ENVIRONMENTAL IMPACT STATEMENT

PROPOSED NEW STABLES COMPLEX - NEWCASTLE JOCKEY CLUB

125 CHATHAM STREET, BROADMEADOW NSW 2292
(LOT 13 - 14 DP227704 AND LOT 82 DP1138209)

CLIENT: NEWCASTLE JOCKEY CLUB C/- AVID PROJECT MANAGEMENT

DATE: 24 September 2021

PREPARED BY:

de Witt Consulting
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DECLARATION

Environmental Impact Statement (EIS) – Proposed Horse Stables Complex

Prepared under Part 4 of the *Environmental Planning and Assessment Act 1979*

EIS Prepared by:

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Proponent name	Newcastle Jockey Club
Proponent address	125 Chatham Street
	BROADMEADOW NSW 2922

Address of the land on which the project is to be carried out

125 Chatham Street, Broadmeadow NSW 2922

Proposed project Proposed Horse Stables Complex

Certification I certify that I have prepared the contents of this environmental impact statement and to the best of my knowledge:

- the document has been prepared in accordance with Part 4 of the *Environmental Planning and Assessment Act 1979* and Schedule 2 of the Environmental Planning and Assessment Regulation 2000;
- the contents of the environmental impact statement have been prepared in accordance with the NSW Department of Planning & Environment Secretary's Environmental Assessment Requirements;
- the document contains all available information that is relevant to the environmental assessment of the activity to which the document relates; and
- the information contained in the document is neither false nor misleading.

Signature

Name	Emma Mason
	(for de Witt Consulting)
Date	24 September 2021

EXECUTIVE SUMMARY

This Environmental Impact Statement has been prepared for Newcastle Jockey Club to accompany a development application for the development of a new horse stables complex. The location for the new development is 125 Chatham Street, Broadmeadow NSW 2922 (Lot 13 DP227704, Lot 82 DP1138209 and Lot 14 DP227704).

Construction will be staged to ensure training and racing facilities continue to operate throughout the construction phase. When complete, the complex will stable up to 520 horses.

Project Summary

This document provides an overview of the site and proposed development and establishes the statutory context for the application. The development application relates to the demolition of an existing equine pool, workshops, sheds and former tie up stalls. The development application involves construction of new buildings and facilities including:

- Seven x two storey stable blocks capable of accommodating up to 520 horses
- Horse walkers
- New equine pool
- Wash bays, sand roll bays and storage bays
- Dedicated waste storage facility
- Materials and equipment sheds
- Administration office
- Driveways and parking
- Associated ramps, stormwater detention basins, landscaping and fencing.

Associated works include:

- Limited tree removal
- Environmental works such as erosion and sediment control
- Earthworks and drainage
- Car parks, loading and unloading areas
- Lighting
- Provision of services and utilities.

Traffic and Transport

The proposed development includes dedicated loading/unloading zones for vehicles relating to the maintenance of NJC facilities, a separate equine and goods drop off / pick up zone and formalised off-street parking for 94 staff and visitor vehicles. The proposal has been designed to accommodate a range of vehicle types including semi-trailers, medium rigid vehicles, car/ute and trailer, horse floats and light vehicles. The proposal is estimated to generate a total of 156 light vehicle or vehicle / float movements (78 inbound/78 outbound) per day and 20 heavy vehicle movements (10 inbound/10 outbound) a day. The traffic movements associated with the proposal are able to be accommodated on the local roads in a similar manner to the existing situation with minimal impact to the operation of the Chatham Street/Darling Street intersection.

Soils, Geology and Contamination

Soils and Geology

Conditions at site generally comprise of topsoil and sandy silt or fill (silty sand, gravelly silty sand, clayey gravelly sand) and alluvium. Slow groundwater inflows were observed at depths of approximately 2.40m beneath existing ground level at four borehole locations. No other groundwater levels or inflows were observed in the remaining boreholes during field work. It is noted that groundwater conditions can vary due to rainfall and other influences including regional groundwater flow, temperature, permeability, recharge areas, surface condition, and subsoil drainage.

It is anticipated that weathered rock materials are unlikely to be encountered within 2.80m of existing surface level, and soils could be excavated by conventional excavator or equivalent at least to the depths indicated on the appended borehole logs.

Field screening and laboratory testing indicate that Acid Sulfate Soils are present in some of the soils below 1.6m to 2.3m below ground surface. Acid Sulfate Soils are not considered to be present in the soils above 1.6m, based on field observations and results of the field screening. Based on the results of the assessment, an Acid Sulfate Soils Management Plan would be required if excavations below 1.5m are proposed.

Where possible, excavated material will be reused within the site. Construction has potential to result in erosion and subsequent loss of topsoil. Excess soil will be managed to ensure it is not lost into adjacent land or waterways via the stormwater system. A designated stockpile location will be nominated at the construction compound and a range of erosion and sediment control measures are proposed including installation of sediment basins, grassing and stabilisation of embankments and scour protection at discharge locations.

Contamination

A desktop and site history assessment carried out in relation to the site identified four areas of environmental concern, relating to hazardous materials in current and former buildings; imported fill materials, storage of pesticides, fuels and oils; and application of fertilisers and pesticides. The risk of soil contamination being present was assessed to be low to medium.

The field investigations identified fill across the site to depths between 0.0m bgs and 1.0m bgs. The fill was relatively consistent across the site, comprising of soils mixed with coal chitter, with the exception of surface soils which varied depending on location (i.e. gravel in roads and carparks, and topsoil in grassed areas).

Further sampling and analysis targeted the areas of concern. The results showed concentrations below the adopted environmental criteria, with the exception of zinc which was above the environmental investigation level in one sample located in a grassed “median strip” in the horse loading and unloading area, which is asphalt paved. Based on this, the extent of the elevated zinc concentrations was considered small and localised.

Groundwater is unlikely to be contaminated by site activities, based on the following: the soil assessment did not identify gross or widespread contamination; the contamination identified comprised localised impacts of metals in surface soils; and, groundwater inflows were observed beneath sandy clay alluvial soils. The clayey subsoils would inhibit migration of contamination from surface soils or fill materials, to groundwater. Therefore, further investigation or remediation is not warranted.

Water Quality and Flooding

A stormwater management strategy developed for the proposal involves a mix of retention, reuse and treatment using rainwater tanks, existing detention basins/dams on site and new bioretention basins, infiltration trenches and raingardens. Gross pollutant traps are utilised for water quality management. Stormwater overflow will be directed to Chatham Street and Darling Street, and to the existing drainage system on the site, which is then directed towards the dam in the idle of the race track.

The site is identified as flood prone land. All occupiable rooms within the stables complex have been designed with a floor level above the minimum habitable floor level of RL 6.85m AHD specified for the

site. Onsite flood refuge in a probable maximum flood (PMF) event is already available on the site at the grandstands and buildings located directly east of the proposed development area. In addition, the proposed stables complex comprises two-storey construction with an extensive elevated concourse and elevated stables. Access to the elevated concourse is via stairs and ramps that are shown on the architectural drawings. Subsequently, the existing NJC facilities (grandstands and buildings to the east), and the proposed elevated stables and concourse, provide sufficient flood refuge for the development.

The maximum possible displaced flood storage extent from the proposed development is approximately 0.75ha, which is 1.6% of the overall property area, and which is significantly less than the maximum permitted 20% as per City of Newcastle's requirements. The proposal will not have detrimental impact on flood risk to the site or adjoining properties.

Air Quality

Emissions from a stabling facility will vary according with the quantities of horse manure and stable bedding waste generated from the stabling area each week. Operation of the stables complex has the potential to result in additional odour impacts. From an environmental perspective, emissions to atmosphere from horse racing and training are typically associated with odour and particulates (i.e. dust). In general terms, the most significant source of odour associated with a horse stable is associated with the management of liquid and solid wastes, including urine, faecal matter, and stable bedding waste (comprising straw, wood shavings and horse wastes).

The potential impacts associated with operational activities including the management of solid and liquid stable wastes, horse foodstuffs and animal sweat, the movement of horses from the stables to the track, training, thoroughbred racing and training have been assessed using a risk-assessment approach.

The risk assessment found there to be a high risk of potential odour emissions generated from solid and liquid stable wastes, and a number of required mitigation methods have been determined, including recommendations for air pollution control to manage emissions of dust and odour.

As discussed within this report, the proposal will manage dust and odour using lidded, non-vented "mega bins". In addition, the separation distance between residences and the source of any generated and stored waste will be far greater under the proposed development than it is currently, with the residences positioned on the opposite side of the road to the development, and the waste store and stables themselves will set well back from the boundary and protected by enclosed structures. These factors considered together would result in a far greater odour performance than is currently experienced.

Mitigation measures are presented within the report to ensure the proposed development does not give rise to significant air quality and odour impacts during the construction and operational phases associated with the development.

Noise

Predicted noise impacts from a range of construction and operational activities during all time periods at nearest receivers (including the school and residences to the north-west, west and south) indicate that noise controls are required in order to achieve compliance with relevant criteria. Construction and operation of the stable complex has the potential to generate noise impacts. Noise associated with site activities and equipment will generally be compliant providing the recommended acoustic treatments are implemented.

Flora and Fauna and Bushfire

Based on the proposed development footprint a number of trees will require removal. Removal of trees has limited potential to impact on threatened flora and fauna and their habitats. Replacement planting and extensive landscaping has potential to improve biodiversity on site. Two trees identified for removal contain hollows which provides potential nesting / breeding habitat for a range of fauna species. One tree within the study area is *Eucalyptus scoparia* (Wallangarra White Gum), which is listed as Endangered under the BC Act and Vulnerable under the EPBC Act. This tree is proposed for retainment consistent with the application documentation and should remain unaffected by this proposal.

Although microbat use of buildings proposed for demolition was not recorded during site surveys, there is still potential that microbats may be present at the time of demolition. The proposal includes substantial landscaping using native flora species, where practicable, including areas along the Chatham Street frontage. This may assist in providing some marginal potential habitat for fauna species which may frequent the area, chiefly for foraging purposes. Due to the disturbed nature of the study area and lack of significant connective vegetation through the surrounding landscape, the proposal is not considered to contribute to a loss of habitat connectivity of remnant vegetation or communities or fragment the movement of threatened species across their range.

The proposal is not expected to cause significant alteration to existing natural water bodies or hydrological processes that sustain threatened species or Threatened Ecological Communities

Heritage - Aboriginal

The project area potentially overlies Aboriginal campsites due to its location adjacent to historic swamps, which are common resource areas for Aboriginal people. The depth of impact for proposed footings is approximately 600mm and thus has the potential to impact natural ground surfaces on which Aboriginal campsites are likely. The mitigation of harm to Aboriginal cultural values requires conducting an archaeological test excavation and salvage. The archaeological test and salvage excavation is to occur post-project approval, but before natural soil layers are disturbed. The timing of the archaeological testing and salvage post-approval is designed to ensure the areas of impact are targeted and that impediments to investigation (current buildings and pavements) are removed.

Heritage – Non-Aboriginal

The site is identified as an item of local heritage significance. The site has a deep historical connection through the existing racecourse site operating for 115 years and the various developments that have occurred on site throughout the years. The development footprint does not impact items of heritage value. An octagonal horse trough located within the development footprint has been identified as being worthy of retaining and will be relocated on site.

Visual

The proposed development will alter the current visual environment through the improvement of an existing use of the site. Additional built form, landscaping, fencing and parking will alter the streetscape when viewed from nearby development including the high school north-west of the site and residential development west and south of the site. When approaching the site from the northern or southern end of Chatham Street, or from the east or west of Darling Street, there will be a notable difference between the pre and post-developed site conditions.

Generous setbacks from the Chatham and Darling Street frontages and the extensive use of landscaping - both within the site boundaries and in the public domain in the form of street trees - has the potential to generate positive visual impacts.

The development is architecturally designed to meet the functional needs of the horses, trainers, and other staff that will utilise the facility, and ensure the development makes a positive contribution to the built environment.

Social

The proposal has potential to generate employment across a range of related roles including trainers, stable hands, track riders, farriers, fodder suppliers, float operators, maintenance and track / ground staff and veterinary staff. Approximately 186 new jobs will be created (152 new jobs on site, plus 34 new jobs offsite such as suppliers / logistics / floats etc) as a result of the proposed development at the operational phase. Approximately 250 jobs will be created at the construction phase.

Traffic, noise, air quality and odour are impacts of concern raised at the community consultation session held on 26 June 2021. This report focuses on measures to mitigate potential impacts to surrounding residents and stakeholders arising from the proposed development.

Accessibility

The proposed development has been designed to comply with the National Construction Code / Building Code of Australia 2016. The development intends to be accessible for people with a disability.

Economic

The development has potential to generate a significant uplift in economic activity associated with training and racing facilities in the Hunter region. Construction activity and expenditure will also have a positive impact on other parts of the NSW economy. The first source of this impact is the expenditure of trainers and construction contractors which goes to suppliers outside the region. The second is expenditure by owners and trainers in other regions – on items such as agistment, travel, accommodation and insurance which may be consumed outside the Newcastle/Hunter region.

Waste Management

Waste management during the operational phase has been carefully considered in the design of the facility. The maximum quantities of waste produced and the consequent frequency of cleaning (to industry standard of twice per day), storage and removal of same – are based on quantities identified in NJC's Management Plan. Waste management measures include the storage and transportation of waste in sealed and lidded 'mega' bins. Once the waste has been placed in the 'mega' bins, the full bins are then moved by NJC staff with forklifts on a daily basis to the dedicated Removal Store for collection by private contractor. At maximum capacity there will be 2 x removal activities per day during business hours (Monday to Saturday) via a 45ft articulated semi-trailer. A maximum of 80 x full waste bins will be removed per truck (once bedding bins have been unloaded to the Supply Store). The truck leaves site to reuse waste at an off-site facility. This will be managed by private contractor (to be appointed post-DA approval).

It is anticipated that there will be 3 x collections per week from the General Waste Bin Area. Waste will be collected on site.

Chemical and Fuel Storage

An assessment of the dangerous goods (DGs) stored and handled at the proposed development was conducted. The analysis identified that only two classes of DGs were subject to the application of State Environmental Planning Policy No.33 Hazardous and Offensive Development (SEPP 33); Class 3 flammable liquid and Class 6.1 toxic substances. The quantity of each of the DGs proposed for storage at the site is below the maximum permissible threshold levels listed in SEPP 33 and accordingly a preliminary Hazard Analysis is not required. Dangerous goods will be appropriately and securely stored within in a dedicated storage area.

Matters of National Environmental Significance

The Matters of National Environmental Significance listed under the Environmental Protection and Biodiversity Conservation Act 1999 are not considered to be impacted and referral of the proposed development to the Minister for the Environment and Energy will not be required.

Conclusion and Justification

The proposed stables complex seeks to improve the capacity and quality of existing stabling and training facilities at Newcastle Jockey Club. The proposal will meet industry best practice standards and thereby improve animal welfare and occupational health and safety of staff. The proposal has the potential to improve environmental conditions through increased water and energy efficiencies and better waste management. Potential environmental impacts such as noise, air quality, heritage (Aboriginal and non-Aboriginal), traffic and tree removal have been identified and appropriate mitigation measures proposed.

The facility is likely to generate direct and indirect benefits at both the construction and operational phases. Employment opportunities will be generated by the development. Flow on effects associated with the overall strengthening of the thoroughbred racing industry in the Hunter region will support further creation of jobs in the economy.

1. INTRODUCTION

1.1 OVERVIEW OF THE PROPOSAL

This Environmental Impact Statement (EIS) has been prepared for Newcastle Jockey Club (NJC) c/- Avid Project Management to accompany a development application (DA) for a new horse stables complex. The proposed development is ancillary to a recreation facility (major) and has a Capital Investment Value (CIV) of more than $30 million.

Detailed architectural plans and supporting documents are summarised in this EIS to describe the proposed development, associated infrastructure and the intended use. The EIS has been prepared to address matters referred to in Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), matters required to be addressed as outlined in the Environmental Planning and Assessment Regulation 2000 and the Department of Planning and Environment Secretary's Environmental Assessment Requirements (SEARs) issued 8 February 2021 (**Appendix 1**).

The purpose of this EIS is to:

- Describe the land to which the proposal relates and the character of the surrounding area
- Describe the proposed activity
- Define the statutory framework within which the proposal is to be assessed
- Determine environmental impacts of the proposed development
- Provide environmental mitigation measures to manage potential environmental impacts.

1.2 LOCATION AND CONTEXT

The subject land is known as 125 Chatham Street, Broadmeadow, NSW, 2292 (Lots 13 – 14 DP227704, Lots 81-82 DP1138209 and Lots 6-12 DP227704). However, the proposed new stables complex is only located over Lots 13 - 14 DP227704 and Lot 82 DP1138209) (herein referred to as the site). The site location is shown in *Figure 1* below.

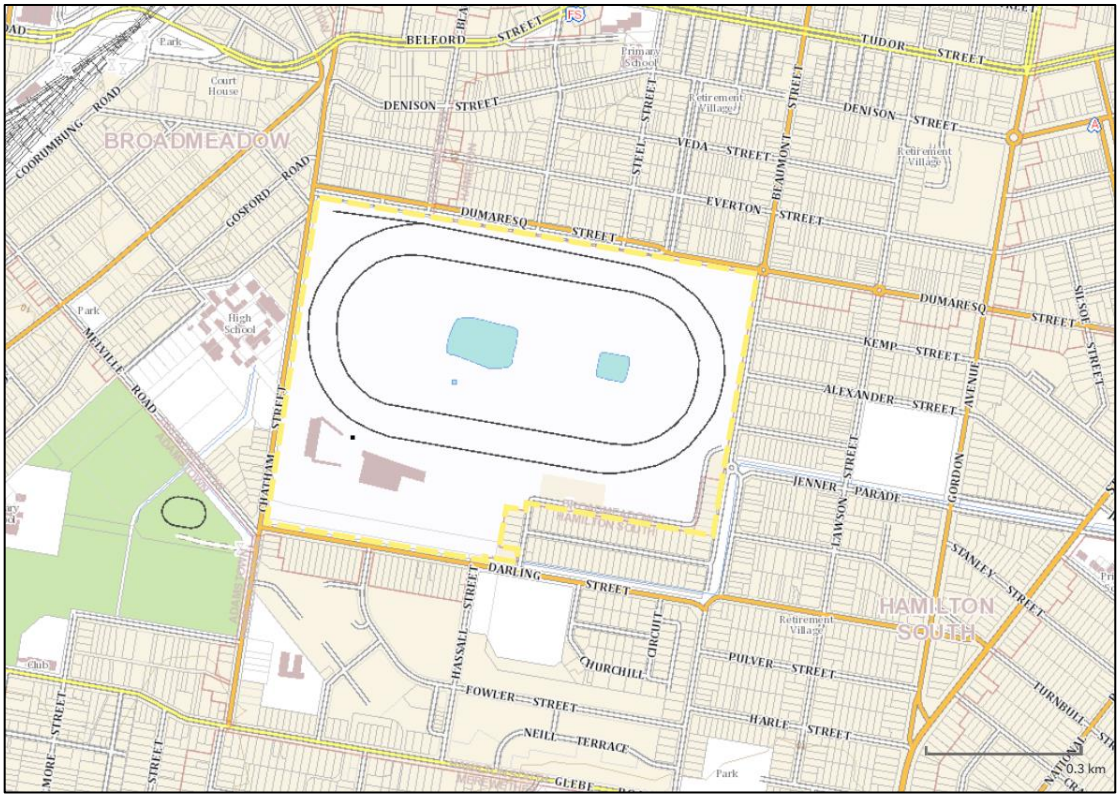


Figure 1: Location Plan (source: planningportal.nsw.gov.au)

The development footprint comprises an area of approximately 2.55 hectares (ha) within the southwest portion of the site, adjacent to the corner of Chatham Street and Darling Street.

1.3 NEWCASTLE JOCKEY CLUB

NJC is the applicant for the proposed development. NJC is a focal point for the Hunter Valley's thoroughbred industry, providing both racing and training facilities including tracks, equine pool, horse walkers and on-site stables. The existing stables are used by thoroughbred trainers from around the Hunter Valley who base all or part of their operations on the site.

The facility also supports arguably one of the best racetracks in Australia, a members grandstand and public grandstands, hospitality infrastructure and restaurant, two large event marquees, administration facilities, formal and informal parking for visitors and members, as well as day stalls and float parking.

1.4 APPROVALS PATHWAY

Clause 13(1)(e) of Schedule 1 of State Environmental Planning Policy (SEPP) (State and Regional Development) 2011 identifies recreation facilities (major) with a capital investment value of more than $30 million as State Significant Development (SSD).

The proposed development is ancillary to the existing recreation facility (major) with a capital investment value that exceeds $30 million and as such is identified as SSD under the SEPP.

1.5 NEED FOR THE PROPOSAL

The existing stables are nearing the end of their lifespan, and NJC has identified a critical requirement to upgrade the facility to industry best practice, as well as increasing the stabling capacity to up to 520 horses. NJC has identified the corner of Darling and Chatham Streets as the ideal location for the new stables complex, which is the location of the former race day tie-up stalls and importantly, is adjacent to the track crossing which affords ready access to the training facilities for the horses.

The existing on-site stables cater for approximately 230 horses. Recently improved and expanded training and racing facilities at NJC has increased the training capacity from 310 horses to 520 horses (although a maximum of 375 horses are expected to use the track on any one day), as such the existing stabling facilities are inadequate to provide this occupancy and hence rely upon horses being delivered by horse float ('floated') to the facility. On-site stabling within a modern, purpose-built facility will represent a significant improvement for health, comfort and safety of thoroughbreds, trainers and support staff. The design seeks to provide a high level of thermal comfort and natural ventilation through passive means, improved opportunity for water capture and reuse, solar power utilisation, improved waste management, occupational health and safety enhancements and reduced dependence on road transportation.

The project is expected to generate a number of direct and indirect employment opportunities and stimulate investment in the thoroughbred racing industry.

1.6 PROJECT OBJECTIVES

The proposed development relates to the development of new horse stables and training facilities to serve the existing racecourse on the site including the following:

- Demolition of existing equine pool, former tie up stalls, workshops and associated items
- Seven x two storey stable blocks capable of accommodating up to 520 horses
- Horse walkers
- Equine pool
- Wash bays, sand roll bays and storage bays
- Storage and equipment sheds
- Administration office
- Driveways and parking
- Associated ramps, stormwater detention basins, waste storage, landscaping and fencing.

The objectives of the proposal are to:

- Provide accommodation for thoroughbreds that meets and exceeds best practice guidelines for animal welfare
- Generate employment across a range of related roles including trainers, stable hands, strappers, trackwork jockeys, farriers, fodder suppliers, float operators, maintenance and track / ground staff and veterinary staff
- Improve occupational health and safety conditions for trainers and staff
- Establish NJC as the premier provincial racing and training centre and generate positive impacts for the wider equine industry throughout the Hunter region.

1.7 ALTERNATIVES CONSIDERED

Various options have been considered with the aim of ensuring current and future stabling needs of NJC are met.

Four options were considered as follows:

1. Develop a new stables complex as proposed
2. Redevelop existing stables
3. Different stable capacity
4. Do not proceed.

Option 1 involves developing the stables complex as proposed. NJC currently owns the site and has developed plans based on likely future growth of the industry. The stables and associated facilities are proposed to meet ongoing needs of the thoroughbred racing industry and to meet and exceed best practice standards for stabling of horses.

Option 2 involves redevelopment of existing stables at their current location. Option 2 has potential to impact on the environment in a number of ways including additional impacts to residences located in very close proximity of the current stables. While this option facilitates ongoing use of the site for its current purpose it would require substantial demolition and reconstruction and therefore not provide efficiencies in using existing infrastructure and buildings. The existing stables are considerable distance from "the crossing" (the point which horses enter the track for training) resulting in the need to float horses to the crossing. This results in inefficiencies and acoustic impacts associated with floating horses to the crossing. The current stables location does not provide sufficient area to accommodate the required capacity. Finally, Option 2 would require training to cease during redevelopment; to the detriment of NJC. Therefore, Option 2 is not the preferred option.

Option 3 involves constructing a stables complex in the proposed location but at a lesser capacity. The stables size and capacity has been selected based on future demand and to maximise efficiency in the use of land and resources. A lesser capacity would not meet the needs of the thoroughbred industry. Therefore, Option 3 is not the preferred option.

Option 4 involves not proceeding with the proposed development. The thoroughbred industry continues to expand and the current facilities do not meet the capacity requirements or the current best practice guidelines for animal welfare. Therefore, Option 4 is not the preferred option.

Option 1 is preferred and is considered throughout this EIS as it will facilitate the development of the stables complex and associated facilities to meet future needs of the thoroughbred racing industry. The location of the proposed development provides for a positive outcome from Option 1, provided the environmental management measures of this EIS are adopted.

1.8 STRUCTURE OF THE EIS

- Section 2 presents the site, its attributes and location
- Section 3 presents a summary of the proposed development
- Section 4 presents the statutory context
- Section 5 outlines consultation with agencies and the community
- Section 6 provides an environmental assessment of the proposed development and likely impact on the environment
- Section 7 provides consideration of matters of national environmental significance
- Section 8 provides a list of approvals and licences that may be required
- Section 9 provides consideration of Clause 228 factors
- Section 10 provides a compilation of environmental management measures
- Section 11 provides a conclusion and justification for the proposed development
- Section 12 lists references.

2. SITE AND SURROUNDING AREA

2.1 LOCATION

The site is identified as 125 Chatham Street, Broadmeadow, NSW (Lots 13 and 14 DP227704, Lots 81 and 82 DP1138209 and Lots 6-12 DP227704). The location is shown in *Figure 2*. The site is bounded by Dumaresq Street to the north, Beaumont Street to the east, Darling Street and Lowe Street to the south and Chatham Street to the west (refer to *Figure 1*). Newcastle CBD is approximately 4 kilometres (km) to the east and Newcastle Transport Interchange is approximately 1.5km to the northeast.

The site of the proposed development contains an existing equine pool, former tie up stalls, driveways, float parking and landscaping, all of which will be demolished to accommodate the development. A large portion of the site is not developed, used as informal overflow parking during race day events. The site of NJC is shown on the in the aerial photo in *Figure 2* below

Figure 2: Aerial Photo (source: planningportal.nsw.gov.au)

2.2 SITE AREA

The overall site has an area of approximately 48.33ha. The proposed development area is approximately 2.55ha. The development area is shown in *Figure 3.* The development area in the site context and proposed activity precincts are shown in *Figure 4*.

Figure 3: Development area within site context (source: Extract from concept plans prepared by EJE)

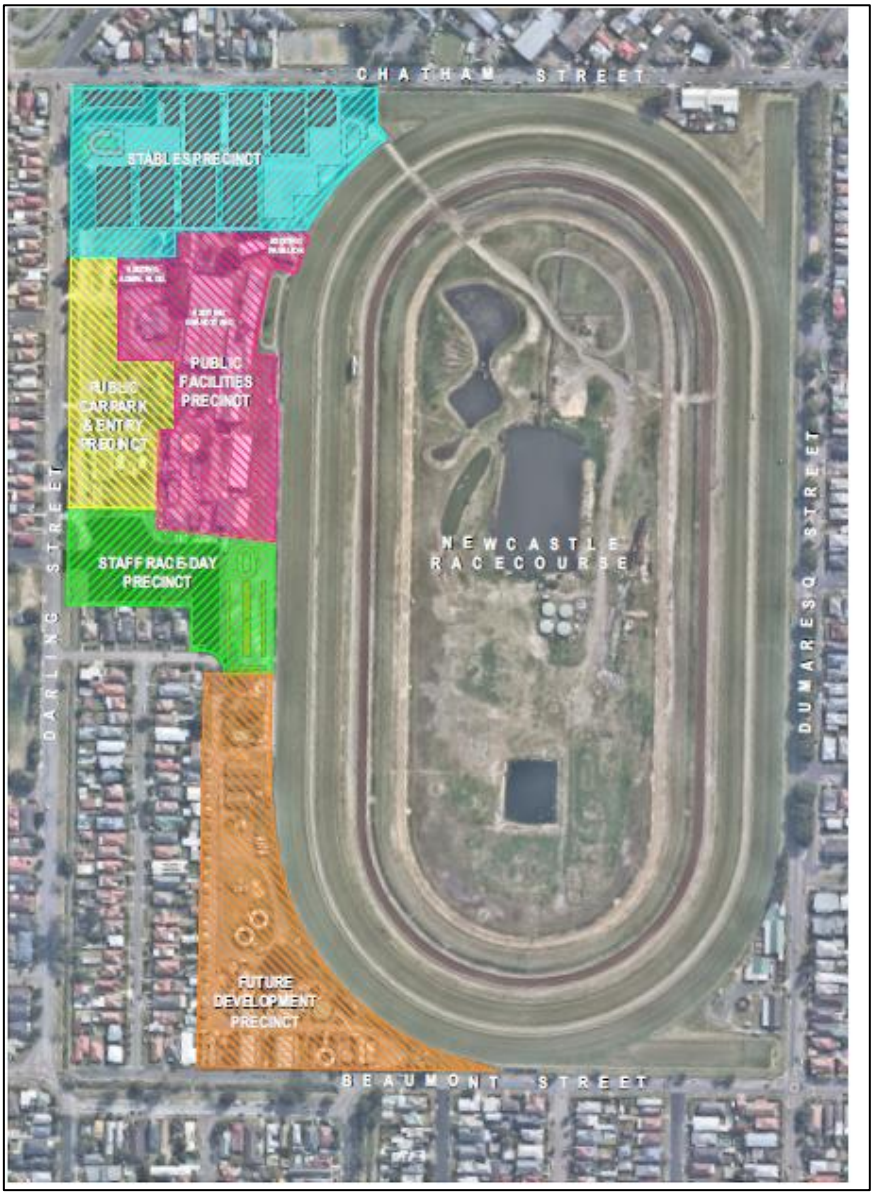


Figure 4: Precinct plan (source: Extract from concept plans prepared by EJE)

2.3 PHYSICAL FEATURES

2.3.1 Existing Improvements

The site supports a number of structures, landscaping and fencing associated with the site's use as a recreation facility (major)/thoroughbred racing and training facility. The following improvements are located within the development area:

- Track and ground maintenance workshop
- Equine pool
- Brick race day tie-up stalls
- Warm-up ring
- Track supervisor's office
- Observation tower
- Fencing
- Landscaping

- Driveways and parking (both formalised and informal areas).

Existing improvements are shown the photos below.

Photo 1: Brick tie-up stalls

Photo 2: Brick tie-up stalls

Photo 3: Brick tie up-stalls (west facing)

Photo 4: Equine pool

Photo 5: Maintenance shed adjacent Chatham Street

Photo 6: Track supervisor's office

Photo 7: Boundary fencing along Chatham Street

Photo 8: Observation tower

2.3.2 Topography

Surface levels on the site are generally in the order of RL6.0m to RL6.5m AHD. The site topography has been modified over time to facilitate the racetrack and other site improvements. The southern half of the development area is generally flat with the exception of a raised area surrounding the existing equine pool. The northern section is also generally flat; a gentle gradient from east to west enables the site to drain via overland flow to Chatham Street.

Photo 9: Site area showing minimal change in gradient

Photo 10: Minimal gradient changes with the exception of mounding around existing equine pool (behind fence)

2.3.3 Geotechnical

Subsurface conditions at site include alluvium (sandy clay / clayey sand), Aalluvium (sand) topsoil, and fill. The site is located in an area with a 'low probability' of acid sulfate soils (ASS) greater than 3m below ground surface (bgs). Field screening and laboratory testing indicates that ASS are present in some of the soils below 1.6m to 2.3m bgs. ASS are not considered to be present in the soils above 1.6m. Slow groundwater inflows were observed at depths of approximately 2.40m.

Fill material occurs across the site to depths between 0.0m bgs and 1.0m bgs and comprises of soils mixed with coal chitter, with the exception of surface soils which varies depending on location (i.e. gravel in roads and carparks, and topsoil in grassed areas). A desktop and site history assessment identified four Areas of Environmental Concern (AECs) and Chemicals of Potential Concern (CoPC), relating to hazardous materials in current and former buildings; imported fill materials, storage of pesticides, fuels and oils; and application of fertilisers and pesticides.

Sampling and analysis of soils on site targeted the AECs and COPC identified. The results showed concentrations below the adopted criteria, taking into account the 95% Upper Confidence Limits (UCL)

calculations, with the exception of zinc above the EIL in sample BH15 0.0-0.1m. BH15 was located in a grassed "median strip" in the horse loading and unloading area, which is asphalt paved. Based on this, the extent of the elevated zinc concentrations was considered small and localised. Therefore, it is considered that further investigation or remediation is not warranted.

2.3.4 Flooding

The site is situated in an approximately flat alluvial floodplain area, which drains through the stormwater system connected to Darling Street and Chatham Street. A Flood Information Certificate issued by City of Newcastle (CoN) in May 2019 (and more recently confirmed by CoN to be suitable for use in relation to the proposed development), indicates that no part of the site is affected by a floodway and part of the site is affected by a flood storage area (refer to *Figure 5*). The Estimated 1% Annual Exceedance Probability (AEP) event level (equivalent to the "*Defined Flood Level*" in the Building Code of Australia) is 6.35m AHD in the north west and south west corners of the site. The estimated maximum flow velocity of floodwaters for the site (in the "*Defined Flood Event*" as per the Building Code of Australia) is 0.8m/s. The highest property flood category for the site is P2 (parked or moving heavy vehicles remain stable) and the highest life hazard category is L4 (H3) (short duration flash flooding with no warning time and enclosing waters during the PMF not suitable for wading or heavy vehicles). On site refuge is necessary and heavy frame construction or suitable structural reinforcement may be required.

The Estimated PMF Level is 7.3m AHD and the minimum floor level of occupiable rooms in a new development of the site is 6.85m AHD.

Figure 5: Flood Risk Map with green areas indicating Flood Fringe, orange indicating Flood Storage and red indicating Floodway (Source: CoN Flood Information Certificate FL2019/00101)

2.3.5 Vegetation and Trees

The site comprises of large cleared areas, with scattered remnant vegetation and established landscape planting. A number of trees have been planted around the existing equine pool and a small number of trees are located within the centre of the site and a small number of street trees are located along the Darling Street frontage in the vicinity of the development site. 21 trees are located within the study area, of which 16 are native and five are exotic (*Figure 6* and Photos 11-13). Three of these trees contain small-medium sized hollows which provide potential nesting breeding habitat for a range of fauna species. One tree is suspected to be *Eucalyptus scoparia* (Wallangarra White Gum), which is listed as Endangered under the *Biodiversity Conservation Act 2016* (BC Act) and Vulnerable under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act). This species is endemic to northern NSW and does not occur in the locality naturally. This species has been widely planted as a medium to large ornamental street tree throughout the broader region. This tree is located outside the proposed

development's impact area. The remaining trees observed within the study area offered only minor habitat value.

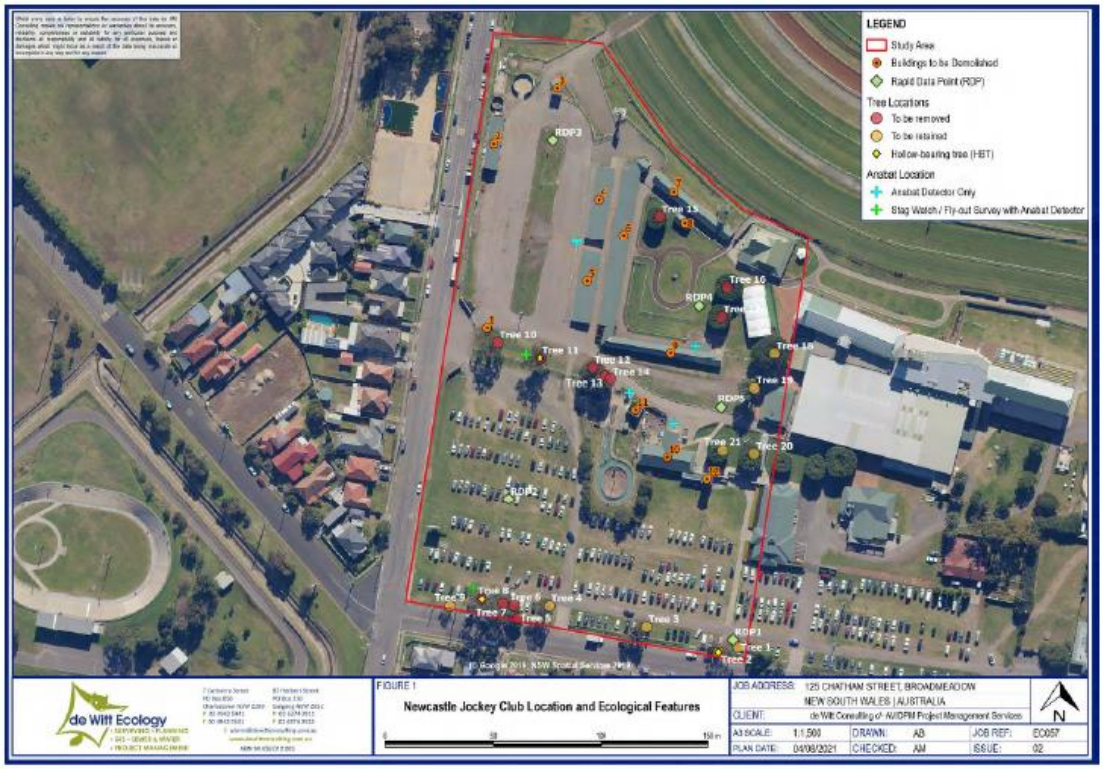


Figure 6: (Source: BDAR Waiver Report prepared by de Witt Ecology)

Photo 11: Planted landscape trees near existing brick tie up stalls

Photo 12: Native trees and street trees along Darling Street frontage (near corner of Chatham Street)

Photo 13: Native trees adjacent existing Chatham Street vehicle entrance

2.3.6 Traffic and Access

Traffic access to the development site is provided via Chatham Street and Darling Street. Track maintenance vehicles, delivery vehicles and horse transports will use the Chatham Street entrance. Light vehicles and horse floats will use the Darling Street entrance.

The northern Chatham Street access will be used by vehicles associated with racetrack maintenance. Vehicles will enter the site via an existing driveway crossing (widened to accommodate larger vehicles), load unload, manoeuvre on site and exit in a forward direction. The proposed southern Chatham Street driveway will be 'entry only' for service vehicles and horse transports associated with the stables complex. Vehicles will load/unload within the designated area and exit in a forward direction at the proposed western Darling Street driveway. The eastern Darling Street access will service the designated staff parking area via an existing upgraded driveway crossing.

Photo 14: Internal road and parking with access from Chatham Street

Photo 15: Existing access road linking the development area and the racecourse

Photo 16: Parking area for horse transports with access via Chatham Street

Photo 17: Darling Street access

Photo 18: Chatham Road access (north)

Photo 19: Development area currently used as overflow parking during race events

2.3.7 Bushfire Prone Land

The site is not considered bushfire prone land.

2.3.8 Coastal Zone

The site is not located within the coastal zone.

2.4 ABORIGINAL HERITAGE

The Awabakal and Worimi peoples are acknowledged as the traditional custodians of the land and waters of Newcastle. Traditionally, the area provided plentiful resources for the local Aboriginal people, with access to the coastal marine resources as well as the rivers, mountains, wetlands, forests and plains. Evidence of Aboriginal use can often be found in Aboriginal sites, indicated by surface artefact scatters, oven or hearth sites, rock art, shell middens, axe grinding grooves, scarred or carved trees, quarry sites, stone arrangements, burial sites, or natural sacred sites. The subject area may have been a potential place of resource use by past Aboriginal people, however a search of the Aboriginal Heritage Information Management System (AHIMS) for the subject area returned no records of Aboriginal sites in or near the subject area.

In addition to Aboriginal sites, objects are often found in association with particular landscape features that were used by Aboriginal people in their everyday lives and for traditional cultural activities. Examples of such landscape features are rock shelters, sand dunes, waterways, waterholes and wetlands. The project area could have contained useful floral and faunal resources and was located within close

proximity to an ephemeral source of fresh drinking water and a rich wetland environment. It was within a short distance of coastal, estuarine and riverine resources. Evidence of Aboriginal land use, such as stone artefacts, may occur in subsurface soils of the site not impacted by cut and fill activities associated with the creation of the racecourse.

2.5 NON-ABORIGINAL HERITAGE

The site is listed as a heritage item of local significance. It is identified in Newcastle Local Environmental Plan (LEP) 2012 as 'Broadmeadow Race Track'. According to the Newcastle City Wide Heritage Study 1996/97, NJC moved to the site in 1906 and purchased the land in 1911. The racecourse was then developed and the first grandstand was built in 1907 and a subsequent grandstand built in 1920. Other structures were erected over time and the racecourse was redeveloped in 1985 to include a new viewing area and conversion of timber stalls to brick. More recent improvements include track resurfacing and new race day tie up stalls. The proposal continues the ongoing improvement of facilities associated with the long-standing use of the site for horse racing.

2.6 MINE SUBSIDENCE

The site is located within a Mine Subsidence District.

2.7 SURROUNDING AREA

2.7.1 Land to the North

Immediately north of the development area is the course proper and training tracks. A childcare centre is located on NJC's land approximately 300m north of the development site, on the eastern side of Chatham Street. Further north, past Dumaresq Street, is established low to medium density residential development.

2.7.2 Land to the East

Immediately east of the development area is the racetrack entrance, administration building, grandstands, betting ring and the new, recently constructed, race day tie up stalls. Further east is the existing on-site stables complex, and established medium and low-density residential development.

2.7.3 Land to the West

West of the site is primarily low-density residential development comprising a mix of contemporary and older housing stock and a public recreation facility (tennis court). Dwellings fronting Chatham Street have direct views to the site. Further north along the western side of Chatham Street is Merewether High School, community facilities and residential development.

Photo 20: Residential development on the western side of Chatham Street

Photo 21: Merewether High School located on the western side of Chatham Street

2.7.4 Land to the South

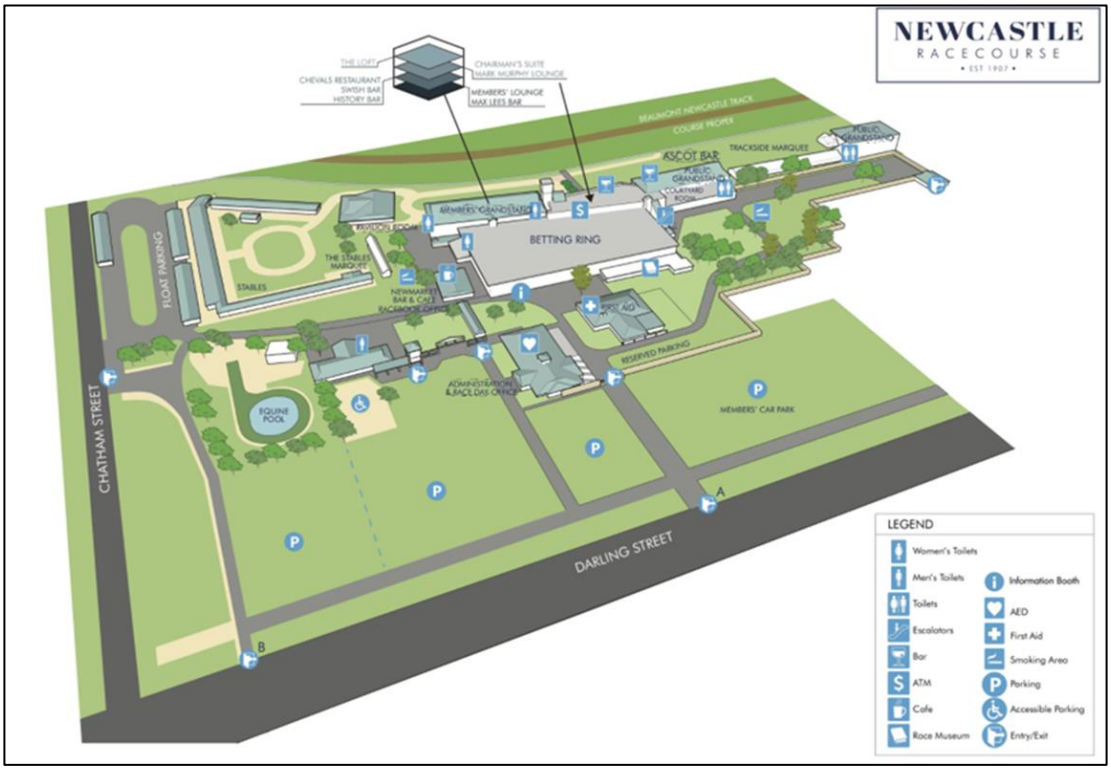
Low-density residential development characterises land use to the south.

Photo 22: Low density residential development on the southern side of Darling Street

Photo 23: Residential development on the southern side of Darling Street

2.8 EXISTING DEVELOPMENT

The development is part of Newcastle Racecourse, an existing recreation facility (major) owned and operated by NJC. It is a focal point for the Hunter Valley's thoroughbred industry, providing both racing and training facilities. Racing and training facilities include a quality racetrack (course proper), 'B' grass (Beaumont track), sand training track and synthetic training track (all of which have been recently upgraded), members grandstand and public grandstands, betting ring, hospitality infrastructure and restaurant, two large event marquees, administration facilities, formal and informal parking for visitors and members, as well as day stalls and float parking. Training facilities include training surfaces, equine pool,



horse walkers and on-site stables. Refer to the existing site layout plan in *Figure 7*.

Figure 7: *Site map (Source: Newcastle Jockey Club newcastleracecourse.com.au/racecourse-map/)*

A development application (DA2019/01082) was recently approved by CoN for new race day facilities including tie up stalls for 126 horses, wash bays, storage, vet facilities, warm up ring, parking and landscaping. The location and layout of the new race day facilities is shown in *Figure 8* and *Figure 9*. Construction of the facilities was recently completed. The race day tie up stalls are now in operation. The development consent and stamped architectural plans can be provided on request.

Figure 8: Location of recently completed race day facilities (Source: EJE Architecture)

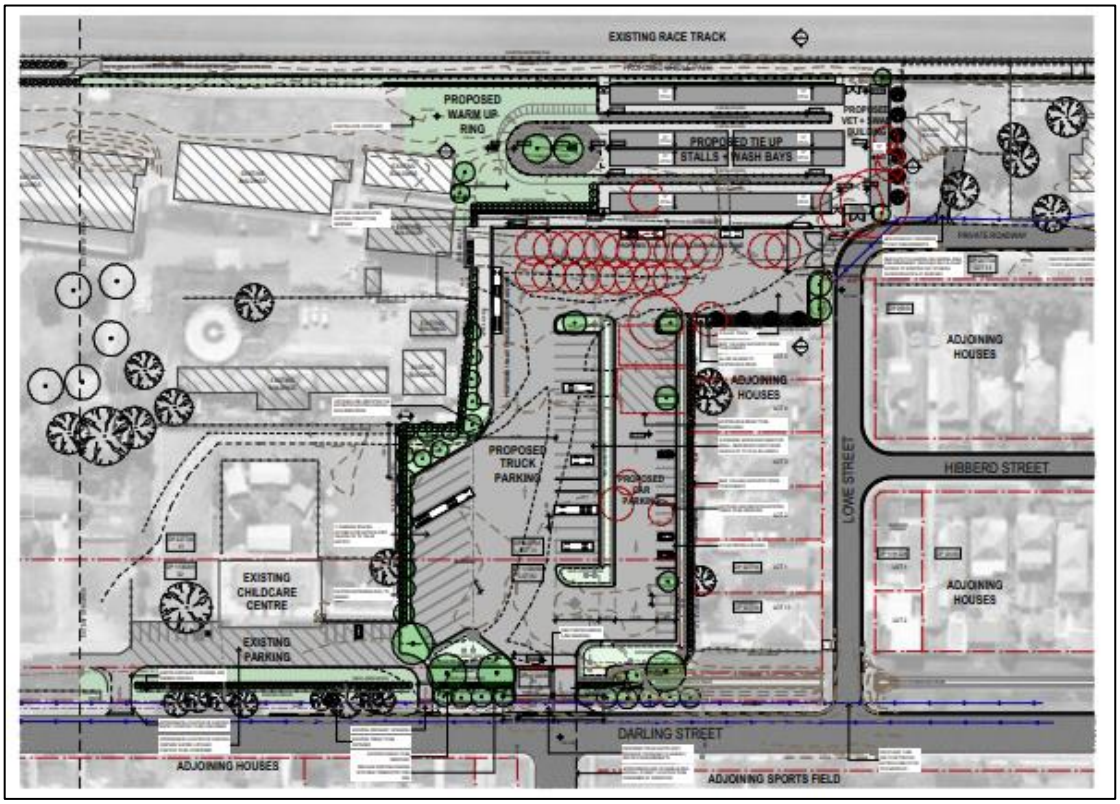


Figure 9: Layout of recently completed race day facilities (Source: EJE Architecture)

2.8.1 Existing Stables

The existing stables complex is located on the south-eastern corner of the site, immediately north of dwellings along Hibberd Street (refer to *Figures 10* and *11* below). The stables are accessed via Darling and Lowe Streets and cater for a maximum of 230 horses. The stables are at the end of their lifespan and are no longer fit for purpose in the following respects:

- The stables could be improved to better meet best practice standards for keeping of horses
- The stables could be improved to better meet industry best practice standards for safety of staff
- The stables could be improved to better meet expectations of thoroughbred owners and trainers
- The stables do not cater for the number of horses able to be trained at NJC following recent upgrades to the training facilities
- Improvements to waste material handling and water utilisation could result in improved environmental outcomes
- The quality of the stables is not commensurate with NJC's status as the premier racing and training facility in the Hunter region.

Photo 25: Existing Stables located on the south eastern corner of the NJC site

Figure 10: Location of existing stables (Source: ePlanning Spatial Viewer)

Figure 11: Detailed location plan – existing stables (Source: ePlanning Spatial Viewer)

A major limitation of the existing stables is the close proximity of stables to existing residences. Some stables are currently built to the southern boundary immediately adjoining a large number of residential properties.

2.8.2 Existing Training Capacity

Approximately 310 horses attend the existing training facility for trackwork. Of this total, around 230 horses attend morning trackwork on any given day. Up to 80 horses are transported to the training facility from off-site stables on any given day; the remaining horses attending training are those stabled on-site.

2.8.3 Management of Existing On-Site Stables

Trainers and their staff are responsible for the day-to-day upkeep of the stables as well as receiving and distributing deliveries such as bedding and feed. Currently, stables are mucked out (cleaned) twice per day (morning and afternoon) and soiled bedding material (waste) is stored on site prior to removal by a waste contractor several times per week.

2.8.4 Existing Hours of Operation

The existing stables operate seven days per week. On Mondays to Saturdays, trainers and stable hands arrive at the stables from 2:30am with the first horses at the track from 3:15am with training beginning at 3:30am. The track closes at 8:30am with staff leaving the stables between 8:30am-10am. As a general rule the bulk of training takes place between 5:00am-8:00am. The afternoon shift at the stables begins around 1:00pm and finishes at 5:00pm with times varying depending upon individual trainer's starting and finishing times. Training does not occur on Sundays however minimal stable hands are on site for feeding, mucking out stables etc.

2.8.5 Existing Staff Numbers

The existing stables and associated training activities are supported by approximately 66 stable hands / strappers (i.e. an average rate of 3.6 per horse); two NJC trackwork supervisors; 28 trackwork jockeys; and six trainers, resulting in an approximate total of 102 staff present for morning trackwork.

2.8.6 Existing Parking

Parking for the existing stables is provided throughout the stables area. Floats used to transport horses to the training facility are parked within the subject development area, closer to the track crossing. Parking is not formally delineated on site.

3. THE PROPOSAL

This EIS accompanies an application for a new stables complex at NJC. The proposal is to construct new stables and associated structures to further support the highly successful Newcastle and Hunter Valley thoroughbred racing industry. The project objectives are to provide accommodation for up to 520 horses, improve training facilities, significantly reduce vehicle movements associated with the transportation of horses to and from NJC from onsite and offsite stables, meet best practice standards for thoroughbred stabling and training, improve environmental and waste management measures and explore sustainable solar and water reuse opportunities at the site.

The proposed development will be located on the south-western corner of the site at the corner of Darling and Chatham Streets, which currently comprises a small number of structures including an equine pool and the former race day tie-up stalls.

3.1 PREPARATORY WORKS

3.1.1 Demolition

The development includes preparatory site works including the demolition of the following:

- The now redundant masonry block and timber race day tie-up stalls
- Warm up ring
- Existing equine pool and associated structures
- Grounds maintenance workshop
- Machinery sheds adjacent Chatham Street
- Driveways, hardstand, pathways and fencing
- Entry feature structure / gates to race day facilities
- Existing signage at the corner of Chatham and Darling Streets.

Demolition plans are provided in **Appendix 2**.

Structures proposed to be relocated include the existing trackwork supervisor's hut and observation tower (see **Appendix 2**). An existing octagonal horse trough currently located within the former warm-up ring is proposed to be re-located to the new tie up stalls and warm up ring.

3.1.2 Services and utilities installation

The development will require electrical, sewer, water and communications services. Specialist services engineers have been appointed to consider these connections, and the relevant authorities have been consulted as required (refer to Section 5 of this EIS). All relevant utilities and services will be provided at the site preparation stage. Water, sewer, and an electrical substation will be provided to the development area. A detailed overview of existing and proposed utilities infrastructure is provided in the Utilities Report in **Appendix 28** prepared in accordance with the SEARs.

3.1.3 Earthworks

Site preparation suitable for structures, pavement support and site re-grading will consist of:

- Following any bulk excavation to the proposed subgrade level, all areas of proposed structures, pavement construction or site re-grading should be stripped to remove all existing uncontrolled fill, vegetation, topsoil, root affected or other potentially deleterious materials;
- Stripping depths are expected to be variable due to variable depths of existing fill, with stripping of fill and topsoil generally expected to be in the range of about 0.20m to 1.00m based on the depths encountered within the boreholes;

- Following stripping, the exposed subgrade should be proof rolled (minimum 10 tonne static roller), to identify any wet or excessively deflecting material. Any such areas should be over excavated and backfilled with an approved select material;
- The moisture content of the subgrade materials and therefore the need for moisture conditioning or over-excavation and replacement, will be largely dependent on pre-existing and prevailing weather conditions at the time of construction;
- Protect the area after subgrade preparation to maintain moisture content as far as practicable. The placement of subbase gravel would normally provide adequate protection; and
- Site preparation should include provision of drainage and erosion control as required as well as sedimentation control measures.

It should be anticipated that some moisture conditioning of the subgrade may be necessary prior to compaction and placement of fill materials. The required time period to prepare the subgrade is likely to be dependent on the prevailing weather conditions at the time of construction.

If over wet subgrades exist at the time of construction or deleterious fill materials are encountered at subgrade level, these materials should be over-excavated and be replaced with a minimum depth of 250mm of well graded granular select material with CBR of 15% or greater. The requirement for, and extent of subgrade replacement / select filling, should be confirmed by the geotechnical engineer at the time of construction.

The suitability of fill for re-use is described in the Geotechnical Assessment (**Appendix 4**) and Preliminary Contamination Assessment (**Appendix 5**).

3.1.4 Erosion and Sediment Control

Erosion and sediment control measures will be installed at the site establishment phase and maintained throughout construction. Features of the construction phase erosion and sediment controls adopted for this site include:

- Prevention of sediment and polluted runoff water from being directed off the construction site;
- Control of actual and potential soil erosion – grassing and stabilization of embankments and drainage outlets where required;
- Stabilised stockpile areas adjacent to existing access roads on the site, to minimise site disturbance required for access to the stockpile areas during initial stages of construction;
- Scour protection at discharge locations, comprising combinations of geofabrics (jute mesh) and rock-filled mattresses;
- Stabilised site access to provide a firm base for vehicle entry/exit and to prevent the main access from becoming a source of sediment; and
- Sediment control measures are to be constructed prior to any other site disturbance works.

Erosion and Sediment Control Plans are provided in **Appendix 6**.

3.1.5 Tree Removal or Protection

Twelve trees will be removed, as well as shrubs and ground covers, to accommodate construction. Refer to *Figure 12* (note trees 17 and 19 in *Figure 12* will be retained) and **Appendix 7**. All trees within the site will be marked for removal or protection. Tree protection zone (TPZ) fencing will be erected around retained trees. These trees are on the western end of a group of five very mature figs and are a feature of the site and adjacent the Darling Street frontage. TPZ fencing will remain in place during construction and be regularly inspected by the project arborist. Tree removal works will be carried out by a suitably qualified arborist. During earthworks, any tree roots encountered within the works area need to be correctly terminated by the project Arborist. Correctly terminating a root will ensure that the tree roots do not suffer from decay. Installation of services in TPZs will be supervised by the project Arborist, with a certification letter required.

Figure 12: Detailed location plan – existing stables (Source: Advanced Tree Consulting)

3.2 PROPOSED STABLES COMPLEX

The proposed stables complex comprises of seven two storey stable blocks, horse walkers, goods storage, loading zones, equipment shed, parking, stormwater management measures, landscaping, and utilities as shown in **Appendix 2**, *Figure 13* and as described in further detail below.

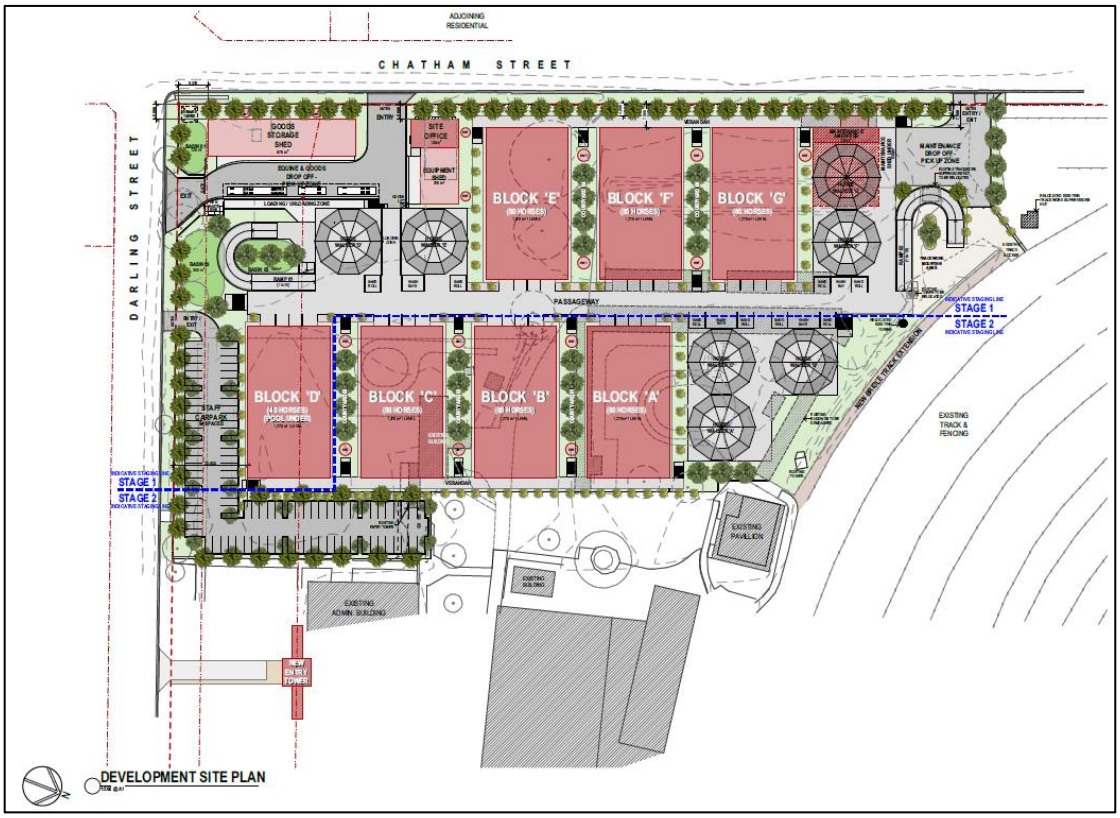


Figure 13: Site plan (Source: EJE Architecture)

3.2.1 Stables

Each level of Blocks A – G accommodates 40 stalls, wash bays, staff amenities, office, feed store, general storage / tack and laundry (Block D has stalls and associated facilities at the upper level only). The Blocks are connected by central concourses and separated by landscaped courtyards to improve shading, amenity and ventilation between buildings. The stalls have been designed in accordance with industry best practice for the welfare of the animals and the occupational health and safety of staff. A typical layout is shown in **Appendix 2** and *Figure 14*.

The stables are oriented east – west to maximize solar efficiency and to break up the building bulk when viewed from Chatham Street. Natural ventilation is achieved through windows and louvres and high level vents incorporated into the roof structure. The large setbacks to Chatham Street and Darling Street provide opportunity for deep soil landscape planting between the development and the public domain.

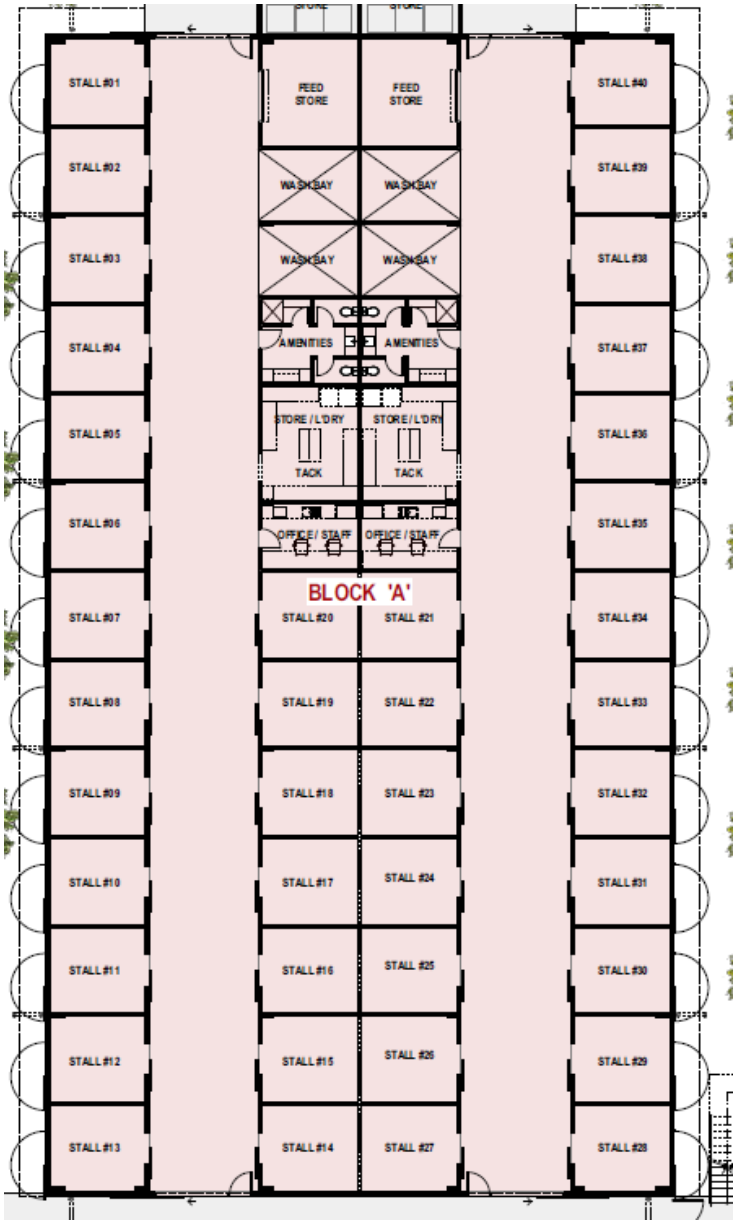


Figure 14: Typical stable first floor plan (Source: EJE Architecture)

Each stables block is approximately 26.280m x 48.640m and has a floor area of approximately 1,278m^2 per level. The height to the underside of the eaves is 8m. The maximum height of the stables block is 13m above natural ground level. Each stall within the block is accessed from the internal corridor by a sliding gate. Each of stalls 1-13 and 28-40 have an outward swinging louvre window on either the north or south external facade.

The main point of entry to the blocks is oriented towards the concourse. Access is provided via sliding gates. A separate doorway is provided for staff to enter and exit the block when not bringing horses in or out. Secondary access is located at the far end of each block.

Blocks E, F and G are setback 7.5m from Chatham Street (4m to the outer edge of the first floor verandah). Extensive landscaping is proposed within the 4m setback. The central concourse provides 6.6m separation between blocks. Landscaped courtyards provide 10m separation between blocks.

3.2.2 Equine Pool, Horse Walkers, Sand Roll and Wash Bays

Facilities associated with the training and stabling of horses include the indoor equine pool and 13 x 10-horse walkers. The equine pool is located at the ground floor of Bock D. Nine horse walkers are located south of the track and four are located east of the goods shed and equipment shed. The horse walkers are approximately 20.9m in diameter and are approximately 8.1m high.

The sand roll and wash bays are associated with the care and maintenance of the horses and are provided in multiple locations throughout the site. Sand rolls are typically 5.4m x 5.425m. Wash bays are typically 7.425m x 5.425m.

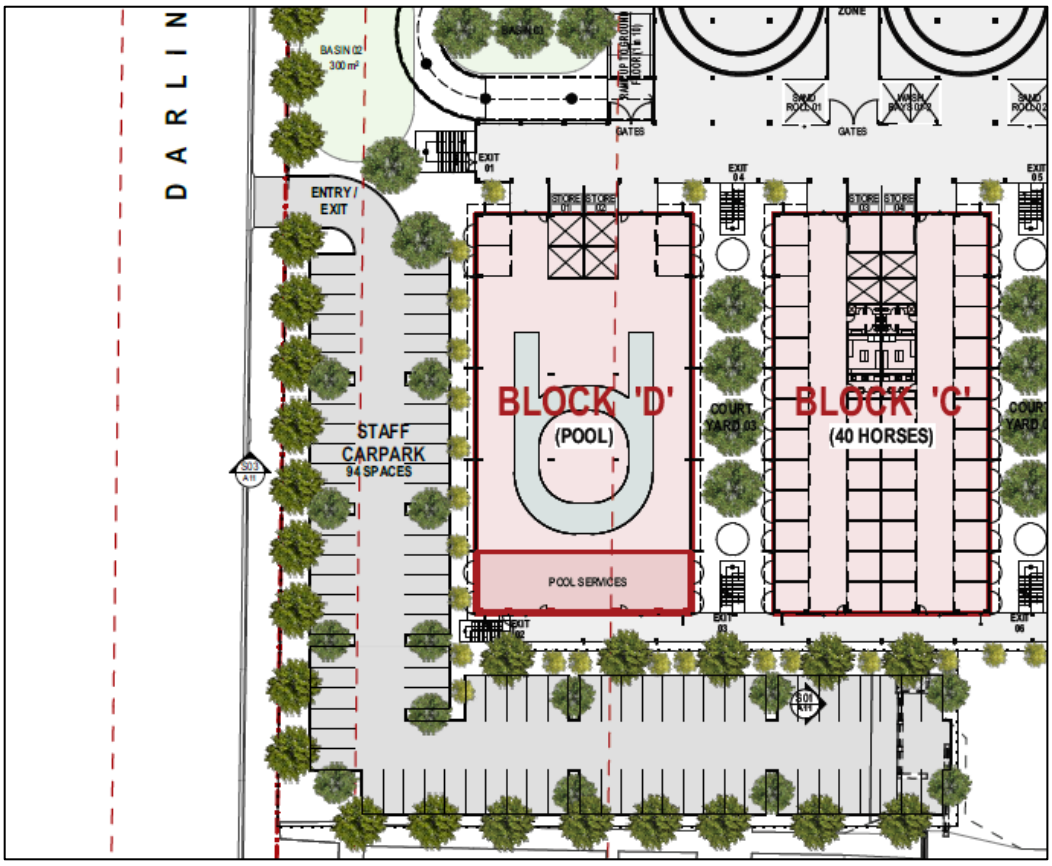


Figure 15: Equine pool (Source: EJE Architecture)

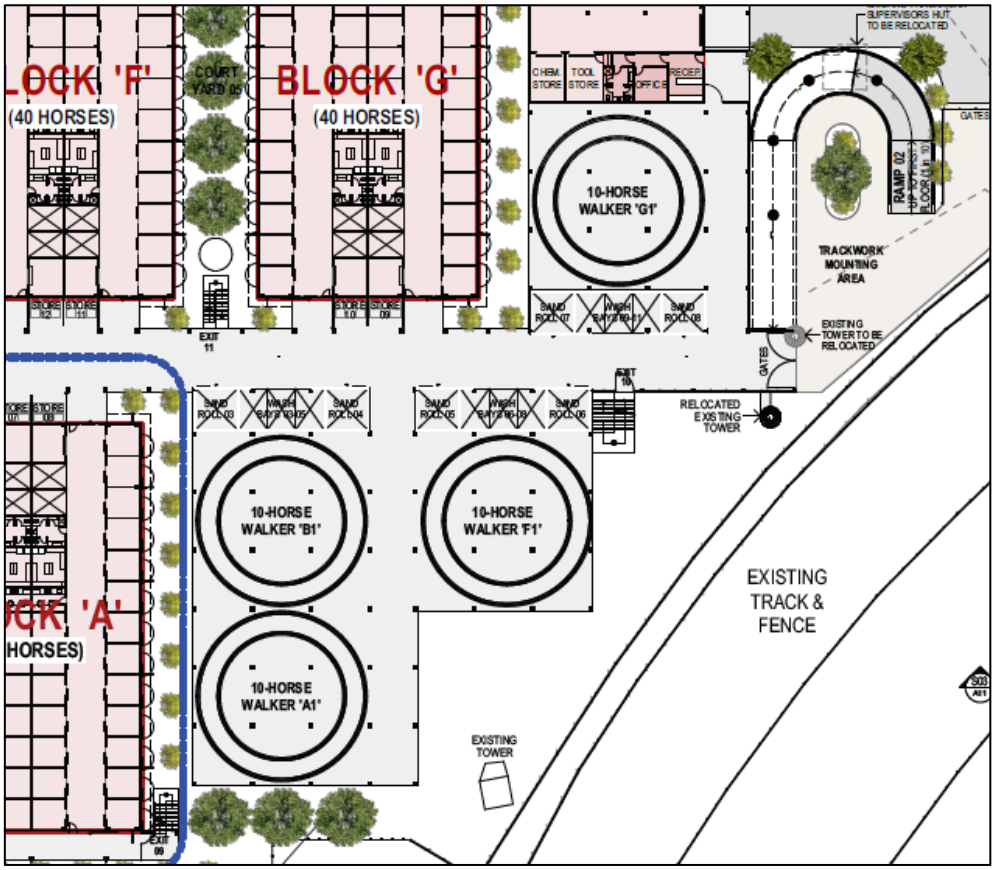


Figure 16: Horse walkers, sand rolls and wash bays (Source: EJE Architecture)

3.2.3 Goods Storage

A goods storage shed is proposed near the corner of Chatham Street and Darling Street (refer to *Figure 17*). Its purpose is to store feed and bedding material upon delivery at site, as well as used bedding and horse waste prior to removal from the site. The feed and bedding will be transported in purpose-designed bins, held in the supplies store, and distributed to the stables. Used material is also transported from the stalls in the same purpose-designed bins, and held in the removal store prior to collection. The stock store is for other consumables. Details of how materials are stored and managed at the facility are provided in the Management Plan in **Appendix 8** and Section 3.12 of this EIS.

The goods storage shed is 47.5m x 12m (570m^2). The height to the underside of the eaves is 8m. The goods storage shed is setback 5m from Chatham Street and 9.375m from Darling Street.

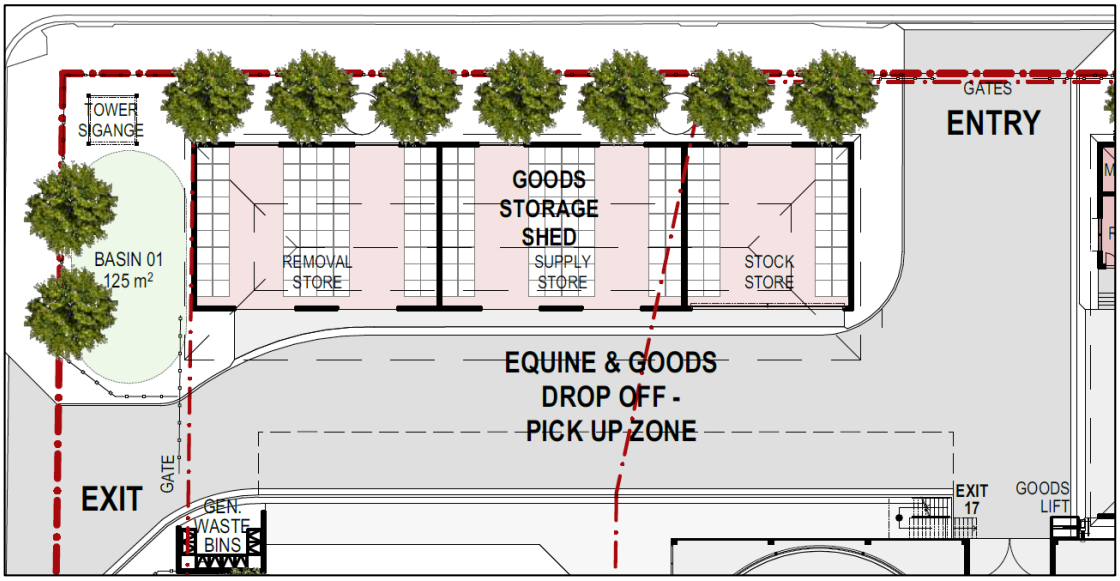


Figure 17: Goods Storage Shed (Source: EJE Architecture)

3.2.4 Maintenance Shed

A maintenance shed and associated drop off / pick up zone is proposed adjacent the northernmost driveway off Chatham Street. The maintenance shed is used for storing track maintenance equipment and supplies. Whilst not directly associated with the stables complex, the maintenance shed is essential to the upkeep of the racing and training facilities. The maintenance shed location is dictated by the need for easy access from the road network for deliveries; and for direct access to the track crossing for maximum operational efficiency. The proposed maintenance shed replaces an existing maintenance shed in generally the same location. It includes dedicated store rooms for chemicals and tools as well as equipment. An office and amenities are available at ground floor for staff use. Additional amenities including showers, change room and lockers, are provided on the first floor.

The maintenance shed is 25.36m x 20.9m (530m^2). The building height to the underside of the eaves is 4.5m. A 7.5m setback to Chatham Street is proposed at the ground floor. The building is setback 4.0m at the first floor.

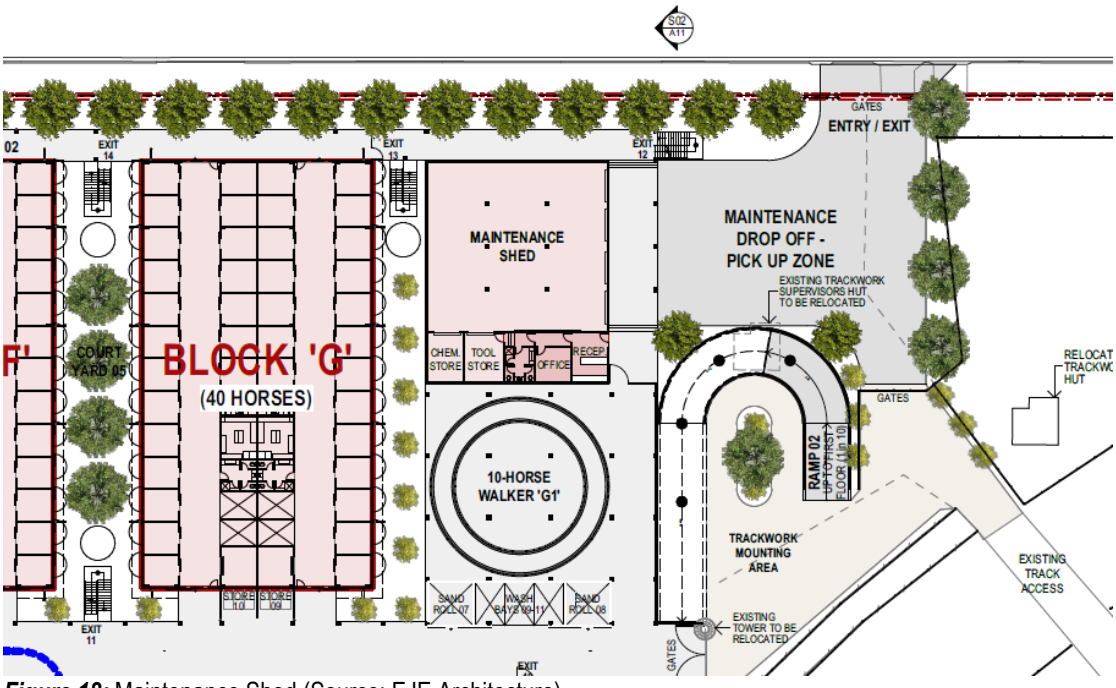


Figure 18: Maintenance Shed (Source: EJE Architecture)

3.2.5 Site Office and Equipment Shed

A site office and equipment shed is located adjacent Chatham Street, between Block E and the Chatham Street entry (*Figure 19*). The site office will house staff involved with day-to-day administration of the stables complex.

Tools and equipment required for the operation and maintenance of the stables complex will be stored within the equipment shed. This would include hoses, pressure cleaners, forklifts, a mobile sweeper and hand-held tools such as brooms, rakes etc. Roller doors provide access to the equipment shed. There are no other openings to the northern internal wall shared with the office, or eastern or western (external) facades.

The site office has dimensions of 15m x 9m (135m^2) and the equipment shed is 12m x 17.99m (216m^2). The building height is 4.5m to the underside of the eaves. The site office is setback 5m from the Chatham Street boundary.

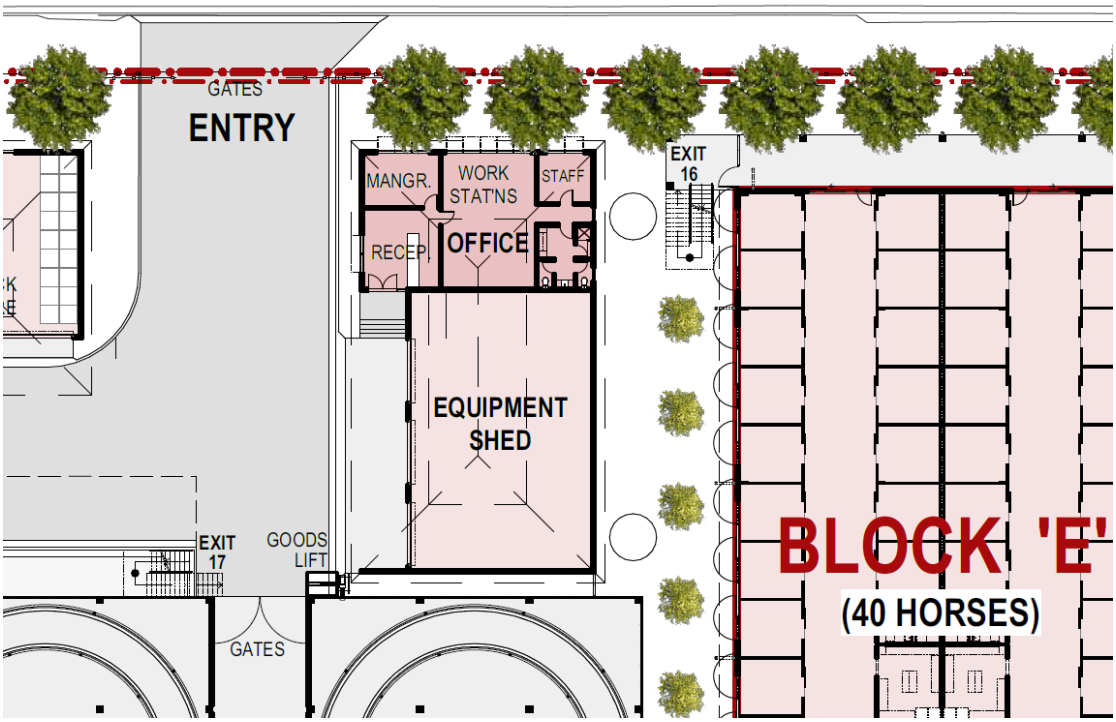


Figure 19: Office and equipment shed (Source: EJE Architecture)

3.2.5 Other Features

A goods lift adjacent the equipment shed facilitates the movement of feed and bedding to the upper-level stalls (refer to *Figure 20*).

An entry tower is proposed adjacent an existing building east of the development site as a replacement for the existing tower to be demolished for the proposed development (refer to *Figure 21*). It provides pedestrian access from Darling Street to the public race day facilities.

General waste is to be stored in a dedicated enclosure within the equine and goods drop off / pick up zone, near the Darling Street frontage (refer to *Figure 22*). The location enables general waste bins to be easily transported to the street for collection.

The existing track access will be retained in its current location (refer to *Figure 23*). The track access is an essential element linking the stables with the training surface.

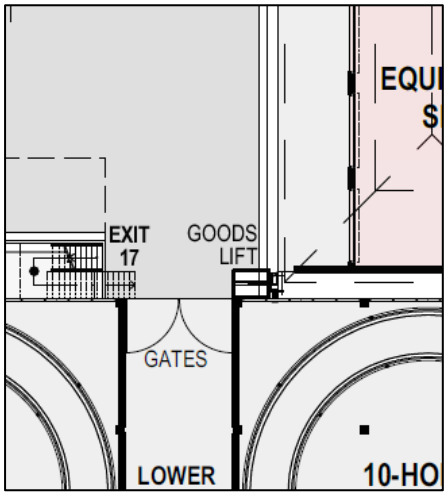


Figure 20: Goods lift (Source: EJE Architecture)

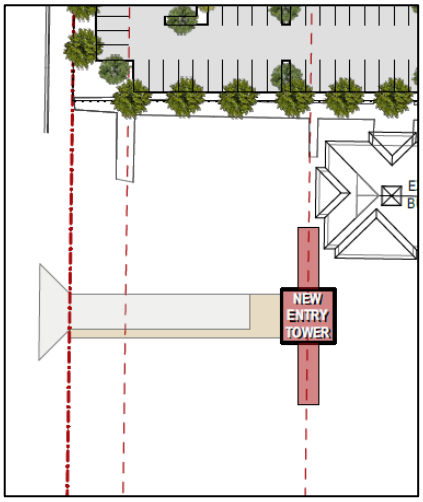


Figure 21: Entry tower (Source: EJE Architecture)

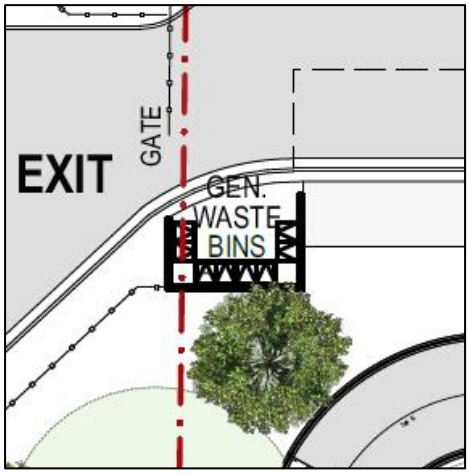


Figure 22: General waste bins (Source: EJE Architecture)

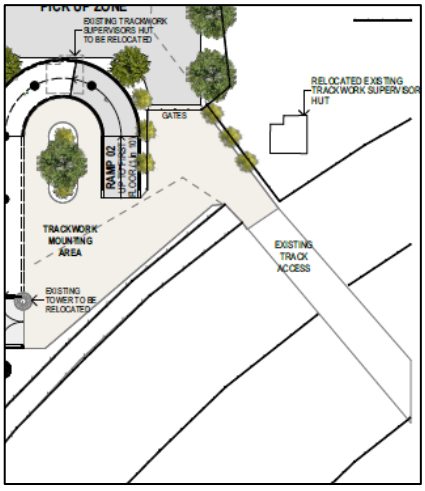


Figure 23: Track access (Source: EJE Architecture)

3.3 ACCESS AND PARKING

The proposal seeks to reactivate an existing driveway off Chatham Street at the northern end of the proposed facility. The 12.020m wide driveway will be used exclusively for vehicles associated with track maintenance. The maintenance drop off / pick up zone has been designed to accommodate two-way movements, manoeuvring, and all turn movements into and out of the site. In this respect, proposed access / egress associated with the maintenance shed is consistent with the existing scenario.

The existing main access from Chatham Street to the hardstand area and access to the previous tie-up stalls and the track crossing will be closed. The kerb shall be reinstated allowing for additional parking in this area.

Delivery vehicles and horse floats will enter the site via a 12m wide, one-way (ingress only) driveway via Chatham Street (southern entrance) and exit the site via a one-way (egress only) driveway off Darling Street. Both driveways will allow for left and right turns and shall allow for the movement of heavy vehicles including semi-trailers associated with feed and bedding deliveries and waste removal.

The proposal includes the formalisation of parking for 94 staff vehicles via a 6.2m wide replacement driveway on Darling Street. This area is currently used by trainers for informal access and parking. The parking area will incorporate landscaping, fencing and lighting. The driveway will allow for two-way movements into the site and all turn movements out of the site.

3.4 SIGNAGE

A signage tower is proposed at the corner or Chatham Street and Darling Street. The eastern, western and southern faces of the signage tower will promote NJC upcoming events. Each signage panel has an area of 2.5m x 3.2m (8m^2). The signage tower has a height of 10.75m.

3.5 LANDSCAPING AND FENCING

Extensive landscaping is proposed throughout the proposed stables complex. The Landscape Plan (**Appendix 3**) proposes 123 new trees to be planted. Proposed species include Red Flowering Iron Bark, Crepe Myrtle, Brush Box, Little Gen Southern Magnolia, Capital Flowering Pear and Water Gum. Mass plantings of shrubs, grasses, ground covers and basin plants are proposed.

Key areas of landscaping include:

- Chatham Street setback;
- Darling Street setback;
- Internal courtyards;
- Eastern boundary;
- Staff car parking; and
- Street tree planting.

Landscaping will substantially screen views to the site from residences on Chatham Street and Darling Street.

Palisade fencing of 2.1m height is proposed along each street frontage. Slat fencing separates the staff car park from Blocks C and D. Automatic sliding gates are proposed at the entrances to the maintenance and equine and goods drop off/pick up zones. Security gates are also located at the Darling Street driveways.

3.6 MATERIALS AND FINISHES

The stables development seeks to make a positive contribution to the streetscape by breaking up the built form into a series of repeated elements and using colours, materials and features that are sympathetic to both the nearby residential development and the greater NJC site. Extensive landscaping will be established along the both street frontages and to the eastern side of the stables development to provide visual and acoustic screening.

3.7 STORMWATER AND WASTE WATER MANAGEMENT

Stormwater management concept plans and report are provided in **Appendix 6**. The principal stormwater management details components are listed below.

3.7.1 Goods storage shed, equipment shed / office and loading area

- Stormwater runoff from roof areas (goods storage shed, equipment shed and site office) will be directed via an in-ground (charged) pipe network to aboveground rainwater storage tanks located adjacent to each respective building. The rainwater tanks will be fitted with a first-flush system to address water quality and will be plumbed back into the facility to re-use collected water for amenities, hose-down and landscaping.
- Overflow from the rainwater collection tank behind the goods storage shed will be directed to Chatham Street.
- Overflow from the rainwater collection tank behind the equipment shed and site office will be directed into an infiltration trench with high-level overflows directed to Chatham Street.

- Where possible, rainwater runoff from new paved surfaces will be directed to landscaped areas or permeable paving for infiltration.
- Stormwater from paved areas will be directed via an in-ground pipe system to a bio-retention basin via a Gross Pollutant Trap (GPT) for water quality treatment and also with capacity to provide detention for all storms up to and including the 1% AEP storm event.

3.7.2 Stables Complex

- Stormwater runoff from roof areas will be directed via an in-ground (charged) pipe network to above-ground rainwater storage tanks located adjacent to each respective building. The rainwater tanks will be fitted with a first-flush system to address water quality and will be plumbed back into the stables buildings to re-use collected water for amenities, hose-down and landscaping.
- Overflow from the rainwater collection tanks adjacent to Blocks B, C and D will be directed into an infiltration trench. High-level overflows from each trench will be directed through an in-ground stormwater pit and pipe network to the existing drainage system in Darling Street.
- Overflow from the rainwater collection tanks adjacent to Block A will be directed into an infiltration trench. High-level overflows from this trench will be directed through an in-ground stormwater pit and pipe network to the existing drainage system on the NJC site, directing the stormwater towards the dam in the middle of the track.
- Overflow from the rainwater collection tanks adjacent to Blocks E, F and G will be directed into an infiltration trench. High-level overflows from each trench will be directed through an in-ground stormwater pit and pipe network to the existing drainage system in Chatham Street.
- Stormwater from the southern side of the roof of Block D, and from adjacent pavement areas, will be directed to a bio-retention basin between the building and the arrivals area.
- Stormwater runoff from the elevated concourse areas will generally be directed towards landscaped areas on site for infiltration. Stormwater from the portion of the elevated concourse adjacent to the arrivals area will be directed to the bio-retention basin west of Block D.

3.7.3 Staff Parking

- Stormwater runoff from the staff car parks will be directed towards portions of permeable paving and raingardens at various locations throughout the car parks.
- The design intent for the car parks is to encourage infiltration of stormwater on the site, with water quality provided by the raingardens for treatable flows.
- On-site detention will be provided on the surface of the car parks, keeping storage depths below the required 200mm.

3.7.4 Maintenance Precinct

- Stormwater runoff from paved areas will be directed via an in-ground pipe system to a GPT and sand filter pit for water quality, with outflows directed to the existing drainage system in Chatham Street.
- On site detention of stormwater in the maintenance hardstand will be provided on the pavement surface, keeping storage depths below the required 200mm.

3.8 BUILDING CODE OF AUSTRALIA AND ACCESSIBILITY

The proposed development will comply with the National Construction Code / Building Code of Australia 2016.

Accessibility has been considered as part of the proposal and the detailed design will provide more information. A review of the proposal (**Appendix 27)** found that the fundamental aims of accessibility

legislation are achievable. The site is generally level and facilitates access for people with disabilities generally. The most critical aspect with respect to accessibility requirements is the Office Building.

Access to the office building is through an accessible ramp. Level access is afforded to other buildings within the development, including Entry Tower from Darling Street.

Features compliant doorways

- The office building is over a single level and facilitate access for people with a disability. Unisex accessible sanitary compartment is provided in the Office Building.
- The Maintenance Shed provides access for people with disabilities.
- Circulation areas have compliant turning spaces.

It is noted that the upper levels are designed for occupation by horses, maintenance and horse training staff. As the upper levels have the same facilities as the ground (accessible) levels, there is no requirement for an accessible path of travel to the upper levels. The Goods Storage Shed is considered an area exempt from requiring access for people with disabilities as are storage and other ancillary areas. Accessible sanitary facilities are not considered necessary in the stable block (both levels) and Maintenance Shed / Maintenance Amenities due to the primary occupants being maintenance and horse training staff.

Detailed design plans will feature

- Accessible car parking and an accessible approach from the car parking.
- Accessible pedestrian areas and approach between buildings
- Compliance of stairs
- Hearing Augmentation at service counters and other buildings that are required to be accessible
- Floor finishes and carpet
- Controls for switches, GPOs, alarm key pads, card swipes etc within the accessible height range.
- Provide decals to all full height glazing that can be mistaken for a doorway
- Provide tactile indicators
- Provide appropriate signage to identify sanitary facilities, hearing augmentation and required exits
- Slip resistance for stairs and ramps
- Doorways must not incorporate a step or ramp

3.9 PROPOSED STAFF NUMBERS

The stables complex will require staff across a number of different functions. Staffing requirements are set out in the NJC Operational Plan (**Appendix 8**) and are summarised below.

- Morning trackwork (3:30am to 8:30am) – 152 staff:
    - 107 x strappers / stable hands maximum per morning peak
    - 35 x trackwork jockeys
    - 10 x trainers
    - (2 x existing NJC trackwork supervisors not counted towards total).
- General daytime (8:30am to 5:00pm) – 42 staff
    - 42 x stable hands for general daytime stable maintenance / horse walker / pool exercise etc.

There will be no requirement to increase the current NJC staff for track/grounds maintenance. They will simply move into the new facility, accessed off Chatham Street. Generally, 10 - 15 track / grounds staff are required per day (this number may change depending on the required trackwork maintenance for any given day).

The office will be managed by existing NJC staff. 1 x full time dedicated coordinator / manager will be stationed at the facility.

3.10 PROPOSED HOURS OF OPERATION

The stables complex hours of operation will be dictated by the horses' training schedule. Trackwork will occur 6 days a week (Monday to Saturday). The track will be open on the Public Holidays which do not fall on a Sunday. Trackwork will commence at 3:30am and will generally be complete by 8:30am. Following trackwork, a small number of staff will be on site to assist with general stable maintenance etc. A small number of stable hands will be on site on Sundays for feeding, mucking out stables etc.

Deliveries of goods and materials to the site would generally commence between 9.00am to 9:30am and be completed by 5:00pm.

3.11 STAGING (INDICATIVE)

Construction will possibly be carried out in two stages. An indicative staging line is indicated on the Architectural plans in Appendix 2 which indicates that Stage 1 will involve demolition of all nominated structures with the exception of the equine pool which must remain in operation to service the existing stables. Stage 1 construction may include:

- Blocks D, E, F and G;
- Seven horse walkers;
- Goods storage shed;
- Site office and equipment shed;
- Maintenance shed;
- Staff car park (partial construction);
- Concourse; and
- Associated landscaping and fencing.

Stage 2 includes the demolition of the existing equine pool and construction of Blocks A, B and C and the remaining staff parking area. The new entry tower will be constructed in Stage 2. The indicative staging is shown in **Appendix 2**, and may be subject to variation depending on detailed design requirements, funding and initial occupancy rates.

3.12 OPERATION AND MANAGEMENT

A detailed Operational Plan of Management and Waste Management Plan is provided in **Appendix 8** which outlines NJC's expectations with regard to day-to-day operations at the stables complex. A number of key matters include: use of plastic 'mega' bins for storage of materials; logistics, materials handling and cleaning; and horse movements for trackwork.

3.12.1 Use of Plastic 'Mega' Bins

Critical to the movement of both bedding and waste throughout the facility will be the use of lightweight plastic 'mega' bins – already widely utilised in the racing industry at training centres. The specifications of the 'mega' bins are outlined in NJC's Management Plan.

Figure 24: Stackable 'mega' bins in use at Osborne Park training facility (Source: NJC)

Figure 25: Stackable 'Mega' Bins. NOTE: only the solid bin (top) is proposed for use at the stables complex (Source: Verdex)

Importantly, the type of 'mega' bins chosen will be solid (not vented) and with a tight lid that completely seals all odours and prevents access to either the bedding or waste by rodents or insects. The bins also allow for the transport of two bins at a time and the storage of up to three to four bins in a stack (as shown in *Figure 24* above). The bins have a volume of 780 litres and are 1165x1165x780mm. The bins are used to store and transport bedding and to remove used bedding and waste.

3.12.2 Logistics, Materials Handling and Cleaning

At maximum occupancy, bedding is transported to the site in 2 x deliveries / removal activities per day during business hours via a 45ft articulated semi-trailer. Bins containing fresh bedding are delivered to the site and unloaded by NJC staff on forklifts to the supply store. The bins containing used bedding which are stored in the removal store will then be transported to the same truck for removal. A maximum of 80 bins are delivered/removed per truck. The truck then leaves site to reuse waste at an off-site facility. This process will be managed by a private contractor (to be appointed post-DA approval).

With regard to feed deliveries, different suppliers may be involved given each trainer may have their own preferences for feed/hay brands and/or varieties. Trainers will be advised to coordinate their deliveries to arrive at the same time and via one delivery company. One feed delivery will occur per day via rigid Pantec – 5 x deliveries / week is anticipated to be sufficient to cater for 520 horses. All feed will be palletised for ease of delivery, storage and distribution. A truck and trailer can deliver 22 pallets at a time. Feed will be distributed by NJC staff via forklift to stables, typically between the hours of 3pm – 5pm (after bedding distribution / waste removal activity is complete). Stable staff will then move feed from pallets into feed store of each stable block using pallet jacks.

Figure 26: Walkie Stacker and Pallet Jack (Source: NJC Operational Management Plan)

The maximum quantities of waste produced and the consequent frequency of cleaning (to industry standard of twice per day), storage and removal of same – are based on the assumptions outlined in the Operation Management Plan Appendix 3 – Horse Waste Calculations. The waste volumes presented in the Operational Management Plan and Waste Management Plan are based on conservative (worst case scenario) estimates for waste production per horse and are based on full occupancy rates at the stables. The actual waste volumes are likely to be significantly less than those anticipated in the plan. The waste storage and handling facilities have been designed to accommodate the conservative waste volumes.

Each trainer's stable staff muck out stables twice per day – morning and afternoon. This involves removing soiled material only. Stable staff fill available 'mega' bins with waste – the same 'mega' bins that were delivered to the stables with clean bedding the prior day and subsequently emptied. Stable hands move the full 'mega' bins by Walkie Stacker or Pallet Jack to dedicated bin stores at the front of each stable. Approximately 12 x 'mega' bins will need to be removed per 40-horse stable block each. The stable design specifically provides ample capacity for this, with space for 24 x 'mega' bins per 40-horse stable: 12 for bedding and 12 for waste. It is anticipated that there will be 4 x dedicated forklifts operated by NJC Staff which can handle 2 x full bins (stacked) at a time. A forklift distributes bins to/from the goods lift which moves bins between the upper and lower loading zone. It is anticipated that the bedding distribution/waste removal activity can generally be completed between 9:30am – 2:00pm.

3.12.3 Horse Movements for Trackwork

At present, the 230 horses stabled on site that use the facility, plus the 80 horses that are stabled off site that use the facility are floated in/out for trackwork every morning. It should be noted that these movements will cease with the establishment of the new stables as almost all horses trained at the facility will be housed on-course, and the new stables complex has direct access to the track.

Currently, all race day starters at Newcastle Racecourse either walk to the new day stalls (if stabled on-course at the Beaumont Street end of the precinct) or are driven to the new day stalls entrance and carpark down Darling Street, so none of the previous race day traffic will occur at the Chatham Street end of the facility in future. That is usually around 3200 starters/season (44 meetings at an average of 73 starters per race day – Racing NSW figures) – so 6400 outs/ins that previously occurred there on race days/season will no longer occur at the Chatham Street end. Refer to Operational Management Plan (**Appendix 8**) for further details regarding floating movements.

4. STATUTORY PLANNING CONTROLS

4.1 COMMONWEALTH LEGISLATION

The EPBC Act provides a national framework for environmental protection and management of nationally and internationally important flora, fauna, ecological communities and heritage places. Part 3 of the EPBC Act lists nine matters of National Environmental Significance (NES) that may require approval from the Commonwealth Minister for the Environment. Further details regarding the impact of the development on places or matters of NES is provided in Section 7.

An action taken by any person on Commonwealth land that is likely to have a significant impact on the environment (Section 26(1)) or an action taken by any person outside of Commonwealth land that is likely to have a significant impact on Commonwealth land (Section 26(2)) may require approval from the Commonwealth Minister for the Environment. The proposal does not involve work by a Commonwealth agency and will not impact or be impacted by an activity, or impact on Commonwealth land.

4.2 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 AND ENVIRONMENT PLANNING AND ASSESSMENT REGULATION 2000

The proposal is development that requires consent pursuant to Part 4 the EP&A Act. Section 4.36(2) of the EP&A Act provides that a State environmental planning policy may declare any development, or any class or description of development, to be SSD. Despite any such declaration, designated development does not include SSD (see Section 4.10(2) of the EP&A Act).

Clause 8(1) of the State Environmental Planning Policy (State and Regional Development) 2011 (SEPP SRD) provides that certain development listed in Schedule 1 or 2 of SEPP SRD is SSD if the proposed development cannot be carried out without development consent. Development for the purposes of 'Recreation facilities (major)' is listed in clause 13(1)(e) of Schedule 1 of the SEPP as being SSD if the proposed development has a capital investment value (CIV) of more than $30 million.

CIV is defined in clause 3(1) Environmental Planning and Assessment Regulation 2000 (EP&A Regulation). A CIV estimate carried out in relation to the proposal estimates the value as $35,530,257.00 (GST exclusive) (**Appendix 9**).

The proposed development is characterised as development for the purposes of a racecourse which falls under the definition of 'Recreation facilities (major)' under the LEP. The type of development is permissible only with consent within the RE2 zone of the LEP. As the proposed development has a capital investment value that exceeds $30 million it is declared to be SSD under clause 13(1)(e) of Schedule 1 of the SEPP for the purposes of section 4.36 of the EP&A Act.

4.2.1 Permissibility

The site is zoned RE2 Private Recreation under the LEP 2012. Development for the purposes of 'Recreation facilities (major)' is permitted with development consent in the RE2 under Item 3 of RE2 Land Use Table. 'Recreation facilities (major)' is defined in the Dictionary to the LEP as follows (emphasis added):

recreation facility (major) *means a building or place used for large-scale sporting or recreation activities that are attended by large numbers of people whether regularly or periodically, and includes theme parks, sports stadiums, showgrounds,* ***racecourses*** *and motor racing tracks.*

The racecourse is the existing dominant use of the land. The proposed stable complex proposes a state-of-the-art facility to house horses on a permanent basis for training associated with the existing racetrack. The complex has been designed to integrate with the existing racetrack and training facilitates by passageways and access ramps. Whilst the proposed facilities are modernised and of a greater scale, they are no different in character to what is currently occurring on the land within the existing stables. The proposed stable complex serves the dominant purpose of the land and is therefore development for the purposes of a racecourse which is a type of use nominated under the LEP as a 'Recreation facilities (major)'.

4.2.2 Contributions

Section 7.11 of the EP&A Act states if a consent authority is satisfied that development for which development consent is sought will or is likely to require the provision of or increase demand for public amenities and public services within the area, the consent authority may grant the development consent subject to a condition requiring dedication of land free of cost and/or payment of a monetary contribution.

Section 7.12 of the EP&A Act states a consent authority may impose, as a condition of development consent, a requirement that the applicant pay a levy of the percentage, authorised by a contributions plan, of the proposed cost of carrying out the development. A consent authority cannot impose as a condition of the same development consent a condition under this section as well as a condition under section 7.11.

In the case of a consent authority other than a council—

> *(a) the consent authority may impose a condition under section 7.11 or 7.12 even though it is not authorised (or of a kind allowed) by, or is not determined in accordance with, a contributions plan, but*
>
> *(b) the consent authority must, before imposing the condition, have regard to any contributions plan that applies to the whole or any part of the area in which development is to be carried out.*

The proposal may be subject to Section 7.11 or 7.12 development contributions.

4.2.3 Information Requirements

Section 4.39 of the EP&A Act requires a development application for SSD to be accompanied by an EIS prepared by or on behalf of the applicant in the form prescribed by the EP&A Regulation. Schedule 2 of the EP&A Regulation outlines the requirements of the Secretary of the Department of Planning & Environment and approval bodies relating to the preparation of an EIS.

In accordance with Schedule 2, Section 3, an application was made to the Secretary for the SEARs with respect to the proposed development. SEARs were provided on 8 February 2021 (**Appendix 1**) and are summarised in Table 4.2 with a corresponding comment on where each requirement has been addressed in the EIS.

Table 4.2: Summary of Secretary's Environmental Assessment Requirements

	KEY ISSUES TO BE ADDRESSED	RELEVANT SECTION OF EIS
The NSW Department of Planning, Industry and Environment		
General requirements	Prepared in accordance with, meet the minimum requirements of clauses 6 and 7 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 (the Regulation)	Section 4.2
	Environmental Risk Assessment	Section 6
	Baseline data, potential cumulative environmental impact and environmental management measures	Section 6
	Quantity surveyor providing CIV, estimated number of jobs during construction and operation and certification	Section 4.3 and 6.12
Key Issues	Statutory and Strategic context	Section 4
	Permissibility	Section 4.2
	Development standards	Section 4.11
	Policies	Section 4
	Operation	Section 2.8 (existing) and 3.9-3.12 (proposed)

	KEY ISSUES TO BE ADDRESSED	RELEVANT SECTION OF EIS
	Staging and consents	Section 3.11
	Built form and urban design	Section 3.2
	Trees	Section 3.1.5
	Impacts on Existing Operations During Construction	Section 3.11
	Environmental and Residential amenity	Section 6
	Transport and accessibility	Section 3.3 and 6.2
	Ecologically sustainable development	Section 6.18
	Environmental Health and Animal Welfare	Section 4.14
	Stormwater	Section 3.7 and 6.6
	Social and Economic impacts	Section 6.12
	Biodiversity	Section 6.8
	Soil and Water	Section 6.4 and 6.6
	Heritage	Section 6.10
	Aboriginal heritage	Section 6.9
	Bushfire	Section 6.8
	Noise and vibration	Section 6.3
	Sediment, erosion and dust controls	Section 6.4 and 6.5
	Contamination	Section 6.4
	Hazards and Risk	Section 6.14
	Utilities	Section 3 and Section 5.3-5.5
	Public Benefit and Contributions	Section 4
	Water Quality	Section 6.6
	Drainage	Section 6.6
	Flooding and Coastal Erosion	Section 6.7
	Waste	Section 6.13
	Air Quality	Section 6.5
	Mine Subsidence	Section 5 and Section 6
	Construction Management Plans	Section 6
Plans and documents	Site plans	Appendix 2

	KEY ISSUES TO BE ADDRESSED	RELEVANT SECTION OF EIS
	Architectural	Appendix 2
	Perspective drawings	Appendix 2
	Survey plan	Appendix 2
	Site analysis	Appendix 2
	Energy Efficiency Report	To be provided post- approval
	Compliance tables for all relevant planning controls	Section 4
	Water Cycle Management Plan Strategy	Appendix 6
	Pre-submission consultation required	Section 5
	Quantity Surveyor Report	Appendix 9
	Stormwater concept	Appendix 6
	Sediment and erosion control	Appendix 6
	Shadow diagrams	Appendix 2
	View analysis / photomontages	Appendix 2
	Landscape plan (including tree removal and retention)	Appendix 3
	MUSIC modelling	Appendix 6
	Geotechnical and structural report	Appendix 4
	Accessibility report	To be provided post-approval
	Arborist report	Appendix 7
	Salinity investigation report (if required)	Appendix 5
	Acid sulfate soils management plan	Not applicable
	Schedule of materials and finishes	Appendix 2
Consultation	Local, State and Commonwealth government authorities and surrounding residents, businesses and local community groups	Section 5
References	Guidelines, policies and plans	Section 4

4.3 OTHER NSW LEGISLATION

Table 4.3 details relevant NSW legislation, purpose of the legislation and its relevance to the Proposal.

Table 4.3: Legislative Requirements and Approvals

LEGISLATION (RESPONSIBLE AGENCY)	PURPOSE OF LEGISLATION	RELEVANCE TO THE PROPOSAL AND APPROVAL REQUIREMENTS
Biodiversity Conservation Act 2016	The purpose of this Act is to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development. **7.9 Biodiversity assessment for State significant development or infrastructure** (1) This section applies to: (a) an application for development consent under Part 4 of the *Environmental Planning and Assessment Act 1979* for State significant development, and (b) an application for approval under Part 5.1 of the *Environmental Planning and Assessment Act 1979* to carry out State significant infrastructure. (2) Any such application is to be accompanied by a biodiversity development assessment report unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values. (3) The environmental impact statement that accompanies any such application is to include the biodiversity assessment required by the environmental assessment requirements of the Planning Agency Head under the *Environmental Planning and Assessment Act 1979*.	A report prepared in support of a request to waive the BDAR requirement (**Appendix 10**) found that Tree 12 is a suspected Eucalyptus scoparia (Wallangarra White Gum) which is listed as Endangered under the BC Act and Vulnerable under the EPBC Act. This species does not occur naturally in the locality and has been widely planted as an ornamental street tree throughout the area. The BDAR Waiver Report did not find any other threatened species or Threatened Ecological Communities (TECs) within the study area (proposed development site) or adjacent to it. The BDAR Waiver Report finds that the likelihood of impacts on threatened species, communities or their habitats as a result of the proposal is negligible. The BDAR Waiver Report also considers an Assessment of Significance (AoS) for the project. The BDAR Waiver Report finds that the impacts associated with the proposal are unlikely to lead to a significant impact on the Grey-headed Flying-fox or relevant threatened microbats. Therefore, it is not anticipated that entry into the Biodiversity Offsets Scheme (BOS) or a BDAR is required. The BDAR Waiver Report notes that the site is disturbed and is within an urban setting. Further, the proposal seeks to only remove 12 trees from the site. As such, the BDAR Waiver Report finds that the proposal is not considered likely to contribute to a loss of habitat connectivity or remnant vegetation or communities or interrupt the movement of threatened species across their range. Given the characteristics of the site, the BDAR Waiver Report also finds that there are no anticipated impacts on potential habitat features on the site. The proposal therefore requests a waiver to prepare a BDAR. Flora and fauna are discussed in Section 6.6 and **Appendix 10**. The BDAR waiver was granted by Biodiversity Conservation Division on 9 September 2021 (ref: SSD-12982045) (**Appendix 11**).
Contaminated Land Management Act 2008	The Act establishes a process for investigating and (where appropriate) remediating land that the Environment Protection Authority (EPA) considers to be contaminated significantly enough to	A Contamination Assessment has been prepared (**Appendix 5**) which confirms that the site has been owned and occupied by NJC since 1915 and that the site has been used for horse racing since the 1840s to the

LEGISLATION (RESPONSIBLE AGENCY)	PURPOSE OF LEGISLATION	RELEVANCE TO THE PROPOSAL AND APPROVAL REQUIREMENTS
	require regulation under Division 2 of Part 3. Furthermore, under Section 60 a person whose activities have contaminated land or a landowner whose land has been contaminated is required to notify the EPA when they become aware of the contamination.	present day. The Contamination Assessment concludes that the site is suitable for the proposed use subject to: ➢ An Unexpected Finds Procedure is to be included in the Construction Environmental Management Plan and implemented during demolition of the building and earthworks ➢ Should demolition or the refurbishment of buildings be proposed on-site a hazardous materials survey is to be completed. If any hazardous materials are identified, these must be demolished and disposed of at a licensed waste facility. Further discussion of proposed contamination management measures is provided in Section 6.
Environmentally Hazardous Chemicals Act 1985	The Act regulates use and storage of environmentally hazardous chemicals or declared chemical waste. It provides the OEH with assessment and control mechanisms for chemicals and chemical wastes.	The development requires the storage and use of hazardous materials, including chemicals listed in the Australian Dangerous Goods Code. The materials are associated with cleaning and general operation of the stables complex but also maintenance of training and racing facilities, and would be stored in the equipment shed and maintenance shed respectively. A Hazardous Materials Assessment carried out in relation to the proposed development is provided in **Appendix 12**. The assessment concludes that the site does not require a licence from EPA, as the development is not classified as Offensive Industry.
Fisheries Management Act 1994 and Fisheries Management Regulation (General) 2002	The objects of this Act are to conserve, develop and share the fishery resources of the State for the benefit of present and future generations. It outlines the circumstances in which approvals are required in order to carry out dredging or reclamation work, and the exemptions that apply. Reclamation work refers to using any material to fill in or reclaim water land or depositing any such material on water land for the purpose of constructing anything over water land (such as a bridge) or draining water from water land for the purpose of its reclamation.	No approvals or licences are required pursuant to the Act or Regulation.
Heritage Act 1977	The *Heritage Act 1977* is administered by the Heritage NSW within the Department of Premier and Cabinet and concerns protection and restoration and enhancement of State heritage items.	No State heritage items are listed for the site or immediate vicinity. The site is identified as a local heritage item as per NLEP 2012. No excavation permits or notifications to Heritage NSW are required in relation to the

LEGISLATION (RESPONSIBLE AGENCY)	PURPOSE OF LEGISLATION	RELEVANCE TO THE PROPOSAL AND APPROVAL REQUIREMENTS
	The relevant provisions of the Act are: ➢ Section 139 prohibits disturbance of a relic unless an excavation permit is obtained from the Heritage Office ➢ Section 146 requires notification to the Heritage Office of any discovery of relics.	proposed development (refer to Statement of Heritage Impact in **Appendix 13**).
Coal Mine Subsidence Compensation Act 2017	Section 22 requires approval to alter or erect improvements within a mine subsidence district or to subdivide land therein.	The site is located within a Mine Subsidence District. The development requires the consent of Subsidence Advisory NSW (SA NSW) pursuant to Section 22 of the *Coal Mine Subsidence Compensation Act 2017*. SA NSW has issued approval, subject to the conditions set out in the Notice of Determination reference TBA21-02272 (**Appendix 15**). SA NSW have also confirmed that the condition for grouting of mines can be reviewed post-DA approval. Further site investigations will be carried out to confirm the need for grouting or identify alternative requirements. Additional consultation with SA NSW will be carried out in due course.
National Parks and Wildlife Act 1974	The Act aims to conserve nature and objects, places or features of cultural value. This Act contains the provisions for protecting Aboriginal objects in NSW. Aboriginal objects are protected regardless of whether they are in their original context (location) or not, and it is an offence to harm an Aboriginal object regardless of whether you know it is an Aboriginal object or not. Protection under Section 86 of the Act is as follows: ➢ s86(1) A person must not harm or desecrate an object that the person knows is an Aboriginal object. ➢ s86(2) A person must not harm an Aboriginal object. ➢ s86(3) A person must not harm or desecrate an Aboriginal place.	An Aboriginal Cultural Heritage Assessment Report (ACHAR) has been prepared in relation to the proposed development (refer to **Appendix 14**). The ACHAR recommends an Aboriginal Cultural Heritage Management Plan is to be developed post approval for the management of Aboriginal cultural values in the project area. The Aboriginal Cultural Heritage Management Plan is to include subsurface archaeological test excavation. Acts occurring in the course of test excavations will be excluded from the definition of harm but only if done in order to understand the site characteristics, local and regional prehistory and conservation requirements for the subject area and in accordance with the conditions set out below. This will only be the case where the purpose of the test excavations is to build on the information already obtained through the archaeological investigation carried out in accordance with the requirements of the Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW. At this stage it is not considered that an AHIP is required for carrying out test excavations as identified in the ACHAR, however this will be confirmed during the preparation of the Aboriginal Cultural Heritage Management Plan.
Protection of the Environment Operations Act 1997	The POEO Act primarily regulates pollution control and waste disposal in NSW and is administered by the OEH.	The proposal incorporates a number of measures to reasonably minimise pollution. This includes: noise, air quality, water quality and soil. Refer to Section 10 of this

LEGISLATION (RESPONSIBLE AGENCY)	PURPOSE OF LEGISLATION	RELEVANCE TO THE PROPOSAL AND APPROVAL REQUIREMENTS
	It identifies development for which a POEO Licence is required. Reasonable and feasible environmental measures must be implemented to minimise pollution as a result of the proposal.	EIS for a compilation of proposed environmental management measures. Any soils proposed to be removed from the site, will require waste classification in accordance with the NSW EPA (2014) Waste Classification Guideline. Alternatively, soils may be able to be assessed in accordance with a relevant resource recovery order/exemption under Part 9, Clause 91 to 93 of the Protection of the Environmental Operations (Waste) Regulation 2014.
Roads Act 1993	Objects of the Act are to, among other things, confer certain functions (in particular, the function of carrying out road work) on RMS and on other roads authorities, and to provide for the distribution of the functions conferred by this Act between RMS and other roads authorities.	No local or classified road upgrades are proposed. No Approvals or concurrences are required under the Act. Refer to Traffic and Parking Assessment in **Appendix 16**.
Rural Fires Act 1997	Under Section 63 public authorities must take all practicable steps to prevent the occurrence and spread of bush fires on or from land vested in or under its control or management.	The site is not identified as Bushfire prone land. Approval is not required pursuant to the Act.
Waste Avoidance and Resource Recovery Act 2001	Objects of the Act include encouraging efficient use of resources and reducing environmental harm in accordance with the principals of ecologically sustainable development. The Act establishes the waste hierarchy of avoidance, resource recovery and disposal.	Waste management is discussed in Section 6.
Water Management Act 2000	The Act outlines approval requirements for activities at a specified location in, on or under waterfront land. Waterfront land includes the bed of any river, lake or estuary and all land within 40 metres of the highest bank of the river, lake or estuary. The Act also outlines water access rights and approval / concurrence requirements for use of groundwater and surface water runoff. Taking groundwater that is not managed by a water sharing plan requires a groundwater licence (Section 92).	The site is approximately 40m from a mapped watercourse; however an exemption applies under Clause 42 of the Water Management Regulation. A controlled activity approval is not required where the waterfront land has been separated from a 1st to 3rd order stream by an existing development such as a public road. In respect of the proposed development, the site is separated from a concrete lined 1st order stream located southwest of the site. The stream is separated from the site by Chatham Street and Darling Street.

4.4 STATE ENVIRONMENTAL PLANNING POLICIES

4.4.1 State Environmental Planning Policy (State and Regional Development) 2011

SEPP (State and Regional Development) identifies development that is considered State significant and requires an EIS and approval from the Department of Planning and Environment.

Schedule 1 of SEPP (State and Regional Development) states:

13 Cultural, recreational and tourist facilities

(1) Development that has a capital investment value of more than $30 million for any of the following purposes—

(a) film production, the television industry or digital or recorded media,

(b) convention centres and exhibition centres,

(c) entertainment facilities,

(d) information and education facilities, including museums and art galleries,

(e) recreation facilities (major),

(f) zoos, including animal enclosures, administration and maintenance buildings, and associated facilities.

(2) Development for other tourist related purposes (but not including any commercial premises, residential accommodation and serviced apartments whether separate or ancillary to the tourist related component) that—

(a) has a capital investment value of more than $100 million, or

(b) has a capital investment value of more than $10 million and is located in an environmentally sensitive area of State significance or a sensitive coastal location.

The development is considered to be ancillary to the existing recreation facility (major) and therefore this Clause applies. A Capital Investment Value Estimate carried out by a Quantity Surveyor in relation to the proposed development estimates the project value to be **$35,530,257** excluding GST (**Appendix 9**).

The capital investment value for the proposed development exceeds $30 million and as such is identified as SSD under the SEPP.

4.4.2 State Environmental Planning Policy (Infrastructure) 2007

This policy facilitates the effective delivery of infrastructure across the State. The development is subject to the requirements of this SEPP and must be satisfied.

For development potentially impacted by an electricity power line, Clause 45 of State Environmental Planning Policy (Infrastructure) 2007 requires the consent authority to give written notice to the electricity supply authority and invite comments about potential safety risks when applications for the following development are received:

(a) the penetration of ground within 2m of an underground electricity power line or an electricity distribution pole or within 10m of any part of an electricity tower,

(b) development carried out:

(i) within or immediately adjacent to an easement for electricity purposes (whether or not the electricity infrastructure exists), or

(ii) immediately adjacent to an electricity substation, or

(iii) within 5m of an exposed overhead electricity power line,

(c) installation of a swimming pool any part of which is:

(i) within 30m of a structure supporting an overhead electricity transmission line, measured horizontally from the top of the pool to the bottom of the structure at ground level, or

(ii) within 5m of an overhead electricity power line, measured vertically upwards from the top of the pool,

(d) development involving or requiring the placement of power lines underground, unless an agreement with respect to the placement underground of power lines is in force between the electricity supply authority and the council for the land concerned.

Ausgrid is the electricity supply authority responsible for services in this locality. Ausgrid was consulted during the preparation of this EIS. Ausgrid's servicing requirements are outlined in Section 5 and **Appendix 17** of this EIS.

The SEPP identifies concurrence requirements for development types listed within *Schedule 3 – Traffic generating development*. The proposal is not listed as a development type in Schedule 3, as such, referral to Transport for NSW (TfNSW) is not required.

4.4.3 State Environmental Planning Policy No.33 – Hazardous and Offensive Development

SEPP No. 33 – Hazardous and Offensive Development (SEPP 33) aims to minimise adverse impacts associated with hazardous or offensive development. As part of the proposed development, hazardous chemicals are proposed to be stored on-site including chemicals listed in the Australian Dangerous Goods Code (ADG). As the proposal includes the storage of chemicals listed in the ADG, an assessment under SEPP 33 is required.

The application of SEPP 33 involves review of three major components associated with DGs:

- Storage of DGs - maximum permissible storage thresholds above which SEPP 33 applies to a facility;
- Transport of DGs - the number of generated traffic movements is above annual or weekly cumulative vehicle movements, SEPP 33 may apply; and
- Offensive Industry - where noise, odour, etc., may cause offense to surrounding land uses, SEPP 33 may apply.

An assessment of the DGs stored and handled at the proposed stables complex for the application of SEPP 33 is documented in a Hazardous Material Assessment (**Appendix 12**). The analysis identified that only two classes of DGs were subject to the application of SEPP 33; Class 3 flammable liquid and Class 6.1 toxic substances. The quantity of each of the DGs proposed for storage at the site is below the maximum permissible threshold levels listed in *Applying SEPP 33: (2011), "Hazardous and Offensive Development Application Guidelines", NSW Department of Planning and Infrastructure*.

The quantity of DGs transported to the site are below the minimum permissible threshold quantity per load above which SEPP 33 would apply. Based on this, "…the potential risk is unlikely to be significant unless the number of traffic movements is high". The number of movements are less than 1 per week for each of the DG classes, which is not considered high.

A pollution control licence is not required for the proposed development; hence, it is considered that the site would not be 'potentially offensive'.

Based on this analysis, it is concluded that SEPP 33 does not apply to the proposed development.

4.4.5 State Environmental Planning Policy No.55 – Remediation of Land

SEPP No.55 – Remediation of Land (SEPP 55) aims to promote remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment.

A Contamination Assessment (CA) has been prepared in relation to the development (**Appendix 5**). The CA found the site has been owned and occupied by NJC 1915 and that the site has been used for horse racing since the 1840s to the present day. The CA identified AECs and associated COPC for the site. AECs include current and former buildings on site and imported fill. COPC include metals, asbestos, Benzene, Toluene, Ethylbenzene, Xylenes (BTEX), and Polycyclic Aromatic Hydrocarbons (PAH).

Health Investigation Levels (HILs) and Health Screening levels (HSLs) are applicable for assessing human health risk via relevant exposure pathways. Ecological Investigation Levels (EILs) and Ecological Screening Levels (ESLs) are applicable for assessing risk to terrestrial ecosystems under residential, open space and commercial/industrial land use scenarios.

The sampling and analysis targeted the AECs and COPC identified. The results showed concentrations below the adopted criteria, with the exception of zinc above the EIL in sample BH15 0.0-0.1m. BH15 was located in a grassed median strip in the horse loading and unloading area, which is asphalt paved. Based

on this, the extent of the elevated zinc concentrations was considered small and localised. Therefore, it is considered that further investigation or remediation is not warranted.

The CA concludes that the site is suitable for the proposed use subject to the following recommendations:

- An Unexpected Finds Procedure is to be included in the Construction Environmental Management Plan and implemented during demolition of the building and earthworks
- Completion of a hazardous materials survey prior to demolition or the refurbishment of buildings on-site. If any hazardous materials are identified, these must be demolished and disposed of at a licensed waste facility.
- Any soils proposed to be removed from the site, will require waste classification in accordance with the NSW EPA (2014) Waste Classification Guideline. Alternatively, soils may be able to be assessed in accordance with a relevant resource recovery order/exemption under Part 9, Clause 91 to 93 of the Protection of the Environmental Operations (Waste) Regulation 2014.

4.4.6 State Environmental Planning Policy No.64 – Advertising and Signage

SEPP No.64 – Advertising and Signage (SEPP 64) aims to ensure that signage communicates effectively and suits the desired amenity of an area. A consent authority must not grant development consent to an application to display signage unless the consent authority is satisfied:

(a) that the signage is consistent with the objectives of this Policy as set out in clause 3(1)(a), and

(b) that the signage the subject of the application satisfies the assessment criteria specified in Schedule 1 of the SEPP.

Schedule 1 assesses the signage in relation to specific criteria in relation to character of the area, special areas, views and vistas, streetscape, setting or landscape, site and building, associated devices and logos with advertisements and advertising structures, illumination and safety.

Proposed signage includes a signage tower at the corner of Chatham Street and Darling Street (**Appendix 2**) and wayfinding signage designed to direct visitors between buildings and other facilities. The signage is consistent with the criteria in Schedule 1 of the SEPP. The signage tower has been designed to integrate with the facility and not dominate the views to the site. The scale and proportion is consistent with the characteristics of the site, having a height that is between the single storey built form elements and the stables blocks. The lower portion is of open construction to reduce the overall visual bulk, and the tower includes a pitched roof element to tie in with the proposed development at site. The proposed signage tower does not impede sightlines at its corner location and therefore will not impact safety of the public road. The proposal is consistent with the SEPP.

4.4.7 State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017

SEPP (Vegetation in Non-Rural Areas) 2017 (SEPP (Vegetation) 2017 applies to the Newcastle LGA. The site is predominantly clear within the footprint of the proposed development. A number of trees have been planted around the existing equine pool. A small number of trees are located within the centre of the site and along the Darling Street frontage in the vicinity of the development site.

12 trees are proposed to be removed in conjunction with this proposal to facilitate the proposed development. An assessment of the ecological impacts associated with tree removal at site is provided in the BDAR Waiver Report in **Appendix 10**.

The Landscape Plan (**Appendix 3**) demonstrates that 123 new trees are proposed to be planted which include Red Flowering Iron Bark, Crepe Myrtle, Brush Box, Little Gen Southern Magnolia, Capital Flowering Pear and Water Gum. Additional shrubs, grasses, ground covers and basin plants are proposed. The proposed plantings are considered to be a significant improvement to the site.

4.4.8 State Environmental Planning Policy (Coastal Management) 2018

SEPP (Coastal Management) 2018 applies to land within the coastal zone. The site is not located within the coastal zone as identified in the SEPP (Coastal Management) 2018.

4.5 NEWCASTLE LOCAL ENVIRONMENTAL PLAN 2012

Relevant Clauses of the LEP are discussed in Table 4.5.

Table 4.5: Relevant Clauses of LEP

CLAUSE	CONSISTENCY
1.2 Aims	The NLEP 2012 provides for appropriate development within the LGA. The proposal has given due consideration to the site and surrounds and is in keeping with the aims of the NLEP 2012.
2.1 Land use zones	The subject site is identified as being zoned RE2 Private Recreation pursuant to NLEP 2012 and that recreation facilities (major) are permitted with consent. The proposed development is considered to be ancillary development to an existing recreation facility (major) and is therefore permitted with consent in this zone. *Amusement centres; Aquaculture; Boat launching ramps; Boat sheds; Camping grounds; Car parks; Caravan parks; Centre-based child care facilities; Charter and tourism boating facilities; Community facilities; Dwelling houses; Emergency services facilities; Entertainment facilities; Flood mitigation works; Food and drink premises; Function centres; Helipads; Home-based child care; Jetties; Kiosks; Marinas; Markets; Moorings; Neighbourhood shops; Passenger transport facilities; Recreation areas; Recreation facilities (indoor);* ***Recreation facilities (major)****; Recreation facilities (outdoor); Registered clubs; Respite day care centres; Roads; Signage; Water recreation structures*
2.3 Zone objectives	The development is consistent with the objectives of the RE2 zone, which are: • *To enable land to be used for private open space or recreational purposes.* • *To provide a range of recreational settings and activities and compatible land uses.* • *To protect and enhance the natural environment for recreational purposes.*
2.7 Demolition requires development consent	Demolition of the existing equine pool, workshops, sheds and former tie up stalls is proposed in conjunction with this proposal.
4.1 Minimum subdivision lot size	There is no subdivision proposed.
4.3 Height of buildings	There is no maximum building height applied to this portion of the site.
4.4 Floor space ratio	There is no FSR prescribed for this portion of the site.
4.6 Exceptions to development standards	Flexibility is provided in the LEP for development standards to achieve a good planning outcome. No exception to development standards is proposed.
5.10 Heritage conservation	No State heritage items are listed for the site or immediate vicinity. The site is identified as a local heritage item as per NLEP 2012. A Statement of Heritage Impact (SOHI) has been prepared (**Appendix 13**) which finds that the design of the proposed works minimises their impact on the existing significant buildings on the site through generous setbacks, managing their scale and through the subdued colour palette chosen. This design response provides space around the significant buildings for interpreting their significance and appreciating their design, material and detail. The SOHI finds that the proposal will have a minor impact on views towards significant buildings such as the Members Stand from the southwest portion of the site. This impact is ameliorated through the visibility of the stables and the activity of the racehorses. These factors will contribute to the excitement of approaching the site and will enhance the setting of the heritage item. On balance the proposal is

CLAUSE	CONSISTENCY
	found to have potential to enhance the setting of the item despite some views being obscured. The SOHI notes that the buildings and elements graded as being of moderate or higher significance are retained in full by the proposal. An ACHAR (**Appendix 14**) has been prepared to identify potential impact on Aboriginal heritage. The report recommends test excavations and the preparation of an Aboriginal Cultural Heritage Management Plan post approval for the management of Aboriginal cultural values in the project area.
5.18 Intensive livestock agriculture	As outlined in Section 4.2 the development is ancillary to the recreation facility (major) – Newcastle Racecourse) and is therefore exempt from the designated development provisions.
5.21 Flood planning	A Flood Information Certificate obtained for the site sets the minimum level for occupiable rooms as RL 6.85m AHD. All occupiable rooms within the stables complex have been set with a floor level of RL 7.00m AHD and therefore comply with the Flood Certificate. The proposal has adequately considered flood risk and appropriate mitigation measures are proposed to manage the level of risk.
6.1 Acid sulfate soils	The site is classed as Class 4 Acid Sulphate Soils (ASS). The Geotechnical Report has assessed the presence of actual ASS on site. This assessment found that ASS are present on-site at approximately 1.6m to 2.3m bgs. Should excavation works exceed 1.5m, an ASS Management Plan would be required.
6.2 Earthworks	The Geotechnical Investigation (**Appendix 4**) was prepared for the purpose of site classification and pavement design. The investigation states that earthworks conducted at the site should be controlled in accordance with AS 3798-2007 and guided by Section 8.1 to 8.4.2 of the investigation.

4.6 NSW PLANS AND POLICIES

4.6.1 NSW State Priorities

One of the NSW State priorities is a strong economy. The proposal will provide employment throughout the construction and operation of the development. The development will also result in increased investment within the Hunter's thoroughbred industry. Throughout the operational phase the proposed stables will generate employment across a range of related roles including trainers, stable hands, track riders, farriers, fodder suppliers, float operators, maintenance and track / ground staff and veterinary staff. The proposed development is in keeping with the NSW State priorities.

4.6.2 A Plan for Growing Sydney

This plan is not applicable to the Newcastle LGA.

4.6.3 Future Transport Strategy 2056 and supporting plans

The Future Transport Strategy 2056 sets the 40 year vision, directions and outcomes framework for customer mobility in NSW and will guide transport investment over the longer term. This plan aims to place the customer at the centre and with feedback harness the rapid advancement of technology and innovation across the transport system to transform customer experience, improve communities and boost economic performance (TfNSW, 2017).

The strategy will be delivered through a series of supporting plans, one of which is the Greater Newcastle Future Transport Plan, this plan applies to the development area and is discussed below.

4.6.4 State Infrastructure Strategy 2018-2038

The NSW State Infrastructure Strategy 2018–2038 (the Strategy) sets out the NSW Government's infrastructure vision for the state over the next 20 years, across all sectors. The Strategy is supported by:

- Future Transport Strategy 2056
- Greater Sydney Region Plan
- Regional Development Framework

The NSW Government is committed to ensuring that regional NSW continues to be a vibrant and growing part of the economy and that people are supported in their decision to live in the regions.

The Regional Development Framework provides a scaffold for better coordination, decision making and effort on the ground. The Framework will be based around a model of investment in regional NSW that:

- Provides quality services and infrastructure in regional NSW – ensuring a baseline set of services across regional NSW
- Aligns efforts to support growing regional centres, acknowledging the needs of areas with strong growth in population, jobs or both, and
- Identifies and activates economic potential by looking across regional NSW for opportunities to change the economic outlook and activate local economies.

The proposal is consistent with the Strategy as it will provide increased employment and investment opportunities within the Hunter region throughout the construction and operational phases. The operational phase of the proposed stables will generate employment across a range of related roles including trainers, stable hands, track riders, farriers, fodder suppliers, float operators, maintenance and track / ground staff and veterinary staff.

4.6.4 Better Placed — An integrated design policy for the built environment of NSW 2017

''Better Placed is an integrated design policy for the built environment of NSW. It seeks to capture our collective aspiration and expectations for the placed where we work, love and play. It creates a clear approach to ensure we get the good design that will deliver the architecture, public places and environments we want to inhabit now and those we make for the future.'' (GANSW 2017)

Better Placed advocates for a shared responsibility in realising good design processes and outcomes for NSW.

The proposed facility will be a significant improvement for thoroughbreds, trainers, support staff and suppliers of the existing facilities. The design seeks to provide a high level of thermal comfort and natural ventilation through passive means, improved opportunity for water capture and reuse, solar power utilisation, improved waste management, occupational health and safety enhancements and reduced dependence on road transportation. The proposed development represents best design practice and integrates sustainable development practices.

4.7 REGIONAL AND LOCAL PLANS

4.7.1 Hunter Regional Plan 2036

The Hunter Regional Plan aims to guide NSW Government's land use planning priorities over the next 20 years. The plan states all levels of government, the private sector and the community will have to work together to deliver the plan (NSW Government 2016).

The proposal is consistent with the Hunter Regional Plan 2036. **Goal 1 – The leading regional economy in Australia and Goal 4 – Greater Housing choice and jobs**. The plan seeks to continue to establish the Hunter as the next metropolitan city with strong economic growth. The proposal will contribute towards Newcastle's economy growth through the creation of employment and construction opportunities:

- The construction phase will generate approximately 250 jobs; and
- The operational phase of the proposed stables will generate employment across a range of related roles including trainers, stable hands, track riders, farriers, fodder suppliers, float operators, maintenance and track / ground staff and veterinary staff. Approximately 186 new jobs will be associated with the proposed stables complex.

4.7.2 Hunter Regional Transport Plan 2014

The Hunter Regional Transport Plan 2014 aims to outline specific actions to address the transport challenges of the area to ensure residents have better connections to jobs, study and town centres. The movement of traffic to and from the site has been considered in the development.

The Traffic and Parking Assessment (**Appendix 16**) accompanying this application notes that the aim of the project is to improve the facilities for horses and to reduce vehicle movements associated with the horse float transportation of horses.

The Traffic and Parking Assessment finds that the typical car parking demands associated within the development can be accommodated on site and that the traffic movements associated with the proposal can be accommodated within the existing local road network. The proposal will therefore not adversely impact upon residents' access to jobs, study and town centres.

4.7.3 Greater Newcastle Future Transport Plan

The Greater Newcastle Future Transport Plan is a supporting plan for the Draft Future Transport Plan 2056 (TfNSW, 2017), with a vison, state-wide direction and initiative to deliver set outcomes.

The Greater Newcastle area is considered a key global gateway city, which is benefited by its education precincts along with other important industries.

The proposal fits in with the plan as the Broadmeadow precinct is identified as an emerging strategic centre being a centre for activity and employment. The proposal is consistent with the plan as traffic management has been considered and addressed throughout the design process.

4.7.4 Greater Newcastle Metropolitan Plan 2036

The plan aims to:

- Connect strategic centres in Greater Newcastle
- Develop a national Centre of Excellence for Health and Education
- Expand the capacity of Global Gateways – Newcastle port and airport; and
- Establish governance.

The proposal is consistent with the Greater Newcastle Metropolitan Plan as the proposal will provide more employment, investment and activity within the region as previously discussed. The construction and operation of the proposal will generate an additional 436 jobs in total. The operational phase of the proposed stables will generate employment across a range of related roles including trainers, stable hands, track riders, farriers, fodder suppliers, float operators, maintenance and track / ground staff and veterinary staff.

4.7.5 Newcastle Local Strategic Planning Statement 'Planning for Newcastle 2040'

Newcastle Local Strategic Planning Statement 'Planning for Newcastle 2040' (LSPS) provides guidance on land use planning over the next 20 years.

The LSPS outlines Planning Priorities to achieve the land use planning vision and will inform decisions on amendments to the Newcastle LEP 2012 and the Development Control Plan 2012 (NDCP 2012).

The LSPS identifies Broadmeadow as a:

- Strategic Centre
- Catalyst Area

The key growth driver for the Broadmeadow Catalyst Area is nationally significant sport and entertainment precinct. The Broadmeadow precinct also has an employment target of 550 additional new jobs by 2036. While this site is not specifically included in the existing Newcastle Entertainment Centre area, the proposal will contribute towards the Catalyst Area becoming a nationally significant sporting precinct and will contribute towards the additional jobs target.

The proposal is consistent with Planning Priorities:

- *8 - Plan for growth and change in Catalyst Areas, Strategic Centres, Urban Renewal Corridors and Housing Release Areas.*
- *14 - Enable the transition to new economy jobs and grow creative industries*

As previously discussed, the proposal will provide more employment, investment and activity within the region. The construction and operational phases of the development will generate new jobs, attract investment and contribute to tourism opportunities within the LGA.

4.7.6 Newcastle Community Strategic Plan 2030

Newcastle Community Strategic Plan 2030 (CSP 2030) provides goals for the LGA over the next 10 years. The visions within the CSP 2030 relevant to the proposal include:

- Celebrating culture and history
- Business growth
- Employment opportunities

The relevant guiding principle within the plan to the proposal is:

- A city that is smart and has good, new ideas

The proposal will contribute towards a strong economy. The proposal will provide additional jobs during construction and the ongoing operation of the development. The proposal will attract investment and tourism opportunities within the LGA.

4.7.7 Newcastle Heritage Strategy (2020)

The Newcastle Heritage Strategy (the Strategy) will guide CoN's approach to the management of heritage matters in the Newcastle LGA over the next ten years. This Strategy enables CoN to formulate a framework to ensure that its vision, that local heritage is valued, enhanced and celebrated, is achieved.

The Strategy identifies a vision statement, core themes and objectives, outcomes and measures for heritage within the LGA. The Strategy also identifies four (4) strategic priorities for heritage:

- Knowing our heritage
- Protecting our heritage
- Supporting our heritage
- Promoting our heritage

The proposal is consistent with these strategic priorities for heritage. As discussed previously in the NLEP 2012 of this report, no State heritage items are listed for the site or immediate vicinity. The site is identified as a local heritage item as per NLEP 2012.

The SOHI accompanying the proposal (**Appendix 13**) finds that:

- The design of the proposed works minimises the impact on the existing significant buildings on the site
- The design response provides ample space around the significant buildings to interpret their significance, design, material and detail
- The proposal is found to have potential to enhance the setting of the item despite some views being obscured
- The buildings and elements graded as being of moderate or higher significance are retained in full
- The proposal will encourage the continued use and promotion of the heritage item

A search of the AHIMS database returned no records of Aboriginal sites or places within a 50 metre buffer of the site. The site is not mapped as a sensitive landscape and the site is not proximate to any significant features that would indicate a likelihood of Aboriginal heritage artefacts or cultural significance. Despite

this, in the event that any items of significance are found during the proposed works, all work will cease immediately, and the appropriate authority will be contacted to establish the correct process.

The proposal is therefore entirely consistent with the Strategy and its strategic priorities. The proposal acknowledges, protects, supports and promotes the heritage item through its design, placement and continued use of the local heritage item.

4.7.8 Newcastle Development Control Plan 2012

Newcastle DCP 2012 provides guidance to development of land under NLEP 2012 and is intended to act as an integrated planning document. In accordance with Section 11 of SEPP SRD, DCPs do not apply to state significant development. Despite this, the SEARs requests consideration of the NDCP 2012.

The general provisions of each subsection and location with this EIS in each part of DCP 2012 are presented as follows in Table 4.7.

Table 4.7: Summary of Newcastle DCP 2012

SECTION NO.	THIS PART APPLIES TO DEVELOPMENT THAT:	RELEVANT SECTION WITHIN EIS
5.01 Soil Management	Proposes earthworks, excavation and disturbing soil	Section 6
5.02 Land Contamination	Proposes earthworks, excavation and disturbing soil	Section 6
5.03 Vegetation Management	Involves clearing or pruning of vegetation under SEPP (Vegetation in Non-Rural Areas) 2017 Impacts declared vegetation on private land, or within 5m of a development site, or that is likely to be affected by infrastructure works associated with the proposal	Section 6
5.04 Aboriginal Heritage	Will, or is likely to affect, the heritage significance of an Aboriginal place or object	Section 6
5.05 Heritage Items	Land shown as a heritage item on the Heritage Map and described in Schedule E of NLEP 2012	Section 6
5.06 Archaeological Management	Incorporates excavation or site disturbance	Section 6
7.02 Landscape, Open Space and Visual Amenity	Incorporates a new building or structure, and/or alterations or additions to the external footprint of an existing building or structure.	Section 6
7.03 Traffic, Parking & Access	Involves an increase in gross floor area of a building and an activity generating a demand for parking.	Section 6
7.06 Stormwater	Is within the NLEP 2012 area	Section 6
7.07 Water Efficiency	Is for business, commercial or industrial purposes	Section 6
7.08 Waste Management	Is likely to create waste	Section 6
7.09 Advertising and Signage	Proposes advertising signage	Section 6

4.8 NSW ANIMAL WELFARE CODE OF PRACTICE NO.3 – HORSES IN RIDING CENTRES AND BOARDING STABLES

The NSW Animal Welfare Code of Practice No.3 – Horses in Riding Centres and Boarding Stables (Code of Practice) sets standards for the care and management of horses in riding centres and boarding stables. The code applies to the welfare of horses held and cared for in these establishments. The proposed development has been developed with careful regard to the Code of Practice as demonstrated in Table 4.8 below.

Table 4.8: Consideration of NSW Animal Welfare Code of Practice No. 3

CODE	RESPONSE
1. Introduction 1.1 This code sets standards for the care and management of horses in riding centres and boarding stables. 1.2 It applies to the welfare of horses held and cared for in these establishments.	The code applies to the proposed development. The proposed development has been developed with careful regard to the Code of Practice as demonstrated in this table.
2. Responsibilities of the manager **2.1 The Manager of a riding centre or boarding stable is responsible for:** (a) Providing adequate facilities, equipment, feed, water, supervision and care to ensure the welfare of the horses held (b) supervising the daily feeding, watering and inspection of the horses to ensure their well-being (c) maintaining the hygiene of the premises and the health of the horses (d) providing prompt veterinary or other appropriate treatment in cases of illness or injury (e) supervising staff, whether working full or part-time and whether or not for fee or reward (f) collecting and maintaining relevant records.	The horses will be supervised by Licenced Trainers recognised by Racing NSW. The proposed design and waste management measures in place will assist to ensure the hygiene and health of the horses Prompt veterinary or appropriate alternative treatments will be provided when required Staff will be supervised by Licenced Trainers. Records will be collected and maintained under the supervision of the Licenced Trainers.
3. Accommodation and facilities for horses 3.1 Riding centres and boarding stables must have an adequate water supply, and should be located away from noise or pollution that could cause injury or stress to horses. 3.2 Horses in stables, collecting yards and paddocks should have sufficient protection against sun, wind and rain and extremes of temperature. Shade trees, roofing, windbreaks and rugs may be necessary. 3.3 Horse enclosures must be designed and maintained to prevent injury, disease and escape. Methods used to achieve this include the following: 3.3.1 Provide enclosures with secure closing devices that cannot be opened by the horses held. 3.3.2 Use fencing material that is clearly visible to horses. 3.3.3 Build collecting yards with post and rail fencing using timber or steel piping and steel or concrete posts. Barbed wire, prefabricated wire and high tensile fencing can injury horses severely, and should	The proposal has been designed to ensure adequate water and shade is available and that sources of air and noise pollution are minimised. The proposal has been designed in consultation with NJC.

CODE	RESPONSE
not be used for collecting and handling yards. The fences for handling yards should be high enough to prevent escape. 3.3.4 Provide floors (of yards, sheds and stables) with surfaces that permit adequate drainage and allow horses to stand and walk normally. 3.3.5 Make gates at least 1.3 metres wide to stables, yards and paddocks. Swinging stable doors should open outwards. 3.3.6 Use stables that are at least 2.5 metres high, with a floor area of at least 12 square metres for each horse or 9 square metres for each pony under 12 hands. 3.3.7 Provide appropriate stable bedding that is clean and sufficiently thick. 3.3.8 Ensure stables are ventilated enough to keep them free of dampness and noxious odour without draughts. 3.3.9 House horses in a dust free environment wherever possible. 3.3.10 Use lighting that is as natural as possible and that can be used for thorough inspection of horses. Horses should not be subjected to continuous artificial lighting. 3.3.11 Keep paddocks free of noxious plants and rubbish that may injury horses.	
3.4 Cleanliness 3.4.1 Stables and yards must e kept clean. Urine affected bedding and manure must be removed at least once a day. 3.4.2 Efforts must be made to effectively control of pests including ticks, flies, lice, mosquitoes and rodents, under professional supervision if applicable. 3.4.3 Disposal of manure, bedding, food wastes and animal bodies should be prompt and hygienic.	The maintenance and cleaning of the stables will be supervised by the Licenced Trainers. Potential pests will be monitored and managed in accordance with the Pest Management Plan (**Appendix 19**) and regular visits from the vet. Disposal of waste will be carried out in accordance with the Operational Management Plan and Waste Management Plan (**Appendix 8**).
3.5 Food and Water 3.5.1 Horses must have appropriate food and water, sufficient to keep them in good health and body condition. 3.5.2 For advice on specific feed requirements you can contact veterinary surgeons, government departments of Agriculture and university departments of animal husbandry. 3.5.3 Horses need salt (added to the feed or as a salt lick) and a regular supply of fresh, clean water. As a guide, 25-45 litres a day may be needed in hot weather. Mares need extra feed and water when they are pregnant or lactating. 3.5.4 When pasture is available but supplementation is necessary, horses should be fed at least once a day. They should be fed at least twice a day where there is no access to pasture. 3.5.5 Feeding diets high in cereal grain to horses that are ridden infrequently can produce unpredictable temperament changes which can be dangerous for a rider. 3.5.6 Feed should be free from contamination such as mould, dust, insecticides or other substances that could be toxic.	Food and water will be provided to the horses under the supervision of the Licenced Trainers. Refer to **Appendix 8** for Operational Procedures.

CODE	RESPONSE
3.5.7 Feed should be stored in the best practical way to prevent deterioration [for example; store chaff in dry, rodent proof bins, and store hay in a dry area on raised pallets to allow air circulation]. 3.5.8 Horses must be able to easily reach feed and water containers. The containers should be firmly fixed if possible, non toxic, easily cleaned and kept clean. 3.5.9 Automatic and manually filled watering systems should be checked daily. If horses are working during the day, they should have water available at regular intervals when they are resting. 3.5.10 On treks, horses must be allowed sufficient time to drink from natural water sources. If feed must be changed before a trek, this should be done gradually over a period of days.	
4. Management 4.1 Equipment 4.1.1 All equipment which may affect the safety and welfare of horses and riders should be designed and maintained to avoid injury and disease. 4.1.2 Saddles that touch the mid-line of the horse's back or that have broken trees must not be used. 4.1.3 Saddle blankets should give enough padding and be dry and clean. 4.1.4 Tack should be appropriate for and fit each horse on which it is used.	All equipment will be monitored by the Licenced Trainers.
4.2 Care of Horses 4.2.1 As far as possible, horses should be protected from stress or injury. Methods that should be used to achieve this include: • providing the space for each horse in a group to reach sufficient feed (for example, give each horse a separate feed container, at least 4 m apart) • segregating colts, stallions, weanlings, pregnant mares and sick horses from other groups if necessary • providing adequate supervision of horses in stables, collecting yards and, as far as possible, when they are being ridden 4.2.2 Horses must be of a suitable size, conformation, disposition, fitness, and have adequate education for the purpose for which they are used. 4.2.3 Horses that must not be used for work in riding centres include: • horses under 3 years of age, • horses in poor body condition, • mares that are more than 8 months pregnant, or are in the first three months after foaling, • horses known to be or suspected of being injured or ill, except as advised by a veterinary surgeon. 4.2.4 Horses should be groomed before saddling, and particular care should be taken to remove sweat and dirt from areas under	The stables complex has been designed to provide the highest degree of care and comfort for the horses. The facilities are commensurate with the stabling of thoroughbreds and include horse walkers, wash bays and sand rolls. Operational management of the facility has been carefully planned to ensure the facility is regularly cleaned and serviced. For example, each stall will be 'mucked out' twice per day and fresh bedding and feed provided. Horses will be spelled according to the direction of the relevant Licenced Trainer. The stables have been designed to achieve a high level of thermal comfort for the horses, including natural cooling and heating through passive design.

CODE	RESPONSE
the saddle, girth and bridle.The back and girth areas should be cleaned and inspected when unsaddling. 4.2.5 Horses should, as far as possible, be ridden in a controlled manner and at a speed that is safe for horse and rider, considering the ground, the weather, and the experience of the rider. 4.2.6 Horses should not be overworked. Horses that show signs of tiredness or distress during work should be rested until fully recovered. Programs must be planned to prevent overwork and allow appropriate spelling of horses. 4.2.7 Continuously stabled horses should be exercised at least once a day. This may be done by riding, lunging or releasing them into a large yard for at least one hour a day. Horses that are stabled long term should be spelled outside at least once a year. 4.2.8 Horses should be spelled as often as necessary to maintain welfare, with consideration to the workload and the individual temperament of the animal. 4.2.9 After working, stabled horses should be hosed, sponged or brushed to remove sweat and dirt. 4.2.10 In cold weather, horses should be dried after working. 4.2.11 When introducing new or spelled horses, increase their workload gradually. 4.2.12 The number of staff provided to supervise a group of riders should be sufficient to ensure each horse's welfare is maintained, and as a general rule should be one staff member per 10 horses. 4.2.13 Horses should not be tied up by reins attached to the bit unless the attachment includes an easily breakable component such as plastic or string. 4.2.14 Whips and spurs should only be used as training aids by experienced riders. It is illegal to use spurs with sharpened rowels. 4.2.15 In cold weather, horses that are in poor condition or have not grown a long coat should be rugged with a waterproof rug.	
4.3 Fire Safety 4.3.1 Staff should have easy access to appropriate fire fighting equipment. They must be trained and practised in using the equipment. 4.3.2 Any security methods must allow for ready access to horses and quick evacuation of staff and horses in an emergency. 4.3.3 Precautions to improve fire safety in stables should include: • enough exits for horses (about one exit per five stables) • exits that are wide enough (at least 1.3 m for stable doors and 2 m for aisle exits) • fire hose reels that are long enough to reach all stables.	Fire safety equipment will be installed throughout the stables complex. Stable hands will be trained in the use of fire safety equipment.

CODE	RESPONSE
• adequate water pressure • fire hoses of adequate diameter • storage of flammable items in an area separated from the stables. • sliding stable doors that don't block corridors. • smoke detectors in enclosed buildings. • "no smoking" signs in stable areas. • an enforced non-smoking policy in the stable area.	
4.4 Record Keeping Appropriate records should be kept for each horse, as part of good business management and a health care program.	The Licensed Trainers will ensure appropriate records are maintained
4.5 Staff 4.5.1 Staff should respect horses and have experience in handling them. 4.5.2 Staff should be aware of their responsibilities and be competent to carry them out. 4.5.3 Formal training, such as a Technical College qualification in horse husbandry, is encouraged.	All staff will be supervised by the Licenced Trainer.
4.6 Health Care 4.6.1 Owners of animals being boarded must be asked to sign an agreement authorising provision of necessary veterinary treatment. 4.6.2 The animal boarding establishment manager should establish liaison with a veterinary surgeon who is able to attend to any animals in his or her care, and is also able to advise on disease prevention measures. 4.6.3 The health and comfort of each horse needs to be checked. Horses which are stabled or confined to stable yards, boxes or small paddocks should be checked at least once a day to ensure that they are receiving appropriate food and water and are free from disease, distress and injury, while horses confined in broadacre situations must be inspected regularly. 4.6.4 If signs of disease or injury are observed, appropriate treatment must be promptly provided to protect the health of individual horses and prevent the spread of disease. 4.6.5 Signs of illness or injury for which veterinary treatment should be sought include: • nasal discharge • runny or inflamed eyes • coughing • laboured breathing • lameness • inability or reluctance to stand or walk • fits or staggering	All horses will have access to vet / dental / chiropractic and farrier work as required.

CODE	RESPONSE
• severe diarrhoea • bleeding, swelling or ulcerating of body parts • unexplained weight loss • apparent pain • inability to urinate or defecate • repeated or continuous rolling, pawing, kicking at abdomen or sweating • poor appetite • dropping food or chewing with difficulty • excessive distress during work • excessive scratching or hair loss. 4.6.6 If necessary, horses that are ill should be stabled, separated or isolated and appropriate facilities must be available for their care. 4.6.7 A basic first aid kit for horses should be carried when they are ridden into remote areas where prompt veterinary attention cannot be provided in case of injury or illness. The kit may include: • cotton wool • bandages and wound dressings • adhesive dressings • antibacterial wash • fly repellent. You should also consult a veterinary surgeon on first-aid procedures before leaving. 4.6.8 Horses should be vaccinated against tetanus at least every 5 years. 4.6.9 Annual vaccination against strangles is advisable, particularly in young horses. 4.6.10 A program to control internal parasites should be set up with the advice of a veterinary surgeon. To help control parasites: • regularly monitor parasite status treat as necessary • spell paddocks • remove manure remove and hygienically dispose of bot fly eggs. .6.11 Horses' teeth must be checked, and filed if necessary, every 12 months. 4.6.12 Horses' legs should be inspected regularly for injuries or swellings. 4.6.13 Horses' hooves should be: • shod if the horses are worked on roads or hard ground • regularly trimmed or shod by a farrier (preferably every 6-8 weeks) • regularly cleaned out.	

CODE	RESPONSE
4.6.14 Where treatment to restore health or repair injury is not possible, practical or successful, horses should be humanely destroyed. Horses should be humanely destroyed by a veterinary surgeon; or if this is not possible, by a person experienced in these procedures. When horses are boarded, the owner should sign an authorisation for the animal to be euthanased in an emergency.	
4.7 Transport 4.7.1 During transport horses should be: • transported in the shortest practicable time • penned separately, wherever possible • fitted safely with headstalls (if the animals are trained to lead and tie up) with the lead of the headstall secured to the vehicle or stall using a quick release knot. 4.7.2 Lame or sick horses should only be transported for veterinary treatment or slaughter where transport would not cause undue pain or distress. 4.7.3 Mares more than eight months pregnant should not be transported, if possible. 4.7.4 Any vehicle especially designed or regularly used for transporting horses should: • protect horses from injury • have non-slip floors • provide easy access and operator safety • protect horses against extremes of temperature • have adequate ventilation • be easy to clean • be kept clean.	Horses on site will only require transportation to external race meets or for periods of spell.

5. CONSULTATION

5.1 DEPARTMENT OF PLANNING, INDUSTRY AND ENVIRONMENT

The project was identified as likely to be SSD. A scoping meeting was held with NSW Department of Planning, Industry and Environment (DPIE) on 8 December 2020. Matters discussed at the meeting include:

- Background to the development including strategic need for the proposed facilities
- Potential impacts to nearby sensitive land uses
- Waste removal and management
- Hours of operation
- Existing uses / capacity / staff numbers / vehicle movements
- State significant development process.

Feedback received from DPIE staff was that the EIS should include detailed information about how the proposed stables complex will be operated and managed. The proposal has been formulated having regard to the matters discussed at the scoping meeting.

A Scoping Report was issued to DPIE which was then circulated to the following agencies:

- Biodiversity Conservation Division
- City of Newcastle
- Environmental Protection Authority
- Heritage NSW
- Subsidence Advisory NSW
- Transport for NSW
- DPIE Water and Natural Resource Access Regulator.

The feedback received from each of these agencies formed the SEARs. This EIS and all supporting documentation has been prepared in direct response to the SEARs. In addition to the pre-lodgement agency consultation outlined above, additional consultation has been carried out as described in Section 5.2-5.6 below.

It is understood that the EIS will be referred to the agencies for review.

5.2 CITY OF NEWCATLE

A meeting was held with CoN on 9 December 2016 to discuss the proposed development (**Appendix 20**). A number of key issues were discussed at the meeting including:

- Traffic
- Acoustic impacts
- Odour
- Heritage
- Streetscape
- Integrated development.

Each of the items discussed in the pre-lodgement meeting will be considered throughout the design and is addressed within the EIS. In addition, the EIS has been formulated having regard to the feedback provided by CoN in the SEARs.

5.3 AUSGRID

A Preliminary Enquiry was submitted to Ausgrid and a response received 15 March 2021 (**Appendix 18**). The response indicated that an extension/augmentation of the Ausgrid network is required in relation to the proposal. Works required to provide the necessary capacity include the installation of a second site kiosk substation to supply the site. The proponent will engage an accredited service provider to undertake the design and construction of the required works. A detailed overview of the consultation with Ausgrid and proposed works in response to Ausgrid requirements, are provided in the Utilities Report in **Appendix 28**.

5.4 HUNTER WATER

A developer services application was submitted to Hunter Water and a Notice of Requirements has been obtained. The development plans have been stamped by Hunter Water confirming water and sewer services are available to the site (**Appendix 21**). The detailed design stage will be carried out having regard to the water, sewer and trade waste requirements set out in Hunter Water's correspondence. A detailed overview of the consultation with Hunter Water and proposed works in response to Hunter Water requirements, are provided in the Utilities Report in **Appendix 28**.

5.5 SUBSIDENCE ADVISORY NSW

In response to the requirements of the SEARs a building application was submitted to SA NSW and a Notice of Determination has been received (reference TBA21-02272, **Appendix 15**). The building application was approved subject to conditions. SA NSW have confirmed that the condition for grouting of mines can be reviewed post-DA approval and following further site investigations that may identify alternative requirements to grouting. Additional consultation with SA NSW will be carried out in due course.

5.6 COMMUNITY CONSULTATION (PRE-DA LODGEMENT)

The adjoining and nearby residents of the site were invited to attend a community consultation session conducted on 26 June 2021. Representatives of NJC provided an overview of the development to residents who attended on the day. A register of attendees was taken and contact details placed on file for future correspondence. The register can be provided to DPIE upon request.

Residents raised the following matters of concern:

- Odour
- Air quality (dust)
- Noise
- Traffic.

Feedback received during the community consultation session has led to further investigation into these matters and subsequent refinement of the development, in particular the proposed management measures, in order to minimise impacts of the development on nearby residents.

The application will be placed on exhibition for public comment. Any representations made will be addressed in due course.

6. ASSESSMENT OF ENVIRONMENTAL EFFECTS

6.1 LAND USE

6.1.1 Existing Environment

Land uses in the study area include the racetrack and associated facilities, residential development, an education facility (high school) and a childcare centre. The latter three uses may be sensitive to the impacts of the proposed development. The development site and its context are described in Section 2 of this EIS. To summarise, the proposed development site is approximately 2.55ha and is currently used in association with thoroughbred racing and training.

The existing stables complex is located immediately north of residences along Hibberd Street, within the south-eastern corner of the site. The existing stables cater for a maximum of 230 horses. The maximum occupancy is much lower than the training facilities can accommodate, requiring horses to be floated to the site. The stables are approaching the end of their lifespan. Improvements are recommended to ensure best practice standards for the health and welfare of horses, and the safety of staff are being met. Furthermore, an expensive retrofit would be required to improve environmental outcomes such as energy efficiency and water quality management. Finally, the quality of the existing stables is not commensurate with NJC's status as the premier racing and training facility in the Hunter region.

A major limitation of the existing stables is the close proximity of stables to existing residences. The stables are currently built to the southern site boundary immediately adjoining a large number of residential properties. Currently the stables are leased by individual trainers and operated by the trainers and their staff.

In terms of current operations, trainers and stable hands arrive at the stables from 2:30am with the first horses at the track from 3:15am with training beginning at 3:30am. The track closes at 8:30am with staff leaving the stables between 8:30am-10am. As a general rule the bulk of training takes place between 5am-8am. The afternoon shift at the stables begins around 1pm and finishes at 5pm with times varying depending upon individual trainer's starting and finishing times.

Currently, there are around 230 horses exercising each morning with around 102 staff (strappers/stable hands/jockeys/trainers/course supervisors). Afternoon sees significantly less staff on-site, with horses not undertaking trackwork in the afternoon but rather light exercise only.

6.1.2 Potential Impacts

Potential adverse impacts of development on land use in the vicinity include noise, odour, traffic, loss of habitat and alteration of the existing streetscape. Potential positive impacts include a reduction in road-transport of horses to and from the training facility, improved health and welfare for horses and improved health and safety for trainers, stable hands, vets and other staff. Other positive impacts include employment opportunities, additional investment in the thoroughbred industry, tourism opportunities, improved biodiversity through additional tree planting, improvements on existing waste water treatment and streetscape improvements.

Trackwork would continue across 6 days a week (Monday to Saturday) with the tracks closed on a Sunday. The track is open on the Public Holidays which do not fall on a Sunday. Trackwork will commence at 3:30am and will be generally complete by 8:30am. Following trackwork, a small number of staff will remain on site to assist with general stable maintenance, walking horses, accepting deliveries etc. Deliveries of goods and materials to the site would generally occur between 9:00am and 5:00pm.

For the new stables development, a maximum of 375 horses will be exercised each morning. Staffing would be equivalent to 154 per morning (107 strappers/stable hands, 35 jockeys, 10 trainers and 2 NJC track supervisors), an increase of 52 over the 102 currently at the course.

6.1.3 Environmental Management Measures

Consideration has been given to adjacent land uses and potential impact such as hours of operation, traffic and access, noise, odour visual impact, landscaping and site management, as required by the SEARs. These matters, and potential mitigation measures, are addressed in detailed throughout Section 6 of this EIS.

6.2 TRAFFIC AND ACCESS

6.2.1 Existing Environment

The site has existing access from Chatham Street and Darling Street. Chatham Street provides north-south connection between Belford Street to the north and Glebe Road to the south. It allows for single lane of travel in each direction and parking on both sides. Darling Street has an east-west orientation and along its northern side provides frontage to the racecourse. Darling Street has a number of taxi zones and bus stops which operate on race days. On street parking is available on the southern side of Darling Street. Darling Street, due to its function as an access to the racecourse, operates as a collector road in this locality with a posted speed limit of 50 km/h.

The Traffic and Parking Assessment (**Appendix 16**) prepared in response to the SEARs carried out traffic counts on Thursday 18th March 2021 at the intersection of Chatham and Darling Street between the periods 7:00am-10:30am and 2:00pm-5:30pm. Weather conditions on the day were wet. This day was selected as reflecting a typical training day although the wet conditions may have seen a slight drop in the number of horses training (confirmed as being 214 training on Thursday 18th March). The traffic surveys indicate that the local road peak occurs between 8:00am-9:00am and 3:00pm-4:00pm.

6.2.2 Potential Impacts

Parking

The proposal includes the formalisation of parking for 94 vehicles off the existing access on Darling Street. This area is currently used by trainers and stable hands for informal access and parking.

The parking available across the course is significant with large areas of parking developed to accommodate peak race day demands. The new carpark will be suitable to accommodate the daily demands associated with the operation of the proposed stabling complex with peak demands for training able to be accommodated through a mix of this new carpark and the existing carparks which are unused when training is occurring.

A review of race day on-site parking demands undertaken from an aerial image (dated 2015 being the most suitable image available which reflects a typical race day parking scenario) indicates approximately 140 vehicles parked in the area that will form part of the subject site. The image shows other vehicles parked throughout the racecourse site with available space unused. It is proposed that in conjunction with the stables complex, temporary race day parking across the racecourse site shall be delineated on the existing grassed parking area using pinned markers to provide a more effective layout. This will enable the race day event parking to be provided across the site as per the current scenario but in a more formalised and efficient manner. This demonstrates that the stables complex will not reduce available parking within the overall NJC site. The increase in horses stabled on site will reduce the parking demands for horse floats etc currently on site on race days.

Access

As previously detailed, the proposed development will allow for 4 driveways to provide connection to the new stabling complex. Delivery vehicles and horse floats will enter the site via Chatham Street (southern entrance) and exit the site via Darling Street. Staff parking for approximately 94 vehicles is accessed via Darling Street.

Vehicles associated with track maintenance, will enter and leave the site via Chatham Street using a reactivated entry to the north of the site (northern entrance). As per the existing situation, this will allow for two-way movements and all turn movements into and out of the site. Turning path plans showing vehicle movements into and out of each driveway is provided in **Appendix 17**.

The existing main access from Chatham Street to the hardstand area and access to the previous tie-up stalls and the track crossing will be closed. The kerb shall be reinstated allowing for additional parking in this area. A new driveway is proposed south of this and a new driveway on the western end of the site onto Darling Street. Both of these will allow for one way movement only, inbound from Chatham Street and outbound onto Darling Street. Both driveways will allow for left and right turns and shall allow for the movement of heavy vehicles including semi-trailers associated with bedding deliveries and waste removal.

The driveway to the carpark will allow for two-way movements into the site and all turn movements in and out. Demands for these driveways will primarily be as per the existing situation. Observations at the time of the traffic survey indicated there are no significant pedestrian demands in this area. Demands to the north associated with Merewether High School saw the majority of pupils not walking south towards Darling Street.

On race days, pedestrian demands can be higher at the start and finish of the day. Vehicle arrivals however would be consistent with the existing situation. The new tie-up stalls remove some vehicle movements that have historically entered the site at Chatham Street and with more horses stabled on site there shall be lower float movements occurring at this point of entry. Parked vehicle numbers overall will be consistent with the existing situation as detailed above. Adequate sight lines are available for all driveways.

Development traffic

For the new stables development, allowing a maximum of 375 horses exercising each morning, the staffing would be equivalent to approximately 154 per morning (107 strappers/stable hands, 35 jockeys, 10 trainers and two NJC track supervisors), an increase of 52 over the 102 currently at the course. The existing pattern of vehicle arrivals and departures confirmed that the majority arrive early in the morning and well before the road peak of 8am with departures typically spread between 7:15am-9:00am. Of the departures 60% exited to the north along Chatham Street with the balance turning left to travel through the Darling Street intersection.

As a worst-case scenario, allowing a vehicle per additional staff member, this would equate to 52 additional outbound vehicles (26 in the AM peak hour) when compared to the existing situation. Based on observations of existing traffic movements, of these peak hour trips 16 vehicles have a destination to the north and 10 to the south or east. Importantly, it should be noted that the daily floating of horses for early morning trackwork will no longer be required.

Operational traffic

The proposed stabling complex will generate the following operational traffic movements at maximum occupancy:

- Feed trucks – six trucks per week (6 inbound and 6 outbound) 1 per day Monday to Saturday
- Waste removal – for the removal of general waste. Waste removal occurs Monday, Wednesday and Friday around 10am with the large garbage bins emptied on site into waste trucks. This occurs three times per week. one truck inbound and one truck outbound at around 10am.
- Bedding material delivery and stabling waste removal occurs using the same truck, 12 times per week with times dependent upon the contractor's schedule. This equates to two trucks per day, six days per week.
- Vehicle movements during the typical day associated with horse welfare and management including vets, farriers, owners etc. These can occur throughout the day as part of general horse management or can occur at other times depending upon emergency demands.

Cumulative traffic

Overall, the proposed stabling complex could generate an additional 26 light vehicle movements outbound in the AM peak hour (with less in the PM peak hour) having arrived to the stables prior to the road peak and with departures spread across several hours.

Outside of these peaks, normal operation of the stabling complex could generate up to 8 truck movements (4 inbound and 4 outbound) per day for the delivery of inbound product (feed, bedding) and removal of waste along with further movements associated with support personnel (vets, farriers etc). Not all of these movements however are additional as a number of these would currently be generated by the existing stables.

Movements associated with the transportation of horses to races throughout the week would be spread throughout the day depending upon the time of races and distance to travel and may equate to an additional 13 movements (10 car/horse float combinations + 3 horse transporters) outbound in the AM peak with the same number returning in the afternoon peak, although most likely later than the 3:00pm-4:00pm peak hour.

The proposed development will see the removal of a number of existing traffic movements due to the relocation of the stables and the reduction in horses being "floated in" for daily training. On the basis that, at present, 230 horses can be training on any morning, and assuming as a conservative number these were transported by trainers with an average of 4 horses per vehicle, this would equate to 57 less horse floats/transporters arriving and departing in the morning that instead would be stabled on site. In the afternoon there are significantly less horse movements due to the lack of trackwork however there can still be some horses being transferred as part of other training/exercise e.g. equine pool use. The new stables complex is expected to see no significant change in pedestrian or cycling demands.

The cumulative traffic movements are summarised in Table 6.2.1.

Table 6.2.1: Summary of peak hour and daily peak movements (Source: Traffic and Transport Assessment prepared by SECA Solution)

USE	PEAK HOUR MOVEMENTS	TOTAL DAILY MOVEMENTS
Training (additional)	26 outbound (AM) 10 outbound (PM)	216 movements
Operations	Out of peak period	60 light movements 8 heavy movements
Off course race movements	10 outbound (AM) 10 inbound (PM)	40 car/ute with float 12 larger float movements
Removed training trips (horse floats)	Less 18 outbound in AM Less 10 outbound in PM	Less 160 movements
Total	AM: 18 outbound PM: 10 inbound / 0 outbound	156 light vehicle or vehicle float movements (78 inbound / 78 outbound) 20 heavy vehicles (10 inbound / 10 outbound)

As a worst-case scenario, the proposed development on a typical day could generate an additional 75 movements daily on Chatham Street and 50 on Darling Street.

Impact on Intersection of Chatham Street and Darling Street and Local Road Network

The impact in the peak hour on the intersection of Chatham Street and Darling Street will be minimal. The main impact could be for the additional right turn demands associated with trainers. Overall, the impact on this intersection is considered acceptable. Additional vehicle movements associated with the construction will be within the capacity of local streets and intersections. At the operational stage, daily movements are anticipated to be less than those associated with the construction.

6.2.3 Environmental Management Measures

Where works are undertaken on the local roads these will be subject to relevant traffic controls to be provided by the contractor for approval by the road authority. Driveways and parking areas should be designed in accordance with AS2890 requirements.

6.3 NOISE AND VIBRATION IMPACTS

6.3.1 Existing Environment

Under the current situation the majority of horses are transported to the racecourse for training using light rigid single-steer trucks, or horse floats attached to 4WD vehicles in the early hours of the morning prior to commencement of trackwork, which typically occurs from 3.30am-8.30am.

The land surrounding NJC is primarily residential with dwellings located along Darling, Hibberd, Lowe, Chatham Street and Melville Road. A number of sensitive noise receivers are located in close proximity including childcare centres and Merewether High School.

The local road network would contribute to the existing acoustic environment with the roads being utilised by light vehicles, buses and trucks for transporting horses.

As part of Noise Assessment carried out in response to the SEARs (**Appendix 22**), a background noise level assessment was undertaken to ascertain the existing the existing background and ambient noise levels in the area. The measured noise environment is summarised in Table 6.3.1 below.

Table 6.3.1: Background Noise Levels (Source: Reverb Acoustics)

Time Period	Leq		Lmax		L10		L90	
	Range	Average	Range	Average	Range	Average	Range	Average
Day	46-73	56	65-97	75	48-64	56	37-53	42
Evening	36-67	49	42-95	70	37-60	45	35-45	38
Night	35-68	42	36-85	56	35-64	41	34-48	37

6.3.2 Potential Impacts

The acoustic impacts have been divided into three categories and these have been discussed below.

Proposed Development

The following elements are considered to be potential noise sources:

- Mechanical plant and pressure washers associated with wash bays
- Vehicle movements at the drop off area and carpark
- Loading and unloading horses from floats
- Horse movements on ramps, in stables, walkers, etc
- General site noise associated with care and exercising of horses, waste removal.

Future noise sources on the site cannot be measured at this time, consequently noise levels produced by customer's vehicles, delivery trucks, mechanical plant and site activities have been sourced from manufacturers' data and/or the acoustic engineer's library of technical data. This library has been accumulated from measurements taken in many similar situations on other sites, and allows predictions of future environmental noise at each receiver and recommendations concerning noise control measures most likely to be required on this site.

The theoretical assessment is based on a worst-case scenario, where all fixed plant items are operating simultaneously and vehicles entering and leaving in a location most exposed to the surrounding residences. In reality, many items will not always be operating in the most exposed areas, so actual received noise levels are expected to be less than the predictions shown in the Noise Report, or at worst equal to the predicted noise levels for only part of the time.

The proposed operating hours 3:30am-8.30am for the new stables is acceptable.

Road Network

Traffic due to the proposal travelling on nearby public roads is assessed separate to site noise and is subject to the criteria described in Section 2.3.1 of the Noise Report. Cars and trucks will enter and exit the site via the main entry/exit points on Darling Street and Chatham Road.

The Noise Impact Assessment assessed the new stables development based on the predicted traffic generation rate of 156 light vehicle or vehicle/float movements each day and 20 heavy vehicle movements each day. Approximately 50% of light vehicle movements, i.e 75 movements are expected to occur before 7am, while all heavy vehicle movements will occur during the day after 7am. The majority of traffic movements are expected prior to and at completion of trackwork.

The noise impact from traffic movements on public roads, associated with the new development are predicted to be compliant with the criteria during the peak day and night periods at all residential receivers and is considered acceptable.

Site Operation

The Acoustic Power Levels (Lw's) of plant and machinery expected for the site which were input into the acoustic engineer's computer model, are shown in Table 6.3.2.1 for peak day, and night periods. The Table gives the A-weighted sound power levels for each listed plant item, principally based on manufacturers' data and the acoustic engineer's library of technical data. Also shown is the number of items expected at the site during a 15 minute assessment period.

Table 6.3.2.1: Equipment / Activities (15 minute Assessment Period) (Source: Reverb Acoustics)

Item/Activity	Lw dB(A)	Staff Cpark	Dr Off Zone	Walker	Promenade	Ramp	Stables	Maint Shed
DAY								
Cars[1]	81	20						
4WD float[2]	83		5					
LR Truck[3]	86		3					
Pr Washer[4]	85						4	
Air compressor[5]	82						4	
Unload[6]	85		8					
Pool pumps[7]	72						2	
Horses[8,9,10,12]	69/79			5x10				
Waste remove[11]	96							1
Pool[10]	79						10	
Cleaning[13]	82						6	
Maint Act[14]	72							1
NIGHT								
Cars[1]	81	20						
4WD float[2]	83		5					
LR Truck[3]	86		3					
Pr Washer[4]	85						2	
Air compressor[5]	82						2	
Unload[6]	85		8					
Pool pumps[7]	72						2	
Horses[8,9,10,12]	69/79			5x5				
Waste remove[11]	96							
Pool[10]	79						10	
Cleaning[13]	82						4	
Maint Act[14]	72							1

NOTES:
1. Cars manoeuvring in carpark.
2. 4WD with float at Drop-Off Zone.
3. LR truck with float at Drop-Off Zone.
4. Washing out stables.
5. Air compressor running in conjunction with pressure washers.
6. Unload horses at Drop-Off Zone.
7. Pool pumps in pool services plant room.
8. Horses exercising in Walker.

9. Horses walking on ramps, promenade, passageways, etc.
10. Horses in pool.
11. Waste/manure bins removal by trucks.
12. Horses in stables.
13. Removal of waste/manure, etc.
14. Maintenance activities at Maintenance Shed and Equipment Shed

The Noise Impact Assessment includes calculations to predict the cumulative noise impact during day and evening periods (7am-10pm) at the nearest residential boundaries west of the site (identified in the report as R3). The results indicate the cumulative noise impact from activities associated with the site are predicted to exceed the criteria at nearest residential boundaries west of the site (R3) by up to 7dB(A) during the day. Furthermore, additional preliminary calculations reveal that short-term noise events are also predicted to exceed the Sleep Arousal Criterion at night. Noise control modifications necessary to reduce cumulative noise impact from activities associated with the site include:

1. No horse delivery pickup prior to 7am at Equine Drop-Off Zone;
2. Waste manure removal from the site must be restricted to day only (7am-6pm);
3. A 2400mm high acoustic fence will need to be erected along the west site boundary adjacent to the Maintenance Drop-Off Zone; and
4. Solid balustrade 1200mm above FFL is required on ramps.

Recalculation of the cumulative noise impact during day and evening periods at the nearest residential receiver west of the site (R3) - with the above noise control modifications in place - showed that impact from all site activities and equipment is predicted to be compliant.

The Noise Impact Assessment also provides a summary of predicted noise impacts during all time periods at nearest receivers (including the school and residences to the north west, west and south) with noise controls in place. Noise associated with site activities and equipment will generally be compliant with the criteria providing acoustic treatment detailed in Section 6.3.3 is implemented. It is relevant to note that the Noise Impact Assessment concludes the proposed operating hours 3.30am-8.30am for the new stables is acceptable.

Table 6.3.2.2: Summary Received Noise – All Nearby Receivers (Source: Reverb Acoustics)

Receiver Loc'n	Received Noise (Day/Evening/Night)						
	Period	dB(A),Leq	Crit	Impact	dB(A),Lm	Crit	Impact
School NW	Day	24	35#	0	-	N/A	-
R1	Evening	24	35#	0	-	N/A	-
	Night	21	35#	0	-	N/A	-
Residence NW	Day	41	43	0	-	N/A	-
R2	Evening	41	41	0	-	N/A	-
	Night	37	38	0	45	52	0
Residence W	Day	40	43	0	-	N/A	-
R3	Evening	40	41	0	-	N/A	-
	Night	37	38	0	49	52	0
Residences S	Day	42	43	0	-	N/A	-
R4	Evening	42	41	0	-	N/A	-
	Night	36	38	0	50	52	0

Internal Noise Level Criteria.

Noise – Horses on Public Roads

Horses will not be exercised on public roads in the vicinity of the race course, due to the high level of traffic using both Chatham Road and Darling Street, which is a road safety issue. Adequate exercise facilities have been incorporated into the design to eliminate the need for horses to exercise on public roads.

On occasion horses may be walked from nearby off-site stables to the race course, although this practice will remain unchanged from the current situation. In conclusion, residents will not experience any change in received noise from horses on public roads than from the current situation.

Construction Noise and Vibration

Construction of the new development is likely to create noise and vibration impacts. The construction vibration may impact on people's personal comfort levels. Building safety is the second impact of construction vibration, which may result in cosmetic or structure damage. The potential impacts will need to be managed through the provided mitigation measures.

Construction noise has the potential to impact on residential properties and other sensitive land uses in the area. The predicated construction machinery and plant have been detailed in the Noise Impact Assessment in **Appendix 22**, along with an assessment of their potential impacts on nearby properties. The Noise Impact Assessment recommends noise control strategies to reduce construction noise impacts.

Occupants of nearby buildings may also have concerns about ground vibration levels from vibrating machinery (excavators, compactors, etc). Vibration mitigation strategies are outlined in Section 6.3.3.

6.3.3 Environmental Management Measures

Operational Noise

Noise control modifications necessary to reduce cumulative noise impact from operational activities at the site include:

- Deliveries and pickup of horses is only permitted during the day and evening (7am-10pm). No delivery or pickup at night (10pm-7am).
- The Equine Drop-Off/Pick-Up Zone has been designed for vehicles to enter and leave in a single movement eliminating the need for reversing and use of reverse alarms. Therefore, signs should be erected in conspicuous locations discouraging drivers from reversing.
- Acoustic fences are to be erected at the west site boundary opposite the Maintenance Shed with a height of 2400mm. An acoustic fence is one which is impervious from the ground to the recommended height, and is typically constructed from Colorbond steel, lapped and capped timber, Hebel Power panel or similar. No significant gaps should remain in the fence to allow the passage of sound below the commended fence height. A gap of 50-75mm is permitted at ground level to aid in drainage. Other construction options are available if desired, providing the fence or wall is impervious and of equivalent or greater surface mass than the above construction options.
- Perimeter of Horse Ramps 01, 02 must have enclosed balustrade to a minimum height of 1200mm above FFL.
- No acoustic barriers are required adjacent to mechanical plant, provided noise emissions for individual items are below the specified limits:

ITEM	MAX SPL AT A DISTANCE OF 1 METRE	LW
Air Conditioning Condenser	69dB(A)	75dB(A)
Refrigeration Condenser	70dB(A)	76dB(A)
Exhaust Discharge	70dB(A)	76dB(A)
Compressor	72dB(A)	78dB(A)
Pool Pumps	78dB(A)	84dB(A)

- Acoustic barriers are to be constructed at the fan discharge of exhaust plant that exceeds the limits specified in the levels above. Barriers must fully enclose at least three sides towards any residence. However, a more efficient and structurally secure barrier is one that encloses all four sides. The barrier must extend at least 600mm above and below the fan centre and/or

the discharge outlet and must be no further than 1200mm from the edges of the exhaust. Barrier construction should consist of either Acoustisorb panels (available through Modular Walls) or an outer layer of one sheet of 12mm fibre cement sheeting (Villaboard, Hardiflex), or 19mm marine plywood. The inside (plant side) is to be lined with an absorbent foam to reduce reverberant sound (fibrous infills are not recommended as they will deteriorate if wet), Note that variations to barrier construction or alternate materials are not permitted without approval from the acoustical consultant. Barrier construction is based solely on acoustic issues. Visual, wind load issues must be considered and designed by appropriately qualified engineers.

- Acoustic barriers are to be constructed adjacent to air conditioning and refrigeration plant that exceeds the limits specified in the levels above. Acoustic barriers 300mm above the highest plant item must be erected between the plant and residences. Barrier construction is to consist of either Acoustisorb panels (available through Modular Walls) or an outer layer of 12mm fibre cement sheeting, 25mm construction plywood, Hebel Powerpanel, or similar material, with an absorbent inner surface of perforated metal (minimum 10-15% open area) backed with a water-resistant acrylic batt or blanket.
- All pool pumps and ancillary equipment must be located in the dedicated pool services plantroom in Block D. If noise emissions exceed the limits specified in 4.6 above, acoustic louvres in preference to standard ventilation louvres are required for any openings in plant room walls on the south facade. The louvres must have the following insertion loss values (typically FantechSBL1, Nap Silentflo 300S Line or Robertson Type 7010).
- The contractor responsible for supplying and installing mechanical plant must provide evidence that installed plant meets this noise emission limit, or that noise control included with the plant is effective in reducing the sound level to the specified limit.
- Once the plant layout has been finalised, details should be forwarded to the acoustic consultant for approval.
- Waste collection be restricted to weekdays 7:00am to 6:00pm.
- Construction Certificate documentation must be forwarded to the acoustic engineer to ensure all recommendations within the Noise Impact Assessment have been incorporated into the design of the site.

Construction Noise

Attended noise and vibration monitoring should be carried out at commencement of each process/activity that has the potential to produce excessive noise and/or vibration. Attended monitoring offers the advantage of immediate identification of noise or vibration exceedances at the receiver and ameliorative action required to minimise the duration of exposure. The monitoring should be carried out in accordance with the recommendations in Section 5.1 of the Noise Impact Assessment.

Where possible, combustion engine plant such as generators, compressors and welders, should be fitted with residential grade exhaust silencers and shielding around motors. Additional noise controls strategies relating to construction equipment / processes should be implemented as outlined in Section 5.3 of the Noise Impact Assessment.

Trucks and other machines should not be left idling unnecessarily, particularly when close to residences. Machines found to produce excessive noise compared to industry best practice should be removed from the site or stood down until repairs or modifications can be made. Framing guns and impact wrenches should be used sparingly, particularly in elevated locations, with assembly of modules on the ground preferred.

In the event of complaints arising from occupants of nearby buildings during construction, additional strategies that can be complied at site include the following:

- Place acoustic enclosures or screens directly adjacent to stationary noise sources such as compressors, generators, drill rigs, etc.

- Temporary barriers of plywood, excess fill, etc, at least 2m high, at the perimeter of the construction site.

Occupants of nearby buildings should be notified of the intended construction timetable and kept up to date as work progresses, particularly as work changes from one set of machines and processes to another. In particular, occupants should understand how long they will be exposed to each source of noise and be given the opportunity to inspect plans of the completed development. Programming noisy activities (such as sheet piling) outside critical times for court buildings should be arranged.

The acoustic engineer recommends that construction noise management strategies should be implemented to ensure disruption to the occupants of nearby buildings is kept to a minimum. Noise control strategies include co-ordination between the construction team and building occupants to ensure the timetable for noisy activities does not coincide with sensitive activities.

The site manager/environmental officer and construction contractor should take responsibility and be available to consult with community representatives, perhaps only during working hours. Response to complaints or comments should be made in a timely manner and action reported to the concerned party.

All staff and employees directly involved with the construction project should receive informal training with regard to noise control procedures. Additional ongoing on the job environmental training should be incorporated with the introduction of any new process or procedure. This training should flow down contractually to all sub-contractors.

6.4 SOILS, GEOLOGY AND CONTAMINATION

6.4.1 Existing Environment

Geotechnical

A geotechnical assessment was undertaken to provide discussion and recommendations on the following:

- Soil Profile
- Groundwater observations
- High level footing and deep footing recommendations and design parameters
- Retaining wall design parameters
- Pavement profile design (flexible pavement for heavy vehicle use, rigid use, pavement for small forklifts and light vehicle use
- Recommendation for site preparation and excavations
- Comment on acid sulfate soils
- Test for hydraulic conductivity / soil permeability.

The site comprises land that is relatively flat and is used by NJC for horse racing and training. Existing developments are mostly positioned in the north-eastern parts of the site and include the current race day stalls, an equine pool and a maintenance building. The south to south-western areas of the site are generally race day parking areas vegetated by established grass cove, with several mature trees located near boundaries. There is a mixture of sealed and unsealed pavements across the site for access in and around the site leading to various parts of the racecourse facilities.

Reference to the 1:100,000 Newcastle-Hunter Area Coastal Quaternary Geology Sheet indicates the site to be underlain by Pleistocene undifferentiated estuarine plain which includes clay, silt, fluvial sand, marine sand and shell soil types.

Based on the results of the field screening and laboratory testing, it is considered that ASS are present in some of the soils below 1.6m to 2.3m bgs. ASS are not considered to be present in the soils above 1.6m, based on field observations and results of the field screening. Based on the results of the assessment, an ASS Management Plan would be required if excavations below 1.5m are proposed. Excavations above 1.5m would not require an ASSMP.

Contamination

Fill material occurs across the site to depths between 0.0m bgs and 1.0m bgs and comprises of soils mixed with coal chitter, with the exception of surface soils which varies depending on location (i.e. gravel in roads and carparks, and topsoil in grassed areas). A desktop and site history assessment identified four Areas of Environmental Concern (AECs) and Chemicals of Potential Concern (CoPC), relating to hazardous materials in current and former buildings; imported fill materials, storage of pesticides, fuels and oils; and application of fertilisers and pesticides.

Sampling and analysis of soils on site targeted the AECs and COPC identified. The results showed concentrations below the adopted criteria, taking into account the 95% UCL calculations, with the exception of zinc above the EIL in sample BH15 0.0-0.1m. BH15 was located in a grassed "median strip" in the horse loading and unloading area, which is asphalt paved. Based on this, the extent of the elevated zinc concentrations was considered small and localised. Therefore, it is considered that further investigation or remediation is not warranted.

6.4.2 Potential Impacts

Geotechnical

Fieldwork was undertaken on 26 November 2020 and comprised of drilling 12 boreholes to depths ranging from ground level to 2.8m below the natural surface. Table 1 of the geotechnical report (**Appendix 4**) summarises conditions encountered in the boreholes. In summary, the subsurface conditions generally comprised of topsoil and sandy silt or fill (silty sand, gravelly silty sand, clayey gravelly sand) and alluvium. Slow groundwater inflows were observed at depths of approximately 2.40m beneath existing ground level at borehole locations BH02 to BH05, BH10, and BH12. No other groundwater levels or inflows were observed in the remaining boreholes during the limited time that they remained open on the day of field work. It is noted that groundwater conditions can vary due to rainfall and other influences including regional groundwater flow, temperature, permeability, recharge areas, surface condition, and subsoil drainage.

Based upon the borehole logs, it is anticipated that Weathered Rock (Unit 4) materials are unlikely to be encountered within 2.80m of existing surface level, and that soils could be excavated by conventional excavator or equivalent at least to the depths indicated on the appended borehole logs.

Site Classification

Site Classification to AS2870 is not strictly applicable to this site due to it being a series of equestrian stable buildings rather than a residential development. However, the principles of footing design and the site maintenance presented therein may be taken into account for buildings such as those proposed for the site.

Erosion and Sediment Control

Construction has potential to result in erosion and subsequent loss of topsoil. Excess soil from construction will need to be managed on site or disposed off-site. Excess soil will need to be managed to ensure it is not lost into adjacent land or waterways via the stormwater system. A designated stockpile location will be required at the construction compound. It is likely excavated material will be reused within the site. In addition, a range of erosion and sediment control measures are proposed (refer to **Appendix 6**). Temporary sediment basins have been designed to accommodate the required volume, settling and storage zones. General controls will be provided on the site prior to and during all earthworks in accordance with EPA Site Work Practices. Features of the construction phase erosion and sediment controls adopted for this site include:

- Prevention of sediment and polluted runoff water from being directed off the construction site;
- Control of actual and potential soil erosion – grassing and stabilization of embankments and drainage outlets where required.
- Stabilised stockpile areas adjacent to existing access roads on the site, to minimise site disturbance required for access to the stockpile areas during initial stages of construction;

- Scour protection at discharge locations, comprising combinations of geofabrics (jute mesh) and rock-filled mattresses.
- Stabilised site access to provide a firm base for vehicle entry/exit and to prevent the main access from becoming a source of sediment.

Sediment control measures are to be constructed prior to any other disturbance works.

Contamination

It is considered that groundwater is unlikely to be contaminated by site activities, based on the following: the soil assessment did not identify gross or widespread contamination; the contamination identified comprised localised impacts of metals in surface soils; and, groundwater inflows were observed beneath sandy clay alluvial soils. The clayey subsoils would inhibit migration of contamination from surface soils or fill materials, to groundwater. No further soil assessment or remediation is warranted.

If buildings onsite are proposed to be demolished or refurbished as part of the development, it is recommended that a hazardous materials survey is completed by a suitably qualified consultant/hygienist. Following the survey, the hazardous materials (if any) will require appropriate demolition and disposal to a licensed waste facility.

Any soils proposed to be removed from the site, will require waste classification in accordance with the NSW EPA (2014) Waste Classification Guideline. Alternatively, soils may be able to be assessed in accordance with a relevant resource recovery order/exemption under Part 9, Clause 91 to 93 of the Protection of the Environmental Operations (Waste) Regulation 2014.

6.4.3 Environmental Management Measures

The following environmental management measures are proposed:

- An Unexpected Finds Procedure must be included in the Construction Environmental Management Plan, and implemented during demolition of buildings and earthworks.
- Prior to demolition or refurbishment of structures on site, a hazardous materials survey is to be completed by a suitably qualified consultant/hygienist. Following the survey, the hazardous materials (if any) will require appropriate demolition and disposal to a licensed waste facility.
- Prior to removing soils from the site, carry out waste classification in accordance with the NSW EPA (2014) Waste Classification Guideline. Alternatively, soils may be able to be assessed in accordance with a relevant resource recovery order/exemption under Part 9, Clause 91 to 93 of the Protection of The Environmental Operations (Waste) Regulation 2014.
- Sediment and erosion controls will be undertaken in accordance with the plan prepared for the proposed development (**Appendix 6**) and the Managing Urban Stormwater: Soils and Construction "The Blue Book" (4th edition, Landcom 2004).
- Footings for the proposed development should be designed and constructed in accordance with the requirements of AS2870-2011 and/or sound engineering principles. Shallow footings and deep foundations should be in accordance with the Qualtest Report Reference NEW20P-0194-AA.
- Retaining walls should be designed in accordance with the requirements of the Qualtest Report Reference NEW20P-0194-AA.
- Temporary earthworks should be carried out in accordance with the requirements of the Qualtest Report Reference NEW20P-0194-AA.
- Oils, fuels and chemicals used during construction will be stored in a locked bund capable of holding 110% of the capacity of the containers within.
- Equipment will be serviced and maintained to minimise potential for loss of fluids.
- Utilise existing cleared areas of the site as the construction compound and stockpile area(s), where practicable.

- The Construction Management Plan (EMP) will include details on waste management and provide a spill management procedure.
- Comply with requirements of Geotechnical Report prepared by Qualtest (NEW20P-0194-AA Dated 12 January 2021).

6.5 AIR QUALITY

6.5.1 Existing Environment

The existing use of the site for thoroughbred racing and training generates odour. Liquid and solid wastes, including urine, manure, and stable bedding waste (comprising straw, wood shavings and horse wastes are the primary sources of odour. Urban activities in the local area can affect air quality, generally through use of vehicles and power tools all year and wood fires utilised during winter months. The site is proximate to local roads where public transport and traffic on these roads can affect air quality through vehicle emissions

Table 6.5.1 below is a summary of the rainfall and temperatures collected by the Bureau of Meteorology for Broadmeadow (Newcastle University) approximately 3.9kms away. In summer the mean daily temperatures average ~28.6˚C. In winter mean daily temperatures average ~18.7˚C. Rainfall is generally higher in later summer and midwinter.

Table 6.5.1: Summary of the climate in Broadmeadow (Mean 1998 - 2021) (Bureau of Meteorology (accessed 15/07/2021))

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Rainfall (mm)												
Mean	81.2	135.5	125.2	118.1	87.5	131.9	64.1	57.1	66.2	68.2	102.3	71.6
Temperature (˚C)												
Mean	29.4	28.4	26.9	24.3	21.2	18.3	18.1	19.7	22.8	24.9	26.2	28.1

6.5.2 Potential Impacts

Construction Phase

Construction of the proposed stables would involve the demolition of existing structures, potential grouting of mine voids, earthworks (cut and fill), alterations to existing access locations (Chatham and Darling Streets), driveways and parking, construction of stables, horse walkers, administration office and ancillary facilities (equine pool, wash bays, sand roll bays and feed bays, storage and equipment sheds), fit-out and commissioning.

Construction vehicles range from light weight to large trucks, and a crane for lifting construction materials and equipment. Emissions associated with construction activities relate to construction dust and vehicle emissions.

The Air Quality and Odour Risk Assessment (**Appendix 23**) showed there to be a low to medium risk of dust soiling and health risk impacts during demolition and construction activity (including possible grouting of mine voids), should no mitigation measures be applied. Based upon that assessment, a range of mitigation measures are recommended to ensure that short-term impacts associated with construction activities are minimised.

Road Traffic Emissions

Road traffic exhaust emissions may include a range of air pollutants, from construction vehicles, delivery trucks, horse float trucks, and vehicles for staff and adjoining land uses such as school and residential.

Operational Phase

Operation of the stables complex has the potential to result in additional odour impacts. Emissions from a stabling facility will vary according with the quantities of horse manure and stable bedding waste generated from the stabling area each week. It will include the transportation and treatment of horse manure and horse bedding on site. From an environmental perspective, emissions to atmosphere from horse racing and training are typically associated with odour and particulates (i.e. dust). In general terms, the most significant source of odour associated with a horse stable is associated with the management of liquid and solid wastes, including urine, faecal matter, and stable bedding waste (comprising straw, wood shavings and other wastes).

The potential impacts associated with operational activities including the management of solid and liquid stable wastes, horse foodstuffs and animal sweat, the movement of horses from the stables to the track, training, thoroughbred racing and training have been assessed using a risk-assessment approach.

The risk assessment found there to be a high risk of potential odour emissions generated from solid and liquid stable wastes, and a number of required mitigation methods have been determined, including recommendations for air pollution control to manage emissions of dust and odour.

As discussed within this report, the proposal will manage dust and odour using lidded, non-vented "mega bins". In addition, the separation distance between residences and the source of any generated and stored waste will be far greater under the proposed development than it is currently, with the residences positioned on the opposite side of the road to the development, and the waste store and stables themselves will set well back from the boundary and protected by enclosed structures. These factors considered together would result in a far greater odour performance than is currently experienced.

As the waste removal store shields the proximate residences from prevailing winds, and the waste will be contained in sealed, non-vented lidded bins, no offensive odour should be detectable should the management plan be implemented and carried out effectively. As the waste removal store shields the proximate residences from prevailing winds, and the waste will be contained in sealed, non-vented lidded bins, no offensive odour should be detectable should the management plan be implemented and carried out effectively.

Based upon the assumptions presented in the report and the implementation of the recommended mitigation methods, the site is assessed as being capable to not give rise to significant air quality and odour impacts during the construction and operational phases associated with the development.

6.5.3 Environmental Management Measures

Environmental management measures to minimise impact on air quality, climate and climate change are:

- During construction, reduce vehicle traffic speed to 20km/h in and around the development area where dust could be generated;
- During construction, use water to dampen exposed soil and stockpiles if exposed to air for long periods;
- During construction, maintain vehicles and machinery to minimise emissions; and
- Where wind causes off-site emission of soil then work may cease for a short time or dust control measures put in place.
- Solid and Liquid stable waste (stable bedding waste) to be removed on a daily basis and temporarily stored in appropriate and adequately sized waste bins fitted with closed lids.
- Provision for the use (when required) for an odour neutralising agent, that may be applied to the temporary stored waste materials in the event of prolonged storage, prolonged high temperatures or as control measure in the event of an odour complaint.
- Stables to be operated with adequate natural ventilation.
- All foodstuffs to be stored in appropriate and suitable storage drums / containers, and spilled materials will be contained and cleaned up immediately.

6.6 WATER QUALITY AND HYDROLOGY

6.6.1 Existing Environment

Existing stormwater on the site is generally managed through infiltration and / or surface water flows to Council's stormwater management system within Chatham Street and Darling Street. There are no watercourses in proximity of the site. Depth to groundwater at certain borehole locations on site was approximately 2.4m (**Appendix 4**).

6.6.2 Potential Impacts

Changes to extent of building and paved areas may impact on surface flows and require additional detention and reuse. Additional or changed stormwater flows have potential to impact on local flood conditions (refer to Section 6.7 of this EIS). If stormwater is not adequately managed it may cause drainage issues on and off- site. Additional flow of stormwater has potential to erode soil, allow nutrients to enter waterways or impact nearby properties through additional volume or localised energy.

6.6.3 Environmental Management Measures

A Stormwater Management Plan (**Appendix 6**) has been prepared in accordance with the SEARs to appropriately limit post development flows and manage downstream water quality. The development should implement the plan which includes the following key management areas:

- Stormwater detention.
- Stormwater quality measures.
- Stormwater re-use / harvesting.
- Measures for the maintenance of stormwater management facilities.
- Erosion and sediment control measures.

6.7 FLOODING

6.7.1 Existing Environment

A Flood Information Certificate issued by CoN in May 2019, and more recently confirmed by CoN to be relevant for the development, indicates that no part of the site is affected by a floodway and part of the site is affected by a flood storage area. The Estimated 1% Annual Exceedance Probability event level (equivalent to the "*Defined Flood Level*" in the Building Code of Australia) is 6.35m AHD in the northwest and southwest corners of the site. The estimated maximum flow velocity of floodwaters for the site in the "*Defined Flood Event*" as per the Building Code of Australia is 0.8m/s. The highest property flood category for the site is P2 (parked or moving heavy vehicles remain stable) and the highest life hazard category is L4 (H3) (short duration flash flooding with no warning time and enclosing waters during the PMF - not suitable for wading or heavy vehicles. On site refuge is necessary and heavy frame construction or suitable structural reinforcement may be required.

The Estimated Probable Maximum Flood Level is 7.3m AHD and the minimum floor level of occupiable rooms in a new development of the site is 6.85m AHD.

6.7.2 Potential Impacts

A Stormwater Report and Water Management Plan (**Appendix 6**) has been prepared by MPC Engineers to address the flood impacts on and off-site in accordance with the requirements of the SEARs. The existing NJC site comprises a total of 47.8ha of land. Of that area virtually 100% of the property is affected by the PMF event at RL 7.3m AHD (Map 3-A, Newcastle Flood plain Risk Management Study, Rev A, and the Flood certificate).

Onsite flood refuge in a PMF event is already available on the site at the grandstands and buildings located directly east of the proposed development area. In addition, the proposed stables complex comprises two-storey construction with an extensive elevated concourse and elevated stables. Access to

the elevated concourse is via stairs and ramps that are shown on the architectural drawings. Subsequently, the existing NJC facilities, and the proposed elevated stables and concourse, provide sufficient flood refuge for the development.

The maximum possible displaced flood storage extent from the proposed development is approximately 0.75ha, which is 1.6% of the overall property area, which is significantly less than the required 20% as per the flood certificate. As a result, filling associated with the proposed development will not have a detrimental impact on flood risk and so complies with the SEARs.

Section 4.5.5 of the Stormwater Report and Water Management Plan (**Appendix 6**) provides a detailed response to flood matters for consideration identified in the SEARs. It concludes that impact on the flood risk to property and life on adjacent properties by the proposed development will be negligible.

6.7.3 Environmental Management Measures

The site office building has been specified with a floor level of RL 7.00m AHD which is higher than the minimum habitable floor level of RL 6.85m AHD specified in the flood certificate from CoN.

The goods storage shed and equipment shed (non-habitable buildings) have been specified with a floor level of RL 6.500m AHD which is higher than the 1% AEP flood level of RL 6.35m AHD specified in the flood certificate from CN.

6.8 FLORA, FAUNA AND BUSHFIRE

6.8.1 Existing Environment

The site supports a small number of remnant native trees and a moderate number of planted native trees. Several street trees are located within the Darling Street road reserve.

The footprint for the proposal lies within a heavily disturbed and predominantly cleared urban / greenspace area where much of the surrounding area has been subject to urban land practices. The trees within the study area are separated from nearby vegetation and ecological communities, and do not offer habitat connectivity through the landscape. Trees on site would be potentially used by highly-mobile threatened species only, and those that do not rely on habitat connectivity to traverse the landscape.

The site is not considered bushfire prone land and no further assessment of bushfire is required.

6.8.2 Potential Impacts

Based on the proposed development footprint a number of trees will require removal. Removal of trees has limited potential to impact on threatened flora and fauna and their habitats. Replacement planting and extensive landscaping has potential to improve biodiversity on site.

The proposal will require the removal of 12 trees, of which nine are native and three are exotic, in both southern and central parts of the study area. Two of these trees contain hollows which provides potential nesting / breeding habitat for a range of fauna species. Due to the locality of the proposal within an urban context, it is unlikely that the hollows available provide preferred habitat for any threatened species which may occur in the area. The removal of these trees as a result of the proposal cannot be avoided.

Tree 2, is suspected to be *Eucalyptus scoparia* (Wallangarra White Gum), which is listed as Endangered under the BC Act and Vulnerable under the EPBC Act. This tree is proposed for retainment consistent with the application documentation and should remain unaffected by this proposal.

Although microbat use of buildings proposed for demolition was not recorded during the survey, there is still potential that microbats may be present at the time of demolition.

The proposal includes substantial landscaping using native flora species, where practicable, including areas along the Chatham Street frontage. This may assist in providing some marginal potential habitat for fauna species which may frequent the area, chiefly for foraging purposes. Due to the disturbed nature of the study area and lack of significant connective vegetation through the surrounding landscape, the proposal is not considered to contribute to a loss of habitat connectivity of remnant vegetation or communities or fragment the movement of threatened species across their range.

The proposal is not expected to cause significant alteration to existing natural water bodies or hydrological processes that sustain threatened species or TECs.

6.8.3 Environmental Management Measures

It is recommended that vegetation clearing is to be undertaken using a two-stage process:

- Stage 1 includes removal of all non-habitat trees and under-storey vegetation with hollow bearing trees (HBTs) left standing for a minimum of 48 hours.
- Stage 2 vegetation clearing (clearance of HBTs) is to be supervised by a suitably trained and equipped ecologist. The ecologist will work in conjunction with machinery operators to remove habitat trees in the least disruptive manner.
- Any wildlife rescued during vegetation clearing is to be relocated to the closest available area of suitable habitat if uninjured. If wildlife is injured or orphaned during vegetation clearing they must be taken to the nearest available veterinarian or wildlife carer immediately. All vegetation clearing will cease until the ecologist returns to re-commence clearing supervision.
- Information on ecological features to be included in site inductions and pre-start meetings.

It is recommended to install appropriate exclusion fencing to any construction areas where there is some potential for accidental encroachment. Inclusion of appropriate signage such as 'No Go Zone' or 'Environmental Protection Area' is advised. The employment of this approach is recommended to ensure trees to be retained and the suspected *Eucalyptus scoparia* recorded east of the development area is retained and not accidently impacted upon.

If any microbats are encountered during the demolition process, it is recommended that a stop work action is implemented and an ecologist is engaged immediately to provide advice on any appropriate remedial measures that should be implemented on a fit-for-purpose basis.

Although impacts upon fauna flight path integrity are not anticipated, the following controls will be implemented:

- Construction and tree clearance works to occur during daylight hours to minimise noise disturbance; and
- Dust suppression and sediment transport will be managed throughout construction duration.

6.9 HERITAGE – ABORIGINAL

6.9.1 Existing Environment

The AHIMS was searched on 3 May 2021 from Latitude, Longitude -32.961, 151.703 to Latitude, Longitude -32.8796, 151.7791. The search provided a result of 42 sites, most of which are recorded near Throsby Creek to the north and the coast to the east. Some sites are appearing on water, which could be due to either a change in shoreline extent through time or innacuracies in the recorded GPS coordinates.

The most common site type is surface artefact finds, comprsing over 60% of the total number of sites, followed by potential archaeological deposits (PADs). Other site types identified include grinding groove, midden, and a combination of midden and PADs.

The location of items is identified in *Figure 27* below.

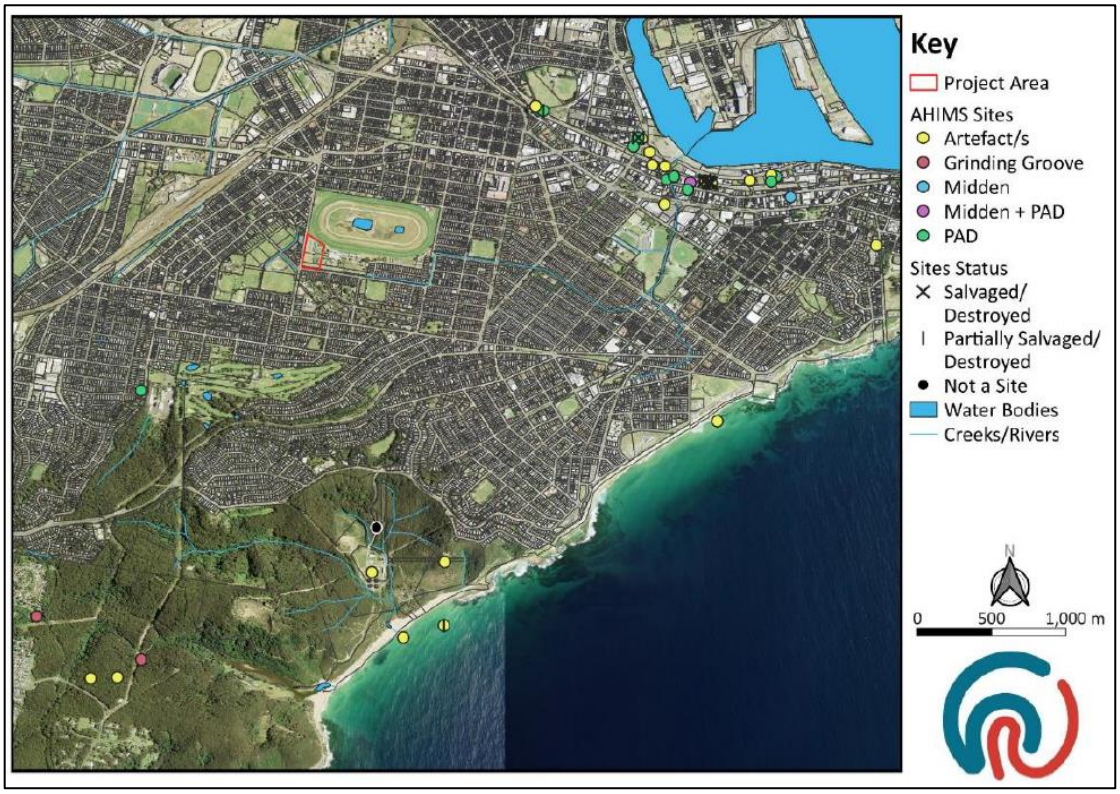


Figure 27: *AHIMS site locations (source: Heritage Now)*

6.9.2 Potential Impacts

An ACHAR (**Appendix 14**) carried out in accordance with SEARs identifies the project area as potentially overlying Aboriginal campsites due to its location adjacent to historic swamps, which are common resource areas for Aboriginal people. The archaeological survey identified that the current buildings and road pavement obscure over half the project area. The geotechnical information obtained for the project suggests that previous disturbance and fill off the site could be as little as 200mm deep in some area, but up to 1000mm in other areas. The geotechnical information provides an overview of the history of fill at the site, but was not collected for the purposes of detecting archaeological deposit. The depth of impact for proposed footings is anticipated to be approximately 600mm and thus has the potential to impact natural ground surfaces on which Aboriginal campsites are likely.

6.9.3 Environmental Management Measures

The ACHAR identifies that mitigation of harm to Aboriginal cultural values requires an Aboriginal Cultural Heritage Management Plan to be developed post approval in consultation with the Registered Aboriginal Parties for the management of Aboriginal cultural values in the Project Area. The Aboriginal Cultural Heritage Management Plan is to include subsurface archaeological investigation and heritage induction requirements, as well as protocols for unexpected finds and discovery of human remains. The archaeological test and salvage excavation is to occur post-project approval, but before natural soil layers are disturbed. The timing of the archaeological testing and salvage post-approval is designed to ensure the areas of impact are targeted and that impediments to investigation (current buildings and pavements) are removed.

All on-site personnel (prior to and during construction) are to be made aware of their obligations under the *National Parks and Wildlife Act 1974*. This includes protection of Aboriginal sites and the reporting of any new Aboriginal, or suspected Aboriginal, heritage sites. This may be done through an on-site induction or other suitable format.

6.10 HERITAGE – NON-ABORIGINAL

6.10.1 Existing Environment

The subject site contains the Newcastle Racecourse and ancillary facilities to support the Newcastle Jockey Club. Newcastle LEP identifies the site as a local heritage item: 'Entire Broadmeadow Racetrack Site'. The site has been utilised for a variety of uses and contained various structures. The historical context of the site is summarised below;

- Pre Colonial inhabitation – little data can be found about the sites use. The site would have been suitable for camping and may have had some sacred or traditional importance.
- The Australian Agricultural (AA) Company – A mining company was given a million acres which included 2,000ha in Newcastle. Pit 'D' was sunk in 1848 and was operational until 1863-4. Pit 'D' was located near the northeast corner of the racecourse).
- The Broadmeadow Racecourse and Newcastle Jockey Club – The informal racing sporting scene led to the formalisation of a The Newcastle Racing Club on land leased by the AA Company. The site was prepared for the racing club including site clearing, installation of turf and construction of fences. The first race on the newly created tracing track was on the 5th of October 1865. Building for the racing track was constructed in 1872 and 1875 resulting in a Grandstand and Luncheon room and private rooms for ladies. AA remained the land owners and in 1900 the Newcastle Jockey Club started a fund to purchase the land and bought 95 acres in 1901 at the Wallaby flats in Adamstown. After seven years the new site was operational with a newly constructed grandstand with a judges box, committee stand, stewards stand, leger stand with turnstiles and horse stalls and the original grandstand from the old course was rebuilt. Tram services from Adamstown Junction (nine ways) provided spectators direct transport to the racecourse. With the growing popularity of the races further building enlargements were constructed. A central totalisator machine was installed in 1918 was used until 1938 and was augmented once during this period. A second members stand was constructed in 1921.
- Diversification of use at the racecourse – The site currently contains two childcare centres and allow for use of the site during the week when races are not held in the old offices and bowling club building. In 1935 the centre of the racetrack was utilised for a nine-hole golf course. The Newcastle jockey club offices were relocated to the racetrack in 1957 and new offices were constructed in 2002. A Bowling Green and club were constructed off Darling Street In 1960 and expanded in 1962.
- Stables, Horse Boxes and Day Stalls – Accommodation for the horses has been on-site since 1906 catering for both long- and short-term stays. In 1970 the stables were upgrades to meet the legislated building standards. In 1991-2 new stables were constructed and are likely as a result of damage sustained from the Newcastle earthquake of 1989. In 1992 an outdoor training pool with skillion roof was constructed to exercise the horses.
- Contemporary development of the site – A new betting ring enclosure was constructed in 1970 which new modern design stood out against the existing buildings. In 1976 a computerised totalisator system replaced the existing system and allowed for the diversification of types of betting within the Newcastle area and even Sydney. In 1985 the NJC centre was constructed which included club rooms, committee rooms, restaurant and numerous other facilities. The NJC centre underwent refurbishments in 2004.

The site has a vast historical past including mining and recreational facilities which has resulted in various building and structures, further details on each building constructed at the subject site can be found in the full Statement of Heritage Impact in **Appendix 13** prepared in order to address the SEARs.

The site has also been searched for archaeological potential, which has been summarised as below:

- Former Swamp – The site was previously swamp, and has been built up for the racecourse. The pond in the centre of the course is to maintain the required moist surface for racing conditions. These wet conditions with the pond mimic the swampy ground of the site prior to the development of the racetrack.

- AA. Co. Borehole No. 2 – One the eastern side of the track the former mine pit and railway line. Both of these developments are likely to have been removed and reinstated to enable the construction of the racetrack.
- Brick Paving – The site was extensive paved in 1910, evidence of brick paving may be found near the grandstands and any below ground works.
- Remnant of Golf Course – the remaining infrastructure may be found at the site.
- Former Tram Line – The tracks and sleepers were removed from the road corridor, evidence of ballast, cut and fill may remain. It should be noted that the tram line is outside of the subject site and heritage item.
- Former Structures – The old leger stand which was fire damaged, the ticket booths, former boundary fences are some of the remaining structures and are generally located south of the current buildings onsite.

The site has a depth historical connection through the existing racecourse site operating for 115 years and the various development that have utilised the site throughout these years.

6.10.2 Potential Impacts

There are no individual items or features of heritage significance within the development area. Development has the potential to impact features of the overall site.

The proposed stable development at the Newcastle Jockey Club was assessed for the potential impact to the heritage significance of the site. The proposed development primarily relates to the southwest corner of the site, in a more vacant portion of the site resulting in fewer existing structures being impacted.

This assessment was broken up into 5 categories, these criteria and their historical significance is discussed below;

Criterion a – Historical Significance: The existing structures that are proposed to be removed have little historical significance. The new day stalls will reflect the new modern era of the racetrack and comply with the current requirements. The rebuilding and altering of these stalls demonstrate the traditional process of the site's buildings.

Criterion b – Historical (associative) Significance: The historic associations and fabric of the site will not be altered or lost which would sever any associations to the site under this criterion.

Criterion c – Aesthetic Significance: This criterion focuses on the buildings along the southern edge of the racetrack. The proposed development will be located near the existing buildings; however the proposed set back enables the two clusters of buildings to be appreciated individually and have minimal impact on each other.

Criterion d – Social significance: The proposed development is considered to enhance the social significance of the racecourse, through the new facilities which has the potential to increase usage of the site and attract higher profile users and larger crowds.

Criterion e – Research Significance: The former tram line has been removed and as such will not be impacted by the proposed development

Criterion g – Representative significance: The proposal reflects the current pattern of the development of the racecourse site. The new stables will replace the previous stables, which is a similar scenario for the previous stables. Furthermore, the racecourse is still under the management of the NJC the proposed development is reflective of the modern era of the club and its history.

The proposed development was also assessed against the Newcastle LEP 2012. This assessment showed how the proposal has considered the existing heritage item and minimise the potential impact.

6.10.3 Environmental Management Measures

Recommendations have been provided by the Heritage consultant, which will reduce the potential impact to the existing heritage item and provide better integration of the existing and proposed development. The following recommendations have been summarised below:

- The relocation of the Octagonal Horse Trough. The item is currently within the former warm-up ring and is recommended to be re-located to the new warm up ring in the recently completed tie-up stalls.
- The former tram track may be revealed through excavations and works along the southern boundary. Care will need to be taken when construction is occurring in this area
- If any excavating works reveal a relic, it must be notified as per section 146 of the *Heritage Act NSW 1977*.
    - *146 Notification of discovery of relic*

      A person who is aware or believes that he or she has discovered or located a relic (in any circumstances, and whether or not the person has been issued with a permit) must—

      (a) within a reasonable time after he or she first becomes aware or believes that he or she has discovered or located that relic, notify the Heritage Council of the location of the relic, unless he or she believes on reasonable grounds that the Heritage Council is aware of the location of the relic, and

      (b) within the period required by the Heritage Council, furnish the Heritage Council with such information concerning the relic as the Heritage Council may reasonably require.

6.11 VISUAL IMPACTS

6.11.1 Existing environment

The study area involves a typical low-density environment with a mix of other recreation uses, schools and childcare. The development area is a heavily disturbed and predominantly cleared urban area. Existing developments are mostly positioned in the north-eastern to eastern parts of the site, and include the former race day stalls, a horse swim area and a maintenance building. The south to south-western areas of the site are generally race day parking areas vegetated by established grass cover, with several mature trees located near to boundaries. Some areas of sealed and unsealed driveways are present, and a sign is positioned beside the western boundary within a raised bed retained by timber walls. The north-eastern area of the site includes a sealed pavements with a turfed median area and a shed beside the western boundary.

6.11.2 Potential impacts

The proposed development will alter the current visual environment, through the intensification of an existing use of the site. Additional built form, landscaping, fencing and parking will alter the streetscape when viewed from nearby development including Merewether High School northwest of the site and residential development west and south of the site. When approaching the site from the northern or southern end of Chatham Street, or from the east or west of Darling Street, the viewer will perceive a fairly substantial difference between the pre and post-developed site.

Generous setbacks from the Chatham and Darling Street frontages and the use of landscaping - both within the site boundaries and in the public domain in the form of street trees - has the potential to generate positive visual impacts.

The development is architecturally designed to meet the functional needs of the horses, trainers, and other staff that will utilise the facility. The development uses repeated elements to create a ‘rhythm’ of built form, punctuated by smaller buildings that are visually consistent in terms of building setbacks, materials and colours. The stable blocks are oriented east-west with 9m wide landscaped courtyards separating the blocks. This creates regular breaks in built form and reduces the visual impact of the development when viewed from Chatham Street. Views from Darling Street are of single storey buildings,

landscaped car park, ramps and partial views of Blocks D and E. The 6.6m wide central concourse running north south provides a significant break in the overall building bulk when viewed from Darling Street.

Poorly designed lighting has the potential to cause nuisance to neighbours. A Lighting Impact Assessment and External Lighting Plan prepared by Electrical Projects Australia (**Appendix 24**) responds to the requirements of the SEARs. The assessment considers the lighting needs of the proposed development and potential impacts to neighbours and has been prepared to address the specific requirements of the SEARs. The external lighting for the proposed development has been designed to mitigate impacts on the surrounding residential areas, including the residences on the opposite side of both Darling Street and Chatham Street which are the closest to this proposed development.

To that end the lighting has been designed in accordance with the relevant Australian Standards, including AS1158.3.1:2020 and AS4282:2019, and the results of the lighting calculations, including lux plots and obtrusive lighting calculation results are included in **Appendix 24**.

One main consideration to the lighting design was the expected operating hours of the external lighting, which is expected to be early in the mornings to facilitate safe trackwork, from 2:30am to daylight, and for evening general attendance (dusk to 6pm). So as these operating hours fall into the post-curfew hours in terms of obtrusive lighting calculation in accordance with AS4282:2019, the most stringent restrictions applied.

So, with these design constraints in mind, high cut off light fittings with concealed lamps were selected, and their location and aiming is such that they are aimed away from surrounding residential areas where possible to reduce the amount of light spill.

The external lighting proposed is generally as shown on the external lighting layout plans as shown on drawings 20484-E03 and 20484-E04 in **Appendix 24**. As can be seen from these plans this generally consists of lighting off the buildings for internal passageways, post top lights on 5.5m poles for carpark and roadway areas, and lighting integrated into the structure (e.g., handrail lights) for external stairs and ramps.

As noted above, the location and aiming of these lights have been considered so that the light sources have been concealed from the surrounding residential areas where possible, but still providing the required lux levels as required by the relevant Australian Standard which includes AS1158.3.1:2020, particularly for the carpark and roadway areas which also consist of drop off and pick up areas.

Luminaires on external stairwells and ramps are intended to be integrated into the stairwell and ramp structures using concealed/recessed puck style lights and the like to help mitigate impacts on the surrounding residential areas as the light sources will generally be concealed. It is considered that, due to considered lighting design, the impact of external lighting on the surrounding residential areas will not be significant.

The potential impact of headlight glare on adjoining residents has been considered and mitigated through design. It is relevant to note that traffic movements associated with the development during night time hours are generated by trainers and stable hands. These vehicles will enter the staff parking area via Darling Street. The potential impact of headlight glare when these vehicles enter the site is limited due to the direction of entry (oriented away from residences) and as vehicles park, headlights will be screened by landscaping and fencing located around the perimeter of the parking area. Vehicles will leave the parking area during daylight hours (as detailed in the Operational Management Plan and throughout this EIS) and therefore will not generate headlight glare.

6.11.3 Environmental Management Measures

- Regular pruning of trees, shrubs and ground covers will ensure the site appears well maintained.
- Graffiti should be removed and vandalised property repaired as quickly as possible.
- Lighting is installed in accordance with the External Lighting Plan.

6.12 SOCIAL AND ECONOMIC

6.12.1 Existing Environment

ABS Statistics for Broadmeadow are provided in *Figure 28* below.

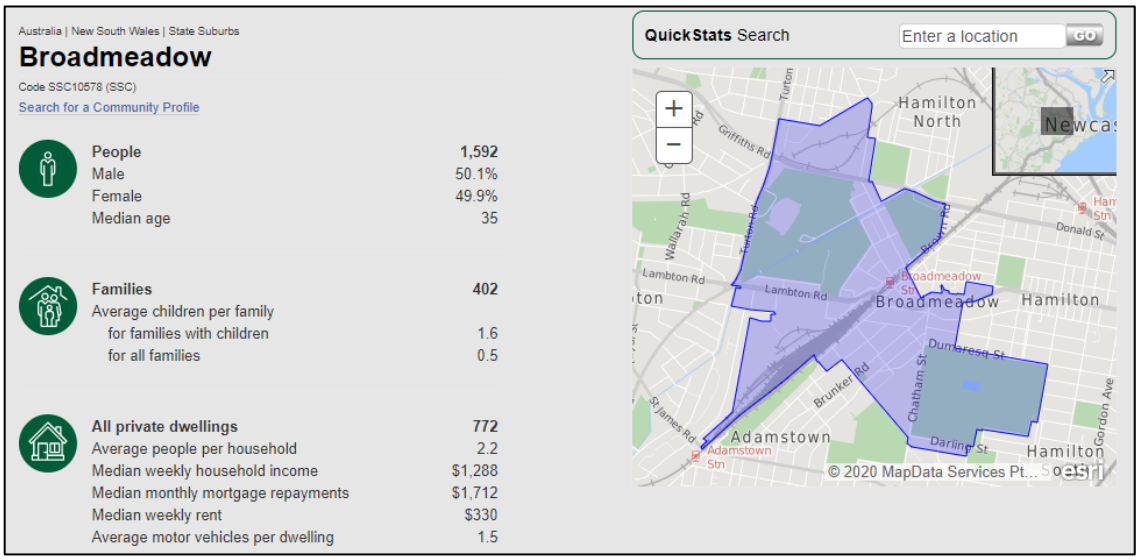


Figure 28: ABS 2016 snapshot for Broadmeadow NSW (Source: https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/SSC10578)

6.12.2 Potential Impacts

There is ongoing need for thoroughbred training and associated facilities in Newcastle and the Hunter. The proposed development will improve the quality and capacity of stabling facilities in the region and further support the industry.

'Value added' is the generally accepted measure of the value of production from economic activity. It is the sum of value added by all industries in a region (in this case, regions of Newcastle/Hunter). In any period of time, the value added in an industry is essentially, the value of sales less the value of inputs used in production. This means value-added is equal to the income (wages, salaries and profits) generated in production. The development has potential to generate a significant uplift in value added economic activity associated with training and racing facilities.

Construction activity and expenditure will also have an impact on other parts of the NSW economy. The first source of this impact is the expenditure of trainers and construction contractors which goes to suppliers outside the region. The second is expenditure by owners and trainers in other regions – on items such as agistment, travel, accommodation and insurance which may be consumed outside the Newcastle/Hunter region.

The proposal has potential to generate employment across a range of related roles including trainers, stable hands, track riders, farriers, fodder suppliers, float operators, maintenance and track / ground staff and veterinary staff. Approximately 186 new jobs will be created (152 new jobs on site, plus 34 new jobs offsite such as suppliers / logistics / floats etc) as a result of the proposed development at the operational phase. Approximately 250 jobs will be created at the construction phase.

Potential negative impacts could be perceived by nearby residences and education facilities. Traffic, noise, air quality and odour are impacts of concern raised at the community consultation session held 26 June 2021.

6.12.3 Environmental Management Measures

The environmental management measures identified throughout this report, particularly those relating to parking, noise, air quality and odour, should be implemented to minimise social impacts to nearby residents.

6.13 WASTE

6.13.1 Existing Environment

The existing stables are cleaned twice per day. Storage and removal of used bedding material and waste is managed by trainers and stable hands. Current waste storage measures result in potentially offensive odours.

6.13.2 Potential Impacts

Demolition will generate waste that will need to be sorted for recycling, reuse or disposal. Demolition waste will be managed by the demolition contractor.

Construction waste is likely to include building material, soil, concrete, asphalt, steel, piping and similar. Appropriate storage and disposal of construction waste will be required in order to avoid environmental impacts.

Waste management during the operational phase has been carefully considered in the design of the facility, in accordance with the SEARs requirements. The maximum quantities of waste produced and the consequent frequency of cleaning (to industry standard of twice per day), storage and removal of same – are based on NJC's Operational Management Plan and Waste Management Plan (**Appendix 8**). The waste volumes presented in the Operational Management Plan and Waste Management Plan are based on conservative (worst case scenario) estimates for waste production per horse and are based on full occupancy rates at the stables. The actual waste volumes are likely to be significantly less than those anticipated in the plan. The waste storage and handling facilities have been designed to accommodate the conservative waste volumes.

The following is a summary of waste management procedures:

- Each trainer's stable staff muck out stables twice per day – morning and afternoon – this involves removing soiled material only;
- Stable staff fill available 'mega' bins with waste – the same 'mega' bins that were delivered to the stables with bedding the prior day and subsequently emptied;
- The full 'mega' bins are moved around by Walkie Stacker or Pallet Jack to dedicated bin stores at front of each stable – by stable staff;
- On the basis of industry averages – a maximum of 12 x 'mega' bins will need to be removed per 40-horse stable block each day i.e. six bins per 20-horse "breezeway";
- The stable design specifically provides ample capacity for this, with space for 24 x 'mega' bins per 40-horse stable – 12 for bedding and 12 for waste i.e. 12 x bins per 20-horse "breezeway"

Once the waste has been placed in the 'mega' bins, the full bins are then moved by NJC staff with forklifts on a daily basis to the Removal Store for collection by private contractor. There will be two removal activities per day during business hours via a 45ft articulated semi-trailer. A maximum of 80 x full waste bins will be removed per truck (once bedding bins have been unloaded to the Supply Store). The truck will then leave site to reuse waste at an off-site facility. This will be managed by private contractor (to be appointed post-DA approval).

It is anticipated that there will be three collections per week from the General Waste Bin Area. Waste will be collected on site.

NJC will utilise a mobile sweeper (see below) for general clean up around the facility and engagement of external cleaning contractors for office/wet areas.

6.13.3 Environmental Management Measures

- Waste is managed in accordance with the NJC Management Plan.
- NJC to utilise a mobile sweeper for general clean up around the facility and engagement of external cleaning contractors for office/wet areas.

- Stalls are cleaned twice per day – morning and afternoon.
- Once bedding waste has been transferred to the 'mega bins', lids are fastened and remain closed until transportation to an off-site facility.

6.14 CHEMICAL AND FUEL STORAGE

6.14.1 Existing Environment

The development area currently contains buildings and facilities that support thoroughbred racing and training as well as vacant land used for overflow parking during race day events. The main entry for equine and goods drop-off will be from Chatham Street with the exit into Darling Street.

6.14.2 Potential Impacts

The list of chemicals proposed to be stored and handled at the NJC facility are as follows:

Fertilisers:

- Natrakelp Liquid Seaweed
- Matchplay MP Enhance
- GroCal
- Matchplay MP Origin Granular
- Barmac Nutri-Gro Plus
- Calciprill and Magprill

Fungicides:

- Cavalry Weathergaurd
- Azoxystrobin
- Daconil weatherstik
- Chief aquaflo
- Thiram 600
- Bumper 250EC

Herbicides:

- Frontrow
- Stadium Turf
- Yates Zero Aqua
- Barricade
- Destiny
- Pennmag

Insecticides:

- Abacin
- Agador
- Apollo 5c
- Higran
- Accelepryn
- Indemnify

Other Chemicals and Fuels:

- Ambient Plus
- Wet-Out
- Oro-Turf surfactant
- Petrol (Motor Spirit or Gasoline)
- Diesel Fuel

Accidental discharge if chemicals to the environment will have an impact depending on the nature and extent of any spill. Appropriate controls for storage and use will improve risk of accidental discharge.

A Hazardous Material Assessment prepared in accordance with the SEARs is provided at **Appendix 12**.

6.14.3 Environmental Management Measures

The following environmental management measures will be implemented:

- Prepare a Response and Incident Plan
- Oils, fuels and chemicals will be stored within a locked bund capable of holding 110% of the capacity of containers within.
- Oils, fuels and chemicals will be stored in accordance with manufactures requirements and relevant Australian Standards
- A spill kit will be located at each chemical and fuel storage location appropriate to the volume and nature of the material
- Safety Data Sheets will be kept on site for all oils, fuels and chemicals stored.

6.15 PEST MANAGEMENT

6.15.1 Existing Environment

Existing pest management measures include rodent, spider and cockroach control.

6.15.2 Potential Impacts

By not carrying out regular pest management activities, there is a risk the site could become infested with rodents and cockroaches. Health and safety may be compromised in such a situation. A Pest Management Strategy (**Appendix 19**) prepared in relation to the proposed development and in response to the SEARs outlines recommendations for avoiding adverse health and safety impact.

6.15.3 Environmental Management Measures

- Based on industry standards and Hazard Analysis and Critical Control Points (health standards) Rodent Bait Stations should be placed at intervals of no more than 9 metres.
- A monthly service is to be carried out to inspect all bait stations, clean, rebait and record all activity findings, so monitoring of activity can be gauged.
- Initial spray for external webbing spiders and cockroach treatment to be carried out followed by a 3-monthly maintenance programme.

6.16 MANAGEMENT PLANS

NJC has prepared a Management Plan (**Appendix 8**) for the proposed stables complex. The plan outlines the expectations of NJC with regard to the management of the new complex and in particular:

1. Use of plastic 'Mega' Bins
2. Floating horses to and from the new stable complex
3. Horse movements for trackwork in the morning

4. Logistics, materials handling and general cleaning
5. Pest Control; and
6. Staffing requirements.

The design of the facility, its ongoing management and the daily/weekly operational routine(s) will be based on industry best practice and, at a minimum, will reflect the requirements of the *"NSW Animal Welfare Code of Practice No 3 - Horses in riding centres and boarding stables".*

A Preliminary Construction Management Plan (CMP) has been prepared (**Appendix 26**) that details likely strategies to be implemented during the construction of the proposed development. The strategies covered by this construction management plan relate to:

1. Staging of the development
2. Public safety
3. Worker safety
4. Site Security
5. Materials Handling, Traffic Management and Access
6. Rubbish removal
7. Noise and vibration management
8. Dust management and
9. Erosion and sediment control.

Following DA approval, the final CMP will incorporate the mitigation measures identified in the EIS and any other requirements identified in the approval documentation. The CMP may include the stormwater management plan, erosion and sediment control plan, and waste management plan. The CMP may also identify measures to engage and maintain communication with those who may be affected by construction activities and to manage any complaints that are received.

6.17 CUMULATIVE ISSUES

Development of the stables complex will not occur at the same time as any other known major developments in the area and as such there is unlikely to be cumulative impact of several major constructions at the same time.

Early works, such as removal of trees, demolition and site preparation will be carried out as efficiently as possible to minimise impacts and to allow for other stages of construction to occur promptly. Traffic and access may be interrupted during construction; however, this can be managed through a construction traffic management plan.

Noise during construction may impact on surrounding residents and students, however noise can be managed with appropriate management measures and monitoring as identified within this EIS. Visual impact can be managed through a tidy construction site and architecturally designed buildings. Waste management will be required during construction and operation and can be appropriately managed.

Operation of the facility will result in positive social and economic impact through the improvement of existing facilities. Employment opportunities and investment will flow from the development. Odour, noise and air quality can be managed with appropriate site management.

There is unlikely to be significant cumulative issues as a result of the proposed development of the stables complex.

6.18 ECOLOGICALLY SUSTAINABLE DEVELOPMENT

An Ecologically Sustainable Design Report has been prepared in accordance with the SEARs and is provided in **Appendix 29**. Table 1 of the ESD report references sections within the report where compliance is demonstrated with applicable SEARs and relevant Development Control Plan requirements. The report summarises the sustainable design initiatives employed by the design team in line with the ESD principles. These are summarised below:

- Water - The development will reduce water consumption by incorporating the following water saving measures into design:

- Installing fixtures and fittings in line with best practice requirements outlined in Table 2 of the ESD report;
- Ensuring native plant species are incorporated throughout, where possible;
- Inclusion of numerous rainwater reuse tanks positioned between the main buildings to be used for horse washing & toilet flushing;
- Air cooled HVAC systems, reducing water associated with heat rejection.

➢ Emissions and waste - ESD initiatives associated with emissions and waste currently implemented in design include:

- Stormwater and WSUD features in line with Newcastle DCP, reducing the sites impact from stormwater runoff and pollution;
- Adopting air cooled HVAC systems, eliminating the risk associated with legionella disease when cooling towers are installed on site;
- Rubber matting that limit noise emissions from horse movement;
- Odour minimisation strategies regarding the stables, horse food and horse waste will be adopted to minimise the effect on adjoining residents' amenity;
- Use of plastic 'Mega' bins regarding used bedding and waste that completely seal all odours and prevents access to rodents and insects;
- Minimisation of waste to landfill throughout the operation of the development with animal waste being re-used off site by a private contractor, and the separation of general waste in to various waste streams.
- The potential to use air conditioning systems with R14a refrigerants that have a low Global Warming Potential compared to R32 will also be explored, subject to no detrimental impacts on air conditioning system efficiency.

➢ Energy - The Newcastle Jockey Club Stables Development will consider the following initiatives throughout design development:

- Metering in line with minimum performance standards to track and monitor energy consumption;
- Efficient, air-cooled HVAC systems that eliminate water consumption associated with heat rejection;
- Solar Thermal or gas systems for hot water heating;
- Compliance with NCC 2019 Volume 1, Amendment 1 Energy Efficiency Requirements (Section J);
- Solar PV system to provide a portion of the sites power, whilst reducing peak power demands;
- Energy efficient LED lighting throughout with appropriate motion and daylight controls.

Passive design strategies currently included in design are outlined below:

- A light external colour scheme that reduces the sites contribution to the urban heat island effect, also lowering internal temperatures by minimising the heat being absorbed through the roof and walls in to the stables;
- High level openings that facilitate stack ventilation, allowing warm air to be exhausted from the upper level whilst drawing in cooler air from below;
- Vegetation incorporated throughout site that provide shade;
- Careful orientation of buildings, minimising Western façade area exposed to extensive solar penetration;

- Walls comprising high thermal mass to unconditioned stables, providing a cooler, more comfortable internal environment during warmer days.

- Transport - The development is located in a central location within Newcastle, well connected to a variety of sustainable modes of transport such as bicycle tracks, train stations and bus stops. Additional items that will be investigated during detailed design include:
  - Showers & locker facilities for staff and horse trainers;
  - Bicycle parking facilities.
- Construction - Sustainable construction practices that will be considered for implementation throughout construction include:
  - Contractor construction waste management plan to investigate >80% of construction waste by weight being diverted from landfill;
  - Responsible management systems such as an Environmental Management Plan & implementing an Environmental Management System in line with ISO 14001;
  - Concrete with a portion of Portland cement replaced with recycled aggregate;
  - Reuse of existing building elements where possible.
- Land Use and Ecology - The development aims to reduce potential negative impacts resulting from urban development and enhance local ecology by implementing the following design features:
  - Plant beds & trees at multiple locations which allow for deep planting and significant canopy cover, providing shade, improving air quality as well as enhancing local levels of biodiversity;
  - Utilising stormwater and water sensitive urban design features in line with Newcastle DCP, decreasing the strain on central water infrastructure systems, and providing safe havens for local biodiversity;
  - Light colour schemes to external surfaces and areas of deep soil vegetation that reduce the urban heat island effect.
- Materials - The environmental footprint of the development can be reduced through the procurement of sustainable products. This can include products produced with lower than typical energy consumption during manufacture, made with reused content, or not transported large distances to its point of use. During the detailed design phase, the sustainable materials strategy for the development will explore the following items:
  - Environmental Performance Declarations (EPD's) for plasterboard and flooring;
  - Recycled content in products where appropriate;
  - FSC timber;
  - Concrete with reduced Portland cement quantities;
  - Paints, adhesives & sealants specified to contain low VOC & formaldehyde, improving internal air quality.

A summary of Ecologically Sustainable Development as defined in Section 6(2) of the *Protection of the Environment Administration Act 1991* and how it has been considered in this EIS is presented in Table 6.18.1.

Table 6.18.1: Ecologically Sustainable Development Principles

ESD PRINCIPLE AND PROGRAMME	COMMENT
The precautionary principle—namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by: (i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and (ii) an assessment of the risk-weighted consequences of various options	The proposed development has sought necessary information, including specialist advice, to have an understanding of potential environmental impacts. Environmental mitigation measures have been proposed to ameliorate potential impacts to the environment.
Inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations	Positive impacts of a modern stabling and training facilities through the development of the Stables Complex will be a benefit to future generations. Environmental impacts of the development have been minimised through appropriate design and environmental mitigation measures.
Conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration	Ecological investigations were carried out in relation to the proposal. The investigations found habitat present is not considered of significance for long term survival of any threatened species or EEC in this locality and no area of outstanding biodiversity value is present.
Improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as: (i) polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement, (ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste (iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.	Environmental attributes of the site have been identified throughout this EIS. Impact to the environment has been avoided, where practicable, and environmental mitigation measures are identified to ameliorate environmental impact.

6.18.1 Sustainability and ESD Design Objectives

Key sustainable objectives for the stables complex include design elements that:

- Achieve passive heating and cooling. Solar access and natural ventilation reduce the reliance on lighting, heating and cooling.
- Allow for the reuse of water for irrigation, toilet flushing and in laundries.
- Facilitate the reuse and recycling of demolition materials.
- Implement best practice waste management including waste diversion from landfill and recovery of operational waste streams.

6.19 ENVIRONMENTAL RISK ASSESSMENT

Environmental risks have been considered based on specialist investigations, findings of this EIS and proposed environmental mitigation measures. Risks are assessed based on the significance of environmental impacts and their ability to be managed (Table 6.19.1). These risk levels are then applied to the environmental issues considered in this EIS (Table 6.19.2). The EIS found that environmental risks can be appropriately managed through the environmental mitigation measures and are unlikely to have a significant impact on the environment.

Table 6.19.1: Environmental Risk Assessment Matrix

Significance of Impact	Manageability of Impact				
	Simple	**Standard**	**Elementary**	**Substantial**	**Complex**
Extreme	Medium	High	High	Very High	Very High
High	Medium	Medium	High	High	Very High
Moderate	Low	Medium	Medium	High	High
Minor	Low	Low	Medium	Medium	High
Low	Low	Low	Low	Medium	Medium

Table 6.19.1: Environmental Risk Rating Following Implementation of Environmental Mitigation Measures

Environmental Issue	Risk	Comment
Land Use	Low	Consideration has been given to adjacent land uses and potential impact such as hours of operation, traffic and access, noise, odour visual impact, landscaping and site management.
Traffic and Access	Low	The traffic movements associated with the proposal are able to be accommodated on the local roads in a similar manner to the existing situation with minimal impact to the operation of the Chatham Street/Darling Street intersection. See **Appendix 16** for further details
Noise and Vibration Impacts	Low	Noise associated with site activities and equipment will generally be compliant providing the recommended acoustic treatments are implemented. See Sections 6.3 and 10.4 as well as **Appendix 22** for further details.
Soils, Geology and Contamination	Low	Acid Sulfate Soils Management Plan will not be required for excavations less than 1.5 m. Extent of soil contamination is small and localised. Ground water is unlikely to be contaminated by site activities. Some erosion is expected from the

Environmental Issue	Risk	Comment
		construction phase but will be managed through a range of measures proposed in the Erosion and Sediment Control Plan (**Appendix 6**).
Air Quality	Low	The Air Quality and Odour Risk Assessment (**Appendix 23**) assessed risks to the site and provided a range of mitigation measures. Mitigation measures are presented within the report to ensure the proposed development does not give rise to significant air quality and odour impacts during the construction and operational phases associated with the development.
Water Quality and Hydrology	Low	A stormwater management strategy developed for the proposal involves a mix of retention, reuse and treatment using rainwater tanks, existing detention basins/dams on site and new bioretention basins, infiltration trenches and raingardens.
Flooding	Low	The site is identified as flood prone land. The proposal has been designed with an adequate floor level and to utilise onsite flood refuge.
Flora, Fauna and Bushfire	Low	Two trees identified for removal contain hollows, a plan for their clearing is presented in Section 6.8.3 and Section 10.9. An endangered species is present on the site as a single tree; this individual will be unaffected by the proposal. Substantial landscaping using native flora species is included in this proposal. Due to disturbed nature of study area and lack of significant connective vegetation, the proposal is not considered to contribute to loss of connectivity or fragmentation to native species.
Heritage – Aboriginal	Low	The archaeological survey identified that the current buildings and road pavement obscure over half the project area. An archaeological test and salvation excavation is to occur post-project approval but before natural soil layers are disturbed.
Heritage – non-Aboriginal	Low	The site is identified as an item of local heritage significance. An octagonal horse trough has been identified as being worthy of retaining. A Statement of Heritage Impact (**Appendix 13**) provides further details.
Visual Impacts	Low	The development is architecturally designed to meet functional needs of horses, trainers, and other staff as well as make a positive contribution to the built environment. A Lighting Impact Assessment and External Lighting Plan is presented in **Appendix 24** which aims to minimise the obtrusive effects of lighting on surrounding residences.
Social and Economic	Low	The proposal has potential to generate employment and provide a positive impact on other parts of the Hunter and NSW economy. Traffic, noise, air quality and odour are impacts of concern raised at the community consultation that are addressed throughout this document.
Waste	Low	NJC's Operational Management Plan and Waste Management Plan (**Appendix 8**) covers maximum quantities of waste produced, frequency of cleaning, storage and removal.
Chemical and Fuel Storage	Low	The quantity of dangerous goods proposed for storage at the site is below the maximum permissible threshold. A Hazardous Material Assessment is provided in **Appendix 12**.
Pest Management	Low	A Pest Management Strategy has been prepared (**Appendix 19**) and outlines mitigation recommendations in relation of the proposed development

Environmental Issue	Risk	Comment
Cumulative issues	Low	Development will not occur at the same time as any other known major developments in the area. Works will be performed efficiently and manage noise, visual impact and waste.

7. MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE

The *EPBC Act* provides a national framework for environmental protection and management of nationally and internationally important flora, fauna, ecological communities and heritage places. Part 3 of the EPBC Act lists nine matters of NES that may require approval from the Commonwealth Minister for the Environment. An action taken by any person on Commonwealth land that is likely to have a significant impact on the environment (Section 26(1)) or an action taken by any person outside of Commonwealth land that is likely to have a significant impact on Commonwealth land (Section 26(2)) may require approval from the Commonwealth Minister for the Environment.

An EPBC Act Protected Matters Report (16 July 2021) (**Appendix 25**) identified the following matters of NES that may occur within 10km of, or may relate to, the site. Refer to Section 6.8 for discussion on flora and fauna.

Table 7.1: Matters of National Environmental Significance (NES)

MATTERS OF NES	OCCURRENCE IN OR NEAR THE SITE (10KM BUFFER)
World Heritage Properties	None
National Heritage Places	None
Wetlands of International Importance	1
Great Barrier Reef Marine Park	None
Commonwealth Marine Areas	None
Threatened Ecological Communities	5
Threatened Species	84
Migratory Species	76

An action taken by any person on Commonwealth land that is likely to have a significant impact on the environment (Section 26(1)) or an action taken by any person outside of Commonwealth land that is likely to have a significant impact on Commonwealth land (Section 26(2)) may require approval from the Commonwealth Minister for the Environment. Other matters protected by the EPBC Act, including Commonwealth land, identified in the search is presented in Table 7.2.

Table 7.2: Other Matters

OTHER MATTERS PROTECTED BY THE EPBC ACT	OCCURRENCE IN OR NEAR THE SITE (10KM BUFFER)
Commonwealth Land	16
Commonwealth Heritage Places	2
Listed Marine Species	199
Whales and Other Cetaceans	13
Critical Habitats	None
Commonwealth Reserves Terrestrial	None
Commonwealth Reserves Marine	None

Commonwealth land will not be affected by the Proposal. Other relevant issues have been considered throughout this EIS.

Table 7.3 provides an assessment of the proposed development against each matter of NES.

Table 7.3: Matters of NES Assessment

MATTERS OF NES	COMMENT	LIKELY IMPACT
World Heritage Properties	No world heritage properties will be significantly affected by the proposal.	Nil
National Heritage Places	No national heritage places will be significantly affected by the proposal.	Nil
Wetlands of International Significance	The proposal will not significantly impact a wetland of international significance.	Nil
Great Barrier Reef Marine Park	The Great Barrier Reef Marine Park will not be impacted by the proposal.	Nil
Commonwealth Marine Areas	No Commonwealth Marine Areas will be significantly impacted by the proposal.	Nil
Threatened Species and Ecological Communities	23 flora species and 53 fauna species have been recorded or are predicted to occur in the locality. As no impacts to significant flora of fauna habitats will result from the proposed development, and no listed species were recorded within the subject land, no impacts to threatened species will result from the project. Five threatened Ecological Communities were mapped in the study area	Nil
Migratory Species	76 migratory bird species have been recorded or are predicted to occur in the locality. The study area does not provide important habitat for any of these species.	Nil

The Matters of National Environmental Significance listed under EPBC Act are not considered to be subject to significant impacts and referral of the proposed development to the Minister for the Environment and Energy will not be required (**Appendix 10**).

8. LIST OF APPROVALS AND LICENCES

8.1 GROUNDWATER EXTRACTION

If during construction more than 3 mega litres (ML) of groundwater is proposed to be extracted an approval/license is required from the NSW Office of Water. This is not anticipated to be a requirement.

8.2 ASBESTOS REMOVAL

A WorkCover NSW asbestos removal work licence under the Work Health and Safety Regulation 2011 needs to be issued (if required) and complied with, including appropriate notification prior to commencement.

8.3 SUBSIDENCE ADVISORY

Approval of SA NSW has been issued subject to conditions (**Appendix15**).

8.4 HUNTER WATER

NJC will enter into a Trade Wastewater Agreement with Hunter Water.

9. CLAUSE 228 FACTORS

Factors required to be taken into account under Clause 228 of the Environmental Planning and Assessment Regulation 2000 are presented in Table 9.1.

Table 9.1: Consideration of Environmental Assessment

ASSESSMENT FACTOR		DESCRIPTION OF POTENTIAL IMPACT
a)	Any environmental impact on a community	The proposal will result in minor impact on the environment through minimal removal of native vegetation. Visual impact will be permanent however will result in a positive outcome through architecturally designed buildings with associated landscaping. Operational management measures are designed to contained and remove waste in such a way that minimises air quality (odour) impacts to the community. Noise and traffic impacts have been considered and appropriate mitigation measures proposed to minimise impact. The proposal will not result in a significant impact on a community.
b)	Any transformation of a locality	The proposal will result in development of new stable and training facilities resulting in the transformation of the locality at a site-specific scale. The architectural design and mitigation of impacts will ensure the proposal will result in positive impacts to the locality.
c)	Any environmental impact on the ecosystems of the locality	Providing the recommendations of the various specialist reports are adopted, it is unlikely the proposal will have a significant impact on any threatened species, populations and/or ecological communities under the *BC Act 2016* or *EPBC Act 1999*.
d)	Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality	The proposal will have a visual positive impact on the locality and through appropriate building design and landscaping will not reduce environmental quality or value of the locality.
e)	Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations	The proposed development will result in permanent long term impact by erection of buildings. Social impact of the proposal will be positive. Aboriginal heritage will be managed in accordance with relevant legislation and further investigations will occur.
f)	Any impact on the habitat of protected fauna (within the meaning of the *National Parks and Wildlife Act 1974*)	Providing the ecologist recommendations are adopted it is unlikely that the proposal will have a significant impact on any threatened species, populations and/or ecological communities *BC Act 2016* or *EPBC Act 1999*.
g)	Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air	Providing the ecologist recommendations are adopted it is unlikely that the proposal will have a significant impact on any threatened species, populations and or ecological communities *BC Act 2016* or *EPBC Act 1999*.
h)	Any long-term effects on the environment	The proposal will result in minor impact on the environment through removal of native vegetation.

ASSESSMENT FACTOR		DESCRIPTION OF POTENTIAL IMPACT
		Long term visual impacts will be positive in the form of architecturally designed buildings.
i)	Any degradation of the quality of the environment	The proposal will result in minor impact on the environment through removal of native vegetation. Overall quality of the environment will not be significantly degraded by the development.
j)	Any risk to the safety of the environment	Environmental mitigation measures will minimise risk to the safety of the environment during construction.
k)	Any reduction in the range of beneficial uses of the environment	The proposal will not result in a reduction of beneficial uses of the environment.
l)	Any pollution of the environment	Environmental mitigation measures will ameliorate potential for pollution of the environment.
m)	Any environmental problems associated with the disposal of waste	Wastes generated will be classified and removed from site for disposal at an appropriate waste facility.
n)	Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply.	The proposal will utilise resources that are not in short supply.
o)	Any cumulative environmental effect with other existing or likely future activities	The proposal is unlikely to have a significant cumulative impact on the environment.
p)	Any impact on coastal processes and coastal hazards, including those under projected climate change conditions	None.

10. COMPILATION OF MITIGATION MEASURES

10.1 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

A draft CMP has been prepared for the proposed works. The final CMP will be prepared in accordance with the *Guideline for the Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources, 2004). Figure 4.1 of the guideline outlines information to be included in a CMP including:

- Users of the CMP document (background, environmental management, implementation and monitor and review)
- Background (introduction, project description, CMP context, CMP objectives and environmental policy)
- Environmental Management (environmental management structure and responsibility, approval and licensing requirements, reporting, environmental training and emergency contacts and response)
- Implementation (risk assessment, environmental management activities and controls, environmental management plans or maps and environmental schedules)
- Monitor and Review (environmental monitoring, environmental auditing, correction action and EMP review).

The final CMP or equivalent will include any licences and permits that may be required, environmental management measures outlined in Section 6 of this EIS and additional site-specific measures that may be required as part of establishing the construction site or construction methodology.

The CMP will also assist consultation with relevant stakeholders during construction.

10.2 LAND USE

Consideration has been given to adjacent land uses and potential impact such as hours of operation, traffic and access, noise, odour visual impact, landscaping and site management. These matters, and potential mitigation measures, are addressed in detailed throughout Section 6 of this EIS.

10.3 TRAFFIC AND ACCESS

Where works are undertaken on the local roads these will be subject to relevant traffic controls to be provided by the contractor for approval by the road authority. Driveways and parking areas should be designed in accordance with AS2890 requirements.

10.4 NOISE AND VIBRATION IMPACTS

Noise control modifications necessary to reduce cumulative noise impact from activities associated with the site include:

- Deliveries and pickup of horses is only permitted during the day and evening (7am-10pm). No delivery or pickup at night (10pm-7am).
- The Equine Drop-Off/Pick-Up Zone has been designed for vehicles to enter and leave in a single movement eliminating the need for reversing and use of reverse alarms. Therefore, signs should be erected in conspicuous locations discouraging drivers from reversing.
- Acoustic fences are to be erected at the west site boundary opposite the Maintenance Shed with a height of 2400mm. An acoustic fence is one which is impervious from the ground to the recommended height, and is typically constructed from Colorbond steel, lapped and capped timber, Hebel Power panel or similar. No significant gaps should remain in the fence to allow the

passage of sound below the commended fence height. A gap of 50-75mm is permitted at ground level to aid in drainage. Other construction options are available if desired, providing the fence or wall is impervious and of equivalent or greater surface mass than the above construction options.

- Perimeter of Horse Ramps 01, 02 must have enclosed balustrade to a minimum height of 1200mm above FFL.
- No acoustic barriers are required adjacent to mechanical plant, provided noise emissions for individual items are below the specified limits:

item	max spl at a distance of 1 metre	IW
Air Conditioning Condenser	69dB(A)	75dB(A)
Refrigeration Condenser	70dB(A)	76dB(A)
Exhaust Discharge	70dB(A)	76dB(A)
Compressor	72dB(A)	78dB(A)
Pool Pumps	78dB(A)	84dB(A)

- Acoustic barriers are to be constructed at the fan discharge of exhaust plant that exceeds the limits specified in the levels above. Barriers must fully enclose at least three sides towards any residence. However, a more efficient and structurally secure barrier is one that encloses all four sides. The barrier must extend at least 600mm above and below the fan centre and/or the discharge outlet and must be no further than 1200mm from the edges of the exhaust. Barrier construction should consist of either Acoustisorb panels (available through Modular Walls) or an outer layer of one sheet of 12mm fibre cement sheeting (Villaboard, Hardiflex), or 19mm marine plywood. The inside (plant side) is to be lined with an absorbent foam to reduce reverberant sound (fibrous infills are not recommended as they will deteriorate if wet), Note that variations to barrier construction or alternate materials are not permitted without approval from the acoustical consultant. Barrier construction is based solely on acoustic issues. Visual, wind load issues must be considered and designed by appropriately qualified engineers.
- Acoustic barriers are to be constructed adjacent to air conditioning and refrigeration plant that exceeds the limits specified in the levels above. Acoustic barriers 300mm above the highest plant item must be erected between the plant and residences. Barrier construction is to consist of either Acoustisorb panels (available through Modular Walls) or an outer layer of 12mm fibre cement sheeting, 25mm construction plywood, Hebel Powerpanel, or similar material, with an absorbent inner surface of perforated metal (minimum 10-15% open area) backed with a water-resistant acrylic batt or blanket.
- All pool pumps and ancillary equipment must be located in the dedicated pool services plantroom in Block D. If noise emissions exceed the limits specified in 4.6 above, acoustic louvres in preference to standard ventilation louvres are required for any openings in plant room walls on the south facade. The louvres must have the following insertion loss values (typically FantechSBL1, Nap Silentflo 300S Line or Robertson Type 7010).
- The contractor responsible for supplying and installing mechanical plant must provide evidence that installed plant meets this noise emission limit, or that noise control included with the plant is effective in reducing the sound level to the specified limit.
- Once the plant layout has been finalised, details should be forwarded to the acoustic consultant for approval.
- Waste collection be restricted to weekdays 7:00am to 6:00pm.

- Construction Certificate documentation must be forwarded to the acoustic engineer to ensure all recommendations within this report have been incorporated into the design of the site.

During construction, attended noise and vibration monitoring should be carried out at commencement of each process/activity that has the potential to produce excessive noise and/or vibration. Attended monitoring offers the advantage of immediate identification of noise or vibration exceedances at the receiver and ameliorative action required to minimise the duration of exposure. The monitoring should be carried out in accordance with the recommendations in Section 5.1 of the Noise Impact Assessment.

Where possible, combustion engine plant such as generators, compressors and welders, should be fitted with residential grade exhaust silencers and shielding around motors. Additional noise controls strategies relating to construction equipment / processes should be implemented as outlined in Section 5.3 of the Noise Impact Assessment.

Trucks and other machines should not be left idling unnecessarily, particularly when close to residences. Machines found to produce excessive noise compared to industry best practice should be removed from the site or stood down until repairs or modifications can be made. Framing guns and impact wrenches should be used sparingly, particularly in elevated locations, with assembly of modules on the ground preferred.

In the event of complaints arising from occupants of nearby buildings during construction, additional strategies that can be complied at site include the following:

- Place acoustic enclosures or screens directly adjacent to stationary noise sources such as compressors, generators, drill rigs, etc.
- Temporary barriers of plywood, excess fill, etc, at least 2m high, at the perimeter of the construction site.

Occupants of nearby buildings should be notified of the intended construction timetable and kept up to date as work progresses, particularly as work changes from one set of machines and processes to another. In particular, occupants should understand how long they will be exposed to each source of noise and be given the opportunity to inspect plans of the completed development. Programming noisy activities (such as sheet piling) outside critical times for court buildings should be arranged.

The acoustic engineer has recommended that construction noise management strategies should be implemented to ensure disruption to the occupants of nearby buildings is kept to a minimum. Noise control strategies include co-ordination between the construction team and building occupants to ensure the timetable for noisy activities does not coincide with sensitive activities.

The site manager/environmental officer and construction contractor should take responsibility and be available to consult with community representatives, perhaps only during working hours. Response to complaints or comments should be made in a timely manner and action reported to the concerned party.

All staff and employees directly involved with the construction project should receive informal training with regard to noise control procedures. Additional ongoing on the job environmental training should be incorporated with the introduction of any new process or procedure. This training should flow down contractually to all sub-contractors.

10.5 SOILS, GEOLOGY AND CONTAMINATION

The following environmental management measures are proposed:

- An Unexpected Finds Procedure must be included in the Construction Environmental Management Plan, and implemented during demolition of buildings and earthworks.
- Prior to demolition or refurbishment of structures on site, a hazardous materials survey is to be completed by a suitably qualified consultant/hygienist. Following the survey, the hazardous materials (if any) will require appropriate demolition and disposal to a licensed waste facility.
- Prior to removing soils from the site, carry out waste classification in accordance with the NSW EPA (2014) Waste Classification Guideline. Alternatively, soils may be able to be assessed in

accordance with a relevant resource recovery order/exemption under Part 9, Clause 91 to 93 of the Protection of The Environmental Operations (Waste) Regulation 2014.

- Sediment and erosion controls will be undertaken in accordance with the plan prepared for the proposed works (**Appendix 6**) and the Managing Urban Stormwater: Soils and Construction "The Blue Book" (4th edition, Landcom 2004).
- Oils, fuels and chemicals used during construction will be stored in a locked bund capable of holding 110% of the capacity of the containers within.
- Equipment will be serviced and maintained to minimise potential for loss of fluids.
- Utilise existing cleared areas of the site as the construction compound and stockpile area(s), where practicable.
- The CMP will include details on waste management and provide a spill management procedure.

10.6 AIR QUALITY

Environmental management measures to minimise impact on air quality, climate and climate change are:

- During construction reduce vehicle traffic speed to 20km/h in and around the study area where dust could be generated.
- During construction use water to dampen exposed soil and stockpiles if exposed to air for long periods.
- During construction maintain vehicles and machinery to minimise emissions.
- Where wind causes off-site emission of soil then work may cease for a short time or dust control measures put in place.
- Solid and Liquid stable waste (stable bedding waste) to be removed on a daily basis and temporarily stored in appropriate and adequately sized waste bins fitted with closed lids.
- Provision for the use (when required) for an odour neutralising agent, that may be applied to the temporary stored waste materials in the event of prolonged storage, prolonged high temperatures or as control measure in the event of an odour complaint.
- Stables to be operated with adequate natural ventilation.
- All foodstuffs to be stored in appropriate and suitable storage drums / containers, and spilled materials will be contained and cleaned up immediately.

10.7 WATER QUALITY AND HYDROLOGY

A stormwater management plan (**Appendix 6**) has been prepared to appropriately limit post development flows and manage downstream water quality. The development should implement the plan which includes the following key management areas:

- Stormwater detention.
- Stormwater quality measures.
- Stormwater re-use / harvesting.
- Measures for the maintenance of stormwater management facilities.
- Erosion and sediment control measures.

10.8 FLOODING

The site office building has been specified with a floor level of RL 7.00m AHD which is higher than the minimum habitable floor level of RL 6.85m AHD specified in the flood certificate from CoN.

The goods storage shed and equipment shed (non-habitable buildings) have been specified with a floor level of RL 6.500m AHD which is higher than the 1% AEP flood level of RL 6.35m AHD specified in the flood certificate from CN.

10.9 FLORA, FAUNA AND BUSHFIRE

It is recommended that vegetation clearing is to be undertaken using a two-stage process:

- Stage 1 includes removal of all non-habitat trees and under-storey vegetation with HBTs left standing for a minimum of 48 hours.
- Stage 2 vegetation clearing (clearance of HBTs) is to be supervised by a suitably trained and equipped ecologist. The ecologist will work in conjunction with machinery operators to remove habitat trees in the least disruptive manner.
- Any wildlife rescued during vegetation clearing is to be relocated to the closest available area of suitable habitat if uninjured. If wildlife is injured or orphaned during vegetation clearing they must be taken to the nearest available veterinarian or wildlife carer immediately. All vegetation clearing will cease until the ecologist returns to re-commence clearing supervision.
- Information on ecological features to be included in site inductions and pre-start meetings.

It is recommended to install appropriate exclusion fencing to any construction areas where there is some potential for accidental encroachment. Inclusion of appropriate signage such as 'No Go Zone' or 'Environmental Protection Area' is advised. The employment of this approach is recommended to ensure trees to be retained and the suspected *Eucalyptus scoparia* recorded east of the development area is retained and not accidently impacted upon.

If any microbats are encountered during the demolition process, it is recommended that a stop work action is implemented and an ecologist is engaged immediately to provide advice on any appropriate remedial measures that should be implemented on a fit-for-purpose basis.

Although impacts upon fauna flight path integrity are not anticipated, the following controls will be implemented:

- Construction and tree clearance works to occur during daylight hours to minimise noise disturbance; and
- Dust suppression and sediment transport will be managed throughout construction duration.

10.10 HERITAGE – ABORIGINAL

An Aboriginal Cultural Heritage Management Plan is to be developed post approval in consultation with the Registered Aboriginal Parties for the management of Aboriginal cultural values in the Project Area. The Aboriginal Cultural Heritage Management Plan is to include subsurface archaeological investigation and heritage induction requirements, as well as protocols for unexpected finds and discovery of human remains. The archaeological test and salvage excavation is to occur post-project approval, but before natural soil layers are disturbed. The timing of the archaeological testing and salvage post-approval is designed to ensure the areas of impact are targeted and that impediments to investigation (current buildings and pavements) are removed.

All on-site personnel (prior to and during construction) are to be made aware of their obligations under the *National Parks and Wildlife Act 1974*. This includes protection of Aboriginal sites and the reporting of any new Aboriginal, or suspected Aboriginal, heritage sites. This may be done through an on-site induction or other suitable format.

10.11 HERITAGE – NON-ABORIGINAL

Recommendations have been provided by the Heritage consultant, which will reduce the potential impact to the existing heritage item and provide better integration of the existing and proposed development. The following recommendations have been summarised below:

- The relocation of the Octagonal Horse Trough. The item is currently within the former warm-up ring and is recommended to be re-located to the new warm up ring in the recently completed tie-up stalls.
- The former tram track may be revealed through excavations and works along the southern boundary. Care will need to be taken when construction is occurring in this area
- If any excavating works reveal a relic, it must be notified as per section 146 of the *Heritage Act NSW 1977*.
    - *146 Notification of discovery of relic*

A person who is aware or believes that he or she has discovered or located a relic (in any circumstances, and whether or not the person has been issued with a permit) must—

> *(a) within a reasonable time after he or she first becomes aware or believes that he or she has discovered or located that relic, notify the Heritage Council of the location of the relic, unless he or she believes on reasonable grounds that the Heritage Council is aware of the location of the relic, and*
>
> *(b) within the period required by the Heritage Council, furnish the Heritage Council with such information concerning the relic as the Heritage Council may reasonably require.*

10.12 VISUAL IMPACTS

- Regular pruning of trees, shrubs and ground covers will ensure the site appears well maintained.
- Graffiti should be removed and vandalised property repaired as quickly as possible.
- Lighting is installed in accordance with the External Lighting Plan (**Appendix 24**).

10.13 SOCIAL AND ECONOMIC

The environmental management measures identified throughout this report, particularly those relating to parking, noise, air quality and odour, should be implemented to minimise social impacts to nearby residents.

10.14 WASTE

- Waste is managed in accordance with the NJC Management Plan.
- NJC to utilise a mobile sweeper for general clean up around the facility and engagement of external cleaning contractors for office/wet areas.
- Stalls are cleaned twice per day – morning and afternoon.
- Once bedding waste has been transferred to the 'mega bins', lids are fastened and remain closed until transportation to an off-site facility.

10.15 CHEMICAL AND FUEL STORAGE

The following environmental management measures will be implemented:

- Prepare a Response and Incident Plan
- Oils, fuels and chemicals will be stored within a locked bund capable of holding 110% of the capacity of containers within.

- Oils, fuels and chemicals will be stored in accordance with manufactures requirements and relevant Australian Standards
- A spill kit will be located at each chemical and fuel storage location appropriate to the volume and nature of the material
- Safety Data Sheets will be kept on site for all oils, fuels and chemicals stored.

10.16 PEST MANAGEMENT

- Based on industry standards and Hazard Analysis and Critical Control Points (health standards) Rodent Bait Stations should be placed at intervals of no more than 9 metres.
- A monthly service is to be carried out to inspect all bait stations, clean, rebait and record all activity findings, so monitoring of activity can be gauged.
- Initial spray for external webbing spiders and cockroach treatment to be carried out followed by a 3-monthly maintenance programme.

11. CONCLUSION AND JUSTIFICATION FOR THE PROPOSAL

The proposed stables complex seeks to improve the capacity and quality of existing stabling and training facilities at Newcastle Jockey Club. The proposal will meet industry best practice standards and thereby improve animal welfare and occupational health and safety of staff. The proposal has the potential to improve environmental conditions through increased water and energy efficiencies and better waste management. Potential environmental impacts such as noise, air quality, heritage (Aboriginal and non-Aboriginal), traffic and tree removal have been identified and appropriate mitigation measures proposed.

The proposal will reduce early morning floating of horses to the site for training purposes as it is located with direct track access.

The facility is likely to generate direct and indirect benefits at both the construction and operational phases. Employment opportunities will be generated by the development. Flow on effects associated with the overall strengthening of the thoroughbred racing industry in the Hunter regional will support further jobs creation in the hospitality and tourism sectors of the local economy.

The proposed development will have a net positive benefit to the natural, social and economic and built environment and is worthy of favourable consideration.

12. REFERENCES

Australian Bureau of Statistics, 2016 Census, accessed 13 November 202 (abs.gov.au)

NSW Legislation (legislation.nsw.gov.au)

NSW Planning Portal / ePlanning Spatial Viewer (planningportal.nsw.gov.au/spatialviewer)

Newcastle Racecourse (newcastleracecourse.com.au)

NSW Department of Planning, Industry and Environment Major Projects (planningportal.nsw.gov.au/major-projects/assessment/state-significant-development)

City of Newcastle Flood Risk Mapping (newcastle.nsw.gov.au/flooding)

APPENDICES

APPENDIX 1

Secretary's Environmental Assessment Requirements

APPENDIX 2

Architectural Plans prepared by EJE Architecture

APPENDIX 3

Landscape plans prepared by Moir Landscape Architects

APPENDIX 4

Geotechnical Report prepared by Qualtest

APPENDIX 5

Contamination Assessment prepared by Qualtest

APPENDIX 6

Stormwater Management Report and Plans prepared by MPC

APPENDIX 7

Arboricultural Impact Assessment prepared by Advanced Treescape Consultants

APPENDIX 8

Operational Management Plan and Waste Management Plan prepared by NJC

APPENDIX 9

Capital Investment Value Estimate prepared by APLAS Group

APPENDIX 10

Request for Biodiversity Development Assessment Report Waiver prepared by de Witt Ecological Consultants

APPENDIX 11

Biodiversity Development Assessment Report Waiver

APPENDIX 12

Hazardous Materials Assessment prepared by Riskcon Engineering

APPENDIX 13

Statement of Heritage Impact prepared by EJE Heritage

APPENDIX 14

Aboriginal Cultural Heritage Assessment prepared by Heritage Now

APPENDIX 15

Subsidence Advisory NSW Correspondence

APPENDIX 16

Traffic and Parking Assessment prepared by SECA Solution

APPENDIX 17

Turning Path Plans

APPENDIX 18

Ausgrid Preliminary Advice

APPENDIX 19

Pest Management Strategy prepared by Advanced Pest Control

APPENDIX 20

Pre-DA Meeting Minutes (City of Newcastle)

APPENDIX 21

Hunter Water Notice of Formal Requirements

APPENDIX 22

Noise Impact Assessment prepared by Reverb Acoustics

APPENDIX 23

Air Quality and Odour Risk Assessment prepared by Northstar Air Quality

APPENDIX 24

Lighting Impact Assessment and External Lighting Plan prepared by Electrical Projects Australia

APPENDIX 25

EPBC Protected Matters Search

APPENDIX 26

Preliminary Construction Management Plan prepared by Avid Project Management

APPENDIX 27

Access Report prepared by Lindsay Perry Access Consultants

APPENDIX 28

Utilities Report prepared by Avid Project Management

APPENDIX 29

Ecologically Sustainable Design Report prepared by Aspire Sustainability Consulting