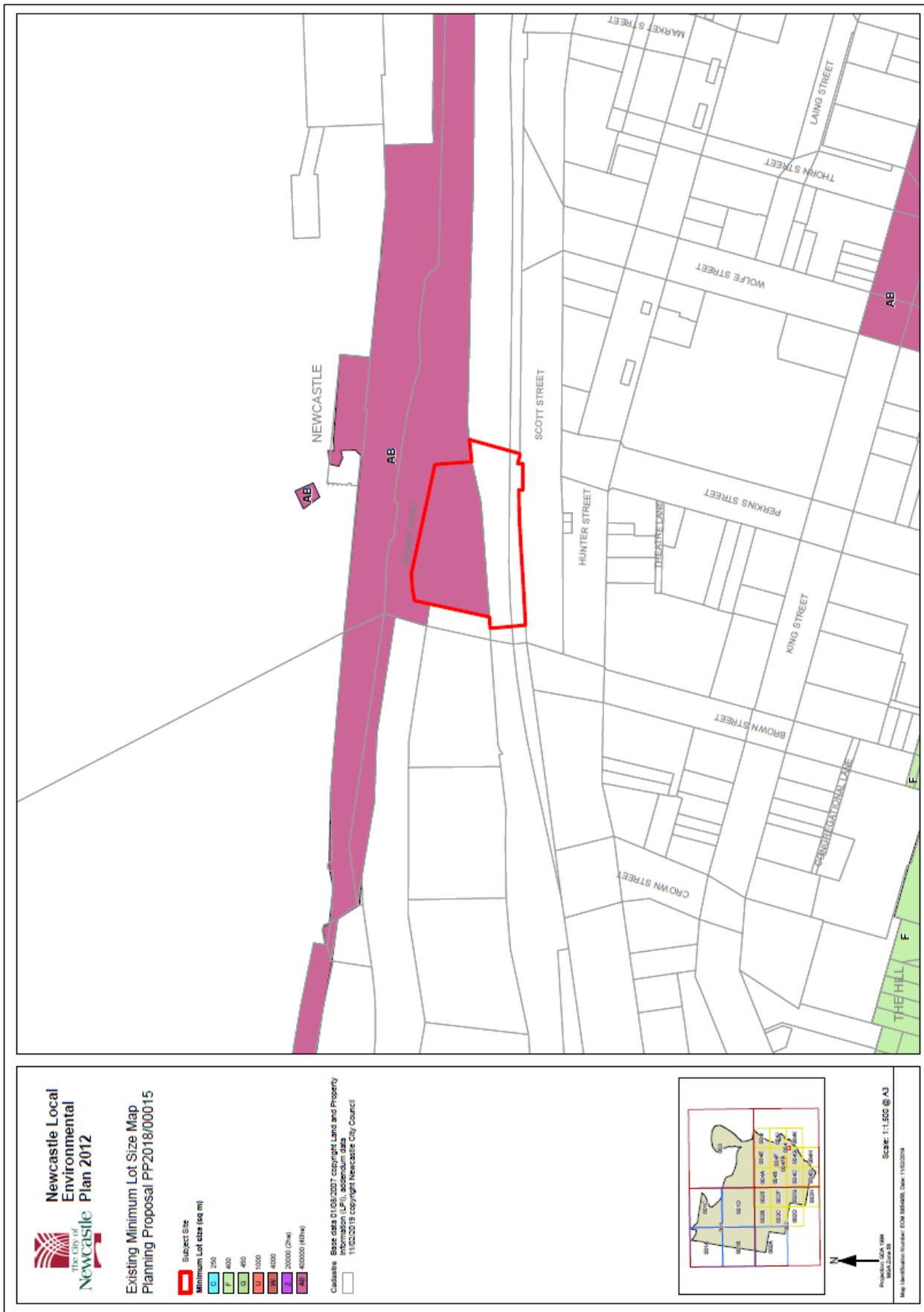


Figure 11 – Proposed Minimum Lot Size

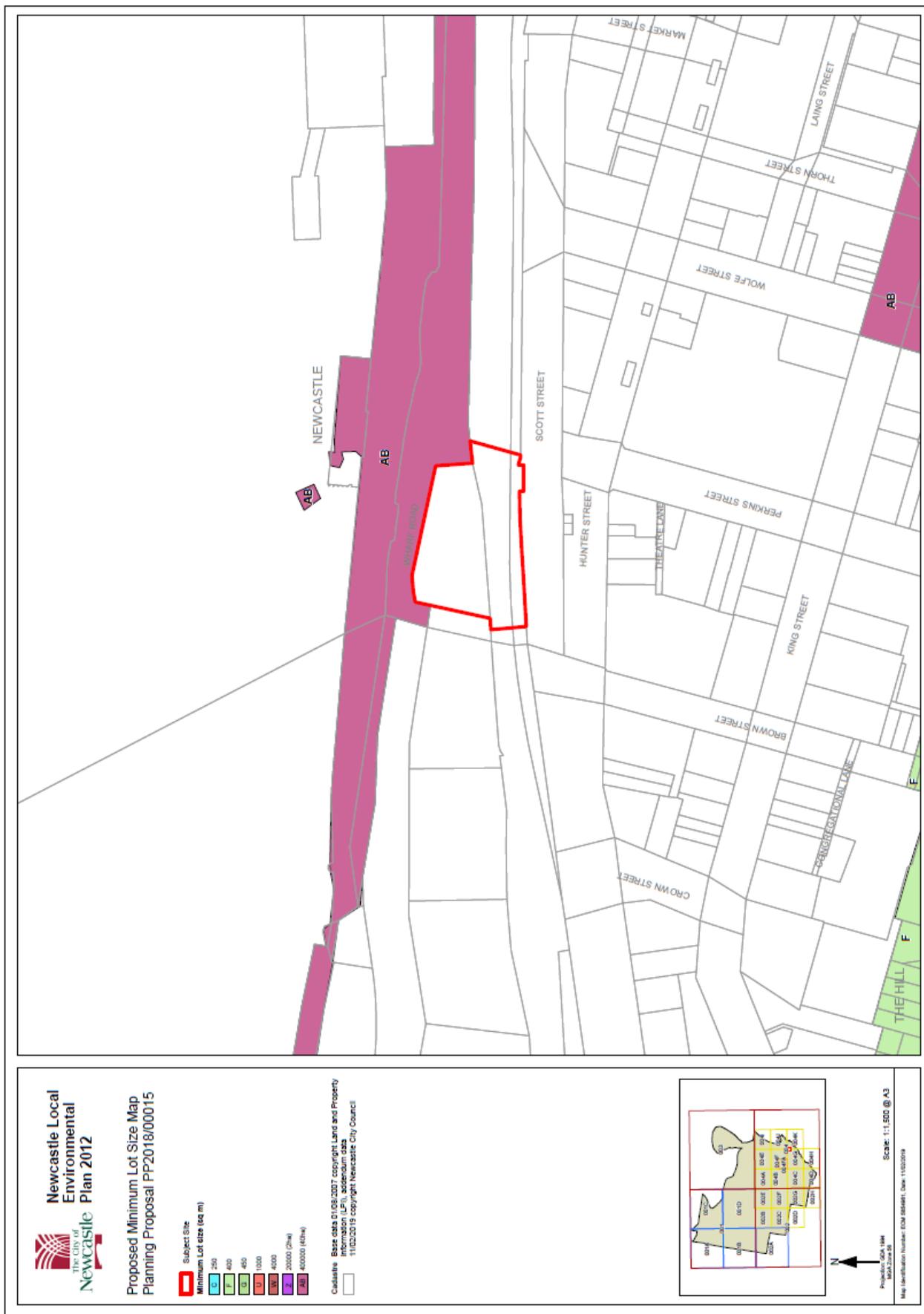


Figure 12 – Existing Key Site Map



Part 3 – Justification

Section A - Need for the planning proposal

1. *Is the planning proposal a result of any strategic study or report?*

The former UrbanGrowth NSW prepared the Newcastle Urban Transformation and Transport Program which provides the following objectives.

1. *Bring people back to the city centre*

Re-imagine the city centre as an enhanced destination, supported by new employment, educational and housing opportunities and public domain that will attract people.

2. *Connect the city to its waterfront*

Unite the city centre and the harbour to improve the experience of being in and moving around the city.

3. *Help grow new jobs in the city centre*

Invest in initiatives that create jobs, with a focus on innovative industries, higher education and initiatives to encourage a range of businesses to the city centre.

4. *Create great places linked to new transport*

Integrate urban transformation with new, efficient transport to activate Hunter and Scott Streets and return them to thriving main streets.

5. *Creating economically sustainable public domain and community assets*

Leave a positive legacy for the people of Newcastle. Ensure that new public domain and community facilities can be maintained to a high standard into the future.

6. *Preserve and enhance heritage and culture*

Respect, maintain and enhance the unique heritage and character of Newcastle city centre through the revitalisation activities."

As part of this program an amendment to the Newcastle Local Environmental Plan 2012 was made to rezone the surplus rail corridor land between Worth Place and Watt Street. During this process the Department of Planning and Environment decided as part of the Gateway Determination to defer Parcel 12 (part 150 Scott Street Newcastle), to allow for the long term use of the site to be considered in conjunction with 233 Wharf Road Newcastle (City of Newcastle's adjacent car park).

This planning proposal has been prepared in response the Gateway Determination issued as part of the previous rezoning.

2. Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

Yes, amending the Newcastle LEP 2012 is considered the best means of achieving the objectives of the planning proposal.

The rezoning and reclassification of the land will allow for the future planning and delivery of a multi-purpose community space that is compatible with surrounding land uses and meets the needs of the future population.

Section B - Relationship to strategic planning framework

3. *Is the planning proposal consistent with the objectives and actions of the applicable regional, sub-regional or district plan or strategy (including any exhibited draft plans or strategies)?*

Hunter Regional Plan 2036

The Hunter Regional Plan 2036 was released by the NSW Government in October 2016. The Plan contains an overarching vision for the Hunter Region, supported by four goals, 27 directions and associated actions. It also contains local government narratives.

The Planning Proposal is consistent with plan and the proposed rezoning supports the role of the Newcastle City Centre provided within the Hunter Regional Plan 2036:

"Newcastle City Centre is the heart of Greater Newcastle and the capital of the region. The city centre has been transformed by capitalising on its active port, vibrant waterfront and heritage. It hosts more residents, students, businesses, researchers, educators and entrepreneurs than ever before."

The relevant goals and directions are outlined below:

Goal	Directions
The planning proposal particularly supports Goal 1 - The leading regional economy in Australia. This goal includes a priority for revitalisation of the Newcastle City Centre.	The planning proposal supports Direction 3 - Revitalise Newcastle City Centre.
The planning proposal supports Goal 3 - Thriving communities	The planning proposal includes additional community space that will support the adjacent public recreation zoned land and supports Direction 18 - Enhance access to recreational and connect open space.

- Newcastle - Local Government Narrative

The narrative of the Regional Plan builds upon the above vision, goals and directions and applies these to the Newcastle Local Government Area. The planning proposal supports the priorities for the Newcastle City Centre. The proposal includes areas that will *"Strengthen connections between the city and the waterfront and improve civic spaces"*.

Greater Newcastle Metropolitan Plan 2036

The Hunter Regional Plan 2036 set the vision for the Hunter to be the leading regional economy in Australia with a vibrant new metropolitan city at its heart. The Greater Newcastle Metropolitan Plan sets out outcomes to be achieved within the Newcastle local government area and identifies Newcastle City Centre as catalyst area, highlighting the importance of the area to the broader Hunter Region.

The planning proposal is consistent with the following outcomes for the Newcastle City Centre Catalyst area:

- transform spaces for public open space, new shops and residential opportunities, and connecting the city to the waterfront

- encourage additional civic and cultural activities that reinforce the cultural axis from Civic Park to the waterfront.

4. *Is the planning proposal consistent with a council's local strategy or other local strategic plan?*

Newcastle 2030 Community Strategic Plan

The Newcastle Community Strategic Plan (CSP) was adopted by Council in February 2011 and updated in 2013 and 2018. The plan identifies the community's vision for the city, outlines actions and strategies for Council to achieve, as well as indicators for monitoring implementation.

Compliance with the LEP amendment process, in particular section 3.4 of the *EP&A Act 1979* ensures consistency with the strategic direction 'Open and Collaborative Leadership' and the strategic objective to "Active citizen engagement in local planning decision-making processes and a shared responsibility for achieving goals".

Furthermore, the planning proposal is consistent with the following strategic directions and objectives:

- Vibrant, safe and active public places
- Inclusive Community
- Smart and innovative
- Open and Collaborative Leadership

Newcastle Urban Renewal Strategy (NURS)

The Newcastle Urban Renewal Strategy (NURS) 2012 and 2014 update is the principal land use strategy for the Newcastle City Centre. It is guided by nine guiding principles outlined below:

1. *Opportunities to grow and expand*
2. *Economic viability and competition*
3. *Busy and vibrant city centre*
4. *Integrity and viability*
5. *Investment, employment and growth*
6. *Transport, access and connectivity*
7. *Housing mix and affordability*
8. *Retail variety and choice*
9. *Provide for future employment growth*

A specific initiative of the NURS 2014 update was to connect the city with its waterfront. The proposal to rezone the subject land to SP3 Tourist will provide the opportunity for a multi-purpose community space to be constructed that will facilitate connections to the waterfront and provide a compatible use to the adjacent Market Street Lawn.

The site is owned by City of Newcastle and the proposal is for this site to be developed for a multi-purpose community space. The zoning of the site to SP3 Tourism has objectives to allow for a variety of tourist-oriented development and related uses and provide for a range of compatible land uses. Community facilities are a permissible use with consent within this zone.

Local Strategic Planning Statement

The Local Strategic Planning Statement (LSPS) was adopted by Council at its Ordinary Meeting on 26 May 2020. The LSPS provides a 20-year land use vision and identifies how CN will sustainably manage the growth and change of the City. The LSPS gives effect to the Hunter Regional Plan 2036 and Greater Newcastle Metropolitan Plan 2036, implements priorities from our Community Strategic Plan, Newcastle 2030 and brings together land use planning actions in other adopted strategies. The planning proposal is generally consistent with the planning priorities of the LSPS.

5. Is the planning proposal consistent with applicable State Environmental Planning Policies?

Table 1 provides an assessment of the proposed amendment against each State Environmental Planning Policy (SEPP) applying at the time of preparing this planning proposal.

The assessment undertaken firstly identified which SEPP applies to the proposal, determined by the SEPP applying to both:

- a. the land; and
- b. the preparation of environmental planning Instruments.

Where applicable, the table identifies how the planning proposal addresses the requirements of the SEPP.

Table 1 - Relevant State Environmental Planning Policies

State Environmental Planning Policies	Applicable	Consistency and Implications
SEPP No 1—Development Standards	No	
SEPP No 19—Bushland in Urban Areas	No	
SEPP No 21—Caravan Parks	No	
SEPP No 30—Intensive Agriculture	No	
SEPP No 33—Hazardous and Offensive Development	No	
SEPP No 36—Manufactured Home Estates	No	
SEPP No 44—Koala Habitat Protection	Yes	The SEPP applies to the entire LGA, however, the land is urban and does not consist of areas of koala habitat.
SEPP No 47—Moore Park Showground	No	
SEPP No 50—Canal Estate Development	No	
SEPP No 52—Farm Dams and Other Works in Land and Water Management Plan Areas	No	
SEPP No 55—Remediation of Land	Yes	<p>A preliminary geotechnical assessment by Douglas Partners has been carried out of the former rail corridor between Worth Place and Watt Street.</p> <p>In accordance with Clause 6 Contamination and remediation to be considered in zoning or rezoning proposal, of the SEPP.</p> <ul style="list-style-type: none"> • The land is identified as contaminated and the SEPP applies. • As per the recommendations of the geotechnical assessment the land can be made suitable after remediation for all the purposes for which the land is permitted to be used. <p>See Section 8 of this planning proposal for further details.</p>
SEPP No 62—Sustainable Aquaculture	No	
SEPP No 64—Advertising and Signage	No	
SEPP No 65—Design Quality of Residential Apartment Development	No	
SEPP No 70—Affordable Housing (Revised Schemes)	No	
SEPP (Affordable Rental Housing) 2009	No	
SEPP (Building Sustainability Index: BASIX) 2004	No	
SEPP (Educational Establishments and Child Care Facilities) 2017	No	
SEPP (Exempt and Complying Development Codes) 2008	No	
SEPP (Housing for Seniors or People with a Disability) 2004	No	
SEPP (Infrastructure) 2007	No	
SEPP (Integration and Repeals) 2016	No	
SEPP (Kosciuszko National Park—Alpine Resorts) 2007	No	
SEPP (Kurnell Peninsula) 1989	No	
SEPP (Mining, Petroleum Production and Extractive Industries) 2007	No	

State Environmental Planning Policies	Applicable	Consistency and Implications
SEPP (Miscellaneous Consent Provisions) 2007	No	
SEPP (Penrith Lakes Scheme) 1989	No	
SEPP (Rural Lands) 2008	No	
SEPP (State and Regional Development) 2011	No	
SEPP (State Significant Precincts) 2005	No	
SEPP (Sydney Drinking Water Catchment) 2011	No	
SEPP (Sydney Region Growth Centres) 2006	No	
SEPP (Three Ports) 2013	No	
SEPP (Urban Renewal) 2010	Yes	The area subject to this planning proposal is wholly within land to which Newcastle Potential Precinct Map applies. The requirements of Clause 9 <i>Proposals for potential precincts</i> were satisfied by the preparation of the Newcastle Urban Renewal Strategy (NURS).
SEPP (Vegetation in Non-Rural Areas) 2017	No	
SEPP (Western Sydney Employment Area) 2009	No	
SEPP (Western Sydney Parklands) 2009	No	
SEPP (Coastal Management) 2018	Yes	The subject land is within the Coastal Use Area. The planning proposal is acceptable in relation to the matters for consideration specified under Clause 14 as applying to the preparation of a draft LEP with regard to future use of the land. The more detailed matters of this SEPP will also be considered during the assessment of any future DA.

6. Is the planning proposal consistent with applicable Ministerial Directions (s.9.1 directions)?

Table 2 documents Council's assessment of the planning proposal against the relevant Ministerial Directions made under Section 9.1 of the EP&A Act 1979 (formerly known as Section 117 Directions).

Table 2 - Relevant Ministerial Directions

Relevant Section 9.1 Directions	Applicable	Consistency and implications
1. Employment and Resources		
1.1 Business and Industrial Zones	Yes	The planning proposal does not reduce existing business and industrial zones, or the total potential floorspace area for employment uses in business or industrial zones. To reflect new subdivision boundaries and adjoining zoning, a small amount of existing SP2 land will be rezoned to B4 Mixed Use.
1.2 Rural Zones	No	
1.3 Mining, Petroleum Production and Extractive Industries	No	
1.4 Oyster Aquaculture	No	
1.5 Rural Lands	No	
2. Environment and Heritage		
2.1 Environment Protection Zones	Yes	Whilst the Direction applies, the planning proposal will have no effect on, or be affected by areas of environmental sensitivity. Hence the proposal is of minor significance.
2.2 Coastal Protection	Yes	The Proposal is within the Coastal Use Area but does not impact or would be impacted by coastal processes or hazards. The proposed HOB is compatible with the context of the area.
2.3 Heritage Conservation	Yes	<p>The planning proposal relates to land potentially containing aboriginal and archaeological items culture items as detailed under the Heritage Assessment Report.</p> <p>This planning proposal does not propose to alter the heritage conservation provisions of the LEP.</p> <p>The proposed HOB map has had regard to heritage items, including scale interface with built heritage items.</p> <p>A heritage interpretation framework has been included in the heritage assessment to guide a consistent interpretation strategy across the rail corridor, which will be developed at development application stage.</p> <p>No. 233 Wharf Road may have local archaeological significance being a former Perkins Street Boat harbour. Relevant information in relation to this is included in the DCP for this site.</p> <p>Refer to Section C, clause 8 for further discussion.</p>

Relevant Section 9.1 Directions	Applicable	Consistency and implications
2.4 Recreation Vehicle Areas	No	
2.5 Application of E2 and E3 Zones and Environmental Overlays in Far North Coast LEPs	No	
3. Housing, Infrastructure and Urban Development		
3.1 Residential Zones	no	
3.2 Caravan Parks and Manufactured Home Estates	No	
3.3 Home Occupations	No	
3.4 Integrating Land Use and Transport	Yes	The proposal will facilitate new development within walking distance to transport and services and is therefore consistent with the objectives.
3.5 Development Near Licensed Aerodromes	No	
4. Hazard and Risk		
4.1 Acid Sulfate Soils	Yes	<p>The planning proposal relates to land affected by Acid Sulfate Soils (ASS) under Newcastle LEP 2012.</p> <p>Any potential impact from ASS can be managed with the remediation works to be carried out and with the implementation of an ASS management plan.</p> <p>The Department of Planning and Environment has advised that the inconsistency with this Direction is of minor significance and no further approval is required.</p>

Relevant Section 9.1 Directions	Applicable	Consistency and implications
4.2 Mine Subsidence and Unstable Land	Yes	<p>The site is within the Newcastle Mines Subsidence District. The submitted geotechnical and contamination assessment by Douglas Partners, includes a letter from Mine Subsidence Board (MSB), dated 14 January 2016, outlining preliminary consultation with the MSB for works within the surplus rail corridor between Worth Place and Watt Street.</p> <p>The letter confirms that future development would require approval from the MSB and that larger scale development would be subject to merit assessment based upon engineered solutions having regards to further detailed investigations. The letter from MSB does not indicate that future development would be precluded.</p> <p>The gateway determination issued 22 December 2016 for the rezoning of the rail corridor between Worth Place and Watt Street required no further consultation with MSB. Future development would require approval from MSB at the development application stage.</p> <p><u>Update: Post Gateway Agency Consultation</u></p> <p>Subsidence Advisory NSW wrote to City of Newcastle on 24 September 2019 and advised that the SA NSW records indicate historical mine workings in the Borehole Seam exist within the zone of influence of the site. There is possibility that unmapped convict era mine workings may exist under the site. Any future development for the site that is consistent with the proposed zoning will be required to be assessed on merit. A geotechnical investigation will likely be required to ensure that the site is not impacted by convict era workings.</p>
4.3 Flood Prone Land	Yes	<p>Generally consistent.</p> <p>A Flood Risk Assessment by BMT WBM is at Appendix D which details consistency with the direction in detail.</p> <p>The Newcastle LEP does not contain flood management provisions, and this is not proposed to be altered. Flood management provisions are contained in the Newcastle DCP 2012 and these will continue to apply and are consistent with the NSW Flood Prone Land Policy and Floodplain Development Manual 2005, as required by the direction.</p>
4.4 Planning for Bushfire Protection	No	
5. Regional Planning		
5.1 Implementation of Regional Strategies	No	
5.2 Sydney Drinking Water Catchments	No	

Relevant Section 9.1 Directions	Applicable	Consistency and implications
5.3 Farmland of State and Regional Significance on the NSW Far North Coast	No	
5.4 Commercial and Retail Development along the Pacific Highway, North Coast	No	
5.5 Development in the vicinity of Ellalong, Paxton and Millfield (Cessnock LGA) (Revoked 18 June 2010)	No	
5.6 Sydney to Canberra Corridor (Revoked 10 July 2008. See amended Direction 5.1)	No	
5.7 Central Coast (Revoked 10 July 2008. See amended Direction 5.1)	No	
5.8 Second Sydney Airport: Badgerys Creek	No	
5.9 North West Rail Link Corridor Strategy	No	
5.10 Implementation of Regional Plans	Yes	The Hunter Regional Plan 2036 applies to the land. As outlined under section 3 previously, this planning proposal is consistent with the vision, goals, directions and actions, along with the narrative for Newcastle Local Government Area, within the Regional Plan. In summary the planning proposal supports the role for the Newcastle City Centre within the overall vision for the Hunter Region by capitalising on the vibrant waterfront and heritage, facilitating more residents, businesses and education uses, within an existing urban area to maximise use of infrastructure and services.
6. Local Plan Making		
6.1 Approval and Referral Requirements	Yes	The planning proposal does not include any provisions that will require development application to seek approval or referral from any other public authority. Council will consult with public authorities prior to public exhibition in accordance with any conditions imposed on the planning proposal during Gateway determination.
6.2 Reserving Land for Public Purposes	No	
6.3 Site Specific Provisions	No	
7. Metropolitan Planning		
7.1 Implementation of A Plan for Growing Sydney	No	

The Department of Planning and Environment's Practice Note PN 10-001 includes a checklist for proposals to classify or reclassify public land through an LEP. The information required to be addressed in the checklist for 233 Wharf Road, Newcastle is included in Table 3:

Table 3 – Checklist for proposals to classify or reclassify public land

Criteria	Comment
The current and proposed classification of the land.	Current: Community Proposed: Operational
Whether the land is a 'public reserve' as defined in the LG Act	Yes, the land is defined as a public reserve under the Local Government Act
The strategic and site specific merits of the reclassification and evidence to support this.	Refer to part 3 (justification of the planning proposal for further information)
Whether the planning proposal is consistent with Council's community plan or other local strategic plan	Yes, the planning proposal is consistent with Council's strategies
A summary of Council's interests in the land: <ul style="list-style-type: none"> How and when the land was first acquired If Council does not own the land, the land owners' consent The nature of any trusts, dedications etc. 	The Land was conveyed to City of Newcastle from the Commissioner for Railways in March 1940. There are no other trusts or dedications
Whether any interests in the land are proposed to be discharged and if so an explanation of the reasons why.	There are no known easements or other encumbrances affecting the site.
The effect the reclassification (including the loss of public open space, the land ceased to be a public reserve or particular interests will be discharged).	The effect of the reclassification is to enable the site to be developed by the City of Newcastle as a multi-purpose community space. The land is used as a car park and not part of Council's formally managed parklands.
Evidence of public reserve status or relevant interests, or lack thereof applying to the land. (eg. electronic searches, notice in Government Gazette, trust documents).	The sale of the parcel of land to Council is noted in Deed (Book 1866 No 844).
Current use(s) of the land and whether uses are authorised or unauthorised.	The site is used as an approved car park and part road (Wharf Road).
Current or proposed lease or agreements applying to the land, together with their duration, terms and controls.	NIL
Current or proposed business dealings (eg. agreement for the sale or lease of the land, the basic details of any such agreement and if relevant, when council intends to realise its asset, either immediately after rezoning/reclassification or at a later time).	NIL – there are no plans for City of Newcastle to dispose of this asset.
Any rezoning associated with reclassification (if yes, need to demonstrate consistency with an endorsed Plan of Management or Strategy).	The site is proposed to be rezoned to SP3 Tourist to form a consolidated development site with 250 Scott Street Newcastle. The rezoning is consistent with CNs strategies. Refer to the Planning Proposal for further detail.
How Council may or will benefit financially, and how these funds will be used.	CN is not intending to sell the site.
How Council will ensure funds remain available to fund proposed open space sites or improvements referred to in justifying the reclassification, if relevant to the proposal.	N/A
A Land Reclassification (part lots) Map, in accordance with any standard technical requirements for spatial datasets and maps, if land to be reclassified does not apply to the whole lot.	N/A
Preliminary comments by a relevant government agency, including an agency that dedicated the land to Council, if applicable.	N/A

Section C - Environmental, social, and economic impact

7. *Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?*

233 Wharf Road is currently used as a car park with 250 & part 150 and 150A Scott Street, and 280 Hunter Street formerly developed for railway purposes. The planning proposal has no potential for critical habitat or threatened species, populations or ecological communities, or their habitats, to be adversely affected.

8. *Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?*

Heritage

A Heritage Assessment Report (Appendix A) was completed for the surplus rail corridor lands between Worth Place and Watt Street.

The Report considered the potential impact of works on potential Aboriginal sites, built heritage structures and archaeological and potential archaeological sites with the study area. The Report also provided advice on the planning approval process required and provides recommendations for mitigation against adverse heritage impact.

A search undertaken of the Aboriginal Heritage Information Management System (AHIMS) identified that no Aboriginal sites are present in the Rezoning Study Area. However, the literature review and previous archaeological work suggests that subsurface Aboriginal heritage will be present within the surplus corridor between Worth Place and Watt Street Newcastle.

In reference to built heritage there are six heritage places in close proximity to the proposed site; the Newcastle Railway Station and the Newcastle Railway Station Additional Group (both on the State Heritage Register and of State heritage significance); the Civic Railway Workshop Group (Newcastle Museum); the remains of AA Co. Bridge and Fence and the former Tramway Substation (NLEP 2012 Schedule 5 and of local heritage significance). The Civic Station (Section 170 Register) is not listed under NLEP.

There are a number of archaeological sites and potential archaeological sites in the surplus rail corridor land between Worth Place and Watt Street including the: Mortuary Station; Civic Railway Station; Civic Railway Workshops curtilage; Newcastle Railway Station; and Convict Huts.

The Report's recommendations are supported and have demonstrated that heritage matters can be addressed under future development by:

- Mitigation methods for Aboriginal archaeological sites including that a heritage interpretation strategy be prepared.
- The mitigation for built heritage including visual analysis, construction considerations, adaptive reuse and full consideration of any demolition.

The report indicates that *"Any new buildings should be designed in accordance with the requirements of the Newcastle City Council requirements for the Newcastle City Centre Heritage Conservation Area."*

Additional assessment will occur at development application (DA) stage, however the appropriate built form (bulk and scale) cannot be entirely deferred until assessment of a DA. A review of the Section 6.01 City Centre of the Newcastle Development Control Plan (DCP) is being undertaken to determine appropriate planning controls for the site. A review of the Newcastle Archaeological Management Plan 1997 identifies No. 233 Wharf Road as being the former Perkins Street Boat Harbour. More information on the character and history of the subject area has been provided in the DCP for this site.

Traffic and Parking

A Traffic Impact Assessment (Appendix B) was prepared for the surplus rail corridor between Worth Place and Watt Street, based on demand generated by approximately 585 dwellings and 5,200m² of gross floor area for non-residential uses. The Traffic Impact Assessment overestimated the impacts from development, due to the development footprint being reduced during the assessment of the previous rezoning.

While the traffic impact assessment did not assess development on 233 Wharf Road, it did overestimate the amount of development within the rail corridor and as such the traffic impacts are considered acceptable. The TIA predicted 3,900 (two-way) additional traffic movements, which modelling shows could be accommodated within the existing road network.

Future development would be subject to the requirements of the Newcastle DCP 2012 and would be required to undertake a detailed traffic and transport assessment.

233 Wharf Road, Newcastle operates as a public car park, the use of this site in the short term is not proposed to change. The parking requirements for any future development will be assessed as part of the detailed design of the site.

Services

City of Newcastle's Infrastructure Planning Section has identified a need to ensure that there is sufficient room within the corridor for 'future proofing' of services, in particular adequate space for stormwater infrastructure and overland flow paths. The critical aspect will be to ensure future building footprints provide space between for these services to be accommodated.

The comments from CN staff will be incorporated into the review of NDCP 2012 Section 6.01 Newcastle City Centre.

Geotechnical and Contamination

Douglas Partners prepared a geotechnical and contamination assessment (Appendix C) for the surplus rail corridor between Worth Place and Watt Street. The Assessment outlined that Douglas Partners has conducted contamination investigations within the rail corridor between Newcastle Station in the east and Worth Place in the west.

The results of the investigation indicated the following with respect to contamination at the site:

- The presence of hydrocarbon contamination in soil associated with the former gas works in the eastern portion of the site (ie. current bus interchange).
- The presence of hydrocarbon contamination in near-surface soils in the vicinity of Newcastle Station and the Newcastle Signal Box as a results of historical train use.

- The presence of heavy metal-impacted near-surface soils to the west of Civic Station, likely to be as a result of impacted historical filling and/or historical ash dumping in the area.
- The presence of minor soil contamination in filling across the site, likely due to historical use as a railway and historical filling of the site. The Assessment recommends that contamination in soil at the site should be addressed due to the potential for impacts on human health and the environment, including groundwater impact. The Assessment proposes a remediation strategy for the site for localised removal and/or remediation of impacted soils, with capping of the remainder of the site with structures, pavements or soils. The contamination assessment and Remediation Action Plan (RAP) will be subject to review and approval by a NSW EPA accredited auditor.

Council's Compliance Services Unit has reviewed the Assessment and are satisfied that the land can be made suitable after remediation for all the purposes for which the land is to be used. Further details and agreement of contaminants remaining in-situ will be established for land intended to be dedicated to City of Newcastle.

In terms of geotechnical suitability of the site for future development the assessment identifies that the rail corridor land is geotechnically suitable for residential, community and commercial type developments. The Assessment adds that prior to the detailed design of any proposed developments specific geotechnical investigation will be required, appropriate to the nature of the proposed development. Investigation and design will need to consider some or all of the following matters:

- The presence and depth of uncontrolled fill.
- The presence, depth and likely variation in groundwater levels.
- Appropriate treatment and management of acid sulphate soils where encountered.
- Excavation conditions and shoring requirements, if relevant.
- Earthworks procedures and whether any ground improvement measures (such as removal and compaction) are required, taking into account the requirements of the Remediation Action Plan (RAP).
- Suitable footing options and design parameters for support of structures.
- Requirements relating to potential mine subsidence, where relevant.

The Assessment identified that it could be expected that with suitable investigation, design and construction in accordance with accepted engineering practice, that the above matters can be readily managed.

Having regards to the above, the land is acceptable from a contamination and geotechnical perspective for the intended land uses proposed.

Mine Subsidence

The site is within the Newcastle Mine Subsidence District. The submitted geotechnical and contamination assessment by Douglas Partners (Appendix C), includes a letter from Mine Subsidence Board (MSB), dated 14 January 2016, outlining preliminary consultation with the MSB. The letter confirms that future development would require approval from the NSW MSB and that larger scale development would be subject to merit assessment based upon engineered solutions having regards to further detailed investigations.

Update Post Gateway Determination and Agency Consultation:

Subsidence Advisory NSW wrote to City of Newcastle on 24 September 2019 and advised that the SA NSW records indicate historical mine workings in the Borehole Seam exist within the zone of influence of the site. There is possibility that unmapped convict era mine workings may exist under the site. Any future development for the site that is consistent with the proposed zoning will be required to be assessed on merit. A geotechnical investigation will likely be required to ensure that the site is not impacted by convict era workings.

Flooding

The land is subject to flooding, any future development of the land will need to comply with the requirements in the Newcastle DCP in relation to flooding. A Flood Risk Assessment by BMT WBM (Appendix D) noted the area could accommodate future development.

Bushfire

According to Newcastle Bush Fire Hazard Map the land is not affected by bushfire risk or in the vicinity of such a risk.

Acid Sulphate Soils (ASS)

The land is identified as Class 3 ASS under the Newcastle LEP 2012. Future development must comply with the provisions of the Newcastle LEP 2012 relating to ASS.

Zoning and Planning Controls

Prior to the Department of Planning and Environment removing Parcel 12 from the rail corridor Planning Proposal, Council endorsed as part of the Planning Proposal to rezone the site part SP3 Tourist (with a HOB of 17 metres and FSR of 2.5:1) and Part RE1 Public Recreation. The proposed zoning and planning controls were chosen to ensure residential flat buildings were not constructed on this site and to establish a more suitable interface between any future development and Market Street Lawn, as the future owner/developer of the site was not yet known.

As the future ownership has been resolved and use of the land for a multi-purpose community space is now being investigated, a detailed assessment of the sites has been undertaken, taking into consideration existing view corridors, impact on surrounding development and the interface with Market Street Lawn and the waterfront.

A Visual Impact Statement was completed by Moir Landscape Architects as part of the previous rail corridor rezoning which modelled a 17-metre building height for Parcel 12. The assessment noted the importance of protecting view corridors along Brown and Perkins Street as well as fragmented view to the harbor from Hunter Street. The visual impact (at a height of 17 metres) would be greatest felt from buildings fronting Hunter and Scott Street as well as properties from higher elevations to the south (i.e. Church Street) as the proposed development may be visible.

Now that the site will be consolidated with 233 Wharf Road Newcastle and includes all of Parcel 12; the 17 metre height limit has been lowered to 14 metres and FSR to 2:1 to better complement surrounding development and protect view corridors from Hunter Street and from higher elevations to the south.

Development Control Plan

A review of Newcastle DCP 2012, Section 6.01 Newcastle City Centre is being undertaken to consider appropriate site-specific controls such as protecting view lines, setbacks and connections to the waterfront and will be reported separately to Council for consideration. It is intended that the Planning Proposal and amended DCP will be exhibited together to ensure the community has an opportunity to comment on both documents.

Update Post Gateway Determination:

The Newcastle DCP 2012 has now been amended to include a new section for this site. It includes provisions relating to retention of view corridors and access to the harbour from both Brown and Perkins Street to the harbour, and other recommendations as per the Visual Impact Statement undertaken by Moir Landscape Architects (March 2017). A new view corridor has been added from the site to Nobbys Headland. Building Setbacks have also been established for both the Scott Street and Wharf Road frontages. The key objectives for the Scott Street setback control is to ensure that views to the harbour along Scott Street can be enhanced. The key objective for the setback controls for Wharf Road is to ensure that any new development is consistent with adjoining developments.

A new Part (l) has been included in Section 6.01.04 Key Precincts in the DCP to reflect the proposed consolidated parcels of land and the acceptable solutions for this site. As the site is identified as a Key Site in the Local Environmental Plan design excellence will need to be achieved.

9. Has the planning proposal adequately addressed any social and economic effects?

The creation of a multi-purpose community space that will be accessible by public transport and provide for the future Newcastle community will have a positive effect on the Newcastle City Centre.

Section D - State and Commonwealth interests

10. Is there adequate public infrastructure for the planning proposal?

A Servicing Investigation, by ADW Johnson determined there are no issues that would preclude the proposed rezoning based on water and wastewater infrastructure servicing, electricity and communications.

11. What are the views of State and Commonwealth public authorities consulted in accordance with the gateway determination?

The following public authorities were consulted in accordance with condition 4 of the Gateway Determination issued on 13 August 2019:

- Subsidence Advisory NSW
- Transport for NSW, and
- Hunter Central Coast Development Corporation.

The responses received and the outcomes are summarised below:

Agency	Comment	Response	Outcomes
Subsidence Advisory NSW	<p>Advised that the SA NSW records indicate historical mine workings in the Borehole Seam exist within the zone of influence of the site. There is possibility that unmapped convict era mine workings may exist under the site. Any future development for the site that is consistent with the proposed zoning will be required to be assessed on merit. A geotechnical investigation will likely be required to ensure that the site is not impacted by convict era workings.</p>	Noted.	<p>Submission placed on file for future reference should future planning for the site proceed. SA NSW will be consulted through any development application process.</p>
Transport for NSW	<p>Note: TfNSW submission received during public exhibition:</p> <p>TfNSW's primary interests are in the road network, traffic and broader TfNSW issues. In particular, the efficiency and safety of the classified road network, the security of property assets and the integration of land use and transport.</p> <p>Hunter Street and Scott Street have been declared a Transitway (No. 8011), and are a classified road (MR697), with the route commencing at Worth Place and completing at the light rail terminus in Newcastle East. Wharf Road is a local road. Council is the roads authority for all other public roads in the area, in accordance with Section 7 of the <i>Roads Act 1993</i>.</p> <p>TfNSW has reviewed the referred information and provides the following comments to assist the consent authority in making a determination:</p> <ul style="list-style-type: none"> The sites front the Newcastle Light Rail Transitway from the vicinity of Hunter Street at Crown Street, to Scott Street at Newcomen Street. An access restriction shall be 	Noted.	<p>Submission placed on file for future reference should future planning for the site proceed. TfNSW will be consulted through any development application process.</p>

Agency	Comment	Response	Outcomes
	<p>placed on the title of any future lot to ensure that no vehicle access shall be permitted to the Transitway.</p> <ul style="list-style-type: none"> • Prior to any future development on these sites, the applicant will be required to enter into a Rail Interface Agreement with the appropriate rail authority, in this case Keolis Downer as the current Light Rail operator. This agreement is triggered by Clauses 85 (Development adjacent to rail corridors) and 86 (Excavation in, above, below or adjacent to rail corridors) of State Environmental Planning Policy (Infrastructure) 2007. 		
HCCDC	No comments received.		

Part 4 - Mapping

The planning proposal seeks to amend the following map within Newcastle LEP 2012:

- ✓ Land Zoning Map
- ✓ Height of Buildings Map
- ✓ Floor Space Ratio Map
- ✓ Minimum Lot Size Map
- ✓ Key Sites Map

The Matrix below indicates which map sheets (of Newcastle LEP 2012) are to be amended as a result of this planning proposal.

	FSR	LAP	LZN	WRA	ASS	HOB	LSZ	LRA	CL1	HER	URA
001											
001A											
001B											
001C											
001D											
002											
002A											
002B											
002C											
002D											
002E											
002F											
002G											
002H											
003											
004											
004A											
004B											
004C											
004D											
004E											
004F											
004FA											
004G	✓		✓			✓	✓		✓		
004H											
004I											
004J											
004K											

Map Codes:	FSR	=	Floor Space Ratio map
	LAP	=	Land Application Map
	LZN	=	Land Zoning Map
	WRA	=	Wickham Redevelopment Area Map
	ASS	=	Acid Sulfate Soils Map
	HOB	=	Height of Buildings Map
	LSZ	=	Lot Size Map
	LRA	=	Land Reservation Acquisition Map
	CL1	=	Key Sites Map & Newcastle City Centre Map
	HER	=	Heritage Map
	URA	=	Urban Release Area Map

Part 5 - Community consultation

Public exhibition

The planning proposal was publicly exhibited for a 28-day period in accordance with the conditions of the Gateway Determination.

Public exhibition occurred between 3 February and 2 March 2020 and four submissions were received. One late submission was received from Transport for NSW which is summarised under Section D (pages 35-36).

A summary of submissions, CN's response and the outcomes are listed under Appendix E The following table provides a snapshot of the submissions, responses and outcomes:

Submitter	Comment	Response	Outcomes
Organisation – Hunter Regional Committee of the National Trust	<p>1. Highlighting the importance of maintaining visual, spatial and physical connections between the historic centre of Newcastle and the harbour.</p> <p>View analysis was not publicly exhibited. Disagreement with assessment that harbour views are limited from Hunter Street.</p> <p>Proposed future building on the site is inconsistent with the objectives of the strategic framework including to 'Connect the City to the Waterfront'.</p>	<p>1. The planning proposal includes requirements to promote and protect the significance of views, open connection with the harbour and facilitates a development that demonstrates design excellence. These aims will be achieved through provisions in the site-specific DCP and identifying the land as a Key Site subject to the Clause 7.5 'Design excellence' of the NLEP 2012.</p> <p>The site-specific DCP identifies the two view corridors from the Visual Impact Assessment and an additional view corridor north east across the harbour towards Nobbys Head. The south eastern corner of the site has been identified as proposed open space to protect views towards Stockton and Nobbys Headland.</p>	<p>1. No change</p> <p>2. No change</p> <p>3. No change. Council does not intend to sell the site.</p> <p>4. No change</p> <p>5. No change</p> <p>6. No change. The community will be further consulted for the future planning of the site regarding their aspirations for community use and design.</p> <p>7. No change</p>
	<p>2. Support for the consolidation of sites for the purposes of expanding the Market Street Lawn open space reserve.</p>	<p>The land is identified as a Key Site under NLEP 2012 which requires additional design excellence considerations and for a design competition to be held in relation any proposed development.</p>	

Submitter	Comment	Response	Outcomes
	<p>3. Objection to proposed reclassification and rezoning. Site should remain classified as 'community land' and serve as car parking for access to Market Street Lawn and Queens Wharf.</p> <p>4. Objection to proposed SP3 Tourist zone. Suggest the site should be rezoned as RE1 Public Recreation instead.</p> <p>5. Proposed planning controls (FSR, height and lot size) aren't acceptable for an unspecified community facility.</p> <p>6. Planning proposal should not proceed until further information is shared with community regarding proposed future use.</p> <p>7. Site presents unique opportunity to interpret history of Newcastle including the 1903 Boat Harbour.</p>	<p>2. Noted.</p> <p>3. Council does not intend to sell the site or lease floor space in a future building to a non-community use as its primary function. The proposed operational classification for its current use as a car park is consistent with approximately 20% of CN's land/assets which include depots, libraries and car parks. These assets continue to remain under CN's ownership.</p> <p>4. The intended future use of the site as a community facility in the longer-term does not align with the zone objectives of the RE1 Public Recreation zone and therefore the SP3 Tourist Zone, with appropriate height and FSR controls, has been proposed.</p> <p>The SP3 zone also flags that the site is intended to be developed in the future and will not be solely used for car parking and open space.</p> <p>5. The proposed planning controls have balanced the functional requirements of any future community use (e.g. minimum floor plates, floor-to-ceiling heights etc.) with consideration for site context and relationship with the adjoining Market Street Lawn and Foreshore Park.</p> <p>6. The planning proposal, proposed reclassification and site-specific DCP set</p>	

Submitter	Comment	Response	Outcomes
		<p>a framework in place with enough scope to consider a range of appropriate community uses for the site and could include among others, an art gallery, library, cultural centre or community centre.</p> <p>7. Noted and agreed. Additional heritage and archaeological investigations are required to understand the extent of the 1903 Boat Harbour archaeology and innovative ways this could be integrated on the site. CN will be further consulting with the community to explore opportunities if future planning proceeds.</p>	
Individual	<p>1. Objection to proposed reclassification and rezoning. Site should remain classified as 'community land' for the broader community and surrounding businesses.</p> <p>2. Objection to proposed SP3 Tourist zone. Suggest the site should be rezoned as RE1 Public Recreation instead.</p>	<p>1. Noted. Refer to response 3 on page 39.</p> <p>2. Noted. Refer to response 4 on page 39.</p>	<p>1. No change</p> <p>2. No change</p>
Individual	<p>1. Concerns about potential closure of car park as it</p>	<p>1. Noted. Revenue generated from car parking is an operational matter.</p>	<p>1. No change</p> <p>2. No change</p> <p>3. No change</p>

Submitter	Comment	Response	Outcomes
	<p>creates revenue for council.</p> <p>2. Cumulative loss of car parking in the City Centre will place more pressure on businesses.</p> <p>3. Uncertainty regarding future use as a multi-purpose community space. Any future community space should incorporate public parking.</p> <p>4. Concerns that the land will be sold and developed for a motel.</p> <p>5. Building height of 14m is inappropriate for this location.</p>	<p>2. CN formally accepted the transfer of No. 250 Scott Street, Newcastle (southern lot known as Parcel 12) on 28 August 2020 from Hunter Central Coast Development Corporation (HCCDC) and placed an operational classification on that land for expansion of the adjacent Wharf Road public car park. The transfer of land occurred following the conclusion of the public exhibition and public hearing.</p> <p>Acquisition of Parcel 12 is an important milestone and provides CN with the ability to expand car parking capacity in the City Centre in the interim. Car parking could also form part of any future community use on the site and will be subject to further community engagement.</p> <p>3. Noted. Refer to response 6 on pages 39-40.</p> <p>4. Noted and acknowledged. Refer to response 3 on page 39.</p> <p>5. Noted. Refer to response 5 on page 39.</p>	<p>4. No change</p> <p>5. No change</p>
<p>Business – Scratchleys (Petition – 119 signatures)</p>	<p>1. Objection to rezoning and reclassification.</p> <p>2. Lack of adequate events management transport solution for the city.</p> <p>3. Concerns that the land will be sold.</p>	<p>1. Noted. Refer to responses 3 and 4 on page 39.</p> <p>2. Noted and acknowledged. CN is currently preparing a Parking Plan which will among other things, review the car parking capacity within the City Centre and provide recommendations regarding future strategic direction.</p>	<p>1. No change</p> <p>2. No change. The community have an opportunity to provide input into the CN Parking Plan and any future development of the sites.</p>

Submitter	Comment	Response	Outcomes
	<p>4. Cumulative loss of car parking in the City Centre will place more pressure on businesses and capacity to cater for major events.</p> <p>5. East End of the City Centre and Entertainment Precinct requires a wholistic transport plan to increase jobs and reduce commercial vacancies.</p>	<p>3. Noted and acknowledged. Refer to response 3 on page 39.</p> <p>4. Noted. Refer to response 6 on pages 39-40.</p> <p>5. Noted. Refer to response 5 on page 39.</p>	<p>3. No change. Council does not intend to sell the site.</p> <p>4. No change.</p> <p>5. No change.</p>

Public Hearing

An independently facilitated public hearing was held on 6 August 2020 for the proposed reclassification of 233 Wharf Road (Boat Harbour car park) from community to operational land. Four people attended and one person lodged a submission in lieu of attendance. All attendees were opposed to the proposed reclassification. The key matters raised at the public hearing for the proposed reclassification include the following:

- Car parking
- Open green space
- Future development
- Process of reclassification and rezoning.

A Report on the outcomes of the public hearing (Appendix F) was prepared by the independent facilitator which further details the concerns raised.

Part 6 - Project timeline

The plan making process is anticipated to take 16 months as shown in the timeline below. It will be undertaken in accordance with the Gateway Determination.

Task	Planning Proposal Timeline														
	Aug 18	Sep 18	Oct 18	Nov 18	Dec 18	Jan 19	Feb 20	Mar 20	April to July 2020	Aug 20	Sep 20	Oct 20	Nov 20	Dec 20	
Anticipated commencement date (date of Gateway determination)															
Anticipated timeframe for preparation of additional information and precinct DCP															
Timeframe for government agency consultation															
CN endorsement DCP															
Public exhibition period (PP & DCP)															
Dates for public hearing (if required)									COVID Awaiting rescheduled face-to-face public hearing						
Consideration of submissions/finalisation of PP & DCP															
Final endorsement by CN of PP & DCP															
Anticipated date RPA* will forward to the Department for finalisation (as not delegated)															

*RPA Relevant Planning Authority

Appendices

Appendix A - Heritage Assessment Report March 2017

Appendix B - Traffic Impact Assessment

Appendix C - Preliminary Geotech Assessment

Appendix D - Flood Risk Assessment

Appendix E – Summary of submissions and responses

Appendix F – Report on the Public Hearing outcomes

Appendix A - Heritage Assessment Report March 2017



Newcastle Urban Transformation and Transport Program – Rezoning of Surplus Corridor Lands

Heritage Assessment Report

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Appendix 1	AHIMS Results
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Executive Summary

RPS has been contracted by Elton Consulting on behalf of Urban Growth NSW (UGNSW) to provide an assessment of Aboriginal and historic cultural heritage to support the proposed rezoning of surplus rail corridor lands in central Newcastle for urban purposes. The proposal involves a zoning change from its current zoning SP2 Special Purpose Infrastructure to B4 Mixed Use, SP3 Tourist and RE1 Public Recreation zones. The rezoning would be achieved through an amendment to Newcastle Local Environmental Plan 2012 (NLEP).

A search undertaken of the Aboriginal Heritage Information Management System (AHIMS) identified that no Aboriginal sites are present in the Rezoning Study Area. However, the literature review and previous archaeological work suggests that subsurface Aboriginal heritage may be present in the Rezoning Study Area.

The Rezoning Study Area is in the Newcastle City Centre Heritage Conservation Area. In reference to built heritage there are six heritage places in or abutting the area: the Newcastle Railway Station and the Newcastle Railway Station Additional Group (both on the State Heritage Register); the Civic Railway Workshop; Civic Station; the Remains of AA Co. Bridge and Fence and the former Tramway Substation (on the NLEP 2012 Schedule 5 and of local heritage significance). There are a number of identified archaeological and potential resources in the Rezoning Study Area including archaeological resources associated with Mortuary Station, Civic Railway Station, Civic Railway Workshops curtilage and railway turntable, Newcastle Railway Station and the penal settlement as defined in the Newcastle Archaeological Management Plan (Higginbotham 2013).

The program objective of the proposed rezoning is ‘to preserve and enhance culture and heritage’ with the aim of respecting, maintaining and enhancing the unique heritage and character of the Newcastle city centre (Newcastle Urban Transformation and Transport Program January 2016). This objective should ensure the retention, maintenance and refurbishment of heritage buildings and preserve the heritage significance of the Newcastle City Centre Heritage Conservation Area. The detailed management plan to support this objective will occur during the planning phase of the Development Application.

Though the proposed rezoning will not physically affect built heritage, development that will follow the rezoning will. It is considered however that the impact will be, in most instances, positive with adaptive re-use of heritage items and in a number of instances improved view corridors. Detailed assessments of archaeological potential will be required prior to development to determine the potential for archaeological resources in specific areas and the potential of a proposed development to affect an identified or potential archaeological resource. The approvals required would be dependent on the significance of the archaeological resource and the potential for the proposed development to affect that significance.

This report provides advice on the planning approval process required and provides recommendations for mitigation against an adverse heritage impact.

The heritage aspects within the rezoning Study Area should not impact the proposed rezoning progressing.

Abbreviation/ Term	Meaning
Aboriginal Object	“any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises NSW, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains” (DECCW 2010:18).
Aboriginal Place	“a place declared under s.84 of the NPW Act that, in the opinion of the Minister, is or was of special significance to Aboriginal culture” (DECCW 2010:18). Aboriginal places have been gazetted by the minister.
Activity	A Study, development, or work (this term is used in its ordinary meaning and is not restricted to an activity as defined by Part 5 EP&A Act 1979).
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
DECCW	Department of Environment, Climate Change and Water (is now the Office of Environment and Heritage – OEH)
Disturbed Land	“Land is disturbed if it has been the subject of a human activity that has changed the land’s surface, being changes that remain clear and observable.” (DECCW 2010:18).
Due Diligence	“taking reasonable and practical steps to determine whether a person’s actions will harm an Aboriginal object and, if so, what measures can be taken to avoid that harm” (DECCW 2010:18)
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW)
GDA	Geodetic Datum Australia
Harm	“destroy, deface, damage an object, move an object from the land on which it is situated, cause or permit an object to be harmed.” (DECCW 2010:18)
ICOMOS	International Council for Monuments and Sites
IHO	Interim Heritage Order
LEP	Local Environmental Plan
LGA	Local Government Area
NCCHCA	Newcastle City Centre Heritage Conservation Area
NLEP	Newcastle Local Environment Plan
NPWS	National Parks and Wildlife Service
NPW Act	National Parks and Wildlife Act 1974 (NSW)
NPW Regulation	National Parks and Wildlife Regulation 2009 (NSW)
NURS	Newcastle Urban Renewal Strategy
OEH	Office of Environment and Heritage (formerly DECCW)
PAD	Potential Archaeological Deposit
Program	Newcastle Urban Transformation and Transport Program
Project Area	Project Area is the area subject to the desktop study in this report
Proposal site	Proposal site is the area subject to the desktop study in this report
REF	Review of Environmental Factors
s170 register	Section 170 of the <i>Heritage Act 1977</i> requires each State Government agency to keep records of heritage items owned or operated by it and this is commonly referred to as a s170 register
SHI	State Heritage Inventory – inventory of heritage items of local or state significance
SHR	State Heritage Register – register of heritage items of state significance
SoHI	Statement of Heritage Impact
Study Area	Study Area is the area subject to the desktop study in this report
TfNSW	Transport for NSW

1.0 Introduction

1.1 Background

RPS has been contracted by Elton Consulting on behalf of UrbanGrowth NSW to provide an assessment of Aboriginal and historic cultural heritage to support the proposed rezoning of surplus rail corridor lands in central Newcastle for urban purposes through an amendment to Newcastle Local Environmental Plan 2012 (NLEP).

1.2 The proposal

This report has been prepared to support the amendment to the Newcastle Local Environmental Plan (NLEP) 2012 that applies to the surplus rail corridor land ('rail corridor land') between Worth Place and Watt Street in Newcastle city centre (Figure 1).

The Newcastle Urban Transformation and Transport Program ('Program') has been established to deliver on NSW Government's more than \$500m commitment to revitalise the city centre through: the truncation of the heavy rail line at Wickham and creation of the Wickham Transport Interchange; the provision of a new light rail line from Wickham to the Beach; and the delivery of a package of urban transformation initiatives.

The transformation element of the Program aims to bring people back to the city centre by strengthening connections between the city and the waterfront, creating employment opportunities, providing more public space and amenity, and delivering better transport.

The proposed rezoning of the rail corridor land forms a part of the delivery of urban transformation initiatives, comprising a package of transport, built form and public domain improvements.

1.2.1 Vision

The Program vision has been informed by feedback from the community, Council, government agencies and urban renewal experts.

Our vision is an activated city centre and waterfront that attracts people, new enterprises and tourism. Over time, we see great opportunities to build on the strengths of the city centre to encourage innovative and enterprising industries to thrive. In the longer term, we see an opportunity to strengthen Newcastle's position on the regional, national and international stage, with a view to stronger ties with the Asia Pacific.

UrbanGrowth NSW, 2015

1.2.2 Newcastle Urban Transformation

The Newcastle Urban Renewal Strategy (NURS) sets out the NSW Government's long term approach and vision for the revitalisation of Newcastle city centre to the year 2036.

The NURS identifies three character precincts in Newcastle city centre (West End, Civic and East End), within which significant housing and employment opportunities, together with built form and public domain changes and improvements exist. The NURS describes these precincts as:

- East End: residential, retail, leisure and entertainment
- Civic: the government, business and cultural hub of the city

- West End: the proposed future business district including the western end of Honeysuckle (Cottage Creek)

UrbanGrowth NSW has been directed by NSW Government to deliver on NURS through the Program, in partnership with Transport for NSW (TfNSW), the Hunter Development Corporation (HDC) and the City of Newcastle Council (Council).

1.2.3 Proposed rezoning

UrbanGrowth NSW seeks to amend the Newcastle Local Environmental Plan 2012 (NLEP) to enable the delivery of the Program and the objectives of NURS planning outcomes.

The Program is underpinned by six objectives which will drive successful urban revitalisation:

1. Bring people back to the city centre

Re-imagine the city centre as an enhanced destination, supported by new employment, educational and housing opportunities and public domain that will attract people.

2. Connect the city to its waterfront

Unite the city centre and the harbour to improve the experience of being in and moving around the city.

3. Help grow new jobs in the city centre

Invest in initiatives that create jobs, with a focus on innovative industries, higher education and initiatives to encourage a range of businesses to the city centre.

4. Create great places linked to new transport

Integrate urban transformation with new, efficient transport to activate Hunter and Scott Streets and return them to thriving main streets.

5. Creating economically sustainable public domain and community assets

Leave a positive legacy for the people of Newcastle. Ensure that new public domain and community facilities can be maintained to a high standard into the future.

6. Preserve and enhance heritage and culture

Respect, maintain and enhance the unique heritage and character of Newcastle city centre through the revitalisation activities.

1.2.4 Urban transformation proposed concept plan

Surplus rail corridor land runs through the East End and Civic city centre precincts as established by NURS.

Based on this vision and the results of extensive stakeholder and community engagement, an overall urban transformation concept plan (the concept plan) has been prepared for the surplus rail corridor (rezoning sites), as well as surrounding areas.

The concept plan considers and integrates with the delivery of light rail. It is also coordinated with the proposed Hunter Street Mall development to create an interactive, synergised and cohesive city centre and foreshore area.

The concept plan (as shown in Figure 4) includes five 'key moves', two that relate to the Civic precinct and three of which relate to the East End.

1. Civic link (Civic)

This area is the civic heart of Newcastle and includes some of the region's most important civic and cultural assets, including Civic Park, City Hall, Civic Theatre and Newcastle Museum. Current investment in the area includes the law courts development and the, soon to be completed, University of Newcastle NeW Space campus.

The focus of this key move is to leverage best value from new investments by creating new open space and walking and cycling connections that link Newcastle's civic buildings to the waterfront and the light rail system.

- **Civic Green.** Creating a new civic focused public space linking Hunter Street to the Newcastle Museum that will provide direct visual and physical connection from Wheeler Place to the harbour, activate light rail on Hunter Street and meet the needs of the incoming legal and student populations
- **Built form improvements.** Sensibly scaled mixed use development that forms part of the Honeysuckle development.

2. Darby Plaza (Civic)

Darby Street is Newcastle's premier 'eat street', offering a mix of shops, cafes, restaurants and night life. At present Darby Street ends at the intersection with Hunter Street, and this key move seeks to create a new node of activity and linkage through to the harbour that complements the delivery of light rail.

- **Darby Plaza** A new community focused public space including provision of new walking and cycling facilities from Hunter Street to the harbour.
- **Built form improvements.** Zoning of rail corridor land between Merewether Street and Argyle Street to allow for future mixed use development in conjunction with surrounding lands in the longer term.

3. Hunter Street Revitalisation (East End)

Hunter Street features some of Newcastle's best heritage buildings and offers a mix of shops, cafes, restaurants and other local business. Hunter Street has experienced decline in recent years, and the opportunity exists to reinstate Hunter Street as the regions premier main street that complements the delivery of light rail.

- **Built form improvements.** Sensibly scaled mixed use development consistent with the adjoining land uses to create an activated street with 'two edges', celebrate heritage and create new linkages from Hunter Street to the waterfront, provide activation around light rail stops and improve walking and cycling facilities.

4. Entertainment Precinct (East End)

This key move aims to create a place where people can come to play, relax and reconnect with the harbour in a new public space stretching from Scott Street to the waterfront incorporating a new connection from Market Street to Queens Wharf. This key move will also assist to activate the area to create an exciting place for the East End.

- **Recreational opportunities.** This precinct will incorporate the adaptive re-use of the signal box and provision of recreation opportunities for all ages and abilities. Public domain will be designed to provide a thoughtful series of character areas and experiences as one traverses its length. The area will also provide opportunities for viewing and interpretation of heritage character that respect the unique qualities of place.

5. Newcastle Station (East End)

Newcastle Railway Station is proposed to be re-purposed into a hallmark destination and focal point for the new East End, accommodating enterprises and activities that attract visitors and stimulate the economy.

Refurbishment would fully respect and celebrate the heritage integrity of the Station, and could accommodate a range of different activities including community, retail, leisure and commercial uses.

1.2.5 Rezoning concept plan

The proposed rezoning of the surplus rail corridor lands is the focus of this report. The rezoning area is indicated in Figure 1.

Amendments to the NLEP are required to deliver part of the concept plan. The proposed amendments are on surplus rail corridor land only.

Necessary amendments to the NLEP 2012 include:

- amending the Land Use Zoning Map to introduce B4 Mixed Use, SP3 Tourism and RE1 Public Recreation zones to sites along the corridor
- amending the Height of Building and Floor Space Ratio maps to apply appropriate development standards to selected parcels of land

The approach taken to the amendments is to support the NURS planning approach and to remain consistent with surrounding planning controls in terms of zones, floor space ratio (FSR) and height.

The concept plan will also form the basis for updates to the Newcastle City Centre Development Control Plan design controls to guide development and public domain works for rezoning sites.

1.2.6 Proposed rezoning

This planning proposal seeks to rezone rail corridor land (rezoning sites) to enable the delivery of the proposed urban uses established in the concept plan. The location of the land affected by the proposed rezoning is identified in Figure 1.

The planning proposal concept plan includes public domain, entertainment, mixed use and commercial and residential development.

In general, the proposed rezoning will provide a mix of uses enabling between 400-500 dwellings which will comprise a variety of styles and types, and around 5,000m² of commercial, restaurant and other entertainment uses, as described in Table 1, and excluding any education or associated uses.

Proposed maximum building height and floor space ratio controls respect existing controls that apply to surrounding land.

Table 1 Proposed rezoning

Previous Parcel Number prior to Gateway	Updated Parcel Number post Gateway	Size	Proposed Zoning	Proposed FSR	Proposed Height
Parcel 01 B4 Mixed Use 3,370m ²	Parcel 01	3,370m ²	B4 Mixed Use	FSR – 3:1	Height - 30m
Parcel 02 B4 Mixed Use 408m ²	Parcel 02	408m ²	B4 Mixed Use	FSR – 3:1	Height - 30m
Parcel 03 B4 Mixed Use 3,146m ²	Parcel 03	1,869m ²	B4 Mixed Use	FSR – 3:1	Height - 30m
	Parcel 04	900m ²	B4 Mixed Use	FSR – 3:1	Height - 24m
Parcel 04 RE1 Public Recreation 2,464m ²	Now parcel 05 (and small corner of old 03 where western boundary of park realigned)	2,839m ²	RE1 Public Recreation	N/A	N/A
Parcel 05 B4 Mixed Use 1,603m ²	Now parcel 06	1,604m ²	B4 Mixed Use	FSR – 3:1	Height – 18m
Parcel 06 B4 Mixed Use 295m ²	Now parcel 07	295m ²	B4 Mixed Use	FSR – 2.5:1	Height – 30m
Parcel 07 B4 Mixed Use 2,040m ²	Now parcel 08	2,040m ²	B4 Mixed Use (Road)	FSR – 2.5:1	Height – 30m
Parcel 08 B4 Mixed Use 988m ²	Now parcel 09	988m ²	B4 Mixed Use	FSR – 4:1	Height – 24m
Parcel 09 B4 Mixed Use 467m ²	Now parcel 10	467m ²	RE7 Public Recreation	N/A	N/A
Parcel 10 SP2 Infrastructure 386m ²	Now parcel 11	386m ²	SP2 Infrastructure	N/A	N/A
Parcel 11 B4 Mixed Use 4,542m ²	Now parcel 12	4,542m ²	B4 Mixed Use	FSR – 1.5:1	Height – 14m
Parcel 12 B4 Mixed Use 1,544m ²	Now parcel 13 (and has been reduced in size)	659m ²	SP2 Infrastructure	N/A	N/A

Previous Parcel Number prior to Gateway	Updated Parcel Number post Gateway	Size	Proposed Zoning	Proposed FSR	Proposed Height
Parcel 13 RE1 Public Recreation 303m ²	Now parcel 14 (new parcel 14 encompasses part of old parcel 12, and the whole of old parcel 13, 14 and 15)	11,151m ²	RE1 Public Recreation	N/A	N/A
Parcel 14 B4 Mixed Use 2,251m ²					
Parcel 15 RE1 Public Recreation 7,713m ²					
Parcel 16 SP3 Tourist 10,698m ²	Now parcel 15	10,698m ²	SP3 Tourist	FSR – 1.5:1	Height – 10-15m

This report has been based upon the proposed zoning under the Planning Proposal as submitted for Gateway determination, with the inclusion of Parcel 13. It is noted that this parcel has been removed from the current Planning Proposal in accordance with the Gateway determination as issued by the NSW Department of Planning and Environment. Nevertheless, for completeness, this report has considered the potential for some development occurring within this parcel in the future (subject to outcomes of a separate Planning Proposal). The recommendations of this report discuss whether there are any specific implications arising from this additional parcel.

1.3 Methodology

This assessment includes:

- An identification of statutory requirements relevant to the project.
- A brief literature review of relevant documents relating to the history of the study area and its heritage values as well as strategic heritage policies.
- A heritage register search (Aboriginal and historic cultural heritage).
- Heritage advice for the Rezoning.

An extensive literature review has been carried out to inform this assessment including the following area-based and site-specific heritage-related studies and strategic heritage policy documents:

- *Newcastle Archaeological Management Strategy*. Newcastle City Council (August 2015)
- *The City of Newcastle Heritage Strategy 2013-2017* (March 2014)
- *The City of Newcastle Heritage Policy* (June 2013)
- *Newcastle Archaeological Management Plan Review*, Edward Higginbotham et al (April 2013) for the City of Newcastle
- *Newcastle Railway Station Heritage Fabric Review & Conservation Works* (2014), EJE Heritage
- *Newcastle Urban Renewal Adaptive Reuse Case Studies of Heritage Buildings*
- *Wickham Transport Interchange Heritage Impact Statement*, Urbis (July 2014)

In the provision of heritage advice, this report will follow best practice standards and guidance where appropriate including *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013*.

1.4 Authorship

This report has been prepared by Laraine Nelson and Joanne McAuley, RPS Senior Cultural Heritage Consultants and has been reviewed by Tessa Boer-Mah RPS Newcastle Cultural Heritage Manager.

1.5 Land use

The Rezoning Study Area has previously been used as a rail corridor, road pavement, footpath and contains rail related structures and infrastructure. The rail corridor has associated disturbance in the form of rail ballast, tracks and associated infrastructure and results from the geotechnical assessment show that the subterranean disturbance ranges from 0.7m to over 1.8m in depth (RCA Australia 2015:7). Outside the rail corridor geotechnical testing has shown that road pavements have typical disturbance of 0.4m beneath the ground surface (RCA Australia 2015:7). The amount of ground surface disturbance beneath buildings is likely variable (this has not been subject to geotechnical testing). The geotechnical testing has identified the extent of fill and characteristics of the subsurface soils. The results of the geotechnical testing show that while there are high levels of disturbance in the upper layers, natural sand layers may be present from 0.7m. Depending on the historic sand dune movement, archaeological material may be present in the natural sand layers. Fill layers also have potential to contain Aboriginal and historic archaeological material.



Figure 1 Rezoning Study Area

2.0 Statutory context

The following sections provide information on Federal and State legislation which provides for the protection and management of Aboriginal and historic cultural heritage.

The following overview of the legal framework is provided solely for information purposes for the client, it should not be interpreted as legal advice. RPS will not be liable for any actions taken by any person, body or group as a result of this general overview, and recommends that specific legal advice be obtained from a qualified legal practitioner prior to any action being taken as a result of the summary below.

2.1 Aboriginal cultural heritage

Although there are a number Acts and regulations protecting and managing cultural heritage in New South Wales the primary ones include:

- *National Parks and Wildlife Act 1974* (as amended)
- *National Parks and Wildlife Regulation 2009*
- *Environmental Planning and Assessment Act 1979*

In brief, the *National Parks and Wildlife Act 1974* (as amended) protects Aboriginal heritage (places, sites and objects) within NSW; the *National Parks and Wildlife Regulation 2009* provides a framework for undertaking activities and exercising due diligence.

2.1.1 National Parks & Wildlife Act 1974 (as amended)

The *National Parks and Wildlife Act 1974* (as amended) (NPW Act) protects Aboriginal heritage (places, sites and objects) within NSW. Protection of Aboriginal heritage is outlined in s86 of the NPW Act, as follows:

- “A person must not harm or desecrate an object that the person knows is an Aboriginal object” s86(1),
- “A person must not harm an Aboriginal object” s86(2)
- “A person must not harm or desecrate an Aboriginal place” s86(4).

Penalties apply for harming an Aboriginal object or place. The penalty for knowingly harming an Aboriginal object (s86[1]) and/or an Aboriginal place (s86[4]) is up to \$550,000 for an individual and/or imprisonment for 2 years; and in the case of a corporation the penalty is up to \$1.1 million. The penalty for a strict liability offence (s86[2]) is up to \$110,000 for an individual and \$220,000 for a corporation.

Harm under the NPW Act is defined as any act that; destroys defaces or damages the object, moves the object from the land on which it has been situated, causes or permits the object to be harmed. However, it is a defence from prosecution if the proponent can demonstrate 1) that harm was authorised under an Aboriginal Heritage Impact Permit (AHIP) (and the permit was properly followed), or 2) that the proponent exercised due diligence in respect to Aboriginal heritage. The ‘**due diligence’ defence (s87(2))**, states that if a person or company has exercised due diligence to ascertain that no Aboriginal object was likely to be harmed as a result of the activities proposed for the Project Area; then liability from prosecution under the NPW Act will be removed or mitigated if it later transpires that an Aboriginal object was harmed. If any Aboriginal objects are identified during the activity, then works should cease in that area and Office of Environment and Heritage (OEH) notified (DECCW 2010c:13). The due diligence defence does not authorise continuing harm.

Notification of Aboriginal Objects

Under section 89A of the NPW Act Aboriginal objects (and sites) must be reported to the Director-General of OEH within a reasonable time (unless it has previously been recorded and submitted to AHIMS). Penalties of \$11,000 for an individual and \$22,000 for a corporation may apply for each object not reported.

2.1.2 National Parks and Wildlife Regulation 2009

The *National Parks and Wildlife Regulation 2009* (NPW Regulation) provides a framework for undertaking activities and exercising due diligence in respect to Aboriginal heritage. The NPW Regulation outlines the recognised due diligence codes of practice which are relevant to this report, but it also outlines procedures for Aboriginal Heritage Impact Permit (AHIP) applications and Aboriginal Cultural Heritage Consultation Requirements (ACHCRs) (DECCW 2010a); amongst other regulatory processes.

2.1.3 Aboriginal Community Consultation

OEH acknowledges that Aboriginal people are the primary determinants of the significance of their heritage and that Aboriginal people should be involved in the Aboriginal cultural heritage planning process. Aboriginal people are the primary source of information regarding the value of their heritage and how this is best protected and conserved, and must be afforded control in the way cultural information (particularly sensitive information) is used. Aboriginal consultation is regarded as an integral part of the process of investigating and assessing Aboriginal cultural heritage (OEH 2011:2).

Aboriginal consultation is mandatory for the preparation of an Aboriginal Heritage Impact Permit application (clause 80C of the NP&W Regulation), for undertaking a test excavation (DECCW 2010b) and is usually required as part of the DGRs issued by the Department of Planning and Infrastructure. In cases when Aboriginal consultation is mandatory, the consultation process is stipulated in clause 80C of the NPW Regulation and is further specified in the Aboriginal Cultural Heritage Consultation Requirements (ACHCRs) (DECCW 2010a). As a general principal, OEH encourages consultation with Aboriginal people whenever there is uncertainty that a proposed activity could potentially harm Aboriginal objects or places.

2.1.4 Aboriginal Heritage Impact Permit

Under the NPW Act, a person can apply for an AHIP as a defence to a prosecution for harming Aboriginal objects or Aboriginal places. An Aboriginal Cultural Heritage Assessment Report (ACHAR) is needed to support an AHIP application. The AHIP will be a defence provided that:

- the harm was authorised by the AHIP, and
- the conditions of that AHIP were not contravened.

An AHIP is required where a proposed activity would – directly or indirectly – harm an Aboriginal object or a declared Aboriginal place.

2.1.5 Aboriginal Heritage Information Management System

A search was undertaken of the Aboriginal Heritage Information Management System (AHIMS) for GDA Zone 56, Eastings 382900 to 386600 and Northings 6355700 to 6357200 (Appendix 1).

The AHIMS results show there are 17 Aboriginal sites in the Newcastle area (Table 2, Figure 2), but none of these are in the Rezoning Study Area. However, it should be acknowledged that the AHIMS results are influenced by ground surface visibility and that the subsurface archaeological investigations have been emplaced according to development proposals and, as such, have not systematically tested landforms or archaeological areas in Newcastle.

Thus the AHIMS results need to be interpreted in conjunction with results of the archaeological context review in Table 2.

The view shows that some archaeological excavations have identified intact subsurface Aboriginal material underneath previously disturbed areas, which demonstrates that previous land use has not, necessarily, removed Aboriginal objects. The distribution of subsurface Aboriginal material is not spatially uniform and that some areas have contained only disturbed archaeological contexts and other area contained relatively intact deposit. On this basis, there is a high likelihood that subsurface Aboriginal material is present in the Rezoning Study Area, but its distribution would need to be further investigated.

Table 2 Summary of AHIMS site types within the searched coordinates, none are in the Rezoning Project Area

Site type	Count	Percent
PAD	7	41.18%
PAD + Midden	2	11.76%
Surface Artefact(s)	8	47.06%
Total	17	100.00%

Source: AHIMS search generated 4 November 2015.

2.2 Non-Aboriginal cultural heritage

2.2.1 Heritage Act 1977 and the NSW Heritage Division

Historical archaeological relics, buildings, structures, archaeological deposits and features with State heritage significance are protected under the *Heritage Act 1977* (and subsequent amendments) and may be identified on the State Heritage Register (SHR) or by an active Interim Heritage Order.

The Heritage Council of NSW, constituted under the *Heritage Act 1977*, is appointed by the Minister and supported by the Heritage Division of the Office of Environment and Heritage (OEH). The Council is responsible for heritage in NSW and reflects a cross-section of community, government and conservation expertise. The work of the Heritage Division includes:

- working with communities to help them identify their important places and objects
- providing guidance on how to look after heritage items
- supporting community heritage projects through funding and advice
- maintaining the NSW Heritage Inventory, an online list of all statutory heritage items in NSW.

The 1996 *NSW Heritage Manual*, published by the NSW Heritage Division and the then Department of Urban Affairs and Planning, provides guidelines for conducting assessments of heritage significance. The Manual includes specific criteria for addressing the significance of an item and this assessment has been completed in accordance with those guidelines.

2.2.1.1 State Heritage Register

The State Heritage Register (SHR) was searched for the Rezoning Study Area. Table 3 outlines the state heritage places and their location in relation to the proposed rezoning areas.

There are a number of state heritage places within the townscape surrounding the sites proposed for rezoning. Heritage items in the vicinity of the Rezoning Study Area, that is, across the road or have direct line of sight have been listed in Table 4.

Table 3 Items of State Significance on the State Heritage Register (SHR) intersecting the Rezoning Study Area

Item	Address	Heritage Listing	Significance	Relationship to the Proposed Rezoning
Civic Railway Workshops	Great Northern Railway, Newcastle	SHR No. 00956	State	Within Parcel 5, Parcel 18 and Parcel 19.
Newcastle Railway Station	Great Northern Railway, Newcastle	SHR No. 00236	State	Within Parcel 15.
Newcastle Railway Station Additional Group	Great Northern Railway, Newcastle	SHR No. 01212	State	Within Parcel 14 and 15.

Table 4 Items of State Significance on the State Heritage Register (SHR) in close proximity to the Rezoning Study Area

Item	Address	Heritage Listing	Significance	Relationship to the Proposed Rezoning
Former Frederick Ash Building	359-361 Hunter Street, Newcastle	SHR No. 00642	State	Approximately 45 metres south of proposed Parcel 06 and Parcel 07.
Newcastle City Hall and Civic Theatre	289 King Street, Newcastle	SHR No. 01883	State	Approximately 45 metres south of proposed Parcel 04 and Parcel 05.

Item	Address	Heritage Listing	Significance	Relationship to the Proposed Rezoning
Great Northern Hotel	89 Scott Street, Newcastle	SHR No. 00507	State	Approximately 30m southeast of Parcel 15.
Customs House	1 Bond Street, Newcastle	SHR No. 01403	State	Approximately 20 metres east of Parcel 15.

2.2.1.2 Section 170 Heritage and Conservation Register

The following Table 5 identifies heritage places included on the Section 170 Heritage and Conservation Register located within the Rezoning Study Area and an item adjacent to the Rezoning Study Area is listed in Table 6.

Table 5 Items on s170 Heritage Registers in the Rezoning Study Area

Item	Address	State Government Agency	Significance	Relationship to the Proposed Rezoning
Civic Railway Station Group	Hunter Street, Civic	RailCorp	Local	Within Parcel 01, 02, 03 and 04.
Newcastle Railway Station Group	110 Scott Street, Newcastle	RailCorp	State	Within Parcel 14 and 15.

Table 6 Items on s170 Heritage Registers in close proximity to the Rezoning Study Area

Item	Address	State Government Agency	Significance	Relationship to the Proposed Rezoning
Newcastle Port Corporation	Cnr Newcomen and Scott Streets, Newcastle	Newcastle Port Corporation	Local	Approximately 30 metres south of Parcel 14.

2.2.2 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) regulates environmental planning and assessment in NSW. The EP&A Act and its regulations, schedules and associated guidelines require that environmental impacts are considered in land use planning and development assessment. The EP&A Act defines “environment” as “...all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings.” The environment therefore includes cultural heritage.

Heritage items and places are described in local environmental plans (LEPs) and shown on the heritage maps which accompany the LEP. All LEPs contain clauses dealing with heritage conservation. Under this Act all local governments in NSW are required to maintain a register of heritage places as Schedule 5 under their LEP.

2.2.3 Newcastle Local Environmental Plan 2012

The NLEP provides protection for local heritage items and conservation areas. Schedule 5 of the NLEP 2012 lists local heritage items, as well as conservation areas within the Newcastle LGA. The aims of the NLEP 2012 are “to respect, protect and complement the natural and cultural heritage, the identity and image, and the sense of place of the City of Newcastle” and “to conserve and manage the natural and built resources of

the City of Newcastle for present and future generations, and to apply the principles of ecologically sustainable development in the City of Newcastle” (S1.2a,b).

2.2.3.1 Schedule 5 of the NLEP 2012

The Rezoning also falls in part within the Newcastle City Centre Heritage Conservation Area. The following Table 7 lists items located in or abutting the Rezoning Study Area, Table 8 lists items in the vicinity.

Table 7 Local Heritage Items in or abutting the Rezoning Study Area

Item	Address	Heritage Listing	Significance	Relationship to the Proposed Rezoning
Remains of AA Company bridge and fence	280 Hunter Street	I415	Local	Within Parcel 12.
Newcastle Railway Station (note curtilage differs from the SHR item)	110 Scott Street	I455	Local (& State)	Within Parcel 14 and Parcel 15.
Civic Railway Workshops Group	5 Workshop Way, 1 Wright Lane, 6 Workshop Way and 2–4 Merewether Street	I479	Local (& State)	Within Parcel 5, Parcel 18 and Parcel 19.
Former Tramway Sub-station	342 Hunter Street	I416	Local	Abuts eastern boundary of proposed rezoning Parcel 10, 11 and 12

Table 8 Local Heritage Items in close proximity to the Rezoning Study Area

Local Heritage Place	Address	Heritage Listing	Significance	Location in relation to Rezoning Study Area
The Civic Theatre	373 Hunter Street	I418	Local (& State)	Approximately 45 metres south of proposed Parcel 04; Parcel 05 and 06
Former Frederick Ash Building	359-361 Hunter Street	I417	Local (& State)	South side of Hunter Street, approximately 45 metres south of proposed Parcel 06 and 07
The Lucky Country Hotel	237 Hunter Street	I414	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 12
Former ANZ Bank	227 Hunter Street	I413	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 12
The Crown and Anchor Hotel	189 Hunter Street	I410	Local	South side of Hunter Street, approximately 40 metres south of proposed rezoning Parcel 14
Former School of Arts	182 Hunter Street	I409	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 14
Rundles Buildings (former R Hall & Sons buildings)	161 Scott Street	I458	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 14
Former Beberfaulds Warehouse	175 Scott Street	I459	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 14
The former Commonwealth Bank	220 Hunter Street	I412	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 14
The former Johns Building	200–212 Hunter Street	I411	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 14
The Air Force Club	129 Scott Street	I457	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 14 and Parcel 15
The Centennial Hotel	127 Scott Street and 114 Hunter Street	I456	Local	South side of Scott Street, approximately 20 metres south of proposed rezoning Parcel 14 and Parcel 15
Customs House	1 Bond Street	I372	Local (& State)	East side of Watt Street, 20 metres east of proposed rezoning Parcel 15
Great Northern Hotel	89 Scott Street	I451	Local (& State)	South side of Scott Street, 30 metres south east of Parcel 15

2.2.4 The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance 2013

The *Burra Charter* is a set of best practice principles and procedures for heritage conservation. It was developed by Australia ICOMOS (International Council for Monuments and Sites), the Australian group of the international professional organisation for conservation. Although without statutory weight, the *Burra Charter* underpins heritage management in NSW and Australia. The policies and guidelines of the Heritage Council of NSW and the NSW Heritage Office are consistent with and guided by the *Burra Charter*.

2.3 Statutory requirements in relation to non-Aboriginal built and archaeological heritage

2.3.1 State listed heritage items

Approval must be gained from the NSW Heritage Council when making changes to a place listed on the State Heritage Register or a place covered by an interim heritage order (IHO). That approval is sought through lodgement of a section 57 or a section 60 application prior to commencement of works.

2.3.2 Locally listed heritage items

Under the *State Environmental Planning Policy (Infrastructure) 2007* (Part 2, Division 1, 14) the public authority conducting works with impacts on local heritage must not carry out development unless the authority or the person has:

(a) had an assessment of the impact prepared, and

(b) given written notice of the intention to carry out the development, with a copy of the assessment, to the council for the area in which the heritage item or heritage conservation area (or the relevant part of such an area) is located, and

(c) taken into consideration any response to the notice that is received from the council within 21 days after the notice is given.

2.3.3 Archaeological sites

Approval from the NSW Heritage Division is required when excavating any land in NSW where there is potential of disturbing an archaeological relic (of historic origin). The application type required depend on whether the site is of local or state significance.

2.3.3.1 Archaeological Sites of Local Significance

The following approvals may apply to archaeological sites of local significance:

- Section 139 Application (Exception 1B) – This exception can be applied for where the excavation or disturbance of land will have a minor impact on archaeological relics including the testing of land to verify the existence of relics without destroying or removing them.
- Section 139 Application (Exception 1C) – This exception can be applied for where the site has little likelihood of relics or no archaeological research potential.
- Section 140 Application – this is required to excavate or disturb land that will or is likely to result in the discovery, movement and/or destruction of relics (that are not State Heritage).

If during ground disturbing works, substantial intact archaeological relics of State or local significance are identified, then work must cease in the affected area and the Heritage Council must be notified in writing in accordance with section 146 of the Act. Depending on the nature of the discovery, additional assessment and possibly an excavation permit may be required prior to the recommencement of excavation in the affected area.

2.3.3.2 Archaeological Sites of State Significance

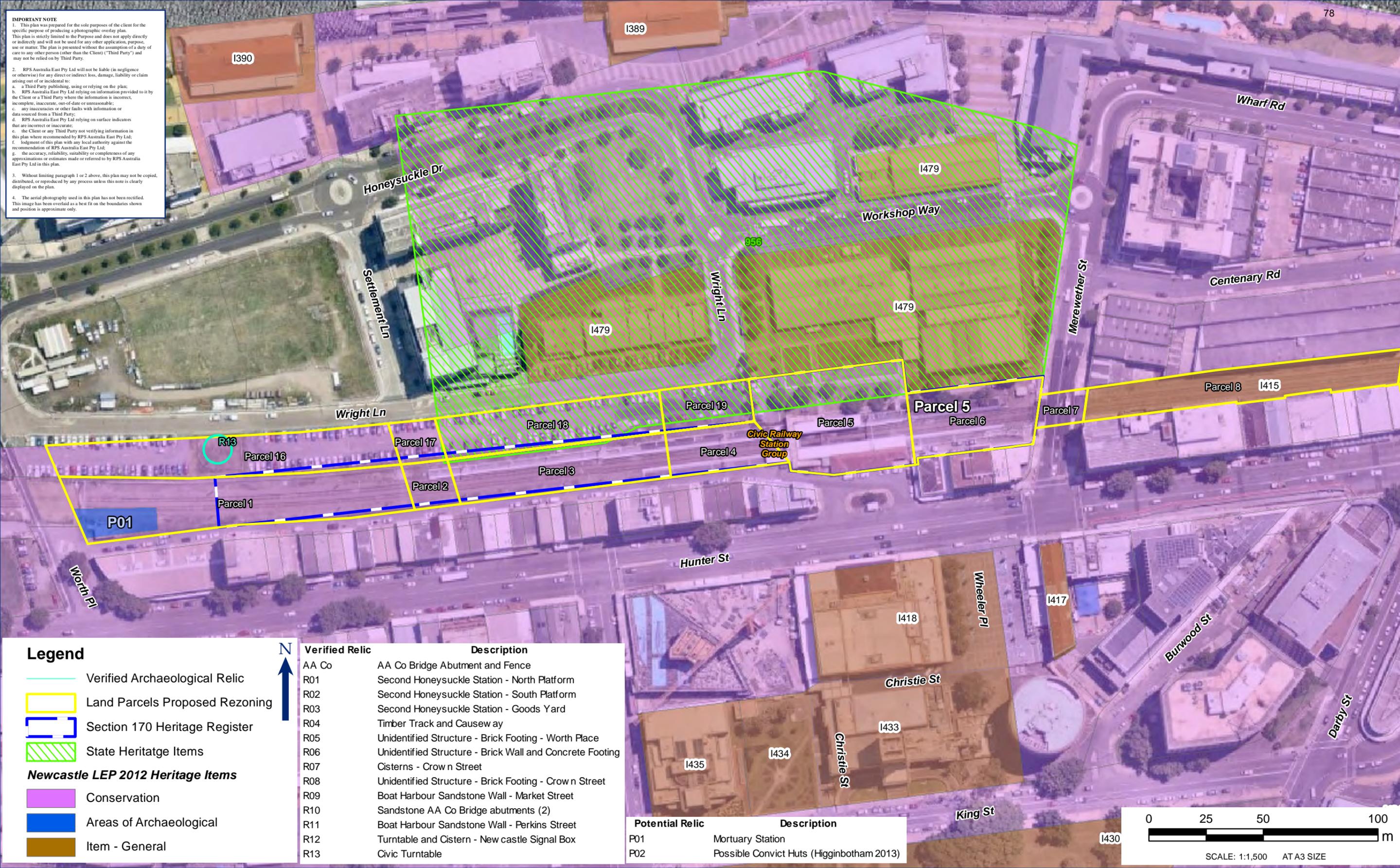
The following approvals may apply to archaeological sites of state significance:

Section 57 Application (Standard Exemption) – There are 17 standard exemption types, the one pertaining to the excavation of archaeological sites is detailed under Standard Exemption 4 and may be applied for if it is demonstrated that:

-
- (a) an archaeological assessment, zoning plan or management plan has been prepared in accordance with Guidelines published by the Heritage Council of NSW which indicates that any relics in the land are unlikely to have State or local heritage significance; or
- (b) the excavation or disturbance of land will have a minor impact on archaeological relics including the testing of land to verify the existence of relics without destroying or removing them; or
- (c) a statement describing the proposed excavation demonstrates that evidence relating to the history or nature of the site, such as its level of disturbance, indicates that the site has little or no archaeological research potential.

Section 60 Application – this is required for items on State heritage listed land where there is a likelihood that identified State heritage significant items/s will be impacted on as a result of the proposal

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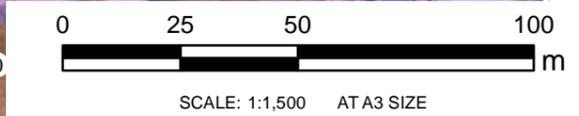
- Verified Archaeological Relic
- Land Parcels Proposed Rezoning
- Section 170 Heritage Register
- State Heritage Items

Newcastle LEP 2012 Heritage Items

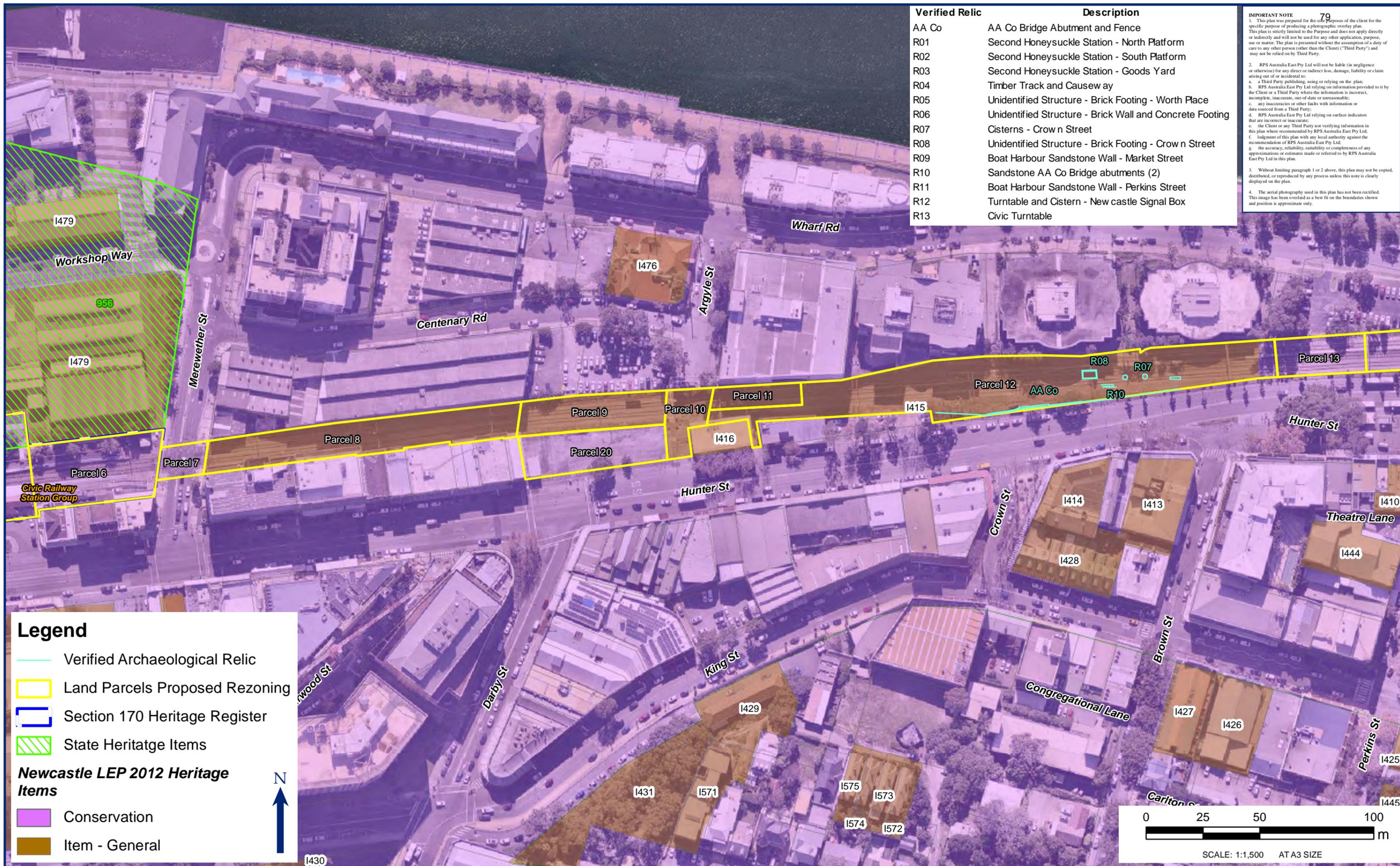
- Conservation
- Areas of Archaeological
- Item - General

Verified Relic	Description
AA Co	AA Co Bridge Abutment and Fence
R01	Second Honeysuckle Station - North Platform
R02	Second Honeysuckle Station - South Platform
R03	Second Honeysuckle Station - Goods Yard
R04	Timber Track and Causeway
R05	Unidentified Structure - Brick Footing - Worth Place
R06	Unidentified Structure - Brick Wall and Concrete Footing
R07	Cisterns - Crown Street
R08	Unidentified Structure - Brick Footing - Crown Street
R09	Boat Harbour Sandstone Wall - Market Street
R10	Sandstone AA Co Bridge abutments (2)
R11	Boat Harbour Sandstone Wall - Perkins Street
R12	Turntable and Cistern - Newcastle Signal Box
R13	Civic Turntable

Potential Relic	Description
P01	Mortuary Station
P02	Possible Convict Huts (Higginbotham 2013)



TITLE : **FIGURE 3: REZONING STUDY AREA WITH HISTORIC HERITAGE ITEMS (WEST)** | LOCATION : **NEWCASTLE** | DATUM:GDA 1994 | DATE : **10/1/2017** | VERSION (PLAN BY): D A3 (james.hugo)
 PROJECTION: GDA 1994 MGA Zone 56 | PURPOSE: **HERITAGE** | PATH: J:\JOBS\123K\123632 Heritage Newcastle Rail Corridor\10 - Drafting\Arcgis Map Documents\Report Figures\04 123632 Dec 2016\123632 Figure 2 Rezoning G 20170110.mxd



Verified Relic	Description
AA Co	AA Co Bridge Abutment and Fence
R01	Second Honeysuckle Station - North Platform
R02	Second Honeysuckle Station - South Platform
R03	Second Honeysuckle Station - Goods Yard
R04	Timber Track and Causeway
R05	Unidentified Structure - Brick Footing - Worth Place
R06	Unidentified Structure - Brick Wall and Concrete Footing
R07	Cisterns - Crown Street
R08	Unidentified Structure - Brick Footing - Crown Street
R09	Boat Harbour Sandstone Wall - Market Street
R10	Sandstone AA Co Bridge abutments (2)
R11	Boat Harbour Sandstone Wall - Perkins Street
R12	Turntable and Cistern - Newcastle Signal Box
R13	Civic Turntable

IMPORTANT NOTE 79

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Legend

- Verified Archaeological Relic
- Land Parcels Proposed Rezoning
- Section 170 Heritage Register
- State Heritage Items

Newcastle LEP 2012 Heritage Items

- Conservation
- Item - General

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TITLE : **FIGURE 4: REZONING STUDY AREA WITH HISTORIC HERITAGE ITEMS (CIVIC)** | LOCATION : **NEWCASTLE** | DATUM:GDA 1994 | DATE : **10/1/2017** | VERSION (PLAN BY): D A3 (james.hugo)

PROJECTION: GDA 1994 MGA Zone 56 | PURPOSE: **HERITAGE** | PATH: J:\JOBS\123K\123632 Heritage Newcastle Rail Corridor\10 - Drafting\Arcgis Map Documents\Report Figures\04 123632 Dec 2016\123632 Figure 3 Rezoning CIVIC F 20170110.mxd

3.0 Landscape and Aboriginal archaeological context

3.1 Landscape context

The purpose of reviewing the environmental context and archaeological literature is to assist in identifying whether Aboriginal objects or places are present within the Rezoning Study Area.

3.1.1 Geology and soils

This summary of geology and soils aims to provide an overview of the Rezoning Study Area; however, more specific detail and information is provided in the land-use summary. The Newcastle foreshore is underlain by sandstone, siltstone, claystone, coal and tuff associated with the Nobbys Head formation. Broadly, the Newcastle foreshore falls within the Hamilton Soil Landscape, variation A: Developed Terrain. Topsoils in this landscape are typically brownish black specked loamy sand (A₁) which is 20 to 60 centimetres thick. This is underlain by 15 to 30 centimetres of loose, pale coarse sand (A₂), followed by brown to orange sandy pan (B horizon) and may further be underlain by clay (Matthei 1995:38-40). Although this is the typical soil formation, variations may occur due to previous Aeolian or alluvial events.

3.1.2 Topography and hydrology

The development of Newcastle as a major port has led to the reclamation of land and reworking of the shape of the Hunter River foreshore. The foreshore and environs, from its junction with Throsby Creek to Nobbys Headland, has undergone major modifications since European settlement; the original shore line was characterised by mud flats and sand spits (Melville 2014 p. 22).

Historic records show an unnamed watercourse between Brown and Crown Streets. Archaeological evidence shows that Aboriginal occupation was highly concentrated around creeks in the locality, for example Cottage Creek. Although it is likely that Aboriginal occupation would have occurred adjacent to the Brown and Crown Street watercourse; this has not been tested archaeologically.

3.1.3 Flora and fauna

This section provides an indication of the types of flora and fauna resources which were likely to have been available to Aboriginal people in the past. It is based on broad scale vegetation mapping for NSW (Keith 2006).

Past Aboriginal people are likely to have encountered Hunter-Macleay Dry Sclerophyll Forests in the vicinity of Rezoning Study Area, as well as coastal vegetation. Dry sclerophyll forests have open canopies with trees up to 30 metres tall; common tree species include spotted gums, iron barks, grey gums, boxes and turpentines (Keith 2006:124-125). The understory of this vegetation community includes shrubs, herbs, ferns and grasses, thus providing habitat for smaller mammal species. The shrubby understory includes silver-stemmed wattle and forest oak which present as tall shrubs or small trees; smaller shrubs include coffee bush, gorse bitter pea, peach heath, large mock-olive, narrow-leaved geebung and mutton wood (Keith 2006:124-125).

This vegetation community along with the coastal vegetation would have provided habitat for a variety of animals and would have also provided potential food and raw material sources for Aboriginal people. Coastal resources are likely to have included fish and oysters, while typical animals likely to have been hunted in the vicinity include kangaroos, wallabies, sugar gliders, possums, echidnas, a variety of lizards and snakes, birds, as well as rats and mice. The bones of such animals have been recovered from excavations of Aboriginal sites suggesting that they were sources of food (Attenbrow 2010:70-76), although the hides,

bones and teeth of some of the larger mammals may have been used for Aboriginal clothing, ornamentation, or other implements.

3.2 Aboriginal archaeological context

3.2.1 Aboriginal occupation of the Hunter Valley

Archaeological evidence suggests that Aboriginal occupation of the Hunter Valley region began at least 35,000 years ago (Koettig 1987). Additional chronological evidence was recovered from the Hunter Valley's north-east mountains for which the following dates were assigned: 34,580±650 (Beta-17009), >20,000 (Beta-20056) and 13,020±360 years before present (BP) (Beta-17271) (Koettig 1987, as cited in (Koettig 1987, as cited in Attenbrow 2006). In the lower Hunter Valley, excavations at Moffats Swamp (Tomago Coastal Plain) have revealed basal dates of 15,376 calibrated BP.

The majority of Aboriginal sites in the region, however, are dated to the more recent Holocene (<11,000 years ago). This may reflect Aboriginal occupation patterns, but may also be influenced by the inaccessibility of potential coastal Pleistocene sites that may have been inundated when sea levels rose and reached present levels approximately 6,000 years ago (Mulvaney and Kamminga 1999 p.223). Other factors such as post depositional processes that may have obscured sites, or a lack of archaeological research in particular areas, could account for the lack of evidence for Pleistocene or early Holocene occupation (AMBS 2005). At Black Hill excavations revealed a stone lined hearth dated to approximately 2,000 BP calibrated.

Throughout the Hunter Valley, archaeological investigations have provided a basis for the development of predictive models of site distribution within this region. Studies completed by Koettig and Hughes (1983a) and (1983b) have demonstrated that open artefact scatters are common throughout the Hunter Valley. Large open sites were generally located in proximity to large creeks that provided a more reliable source of potable water, with smaller open sites distributed through a variety of landforms including large and small creeks, slopes and crests.

Certain typological temporal markers such as backed blades and eloueras are present within the Hunter Valley assemblages. Whilst these provide only a gross indication of time scale, based on the age of the soils and the presence of backed artefacts, the majority of sites in the Hunter Valley are considered to date to the late Holocene period.

Using colonial records, (Brayshaw 1986) conducted extensive research of the landscape and the known Aboriginal communities in the broader Hunter Valley area. Although the ethnographic literature refers to ceremonial grounds and carved trees, these represent only a small portion of the sites which would have occurred in the Hunter Valley. Camp sites would have occurred more commonly, but little is recorded regarding the locations of such sites. The literature does indicate that in the Hunter Valley, as elsewhere, Aboriginal numbers were quickly and greatly reduced by introduced European diseases.

Brayshaw's research into the ethnographic record also showed the distinction between the material culture and goods manufactured inland compared to coastal areas which were dependent on the resources available. The exchange of goods between inland and coastal inhabitants was also evident. Bark was probably the most commonly utilised raw material, associated with the construction of huts, canoes, nets, drinking vessels, baskets, shields, clubs, boomerangs and spears. Being manufactured from an organic material, very few such artefacts survive today. Scarred trees, carved trees, burial sites, ceremonial or bora grounds, cave paintings, rock engravings, axe grinding grooves, quarries and wells have all been recorded in the Hunter region. The distribution of these sites would generally have been reliant on environmental and cultural factors such as resource availability.

3.2.2 Aboriginal occupation in the Newcastle area

A summary of the land use context has identified that there has been substantial modification to the original landforms in the Newcastle City area. This has included infilling of the harbour in some areas, and the installation of infrastructure and buildings. The presence of archaeological evidence for Aboriginal occupation in the Newcastle area is influenced by the previous land use, although a number of recent excavations have shown that Aboriginal sites are located below historic structures, or intermixed with historic occupation (City of Newcastle 2015:27). In addition, the detection of Aboriginal archaeological evidence can depend on the sample size of areas archaeologically excavated (i.e. dimensions of trenches) and the location of archaeological excavations. The locations of archaeological investigations have been emplaced according to development proposals and, as such, have not systematically tested landforms or archaeological areas in Newcastle. The AHIMS database of Aboriginal sites is also limited by the same factors and many of the AHIMS sites have been identified as a result of archaeological excavation, the extent of some of the subsurface AHIMS sites are unknown, as often only a sample of them were excavated, as such the AHIMS results will be evaluated following the synthesis of the available archaeological and historical literature for Newcastle.

3.2.3 Archaeological and heritage literature review

There are numerous sources of information on the Aboriginal occupation of Newcastle. This section, however, focuses on those studies which are most relevant to understanding the archaeological evidence for the Aboriginal occupation of Newcastle. The studies have been summarised according to the date issued/completed.

3.2.3.1 Convict Limber Yard (Bairstow 1989)

During the excavation of the Convict Lumber Yard at Scott Street (SHR 00570) small quantities of Aboriginal artefacts were identified (Bairstow 1989). These appeared at the eastern end of the excavation and comprised chert, stone, shell and bone that were recorded at a depth of 1.5 metres, the same depth as the convict era deposit (Bairstow 1989:45-53) which is perhaps evidence of mixed deposits in that location. This site was registered as a potential archaeological deposit (PAD), AHIMS 38-4-1020. The excavation results suggest that the Aboriginal material is unlikely to extend beyond the area investigated and there did not appear to be in-situ deposits associated with the site.

3.2.3.2 Accor Ibis Hotel Site 700 Hunter Street Newcastle (AHMS 2001a, 2001b)

This excavation was undertaken approximately 120 metres east of Cottage Creek and included the investigation of AHIMS 38-4-0544, which was registered as a PAD. The excavation of this site revealed an Aboriginal shell midden with 2,939 whole and fragmentary shells, 326 pieces of animal bone and 5,734 lithics, 4,000 of which on preliminary counts were identified to be stone artefacts (AHMS 2001:12). Local shell species, cockle and mud whelk were the dominant shell types contained in the midden material. Tuff was the dominant raw material for stone artefacts, although silcrete, chert and quartz were also present. The preliminary survey had not identified any Aboriginal objects, however the area was considered to be archeologically sensitive due to its proximity to Cottage Creek (AHMS 2001b).

3.2.3.3 Aboriginal Heritage Study (AMBS 2005)

The Aboriginal Heritage Study for Newcastle Local Government Area (LGA) (AMBS 2005). While the study did not involve subsurface archaeological investigation, it provided archaeological sensitivity modelling and a collation of historic information including documentation of local Aboriginal people making extensive use of the resources of the Hunter River and its environs. An important source of historical information on Aboriginal people in the area was from Reverend Lancelot Threlkeld, who lived in the area of Cottage Creek,

Honeysuckle between 1825 and 1826 (Threlkeld in Gunson 1974). Threlkeld records the procuring of fish by line and net, the gathering of shellfish, the opportune use of beached whales and the hunting of kangaroo, bandicoot, lizards and snakes (AMBS 2005:38).

The landscape model of archaeological sensitivity presented in the AMBS report is useful as a general guide, although more recent excavations have contributed additional information which will be discussed later. The area of central Newcastle and the Hunter River delta are described as being highly disturbed and modified, though it was considered that, in areas where landscape modification has been minimal, there is high potential for archaeological evidence to remain (AMBS 2005:80). In a summary of archaeological sensitivity for industrial Newcastle, the southern estuary shore is described as having moderate archaeological sensitivity (AMBS:93).

3.2.3.4 Palais Royale Site 684 Hunter Street Newcastle (AHMS 2011)

The Aboriginal archaeological salvage of this site entailed digging a trench 16 metres long by three metres wide (48 square metres), which was excavated to one to two metres deep in 10 centimetre spits (arbitrary levels). The excavation recovered 5,534 Aboriginal objects (AHMS 2011:10). Radiocarbon dating of excavated material indicated the site was occupied from approximately 6,700 years ago and three occupation periods were identified: 6,716 to 6,502 years BP, c. 3,500 years BP and 2,480 to 1,933 years BP.

From 3,500 years BP the use of exotic stone raw materials including chert, chalcedony and silcrete were noted. An Aboriginal hearth (fireplace) was dated to 2,188 to 1,933 cal. years BP and this level (2,480-1,933 years BP) appears to have been a focus for occupation with artefacts becoming four times more numerous than previous levels. Nobbys tuff was used as a raw material for stone artefacts throughout the sequence. Backed blades were present throughout all layers of the site with a proliferation of this tool type in the upper layers. Campsite occupation including the consumption of local shell species only appears to have occurred at the site after about 1,933 years BP (AHMS 2011).

3.2.3.5 Wickham Transport Interchange, Newcastle: Aboriginal Heritage Summary Report. (Artefact Heritage 2014)

Artefact Heritage was engaged by Transport for NSW to prepare an Archaeological Survey Report (ASR) for the proposed Wickham Transport Interchange (Artefact Heritage 2014). The report found that the study area had potential for archaeological deposits and that further archaeological investigation would be required where sub-surface impacts had the potential to impact buried Aboriginal archaeological deposits. The study area was registered as a PAD (AHIMS 38-4-1716).

Artefact Heritage also prepared an Aboriginal Cultural Heritage Assessment Report (ACHAR). This ACHAR recommended a program of archaeological test excavation be undertaken to further investigate the archaeological potential of the study area. As a result of this, an AHIP (#C0000892) was issued on the 13 March 2015.

Salvage excavations were undertaken in two stages (Artefact Heritage 2015). Stage I was undertaken between 13 April and 30 April 2015 and identified approximately 391 artefacts. Stage II, undertaken between 11 June and 7 July 2015, was completed in an area adjacent to areas of high artefact concentration identified during Stage I. Approximately 3,912 artefacts were identified during Stage II salvages. It was concluded there was the potential for two main vertical concentrations, possibly representing two occupation layers, of artefacts to be present within the collected assemblage, and as a result the site had high significance and research value.

3.2.4 Summary of Aboriginal archaeological context

The archaeological investigations undertaken have identified subsurface Aboriginal heritage. The types of sites predominately comprise stone artefacts and shellfish remains (middens).

Some excavations have identified intact subsurface Aboriginal material underneath previously disturbed areas, which demonstrates that previous land use has not, necessarily, removed Aboriginal objects. However, it should be acknowledged that the distribution of Aboriginal material is not spatially uniform and that some areas have contained only disturbed archaeological contexts and other area contained relatively intact deposit. There is a high likelihood that subsurface Aboriginal material is present in the Rezoning Area, but its distribution would need to be further investigated.

4.0 Historical context

This section provides an overview of the historic occupation of Newcastle by European and later settlers. The historic context has been used to identify historic archaeological areas specific to the Rezoning Study Area and will be drawn upon for the impact assessment.

4.1 A convict settlement

The first reference to the area now known as Newcastle was in 1797 when Lieutenant John Shortland, while returning from pursuing escaped convicts, noticed the small island of Nobbys (Goold 1981:4). Drawing into the inlet behind the island, Shortland found the entrance to a large river which he named in honour of Governor Hunter (Newcastle and District Historical Society. n.d.:6). While surveying the area he noticed lumps of coal near present day Fort Scratchley and collected samples before returning to Sydney (Windross and Ralston 1978:7).

In 1801 Governor King sent a small expedition to investigate the resources of what was known as Coal River (now Hunter River). The subsequent report detailed the potential for a salt works, the presence of coal and an abundance of shell for the production of lime. On this advice a small settlement was established but it failed after only six months because of inadequate management. In 1804 Governor King again sought to establish a convict settlement at what he called King's Town (Windross and Ralston 1978:9) with a small party of 20 soldiers and a similar number of convicts. These convicts were part of the Irish Rebellion at Castle Hill with their relocation required because of their perceived danger to the settlement at Sydney (Turner 1997:7).

The new settlement at Newcastle provided an additional location for the housing of convicts and a place for the procurement of timber, coal and lime for Sydney. With the only method of transport by sea, loading facilities and safe anchorages for boats were critical to the success of the settlement.

Records indicate that by 1804 there was a stone wharf, 108 feet long and 13 feet wide being built at the end of present day Watt Street (Goold 1981:12). This wharf is likely to have serviced an early recorded coal yard in the vicinity and later the Convict Lumber Yard constructed in 1817.

In 1812 when Governor Macquarie visited the settlement it was still small with a population of about 100. By 1815 the size of the settlement had swollen with an influx of convicts following the closure of Norfolk Island (Turner 1997:8). This growth continued and by 1821 there were 1,169 people living in what was described as a camp. The convicts were employed predominantly in public works, most importantly the construction of a breakwater to Nobbys to provide better protection for shipping. The remainder of the convicts were employed in timber, lime production and coal mining (Turner 1997:9).

In his investigation of the penal settlement of Newcastle, J T Bigge (1822:282) described the settlement as a camp with 13 houses belonging to the government and 71 occupied by convicts. Bigge also described that prisoners who either could not find accommodation or who could not be trusted at large, were housed in wooden barracks that had been recently built on the order of Major Morisset (Bigge 1822:282).

4.2 Newcastle as a free town

In 1823 Governor Macquarie announced that Newcastle would no longer be a convict settlement, whereby the role would be delegated to Port Macquarie further north. Following this, the population of Newcastle declined and the large barracks that had been constructed to cater for a thousand men now only housed one hundred. Despite the change in the role of Newcastle, convicts were still assigned there until 1848. Works on the breakwater slowed and the stands of timber were no longer readily available (Turner 1987:11).

Despite the loss of Newcastle as a significant penal settlement, the 1820s saw important developments. In 1827 Henry Dangar, a surveyor, drew up a layout for a town plan with 192 leasehold allotments established (Goold 1981:26). Other improvements included the building of a brick flour mill at the present day Obelisk location above King Edward Park; the building of a parsonage; and the construction of the first Court House in Church Street (Goold 1981:22). Importantly, Newcastle developed as a free town following the demise of the penal settlement.

Central to this development was the extraction and shipping of coal. The Australian Agricultural Company (AA Company) with a monopoly on coal extraction, saw a growth in output from 5,000 tons (1831) to 30,500 tons (1840). Linked to the growth of the coal industry was the development of the port and associated activities such as tugs and lighters to facilitate movement of vessels and cargo, disposal of ballast and provisioning of ships (McManus, O'Neill and Loughran 2000:213).

As the town grew, further residential development occurred, including the AA Company as early as 1852 tasking the company surveyor, George Darby, with laying out a town settlement in the area of present day Darby; King and Hunter Streets. This was designed to meet the needs of an influx of diggers from the goldfields who saw Newcastle as an attractive location to settle (Pemberton 1986:31).

The growth in Newcastle was matched by growing regional development linked to the pastoral industry of the Hunter Valley and northern NSW. In 1854, AA Company sold land in the north eastern portion of their estate to the Hunter Valley Railway Company. The construction of the Newcastle to Maitland Railway, the second passenger line in Australia, fostered the continued development of the port of Newcastle. The rail network expanded rapidly and was matched by the growth of Newcastle with industries demonstrated by the establishment of businesses such as the Newcastle Coke and Gas Company; Castlemaine Brewery and Wood Brothers Brewery; Darks Ice and Cold Storage; and Arnott's Biscuits (Pemberton 1986:41).

From the late nineteenth century, output from the Newcastle mines decreased and production from the South Maitland coalfields increased with a resulting diminishing profitability for the Newcastle mines. Linked to this was increasing Municipal taxes on unimproved land that affected the large holdings of the Company in the Newcastle area. The Company countered by subdividing and selling large areas of residential land in Newcastle and Hamilton (Pemberton 1986:41).

4.3 Growth in the twentieth century

In 1916, the last AA Company shaft ceased production and the Company's operation in Newcastle closed. The staithes associated with the iron bridge were last used in 1920 and in 1923, the steel bridge was removed (NSW Heritage Database: AA Company's Remnant Bridge Pier). In 1922, the waterfront land held by the AA Company was resumed and with it coal mining in Newcastle by the AA Company ceased (Webber and Wylie 1968:63)

The need for new industries to drive the growth of Newcastle resulted in lobbying by the Chamber of Commerce for a diversified industry base. In 1913, the state government announced the construction of State Dockyards in Newcastle and at the same time gave permission for BHP to construct a steelworks on land at Port Waratah. The development of these industries coincided with World War I and by the end of the war other heavy industries, such as Lysaght, Commonwealth Steel and Rylands were also in the process of establishing (Newcastle City Council 2014:8).

Newcastle for the majority of the twentieth century was closely linked to heavy industry, typified by BHP. With the closure of the BHP in 1999 the opportunity arose for the city to re-focus from a heavy industrial base to a more diversified economy based on health, education and services (Newcastle City Council 2014:8).

5.0 Historical archaeological context

This section identifies archaeological resources in the proposal area and the potential for additional archaeological resources to occur. Identified archaeological resources are archaeological resources that are extant and verified through archaeological monitoring or excavation. The assessment of potential archaeological resources is based on a review of documentary records only; detailed assessments of archaeological potential based on a detailed analysis of documentary records and an understanding of the historic context would be required prior to the development of land parcels. The locations of archaeological resources are identified in Figure 3, Figure 4 and Figure 5.

5.1.1 Relics identified under Section 139 exception for removal of rail infrastructure

The removal of rail infrastructure under a Section 139 exception exposed a number of archaeological resources in the proposal area. The archaeological resources are identified Table 9 with reference to the land parcel as appropriate.

5.1.2 Other identified archaeological resources

Other archaeological resources identified in the proposal area include a turntable installed at Honeysuckle Point terminus in 1857 (EJE Architecture 2016) (Table 9).

Table 9 Identified archaeological resources in the proposal area

Parcel	Identified archaeological resource	Description
Parcel 16	Turntable, Honeysuckle Point	Circular brick platform with slight downward slope towards edge. Central concrete block which acted as a mounting base for the central pivot. Near the edge of the platform a 460 millimetre wide brick ledge that supported a running rail. Brick drain at outer edge of platform. Circular brick wall with internal height of 1550 millimetres surrounding platform.
Parcel 12	1862 AA Company abutment	Stone abutment associated with 1862 AA Company Hunter Street overpass at Crown Street.
Parcel 12	Unidentified structure	Unidentified rectilinear brick structure.
Parcel 12	Cisterns	Two brick and mortar lined cisterns associated with the railway.
Parcel 12	Wall	Unidentified stone wall section.
Parcel 14	Wall, Market Street Boat Harbour	Stone wall associated with Market Street Boat Harbour.
Parcel 14	Turntable, Newcastle Station	Two sections of semicircular brick associated with turntable, Newcastle Station.

5.2 Potential archaeological resources

The area demonstrates the potential for archaeological resources associated with the penal settlement and the later development of rail and port infrastructure. The Newcastle Archaeological Management Plan Review 2013 identified the potential for an area between west of Market Street and Pacific Street to contain archaeological resources associated with the penal settlement (Higginbotham 2013). With the later development of rail and port infrastructure, potential archaeological resources in the area include potential archaeological resources associated with the former Honeysuckle Point Station, Mortuary Station and rail and port infrastructure in addition to that identified under a Section 139 exception for the removal of rail infrastructure (Table 10). The potential for additional archaeological resources below the level of excavation required for the removal of rail infrastructure would be dependent on the level of disturbance in that area. Detailed assessments of archaeological potential would be required prior to development to determine the

potential for archaeological resources in specific areas and the potential of a proposed development to affect an identified or potential archaeological resource.

6.0 Inspection

All historic heritage items listed in Table 3 through to Table 8 have been inspected on a number of occasions as part of ongoing works associated with the rezoning project. All structures were seen to be in generally good repair, with the exception of the Great Northern Hotel.

A number of buildings have been the subject of renovation and adaptive re-use (the Lucky Country Hotel; Customs House; Former Tramway Substation; Civic Railway Workshops; the Former ANZ Building; the Former Johns Buildings and the Former Frederick Ash Building). Further investigation of the buildings that are either in, or in an area that intersects with the Project Area was conducted. All items were in good condition, with many of the buildings associated with the Civic Railway Workshops having undergone extensive renovations and refurbishment to suit a range of purposes including as the home of the Newcastle Regional Museum and the headquarters of Australian Wine Selectors. Civic Railway Station, Newcastle Railway Station and the Newcastle Railway Station Additional Group are currently not operational; however they all appear to be well maintained. The Remains of AA Co. Bridge and Fence (also referred to as AA Company Remnant Bridge Pier) comprises remnants piers of a railway bridge and an early railway fence. While they are not maintained they appear to be in a condition that is consistent with their age and material type.

The majority of the buildings listed as in close proximity (Table 4; Table 6; Table 8) are across the street from the proposed Project Area.

7.0 Potential impact and approvals required

7.1 Aboriginal cultural heritage

There are no registered Aboriginal sites in the Rezoning Area. However, based on previous archaeological investigations subsurface Aboriginal sites have been identified in the surrounding area and it is therefore considered that Rezoning Area is archaeologically sensitive for Aboriginal heritage.

The Aboriginal objects most likely to occur are stone artefacts and shellfish remains (described as middens). These site types reflect the local environment and the utilisation of the Aborigines of local resources.

It is recommended that prior to ground disturbance works occurring that:

- The Aboriginal community is consulted through the ACHCR including a survey of the Rezoning Area ; and
- An Aboriginal Cultural Heritage Assessment Report is prepared.

7.2 Built heritage

There are six built heritage items in or abutting the area: the Newcastle Railway Station and the Newcastle Railway Station Additional Group (both on the State Heritage Register); the Civic Railway Workshop; Civic Station; the Remains of AA Co. Bridge and Fence and the former Tramway Substation (on the NLEP 2012 Schedule 5 and of local heritage significance).

7.2.1 Civic Railway Workshops

Listing	NSW Heritage Register (SHR956); Newcastle City Council LEP (Item I479)	
Address	Great Northern Railway Newcastle	
Ownership	Honeysuckle Development Corporation (state government)	
Description	<p>Civic Railway Workshops is an outstanding industrial Victorian workshop group. The whole group is of highest significance in the State. Construction of workshops in Newcastle was brought about for two reasons: separation of the Great Northern lines from the main system from 1857 to 1889; and in recognition of the exclusive facilities and rolling stock required to handle coal traffic.</p> <p>The Lee Wharf site has the potential to contain historical archaeological remains, including remains of State significance. These remains may lie both within the boundary of the State Heritage Register and outside (SHI database 5044977).</p>	
Impact	<p>Potential impact on archaeological site/s through excavations for works however no proposed physical impact on the built structures (workshops).</p> <p>Potential visual impact to the workshops particularly 2-4 Merewether Street (Newcastle Museum).</p>	
Approvals <i>NSW Heritage Act 1977</i>	<p>Major alterations or demolition: Application under S60 supported by a Conservation Management Plan and Heritage Impact Assessment.</p> <p>Minor alterations, maintenance or repair: Application for Exemption under S57(2) to carry out works.</p> <p>Subsurface disturbance: In addition if proposed works are likely to disturb subsurface relics under the: S57(2) Excavation <u>Exception</u> Application</p> <p>If relics are uncovered lodgement of S60 Application for an Excavation Permit</p>	<p>Background to requirement for approvals: The Civic Railway Workshops is listed on the State Heritage Register with approval required from the NSW Heritage Council for any works.</p> <p>Subsurface disturbance: Existence of archaeological relics is unknown; if relics are uncovered a Excavation Methodology will be required and lodged to support the S60 Application for an Excavation Permit.</p>
		

7.2.2 Civic Railway Station Group

Listing	S170 State government agency (SRA623)	
Address	Hunter Street, Civic Station	
Ownership	Sydney Trains. State Government	
Description	Civic Railway Station opened in 1935, is the location of the original Honeysuckle Railway Station (1857). The current station is described as modest single storey, Inter-War Functionalist in style. The footbridge is described as the only known example constructed on brick piers (SHI Database 4801623).	
Impact	Potential impact on item, but subject to a voluntary planning agreement (VPA), the future use subject to negotiation with Newcastle City Council.	
Approvals <i>NSW Heritage Act 1977</i>	<p><i>NSW Heritage Act 1977:</i></p> <p>Major alterations or demolition: Internal Approval Process for state owned Asset. Supported by Heritage Impact Assessment.</p> <p>Minor alterations, maintenance or repair; All changes must be lodged on the Heritage Division’s Heritage Data Form</p> <p><i>NSW Heritage Act 1977:</i> In addition if proposed works are likely to disturb subsurface relics under the: S139(4) Excavation <u>Exception</u> Application If relics are uncovered lodgement of S140 Application for an Excavation Permit</p>	<p>Background to requirement for approvals: This parcel contains the Civic Railway Station buildings including the Overhead Footbridge.</p> <p>Subsurface disturbance: Existence of archaeological relics is unknown, if relics are uncovered a Excavation Methodology will be required and lodged to support the S140 Application for an Excavation Permit</p>
		

7.2.3 Remains of the AA Company Bridge and Fence

Listing	Newcastle City Council LEP (I145)	
Address	280 Hunter Street, Newcastle	
Ownership	Unknown	
Description	The remnant AA Company bridge pier and railway fence form a tangible link to the Australian Agricultural Company coal mining operation. The bridge remnants mark what was both a bottleneck and a vital connection for the Company the bridge was constructed to allow an easier relationship between the Company's coal transport activities and the transport needs of the growing town of Newcastle (SHI 2172035).	
Impact	Area zoned public recreation, low to nil impact as a result of rezoning, but potential impacts arising out of Newcastle Light Rail Project, subject to negotiation with Newcastle City Council.	
Approvals <i>NSW Heritage Act 1977</i> & <i>NSW Environmental Planning and Assessment Act 1979</i>	<p><i>NSW Environmental Planning and Assessment Act 1979:</i> If the footings and fence are on Newcastle City Council land -</p> <p>Statement of Heritage Impact must be lodged with Council prior to any works in proximity to the heritage items.</p> <p><i>NSW Heritage Act 1977:</i> If the Remains are on state owned land -</p> <p>Major alterations or demolition: Internal Approval Process for state owned Asset. Supported by Heritage Impact Assessment.</p> <p>Minor alterations, maintenance or repair; All changes must be lodged on the Heritage Division's Heritage Data Form. In addition under the <i>NSW Heritage Act 1977:</i> Removal of the existing Remains of AA Company Bridge and Fence, if approved would require a S140 Application for an Excavation Permit.</p>	<p>The Remains of AA Company Bridge and Fence are in evidence and are likely to include in addition, archaeological relics.</p> 

7.2.4 Tramway Substation (Former)

Listing	Newcastle City Council LEP (Item I416)	
Address	342 Hunter Street, Newcastle	
Ownership	Unknown	
Description	Historically important due to tramway. Probably constructed when tramway was electrified in 1923. , Important townscape element being one of few on north side of street in this vicinity. The interiors are of significance (SHI 2170183)	
Impact	Potential for construction of buildings to affect Tramway Substation (Former) remains.	
Approvals <i>NSW Heritage Act 1977</i> & <i>NSW Environmental Planning and Assessment Act 1979</i>	<p><i>NSW Environmental Planning and Assessment Act 1979</i></p> <p>Newcastle City Council requires a Statement of Heritage Impact be lodged with Council prior to any works.</p>	<p>The Tramway Substation (Former) abuts Parcel 08. The construction of buildings to a height 14m on the northern boundary (Parcel 11). A Statement of Heritage Impact is required if there is development in the vicinity of a heritage item.</p>
		

7.2.5 Newcastle Railway Station Additional Group

Listing	NSW Heritage Register (SHR01212) : S170 State government agency (SRA28)	
Address	Great Northern Railway	
Ownership	Sydney Trains. State Government	
Description	The Newcastle Signal Box built in 1936 a major technical achievement at the time, it was the only Type O signal box provided with an electro-pneumatic miniature lever power interlocking machine. One of the few signal boxes in the State to retain the original signalling frame, it was decommissioned sometime after 2012 (SHI Database 5012122).	
Impact	Proposed heritage building remains with adaptive reuse.	
Approvals NSW Heritage Act 1977	<p>Major alterations or demolition: Application under S60 supported by a Conservation Management Plan and Heritage Impact Assessment.</p> <p>Minor alterations, maintenance or repair: Application for Exemption under S57(2) to carry out works.</p> <p>Subsurface disturbance: In addition if proposed works are likely to disturb subsurface relics under the: S57(2) Excavation <u>Exception</u> Application If relics are uncovered lodgement of S60 Application for an Excavation Permit</p>	<p>Background to requirement for approvals: The Newcastle Railway Station Additional Group is listed on the State Heritage Register with approval required from the NSW Heritage Council for any works.</p> <p>Subsurface disturbance: Existence of archaeological relics is unknown; if relics are uncovered an Excavation Methodology will be required and lodged to support the S160 Application for an Excavation Permit.</p>
		

7.2.6 Newcastle Railway Station

Listing	NSW Heritage Register (SHR00236 & 1212) : S170 State government agency (SRA28); Newcastle City Council LEP (Item I455)	
Address	LOT 22 DP 1009735	
Ownership	Sydney Trains. State Government	
Description	Building phases from 1878 to 1929. The station is a fine example of Victorian Station architecture and is an important heritage feature in the Newcastle city centre (SHI Database 5044973).	
Impact	Heritage buildings are to remain with proposed adaptive reuse	
Approvals <i>NSW Heritage Act 1977</i>	<p>Major alterations or demolition: Application under S60 supported by a Conservation Management Plan and Heritage Impact Assessment.</p> <p>Minor alterations, maintenance or repair: Application for Exemption under S57(2) to carry out works.</p> <p>Subsurface disturbance: In addition if proposed works are likely to disturb subsurface relics under the: S57(2) Excavation <u>Exception</u> Application <i>If</i> relics are uncovered lodgement of S60 Application for an Excavation Permit</p>	<p>Background to requirement for approvals: The Newcastle Railway Station is listed on the State Heritage Register with approval required from the NSW Heritage Council for any works.</p> <p>Subsurface disturbance: Existence of archaeological relics is unknown; if relics are uncovered a Excavation Methodology will be required and lodged to support the S60 Application for an Excavation Permit.</p>
		

7.2.7 Newcastle City Centre Heritage Conservation Area

Listing	Newcastle City Council LEP – Conservation Area C4	
Address	Hunter, Scott, Watt, Newcomen, King, Perkins, Brown, Crown, Wolfe and Keightley Lane	
Ownership	Various	
Description	The assemblage of commercial and civic buildings is a powerful reminder of the city's rich history and its many phase of development (SHI 2173904).	
Impact	The development of proposed rezoning area will affect Newcastle City Centre Heritage Conservation Area (NCCHCA). Following removal of the heavy rail it is intended the rezoning will assist in the retention, maintenance and refurbishment of heritage buildings therefore enhancing the NCCHCA, though new development will affect the setting and character of the NCCHCA. New development may also affect archaeological resources, which also contribute to the significance of the NCCAHCA. However, the improved public domain and adaptive re-use of heritage buildings and interpretation of the archaeological resources will enhance the NCCHCA.	
Approvals NSW Heritage Act 1977 & NSW Environmental Planning and Assessment Act 1979	<p><i>NSW Environmental Planning and Assessment Act 1979</i></p> <p>Newcastle City Council requires a Statement of Heritage Impact be lodged with Council prior to any works.</p>	<p>Background to requirement for approvals:</p> <p>New Development adjacent to a heritage item requires a Statement of Heritage Impact:</p> <p><i>All new development in the conservation area should be treated as 'infill', that is, it should respect the design of its neighbours and the character of the area generally. Similar principles are applied to infill development as are applied to alterations and additions, and must begin with an understanding of the design and heritage significance of the buildings to which it relates.</i></p> <p><i>Infill development should not copy or replicate its neighbouring traditional buildings. Rather, it is appropriate to interpret the features of the neighbouring buildings and design them in a way that reflects and respects them (Newcastle Heritage Conservation Areas Section 5.07.07).</i></p>

7.2.8 Heritage items in the vicinity of the proposed rezoning

Table 3; Table 5 and Table 7 identify heritage buildings that are in the NCCHCA and in the vicinity of the area designated for the proposed rezoning.

It is considered those heritage buildings will be not be physically impacted on by works resulting from the rezoning, however there is potential impact for visual impact from the placement of new buildings. Under the *NSW Environmental Planning and Assessment Act 1979*, Newcastle City Council requires a Statement of Heritage Impact be lodged with Council prior to any works in a heritage conservation area. New development in a conservation area is considered as infill development and as described in Section 7.2.7.

7.3 Historical archaeological heritage

There are a number of identified and potential archaeological resources in the area proposed for rezoning. The rezoning would not directly affect identified or potential archaeological resources. Detailed assessments of archaeological potential would be required prior to development to determine the potential for archaeological resources in specific areas and the potential of a proposed development to affect an identified or potential archaeological resource. The approvals required would be dependent on the significance of the archaeological resource and the potential for the proposed development to affect that significance.

7.4 Summary of approvals required

Table 10 details each Parcel that contains heritage items and provides advice on the approvals required, dependent on the developments proposed.

Table 10 Heritage Items in proposed rezoning parcels

Parcel Number and proposed rezoning	Heritage Item:	Approvals under the <i>NSW Heritage Act 1977</i> or the <i>NSW Environmental Planning and Assessment Act 1979</i> ; <i>NPW Act 1974 (as Amended)</i>
Parcel 01	<ul style="list-style-type: none"> - Mortuary Station (Archaeological) - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ <i>NSW Heritage Act 1977</i> ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ <i>NPW Act 1974 (as Amended)</i>: AHIP for ground disturbance works
Parcel 02	<ul style="list-style-type: none"> - Civic Railway Workshops Group and railway turntable (Archaeological) - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ <i>NSW Heritage Act 1977</i> ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ <i>NPW Act 1974 (as Amended)</i>: AHIP for ground disturbance works
Parcel 03	<ul style="list-style-type: none"> - Civic Railway Workshops Group and railway turntable (Archaeological) - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ <i>NSW Heritage Act 1977</i> ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ <i>NPW Act 1974 (as Amended)</i>: AHIP for ground disturbance works

Parcel Number and proposed rezoning	Heritage Item:	Approvals under the <i>NSW Heritage Act 1977 or the NSW Environmental Planning and Assessment Act 1979; NPW Act 1974 (as Amended)</i>
	<ul style="list-style-type: none"> - Civic Railway Station Group (Built) - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ <i>NSW Heritage Act 1977</i> ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ <i>NPW Act 1974 (as Amended): AHIP</i> for ground disturbance works
Parcel 04	<ul style="list-style-type: none"> - Civic Railway Station Group (Built) - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ <i>NSW Heritage Act 1977</i> ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ <i>NPW Act 1974 (as Amended): AHIP</i> for ground disturbance works
Parcel 5	<ul style="list-style-type: none"> - Civic Railway Station Group (Built) - Newcastle City Centre Heritage Conservation Area - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ <i>NSW Heritage Act 1977</i> ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ <i>NPW Act 1974 (as Amended): AHIP</i> for ground disturbance works
Parcel 07	<ul style="list-style-type: none"> - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ <i>NSW Heritage Act</i> ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ <i>NPW Act 1974 (as Amended): AHIP</i> for ground disturbance works
Parcel 08	<ul style="list-style-type: none"> - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ <i>NSW Heritage Act</i> ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ <i>NPW Act 1974 (as Amended): AHIP</i> for ground disturbance works
Parcel 09	<ul style="list-style-type: none"> - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ <i>NPW Act 1974 (as Amended): AHIP</i> for ground disturbance works
	<ul style="list-style-type: none"> - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ <i>NSW Heritage Act</i> ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ <i>NPW Act 1974 (as Amended): AHIP</i> for ground disturbance works
Parcel 10 (<ul style="list-style-type: none"> - Tramway Substation (Former) (Built) - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ <i>NSW Heritage Act</i> ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ <i>NPW Act 1974 (as Amended): AHIP</i> for ground disturbance works

Parcel Number and proposed rezoning	Heritage Item:	Approvals under the <i>NSW Heritage Act 1977 or the NSW Environmental Planning and Assessment Act 1979; NPW Act 1974 (as Amended)</i>
Parcel 11	<ul style="list-style-type: none"> - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ NSW Heritage Act ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> NPW Act 1974 (as Amended): AHIP for ground disturbance works
Parcel 12	<ul style="list-style-type: none"> - Remains of AA Company Bridge and Fence (Built) - AA Co sandstone abutment (Archaeological) - Unidentified structure – brick footing (Archaeological) - Cisterns (Archaeological) - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ <i>NSW Heritage Act 1977</i> ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ <i>NPW Act 1974 (as Amended)</i>: AHIP for ground disturbance works
Parcel 13	<ul style="list-style-type: none"> - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ <i>NSW Heritage Act 1977</i> ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ <i>NPW Act 1974 (as Amended)</i>: AHIP for ground disturbance works
Parcel 14	<ul style="list-style-type: none"> - Newcastle Railway Station Additional Group (Built) - Perkins Street Boat Harbour (Archaeological) - Market Street Boat Harbour (Archaeological) - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ <i>NSW Heritage Act 1977</i> ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ <i>NPW Act 1974 (as Amended)</i>: AHIP for ground disturbance works
Parcel 15	<ul style="list-style-type: none"> - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ NSW Heritage Act 1977 ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ NPW Act 1974 (as Amended): AHIP for ground disturbance works
Parcel 16	<ul style="list-style-type: none"> - Civic Turntable - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ NSW Heritage Act 1977 ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ NPW Act 1974 (as Amended): AHIP for ground disturbance works
Parcel 17	<ul style="list-style-type: none"> - Civic Railway Workshops Group and railway turntable (Archaeological) - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ NSW Heritage Act 1977 ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ NPW Act 1974 (as Amended): AHIP for ground disturbance works

Parcel Number and proposed rezoning	Heritage Item:	Approvals under the <i>NSW Heritage Act 1977</i> or the <i>NSW Environmental Planning and Assessment Act 1979</i> ; <i>NPW Act 1974 (as Amended)</i>
Parcel 18	<ul style="list-style-type: none"> - Civic Railway Workshops Group and railway turntable (Archaeological) - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ NSW Heritage Act 1977 ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ NPW Act 1974 (as Amended): AHIP for ground disturbance works
Parcel 19	<ul style="list-style-type: none"> - Civic Railway Workshops Group and railway turntable (Archaeological) - Newcastle City Centre Heritage Conservation Area - Potential Aboriginal site 	<ul style="list-style-type: none"> ▪ NSW Heritage Act 1977 ▪ <i>NSW Environmental Planning and Assessment Act 1979</i> ▪ NPW Act 1974 (as Amended): AHIP for ground disturbance works

8.0 Recommendations

The recommendations relating to the management of built and archaeological resources are presented below.

8.1 Aboriginal archaeological sites

Aboriginal archaeological sites will need to be assessed, investigated and if necessary, salvaged and interpreted and will require Aboriginal consultation where there is potential to impact Aboriginal objects. The impact assessment will identify the levels of Aboriginal consultation and investigation required, which will then provide an indication of Aboriginal objects in the area and if salvage and interpretation are necessary. As each of these stages are

8.1.1 Impact Assessment

The potential impact on Aboriginal heritage for each Development Application must be assessed. Previous Aboriginal heritage assessments may be used to supplement the impact assessment, where relevant, but the level of assessment required should be identified by a qualified heritage professional. The impact assessment can be undertaken as a Due Diligence Aboriginal Heritage Assessment under the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW 2010c). However, where known Aboriginal sites have been identified and are likely to be impacted by the proposed development, impact assessment should be in the form of an Aboriginal Cultural Heritage Assessment Report (ACHAR) and produced in accordance with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011) and the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b).

8.1.2 Aboriginal Consultation

The Aboriginal Cultural Heritage Consultation Requirements (ACHCRs) for proponents process is a regulatory requirement when there is potential for impact on Aboriginal objects it is also a valuable method of ensuring that the Aboriginal community is fully involved in the decision making process. Proponents should engage with the Aboriginal community through the ACHCR process as part of the development application process. The developer must inform the Aboriginal community of the scale of the proposed development and consult with the Aboriginal community in relation to the cultural significance of the area and the potential for the development to affect Aboriginal objects.

8.1.3 Investigation

Subsurface archaeological investigation may be required, dependent on the outcome of the impact assessment. This may be implemented as *Code of Practice Test Excavation* under the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b) or as an Aboriginal Heritage Impact Permit (AHIP), as directed by a qualified heritage professional.

8.1.4 Salvage

The salvage of Aboriginal objects, surface or subsurface, needs to be undertaken in accordance with an AHIP from the Office of Environment and Heritage (OEH). The methodology for undertaking salvage will be determined by the results of the investigation and/or the ACHAR.

8.1.5 Interpretation

A heritage interpretation strategy should be developed with the local Aboriginal community to ensure that the Aboriginal heritage of the area is reflected in an appropriate way. The heritage interpretation strategy should be developed as soon as practicable and prior to development within the Rezoning Study Area.

8.2 Historic heritage

A well-developed heritage interpretation strategy should be developed to ensure that the portion of the Great Northern Railway between Wickham and its place in the NSW rail network remains part of the city's memory. The heritage interpretation strategy should be developed as soon as practicable and prior to development within the Rezoning Study Area.

8.2.1 Built heritage

In general, assessing potential strategies for mitigating against adverse impact, it is considered critical that buildings in the Rezoning Study Area are adequately maintained and protected until a new role is devised and implemented.

8.2.1.1 Visual impact

There will be impact or potential impact on structures in the vicinity of Parcels where new buildings will be constructed to varying heights. Any new buildings should be designed in accordance with the requirements of the Newcastle City Council requirements for the NCCCHA.

8.2.1.2 Construction in the vicinity of heritage items

The Tramway Substation (Former) is in close physical proximity to potential works in Parcel 10 and Parcel 12. During works, protective barriers, designated as no-go zone, should be installed under advice from cultural heritage consultant to mitigate against impact.

8.2.1.3 Adaptive reuse plan for heritage items

The conservation of a heritage building is often best served by sympathetic adaptive reuse. Adaptive reuse needs to be compatible with the building, retain its historic character and conserve significant fabric. This however does not negate the introduction of new services, modifications and additions. Proposals for adaptive reuse of any buildings should be considered in conjunction with the appropriate regulatory authorities. An adaptive reuse plan / conservation management plan should accompany the Development Application and for State Heritage Items will require approval by the NSW Heritage Council.

Newcastle Railway Station (SHR0036) and Newcastle Railway Station Additional Group (SHR1212) are proposed for adaptive reuse. Civic Station is subject to a VPA and therefore its future use is being negotiated with Newcastle City Council.

8.2.1.4 Demolition or removal of structures

Where items are proposed for removal, the impact will be substantial. A full investigation should be made of all options other than removal to ensure that the heritage item is not removed without just cause. If removal is the only option, processes to ensure the heritage value is not lost should be instigated. Those processes should be informed by a heritage interpretation strategy, developed by a suitably qualified heritage consultant.

8.2.1.5 Interpretation

A heritage interpretation strategy should be prepared for as part of the adaptive reuse plan for heritage items being adaptively reused and/or in instances where structures are to be removed or demolished..

8.2.2 **Management of archaeological resources**

While it is recognised there are known or potential archaeological resources in the area of proposed rezoning, the entire area has potential for archaeological relics to be present.

8.2.2.1 Conservation principles

The archaeological resources needs to be first investigated and their significance assessed, the management of the resource is to aspire to the highest levels of conservation outcomes. The following conservation principles are to guide the consideration of conservation management options, but must consider the significance of the relic in selecting the most appropriate option. The management options are listed in order of preference:

- Conserve relic in-situ
- Remove relic and conserve – with interpretation
- Remove relic and discard – with interpretation

Option A: In situ conservation

Impact to archaeological relics should be avoided. Relics should be conserved in situ either through reburial or as a permanent display. If reburied, relics should be covered with a protective layer, such as geofabric and covered with fill. The relic should be documented and information provided for the interpretation. If exposed, protective structures should be erected around the relic to ensure conservation, allowing for sufficient set back to allow the relic to be interpreted by the public.

Option B: Remove relic and conserve – with interpretation

If impact to the relic cannot be avoided by the proposed works, then options for its removal may be considered. If the relic is of local or state significance then it should be conserved and transferred to an appropriate institution such as a museum or other appropriate storage facility. This transferal is to be accompanied by interpretative documentation. If appropriate, and in line with the significance of the relic, signage or a plaque should also erected at the location of its discovery.

Option C: Remove relic and discard

If impact to the relic cannot be avoided by the proposed works, then options for its removal may be considered, but is the least preferred outcome and all other options must be rigorously explored prior to this option being selected. This option may need to be implemented where the significance assessment demonstrates that the relic does not meet local or state significance criteria, the item is contaminated or partial removal of a relic is required to conserve the rest of the relic in-situ. In the case of discard, the relic must be exposed, investigated and documented, interpretative material prepared, prior to the discard of the item. Appropriate disposal of the relic must be implemented, particularly if contamination is identified.

Interpretation

The interpretation of the archaeological resources is a key conservation outcome. All conservation management principles are to be implemented with the aim of providing high quality interpretation.

8.2.2.2 [Roles and responsibilities](#)

The developer would be responsible for managing archaeological resources. The developer should consult with a qualified archaeologist, and where appropriate the Heritage Division of the Office of Environment and Heritage (OEH).

Contractors involved in ground disturbance of areas with archaeological resources or the potential for archaeological resources should be informed of their obligations in relation to archaeological issues. Contractors would be responsible for reporting all unexpected archaeological resources to the proponent. Unexpected archaeological relics must be reported to the Heritage Division of the OEH in accordance with Section 146 of the Act.

8.2.2.3 [Impact assessment](#)

Impact to archaeological resources and areas of archaeological potential must be assessed as part of the development application process. The impact to archaeological resources and areas of archaeological potential should be assessed as early as possible to minimise the potential for impact and also potential delays associated with obtaining approval under Section 140 of the *Heritage Act 1977*, or Section 60 for SHR areas. Where ever possible, impact to archaeological resources should be avoided or minimised.

8.2.2.4 [Investigation / Salvage](#)

The preliminary investigation of archaeological resources may require an exception under s139 of the *Heritage Act 1977*, or s57 for State significant relics, but this will need to be determined by a qualified heritage professional and is dependent upon the nature of proposed works and archaeological significance.

Where archaeological relics are unable to be avoided, approval must be obtained under Section 60 for archaeological resources of State significance and Section 140 of the Act for archaeological relics of local significance. Ground disturbance proposed in areas of archaeological potential must be proceeded by, or carried out in conjunction with, archaeological investigation, which may include ground penetrating radar, excavation and detailed recording. The archaeological research design that would be prepared to support a Section 140 or Section 60 application would set out the research questions and archaeological methods as appropriate to impact associated with each development.

8.2.2.5 [Remediation](#)

Contamination is considered a significant constraint to the conservation of archaeological resources within the rezoning area. The level of contamination varies, but may include hydrocarbons and asbestos and require remediation prior to adaptive reuse and potential new development. Remediation should be monitored with archaeological resources investigated as far as safe and practicable, and in accordance with relevant approvals under the *Heritage Act 1977*.

8.2.2.6 [Utilities](#)

In general, ground disturbance for the purpose of exposing or accessing underground utilities is appropriate where the disturbance would occur within that of the existing service or the disturbance would not affect known or potential archaeological resources.

8.2.2.7 [Interpretation](#)

The archaeological resources within each land parcel should be interpreted as part of the development process. Interpretive options should be considered at the development application stage and should be framed within a heritage interpretation strategy.

8.3 Implementation and Indicative Timing

Implementation of the recommendations will need to be undertaken at different stages. An indicative timeline is provided in Table 10. It should be noted that some components are dependent of the results of previous investigations/impact assessments and that not all components will be required for each development proposal.

Table 11 Implementation and Indicative Timing

Component	Indicative Timing for Implementation
Aboriginal Heritage	
Impact Assessment	Prior to DA lodgement
Aboriginal Consultation	Prior to investigation or salvage, if Aboriginal objects are to be impacted
Investigation	Post DA approval, but only if the need for investigation is identified in the impact assessment.
Salvage	Post DA approval, but only if the need for salvage is identified in the impact assessment or investigation.
Interpretation	Post DA approval, but only if the need for interpretation is identified in the impact assessment or investigation
Built Heritage	
Adaptive Reuse plan / Conservation Management Plan	Prior to DA lodgement and additional approval under the <i>Heritage Act 1977</i> , if necessary.
Heritage Interpretation Strategy	Post DA approval, but prior to construction works.
Archaeological Resources	
Impact Assessment	Prior to DA lodgement
Investigation / Salvage	Post DA approval, but prior to, or concurrent with construction works as stipulated in the archaeological research design, or monitoring methodology and in accordance with approvals under the <i>Heritage Act 1977</i> .
Heritage Interpretation Strategy	Post DA approval

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Appendix I

AHIMS Results

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
38-4-1716	Wickham Transport Interchange PAD	GDA	56	383426	6356757	Open site	Valid	Potential Archaeological Deposit (PAD) :-		
	Contact							Recorders	Artefact Heritage Services,Ms.Alyce Howard	Permits 3809
38-4-1223	Wickham UFCCALE OS1	GDA	56	384166	6356333	Open site	Valid	Artefact : 1		
	Contact							Recorders	Streat Archaeological Services	Permits
38-4-1222	Cottage Creek OSI	GDA	56	384250	6356324	Open site	Valid	Artefact : 1		
	Contact							Recorders	Streat Archaeological Services	Permits
38-4-1642	409 Hunter Street Newcastle Fill duplicate of 409 Hunter Street Newcastle Insitu	GDA	56	385099	6356088	Open site	Valid	Artefact : -, Shell :-		
	Contact							Recorders	Mr.Benjamin Streat	Permits
38-4-1632	TA1 Newcastle	GDA	56	386378	6356088	Open site	Destroyed	Artefact :-		
	Contact							Recorders	Umwelt (Australia) Pty Limited, Miss.Nicola Roche	Permits 3683
38-4-0544	700 Hunter Street	AGD	56	384250	6356020	Open site	Valid	Artefact :-		
	Contact							Recorders	Dominic Steele Archaeological Consulting	Permits
38-4-0952	Bellevue Hotel PAD	AGD	56	384250	6356200	Open site	Valid	Potential Archaeological Deposit (PAD) :-		99845,99874
	Contact Searle							Recorders	Mr.Dominic Steele	Permits 2382
38-4-0832	Empire Hotel PAD	AGD	56	384300	6356000	Open site	Valid	Potential Archaeological Deposit (PAD) :-		
	Contact T Russell							Recorders	Jim Wheeler	Permits 2128
38-4-0831	Palais Royale	AGD	56	384300	6356100	Open site	Partially Destroyed	Potential Archaeological Deposit (PAD) :-, Artefact : 5534, Shell :-		102256
	Contact T Russell							Recorders	University of Newcastle, Jim Wheeler	Permits 2127,2593,3098,3502
38-4-0772	710 Hunter Street Newcastle PAD	AGD	56	384350	6356250	Open site	Valid	Shell :-, Potential Archaeological Deposit (PAD) :-		
	Contact							Recorders	Jim Wheeler	Permits 1981
38-4-0851	710 Hunter St Newcastle, PAD	AGD	56	384350	6356250	Open site	Valid	Potential Archaeological Deposit (PAD) :-		
	Contact S Scanlon							Recorders	Jim Wheeler	Permits

Report generated by AHIMS Web Service on 04/11/2015 for Tessa Boer-Mah for the following area at Datum :GDA, Zone : 56, Eastings : 382900 - 386600, Northings : 6355700 - 6357200 with a Buffer of 0 meters. Additional Info : heritage assessment. Number of Aboriginal sites and Aboriginal objects found is 18

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SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
38-4-0559	The Broadwalk- Newcastle 1	AGD	56	385000	6356250	Open site	Valid	Potential Archaeological Deposit (PAD) : 0		98887
	Contact							Permits	1298,2043,2453	
	Recorders			Mary Dallas Consulting Archaeologists						
38-4-0525	Catholic Education Site	AGD	56	385680	6355710	Open site	Valid	Artefact : -	Open Camp Site	100771
	Contact							Permits		
	Recorders			Margrit Koettig						
38-4-0796	200 Hunter Street PAD	AGD	56	385787	6356006	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact							Permits	2045,2049	
	Recorders			Mrs. Angela Besant						
38-4-1084	Newcastle CBD PAD	AGD	56	385850	6355900	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact							Permits	3008	
	Recorders			Ms. Meaghan Russell						
38-4-1020	Coutts Sailors Home PAD1	AGD	56	386358	6355971	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	Contact							Permits	2734	
	Recorders			Archaeological & Heritage Management Solutions Pty Ltd (AHMS)						
38-4-1695	11-15 Watt St IF 1	AGD	56	386381	6356080	Open site	Valid	Artefact : -		
	Contact							Permits	3814	
	Recorders			Mr. Benjamin Streat						
38-4-0957	NCL 931	AGD	56	386400	6356000	Open site	Valid	Artefact : -		
	Contact							Permits		
	Recorders			Noeleen Curran						

Report generated by AHIMS Web Service on 04/11/2015 for Tessa Boer-Mah for the following area at Datum :GDA, Zone : 56, Eastings : 382900 - 386600, Northings : 6355700 - 6357200 with a Buffer of 0 meters. Additional Info : heritage assessment. Number of Aboriginal sites and Aboriginal objects found is 18

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Appendix 2

Historic Heritage Citations for Items in or Abutting the Proposed Rezoning Area



[Home](#) > [Heritage sites](#) > [Searches and directories](#) > NSW heritage search

Aa Company's Remnant Bridge Pier

Item details

Name of item: Aa Company's Remnant Bridge Pier
Other name/s: Hunter Street Bridge
Type of item: Movable / Collection
Group/Collection: Transport - Rail
Category: Railway gate/ fence/ wall,
Primary address: 280 Hunter Street, Newcastle, NSW 2300
Local govt. area: Newcastle

Boundary: The recommended curtilage is for a two metre apron wrapping around footing, with a viewing corridor maintained to Hunter Street.

All addresses

Street Address	Suburb/town	LGA	Parish	County	Type
280 Hunter Street	Newcastle	Newcastle			Primary Address

Statement of significance:

The remnant AA Company bridge pier and railway fence form a significant element of the Australian Agricultural Company Newcastle coal mining group, as they provide rare physical evidence of the Company's complex coal transport system, a vital part of the Company's operations in Newcastle. The bridge remnants mark what was both a bottleneck and a vital connection for the Company throughout its coal mining history in Newcastle, where coal trains from all areas of Newcastle converged at the River at the same time as crossing Newcastle town's main public thoroughfare. Thus the bridge remnants demonstrate both the dynamic system of coal mining and transport that dominated Newcastle in the nineteenth century, as well as commemorating an important intersection of public and private. The iron bridge, of which this pier footing is a remnant, was constructed to allow an easier relationship between the Company's coal transport activities and the transport needs of the growing town of Newcastle demonstrating an aspect of the relationship between the Company and the town and its community.

Date significance updated: 03 Apr 05

Note: There are incomplete details for a number of items listed in NSW. The Heritage Branch intends to develop or upgrade statements of significance and other information for these items as resources become available.

Description

Builder/Maker: A.A. Company

Physical description: The remnant bridge pier consists of a large rectangular section of brickwork with rounded ends, standing approximately eight rows of brick above ground level. The alignment of the pier base is skewed, reflecting the skewed alignment of the bridge.

It is abutted by a cast iron fence with a brick plinth capped with large sandstone blocks, into which are set the cast iron rods with arrowhead finials of the palisade, also constructed by the AA Company to divide Hunter Street from the adjacent railway land.

A steel security fence has recently been erected on the street side of the original fence to prevent access to the

railway, and this makes it difficult to appreciate its historic character.

Physical condition and/or Archaeological potential: In poor condition though appears stable.

Date condition updated: 03 Apr 05

Further information: Related items; 1022,1115. Conserve remnant fence in situ. Consider reconstruction of remainder.

Current use: Still standing

History

Historical notes: The bridge pier footing on Hunter Street forms an important part of the story of the Australian Agricultural Company. With the Signalman's Cottage, it illustrates the transport activities vital to the coal industry, bringing the coal to the loading facilities at Newcastle Port.

The coal reserves near the mouth of the Hunter River were first noticed in the late eighteenth century, and a penal settlement was established at 'Coal River' in the early years of the nineteenth century. Convict labour was used to exploit the estuary's coal, timber, salt and lime resources. (City Wide Heritage Study, Thematic History, pp. 1-2) The Australian Agricultural Company (hence: the Company), formed in London in 1824, entered the coal industry with the intention of exporting coal to India for use by the steamers of the East India Company. Steamships also began to appear on the coast of New South Wales from 1831, creating the first significant local commercial demand for coal. The Company secured a grant of 2,000 acres of coal bearing land near Newcastle, in 1829. At the same time it secured a form of market protection, which amounted to a near-monopoly on the supply of coal across the following decades. The arrival of the Company could be regarded as the most important event in the nineteenth century history of Newcastle, as it dominated the course of the area's history for much of the nineteenth century and had profound effects on the future development of Newcastle as a City. (City Wide Heritage Study, Thematic History, p. 4; and Campbell. 1994, p. 7)

The entry of the Company into coal mining also transformed the coal mining industry in Australia. The Company was initially given control of the small scale government mines, but almost immediately began constructing its own colliery following more up to date mining practice in Britain. This first mine, known as 'A Pit' opened in 1831, and was the first modern and privately operated colliery in Australia. A Pit was perched on a steep rise overlooking the Hunter River estuary, and its coal was delivered to the port, by an inclined plane which, though it relied on gravity for its power, has been recognised as the first railway in Australia. (City Wide Heritage Study, Thematic History, p. 4; Docherty, 1983, p. 8) The Company subsequently extended its mining activities to the coal-bearing land to the south-west of Shepherds Hill. The 2nd and 3rd collieries, known as the B and C pits, were completed in 1837 and 1842, and the D, E and G Pits were established several miles to the west, in the present Hamilton area, in the late 1840s and 1850s. (Campbell. 1994, p. 8)

The Company's monopoly on coal mining in Newcastle ended in 1847. From 1855 onwards, a number of other large companies entered the scene: the Newcastle Wallsend; the Scottish Australian; the Waratah; and the New Lambton companies. Each of these entities operated in a fairly similar way to the A. A. Company, starting their operations by acquiring title to a suitable tract of land, then founding a settlement to attract a workforce. A ring of townships on the southern edge of the harbour resulted, each with its *raison d'être* in mining or coal based industry. The new townships included Merewether (mid-1930s), Hamilton (1849), Wallsend (1859), Lambton (1860), new

Lambton (1868), and Adamstown (1870). (Docherty, 1983, p. 8)

The development of private railways, side by side with the construction of the great Northern Railway between Newcastle and East Maitland (1854-1857), facilitated the transport of coal to the port, permitting the opening of new mines at Minmi, Wallsend, Lambton, and Waratah within a decade, thereby laying the foundations of Newcastle's key role in the Australian economy. All of these lines converged in the central Newcastle area, aiming for the Port. Two important remnants of this vital transport system survive in the form of Signalman's Cottage, which was built at the junction of one of the Company's lines with the Burwood Coal Company's line to as quarters for the signalman who co-ordinated the transport activities of these lines; and the brick bridge pier footing on Hunter Street, a remnant from the bridge that lifted the converged AA Company lines over the road traffic of Hunter and King Streets as they approached the loading facilities. (City Wide Heritage Study, Thematic History, p. 5)

This remnant brick bridge pier supported the A.A. Company's iron bridge which was erected in 1863-4. The bridge replaced an earlier timber bridge constructed in 1841 to transport coal from the company's mines to its coal loading staithes on the harbour front. This bridge in turn probably replaced a light timber viaduct constructed before 1831 to transport the coal wagons travelling between A Pit, the Company's first colliery, and the River. Standing on the site of this series of bridges, the site of A Pit can be seen directly up the hill to the south, lining up approximately with the former bridge alignments. The second timber bridge was so low in height that it caused inconvenience to traffic using Hunter Street; a person mounted on a tall horse would have had to duck to pass underneath. The third bridge was a three span continuous girder structure of riveted iron, fabricated by Robert Stephenson & Co. of Newcastle-on Tyne, supported on massive brick wall type piers. The bridge was erected on a skew of approximately 54 degrees, about 20 feet away and on a slight angle to the timber structure it replaced. It was some 7 feet higher than the old timber bridge, high enough for traffic to pass beneath without obstruction. It was removed in 1923. The surviving base of one brick pier is visible between the Hunter St footpath and railway land. (Tonks, research)

Historic themes

Australian theme (abbrev)	New South Wales theme	Local theme
3. Economy-Developing local, regional and national economies	Industry-Activities associated with the manufacture, production and distribution of goods	Industrial technology-goods
3. Economy-Developing local, regional and national economies	Mining-Activities associated with the identification, extraction, processing and distribution of mineral ores, precious stones and other such inorganic substances.	coal mining-
3. Economy-Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	transportation-
3. Economy-Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	railways-

Assessment of significance

SHR Criteria a) [Historical significance]

The remnant AA Company bridge pier and railway fence have historical significance to the State as part of the Australian Agricultural Newcastle coal mining group. The bridge remnants provide rare physical evidence of the Company's complex system of rail lines, connecting the collieries to the loading facilities on the Hunter River, a network

which dominated the geography of central Newcastle in the nineteenth century. The location of the Company's first colliery, A Pit, determined the location of this vital transport node, and the bridge remnants represent the history of coal transport on this site, both a bottleneck and a vital connection for the Company throughout its coal mining history in Newcastle, where coal trains from all areas of Newcastle converged at the River. The bridge remnants also commemorate this important intersection of public and private in nineteenth century Newcastle. The iron bridge, or which this pier footing is a remnant, was constructed to allow an easier relationship between the Company's coal transport activities and the transport needs of the growing town of Newcastle along its main public thoroughfare, demonstrating an aspect of the relationship between the Company and the town and its community.

SHR Criteria b)
[Associative significance]

The remnant bridge pier and fence have a strong association to the Australian Agricultural Company and its coal mining activities in Newcastle, which made a significant contribution to NSW's economy in the nineteenth century, and to the colony's ability to play an active part in the international economy through the steam shipping industry. The bridge remnants provide rare physical evidence of the Company's coal transport activities, and of the Company's interaction with the public world of Newcastle town.

SHR Criteria c)
[Aesthetic significance]

Within the limits of the research undertaken the item was not found to be significant under this criterion.

SHR Criteria d)
[Social significance]

Within the limits of the research undertaken the item was not found to be significant under this criterion.

SHR Criteria e)
[Research potential]

Within the limits of the research undertaken the item was not found to be significant under this criterion.

SHR Criteria f)
[Rarity]

Within the limits of the research undertaken the item was not found to be significant under this criterion.

SHR Criteria g)
[Representativeness]

Within the limits of the research undertaken the item was not found to be significant under this criterion.

Integrity/Intactness: The iron fence and brick pier footing are remnants of a much larger structure. Sufficient information in the form of position, original form and materials remain to present a significant historical landmark, which is articulate about the historic shape of Newcastle under the domination of the A A Company.

Assessment criteria: Items are assessed against the [State Heritage Register \(SHR\) Criteria](#) to determine the level of significance. Refer to the Listings below for the level of statutory protection.

Recommended management:

Conservation Plan

Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
Local Environmental Plan		I415	15 Jun 12	64	
Heritage study					

Study details

Title	Year	Number	Author	Inspected by	Guidelines used

Newcastle Archaeological Management Plan	1997	1224	Suters, Lavelle, Doring, Turner	C&MJD stage 2	Yes
Review of Potential Heritage Items for NLEP	2003		Ecotecture Pty Ltd		Yes
Review of Items of Potential State Significance in the Newcastle City Area	2008	Part of AA Co coal mining group	Sue Rosen and Associates Heritage Assessment And History (HAAH)	Emma Dortins and Rosemary Kerr	Yes

References, internet links & images

Type	Author	Year	Title	Internet Links
Written		2007	City Wide Heritage Study, Thematic History	
Written			Research of E. Tonks, historian	
Written	Campbell, David	2000	Reproduced in Conservation Management Plan Suters Architects, Former AA Mine Manager's Residence	
Written	Docherty, J. C.	1983	Newcastle. The Making of an Australian City	

Note: internet links may be to web pages, documents or images.



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Civic Railway Workshops

Item details

Name of item:	Civic Railway Workshops
Other name/s:	Honeysuckle; Industrial Archaeological Site; Newcastle Museum
Type of item:	Complex / Group
Group/Collection:	Transport - Rail
Category:	Railway
Location:	Lat: -32.9259277396 Long: 151.7713519130
Primary address:	Great Northern Railway, Newcastle, NSW 2300
Parish:	Newcastle
County:	Northumberland
Local govt. area:	Newcastle
Local Aboriginal Land Council:	Awabakal

Property description

Lot/Volume Code	Lot/Volume Number	Section Number	Plan/Folio Code	Plan/Folio Number
LOT	511		DP	1030264
PART LOT	5001		DP	1049339
PART LOT	1		DP	1111305
LOT	2		DP	1111305
LOT	3		DP	1111305
LOT	4		DP	1111305
LOT	5		DP	1111305
LOT	9		DP	1128824
LOT	36		DP	1162435
			CP/SP	71834
			CP/SP	71866
PART LOT	2		DP	856783
PART LOT	12		DP	883474
PART LOT	3		DP	883474
PART LOT	4		DP	883474
PART LOT	5		DP	883474
PART LOT	7		DP	883474
PART LOT	9		DP	883474

The listing boundary is formed by Merewether Street to the east, the railway line to the south, Lee Wharf Road to the north and a line crossing the site approximately 50 metres to the west of the last building.

Boundary:

All addresses

Street Address	Suburb/town	LGA	Parish	County	Type
Great Northern Railway	Newcastle	Newcastle	Newcastle	Northumberland	Primary Address
Lee Wharf Road	Newcastle	Newcastle			Alternate Address
Honeysuckle Drive	Newcastle	Newcastle			Alternate Address
Merewether Street	Newcastle	Newcastle			Alternate Address

Owner/s

Organisation Name	Owner Category	Date Ownership Updated
Honeysuckle Development Corporation	State Government	22 Oct 98

Statement of significance:

Civic Railway Workshops is one of the outstanding industrial workshop sites in the State and an excellent example of a Victorian workshop group that display continuity, excellence in design and execution and add to the townscape of Newcastle as well as play an important role in the history of the railway in the area. The whole group is of highest significance in the State. Construction of

workshops in Newcastle was brought about for two reasons: separation of the Great Northern lines from the main system from 1857 to 1889; and in recognition of the exclusive facilities and rolling stock required to handle coal traffic.

The Lee Wharf site has the potential to contain historical archaeological remains, including remains of State significance. Some may lie within the boundary of the State Heritage Register Listing. Others may lay outside that boundary. (Archaeology Significance taken from Godden Mackay Logan, May 2003)

Date significance updated: 23 Jun 04

Note: There are incomplete details for a number of items listed in NSW. The Heritage Branch intends to develop or upgrade statements of significance and other information for these items as resources become available.

Description

Designer/Maker:	John Whitton
Builder/Maker:	Dart & Parkhill (Boiler House & Machine Shop)
Construction years:	1874-1886
Physical description:	Divisional Engineer's Office - constructed in 1886 is a two-storied, rendered and painted brick building at the western end of the group. It has a corrugated-iron awning around three sides and a corrugated iron double-gabled roof with rendered brick chimneys along both ridges. Architect was John Whitton.
Physical condition and/or Archaeological potential:	<p>Boiler House and Machine Shop is directly to the east and adjoins the Divisional Engineer's Office. Built in 1874-75 (Architect John Whitton, Builder: Dart & Parkhill) it is the oldest building in the group. A single-storey brick building with corrugated gabled roof and arched windows set within a series of recessed bays along both facades. A small brick gabled wing has been added to its northern facade.</p> <p>Blacksmith's Shop and Wheel Shop - constructed between 1880 -1882, it is located on the southern side of Workshop Way. The building originally served as a locomotive blacksmith's shop (eastern end) and machine and wheel shop (western end). Brick walls and corrugated-iron roofing with a series of arched windows along the length of the northern and southern sides. Five metres in height, its double-gabled roof is connected along the centre line with a box gutter.</p> <p>The Boiler House and Machine Shop has been restored and is used by the Hunter Valley Wine Society.</p> <p>Blacksmith's Shop and Wheel Shop - the building has recently been restored and is currently tenanted.</p> <p>The site has the potential to contain evidence of the original Monier Sea Wall, the remnants of an original stone wall associated with the reclamation for Lee Wharf construction; rail sidings along Lee Wharf and spur connections to the Honeysuckle Railway Workshops/Yards.</p> <p>In terms of archaeological potential, the Honeysuckle Railway Workshops contain industrial remains including extensive footings of demolished brick buildings, underground pipes for air, water, gas, hydraulic oil and artefacts related to use and occupation of the area as a railway facility for over 100 years.</p> <p>The site has the potential to contain evidence of the original Monier Sea Wall, an innovative and supposedly rat-proof system first used at Walsh Bay, Sydney and then used here. The remnants of an original stone wall associated with reclamation for the Lee Wharf construction; rail sidings along Lee Wharf and spur connections to the Honeysuckle Railway Workshops/Yards.</p> <p>Date condition updated:29 Sep 04</p>
Modifications and dates:	Boiler House and Machine Shop - originally served as a locomotive blacksmith's shop (eastern end) and machine and wheel shop (western end). A small brick gabled wing has been added to its northern facade.
Current use:	Shopping precinct
Former use:	Railway Workshops

History

Historical notes:	<p>The site's history has been summarised according to significant events (Umwelt, August 2003):</p> <p>c.1840- purchase of 38 acres at Honeysuckle Point for the erection of a Church School by the trustees on behalf of Anglican Bishop Broughton - 'The Bishop's Settlement'</p> <p>1848 - the Dangar family established Newcastle's first cannery on the harbour foreshore, east of the Bishop's Settlement</p> <p>1848 - 1851- Bishop's settlement subdivided into 42 lots and 40 of these were occupied by tenants. Some built houses, others commercial premises, some were operated as shipbuilding yards and industrial plants.</p> <p>1853 - 1855 the Hunter River Railway Company was formed to build a line between Newcastle and Maitland. Honeysuckle Point chosen as the eastern terminus for the railway. The company was taken over by the State government due to its poor financial situation.</p> <p>1856 -1895 Railway construction from Honeysuckle to Hexham. Construction of 33 buildings on Bishop's Settlement. Workshops opened at Honeysuckle, including loco shed, carriage repair shed, carriage painting shop, machine shop and blacksmith's shop.</p> <p>1908 -1910 - construction of timber wharves along the reclaimed foreshore. The Monier Sea Wall was completed, an innovative structural material which previously had only been used at Walsh Bay in Sydney.</p> <p>1910 - 1952 More buildings were constructed, including the Carpenter's Shop, a large foundry, commencement of building at Chullora Railway Workshops (c.1920), signalling the likely scale-back of operations at the Honeysuckle workshops.</p> <p>1958 - The foundry was closed and its operations transferred to Chullora in Sydney</p> <p>1970s.- Most buildings were demolished in the Per Way Workshops, leaving only the Store, the Carpenter's and Plumbers' Shops and the Divisional Engineer's Office</p>
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Historic themes

Australian theme (abbrev)	New South Wales theme	Local theme
3. Economy-Developing local, regional and national economies	Commerce-Activities relating to buying, selling and exchanging goods and services	Developing discrete retail and commercial areas-
3. Economy-Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	Building and maintaining jetties, wharves and docks-
3. Economy-Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	Public tramline system-
3. Economy-Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	Engineering the public railway system-
8. Culture-Developing cultural institutions and ways of life	Religion-Activities associated with particular systems of faith and worship	Providing schools and education-

Assessment of significance

SHR Criteria c) [Aesthetic significance] The group of workshops is the only remaining example that demonstrates the design principles and technology applied to small railway workshop buildings in the 1870s and 1880s in Southeastern Australia.

Assessment criteria: Items are assessed against the  **State Heritage Register (SHR) Criteria** to determine the level of significance. Refer to the Listings below for the level of statutory protection.

Procedures /Exemptions

Section of act	Description	Title	Comments	Action date
57(2)	Exemption to allow work	Standard Exemptions	<p>SCHEDULE OF STANDARD EXEMPTIONS HERITAGE ACT 1977 Notice of Order Under Section 57 (2) of the Heritage Act 1977</p> <p>I, the Minister for Planning, pursuant to subsection 57(2) of the Heritage Act 1977, on the recommendation of the Heritage Council of New South Wales, do by this Order:</p> <ol style="list-style-type: none"> revoke the Schedule of Exemptions to subsection 57(1) of the Heritage Act made under subsection 57 (2) and published in the Government Gazette on 22 February 2008; and grant standard exemptions from subsection 57(1) of the Heritage Act 1977, described in the Schedule attached. <p>FRANK SARTOR Minister for Planning Sydney, 11 July 2008</p> <p>To view the schedule click on the Standard Exemptions for Works Requiring Heritage Council Approval link below.</p>	Sep 5 2008

 **Standard exemptions** for works requiring Heritage Council approval

Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
Heritage Act - State Heritage Register		00956	02 Apr 99	27	1546
Heritage Act - s.170 NSW State agency heritage register					
Local Environmental Plan			08 Aug 03	124	
National Trust of Australia register		4475			

References, internet links & images

Type	Author	Year	Title	Internet Links
Tourism		2007	Honeysuckle Precinct	View detail 
Tourism	Attraction Homepage	2007	Honeysuckle Precinct	View detail 
Written	Insite Heritage	2007	Archaeological Investigations of Former Perway Store, Honeysuckle Precinct.	
Written	Paul Rheinberger, Umwelt	2003	Research Design: Sub-surface Investigation of the Historical Archaeology of the Worth Place/Lee Wharf Precinct, Newcastle, NSW	
Written	Paul Rheinberger, Umwelt Environmental Consultants	2003	Research Design: Sub-surface Investigation of the Historical Archaeology of the Worth Place/Lee Wharf Precinct, Newcastle NSW	
Written	Susan Duyker, Andrew Sneddon and Mark Dunn, Godden Mackay Logan	2003	Lee Wharf Newcastle Heritage Impact Statement	

Note: internet links may be to web pages, documents or images.

Data source

The information for this entry comes from the following source:

Name: Heritage Office
Database number: 5044977
File number: S90/05371;S94/01096;H05/00083

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Civic Railway Workshops

Item details

Name of item: Civic Railway Workshops
Other name/s: Honeysuckle; Industrial Archaeological Site; Newcastle Mus
Type of item: Complex / Group
Group/Collection: Transport - Rail
Category: Railway
Location: Lat: -32.9259277396 Long: 151.7713519130
Primary address: Great Northern Railway, Newcastle, NSW 2300
Parish: Newcastle
County: Northumberland
Local govt. area: Newcastle

Property description

Lot/Volume Code	Lot/Volume Number	Section Number	Plan/Folio Code	Plan/Folio Number
LOT	511		DP	1030264
PART LOT	5001		DP	1049339
PART LOT	1		DP	1111305
LOT	2		DP	1111305
LOT	3		DP	1111305
LOT	4		DP	1111305
LOT	5		DP	1111305
LOT	9		DP	1128824
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			CP/SP	71834
			CP/SP	71866
PART LOT	2		DP	856783
PART LOT	12		DP	883474
PART LOT	3		DP	883474
PART LOT	4		DP	883474
PART LOT	5		DP	883474
PART LOT	7		DP	883474
PART LOT	9		DP	883474

Boundary:

The listing boundary is formed by Merewether Street to the east, the south, Lee Wharf Road to the north and a line crossing the site approx to the west of the last building.

All addresses

Street Address	Suburb/town	LGA	Parish	County	Type
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Great Northern Railway	Newcastle	Newcastle	Newcastle	Northumberland	Primary Address
Lee Wharf Road	Newcastle	Newcastle			Alternate Address
Honeysuckle Drive	Newcastle	Newcastle			Alternate Address
Merewether Street	Newcastle	Newcastle			Alternate Address

Owner/s

Organisation Name	Owner Category	Date Ownership Updated
Honeysuckle Development Corporation	State Government	22 Oct 98

Statement of significance:

Civic Railway Workshops is one of the outstanding industrial workshop sites in the State and an excellent example of a Victorian workshop group that display continuity, excellence in design and execution and add to the townscape of Newcastle as well as play an important role in the history of the railway in the area. The whole group is of highest significance in the State. Construction of workshops in Newcastle was brought about for two reasons: separation of the Great Northern lines from the main system from 1857 to 1889; and in recognition of the exclusive facilities and rolling stock required to handle coal traffic.

The Lee Wharf site has the potential to contain historical archaeological remains, including remains of State significance. Some may lie within the boundary of the State Heritage Register Listing. Others may lay outside that boundary. (Archaeology Significance taken from Godden Mackay Logan, May 2003)

Date significance updated: 23 Jun 04

Note: There are incomplete details for a number of items listed in NSW. The Heritage Branch intends to develop or upgrade statements of significance and other information for these items as resources become available.

Description

Designer/Maker: John Whitton

Builder/Maker: Dart & Parkhill (Boiler House & Machine Shop)

Construction years: 1874-1886

Physical description: Divisional Engineer's Office - constructed in 1886 is a two-storied, rendered and painted brick building at the western end of the group. It has a corrugated-iron awning around three sides and a corrugated iron double-gabled roof with rendered brick chimneys along both ridges. Architect was John Whitton.

Boiler House and Machine Shop is directly to the east and adjoins the Divisional Engineer's Office. Built in 1874-75 (Architect John Whitton, Builder: Dart & Parkhill) it is the oldest building in the group. A single-storey brick building with corrugated gabled roof and arched windows set within a series of recessed bays along both facades. A small brick gabled wing has been added to its northern facade.

Blacksmith's Shop and Wheel Shop - constructed between 1880-1882, it is located on the southern side of Workshop Way. The building originally served as a locomotive blacksmith's shop (eastern end) and machine and wheel shop (western end). Brick walls and corrugated-iron roofing with a series of arched windows along the length of the northern and southern sides. Five metres in height, its double-gabled roof is connected along the centre line with a box gutter.

Physical condition and/or Archaeological potential:	<p>The Boiler House and Machine Shop has been restored and is used by the Hunter Valley Wine Society.</p> <p>Blacksmith's Shop and Wheel Shop - the building has recently been restored and is currently tenanted.</p> <p>The site has the potential to contain evidence of the original Monier Sea Wall, the remnants of an original stone wall associated with the reclamation for Lee Wharf construction; rail sidings along Lee Wharf and spur connections to the Honeysuckle Railway Workshops/Yards.</p> <p>In terms of archaeological potential, the Honeysuckle Railway Workshops contain industrial remains including extensive footings of demolished brick buildings, underground pipes for air, water, gas, hydraulic oil and artefacts related to use and occupation of the area as a railway facility for over 100 years.</p> <p>The site has the potential to contain evidence of the original Monier Sea Wall, an innovative and supposedly rat-proof system first used at Walsh Bay, Sydney and then used here. The remnants of an original stone wall associated with reclamation for the Lee Wharf construction; rail sidings along Lee Wharf and spur connections to the Honeysuckle Railway Workshops/Yards.</p> <p>Date condition updated: 29 Sep 04</p>
Modifications and dates:	<p>Boiler House and Machine Shop - originally served as a locomotive blacksmith's shop (eastern end) and machine and wheel shop (western end). A small brick gabled wing has been added to its northern facade.</p>

Current use: Shopping precinct

Former use: Railway Workshops

History

Historical notes:	<p>The site's history has been summarised according to significant events (Umwelt, August 2003):</p> <p>c.1840- purchase of 38 acres at Honeysuckle Point for the erection of a Church School by the trustees on behalf of Anglican Bishop Broughton - 'The Bishop's Settlement'</p> <p>1848 - the Dangar family established Newcastle's first cannery on the harbour foreshore, east of the Bishop's Settlement</p> <p>1848 - 1851- Bishop's settlement subdivided into 42 lots and 40 of these were occupied by tenants. Some built houses, others commercial premises, some were operated as shipbuilding yards and industrial plants.</p> <p>1853 - 1855 the Hunter River Railway Company was formed to build a line between Newcastle and Maitland. Honeysuckle Point chosen as the eastern terminus for the railway. The company was taken over by the State government due to its poor financial situation.</p> <p>1856 -1895 Railway construction from Honeysuckle to Hexham. Construction of 33 buildings on Bishop's Settlement. Workshops opened at Honeysuckle, including loco shed, carriage repair shed, carriage painting shop, machine shop and blacksmith's shop.</p> <p>1908 -1910 - construction of timber wharves along the reclaimed foreshore. The Monier Sea Wall was completed, an innovative structural material which previously had only been used at Walsh Bay in Sydney.</p> <p>1910 - 1952 More buildings were constructed, including the Carpenter's Shop, a large foundry, commencement of building at Chullora Railway Workshops (c.1920), signalling the likely scale-back of operations at the Honeysuckle workshops.</p>
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1958 - The foundry was closed and its operations transferred to Chullora in Sydney

1970s.- Most buildings were demolished in the Per Way Workshops, leaving only the Store, the Carpenter's and Plumbers' Shops and the Divisional Engineer's Office

Historic themes

Australian theme (abbrev)	New South Wales theme	Local theme
3. Economy-Developing local, regional and national economies	Commerce-Activities relating to buying, selling and exchanging goods and services	Developing discrete retail and commercial areas-
3. Economy-Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	Building and maintaining jetties, wharves and docks-
3. Economy-Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	Public tramline system-
3. Economy-Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	Engineering the public railway system-
8. Culture-Developing cultural institutions and ways of life	Religion-Activities associated with particular systems of faith and worship	Providing schools and education-

Assessment of significance

SHR Criteria c) [Aesthetic significance] The group of workshops is the only remaining example that demonstrates the design principles and technology applied to small railway workshop buildings in the 1870s and 1880s in Southeastern Australia.

Assessment criteria: Items are assessed against the [State Heritage Register \(SHR\) Criteria](#) to determine the level of significance. Refer to the Listings below for the level of statutory protection.

Recommended management:

Recommendations

Management Category	Description	Date Updated
Recommended Management	Produce a Conservation Management Plan (CMP)	
Recommended Management	Prepare a maintenance schedule or guidelines	

Procedures /Exemptions

Section of act	Description	Title	Comments	Action date
57(2)	Exemption to allow work	Standard Exemptions	<p>SCHEDULE OF STANDARD EXEMPTIONS HERITAGE ACT 1977</p> <p>Notice of Order Under Section 57 (2) of the Heritage Act 1977</p> <p>I, the Minister for Planning, pursuant to subsection 57(2) of the Heritage Act 1977, on the recommendation of the Heritage Council of New South Wales, do by this Order:</p> <p>1. revoke the Schedule of Exemptions to subsection 57(1) of the Heritage Act made under subsection 57(2) and published</p>	Sep 5 2008

in the Government Gazette on 22 February 2008; and

2. grant standard exemptions from subsection 57(1) of the Heritage Act 1977, described in the Schedule attached.

FRANK SARTOR
Minister for Planning
Sydney, 11 July 2008

To view the schedule click on the Standard Exemptions for Works Requiring Heritage Council Approval link below.

 [Standard exemptions](#) for works requiring Heritage Council approval

Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
Heritage Act - State Heritage Register		00956	02 Apr 99	27	1546
Heritage Act - s.170 NSW State agency heritage register					
Local Environmental Plan			08 Aug 03	124	
National Trust of Australia register		4475			

References, internet links & images

Type	Author	Year	Title	Internet Links
Tourism		2007	Honeysuckle Precinct	View detail 
Tourism	Attraction Homepage	2007	Honeysuckle Precinct	View detail 
Written	Insite Heritage	2007	Archaeological Investigations of Former Perway Store, Honeysuckle Precinct.	
Written	Paul Rheinberger, Umwelt	2003	Research Design: Sub-surface Investigation of the Historical Archaeology of the Worth Place/Lee Wharf Precinct, Newcastle, NSW	
Written	Paul Rheinberger, Umwelt Environmental Consultants	2003	Research Design: Sub-surface Investigation of the Historical Archaeology of the Worth Place/Lee Wharf Precinct, Newcastle NSW	
Written	Susan Duyker, Andrew Sneddon and Mark Dunn, Godden Mackay Logan	2003	Lee Wharf Newcastle Heritage Impact Statement	

Note: internet links may be to web pages, documents or images.

Data source

The information for this entry comes from the following source:

Name: Heritage Office
5044977

Database**number:****File number:** S90/05371;S94/01096;H05/00083[Return to previous page](#)

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Tramway Substation (Former)

Item details

Name of item: Tramway Substation (Former)
Type of item: Built
Group/Collection: Transport - Rail
Category: Tramway Station/Waiting shed
Primary address: 342 Hunter Street, Newcastle, NSW 2300
Local govt. area: Newcastle

All addresses

Street Address	Suburb/town	LGA	Parish	County	Type
342 Hunter Street	Newcastle	Newcastle			Primary Address

Statement of significance:

Historically important due to tramway. Probably constructed when tramway was electrified in 1923. , Important townscape element being one of few on north side of street in this vicinity. The interiors are of significance.

Note: There are incomplete details for a number of items listed in NSW. The Heritage Branch intends to develop or upgrade statements of significance and other information for these items as resources become available.

Description

Physical description: Two storey rendered brick building,

Current use: Credit Union

Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
Local Environmental Plan		I416	15 Jun 12	64	
Heritage study					

Study details

Title	Year	Number	Author	Inspected by	Guidelines used
Newcastle Heritage Study	1990	183	Unknown		Yes

References, internet links & images

None

Note: internet links may be to web pages, documents or images.



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Data source

The information for this entry comes from the following source:

Name: Local Government

Database number: 2170183

File number: 183

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Newcastle Railway Station additional group

Item details

Name of item: Newcastle Railway Station additional group
Type of item: Built
Group/Collection: Transport - Rail
Category: Railway Platform/ Station
Location: Lat: -32.9264182486 Long: 151.7840660280
Primary address: Great Northern Railway, Newcastle, NSW 2300
Local govt. area: Newcastle

All addresses

Street Address	Suburb/town	LGA	Parish	County	Type
Great Northern Railway	Newcastle	Newcastle			Primary Address

Owner/s

Organisation Name	Owner Category	Date Ownership Updated
RailCorp	State Government	05 Nov 98

Statement of significance:

The listing boundary for the station is the station precinct bounded by Scott St, Watt St and Wharf Rd extending along the line to include the signal box area. The residence boundary is the land on which it stands in Scott St.

Date significance updated: 19 Feb 03

Note: There are incomplete details for a number of items listed in NSW. The Heritage Branch intends to develop or upgrade statements of significance and other information for these items as resources become available.

Description

Construction years: 1878-1892

Physical description: The complex is united structurally by platform verandahs, supported on elaborate brackets, and visually by the common motifs of semi-circular windows, four-panel doors with overhead fanlights, frieze under eaves and the stone quoins/pilasters which define the corners of the buildings. The overall decorative effect is of a restrained Renaissance classicism resulting from the flat detailing. The buildings on either side of the Booking Hall have raised skylights which make interesting variations in the roofline of the complex. The one to the west on the roadside however, was converted into a three storey hotel for a time and this addition has altered the original symmetry (Kerr/Connors 1975).

Modifications and dates:
 1878 - built
 1880 - extension and completion of platform 2
 1892 - addition of canopy, new parcels office and stationmasters office
 1897 - major renovations
 1923-1929 - more development
 1940s-1950s - minor changes
 1980 - last phase of works

Current use: railway station, bus interchange

Former use: railway station

History

Historical notes:

The earliest railway structures on the site were built in the 1850s to serve the original isolated Hunter valley railway. With the connection of this system to Sydney came the need for a new terminus.

Under the supervision of John Whitton, Engineer in Chief of the NSW Government Railways, the new station was erected. The original building was constructed in 1878 and first used in December of that year. It consisted of a central two storey building with single storey pavilions at either end. The ground floor housed a ticket office, waiting room, ladies room, parcels office and a stationmaster's office with administrative offices on the first floor. The pavilions on each end of the main building housed the men's lavatories and porter's accommodation. This new station was designed with a layout typical of NSW railway stations at that time (although was unique in being two-storey) and forms the basis of the station as it exists today.

By the late 19th century the popularity of rail travel led to the extension and completion of Platform 2 in 1880, with the subsequent addition of a canopy in 1892 as well as a new parcels office and stationmaster's office. The areas previously occupied by these offices were converted into a dining room and bar. In 1897 a major renovations phase resulted in the demolition of the western pavilion and construction of the two storey kitchen and staff block as well as the original single storey dining room used as a Railway Refreshment Room (RRR), the last major RRR built in the state. In addition a new single storey building was erected.

The last major phase of development occurred between 1923 and 1929. It was intended to construct a new building to improve accommodation at the station. This plan did not eventuate, but rather the replacement of the original Scott Street verandah by the current enclosed brick structure and the extension of the single dining room to three storeys. Most of the internal partitions and staircases were constructed during this time. The first floor of the 1878 building was converted to staff bedrooms, and a scullery and change rooms were added.

Further minor changes were made during the 1940s and 1950s and the most recent major works occurred in 1980. (EJE Architecture 1996)

Historic themes

Australian theme (abbrev)	New South Wales theme	Local theme
3. Economy- Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	Building the railway network-
4. Settlement- Building settlements, towns and cities	Towns, suburbs and villages-Activities associated with creating, planning and managing urban functions, landscapes and lifestyles in towns, suburbs and villages	20th Century infrastructure-
4. Settlement- Building settlements, towns and cities	Towns, suburbs and villages-Activities associated with creating, planning and managing urban functions, landscapes and lifestyles in towns, suburbs and villages	19th Century Infrastructure-
7. Governing- Governing	Government and Administration-Activities associated with the governance of local areas, regions, the State and the nation, and the administration of public programs - includes both principled and corrupt activities.	Building and operating public infrastructure-
7. Governing- Governing	Government and Administration-Activities associated with the governance of local areas, regions, the State and the nation,	Developing roles for government - building

and the administration of public programs - includes both principled and corrupt activities.	and administering rail networks-
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Procedures /Exemptions

Section of act	Description	Title	Comments	Action date
57(2)	Exemption to allow work	Standard Exemptions	<p>SCHEDULE OF STANDARD EXEMPTIONS HERITAGE ACT 1977 Notice of Order Under Section 57 (2) of the Heritage Act 1977</p> <p>I, the Minister for Planning, pursuant to subsection 57(2) of the Heritage Act 1977, on the recommendation of the Heritage Council of New South Wales, do by this Order:</p> <p>1. revoke the Schedule of Exemptions to subsection 57(1) of the Heritage Act made under subsection 57(2) and published in the Government Gazette on 22 February 2008; and</p> <p>2. grant standard exemptions from subsection 57(1) of the Heritage Act 1977, described in the Schedule attached.</p> <p>FRANK SARTOR Minister for Planning Sydney, 11 July 2008</p> <p>To view the schedule click on the Standard Exemptions for Works Requiring Heritage Council Approval link below.</p>	Sep 5 2008

 [Standard exemptions](#) for works requiring Heritage Council approval

Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
Heritage Act - State Heritage Register		01212	02 Apr 99	27	1546
Heritage Act - s.170 NSW State agency heritage register					
Local Environmental Plan			03 Jul 92		
National Trust of Australia register			22 Jul 75		
Register of the National Estate			21 Oct 80		

References, internet links & images

None

Note: internet links may be to web pages, documents or images.



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Newcastle Railway Station

Item details

Name of item: Newcastle Railway Station
Type of item: Built
Group/Collection: Transport - Rail
Category: Railway Platform/ Station
Location: Lat: -32.9266711583 Long: 151.7838452270
Primary address: Great Northern Railway, Newcastle, NSW 2300
Parish: Newcastle
County: Northumberland
Local govt. area: Newcastle

Property description

Lot/Volume Code	Lot/Volume Number	Section Number	Plan/Folio Code	Plan/Folio Number
LOT	22		DP	1009735

All addresses

Street Address	Suburb/town	LGA	Parish	County	Type
Great Northern Railway	Newcastle	Newcastle	Newcastle	Northumberland	Primary Address
Scott Street	Newcastle	Newcastle	Newcastle	Northumberland	Alternate Address

Owner/s

Organisation Name	Owner Category	Date Ownership Updated
RailCorp	State Government	22 Aug 97
RailCorp	State Government	26 Mar 99

Statement of significance:

Historically the building reflects the phases of development of the state's second most important city over almost a century and a half, symbolises the expansion of rail into regional NSW and the completion of the major link in the opening up of the north of the state to rail travel.

Aesthetically, the station is a fine example of the station type built for larger centres in NSW. Socially the buildings have a unique place in the social activity of Novocastrians over nearly a century and a half. Scientifically the site has potential to reveal information which could provide greater insight into the changing face of rail travel to the state's second major city, the changing face of its relationship with the harbour and the Honeysuckle Workshops and the importance in the development of gas lighting in Newcastle City. (EJE Architecture 1996)

Date significance updated: 30 Sep 97

Note: There are incomplete details for a number of items listed in NSW. The Heritage Branch intends to develop or upgrade statements of significance and other information for these items as resources become available.

Description

Designer/Maker: John Whitton
1878-1929

Construction years:

Physical description: Built as a symmetrical row of five brick buildings (one and two storeys). The central booking hall is topped by a lantern and features cornered pavilions. The complex is united structurally by platform verandahs, supported on elaborate brackets, and visually by the common motifs of semi-circular windows, four-panel doors with overhead fanlights, frieze under eaves and the stone quoins/pilasters which define the corners of the buildings. The overall decorative effect is of a restrained Renaissance classicism resulting from the flat detailing. The buildings on either side of the Booking Hall have raised skylights which make interesting variations in the roofline of the complex. The one to the west on the roadside however, was converted into a three storey hotel for a time and this addition has altered the original symmetry (Kerr/Connors 1975).

Physical condition and/or Archaeological potential: Physical condition is good. Archaeological potential is low.

Date condition updated: 30 Sep 97

Modifications and dates: 1878 - built
1880 - extension and completion of platform 2
1892 - addition of canopy, new parcels office and stationmasters office
1897 - major renovations
1923-1929 - more development
1940s-1950s - minor changes
1980 - last phase of works

Current use: Railway Station

Former use: Railway Station

History

Historical notes: The earliest railway structures on the site were built in the 1850s to serve the original isolated Hunter valley railway. With the connection of this system to Sydney came the need for a new terminus.

Under the supervision of John Whitton, Engineer in Chief of the NSW Government Railways, the new station was erected. The original building was constructed in 1878 and first used in December of that year. It consisted of a central two storey building with single storey pavilions at either end. The ground floor housed a ticket office, waiting room, ladies room, parcels office and a stationmaster's office with administrative offices on the first floor. The pavilions on each end of the main building housed the men's lavatories and porter's accommodation. This new station was designed with a layout typical of NSW railway stations at that time (although was unique in being two-storey) and forms the basis of the station as it exists today.

By the late 19th century the popularity of rail travel led to the extension and completion of Platform 2 in 1880, with the subsequent addition of a canopy in 1892 as well as a new parcels office and stationmaster's office. The areas previously occupied by these offices were converted into a dining room and bar. In 1897 a major renovations phase resulted in the demolition of the western pavilion and construction of the two storey kitchen and staff block as well as the original single storey dining room used as a Railway Refreshment Room (RRR), the last major RRR built in the state. In addition a new single storey building was erected.

The last major phase of development occurred between 1923 and 1929. It was intended to construct a new building to improve accommodation at the station. This plan did not eventuate, but rather the replacement of the original Scott Street verandah by the current enclosed brick structure and the extension of the single dining room to three storeys. Most of the internal partitions and staircases were constructed during this time. The first floor of the 1878

Appendix B - Traffic Impact Assessment



UrbanGrowth NSW

Newcastle Urban Transformation and Transport Project Rezoning of surplus rail corridor lands Traffic Impact Assessment

Executive summary

This report has examined the traffic implications of the proposed rezoning of the surplus rail corridor through the Newcastle CBD. This report is subject to, and must be read in conjunction with, the limitations and qualifications contained throughout the Report.

The proposed rezoning would provide for public recreation, a major attraction and several mixed use sites. Land that is the subject of the rezoning application includes the assumed potential for 400-500 residential units, and up to 5,000 m² Gross Floor Area of non-residential land use (most likely for employment-generating uses such as office and/or retail). Development on three adjacent and related sites, which do not form part of the rezoning application, has also been considered in this assessment.

Traffic impacts

Conservative estimates of expected traffic generation have been adopted, based on rates published by Roads and Maritime Services for a location in suburban Newcastle, and on the parking requirements outlined in the Newcastle Development Control Plan 2012. Daily traffic movements of almost 3,300 (2-way) have been estimated. However, with good access to the Newcastle CBD, light rail services, bus services and active transport connections, traffic generation from the proposed development sites will be substantially less than this conservative estimate.

Traffic modelling of the assumed traffic generation has been undertaken, using the traffic model developed for TfNSW to assess the traffic impacts of the Newcastle Light Rail project. The model was developed in collaboration between TfNSW, Roads and Maritime Services, Newcastle City Council and GHD. The base case models assume that the Light Rail is in place and operational.

The modelling shows that for forecast peak hour traffic conditions in 2018 and 2028 the additional traffic generated by the proposed rezoning could be accommodated within the road network, without any modifications or mitigation works beyond those already proposed by TfNSW in response to the Light Rail project.

Parking impacts

A Parking Strategy, developed by TfNSW, has considered the cumulative impacts of the Light Rail project and various known developments sites on public parking supply. A net loss of 407 spaces is expected, which would increase overall peak occupancy to 81% with current demand levels. The Strategy recommends demand management, rather than demand satisfaction, as the most appropriate approach into the future. The Parking Strategy concludes that the overall net loss of parking supply is manageable in the context of broader objectives of parking demand management and increased public transport use.

Pedestrian impacts

The proposal would maintain and enhance pedestrian connectivity between the CBD and the waterfront. The proposed development sites will enhance the public open space surrounding each site, with retail land uses activating building frontages to provide increased opportunity for movement, recreation and service transactions.

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1. Introduction

This report has been prepared to support the amendment to the Newcastle Local Environmental Plan (NLEP) 2012 that applies to the surplus rail corridor land ('rail corridor land') between Worth Place and Watt Street in Newcastle city centre (Figure 1-1).



Figure 1-1 Rezoning study area

Source: Elton Consulting

The Newcastle Urban Transformation and Transport Program ('Program') has been established to deliver on NSW Government's more than \$500 million commitment to revitalise the city centre through: the truncation of the heavy rail line at Wickham and creation of the Wickham Transport Interchange; the provision of a new light rail line from Wickham to the Beach; and the delivery of a package of urban transformation initiatives.

The transformation element of the Program aims to bring people back to the city centre by strengthening connections between the city and the waterfront, creating employment opportunities, providing more public space and amenity, and delivering better transport.

The proposed rezoning of the rail corridor land forms a part of the delivery of urban transformation initiatives, comprising a package of transport, built form and public domain improvements.

1.1 Purpose of this report

This report outlines the potential traffic impacts arising from the proposed rezoning of land in the Newcastle City Centre, as part of the Program. It details the process used to undertake the assessment, including traffic generation and distribution, traffic modelling and reporting of model outputs. Other traffic impacts, including parking, site access, and pedestrian and bicycle issues, are also assessed.

Any future development of the rezoned land will be subject to further detailed investigation and assessment through the Development Application process.

1.2 Basis of assessment

The basis of the assessment for this project is the Newcastle City Centre Microsimulation Traffic Model, which was used by Transport for New South Wales (TfNSW) to model the impacts of the Newcastle Light Rail on the road network of the Newcastle CBD. This model was developed in collaboration between TfNSW, Roads and Maritime Services, Newcastle City Council and GHD.

The development of the model is detailed in Section 5.1. The spatial coverage of the model is shown in Figure 1-2.

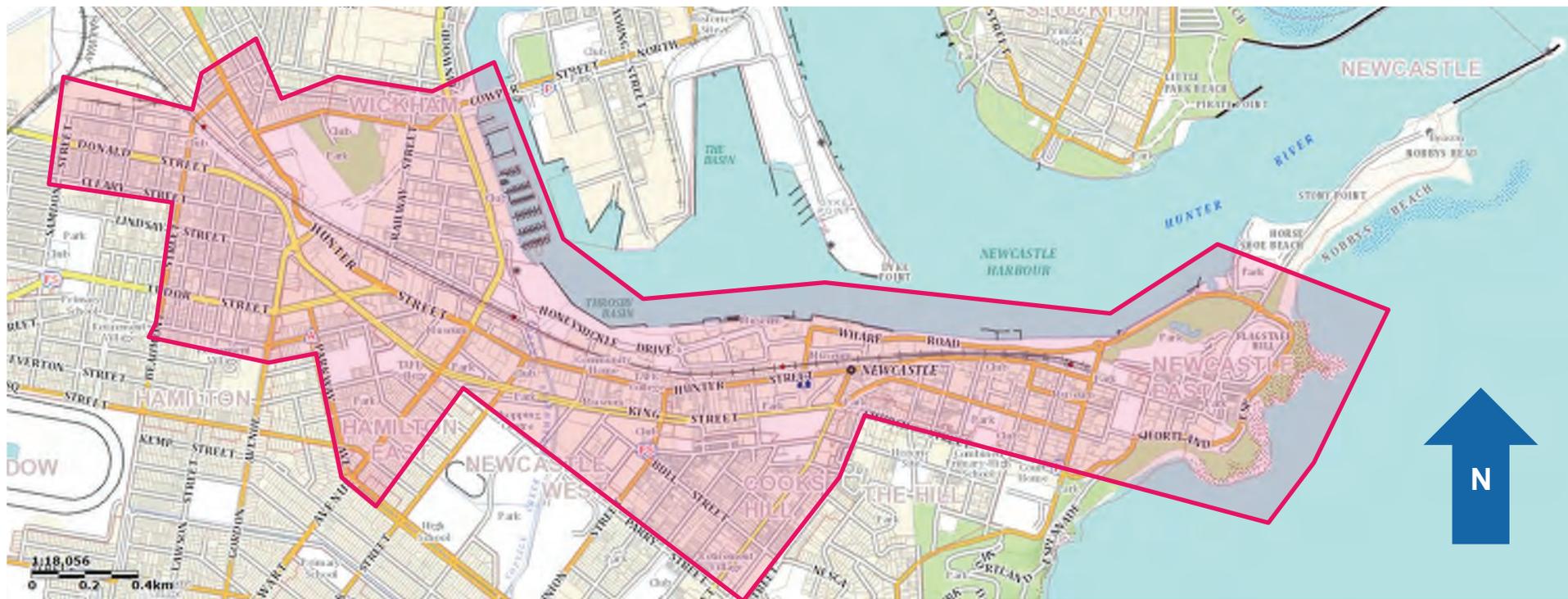


Figure 1-2 Study area for the Newcastle light rail traffic modelling

Source: <https://maps.six.nsw.gov.au/>

2. Newcastle urban transformation and transportation project

2.1 Newcastle urban transformation

The Newcastle Urban Renewal Strategy (NURS) sets out the NSW Government's long term approach and vision for the revitalisation of Newcastle city centre to the year 2036.

The NURS identifies three character precincts in Newcastle city centre (West End, Civic and East End), within which significant housing and employment opportunities, together with built form and public domain changes and improvements exist. The NURS describes these precincts as:

- East End: residential, retail, leisure and entertainment.
- Civic: the government, business and cultural hub of the city.
- West End: the proposed future business district including the western end of Honeysuckle (Cottage Creek).

UrbanGrowth NSW has been directed by NSW Government to deliver on NURS through the Program, in partnership with Transport for NSW (TfNSW), the Hunter Development Corporation (HDC) and Newcastle City Council (Council).

2.2 Proposed rezoning

UrbanGrowth NSW seeks to amend the Newcastle Local Environmental Plan 2012 (NLEP) to enable the delivery of the Program and the objectives of NURS planning outcomes.

2.2.1 Vision

The Program vision has been informed by feedback from the community, Council, government agencies and urban renewal experts.

Our vision is an activated city centre and waterfront that attracts people, new enterprises and tourism. Overtime, we see great opportunities to build on the strengths of the city centre to encourage innovative and enterprising industries to survive. In the longer term, we see an opportunity to strengthen Newcastle's position on the regional, national and international stage, with a view to stronger ties with Asia Pacific.

UrbanGrowth NSW, 2015

2.2.2 Program objectives

The Program is underpinned by five objectives which will drive successful urban transformation:

- **Bring people back to the city centre**
 - Re-imagine the city centre as an enhanced destination, supported by new employment, educational and housing opportunities and public domain, that will attract people.
- **Connect the city to its waterfront**
 - Unite the city centre and the harbour to improve the experience of being in and moving around the city.

- **Help grow new jobs in the city centre**
 - Invest in initiatives that create jobs, with a focus on innovative industries, higher education and initiatives to encourage a range of businesses to the city centre.
- **Create great places linked to new transport**
 - Integrate urban transformation with new, efficient transport to activate Hunter and Scott Streets and return them to thriving main streets.
- **Creating economically sustainable public domain and community assets**
 - Leave a positive legacy for the people of Newcastle. Ensure that new public domain and community facilities can be maintained to a high standard into the future.
- **Preserve and enhance heritage and culture**
 - Respect, maintain and enhance the unique heritage and character of Newcastle city centre through the revitalisation activities.

2.2.3 Urban transformation concept plan

Surplus rail corridor land runs through the East End and Civic city centre precincts (established by NURS). Based on this vision and the results of extensive stakeholder and community engagement, an overall urban transformation concept plan ('concept plan') has been prepared for the surplus rail corridor (rezoning sites), as well as surrounding areas. The concept plan considers and integrates with the delivery of light rail. It is also coordinated with the proposed Hunter Street Mall development to create an interactive, synergised and cohesive city centre and foreshore area.

The concept plan (as shown in Figure 2-1) includes five key 'key moves', two that relate to the Civic precinct and three of which relate to the East End.

Civic link (Civic)

This area is the civic heart of Newcastle and includes some of the region's most important civic and cultural assets, including Civic Park, City Hall, Civic Theatre and Newcastle Museum. Current investment in the area includes the law courts development and the University of Newcastle NeW Space campus – both of which are under construction.

The focus of this key 'move' is to leverage best value from new investments by creating new open space and walking and cycling connections that link Newcastle's civic buildings to the waterfront and the light rail system.

- **Civic Green.** Creating a new civic focused public space linking Hunter Street to the Newcastle Museum that will provide direct visual and physical connection from Wheeler Place to the harbour, activate light rail on Hunter Street and meet the needs of the incoming legal and student populations
- **Built form improvements.** Sensibly scaled mixed use development that forms part of the Honeysuckle development.

Darby Plaza (Civic)

Darby Street is Newcastle's premier 'eat street', offering a mix of shops, cafes, restaurants and night life. At present Darby Street ends at the intersection with Hunter Street, and this key 'move' seeks to create a new node of activity and linkage through to the harbour that complements the delivery of light rail.

- **Darby Plaza.** A new community focused public space including provision of new walking and cycling facilities from Hunter Street to the harbour.
- **Built form improvements.** Zoning of rail corridor land between Merewether Street and Argyle Street to allow for future mixed use development in conjunction with surrounding lands in the longer term.

Hunter Street revitalisation (East End)

Hunter Street features some of Newcastle's best heritage buildings and offers a mix of shops, cafes, restaurants and other local business. Hunter Street has experienced decline in recent years, and the opportunity exists to reinstate Hunter Street as the regions premier main street that complements the delivery of light rail.

- **Built form improvements.** Sensibly scaled mixed use development consistent with the adjoining land uses to create an activated street with 'two edges', celebrate heritage and create new linkages from Hunter Street to the waterfront, provide activation around light rail stops and improve walking and cycling facilities.

Entertainment precinct (East End)

This key 'move' aims to create a place where people can come to play, relax and reconnect with the harbour in a new public space stretching from Scott Street to the waterfront incorporating a new connection from Market Street to Queens Wharf. This key 'move' will assist to activate the area with a variety of activities to create an exciting place for the East End.

- **Recreational opportunities.** This precinct will incorporate the adaptive re-use of the signal box and provision of recreation opportunities for all ages and abilities. Public domain will be designed to provide a thoughtful series of character areas and experiences as one walks the length. The area will also provide opportunities for viewing and interpretation of heritage character that respect the unique qualities of place.

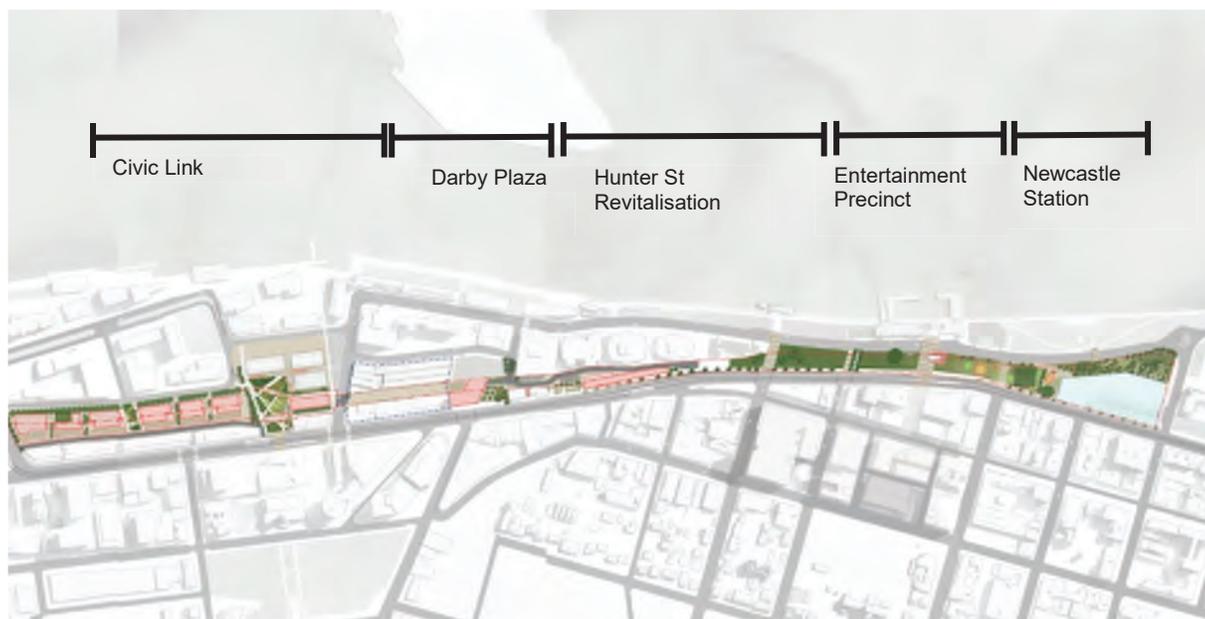
Newcastle Station (East End)

Newcastle Railway Station is proposed to be re-purposed into a hallmark destination and focal point for the new East End, accommodating enterprises and activities that attract visitors and stimulate the economy.

Refurbishment would fully respect and celebrate the heritage integrity of the Station, and could accommodate a range of different activities including community, retail, leisure and commercial uses.

2.2.4 Rezoning concept plan

The proposed rezoning of the surplus rail corridor lands is the focus of this report. Figure 2-1 defines the site rezoning area within the broader program planning outcomes.



Source: Elton Consulting

Figure 2-1 Rezoning concept plan

Amendments to the NLEP are required to deliver part of the concept plan. The proposed amendments are on surplus rail corridor land only.

Necessary amendments to the NLEP include:

- Amend the Land Use Zoning Map to introduce new B4 Mixed Use, SP3 Tourism and RE1 Public Recreation zones.
- Amend the Height of Building and Floor Space Ratio maps to facilitate development on select parcels of land.

The concept plan will also form the basis for updates to the Newcastle City Centre Development Control Plan design controls to guide development and public domain works for rezoning sites.

2.2.5 Proposed rezoning

This planning proposal seeks to rezone rail corridor land (rezoning sites) to enable the delivery of the proposed urban uses established in the concept plan. The planning proposal concept plan includes public domain, entertainment, mixed use and commercial and residential development.

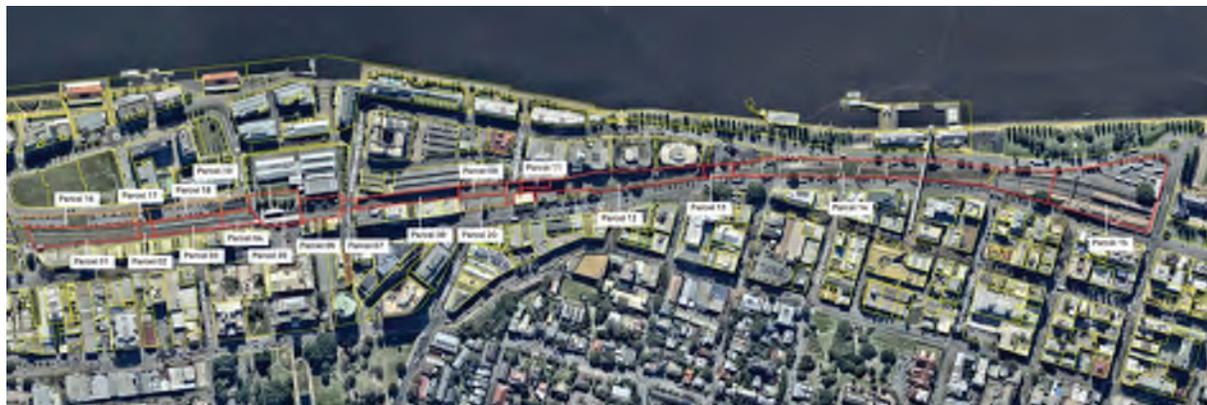
In general the proposed rezoning will provide a mix of uses with between 400-500 dwellings which will comprise a variety of styles and types, and around 5,000 m² of commercial, restaurant and other entertainment uses, as described in Table 2.1, and excluding any education or associated uses. An assumed development mix, as advised by Elton Consulting and used to assess the traffic generation for this assessment, is detailed in Section 4.2.

Proposed maximum building height and floor space ratio controls respect existing controls that apply to surrounding land.

This report has been based upon the proposed zoning under the Planning Proposal as submitted for Gateway determination, with the inclusion of Parcel 13. It is noted that this parcel

has been removed from the current Planning Proposal in accordance with the Gateway determination as issued by the NSW Department of Planning and Environment. Nevertheless, for completeness, this report has considered the potential for some development occurring within this parcel in the future (subject to outcomes of a separate Planning Proposal). The recommendations of this report discuss whether there are any specific implications arising from this additional parcel.

The location of the proposed rezoning parcels is indicated in Figure 2-2 below.



Source: Hassell

Figure 2-2 Rezoning explanatory map - Parcels

Table 2.1 Sites for rezoning – Proposed development summary

Previous Parcel Number prior to Gateway	Updated Parcel Number post Gateway	Size	Proposed Zoning	Proposed FSR	Proposed Height
Parcel 01 B4 Mixed Use 3,370m ²	Now parcel 01	3,370 m ²	B4 Mixed Use	FSR – 3:1	30m
Parcel 02 B4 Mixed Use 408 m ²	Now parcel 02	408 m ²	B4 Mixed Use	FSR – 3:1	30m
Parcel 03 B4 Mixed Use 3,146 m ²	Now parcel 03	1,869 m ²	B4 Mixed Use	FSR – 3:1	30m
	Now parcel 04	900 m ²	B4 Mixed Use	FSR – 3:1	24m
Parcel 04 RE1 Public Recreation 2,464 m ²	Now parcel 05 (and small corner of old 03 where western boundary of park realigned)	2,839 m ²	RE1 Public Recreation	N/A	N/A
Parcel 05 B4 Mixed Use 1,603 m ²	Now parcel 06	1,604 m ²	B4 Mixed Use	FSR – 3:1	18m
Parcel 06 B4 Mixed Use 295 m ²	Now parcel 07	295 m ²	B4 Mixed Use (road)	FSR – 2.5:1	30m
Parcel 07 B4 Mixed Use 2,040 m ²	Now parcel 08	2,040 m ²	B4 Mixed Use	FSR – 2.5:1	30m
Parcel 08 B4 Mixed Use 988 m ²	Now parcel 09	988 m ²	B4 Mixed Use	FSR – 4:1	24m
Parcel 09 B4 Mixed Use 467 m ²	Now parcel 10	467 m ²	RE1 Public Recreation	N/A	N/A
Parcel 10 SP2 Infrastructure 386 m ²	Now parcel 11	386 m ²	SP2 Infrastructure	N/A	N/A

Previous Parcel Number prior to Gateway	Updated Parcel Number post Gateway	Size	Proposed Zoning	Proposed FSR	Proposed Height
Parcel 11 B4 Mixed Use 4,542 m ²	Now parcel 12	4,542 m ²	B4 Mixed Use	FSR – 1.5:1	14m
Parcel 12 B4 Mixed Use 1,544 m ²	Now parcel 13 (and has been reduced in size)	659 m ²	SP2 Infrastructure	N/A	N/A
Parcel 13 RE1 Public Recreation 303 m ²	Now parcel 14 (new parcel 14 encompasses part of old parcel 12, and the whole of old parcel 13, 14 and 15)	11,151m ²	RE1 Public Recreation	N/A	N/A
Parcel 14 B4 Mixed Use 2,251 m ²					
Parcel 15 RE1 Public Recreation 7,713 m ²					
Parcel 16 SP3 Tourist 10,698 m ²	Now parcel 15	10,698m ²	SP3 Tourist	FSR – 1.5:1	10-15m

2.3 Newcastle light rail

The NSW Government is introducing light rail to Newcastle as part of a broader strategy to revitalise the Newcastle city centre. Light rail will travel from a new transport interchange at Wickham, through the Newcastle city centre to Pacific Park.

The truncation of heavy rail services at Wickham and the building of a new interchange are the first steps in delivering an urban renewal and transport solution for Newcastle.

Transport for NSW has been working closely with UrbanGrowth NSW, Newcastle City Council and Roads and Maritime Services in planning for light rail. Light rail will help improve public transport and access, reunite the city centre with its waterfront and improve the attractiveness of public spaces. The light rail route will travel east from the new transport interchange at Wickham along the existing rail corridor to Worth Place, before moving south to connect with Hunter Street and Scott Street before reaching Pacific Park, near the beach.

Initial geotechnical investigations have been completed and detailed design and environmental planning is well underway.

Transport for NSW and a combined team of Newcastle-based experts have prepared an environmental assessment for the Newcastle Light Rail project. The environmental assessment studies include heritage, visual and urban design, noise and vibration, social impacts, air quality and traffic, and access.

The Review of Environmental Factors has been approved and implementation has commenced.

2.3.1 Light rail alignment

The proposed alignment for the light rail is shown in Figure 2-3.

The six light rail stops on this alignment are located at:

- Wickham west of Stewart Avenue (terminus)
- Honeysuckle at Kuwami Place in the existing railway corridor
- Civic in Hunter Street
- Crown Street in Hunter Street
- Queens Wharf in Scott Street at Market Street
- Pacific Park on the south side of Scott Street between Pacific Street and Telford Street (terminus).

Light Rail services

The Light Rail service will operate with 10 minute headways in each direction, with travel times between Wickham and Pacific Park in the order of 12 minutes.

The Light Rail terminus is on the western side of Stewart Avenue at the new Wickham Interchange, requiring light rail vehicles to cross Stewart Avenue and access the existing rail corridor via Beresford Street. Additionally, with the new road connection at Steel Street the light rail vehicle will be required to cross Steel Street before accessing the Hunter Street dedicated Light Rail Lane at Worth Place. The Hunter Street dedicated lane continues until Market Street where the alignment becomes shared running with regular traffic until Pacific Street, where the light rail terminates at the terminus on the northern side of Pacific Park near Newcastle Beach.

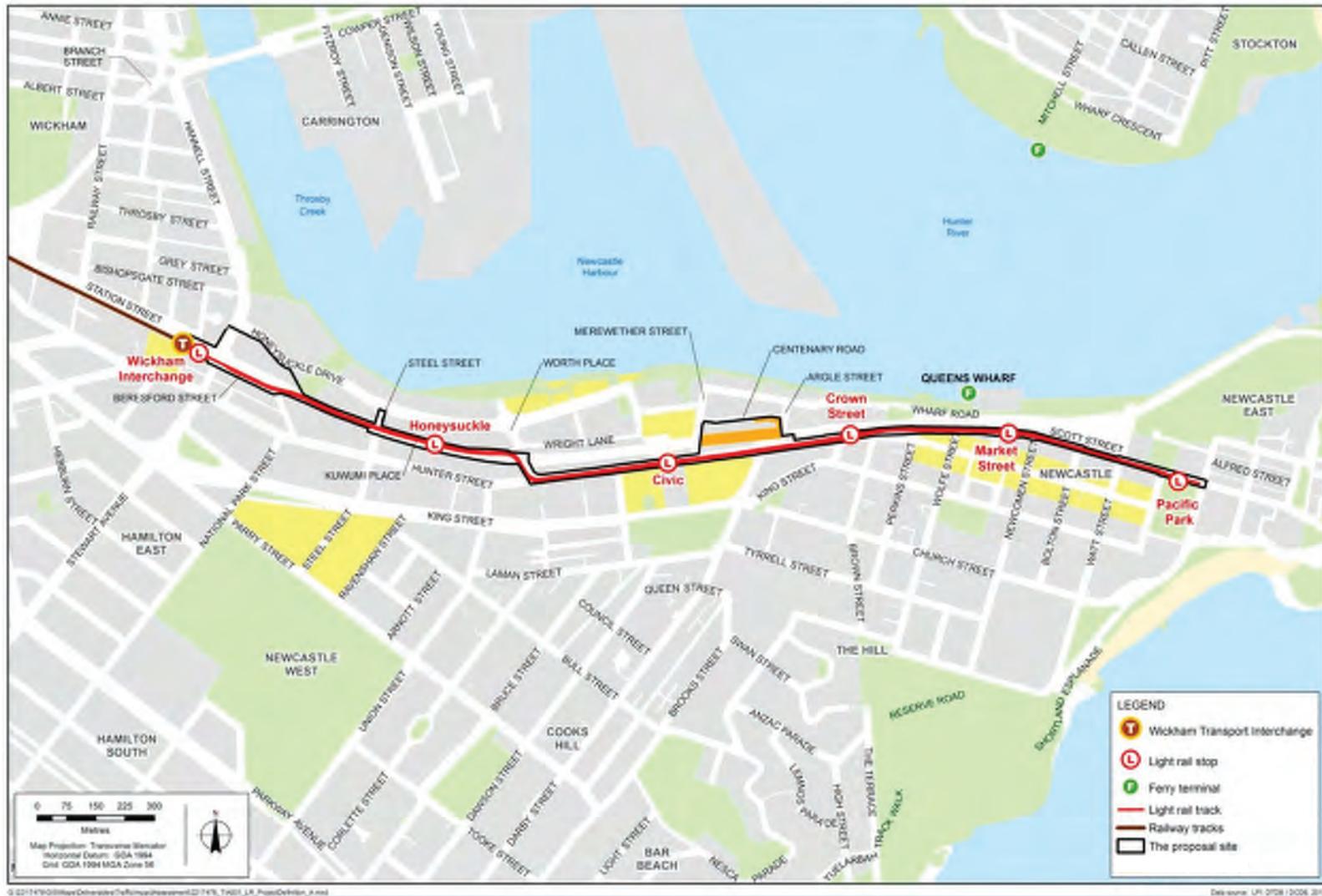


Figure 2-3 Proposed Newcastle light rail alignment and stop locations

3. Base conditions

The NUTTP rezoning proposal is being delivered in conjunction with the Newcastle Light Rail project. As such the Base, or pre-development scenario for this study is the TfNSW Light Rail Proposal. The establishment of this Base scenario, including the light rail alignment and stop locations, and changes to the road network to accommodate light rail traffic impacts, has been the subject of separate discussions between TfNSW, RMS and Newcastle City Council, and a separate REF has been approved for that project.

3.1 Road network

Key elements of the road network relevant to the rezoning proposal are described below, including planned changes associated with the Light Rail project.

Hunter Street

Hunter Street is an arterial road that runs in an east-west direction, running parallel to the former heavy rail line between Wickham and Newcastle. It is generally a two-way four lane undivided road. The former railway corridor runs parallel to Hunter Street on the road's northern side. Between Perkins Street and Bolton Street, most traffic uses the parallel Scott Street, with Hunter Street being a one-way westbound 10km/h shared zone through the 'Hunter Street Mall'. Hunter Street and Scott Street have a sign posted speed limit of 60 km/h and carries up to 1200 vehicles per hour in the peak period. Hunter Street provides access to residential and commercial properties and a local shopping and café precinct in the eastern mall area.

King and Parry Street

King Street is an arterial road that runs parallel to Hunter Street. Between Union Street and Stewart Avenue, it is a four lane divided road, with peak volumes up to 1,400 vehicles per hour. The adjacent land-uses are generally commercial however there are also a number of hotels and residential apartment blocks along its length. To the west of the intersection with Stewart Avenue, King Street becomes Parry Street. At this location Parry Street is also a four lane divided road with a third west bound clearway lane in the afternoon. Parry Street connects with Donald Street, Hamilton and ultimately becomes Newcastle Road to the western suburbs and the M1 Motorway. The posted speed limit varies between 40 km/hr, 50 km/hr and 60 km/hr, reflecting the road configuration, adjacent land use and pedestrian activity levels.

Union Street

Union Street is a collector road that runs in a north-south direction between Hunter Street and The Junction, terminating at Mitchell Street, Merewether. Union Street is a two-lane carriageway with a speed limit that varies between 40km/h and 60km/h, and carries up to 800 vehicles per hour in the peak period. On-street parking is permitted along most of its length and provides direct access to a number of residential properties and The Junction shopping precinct.

Darby Street

Darby Street is a collector road that runs in a north-south direction between Hunter Street and Parkway Avenue. Between Bull Street and Queen Street, the sign posted speed limit is 40km/h and the road is characterised by a bar and café precinct, generating high levels of pedestrian activity. Darby Street is generally a two-lane carriageway that carries approximately 1000 vehicles per hour in the peak period.

Honeysuckle Drive and Wharf Road

Honeysuckle Drive runs generally east-west between the former heavy rail corridor and Newcastle Harbour. It becomes Workshop Way before changing to Wharf Road at Merewether Street. Honeysuckle Drive services the commercial office space, residential and restaurant/bar precincts that are adjacent to Newcastle Harbour. East of Merewether Street, there are several medium density residential and commercial developments. Peak period traffic volumes are up to 700 vehicles per hour, highest at the western end of the road. A 50 km/hr speed limit applies.

3.1.1 Road network changes with light rail

The concept for the light rail included the following changes to the road network:

- New traffic signals on Stewart Avenue at Beresford Street to allow safe crossing of Stewart Avenue by the light rail vehicles.
- East/West 'light rail only' dedicated lanes in Beresford Street.
- A westbound dedicated vehicle lane in Beresford Street.
- A new road connection between Hunter Street and Honeysuckle Drive, across the existing heavy rail corridor, at Steel Street with new traffic signals at the intersection of Steel Street and the light rail track.
- A signalised intersection at the new Steel Street connection at Honeysuckle Drive. Right turns from Honeysuckle Drive onto Steel Street are to be banned.
- A new road connection between Hunter Street and Honeysuckle Drive at Worth Place. The intersection of Worth Place and Hunter Street is to be left in / left out, with traffic signals to control light rail movements across Hunter Street.
- Changes to all the intersections along Hunter Street between Worth Place and Pacific Street to control all right turns across the light rail track through green / amber / red arrows.
- New traffic signals at the Wolfe Street/Scott Street intersection with the north approach being a new connection to Wharf Road.
- A new pedestrian crossing of Scott Street at Market Street, and Hunter Street at Civic.
- New traffic signals at the Scott Street/Pacific Street intersection to facilitate northbound left turning and eastbound right turning light rail vehicles accessing the eastern terminus at Pacific Park.
- Light rail with separated running in Hunter Street between Worth Place and Market Street.
- Light rail with shared running in Hunter Street between Market Street and Wolfe Street.

The following additional changes to the road network have also been considered, as outlined in the Newcastle Light Rail Associated Road Upgrades REF (TfNSW, 2016):

- Stewart Avenue / Hannell Street intersection upgrade, including new and extended turn lanes.
- Hunter Street / Steel Street intersection upgrade, including a new right turn lane and additional lanes on Hunter Street.
- King Street / Darby Street intersection upgrade, including extended turn lanes.

3.2 Bus services

All of the existing 30 bus routes that pass through the city centre terminate at Newcastle bus interchange adjacent to Newcastle station. When light rail is implemented, the bus network within the city centre would be reconfigured. The final arrangement would depend on the newly appointed network operator. However for the purposes of the Light Rail REF most bus routes were assumed to terminate in Hunter Street at Auckland Street. This is the bus network that has been assumed for this assessment.

3.3 Pedestrians and cyclists

Pedestrians are well catered for in and around the study area, with footpaths provided adjacent to most roadways. Since the termination of the former heavy rail line, a number of at-grade pedestrian connections have been made across the corridor, including at Steel Street, Kuwami Place, Worth Place, Civic Station, Argyle Street, Perkins Street and Wolfe Street.

On-road bike lanes are provided on several streets in the study area, including parts of Honeysuckle Drive, King Street, and Auckland Street.

Shared paths are also provided along the harbour through Honeysuckle and parallel to Wharf Road towards Nobbys Head.

3.4 Parking

On-street and off-street parking is provided within the study area, both by Newcastle City Council and private operators. Car parking is generally time restricted, with pay and display systems in operation.

Several parking studies and strategies have been completed for Newcastle in recent years, including by Council and TfNSW. The most recent study, the “Newcastle Transport Program Parking Strategy” was prepared by Bitzios Consulting in late 2016 for TfNSW, in the context of managing changes in parking associated with the Light Rail project and other developments. The Draft Parking Strategy (February 2017) included the following key findings:

- Parking Supply
 - Existing parking supply in the inner Newcastle area is 11,374 spaces, including 7,623 on-street spaces and 3,751 off-street spaces.
 - Peak occupancy across all spaces was 78%, although the range in individual locations was between 53% and 98%. The majority of spare capacity occurs in fringe areas surrounding the CBD. This is consistent with recent studies by Council, which also concluded that parking demand has increased since previous surveys in 2014 (prior to the heavy rail truncation).
 - The Newcastle Light Rail and Wickham Transport Interchange projects will result in the loss of 475 on-street spaces. Some 223 on-street spaces would be gained through enabling works for the Supercar event, and refinements to the light rail and roadworks design, with a net loss of 252 on-street spaces.
 - The progressive closure of existing temporary car parks at Lee Wharf and Throsby Wharf between 2018 and 2020 to allow for development of these sites, as well as at Wrights Lane (Parcels 16-19 adjacent to this current proposal), would result in the loss of 740 off-street spaces. These changes are not related to the light rail project, associated roadworks or transport interchange construction. Parking at these locations was planned to be temporary until economic and market conditions supported new development opportunities on these sites, Expansion of the existing

Gibson Street car park, and further Supercar enabling works, would reduce the net loss of off-street spaces to 293.

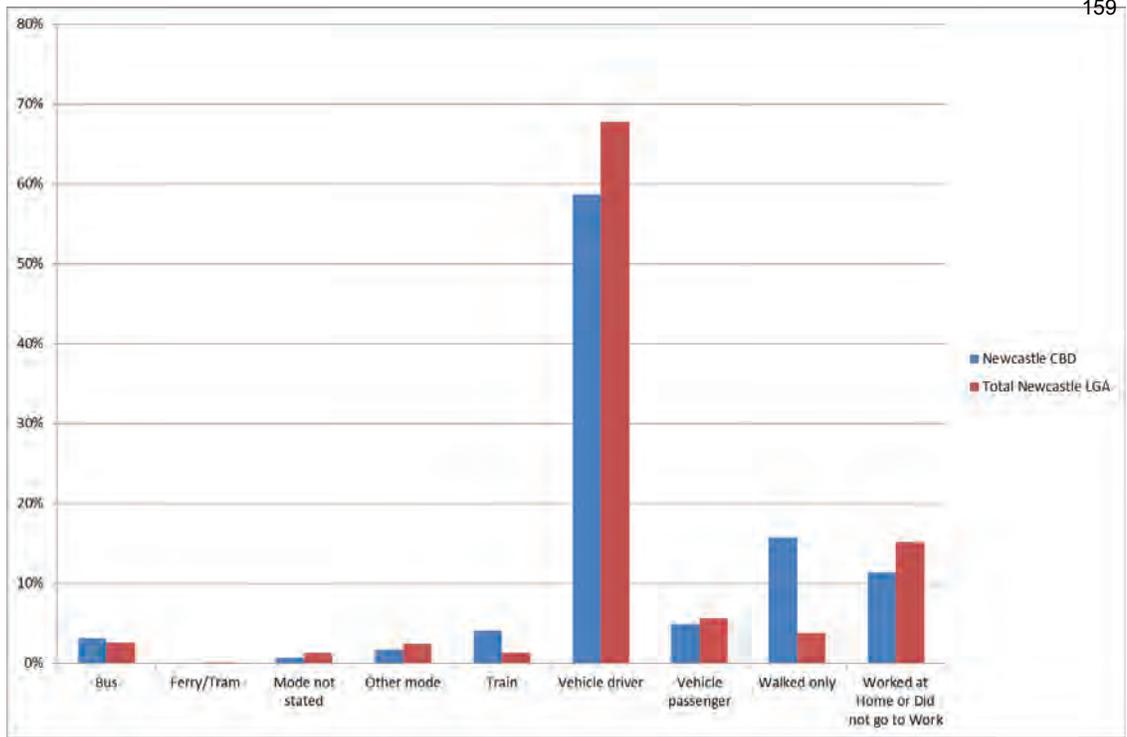
- The potential for an additional 138 spaces was identified, including new spaces in Steel Lane, Worth Place and expansion of the Boat Harbour car park.
- The net reduction in parking would be 407 spaces, increasing the peak occupancy across all spaces to 81% (approximately 2,060 spare spaces) for current 2016 demand.
- Future Demand
 - If parking demand increases at the same rate as employment in the Newcastle CBD is predicted to grow, the current public parking supply would be fully occupied by 2024.
 - The most sustainable approach to parking in Newcastle is about demand management, not demand satisfaction.
- Recommendations
 - Limiting parking supply is necessary to support increased active transport mode share and reduce congestion.
 - The strategy recommends overarching directions including:
 - Demand management, rather than demand satisfaction.
 - Progressive relocation of all-day parking outwards from the centre.
 - Prioritise short-stay, high turnover parking over long stay, low turnover parking.
 - Utilise on-street parking for short-stay use only.
 - Reduce on-street time limits to maximise efficiency and turnover.
 - Progressively increase public transport use to reduce parking demand.
 - Cap off-street parking in the eastern parts of the CBD.
 - Intercept cars before they enter the city centre, through investigation of new off-street parking, or park and ride opportunities.

3.5 Travel behaviour

The majority of trips undertaken within Newcastle are made by car. The 2011/12 Household Travel Survey from the Bureau of Transport Statistics indicates that for residents of the Newcastle Local Government Area, 57% of trips are made as a vehicle driver, with 23% as a vehicle passenger. Walking accounts for 15% of trips, while all other modes combined make up only 5% of trips.

A breakdown of similar data included in the 2015 Newcastle Transport Strategy suggests that in Inner Newcastle, the car is still dominant but other modes are more popular.

Results of the 2011 Census Journey to Work data validate this observation. Figure 3-1 compares the mode of commute trips for residents of the Newcastle CBD with the whole Newcastle Local Government Area. For the CBD vehicle driver and passenger are less dominant and public transport and walking more popular. It is noted that the truncation of the heavy rail line since this data was collected may affect mode share to public transport in the CBD area. Similarly, the introduction of light rail is also expected to influence travel behaviour.



Data Source; Australian Bureau of Statistics

Figure 3-1 Journey to work mode share, 2011

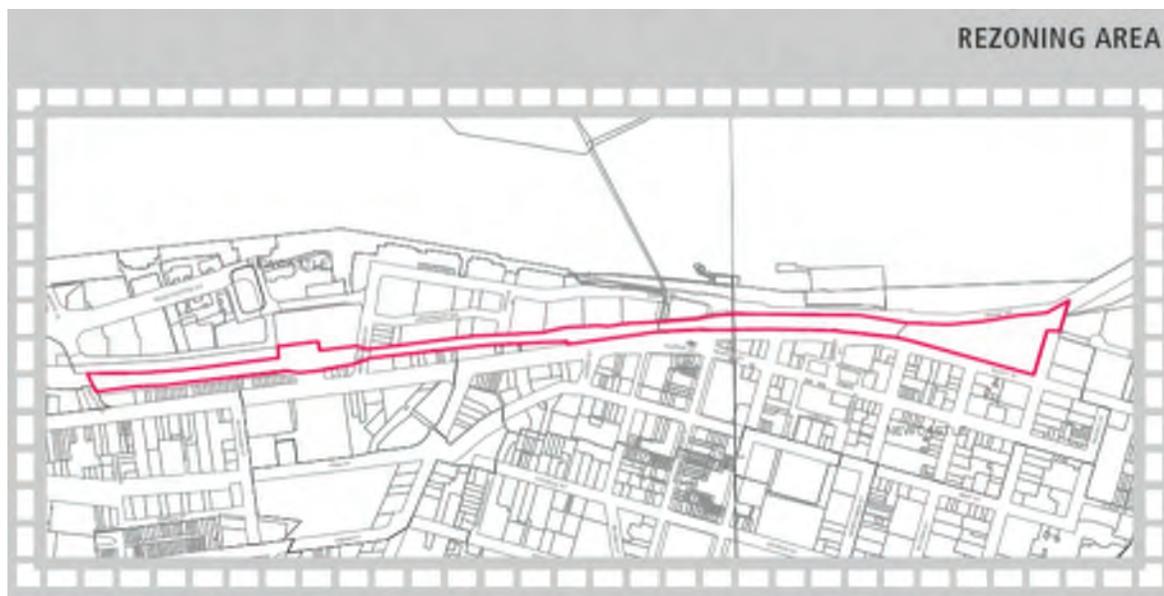
4. Rezoning proposal

4.1 Overview

The rezoning site is located in Newcastle city centre and comprises a collection of land holdings within the surplus rail corridor lands.

The site is approximately 2.1km in length generally bounded by Wharf Road to the north, Watt Street to the east, Hunter and Scott Streets to the south and Worth Street to the west. The site includes Civic and Newcastle Stations.

The site area subject to the rezoning is provided in Figure 4-1.



Source: Elton Consulting

Figure 4-1 Rezoning site area

4.2 Assumed development mix

Table 4.1 shows the assumed Gross Floor Area (GFA) that could be achieved on each land parcel. It has been assumed that 10% of GFA would be for non-residential uses, and that all sites can achieve a full GFA entitlement.

Future development applications will be subject to planning approval and public exhibition to determine final development outcomes.

Note that the subject of this rezoning proposal is only land within the existing rail corridor. However, the assessment includes three adjacent parcels where development could be influenced by this proposal. These are:

- Parcel 16, adjacent to Parcel 1 in Wright Lane
- Parcel 18, adjacent to Parcel 3 in Wright Lane
- Parcel 19, adjacent to Parcel 4 in Wright Lane
- Parcel 20, adjacent to Hunter Street opposite Darby Street

Table 4.1 Anticipated gross floor areas

Parcel	Gross Floor Area	
	Non-residential (m2)	Residential (m2)
01	1,100	9,100
03	600	5,050
04	270	2,400
06	480	4,300
08	500	4,600
09	400	3,500
12	690	6,100
Total	4,040	35,494

Source: Hassell

Within the above floor areas for non-residential land uses, it has been assumed that 50% would be used for retail purposes, and 50% for office uses, for the purpose of estimating parking requirements (see Section 4.4).

Table 4.2 shows the assumed mix of residential units on each site, with an average apartment size of 80 m² per apartment.

Table 4.2 Anticipated dwelling yield

Parcel	Number of dwellings				
	Total	Studio	1 bed	2 bed	3 bed
		20%	35%	35%	10%
Within the rail corridor					
01	114	23	40	40	11
03	63	13	22	22	6
04	30	6	11	11	3
06	54	11	19	19	5
08	57	11	20	20	6
09	44	9	16	16	4
12	77	15	27	27	8
Sub-total	440	88	154	154	44
Outside the rail corridor					
16	86	17	30	30	9
18	60	12	21	21	6
19	25	5	9	9	2
20	49	10	17	17	5
Sub-total	220	44	77	77	22
TOTAL	660	132	231	231	66

Source: Hassell

4.3 Site access

4.3.1 Vehicular access

Each site would be accessed separately, with a basement car park anticipated for each mixed-use development. A summary of access arrangements for each site is provided in Table 4.3.

Table 4.3 Vehicular access arrangements

Parcel	Vehicular access / Egress route	Minimum access widths
1 / 16	Site access onto Wright Lane to connect to Worth Place or Settlement Lane. Potential for service vehicle access via Civic Lane. No change proposed in Civic Lane (subject to Development Application).	Combined entry / exit 6.0 to 9.0 metres wide.
3 / 4 / 18 / 19	Site access onto Wright Lane to connect to Worth Place or Settlement Lane. Potential for service vehicle access via Civic Lane. No change proposed in Civic Lane (subject to Development Application).	Combined entry / exit 6.0 to 9.0 metres wide.
6	Access connects to Merewether Street (left-in / left-out only), replicating an existing laneway between Hunter Street properties and the railway station. Access to Hunter Street is via Workshop Way roundabout.	Combined entry / exit 3.0 to 5.5m wide.
8	Left-in / left-out access to Merewether Street. Access from Hunter Street via Workshop Way roundabout.	Combined entry / exit 3.0 to 5.5m wide.
9	Site access via Argyle Street.	Combined entry / exit 3.0 to 5.5m wide.
20	Site access via Argyle Street. No access off Hunter Street.	Combined entry / exit 3.0 to 5.5m wide.
12	Site access via Argyle Street. No access off Hunter Street.	Combined entry / exit 6.0 to 9.0 metres wide.
15	Entry from Watt Street, exit to Wharf Road, similar to existing bus layover area access and egress arrangements. Final configuration to be confirmed at Development Application stage.	Access geometry to be confirmed at Development Application stage.

Generally, Council has indicated a strong preference to avoid vehicle crossovers on Hunter Street and Scott Street, hence rear access has been assumed.

4.3.2 Access to public transport

Each of the rezoning sites is well situated with regard to public transport. Table 4.4 details the approximate walking distances between each of the rezoning sites and public transport services in Hunter Street.

Table 4.4 Approximate distances to public transport

Parcel	Walking distance to Proposed Light Rail stop	Walking distance to Proposed Bus Stop
1 / 16	300 m (Civic)	240 m
3 / 18	150 m (Civic)	215 m
4 / 19	110m (Civic)	180 m
6	80 m (Civic)	190 m
8	190 m (Civic)	300 m
9	220 m (Crown Street)	60 m
20	210 m (Crown Street)	50 m
12	30 m (Crown Street)	160 m
16	230 m (Market Place)	10 m

Pedestrian access around each of the development sites will be facilitated by the public open space that is proposed, that will connect to the existing footpath network.

4.4 Parking provision

The Newcastle Development Control Plan (DCP) 2012 outlines requirements for car parking for various land use categories. Requirements relevant to this proposal are shown in Table 4.5.

Table 4.5 Newcastle DCP 2012 parking requirements

Land use	Car parking	Bike parking	Motorbike parking
Residential Accommodation (Attached Dwellings, Multi Dwelling Housing, Residential Flat Buildings, Shop Top Housing)	(Refer to Note 1) Small (<75 m ² or 1 bedroom) average 0.6 spaces per dwelling Medium (75 m ² - 100m ² or 2 bedrooms) average 0.9 spaces per dwelling Large (>100 m ² or 3 bedrooms) average 1.4 spaces per dwelling 1 space for the first 3 dwellings plus 1 space for every 5 thereafter or part thereof for visitors		
Office	1 space per 50 m ² GFA	1 space per 200 m ² GFA (Class 2)	1 space per 20 car spaces
Restaurant or Café	1 space per 6.5 m ² GFA or 1 space per 3 seats	1 space per 100 m ² GFA (Class 2)	1 space per 20 car spaces
Shops	1 space per 40 m ² GLFA	1 space per 200 m ² GFA (50% Class 2, 50% Class 3)	1 space per 20 car spaces

Note 1: Requirements are for the Newcastle City Centre and Renewal Corridors

The DCP also allows for departures from the above rates to be approved in certain circumstances, including:

- Shared use opportunities arising from the different hours of demand for various uses.
- Where a Green Travel Plan has been prepared and agreed between the Council and the owner / occupier.
- Access to public transport services, and likely modes of travel.
- Whether a car sharing scheme is proposed.
- Availability and accessibility of public parking facilities, including on-street and off-street spaces.
- Considering the impacts of providing on-site parking.

For these development sites, it is expected that the requirements on the DCP for on-site parking could be satisfied. However it is possible that within the framework of the DCP future Development Applications could propose reduce on-site parking provision primarily based on:

- Locality in the city centre and thus accessible to many different land uses.
- Access to public transport (see Section 4.3.2)
- Limited on-site capacity

There is also the possibility that future Development Applications could include shared use parking, a Green Travel Plan and/or car share schemes which could reduce parking demand. The final parking requirement will be determined at the development application stage following public exhibition.

Table 4.6 shows the number of spaces required by the DCP for each land parcel, based on the anticipated dwelling yield and proposed non-residential floor area.

Table 4.6 DCP parking requirements

Parcel	Proposed zone	DCP parking requirement (no discount)
1 / 16 *	B4 Mixed Use	236
3 / 18 *	B4 Mixed Use	146
4 / 19 *	B4 Mixed Use	67
6	B4 Mixed Use	64
8	B4 Mixed Use	67
9	B4 Mixed Use	53
12	B4 Mixed Use	90
20 *	B4 Mixed Use	59
Total		781

* Includes part outside existing rail corridor

4.5 Traffic generation and distribution

Traffic generation rates for the proposed development sites has been estimated based on information provided in the NSW RMS Guide to Traffic Generating Developments 2013 Update, and agreed with Council and RMS.

The Guide does not provide rates for the Newcastle CBD specifically, and the adopted traffic generation rate is as stated in the Guide for an existing site at Charlestown. Data for this site has been adopted in preference to an average across several sites, or to an alternative site in Sydney or elsewhere. It provides a conservatively high estimate of traffic generation for the proposed rezoning, given the greater accessibility to activity centres and public transport in the CBD, relative to Charlestown.

For the purposes of estimating the traffic impacts of the proposed rezoning, the adopted traffic generation rates are conservatively based on the full number of parking spaces required by the DCP for each site. The adopted rates are shown in Table 4.7 and are higher than alternative trip generation rates determined by measures such as vehicle trips per unit or per bedroom. This allows for some flexibility in the ultimate development of each site, where a more intense land use may be proposed by the developer of each site. The current concept has an assumed mix of unit sizes, and commercial / retail floorspace, which determines the car parking requirements. This may change as more detailed planning is undertaken for each development site (post-rezoning).

It has been assumed that non-residential land uses will be largely ancillary to the residential components of the development, with parking provided for tenants only. Traffic generation has been based on the parking supply for residential and non-residential uses, as determined by the quantity and type of residential units, and the floor area for non-residential uses.

Table 4.7 Adopted traffic generation rates

	Sample site – Charlestown
AM Peak Vehicle Trips per car space	0.37
PM Peak Vehicle Trips per car space	0.40
Daily Vehicle Trips per car space	4.18

Source: NSW RMS Guide to Traffic Generating Developments 2013 Update, Appendix B3

Table 4.8, overleaf, summarises the estimated traffic generation for each of the development sites.

4.5.1 Traffic distribution

The traffic generated by each of the development sites, as detailed in Table 4.8, was distributed throughout the study area shown in Figure 1-2. The distribution was weighted by existing traffic volume, such that areas of already high traffic volumes contributed to more of the traffic generated by the development sites than those areas with currently low traffic volume.

To reduce the potentially unrealistic number of short trips that this distribution could create, only the areas south of King Street, north of the Honeysuckle Drive / Hannell Street intersection and West of Stewart Avenue were considered to be origins or destinations for the development traffic.

Table 4.8 Traffic generation summary

Parcel	Residential Units					Non-residential		DCP Parking Requirements (number)	Traffic Generation per car space per peak hour				
	Studio	1-bed	2-bed	3-bed	Total	Office GFA m ²	Retail GLFA m ²		AM - Inbound	AM – Outbound	PM - Inbound	PM – Outbound	Daily (2-way)
1 / 16	40	70	70	20	200	935	700	236	17	70	66	28	986
3 / 18	25	43	43	12	123	570	430	146	11	43	41	18	610
4 / 19	11	20	20	5	56	245	185	67	5	20	27	19	282
6	11	19	19	5	54	240	180	64	5	19	18	8	268
8	11	20	20	6	57	250	190	67	5	20	19	8	280
9	9	16	16	4	45	200	150	53	4	16	15	6	222
20	10	17	17	5	49	225	170	59	4	17	17	7	247
12	15	27	27	8	77	345	260	90	7	27	25	11	376
Total	132	231	231	66	660	3,010	2,265	782	58	231	219	94	3271

5. Assessment methodology

5.1 Microsimulation traffic model

The *Newcastle Urban Transformation and Transport Program* microsimulation model has been utilised to analyse the land rezoning proposed by UrbanGrowth NSW. The model has been developed using the Paramics microsimulation modelling package (version 6.7.2) with additional functionality provided by the CeeJazz suite of Plugins.

The modelling and assessment methodology has been agreed between UGNSW, TfNSW, Roads and Maritime Services and Newcastle City Council.

5.1.1 Previous modelling

GHD developed the NUTTP microsimulation model for Transport for NSW (TfNSW) to assess the traffic-related impacts associated with the implementation of light rail through the Newcastle City Centre. The model was based on a microsimulation traffic model for the Newcastle City Centre developed by Bitzios Consulting in 2009. An extensive update of the 2009 Newcastle City Centre microsimulation model was undertaken by GHD for existing traffic conditions (based on traffic surveys undertaken by SkyHigh in June 2014, prior to the truncation of the heavy rail line), with a further update based on traffic surveys undertaken by SkyHigh in March 2015 (post heavy rail truncation). The updated model was calibrated and validated according to the methodology set out in the Roads and Maritime *Traffic Modelling Guidelines, 2013*.

This model was developed in collaboration between TfNSW, Roads and Maritime Services and Newcastle City Council.

Project model conditions

The Newcastle Urban Transformation is assumed to coincide with the opening of the Light Rail Network in 2018. Therefore the base conditions assumed for the traffic modelling included the current proposed light rail network and estimated 2018 traffic conditions. The Light Rail network includes several changes to the road network, as outlined in Section 3.1.1.

The Implementation of the Light Rail has an impact on several key transport systems within the Newcastle area, including the bus, cyclist and pedestrian networks. These are addressed in the REF for the Light Rail project, which includes a suite of mitigation measures agreed between TfNSW, Roads and Maritime Services and Newcastle City Council. These measures have been incorporated into the modelling for this project where appropriate.

Modifications to Future Demand

Previous modelling (pre-Gateway) assumed traffic growth to 2028 as informed by the Public Transport Project Model (as supplied by TfNSW). Council and RMS have requested that for this project the traffic generation from specific developments, which were not known at the pre-Gateway stage, be included in place of previous assumptions about growth. Changes from the previous modelling are summarised in Table 5.1.

Table 5.1 Specific Development Traffic Generation Assumptions

Location	Development type	Current Estimate						Previous Estimate net change		Proposed Modelled Change	
		AM new trips	PM new trips	AM displaced trips	PM displaced trips	AM net change	PM net change	AM	PM	AM	PM
Wickham	Residential / commercial	67	73	8	8	59	64	-117	-118	62	68
Honeysuckle Drive	Residential / commercial	151	163	176	176	-25	-13	0	0	0	0
King Street (west)	Hotel / aged care facility / commercial	56	73	21	22	35	51	9	39	35	51
Courthouse	Commercial	87	94	87	94	0	0	44	41	44	41
Gibson St	Car park	256	256	0	0	256	256	40	39	256	256
Foreshore	Car Park	57	57	0	0	57	57	5	3	57	57

Note that the at the time of preparation of this assessment, few details of proposed University of Newcastle development between Wright Lane and Honeysuckle Place were available. However it has been assumed that this development would, like the other recent university development in the CBD, provide minimal car parking and make use of the high frequency bus services in the area, as well as the future light rail. Therefore the traffic generating impacts of this development are expected to be small.

5.2 Screenline volumes

For the purpose of assessing changes in traffic volumes as a result of the proposed rezoning, two screenlines have been established, each crossing Honeysuckle Drive / Wharf Road, Hunter Street and King Street. Screenline 1 is west of Union Street, while Screenline 2 is west of Darby Street. These are shown in Figure 5-1.

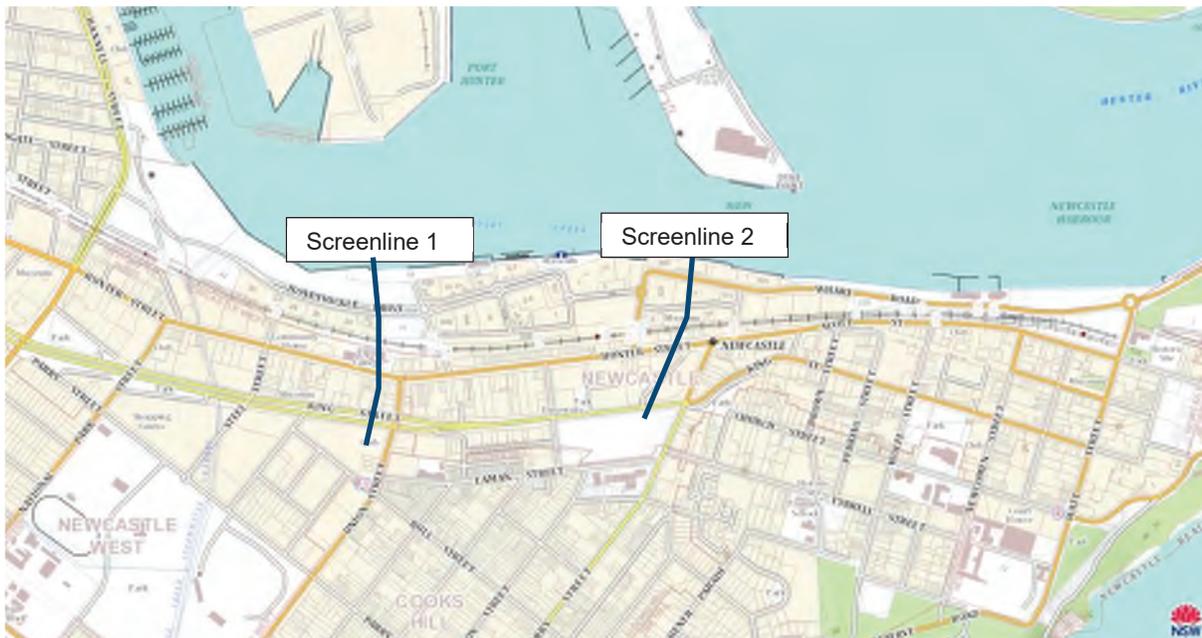


Figure 5-1 Screenline locations

Source: <https://maps.six.nsw.gov.au/>

5.3 Vehicle travel times

For the purpose of assessing changes in travel times as a result of the proposed rezoning, three routes through the network have been established, each on a major east/west route. Route 1 is vehicles travelling on Honeysuckle Drive, Route 2 is vehicles traveling on Hunter Street, while Route 3 is vehicles travelling on King Street. These are shown in Figure 5-2.



Figure 5-2 Travel route locations

Source: <https://maps.six.nsw.gov.au/>

5.4 Intersection performance

The assessment of intersection performance is based on criteria outlined in Table 5.2 as defined in the *Guide to Traffic Generating Developments* published by the NSW Roads and Maritime Services (RMS) in 2002. Intersection Levels of Service have been reported for the peak hour during the AM and PM peak periods (8 – 9 am and 5 – 6 pm).

Table 5.2 Intersection levels of service criteria for intersections

Level of service	Average delay per vehicle	Traffic signals and roundabouts	Give Way and Stop Signs
A	<14	Good operation	Good operation
B	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Operating near capacity	Near capacity and accident study required
E	57 to 70	At capacity; at signals, incidents will cause excessive delays; Roundabouts will require other control mode	At capacity, requires other control mode
F	>70	Over capacity, unstable operation	Over capacity, unstable operation

Source: *Guide to Traffic Generating Developments, NSW RTA (2002)*

Intersections have been modelled using the SIDRA Intersection modelling software. Version 6.1 allows for the analysis of intersections in a network situation, where downstream effects of any queueing are taken into account.

5.5 Network performance

To complement the intersection performance measures detailed in Table 5.2 a measure of transport efficiency has been adopted from Austroads. Austroads provides typical level of service criteria as summarised in Table 5.3 based on travel efficiency. Level of service for motor vehicles can be measured in terms of speed for an urban street in addition to the average delay for intersections.

Table 5.3 Level of Service Criteria for urban streets

Level of Service	Urban Streets Travel speed as a percentage of free flow speed
A	> 85%
B	67 – 85%
C	50 – 67%
D	40 – 50%
E	30 – 40%
F	≤ 30%

Source: *Austroads, 2013*

Travel speeds on certain routes have been extracted from the Paramics microsimulation model.

6. Impact assessment

6.1 Road network impacts

General observations of the traffic network performance in the Paramics model did not show any significant decreases in performance within the road network as a result of the proposed rezoning. The observations indicated that the proposed rezoning caused minor localised increases in traffic activity, however these increases were not significant enough to cause any major issues or require additional mitigation measures.

6.1.1 Traffic volumes

Changes in peak hour traffic volumes on each screenline (refer Section 5.2) are shown in the following tables.

Table 6.1 2018 AM peak – Screenline 1 volumes

Street	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
Honeysuckle	630	660	30	5%	410	460	50	12%
Hunter	640	650	10	2%	620	660	40	6%
King	1390	1420	30	2%	670	750	80	12%
Total	2660	2730	70	3%	1700	1870	170	10%

Table 6.2 2018 PM peak – Screenline 1 volumes

Street	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
Honeysuckle	550	610	60	11%	680	720	40	6%
Hunter	520	550	30	6%	890	890	0	0%
King	1190	1220	30	3%	1140	1150	10	1%
Total	2260	2380	120	5%	2710	2760	50	2%

Table 6.3 2028 AM peak – Screenline 1 volumes

Street	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
Honeysuckle	670	680	10	1%	420	480	60	14%
Hunter	710	770	60	8%	650	670	20	3%
King	1430	1480	50	3%	710	760	50	7%
Total	2810	2930	120	4%	1780	1910	130	7%

Table 6.4 2028 PM peak – Screenline 1 volumes

Street	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
Honeysuckle	490	630	140	29%	720	740	20	3%
Hunter	520	530	10	2%	950	940	-10	-1%
King	1190	1220	30	3%	1330	1320	-10	-1%
Total	2200	2380	180	8%	3000	3000	0	0%

Table 6.5 2018 AM peak – Screenline 2 volumes

Street	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
Honeysuckle	410	410	0	0%	60	60	0	0%
Hunter	430	490	60	14%	470	470	0	0%
King	740	780	40	5%	410	430	20	5%
Total	1580	1680	100	6%	940	960	20	2%

Table 6.6 2018 PM peak – Screenline 2 volumes

Street	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
Honeysuckle	390	370	-20	-5%	80	90	10	12%
Hunter	570	570	0	0%	610	630	20	3%
King	670	650	-20	-3%	570	570	0	0%
Total	1630	1590	-40	-2%	1260	1290	30	2%

Table 6.7 2028 AM peak – Screenline 2 volumes

Street	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
Honeysuckle	470	500	30	6%	60	60	0	0%
Hunter	450	550	100	22%	480	480	0	0%
King	760	770	10	1%	440	460	20	5%
Total	1680	1820	140	8%	980	1000	20	2%

Table 6.8 2028 PM peak – Screenline 2 volumes

Street	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
Honeysuckle	360	360	0	0%	80	80	0	0%
Hunter	560	590	30	5%	640	650	10	2%
King	680	670	-10	1%	630	640	10	2%
Total	1600	1620	20	1%	1350	1370	20	1%

These results show that changes in total traffic across each screenline are commensurate with the traffic generation from the proposed development sites. This analysis assumes that there isn't a significant volume of traffic switching from one route to another as a result of the additional traffic being added to the network.

6.1.2 Travel times

Changes in peak hour travel times on each route (refer Section 5.3) are shown in the following tables.

Table 6.9 2018 AM peak – Travel times

Route	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
1	03:15	03:17	0:02	1%	03:21	03:26	0:05	2%
2	04:54	05:02	0:08	3%	05:59	06:02	0:03	1%
3	04:53	04:52	-0:01	0%	06:51	07:51	1:00	15%

Table 6.10 2028 AM peak – Travel times

Route	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
1	03:17	03:19	0:02	1%	03:21	03:28	0:07	3%
2	04:59	05:17	0:18	6%	06:07	06:16	0:09	3%
3	06:07	05:54	-0:13	4%	07:10	08:16	1:06	15%

Table 6.11 2018 PM peak – Travel times

Route	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
1	03:29	03:30	-0:01	0%	04:06	04:35	0:29	12%
2	07:44	08:14	0:30	6%	05:57	05:58	0:01	0%
3	05:41	05:43	0:02	1%	06:10	06:13	0:03	1%

Table 6.12 2028 PM peak – Travel times

Route	Eastbound				Westbound			
	Base	With UGNSW	Change	% Change	Base	With UGNSW	Change	% Change
1	03:25	03:28	0:03	1%	04:50	04:26	-0:24	-8%
2	07:27	08:09	0:42	9%	06:08	06:27	0:19	5%
3	05:44	05:54	0:10	3%	07:44	08:34	0:50	11%

These results show that changes in travel times on each route, as a result of the increase in traffic generated by the proposed rezoning, are generally small. Analysing the efficiency of travel on these routes (see Section 5.5) the following table show that generally there is no

decrease in travel efficiency, with Levels of Service values remaining similar between base conditions and with the proposed rezoning.

Table 6.13 AM peak – Travel efficiency

Route	Eastbound				Westbound			
	2018		2028		2018		2028	
	Base	With UGNSW						
1	92% [LoS A]	91% [LoS A]	91% [LoS A]	91% [LoS A]	90% [LoS A]	89% [LoS A]	90% [LoS A]	88% [LoS A]
2	63% [LoS C]	57% [LoS C]	63% [LoS C]	56% [LoS C]	52% [LoS C]	48% [LoS D]	47% [LoS D]	47% [LoS D]
3	66% [LoS C]	66% [LoS C]	49% [LoS D]	54% [LoS C]	46% [LoS D]	40% [LoS E]	42% [LoS D]	36% [LoS E]

Table 6.14 PM peak – Travel efficiency

Route	Eastbound				Westbound			
	2018		2028		2018		2028	
	Base	With UGNSW						
1	88% [LoS A]	88% [LoS A]	89% [LoS A]	88% [LoS A]	71% [LoS B]	66% [LoS C]	64% [LoS C]	68% [LoS B]
2	39% [LoS E]	35% [LoS E]	40% [LoS E]	36% [LoS E]	52% [LoS C]	52% [LoS C]	47% [LoS D]	46% [LoS D]
3	55% [LoS C]	55% [LoS C]	55% [LoS C]	54% [LoS C]	49% [LoS D]	49% [LoS D]	40% [LoS D]	36% [LoS E]

6.1.3 Intersection operation

SIDRA Intersection software was used to review the individual intersection performance within the network. The results of the analyses are shown in the following tables.

Table 6.15 2028 AM peak – Intersection delay [level of service] (degree of saturation)

Intersection	Without UrbanGrowth Development Traffic	With UrbanGrowth Development Traffic
Stewart Avenue / Hunter Street	34 seconds [C] (0.74)	34 seconds [C] (0.74)
Stewart Avenue / King Street	50 seconds [D] (0.97)	50 seconds [D] (0.99)
Steel Street / Hunter Street	26 seconds [B] (0.43)	27 seconds [B] (0.48)
Steel Street / King Street	20 seconds [B] (0.72)	12 seconds [A] (0.78)
Union Street / Hunter Street	31 seconds [C] (0.49)	35 seconds [C] (0.53)
Union Street / King Street	50 seconds [D] (0.95)	58 seconds [E] (1.04)
Darby Street / Hunter Street	37 seconds [C] (0.89)	35 seconds [C] (0.89)
Darby Street / King Street	29 seconds [C] (0.73)	30 seconds [C] (0.74)

Table 6.16 2028 PM peak – Intersection delay [level of service] (degree of saturation)

Intersection	Without UrbanGrowth Development Traffic	With UrbanGrowth Development Traffic
Stewart Avenue / Hunter Street	31 seconds [C] (0.84)	40 seconds [C] (0.92)
Stewart Avenue / King Street	41 seconds [C] (0.93)	42 seconds [C] (0.92)
Steel Street / Hunter Street	35 seconds [C] (0.74)	35 seconds [C] (0.76)
Steel Street / King Street	28 seconds [B] (0.79)	28 seconds [B] (0.79)
Union Street / Hunter Street	26 seconds [B] (0.51)	26 seconds [B] (0.54)
Union Street / King Street	>70 seconds [F] (1.16)	>70 seconds [F] (1.20)
Darby Street / Hunter Street	34 seconds [C] (0.91)	51 seconds [D] (0.99)
Darby Street / King Street	35 seconds [C] (0.79)	37 seconds [C] (.83)

The results show that in most cases intersection performance remains generally steady with the inclusion of the proposed rezoning. It is noted that some of the variation in performance measures between scenarios is due to changes in signal phasing, and the resulting changes in relative capacity on each approach.

6.1.4 Local traffic impacts

Local areas will not be adversely impacted by the proposed rezoning, with the majority of traffic generated from the developments travelling to/from the major roads of Hunter Street, King Street, Union Street, Darby Street and Hannell Street.

6.2 Public transport

As discussed in Section 3.2, major changes to existing bus services in the CBD are proposed to coincide with the introduction of Light Rail. Changes will include bus route terminus locations, and changes to bus stops in Hunter Street.

Any changes to bus operations in the CBD are independent of, and are not required to facilitate, the proposed rezoning.

6.3 Pedestrians and cyclists

The proposed development sites will enhance the public open space surrounding each site, with retail land uses activating building frontages to provide increased opportunity for movement, recreation and service transactions.

The closure of the heavy rail service has allowed at-grade pedestrian access to be provided at several locations across the former rail corridor. Table 6.17 summarises the existing and proposed pedestrian infrastructure for movement between the Newcastle CBD, across Hunter Street / Scott Street, across the former heavy rail corridor, and across Honeysuckle Drive / Wharf Road to the waterfront.

Table 6.17 Pedestrian access between CBD and waterfront

Location	Hunter Street / Scott Street crossing	Former Rail Corridor Crossing	Honeysuckle Drive / Wharf Road crossing
Steel Street	Existing traffic signals	At-grade crossing of Light Rail	Uncontrolled crossing, pedestrian refuge in median.
Kuwami Place	No formal pedestrian provision	At-grade crossing at Light Rail stop	Uncontrolled crossing, pedestrian refuge in median.
Worth Place	New signalised intersection as part of Light Rail project	At-grade crossing of Light Rail	Uncontrolled crossing, pedestrian refuge in median.
Civic Link	New signalised crossing at Light Rail stop	Public open space	Pedestrian (zebra) crossings of Workshop Way.
Merewether Street	Existing traffic signals	Existing Merewether Street footpaths	Pedestrian (zebra) crossing of Workshop Way.
Argyle Street	Existing traffic signals at Darby Street	Public access through development site	Existing pedestrian (zebra) crossing with refuge island.
Perkins Street	TBC	Public open space	Existing pedestrian (zebra) crossing.
Wolfe Street	TBC	Public open space	Existing pedestrian (zebra) crossing to be relocated to Market Street.
Market Street	New signalised crossing at Light Rail stop	Public open space	Relocated pedestrian (zebra) crossing.
Newcomen Street	TBC	Public open space	Pedestrian (zebra) crossings at Market Street and west of Watt Street.
Watt Street	Existing traffic signals	Existing Watt Street footpaths	Existing pedestrian (zebra) crossing east of Watt Street.

Civic Link will be a particular focus of pedestrian connectivity, with pathways connecting between Hunter Street and the foreshore. A light rail stop is proposed for Hunter Street adjacent to Civic Link, with a signalised pedestrian crossing linking the footpath with the light rail platforms.

Footpaths would be maintained alongside existing roadways.

The proposed rezoning would have no impact on existing bicycle infrastructure including on-road bike lanes and off-road pathways.

6.4 Parking

The proposed rezoning will not directly impact on any existing off-street public parking. However, two existing off-street parking areas are on land adjacent to the rezoning that is also likely to be redeveloped (Parcels 16-19). There are currently 189 spaces off Wrights Lane, with a mixture of 2 hour, 4 hour and 8 hour restrictions (pay and display).

The Newcastle Transport Program Parking Strategy (see Section 3.4) considered the implications of the removal of these spaces in its assessment. The Wrights Lane parking areas represent 16% of the total number of spaces to be removed in the near future as a result of the Light Rail project and various development sites.

The Parking Strategy concludes that the overall net loss of parking supply, including the 189 spaces affected by this proposal, is manageable in the context of broader objectives of parking demand management and increased public transport use.

7. Conclusions

This study has examined the traffic implications of the proposed rezoning of the previous heavy rail corridor through the Newcastle CBD.

The proposed rezoning would provide for several mixed-use sites, as well as sites for public recreation. For the purpose of this assessment the rezoning application includes the assumed potential for some 440 residential units, and 4,040 m² Gross Floor Area of non-residential land use (most likely office and/or retail). Development on three adjacent and related sites, which do not form part of the rezoning application, has also been considered in this assessment.

Key findings of the assessment include:

- The proposed rezoning would generate up to an additional 3,300 vehicle movements (2-way) each day across all the development sites. This is expected to be an overestimate of actual generation, with a high mode share to public and active transport expected due to the locations of the development sites relative to light rail, bus services and the Newcastle CBD and Honeysuckle activity areas.
- Traffic modelling indicates that for forecast peak hour traffic conditions in 2018 and 2028, the additional traffic generated by the rezoning will not have a significant impact on the operation of the road network. The mitigation measures proposed as part of the light rail project will be sufficient to manage the changes in traffic conditions that are expected.
- On-site parking would be provided on each development site in accordance with the requirements of the Newcastle Development Control Plan 2012. The DCP allows for variation in parking provision for reasons including access to public transport, and a reduction in parking supply may be considered at the Development Application stage for each site.
- A Parking Strategy, developed by TfNSW, has considered the cumulative impacts of the Light Rail project, this current proposal and various developments sites on public parking supply. A net loss of 407 spaces is expected, which would increase overall peak occupancy to 81% with current demand levels. The Strategy recommends demand management, rather than demand satisfaction, as the most appropriate approach into the future. The Parking Strategy concludes that the overall net loss of parking supply, including the 189 spaces affected by this proposal, is manageable in the context of broader objectives of parking demand management and increased public transport use.
- The proposal would maintain and enhance pedestrian connectivity between the CBD and the waterfront. The proposed development sites will enhance the public open space surrounding each site, with retail land uses activating building frontages to provide increased opportunity for movement, recreation and service transactions.

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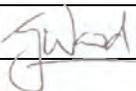
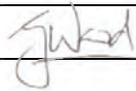
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Appendix C - Preliminary Geotech Assessment



Report on
Preliminary Geotechnical Assessment

Newcastle Urban Transformation and Transport
Program - Rezoning of Surplus Rail Corridor Land
Worth Place to Watt Street, Newcastle

Prepared for
Elton Consulting
on behalf of UrbanGrowth NSW

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The undersigned, on behalf of Douglas Partners Pty Ltd, confirm that this document and all attached drawings, logs and test results have been checked and reviewed for errors, omissions and inaccuracies.

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Executive Summary

This report presents a desktop geotechnical assessment of government rail corridor lands between Worth Place and Watt Street, Newcastle. It is understood that UrbanGrowth NSW wishes to repurpose the surplus Newcastle rail corridor lands for urban revitalisation.

The scope of work comprised collation and review of geotechnical data from Douglas Partners files and published information, review of previous mine information, development of a broad geotechnical model for the site and provision of preliminary guidance on geotechnical design considerations including material types, excavation conditions, shoring/retaining wall options, foundations, settlement and likely extent of mine workings.

On the basis of the findings of this assessment, the rail corridor site is considered to be suitable for the proposed rezoning from a geotechnical perspective.

It is expected that with suitable investigation, design and construction in accordance with accepted engineering practice, the geotechnical design constraints can be readily managed.

Prior to the detailed design of any proposed developments specific geotechnical investigation will be required appropriate to the nature of the proposed development. Investigation and design will need to consider constraints such as the presence of filling, groundwater and acid sulphate soils, excavation conditions, earthworks requirements and procedures, suitable footing options and requirements relating to potential mine subsidence, where applicable.

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Report on Preliminary Geotechnical Assessment

Newcastle Urban Transformation and Transport Program - Rezoning of Surplus Rail Corridor Land

Worth Place to Watt Street, Newcastle

1. Introduction

1.1 General

This report presents a desktop geotechnical assessment of government rail corridor lands between Worth Place and Watt Street, Newcastle. The report was prepared by Douglas Partners Pty Ltd (DP) at the request of Elton Consulting, acting on behalf of UrbanGrowth NSW.

It is understood that UrbanGrowth NSW wishes to repurpose the surplus Newcastle rail corridor lands for urban revitalisation. To achieve this objective it is necessary to rezone the corridor lands from Special Purpose Infrastructure 2 (SP2) to zones that accommodate a range of urban land uses.

The purpose of the geotechnical assessment is to collate available geotechnical data in and around the rail corridor in order to identify geotechnical constraints and opportunities for development of the land.

This report has been prepared to support the amendment to the Newcastle Local Environmental Plan (NLEP) 2012 that applies to the surplus rail corridor land ('rail corridor land') between Worth Place and Watt Street in Newcastle city centre (Figure 1).



Figure 1: Rezoning study area (Source: Hassell)

The Newcastle Urban Transformation and Transport Program ('Program') has been established to deliver on NSW Government's more than \$500m commitment to revitalise the city centre through: the truncation of the heavy rail line at Wickham and creation of the Wickham Transport Interchange; the provision of a new light rail line from Wickham to the Beach; and the delivery of a package of urban transformation initiatives.

1.2 Newcastle Urban Transformation

The Newcastle Urban Renewal Strategy (NURS) sets out the NSW Government's long term approach and vision for the revitalisation of Newcastle city centre to the year 2036.

The NURS identifies three character precincts in Newcastle city centre (West End, Civic and East End), within which significant housing and employment opportunities, together with built form and public domain changes and improvements exist. The NURS describes these precincts as:

- East End: residential, retail, leisure and entertainment;
- Civic: the government, business and cultural hub of the city;
- West End: the proposed future business district including the western end of Honeysuckle (Cottage Creek).

UrbanGrowth NSW has been directed by NSW Government to deliver on NURS through the Program, in partnership with Transport for NSW (TfNSW), the Hunter Development Corporation (HDC) and the City of Newcastle Council (Council).

1.3 Proposed Rezoning

UrbanGrowth NSW seeks to amend the Newcastle Local Environmental Plan 2012 (NLEP) to enable the delivery of the Program and the objectives of NURS planning outcomes.

Surplus rail corridor land runs through the East End and Civic city centre precincts as established by NURS. Based on this vision and the results of extensive stakeholder and community engagement, an overall urban transformation concept plan (the concept plan) has been prepared for the surplus rail corridor (rezoning sites), as well as surrounding areas.

The concept plan considers and integrates with the delivery of light rail. It is also coordinated with the proposed Hunter Street Mall development to create an interactive, synergised and cohesive city centre and foreshore area.

The concept plan (as shown in Figure 2) includes five key 'key moves', two that relates to the Civic precinct and three of which relate to the East End. Figure 2 provides a red line to define the site rezoning area within the broader program planning outcomes.

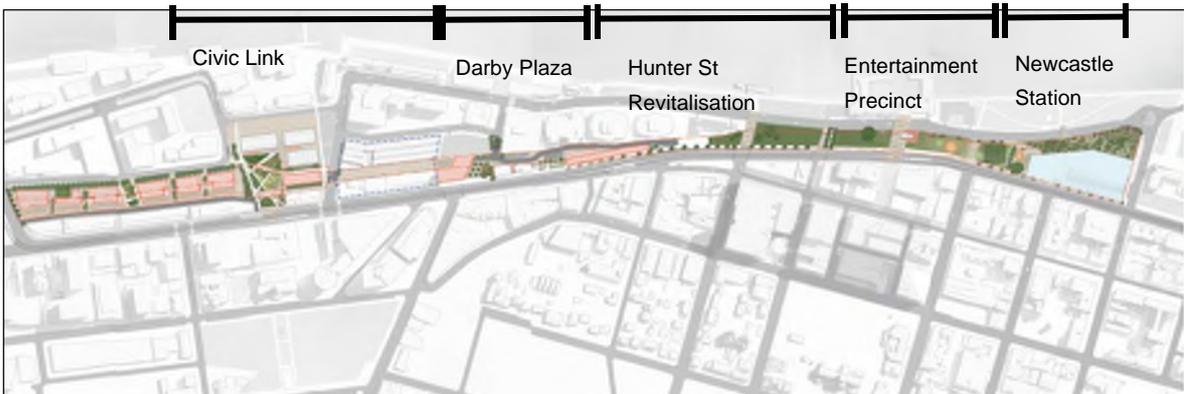


Figure 2: Rezoning concept plan (Source: Hassell)

This planning proposal seeks to rezone rail corridor land (rezoning sites) to enable the delivery of the proposed urban uses established in the concept plan.

An indication of the location of the proposed rezoning parcel is indicated in the map in Figure 3.

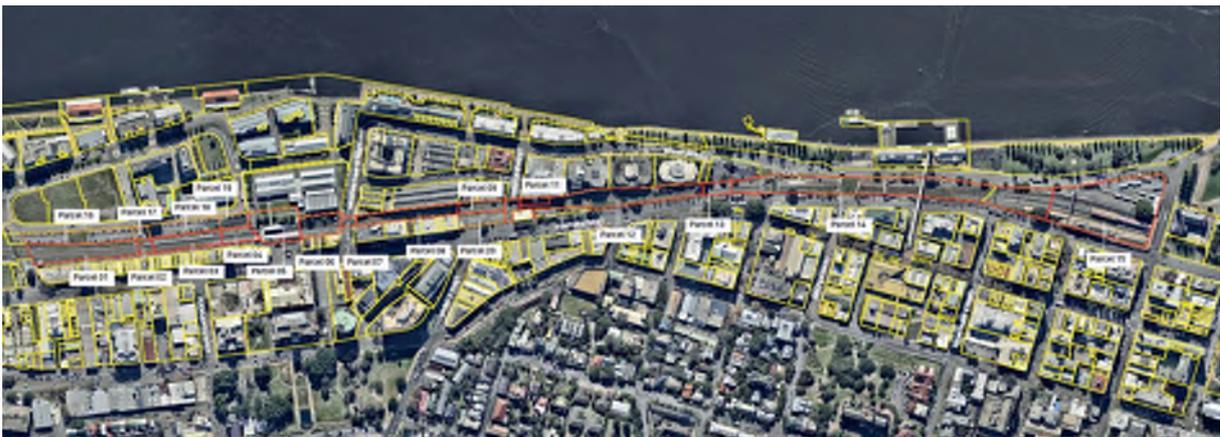


Figure 3: Rezoning explanatory map and Parcels (Source: Hassell)

This report has been based upon the proposed zoning under the Planning Proposal as submitted for Gateway determination, with the inclusion of Parcel 13. It is noted that this parcel has been removed from the current Planning Proposal in accordance with the Gateway determination as issued by the NSW Department of Planning and Environment. Nevertheless, for completeness, this report has considered the potential for some development occurring within this parcel in the future (subject to outcomes of a separate Planning Proposal). The recommendations of this report discuss whether there are any specific implications arising from this additional parcel.

The planning proposal concept plan includes public domain, entertainment, mixed use and commercial and residential development.

In general, the proposed rezoning will provide a mix of uses enabling between 400-500 dwellings which will comprise a variety of styles and types, and around 5,000m² of commercial, restaurant and other entertainment uses, as described in Table 1, and excluding any education or associated uses.

Table 1: Sites for Rezoning - Proposed Development Summary

Previous Parcel Number prior to Gateway	Updated Parcel Number post Gateway	Size	Proposed Zoning	Proposed FSR	Proposed Height
Parcel 01 B4 Mixed Use 3,370m ²	Parcel 01	3,370m ²	B4 Mixed Use	FSR – 3:1	Height - 30m
Parcel 02 B4 Mixed Use 408m ²	Parcel 02	408m ²	B4 Mixed Use	FSR – 3:1	Height - 30m
Parcel 03 B4 Mixed Use 3,146m ²	Parcel 03	1,869m ²	B4 Mixed Use	FSR – 3:1	Height - 30m
	Parcel 04	900m ²	B4 Mixed Use	FSR – 3:1	Height - 24m
Parcel 04 RE1 Public Recreation 2,464m ²	Now parcel 05 (and small corner of old 03 where western boundary of park realigned)	2,839m ²	RE1 Public Recreation	N/A	N/A
Parcel 05 B4 Mixed Use 1,603m ²	Now parcel 06	1,604m ²	B4 Mixed Use	FSR – 3:1	Height – 18m
Parcel 06 B4 Mixed Use 295m ²	Now parcel 07	295m ²	B4 Mixed Use (road)	FSR – 2.5:1	Height – 30m
Parcel 07 B4 Mixed Use 2,040m ²	Now parcel 08	2,040m ²	B4 Mixed Use	FSR – 2.5:1	Height – 30m
Parcel 08 B4 Mixed Use 988m ²	Now parcel 09	988m ²	B4 Mixed Use	FSR – 4:1	Height – 24m
Parcel 09 B4 Mixed Use 467m ²	Now parcel 10	467m ²	RE1 Public Recreation	N/A	N/A
Parcel 10 SP2 Infrastructure 386m ²	Now parcel 11	386m ²	SP2 Infrastructure	N/A	N/A
Parcel 11 B4 Mixed Use 4,542m ²	Now parcel 12	4,542m ²	B4 Mixed Use	FSR – 1.5:1	Height – 14m
Parcel 12 B4 Mixed Use 1,544m ²	Now parcel 13 (and has been reduced in size)	659m ²	SP2 Infrastructure	N/A	N/A

Previous Parcel Number prior to Gateway	Updated Parcel Number post Gateway	Size	Proposed Zoning	Proposed FSR	Proposed Height
Parcel 13 RE1 Public Recreation 303m ²	Now parcel 14 (new parcel 14 encompasses part of old parcel 12, and the whole of old parcel 13, 14 and 15)	11,151m ²	RE1 Public Recreation	N/A	N/A
Parcel 14 B4 Mixed Use 2,251m ²					
Parcel 15 RE1 Public Recreation 7,713m ²					
Parcel 16 SP3 Tourist 10,698m ²	Now parcel 15	10,698m ²	SP3 Tourist	FSR – 1.5:1	Height – 10-15m

2. Site Location and Description

2.1 Site Location

The rezoning site is located in Newcastle city centre and comprises a collection of land holdings within the surplus rail corridor lands.

The site is approximately 2.1 km in length generally bounded by Wharf Road to the north, Watt Street to the east, Hunter and Scott Streets to the south and Worth Street to the west. The site includes Civic and Newcastle Stations.

The site area subject to the rezoning is shown in Figure 4 below and at larger scale in Drawing 1 in Appendix D.



Figure 4: Rezoning Site area (Source: Elton Consulting)

2.2 Site Description

The planning proposal to rezone rail corridor land relates to five (5) land holdings identified in Table 2 below. Together these land holdings are subject to the proposed NLEP Amendment and are known as the 'rezoning sites' for the purpose of this report.

The total area of the rezoning sites is approximately 42,218m² or 4.2 hectares (ha).

Table 2: Summary of land holdings subject to proposed NLEP Amendment

Previous Legal description (Lot/DP)	Current Legal Description (Lot/DP)	Current use	Current zone (as per NLEP)	Current ownership (as at March 2017)
Part Lot 22 DP1165985	Lot 2 in DP1226145	Railway and rail associated	SP2 Infrastructure (Railway)	Hunter Development Corporation
Lot 1 DP 1192409	Remained the same	Railway and level crossing (Merewether Road)	SP2 Infrastructure (Railway)	Rail Corporation NSW
Lot 1001 DP1095836	Lot 2 in DP1226551	Railway and rail associated	SP2 Infrastructure (Railway)	Hunter Development Corporation
Lot 21 DP 1009735	Lot 4 in DP1226551	Railway and rail associated	SP2 Infrastructure (Railway)	Hunter Development Corporation
Lot 22 DP 1009735	Lot 6 in DP1226551	Railway and rail associated	SP2 Infrastructure (Railway)	Hunter Development Corporation

The site is currently zoned 'SP2 – Infrastructure (Railway)' under the Newcastle Local Environment Plan.

3. Scope of Work

The scope of work for this assessment was developed with reference to the brief prepared by Elton Consulting, including consideration of the staging of the work, consultation and meetings. The detailed scope is as follows:

- Collate and review in-house geotechnical data from Douglas Partners files;
- Collate and review published geological and geotechnical information, including geology maps, acid sulphate maps, soil landscape maps and other information available in the public domain;
- Obtain relevant mine workings maps ('record traces') from the NSW Department of Industry, department of Resources and Energy to assess the potential impact of abandoned coal mines;
- Develop a broad geotechnical model of the rail corridor site, including likely sub-surface profile, presence of groundwater, assessment of mine workings;
- Provide preliminary guidance on geotechnical design matters, including excavation conditions, likelihood of unsuitable materials, shoring/retaining wall options, shallow footings, piles, and settlement;
- Provide comment of mine workings, likely extent of influence and preliminary assessment of mine stability based on the available mine plans;
- Preliminary assessment of mine subsidence design parameters based on available data and previous experience;
- Preparation of a draft report at Pre-Gateway phase, presenting the findings and commenting on the suitability of the land for development purposes;
- Updating of report following client comments and review of the Secretary's Study Requirements (Pre and Post-Gateway).

Following submission of this report, it is understood that further involvement by DP may include:

- Input into the Development Control Plan;
- Consultation with government agencies;
- Attendance at meetings and community consultation session as required.

4. Background Geotechnical Data

4.1 Regional Geology

The regional geology along the rail corridor is shown on the 1:100,000 scale regional geology map for Newcastle (Newcastle Coalfield Regional Geology, Sheet 9321, NSW Department of Mineral Resources). Figure 5 shows the regional geology with the approximate extent of the site delineated in blue.



Figure 5: Published Regional Geology

The geology is characterised by the following components:

- The majority of the rail corridor site is underlain by Quaternary Alluvium (Qa), which comprises gravel, sand, silt and clay (yellow shading);
- A small section of the site at the eastern end, in the vicinity of Newcastle Station, is underlain by the Permian-aged Newcastle Coal Measures (Pnl), which in this area comprises the Lambton Subgroup. This formation is characterised by sandstone, siltstone, claystone, coal and tuff (purple shading).

The natural soils are typically overlain by man-made fill materials to varying depths, related to reclamation, historical industrial usage, infrastructure and commercial development.

4.2 Acid Sulphate Soils

The risk of the presence of acid sulphate soils is presented on maps prepared by the NSW Department of Land and Water Conservation. The mapped risk zones from the Newcastle risk map is shown in Figure 6.



Figure 6: Acid Sulphate Soil Risk in the Vicinity of the Project Site

The mapped acid sulphate soils are characterised as follows:

- High probability of occurrence of acid sulphate soils at depths of between 1 m and 3 m below the ground surface in the eastern portion of the site (i.e. the red shaded area);
- Low probability of occurrence of acid sulphate soils at depths greater than 3 m below the ground surface over the majority of the site (orange shaded area);
- There is a high probability of acid sulphate soil materials at depths between 1 m and 3 m below the ground surface in a narrow area of the site, from the western portion of the Civic Station platform to Worth Place, marginally encroaching the northern portion of the rail corridor in that area.

4.3 Coal Mining

4.3.1 General

The majority of the subject site lies within the Newcastle Mine Subsidence district, except the portion to the east of Market Street (part of Parcel 14 and Parcel 15) which is not within a district. The development of sites within a mine subsidence district requires Mine Subsidence Board (MSB) approval and may have a number of conditions applied. Development of sites outside of a mine subsidence district do not require formal MSB approval, however still have access the mine subsidence compensation fund and informal MSB requirements may be sought or invoked through the Consent Authority conditions.

There are three major coal seams present beneath the site, all of which have been mined at various locations and times, but not necessarily at the same location. Plans of mine workings, where they exist, are not always accurate as they were prepared before the advent of modern survey techniques. The plans indicate that most of the rail corridor itself is not directly undermined.

The three major coal seams and known history of mining relative to the subject site are discussed in the following sections. Reference may also be made to the geotechnical cross-sections (Drawings 2 and 3) which illustrate the recorded depth and thickness of these coal seams at the site.

4.3.2 Dudley Seam

The Dudley Seam is the shallowest of the three major coal seams. It has been encountered at depths ranging from about 10 m to 25 m below the ground surface.

Previously uncharted mine workings in the Dudley Seam have been 'discovered' during foundation construction on a number of sites in the Newcastle inner city area during the past two or three decades, notably in the eastern part of the CBD. The workings are thought to have been convict workings, mined prior to about the 1830s in a typically random layout, making investigation and delineation of the workings difficult.

Available information and MSB records indicate that no mining has occurred within the Dudley Seam in the vicinity of the subject site. The closest location to the subject site where DP is aware of workings within the Dudley Seam is well south of the subject site between Newcomen and Bolton Streets.

4.3.3 Yard Seam

The Yard Seam is typically encountered at depths ranging from 25 m to 40 m beneath the Newcastle inner city area. Mining typically occurred in a regular pattern.

The closest location to the subject site where DP is aware of workings in the Yard Seam is to the west of the intersection of Hunter and Darby Streets, where mine workings were encountered during geotechnical investigations for the new courthouse building. MSB has commented that the Yard Seam is unlikely to affect the rail corridor site based its recorded extent, however this should be confirmed by investigation drilling (see Section 6.5.3 and MSB letter Appendix C).

4.3.4 Borehole Seam

The Borehole seam is typically found at a depths ranging from of 70 m to 80 m in the vicinity of the site. Some areas bordering the site are underlain by abandoned coal mine workings undertaken in the Borehole Seam by AA Company, based on Record Trace (RT) 566. Abandoned coal mine workings in the Borehole Seam by Hetton Colliery and Delta Collieries are also present to the north of the site.

The mining plans indicate the following:

- Bord and pillar workings, with pillar widths in the range 7 m to 17 m, and bord widths of 3 m to 6 m. The pillars are generally rectangular with typical lengths of 10 m to 35 m, with occasional smaller and larger pillars. Pillar width to height ratios are typically in the range 1.5 to 3.5;
- The workings are shown to be primarily located south of Hunter Street, with some sections extending beneath Hunter Street to the edge of the rail corridor;
- The workings are also present to the north the rail corridor on both sides of Merewether Street;
- There are two areas where the workings cross beneath the rail corridor - one near the intersection of Darby and Hunter Streets and one between Auckland Street and Union Lane. These crossings consist of two bord and intervening pillar;
- A structure described as "AA Coy's Bridge" is shown to cross the site near Crown Street. It is likely that this was a reference to a surface feature present at the time of mining operations.

Based on information on RT566, the thickness of the Borehole Seam is commonly about 6.2 m to 6.4 m but can range from about 5 m to 7 m. Workings were typically undertaken in three stages as follows:

- First Workings – 2.6 m;
- Second Workings – 1.6 m;
- Third Workings – 1.2 m.

Therefore the total worked section ranged up to about 5.4 m in height, however in places only the first or both first and second workings were undertaken in which case the workings section would be 2.6 m or 4.2 m in height respectively. Drawing 4 (Appendix D) shows the recorded extent of mine workings in the Borehole Seam in the vicinity of the site.

4.4 Seismicity

The region is an area of low to moderate seismicity and lies within an intra-plate tectonic region. A significant earthquake occurred in December 1989 (“the Newcastle Earthquake”) which registered approximately 5.6 on the Richter scale, and was assessed to have a return period of about 500 years.

Where deep alluvial soils are present the bedrock motion can be amplified at the surface, and may become a design consideration for certain structures. See Section 6.4 for appropriate seismic factors.

4.5 In-house Geotechnical Records

DP has completed a large number of investigations in and around the subject site, dating back to 1965. The most relevant of these investigation reports are listed in Table 3 and represent the principal sources of geotechnical information for this assessment.

Table 3: Principal Sources of Geotechnical Information from DP Files

No	Date	DP Project	Report Title	Field Work (max depth)
1	Jul 1965	00865	Report on Foundation Conditions, Maritime Services Board. Scott and Newcomen Streets, Newcastle	7 bores (6.1 m)
2	Feb 1985	08768	Preliminary Geotechnical Investigation for Redevelopment of Darks Ice Works Site, Wharf Road, Newcastle	3 bores (25.3 m)
3	Jan 1986	09374	Geotechnical Investigation, Proposed Queens Wharf Development	11 bores (9.9 m)
4	Mar 1986	08768-2	Geotechnical Investigation for Stage 1, Development of Darks Ice Works Site, Wharf Road, Newcastle (NSW Government Buildings)	3 CPTs (9.0 m)
5	May 1988	11001	Geotechnical Investigation, Proposed Two Storey Building, 520 Hunter Street, Newcastle	3 CPTs (10.3 m)
6	Nov 1993	16670	Geotechnical and Mine Subsidence Investigation, Proposed Commercial Development, Civic Workshops, Honeysuckle	30 HA bores (2.0 m) 2 cored bores (87.4 m) 15 CPTs (23.9 m) 14 test pits (2.2 m)
7	Dec 1996	18606	Geotechnical Investigation and Contamination Assessment, Proposed Newcastle Station Interchange, Wharf Road and Watt Street, Newcastle	8 bores (23.5 m) 3 groundwater wells
8	Aug 1997	18711	Borehole Seam Investigation, Proposed Holiday Inn, Wharf Road, Newcastle (Crown Plaza)	1 bore (86.9 m)
9	Nov 1998	18862/1	Cone Penetration Testing, Mine Workings and Geotechnical Investigation, Honeysuckle Development Precinct	6 CPTs (38.1 m)
10	Dec 1998	18862/3	Geotechnical Investigation of Abandoned Mine Workings, Wickham and Bullock Island Coal Company, Honeysuckle	4 bores (84.3 m)
11	Sep 2000	18862C	Geotechnical Investigation of Abandoned Mine Workings, Wickham and Bullock Island Coal Company, Honeysuckle	2 bores (84.4 m)
12	Oct 2000	31145	Geotechnical Investigation, Lot 1112 (Honeysuckle House)	5 bores (78.7 m)

Table 3: Principal Sources of Geotechnical Information from DP Files (Continued)

No	Date	DP Project	Report Title	Field Work (max depth)
13	Sep 2001	31395	Geotechnical Investigation, proposed Building Development 141 Scott St Newcastle	2 HA bores (2 m)
14	Oct 2001	31159B	Geotechnical and Environmental Investigation, The Boardwalk Development, Workshop Way, Newcastle	3 bores (4.8 m) 12 test pits (4.8 m) 5 CPTs (15.6 m)
15	May 2002	31395A	Geotechnical Investigation, Proposed Building Development 141 Scott St Newcastle	4 bores (4.9 m)
16	Jun 2003	31752	Geotechnical Investigation, Proposed Carrier Main, Merewether Street, Newcastle	6 bores (3.5 m)
17	Feb 2004	31854	Geotechnical Investigation, Mine Subsidence Risk, Proposed Commercial and Residential Building, 200 Hunter Street	3 bores (83.5 m)
18	Sep 2004	39055	Preliminary Acid Sulphate Soil Assessment, 196 Hunter Street Newcastle	2 bores (12 m)
19	Oct 2004	39058	Geotechnical Investigation and Waste Classification. Proposed Polyclinic, 670 Hunter Street, Newcastle	7 bores (4.5 m) 6 CPTs (30.48 m) 5 test pits (3.0 m)
20	Jul 2005	39058A	Geotechnical Investigation, Proposed Polyclinic, 670 Hunter Street, Newcastle	1 CPT (30.5 m)
21	Jun 2006	39543	Geotechnical Investigation, Proposed Mixed Residential/Commercial Development, 123-127 Scott Street Newcastle (8 storey)	2 bores (14.4 m)
22	Mar 2008	39831.01	Geotechnical Investigation, Proposed Development, Lot 230 Honeysuckle Drive (not completed)	6 CPTs (23.4 m)
23	Dec 2009	49314	Geotechnical Investigation, Proposed Grand Central Apartments, 111 Scott Street Newcastle	2 bores (20.6 m)
24	Nov 2011	49799	Mine Subsidence Investigation, Proposed Courthouse Development	10 bores (87.1 m)
25	Feb 2014	81306	Detailed Site Investigation, Former Lynchs Prawns site, 292 Wharf Road, Newcastle	3 bores (5 m)
26	Sep 2015	81716	Targeted Detailed Site Investigation (Contamination), Newcastle Urban Transformation and Transport Program	36 bores (21.3 m) 29 test pits (2.4 m)

5. Geotechnical Model

5.1 Stratification

A generalised geotechnical model of subsurface conditions has been compiled based on the results of previous tests and broad geological processes.

The subsurface profile may be generalised as a sequence of geotechnical units as described in Table 4. It is noted that the descriptions are simplified to aid interpretation: at a given location a soil unit may include variations of the predominant soil type and sub-layers of other soil types. Not all units will necessarily be present at all locations.

Table 4: Geotechnical Soil Units (Vertical Profile)

Unit	Primary Name	Description
1	FILL	Materials placed or disturbed by man; typically includes sand, gravel, cobbles, slag and ash. Variable strength and consistency.
2	SAND	Includes sand, silty sand, clayey sand and gravelly sand, naturally deposited under fluvial conditions; typically loose to medium dense, grading to dense at some locations.
3	CLAY	Includes clay, silty clay and sandy clay; typically stiff to hard consistency. Mainly of residual origin but some upper layers may be of estuarine/fluvial origin.
4	BEDROCK	Includes sandstone, siltstone, mudstone, claystone, laminate and coal; typically very low to low strength in the upper weathered profile, increasing to medium to high strength at depth.
4.1	DUDLEY SEAM	Coal seam (bedrock sub-unit) typically 1 m to 1.5 m thick.
4.2	YARD SEAM	Coal seam (bedrock sub-unit) typically 1 m to 1.5 m thick.
4.3	BOREHOLE SEAM	Coal seam (bedrock sub-unit) typically 5 m to 7 m thick.

The typical depths encountered for each of the units in Table 4 are provided in Table 5 which summarises lateral variations between geotechnical zones.

5.2 Groundwater

Groundwater is typically encountered at depths ranging from 1 m to 2.5 m below ground level. Due to the proximity of the site to Newcastle Harbour, a subdued tidal variation would be expected, such as recorded at the Newcastle Interchange site (see Figure 7).

It is noted that groundwater levels are transient and will also vary with climatic conditions, surface drainage features and soil permeability. During or following periods of intense or prolonged rainfall, groundwater levels could rise close to the ground surface level.

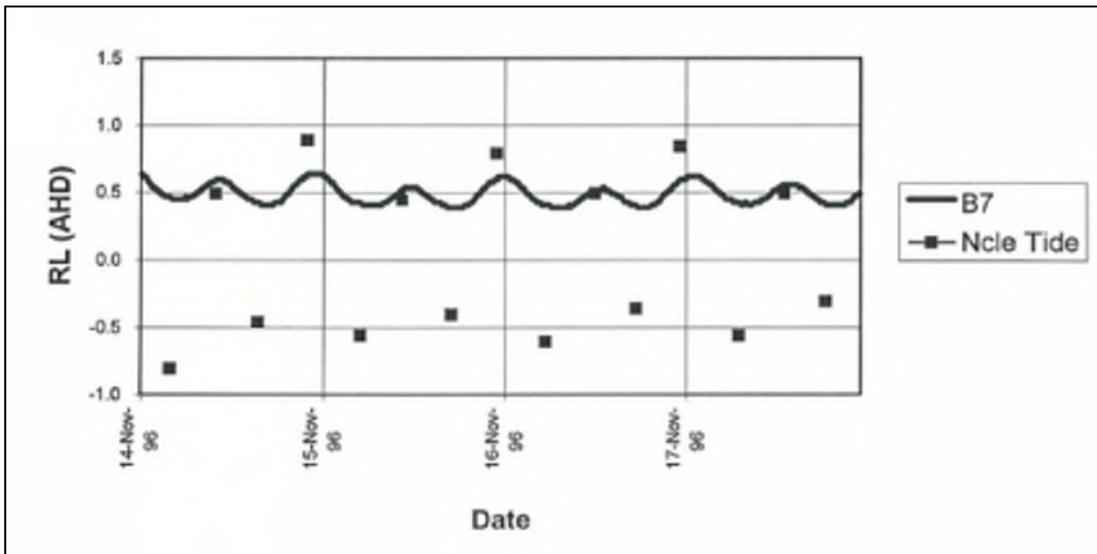


Figure 7: Tidal Groundwater Level Variations at Newcastle Interchange (Project 18606)

5.3 Lateral Variations

Drawings 2 and 3 show a geotechnical cross-section through the site, from west to east, based on the geotechnical data extracted from the previous investigation reports. The stratification has been simplified in terms of the Units listed in Table 4 and should be regarded as indicative. It should be noted that the layer boundaries have been interpolated between test locations for illustration purposes and may not represent actual boundaries.

Further, a number of test locations have been projected onto the section from outside the subject site, hence may not reflect true elevations of layer boundaries at the section location. Lateral variations in the soil profile from north to south should also be anticipated.

As indicated by the cross-section, the sub-surface profile also varies laterally from one end of the site to the other end. Notably the depth to bedrock generally increases to the west, with the shallowest depth to rock recorded in the vicinity of Queens Wharf.

To capture the lateral variation in subsurface conditions, the site has been divided into geotechnical zones as shown on Drawing 1. A summary of the generalised geotechnical model for each zone is presented in Table 5, which also notes the corresponding Parcels of land.

Table 5: Geotechnical Zones (Lateral Variation of Sub-surface Conditions)

Zone	Parcels	General Subsurface Profile
A	1, 2	<ul style="list-style-type: none"> • Unit 1: uncontrolled fill to about 3 m/4 m depth; • Unit 2: loose to medium dense sands to about 9 m/13 m depth; • Unit 3: stiff to very stiff clays to about 20 m/28 m depth; • Unit 4: sandstone or siltstone from about 20 m/28 m depth, initially very low strength; coal (Yard Seam) at 30 m/35 m depth.
B	3, 4, 5, 6, 7, Part 8	<ul style="list-style-type: none"> • Unit 1: uncontrolled fill to about 1 m/3 m depth; • Unit 2: loose to medium dense sands to about 6 m/13 m depth; • Unit 3: stiff to very stiff clays to about 8 m/22 m depth; • Unit 4: sandstone, siltstone or laminate from about 8m/22 m depth, initially very low strength; coal (Dudley Seam) at 20 m/22 m depth.
C	Part 8, 9, 10, 11, 12, 13, Part 14	<ul style="list-style-type: none"> • Unit 1: uncontrolled fill to about 0.8m/3m depth; • Unit 2: loose to medium dense sands to about 6 m/14 m depth; • Unit 3: stiff to very stiff clays to about 7 m/14 m depth - not present at all locations; • Unit 4: sandstone, claystone, mudstone or laminite, from 6 m/14 m depth, initially very low strength; coal (Yard Seam) at 19 m/26 m depth.
D	Part 14, Part 15	<ul style="list-style-type: none"> • Unit 1: uncontrolled fill to about 0.5 m/4 m depth; • Unit 2: loose to medium dense sands to about 3 m/5 m depth - not present at all locations; • Unit 3: clays generally not present; • Unit 4: sandstone or siltstone from 3 m/5 m depth, initially very low strength; coal (Dudley Seam) at 9 m/15 m depth.
E	Part 15	<ul style="list-style-type: none"> • Unit 1: uncontrolled fill to about 4 m/8 m depth; • Unit 2: loose to medium dense sands to about 5 m/20 m depth; • Unit 3: upper layer of firm silty or sandy clay to 10 m/12 m depth; lower layer of stiff to very stiff clays to about 20 m/22 m depth (separated by Unit 2) - only present in north-eastern part of site (interchange area); • Unit 4: sandstone or siltstone, initially very low strength from 4 m/22 m depth; coal (Yard Seam) likely present at about 25 m/30 m depth but not confirmed.

Notes to Table 5:

Depths are approximate, as measured from the ground surface at the time of investigation.

6. Comments

6.1 Excavation Conditions and Support

Excavation through fill materials, natural soils (sands and clays) and the upper zones of weathered rock (if encountered) is expected to be relatively straightforward using conventional excavation equipment such as backhoes and excavators. The fill is predominantly sandy in nature, however, in some areas the fill may include slag, cobbles or other larger inclusions that could impede excavation, however, their occurrence is not expected to be widespread. Zone E has the deepest areas of fill (within the former Newcastle Station site) thought to have resulted from an infilled/reclaimed channel.

Due to the presence of a sandy upper soil profile and relatively shallow groundwater across much of the site, excavations will need to be either battered (where there is sufficient space) or fully supported by shoring / retaining systems - these may be temporary or permanent support measures depending on the application. The type of support will be dependent on proximity to nearby structures and the duration for which the excavation will remain open.

It is recommended that all excavations adjacent to existing buildings and services should be fully supported in order to minimise lateral deflections. Cantilever type walls are not recommended for such situations as deflections typically associated with such walls can lead to damage of adjacent structures. This includes un-propped sheet pile walls.

If permanent retaining systems are required for a basement structure or similar, suitable methods would include contiguous piles, secant piles or soldier piles with shotcrete panels. These are laterally supported during excavation using soil nails or anchors extending below the adjacent properties or buildings, or props which are internal to the excavation. Permanent support after construction is usually provided by the floor slabs acting as struts.

Design parameters will depend on specific soil conditions at individual sites. The type of proposed development and extent of existing data will determine the scope of additional specific site investigation required for the detailed design of support measures.

Preliminary assessment of batter slopes may be based on the values provided in Table 6, however, these should be confirmed by site-specific investigation for individual developments.

Table 6: Preliminary Temporary and Permanent Batter Slopes

Stratum	Short Term (Temporary)⁽¹⁾	Long Term (Permanent)⁽²⁾
Fill - uncompacted (assumed existing state)	2H:1V	2.5H:1V
Fill - compacted	1.5H:1V	2H:1V
Sand - above the water table	2H:1V	2.5H:1V
Clay - above the water table (stiff or better)	1.5H:1V	2H:1V
Rock – very low strength ⁽³⁾ (Class V sandstone / Class IV siltstone)	1H:1V	1.5H:1V

Notes to Table 6:

1. Above values are for a maximum vertical depth/height of 3 m. Greater depths to be specifically assessed, and may require additional measures for stability and drainage.
2. Long term batter slopes forming part of a development are generally expected to be of limited depth/height.
3. Excavations deep enough to penetrate rock are generally not anticipated; batters in rock are dependent on jointing and would require confirmation at time of excavation.

Excavations in soil below the water table are expected to require shoring or retention to maintain stability.

6.2 Preliminary Footing Options for Development

6.2.1 Shallow Footings

Where the proposed developments include multi storey structures, high column loads are anticipated and it is expected that shallow footings would not be suitable for the support of structural loads over most of the site due to the presence of filling, loose to medium dense sand and some clay to depths of approximately 3 m to greater than 20 m.

Shallow footings could be considered for lightly loaded structures; however the effect of potential settlement due to weak alluvial soils would need to be considered.

Table 7 shows preliminary design parameters for shallow pad or strip footings founded on each of the main geotechnical units.

Table 7: Preliminary Design Parameters for Pad or Strip Footings

Stratum	Ultimate Bearing Pressure (kPa)	Serviceability Bearing Pressure (Working Loads) (kPa)
Fill - uncompacted (assumed existing state)	NA	NA
Fill – cohesive - compacted	600	120
Fill – granular - compacted	1000	200
Sand - loose to medium dense	750	150
Clay – stiff to very stiff	1000	200
Clay – hard / extremely weathered rock	2000	400
Rock – very low strength (Class V sandstone / Class IV siltstone)	3000	1000

Notes to Table 7:

1. The design bearing pressures should be adjusted to account for weaker layers below the bearing layer if present.
2. Ultimate Values occur at large settlements (> 5% of minimum footing dimension).
3. Serviceability / Max Allowable end bearing to cause settlement of < 1% of minimum footing dimension.

Raft slabs apply a spread load to the foundation, typically with concentrated pressures on edge beams and internal beams. The relative distribution of foundation pressure depends primarily on the slab stiffness. Raft slabs generate a deeper stress field hence settlement needs to be considered, particularly if any soft or weak layers are present in the subsurface profile. Applied pressure and settlement are linked via the vertical modulus of subgrade reaction (k_v).

Edge and internal footing beams should not apply a local bearing pressure exceeding the values in Table 7 for pad and strip footings. The overall allowable bearing pressure for the slab will be governed by tolerable settlement. Typically a “spread” applied pressure in the order of 20 kPa to 30 kPa would be feasible where founded over good ground conditions.

In general, footings should not be founded in uncontrolled fill. In some cases it may be possible to found lightly-loaded structures that are not sensitive to settlement in fill, subject to prior geotechnical investigation and analysis.

The footing design values for individual structures should be refined when the location, type of structure, loads and dimensions are known. This would require specific investigation at the structure’s location to determine the soil profile for settlement and bearing capacity analysis.

During construction the design bearing pressures should be confirmed by geotechnical inspection and testing.

6.2.2 Deep Footings

Deep foundation systems would be appropriate for the support of major structural loads and where the depth of uncontrolled fill or excessive settlement precludes the use of shallow footings. Piles could potentially be founded either in medium dense to dense sand, stiff or better residual clay, or bedrock. The suitability of founding piles in the upper soil strata would depend on the ground conditions at the individual site, proposed foundation loads, settlement tolerances of proposed structures and the relative cost benefit of installing in the upper soil profile versus the underlying bedrock.

A number of deep footing options are summarised and discussed below:

Uncased Bored Piles - Due to the shallow water table and the risk of collapsing conditions in water-charged sand, conventional uncased bored piles are not expected to be suitable for the majority of this site. They could be considered in areas of shallow bedrock, however the risk of shallow groundwater and potentially high water inflow rates would need to be assessed.

Driven Piles - Driven piles could be considered, however vibration impacts during installation may impact on neighbouring structures and would need to be assessed. Furthermore, due to the presence of uncontrolled filling of variable depth across much of the site, there may be a risk of premature pile refusal or damage due to obstructions in the filling. Pre-drilling pile holes through the filling could be considered to mitigate this risk.

Screw Piles - Screw piles could be considered for light to moderate structural loads. It is noted that screw piles derive their capacity from a combination of geotechnical strength of the founding stratum and structural strength of the pile helix. Specific geotechnical design should be undertaken. Screw piles will typically undergo more settlement than equivalent-sized fully formed piles. The presence of uncontrolled filling may present a risk of premature pile refusal or damage due to obstructions in the filling.

Cased Bored / Continuous Flight Auger (CFA) / Screw Cast Concrete Piles - These pile types are considered to be the most suitable options for support of structural loads at this site, as they can be formed within saturated and collapsing soil conditions, as is expected to be encountered over the majority of the site. It should be noted that for CFA piles, decompression can occur in sands whereby excess material is 'sucked' into the auger and removed to the surface, resulting in surface depression. Piles should be installed by experienced operators, using suitably sized piling rigs, monitoring equipment and supervision.

The preliminary design parameters for bored or CFA piles are shown in Table 8 for the anticipated range of soil and rock strata at the site. The capacity of driven piles is typically higher, relative to equivalent dimensions, especially if driven into rock and may be governed by the structural capacity of the piled section used.

Pile design, installation and testing should be undertaken with reference to the Piling code (Ref 1).

Table 8: Preliminary Design Parameters for Piles (Bored or CFA Piles)

Stratum	Ultimate		Serviceability (Working Loads)	
	End Bearing (kPa)	Shaft Adhesion (kPa)	End Bearing (kPa)	Shaft Adhesion (kPa)
Fill – cohesive – compacted	700	-	120	-
Fill – granular – compacted	1000	-	200	-
Sand – medium dense \geq 5 m depth	1750	25	700	10
Clay – stiff to very stiff	900	40	350	15
Clay – hard / extremely weathered rock	1800	80	600	50
Rock – very low strength (Class V sandstone / Class IV siltstone)	4000	200	1200	100
Rock – low strength (Class IV sandstone / Class III siltstone)	10000	500	2500	250

Notes to Table 8:

1. The design bearing pressures should be adjusted to account for weaker layers below the bearing layer if present.
2. Piles founded on coal or claystone should be avoided due to potential for softening and excessive settlement.
3. Ultimate Values occur at large settlements ($>$ 5% of minimum pile diameter / width).
4. Design geotechnical strength ($R_{a,g}$) should initially be based on a strength reduction factor of $\phi_g = 0.40$.
5. Shaft adhesion values based on a shaft roughness of R2 or better.
6. Serviceability / Max Allowable end bearing to cause settlement of $<$ 1% of minimum pile diameter / width.
7. AS 2159- 2009 (Ref 1) requires that the contribution of the shaft from ground surface to 1.5 times pile diameter or 1 m (whichever is greater) shall be ignored.

It should be noted that the above design parameters given in Table 8 are primarily for bored piles with clean sockets and bases: specific cleaning buckets and grooving tools should be used in construction. The preliminary design of driven piles may also be based on the above parameters, however in practice, they are usually driven to a specified 'set' to achieve the required load or 'refusal'. In the latter case the pile capacity may be governed by the structural capacity of the pile in axial compression or bending. Pile installation could be affected by the possible presence of obstructions within existing fill such as concrete, steel and other coarse inclusions. The available information suggests that this will not be a widespread problem however the possibility cannot be precluded.

If piles are installed through deep uncontrolled fill there will be the potential for negative shaft adhesion (downdrag) loads on the pile due to on-going creep settlement of the fill. In some cases this can significantly reduce the available load capacity of piles to support of the structural loads.

For piles in tension, the shaft adhesion parameters should be reduced by 25%.

During construction the design bearing pressures should be confirmed by geotechnical inspection and / or quality assurance testing relevant to the type of pile and method of installation.

6.3 Acid Sulphate Soils

With reference to Section 4.2, the site contains two categories of potential acid sulphate soils:

- Geotechnical Zones A to C generally have a low probability of occurrence of acid sulphate soils at depths greater than 3 m below the ground surface, although the western end (Zone A) includes a high probability zone that marginally encroaches the northern boundary of the site;
- Geotechnical Zones D and E (eastern end of site) have a high probability of occurrence of acid sulphate soils at depths of between 1 m and 3 m below the ground surface.

Previous investigations carried out in the Honeysuckle and Newcastle area have indicated that potential acid sulphate soils (PASS) are generally present in the near-surface fine-grained natural soils (i.e. silts and clays), however, the overlying fill materials are usually not acid sulphate soils. Natural sands (particularly silty sands) may also be acid sulphate soils, but if so, tend to have less acid generation potential.

Recent experience at nearby sites indicates that acid sulphate soils at this site are unlikely to be strongly acid sulphate and can be readily managed during construction using standard procedures (such as liming) in accordance with the relevant guidelines.

Construction activities that will potentially disturb acid sulphate soils include:

- Excavations that extend below fill into natural soils, such as basement excavations, remediation activities (notably Zone E), and deep services trenches; the excavated material will be exposed to oxidation ex situ;
- Dewatering during construction to aid earthworks, excavation and construction activities that lowers the water table within natural soils and exposes them to oxidation in situ.

It is recommended that a site-specific acid sulphate soils management plan (ASSMP) should be developed for the project and implemented where the above activities are undertaken. It is noted that the ASSMP may include a requirement for groundwater treatment / management related to dewatering activities or leachate generated by stockpiles of PASS.

6.4 Seismic Factors for Design

The earthquake code (AS1170.4-2007, Ref 2) provides design factors based on location (earthquake risk) geotechnical conditions.

The Hazard Factor (Z) for Newcastle is 0.11 as given in Table 3.2 of AS1170.4. This is the bedrock acceleration coefficient with an annual probability of exceedance of 1 in 500.

For the whole subject site (Geotechnical Zones A to E) the site sub-soil class is assessed to be Class C_e – “shallow soil site”, with reference to Table 4.1 of AS1170.4.

6.5 Mine Subsidence Assessment

6.5.1 Areas Potentially Affected by Mine Subsidence

This assessment assumes that only workings in the Borehole Seam could affect the site, notwithstanding MSB comments that the extent of the Yard seam and the possibility of shallower unmapped workings should be assessed (see Section 6.5.3).

In the event of mine collapse or pillar crush in the Borehole Seam, mine subsidence would occur. Although the majority of the subject site is not directly undermined, areas of the site are within the potential zone of influence if subsidence did occur. The zone of influence is defined by the 'angle of draw', a line taken from the edge of the workings to the ground surface at a designated angle. The accepted value of this angle that is routinely adopted for the Newcastle area is 26° from vertical (1H:2V).

Based on the plan location of the Borehole Seam workings, it can be shown that the majority of the rail corridor site could be potentially affected by mine subsidence (i.e. within the angle of draw). To aid interpretation, Drawing 4 shows the areas of the site that lie beyond the angle of draw and hence would NOT be affected by mine subsidence (green hatched areas). These are:

- A small area in the north-west corner of the site being part of Parcel 1 (in Geotechnical Zone A);
- The southern portions of Parcels 5 and 6 (in Geotechnical Zone B);
- A small area in the north-eastern part of Parcel 12 (in Geotechnical Zone C);
- The eastern half of Parcel 14 and all of parcel 15 (in Geotechnical Zones D and E), which is the largest contiguous area of the site that lies beyond the angle of draw.

The remainder of the site and most of the immediately adjacent areas are either directly undermined or potentially within the angle of draw in the event of mine subsidence.

6.5.2 Stability of Borehole Seam

In Drawing 4 the blue dashed line represents the 'reverse angle of draw' relative to the site boundary. All mine workings that lie inside this area have the potential to affect the site in the event of subsidence. Preliminary stability analyses have been carried out for all coal pillars within this zone, a total of 98 pillars. The results of the analyses are shown in the tables in Appendix B.

The analysis adopted a working section height of 5.4 m, and pillar dimensions were measured off RT566. The pillars were grouped in three 'panels'. The results indicated the following in regard to mine stability:

- The factor of safety against failure of individual pillars ranged from 1.33 to 3.36;
- The probability of failure of individual pillars ranged from 3×10^{-2} to 2×10^{-14} ;
- 'Panel' factors of safety, which account for the ability of smaller pillars to shed load to larger adjacent pillars, ranged from 2.18 to 2.49;
- The probability of failure of the panels ranged from approximately 1×10^{-7} to 1×10^{-9} ;
- The panel extraction ratio ranged from 0.35 to 0.41.

It is noted, however, that due to the proximity of the smallest pillars to the unmined 'barrier' of coal which is present beneath the site, the analysis likely underestimates the actual factors of safety in this area.

Based on the review of available information, and the results of the preliminary pillar stability analysis, it is DP's opinion that there is some risk, albeit low, of mine subsidence affecting significant parts of the subject site (i.e. the parts of the site not shown in green hatching on Drawing 4).

It is noted that the available data indicated no mine workings within the Dudley Seam or Yard Seam in the vicinity of the subject site. Accordingly it is assessed that these seams do not pose a risk of mine subsidence at the site.

6.5.3 Consultation with the Mine Subsidence Board

A meeting was held with the MSB at their Newcastle office on 8 January 2016. Attendees were Ian Bullen and Peter Evans of the MSB, and Stephen Jones and Scott McFarlane of DP. A letter was subsequently received from the MSB on 15 January 2016 (see Appendix C for a copy).

The following summarises the outcomes of the MSB meeting and their subsequent letter:

- Each proposed building is assessed separately and specific development guidelines cannot be provided until specific plans are presented to the MSB for consideration;
- The section of the rail corridor within the Newcastle Mine Subsidence district is nominated as "Guideline No. 9" by MSB which essentially allows buildings of up to three storeys and 30 m long without assessment of mine subsidence risk;
- Buildings over three storeys will require investigation to assess mine subsidence risk and determine mine subsidence site parameters. The investigations are likely to include exploratory drilling and would aim to:
 - verify the limit of workings in the Borehole and Yard seams;
 - verify the location of workings that cross over the rail corridor;
 - determine the possibility of unmapped workings above the Borehole seam.
- The mine subsidence risk analysis should include sensitivity / risk review and consider potential subsidence scenarios including a worst case;
- If grouting is required the MSB would likely request a grouting plan for approval and a verification report upon completion of the works;
- Where the MSB accepts mine subsidence design parameters, it would likely request an "Impact Statement" that provides details of the structures, risk assessment outcomes and the proposed mitigation measures;
- When considering the number of storeys (and hence risk and repair costs) the MSB include basements as a storey. For example, a proposed 30 m high building (potentially 10 storeys) plus two levels of basement would be regarded by MSB as a 12 storey structure;
- For significant structures, the recommendations need to go to a MSB Board meeting; these are held monthly but the response time depends on the number of applications before the Board.

Based on the above a preliminary 'first pass' assessment has been undertaken taking into account the location of mine workings and the potential maximum building heights from the concept plan layout. The findings are presented in Section 6.5.5.

The 'Newcastle Mines Grouting Fund', which commenced in November 2015, was also discussed at the meeting. The fund is managed by the Hunter Development Corporation (HDC). The MSB's role runs in parallel to HDC in relation to remedial design, delivery and validation. The fund underwrites grouting costs that exceed a designated cap, based on mine category and site area. This provides financial certainty for developers in that if grouting costs exceed the cap the fund will pay the difference. It is noted that the determination of grouting costs excludes investigation and consultant fees. Further information is available by following this link to an HDC brochure:

http://www.hdc.nsw.gov.au/sites/default/files/HDC_Newcastle-Mines-Grouting-Fund%20brochure.pdf

The mine categories are shown in the MSB drawing "Newcastle City Centre Area Mine Subsidence Categories included in Appendix C. It is noteworthy that the rail corridor site itself does not have a category assigned, presumably because development of the rail corridor was not envisaged.

The current fund rates published by HDC are also included in Appendix C. The status of the site (or parts of the site) in relation to the Newcastle Mines Grouting Fund is unclear as the rail corridor is not assigned a category. MSB has advised that the HDC should be consulted on this matter.

6.5.4 Preliminary Subsidence Parameters

A preliminary assessment of subsidence parameters was undertaken using the method of Holla (1987). In the event of subsidence in workings adjacent to the site and in the absence of grouting or other remedial measures, the subsidence effects would be worst at the site boundary.

Estimated preliminary subsidence parameters for the un-grouted site would be:

- Subsidence: 230 mm
- Tensile strain: 3 mm/m
- Tilt: 10 mm/m

It is unlikely that buildings could be economically designed to withstand the above movements. If the associated risk of occurrence is considered unacceptable, remedial grouting would likely be required to reduce the subsidence parameters to levels that could be managed through structural design. While this depends on the sensitivity of the specific structure to movement, based on previous experience typical post-grouting subsidence parameters accommodated by designed are:

- Subsidence: 50 to 100 mm
- Tensile strain: 0.5 to 2 mm/m
- Tilt: 5 to 6 mm/m

6.5.5 Preliminary Estimated Grouting Volumes

A preliminary estimate of potential grouting has been made adopting a conservative scenario and assuming that structures might be built to the maximum permissible height under the zoning. Although the preliminary estimate is based on grouting within the angle of draw, it should be noted that in some cases it may be beneficial to grout workings beyond the angle of draw where this is shown to prevent a more global 'pillar run' that could affect the site.

When the relevant constraints are overlain: angle of draw, mine categories of adjoining mined areas, and adjacent proposed land use that would allow multi-storey buildings, the following is indicated:

- Grouting of workings east of Wolfe Street and west of Union Lane is unlikely to be necessary;
- Grouting of workings west of Wright Lane (Parcels 3 and 4) *may or may not* be necessary, considering the beneficial effect on global stability of nearby grouting of sites in Honeysuckle, but has been included in preliminary estimates in case;
- The remaining central area (Parcels 8 to 14) *may* require grouting, subject to the findings of detailed investigation, modelling and the specifics of individual proposed structures;
- The areas adjoining the central area are mainly Fund Category A and Category B and some Category C areas. Actual categories, however, will depend on MSB and/or HDC responses in relation to the rail corridor.

Drawing 5 indicates the areas of mine workings that *may* require grouting adjacent to Parcels 3 and 4 and 8 to 14 as noted above. The total volume of voids in the workings may be approximately estimated, however, it depends on the accuracy of the plan in terms of bord widths, worked seam height and degree of roof collapse. If grouting of workings beyond the angle of draw is later determined to be required, it has been assumed that these areas would be offset by not requiring grouting of all voids within the angle of draw.

The estimated 'worst case' plan area of the workings that may require grouting is about 13,600 m². Adopting an estimated average worked height of 4.8 m the total volume of voids is estimated to be in the order of 65,000 m³.

If Parcel 12 is limited to a three-storey structure, remedial grouting in the vicinity of this land would be unlikely to be needed. This would potentially reduce the volume of grout required by about 9000 m³ (to about 56,000 m³ in total).

If the Grouting Fund applies to these parcels, and the parcel area is taken as the site area, there would be a cap on grouting costs. If grouting costs exceeds the relevant cap amount the fund would pick up the difference. If the grouting costs are less than the cap amount then no claim can be made on the fund.

It should be noted that the areas that may require grouting lie beneath properties/buildings outside the corridor and public roads. This might create legal, access and logistical challenges to undertaking the work. It may be necessary to make extensive use of angled boreholes to both locate the workings and undertaking the grouting. These constraints may have additional and uncertain cost implications, hence it is recommended that a contingency be allowed for.

Important Assumptions and Limitations related to Grouting Volumes

It is not certain at this early stage whether grouting of workings will be required at all. Detailed investigations and modelling may indicate that potential subsidence has a low risk of occurrence or can be managed through structural design (although this will depend to some extent on the specifics of proposed structures).

The foregoing estimates of grout volumes are preliminary and conservative and are based on a number of assumptions derived from experience. Assumptions and limitations include:

- The layout of the mine workings is assumed to be approximately the same as recorded on the mine plans, such that only the Borehole Seam could influence the site;
- Full grouting of the voids, where the development footprint is within the angle of draw, comprising grouting to at least the top of coal seam and possibly to the roof;
- Where grouting is required the assumed plan extent is the angle of draw, however grouting beyond the angle of draw is a possible requirement for global stability and prevention of a 'pillar run' that could affect the site;
- Low strength (1 MPa) grout will be acceptable;
- The structures could be designed to accommodate subsidence parameters of a similar order to previous developments subject to grouting;
- Access to adjacent properties and roads will be both permissible and feasible for the works. Angled drilling extending from the rail corridor to beyond the site boundary will also be permitted;
- Uncertainties related to the work and potential costs include:
 - o Actual ground conditions, mine layout, extent of mine rubble and volume of voids requiring grout;
 - o Contractor market rates at time of work;
 - o Whether the work is done as a single package for the whole site or separate packages for individual parcels of land or developments;
 - o Final MSB requirements for specific developments;
 - o The applicability of the Grouting Fund and the designated rates for the development sites.
- Additional investigations and numerical modelling will be required to confirm the need for grouting and the design details.

6.6 Suitability of the Site for Development

The rail corridor site is considered to be geotechnically suitable for the proposed residential and commercial type developments. Preliminary geotechnical design parameters are provided in this report to facilitate preliminary planning and assessment of feasibility of specific proposed developments.

Prior to the detailed design of any proposed developments specific geotechnical investigation will be required appropriate to the nature of the proposed development. Investigation and design will need to consider some or all of the following matters:

- The presence and depth of uncontrolled fill;
- The presence, depth and likely variation in groundwater levels;
- Appropriate treatment and management of acid sulphate soils where encountered;
- Excavation conditions and shoring requirements, if relevant;
- Earthworks procedures and whether any ground improvement measures (such as removal and compaction) are required, taking into account the requirements of the Remediation Action Plan (RAP);
- Suitable footing options and design parameters for support of structures;
- Requirements relating to potential mine subsidence, where relevant.

It is expected that with suitable investigation, design and construction in accordance with accepted engineering practice, the above matters can be readily managed.

7. Concurrent Contamination Investigations

DP has conducted concurrent contamination investigations within the surplus Newcastle Rail corridor between Newcastle Station in the east and Worth Place in the west.

The investigations have comprised the following:

- Brief review of previous investigations conducted within the site;
- Review and revision of the sampling, analysis and quality plan for assessment of contamination at the site;
- Subsurface investigation and sampling at systematic and targeted locations;
- Assessment of soil and groundwater contamination within the site, targeting the locations and contaminants of concern on the basis of the historical landuse;
- Assessment of remediation strategies/options;
- Preparation of a draft RAP, outlining the strategies, procedures and responsibilities for remediation of identified contamination.

The results of the investigation indicated the following with respect to contamination at the site:

- The presence of hydrocarbon contamination in soil associated with the former gas works in the eastern portion of the site (i.e. current bus interchange);
- The presence of hydrocarbon contamination in near-surface soils in the vicinity of Newcastle Station and the Newcastle Signal Box as a results of historical train use;
- The presence of heavy metal-impacted near-surface soils to the west of Civic Station, likely to be as a result of impacted historical filling and/or historical ash dumping in the area;
- The presence of minor soil contamination in filling across the site, likely due to historical use as a railway and historical filling of the site;
- Contamination in soil at the site should be addressed due to the potential for impacts on human health and the environment, including groundwater impact.

At this stage the proposed remediation strategy for the site is for localised removal and/or remediation of impacted soils, with capping of the remainder of the site with structures, pavements or soils. This strategy has been documented in the RAP (Ref 4).

The contamination assessment and RAP will be subject to review and approval by Graeme Nyland, a NSW EPA accredited Auditor.

8. References

1. Australian Standard 2159-2009, "Piling – Design and Installation", Standards Australia.
2. Australian Standard 1170.4-2005, "Structural design actions, Part 4: Earthquake actions in Australia", Standards Australia.
3. Pells, Mostyn & Walker (1998), "Foundations on Sandstone and Shale in the Sydney Region", Australian Geomechanics Society, December 1998.
4. Douglas Partners Pty Ltd, "Remediation Action Plan, Newcastle Urban Transformation and Transport Program", Project 81716.00.R.009 (Rev 0), March 2016.

9. Limitations

Douglas Partners Pty Ltd (DP) has prepared this report (or services) for this project at in accordance with DP's proposal NCL 150577 dated 30 September 2015. The work was carried out under UrbanGrowth NSW contract 2724/14, dated 4 May 2015. This report is provided for the exclusive use of UrbanGrowth NSW for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of DP, does so entirely at its own risk and without recourse to DP for any loss or damage. In preparing this report DP has necessarily relied upon information provided by the client and/or their agents.

The results provided in the report are indicative of the sub-surface conditions on the site only at the specific sampling and/or testing locations, and then only to the depths investigated and at the time the work was carried out. Sub-surface conditions can change abruptly due to variable geological processes and also as a result of human influences. Such changes may occur after DP's field testing has been completed.

DP's advice is based upon the conditions encountered during this investigation. The accuracy of the advice provided by DP in this report may be affected by undetected variations in ground conditions across the site between and beyond the sampling and/or testing locations. The advice may also be limited by budget constraints imposed by others or by site accessibility.

This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. DP cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by DP. This is because this report has been written as advice and opinion rather than instructions for construction. The scope for work for this investigation/report did not include the assessment of surface or sub-surface materials or groundwater for contaminants, within or adjacent to the site. Should evidence of filling of unknown origin be noted in the report, and in particular the presence of building demolition materials, it should be recognised that there may be some risk that such filling may contain contaminants and hazardous building materials.

The contents of this report do not constitute formal design components such as are required, by the Health and Safety Legislation and Regulations, to be included in a Safety Report specifying the hazards likely to be encountered during construction and the controls required to mitigate risk. This design process requires risk assessment to be undertaken, with such assessment being dependent upon factors relating to likelihood of occurrence and consequences of damage to property and to life. This, in turn, requires project data and analysis presently beyond the knowledge and project role respectively of DP. DP may be able, however, to assist the client in carrying out a risk assessment of potential hazards contained in the Comments section of this report, as an extension to the current scope of works, if so requested, and provided that suitable additional information is made available to DP. Any such risk assessment would, however, be necessarily restricted to the (geotechnical / environmental / groundwater) components set out in this report and to their application by the project designers to project design, construction, maintenance and demolition.

Douglas Partners Pty Ltd

Appendix A

About This Report

About this Report

Douglas Partners



Introduction

These notes have been provided to amplify DP's report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

DP's reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

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This report is the property of Douglas Partners Pty Ltd. The report may only be used for the purpose for which it was commissioned and in accordance with the Conditions of Engagement for the commission supplied at the time of proposal. Unauthorised use of this report in any form whatsoever is prohibited.

Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;

- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report; and
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, DP will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, DP cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, DP will be pleased to assist with investigations or advice to resolve the matter.

About this Report

Site Anomalies

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, DP requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

Information for Contractual Purposes

Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. DP would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

Site Inspection

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.

Appendix B

Mine Subsidence Stability Assessment

Table B1 - Pillar Stability Analysis - Measured Pillar Dimensions - Panel 1



Mine Workings - RT566 - Borehole Seam
 Project: Newcastle Rail Corridor
 Location: Newcastle
 Analysis Assumptions: Pillar dimensions from RT.

Client: UrbanGrowth NSW
 Date: 2 December 2015
 Sheet: 1

Project No: 81720.01

Pillar Id:	Comment	Depth D (m)	Seam Thickness (m)	Working Section H (m)	Pillar Section H (m)	Unit Weigh γ (kN/m³)	Pillar Details			Roadway Details		Extract. Ratio (%)	Pillar Area m²	Total Area m²	Width/Height Ratio Wp/H	Width Modifier		Pillar Stress (Tributary) (MPa)	Pillar Load (Tributary) MN	Abut (A) Yield (Y) (?)	Shed Load MN	Lodad Received MN	Pillar Stress ("Yield") (MPa)	Pillar Stress ("Abut") (MPa)	Power Law				
							Width Wp (m)	Length Lp (m)	Internal Angle (°)	Wr (m)	Lr (m)					⊖₀	⊕								Strength (MPa)	"Ultimate" Load MN	FoS	Probability of Failure	
1		77.0	6.4	5.4	5.4	25	12.9	28.1	90.0	3.5	2.3	27.3	362.5	498.6	2.4	1.371	1.000	2.65	960							7.69	2786	2.90	1.4E-11
2		77.0	6.4	5.4	5.4	25	14.6	27.8	90.0	2.8	2.8	23.8	405.9	532.4	2.7	1.311	1.000	2.53	1025							8.19	3323	3.24	1.1E-13
3		77.0	6.4	5.4	5.4	25	14.2	36.2	90.0	3.0	2.8	23.4	514.0	670.8	2.6	1.437	1.000	2.51	1291							8.07	4149	3.21	1.7E-13
4		77.0	6.4	5.4	5.4	25	10.6	26.1	90.0	4.2	3.4	36.6	276.7	436.6	2.0	1.422	1.000	3.04	840							6.95	1924	2.29	9.9E-08
5		77.0	6.4	5.4	5.4	25	11.8	27.9	90.0	3.3	3.4	30.3	329.2	472.6	2.2	1.406	1.000	2.76	910							7.34	2418	2.66	4.9E-10
6		77.0	6.4	5.4	5.4	25	11.5	36.6	90.0	3.4	2.8	28.3	420.9	587.1	2.1	1.522	1.000	2.68	1130							7.25	3051	2.70	2.7E-10
7		77.0	6.4	5.4	5.4	25	12.1	28.7	90.0	3.0	2.9	27.2	347.3	477.2	2.2	1.407	1.000	2.65	919							7.44	2583	2.81	5.3E-11
8		77.0	6.4	5.4	5.4	25	11.5	29.0	90.0	3.2	3.0	29.1	333.5	470.4	2.1	1.432	1.000	2.72	906							7.25	2417	2.67	4.1E-10
9		77.0	6.4	5.4	5.4	25	11.2	27.5	90.0	3.6	3.4	32.7	308.0	457.3	2.1	1.421	1.000	2.86	880							7.15	2203	2.50	4.6E-09
10		77.0	6.4	5.4	5.4	25	11.9	29.8	90.0	3.9	3.2	32.0	354.6	521.4	2.2	1.429	1.000	2.83	1004							7.38	2616	2.61	1.0E-09
11		77.0	6.4	5.4	5.4	25	11.8	28.5	90.0	4.9	3.7	37.5	336.3	537.7	2.2	1.414	1.000	3.08	1035							7.34	2470	2.39	2.4E-08
12		77.0	6.4	5.4	5.4	25	13.1	30.6	90.0	4.7	3.4	33.8	400.9	605.2	2.4	1.400	1.000	2.91	1165							7.75	3105	2.67	4.4E-10
13		77.0	6.4	5.4	5.4	25	10.1	28.2	90.0	5.3	3.6	41.8	284.8	489.7	1.9	1.473	1.000	3.31	943							6.78	1932	2.05	3.1E-06
14		77.0	6.4	5.4	5.4	25	9.9	30.8	90.0	5.5	3.7	42.6	304.9	531.3	1.8	1.514	1.000	3.35	1023							6.72	2048	2.00	6.1E-06
15		77.0	6.4	5.4	5.4	25	9.8	27.8	90.0	5.7	3.3	43.5	272.4	482.1	1.8	1.479	1.000	3.41	928							6.68	1820	1.96	1.1E-05
16		77.0	6.4	5.4	5.4	25	10.9	30.6	90.0	5.7	3.8	41.6	333.5	571.0	2.0	1.475	1.000	3.30	1099							7.05	2352	2.14	8.4E-07
17		77.0	6.4	5.4	5.4	25	11.0	27.6	90.0	5.8	3.2	41.3	303.6	517.4	2.0	1.430	1.000	3.28	996							7.09	2151	2.16	6.3E-07
18		77.0	6.4	5.4	5.4	25	12.2	26.8	90.0	5.6	3.8	40.0	327.0	544.7	2.3	1.374	1.000	3.21	1049							7.47	2442	2.33	5.5E-08
19		77.0	6.4	5.4	5.4	25	13.1	26.4	90.0	5.5	3.5	37.8	345.8	556.1	2.4	1.337	1.000	3.10	1071							7.75	2679	2.50	4.6E-09
20		77.0	6.4	5.4	5.4	25	11.0	26.7	90.0	5.5	3.6	41.3	293.7	500.0	2.0	1.416	1.000	3.28	962							7.09	2081	2.16	6.1E-07
21		77.0	6.4	5.4	5.4	25	11.3	30.9	90.0	5.1	3.7	38.5	349.2	567.4	2.1	1.464	1.000	3.13	1092							7.18	2508	2.30	8.9E-08
22		77.0	6.4	5.4	5.4	25	11.7	15.0	90.0	4.8	3.8	43.4	175.5	310.2	2.2	1.124	1.000	3.40	597							7.31	1283	2.15	7.4E-07
												Total	7380.2	11337.3															

Notes:

- Pillar stability analysis based on the methods of Galvin, Hebbelwhite, Salamon and Lin (1998) UNSW Mining Research Centre Report RR3/98.
- Relationship between Factor of Safety (FoS) and probability of coal pillar failure is based on interpolation and extrapolation of data in the above publication. It should be noted that the probability of failure does not extend beyond a FoS of 2.11 (equivalent to a probability of failure of 1 in 1,000,000) in the above and therefore probabilities of failure for FoSs above this are an extrapolation based on a curve of best fit for data for FoSs of 2.11 and less
- Load on weaker pillars reduced by 30% as discussed in "Prefailure Pillar Yielding", by Agapto and Goodrich (2002) Load transferred to adjacent pillars.
- Extraction ratio is relative to working section not full seam height.
- Pillar Height should be the same as the working section unless roof collapse is being considered.

	Summary	FoS
	Max	3.24
	Min	1.96
	Mean	2.47
Panel Extraction Ratio	0.35	Panel Factor of safety Based on Tributary load
Total Pillar Load	21824.24	MN
Total Pilla Capacity	54342.32	MN
Panel FoS	2.49	

Table B2 - Pillar Stability Analysis - Measured Pillar Dimensions - Panel 2



Mine Workings - RT566 - Borehole Seam
 Project: Newcastle Rail Corridor
 Location: Newcastle
 Analysis Assumptions: Pillar dimensions from RT.

Client: UrbanGrowth NSW
 Date: 2 December 2015
 Sheet: 1

Project No: 81720.01

Pillar Id:	Comment	Depth D (m)	Seam Thickness (m)	Working Section H (m)	Pillar Height Section H (m)	Unit Weigth γ (kN/m ³)	Pillar Details			Roadway Details		Extract. Ratio (%)	Pillar Area m ²	Total Area m ²	Width/Height Ratio Wp/H	Width Modifier		Pillar Stress (Tributary) (MPa)	Pillar Load (Tributary) MN	Abut (A) Yield (Y) (?)	Shed Load MN	Lodad Received MN	Pillar Stress ("Yield") (MPa)	Pillar Stress ("Abut") (MPa)	Power Law				
							Width Wp (m)	Length Lp (m)	Internal Angle (°)	Wr (m)	Lr (m)					Θ_0	Θ								Strength (MPa)	"Ultimate" Load MN	FoS	Probability of Failure	
23		77.0	6.4	5.4	5.4	25	10.0	11.7	90.0	5.3	4.5	52.8	117.0	247.9	1.9	1.078	1.000	4.08	477							6.75	790	1.66	9.0E-04
24		77.0	6.4	5.4	5.4	25	10.5	22.1	90.0	5.7	4.0	45.1	232.1	422.8	1.9	1.356	1.000	3.51	814							6.92	1606	1.97	9.4E-06
25		77.0	6.4	5.4	5.4	25	10.4	24.2	90.0	5.3	3.7	42.5	251.7	438.0	1.9	1.399	1.000	3.35	843							6.89	1733	2.06	2.9E-06
26		77.0	6.4	5.4	5.4	25	11.3	24.3	90.0	5.8	3.6	42.4	274.6	477.1	2.1	1.365	1.000	3.34	918							7.18	1973	2.15	7.5E-07
27		77.0	6.4	5.4	5.4	25	11.8	31.0	90.0	6.0	3.5	40.4	365.8	614.1	2.2	1.449	1.000	3.23	1182							7.34	2687	2.27	1.3E-07
28		77.0	6.4	5.4	5.4	25	10.7	24.1	90.0	6.8	3.5	46.6	257.9	483.0	2.0	1.385	1.000	3.61	930							6.99	1802	1.94	1.5E-05
29		77.0	6.4	5.4	5.4	25	11.0	31.1	90.0	5.9	3.4	41.3	342.1	583.1	2.0	1.477	1.000	3.28	1122							7.09	2424	2.16	6.3E-07
30		77.0	6.4	5.4	5.4	25	11.2	29.2	90.0	5.9	3.9	42.2	327.0	566.0	2.1	1.446	1.000	3.33	1090							7.15	2339	2.15	7.7E-07
31		77.0	6.4	5.4	5.4	25	10.3	30.5	90.0	5.5	3.6	41.7	314.2	538.8	1.9	1.495	1.000	3.30	1037							6.85	2153	2.08	2.1E-06
32		77.0	6.4	5.4	5.4	25	10.1	28.8	90.0	6.0	4.1	45.1	290.9	529.7	1.9	1.481	1.000	3.51	1020							6.78	1973	1.94	1.6E-05
33		77.0	6.4	5.4	5.4	25	11.3	38.4	90.0	5.9	1.8	37.2	433.9	691.4	2.1	1.545	1.000	3.07	1331							7.18	3117	2.34	4.6E-08
34		77.0	6.4	5.4	5.4	25	12.2	30.3	90.0	3.9	4.8	34.6	369.7	565.1	2.3	1.426	1.000	2.94	1088							7.47	2761	2.54	2.7E-09
35		77.0	6.4	5.4	5.4	25	12.3	29.9	90.0	4.7	3.8	35.8	367.8	572.9	2.3	1.417	1.000	3.00	1103							7.50	2759	2.50	4.6E-09
36		77.0	6.4	5.4	5.4	25	12.0	16.5	90.0	3.5	4.0	37.7	198.0	317.8	2.2	1.158	1.000	3.09	612							7.41	1467	2.40	2.1E-08
37		77.0	6.4	5.4	5.4	25	11.2	35.5	90.0	4.7	4.4	37.3	397.6	634.4	2.1	1.520	1.000	3.07	1221							7.15	2843	2.33	5.6E-08
38		77.0	6.4	5.4	5.4	25	12.7	26.5	90.0	3.6	3.7	31.6	336.6	492.3	2.4	1.352	1.000	2.82	948							7.62	2566	2.71	2.4E-10
39		77.0	6.4	5.4	5.4	25	10.5	32.0	90.0	5.3	3.9	40.8	336.0	567.2	1.9	1.506	1.000	3.25	1092							6.92	2325	2.13	9.8E-07
40		77.0	6.4	5.4	5.4	25	10.7	18.1	90.0	4.7	3.8	42.6	193.7	337.3	2.0	1.257	1.000	3.35	649							6.99	1353	2.08	1.9E-06
41		77.0	6.4	5.4	5.4	25	9.8	12.0	90.0	3.6	4.1	45.5	117.6	215.7	1.8	1.101	1.000	3.53	415							6.68	786	1.89	3.0E-05
42		77.0	6.4	5.4	5.4	25	10.7	26.4	90.0	4.6	4.1	39.5	282.5	466.7	2.0	1.423	1.000	3.18	898							6.99	1974	2.20	3.7E-07
43		77.0	6.4	5.4	5.4	25	9.8	12.0	90.0	3.6	4.1	45.5	117.6	215.7	1.8	1.101	1.000	3.53	415							6.68	786	1.89	3.0E-05
44		77.0	6.4	5.4	5.4	25	10.4	26.4	90.0	5.1	4.7	43.0	274.6	482.1	1.9	1.435	1.000	3.38	928							6.89	1891	2.04	3.7E-06
45		77.0	6.4	5.4	5.4	25	13.0	23.0	90.0	4.2	4.3	36.3	299.0	469.6	2.4	1.278	1.000	3.02	904							7.72	2307	2.55	2.2E-09
46		77.0	6.4	5.4	5.4	25	10.1	16.3	90.0	4.5	3.6	43.3	164.6	290.5	1.9	1.235	1.000	3.40	559							6.78	1117	2.00	6.6E-06
47		77.0	6.4	5.4	5.4	25	8.8	17.4	90.0	5.3	3.2	47.3	153.1	290.5	1.6	1.328	1.000	3.65	559							6.32	968	1.73	3.0E-04
48		77.0	6.4	5.4	5.4	25	10.2	13.9	90.0	5.4	3.2	46.9	141.8	266.8	1.9	1.154	1.000	3.62	514							6.82	967	1.88	3.4E-05
												Total	6957.1	11776.3															

Notes:

- Pillar stability analysis based on the methods of Galvin, Hebbelwhite, Salamon and Lin (1998) UNSW Mining Research Centre Report RR3/98.
- Relationship between Factor of Safety (FoS) and probability of coal pillar failure is based on interpolation and extrapolation of data in the above publication. It should be noted that the probability of failure does not extend beyond a FoS of 2.11 (equivalent to a probability of failure of 1 in 1,000,000) in the above and therefore probabilities of failure for FoSs above this are an extrapolation based on a curve of best fit for data for FoSs of 2.11 and less
- Load on weaker pillars reduced by 30% as discussed in "Prefailure Pillar Yielding", by Agapto and Goodrich (2002) Load transferred to adjacent pillars.
- Extraction ratio is relative to working section not full seam height.
- Pillar Height should be the same as the working section unless roof collapse is being considered.

	Summary	FoS
	Max	2.71
	Min	1.66
	Mean	2.14
Panel Extraction Ratio	0.41	Panel Factor of safety Based on Tributary load
Total Pillar Load	22669.34	MN
Total Pilla Capacity	49464.53	MN
Panel FoS	2.18	

Table B3 - Pillar Stability Analysis - Measured Pillar Dimensions - Panel 3



Mine Workings - RT566 - Borehole Seam
 Project: Newcastle Rail Corridor
 Location: Newcastle
 Analysis Assumptions: Pillar dimensions from RT.

Client: UrbanGrowth NSW
 Date: 2 December 2015
 Sheet: 1

Project No: 81720.01

Pillar Id:	Comment	Depth D (m)	Seam Thickness (m)	Working Section H (m)	Pillar Height Section H (m)	Unit Weigh γ (kN/m ³)	Pillar Details			Roadway Details		Extract. Ratio (%)	Pillar Area m ³	Total Area m ³	Width/Height Ratio Wp/H	Width Modifier		Pillar Stress (Tributary) (MPa)	Pillar Load (Tributary) MN	Abut (A) Yield (Y) (?)	Shed Load MN	Lodad Received MN	Pillar Stress ("Yield") (MPa)	Pillar Stress ("Abut") (MPa)	Power Law			
							Width Wp (m)	Length Lp (m)	Internal Angle (°)	Wr (m)	Lr (m)					ϕ ₀	ϕ								Strength (MPa)	"Ultimate" Load MN	FoS	Probability of Failure
49		77.0	6.4	5.4	5.4	25	11.0	40.3	90.0	5.3	3.6	38.0	443.3	715.6	2.0	1.571	1.000	3.11	1377						7.09	3141	2.28	1.1E-07
50		77.0	6.4	5.4	5.4	25	10.5	32.1	90.0	4.7	1.8	34.6	337.1	515.3	1.9	1.507	1.000	2.94	992						6.92	2332	2.35	4.0E-08
51		77.0	6.4	5.4	5.4	25	10.9	34.1	90.0	5.1	3.8	38.7	371.7	606.4	2.0	1.516	1.000	3.14	1167						7.05	2622	2.25	1.8E-07
52		77.0	6.4	5.4	5.4	25	11.0	21.6	90.0	5.2	2.1	38.1	237.6	383.9	2.0	1.325	1.000	3.11	739						7.09	1684	2.28	1.2E-07
53		77.0	6.4	5.4	5.4	25	10.5	29.1	90.0	5.1	4.0	40.8	305.6	516.4	1.9	1.470	1.000	3.25	994						6.92	2114	2.13	1.0E-06
54		77.0	6.4	5.4	5.4	25	10.3	15.8	90.0	5.0	2.0	40.2	162.7	272.3	1.9	1.211	1.000	3.22	524						6.85	1115	2.13	1.0E-06
55		77.0	6.4	5.4	5.4	25	11.0	29.7	90.0	5.4	4.4	41.6	326.7	559.2	2.0	1.459	1.000	3.30	1077						7.09	2315	2.15	7.3E-07
56		77.0	6.4	5.4	5.4	25	12.2	25.8	90.0	4.5	3.6	35.9	314.8	491.0	2.3	1.358	1.000	3.00	945						7.47	2351	2.49	5.7E-09
57		77.0	6.4	5.4	5.4	25	11.6	21.1	90.0	4.0	3.8	37.0	244.8	388.4	2.1	1.291	1.000	3.06	748						7.28	1782	2.38	2.6E-08
58		77.0	6.4	5.4	5.4	25	12.6	30.6	90.0	4.9	4.3	36.9	385.6	610.8	2.3	1.417	1.000	3.05	1176						7.59	2928	2.49	5.4E-09
59		77.0	6.4	5.4	5.4	25	12.4	24.4	90.0	4.9	4.3	39.1	302.6	496.5	2.3	1.326	1.000	3.16	956						7.53	2279	2.38	2.5E-08
60		77.0	6.4	5.4	5.4	25	10.8	19.9	90.0	5.0	3.7	42.4	214.9	372.9	2.0	1.296	1.000	3.34	718						7.02	1509	2.10	1.5E-06
61		77.0	6.4	5.4	5.4	25	11.7	24.6	90.0	5.1	4.2	40.5	287.8	483.8	2.2	1.355	1.000	3.24	931						7.31	2105	2.26	1.5E-07
62		77.0	6.4	5.4	5.4	25	10.4	23.9	90.0	4.7	3.7	40.4	248.6	416.8	1.9	1.394	1.000	3.23	802						6.89	1712	2.13	9.3E-07
63		77.0	6.4	5.4	5.4	25	11.1	12.9	90.0	4.4	4.4	46.6	143.2	268.2	2.1	1.075	1.000	3.60	516						7.12	1019	1.97	9.1E-06
64		77.0	6.4	5.4	5.4	25	11.8	21.1	90.0	5.3	5.1	44.4	249.0	448.0	2.2	1.283	1.000	3.46	862						7.34	1829	2.12	1.1E-06
65		77.0	6.4	5.4	5.4	25	10.1	11.2	90.0	4.9	4.2	51.0	113.1	231.0	1.9	1.052	1.000	3.93	445						6.78	767	1.73	3.3E-04
66		77.0	6.4	5.4	5.4	25	10.6	30.2	90.0	5.0	4.5	40.9	320.1	541.3	2.0	1.480	1.000	3.26	1042						6.95	2226	2.14	8.9E-07
67		77.0	6.4	5.4	5.4	25	10.8	25.1	90.0	5.1	3.5	40.4	271.1	454.7	2.0	1.398	1.000	3.23	875						7.02	1903	2.17	5.2E-07
68		77.0	6.4	5.4	5.4	25	10.6	31.0	90.0	5.1	5.0	41.9	328.6	565.2	2.0	1.490	1.000	3.31	1088						6.95	2285	2.10	1.5E-06
69		77.0	6.4	5.4	5.4	25	10.8	28.5	90.0	5.5	4.5	42.8	307.8	537.9	2.0	1.450	1.000	3.36	1035						7.02	2161	2.09	1.8E-06
70		77.0	6.4	5.4	5.4	25	10.7	28.8	90.0	5.5	3.3	40.7	308.2	520.0	2.0	1.458	1.000	3.25	1001						6.99	2153	2.15	7.2E-07
71		77.0	6.4	5.4	5.4	25	11.1	28.0	90.0	6.0	4.2	43.6	310.8	550.6	2.1	1.432	1.000	3.41	1060						7.12	2213	2.09	1.8E-06
72		77.0	6.4	5.4	5.4	25	11.5	28.6	90.0	5.7	3.8	41.0	328.9	557.3	2.1	1.426	1.000	3.26	1073						7.25	2384	2.22	2.6E-07
73		77.0	6.4	5.4	5.4	25	10.3	13.0	90.0	5.5	3.4	48.3	133.9	259.1	1.9	1.116	1.000	3.73	499						6.85	918	1.84	6.4E-05
74		77.0	6.4	5.4	5.4	25	11.3	28.5	90.0	5.8	3.7	41.5	322.1	550.6	2.1	1.432	1.000	3.29	1060						7.18	2314	2.18	4.6E-07
75		77.0	6.4	5.4	5.4	25	12.3	25.1	90.0	5.2	3.6	38.5	308.7	502.3	2.3	1.342	1.000	3.13	967						7.50	2316	2.40	2.1E-08
76		77.0	6.4	5.4	5.4	25	11.6	14.5	90.0	5.4	3.8	45.9	168.2	311.1	2.1	1.111	1.000	3.56	599						7.28	1225	2.04	3.3E-06
77		77.0	6.4	5.4	5.4	25	10.9	23.5	90.0	5.2	3.6	41.3	256.2	436.3	2.0	1.366	1.000	3.28	840						7.05	1807	2.15	7.2E-07
78		77.0	6.4	5.4	5.4	25	17.4	39.0	90.0	5.7	2.2	28.7	678.6	951.7	3.2	1.383	1.024	2.70	1832						9.06	6150	3.36	2.1E-14
79		77.0	6.4	5.4	5.4	25	14.3	16.6	90.0	4.8	3.9	39.4	237.4	391.6	2.6	1.074	1.000	3.18	754						8.10	1923	2.55	2.3E-09
80		77.0	6.4	5.4	5.4	25	8.5	21.8	90.0	4.9	3.6	45.6	185.3	340.4	1.6	1.439	1.000	3.54	655						6.21	1151	1.76	2.1E-04
81		77.0	6.4	5.4	5.4	25	8.2	17.9	90.0	4.8	4.5	49.6	146.8	291.2	1.5	1.372	1.000	3.82	561						6.10	895	1.60	1.6E-03
82		77.0	6.4	5.4	5.4	25	9.1	54.0	90.0	5.3	2.4	39.5	491.4	812.2	1.7	1.712	1.000	3.18	1563						6.43	3161	2.02	4.6E-06
83		77.0	6.4	5.4	5.4	25	11.0	36.2	90.0	5.1	4.4	39.1	398.2	653.7	2.0	1.534	1.000	3.16	1258						7.09	2822	2.24	1.9E-07
84		77.0	6.4	5.4	5.4	25	11.3	38.9	90.0	5.4	2.2	36.0	439.6	686.4	2.1	1.550	1.000	3.01	1321						7.18	3158	2.39	2.3E-08
85		77.0	6.4	5.4	5.4	25	12.7	25.9	90.0	5.1	4.4	39.0	328.9	539.3	2.4	1.342	1.000	3.16	1038						7.62	2508	2.42	1.6E-08
86		77.0	6.4	5.4	5.4	25	12.9	38.9	90.0	5.0	2.3	32.0	501.8	737.5	2.4	1.502	1.000	2.83	1420						7.69	3857	2.72	2.1E-10
87		77.0	6.4	5.4	5.4	25	8.8	69.6	90.0	5.4	1.5	39.3	612.5	1009.6	1.6	1.776	1.000	3.17	1944						6.32	3873	1.99	7.0E-06
88		77.0	6.4	5.4	5.4	25	9.8	47.7	90.0	5.7	3.9	41.6	467.5	799.8	1.8	1.659	1.000	3.29	1540						6.68	3123	2.03	4.2E-06
89		77.0	6.4	5.4	5.4	25	10.2	34.3	90.0	5.6	3.9	42.0	349.9	603.6	1.9	1.542	1.000	3.32	1162						6.82	2385	2.05	2.9E-06
90		77.0	6.4	5.4	5.4	25	12.0	54.4	90.0	5.0	4.0	34.2	652.8	992.8	2.2	1.639	1.000	2.93	1911						7.41	4836	2.53	3.1E-09
91		77.0	6.4	5.4	5.4	25	11.3	16.2	90.0	5.1	1.9	38.3	183.1	296.8	2.1	1.178	1.000	3.12	571						7.18	1315	2.30	8.3E-08
92		77.0	6.4	5.4	5.4	25	7.4	8.6	90.0	3.3	4.8	55.6	63.6	143.4	1.4	1.075	1.000	4.34	276						5.79	368	1.33	3.1E-02
93		77.0	6.4	5.4	5.4	25	9.5	28.2	90.0	5.5	3.9	44.4	267.9	481.5	1.8	1.496	1.000	3.46	927						6.58	1762	1.90	2.6E-05
94		77.0	6.4	5.4	5.4	25	10.6	28.4	90.0	4.8	4.2	40.0	301.0	502.0	2.0	1.456	1.000	3.21	966						6.95	2093	2.17	5.8E-07
95		77.0	6.4	5.4	5.4	25	9.2	23.8	90.0	5.0	2.8	42.0	219.0	377.7	1.7	1.442	1.000	3.32	727						6.47	1416	1.95	1.3E-05
96		77.0	6.4	5.4	5.4	25	11.1	27.3	90.0	5.1	3.5	39.3	303.0	499.0	2.1	1.422	1.000	3.17	960						7.12	2157	2.25	1.8E-07
97		77.0	6.4	5.4	5.4	25	12.7	30.1	90.0	4.8	1.7	31.3	382.3	556.5	2.4	1.407	1.000	2.80	1071						7.62	2915	2.72	2.0E-10
98		77.0	6.4	5.4	5.4	25	11.5	26.3	90.0	4.8	1.8	34.0	302.5	458.0	2.1	1.392	1.000	2.92	88									

Appendix C

Letter from Mine Subsidence Board, 15 January 2016
Mine Subsidence Board “Newcastle City Area Mine Subsidence
Categories” 8 June 2012
Mine Subsidence Board - Newcastle Plan Legend
Hunter Development Corporation - “Newcastle Mines
Grouting Fund 2015/2016 Area Category Rates -
November 2015”



ABN: 87 445 348 918

In reply please send to: Newcastle District Office
Our reference: FN00-01493N0
Your reference: DP Letter : 8/1/2016
Contact: Peter Evans (02) 4908 4391

Douglas Partners Pty Ltd
Attention: Mr Stephen Johns
PO Box 324
Hunter Region Mail Centre
NSW 2310

14 January 2016

Dear Stephen,

ENQUIRY NO. TENQ16-13738N1

NEWCASTLE RAIL CORRIDOR: PART LOT 22 DP 1165985; LOT 1 DP 1192409; PART LOT 1001 DP 1095836; PART LOT 21 DP 1009735; PART LOT 22 DP 1009735; PART LOT 21 DP 1165985; LOT 1000 DP 1095836

I refer to your letter dated 8 January 2016 concerning preliminary plans for development along the Newcastle Rail Corridor, between Worth Place and Watt Street, Newcastle. I understand you are seeking advice from the Board on its likely development requirements.

As you will be aware most of these properties lie within the Newcastle Mine Subsidence District, except for a section at the Watt Street end. The purpose of a District is to prevent damage through surface development controls that take account of the risk of damage by subsidence from old, current and future mining.

Any proposal to subdivide or erect or alter any improvements on land within a Mine Subsidence District will require the Boards approval. So, applicants are encouraged to contact the Board early in the planning and design development process to determine the Boards specific requirements.

For the section of rail corridor within the Newcastle Mine Subsidence District, the Board has nominated a surface development guideline No. 9, which permits the following building development up to 30m long;

1. Single or two storey timber or steel framed improvements clad with weatherboards or other similar materials erected on reinforced concrete footings and/or slabs to comply with AS 2870.
2. Single or two storey brick veneer improvements erected on reinforced concrete footings and/or slabs to comply with AS 2870.
3. Up to three (3) storey brick construction designed in accordance with the relevant codes and standards.

NEWCASTLE

Ground Floor
NSW Government Offices
117 Buil Street
Newcastle West 2302
PO Box 488G Newcastle 2300
Telephone: (02) 4908 4300
Facsimile: (02) 4929 1032
DX 4322 Newcastle West

PICTON

100 Argyle Street
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Telephone: (02) 4677 1967
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DX 26053 Picton

SINGLETON

The Central Business Centre
Unit 6, 1 Pitt Street
Singleton 2330
PO Box 524 Singleton 2330
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WYONG

Suite 3 Feldwin Court
30 Hely Street
Wyong 2259
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Facsimile: (02) 4352 1757
DX 7317 Wyong

HEAD OFFICE

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Newcastle 2300
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Email
mail@minesub.nsw.gov.au

Web
www.minesub.nsw.gov.au

24 Hour
Emergency Service
Free Call 1800 248 083

Standard (Auto) BAs

Development which exceeds or doesn't comply with this guideline would need to be considered by the Board on its "merits". This would require an assessment of the mine subsidence risk and likelihood of damage to surface development.

In consideration of a merit assessment, the Board generally requests a geotechnical investigation which provides supporting evidence and a recommendation for one of the following;

- a) There is no risk of mine subsidence.
- b) The risk of mine subsidence should be eliminated by suitable means such as grouting.
- c) The risk of mine subsidence can be mitigated by structural design, adopting recommended mine subsidence design parameters.

The geotechnical investigation should be undertaken by an engineer experienced in mine subsidence and the report should include confirmation of the depth of the coal seam, height of the workings, thickness of competent rock, pillar dimensions used in any analysis, and details of drifts, shafts, and geological anomalies such as faults. The analysis should also include a sensitivity / risk review, and consider potential subsidence scenarios including a worst case.

If grouting of the workings is necessary to eliminate the risk of mine subsidence the Board would likely request for its acceptance a grouting design and verification plan.

Where the Board accepts mine subsidence design parameters, it would likely request an "Impact Statement" of the surface development for acceptance prior to detailed design. This would be expected to;

- a) Confirm the 'mine subsidence design parameters
- b) List the structures and building elements.
- c) Summarise the outcome of a risk assessment.
- d) List the design mitigation measures proposed.

For multistorey building developments the Board will likely require exploratory drilling to prove the mine subsidence site parameters used in any analysis, including;

- a) Verifying the limit of workings in the Borehole and Yard seams.
- b) Verifying the location of workings which crossover the rail corridor.
- c) Determining the possibility of unmapped workings above the borehole seam.

Please note this information is provided "without prejudice" based on limited information to enable Douglas Partners and its client Urban Growth, better anticipate the Board's likely requirements for the future development of the Newcastle Rail Corridor.

In respect of your query concerning the Newcastle Mine Grouting Fund, please contact the Hunter Development Corporation who is the administrator.

If you have any queries concerning this matter please don't hesitate to contact me.

Yours faithfully

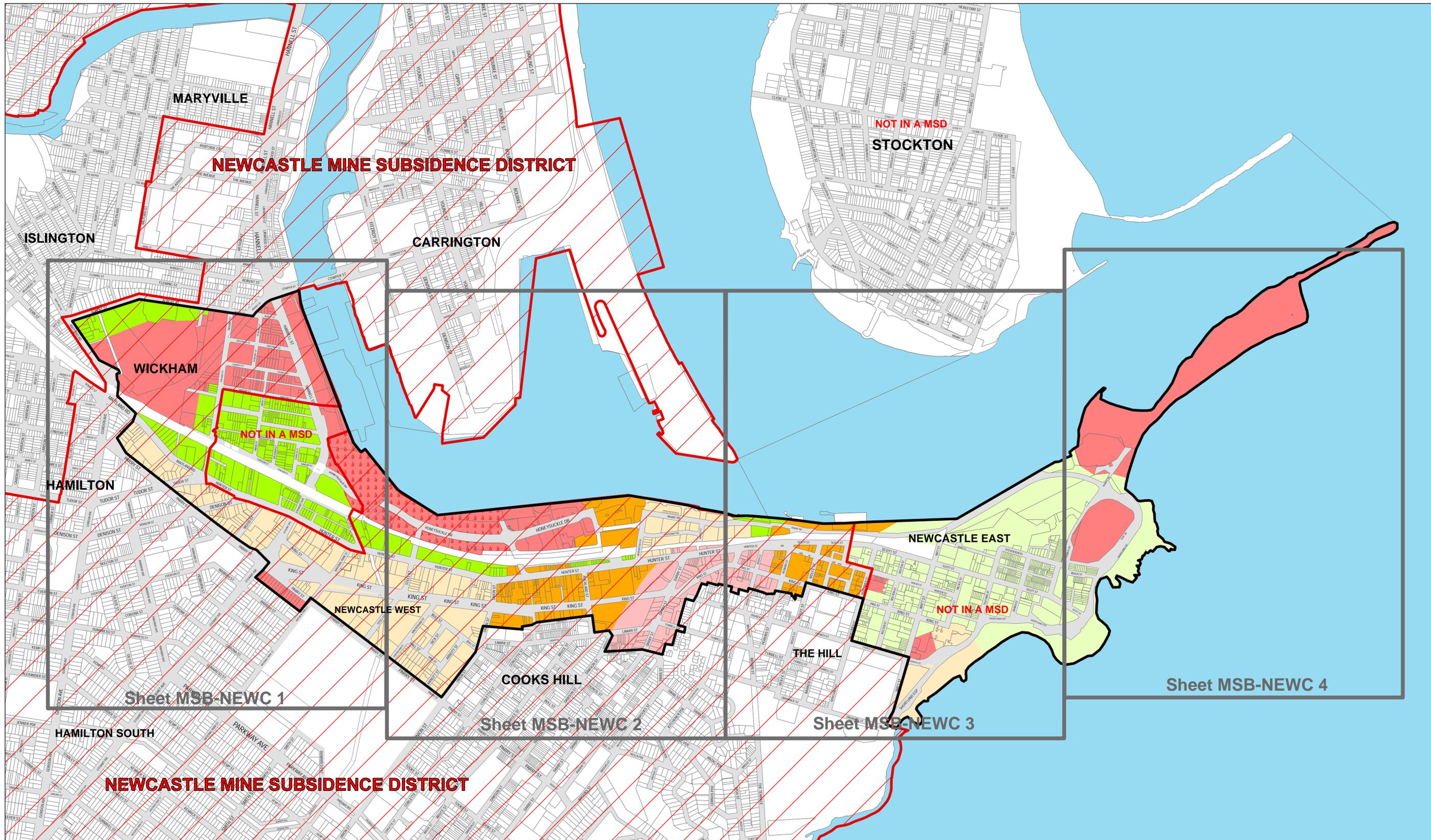


Peter Evans

Subsidence Risk Engineer

Copies:

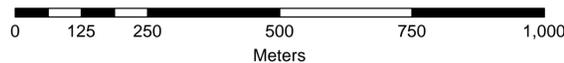
- CEO (Mine Subsidence Board)
- Newcastle District Manager (Mine Subsidence Board)



**WARNING: THIS MAP REFERS TO THE NEWCASTLE CITY CENTRE AREA ONLY
EXTENSIVE MINE WORKINGS EXIST WITHIN AND BEYOND THIS AREA**

NEWCASTLE CITY CENTRE AREA MINE SUBSIDENCE CATEGORIES

REVISION DATE
8 June 2012



LEGEND

- GROUTING STRATEGY(HDC)
- LIMITED RESTRICTIONS
- NO RESTRICTIONS
- CATEGORY A
- CATEGORY B
- CATEGORY C
- CATEGORY D
- EXTENT NEWCASTLE CITY CENTRE AREA
- NEWCASTLE MINE SUBSIDENCE DISTRICT BOUNDARY

DISCLAIMER:
The source data used to compile the maps has been obtained by the Mine Subsidence Board from records held by NSW Trade and Investment - Division of Resources & Energy; mine owners; the Department of Finance & Services - Land and Property Information; and Newcastle City Council. Accordingly, no warranty is expressed or can be implied as to the accuracy of the maps or that the maps are free from any error or omission. The State of New South Wales, the Mine Subsidence Board and their servants and agents expressly disclaim any liability whatsoever for the consequences arising from any act done or omission made in reliance on the maps.

NOTE:
PLEASE REFER TO THE FULL DISCLAIMER (AGREED TO) ON THE MINE SUBSIDENCE BOARD WEBSITE FOR RESTRICTIONS ON THE USE AND ACCURACY OF THE MAP DATA.



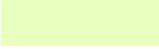
Mine Subsidence Board — Newcastle Plan Legend

The plan only shows categories based on the extent of mine workings.

Surface development categories with regard to mine subsidence are available from the Mine Subsidence Board. Please note the plan does not cover development requirements of other organisations.

The Mine Subsidence Board regularly reviews its surface development categories as additional geotechnical information becomes available. As Stage 2 of this project, the Board is assessing whether further detail can be provided to assist in understanding the quantum of grouting that is likely to be required in the categories identified on the plan.

1. Legend

-  — ***No restriction.*** Allotments are not undermined nor within the zone of influence of known mine workings mining. There are no mine subsidence requirements for grouting.
-  — ***Limited Restrictions.*** The area is not currently in a Mine Subsidence District. Some areas of shallow unchartered workings have been identified. Further geotechnical investigation of some sites, with possible grouting, may be required.
-  — ***Category A.*** Area of larger and relative uniform pillars. Geotechnical investigations required and likely grouting for high-rise and larger footprint structures.
-  — ***Category B.*** Area of smaller dimension and relative uniform pillars. Geotechnical investigations required and high likelihood of coal seam grouting for high-rise and larger footprint structures.
-  — ***Category C.*** Area underlain by Yard Seam at around 30m depth. Extent of Yard Seam to be determined and mine workings fully grouted. Additional requirements as per Category B.
-  — ***Category D.*** Area of old and small pillars with a possible history of failure. Detailed geotechnical investigation required and coal seam grouting for high-rise and larger footprint structures if seam has not fully collapsed.
-  — ***Category E.*** As per Category D with an ‘in principle’ grouting proposal available for this area.

NEWCASTLE MINES GROUTING FUND 2015/2016 Area Category Rates – November 2015

The rates below apply to the Newcastle Mines Grouting Fund.

Category	Rate per square metre of site area (excl GST)
No restriction	Not applicable
Limited restriction	\$200
A, D & E	\$200
B	\$300
C	\$400

These rates are subject to change at any time. A formal review is scheduled for the end of 2016.

The rates directly correspond to the Newcastle City Centre Area Mine Subsidence Categories mapping published by the Mine Subsidence Board 2012, a link to the mapping is available below.

<http://www.minesub.nsw.gov.au/SiteFiles/minesubnswgovau/NEWCASTLE-CITY-CENTRE-A1-map-08-06-2012.pdf>

Appendix D

- Drawing 1 – Site Plan and Geotechnical Zones
- Drawing 2 – Cross-Section A-A' Sheet 1 of 2
- Drawing 3 – Cross-Section A-A' Sheet 2 of 2
- Drawing 4 – Inferred Layout of Mine Workings in Borehole Seam
- Drawing 5 – Preliminary Grout Zones in Borehole Seam

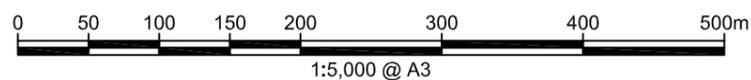


NOTES

1. Drawing adapted from Nearmap Image dated 20.11.15
2. See Drawings 2 and 3 for Section A-A'

LEGEND

- Approximate Rezoning Site Boundary
- A** Geotechnical Zone

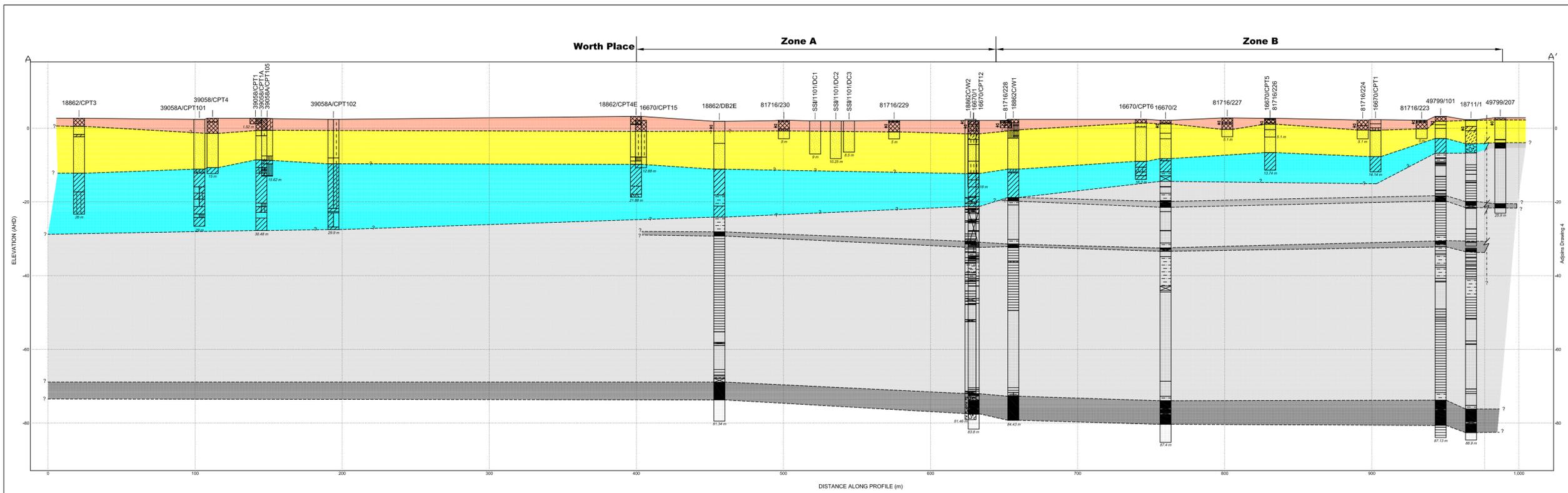


CLIENT: UrbanGrowth NSW	
OFFICE: Newcastle	DRAWN BY: PLH
SCALE: 1:5,000@A3 Sheet	DATE: 11.12.2015

TITLE: **Site Plan and Geotechnical Zones**
Surplus Newcastle Rail Corridor Land
Newcastle



PROJECT No:	81716.01
DRAWING No:	1
REVISION:	1

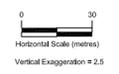


LEGEND

Carbonaceous Siltstone	Clayey Sand	Gravel	Sandstone	Unit 1	Fill
Core Loss	Clayey Silt	Laminite	Sandy Clay	Unit 2	Sand / Silty Sand
Void	Coal	Mudstone	Sandy Silt	Unit 3	Clay / Silty Clay / Silty Clay
Clay	Filling	Sand	Siltstone	Unit 4	Bedrock - Sandstone, Siltstone, Mudstone, Laminite, Coal
			Unit 4.1	Dudley Seam	
			Unit 4.2	Yard Seam	
			Unit 4.3	Borshole Seam	

NOTE: Layer boundaries have been interpolated between test locations and are therefore approximate. Some test data has been projected onto the section from outside the subject site. Actual stratification may vary from that shown.

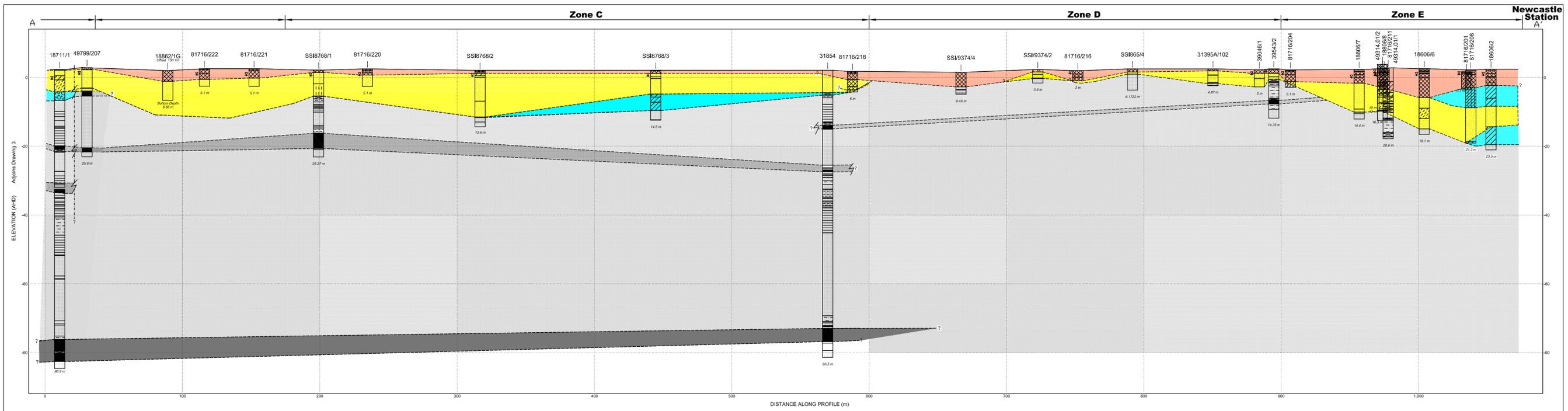
TESTS / OTHER
 ↓ - Water level



CLIENT: UrbanGrowth NSW	DRAWN BY: PLH
OFFICE: Newcastle	DATE: 10.12.2015
SCALE: 1:1500 (H) 1:600 (V) @ A1	

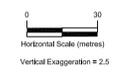
TITLE: Cross-section A-A' (Sheet 1 of 2)
 Newcastle Rail Corridor
 Newcastle

PROJECT No: 81716.00
DRAWING No: 2
REVISION: 1



NOTE: Layer boundaries have been interpolated between test locations and are therefore approximate. Some test data has been projected onto the section from outside the subject site. Actual stratification may vary from that shown.

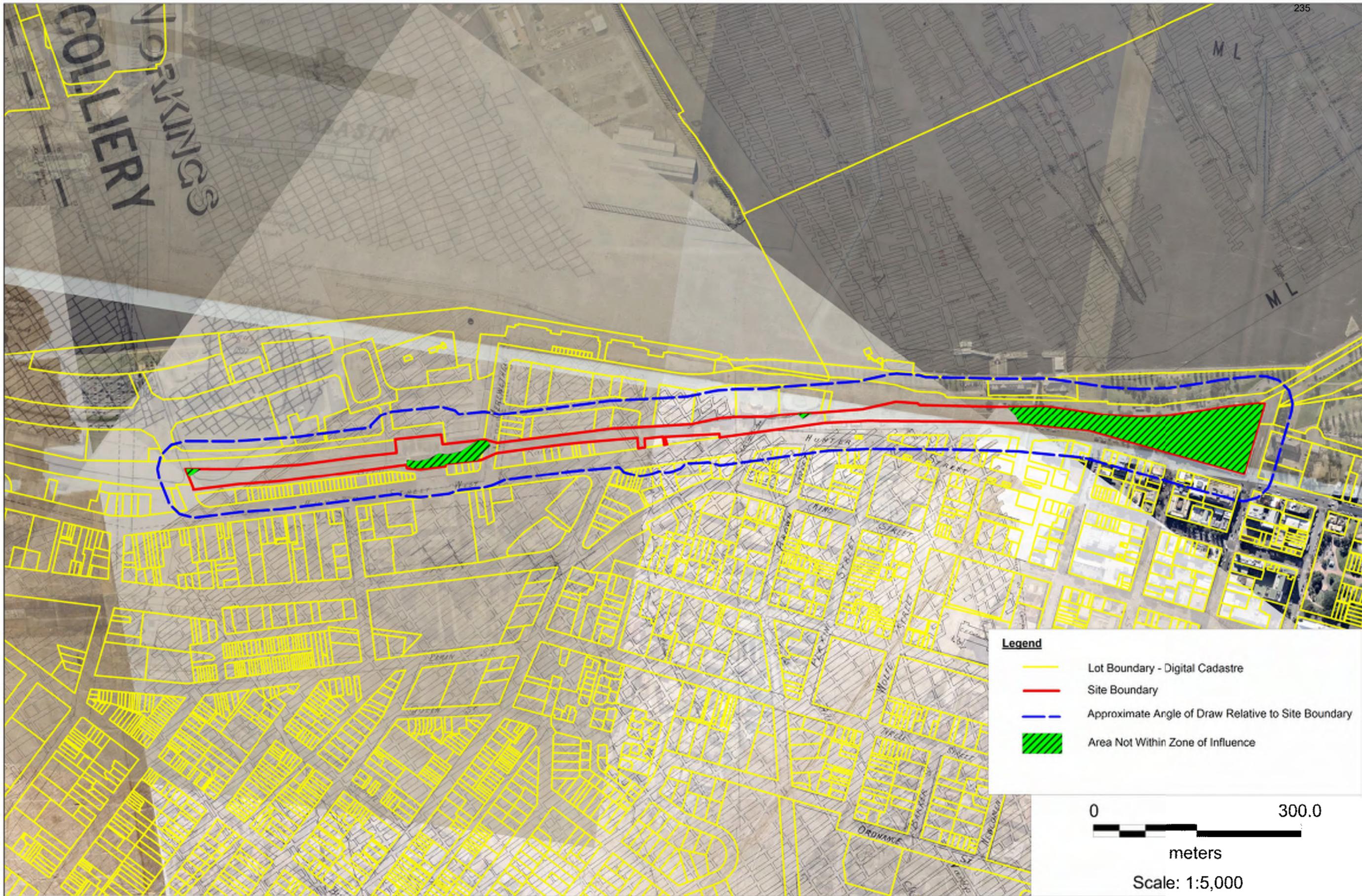
LEGEND	
	Core Loss
	Asphaltic Concrete
	Void
	Clay
	Clayey Sand
	Claystone
	Concrete
	Filling
	Laminite
	Mudstone
	Roadbase
	Sand
	Sandstone
	Sandstone coarse grained
	Sandy Clay
	Unit 1 Fill
	Unit 2 Sand / Silty Sand
	Unit 3 Clay / Sandy Clay / Silty Clay
	Unit 4 Bedrock - Sandstone, Siltstone, Mudstone, Laminite, Coal
	Unit 4.1 Dudley Seam
	Unit 4.2 Yard Seam
	Unit 4.3 Borehole Seam
	TESTS / OTHER Water level



CLIENT: UrbanGrowth NSW	OFFICE: Newcastle	SCALE: 1:1500 (H) 1:800 (V) @ A1
DRAWN BY: PLH	DATE: 10.12.2015	

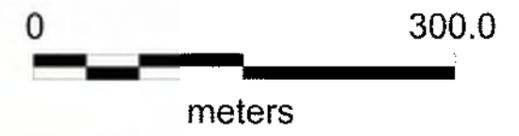
TITLE: Cross-section A-A' (Sheet 2 of 2)
Surplus Newcastle Rail Corridor Land
Newcastle

PROJECT No: 81716.00
DRAWING No: 3
REVISION: 1



Legend

- Lot Boundary - Digital Cadastre
- Site Boundary
- - - Approximate Angle of Draw Relative to Site Boundary
- ▨ Area Not Within Zone of Influence

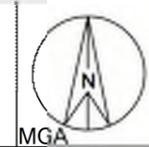


Scale: 1:5,000

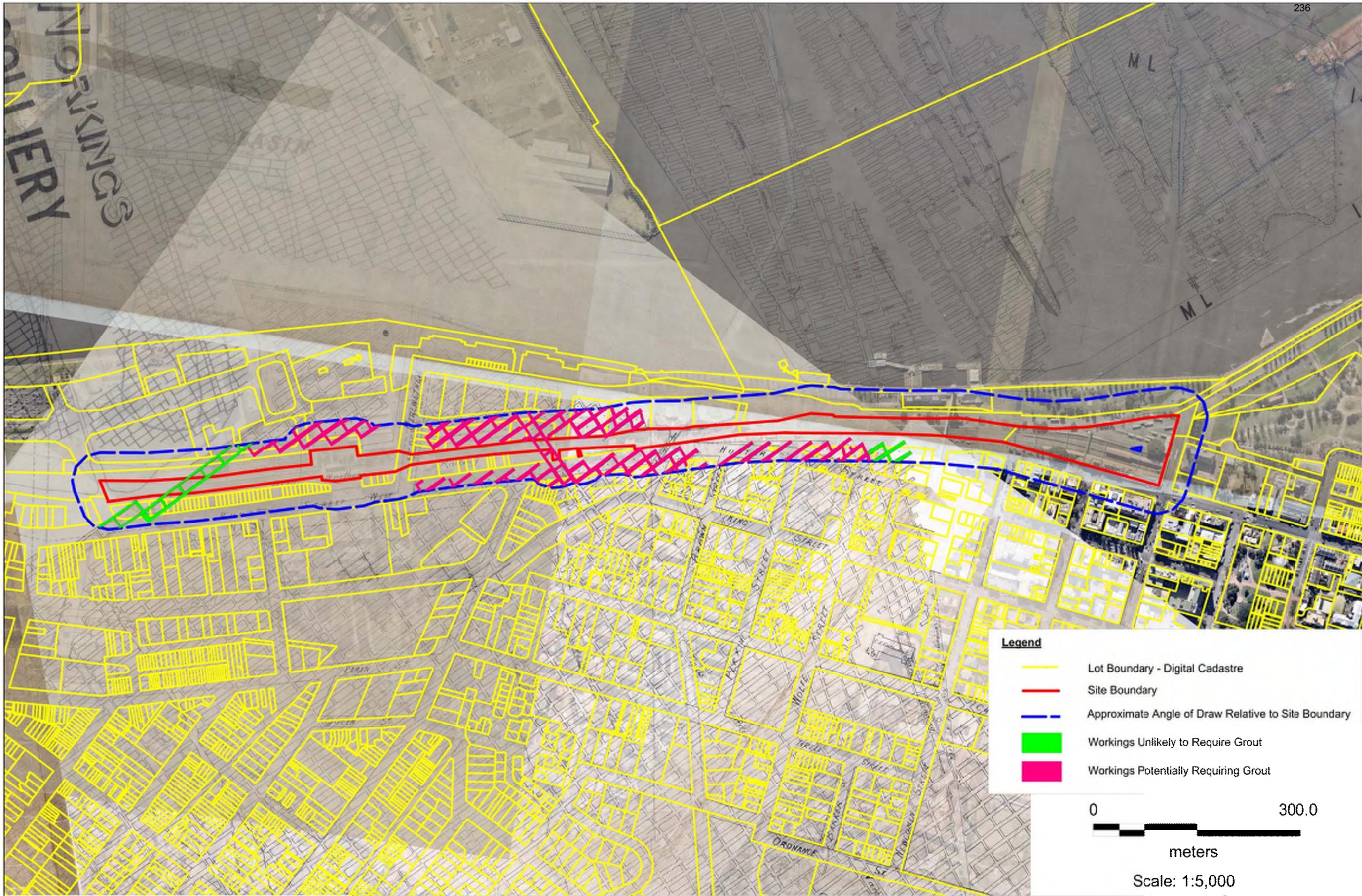
Douglas Partners
Geotechnics | Environment | Groundwater

CLIENT: UrbanGrowth NSW	DRAWN BY: TAC
OFFICE: Newcastle	DATE: 12.01.16
SCALE: As shown	

TITLE: Inferred Layout of Mine Workings in Borehole Seam
Newcastle Rail Corridor

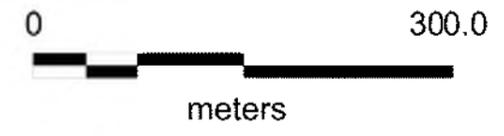


PROJECT No: 81716.01
DRAWING No: 4
REVISION: 0



Legend

- Lot Boundary - Digital Cadastre
- Site Boundary
- - - Approximate Angle of Draw Relative to Site Boundary
- █ Workings Unlikely to Require Grout
- █ Workings Potentially Requiring Grout

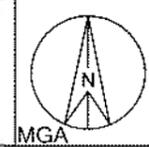


Scale: 1:5,000

Douglas Partners
Geotechnics | Environment | Groundwater

CLIENT: UrbanGrowth NSW	
OFFICE: Newcastle	DRAWN BY: TAC
SCALE: As shown	DATE: 13.01.16

TITLE: Preliminary Grout Zones in Borehole Seam
Newcastle Rail Corridor



PROJECT No:	81716.01
DRAWING No:	5
REVISION:	1

Appendix D - Flood Risk Assessment

“Where will our knowledge take you?”



Newcastle Urban Transformation and Transport Program: Rezoning of Surplus Rail Corridor Lands Flood Risk Assessment

Final Report

March 2017

Newcastle Rail Corridor Rezoning - Flooding

Prepared for: UrbanGrowth NSW

Prepared by: BMT WBM Pty Ltd (Member of the BMT group of companies)

Offices

*Brisbane
Denver
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Newcastle
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Document Control Sheet

<p>BMT WBM Pty Ltd 126 Belford Street Broadmeadow NSW 2292 Australia PO Box 266 Broadmeadow NSW 2292</p> <p>Tel: +61 2 4940 8882 Fax: +61 2 4940 8887</p> <p>ABN 54 010 830 421</p> <p>www.bmtwbm.com.au</p>	Document:	R.N20126.002.07.Newcastle_Rail_Corridor_Rezoning.docx
	Title:	Newcastle Rail Corridor Rezoning - Flooding
	Project Manager:	Darren Lyons
	Author:	Darren Lyons
	Client:	UrbanGrowth NSW
	Client Contact:	Jenny Rudolph (Elton Consulting)
	Client Reference:	
Synopsis:	Documentation of preliminary flood risk assessment for proposed rezoning of surplus Newcastle rail corridor lands.	

REVISION/CHECKING HISTORY

Revision Number	Date	Checked by	Issued by
0	18/01/16	DJL	DJL
1	06/02/16	DJL	DJL
2	31/03/16	DJL	DJL
3	22/04/16	DJL	DJL
4	03/06/16	DJL	DJL
5	01/08/16	DJL	DJL
6	06/03/17	DJL	DJL
7	28/03/17	DJL	DJL

DISTRIBUTION

Destination	Revision							
	0	1	2	3	4	5	6	7
Elton Consulting	1e	1e	1e	1e	1e	1e	1e	1e
BMT WBM File	1e	1e	1e	1e	1e	1e	1e	1e
BMT WBM Library								

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1 Introduction

1.1 General

This report has been prepared to support the amendment to the Newcastle Local Environmental Plan (NLEP) 2012 that applies to the surplus rail corridor land ('rail corridor land') between Worth Place and Watt Street in Newcastle city centre (Figure 1-1).



Source: Hassell

Figure 1-1 Rezoning Study Area

The Newcastle Urban Transformation and Transport Program ('Program') has been established to deliver on NSW Government's more than \$500m commitment to revitalise the city centre through: the truncation of the heavy rail line at Wickham and creation of the Wickham Transport Interchange; the provision of a new light rail line from Wickham to the Beach; and the delivery of a package of urban transformation initiatives.

The transformation element of the Program aims to bring people back to the city centre by strengthening connections between the city and the waterfront, creating employment opportunities, providing more public space and amenity, and delivering better transport.

The proposed rezoning of the rail corridor land forms a part of the delivery of urban transformation initiatives, comprising a package of transport, built form and public domain improvements.

1.2 Newcastle Urban Transformation

The Newcastle Urban Renewal Strategy (NURS) sets out the NSW Government's long term approach and vision for the revitalisation of Newcastle city centre to the year 2036.

The NURS identifies three character precincts in Newcastle city centre (West End, Civic and East End), within which significant housing and employment opportunities, together with built form and public domain changes and improvements exist. The NURS describes these precincts as:

- East End: residential, retail, leisure and entertainment
- Civic: the government, business and cultural hub of the city

- West End: the proposed future business district including the western end of Honeysuckle (Cottage Creek)

UrbanGrowth NSW has been directed by NSW Government to deliver on NURS through the Program, in partnership with Transport for NSW (TfNSW), the Hunter Development Corporation (HDC) and the City of Newcastle Council (Council).

1.3 Proposed rezoning

UrbanGrowth NSW seeks to amend the Newcastle Local Environmental Plan 2012 (NLEP) to enable the delivery of the Program and the objectives of NURS planning outcomes.

Vision

Our vision for the Program has been informed by feedback from the community, Council, government agencies and urban renewal experts.

Our vision is an activated city centre and waterfront that attracts people, new enterprises and tourism. Overtime, we see great opportunities to build on the strengths of the city centre to encourage innovative and enterprising industries to survive. In the longer term, we see an opportunity to strengthen Newcastle's position on the regional, national and international stage, with a view to stronger ties with Asia Pacific.

UrbanGrowth NSW, 2015

Program objectives

The Program is underpinned by five objectives which will drive successful urban revitalisation:

- **Bring people back to the city centre.** Reimagining the city centre as an enhanced destination, supported by new employment, educational and housing opportunities and public domain that will attract people
- **Connect the city to its waterfront.** Unite the city centre and the harbour to improve the experience of being in and moving around the city
- **Help grow new jobs in the city centre.** Invest in initiatives that create jobs, with a focus on innovative industries, higher education initiatives to encourage a range of businesses to the city centre
- **Create great places linked to new transport.** Integrate urban transformation with new, efficient transport to activate Hunter and Scott's Streets and return them to thriving main streets
- **Creating economically sustainable public domain and community assets.** Leave a positive legacy for the people of Newcastle. Ensure that new public domain and community facilities can be maintained to a high standard into the future
- **Preserve and enhance heritage and culture.** Respect, maintain and enhance the unique heritage and character of Newcastle city centre through the revitalisation activities.

Urban transformation proposed concept plan

Surplus rail corridor land runs through the East End and Civic city centre precincts as established by NURS.

Based on this vision and the results of extensive stakeholder and community engagement, an overall urban transformation concept plan (the concept plan) has been prepared for the surplus rail corridor (rezoning sites), as well as surrounding areas.

The concept plan considers and integrates with the delivery of light rail. It is also coordinated with the proposed Hunter Street Mall development to create an interactive, synergised and cohesive city centre and foreshore area.

The concept plan (as shown in Figure 1-2) includes five 'key moves', two that relate to the Civic precinct and three of which relate to the East End.

1. Civic link (Civic)

This area is the civic heart of Newcastle and includes some of the region's most important civic and cultural assets, including Civic Park, City Hall, Civic Theatre and Newcastle Museum. Current investment in the area includes the law courts development and the, soon to be completed, University of Newcastle NeW Space campus.

The focus of this key move is to leverage best value from new investments by creating new open space and walking and cycling connections that link Newcastle's civic buildings to the waterfront and the light rail system.

- **Civic Green.** Creating a new civic focused public space linking Hunter Street to the Newcastle Museum that will provide direct visual and physical connection from Wheeler Place to the harbour, activate light rail on Hunter Street and meet the needs of the incoming legal and student populations
- **Built form improvements.** Sensibly scaled mixed use development that forms part of the Honeysuckle development.

2. Darby Plaza (Civic)

Darby Street is Newcastle's premier 'eat street', offering a mix of shops, cafes, restaurants and night life. At present Darby Street ends at the intersection with Hunter Street, and this key move seeks to create a new node of activity and linkage through to the harbour that complements the delivery of light rail.

- **Darby Plaza.** A new community focused public space including provision of new walking and cycling facilities from Hunter Street to the harbour.
- **Built form improvements.** Zoning of rail corridor land between Merewether Street and Argyle Street to allow for future mixed use development in conjunction with surrounding lands in the longer term.

3. Hunter Street Revitalisation (East End)

Hunter Street features some of Newcastle's best heritage buildings and offers a mix of shops, cafes, restaurants and other local business. Hunter Street has experienced decline in recent years, and the opportunity exists to reinstate Hunter Street as the regions premier main street that complements the delivery of light rail.

- **Built form improvements.** Sensibly scaled mixed use development consistent with the adjoining land uses to create an activated street with 'two edges', celebrate heritage and create

new linkages from Hunter Street to the waterfront, provide activation around light rail stops and improve walking and cycling facilities.

4. Entertainment Precinct (East End)

This key move aims to create a place where people can come to play, relax and reconnect with the harbour in a new public space stretching from Scott Street to the waterfront incorporating a new connection from Market Street to Queens Wharf. This key move will also assist to activate the area to create an exciting place for the East End.

- **Recreational opportunities.** This precinct will incorporate the adaptive re-use of the signal box and provision of recreation opportunities for all ages and abilities. Public domain will be designed to provide a thoughtful series of character areas and experiences as one traverses its length. The area will also provide opportunities for viewing and interpretation of heritage character that respect the unique qualities of place.

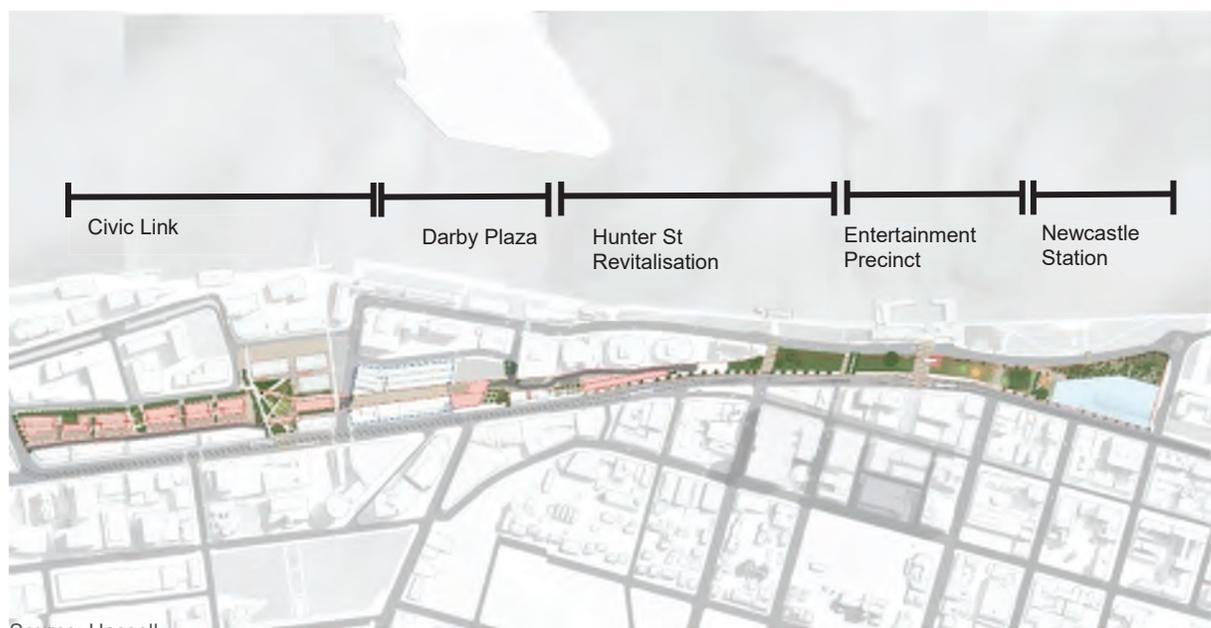
5. Newcastle Station (East End)

Newcastle Railway Station is proposed to be re-purposed into a hallmark destination and focal point for the new East End, accommodating enterprises and activities that attract visitors and stimulate the economy.

Refurbishment would fully respect and celebrate the heritage integrity of the Station, and could accommodate a range of different activities including community, retail, leisure and commercial uses.

1.4 Rezoning Concept Plan

The proposed rezoning of the surplus rail corridor lands is the focus of this report. The rezoning area is indicated in Figure 1-2 by a red dotted line, with the plan also indicating the general precinct areas and the indicative built form for the parcels.



Source: Hassell

Figure 1-2 Rezoning Concept Plan

Amendments to the NLEP are required to deliver part of the concept plan. The proposed amendments are on surplus rail corridor land only.

Necessary amendments to the NLEP 2012 include:

- amending the Land Use Zoning Map to introduce B4 Mixed Use, SP3 Tourism and RE1 Public Recreation zones to sites along the corridor
- amending the Height of Building and Floor Space Ratio maps to apply appropriate development standards to selected parcels of land

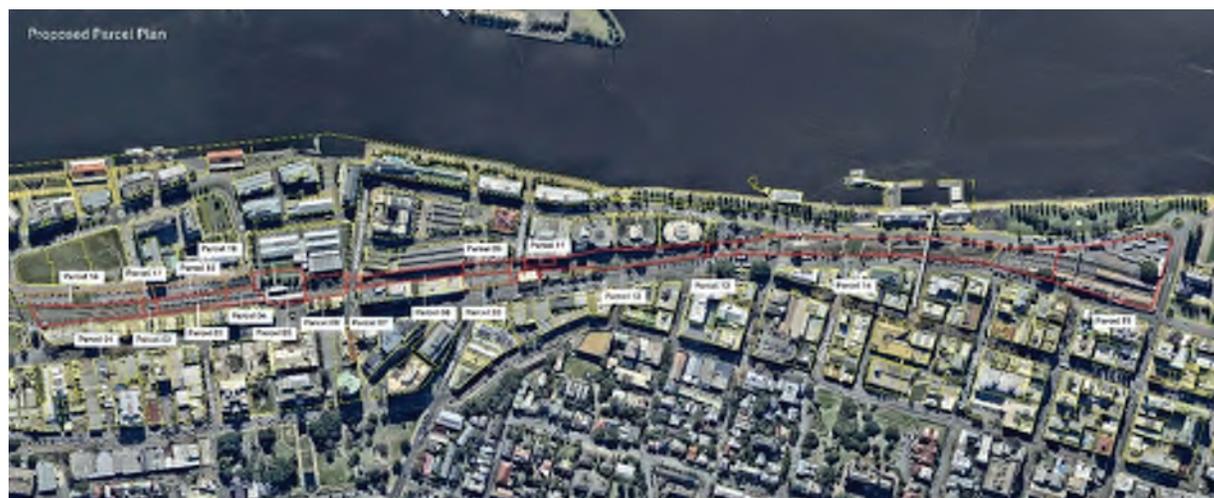
The approach taken to the amendments is to support the NURS planning approach and to remain consistent with surrounding planning controls in terms of zones, floor space ratio (FSR) and height.

The concept plan will also form the basis for updates to the Newcastle City Centre Development Control Plan design controls to guide development and public domain works for rezoning sites.

1.5 Proposed Rezoning

This planning proposal seeks to rezone rail corridor land (rezoning sites) to enable the delivery of the proposed urban uses established in the concept plan.

The location of the land affected by the proposed rezoning is identified in the map in Figure 1-3.



Source: Hassell

Figure 1-3 Rezoning explanatory map – Parcels

The planning proposal concept plan includes public domain, entertainment, mixed use and commercial and residential development.

In general, the proposed rezoning will provide a mix of uses enabling between 400-500 dwellings which will comprise a variety of styles and types, and around 5,000m² of commercial, restaurant and other entertainment uses, as described in Table 1-1, and excluding any education or associated uses.

Proposed maximum building height and floor space ratio controls respect existing controls that apply to surrounding land.

Introduction

This report has been based upon the proposed zoning under the Planning Proposal as submitted for Gateway determination, with the inclusion of Parcel 13. It is noted that this parcel has been removed from the current Planning Proposal in accordance with the Gateway determination as issued by the NSW Department of Planning and Environment. Nevertheless, for completeness, this report has considered the potential for some development occurring within this parcel in the future (subject to outcomes of a separate Planning Proposal). The recommendations of this report discuss whether there are any specific implications arising from this additional parcel.

Table 1-1 Sites for Rezoning – Proposed development summary

Previous Parcel Number prior to Gateway	Updated Parcel Number post Gateway	Size	Proposed Zoning	Proposed FSR	Proposed Height
Parcel 01 B4 Mixed Use 3,370m ²	Parcel 01	3,370m ²	B4 Mixed Use	FSR – 3:1	Height - 30m
Parcel 02 B4 Mixed Use 408m ²	Parcel 02	408m ²	B4 Mixed Use	FSR – 3:1	Height - 30m
Parcel 03 B4 Mixed Use 3,146m ²	Parcel 03	1,869m ²	B4 Mixed Use	FSR – 3:1	Height - 30m
	Parcel 04	900m ²	B4 Mixed Use	FSR – 3:1	Height - 24m
Parcel 04 RE1 Public Recreation 2,464m ²	Now parcel 05 (and small corner of old 03 where western boundary of park realigned)	2,839m ²	RE1 Public Recreation	N/A	N/A
Parcel 05 B4 Mixed Use 1,603m ²	Now parcel 06	1,604m ²	B4 Mixed Use	FSR – 3:1	Height – 18m
Parcel 06 B4 Mixed Use 295m ²	Now parcel 07	295m ²	B4 Mixed Use (Road)	FSR – 2.5:1	Height – 30m
Parcel 07 B4 Mixed Use 2,040m ²	Now parcel 08	2,040m ²	B4 Mixed Use	FSR – 2.5:1	Height – 30m
Parcel 08 B4 Mixed Use 988m ²	Now parcel 09	988m ²	B4 Mixed Use	FSR – 4:1	Height – 24m
Parcel 09 B4 Mixed Use	Now parcel 10	467m ²	RE1 Public Recreation	N/A	N/A

Introduction

Previous Parcel Number prior to Gateway	Updated Parcel Number post Gateway	Size	Proposed Zoning	Proposed FSR	Proposed Height
467m ²					
Parcel 10 SP2 Infrastructure 386m ²	Now parcel 11	386m ²	SP2 Infrastructure	N/A	N/A
Parcel 11 B4 Mixed Use 4,542m ²	Now parcel 12	4,542m ²	B4 Mixed Use	FSR – 1.5:1	Height – 14m
Parcel 12 B4 Mixed Use 1,544m ²	Now parcel 13 (and has been reduced in size)	659m ²	SP2 Infrastructure	N/A	N/A
Parcel 13 RE1 Public Recreation 303m ²	Now parcel 14 (new parcel 14 encompasses part of old parcel 12, and the whole of old parcel 13, 14 and 15)	11,151m ²	RE1 Public Recreation	N/A	N/A
Parcel 14 B4 Mixed Use 2,251m ²					
Parcel 15 RE1 Public Recreation 7,713m ²					
Parcel 16 SP3 Tourist 10,698m ²	Now parcel 15	10,698m ²	SP3 Tourist	FSR – 1.5:1	Height – 10-15m

2 Existing Flood Risk Environment

2.1 Background

2.1.1 Site Location and Flooding Mechanisms

The development area largely occupies the low-lying floodplain area of the Hunter River and Throsby Creek. The Hunter River Estuary is a large riverine estuary system at the downstream end of the extensive Hunter River catchment (size ~ 22,000km²), which flows into the Tasman Sea through the Port of Newcastle.

The ocean entrance to the Hunter River Estuary is fixed by twin rock breakwaters constructed in the late 19th century. The entrance is approximately 400 metres wide and 16 metres deep, allowing full ocean tides to penetrate into the Harbour. Prior to training of the entrance, it is understood that the Hunter River mouth and lower estuary contained dynamic sediment shoals, which would have been subject to significant and rapid change from periodic floods and coastal processes.

The majority of urban development is concentrated around Newcastle in the lower reaches of the estuary. The main urban catchments at the eastern end of the City drains to Cottage Creek, which has been extensively modified from natural conditions with large sections converted to hydraulically efficient concrete lined trapezoid shaped drains to reduce flooding.

The low-lying nature of the study area is evident in Figure 2-1 showing the local topography. The topography shown is based on a Digital Elevation Model (DEM) derived from LiDAR data (NSW LPI data). The general ground levels around the rail corridor are 2-3m AHD. Some parts of the rail corridor were within cutting with rail line elevations down to around 1.7m AHD.

Flooding of the study area can occur from three mechanisms (and combinations thereof):

- Oceanic inundation, as a result of high ocean tides, storm surge, wave penetration;
- Local catchment flooding, as a result of intense rainfall within the local catchment of Throsby/Cottage Creek and small local overland flow catchments draining directly to the Hunter River; and
- Hunter River flooding, as a result of major flooding within the broader river system.

The low-lying topography of the study area and the proximity to the major waterways of Hunter River and Throsby Creek provide for significant flood inundation risks. These risks are expected to further increase in the future considering the potential for increases in mean sea level conditions associated with climate change

Risks associated with these forms of flooding in the study area are primarily a legacy of historical floodplain development. There has been extensive development on relatively low-lying foreshore area established before the current awareness and understanding of potential flooding extent and likelihood.

2.1.2 Climate Change Considerations

Climate change is expected to have adverse impacts upon sea levels and rainfall intensities, both of which may have significant influence on flood behaviour at specific locations. The primary impacts of climate change in coastal areas are likely to result from sea level rise, which, coupled with a potential increase in the frequency and severity of storm events, may lead to increased coastal erosion, tidal inundation and flooding.

In 2009 the NSW State Government announced the NSW Sea Level Rise Policy Statement (DECCW, 2009) that adopted sea level rise planning benchmarks to ensure consistent consideration of sea level rise in coastal areas of NSW. These planning benchmarks adopted increases (above 1990 mean sea level) of 40 cm by 2050 and 90 cm by 2100. However, on 8 September 2012 the NSW Government announced its Stage One Coastal Management Reforms which no longer recommend state-wide sea level rise benchmarks for use by local councils. Instead councils have the flexibility to consider local conditions when determining future hazards of potential sea level rise.

Accordingly, it is recommended by the NSW Government that councils should consider information on historical and projected future sea level rise that is widely accepted by scientific opinion. This may include information in the NSW Chief Scientist and Engineer's Report entitled 'Assessment of the Science behind the NSW Government's Sea Level Rise Planning Benchmarks' (2012).

The NSW Chief Scientist and Engineer's Report (2012) acknowledges the evolving nature of climate science, which is expected to provide a clearer picture of the changing sea levels into the future. The report identified that:

- The science behind sea level rise benchmarks from the 2009 NSW Sea level Rise Policy Statement was adequate;
- Historically, sea levels have been rising since the early 1880's;
- There is considerable variability in the projections for future sea level rise; and
- The science behind the future sea level rise projections is continually evolving and improving.

As the majority of the analysis and modelling tasks associated with Councils Flood Study and Floodplain Risk Management Study were completed prior to the announcement of the NSW Government's Coastal Management Reforms in September 2012, the potential impacts of sea level rise have been based on sea level rise projections from the 2009 NSW Sea Level Rise Policy Statement. Nevertheless, the Chief Scientist and Engineer's Report identifies the science behind these sea level rise projections as adequate, and accordingly is expected to provide a reasonable basis for the assessment.

In 2007 the NSW Government released a guideline for practical consideration of climate change in the floodplain management process that advocates consideration of increased design rainfall intensities of up to 30%. Accordingly, this increase in design rainfall intensity will translate into increased flood inundation in the local catchment. Future planning and floodplain management in the catchment will need to take due consideration of this increased flood risk.

2.1.3 Previous Studies

The following collection of studies provides the most comprehensive description and assessment of the natural hydrologic and hydraulic regimes for the Hunter River, Throsby Creek, Cottage Creek and local catchments.

- Lower Hunter River Flood Study (PWD, 1994) - this study included the construction of a one-dimensional hydraulic model (MIKE11 software) and has been used as the basis for subsequent Floodplain Risk Management applications in the Lower Hunter. The developed model was further refined to incorporate a two-dimensional representation of the Hexham Swamp floodplain area (DHI, 2009). The peak design flood conditions derived from these studies form the adopted conditions for riverine flooding in the Lower Hunter Estuary, including the study area.
- Throsby Creek and Cottage Creek Flood Study (WBM, 2006) – the flood study incorporated detailed modelling of the urban catchments of Throsby Creek, Cottage Creek and the Newcastle CBD area, encompassing an area of some 42km². The principle objectives of the study were to define the flood behaviour of the catchments through the establishment of appropriate numerical models, producing information on flood flows, velocities, levels and extents for a range of flood event magnitudes. The models incorporate the extensive trunk drainage network throughout the study area. The results of the study have been adopted by Council for flood planning purposes and form the basis for the flood risk assessment and formulation of appropriate floodplain risk management options.
- Newcastle City-wide Floodplain Risk Management Study and Plan (BMT WBM, 2012) - The City-wide Flood Plan has been developed to direct and co-ordinate the future management of flood prone lands across the City of Newcastle. It also aims to educate the community about flood risks across Newcastle, so that they can make more appropriate and informed decisions regarding their individual exposure and responses to flood risks. The City-wide Flood Plan sets out a strategy of short term and long term actions and initiatives that are to be pursued by agencies and the community in order to adequately address the risks posed by flooding.

The Newcastle City-wide Floodplain Risk Management Study provides an extensive mapping compendium that provides a comprehensive description of the flood inundation risks in the study area. The mapping provided incorporates the potential flooding from a number of sources including Hunter River flooding, local flooding in the Throsby/Cottage Creek catchment and tidal inundation including major storm surge events. Mapped scenarios include a range of magnitude events as well as the influence of potential sea level rise on future flooding conditions.

2.2 Existing Inundation Scenarios

Flooding of the study area can occur from three mechanisms (and combinations thereof):

- Oceanic inundation, as a result of high ocean tides, storm surge, wave penetration;
- Local catchment flooding, as a result of intense rainfall within the local catchment of Throsby/Cottage Creek and small overland flow catchments draining directly to the Hunter River; and

- Hunter River flooding, as a result of major flooding within the broader river system.

The following sections outline the existing and future flooding scenarios in the study area under the various flooding mechanisms identified above. These conditions are used as the basis for assessment of potential flood impact in the study area corridor.

2.2.1 Ocean Flooding

Oceanic inundation as a result of elevated tide levels are derived from combinations of the following conditions:

- Barometric pressure set up of the ocean surface due to the low atmospheric pressure of the storm;
- Wind set up due to strong winds during the storm “piling” water upon the coastline;
- Astronomical tide, particularly the Higher High Water Solstice Springs (HHWSS); and
- Wave set up.

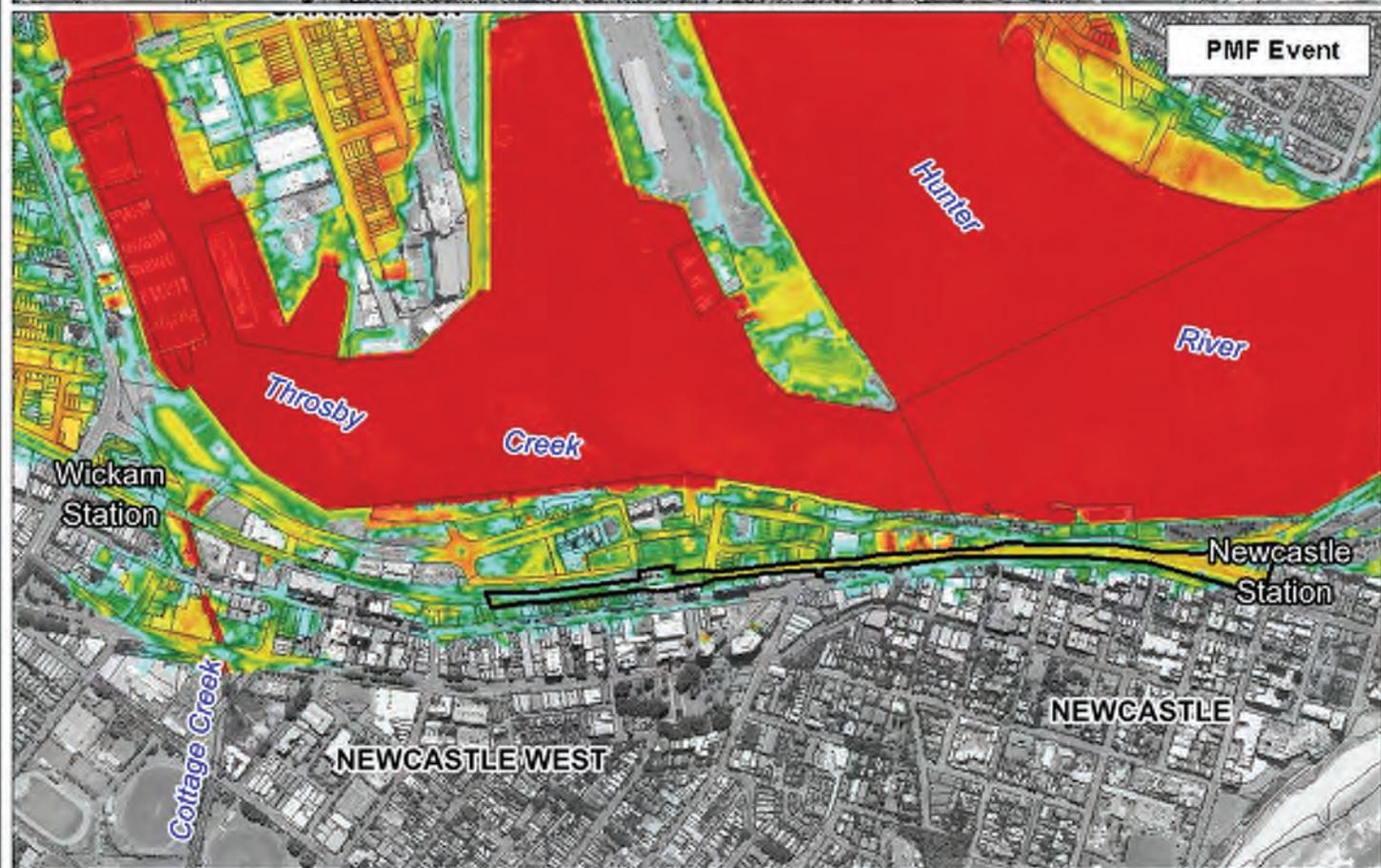
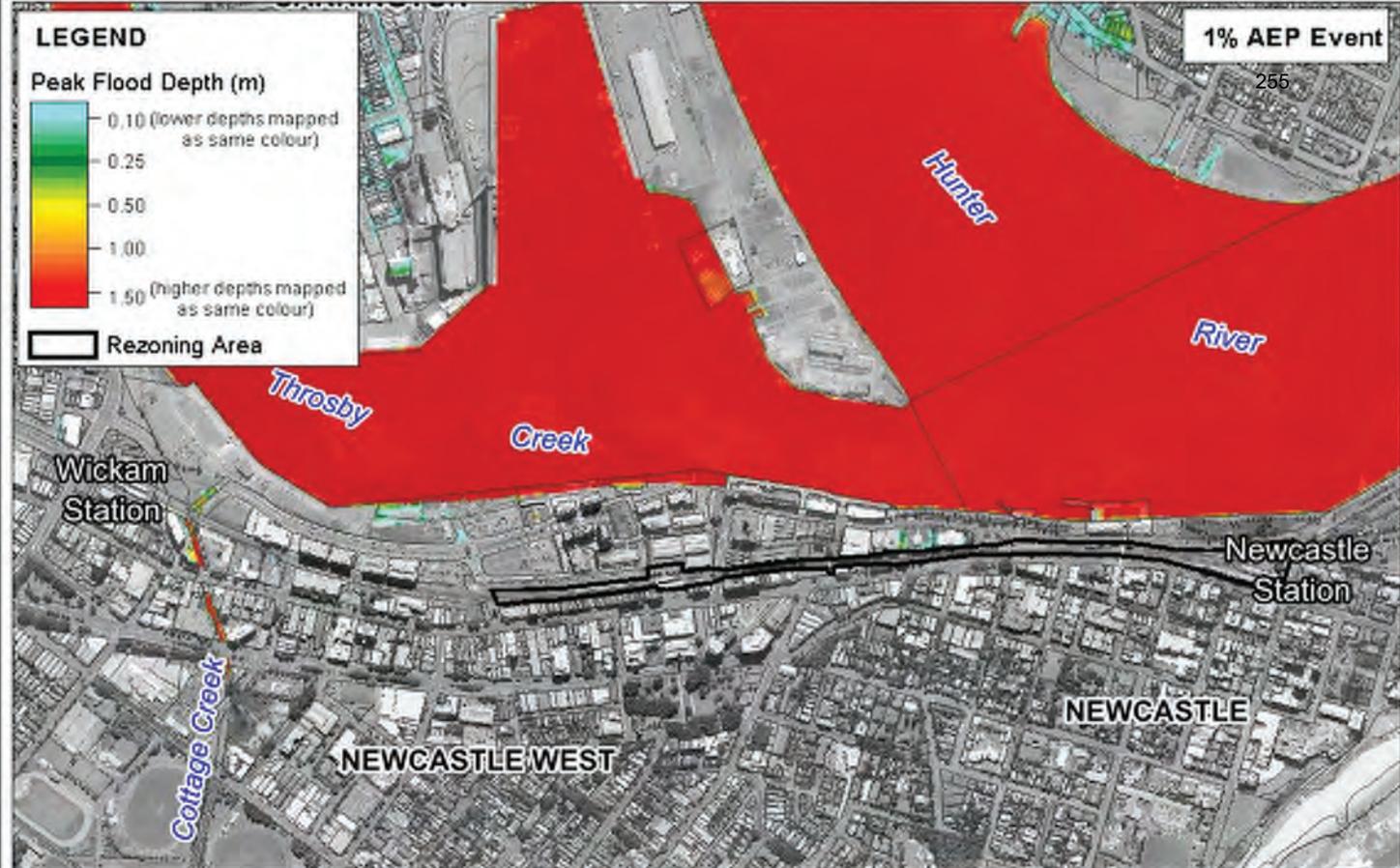
A summary of peak water levels under ocean flooding conditions for key design events is presented in Table 2-1, including the projected influence of sea level rise.

Table 2-1 Design Peak Water Levels (m AHD) - Ocean Flooding

Design Event	Existing Conditions	+0.4m SLR	+0.9m SLR
King Tide	1.0	1.4	1.9
10 % AEP	1.35	1.75	2.25
1% AEP	1.4	1.8	2.3
Extreme (PMF) Event	2.5	2.9	3.4

Given the topography of the study area (refer to Figure 2-1) there is the potential for extensive inundation under ocean flooding scenarios. The relative extents and depths of inundation for the 1% AEP and PMF design ocean events are shown in Figure 2-2. No major inundation of the low-lying foreshore area is expected under existing 1% AEP design ocean flood conditions. For the extreme event (PMF) condition, significant inundation would occur, with some peak flood depths up to the order 0.5 -1.0m.

As noted in Table 2-1, ocean flooding conditions are exacerbated with potential sea level rise. The design 1% AEP peak ocean flooding level incorporating 0.9m sea level rise is 2.3m AHD, thereby approaching the severity of inundation under existing extreme event conditions (2.5m AHD). Accordingly, the extent of ocean inundation shown at the bottom of Figure 2-2 is indicative of the typical design flood condition to be considered for the nominal 1% AEP design planning event under future catchment conditions (i.e. beyond 2100).



<p>Title</p> <p>Ocean Peak Flood Depths - 1% AEP and PMF Existing Conditions</p>	<p>Figure:</p> <p>2-2</p>	<p>Rev:</p> <p>A</p>
<p>BMT WBM endeavours to ensure that the information provided in this map is correct at the time of publication. BMT WBM does not warrant, guarantee or make representations regarding the currency and accuracy of information contained in this map.</p>	<p>Approx. Scale</p>	<p>BMT WBM</p> <p>www.bmtwbm.com.au</p>

2.2.2 Local Catchment Flooding

The design local catchment flooding conditions have been derived in the Throsby Creek and Cottage Creek Flood Study (WBM, 2006). Local catchment flooding is referred to as “Flash Flooding” in the Newcastle City-wide Floodplain Risk Management Study, acknowledging the relatively flashy nature of flooding in local catchments across the CBD area and distinguishing from the mainstream flooding of the Hunter River system.

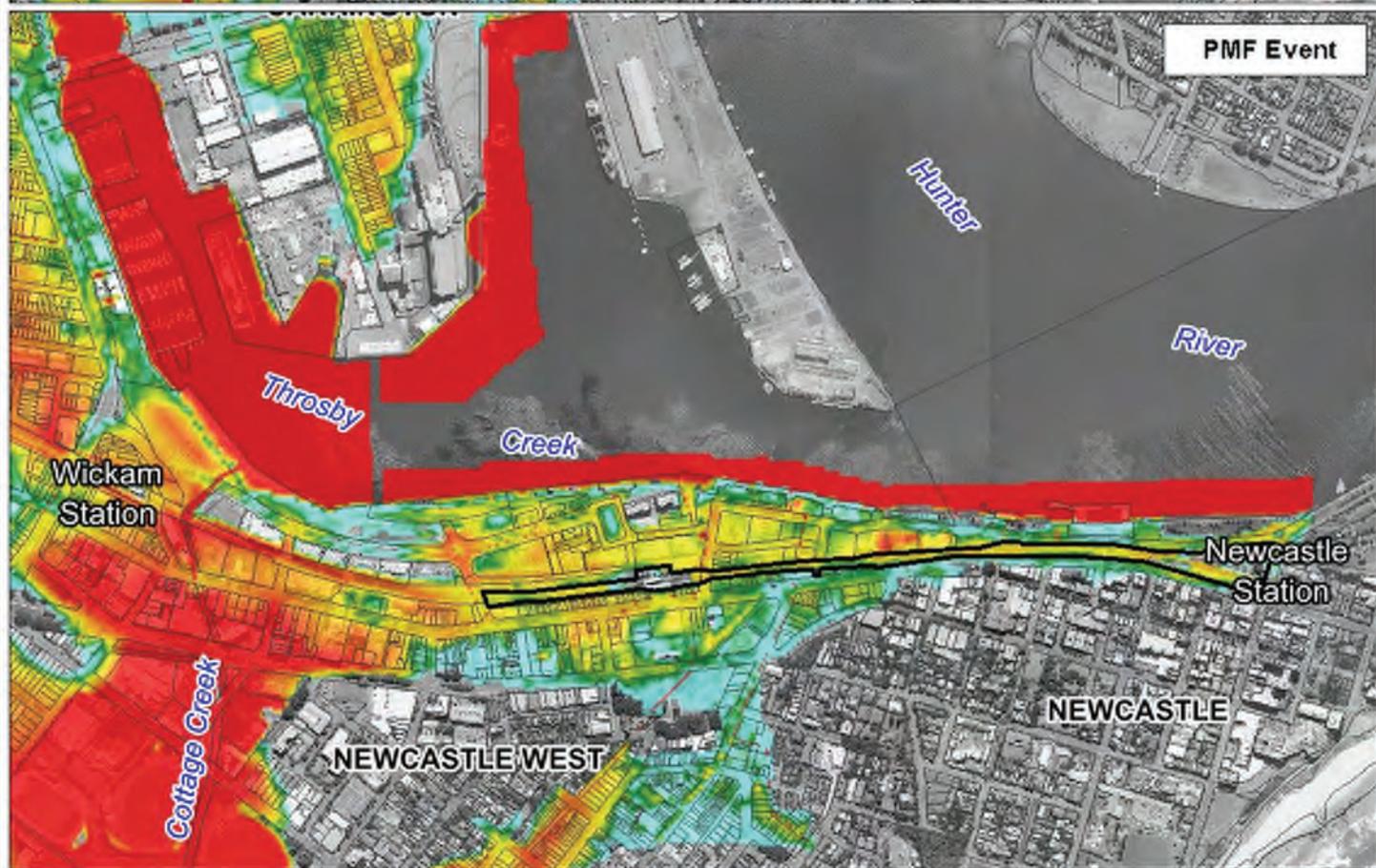
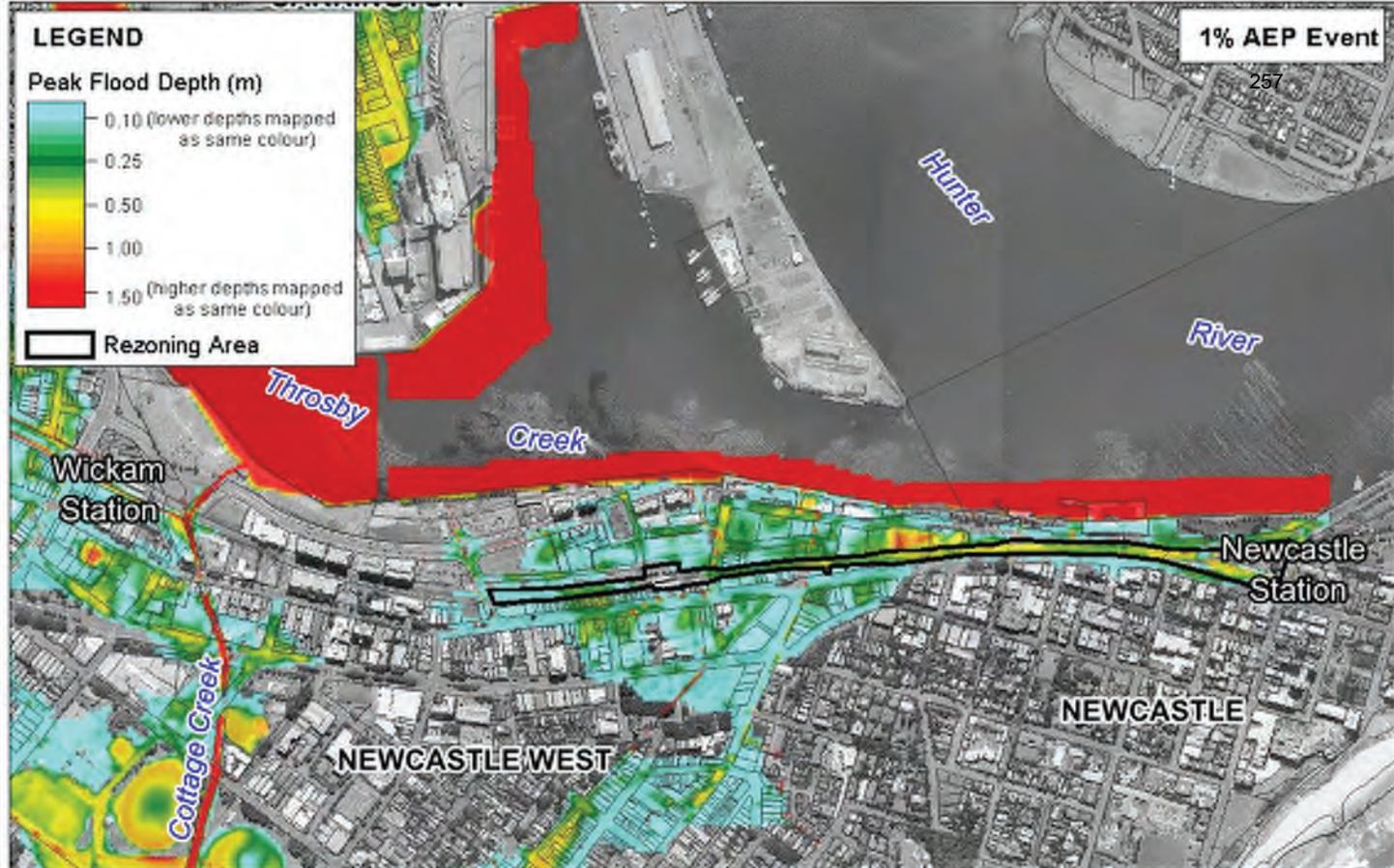
The simulated design flood inundation extents and depths across the study area for the 1% AEP and PMF events under existing conditions is shown in Figure 2-3.

The inundation across the development area at the 1% AEP design flood magnitude is largely characterised by relatively shallow depth of flooding (typically less than 0.3m) with some localised areas of higher depth often corresponding to low points in the local road network. There are some localised areas of higher flood depth shown within the existing rail corridor towards Newcastle Station. These areas also correspond to low points along the rail alignment, typically where the rail alignment is lower than adjacent land (i.e. effectively in shallow cutting). The higher flood depths shown in these areas are largely a function of the coarse model configuration and localised depressions in the underlying topography.

Overland flow regimes in urban environments can be quite complex with interconnecting and varying flowpaths once the design stormwater drainage capacity is exceeded. Road networks often convey a considerable proportion of floodwaters due to the hydraulic efficiency of the road surface compared to developed areas (eg. blocked by fences and buildings), in addition to the underground pipe network draining mainly to open channels. Excluding the main Cottage Creek catchment (i.e. areas west of Worth Place outside the proposed rezoning area) the contributing local catchments are relatively small. Accordingly, there is not a significant overland flooding risk within the project area up to the 1% AEP flood magnitude. This is reflected in the definition of hydraulic category (i.e. floodway/flood storage and flood fringe area) discussed further in Section 2.3.1

Other minor overland flow paths don't provide a major constraint to redevelopment of the corridor. The exact configuration and location of the local overland flow network through the corridor will ultimately be dependent on the finished land form within the redeveloped corridor. This level of detail on proposed finished surface levels within the corridor is not available at this stage of the flood risk assessment. Accordingly, there may be some local changes in the local overland flow distribution. However, noting the small contributing catchments and therefore relatively small flow magnitudes, it would be expected that effective management of the overland flows be readily accommodated through local drainage and overland flow provisions through the corridor. These would typically be located along existing road network alignments and the proposed open space connections.

At the PMF level there is greater inundation extent with higher depth of floodwaters. The flows generated in the local drainage catchments provide for extensive overtopping of the existing railway embankment. Again reference should be made to Section 2.3.1 in the definition of major floodway flow paths at the PMF level.



Title
Local Catchment Peak Flood Depths - 1% AEP and PMF Existing Conditions

Figure
2-3

Rev:
A

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2.2.3 Hunter River Flooding

The design Hunter River flooding conditions have been derived in the Lower Hunter River Flood Study (PWD, 1994) with some local refinement in the subsequent model upgrade report (DHI, 2009). The peak design flood level profiles (10% AEP, 1% AEP and PMF events) along the South Arm of the Hunter River between Hexham Bridge and the harbour entrance are shown in Figure 2-4. Included in the figure are key reference locations along the River and the approximate location of the study area (extent of the Carrington suburb boundary between Walsh Point and Throsby Creek).

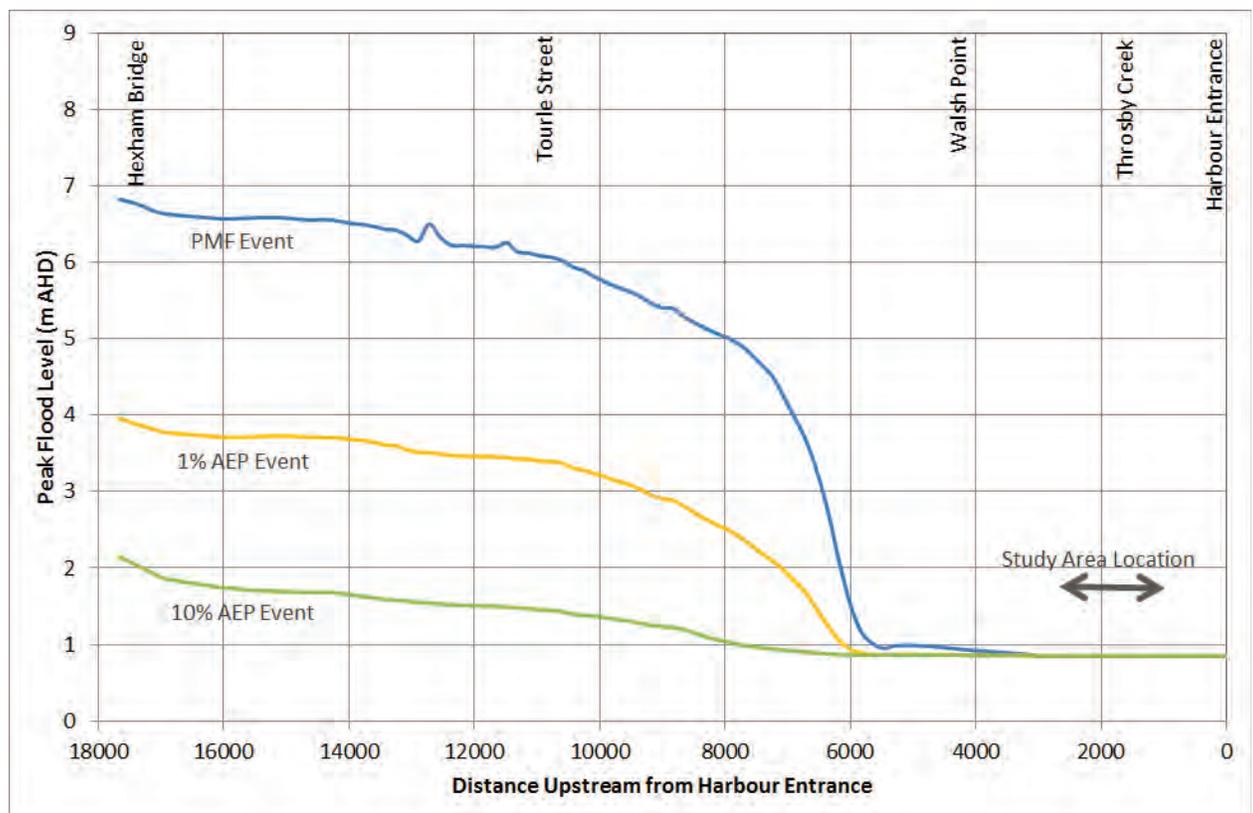


Figure 2-4 Hunter River (South Arm) Design Flood Level Profiles

The study area is largely not directly impacted by major flooding in the Hunter River. As shown in Figure 2-4, all of the events presented have a peak flood level of the order 0.8-0.9m AHD in the reach of the Hunter River adjacent to Throsby Creek. This peak flood level corresponds to the adopted boundary condition at the harbour entrance, approximating a peak spring tide level. A very flat peak flood level gradient is evident through the lower reach of the Hunter River given its large conveyance which has been significantly enlarged through channel widening and dredging works.

2.3 Flood Risk Classifications

The key planning documents with consideration of flood risks in the Newcastle City Council LGA. include:

- Newcastle City Council Flood Policy 2003
- Newcastle Development Control Plan (DCP) 2012 – Section 4.01 Flood Management

- Newcastle City-wide Floodplain Risk Management Study and Plan 2012; and
- NSW Government Floodplain Development Manual (FDM) 2005

These documents provide information regarding processes to classify the severity of flooding in both quantitative and qualitative terms, and the policies and controls that are applicable to dwellings and developments on flood prone land based on these initial classifications.

2.3.1 Hydraulic Impact Categories

There are no prescriptive methods for determining what parts of the floodplain constitute floodways, flood storages and flood fringes. Descriptions of these terms within the FDM (NSW Government, 2005) are essentially qualitative in nature and emphasis is placed on the need for site specific consideration when determining appropriate methods for hydraulic category classification. The hydraulic categories as defined in the FDM, and the advised general guidelines to assist in the delineation of flooding and flood storage areas, are:

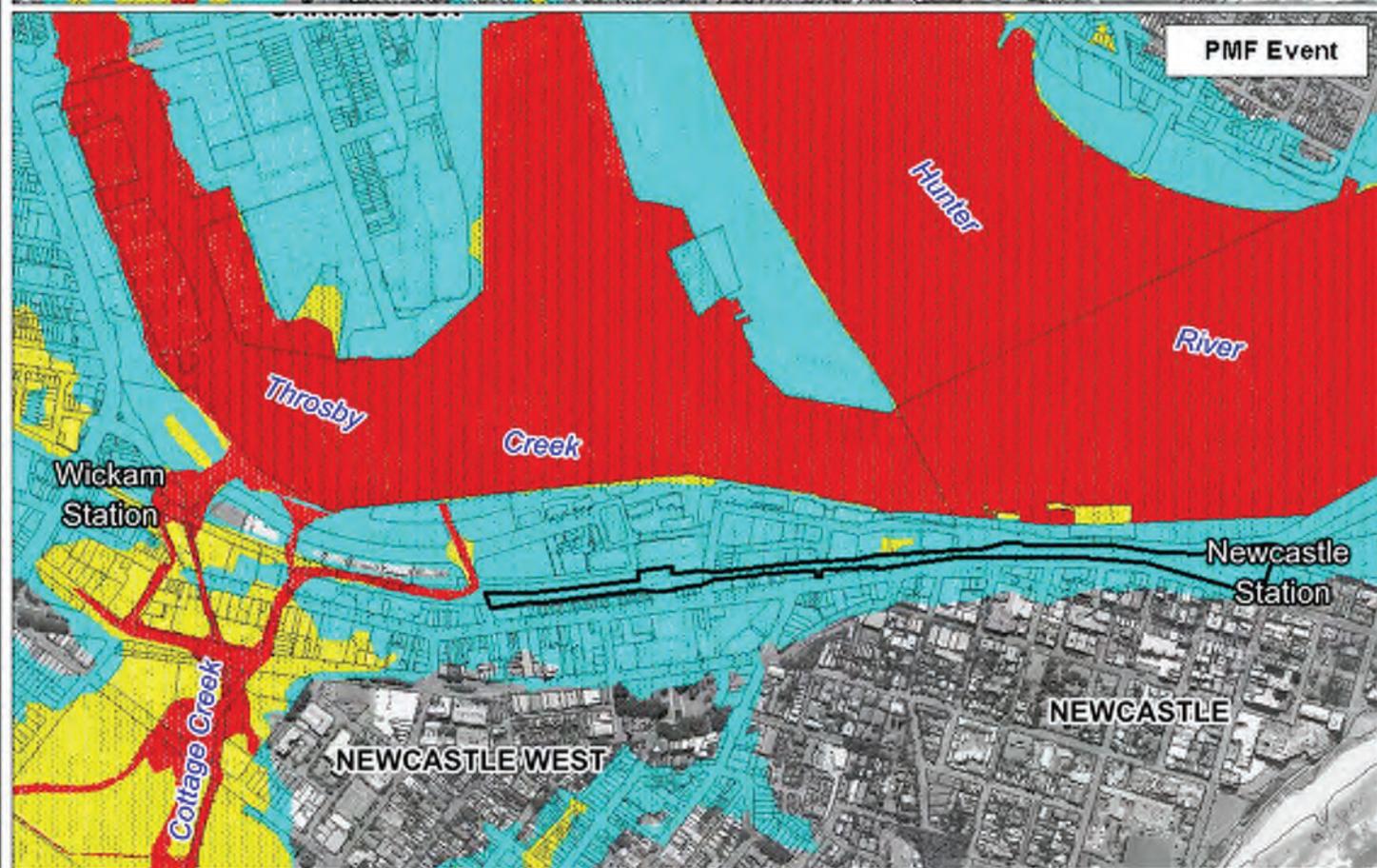
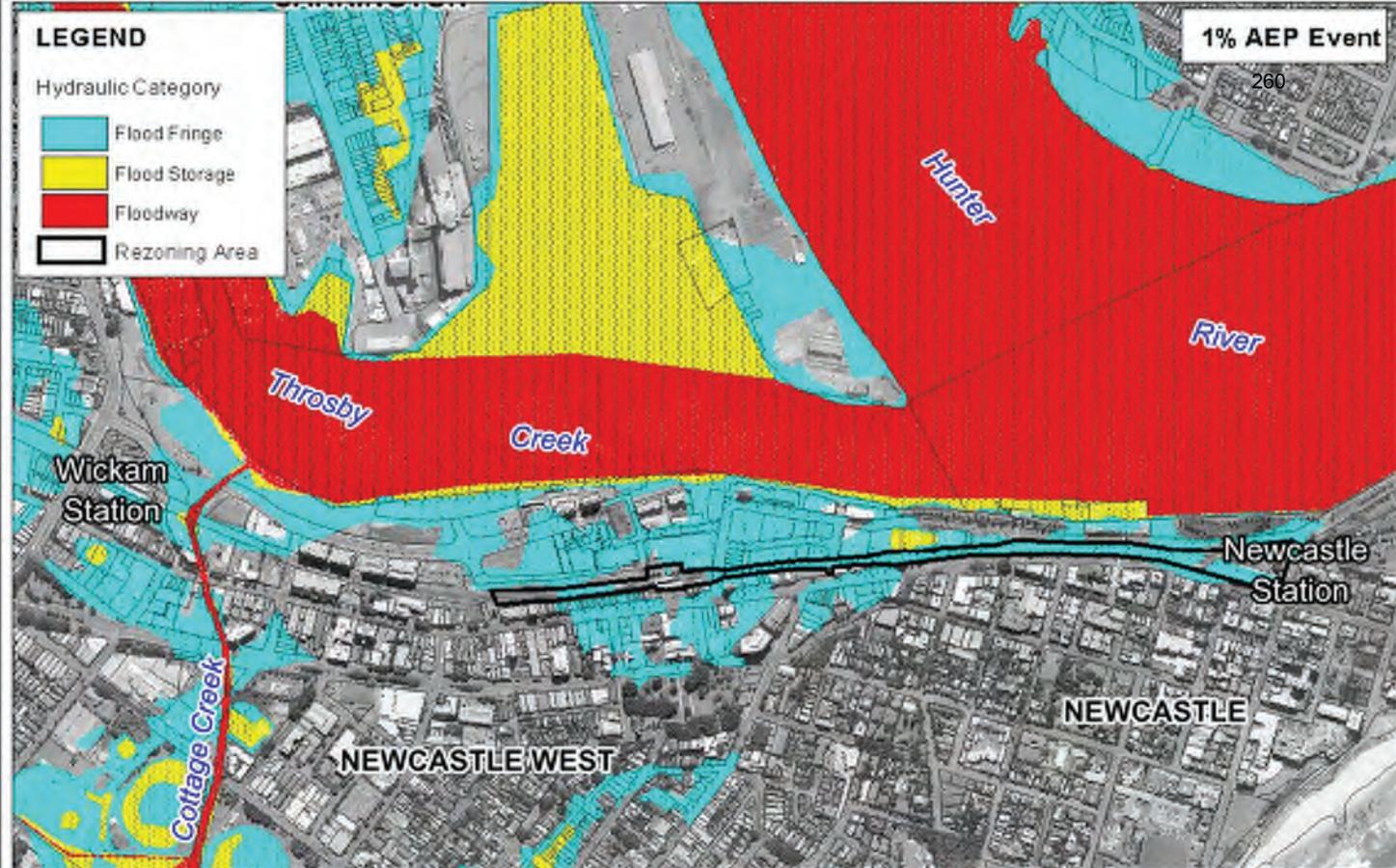
- **Floodway** - Areas that convey a significant portion of the flow. These are areas that, even if partially blocked, would cause a significant increase in flood levels or a significant redistribution of flood flows, which may adversely affect other areas.
- **Flood Storage** - Areas that are important in the temporary storage of the floodwater during the passage of the flood. If the area is substantially removed by levees or fill it will result in elevated water levels and/or elevated discharges. Flood Storage areas, if completely blocked would cause peak flood levels to increase by 0.1m and/or would cause the peak discharge to increase by more than 10%.
- **Flood Fringe** - Remaining area of flood prone land, after Floodway and Flood Storage areas have been defined. Blockage or filling of this area will not significantly affect the flood pattern or flood levels.

The adopted hydraulic impact categories in the Newcastle FRMS are shown in Figure 2-5 and identifies that majority of the site is classed as flood fringe. Flood fringe areas typically don't have major constraints with respect to development type subject to appropriate assessment of potential impacts. Further discussion on flood related development controls applicable to the proposed development site are presented in Section 3.

LEGEND

Hydraulic Category

-  Flood Fringe
-  Flood Storage
-  Floodway
-  Rezoning Area



Title

Hydraulic Categories - 1% AEP and PMF Existing Conditions

Figure

2-5

Rev:

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2.3.2 Property Hazard Categories

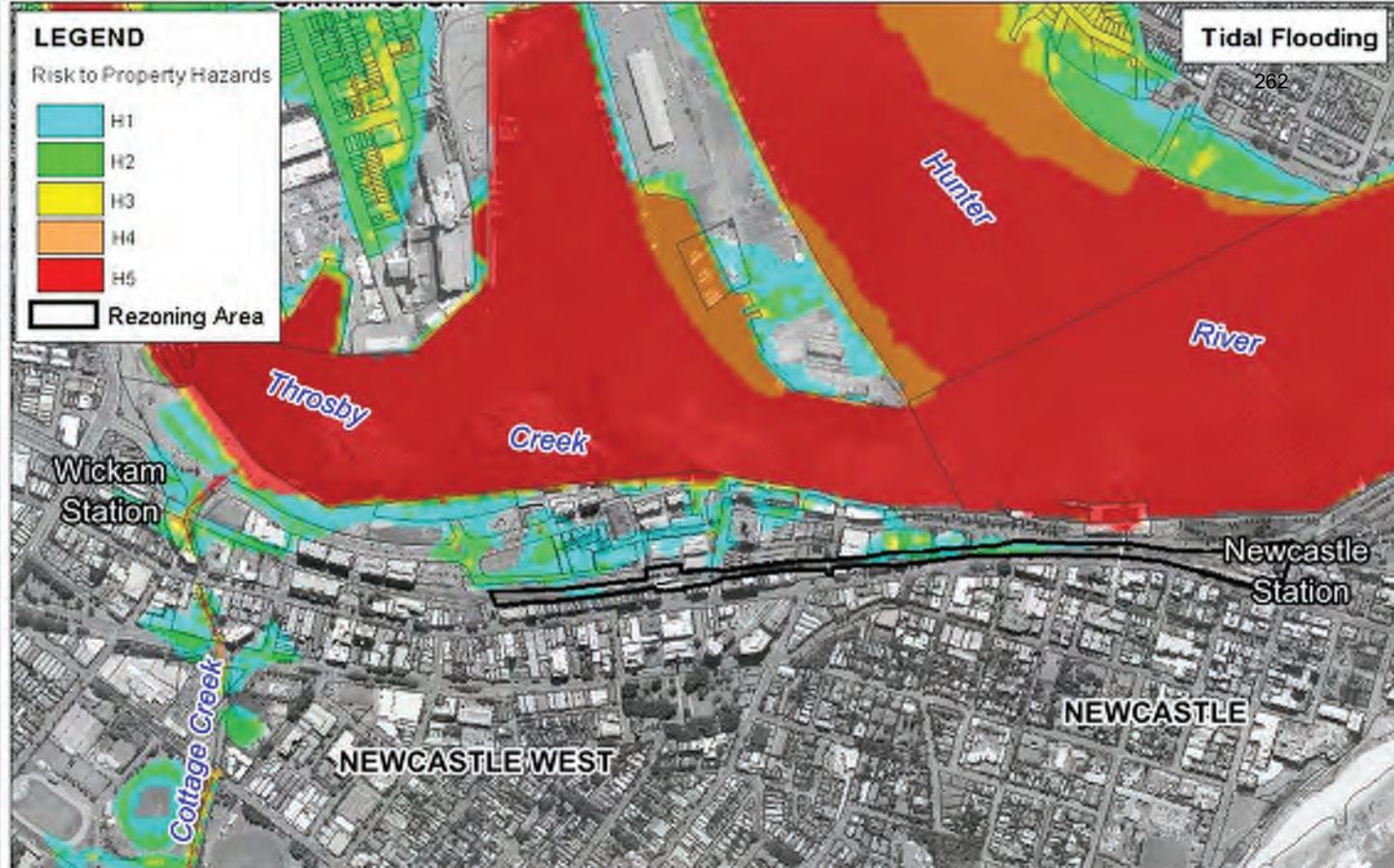
The combination of flood depths and flood velocities can be used to assess the risk to property and life based on the physical flood behaviour. Situations whereby flood depths are shallow, but velocities are high can be just as critical as situations where flood depths are large, but velocities are low. The combination of flood depths and flood velocities ($v*d$) is defined as the flood hydraulic behaviour. Different values, or thresholds, for flood hydraulic behaviour helps to categorise the risk to people exposed to the flood, either directly as pedestrians, or indirectly inside a vehicle, or inside a building/structure. The hydraulic behaviour also aids in the categorisation of risk to property.

The hydraulic behaviour thresholds are described in Table 2-2, which outline associated technical equations in terms of flow depth and velocity. They are not inherently tied to any particular size or likelihood of flood, but rather, they just describe the stability of a chosen object (e.g. a type of building construction) in water of a particular depth and velocity.

Table 2-2 Definition of Hydraulic Behaviour Thresholds (Newcastle City Council, 2003)

Hydraulic Behaviour Threshold	Velocity-Depth Relationship	Risk to Property
H1	$v < 0.5\text{m/s}$ and $d < 0.3\text{m}$	P1 - Parked or moving cars remain stable
H2	$v < 2\text{m/s}$, $d < 0.8\text{m}$ and $v < (3.2 - 4*d)$	P2 - Parked or moving heavy vehicles remain stable
H3	$v < 2\text{m/s}$, $d < 2\text{m}$ and $v*d < 1$	P3 - Suitable for light frame construction
H4	$v < 2.5\text{m/s}$, $d < 2.5\text{m}$ and $v*d < 2.5$	P4 - Suitable for heavy frame construction or structural reinforcement
H5	Remaining areas	P5 - Hydraulically unsuitable for normal building construction

The property hazard classification based on the above definition in the vicinity of the rezoning area is shown in Figure 2-6. The highest property hazard category across the majority of the site is H2. Typically this type of flood condition provides little constraint on the types of construction.



<p>Title</p> <p>Property Hazard Categories - 1% AEP Existing Conditions</p>	<p>Figure</p> <p>2-6</p>	<p>Rev:</p> <p>A</p>
<p>BMT WBM endeavours to ensure that the information provided in this map is correct at the time of publication. BMT WBM does not warrant, guarantee or make representations regarding the currency and accuracy of information contained in this map.</p>	<p>N</p> <p>0 250 500m</p> <p>Approx. Scale</p>	 <p>BMT WBM</p> <p>www.bmtwbm.com.au</p>

2.3.3 Life Hazard Categories

In addition to hydraulic behaviour, risks to life are influenced by the flooding mechanism (i.e. flash, river or ocean), as well as the availability of an evacuation route. Generally, evacuation can be expected from areas that are under threat from river or ocean flooding. As such, the risks to life in areas affected by river and ocean flooding are considered to be low. Flash flooding, however, can represent a significant risk, as there is generally little time to respond or evacuate. If there is an evacuation route available, which consists of a continuously rising route to flood free land (above the PMF level), then the risks in flash flood situations are reduced.

Risks to life categorisation adopted by Council has been developed taking into account both the availability for evacuation and the hydraulic behaviour, as presented in Table 2-3.

The Risks to Life criteria are determined based on PMF conditions. These extreme flood conditions are adopted as the FDM (2005) is explicit in requiring risks to life to be considered and managed over the full range of flood events (i.e. up to the most extreme conditions, or PMF).

Table 2-3 Risk to Life Hazard Categories (adopted at the PMF level)

				Hydraulic Behaviour Threshold				
				H1	H2	H3	H4	H5
Catchment Response Time	Riverine and Ocean Flooding			L1				
	Flash	Escape Route to flood free land	available	L2		L4		L5
			not available	L3				

Where:

- L1 Riverine flooding where there is sufficient time to remove people from the risk to their lives by means of formal community evacuation plans.
- L2 Short duration flash flooding with no warning time in circumstances where there is an obvious escape route to flood free land with enclosing waters during the PMF which are suitable for wading or heavy vehicles i.e. hydraulic threshold does not exceed H2. On site flood refuge not necessary and normal light frame residential building are appropriate.
- L3 Short duration flash flooding with no warning time and no obvious escape route to flood free land with enclosing waters during the PMF which are suitable for wading or heavy vehicles i.e. hydraulic threshold does not exceed H2. On site flood refuge not necessary and normal light frame residential buildings and appropriate.

Existing Flood Risk Environment

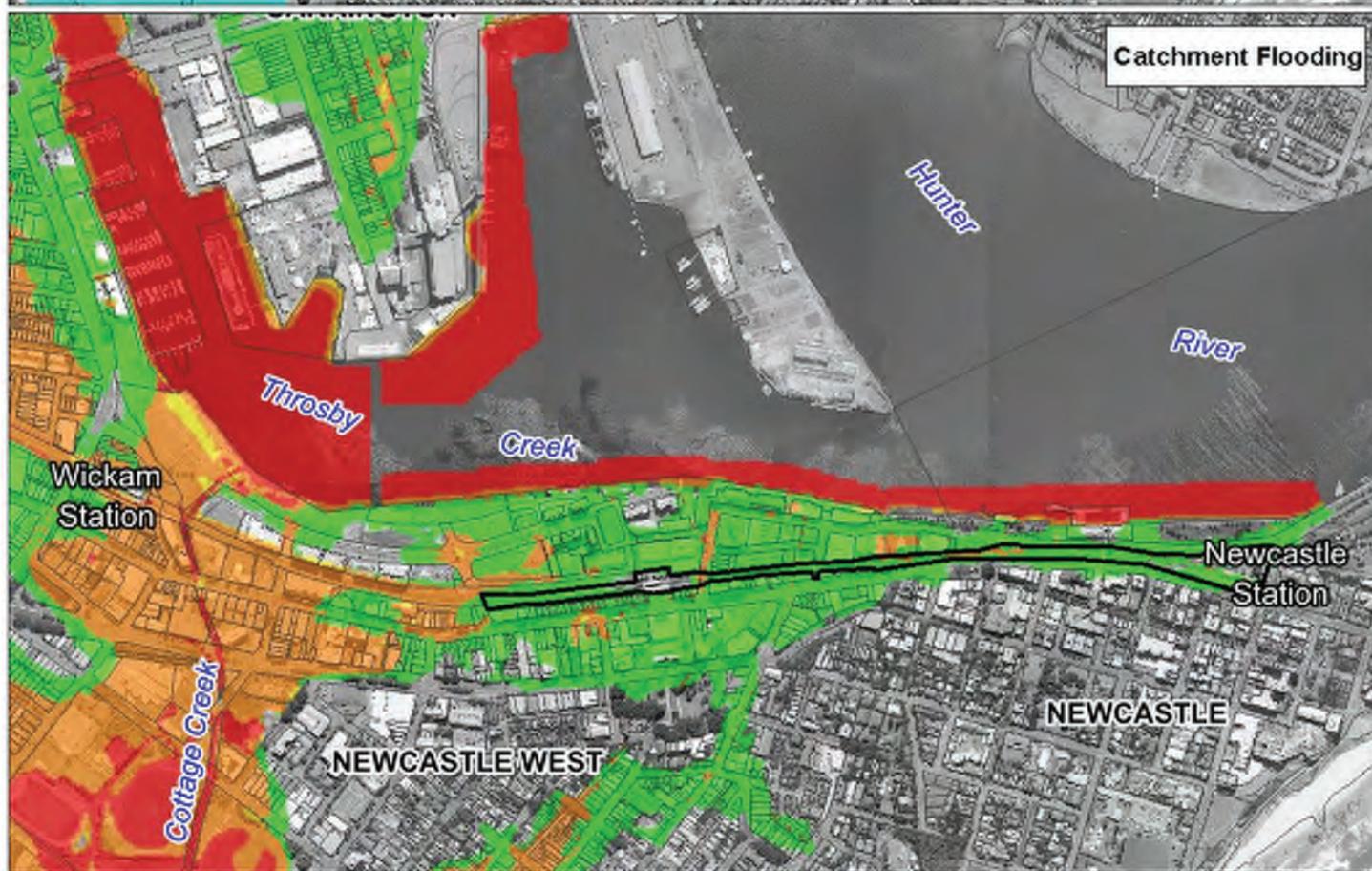
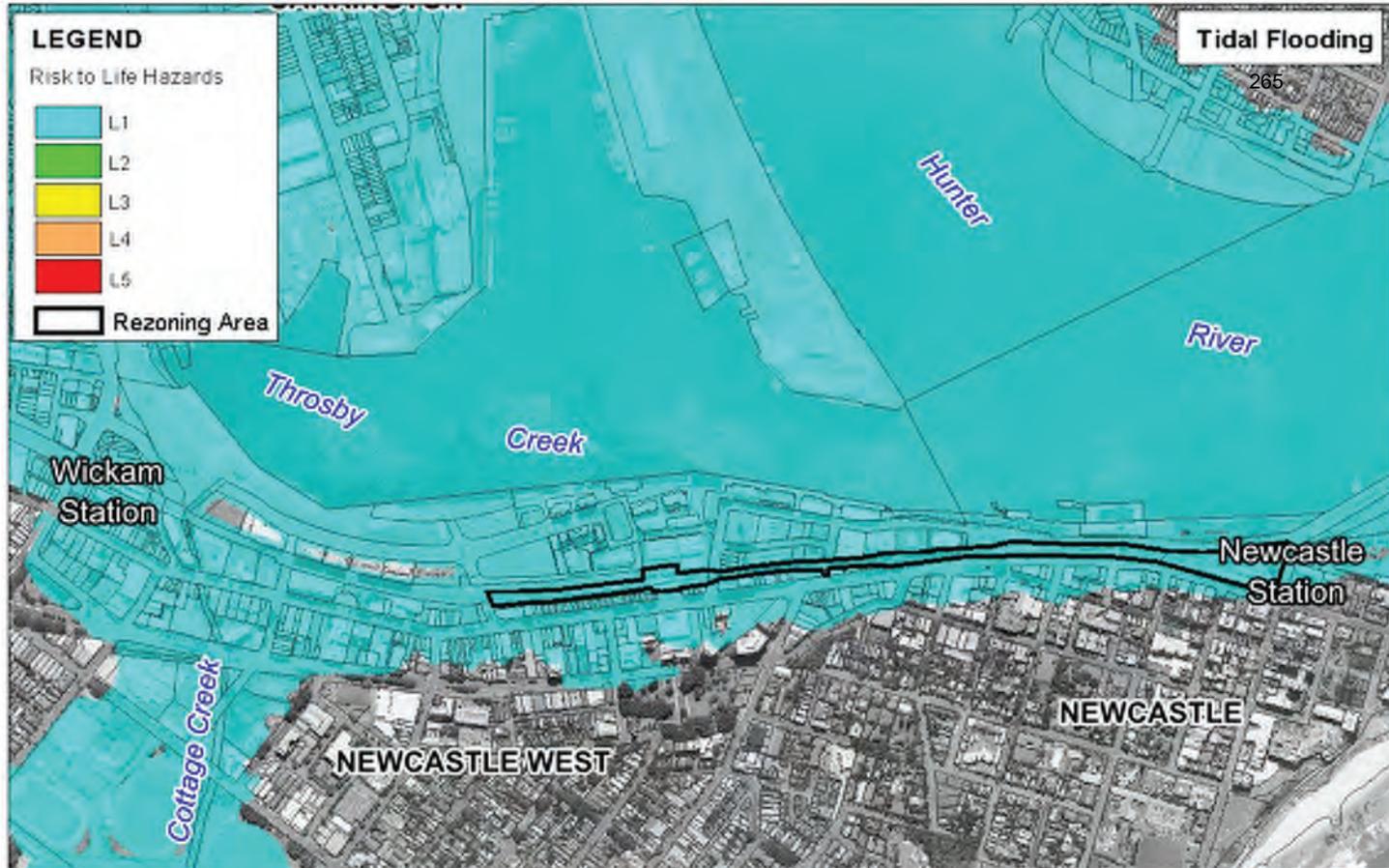
- L4 Short duration flash flooding with no warning time and enclosing waters during the PMF not suitable for wading or heavy vehicles i.e. hydraulic threshold exceeds H_2 . On site refuge is necessary and if hydraulic threshold exceeds H_3 , heavy frame construction or suitable structural reinforcement required.

- L5 Short duration flash flooding with no warning time and enclosing waters during the PMF have too much energy for normal heavy building construction and therefore it is generally not possible to construct a flood refuge i.e. hydraulic threshold is H_5 . The risk to life is considered extreme and the site is unsuitable for habitation, either residential or short stay.

As noted in Table 2-3, the risk to life categorisation for the Hunter River and ocean flooding at the site is the lowest category L1. This is due to the significant warning times afforded to the site for flooding of this nature such that appropriate evacuation plans could be executed.

The local catchment flash flooding scenarios provide the dominant conditions in determining risk to life classification given the short warning times available. As shown on Figure 2-7, the risk to life category across the majority of the rezoning area is L2.

There are some isolated pockets of L4 classification. This L4 area is somewhat limited in extent, however, highlights the potential for rapidly enclosing floodwaters in which wading or driving through floodwaters as a means of evacuation may be difficult. Within the rezoning area, the L4 zones are limited to an existing overland flow path through Merewether Street (limited to the existing road corridor) and small areas of the existing rail corridor that are localised depressions in which the depth of inundation is driving the L4 classification (noting depressions likely to be removed by filling). The areas of existing L4 classification would not be expected to have major constraints on corridor redevelopment.



Title
Life Hazard Categories - 1% AEP Existing Conditions

Figure: **2-7** Rev: **A**

BMTWBM endeavours to ensure that the information provided in this map is correct at the time of publication. BMTWBM does not warrant, guarantee or make representations regarding the currency and accuracy of information contained in this map.



3 Flood Planning Controls

3.1 Review of Regulatory Provisions

3.1.1 State Environmental Planning Policy No. 71 – Coastal Protection (SEPP 71)

State Environmental Planning Policy No. 71 – Coastal Protection (SEPP 71) aims to protect and manage the natural, cultural, recreational and economic attributes of the New South Wales coast. SEPP 71 aims for development in the NSW coastal zone to be appropriate and suitably located, in accordance with the principles of the Ecologically Sustainable Development (ESD). The policy provides for: the protection of and improvement to public access compatible with the natural attributes coastal foreshores; and protects and preserves Aboriginal cultural heritage, visual amenities of the coast, the beach environment and amenity, native coastal vegetation, marine environment of New South Wales, and rocky platforms.

The key elements of SEPP 71 with specific reference to flooding and water management constraints for the proposed development include consideration of:

- the likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards, and
- the likely impacts of development on the water quality of coastal waterbodies.

Section 3.2 outlines the development constraints and design management with respect to the coastal planning provisions.

3.1.2 The NSW Flood Prone Land Policy and Floodplain Development Manual

The NSW Flood Prone Lands Policy aims to reduce personal and public losses and impacts associated with flooding. The Policy does not attempt to preclude development from the floodplain, but rather, recognises the importance of floodplains for development purposes. The Policy promotes a merit-based approach to floodplain development, wherein all social, economic and ecological consequences are to be considered.

The merit-based approach of the Policy requires a holistic approach by Councils and other consent authorities when prescribing responses and requirements for existing and future development in accordance with the principles of the Floodplain Development Manual (2005). The Manual aims at a fundamental consistency of approach across Councils, and in particular seeks to clarify “the intent ... with respect to the determination of Flood Planning Levels and the consideration of rare floods up to the PMF (which) will reduce the potential for inconsistent interpretation by consent authorities”.

The policy is directed towards providing solutions to existing flooding problems in developed areas and ensuring that new development is compatible with the flood hazard and does not create additional flooding problems in other areas. The Policy and recommendations on how to apply the principles of the Policy are defined in the NSW Government’s Floodplain Development Manual (2005).

The NSW Floodplain Development Manual (2005) presents general principles and a process for flood risk management, to enable councils and associated committees to understand flood behaviour, impacts and risks to communities. The Manual has been prepared to assist councils prepare flood risk plans through a staged floodplain risk management process.

The Newcastle City-wide Floodplain Risk Management Study and Plan (City-wide Flood Plan) has been developed to direct and co-ordinate the future management of flood prone lands across the City of Newcastle. Development of the City-wide Flood Plan has been guided by the NSW Government's Floodplain Development Manual (2005).

3.1.3 Newcastle LEP (2012)

Local Environmental Plans (LEP) are prepared in accordance with Part 3 Division 4 of the *Environmental Planning and Assessment Act 1979*. The intent of the LEP is to define the legal framework for land use and development by 'zoning' all land. The LEP incorporates standard planning provisions, clauses, definitions and zones into the one document. It identifies standard zones and zone objectives and specifies permitted and prohibited uses in zones, and identifies compulsory and optional provisions.

The Newcastle LEP (2012) does not contain a standard flood clause. It is understood Council negotiated with the Department of Planning and Environment to have no flood clause in its LEP, and instead rely on the Flood Management provisions of Council's adopted Development Control Plan (2012) (refer to Section 3.1.4). These provisions have been preserved in Council's companion revised Newcastle Development Control Plan, which became effective with the LEP gazettal.

In terms of managing coastal hazards, the LEP contains 'Part 5.5. Development within the Coastal Zone', which is a compulsory clause for all LEPs that apply to land within the coastal zone. Part 5.5 sets objectives and matters for consideration by the consent authority prior to granting consent to development on land wholly or partly within the coastal zone. The objectives include implementing the principles of the NSW Coastal, in particular including the objective to "(iv) recognise and accommodate coastal processes and climate change". In this regard, Part 5.5. states that development consent must not be granted unless the consent authority is satisfied that:

"(d) the proposed development will not:

- (i) be significantly affected by coastal hazards, or
- (ii) have a significant impact on coastal hazards, or
- (iii) increase the risk of coastal hazards in relation to any other land."

3.1.4 Newcastle Development Control Plan (2012)

The Newcastle Development Control Plan 2012 (DCP) provides guidelines to Development Applications for assessment by Council. Section 4.01 of Council's DCP addresses flood management, and applies to all development on flood prone land. The DCP aims to apply elements of the Newcastle Flood Policy in relation to proposed future development and provides

Flood Planning Controls

specific guidelines on development within flood prone land. In particular, the DCP provides guidelines on:

- Development within floodways;
- Development within flood storage areas;
- Measures to minimise risks to property (linked to the Flood Planning Level);
- Measures to minimise risks to life (in particular, on site refuge for flash flooding only); and
- Riparian zone management and restoration.

The definition of various flood risk categories referred to on the DCP have been determined across the Newcastle LGA within the adopted City-wide Floodplain Risk Management Study and Plan. As noted, the Plan was developed under the guiding principles for floodplain management as outlined in the Floodplain Development Manual (2005). The DCP provisions in conjunction with Council's adopted flood risk mapping (as presented in Section 3 of this report) define the overarching floodplain risk management constraints for the proposed development.

None of the sections within the DCP provide guidance for managing or minimising risks from coastal hazards, in particular, erosion and recession, and coastal inundation with wave overtopping.

Section 4.01 Flood Management details provisions for managing flooding risks to development. While specific provisions for climate change are not given within this DCP section, the definition of "flooding" recognises the contribution of coastal inundation which is defined as "caused by seawater inundation due to king tides, storm surge, barometric effects, shoreline recession, subsidence, the enhanced greenhouse effect or other causes". The DCP does not directly address coastal inundation or climate change. Instead, for coastal inundation and climate change to be managed through these DCP provisions, they would need to be incorporated when determining the flood planning level.

3.2 Development Constraints

Flooding

Section 2 and 3 outline the expected flood conditions at the site for the key flood planning events and the typical classifications used for flood planning in accordance with Council policies. Provided hereunder is a summary of the key flood related development controls appropriate to the proposed development site.

- Flood Planning Level – 2.8m AHD – the flood planning levels for proposed new buildings is expected to be derived from the peak 1% AEP Flood Level from ocean flooding incorporating 0.9m sea level rise allowance and appropriate 0.5m freeboard allowance. This would provide for the minimum occupiable floor levels for proposed developments. Other floor level controls may relate to parking entries/basements etc.
- Flood Classification – the only area classified as floodway in Council's existing mapping (refer to Figure 2-5) in the vicinity of the rezoning area is the extension of the overland flow path along Worth Place. However, there is no floodway area within the proposed rezoning boundary. The

remainder of the rezoning area is largely classified as flood fringe. By definition, blockage or filling of this area will not significantly affect the flood pattern or flood levels. This would be demonstrated by appropriate detailed modelling of design development layouts to support future Development Applications.

- Risk to Life – the high hazard areas within the rezoning area are limited to the existing overland flow path along existing road alignments and localised depressions within the rail corridor (refer to Figure 2-7). It is envisaged that in providing greater connectivity through open space area, there will be the potential to increase the areas of high hazard. Whilst typically not constraining development, given the high flash flood risk, consideration will need to be given to evacuation and emergency response opportunity in these public space areas. It is envisaged this can be achieved through future design phases with opportunity to provide pedestrian access to suitable areas of refuge above the PMF extent and modification of ground levels to remove localised depressions.

For the full suite of development controls, reference should be made to Section 4.01 Flood Management of Councils DCP 2012.

Coastal

Given the proximity of the rezoning area to the Hunter River estuary, the proposal constitutes Development in the Coastal Zone. Provided hereunder is a summary of the key development constraints related to coastal zone management:

- Coastal Processes – the scale and nature of the proposed development is such that it would have insignificant impact on the coastal processes of the broader Hunter River estuary. The works provide for no significant changes to existing overland flow distributions or tidal dynamics of the estuary. The development site is adjacent to the estuarine reaches of Throsby Creek, with the existing shoreline being a hard engineered sea wall. Accordingly there is considered no significant coastal erosion/recession risk to be managed for the development. The site may be impacted upon by coastal flooding, which may be exacerbated by potential climate change influences such as sea level rise. However, existing flood risk policies and appropriate development controls include consideration of the coastal inundation risk.
- Protection of coastal environment – as noted, the development is not expected to have any significant changes in existing flow regimes, however, there is some potential for potential impacts on water quality in the estuary. Again, given the nature and scale of the development, appropriate control of these risks are expected to be effectively managed through development of appropriate stormwater management and erosion/sedimentation control plans for both construction and operational phases of the development. In developing these plans, more detailed consideration of potential pollutant sources will need to be considered including existing contaminated lands and acid sulphate soil areas.

The constraints identified above are expected to be effectively managed through the design phases of the redevelopment through the development of an appropriate flood risk management plan and stormwater/water quality management plan. The local detail of plans will be dependent on the proposed built form environments and accordingly concept plans would be developed through the

design process in future planning stages. At this rezoning planning phase it is considered there are no major constraints on the proposed future development from a flooding/stormwater perspective.

4 Consistency with Flood Prone Land Direction

Parts of the land to which the planning proposal applies are affected by flooding. By seeking to change the land use zoning in a Flood Planning Area, and thereby increasing the potential for an increase in flood risk exposure on the land, the proposal needs to demonstrate consistency with Section 117 Direction 4.3 Flood Prone Land.

The consistency with the flood planning direction is demonstrated through the preparation of the planning proposal being in accordance with the relevant Newcastle City-wide Floodplain Risk Management Plan, developed on the principles of the NSW Governments Flood Policy and the NSW Floodplain Development Manual. The planning proposal has considered relevant flood planning controls (Section 4.01 Newcastle Development Control Plan 2012) developed as a direct result of the City-wide FRMP.

Any risks associated with higher density development will be effectively dealt with through flood planning development controls at the DA stage. No development in the rezoned areas will be permitted without consent. Accordingly, application of development control policies through the development approval process would provide for appropriate flood planning conditions such as:

- New development which occurs will be developed in such a way as to effectively avoid, minimise, or mitigate the flood risk according to the individual circumstances of each site.
- Physical impacts, brought about by increases to building footprints or the presence of walls and fences which might interfere with overland flows will be effectively dealt with by Council's flood planning controls.
- The requirement for a flood evacuation strategy or a site emergency response flood plan will ensure that no additional risk to life or property occurs in these areas as a result of increased population density.

4.1 Summary of Response to S.117 Direction 4.3 Flood Prone Land

Objectives

(1) The objectives of this direction are:

(a) to ensure that development of flood prone land is consistent with the NSW Government's Flood Prone Land Policy and the principles of the Floodplain Development Manual 2005, and

(b) to ensure that the provisions of an LEP on flood prone land is commensurate with flood hazard and includes consideration of the potential flood impacts both on and off the subject land.

Where this direction applies

(2) This direction applies to all relevant planning authorities that are responsible for flood prone land within their LGA.

- The direction applies. City of Newcastle is responsible for flood prone land.

When this direction applies

(3) This direction applies when a relevant planning authority prepares a planning proposal that creates, removes or alters a zone or a provision that affects flood prone land.

- The direction applies. The Planning Proposal seeks to alter a zone that affects flood prone land.

What a relevant planning authority must do if this direction applies

(4) A planning proposal must include provisions that give effect to and are consistent with the NSW Flood Prone Land Policy and the principles of the Floodplain Development Manual 2005 (including the Guideline on Development Controls on Low Flood Risk Areas).

- Consistent. The Newcastle LEP (2012) does not contain a standard flood clause. It is understood Council negotiated to have no flood clause in its LEP, and instead rely on the Flood Management provisions of Council's adopted Development Control Plan (2012). These provisions are consistent with the NSW Flood Prone Land Policy and the principles of the Floodplain Development Manual 2005. The Planning Proposal will not alter flood prone land provisions within the DCP2012.

(5) A planning proposal must not rezone land within the flood planning areas from Special Use, Special Purpose, Recreation, Rural or Environmental Protection Zones to a Residential, Business, Industrial, Special Use or Special Purpose Zone.

- Inconsistent. The Planning Proposal intends to rezone land from SP2 Infrastructure to B4 Mixed Use. However, the area is generally classified as low risk precinct such that application of appropriate development controls is expected to provide effective flood risk management to enable change in land use without increase in overall flood risk.

(6) A planning proposal must not contain provisions that apply to the flood planning areas which:

(a) permit development in floodway areas,

- Consistent. No parts of the subject lands are located within a floodway area. Further, the planning proposal does not include provisions that permit development to be carried out without development consent. Existing development controls will effectively restrict new residential or commercial development from occurring within floodway zones which would be incompatible with the flood hazard.

(b) permit development that will result in significant flood impacts to other properties,

- Consistent. The planning proposal does not include provisions that permit development to be carried out without development consent. Existing development controls require consideration of potential adverse flood impact in the development assessment process.

(c) permit a significant increase in the development of that land,

- Inconsistent. The rezoning of parcels to B4 Mixed Use provides the opportunity for increased development from the existing rail corridor. However, the area is generally classified as low risk precinct such that application of appropriate development controls is

Consistency with Flood Prone Land Direction

expected to provide effective flood risk management to enable proposed development yields to be realised without increase in overall flood risk.

(d) are likely to result in a substantially increased requirement for government spending on flood mitigation measures, infrastructure or services, or

- Consistent. Future redevelopment consistent with the new zoning will be required to satisfy objectives of Councils flood policy objective to reduce the risks and costs of flooding to existing areas.

(e) permit development to be carried out without development consent except for the purposes of agriculture (not including dams, drainage canals, levees, buildings or structures in floodways or high hazard areas), roads or exempt development.

- Consistent. The planning proposal does not include provisions that permit development to be carried out without development consent.

(7) A planning proposal must not impose flood related development controls above the residential flood planning level for residential development on land, unless a relevant planning authority provides adequate justification for those controls to the satisfaction of the Director-General (or an officer of the Department nominated by the Director-General).

- Consistent. The Planning Proposal will not impose flood related development controls above the residential flood planning level for residential development on land.

(8) For the purposes of a planning proposal, a relevant planning authority must not determine a flood planning level that is inconsistent with the Floodplain Development Manual 2005 (including the Guideline on Development Controls on Low Flood Risk Areas) unless a relevant planning authority provides adequate justification for the proposed departure from that Manual to the satisfaction of the Director-General (or an officer of the Department nominated by the Director-General).

- Consistent. The flood planning levels adopted by Council are based on the City-wide Floodplain Risk Management Study and Plan (2012) which has been prepared in accordance with the Floodplain Development Manual 2005.

Consistency

(9) A planning proposal may be inconsistent with this direction only if the relevant planning authority can satisfy the Director-General (or an officer of the Department nominated by the Director-General) that:

(a) the planning proposal is in accordance with a floodplain risk management plan prepared in accordance with the principles and guidelines of the Floodplain Development Manual 2005, or

- Applicable. The rezoning proposal has considered provisions and is consistent with Newcastle City-wide Floodplain Risk Management Plan developed under the guiding principles for floodplain management as outlined in the Floodplain Development Manual (2005).

(b) the provisions of the planning proposal that are inconsistent are of minor significance.

- Not applicable

5 References

BMT WBM (2012) *Newcastle City-wide Floodplain Risk Management Study and Plan*

Newcastle City Council (2003) *Newcastle Flood Policy*

Newcastle City Council (2004) *Newcastle Stormwater Management Plan*

NSW Government (2005) *Floodplain Development Manual*

Newcastle City Council (2012) *Newcastle Development Control Plan – Section 4.01 Flood Management*

WBM, 2006. *Throsby Creek and Cottage Creek Flood Study*. Prepared for City of Newcastle.

Appendix A Newcastle DCP Section 4.01 Flood Management

4.01 Flood Management

Amendment history

Version Number	Date Adopted by Council	Commencement Date	Amendment Details
1	15/11/2011	15/06/2012	New

Savings provisions

Any development application lodged but not determined prior to this section coming into effect will be determined as though the provisions of this section did not apply.

Land to which this section applies

This section applies to all development on flood prone (= flood liable) land in the Newcastle Local Government Area, as defined by Council's Flood Policy - (adopted 2004) and *The NSW Government Floodplain Development Manual – the management of flood liable land (2005)*, being "land susceptible to flooding by the PMF event" *.

A flood information application form can be obtained from Council's website: (www.newcastle.nsw.gov.au) or Council's Customer Enquiry Centre, City Administration Centre, 282 King Street Newcastle NSW 2300.

Development (type/s) to which this section applies

All of these provisions apply to all development on flood prone land with the exception of minor additions to existing buildings.

Minor additions (refer to definitions) are allowable without further reference to the provisions of this section, provided that the flood risk is not unreasonably increased.

Applicable environmental planning instruments

The provisions of the Newcastle Local Environmental Plan 2012 also applies to development applications to which this section applies.

In the event of any inconsistency between this section and the above environmental planning instrument, the environmental planning instrument will prevail to the extent of the inconsistency.

Note 1: Additional environmental planning instruments may also apply in addition to those listed above.

Note 2: Section 74E (3) of the *Environmental Planning and Assessment Act 1979* enables an environmental planning instrument to exclude or modify the application of this DCP in whole or part.

* Supplementary note (not required for application of this DCP): This definition remains unchanged to that defined by the previous Element 4.3 Flood Management Newcastle DCP 2005.

Associated technical manual/s

- *The NSW Government Floodplain Development Manual – the management of flood liable land (2005)*. This Manual is available from the NSW Government website at the time of writing (www.environment.nsw.gov.au) or a copy may be viewed at Council's Customer Enquiry Centre.

Additional information

More information about floodplain risk management in the Newcastle Local Government Area can be found at Council's website. Copies of various flood studies and reports are also available for viewing at Council's Customer Enquiry Centre.

Definitions

A word or expression used in this development control plan has the same meaning as it has in Newcastle Local Environmental Plan 2012, unless it is otherwise defined in this development control plan.

Other words and expressions referred to within this section are defined within Part 9.00 – Glossary and include:

- **Annual exceedance probability (AEP)** – is the probability that a flood of a given or larger magnitude will occur within a period of one year. Its reciprocal is equivalent to average recurrence interval.
- **Average recurrence interval (ARI)** – the average period between the recurrence of a storm event of at least a given rainfall intensity. The ARI represents a statistical probability. For example, a 10 year ARI indicates an average of 10 events over 100 years. The ARI is not the period between actual events.
- **Basement garage** – is a garage normally used for the parking of vehicles with the floor constructed below the street level.
- **Flood fringe areas** - the remaining area of the floodplain not included in flood storage areas and floodways. Flood fringe areas can usually be developed without reference to how that development will affect the flood behaviour either upstream or downstream.
- **Flood information certificate** - is a certificate issued by Council that provides information about the likelihood, extent or other characteristics of flooding known to affect a specified parcel of land.
- **Flooding** - is relatively high stream flow which overtops the natural or artificial banks in any part of a stream, river estuary, lake or dam, and/or local overland flooding associated with major drainage, and/or coastal inundation resulting from super-elevated sea levels and/or waves, excluding tsunamis. Accordingly, flooding may occur due to a variety of reasons, either separately or in combination including:
 - river flooding - caused by a river or stream overtopping its banks onto the surrounding floodplain
 - urban flooding - caused by urban stormwater flows during an intense rainfall event, such as surface flows, surcharge from piped drainage systems or overflow from man-made stormwater channels.
 - coastal inundation - caused by sea water inundation due to king tides, storm surge, barometric effects, shoreline recession, subsidence, the enhanced greenhouse effect or other causes.

- **Flood liable land** - is synonymous with flood prone land (ie) land susceptible to flooding by the PMF event on the basis of flood information held by Council. Note that the term flood liable land covers the whole floodplain, not just that part below the FPL (see flood planning area).
- **Floodplain** - an area of land along the course of a river that is subject to periodic inundation due to the river overtopping its bank. It is commonly delineated by the area that would be flooded by an event with a given average recurrence interval.
- **Flood planning area** - the area of land below the FPL. Note that development controls that mainly relate to risk to property apply to the flood planning area, but other development controls mainly relating to risk to life and floodways and flood storages may apply to the remainder of flood liable (prone) land.
- **Flood planning level (FPL)** - is the level of the planning flood plus an additional freeboard as advocated in the NSW Floodplain Development Manual. For purposes of this element, the planning flood is the 1% Annual Exceedance Probability flood, and the freeboard is generally 500mm.
- **Flood prone land** - is land that, on the basis of flood information held by Council, is estimated to be inundated by the probable maximum flood.
- **Flood refuge** - is an area free of flooding. It can be either higher ground or it could be in the form of an area of the building, either constructed specifically for the purpose or as an intrinsic part of the building.
- **Flood storage area** - is an area where flood water accumulates and the displacement of that floodwater will cause a significant redistribution of floodwaters, or a significant increase in flood levels, or a significant increase in flood frequency. Flood storage areas are often aligned with floodplains and usually characterised by deep and slow moving floodwater.
- **Floodway** - those areas of the floodplain where a significant discharge of water flows during floods; often aligned with obvious naturally defined channels. Floodways are areas which, even if only partially blocked, would cause a significant redistribution of flood flow or increase in flood levels, which may in turn adversely affect other areas.
- **Freeboard** - is a margin applied to the estimation of flood levels to compensate for factors such as wave action, localised hydraulic behaviour, climatic change and modelling confidence.
- **Hydraulic behaviour threshold** - is a set of circumstances (that may or may not be present at some locations at some time in any particular sized flood) that constitutes a particular level of hydraulic impact, as specified below:

H ₁	hydraulically suitable for parked or moving cars $V < 0.5\text{m/sec}$ and $d < 0.3\text{m}$
H ₂	hydraulically suitable for parked or moving heavy vehicles and wading by able-bodied adults $V < 2\text{m/sec}$, $d < 0.8\text{m}$ and $v < 3.2 - 4*d$
H ₃	hydraulically suitable for light construction (eg. <i>timber frame and brick veneer</i>) $v < 2\text{m/sec}$, $d < 2\text{m}$, $v*d < 1$
H ₄	hydraulically suitable for heavy construction (eg. <i>steel frame and reinforced concrete</i>) $v < 2.5\text{m/sec}$, $d < 2.5\text{m}$ and $v*d < 2.5$
H ₅	generally unsuitable

Life hazard - is the 'risk to life hazard category' as a combination of hydraulic hazard category, warning time and escape path availability, applied to all floods, up to and including the PMF (as required by the NSW Government Floodplain Development Manual for the management of personal safety). For simplicity, the Life Hazard categories set out below are only assessed at the PMF in the application of this DCP section, on the assumption that once the PMF is managed for personal safety, all other lesser floods will also be managed. The life hazards "L1" to "L5" are defined below*:

				Hydraulic Behaviour Threshold				
				H1	H2	H3	H4	H5
Catchment Response Time	Riverine			L1				
	Flash	Escape Route to flood free land	available	L2		L4		L5
			not available	L3				

L1	Riverine flooding where there is sufficient time to remove people from the risk to their lives by means of formal community evacuation plans. Not relevant to flash flooding scenarios such as the Wallsend Catchment.
L2	Short duration flash flooding with no warning time in circumstances where there is an obvious escape route to flood free land with enclosing waters during the PMF which are suitable for wading or heavy vehicles ie. hydraulic threshold does not exceed H2. On site flood refuge not necessary and normal light frame residential building are appropriate.
L3	Short duration flash flooding with no warning time and no obvious escape route to flood free land with enclosing waters during the PMF which are suitable for wading or heavy vehicles ie. hydraulic threshold does not exceed H2. On site flood refuge not necessary and normal light frame residential buildings and appropriate.
L4	Short duration flash flooding with no warning time and enclosing waters during the PMF not suitable for wading or heavy vehicles ie. hydraulic threshold exceeds H2. On site refuge is necessary and if hydraulic threshold exceeds H3, heavy frame construction or suitable structural reinforcement required.
L5	Short duration flash flooding with no warning time and enclosing waters during the PMF have too much energy for normal heavy building construction and therefore it is generally not possible to construct a flood refuge ie. hydraulic threshold is H5. The risk to life is considered extreme and the site is unsuitable for habitation, either residential or short stay.

* Supplementary note (not required for application of this DCP): This definition remains unchanged to that defined by the previous Element 4.3 Flood Management Newcastle DCP 2005.

- **Minor additions** - (for the purpose of section 4.01 Flood Management) are additions that fall below the following limits:

Existing building area	Minor addition limit
< 250m ²	50m ²
250m ² – 750m ²	20% of the existing building area
>750m ²	150m ²

- **Occupiable rooms** – rooms of buildings where people may be present in the normal use of the building.
- **Planning flood** - is the flood event from which the flood planning level is derived. It is expressed in terms of the probability of the event being exceeded, usually within any given year (see annual exceedance probability).
- **Probable maximum flood (PMF)** - is the largest flood that could conceivably occur at a particular location.
- **Probable maximum flood level** - the flood level calculated to be the maximum which is likely to occur.
- **Property hazard** - is the 'risk to property hazard category' as a combination of hydraulic behaviour threshold and its effect on property. The risk to property hazards are based on the peak hydraulic behaviour thresholds (H_1 - H_5) determined for the 1 in 100 annual chance flood. Five risks to property hazard categories (P1-P5) are defined as P1-P5 correlate directly with H1-H5 as follows*:

P ₁	Parked or moving cars remain stable ie. equivalent to areas of H ₁ at the Flood Planning Event.
P ₂	Parked or moving heavy vehicles remain stable ie. equivalent to areas of H ₂ at the Flood Planning Event.
P ₃	Suitable for light construction (<i>eg. timber frame, masonry and brick veneer</i>) ie. equivalent to areas of H ₃ at the Flood Planning Event.
P ₄	Suitable for heavy construction (<i>eg. steel frame, reinforced concrete</i>) ie. equivalent to areas of H ₄ at the Flood Planning Event.
P ₅	Hydraulically unsuitable for normal building construction is equivalent to areas of H ₅ at the Flood Planning Event.

The distribution of P₁-P₅ is identical to the related H₁-H₅ (*at the Flood Planning Event*).

- **Tsunami** - a series of ocean waves with very long wavelengths (typically hundreds of kilometres) caused by large-scale disturbances of the ocean, such as:
 - earthquakes
 - landslide
 - volcanic eruptions
 - explosions
 - meteorites.

* Supplementary note (not required for application of this DCP): This definition remains unchanged to that defined by the previous Element 4.3 Flood Management Newcastle DCP 2005.

Aims of this section

1. To guide the development of floodprone land, applying balanced strategies to economically, socially and environmentally manage risk to life and property.
2. To set aside appropriate areas to convey and/or store flood waters.
3. To ensure development, when considered both individually and as an instance of cumulative development trends, will not cause unreasonable adverse flooding impacts in other locations.
4. To implement the principles of *The NSW Government Floodplain Development Manual (2005)* to new development as applicable.

Notes: Tsunami and very minor nuisance flooding (such as the trapping of surface runoff in a road shoulder or against a building) are specifically excluded from the application of the DCP.

The life risk hazard category “L1” assumes people will respond to warnings and safely evacuate to the safety flood free high ground. Additional requirements may be necessary to manage personal safety in riverine flooding if there is evidence that a lack of response is likely, and this may lead to life threatening situations.

4.01.01 Floodways

Objectives

1. Retain floodways in a condition capable for the conveyance of essential flood flow.

Controls

1. No building or structure erected and no land filled by way of the deposition of any material within any area identified as a floodway except for minor alterations to ground levels which do not significantly alter the fundamental flow patterns for:
 - (a) roads
 - (b) parking
 - (c) below ground structures
 - (d) landscaping.
2. Where dividing fences across floodways are unavoidable, they are constructed only of open type fencing that does not restrict the flow of flood waters and are resistant to blockage. New development shall be designed to avoid fences in floodways.

Note: Floodways are shown on a flood information certificate obtainable on application from Council. In general, development other than low level driveways and parking areas is not practicable in floodways. Floodways are not necessarily indicative of high hazard flow, although the two will generally coincide. It is necessary to separately investigate hazard in order to determine if parking areas and the like are suitable within floodways.

4.01.02 Flood storage areas

Objectives

1. Protect flood storage areas to provide storage of floodwaters to ensure that other areas are not significantly worse off due to development of the site.

Controls

1. Not more than 20% of the area of any development site in a flood storage area is filled. The remaining 80% is generally developed allowing for underfloor storage of floodwater by the use of suspended floor techniques such as pier and beam construction.
2. Where it is proposed to fill development sites, the fill does not impede the flow of ordinary drainage from neighbouring properties, including overland flow.

Note: Flood storage areas are identified on the flood information certificate.

4.01.03 Management of risk to property

Objectives

1. Manage risks to property up to an acceptable level of risk (the flood planning level).

Controls

1. Floor levels of all occupiable rooms of all buildings are not set lower than the FPL.
2. Garage floor levels are no lower than the 1% Annual Exceedance Probability Event. However, it is recognised that in some circumstances this may be impractical due to vehicular access constraints. In these cases, garage floor levels are as high as practicable.
3. Basement garages may be acceptable where all potential water entry points are at or above the probable maximum flood (PMF), excepting that vehicular entry points can be at the FPL. In these cases, explicit points of refuge are accessible from the carpark in accordance with the provisions for risk to life set out below.
4. Electrical fixtures such as power points, light fittings and switches are sited above the FPL unless they are on a separate circuit (with earth leakage protection) to the rest of the building.
5. Where parts of the building are proposed below the flood planning level, they are constructed of water-resistant materials.
6. Areas where cars, vans and trailers are parked, displayed or stored are not located in areas subject to property hazard of P2 or higher. Containers, bins, hoppers and other large floatable objects also are not stored in these areas. Heavy vehicle parking areas are not located in areas subject to property hazard P3 or higher.

7. Timber framed, light steel construction, cavity brickwork and other conventional domestic building materials are generally not suitable forms of construction where the property hazard is P4 or higher. Where property hazard is P4, the structure is certified by a practising structural engineer to withstand the hydraulic loads (including debris) induced by the flood waters.
8. Property hazards of P5 are generally unsuitable for any type of building construction and building is discouraged from these areas. Where building is necessary, the structure is certified by a practising structural engineer to withstand the hydraulic loads (including debris) induced by the flood waters.

Note: This provision limits the risk of inundation relative to the flood planning level (FPL). The FPL is the water surface level of the relevant 'planning flood' plus a freeboard. Compliance with the flood planning level does not guarantee that flooding will not affect work carried out in accordance with Risk to Property Development Controls: In most cases, the flood planning levels and the property hazards are given on the flood information certificate for the relevant property. The "planning flood" for all development in all areas of Newcastle is the 1% Annual Exceedance Probability event.

4.01.04 Management of potential risk to life

Objectives

1. Only permit new development or redevelopment where the full potential risk to life from flooding can be managed for all floods up to and including the PMF.

Controls

Risk to life category L5

1. Risk to life hazards of L5 are generally unsuitable for any type of building construction and building is discouraged from these areas. Reliable safe escape to high ground is likely not possible and normal building construction would likely suffer structural failure from the force of floodwaters, so that any people seeking refuge in the building would likely perish. Where building is necessary, the structure is certified by a practising structural engineer to withstand the hydraulic loads (including debris) induced by the flood waters.

Islands

2. The formation of islands in the floodplain during a flood is a potentially dangerous situation, especially when floods larger than the FPL totally inundate the island for an extended period. Development of such land is considered with great care.

On-site refuge

3. On-site refuge is to be provided for all development where the life hazard category is L4 unless the proposed development is less than 40m from the perimeter of the PMF extent and the higher ground is accessible.

Note: Refuge can be in the form of on-site refuge or convenient access to flood free ground. In general, it is not acceptable to rely on refuge provided by or on other development sites. In all cases where on site refuge is provided, it is to be both intrinsically accessible to all people on the site and an integrated part of the development (eg a second storey with stair access). The route to the refuge is to be fail safe, plainly evident and self-directing. In most cases, life hazard categories are nominated on the flood information certificate for the relevant property.

Standards for on-site refuge

4. Where on-site refuge is required for a development, it should comply with the following minimum standards:
 - (a) The minimum on-site refuge level is the level of the PMF. On-site refuges are designed to cater for the number of people reasonably expected on the development site and are provided with emergency lighting.
 - (b) On-site refuges are of a construction type able to withstand the effects of flooding. Design certification by a practising structural engineer that the building is able to withstand the hydraulic loading due to flooding (at the PMF).

Note: In most cases, the potential risk to life hazards categories are given on the flood information certificate for the relevant property.

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Appendix E – Summary of submissions and responses

Appendix E – Summary of submissions and responses

The following table summarises and responds to key matters raised in submissions received during the public exhibition period held between 3 February 2020 and 2 March 2020. Responses are included in the corresponding column.

Submissions – Public Exhibition			
No.	Submitter	Summary of Submission	Response
1	Hunter Regional Committee of the National Trust	<p>1. Highlighting the importance of maintaining visual, spatial and physical connections between the historic centre of Newcastle and the harbour.</p> <p>View analysis was not publicly exhibited. Disagreement with assessment that harbour views are limited from Hunter Street.</p> <p>Proposed future building on the site is inconsistent with the objectives of the strategic framework including to 'Connect the City to the Waterfront'.</p>	<p>1. Connection between city and harbour</p> <p>The Visual Impact Assessment identified view corridors north along Brown and Perkins Street to the harbour and noted that the large fig trees at the bus stop on Hunter Street fragmented views towards the harbour.</p> <p>The planning proposal includes requirements to promote and protect the significance of views, open connection with the harbour and facilitates a development that demonstrates design excellence. These aims will be achieved through provisions in the site-specific DCP and identifying the land as a Key Site subject to the Clause 7.5 'Design excellence' of the NLEP 2012.</p> <p>There is a commitment to protecting significant views and maintaining open connections with harbour, with two of the three objectives in the site-specific DCP aiming to:</p> <p><i>“2. Promote views and connections to the harbour and Nobbys Headland from the City Centre.</i></p> <p><i>3. Promote active street frontages, provide pedestrian and visual links between city and harbour and encourage historical interpretation of the site.”</i></p> <p>The site-specific DCP identifies the two view corridors from the Visual Impact Assessment and an additional view corridor north east across the harbour towards Nobbys Head. The south eastern corner of the site has been identified as proposed open space to protect views towards Stockton and Nobbys Headland.</p>

Submissions – Public Exhibition			
No.	Submitter	Summary of Submission	Response
			<p>The land is identified as a Key Site under NLEP 2012 which requires additional design excellence considerations and for a design competition to be held in relation any proposed development. The design excellence considerations include the following relevant matters:</p> <ul style="list-style-type: none"> • Whether the form and external appearance of the development will improve the quality and amenity of the public domain • Whether the development detrimentally impact on view corridors identified in the NDCP 2012. <p>Furthermore, the NDCP 2012 includes additional Key Site provisions which requires new development to integrate with Foreshore Park and encourage pedestrian access and permeability.</p> <p>The above framework outlines the minimum expectations that any future development will deliver. It is noted that additional community input will be sought regarding the proposed use and design of the community facility, incorporating any additional matters that may not be covered in either the NLEP 2012 or NDCP 2012.</p>
		2. Support for the consolidation of sites for the purposes of expanding the Market Street Lawn open space reserve.	2. Noted.
		3. Objection to proposed reclassification and rezoning. Site should remain classified as 'community land' and serve as car parking for access to Market Street Lawn and Queens Wharf.	<p>3. Reclassification of land</p> <p>Council does not intend to sell the site or lease floor space in a future building to a non-community use as its primary function. The proposed operational classification for its current use as a car park is consistent with approximately 20% of CN's land/assets which include depots, libraries and car parks. These assets continue to remain under CN's ownership.</p>

Submissions – Public Exhibition			
No.	Submitter	Summary of Submission	Response
			<p>For the future use of the site, the operational classification provides CN with the capacity to lease or licence an ancillary, complementary use alongside the primary community use under a simpler process. The community classification carries specific requirements (Clauses 44-48 of the <i>Local Government Act 1993</i>), particularly for lease/ licence terms greater than five years. In this instance, these requirements overlay unreasonable complexity into the process for leasing smaller ancillary uses.</p> <p>Importantly, CN purchased No. 280 Hunter Street, Newcastle which directly adjoins No. 250 Scott Street, Newcastle (Parcel 12) to the west and therefore has a vested interest in maintaining ownership and delivering a great outcome for this area of the City Centre.</p> <p>The Outcomes Report on the Public Hearing for the proposed reclassification of No. 233 Wharf Road, Newcastle further highlights the key concerns (Attachment D).</p>
		<p>4. Objection to proposed SP3 Tourist zone. Suggest the site should be rezoned as RE1 Public Recreation instead.</p>	<p>4. Inappropriate tourism zone</p> <p>Although community facilities are permitted with consent in most zones in the NLEP 2012, only two zones were considered appropriate for the site (SP3 and RE1). Following the feedback received, CN staff investigated the option to apply an RE1 zone across both sites. However, while the permitted land uses are similar for both zones, the intended future use of the site as a community facility in the longer-term does not align with the zone objectives of the RE1 Public Recreation zone and therefore the SP3 Tourist Zone, with appropriate height and FSR controls, has been proposed. The SP3 zone also flags that the site is intended to be developed in the future and will not be solely used for car parking and open space.</p>

Submissions – Public Exhibition			
No.	Submitter	Summary of Submission	Response
		5. Proposed planning controls (FSR, height and lot size) aren't acceptable for an unspecified community facility.	<p>5. Unacceptable planning controls</p> <p>The proposed planning controls have balanced the functional requirements of any future community use (e.g. minimum floor plates, floor-to-ceiling heights etc.) with consideration for site context and relationship with the adjoining Market Street Lawn and Foreshore Park. In this regard, the above planning controls will not be achievable across the entire site as they are overlaid with the stringent site-specific DCP guidelines requiring additional setbacks, the protection of view corridors and demonstrated design excellence in accordance with Clause 7.5 of NLEP 2012.</p> <p>The site-specific provisions in NDCP2012 place a high priority on complementing and improving amenity and the public domain.</p>
		6. Planning proposal should not proceed until further information is shared with community regarding proposed future use.	<p>6. Future use as multi-purpose community space</p> <p>At this stage, the multi-purpose community space could include a range of uses identified in various CN strategies that expand the City's social infrastructure and provide a community benefit. As noted above, the primary function of the site will be for a community facility and its role and purpose will need to contribute directly to the physical, social, cultural or intellectual development or welfare of the community. Any future community facility will include a public domain space which will provide an active frontage to Market Street Lawn. It is also noted that a future facility could include car parking.</p> <p>The planning proposal, proposed reclassification and site-specific DCP set a framework in place with enough scope to consider a range of appropriate community uses for the site and could include among others, an art gallery, library, cultural centre or community centre.</p> <p>CN will engage with the community as future planning for the site proceeds to ensure that a future facility aligns with community needs and aspirations for the area.</p>

Submissions – Public Exhibition			
No.	Submitter	Summary of Submission	Response
		7. Site presents unique opportunity to interpret history of Newcastle including the 1903 Boat Harbour.	<p>7. Opportunity for historical interpretation</p> <p>Noted and agreed. Additional heritage and archaeological investigations are required to understand the extent of the 1903 Boat Harbour archaeology and innovative ways this could be integrated on the site. CN will be further consulting with the community to explore opportunities if future planning proceeds.</p>
2	Individual	1. Objection to proposed reclassification and rezoning. Site should remain classified as 'community land' for the broader community and surrounding businesses.	1. Refer to 3. Reclassification of land on page 2.
		2. Objection to proposed SP3 Tourist zone. Suggest the site should be rezoned as RE1 Public Recreation instead.	2. Refer to 4. Inappropriate tourism zone on page 3.
3	Individual	1. Concerns about potential closure of car park as it creates revenue for council.	1. Noted. Revenue generated from car parking is an operational matter.
		2. Cumulative loss of car parking in the City Centre will place more pressure on businesses.	<p>2. Car park closure / loss of parking</p> <p>The planning proposal notes that the car park will continue to operate in the “short to medium term” (pg. 2). Further clarification regarding timing was noted in several submissions. In this regard, there are no projects identified in ‘Our Budget 20/21’ comprising both the Delivery Program 2018-2022 and Operational Plan 2020/21, highlighting there is nothing scheduled to proceed with future planning for the site in</p>

Submissions – Public Exhibition			
No.	Submitter	Summary of Submission	Response
			<p>at least the next two years for an expansion of the car park or multi-purpose community space.</p> <p>Importantly, CN formally accepted the transfer of No. 250 Scott Street, Newcastle (southern lot known as Parcel 12) on 28 August 2020 from Hunter Central Coast Development Corporation (HCCDC) and placed an operational classification on that land for expansion of the adjacent Wharf Road public car park. The community would not be aware of the transfer of land as it occurred following the conclusion of the public exhibition and public hearing.</p> <p>Acquisition of Parcel 12 is an important milestone and provides CN with the ability to expand car parking capacity in the City Centre in the interim. As suggested in submissions, car parking could also form part of any future community use on the site and will be subject to further community engagement.</p> <p>Importantly, there are several site constraints that require further investigation to confirm the extent of the Boat Harbour archaeology, stormwater infrastructure and mine subsidence which may significantly impact upon CN's capacity to develop the land.</p>
		3. Uncertainty regarding future use as a multi-purpose community space. Any future community space should incorporate public parking.	3. Refer to 6. Future use as a multi-purpose community space on page 4.
		4. Concerns that the land will be sold and developed for a motel.	4. Noted and acknowledged. Refer to 3. Reclassification of land on page 2.

Submissions – Public Exhibition			
No.	Submitter	Summary of Submission	Response
		5. Building height of 14m is inappropriate for this location.	5. Refer to 1. Open connection between city and harbour on page 1 and 5. Unacceptable planning controls on page 4.
4	Scratchleys (Petition – 119 signatures)	1. Objection to rezoning and reclassification.	1. Refer to 3. Reclassification of land on page 2 and 4. Inappropriate tourism zone on page 3.
		2. Lack of adequate events management transport solution for the city.	2. Noted and acknowledged. CN is currently preparing a Parking Plan which will among other things, review the car parking capacity within the City Centre and provide recommendations regarding future strategic direction.
		3. Concerns that the land will be sold.	3. Noted and acknowledged. Refer to 3. Reclassification of land on page 2.
		4. Cumulative loss of car parking in the City Centre will place more pressure on businesses and capacity to cater for major events.	4. Refer to 2. Car park closure on page 6.
		5. East End of the City Centre and Entertainment Precinct requires a wholistic transport plan to increase jobs and reduce commercial vacancies.	5. Noted

Submissions – Public Exhibition			
No.	Submitter	Summary of Submission	Response
5	State Agency – Transport for NSW	<ol style="list-style-type: none"> 1. Advises that the sites front the Newcastle Light Rail Transitway and that an access restriction will be placed on title to ensure that vehicle access is not permitted to the Transitway. 2. Noting a requirement to enter into a Rail Interface Agreement prior to any development of the site. Additional requirements under the Rail Interface Agreement were detailed. 	Matters raised by Transport for NSW are noted for any future development application for the site, should future planning for a community facility proceed.

Public Hearing responses

A Report on the outcomes of the public hearing (Appendix F) was prepared by the independent facilitator which details the key matters raised at the public hearing for the proposed reclassification of 233 Wharf Road, Newcastle. Key matters raised related to the following:

- Car parking
- Open green space
- Future development
- Process of reclassification and rezoning.

Responses to concerns relating to car parking and future development are included in the above table. Responses to open green space and the process of reclassification and rezoning are included below:

Loss of open green space

Participants at the public hearing raised concerns about the loss of open green space, noting that the Foreshore acted as an informal backyard for City Centre residents. Participants highlighted the importance of access to open space for community wellbeing in the context of COVID-19. Furthermore, it was noted that 233 Wharf Road, Newcastle (Boat Harbour car park) previously formed part of Foreshore Park. One participant presented a previous Plan of Management (POM) for Foreshore Park that included the car park within its boundary and expressed concerns that it was no longer included in the current Plan of Management for 'The Foreshore' (2015). It was suggested that this matter be raised in the context of the current review of the Harbour Foreshore Master Plan project.

Response

The site is currently used as a car park (233 Wharf Road) and fenced off unused land (Parcel 12). The concerns above were raised in the context of the Boat Harbour Car Park servicing users of the Foreshore area and that the unused land should form part of an extension of the Market Street Lawn. Following internal enquiries, the removal of the car park from a previous POM may have occurred during the preparation of the 2015 POM.

As noted previously, the Boat Harbour Car Park will continue to operate in the short to medium term with the intent to expand parking capacity across Parcel 12. In the longer-term the site-specific DCP aims to provide a civic space that incorporates both a community facility and public domain space. The interface between Market Street Lawn and the site will provide open public domain space while the south eastern corner of the site will be kept as public open space for the purposes of protecting an important view corridor.

Process of reclassification and rezoning

While consultation has been undertaken in accordance with the *Environmental Planning and Assessment Act 1979* and *Local Government Act 1993*, several participants at the public hearing raised concerns about the lack of consultation and engagement throughout the planning proposal and reclassification process. Participants also queried why the proposal was proceeding if there were uncertainties about future use.

Response

The consultation to date does not represent the final opportunity to provide input into the planning for this area. The planning proposal and reclassification sets in place a framework under which future decisions can be made in consultation with the community regarding the future use, design and function of the sites and their relationship with the adjoining Market Street Lawn and Foreshore area.

Appendix F – Report on the Public Hearing outcomes

Report

Report to the City of Newcastle Public Hearing for the Proposed Reclassification of land at 233 Wharf Road, Newcastle

August 2020

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The information contained herein is believed to be reliable and accurate. The Author made reasonable efforts to ensure that the contents and data in this report are factually correct. The Author is not responsible or liable for any information, opinions, or commentary contained herein, or for any consequences of its use.



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1. Introduction

This report presents the outcomes of the Public Hearing for the proposed reclassification of land at 233 Wharf Road, Newcastle from Community Land to Operational Land.

The proposed reclassification of 233 Wharf Road, also known as the Boat Harbour Car Park, is included in Planning Proposal PP2018/00015 to amend the Newcastle Local Environmental Plan 2012 in relation to land at 233 Wharf Road, and part 150 Scott Street and part 150A Scott Street (Parcel 12). The Planning Proposal was placed on public exhibition from 3 February 2020 for 28 days. Under the provisions of Section 29 of the Local Government Act 1993, planning proposals to reclassify land from Community Land to Operational Land require a Public Hearing.

The Public Hearing for the reclassification of 233 Wharf Road was conducted on behalf of the City of Newcastle (Council) in accordance with the requirements of the Local Government Act 1993 and Environmental Planning and Assessment Act 1979. It provided an opportunity for members of the community to voice their opinion and raise issues related to the proposed reclassification within a public forum.

Section 2 of this report outlines the statutory requirements and process used to conduct the Public Hearing. Submissions provided as part of the Public Hearing are noted in Section 3 with a summary of key issues raised in Section 4.



2. Public Hearing

2.1 Statutory Requirements

Relevant statutory provisions are provided in Division 3.4 of the Environmental Planning and Assessment Act 1979 and Sections 25 -34 and 47G of the Local Government Act 1993.

Specifically, in relation to Public Hearings, Section 29 of the Local Government Act states:

- (1) *A council must arrange a Public Hearing under section 57 of the Environmental Planning and Assessment Act 1979 in respect of a planning proposal under Part 3 of that Act to reclassify community land as operational land, unless a Public Hearing has already been held in respect of the same matter as a result of a determination under section 56 (2) (e) of that Act.*
- (2) *A council must, before making any resolution under section 32, arrange a Public Hearing in respect of any proposal to reclassify land as operational land by such a resolution.*

Council's arrangement of the Public Hearing for the proposed reclassification of land at 233 Wharf Road and preparation of this report satisfy the provisions of Section 29 of the Local Government Act.

Section 47G (2) of the Local Government Act also states:

- The person presiding at a Public Hearing must not be:*
- (a) a councillor or employee of the council holding the Public Hearing, or*
 - (b) a person who has been a councillor or employee of that council at any time during the 5 years before the date of his or her appointment.*

2.2 Public Hearing Process

The Public Hearing for the proposed reclassification of land at 233 Wharf Road was organised by Council and held at the Hunter Room, Newcastle City Hall on 6 August 2020 commencing at 5:30pm.

The Public Hearing was independently chaired and facilitated by Ruth McLeod who in accordance with Section 47G (2) of the Local Government Act 1993 formally stated at the commencement that she was not:

- a) a councillor or employee of the City of Newcastle; and
- b) not been a councillor or employee of the City of Newcastle at any time during the last 5 years.

Five community members registered to attend the Public Hearing. Four of the registered people attended and provided a verbal submission, while one person was no longer able to attend and did not provide a submission. A further one person who was unable to attend provided a written submission.

The Public Hearing was also attended by the following Council officers:

- Patricia McCarthy, Urban Planning Section Manager
- Dan Starreveld, Senior Urban Planner
- Tim Daley, Senior Project Planner.

The agenda for the meeting included:

- Welcome and outline of the process for the Public Hearing (Ruth McLeod)
- An overview of the Planning Proposal (Dan Starreveld; see Appendix)
- Verbal submissions with each community member allowed up to 10 minutes to speak
- Discussion and confirmation of key issues with community members
- Next steps and concluding remarks (Ruth McLeod).

Attendees were informed that a written report of the Public Hearing will be provided to Council and will form part of the Council report on the outcomes of the Planning Proposal public exhibition period.

The Public Hearing was closed at 6:42pm.



3. Submissions

A summary of the verbal and written submissions received as part of the Public Hearing from the five community members who participated is provided in Table 1. The language and manner in which points were made by the people providing the submissions has been retained as much as possible.

Table 1 Public Hearing Submission Summaries

Person	Submission Summary
Barbara Ferris	<ul style="list-style-type: none"> • Provided written submission to public exhibition. • Asked if Council can provide more specific details of the multipurpose community space; is there an idea of what that might be in the future. • Believed a building of 14 metres would be inappropriate on the site and a much better outcome would be an extension of the Market Street Lawn for public domain, a positive legacy for the people of Newcastle. • Asked if a report was available detailing the outcomes from talks between Council and Hunter Central Coast Development Corporation. • Boat Harbour Car Park provides a starting point for visitors to explore the harbour parks, heritage areas, and central point for shopping and dining. If it is to be closed could land in Rail Bridge Row be used for a parking station as that land is not open to the harbour. • Believe that until the public transport system to the city and suburbs is improved, parking needs to be increased or businesses will not prosper, Newcastle will not be attractive to local and regional visitors.
Brian Ladd	<ul style="list-style-type: none"> • Provided a written copy of verbal submission. • Speaking on behalf of Newcastle Inner City Residents Alliance (NICRA). • NICRA concerned about the proposed closure of Council's Boat Harbour Car Park and opposes the reclassification of the car park and adjacent rail corridor land for potential business use. • NICRA rejects the planned new maximum height limit of 14 metres (or five storeys) which the rezoning would permit on these sites. NICRA believes the planned rezoning would forego a better Council outcome for this uniquely located property. • Identified two main problems with the proposal <ul style="list-style-type: none"> 1. In the short term, re-zoning adversely impacts city businesses and visitors though: <ul style="list-style-type: none"> - Loss of revenue generated for the Council from this car park. - Loss of parking for people accessing inner city businesses; impacting on the viability of the CBD economy. Further loss of car parking will compound the loss of over 1,050 parking spaces from inner city Newcastle (since 2007). - NICRA believes that until there is a comprehensive or efficient public transport system that connects people with the things they want to do, cars will continue to be the most popular form of transport in Newcastle as there is no realistic alternative in sight.

Person	Submission Summary
	<p>2. In the long term, the two properties should be incorporated into the Harbour Foreshore Park</p> <ul style="list-style-type: none"> - NICRA is concerned that the rezoning of Boat Harbour Car Park as a 'Multi Purpose Community Space', could potentially allow a hotel or motel to be constructed on the site. NICRA urges Council to reject the five storey height limit (14 metres) proposed for the two sites. - NICRA objects to the rezoning as in the long term the land is more valuable to the citizens of Newcastle as a western extension of the Foreshore Park. The Boat Harbour Car Park and rail corridor allotment, incorporated into the Foreshore Park, will be of greater benefit to more Newcastle residents than another building to further wall off the foreshore. The Boat Harbour Car Park and adjacent former rail corridor land is an opportunity to recover some Foreshore Park area; incorporating into the existing Foreshore Park, ensuring significant vistas of the harbour from Hunter Street are retained. This is a one-off opportunity that should not be lost forever. • Recommendation 1: NICRA urges Council to prioritise developing its Car Parking Strategy for the future of the city. Until we have a Car Parking Strategy that addresses the desperate problem of too few public car parking spaces, Newcastle Councillors should reject the current rezoning proposal, because the loss of car parking spaces adversely impacts on inner city business and visitors to the Harbour foreshore. • Recommendation 2: NICRA urges Councillors to reject the proposal for the Boat Harbour Car Park and rail corridor allotment rezoning from RE1 (Public Recreation) to SP3 (Tourism). In the long term, both allotments should be incorporated into the Newcastle Foreshore Park.
Neil Slater	<ul style="list-style-type: none"> • Provided written submission to public exhibition. • Proprietor Scratchleys and Battlesticks. • Stated that parking needs to continue to be available at the site. The foreshore is an incredible asset for the community that attracts people including to local businesses. It's up to business operators to capture customers once they are in the area, however we shouldn't be denying people who want to come the ability to access the foreshore. • Believes that when people come to this site they expect to be able to park somewhere. Continuous loss of car parking (Lume site, space for cycleways) is making it harder for people to access harbour side businesses. Forcing people to look elsewhere for dining experiences. • Identified car parking as part of an adequate transport system for the whole community. If there were an adequate public transport system then we wouldn't need as many car parks. However the public transport system is not adequate and unlikely to be resolved in the short term. Forcing people onto public transport, including by the removal of car parking, will cause frustration. Current public transport doesn't go where people live and is too infrequent. People don't want that inconvenience so they use a car. • Stated that the area has to have some version of a car park, and more car parks not less car parks, or create a proper public transport system. • Concerned that maintaining the view that less car parking is somehow going to improve the city and bring more people in is unrealistic. Believe it is reducing accessibility: fit people can walk in however families with children, elderly people, wheelchairs will struggle. The beautiful work happening at

Person	Submission Summary
	<p>the Station is only going to exacerbate the problem; we invite everyone in however not giving them an opportunity to be there because there is no parking and no adequate transport system to access it.</p> <ul style="list-style-type: none"> • Seeking surety that the car park is not going to be lost. Council report indicated that 233 Wharf Road will continue to be used as a car park in the short to medium term however unclear how long that might be. Concerned that the changed classification will be a stepping stone to something else. • Asked that if the area is to remain a car park, why can't the classification remain as community land. And if in the future something is planned for the site, then discuss it with the community and make the change then.
Karen Read	<ul style="list-style-type: none"> • Provided a written copy of verbal submission. • Speaking on behalf of Newcastle East Residents Group (NERG). • Preference is for the amalgamated site to be retained as a car park, classified as community land and rezoned RE1 Public Recreation. • Believe Council has been in breach of the Local Government Act by not incorporating the site into its Foreshore Plan of Management (PoM). Provided a review of documents to support this belief. • Concerned about further loss of community and green space. Rapid population growth in the inner-city and the COVID-19 pandemic has highlighted the necessity for green space and open community space. • Concerned by potential loss of car parking. Proposal states the existing car park will remain in the short and medium term, however there is no guarantee the car park will be retained. Loss of the car park would significantly impact residents and visitors to the area and surrounding businesses. NERG believes Council must mitigate critical parking shortages in the city centre. Any future development must include a detailed traffic and transport assessment. NERG urges Council to conduct new traffic assessments more reflective of the current situation. • NERG questions the proposed permitted building height of 14 metres and a Floor Space Ratio (FSR) of 2:1 which would allow a substantial building on the amalgamated site. NERG request that conditions of consent be mandated for the site in order to protect it from overdevelopment, and to optimise positive outcomes for the general community including view corridors, public access from Scott Street to the foreshore, and maximising open space particularly on the northern and eastern side of the site. • NERG asks why the site should be reclassified as operational land. Reclassifying the land to operational land would enable Council to on sell the land in the future and believes selling the land would not be in the public interest. • Further questions asked about the appropriateness of allowable developments under the proposed SP3 Tourist zone, and why the amalgamated site should be rezoned to SP3 rather than RE1 Public Recreation which is the present zoning of the car park site. • NERG believes that it would be better to have extensive community consultation and a needs-based assessment prior to reclassifying and rezoning the land. • NERG cautions against exhibiting the amended draft Newcastle Development Control Plan (DCP) concurrently with the Planning Proposal. NERG believes the draft DCP should be exhibited first to ensure the DCP

Person	Submission Summary
	<p>informs comment on the Planning Proposal.</p> <ul style="list-style-type: none"> • NERG supports the inclusion of 233 Wharf Road and Parcel 12 as a key site, which would require an architectural design competition to ensure a high-quality design outcome. Raised the need for any development to take into consideration the archaeological sensitivities of the site including Aboriginal heritage, penal settlement, development of rail and port infrastructure. Statement of Heritage Impact and heritage interpretation strategy to be considered early in any process.
Peter Medi	<ul style="list-style-type: none"> • Provided a written submission only to the public hearing. • Objects to the proposal which may result in the loss of community land and potential loss of the Boat Harbour Car Park if the land is developed for an alternate use. • Concerned that no community consultation had been undertaken to gauge community views on appropriate zoning, landuse, scale of development, building height and FSR. • Stated Council is in breach of the Local Government Act by not incorporating the site into its Foreshore Plan of Management (PoM). Provided a review of documents to support this statement. • Concerned about potential for the land to transfer to private ownership by being sold or offered on long term lease if reclassified as operational land. • Questions the appropriateness of the allowable building height of 14 metres and an FSR of 2:1 which will enable the development of a large building on the site. • Further questions the land uses permitted under the proposed SP3 Tourist zone, and why the amalgamated site should be rezoned to SP3 rather than RE1 Public Recreation. • Concerned by potential loss of car parking. Proposal states the existing car park will remain in the short and medium term, however there is no guarantee the car park will be retained. Loss of the car park would significantly impact residents and visitors to this area and surrounding businesses. • States that if the sites are amalgamated, they should be reclassified as community land, rezoned RE1 Public Recreation and the car park extended to provide additional parking.



4. Summary of Key Issues

Following verbal submissions from community members, the Chair provided a summary to confirm all issues had been raised and correctly recorded.

The key issues raised through the Public Hearing for the proposed reclassification of land at 233 Wharf Road from Community Land to Operational Land related to:

- Car parking
- Open green space
- Future redevelopment
- Process of reclassification and rezoning.

CAR PARKING

The need for continued provision of car parking in the immediate area of the foreshore was a key issue. Community members expressed the view that cars and car parking is required to enable people to visit the area. It was felt that this need will continue in the long term as the current public transport system does not adequately meet the needs of people wanting to visit the area, and any future improvements will take a significant time to achieve.

Concerns were raised about the potential loss of car parking as a result of the proposed reclassification of the land. It was stated that existing car parking is not adequate and possible removal of the Boat Harbour Car Park will exacerbate the situation. Removal of the car park was seen as having the potential to impact negatively on businesses and on Council by removing the ability to generate ongoing revenue from this site. Enabling people to access the area by providing car parking will support local businesses and the local economy. Recommendations were made for Council to update existing traffic assessments and the Newcastle Transport Strategy.

Community members suggested that if Council's intention is for the car park to remain as a car park for the short to medium term, the community land classification at 233 Wharf Road remain unaltered. If in the future a possible development and/or sale of the land is proposed, then at that time allow the community and relevant stakeholders to consider and discuss the proposal.

OPEN GREEN SPACE

Community members raised concerns regarding the potential loss of open space and green space in the inner city, as well as view corridors and accessibility to the foreshore. It was felt any changes in classification and zoning of the land should seek to increase open green space in the city and maximise the assets of the harbour and foreshore areas. Strong support was given for extending the Market Street Lawn and/or Harbour Foreshore Park to the west.

FUTURE REDEVELOPMENT

Redevelopment of the land at 233 Wharf Road was another key issue. Community members were concerned that the Planning Proposal including reclassifying 233 Wharf Road and rezoning to SP3 Tourism would result in less protection of the land to remain as a community space. The type of developments or potential overdevelopment of the site was flagged as a community issue with community members raising concerns regarding the building height and floor space ratios included in the Planning Proposal. More detail regarding the suggested multipurpose community space was requested.

PROCESS OF RECLASSIFICATION AND REZONING

During the Public Hearing community members raised several questions regarding the process, timing and community engagement related to the reclassification and Planning Proposal more broadly. Questions included:

- Why is this reclassification necessary now?
- Why is it necessary to put the two pieces of land, 233 Wharf Road and Parcel 12, together?
- Is there a report available from the engagement between Council and Hunter Central Coast Development Corporation in relation to the Planning Proposal?
- If the car park is to remain for the short to medium term, can Council provide clarity regarding how long that could be?

Community members felt there had not been enough community consultation regarding the Planning Proposal. In addition, it was suggested that the Newcastle DCP should be discussed and exhibited separately from the Planning Proposal. This will assist to provide reassurance that the DCP is not being amended with a particular development in mind.

Community members strongly supported the need for planning in the Newcastle Harbour foreshore area to ensure it meets the needs of people from across the region who want to visit the area, access the businesses and enjoy this unique community asset.

Appendix: Planning Proposal Overview

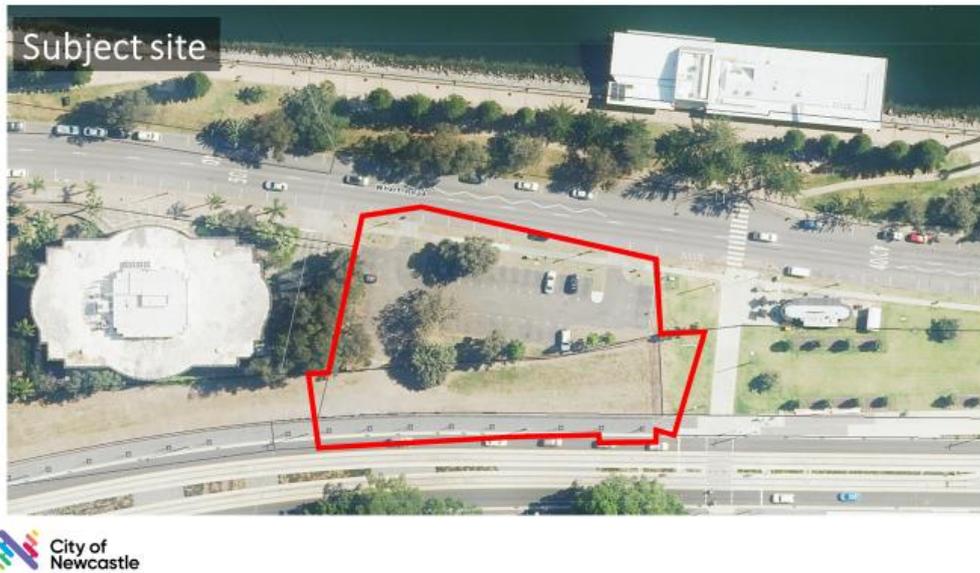


CITY OF NEWCASTLE

PUBLIC HEARING
Proposed reclassification of 233 Wharf Rd, Newcastle

Dan Starreveld
Senior Urban Planner





4

Planning Proposal

- **Rezoning**
 - 1) Carpark - RE1 Public Recreation
 - 2) Rail Corridor (Parcel 12) - SP2 Infrastructure
 - New zone: SP3 Tourism
- **Building height** 14 metres
- **Floor space ratio** 2:1
- **Min. Lot Size** Remove 40ha requirement
- **Key Site** Design Excellence
- **Reclassification** 233 Wharf Rd from 'Community' to 'Operational' Land
- **Site-specific DCP**



5

Zoning



6

Public exhibition

- Four submissions, 1 petition
- Key issues:
 - Loss of public car park
 - Asset to local community and local businesses
 - Serves Market Street Lawn and Queens Wharf
 - Impact on major tourist events
 - Retain/ extend car park
 - Future development should include publicly available car parking
 - Concerns about potential future sale of land
 - Intended use as multi-purpose community space
 - Retain open view corridors and connections with the Harbour



7



8

Community vs. Operational Land

Community

- Applies to assets that serve a community function e.g. parks, sportsgrounds, reserves (RE1 Public Recreation)
- Publicly accessible
- Requires a Plan of Management
- Limitations on leases, licenses and sale

9

Community vs. Operational Land

Operational

- Applies to assets that serve an operational or commercial function e.g. offices, depots, car parks, sewage pump station
- Allows for greater flexibility with leasing, licensing and sale
- Council-owned operational land – 253 properties



10

Future use

- Car park – short to medium term
- Multi-purpose community space
- Relationship with other Council projects



11

Other council projects



ATTACHMENTS DISTRIBUTED UNDER SEPARATE COVER

**CCL 24/11/20 - ADOPTION OF PLANNING PROPOSAL TO REZONE
AND RECLASSIFY LAND AT 233 WHARF ROAD AND REZONE
LAND 150 & 150A, 250 SCOTT STREET NEWCASTLE**

ITEM-91 **Attachment B:** Draft Section 6.01.04 Key Precincts – 'I. Multi-purpose Community Space Precinct' of Section 6.01 City Centre of the Newcastle Development Control Plan 2012

DISTRIBUTED UNDER SEPARATE COVER

6.01 Newcastle City Centre

Amendment history

Version Number	Date Adopted by Council	Commencement Date	Amendment Type
1	-	September 2014	New
2	12/12/2017	17/04/2018	Amended

Savings provisions

Any development application lodged but not determined prior to this section coming into effect will be determined taking into consideration the provisions of this section.

Land to which this section applies

This section applies to the Newcastle City Centre as shown in Figure 6.01 - 1 below.

Figure 6.01-1: Newcastle City Centre Land Application Map



Development (type/s) to which this section applies

This section applies to all development consisting:

- New buildings or structures
- Additions or alterations to existing buildings or structures

Applicable environmental planning instruments and legislation

The provisions of the following listed environmental planning instrument/s also apply to development applications to which this section applies:

- Newcastle Local Environmental Plan 2012
- State Environmental Planning Policy No. 65 - Design Quality of Residential Apartment Development
- State Environmental Planning Policy No 71 - Coastal Protection
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

In the event of any inconsistency between this section and the above listed environmental planning instrument, the environmental planning instrument will prevail to the extent of the inconsistency.

Note 1: Additional environmental planning instruments may also apply in addition to those listed above.

Note 2: The *Environmental Planning and Assessment Act 1979* enables an environmental planning instrument to exclude or modify the application of this DCP in whole or part.

Related sections

The following sections of this DCP **will** also apply to development to which this section applies:

- Any applicable land use specific provision under Part 3.00
- 4.04 Safety and Security
- 7.02 Landscaping, Open Space and Visual Amenity
- 7.03 Traffic, Parking and Access
- 7.05 Energy Efficiency
- 7.06 Stormwater
- 7.07 Water Efficiency
- 7.08 Waste Management

Note 1: Any inconsistency between the locality specific provision and the landuse specific provision, the locality specific provision will prevail to the extent of the inconsistency.

Note 2: Provisions within Section 6.01.04 - Key Precincts will have precedence over other sections of the DCP.

The following sections of this DCP **may** also apply to development to which this section applies:

- 3.01 Subdivision - where subdivision of land is proposed
- 4.01 Flood Management - all land which identified as flood prone under the Newcastle Flood Policy or within a PMF or area likely to flood.
- 4.03 Mine Subsidence - within mine subsidence area
- 5.01 Soil Management - works resulting in any disturbance of soil and/or cut and fill
- 5.02 Land Contamination - land on register or where risk from previous use
- 5.03 Tree Management - trees within 5m of a development footprint or those trees likely to be affected by a development
- 5.04 Aboriginal Heritage - known/likely Aboriginal heritage item/site and/or potential soil disturbance
- 5.05 Heritage Items - known heritage item or in proximity to a heritage item.

- 5.06 Archaeological Management - known/likely archaeological site or potential soil disturbance
- 6.02 Heritage Conservation Areas - known conservation area
- 7.04 Movement Networks - where new roads, pedestrian or cycle paths are required.
- 7.09 Advertising and Signage
- 7.10 Street Awnings and Balconies - awnings or balconies located over public land

Associated technical manual/s

- City Centre Public Domain Technical Manual

Definitions

A word or expression used in this development control plan has the same meaning as it has in Newcastle Local Environmental Plan 2012, unless it is otherwise defined in this development control plan.

Other words and expressions referred to within this section are defined within Section 9.00 - Glossary, of this plan.

Additional information

This Newcastle Development Control Plan (DCP) section provides detailed standards and guidance for development in Newcastle's city centre.

This section forms part of the community vision and is consistent with the provisions of the Newcastle Local Environmental Plan (LEP) 2012. It is to be read in conjunction with the LEP and other relevant sections of the DCP for the assessment of all development applications in the city centre.

This guide has been developed to consolidate and replace sections 6.01 and 6.02 of the Newcastle Development Control Plan 2012. This guide has performance criteria that explain the planning outcomes to be achieved. Accompanying the performance criteria are acceptable solutions that illustrate the preferred way of complying with the corresponding performance criterion. There may be other ways of complying with performance criteria and it is up to the applicant to demonstrate how an alternative solution achieves this.

Development Application requirements

3D modelling: any application to carry out development that exceeds two storeys in height, or development that is in a "Key Precinct" is to be accompanied by a 3D file of the proposed development within in the context of the Newcastle CBD 3D model. The format should be compatible to that used by the City of Newcastle council.

The 3D Model should be used to develop the following information:

- context 'before' and 'after' streetscape drawings/images and/or photomontages;
- shadow diagrams; and
- assessment of impact on view corridors.

Urban Design Consultative Group

Council has established an Urban Design Consultative Group to provide independent urban design and architectural advice on major development proposals within the Newcastle City Centre. The Urban Design Consultative Group is recognised by the Minister for Planning as a SEPP 65 Design Review Panel. In addition to providing advice on SEPP 65 matters, the Group may consider any development matters in accordance with the approved Charter for the Urban Design Consultative Group.

Note : Clause 7.5 (4) of the *Newcastle Local Environmental Plan 2012* requires an architectural design competition for certain types of development.

Clause 7.5 (6) of the *Newcastle Local Environmental Plan 2012* states that the consent authority may grant consent for a variation of up to 10% of the maximum floor space ratio or height control if the proposal has been reviewed by a Design Advisory Panel.

6.01.01 Introduction

The vision

Newcastle City Centre will continue to grow and evolve to strengthen its position as the Hunter Region's capital. The city centre will reflect the Newcastle Community Strategic Plan 2030 vision to be a 'Smart, Liveable and Sustainable City', and the initiatives of the Newcastle Urban Renewal Strategy. Newcastle city centre will be an attractive city that is built around people and reflects our sense of identity.

Image 6.01- 1: Potential public domain improvements to Crown Street, with active uses such as outdoor dining (Impression: Arup 2012)



Purpose of this section

This Development Control Plan section has been prepared as an implementation action of the Newcastle Urban Renewal Strategy. It integrates place-based planning for Newcastle East, Honeysuckle and Newcastle West. The Development Control Plan section contains a comprehensive set of planning and design guidelines. The design guidelines are derived from the characteristic features of distinct areas within the city centre.

Aims of this section

1. To implement the Newcastle Urban Renewal Strategy
2. To integrate planning for Newcastle East, Honeysuckle and Newcastle West
3. To provide a comprehensive set of planning and design guidelines based on the characteristic of distinct areas within the city centre.

6.01.02 Character Areas

A. Character Areas overview

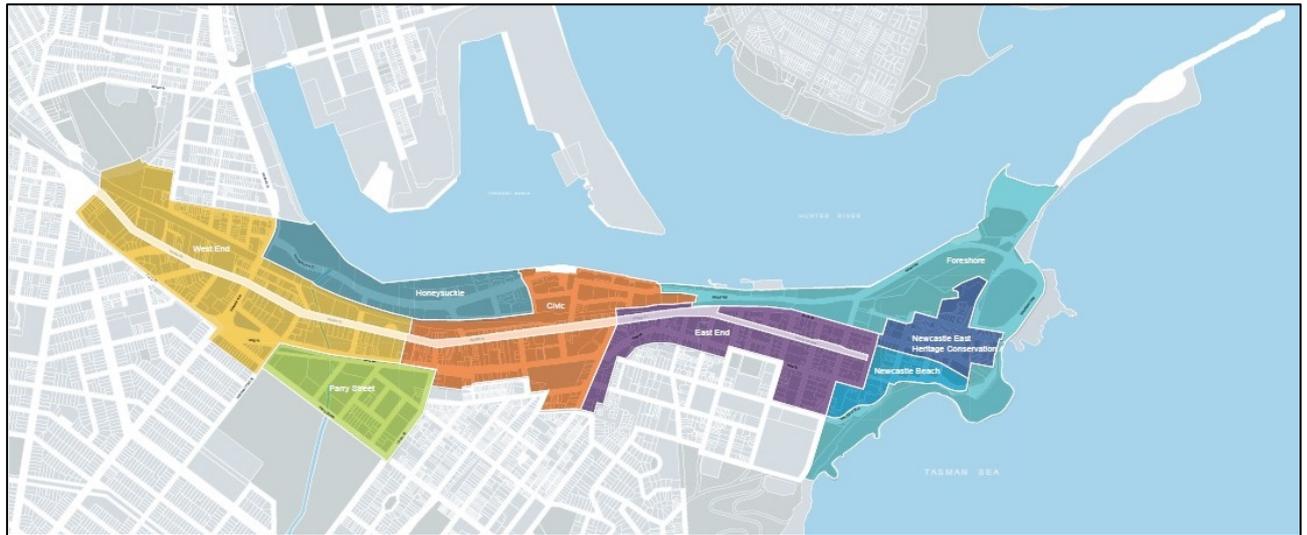
Within the city centre there are a number of areas with distinct characteristics. These 'character areas' each have their own unique setting that provide opportunities for the ongoing renewal and revitalisation of the city centre. They are divided into areas based on their attributes, including topography, landscape, heritage, streetscape, land uses and built form. The character areas are described in the following character statements in this part and are identified in Figure 6.01-2.

In addition to the character areas, seven 'key precincts' have been identified. The key precincts are focused around major public spaces in the city centre and have special provisions outlined in Part 6.01.04 of this DCP section that need to be considered.

This part contains the character statements and supporting principles for development within all character areas of Newcastle's city centre. The statements are place-specific and build on the existing urban structure, character of the neighbourhoods and important elements that will

contribute to the future quality of the area. The statements are supported by a number of principles that help reinforce and enhance the character of each locality.

Figure 6.01-2: Character Areas Overview



Overall principles

1. The unique character of each Character Area is enhanced.
2. New development has regard to the fabric and character of each area in scale, proportion, street alignment, materials and finishes and reinforce distinctive attributes and qualities of built form.
3. Heritage items and their setting are protected.
4. Public spaces, including streets, lanes and parks maintain high levels of solar access.
5. Active frontages address the public domain.
6. Existing significant views and vistas to buildings and places of historic and aesthetic importance are protected.

B. West End

This area is the western gateway to Newcastle's city centre and is an area of unrealised potential. It currently has showroom and bulky goods facilities, retail, car dealerships and self storage. The predominance of larger consolidated land holdings and fewer environmental and heritage constraints make this precinct ideally suited to become the future CBD of Newcastle. This precinct has fewer public domain assets. Improvement of public open space is needed to ensure the precinct is well-served as it evolves into a commercial precinct. Public domain opportunities include improvements to Birdwood Park, the Cottage Creek corridor and connections to the river foreshore. Public domain improvements should be in accordance with any adopted public domain plan of Council.

Principles

1. New public spaces are created to meet the demands of the future CBD and existing public open spaces are improved, such as Birdwood Park and Cottage Creek. Opportunities for new publicly accessible spaces are identified.
2. Birdwood Park is recognised as an important element in the public domain network and as the western 'gateway' to the city centre.
3. New development fronting Birdwood Park addresses the park edge and promotes a sense of enclosure by being built to the street alignment. Any new development ensures adequate midwinter lunch time sun access to Birdwood Park.
4. Development along the former rail corridor, Cottage Creek, lanes or through-site links provide a building address to encourage activity, pedestrian and cycleway movement, and improve safety.
5. Building entries are inviting with activate frontages that allow visual permeability from the street to within the building.
6. Distinctive early industrial, warehouse and retail buildings that contribute to the character of the area are retained and re-purposed.
7. Heritage items and their setting are protected.

Figure 6.01-3: West End Character Area

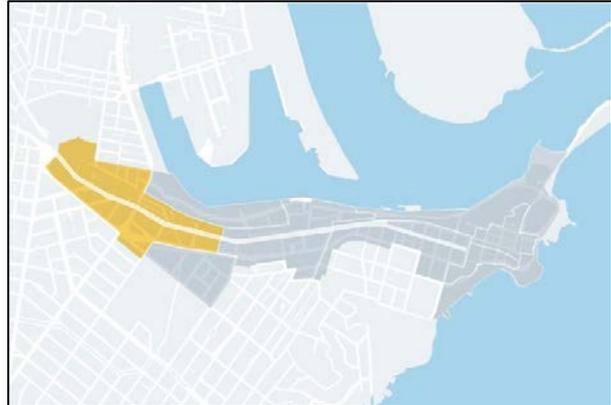


Image 6.01-2: Wood Street, view towards the Stores on Hunter Street



C. Honeysuckle

Honeysuckle is currently the premier locale for A-grade large floor plate commercial office development. A range of complementary uses include higher density residential development, restaurants and hotels which take advantage of Honeysuckle's prime position on the Hunter River foreshore. Honeysuckle has opportunities for significant public domain. The extension of the foreshore park westwards will form a continuous publicly accessible foreshore that extends from Maryville to Merewether around the city centre peninsula.

Principles

1. Development between the former rail corridor and Honeysuckle Drive provides a building address to both frontages.
2. Development along the waterfront, Cottage Creek, lanes or through-site links provide a building address to encourage activity, pedestrian and cycleway movement, and improve safety.
3. Heritage items and their setting are protected Principles

Figure 6.01-4 - Honeysuckle Character Area

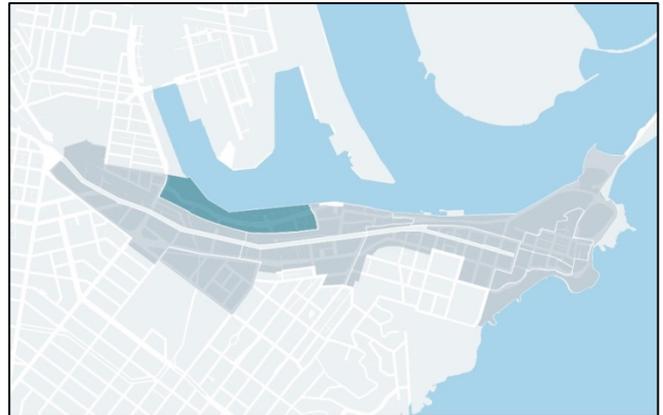


Image 6.01-3: Honeysuckle Drive, A-grade commercial office building



Image 6.01-4: Honeysuckle waterfront, mixed-use development



D. Civic

Civic is the administrative, cultural and educational centre of Newcastle. It includes facilities that reflect Newcastle's importance as a major regional city such as Newcastle Museum, Newcastle Art Gallery and City Hall. It is the location of major public assets such as Wheeler Place and the Civic Theatre.

The relocation of the courts to Civic and the introduction of more educational facilities associated with the University of Newcastle will have a major effect on the future character and activity within this area. Smaller commercial spaces will redevelop as support services for the courts and the university, and an increased student population will create flow-on demand for housing, retail and other services.

Principles

1. The pedestrian connection linking a number of the city's cultural buildings and spaces is reinforced, between Newcastle Art Gallery, through Civic Park and Wheeler Place, past the Newcastle Museum to the foreshore of the Hunter River.
2. Visual and physical connections through the area and between Civic and the Hunter River foreshores are opened.
3. Development between the former rail corridor and Hunter Street provides a building address to both frontages.
4. Public open space in the heart of Civic is improved and expanded through the addition of the Civic Link to complement and enhance Wheeler Place.
5. Development along publicly accessible spaces, lanes or through-site links provide a building address to encourage activity, pedestrian and cycleway movement, and improve safety.
6. Mid-winter lunch time sun access is protected to the footpath on the south side of Hunter Street and to Wheeler Place, Civic Link, Civic Park and Christie Place.
7. Distinctive early industrial, warehouse, and retail buildings that contribute to the character of the area are retained and re-purposed.
8. Development is encouraged that will support the role of Civic as the primary administrative, cultural and educational centre of Newcastle.
9. The expansion of Civic should extend northwards to link the Civic public realm to Newcastle Museum.

Figure 6.01-5: Civic Character Area

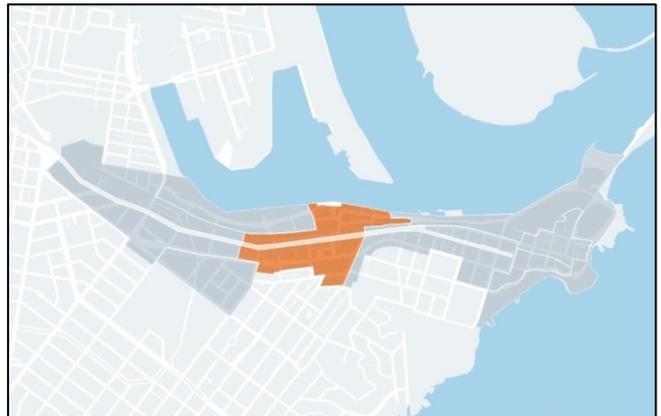


Image 6.01-5: Christie Place, between University House and City Hall



E. Parry Street

The area to the north of National Park and south of King Street is currently a mixture of commercial development with some residential and retail development such as the shopping centre, Markettown. In the future, this precinct will be characterised by more high density residential development taking advantage of the good amenity offered by proximity to the city centre and National Park and available services such as retail, entertainment and employment opportunities.

Figure 6.01-6: Parry Street Character Area

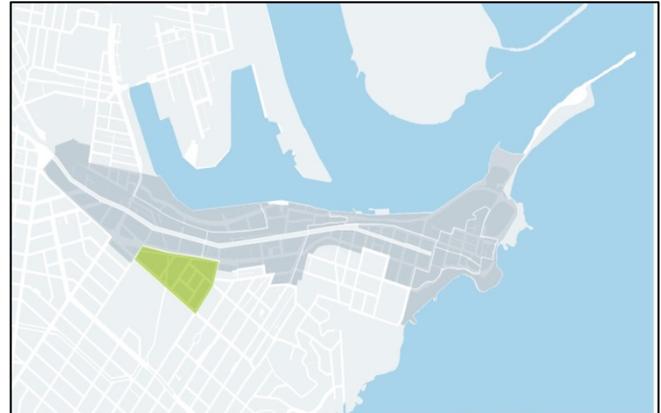


Image 6.01-6: Hall Street, an area in transition



Principles

1. Public domain spaces are improved to support the evolving character of the area into a high-density residential and mixed use precinct.
2. Distinctive early industrial and warehouse buildings that contribute to the character of the area are retained and re-purposed.
3. Development along Cottage Creek provides a building address to encourage activity, pedestrian and cycleway movement, and improve safety.

Image 6.01-7: Parry Street, new residential development



F. East End

East End centres on the former Hunter Street Mall (between Perkins and Newcomen Street) and the terminus of Hunter Street at Pacific Park. The precinct is characterised by hilly topography and a mix of uses focusing on the retail spine of Hunter Street Mall. The subdivision is more finely grained than other areas of the city centre. A mix of heritage listed and historic buildings give this part of Newcastle a unique character and offer interesting and eclectic streetscapes.

Principles

1. Hunter Street continues to be the main retail spine of the area, supported by a range of complimentary uses, including residential, commercial, entertainment and dining.
2. Hunter Street is recognised and enhanced as a major pedestrian space and an informal meeting place.
3. The historic fine grain character is maintained and enhanced.
4. Significant views to and from Christ Church Cathedral are protected, including views from Market Street and Morgan Street. Views to Hunter River are protected and framed along Market Street, Watt Street and Newcomen Street.
5. Vistas that terminate at significant heritage buildings are protected, such as Fort Scratchley.
6. Distinctive early industrial, warehouse and retail buildings that contribute to the character of the area are retained and re-purposed, including prominent corner buildings.
7. Existing laneways and pedestrian connections are enhanced.
8. Heritage items and their setting are protected. New buildings respect the setting of heritage buildings.
9. In-fill buildings, additions and alterations to respond to the height, massing and predominant horizontal and vertical proportions of existing buildings.
10. Recreational opportunities are created by establishing public space and pedestrian connections from Scott Street to the Hunter River foreshore.

Figure 6.01-7: East End Character Area



Image 6.01-8: Hunter Street, view east



G. Newcastle Beach

With the redevelopment of Newcastle Hospital, Newcastle Beach has emerged as the location of a cluster of high rise tourist and visitor accommodation and high quality residential apartments overlooking the beach.

Newer developments have been accompanied by high quality public domain improvements and good pedestrian through-site connections to the beach front. The area adjoins Newcastle East Heritage Conservation Area, so development on this edge must ensure sensitive transitions responding to the lower scale development in Newcastle East Heritage Conservation Area.

Principles

1. The public domain and amenity is enhanced to support the high-density residential and hotel uses.
2. Pedestrian access is improved to Newcastle Beach.
3. New development addresses the street to provide a good interface with the public domain.
4. Development adjoining Newcastle East Heritage Conservation Area creates a transition in scale by aligning the scale, proportion, form and finishes of the associated buildings.
5. The high environmental quality of the area is maintained.

Figure 6.01-8: Newcastle Beach Character Area

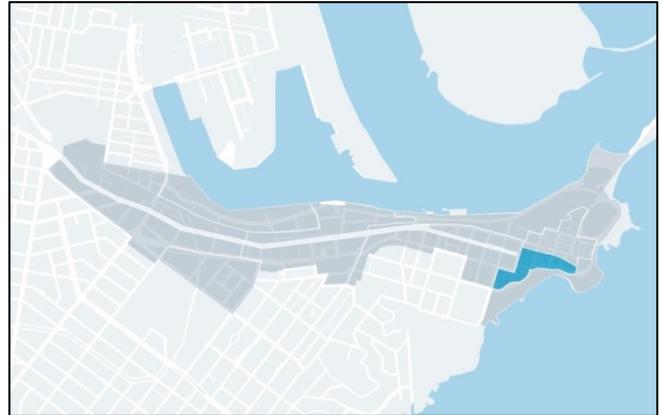


Image 6.01-9: Adaptive reuse of a heritage building



Image 6.01-10: Newcastle Beach



H. Newcastle East Heritage Conservation Area

Newcastle East Heritage Conservation Area is characterised by an intact heritage streetscape which is recognised by its inclusion as a Heritage Conservation Area in Schedule 5 of Newcastle LEP 2012, and by the number of state significant heritage items. It is a highly significant cultural landscape that provides a record of the early development of Newcastle.

The area is primarily residential with terrace housing dating from the late nineteenth century. Small corner shops and other ancillary retail or commercial uses are present. Terrace houses are built to the street boundary, with many featuring first floor verandas that overhang the footpath.

The fringes of the area feature heritage listed warehouses that have been converted for residential and commercial uses, and notable buildings including Fort Scratchley Historic Site, Boatman's Row, the Cohen Bondstore and Coutt's Sailors Home. The north edge of Newcastle East Heritage Conservation Area is bounded by the Coal River Precinct, a place of outstanding heritage significance listed on the NSW State Heritage Register.

Development in this area is subject to the provisions of the Newcastle DCP 2012 heritage provisions and the following principles.

Principles

1. The heritage significance of Newcastle East Heritage Conservation Area is retained and conserved.
2. Development responds to and complements heritage items and contributory buildings within heritage conservation areas, including streetscapes and lanes.
3. New development respects the scale, character and significance of existing buildings.
4. Existing views and vistas are maintained into and out of the area to the water and the foreshore parkland.
5. The continuity of Newcastle East's heritage conservation is retained and the diverse social mix of the area is maintained.

Figure 6.01 - 9: Newcastle East Heritage Conservation Area

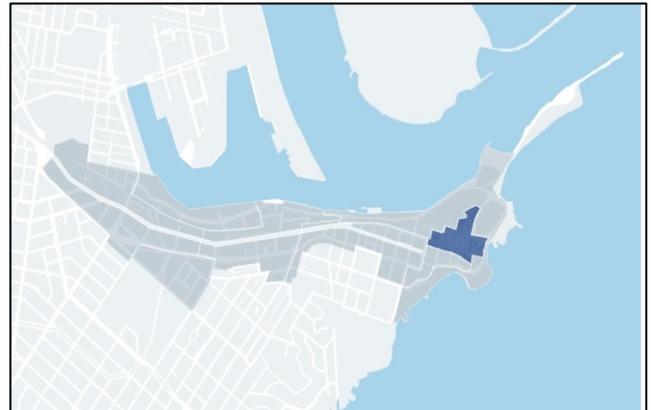


Image 6.01-11: Newcastle East Terraces



Image 6.01-12: Prominent corner building Newcastle East



I. Foreshore

The extensive foreshore is the primary open space asset of Newcastle's city centre. It showcases the city's unique natural setting, between the Hunter River and the Pacific Ocean. The foreshore provides public access linking the river and ocean waterfronts and is also the location of many significant heritage places such as Newcastle Railway Station buildings, Fort Scratchley, Customs House, the Ocean Baths and Nobbys Point lighthouse. Key public facilities can also be found in this precinct such as Nobbys Beach, Newcastle Beach, Queens Wharf, Nobbys Beach Surf Pavilion, and the foreshore cycleway and promenade. Development must complement the leisure, recreation and heritage uses of the Foreshore area.

Principles

1. The area is enhanced and continues to be the city's major recreational open space for Newcastle's workers, residents and visitors.
2. New public open space provides recreational opportunities for the community and key access links to the foreshore.
3. New development respects the scale, character and significance of existing buildings, especially heritage items.
4. New development promotes and facilitates the continuity of public access to the whole foreshore.
5. New development complements the use of public spaces as an events space.
6. Heritage items and their setting are protected, including the Aboriginal cultural heritage and non-Aboriginal archaeology.
7. The adaptive re-use of the Newcastle Railway Station maximises the long term potential of the site as a major visitor and community focal point.

Image 6.01-14: Hunter River waterfront along Foreshore Park



Figure 6.01-10: Foreshore Character Area



Image 6.01-13: Ocean Baths



6.01.03 General controls

A. Building form

A1. Street wall heights

Street wall heights refer to the height of the building that addresses the public street from the ground level up to the first building setback. They are an important element to ensure a consistent building scale in streets that have a mix of uses, heritage items and infill development.

Street wall heights can provide a sense of enclosure to the street and contribute to the city's character through street alignment with appropriate street-width to building height ratios. They can also have a direct impact on sunlight access to the public domain.

Performance criteria

A1.1. Street wall heights of new buildings define and enclose the street, are appropriately scaled and respond to adjacent development.

Acceptable solutions

1. New buildings have a street wall height of 16m unless indicated otherwise in Figure 6.01-12.
2. Any development above the street wall height is set back a minimum of 6m, as shown in Figure 6.01-11.
3. Corner sites may be emphasised by design elements that incorporate some additional height above the nominated street height.

Alternative solutions

- The street wall height of new buildings may vary if the desired future character is to maintain the existing street wall height of neighbouring buildings, such as heritage streetscapes.
- Deeper setbacks above the street wall height may be needed for heritage buildings or conservation areas to maintain the scale of the streetscape and the setting of heritage items.
- Where it can be demonstrated that there will be no adverse impact in terms of overlooking, overshadowing, or streetscape appearance, a variation to the street wall height setback may be possible.

Image 6.01-15: Consistent street wall heights help define the street



Figure 6.01-11: Section showing the typical 16m street wall height and typical 6m upper level setback

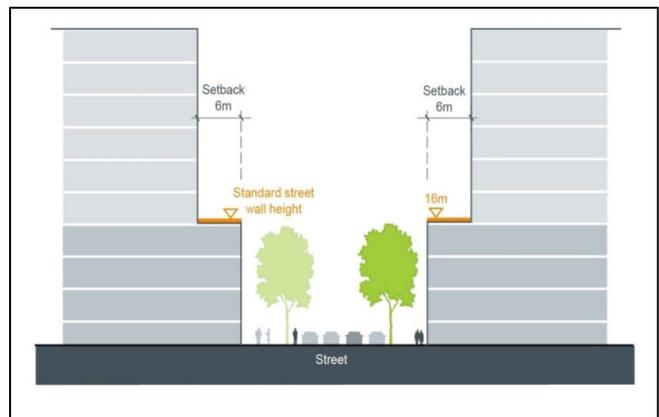
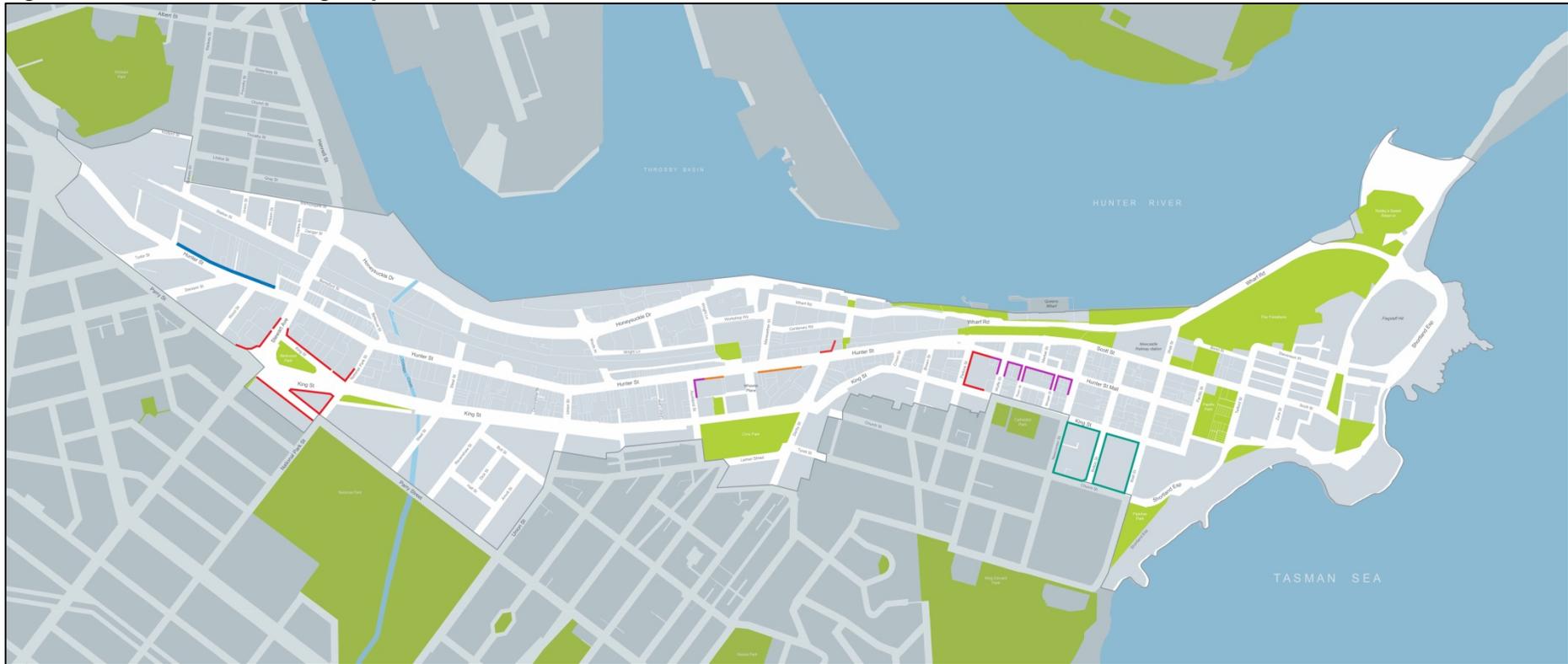


Image 6.01-16: Corners can be emphasised through change in architectural expression, material selection and design elements.



Figure 6.01-12: Street wall heights plan



- 22m street wall height
- 18m street wall height
- 14m street wall height
- 10m street wall height
- 8m street wall height
- block pattern
- public open space
- city centre boundary

A2. Building setbacks

A building setback is the distance between the building and the street boundary, a neighbouring site, waterfront, or any other place needing separation. Building setbacks can enhance development and its relationship with the adjoining sites and the public domain, particularly in terms of access to sunlight, outlook, view sharing, ventilation, wind mitigation and privacy.

In a city centre it is desirable to locate the frontage of lower levels (the podium) on the street boundary to give strong definition to the street and create setbacks in the upper building elements.

Performance criteria

A2.1. Building setbacks define and address the street and public domain spaces, and respond to adjacent buildings.

Acceptable solutions

1. Front setbacks are nil (zero) unless shown otherwise in Figure 6.01-13 and Table 6.01-1.
2. Where it is not possible to meet the setbacks in Figure 6.01-13 and Table 6.01-1 new development aligns with the adjoining front setbacks.
3. When a setback is used, footpaths, steps, ramps and the like may be provided within it.
4. Minor projections beyond the setback are possible for Juliette balconies, sun shading devices, and awnings. Projections into the setbacks are complementary to the style and character of adjoining buildings.

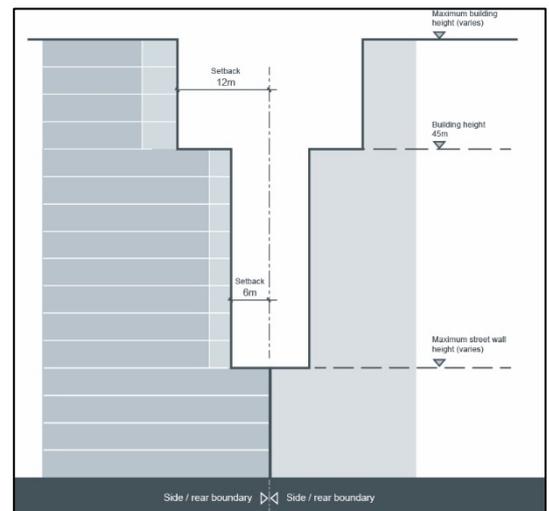
Table 6.01-1: Minimum setback for side and rear boundaries

Minimum setback for side and rear boundaries		
Part of building	Side boundary	Rear boundary
Below street wall height	Nil	Nil
Between street wall height and 45m	6m	6m
Above 45m	12m	12m

Image 6.01-17: Front building line is located on the boundary to define the street.



Figure 6.01-13 Section illustrating minimum side and rear setbacks



Performance criteria

A2.2 Side and rear setbacks enhance amenity and allow for ventilation, daylight access, view sharing and privacy for adjoining buildings.

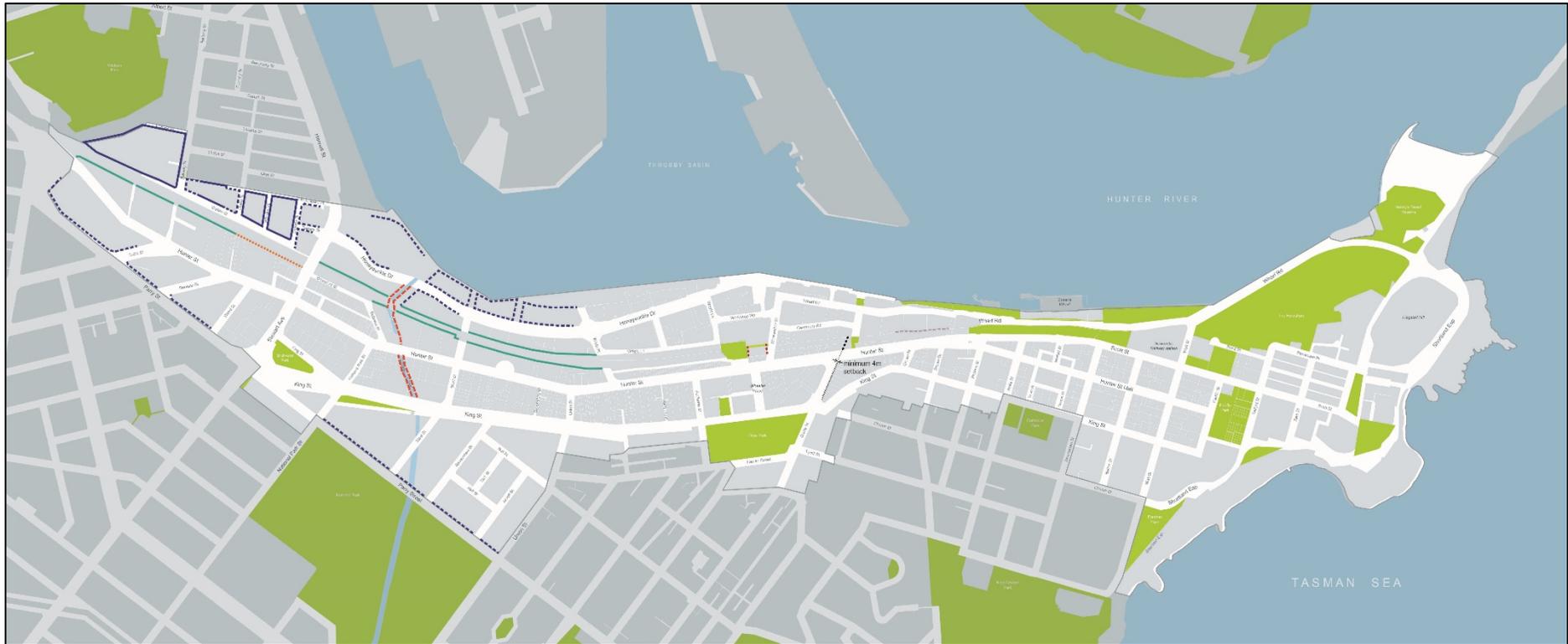
Acceptable solutions

1. Development may be built to the side and rear boundary (a nil setback) below the street wall height.
2. Commercial development above street wall height is consistent with the side and rear setbacks outlined in Table 6.01-1 and Figure 6.01-13.

Alternative solutions

- Where there is no adjoining development to respond to, half the separation distances to boundary recommended in the Apartment Design Guide may be acceptable.
- Where there are no openings within the wall, the side setbacks are consistent with Table 6.01-1 and Figure 6.01-13

Figure 6.01-14: Building setbacks plan



- 4.5m setback from boundary
- Align to Darby Street (eastern side)
- - - - Built form to align to museum building
- - - - 6.0m rear setback to allow for access laneway
- 2.5m primary building setback
- 3.5m primary building setback
- 4.0m primary building setback
- 6.0m primary building setback
- 10.0m primary building setback
- Block pattern/cadastre
- Public open space
- Study area boundary
- *minimum setbacks

A3. Building separation

Building separation is the distance between two or more buildings on the same site. Building separation ensures ventilation, daylight access, view sharing and increased privacy between neighbouring buildings. In residential buildings and mixed-use buildings, separation between windows and balconies from other buildings is particularly important for privacy, acoustic amenity, view sharing and sun access.

Building separation can also enhance the built form by visually separating building elements that can result in more usable public domain spaces in terms of mitigating wind impact and ensuring daylight access. Building separation provided at lower levels, between buildings on the same site, can visually break long building frontages and provide opportunities for mid-block through-site links that connect to other streets or open space.

Performance criteria

A3.1. Sites that accommodate more than one building achieve adequate daylight, ventilation, outlook, view sharing and privacy for each building.

Acceptable solutions

1. Buildings achieve the minimum building separation for commercial buildings within the same site, as shown in Table 6.01-2 and Figure 6.01-14.
2. Building separation distances may be longer for residential and mixed-use developments to satisfy SEPP 65 guidance.
3. Sites with a road frontage 100m or greater include separation between buildings to maximise view corridors between the buildings and provide appropriate through-site links.

Table 6.01-2: Minimum building separation

Minimum building separation			
Up to 16m	Up to 45m	Above 45m	
Nil or 6m for link		9m	21m

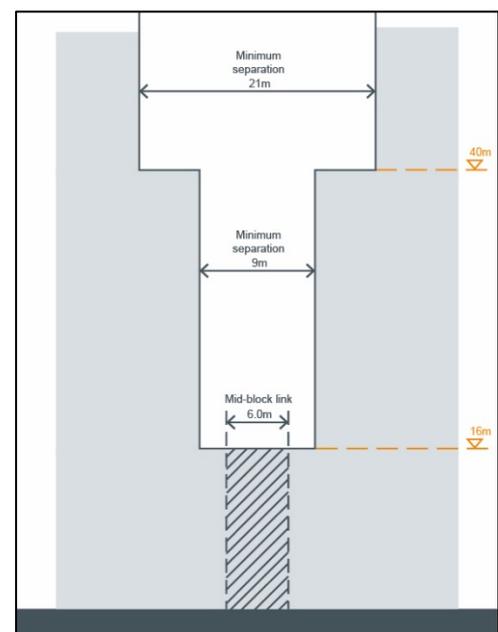
Image 6.01-18: Solid walls with non-habitable room windows are used for end elevations to manage privacy impacts



Image 6.01-19: Building separation in this residential development allows for ventilation, daylight access, view sharing and privacy



Figure 6.01-15: Section showing minimum separation distances between buildings within the same site and a minimum 6m separation where a through-site link is required.



A4. Building depth and bulk

The size of building floor plates has a direct impact on building bulk and urban form. Setting a maximum size of floor plates is also important to allow for ventilation, daylight access, view sharing and privacy in neighbouring development and the public domain.

Performance criteria

A4.1. Building depth and floor plate sizes relates to the desired urban form and skyline of the city centre.

Acceptable solutions

1. Buildings achieve the maximum building depth and floor plate sizes as outlined in Table 6.01-3.
2. Buildings with large floor plates are expressed as separate building elements, as shown in Figure 6.01-15.
3. Buildings above street wall height have a maximum building length of 50m.
4. Floor plates are flexible and allow adaption for multiple configurations or uses.

Table 6.01-3: Maximum building depth and floor plate size

Maximum building depth and floor plate size			
Building typology	Floor plates affected	Maximum GFA per floor	Maximum building depth
Campus style commercial building	All floor plates Honeysuckle	2500m ²	25m
Commercial tower	Above street wall height	1200m ²	25m
Residential tower	Above street wall height	900m ²	18m

Figure 6.01-16: Commercial buildings with large floor plates expressed as separate building elements of not more than 1200sqm.

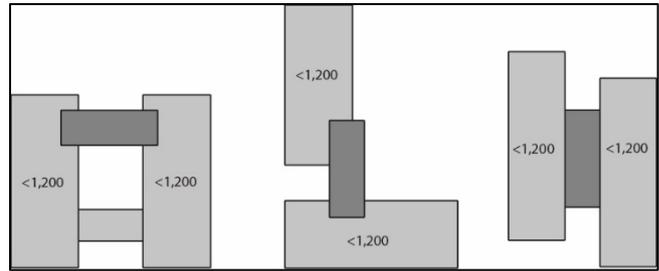
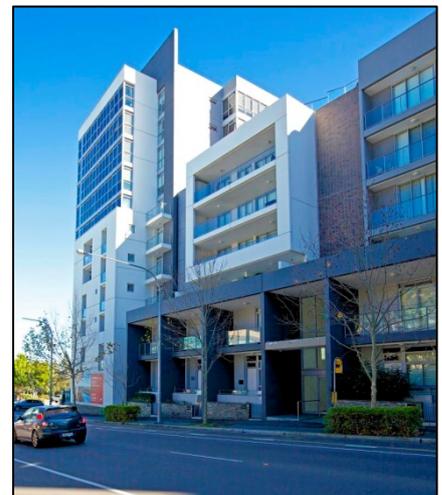


Image 6.01-20: Buildings with large floor plates expressed as separate building elements



Performance criteria

A4.2. Buildings achieve good internal amenity with minimal artificial heating, cooling and lighting.

Acceptable solutions

1. Workspaces in office buildings achieve adequate natural light. Design solutions include windows, atria, courtyards or light wells and by locating workspaces within 10-12m from a window or daylight source.
2. Consider opportunities to incorporate natural ventilation for commercial and mixed use development. Design solutions include the use of cross ventilation or stack effect ventilation via atria, light wells or courtyards to reduce reliance on artificial sources.

A5. Building exteriors

The design of building exteriors create visual interest to the streetscape and unify developments of different styles and lot widths. Detailed architectural treatments, materials, finishes and colour have the potential to reference the history of the precinct and shape the future character of the area.

Performance criteria

A5.1. Building exteriors feature high quality design with robust materials and finishes.

Acceptable solutions

1. Materials and finishes complement the character of the precinct.
2. External walls are constructed of high quality and durable materials and finishes with low maintenance attributes such as face brickwork, rendered brickwork, stone, concrete and glass.
3. An exterior material and finishes sample board and schedule shall be submitted with development application to show the quality of the materials proposed.

Performance criteria

A5.2. Building exteriors make a positive contribution to the streetscape and public domain.

Acceptable solutions

1. Buildings are articulated to differentiate between the base, middle and top.

Image 6.01-21: A well articulated building which differentiates between a base, middle and top, featuring high quality façade materials and adopts materials that are typical of the area.



Image 6.01-22: This building defines the corner and features active uses on the ground floor and a well articulated facade.



2. Visually prominent parts of buildings such as balconies, overhangs, awnings, and roof tops are of high design quality.
3. Roof lines are to be designed to create a visually interesting skyline with roof plant and lift overrun integrated into the overall architectural design of the building.
4. Facades do not incorporate large expanses of a single material, including reflective glass

Image 6.01-23: Balconies and terraces that overlook public spaces contribute to safety and natural surveillance.



Performance criteria

A5.3. Building exteriors are designed to ensure a positive contribution to streets and public spaces.

Acceptable solutions

1. Building exteriors clearly define the adjoining streets, street corners and public spaces, designed with safety in mind and easy to navigate for pedestrians.
2. Where development exposes a blank wall a visually interesting treatment is applied to the exposed wall.
3. Balconies and terraces are provided where buildings overlook parks and squares to contribute to casual surveillance.
4. External building facade lighting is integrated with the design of the building and contributes to the character of the building and surrounding area.

Image 6.01-24: Detailed design and building articulation along the street edge adds interest to the pedestrian environment.



Performance criteria

A5.4. Building exteriors respond to adjoining buildings.

Acceptable solutions

1. Adjoining buildings are considered in terms of:
 - (a) appropriate alignment of building line, awnings, parapets, cornice lines and street wall heights
 - (b) setbacks above street wall heights
 - (c) selection of materials and finishes
 - (d) façade proportions including horizontal or vertical emphasis
 - (e) detailing of the interface with adjoining buildings.

A6. Heritage buildings

This section applies to the assessment of building or alteration work (including demolition) of heritage items listed in Schedule 5 of the Newcastle LEP 2012 that requires development consent.

Additional guidelines for development within Heritage Conservation Areas are provided in the Newcastle DCP 2012, Heritage Technical Manual, City of Newcastle Heritage Strategy and the Newcastle East Heritage Conservation Area City Character Area contained in Part 02 of this Development Control Plan.

Within the city centre there are numerous heritage items of state and local significance that reflect the city's history and culture and make it unique. Retaining heritage buildings is an essential element in revitalising Newcastle.

The city centre contains a concentration of heritage items and streetscapes typified by late 19th and early 20th century buildings of between two and six storeys of a consistent scale, form and character. Many of these buildings have architectural emphasis at the skyline in the form of tower elements and parapet detail. The rich architectural detail of many heritage items is a distinctive characteristic of the Newcastle city centre.

Image 6.01-25 Repurposing of a heritage structure at Honeysuckle into the Newcastle Museum.



Performance criteria

A6.1. Development conserves and enhances the cultural significance of heritage items.

Acceptable solutions

1. A heritage management report, prepared by a suitably qualified heritage specialist, ensures the proposal achieves this performance criteria.
2. New development is consistent with the strategic actions of the City of Newcastle Heritage Strategy and the principles of the Newcastle Heritage Policy 2013
3. New development enhances the character and heritage significance of heritage items, heritage conservation areas, archaeological sites or places of Aboriginal heritage significance.
4. Views and sight lines to heritage items and places of historic and aesthetic significance are maintained and enhanced, including views of the Christ Church Cathedral, T&G Building, Newcastle Courthouse and former Post Office.

Performance criteria

A6.2. Infill development conserves and enhances the cultural significance of heritage items and their settings.

Acceptable solutions

1. Design infill development to respond to the scale, materials and massing of adjoining heritage items. Design solutions include:
 - (a) aligning elements such as eaves lines, cornices and parapets
 - (b) responding to scale proportion, pattern, form or rhythm of existing elements such as the structural grid
 - (c) complementary colours, materials and finishes.
2. Infill development responds to heritage items, historic streetscapes, contributory buildings and the public domain using best practice methods, design philosophies and approaches.
3. Archaeologically excavate and expose the item, and if possible, retain item in situ for permanent public display, allowing for sufficient set back to allow the item to be interpreted by the public. Where items cannot be retained in-situ ensure that the archival recording of the item is of sufficient standard that it can be used for interpretative purposes.
4. Prepare content which communicates and promotes the understanding of the historical context of the archaeological item and allow for content to be provided on an appropriate physical or digital platform.

Image 6.01-26 Combining contemporary infill with heritage buildings creates an interesting relationship between old and new.



Image 6.01-27 The wharf building at Walsh Bay in Sydney is an example of successful adaptive reuse of heritage items.



Image 6.01-28: This historic marine building has been transformed into the Honeysuckle brewery, a popular destination on the waterfront.



Performance criteria

A6.3. Alteration and additions respond appropriately to heritage fabric and the items cultural significance.

Image 6.01-29: The Grand Hotel in Newcastle, built in 1890, has been altered a number of times while retaining its historic integrity.

Acceptable solutions

1. New building work and uses encourage adaption that has minimal impacts and is low maintenance.
2. Internal and external alterations and additions are designed as a contemporary layer that is readily identifiable from the existing building, responding to but not mimicking its forms of architectural details. Design solutions include separating new work from old by:
 - (a) incorporating generous setbacks between existing and new fabric
 - (b) glazed voids between new additions and the existing building
 - (c) using shadow lines and gaps between old and new work
 - (d) using lighting, materials and finishes that enhance and reveal aspects of the heritage item.
3. Employ innovative design strategies to deal with existing physical aspects of heritage buildings that may not be ideal for the proposed new use. Design solutions may include:
 - (a) introducing generously sized voids to improve access to natural light and ventilation when building depth is greater than recommended.
 - (b) facilitate sunlight access in heritage items by using the full depth of rooms and introducing skylights and clerestory windows where ceiling heights are high.
 - (c) expose services, wall and ceiling framing, particularly in public areas and foyers, to reveal the significant internal fabric of heritage items.
 - (d) exposing, re-using and interpreting the fabric of existing interiors.



Performance criteria

A6.4. New building elements support future evolution of the heritage item

Acceptable solutions

1. Alterations are reversible and easily removed.
2. Primary and significant fabric is retained including structure.
3. New work is physically set-off the existing fabric.
4. Alterations and additions allow the ongoing adaptation of the heritage item in the future.

Performance criteria

A6.5. Employ interpretation treatments when altering, adapting or adding to a heritage item.

Image 6.01-30: Example of a supermarket integrated into a heritage building in Pyrmont Sydney

Acceptable solutions

1. Expose the fabric of heritage items by removing later additions that obscure and detract from heritage fabric.
2. Incorporate contemporary insertions in the building in a manner that allows the building layers to be readily identifiable and appreciated.
3. Provide interpretive treatments. Design solutions include:
 - (a) displays of artefacts and objects associated with the heritage item in foyers and public areas.
 - (b) public art that references the cultural significance of the heritage item.



Performance criteria

A6.6. Encourage new uses for heritage buildings.

Acceptable solutions

1. Employ innovative design strategies to enable heritage items and contributory buildings to accommodate new uses. Design solutions may include new building elements/additions that expand the existing envelope of the heritage building while still respecting and minimising impact on cultural significance.
2. Use innovative approaches to provide car parking where the provision of a basement or other onsite car parking is not possible. Design solutions include:
 - (a) allowing heritage building to provide less car parking than is normally required for that land use, or no car parking where not physically possible
 - (b) using car share schemes
 - (c) sharing space within existing nearby car parking structures

Alternative solutions

Key development controls or standards may need to be varied for adaptive re-use residential projects to facilitate appropriate heritage responses and development viability.

Standards and controls that may need to be varied relate to:

- building and room depths
- building separation
- visual privacy
- deep soil requirements
- car parking requirements
- common circulation in apartment buildings

A7. Awnings

Awnings increase the usability and amenity of public footpaths by protecting pedestrians from sun and rain. They encourage pedestrian activity along streets and in conjunction with active edges, such as retail frontages, support and enhance the vitality of the local area. Awnings, like building entries, provide a public presence and interface within the public domain and contribute to the identity of a development.

Performance criteria

A7.1. Awnings provide shelter for public streets where most pedestrian activity occurs.

Acceptable solutions

1. Continuous street frontage awnings or weather protection to entrances are provided for all new developments in areas requiring an active frontage on Figure 6.01-25 (B3 Active street frontages).
2. Awnings are continuous to ensure pedestrian amenity.

Performance criteria

A7.2. Address the streetscape by providing a consistent street frontage in the City Centre.

Acceptable solutions

1. Awnings are generally flat or near flat and similar to the prevailing awning of each particular streetscape and in keeping with the design of the building.
2. Awnings that break the continuity of the edge fascia with strongly geometrical forms such as triangular or barrel vaulted shapes are avoided.
3. First floor verandahs are permitted in the East End and Newcastle East Character Areas where they are designed to be sympathetic with the overall form, proportion and division of bays of the buildings to which they are attached.
4. Awnings attached to residential terraces are designed in a manner that responds to the division of buildings into vertical bays.

Image 6.01-31: Simple awning design that responds to the building proportions.



Image 6.01-32: Awning contributes to the character of the heritage building.



A8. Design of parking structures

On-site parking includes underground (basement), surface (at-grade) and above ground parking, including parking stations. Underground and semi-underground parking minimises the visual impact of car parks and is an efficient use of the site, which creates the opportunity to increase communal and private open space.

High water table and mine subsidence and the impact of these on development feasibility means that above ground car parking structures are often the only way to accommodate on-site parking in Newcastle. A well designed car parking structure is an opportunity to introduce innovative design to the city, whether it is a new build, freestanding, retrofit or part of an integrated mixed use development.

Parts of Newcastle city centre are flood prone. In these areas, if basement car parking is provided, it should be designed to minimise the potential for inundation during a flood event.

Image 6.01-33: Example of a screened above-ground carpark within a commercial development with ground floor uses in Parramatta. The screen could be improved with a custom art work or green cover.



Note: Traffic, parking and access controls for the city centre are covered by Newcastle DCP 2012 Section 7.03. This section contains additional provisions for managing the visual impact of car parking in the city centre.

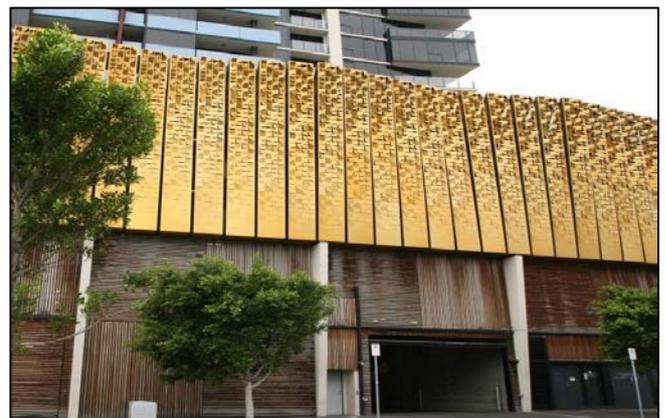
Performance criteria

A8.1. At-grade or above-ground parking structures are well designed.

Image 6.01-34: Example of above-ground car park screening addressing the side street, Melbourne

Acceptable solutions

1. Proposed at-grade or above-ground parking structures whether freestanding or part of larger developments in the city centre are to be reviewed and endorsed by Council's Urban Design Consultative Group prior to be lodged for development consent as:
 - (a) having fulfilled the requirements of Newcastle DCP 2012 Section 7.03.04 Clause B Parking areas and structures
 - (b) being well designed and well integrated with the streetscape and ground plane of the particular site and minimise the visual impact of parking structures
 - (c) Consultative Group confirms that development meets the performance criteria.



Performance criteria

A8.2. Minimise the visual impact of at grade or above-ground parking structures.

Acceptable solutions

1. All parking is provided within the building footprint either within basements or well integrated into the building's design using materials and architectural façade treatments that are common to the rest of the development.
2. Where on-site parking cannot be provided within the building footprint it is located to the side or rear and not visible from the primary street frontage.
3. Access to above ground car parking is located in side or rear streets or lanes.
4. At-grade or above-ground car parking is screened from view from public spaces. Design solutions include:
 - (a) green walls and roofs
 - (b) solar panels incorporated into screens and awnings over car parking
 - (c) architecturally designed façade treatments that incorporate artworks
 - (d) using car park roof tops for community facilities such as tennis courts
 - (e) sleeved by active and/or other uses as per Figure 6.01-16 and Figure 6.01-17.

Performance criteria

A8.3. Basement car parks are designed to provide protection against flooding.

Acceptable solutions

1. The design of entry ramps, ventilation points and pedestrian exits prevents water entering the basement until the last possible moment in a flood event, as shown in Figure 6.01-18. Design solutions include warning signage of the hazard and the route to safe refuge affixed in prominent locations.

Figure 6.01-17: Diagram showing sleeved car parking

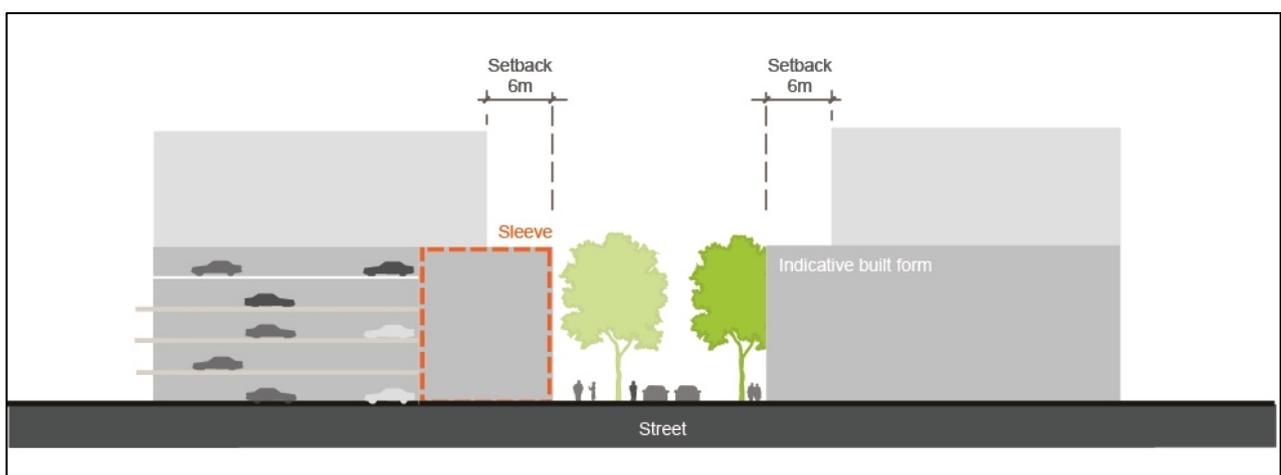


Figure 6.01-18: Diagram showing screened car parking

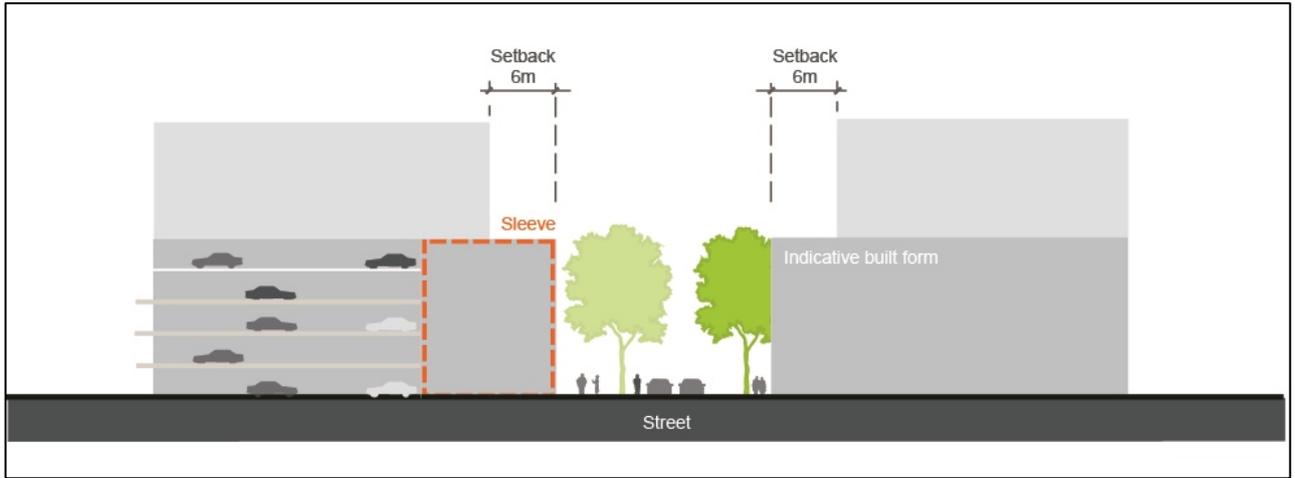
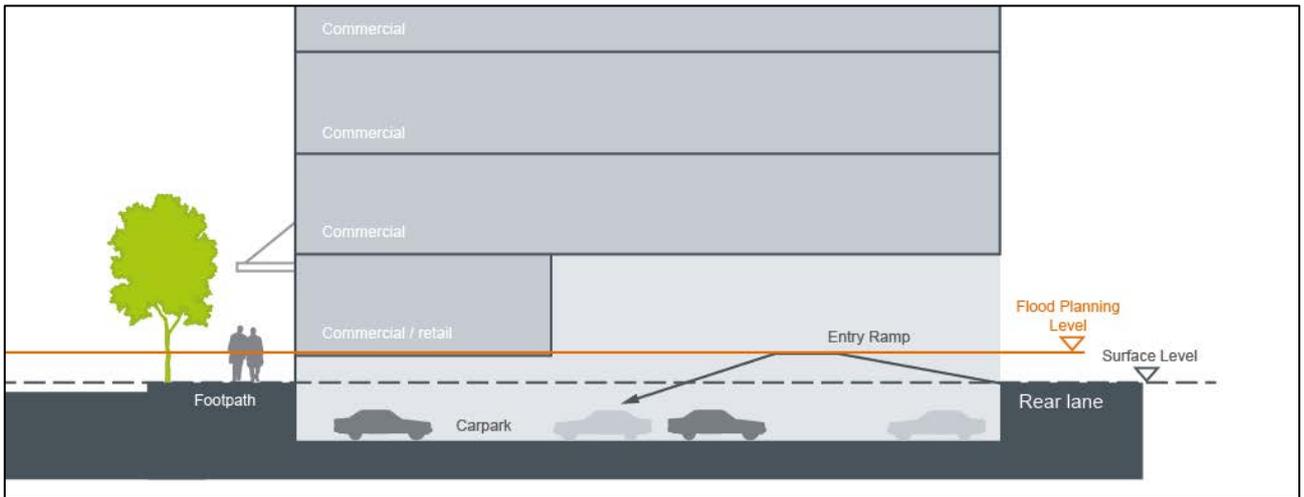


Figure 6.01-19 Basement ramp design to minimise inundation



A9. Landscaping

Performance Criteria

A9.1 New development incorporates landscaping and communal open space that respects the desired character of the streetscape, adjoining land and public spaces.

Acceptable solutions

1. Landscaping and communal open space is provided having regard to the desired streetscape character, building setbacks and relationship to public open space.
2. Landscaping on upper levels and roof tops through the use of roof and wall gardens is encouraged in compliance with Section 7.02.07 Green walls and roof space.
3. Private open space areas which adjoin public open space complement the landscape character of the public open space.
4. Residential buildings in the city centre do not require the provision of a deep soil zone.

B. Public domain

B1. Access network

Streets and lanes provide pedestrian and vehicle connections through the city at all hours. The structure of the access network determines how permeable movement is through the city. Pedestrian activity can be encouraged by developing a fine-grain, connected and legible street and lane network that integrates pedestrians, cycling and public transport.

The promotion of active transport (walking and cycling) increases activity in the city centre by increasing the opportunities for people to move around. More activity equates to a higher retail spend. Active transport promotes well-being and reduces the environmental impacts of congestion. It is critical that streets and bike networks are safe, attractive and well connected to promote active transport.

Performance criteria

B1.1 Streets prioritise pedestrian, cycling and public transport users to support sustainable travel behaviour.

Acceptable solutions

1. Improved and new pedestrian connections are as shown in Figure 6.01-19 and are designed in accordance with the City Centre Public Domain Technical Manual.
2. Sites with a street frontage 100m or greater incorporate additional pedestrian connections to improve access and permeability.
3. New pedestrian connections are within comfortable walking distance to public transport.
4. Streets and lanes are connected to encourage pedestrian use.
5. Way finding signage is incorporated and clearly defined.

Image 6.01-35: Streets need to provide space for cars but also cater for pedestrians, cyclists and public transport users.



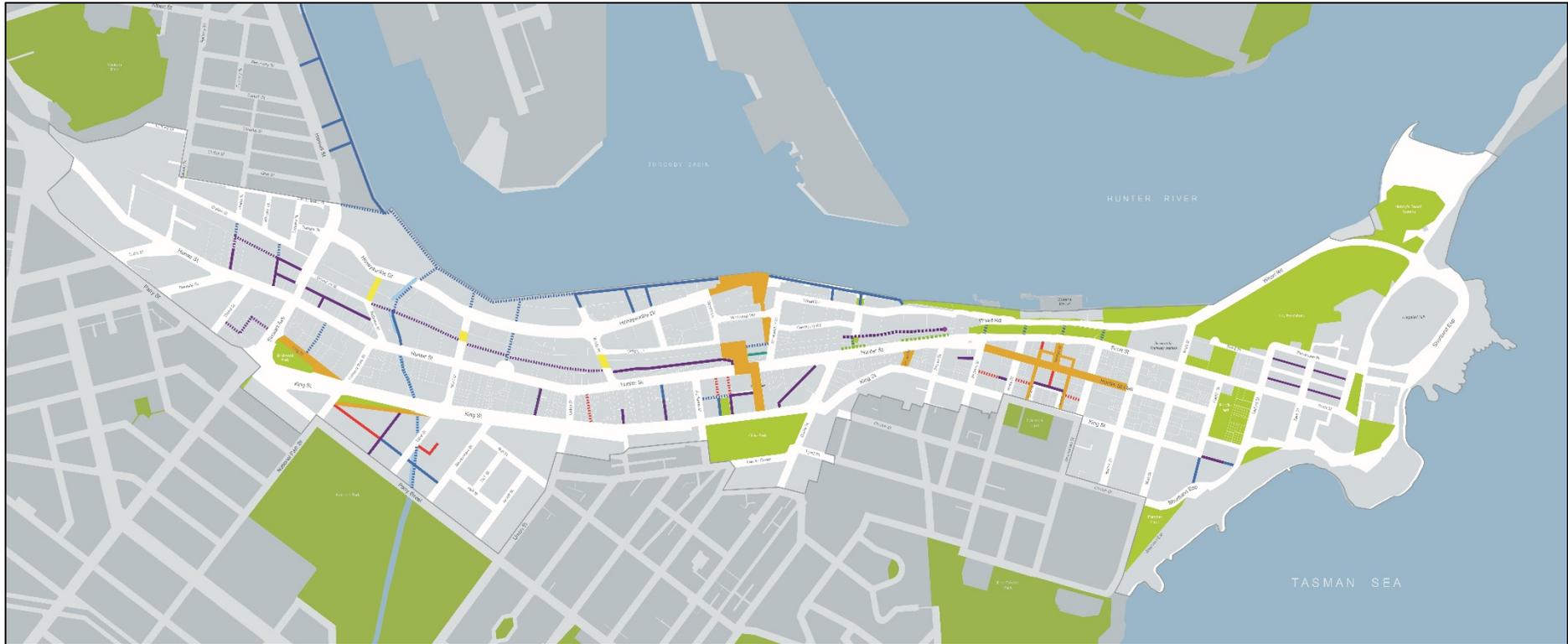
Image 6.01-36: A network of integrated and legible connections link the city's public spaces and destinations.



Image 6.01-37: Pedestrian-only lanes provide a safe environment with opportunities for active frontages.



Figure 6.01-20: Network Access Map



- Proposed new streets
- Improve existing pedestrian spaces
- Existing pedestrian link
- ⋯ Proposed pedestrian link
- Existing arcade / through-site link
- ⋯ Proposed arcade / through-site link
- Existing service / shared lane
- ⋯ Proposed new service / shared lane
- Vehicle entry not permitted
- Proposed new service / shared lane
- Potential 10m diameter vehicle turning head (if laneway link to north cannot be provided)
- Maintain access way
- Study area boundary

Performance criteria

B1.2 Lanes, through-site links and pedestrian paths are retained, safe and enhanced to promote access and public use.

Acceptable solutions

1. Retain existing laneways
2. New streets, lanes, through-site links and pedestrian paths are provided as shown in Figure 6.01-19 and designed in accordance with the City Centre Public Domain Technical Manual.
3. Lanes and through-site links maintain clear sight lines from each end.
4. Dead-ends or cul-de-sacs are avoided. Where they exist they are extended to the next street, where possible. Where unavoidable, way finding signage should be provided.
5. Pedestrian bridges are avoided over public spaces, including lanes.
6. Development adjacent to a lane or pedestrian path includes:
 - (a) active uses at the ground level
 - (b) appropriate lighting
 - (c) access for service vehicles if necessary.
7. Streets, lanes and footpaths include lighting and illumination in accordance with the requirements of the City Centre Technical Manual.
8. Blank walls and solid fencing that inhibit natural surveillance and encourages graffiti should be avoided.
9. Laneways, paths and through site links incorporate Crime Prevention Through Environmental Design Principles.

Performance criteria

B1.4 Street and block network is permeable and accessible to promote pedestrian use.

Image 6.01-38: Retail arcade with active frontages and access to daylight.



Acceptable solutions

1. A permeable pedestrian network from the city centre to the foreshore is provided as shown in Figure 6.01-20.

2. Through-site connections on privately owned land:

- Have a public character, are easily identified by users, safe, well lit, highly accessible and have a pleasant ambience;
 - Have a minimum width of 5m with no obstructions;
 - Have buildings which address the frontage and/or contain active uses to provide opportunities for natural surveillance.
 - Have clear and direct through-ways;
 - Are open to the sky and publicly accessible at all times;
 - Are clearly distinguished from vehicle access ways;
 - Align with breaks between buildings so that view corridors are extended and there is less sense of enclosure;
 - Do not contain structures such as electricity substations, carpark exhaust vents, swimming pools or the like);
 - Incorporate signage at street entries indicating public accessibility and the street to which the through-block connections ends; and
 - Are designed in accordance with the Crime Prevention Through Environmental Design principles.
3. Residential developments with a frontage to a through site link incorporate windows, doors and verandahs facing the through-site link at ground level.
 4. Arcades in retail and commercial developments:
 - (a) Are a minimum width of 3m; and
 - (b) Include ground level active uses; and
 - (c) Have access to natural light, and
 - (d) Provide public access during business hours; and
 - (e) Have clear connections to streets and lanes with a direct line of sight between entrances.
 5. Pedestrian crossings are located to enable a direct line of travel for pedestrians.

Figure 6.01-21: Through-site connections on privately owned land.

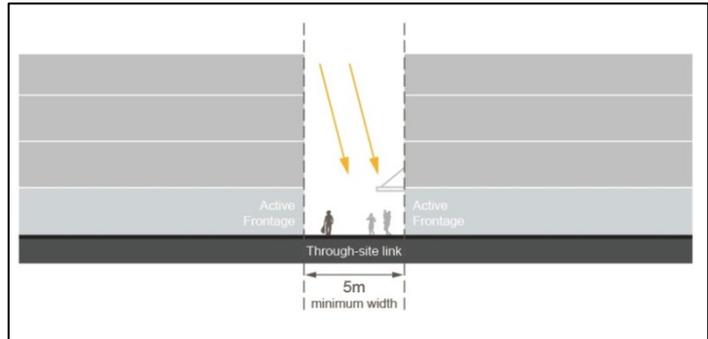
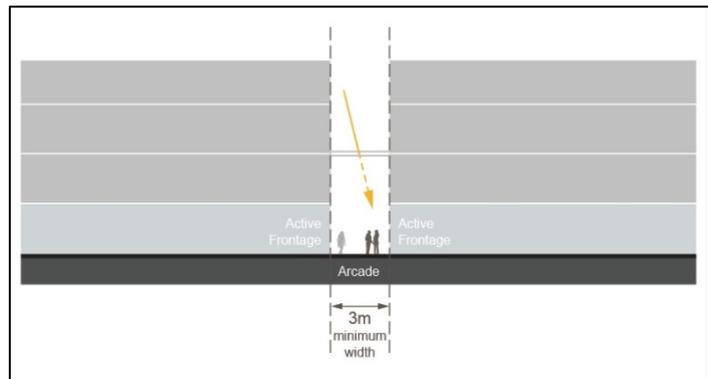


Figure 6.01-22: Arcades in retail and commercial



- Pedestrian-only public lanes are designed in accordance with the City Centre Technical Manual.

Performance criteria

- B1.5 Public transport facilities are integrated into the access network.

Acceptable solutions

- Pedestrian access to public transport stops is convenient, safe and accessible.
- Light rail and bus stop locations are coordinated to enable convenient mode change, i.e. stops are located within walking distance from each other.
- Cycling routes and cycle parking are coordinated and integrated with the location of public transport stops to enable convenient mode change.
- The design of public transport facilities has regard to Crime Prevention through Environmental Design Principles.

Performance criteria

- B1.6 Cycle routes are safe, connected and well-designed.

Acceptable solutions

- Separated cycle ways are provided on Hunter Street as shown in Figure 6.01-19 and designed in accordance with the City Centre Technical Manual.
- Cycle ways are connected into the network indicated in the City of Newcastle Cycling Strategy and accessible to public transport stops.
- Safety is maximised through active street frontages. Buildings that adjoin pedestrian and cycle paths are designed to address the path and provide passive surveillance opportunities.
- Signage should be provided along cycle routes identifying key destinations, transport stops, bicycle parking, travel times and distances.
- Commercial development includes end of trip cycling infrastructure. Design solutions include:
 - secure bike parking
 - shower and change room facilities.

Image 6.01-39: Example of dedicated cycle lanes



Image 6.01-40: Bicycle parking should be conveniently located and secure.



Image 6.01-41: Undercover bicycle parking off a shared public link.



B2. Views and vistas

Preserving significant views around the city is critical to place-making, wayfinding and for retaining the unique character of Newcastle. Significant views include views from public places towards specific landmarks, heritage items or areas of natural beauty. The most important views in Newcastle tend to be along streets leading to the water or landmark buildings, including Christ Church Cathedral and Nobby's Head.

With the redevelopment of the former rail corridor lands, key views and vistas are to be established and will create a visual connection and link the city to the foreshore.

Image 6.01-42: View corridor along Morgan Street to Christ Church Cathedral

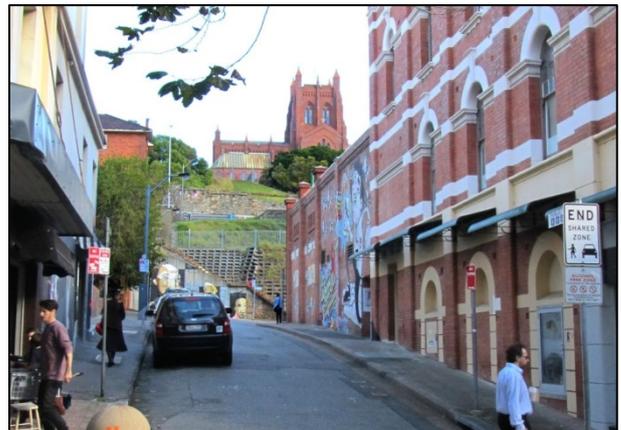
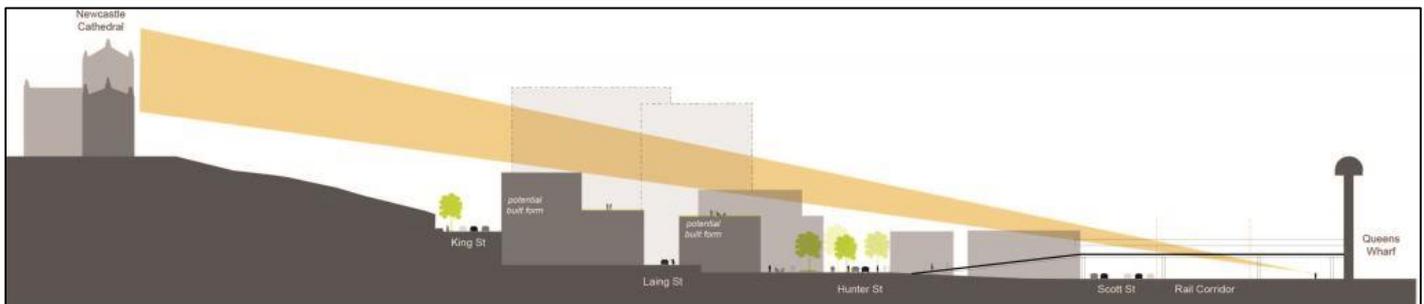


Figure 6.01-23: View axis to Christ Church Cathedral



Performance criteria

B2.1 Public views and sight lines to key public spaces, the waterfront, prominent heritage items and landmarks are protected.

Acceptable solutions

1. New development protects the views nominated in Figure 6.01-23.
2. New development in the vicinity of views to Christ Church Cathedral nominated on Figure 6.01-23 must ensure that vistas of the Cathedral's tower, roof-scape and pinnacles of the buttresses are preserved.
3. Open space and breaks in the built form align with existing streets and view corridors as identified in Figure 6.01-23.
4. A visual impact assessment accompanies the application and confirms that this performance criteria has been met.

Figure 6.01-24: Views and Vistas Map



- | | |
|--|---|
| <ul style="list-style-type: none"> — Vista towards harbour — Vista terminating in built form / landmark * Christ Church Cathedral — View terminating in Cathedral - - - City skyline with Cathedral — Block pattern/cadastrale Public open space — Study area boundary | <p>View locations</p> <ul style="list-style-type: none"> 01 - Steward Av cnr Beresford St 02 - Hunter St cnr Steel St 03 - Hunter St cnr Wright Lane 04 - Honeysuckle Dr cnr Worth Pl 05 - Settlement Ln cnr Civic Ln 06 - King St cnr Wheeler Pl 07 - Wright Lane at Hunter St 08 - Merewether St to Harbour Square 09 - Darby St to Darby Plaza 10 - Argyle St at Hunter St 11 - Browne St cnr King St 12 - Perkins St cnr King St 13 - Wolfe St cnr King St 14 - Wharf Rd to Customs House Tower 15 - Wharf Rd cnr Market St 16 - Hunter St Mall cnr Market St 17 - Hunter St Mall cnr Morgan St 18 - King St cnr Newcomen St 19 - Hunter St Mall cnr Watt St 20 - Parade Ground, Fort Scratchley 21 - Stockton Ferry Wharf |
|--|---|

Performance criteria

B2.2 New development achieves equitable view sharing from adjacent development.

Acceptable solutions

1. Align new development to maximise and frame view corridors between buildings, taking into account topography, vegetation and surrounding development.
2. Where there is potential impacts on views an assessment of the following principles should be submitted with the application:
 - (a) the views to be affected
 - (b) what part of the property the views are obtained
 - (c) the extent of the impact
 - (d) the reasonableness of the proposal that is causing the impact.

Image 6.01-43: View along Honeysuckle Drive towards Nobbys Head



Note: Visual Impact Assessments

A visual impact assessment identifies and analyses the affected views in their existing state, includes photomontages of the view once the proposed development is in place and then assess the impact on that view.

B3. Active Street Frontages

Active street frontages promote an interesting and safe pedestrian environment. Shops, studios, offices, cafes, recreation and community facilities provide the most active street fronts. Residential buildings can contribute positively to the street by providing a clear street address, direct access from the street and outlook over the street.

Image 6.01-44: Shopfronts activate the street edge



Performance criteria

B3.1 In identified activity hubs, ground floor uses add to the liveliness and vitality of the street.

Acceptable solutions

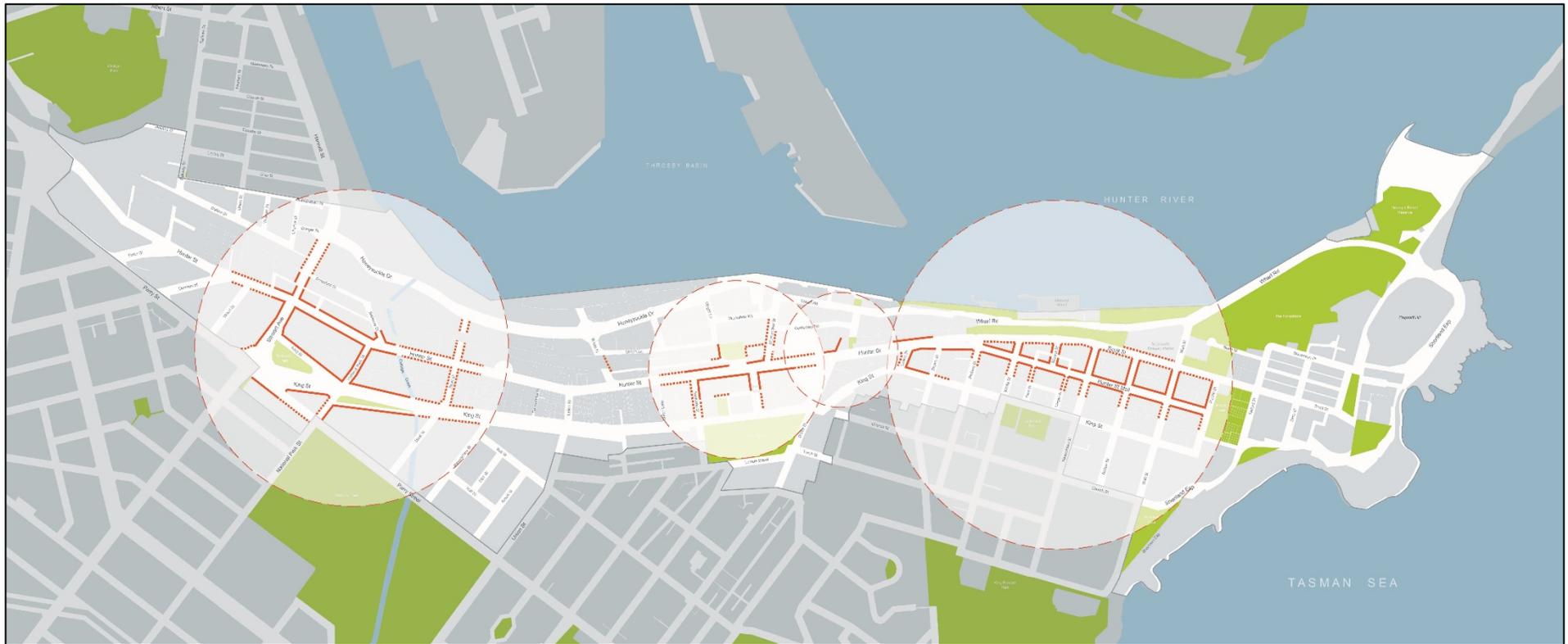
1. Active frontages are a minimum 70% of the primary street frontage. They have transparent glazing to allow unobstructed views from the adjacent footpath to at least a depth of 6m within the building.
2. Active frontages are to be provided in activity nodes:
 - (a) in the locations shown in Figure 6.01-24
 - (b) on through block links, pedestrian only lanes and arcades
 - (c) on all other streets where possible.
3. New development:
 - (a) maximises entries or display windows to shops and/or food and drink premises, customer service areas and activities which provide pedestrian interest and interaction.
 - (b) minimises fire escapes, service doors, car park entries and plant and equipment hatches and grilles, to the active frontage
 - (c) provides elements of visual interest such as display cases, or creative use of materials where fire escapes, service doors and plant and equipment hatches cannot be avoided.
 - (d) provides a high standard of finish for shop fronts.
 - (e) avoid blank walls that inhibit natural surveillance and encourage graffiti.
4. Street frontages are activated through one or more of the following:
 - (a) retail and shop fronts
 - (b) cafés or restaurants
 - (c) active office uses, visible from the street
 - (d) public building or community facilities where activities inside the building are visible from the street
 - (e) entries and lobbies
 - (f) multiple entries for residential buildings
 - (g) uses that overlook the street

- (h) uses that screen or sleeve car parks to a minimum depth of 6m from the street
 - (i) avoiding porte cochères
5. Ground levels of buildings in commercial core and mixed zones have a minimum 4m floor to ceiling height on the ground floor to ensure flexibility for a variety of active uses.
 6. Foyer and lobby spaces are no more than 20% of the street frontage where active frontages are required as shown in Figure 6.01-24, or no more than 8m of a street frontage elsewhere.
 7. The ground floor level is at the same level as the footpath.
 8. Shopfronts are enclosed, unless they are food and drink premises.
 9. Security grills, where provided, are fitted internally behind the shop front, are fully retractable and at least 50% transparent when closed
 - 10 Active uses in existing and new laneways are encouraged.

Image 6.01-45: Cafes and restaurants enliven the street edge.



Figure 6.01-25: Active Street Frontages Map



- Active frontage - required
- - - Active frontage - highly desired
- ⊘ Activity nodes
- ▭ Block pattern/cadastre
- ▭ Public open space
- Study area boundary

B4. Addressing the street

Addressing the street' relates to all development outside the "active frontage areas" shown on Figure 6.01-24 or where a continuous 'active frontage' cannot be achieved.

A positive building address to the street contributes to the safety, amenity and quality of the public domain. The way buildings interface with the public domain also has a direct influence on the urban character of the city. It defines the relationship between the building and the street edge and can determine how accessible and functional a building is. All development adjoining the public domain needs to be well designed, using high quality durable materials.

Performance criteria

B4.1 Buildings positively address streets, footpaths, lanes and other public spaces.

Acceptable solutions

1. Acceptable design solutions include:
 - (a) maximise the number of entries onto the street
 - (b) ground floor internal uses are visible from the street
 - (c) building name and / or street number signage is well designed and easily identifiable
 - (d) well lit building entries
 - (e) well designed efficient external lighting to non-residential buildings
 - (f) building frontages to incorporate Crime Prevention through Environmental Design entries are at the same level as the adjacent footpath on sites not flood affected
 - (g) finished floor levels are no greater than 500mm above or below the adjacent footpath or public domain
 - (h) finished floor levels are no greater than 1.2m above the adjacent footpath or public domain on sites with a cross fall of greater than 1 in 10
 - (i) high quality finishes and public art that is visible from the public domain
 - (j) opportunities for direct surveillance from the building to the adjacent street
 - (k) ground floor residential uses can be elevated up to 1.0m above ground level for privacy

Image 6.01-46: Shopfront and apartments overlooking the street to add to the urban character of the city and contribute to the quality of the public domain.



Image 6.01-47: Ground floor residential elevated up to 1m above the footpath with semi-transparent screening.



Performance criteria

B4.2 Ground levels are designed to mitigate flood risk while ensuring accessibility and a positive relationship to the public domain.

Acceptable solutions

1. Equitable access to a building is provided where the lowest level is elevated above the flood planning level.
2. Locate accessibility ramps from the footpath to the lowest level of buildings above the flood planning level so that a positive address to the street and activated frontages are maintained.

B5. Public artwork

Public art is a defining quality of dynamic, interesting and successful cities. More public artworks are needed in private developments and in the public domain. Public art can be integrated with essential infrastructure, such as stormwater treatment and water collection or aboveground car park screening.

Performance criteria

B5.1 Significant development incorporates public artwork.

Acceptable solutions

1. Public and civic buildings, development on key sites and development over 45m in height are to allocate 1% of the capital cost of development towards public artwork for development.
2. Council is consulted on the location and proposal for public art.

Performance criteria

B5.2 Artworks in new buildings are to be located so they can be appreciated from streets and public spaces

Acceptable solutions

1. Design solutions include:
 - (a) locating artworks in a public foyer so that they are visible from the street
 - (b) integrating public artwork into the design of the building such as its façade or roof features
 - (c) integrating public artworks with the delivery of essential open space infrastructure such as stormwater treatment or rainwater collection.

Performance criteria

B5.3 Public artworks are used to interpret heritage components or recognise former uses of large development sites

Acceptable solutions

1. Work with a heritage consultant and/or a public artist to develop innovative ways to interpret heritage using public art.

Image 6.01-48: Bespoke street furniture in the East End of Newcastle



Image 6.01-49: A sculpture designed to invite interaction, Brisbane.



B6. Sun access to public spaces

Good sun access is a key contributor to the amenity of public spaces, particularly during winter. Sun access in public spaces is becoming more important as more people move into apartments in the city centre. Good sun access ensures that public spaces such as squares and parks are inviting and well utilised. This section should be read in conjunction with section A1 Street wall heights and Part 3 Key precincts (where applicable).

Performance criteria

B6.1 Reasonable sunlight access is provided to new and existing significant public spaces.

Acceptable solutions

1. Sunlight access is provided to significant public spaces for at least 2 hours during mid-winter between 9am and 3pm, demonstrated by shadow diagrams. Significant public spaces in the city centre include:
 - (a) Civic Park
 - (b) Civic Link
 - (c) Wheeler Place
 - (d) Birdwood Park
 - (e) Little Birdwood Park
 - (f) Cathedral Park
 - (g) Pacific Park
 - (h) National Park
 - (i) Christie Place
 - (j) Fletcher Park
 - (k) Church Walk Park.

Image 6.01-50: Good sun access ensures that public spaces such as parks



Note: Shadow diagrams submitted with the development application are to indicate the existing condition and proposed shadows at each hour between 9am and 3pm on 21 June. Shadow diagrams are not to include vegetation. If required, the consent authority may require additional detail to assess the overshadowing impact.

Image 6.01-51: Good sun access is a key contributor to the amenity of public spaces.



B7. Infrastructure

Performance Criteria

B7.1 Stormwater, water and sewerage infrastructure is integrated into each site and does not create negative off-site impacts.

Acceptable Solutions

1. Drainage, overland flow paths and infrastructure easements are generally as shown in Figure 6.01.26
2. Stormwater management facilities comply with Section 7.06 Stormwater of this DCP.
3. New development has water and sewer links into the existing network with suitable capacity.

B8. Site Amalgamation

To prevent the isolation and fragmentation of former rail corridor land, sites between Worth Place and Darby Plaza should conform to the amalgamations shown in the Figure 6.01-27.

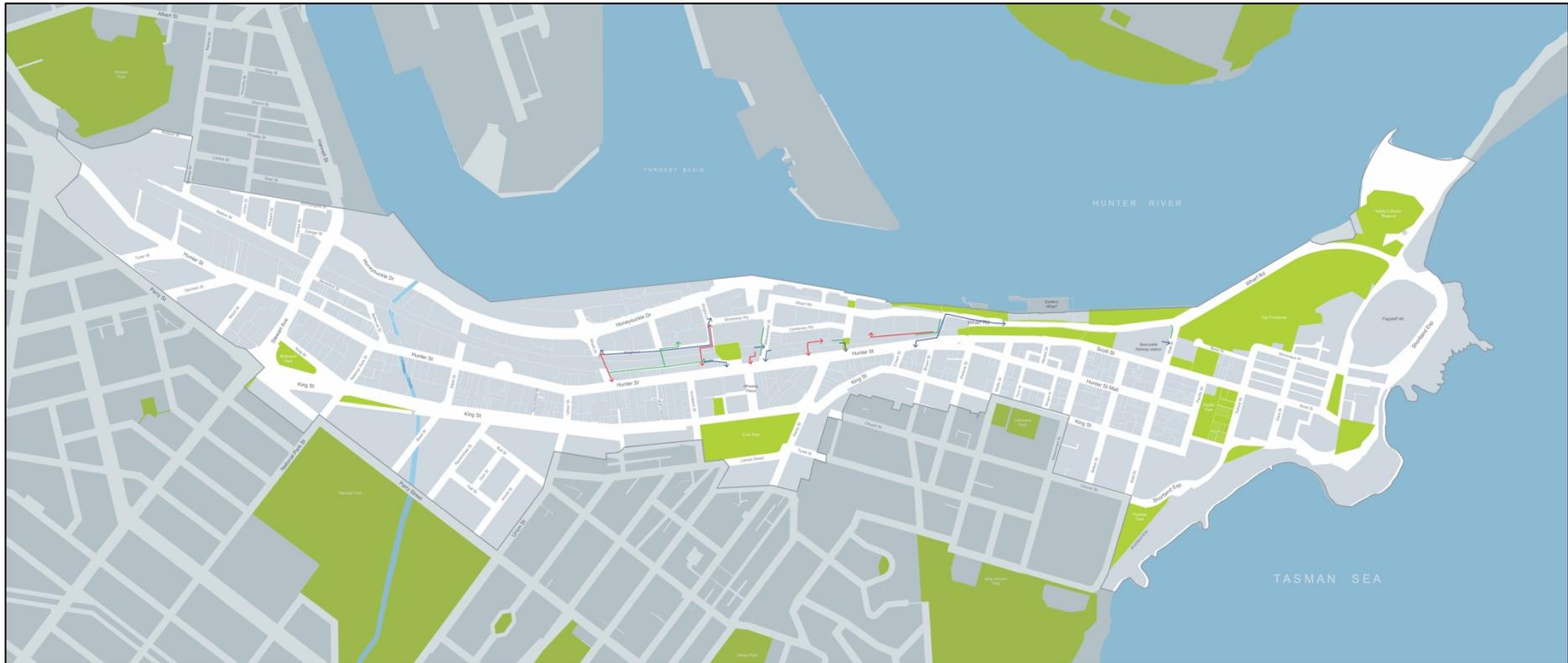
Performance Criteria

B8.1 Former rail corridor land is amalgamated with adjoining land to create useable sites that are consistent with the desired character of the area.

Acceptable Solutions

1. Former rail corridor lands identified in the Figure 6.01-27 are wholly or partially amalgamated with the adjoining land to the north or to the south.
2. The former rail corridor lands are subdivided by an east/west and/or north/south split, to create an amalgamated lot.
3. Potential amalgamated site 1 shown on Figure 6.01-27 does not mean all sites need to be amalgamated but rather a combination of sites that utilises the former rail land effectively.
4. The amalgamation of former rail corridor lands identified in the 'Amalgamated Parcels Map' does not result in the creation of an isolated lot unless it is demonstrated that:
 - (a) The orderly, economic use and development of separate sites can be achieved; and
 - (b) The lots are of a suitable size and dimensions to facilitate new development that is consistent with the desired character of the area; and
 - (c) The Planning Principles outlined by the NSW Land and Environment Court for redevelopment resulting in isolated sites are satisfied.

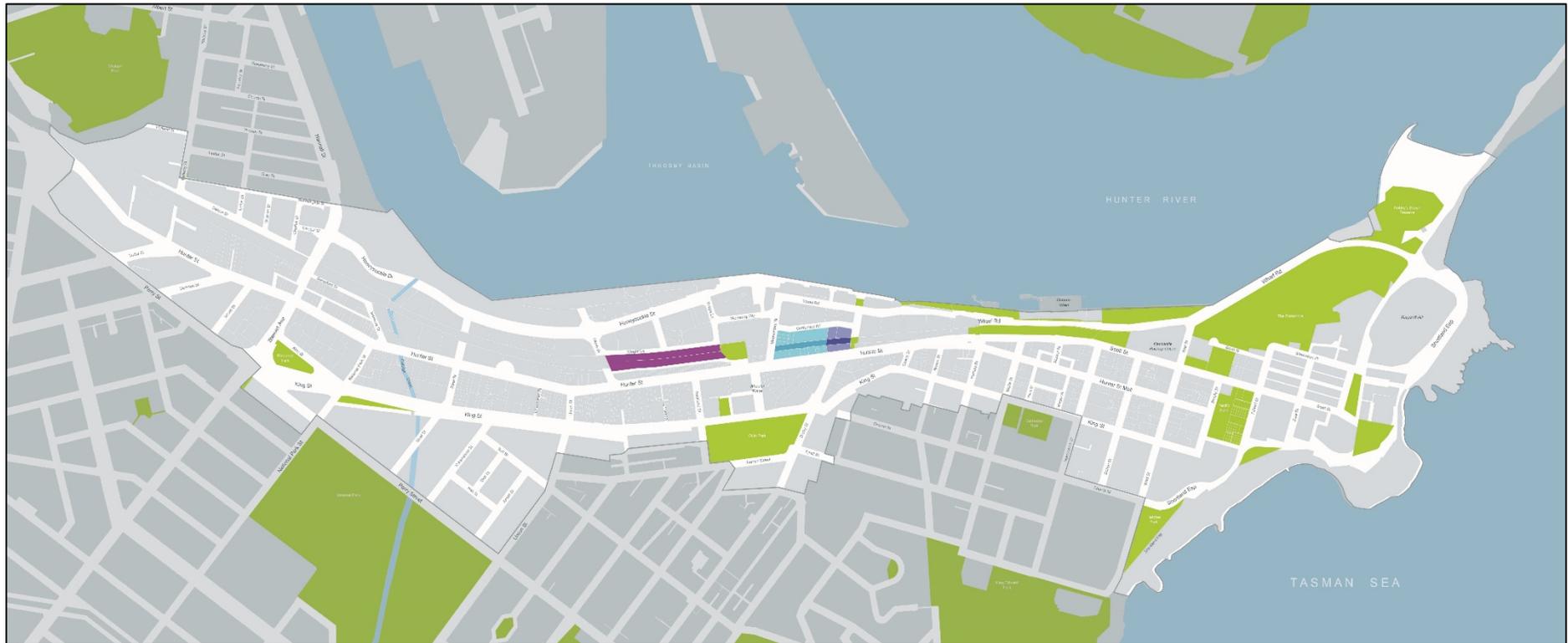
Figure 6.01-26: Infrastructure Plan



Proposed indicative location of:

- Sewer
- ➔ Link into existing sewer system
- Water
- ➔ Link into existing water system
- ➔ Stormwater drainage network

Figure 6.01-27 Amalgamated Parcels Map



-  Preferred Amalgamation Site 1
-  Preferred Amalgamation Site 2
-  Preferred Amalgamation Site 3

6.01.04 Key Precincts

A. Overview

Eight key precincts have been identified within the Character areas of Newcastle's city centre. They are:

- Hunter Street Mall
- Wheeler Place
- Birdwood Park
- Civic Link
- Darby Plaza
- Hunter Street Live-work units
- Newcastle Station and Foreshore Park
- **Multi-purpose Community Space**

These **eight** key precincts have their own set of objectives and performance criteria designed to achieve specific outcomes related to particular development and public domain opportunities of that precinct. These specific performance criteria and acceptable solutions must be considered in addition to the general controls in this section.

The key precinct guidelines in this section prevail over the more general guidelines in Section 6.01.03 in the event of any inconsistency.

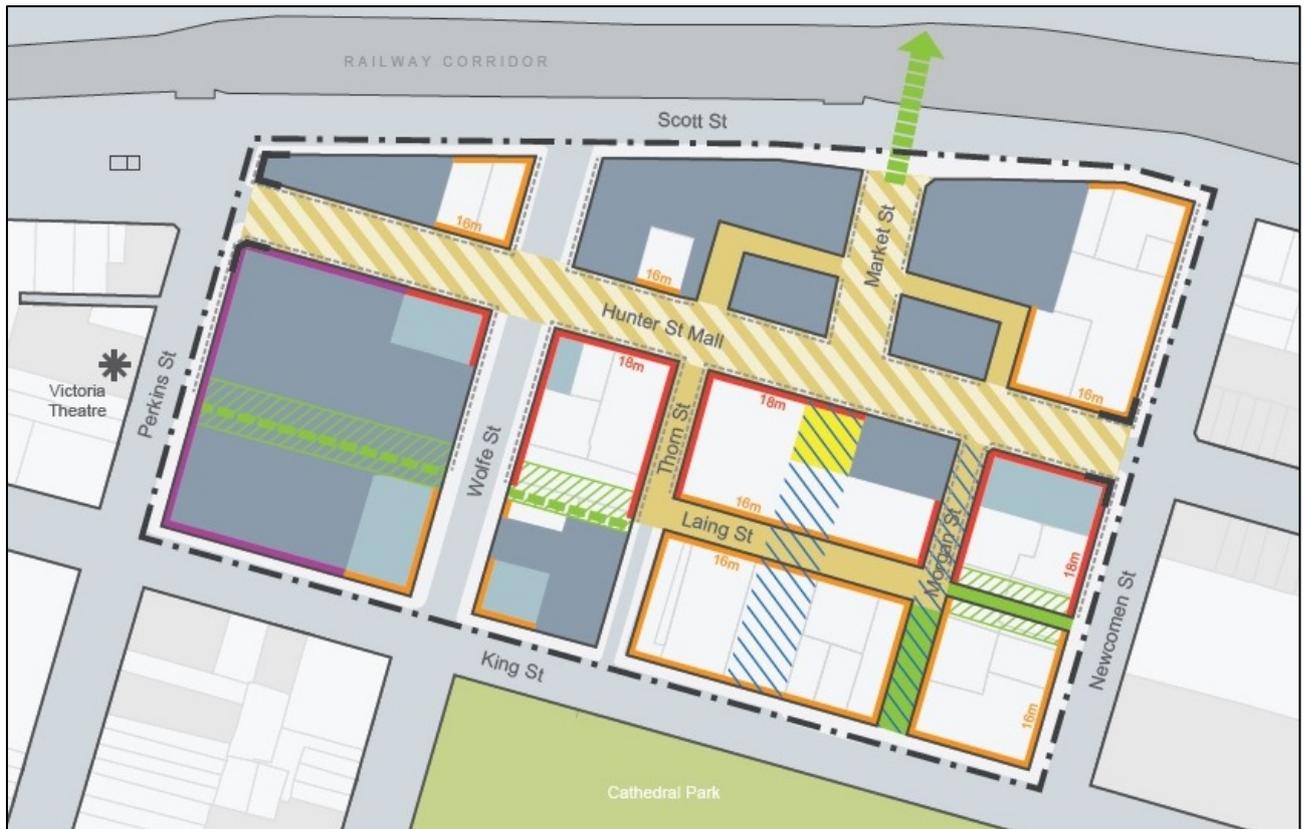
Figure 6.01-28: Key Precincts



- ① Hunter Street Mall
- ② Wheeler Place
- ③ Birdwood Park
- ④ Civic Link
- ⑤ Darby Plaza
- ⑥ Hunter Street
- ⑦ Newcastle Station
- ⑧ Multipurpose Community Space

B. Hunter Street Mall

Figure 6.01-29: Hunter Street Mall Precinct



- | | |
|--|--|
| — Urban block, nil setback to street boundary | ▨ Shared zone to be retained and improved |
| — 18m maximum street wall height | ▬ Special emphasis on corner building |
| — 16m maximum street wall height (typical) | --- Active frontage required |
| — 22m maximum street wall height | ■ Heritage building |
| ▨ Proposed new open space / courtyard | ■ Contributory building (desired reuse) |
| ▨ Important view corridor to Christ Church Cathedral | ■ Heritage building outside precinct boundary |
| ▨ Proposed new pedestrian crossing (replacing footbridge) | ★ Important landmark / destination outside precinct boundary |
| ▨ Proposed new open pedestrian link (preferred location) | ■ Public green open space |
| ▨ Proposed new through-site link / arcade (preferred location) | — Cadastre boundary |
| ▨ Zone in which proposed new link should occur | ▬ Key precinct boundary |
| ▨ Connection to be retained and improved | |

Existing character

The Hunter Street Mall precinct contains a mix of uses and building types. In its centre is the former Hunter Street Mall (between Perkins and Newcomen Streets), a shared street for pedestrians and vehicles and is becoming a popular destination for a variety of activities including specialty retail, dining, entertainment, nightlife and events. The precinct is rich in cultural heritage with views of Christ Church Cathedral. Access to the foreshore is currently constrained.

Future character

This precinct has the potential to develop as boutique pedestrian-scaled main street shopping, leisure, retail and residential destination. Infill development is encouraged that promotes activity on the street and which responds to heritage items and contributory buildings. Views to and from Christ Church Cathedral and the foreshore are retained and enhanced. Foreshore access is improved.

Objectives

1. Strengthen the sense of place and urban character of the east end as a boutique retail, entertainment and residential destination.
2. Diversify the role of Hunter Street Mall precinct as a destination for many activities including retail, dining, entertainment, nightlife and events, additions to regular day-to-day services for local residents.
3. Promote active street frontages.
4. Protect heritage items and contributory buildings.
5. Protect views to and from Christ Church Cathedral.
6. Promote a permeable street network in Hunter Street Mall precinct with well-connected easily accessible streets and lanes.
7. To create a space that is safe, comfortable and welcoming for pedestrians.

Image 6.01-52: Potential public domain upgrades to Hunter Street Mall (Impression: JND Design 2012)



Performance criteria

- B1 Pedestrian permeability and amenity is improved.

Acceptable solutions

1. New lanes and through-site links are provided in the locations identified in Figure 6.01-28. They are designed in accordance with the Public Domain section of this Development Guide and the City Centre Technical Manual.
2. New links include:
 - (a) a continuous pedestrian connection between Newcomen and Perkins Streets mid-block between Hunter and King Streets.
 - (b) a minimum 3m wide pedestrian only link between Newcomen and Laing Streets connected to the Laing Street alignment.

- (c) a new pedestrian link or arcade between Thorn and Wolfe Street.
- (d) a pedestrian connection between Morgan and King Street.

Performance criteria

B2 Significant views and protected (refer to section B3).

Acceptable solutions

1. Development between Thorn and Morgan Street provides an opening on the Market Street alignment to preserve views of Christ Church Cathedral.

Performance criteria

B3 Building form integrates with existing heritage character and retains contributory buildings.

Acceptable solutions

1. Street wall heights ensure a minimum two hours of sunlight between 9am and 3pm in mid-winter to the southern side of Hunter Street.
2. Large scale new development is articulated so that large expanses of building form are broken down into smaller elements to relate to the fine grain of the precinct.
3. Retain and adaptively re-use existing character buildings that are not heritage items but contribute to the historic identity of the precinct.

Performance criteria

B4 Hunter Street is a pedestrian and vehicular thoroughfare and a place of activity.

Acceptable solutions

1. Remove existing lightweight and concrete freestanding awnings structures.
2. Define clear pedestrian spaces along the fronts of buildings.
3. Provide a centrally located one way share-way for vehicles with threshold treatments between Perkins and Newcomen Streets.
4. Provide limited short stay car parking with priority given to accessible parking spaces.
5. Provide a centrally located space that is relatively clear of obstructions that can be used for special events.
6. Remove the pedestrian bridge along Market Street to promote connections to the waterfront and future light rail stops.
7. Integrate Market Street into the mall using common public domain materials and treatments.
8. Provide additional street trees, new street furniture, new lighting, bike rings and way finding signage.

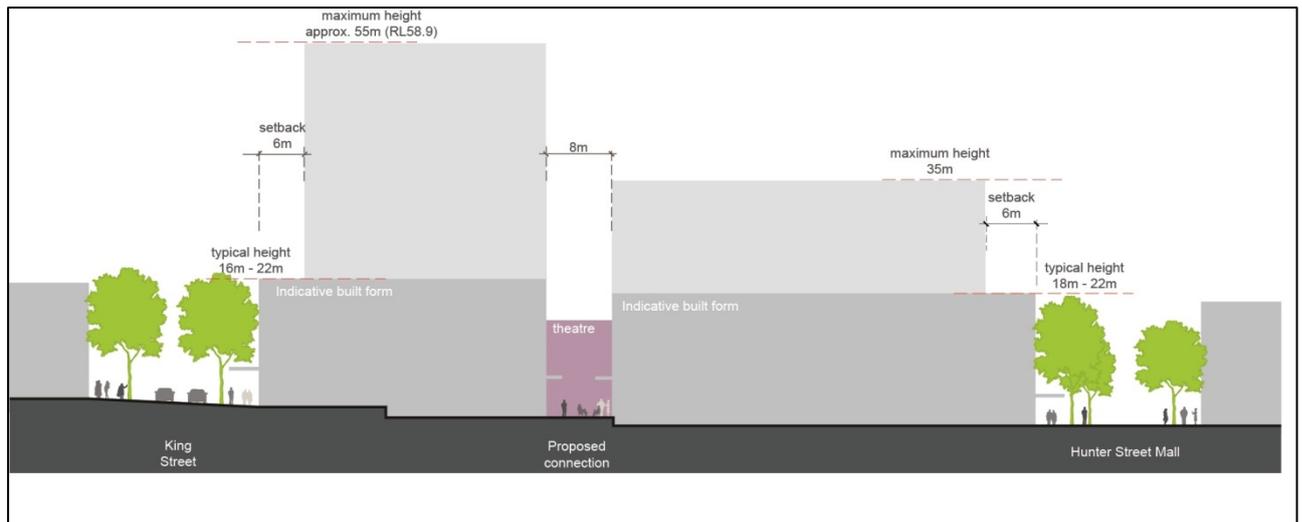
Performance criteria

B5 Servicing and access is designed to minimise conflicts with pedestrians.

Acceptable solutions

1. Hours for service deliveries from Hunter Street are restricted to minimise potential conflicts with other activities.
2. Vehicle access and servicing is located to minimise conflicts with pedestrians.
3. Loading docks and their access points are not located on Hunter Street.

Figure 6.01-30: Section through the former David Jones building, showing a proposed connection terminated by the view of Victoria Theatre.



C. Wheeler Place

Figure 6.01-31: Wheeler Place Key Precinct



- | | |
|---|---|
| — Urban block, nil setback to street boundary | ----- Active frontage required |
| — 18m maximum street wall height | ■ Heritage building |
| — 16m maximum street wall height (typical) | ■ Contributory building (desired reuse) |
| — 14m maximum street wall height | ▨ Site currently under construction / in planning phase |
| ▨ Solar access setback zone | ▨ Carpark entry/exit (Council Administration building) |
| — Proposed new open pedestrian link (preferred location) | ▨ Heritage building outside precinct boundary |
| ▨ Through-site link to be retained (Undercroft Fred Ash bldg) | ■ Civic open space |
| ▨ Connection to be retained and improved | ■ Public green open space |
| ▨ Shared zone to be retained and improved | — Cadastre boundary |
| — Special emphasis on corner building | — Key precinct boundary |

Note: As of October 2019, City of Newcastle Administration Building is located at 12 Stewart Avenue, Newcastle West

Existing character

The Wheeler Place precinct contains the primary administrative and cultural facilities of Newcastle. These facilities reflect Newcastle's importance as a major regional city and include the City of Newcastle Administration Building, Newcastle Courts Complex, Newcastle Art Gallery, Civic Theatre and City Hall. The precinct also contains major public open space in the form of Wheeler Place and Civic Park.

Future character

The civic importance of the precinct will be reinforced by improving pedestrian access through the precinct and linkages to Newcastle Museum and the foreshore in the north and Darby Street to the east. Major new education facilities will be provided through the redevelopment of the Civic Arcade site for new faculties for the University of Newcastle.

Objectives

1. Promote Wheeler Place precinct as the civic, administrative, education and cultural heart of Newcastle.
2. Promote a permeable street network and enhance pedestrian connections to Newcastle Museum and the foreshore in the north and Newcastle Art Gallery and Darby Street to the south via Wheeler Place and Civic Park.
3. Promote active frontages to streets and public spaces along the pedestrian route through the precinct.
4. Protect heritage items and contributory buildings.
5. Protect sunlight to Christie Place, Wheeler Place, Civic Park and the southern side of Hunter Street.

Image 6.01 1-53: Potential public domain upgrades to Wheeler Place (Impression: JMD Design)



Performance criteria

- C1 Pedestrian permeability and amenity is improved.

Acceptable solutions

1. New lanes and through-site links are provided as shown in Figure 6.01-30.
2. The pedestrian crossing on Hunter Street linking Wheeler Place and Civic Link is enhanced by increasing the width of the crossing.
3. A new through site-link or arcade from Christie Place to Hunter Street is provided.
4. A new through-site link or arcade is provided from Christie Street to Auckland Street.

5. New development provides an address to Christie Place with active frontages.

Performance criteria

- C2 Building form integrates with existing heritage character and retains contributory buildings.

Acceptable solutions

1. Redevelopment of the former Civic Arcade site on the corner of Hunter and Auckland Street provides (as shown in Figures 6.01-31 and 6.01-32):
 - (a) a slender tower located near the corner of Hunter and Auckland Streets, no wider than University House (former Nesca House)
 - (b) ensure the clock tower of City Hall retains its prominence in the precinct
 - (c) an appropriate curtilage is provided to Civic Theatre
 - (d) protect sunlight access to Christie Place
 - (e) a 6m setback to the tower from the rear façade of University House.

Performance criteria

- C3 Wheeler Place is designed to support a range of uses and events.

Acceptable solutions

1. A light weight stage can be erected to host events in accordance with any adopted public domain plan of Council.
2. Wheeler Place is redesigned to improve pedestrian amenity by increasing shade and providing a water feature, seating and bike rings.
3. Bespoke street furniture, fixtures and public art is provided to distinguish Wheeler Place from other public places in Newcastle city centre and in accordance with any adopted public domain plan of Council.
4. A Water Sensitive Urban Design Strategy is developed for landscaping to sustainability manage stormwater.
5. The quality of public domain treatments is improved, with materials, finishes and fixtures, including bespoke fixtures and public art, selected in accordance with the performance standards and specifications of the City Centre Technical Manual.

Performance criteria

C4 Servicing and access minimises conflicts with pedestrians.

Acceptable solutions

1. Service deliveries are not to be made from Hunter Street for development which has access to another street frontage.
2. For development that has no other frontage than Hunter Street, hours for service deliveries are restricted to minimise potential conflicts with other activities.
3. Vehicle access and servicing is located to minimise conflicts with pedestrians.
4. Loading docks and their access points are not permitted on Hunter Street.

Figure 6.01-32: Section through Christie Place and the University site showing building form and setbacks.

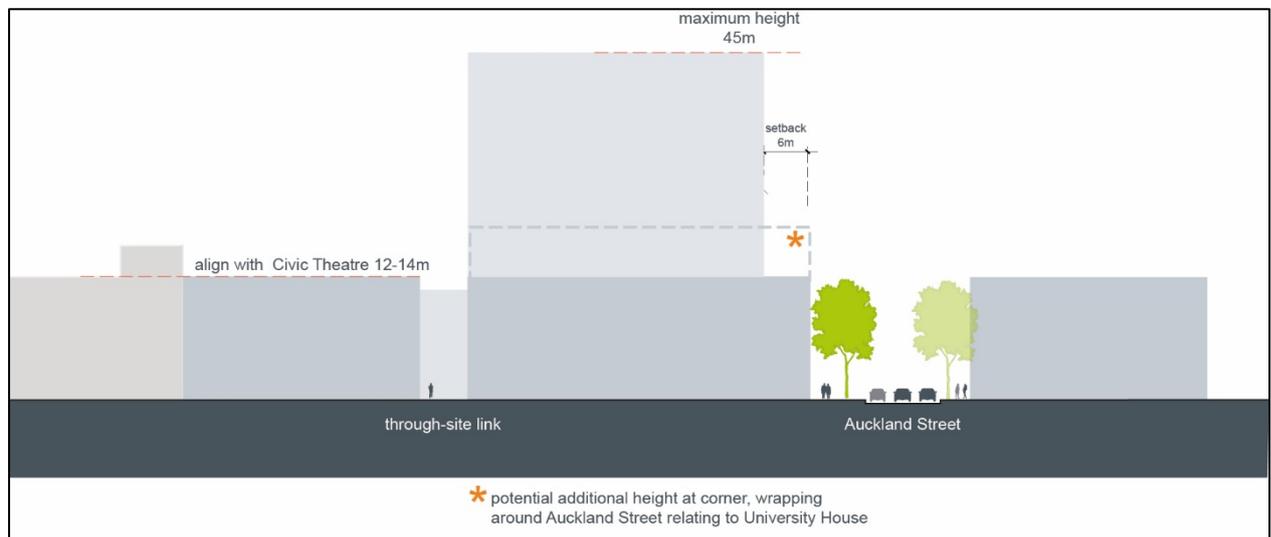
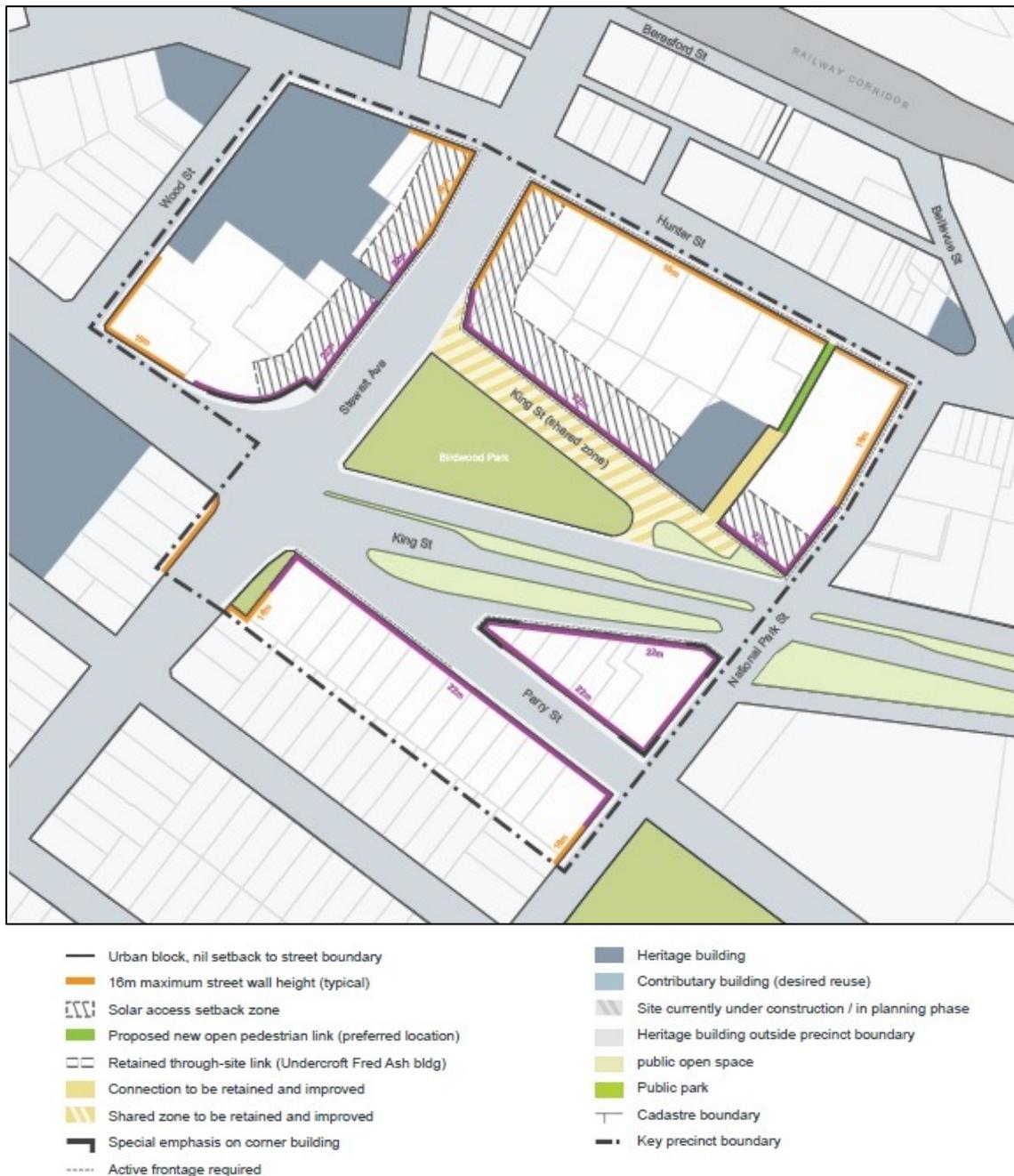


Figure 6.01-33: Section through the University site showing building form and setbacks.



D. Birdwood Park

Figure 6.01-34: Birdwood Park Key Precinct



Existing character

The Birdwood Park precinct is the western gateway to Newcastle city centre and currently houses a range of uses including showroom and bulky goods retail, car dealerships and self storage. This precinct contains the major heritage assets, including the former brewery.

Birdwood Park is the primary open space but is currently surrounded by busy roads resulting in sub-standard amenity.

Future character

This precinct has the potential to become part of the future central business district of Newcastle. This is due to the location of the new transport interchange in the precinct. There is also a predominance of larger consolidated land holdings and fewer environmental and heritage constraints combined with generous floor space and height allowances. Improvements to streetscapes and Birdwood Park will raise the quality of the public domain, while adaptive re-use of the former brewery will enrich built form character in this precinct.

Objectives

1. Guide development that contributes to the realisation of a future commercial core.
2. Create a sense of arrival into the city centre from the western approach.
3. Promote active street frontages.
4. Protect heritage items and contributory buildings.
5. Promote a permeable street network in Birdwood Park precinct with well connected easily accessible streets and lanes.
6. Provide new public spaces and improve pedestrian amenity, particularly to Birdwood Park.
7. Improve Birdwood Park with a strong built edge and protecting sunlight access.

Image 6.01-54: Potential transformation of King Street edge alongside Birdwood Park (Impression Arup, 2012)



Performance criteria

- D1 Pedestrian permeability and amenity is improved.

Acceptable solutions

1. New lanes and through-site links are provided in the locations identified in Figures 6.01-33 and 6.01-34. They are designed and constructed in accordance with the Public Domain section of this Development Guide and the City Centre Public Domain Technical Manual.

2. The design of the laneway network integrates with the ground floor uses of adjoining buildings and provides opportunities for external activities.

Performance criteria

- D2 The bulk of building form is managed to promote good amenity for pedestrians and neighbouring buildings and to integrate well with heritage items and contributory buildings.

Acceptable solutions

1. Large scale new development is articulated so that large expanses of building form are broken down into smaller elements to reduce building bulk.
2. Taller buildings are set back from Hunter Street, to provide a gradual increase in scale from Hunter Street.

Performance criteria

- D3 Public domain - promote Birdwood Park as the primary open space asset in the precinct.

Acceptable solutions

1. New development in the precinct ensures that a minimum of 3 hours of sunlight is provided to 50% of Birdwood Park between 9 am and 3pm on 21 June.
2. Reshape King Street, along Birdwood Park, as a shared pedestrian and vehicular street and a place of pedestrian activity by:
 - (a) reducing the road carriageway to minimum widths to maximise space on the footpath for pedestrians, landscaping, public art or outdoor dining.
 - (b) raising the level of the carriageway and marking the space with indicators to slow drivers and signal arrival into a shared space.
 - (c) incorporating other traffic calming measures such as landscaping and low speed limits.
 - (d) restricting service vehicle access at certain times of the day to allow for other activities.
3. Public domain works including tree planting, furniture, lighting and materials, is carried out in accordance with the City Centre Public Domain Technical Manual.

Performance criteria

- D4 Servicing and access minimises conflicts with pedestrians.

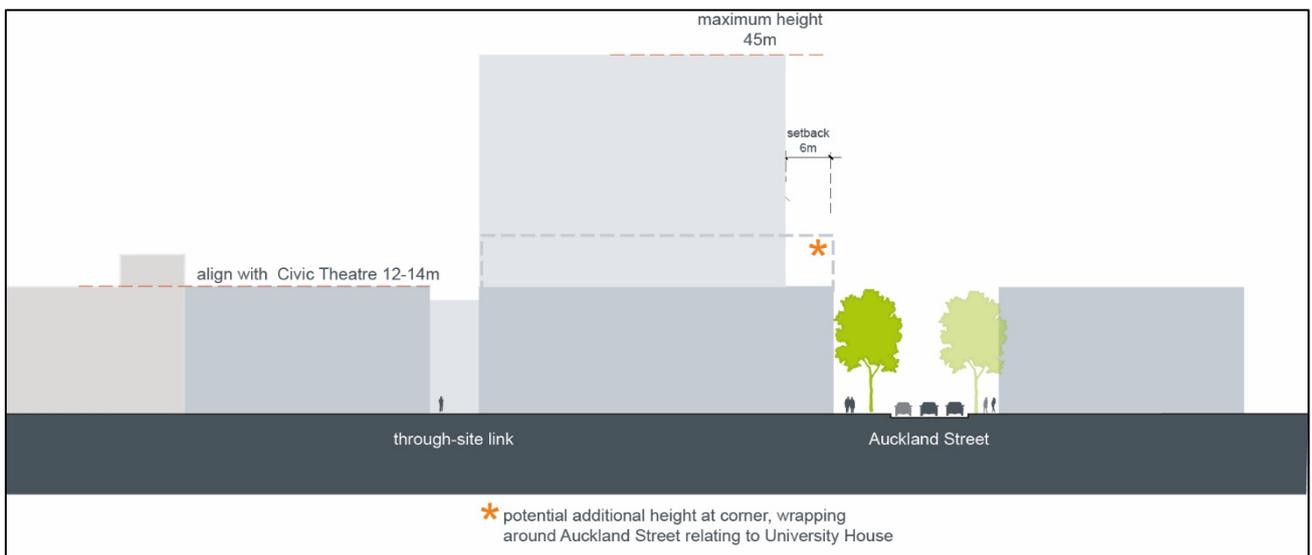
Acceptable solutions

1. Service deliveries are not to be made from Hunter Street or Stewart Avenue for development which has access to another street frontage.
2. For development that has no other frontage than Hunter Street, hours for service deliveries are restricted to minimise potential conflicts with other activities.
3. Vehicle access and servicing is located to minimise conflicts with pedestrians.
4. Loading docks and their access points are not permitted on Hunter Street.

Figure 6.01-35: Section through the former brewery/regional museum site between Stewart Avenue and Wood Street.

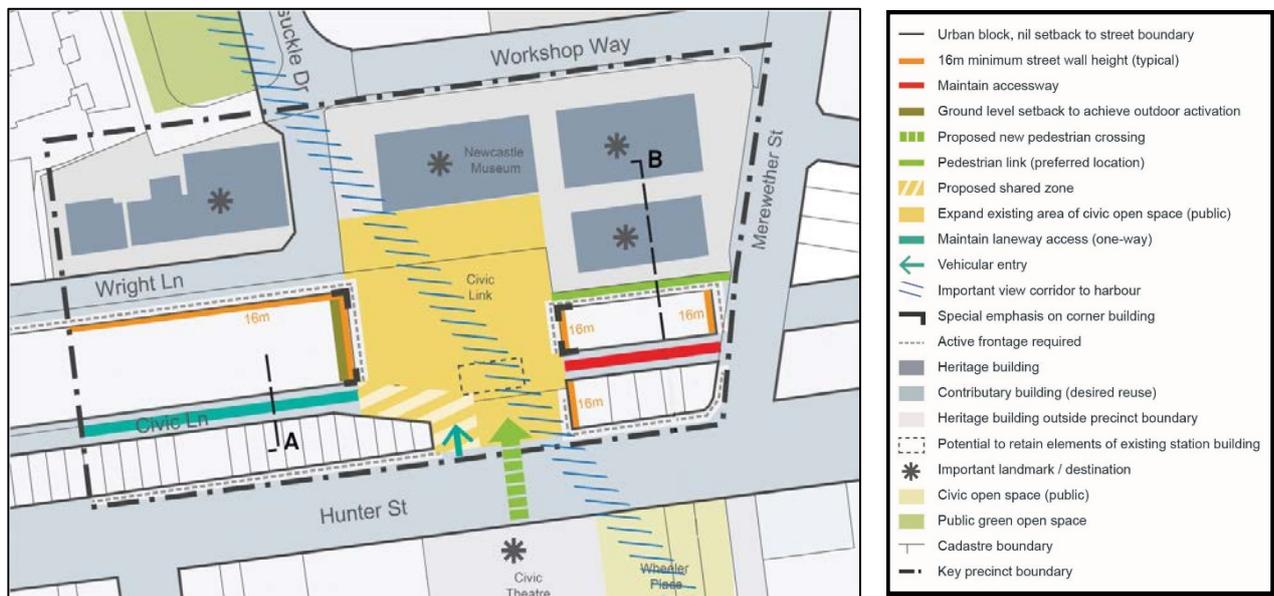


Figure 6.01-36: Section through buildings fronting King Street and Birdwood Park showing 20m solar access plane setback



E. Civic Link

Figure 6.01-37: Civic Link Precinct



Existing character

Civic Link Precinct sits within the Civic Character zone to the north of Hunter Street and is bound by Workshop Way and Merewether Street. The Precinct encompasses the former Civic Station and railway corridor, and the Newcastle Museum.

Future character

This part of the city is intended to form part of the civic heart of Newcastle and will provide an important link between some of the region's most important civic and cultural assets, including Civic Park, City Hall, Civic Theatre, Newcastle Museum and the foreshore.

The focus on Civic is to leverage the best value from new investments by creating open space and walking and cycling connections that link Newcastle's civic buildings to the waterfront and the light rail system.

Creating a new civic focused public space, linking Hunter Street to the museum will provide a direct visual and physical connection from Wheeler Place to the harbour and meet the needs of the incoming populations.

Objectives

1. Provide a new public space that links the civic, administrative, education and cultural heart of Newcastle to the foreshore.
2. Guide development surrounding the new Civic Link and along Civic Lane that contributes to the realisation of the area as the civic heart of Newcastle.
3. Promote a permeable street network and enhance pedestrian connections from Hunter Street to the foreshore.
4. Promote active frontages to streets and public spaces.
5. Respect heritage items and contributory buildings.

Performance Criteria

- E1. Civic Lane provides an accessible, attractive link between Civic Link/Hunter Street and Wright Lane/Workshop Way. Vehicular and service access to the properties on the northern side of Hunter Street and the new developments between Civic Lane and Wright Lane is from Civic Lane.

Acceptable solutions

1. Civic Lane provides vehicular access, including basement carpark access to properties on the northern side of Hunter Street and the new developments between Civic Lane and Wright Lane.
2. Civic Lane provides one-way vehicular movement in an east to west direction with an entry via a shared way through Civic Link onto Hunter Street.
3. A minimum 1.2m wide footpath is provided on the southern side of Civic lane.
4. Consolidated access points are provided to building lots along Civic Lane to reduce the dominance of driveways.
5. Pedestrian access along the northern side of Civic Lane is integrated within the building setback of the associated development.

Performance criteria

- E2. Pedestrian permeability and amenity is improved by the connection of the Wheeler Place Key Precinct through Honeysuckle to the waterfront.

Acceptable solutions

1. New lanes and open pedestrian links are provided in the locations identified in Figure 6.01-36.
2. New or enhanced links include:
 - (a) Direct pedestrian connection between Hunter Street and Wright Lane / Honeysuckle Drive.
 - (b) A minimum 4.5m wide pedestrian only link on the northern side of the former railway corridor between Civic Link and Merewether Street.

Figure 6.01-38: Civic Lane

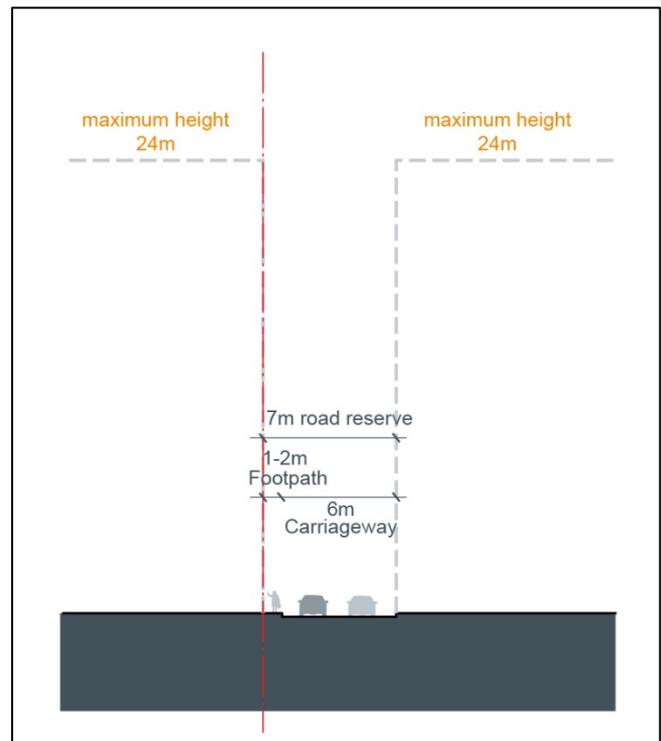
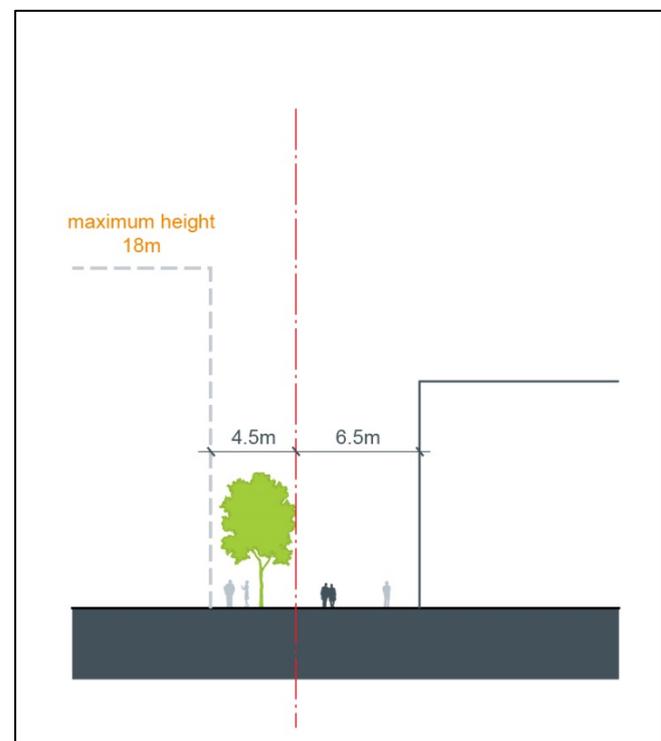


Figure 6.01-39: New accessway way between Merewether Street and Civic Link



- (c) A minimum 8m wide vehicular accessway adjoining the southern boundary of the former railway corridor accessed from Merewether Street.

Performance Criteria

E3. Servicing and vehicular access minimises conflicts with pedestrians.

Acceptable solutions

1. Service deliveries and garbage collection hours are restricted to minimise potential conflict with pedestrians and other activities within the shared zone of the Civic Link open space.
2. Vehicle access and servicing to the sites adjoining Civic Lane is provided from Civic Lane to minimise conflicts with pedestrians.

Performance Criteria

E4. The bulk of building form is managed to achieve good amenity for pedestrians and neighbouring buildings, and to respect and integrate well with nearby heritage items and contributory buildings.

Acceptable solutions

1. New development is articulated so that large expanses of building form are broken down into smaller elements.
2. Taller buildings are set back from Civic Link, to provide a gradual increase in scale along the former railway corridor from Civic Link to the east and from Civic Link to the west.
3. Street wall heights ensure a minimum two hours of sunlight between 9am and 3pm in mid-winter to at least 50% of the Civic Link open space.
4. Buildings facing Civic Link include prominent architectural features or design on corners.
5. Buildings with a secondary frontage to a laneway incorporate setbacks that enable ground floor active uses, vehicular access and off-street loading zones. Upper level setbacks enable compliance with the Apartment Design Guide.
6. A reduced setback above the street wall height of 3m may be appropriate within sites bounded by Civic Link and Merewether Street.

Figure 6.01-40: Civic Link Section View Wheeler Place to Newcastle Museum



F. Darby Plaza

Figure 6.01-41: Darby Plaza Key Precinct



Existing character

Darby Street is the main dining centre of Newcastle and offers a mix of shops, cafes and restaurants and night life. At present Darby Street ends at the intersection with Hunter Street.

Future character

Darby Plaza will form a new community focused public space, providing a pedestrian and cycle connection from Hunter Street to the harbour.

Objectives

1. Provide new open space and improve pedestrian amenity.
2. Promote a permeable street network and enhance pedestrian connections from Darby Street to the foreshore.
3. Promote active street frontages.
4. Respect heritage items and contributory buildings.
5. Provide a strong built edge to Darby Plaza and create an integrated space between the public and private land.

Performance criteria

- F1. Pedestrian permeability and amenity is improved with the capacity to generate safe public movement from Darby Street and Argyle Street to the waterfront.

Acceptable solutions

1. Adjacent mixed use development provides active frontages to both Hunter Street and the new Darby Plaza with active ground floor uses and natural surveillance from floors above.
2. Extension of view corridors from the eastern side of Darby Street and Argyle Street improves lines of sight increasing safety and wayfinding.

Performance criteria

- F2. Darby Plaza supports a range of uses and activities and is edged by mixed use development along the western edge including active ground floor uses.

Acceptable solutions

1. Buildings adjoining Darby Plaza incorporate a ground floor setback from Darby Plaza as shown in Figure 6.01-40, which aligns with the eastern side of Darby Street.
2. Buildings adjoining Darby Plaza are designed to integrate into the public open space.

Performance criteria

- F3. Servicing and access minimises conflicts with pedestrians.

Acceptable solutions

1. Vehicular access and servicing is from Argyle Street via a shared way within Darby Plaza and located so as to minimise and manage potential conflicts with pedestrians.
2. Hours for service delivery are restricted to minimize potential conflicts with pedestrian activities within the plaza.

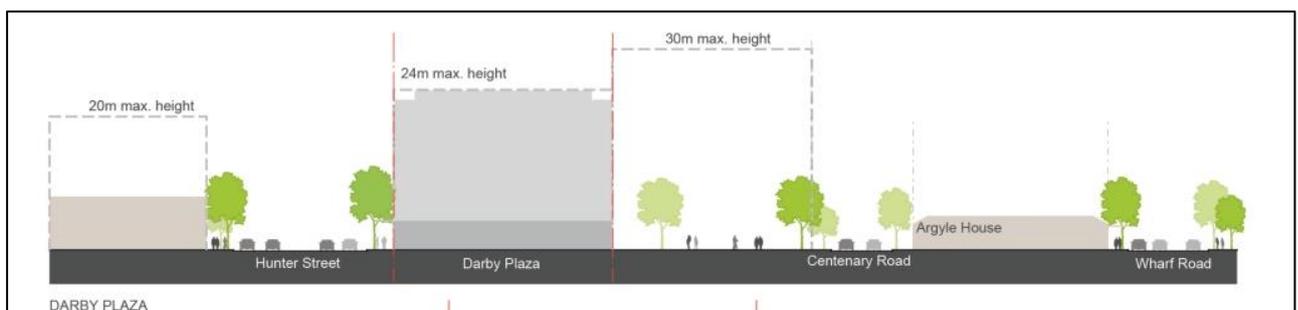
Performance criteria

- F4. Significant views are strengthened (refer to Section B2 View and vistas).

Acceptable solutions

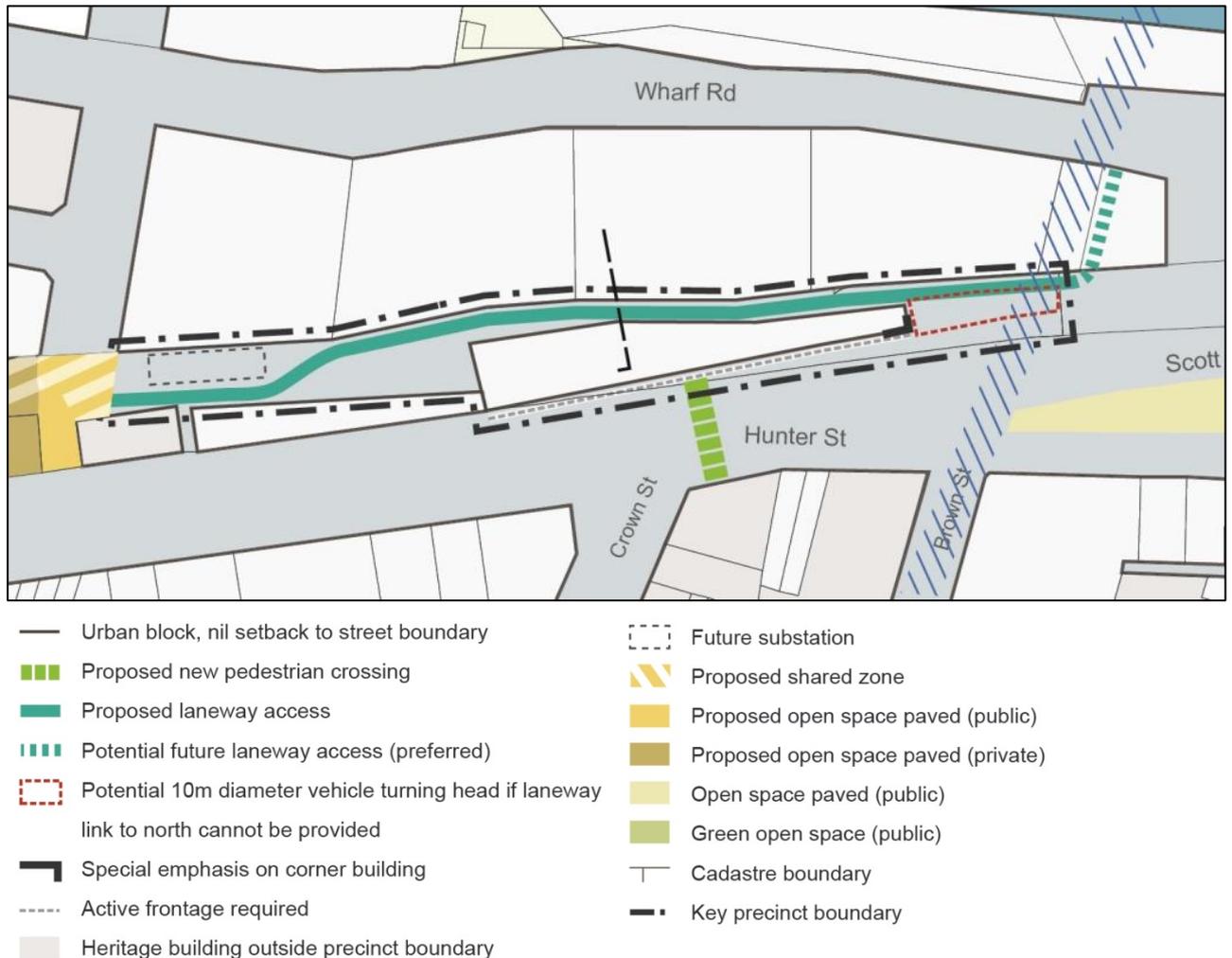
1. Buildings adjoining Darby Plaza complement the view corridor through Darby Plaza.

Figure 6.01-42 Section through Darby Plaza



G. Hunter Street Live-Work Units

Figure 6.01-43: Hunter Street Live-Work Units Key Precinct



Existing Character

Hunter Street features some of Newcastle's best heritage buildings and offers a mix of shops, cafes, restaurants and other local businesses.

The former rail line ran directly to the northern edge of Hunter / Scott Streets between Crown and Newcomen Streets creating a poor and inactive interface. The former rail corridor at this location is heavily overshadowed by the existing commercial and residential buildings fronting Wharf Road.

Future Character

New mixed use development, greater pedestrian priority and future transport improvements contribute to the potential for Hunter Street / Scott Street to be strengthened as Newcastle's 'main street'. Infill development is encouraged on the northern side of Hunter Street between the alignments with Crown and Brown Streets to promote activity and improve the pedestrian interface and street edge definition. New built form at this location is sensitively scaled to allow for the maintenance of significant view lines from the adjoining residential apartments to the north. It is envisaged that this site, will be suitable for live-work style units fronting onto Hunter Street with ground floor commercial retail or office uses.

Objectives

1. Improve the pedestrian interface and street edge definition of Hunter Street.
2. Promote active street frontages.
3. Respect heritage items and contributory buildings.
4. Ensure development responds to and respects the amenity of adjoining residential development.

Performance criteria

- G1. Hunter Street is strengthened as Newcastle's 'main street.'

Acceptable solutions

1. Active ground floor frontages supporting small office or retail uses are created along Hunter Street.
2. Built form is scaled to maintain a comfortable, human scaled streetscape.
3. Pedestrian amenity and walkability is enhanced by the provision of wide footpaths.
4. Windows and balconies overlook Hunter Street increasing natural surveillance and sense of safety.

Performance criteria

- G2. The built form is appropriate to the land size and dimensions, provides streetscape definition and activation, minimises amenity impacts to and respects views from adjoining residential apartments.

Acceptable solutions

1. New development in this section of Hunter Street:
 - (a) Incorporates active uses at ground level,
 - (b) Provides individual pedestrian entries off Hunter Street,
 - (c) Is of good quality contemporary design that complements nearby terrace development; and
 - (d) Avoids monotonous design by incorporating articulation and a variety of materials and colours
2. New development respects views from the adjoining residential apartments located to the north of the former rail corridor, through the use of appropriate setbacks, building heights, roof form and building articulation.

Note: The NSW Land and Environment Court Planning Principle describes the process for assessing view impacts and will need to be considered in the design of the development.

4. New development incorporates upper level setbacks on the northern side to achieve the separation distances detailed in the Apartment Design Guide, minimise amenity impacts to and respect views from adjoining residential apartments.
5. Continuous street frontage awnings do not need to be provided in areas requiring an active frontage on Figure 6.01-43.

Alternative Solutions

- Alternate forms of development that are compatible with the narrow site width and surrounding development may be considered on the site.

Performance criteria

- G3. Vehicular access and servicing minimises conflicts with pedestrians

Acceptable solutions

1. Vehicle access and car parking is provided via a rear laneway from Argyle Street.
2. A 10m Vehicle turning head is provided at the eastern end of the rear access lane to allow vehicles to exit the site to Argyle Street.

Alternative Solutions

- The laneway may be extended north at the eastern end to link with Wharf Road.

Performance Criteria

- G4. Live Work Units provide adequate parking accessed from the laneway.

Acceptable Solutions

1. Required car parking may be provided within the access laneway, rather than individual lots.
2. Variation to car parking rates may be considered in accordance with Section 7.03 Traffic, Parking and Access.

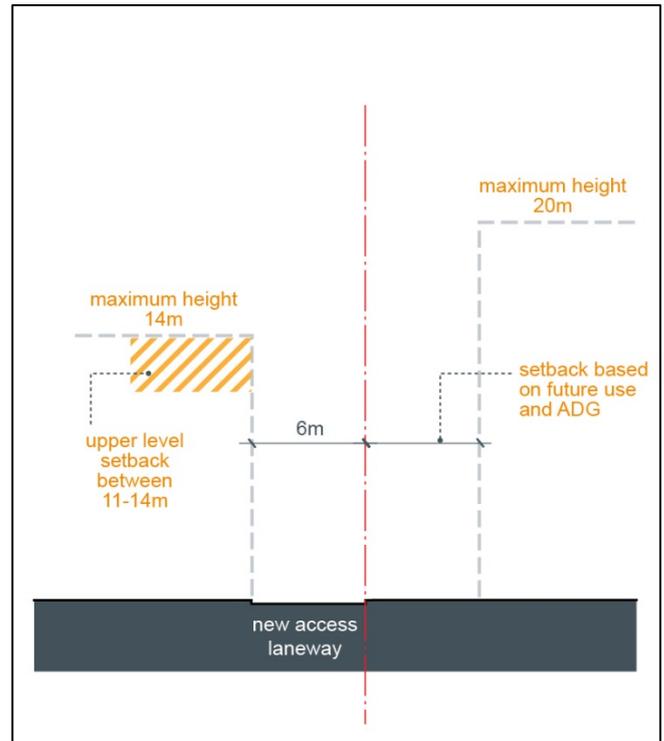
Performance Criteria

- G5. New development respects and maintains heritage items - AA Company Abutment and Bridge

Acceptable Solutions

1. New development incorporates sufficient setbacks from the AA Company Bridge abutment so that it is retained in situ for permanent public display.
2. A physical interpretation is prepared which communicates and promotes the understanding of the historical context of the AA Company Bridge Abutment and its relationship to the early railways. The interpretation allows for content to be provided on an appropriate physical or digital platform.

Figure 6.01-44: Section through Hunter Street Live Work Units

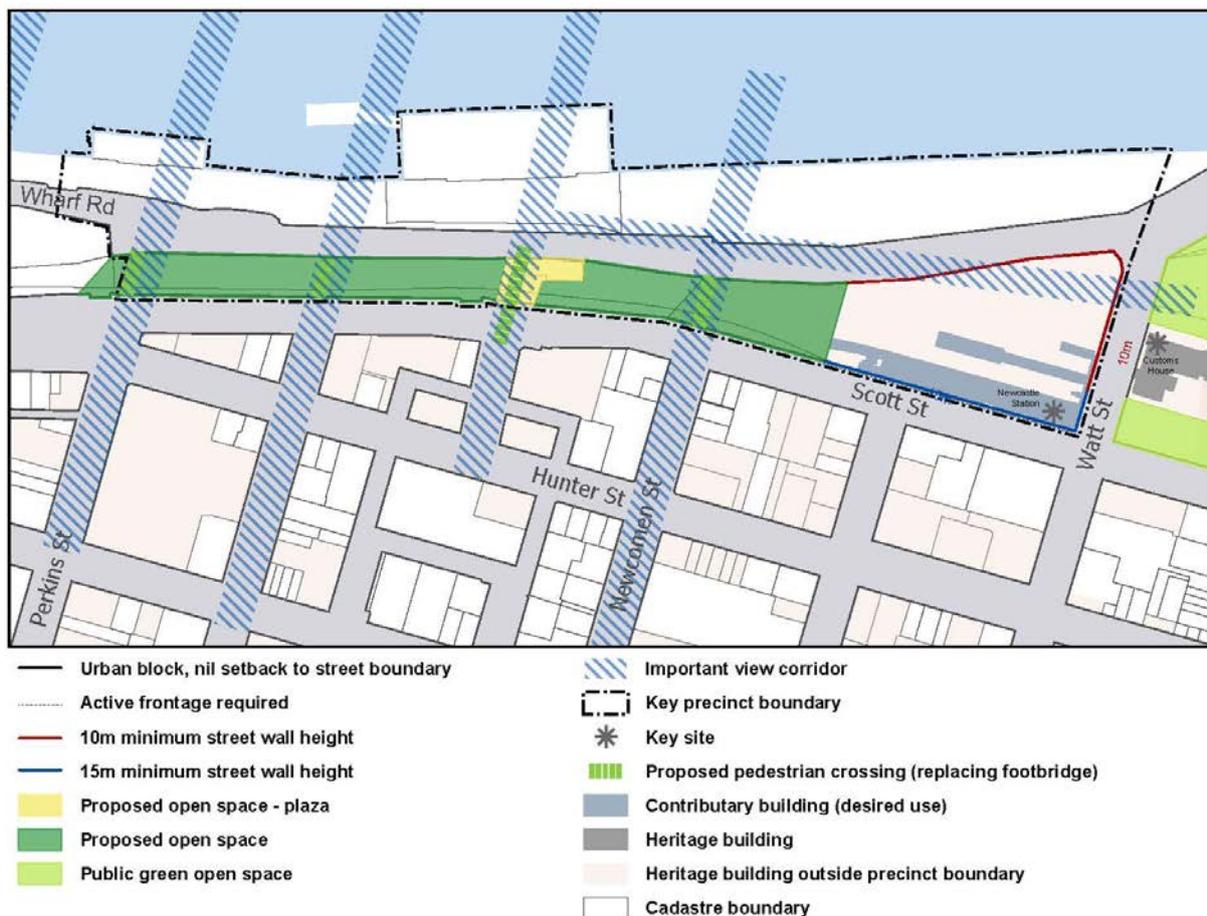


Alternative Solutions

- If the bridge abutment cannot be retained in situ, options for its removal and re-installation where it can be kept on public display are to be developed in consultation with Newcastle City Council.

H. Newcastle Station and Foreshore Park

Figure 6.01-45: Newcastle Station and Foreshore Park Key Precinct



Existing character

Newcastle Railway Station, built in 1859, has State heritage significance due to its historical associations with the Great Northern Railway as its second terminus.

The Station site is central to Foreshore Park, located along Wharf Road, which provides vast open space for activities, recreation and community uses.

Future character

The Newcastle Railway Station forms a key position in the development of the urban environment in this part of the city, including views of the building itself and key built forms in its surrounds. The space between the platforms has historically been naturally lit and this should be considered in the redevelopment, as a way of retaining the history of the item as a station.

The future character of Newcastle Station and Foreshore Park Key Precinct will fully respect and celebrate the heritage integrity of the Station, and could accommodate a range of different activities including community, tourism, retail, leisure and commercial uses.

Newcastle Railway Station is proposed to be repurposed into a hallmark destination, retaining and adapting the heritage character with a mix of uses and providing a focal point for the East End. It will accommodate enterprises and activities that attract visitors, activate the area and stimulate the economy.

The future use of the station will be supported and enhanced by the expansion of the Foreshore Park to the west of the station. Development adjoining this area will complement and support the use of this area as an event space.

Objectives

1. Provide a new focal point for the community in the East End.
2. Promote a permeable street network and enhance pedestrian connections from Hunter Street to the foreshore.
3. Promote active frontages to streets and public spaces.
4. Respect heritage items and contributory buildings.

Performance Criteria

- H1. Newcastle Station and Foreshore Park is a regional tourist and leisure destination for both residents and tourists.

Acceptable Solutions

1. Improve pedestrian permeability and amenity by providing a link from Scott Street between the significant Station buildings to the foreshore.
2. Protect the heritage and history of the Newcastle Station through its adaptive re-use.
3. Create a public open space area that is safe and well-utilised.
4. Promote the Foreshore Park as a regional open space asset.
5. The built form and land use considers noise impacts on nearby residential uses.
6. The built form of the Newcastle Station buildings provides frontages to Scott Street and to the north facing Foreshore Park.
7. View corridors identified in Figure 6.01-45 are retained.

Performance Criteria

- H2. The Newcastle Railway Station group of buildings integrate with the public domain and encourage pedestrian access and permeability.

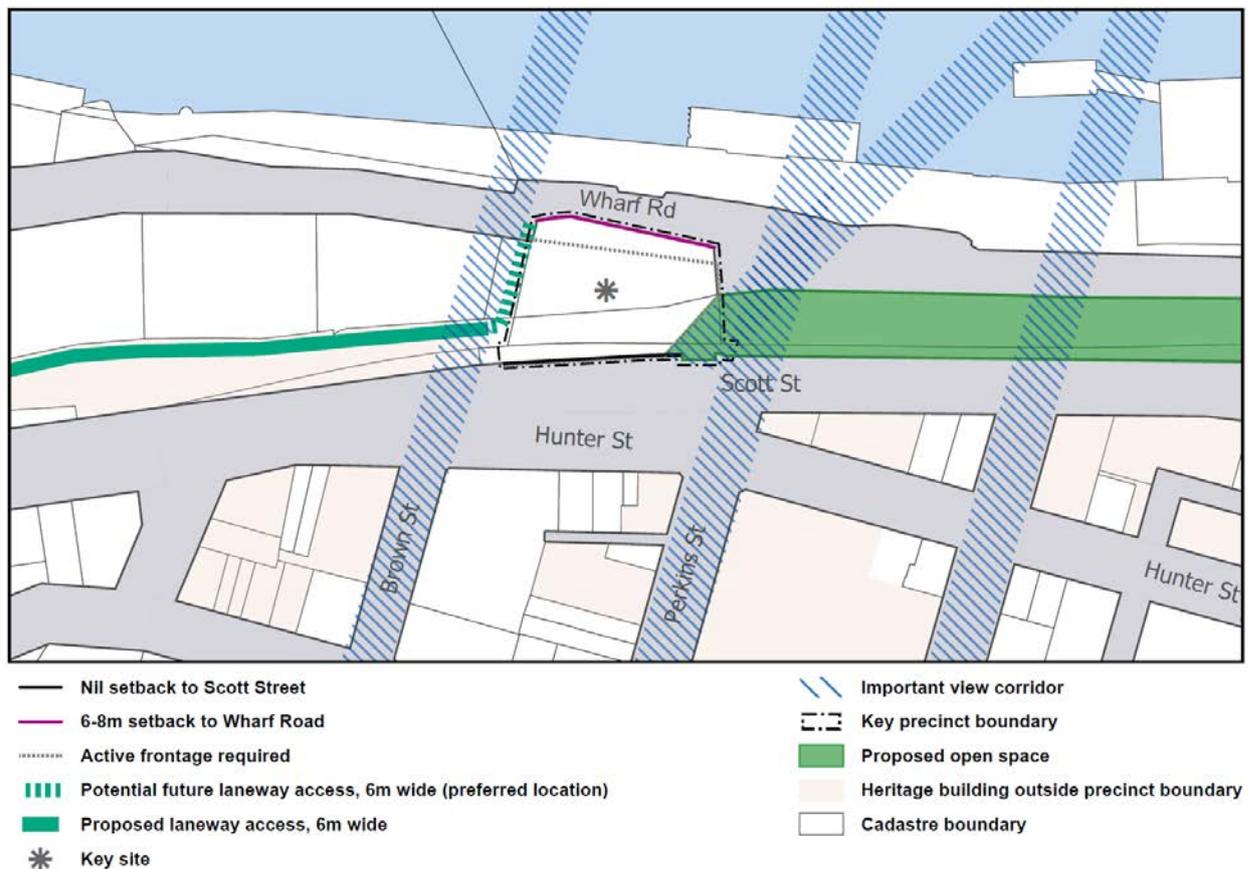
Acceptable Solutions

1. The use of the site, including the adaptive reuse of heritage items maintains the human scale of the buildings to the street and public spaces.
2. Pedestrian movement networks are developed around, and through, the heritage buildings.
3. Heritage items located adjacent to public open space, integrate with the public domain.
4. Development of the Newcastle Railway Station site:
 - (a) Maintains views of Newcastle Station along Scott Street, particularly the main building and the Western Wing.
 - (b) Maintains the view corridor from the harbour front to the roof elements on the main building and Western wing from a pedestrian level.

- (c) Ensure that the general bulk of any new development on the site does not compete with, impede or detract from the current tiered elevation and depth created by the built form in its current configuration.
- (d) Maintains the view corridor from the west to Customs house. The bulk of new structures does not obscure views to and from the clock element on Customs house, beyond what has already been established.
- (e) Ensures that the form, massing, scale and bulk of new development are complementary to the existing built form of the Newcastle Railway Station.

I. Multi-purpose Community Space Precinct

Figure 6.01-46: Multi-purpose Community Space Precinct



Existing Character

The Multi-purpose Community Space Precinct bookends the Newcastle Station and Foreshore Park Precinct, marking the western end of this public space. The precinct contains a carpark, part of the former rail corridor and footpath fronting Scott Street. The history of this precinct is closely tied to Newcastle Harbour. The carpark was previously the Perkins Street Boat Harbour, until it was closed in 1960 and filled in to form the present open carpark. Adjoining the Boat Harbour was the Private Coal Staithes (a structure for loading coal onto ships). The precinct is well located between the harbour and the city and is close to light rail stops.

Future Character

The Multi-purpose Community Space Precinct together with the Newcastle Railway Station and Foreshore Park Precinct forms a key position in the urban environment of this part of the city. This precinct is intended to become a multi-purpose community civic space, incorporating a community facility and public domain space. Activating the western end of this public space with a multi-purpose building will provide important casual surveillance of the open space area. Active frontages will improve the streetscape at Wharf Road and Scott Street. Important views and foreshore access will be retained. It is intended for the precinct to be popular with residents, visitors and workers.

The site is identified as a key site under Newcastle LEP 2012. This will ensure that future development exhibits design excellence and complements the wider Foreshore Character Area.

Objectives

1. Provide a new community place and space for the Newcastle community
2. Promote views and connections to the harbour and Nobbys Headland from the City Centre
3. Promote active street frontages, provide pedestrian and visual links between city and harbor and encourage historical interpretation of the site.

Performance Criteria

11. The Multi-purpose Community Space Precinct is a publicly accessible regional tourist and leisure destination.

Acceptable Solutions

View corridors

1. View corridors are maintained along Brown Street and Perkins Street through to the harbour, as identified in Figure 6.01-46
2. Vegetation and vertical elements in open space are sited to ensure existing visual corridors between the harbour and Perkins Street are maintained.
3. Enhance views to Nobbys Headland from Scott Street and the precinct. New development takes advantage of the views to the harbour and Nobbys Headland.

Building setbacks

4. The built form along Scott Street has a nil setback as shown in Figure 6.01-46
5. The built form in Wharf Road is setback a minimum 6-8m as per Figure 6.01-46 to generally align with the setbacks of adjoining development to the west, and to reflect the general alignment of Wharf Road and existing footpath.

Performance Criteria

12. New Development integrates with Foreshore Park and encourages pedestrian access and permeability.

Acceptable Solutions

Key site

6. The bulk and scale of new development does not compete with or impede or detract from the surrounding areas and enhances connection to Market Street Lawn and other areas of open space.
7. Design excellence considerations include the “acceptable solution” parameters for this Key Precinct and be addressed in any Development Application.
8. New development improves pedestrian permeability and amenity between Hunter Street, Scott Street and the harbour.

Site Activation

9. The built form addresses Scott Street and Wharf Road and has frontage and activation to Market Street Lawn

Access

10. New Development provides for the minimum 6m wide lane access as shown in Figure 6.01-46. Vehicular access should only be from Wharf Road.

Trees

11. Trees are retained on site where possible. If trees cannot be retained, then replacement of trees on site are in accordance with Section 5.03 Vegetation Management of the Newcastle DCP 2012.

Stormwater

12. New buildings are not to be constructed over or compromise the integrity of a drainage line or easement. If a new building is proposed to be built over an existing drainage line then the drainage line and any associated easement is to be diverted around the building. Refer to Section 7.06 Stormwater of the Newcastle DCP 2012.

Archaeology

13. Excavation works on this site will need to comply with relevant requirements under the Heritage Act 1977. Refer to Section 5.06 of this DCP.

Note: The site formerly known as 233 Wharf Road (currently being used as a carpark) is known as the Perkins Street Boat Harbour and is identified as Item No. 1128 in the Newcastle Archaeological Management Plan 1997. In 1902 the Perkins Street small boat harbour was built to replace the 1857 Market Street Harbour. In 1960 the Perkins Street Boat Harbour was closed and was filled in to form the carpark. Item No 0193 in the Archaeological Management Plan 1997 refers to Private Coal Staithes, with any remaining evidence likely to be present in the area of Wharf Road.

Subsidence

14. Any future works on this site will require geotechnical assessment of mine subsidence risk to ensure that the site is not impacted by convict-era workings.

Subsidence Advisory NSW records indicate historical mine workings in the Borehole Seam exist with the zone of influence under the site. There is a possibility that unmapped convict era mine workings may exist under the site.

Flood

15. The site is flood affected in both PMF and 1% AEP flood events but not prohibitive to development.

Landscape

16. Landscape works adjacent to the public domain of Wharf Road to be consistent with the Foreshore Precinct Public Domain Plan.

ATTACHMENTS DISTRIBUTED UNDER SEPARATE COVER

**CCL 24/11/20 - ADOPTION OF PLANNING PROPOSAL TO REZONE
AND RECLASSIFY LAND AT 233 WHARF ROAD AND REZONE
LAND 150 & 150A, 250 SCOTT STREET NEWCASTLE**

ITEM-91 **Attachment C:** Summary of submissions and responses to matters raised during public exhibition period and at the Public Hearing

DISTRIBUTED UNDER SEPARATE COVER

Attachment C - Summary of Submissions and Public Hearing Feedback

The following table summarises and responds to key matters raised in submissions received during the public exhibition period held between 3 February 2020 and 2 March 2020. Responses are included in the corresponding column.

Submissions – Public Exhibition			
No.	Submitter	Summary of Submission	Response
1	Hunter Regional Committee of the National Trust	<p>1. Highlighting the importance of maintaining visual, spatial and physical connections between the historic centre of Newcastle and the harbour.</p> <p>View analysis was not publicly exhibited. Disagreement with assessment that harbour views are limited from Hunter Street.</p> <p>Proposed future building on the site is inconsistent with the objectives of the strategic framework including to ‘Connect the City to the Waterfront’.</p>	<p>1. Connection between city and harbour</p> <p>The Visual Impact Assessment identified view corridors north along Brown and Perkins Street to the harbour and noted that the large fig trees at the bus stop on Hunter Street fragmented views towards the harbour.</p> <p>The Planning Proposal includes requirements to promote and protect the significance of views, open connection with the harbour and facilitates a development that demonstrates design excellence. These aims will be achieved through provisions in the site-specific Development Control Plan (DCP) and identifying the land as a Key Site subject to the Clause 7.5 ‘Design excellence’ of the NLEP 2012.</p> <p>There is a commitment to protecting significant views and maintaining open connections with harbour, with two of the three objectives in the site-specific DCP aiming to:</p> <p><i>“2. Promote views and connections to the harbour and Nobbys Headland from the City Centre.</i></p> <p><i>3. Promote active street frontages, provide pedestrian and visual links between city and harbour and encourage historical interpretation of the site.”</i></p> <p>The site-specific DCP identifies the two view corridors from the Visual Impact Assessment and an additional view corridor north east across the harbour towards Nobbys Head. The south eastern corner of the site has been identified as proposed open space to protect views towards Stockton and Nobbys Headland.</p>

Attachment C - Summary of Submissions and Public Hearing Feedback

Submissions – Public Exhibition			
No.	Submitter	Summary of Submission	Response
			<p>The land is identified as a Key Site under NLEP 2012 which requires additional design excellence considerations and for a design competition to be held in relation any proposed development. The design excellence considerations include the following relevant matters:</p> <ul style="list-style-type: none"> • Whether the form and external appearance of the development will improve the quality and amenity of the public domain • Whether the development detrimentally impact on view corridors identified in the NDCP 2012. <p>Furthermore, the NDCP 2012 includes additional Key Site provisions which requires new development to integrate with Foreshore Park and encourage pedestrian access and permeability.</p> <p>The above framework outlines the minimum expectations that any future development will deliver. It is noted that additional community input will be sought regarding the proposed use and design of the community facility, incorporating any additional matters that may not be covered in either the NLEP 2012 or NDCP 2012.</p>
		2. Support for the consolidation of sites for the purposes of expanding the Market Street Lawn open space reserve.	2. Noted.
		3. Objection to proposed reclassification and rezoning. Site should remain classified as 'community land' and serve as car parking for access to Market Street Lawn and Queens Wharf.	<p>3. Reclassification of land</p> <p>Council does not intend to sell the site or lease floor space in a future building to a non-community use as its primary function. The proposed operational classification for its current use as a car park is consistent with approximately 20% of CN's land/assets which include depots, libraries and car parks. These assets continue to remain under CN's ownership.</p>

Attachment C - Summary of Submissions and Public Hearing Feedback

Submissions – Public Exhibition			
No.	Submitter	Summary of Submission	Response
			<p>For the future use of the site, the operational classification provides CN with the capacity to lease or licence an ancillary, complementary use alongside the primary community use under a simpler process. The community classification carries specific requirements (Clauses 44-48 of the <i>Local Government Act 1993</i>), particularly for lease/ licence terms greater than five years. In this instance, these requirements overlay unreasonable complexity into the process for leasing smaller ancillary uses.</p> <p>Importantly, CN purchased No. 280 Hunter Street, Newcastle which directly adjoins No. 250 Scott Street, Newcastle (Parcel 12) to the west and therefore has a vested interest in maintaining ownership and delivering a great outcome for this area of the City Centre.</p> <p>The Outcomes Report on the Public Hearing for the proposed reclassification of No. 233 Wharf Road, Newcastle further highlights the key concerns (Attachment D).</p>
		<p>4. Objection to proposed SP3 Tourist zone. Suggest the site should be rezoned as RE1 Public Recreation instead.</p>	<p>4. Inappropriate tourism zone</p> <p>Although community facilities are permitted with consent in most zones in the NLEP 2012, only two zones were considered appropriate for the site (SP3 and RE1). Following the feedback received, CN staff investigated the option to apply an RE1 zone across both sites. However, while the permitted land uses are similar for both zones, the intended future use of the site as a community facility in the longer-term does not align with the zone objectives of the RE1 Public Recreation zone and therefore the SP3 Tourist Zone, with appropriate height and FSR controls, has been proposed. The SP3 zone also flags that the site is intended to be developed in the future and will not be solely used for car parking and open space.</p>

Attachment C - Summary of Submissions and Public Hearing Feedback

Submissions – Public Exhibition			
No.	Submitter	Summary of Submission	Response
		<p>5. Proposed planning controls (FSR, height and lot size) aren't acceptable for an unspecified community facility.</p>	<p>5. Unacceptable planning controls</p> <p>The proposed planning controls have balanced the functional requirements of any future community use (e.g. minimum floor plates, floor-to-ceiling heights etc.) with consideration for site context and relationship with the adjoining Market Street Lawn and Foreshore Park. In this regard, the above planning controls will not be achievable across the entire site as they are overlaid with the stringent site-specific DCP guidelines requiring additional setbacks, the protection of view corridors and demonstrated design excellence in accordance with Clause 7.5 of NLEP 2012.</p> <p>The site-specific provisions in NDCP2012 place a high priority on complementing and improving amenity and the public domain.</p>
		<p>6. Planning Proposal should not proceed until further information is shared with community regarding proposed future use.</p>	<p>6. Future use as multi-purpose community space</p> <p>The multi-purpose community space could include a range of uses identified in various CN strategies that expand the City's social infrastructure and provide a community benefit. As noted above, the primary function of the site will be for a community facility and its role and purpose will need to contribute directly to the physical, social, cultural or intellectual development or welfare of the community. Any future community facility will include a public domain space which will provide an active frontage to Market Street Lawn. It is also noted that a future facility could include car parking.</p> <p>The Planning Proposal, proposed reclassification and site-specific DCP set a framework in place with enough scope to consider a range of appropriate community uses for the site and could include among others, an art gallery, library, cultural centre or community centre.</p>

Attachment C - Summary of Submissions and Public Hearing Feedback

Submissions – Public Exhibition			
No.	Submitter	Summary of Submission	Response
			CN will engage with the community as future planning for the site proceeds to ensure that a future facility aligns with community needs and aspirations for the area.
		7. Site presents unique opportunity to interpret history of Newcastle including the 1903 Boat Harbour.	<p>7. Opportunity for historical interpretation</p> <p>Noted and agreed. Additional heritage and archaeological investigations are required to understand the extent of the 1903 Boat Harbour archaeology and innovative ways this could be integrated on the site. CN will be further consulting with the community to explore opportunities if future planning proceeds.</p>
2	Individual	1. Objection to proposed reclassification and rezoning. Site should remain classified as 'community land' for the broader community and surrounding businesses.	1. Refer to 3. Reclassification of land on page 2.
		2. Objection to proposed SP3 Tourist zone. Suggest the site should be rezoned as RE1 Public Recreation instead.	2. Refer to 4. Inappropriate tourism zone on page 3.
3	Individual	1. Concerns about potential closure of car park as it creates revenue for council.	1. Noted. Revenue generated from car parking is an operational matter.

Attachment C - Summary of Submissions and Public Hearing Feedback

Submissions – Public Exhibition			
No.	Submitter	Summary of Submission	Response
		<p>2. Cumulative loss of car parking in the City Centre will place more pressure on businesses.</p>	<p>2. Car park closure / loss of parking</p> <p>The Planning Proposal notes that the car park will continue to operate in the “short to medium term” (pg. 2). Further clarification regarding timing was noted in several submissions. In this regard, there are no projects identified in ‘Our Budget 20/21’ comprising both the Delivery Program 2018-2022 and Operational Plan 2020/21, highlighting there is nothing scheduled to proceed with future planning for the site in at least the next two years for an expansion of the car park or multi-purpose community space.</p> <p>Importantly, CN formally accepted the transfer of No. 250 Scott Street, Newcastle (southern lot known as Parcel 12) on 28 August 2020 from Hunter Central Coast Development Corporation (HCCDC) and placed an operational classification on that land for expansion of the adjacent Wharf Road public car park. The transfer of land occurred following the conclusion of the public exhibition and public hearing.</p> <p>Acquisition of Parcel 12 is an important milestone and provides CN with the ability to expand car parking capacity in the City Centre in the interim. As suggested in submissions, car parking could also form part of any future community use on the site and will be subject to further community engagement.</p> <p>Importantly, there are several site constraints that require further investigation to confirm the extent of the Boat Harbour archaeology, stormwater infrastructure and mine subsidence which may impact upon CN’s capacity to develop the land.</p>

Attachment C - Summary of Submissions and Public Hearing Feedback

Submissions – Public Exhibition			
No.	Submitter	Summary of Submission	Response
		3. Uncertainty regarding future use as a multi-purpose community space. Any future community space should incorporate public parking.	3. Refer to 6. Future use as a multi-purpose community space on page 4.
		4. Concerns that the land will be sold and developed for a motel.	4. Noted and acknowledged. Refer to 3. Reclassification of land on page 2.
		5. Building height of 14m is inappropriate for this location.	5. Refer to 1. Open connection between city and harbour on page 1 and 5. Unacceptable planning controls on page 4.
4	Scratchleys (Petition – 119 signatures)	1. Objection to rezoning and reclassification.	1. Refer to 3. Reclassification of land on page 2 and 4. Inappropriate tourism zone on page 3.
		2. Lack of adequate events management transport solution for the city.	2. Noted and acknowledged. CN is currently preparing a Parking Plan which will among other things, review the car parking capacity within the City Centre and provide recommendations regarding future strategic direction.
		3. Concerns that the land will be sold.	3. Noted and acknowledged. Refer to 3. Reclassification of land on page 2.
		4. Cumulative loss of car parking in the City Centre will place more pressure on businesses and capacity to cater for major events.	4. Refer to 2. Car park closure on page 6.

Attachment C - Summary of Submissions and Public Hearing Feedback

Submissions – Public Exhibition			
No.	Submitter	Summary of Submission	Response
		5. East End of the City Centre and Entertainment Precinct requires a wholistic transport plan to increase jobs and reduce commercial vacancies.	5. Noted
5	State Agency – Transport for NSW	<ol style="list-style-type: none"> 1. Advises that the sites front the Newcastle Light Rail Transitway and that an access restriction will be placed on title to ensure that vehicle access is not permitted to the Transitway. 2. Noting a requirement to enter into a Rail Interface Agreement prior to any development of the site. Additional requirements under the Rail Interface Agreement were detailed. 	Matters raised by Transport for NSW are noted for any future development application for the site, should future planning for a community facility proceed.

Attachment C - Summary of Submissions and Public Hearing Feedback

Public Hearing responses

A Report on the outcomes of the public hearing (**Attachment D**) was prepared by the independent facilitator which details the key matters raised at the public hearing for the proposed reclassification of 233 Wharf Road, Newcastle. Key matters raised related to the following:

- Car parking
- Open green space
- Future development
- Process of reclassification and rezoning.

Responses to concerns relating to car parking and future development are included in the above table. Responses to open green space and the process of reclassification and rezoning are included below:

Loss of open green space

Participants at the public hearing raised concerns about the loss of open green space, noting that the Foreshore acted as an informal backyard for City Centre residents. Participants highlighted the importance of access to open space for community wellbeing in the context of COVID-19. Furthermore, it was noted that 233 Wharf Road, Newcastle (Boat Harbour car park) previously formed part of Foreshore Park. One participant presented a previous Plan of Management (POM) for Foreshore Park that included the car park within its boundary and expressed concerns that it was no longer included in the current Plan of Management for 'The Foreshore' (2015). It was suggested that this matter be raised in the context of the current review of the Harbour Foreshore Master Plan project.

Response

The site is currently used as a car park (233 Wharf Road) and fenced off unused land (Parcel 12). The concerns above were raised in the context of the Boat Harbour Car Park servicing users of the Foreshore area and that the unused land should form part of an extension of the Market Street Lawn. Following internal enquiries, the removal of the car park from a previous POM may have occurred during the preparation of the 2015 POM.

As noted previously, the Boat Harbour Car Park will continue to operate in the short to medium term with the intent to expand parking capacity across Parcel 12. In the longer-term the site-specific DCP aims to provide a civic space that incorporates both a community facility and public domain space. The interface between Market Street Lawn and the site will provide open public domain space while the south eastern corner of the site will be kept as public open space for the purposes of protecting an important view corridor.

Attachment C - Summary of Submissions and Public Hearing Feedback

Process of reclassification and rezoning

While consultation has been undertaken in accordance with the *Environmental Planning and Assessment Act 1979* and *Local Government Act 1993*, several participants at the public hearing raised concerns about the lack of consultation and engagement throughout the Planning Proposal and reclassification process. Participants also queried why the proposal was proceeding if there were uncertainties about future use.

Response

The consultation to date does not represent the final opportunity to provide input into the planning for this area. The Planning Proposal and reclassification sets in place a framework under which future decisions can be made in consultation with the community regarding the future use, design and function of the sites and their relationship with the adjoining Market Street Lawn and Foreshore area.

ATTACHMENTS DISTRIBUTED UNDER SEPARATE COVER

**CCL 24/11/20 - ADOPTION OF PLANNING PROPOSAL TO REZONE
AND RECLASSIFY LAND AT 233 WHARF ROAD AND REZONE
LAND 150 & 150A, 250 SCOTT STREET NEWCASTLE**

ITEM-91 **Attachment D:** Report on the outcomes of the Public Hearing to reclassify 233 Wharf Road, Newcastle dated August 2020

DISTRIBUTED UNDER SEPARATE COVER

Report

Report to the City of Newcastle Public Hearing for the Proposed Reclassification of land at 233 Wharf Road, Newcastle

August 2020

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The information contained herein is believed to be reliable and accurate. The Author made reasonable efforts to ensure that the contents and data in this report are factually correct. The Author is not responsible or liable for any information, opinions, or commentary contained herein, or for any consequences of its use.



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1. Introduction

This report presents the outcomes of the Public Hearing for the proposed reclassification of land at 233 Wharf Road, Newcastle from Community Land to Operational Land.

The proposed reclassification of 233 Wharf Road, also known as the Boat Harbour Car Park, is included in Planning Proposal PP2018/00015 to amend the Newcastle Local Environmental Plan 2012 in relation to land at 233 Wharf Road, and part 150 Scott Street and part 150A Scott Street (Parcel 12). The Planning Proposal was placed on public exhibition from 3 February 2020 for 28 days. Under the provisions of Section 29 of the Local Government Act 1993, planning proposals to reclassify land from Community Land to Operational Land require a Public Hearing.

The Public Hearing for the reclassification of 233 Wharf Road was conducted on behalf of the City of Newcastle (Council) in accordance with the requirements of the Local Government Act 1993 and Environmental Planning and Assessment Act 1979. It provided an opportunity for members of the community to voice their opinion and raise issues related to the proposed reclassification within a public forum.

Section 2 of this report outlines the statutory requirements and process used to conduct the Public Hearing. Submissions provided as part of the Public Hearing are noted in Section 3 with a summary of key issues raised in Section 4.



2. Public Hearing

2.1 Statutory Requirements

Relevant statutory provisions are provided in Division 3.4 of the Environmental Planning and Assessment Act 1979 and Sections 25 -34 and 47G of the Local Government Act 1993.

Specifically, in relation to Public Hearings, Section 29 of the Local Government Act states:

- (1) *A council must arrange a Public Hearing under section 57 of the Environmental Planning and Assessment Act 1979 in respect of a planning proposal under Part 3 of that Act to reclassify community land as operational land, unless a Public Hearing has already been held in respect of the same matter as a result of a determination under section 56 (2) (e) of that Act.*
- (2) *A council must, before making any resolution under section 32, arrange a Public Hearing in respect of any proposal to reclassify land as operational land by such a resolution.*

Council's arrangement of the Public Hearing for the proposed reclassification of land at 233 Wharf Road and preparation of this report satisfy the provisions of Section 29 of the Local Government Act.

Section 47G (2) of the Local Government Act also states:

- The person presiding at a Public Hearing must not be:*
- (a) a councillor or employee of the council holding the Public Hearing, or*
 - (b) a person who has been a councillor or employee of that council at any time during the 5 years before the date of his or her appointment.*

2.2 Public Hearing Process

The Public Hearing for the proposed reclassification of land at 233 Wharf Road was organised by Council and held at the Hunter Room, Newcastle City Hall on 6 August 2020 commencing at 5:30pm.

The Public Hearing was independently chaired and facilitated by Ruth McLeod who in accordance with Section 47G (2) of the Local Government Act 1993 formally stated at the commencement that she was not:

- a) a councillor or employee of the City of Newcastle; and
- b) not been a councillor or employee of the City of Newcastle at any time during the last 5 years.

Five community members registered to attend the Public Hearing. Four of the registered people attended and provided a verbal submission, while one person was no longer able to attend and did not provide a submission. A further one person who was unable to attend provided a written submission.

The Public Hearing was also attended by the following Council officers:

- Patricia McCarthy, Urban Planning Section Manager
- Dan Starreveld, Senior Urban Planner
- Tim Daley, Senior Project Planner.

The agenda for the meeting included:

- Welcome and outline of the process for the Public Hearing (Ruth McLeod)
- An overview of the Planning Proposal (Dan Starreveld; see Appendix)
- Verbal submissions with each community member allowed up to 10 minutes to speak
- Discussion and confirmation of key issues with community members
- Next steps and concluding remarks (Ruth McLeod).

Attendees were informed that a written report of the Public Hearing will be provided to Council and will form part of the Council report on the outcomes of the Planning Proposal public exhibition period.

The Public Hearing was closed at 6:42pm.



3. Submissions

A summary of the verbal and written submissions received as part of the Public Hearing from the five community members who participated is provided in Table 1. The language and manner in which points were made by the people providing the submissions has been retained as much as possible.

Table 1 Public Hearing Submission Summaries

Person	Submission Summary
Barbara Ferris	<ul style="list-style-type: none"> • Provided written submission to public exhibition. • Asked if Council can provide more specific details of the multipurpose community space; is there an idea of what that might be in the future. • Believed a building of 14 metres would be inappropriate on the site and a much better outcome would be an extension of the Market Street Lawn for public domain, a positive legacy for the people of Newcastle. • Asked if a report was available detailing the outcomes from talks between Council and Hunter Central Coast Development Corporation. • Boat Harbour Car Park provides a starting point for visitors to explore the harbour parks, heritage areas, and central point for shopping and dining. If it is to be closed could land in Rail Bridge Row be used for a parking station as that land is not open to the harbour. • Believe that until the public transport system to the city and suburbs is improved, parking needs to be increased or businesses will not prosper, Newcastle will not be attractive to local and regional visitors.
Brian Ladd	<ul style="list-style-type: none"> • Provided a written copy of verbal submission. • Speaking on behalf of Newcastle Inner City Residents Alliance (NICRA). • NICRA concerned about the proposed closure of Council's Boat Harbour Car Park and opposes the reclassification of the car park and adjacent rail corridor land for potential business use. • NICRA rejects the planned new maximum height limit of 14 metres (or five storeys) which the rezoning would permit on these sites. NICRA believes the planned rezoning would forego a better Council outcome for this uniquely located property. • Identified two main problems with the proposal <ul style="list-style-type: none"> 1. In the short term, re-zoning adversely impacts city businesses and visitors though: <ul style="list-style-type: none"> - Loss of revenue generated for the Council from this car park. - Loss of parking for people accessing inner city businesses; impacting on the viability of the CBD economy. Further loss of car parking will compound the loss of over 1,050 parking spaces from inner city Newcastle (since 2007). - NICRA believes that until there is a comprehensive or efficient public transport system that connects people with the things they want to do, cars will continue to be the most popular form of transport in Newcastle as there is no realistic alternative in sight.

Person	Submission Summary
	<p>2. In the long term, the two properties should be incorporated into the Harbour Foreshore Park</p> <ul style="list-style-type: none"> - NICRA is concerned that the rezoning of Boat Harbour Car Park as a 'Multi Purpose Community Space', could potentially allow a hotel or motel to be constructed on the site. NICRA urges Council to reject the five storey height limit (14 metres) proposed for the two sites. - NICRA objects to the rezoning as in the long term the land is more valuable to the citizens of Newcastle as a western extension of the Foreshore Park. The Boat Harbour Car Park and rail corridor allotment, incorporated into the Foreshore Park, will be of greater benefit to more Newcastle residents than another building to further wall off the foreshore. The Boat Harbour Car Park and adjacent former rail corridor land is an opportunity to recover some Foreshore Park area; incorporating into the existing Foreshore Park, ensuring significant vistas of the harbour from Hunter Street are retained. This is a one-off opportunity that should not be lost forever. • Recommendation 1: NICRA urges Council to prioritise developing its Car Parking Strategy for the future of the city. Until we have a Car Parking Strategy that addresses the desperate problem of too few public car parking spaces, Newcastle Councillors should reject the current rezoning proposal, because the loss of car parking spaces adversely impacts on inner city business and visitors to the Harbour foreshore. • Recommendation 2: NICRA urges Councillors to reject the proposal for the Boat Harbour Car Park and rail corridor allotment rezoning from RE1 (Public Recreation) to SP3 (Tourism). In the long term, both allotments should be incorporated into the Newcastle Foreshore Park.
Neil Slater	<ul style="list-style-type: none"> • Provided written submission to public exhibition. • Proprietor Scratchleys and Battlesticks. • Stated that parking needs to continue to be available at the site. The foreshore is an incredible asset for the community that attracts people including to local businesses. It's up to business operators to capture customers once they are in the area, however we shouldn't be denying people who want to come the ability to access the foreshore. • Believes that when people come to this site they expect to be able to park somewhere. Continuous loss of car parking (Lume site, space for cycleways) is making it harder for people to access harbour side businesses. Forcing people to look elsewhere for dining experiences. • Identified car parking as part of an adequate transport system for the whole community. If there were an adequate public transport system then we wouldn't need as many car parks. However the public transport system is not adequate and unlikely to be resolved in the short term. Forcing people onto public transport, including by the removal of car parking, will cause frustration. Current public transport doesn't go where people live and is too infrequent. People don't want that inconvenience so they use a car. • Stated that the area has to have some version of a car park, and more car parks not less car parks, or create a proper public transport system. • Concerned that maintaining the view that less car parking is somehow going to improve the city and bring more people in is unrealistic. Believe it is reducing accessibility: fit people can walk in however families with children, elderly people, wheelchairs will struggle. The beautiful work happening at

Person	Submission Summary
	<p>the Station is only going to exacerbate the problem; we invite everyone in however not giving them an opportunity to be there because there is no parking and no adequate transport system to access it.</p> <ul style="list-style-type: none"> • Seeking surety that the car park is not going to be lost. Council report indicated that 233 Wharf Road will continue to be used as a car park in the short to medium term however unclear how long that might be. Concerned that the changed classification will be a stepping stone to something else. • Asked that if the area is to remain a car park, why can't the classification remain as community land. And if in the future something is planned for the site, then discuss it with the community and make the change then.
Karen Read	<ul style="list-style-type: none"> • Provided a written copy of verbal submission. • Speaking on behalf of Newcastle East Residents Group (NERG). • Preference is for the amalgamated site to be retained as a car park, classified as community land and rezoned RE1 Public Recreation. • Believe Council has been in breach of the Local Government Act by not incorporating the site into its Foreshore Plan of Management (PoM). Provided a review of documents to support this belief. • Concerned about further loss of community and green space. Rapid population growth in the inner-city and the COVID-19 pandemic has highlighted the necessity for green space and open community space. • Concerned by potential loss of car parking. Proposal states the existing car park will remain in the short and medium term, however there is no guarantee the car park will be retained. Loss of the car park would significantly impact residents and visitors to the area and surrounding businesses. NERG believes Council must mitigate critical parking shortages in the city centre. Any future development must include a detailed traffic and transport assessment. NERG urges Council to conduct new traffic assessments more reflective of the current situation. • NERG questions the proposed permitted building height of 14 metres and a Floor Space Ratio (FSR) of 2:1 which would allow a substantial building on the amalgamated site. NERG request that conditions of consent be mandated for the site in order to protect it from overdevelopment, and to optimise positive outcomes for the general community including view corridors, public access from Scott Street to the foreshore, and maximising open space particularly on the northern and eastern side of the site. • NERG asks why the site should be reclassified as operational land. Reclassifying the land to operational land would enable Council to on sell the land in the future and believes selling the land would not be in the public interest. • Further questions asked about the appropriateness of allowable developments under the proposed SP3 Tourist zone, and why the amalgamated site should be rezoned to SP3 rather than RE1 Public Recreation which is the present zoning of the car park site. • NERG believes that it would be better to have extensive community consultation and a needs-based assessment prior to reclassifying and rezoning the land. • NERG cautions against exhibiting the amended draft Newcastle Development Control Plan (DCP) concurrently with the Planning Proposal. NERG believes the draft DCP should be exhibited first to ensure the DCP

Person	Submission Summary
	<p>informs comment on the Planning Proposal.</p> <ul style="list-style-type: none"> • NERG supports the inclusion of 233 Wharf Road and Parcel 12 as a key site, which would require an architectural design competition to ensure a high-quality design outcome. Raised the need for any development to take into consideration the archaeological sensitivities of the site including Aboriginal heritage, penal settlement, development of rail and port infrastructure. Statement of Heritage Impact and heritage interpretation strategy to be considered early in any process.
Peter Medi	<ul style="list-style-type: none"> • Provided a written submission only to the public hearing. • Objects to the proposal which may result in the loss of community land and potential loss of the Boat Harbour Car Park if the land is developed for an alternate use. • Concerned that no community consultation had been undertaken to gauge community views on appropriate zoning, landuse, scale of development, building height and FSR. • Stated Council is in breach of the Local Government Act by not incorporating the site into its Foreshore Plan of Management (PoM). Provided a review of documents to support this statement. • Concerned about potential for the land to transfer to private ownership by being sold or offered on long term lease if reclassified as operational land. • Questions the appropriateness of the allowable building height of 14 metres and an FSR of 2:1 which will enable the development of a large building on the site. • Further questions the land uses permitted under the proposed SP3 Tourist zone, and why the amalgamated site should be rezoned to SP3 rather than RE1 Public Recreation. • Concerned by potential loss of car parking. Proposal states the existing car park will remain in the short and medium term, however there is no guarantee the car park will be retained. Loss of the car park would significantly impact residents and visitors to this area and surrounding businesses. • States that if the sites are amalgamated, they should be reclassified as community land, rezoned RE1 Public Recreation and the car park extended to provide additional parking.



4. Summary of Key Issues

Following verbal submissions from community members, the Chair provided a summary to confirm all issues had been raised and correctly recorded.

The key issues raised through the Public Hearing for the proposed reclassification of land at 233 Wharf Road from Community Land to Operational Land related to:

- Car parking
- Open green space
- Future redevelopment
- Process of reclassification and rezoning.

CAR PARKING

The need for continued provision of car parking in the immediate area of the foreshore was a key issue. Community members expressed the view that cars and car parking is required to enable people to visit the area. It was felt that this need will continue in the long term as the current public transport system does not adequately meet the needs of people wanting to visit the area, and any future improvements will take a significant time to achieve.

Concerns were raised about the potential loss of car parking as a result of the proposed reclassification of the land. It was stated that existing car parking is not adequate and possible removal of the Boat Harbour Car Park will exacerbate the situation. Removal of the car park was seen as having the potential to impact negatively on businesses and on Council by removing the ability to generate ongoing revenue from this site. Enabling people to access the area by providing car parking will support local businesses and the local economy. Recommendations were made for Council to update existing traffic assessments and the Newcastle Transport Strategy.

Community members suggested that if Council's intention is for the car park to remain as a car park for the short to medium term, the community land classification at 233 Wharf Road remain unaltered. If in the future a possible development and/or sale of the land is proposed, then at that time allow the community and relevant stakeholders to consider and discuss the proposal.

OPEN GREEN SPACE

Community members raised concerns regarding the potential loss of open space and green space in the inner city, as well as view corridors and accessibility to the foreshore. It was felt any changes in classification and zoning of the land should seek to increase open green space in the city and maximise the assets of the harbour and foreshore areas. Strong support was given for extending the Market Street Lawn and/or Harbour Foreshore Park to the west.

FUTURE REDEVELOPMENT

Redevelopment of the land at 233 Wharf Road was another key issue. Community members were concerned that the Planning Proposal including reclassifying 233 Wharf Road and rezoning to SP3 Tourism would result in less protection of the land to remain as a community space. The type of developments or potential overdevelopment of the site was flagged as a community issue with community members raising concerns regarding the building height and floor space ratios included in the Planning Proposal. More detail regarding the suggested multipurpose community space was requested.

PROCESS OF RECLASSIFICATION AND REZONING

During the Public Hearing community members raised several questions regarding the process, timing and community engagement related to the reclassification and Planning Proposal more broadly. Questions included:

- Why is this reclassification necessary now?
- Why is it necessary to put the two pieces of land, 233 Wharf Road and Parcel 12, together?
- Is there a report available from the engagement between Council and Hunter Central Coast Development Corporation in relation to the Planning Proposal?
- If the car park is to remain for the short to medium term, can Council provide clarity regarding how long that could be?

Community members felt there had not been enough community consultation regarding the Planning Proposal. In addition, it was suggested that the Newcastle DCP should be discussed and exhibited separately from the Planning Proposal. This will assist to provide reassurance that the DCP is not being amended with a particular development in mind.

Community members strongly supported the need for planning in the Newcastle Harbour foreshore area to ensure it meets the needs of people from across the region who want to visit the area, access the businesses and enjoy this unique community asset.



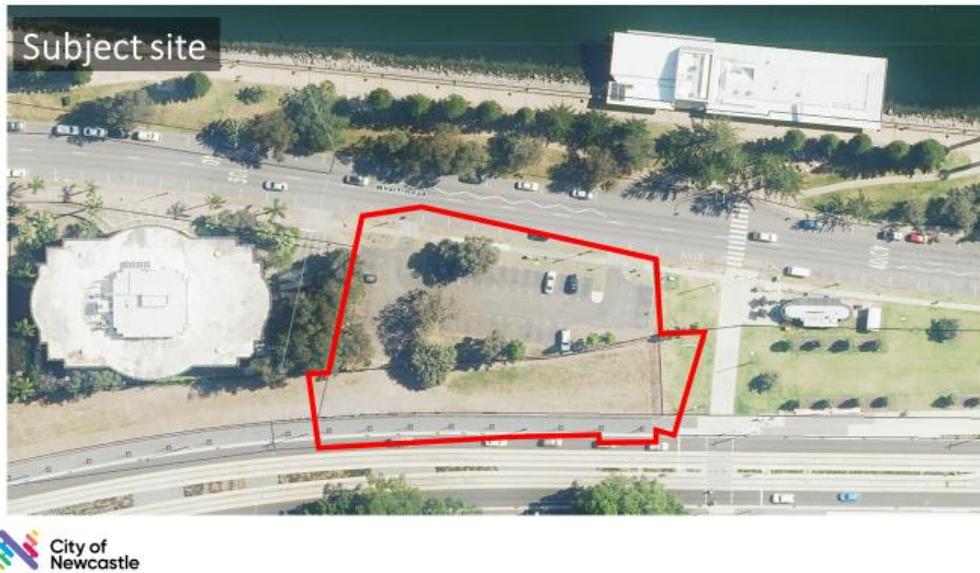
Appendix: Planning Proposal Overview



PUBLIC HEARING Proposed reclassification of 233 Wharf Rd, Newcastle

Dan Starreveld
Senior Urban Planner





4

Planning Proposal

- **Rezoning**
 - 1) Carpark - RE1 Public Recreation
 - 2) Rail Corridor (Parcel 12) - SP2 Infrastructure
 - New zone: SP3 Tourism
- **Building height** 14 metres
- **Floor space ratio** 2:1
- **Min. Lot Size** Remove 40ha requirement
- **Key Site** Design Excellence
- **Reclassification** 233 Wharf Rd from 'Community' to 'Operational' Land
- **Site-specific DCP**



5

Zoning



6

Public exhibition

- Four submissions, 1 petition
- Key issues:
 - Loss of public car park
 - Asset to local community and local businesses
 - Serves Market Street Lawn and Queens Wharf
 - Impact on major tourist events
 - Retain/ extend car park
 - Future development should include publicly available car parking
 - Concerns about potential future sale of land
 - Intended use as multi-purpose community space
 - Retain open view corridors and connections with the Harbour



7



8

Community vs. Operational Land

Community

- Applies to assets that serve a community function e.g. parks, sportsgrounds, reserves (RE1 Public Recreation)
- Publicly accessible
- Requires a Plan of Management
- Limitations on leases, licenses and sale

9

Community vs. Operational Land

Operational

- Applies to assets that serve an operational or commercial function e.g. offices, depots, car parks, sewage pump station
- Allows for greater flexibility with leasing, licensing and sale
- Council-owned operational land – 253 properties



10

Future use

- Car park – short to medium term
- Multi-purpose community space
- Relationship with other Council projects



11

Other council projects

