

# Appendix M

## Socio-economic impact assessment



## **Transport for NSW**

# Townson Road Upgrade between Jersey Road and Burdekin Road – Stage 2 Socio-economic Impact Assessment

December 2021

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# 1. Introduction

## 1.1 Overview

A four-lane divided road is proposed along the Townson Road/Burdekin Road corridor linking Richmond Road, Marsden Park in the west with Burdekin Road, Schofields in the east. The length of the overall program of work is about 3.6 kilometres.

The overall program of work consists of two stages:

- Stage 1 involves an upgrade of about 1.6 kilometres of road extending from Richmond Road to south of Jersey Road. This stage is being delivered within an interim and ultimate phase, subject to a separate planning approval.
- Stage 2 is about two kilometres in length involving the construction of a new road between the Stage 1 tie-in and Burdekin Road (referred to as ‘the proposal’ for the purposes of this assessment).

The proposal is located within the North West Growth Area which is about 37 kilometres north-west of the Sydney central business district and three kilometres west of Schofields. The proposal is situated between the Marsden Park Industrial and West Schofields precincts (see Figure 1).

The roads authority is the proponent of the proposal, and an environmental assessment in the form of a review of environmental factors (REF) is being prepared in accordance with the requirements of Division 5.1 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act).

Transport for NSW has prepared the concept design and BCC and will prepare the detailed design and will construct the proposal.

This report assesses and documents the potential socio-economic impacts of the proposal according to the methodology described in section 2.

## 1.2 Proposal outline

The key features of the proposal are shown in Figure 2 and include:

- Constructing a new median separated dual carriageway through greenfield sites that is approximately two kilometres in length connecting Stage 1 in the west with Burdekin Road in the east
- Constructing a 300 metre long viaduct over Eastern Creek
- Providing a signalised intersection at Veron Road with pedestrian crossing facilities
- Providing a 2.5 metre shared path for pedestrians and cyclists on the southern side of the carriageway up to Veron Road, then 1.5 metre footpath to Burdekin Road
- Providing a 1.5 metre wide footpath on the northern side of the carriageway along the length of the proposal
- Railway Terrace would be terminated with a cul-de-sac
- Constructing a vehicular and pedestrian bridge over the western rail line with associated retaining walls and embankments before tying into Burdekin Road.

### 1.3 Scope of this assessment

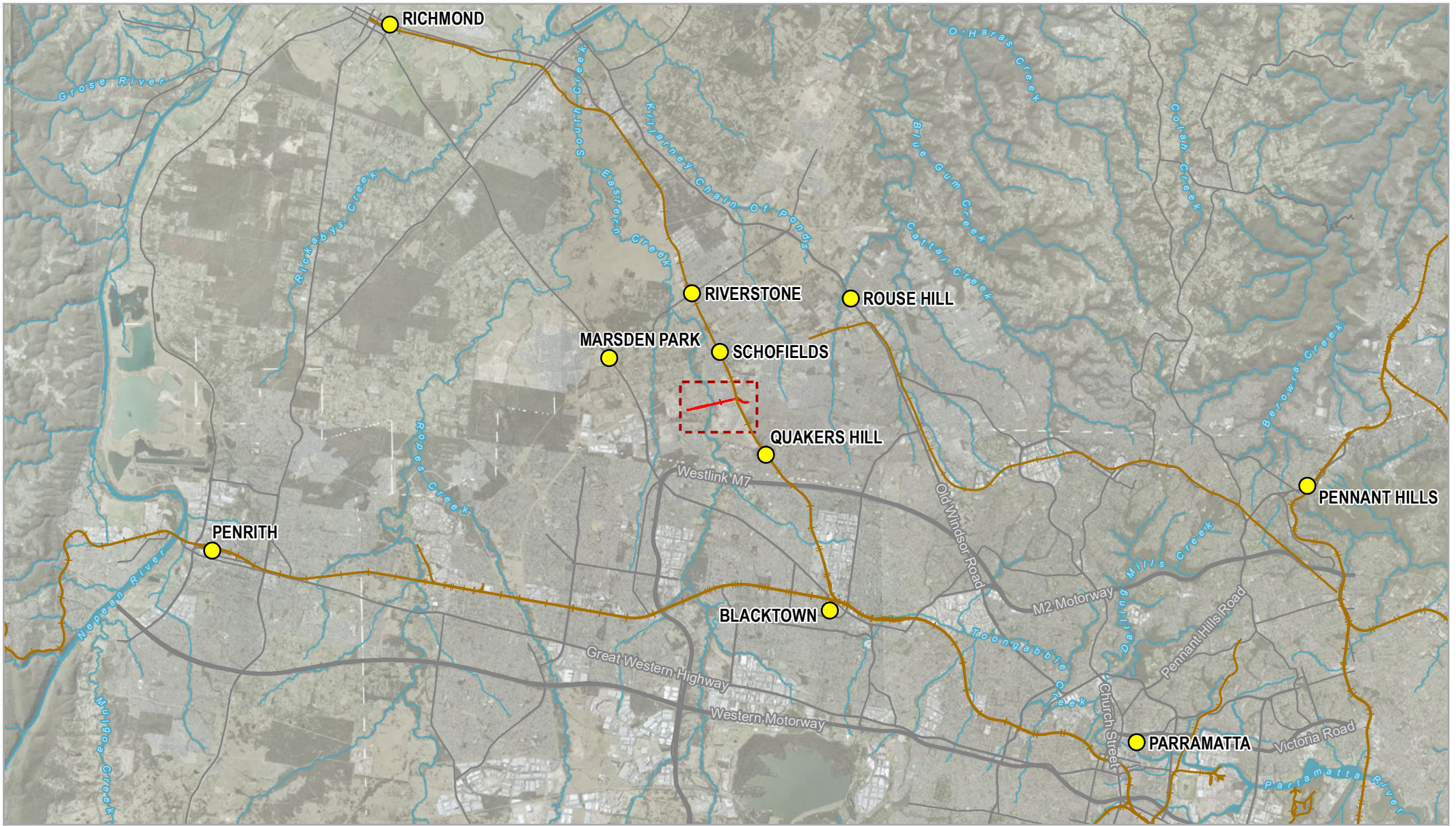
The purpose of this report is to document the results of the assessment of the potential socio-economic impacts during operation and construction of the proposal. This report supports the REF for the proposal. The scope of assessment included:

- An analysis of the existing socio-economic profile of the local study area and communities that would be impacted, as well as the regional context
- Outcomes from consultation with residents, businesses and key stakeholders
- Identification of potential socio-economic benefits and impacts from the proposal
- Mitigation strategies for each identified impact.

### 1.4 Report Structure

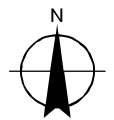
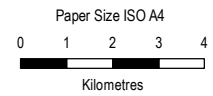
The report is comprised of the following sections:

- **Section 2 – Methodology:** a brief summary of the methods and guidance used for the assessment of the proposal
- **Section 3 – Legislative and policy context:** summarises the legislation and policy documents which are relevant to the proposal
- **Section 4 – Existing environment:** an overview of the demographic and community characteristics in the study area
- **Section 5 – Stakeholder consultation:** summarises the outcomes of consultation relevant to this assessment
- **Section 6 – Assessment of construction impacts:** potential socio-economic impacts that may result from construction of the proposal
- **Section 7 – Assessment of operation impacts:** potential socio-economic impacts that may result from operation of the proposal
- **Section 8 – Assessment of cumulative impacts:** potential cumulative socio-economic impacts that may result from construction and operation of the proposal with other projects in proximity
- **Section 9 – Recommended mitigation and management measures:** provides recommendations of proposed mitigation options for the construction and operational impacts of the proposal
- **Section 10 – Conclusion:** presents a summary of the socio-economic assessment findings and sets out the principal conclusions for the study.



**LEGEND**

- Locality
- The proposal *\*Subject to detailed design*
- Minor road
- Railway
- Major road
- Watercourse
- Site location



**Transport for NSW  
Townson Road Upgrade Stage 2  
Burdekin Road**

Project No. 21-12511195  
Revision No. -  
Date 23/03/2022

Map Projection: Transverse Mercator  
Horizontal Datum: GDA 1994  
Grid: GDA 1994 MGA Zone 56

**Location of the proposal**

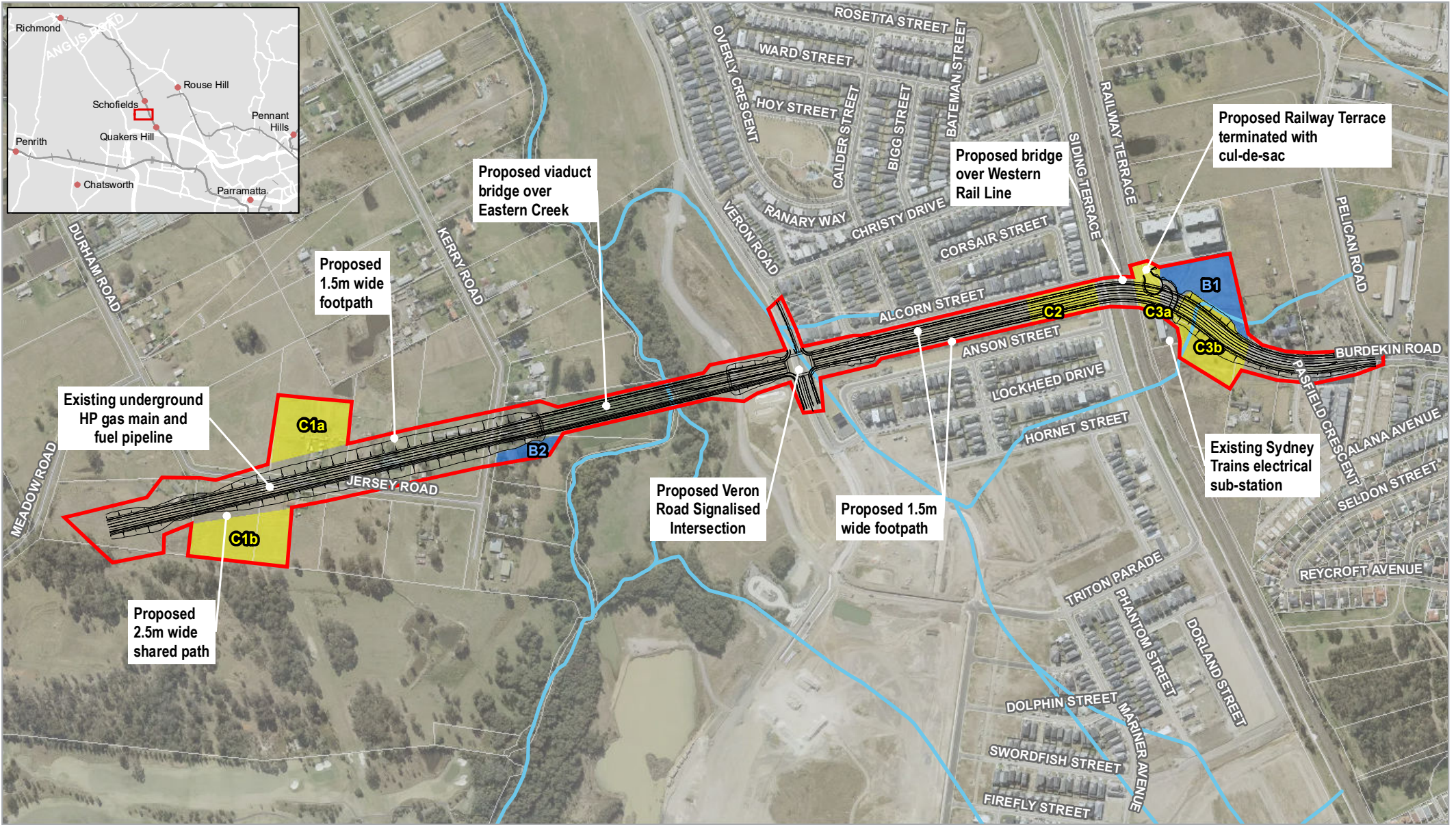
**FIGURE 1**

G:\2112511195\GIS\Maps\Deliverables\21\_12511195\_Z037\_Stage2\_Locality\_AllSpecialists.mxd  
Print date: 23 Mar 2022 - 12:35

Data source: MetroMap - Imagery (date extracted: 23/03/2022) , General topography - DPI 2015, Roads - DSF12019. , Created by: eibbertson

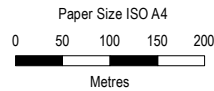
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**LEGEND**

- The proposal *\*Subject to detailed design*
- Compound site
- Watercourse
- Drainage basin
- Cadastre
- Construction footprint



Map Projection: Transverse Mercator  
Horizontal Datum: GDA 1994  
Grid: GDA 1994 MGA Zone 56



Transport for NSW  
Townson Road Upgrade Stage 2  
Burdekin Road  
Noise and Vibration Impact Assessment

Project No. 21-12511195  
Revision No. -  
Date 28/10/2021

**The Stage 2 Proposal**

**FIGURE 2**

## 2. Methodology

### 2.1 Approach to this assessment

This SEIA has been prepared in accordance with a moderate assessment under the *Environmental Impact Assessment Practice Note Socio-economic assessment* (Transport for NSW, 2020). It has also given consideration to the *Social Impact Assessment Guideline for State Significant Projects* (Department of Planning, Industry and Environment, 2021) and the social impact assessment principles and methods endorsed by the International Association for Impact Assessment (Vanclay, 2003 and Vanclay F, et al, 2015).

### 2.2 Steps to prepare this SEIA

#### 2.2.1 Scoping of social issues

A review of the proposal's description was undertaken to determine the scope and extent of the potential socio-economic impacts. This was captured in the scoping checklist (Appendix A). The scoping checklist was completed based on a review of the proposal design and activities which would occur during construction and operation, and the potential for cumulative impacts. This informed the understanding of potential socio-economic effects, such as changes to local amenity, access and connectivity, community infrastructure facilities and community values (see Table 1).

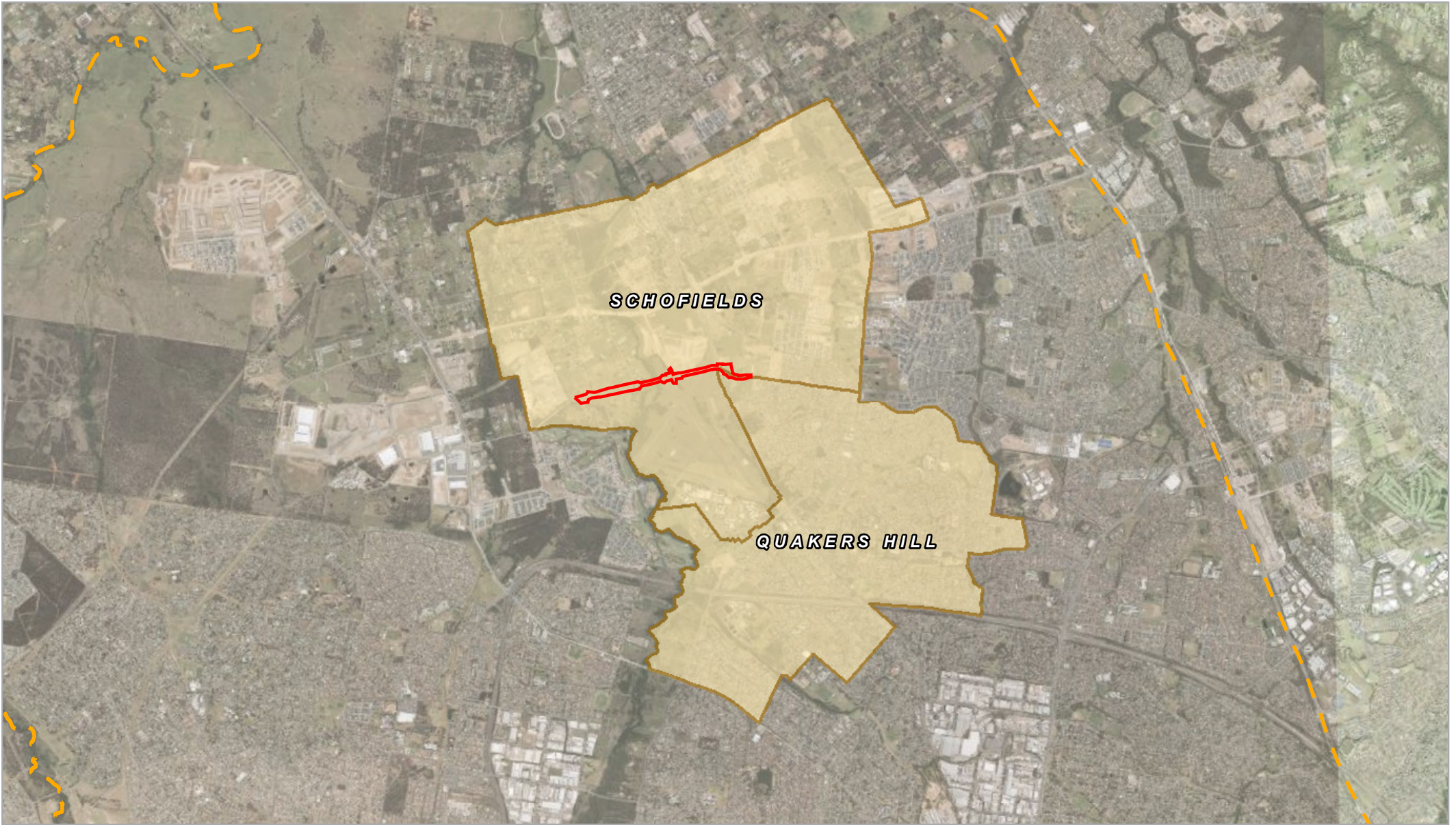
#### 2.2.2 Determining the study area

The proposal site and its surrounds were analysed to identify the communities that live and work in the area, and those who visit the area which are considered most likely to be impacted by the proposal.




It is acknowledged that socio-economic impacts are not contained within statistical or geographical boundaries, because people can travel across different geographic areas as part of their day-to-day lives. As a result, that the study area includes:

- Local study area – including the suburbs of Schofields and Quakers Hill
- Regional study area – including Blacktown Local Government Area (LGA).

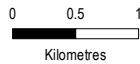
The study area is shown in Figure 3.



**LEGEND**

-  Construction footprint
-  Local study area
-  District study area

Paper Size ISO A4



Map Projection: Transverse Mercator  
 Horizontal Datum: GDA 1994  
 Grid: GDA 1994 MGA Zone 56



**Transport for NSW**  
**Townson Road Upgrade Stage 2**  
**Burdekin Road**

Project No. 21-12511195  
 Revision No. -  
 Date 1/20/2021

**Study Area**

**FIGURE 3**

### **2.2.3 Preparing the socio-economic baseline**

The baseline is required to understand the existing socio-economic conditions of the study area that may be potentially affected by the proposal. This baseline provides the basis for predicting and assessing the likely socio-economic impacts of the proposal. The baseline is described with reference to:

- An overview of the regional study area, including description of the existing amenity, main economic centres, population characteristics, access and connectivity
- A description of the local study area, including an overview of the existing amenity and characteristics, local access and connectivity, economic and business centres and land use
- The demographic profile of the local study area, compared to the regional study area including population, age profile, cultural diversity, employment, levels of social and economic disadvantage and need for assistance with core daily activities
- Community values, which are tangible and intangible characteristics and aspects of a community such as amenity and character, lifestyle, access, connectivity, community cohesion and community safety
- Community infrastructure facilities, including both physical and non-physical infrastructure (such as services, programs and networks) that help individuals and communities meet their social needs and enhance community wellbeing, or have been identified as having social value or importance
- Community infrastructure facilities within 600 metres of the proposal have been identified using online searches and a site visit undertaken by the project team in October 2021. The following community infrastructure facilities have been included: education and child care facilities, aged care, health centres and services, disability services, youth and community spaces, religious facilities, indoor and outdoor sport and recreations, and passive opens space such as parks and gardens. This SEIA has assessed the potential socio-economic impacts to staff and users of community infrastructure only.

Information for the socio-economic baseline was sourced from:

- Australian Bureau of Statistics Census 2016 (ABS 2016 Census)
- Online web sources such as Profile .id and the relevant council websites
- Department of Planning, Industry and Environment population projections (2019)
- Relevant council and state government community plans, strategies and studies
- GIS and Google maps
- Information from relevant websites, as referenced.

Specific references are outlined in section 11.

### **2.2.4 Stakeholder consultation**

The SEIA team met with several key stakeholders during development of the Stage 1 proposal in 2019 and 2020. SEIA consultation activities undertaken during this time involved consulting with representatives from:

- Blacktown City Council via a meeting on 2 December 2019
- NSW Ambulance via a meeting on 14 January 2020
- NSW Fire and Rescue via email on 15 January 2020
- NSW Police were unable to be reached for consultation.

At the time the consultation was undertaken, both Stages 1 and 2 of the proposal were discussed with stakeholders. The purpose of the SEIA-specific consultation was to discuss and confirm the understanding of:

- Community values and character of the socio-economic environment
- Potential sensitive receivers
- User groups and uses of identified social infrastructure relevant to the proposal
- Other relevant community facilities or services
- Potential proposal impacts, benefits and mitigation measures relevant to Stages 1 and 2 of the proposal.

Other stakeholder and community consultation activities undertaken for the proposal (described in chapter 5 of the REF) have also informed this SEIA.

### **2.2.5 Impact identification and assessment**

This SEIA identifies and assesses the potential socio-economic benefits and impacts of the Townson Road Upgrade between Jersey Road and Burdekin Road – Stage 2. Potential impacts have been identified and described based on the initial scoping of potential socio-economic issues (Appendix A), understanding of the existing socio-economic environment (section 4), results of stakeholder consultation (section 5), and a review of other technical studies and chapters prepared for the REF.

Socio-economic impacts as a result of construction and operation of the proposal have been assessed in sections 6 and 7. In addition, cumulative impacts have been assessed in section 8, taking into account other projects that have been approved but where construction has not yet commenced, projects that have commenced construction, and projects that have been recently completed in the surrounding area.

The socio-economic impacts have been categorised based on the *Environmental Impact Assessment Practice Note Socio-economic assessment (Transport for NSW, 2020)* (the Practice Note). For this SEIA, the matters to be considered according to the Practice Note have been grouped into categories to ensure they are relevant to the nature of the proposal. The social impact categories are outlined in Table 1.

**Table 1 Social impact categories**

Social impact category	Matters to be considered
Property and land use	Changes that relate to the partial or complete acquisition of residential land. This can impact people's way of life due to relocation or changes to property.
Amenity and character	Changes to the acoustic, air quality or visual environment as a result of the proposal. Changes to amenity can impact people's way of life, and what people value about their community. This has considered the social impacts on residents and general community members.
Access and connectivity	Changes to how people move about an area for personal or business purposes. Changes to access can impact people's way of life, access to and use of community services, facilities and social networks, community cohesion and perceptions about safety.
Economy, businesses and employment	High-level benefits and impacts on the local and regional economy, including business development and employment opportunities. Social implications of impacts to businesses resulting from changes to access and amenity. This includes how business owners, employees and customers are affected by these changes. Social implications of changes to job availability and employment resulting from impacts on businesses.

The assessment of impacts considers the level of sensitivity of receptors and the magnitude of the proposed changes based on the information available at the time, research undertaken to prepare this SEIA, other technical studies and review of consultation outcomes undertaken by Transport for NSW.

For negative impacts, sensitivity refers to the qualities of the receptor that influence its vulnerability to change and capacity to adapt. In this context, the receptor may include the environmental characteristics, communities, businesses, business clusters, social infrastructure or residences. Table 2 describes the levels of sensitivity for negative impacts.

**Table 2 Level of sensitivity**

Sensitivity	Example
Negligible	No vulnerability and able to absorb or adapt to change
Low	Minimal areas of vulnerability and a high ability to absorb or adapt to change
Moderate	A number of vulnerabilities but retains some ability to absorb or adapt to change
High	Multiple vulnerabilities and/or very little capacity to absorb or adapt to change

Magnitude refers to the scale, duration, intensity and scope of the proposal including how it would be constructed and operated. Qualities of magnitude include, but are not limited to:

- Scale and intensity (the types of works, operational uses and built form etc.)
- Spatial extent (e.g. the geographical area affected, which may be local, suburb, regional, State, International or to community groups etc.)
- Duration (short, medium or long-term, hours of works, frequency, reversibility etc.)
- The levels of magnitude are set out in Table 3.

**Table 3 Level of magnitude**

Magnitude	Example
Negligible	No discernible positive or negative changes caused by the impact. Change from the baseline remains within the range commonly experienced by receptors.
Low	A discernible change from baseline conditions. The tendency is that the impact is on a small proportion of receptors over a limited geographical area and mainly within the vicinity of the proposal. The impact may be short term, or some impacts may extend over the life of the proposal.
Moderate	A clearly noticeable difference from baseline conditions. The tendency is that the impact is on a small to large proportion of receptors and may be over an area beyond the vicinity of the proposal. The duration may be short to medium term or some impacts may extend over the life of the proposal.
High	A change that dominates over existing baseline conditions. The change is widespread or persists over many years or is effectively permanent.

Table 4 is used to assess the level of significance of the potential impacts. This is done by combining the level of sensitivity and magnitude.

**Table 4 Assessing the level of significance**

		Magnitude			
		High	Moderate	Low	Negligible
Sensitivity	High	High	High-Moderate	Moderate	Negligible
	Moderate	High-Moderate	Moderate	Moderate-Low	Negligible
	Low	Moderate	Moderate-Low	Low	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

Source: Environmental Impact Assessment Practice Note Socio-economic assessment (Transport for NSW, 2020).

Positive impacts are discussed but not given a level of significance.

The level of impact within this SEIA has considered the implementation of recommended mitigation and management measures as outlined in section 7 and those identified in other relevant Technical Working Papers prepared for the REF as described in section 2.2.5.

### 2.2.6 Developing impact mitigation and management measures

Specific mitigation and management measures developed to avoid or minimise the socio-economic impacts are identified in section 7. These were formulated based on the findings of the socio-economic baseline study, results of stakeholder consultation, and the outcomes of the impact assessment.

Other technical studies from the REF have been considered with regard to the effect or specific mitigation measures identified in those studies which contribute to mitigating potential socio-economic impacts identified in this report. These measures can be found in the technical components of the REF outlined in section 2.2.5.

### **2.2.7 Limitations**

This report has relied on the outcomes from consultation with landholders and businesses undertaken by Transport for NSW in December 2019 and January 2020. GHD also consulted with key stakeholders in 2019. Outcomes from consultation with businesses and landholders during the development of the environmental assessment for the Stage 2 proposal were not available at the time this assessment was prepared.



### 3. Legislative and policy context

A number of legislative and policy documents were reviewed to identify their relevance to this SEIA. The following sections summarise the relevant Commonwealth legislation, NSW legislation, and local government policies.

#### 3.1 Commonwealth legislation

Table 5 outlines the Commonwealth legislation and policies relevant to this SEIA.

**Table 5 Commonwealth legislation and policies**

Legislation or policy	Relevance to this SEIA
<i>Disability Discrimination Act 1992</i> (Commonwealth)	The <i>Disability Discrimination Act 1992</i> (Commonwealth) is designed to protect people with disability from discrimination. This SEIA considers changes to the existing environment that may affect accessibility. It also highlights any impacts that may affect vulnerable groups, including those who experience disability.

#### 3.2 NSW legislation and policies

Table 6 outlines NSW legislation and policies relevant to this SEIA.

**Table 6 NSW legislation and policies**

Legislation or policy	Relevance to this SEIA
Greater Sydney Region Plan: A Metropolis of Three Cities (Greater Sydney Commission, 2018)	<p>Blacktown LGA is located in the Greater Parramatta and the Olympic Peninsula (GPOP) Economic Corridor, within the Central River City of the Greater Sydney Region. The GPOP Economic Corridor includes a high concentration of jobs with good road and public transport connectivity, allowing high levels of interaction between businesses and people.</p> <p>Blacktown LGA is identified as a key strategic centre. Strategic centres are expected to accommodate high levels of private sector investment, enabling them to grow and evolve. This makes Blacktown LGA an increasingly important part of the region’s infrastructure.</p> <p>This SEIA assesses the potential socio-economic impacts as a result of the proposal including changes to the amenity and character of the area, in the context of the broader changes in the region in line with Blacktown’s role as a strategic centre.</p>
Central River City District Plan – Connecting Communities (Greater Sydney Commission, 2018)	<p>The proposal is located in the Central River City District of the Greater Sydney Region. The Central District Plan identifies Blacktown as a Health and Education Precinct with a significant and diverse array of economic activities and assets.</p> <p>The plan states that Blacktown is strategically located at the interface between the Central River City and Western Parkland City and contributes significantly to the economies of both cities through its industrial precincts, health and education activities, diverse recreational facilities and emerging centres such as Marsden Park.</p> <p>The plan identifies key directions to guide the planning of the Central City, including the provision of both physical connectivity and open space connectivity. This includes improving existing road and open space networks, as well as investing in new opportunities to improve connectivity for local residents.</p> <p>This SEIA will consider changes to community connectivity and accessibility as a result of the proposal.</p>

Legislation or policy	Relevance to this SEIA
Future Transport Strategy 2056 (TfNSW, 2018)	<p>The strategy highlights the importance of Sydney’s transport network in supporting a productive economy and liveable communities. The strategy’s vision identifies six outcomes, the most relevant to this SEIA being:</p> <ul style="list-style-type: none"> <li>• Successful places – active or public transport facilitates easy access to public spaces and facilities, encouraging physical activity and social interactions</li> <li>• A strong economy – the transport network will support the efficient movement of people to job centres, where people can access jobs and services within 30 minutes by public or active transport</li> <li>• Accessible services – the transport network will be fully accessible, enabling barrier-free travel for all.</li> </ul> <p>This SEIA will consider how the proposal contributes to or impacts these factors.</p>
North West Growth Centre Road Network Strategy	<p>To support the forecast growth in the North West Growth Area, the NSW Government is proposing a new road network as part of its North West Growth Centre Road Network Strategy. The Strategy has identified the need for five grade-separated crossings of the Richmond rail line.</p> <p>As one of these five crossings, the upgrade of Townson-Burdekin Road is a key part of this Strategy and will increase and improve connectivity between Richmond Road and Windsor Road while supporting residential and employment growth. This would increase connectivity and accessibility to key employment centres and facilitate movement through the North West Growth Area.</p> <p>This SEIA will consider how the proposal contributes to improved connectivity for residents and workers in the study area.</p>

### 3.3 Blacktown City Council policies

Table 7 outlines Blacktown City Council policies that are particularly relevant to this SEIA.

**Table 7 Blacktown City Council policies**

Policy	Relevance to this SEIA
Our Blacktown 2036 – Community Strategic Plan (2018)	<p><i>Our Blacktown 2036</i> provides an overview of Blacktown City Council’s values, aspirations, and strategic directions for the LGA.</p> <p><i>Our Blacktown 2036</i> is structured around six directions with several accompanying focus areas. The most relevant of these directions to this SEIA is related to creating a growing city supported by accessible infrastructure. Focus areas under this strategic direction include providing transport networks that connect the City for vehicle and non-vehicle users and improving road safety.</p> <p>This SEIA will assess how the proposal contributes to or impacts relevant values of Blacktown communities.</p>
Blacktown City Social Profile (2016)	<p>The <i>Blacktown City Social Profile</i> is a snapshot of the City’s social situation and identifies the needs, aspirations and values of the community. It was informed through consultation with 2,155 residents and 107 community groups in 2016.</p> <p>The Social Profile notes that the Blacktown community is experiencing rapid population growth, particularly from the development of the North West Growth Area. It highlights that Blacktown City is valued as a friendly place, with a strong community spirit and many natural and green spaces.</p>

Policy	Relevance to this SEIA
	<p>The Blacktown community identified transportation as a major challenge, with most residents concerned about increased congestion on the City's roads making pedestrian and cycle mobility difficult and therefore increasing people's reliance on motor vehicle use. Residents also cited concerns about the lack of employment and recreation opportunities located near where people live.</p> <p>This SEIA assesses how the proposal affects relevant values and concerns of Blacktown communities.</p>

# 4. Existing environment

## 4.1 Regional study area

### 4.1.1 Overview

Blacktown LGA is located in western Sydney and is approximately 35 kilometres from the Sydney CBD. As discussed in section 3, the LGA is experiencing rapid growth particularly from the development of the North West Growth Area (Blacktown City Council, 2016). In 2016, the population of the LGA was 349,050 people, and is predicted to grow by 49 per cent to 521,450 people by 2036 (NSW Department of Planning and Environment, 2016).

The North West Growth Area Transport Strategy (TfNSW, 2014) and particularly the recently completed Sydney Metro Northwest are key catalysts for the development and growth of the North West Growth Area and Blacktown LGA.

The North West Growth Area comprises multiple precincts which have or will undergo strategic planning to ensure that infrastructure planning aligns with planned growth for the area (Department of Planning, Industry and Environment, no date). The proposal is located across the following precincts in the North West Growth Area:

- **Schofields Precinct:** The Schofields Precinct is located towards the eastern end of the proposal, occupying land to the west of Railway Terrace. It was rezoned in May 2021 and new planning controls were introduced to enable urban development and the delivery of local amenities close to transport options. The proposed redevelopment is outlined in the Schofields Precinct Plan (2018) and includes the introduction of conservation land, open space and recreation areas, retail space and upgrades to key roads.
- **Alex Avenue Precinct:** The Alex Avenue Precinct adjoins the Schofields precinct to its west and is located at the easternmost end of the proposal, where the vehicular and pedestrian bridge will tie-in with Burdekin Road. It encompasses Woolworths Schofields and Quakers Hill Veterinary Hospital. The precinct will see the introduction of up to 6,300 new homes and the delivery of local amenities close to transport options, including new schools, upgrades to roads and improved connections to encourage active transport. The proposed redevelopment will be guided by the Alex Avenue Precinct Plan (2010).
- **West Schofields Precinct:** The remainder of the proposal is located within the West Schofields Precinct. Planning for the West Schofields precinct is currently underway and will be guided by the West Schofields Precinct Plan (2018).

### 4.1.2 Overview of resident profile

Blacktown LGA has the largest urban Aboriginal and Torres Strait Islander population in NSW, accounting for 2.8 per cent of the population (Blacktown City Council, 2017). The LGA also has high rates of cultural and linguistic diversity, with almost half of the LGA's residents born in another country (45.9 per cent), and 41.0 per cent of people speaking another language other than English (ABS, 2016) based on *Blacktown City Social Profile 2016*. The culturally and linguistically diverse community is expected to continue growing (Blacktown City Council, 2017).

Blacktown LGA has a SEIFA Index of Relative Socio-Economic Advantage/Disadvantage (IRSAD) ranking of decile 8, indicating a relative lack of disadvantage and greater advantage within Australia<sup>1</sup>. However, low-income households earning less than \$650 per week accounted for 13.9 per cent of the LGA's households. As noted in the Social Profile (Blacktown City Council, 2016), there were inequalities in people's access to housing, food, education and employment in the LGA, and places where social disadvantage has remained unchanged for decades.

#### **4.1.3 Access and connectivity**

Of the 105,349 workers in the LGA, 44 per cent also live in the area (Economy.id, 2016). The highest portion of workers travelling to work from outside the LGA came from Penrith (13.6 per cent of workers). Most workers travelling to Blacktown LGA drive a car (72.8 per cent) or are passenger in a car (5.6 per cent) (Economy.id, 2016). This heavy reliance on private vehicles to travel to work is due in large part to the nature of the local public transport network as discussed in the *Blacktown Social Profile 2016*. This indicates that many workers depend on the road network to travel to and from work in the LGA.

Rail infrastructure that services the LGA includes the new Sydney Metro, which currently operates between Tallawong and Chatswood. Once complete, the Sydney Metro will run from Tallawong in Sydney's North West to Sydenham in Sydney's West (Sydney Metro, n.d). This would connect residents living in the North West of Sydney to major employment centres in Sydney's northern suburbs and CBD.

As discussed in section 3.3 transport is an existing challenge for the LGA. Residents have a heavy reliance on private vehicles and spend a large amount of time travelling each day (Blacktown City Council, 2016). Patronage at all train stations in the LGA except Schofields train station has also decreased between 2004 and 2014 (Blacktown City Council, 2016). The LGA is connected to other parts of Sydney by the M7 Motorway, which connects to the north-east and south, and the M4 Western Motorway, which connects to the east and west. Richmond Road is another key north-south connection.

There are also a number of active transport routes through the LGA, most of which are located in and around the Blacktown CBD and some further north between Schofields Road and the M7 (NSW Roads and Maritime Services, 2018). These routes include a mix of low and medium difficulty on road paths, and off-road paths. Off road paths include bicycle paths, shared paths and separated paths.

#### **4.1.4 Commercial centres**

There are a several commercial centres throughout the LGA, and a number of these are located close to the proposal including Blacktown CBD, Rouse Hill Town Centre (both approximately nine kilometres from the proposal), and Marsden Park Industrial Centre (approximately 100 metres from the western end of the site and discussed further in section 4.2.1). These centres all provide retail, commercial, community and industrial uses and associated employment.

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<sup>1</sup> IRSAD divides a population into ten equal groups, called a decile. The lowest scoring 10 per cent of these groups are given a decile number of 1, which indicates the highest level of disadvantage, and the highest scoring 10 per cent of areas are given a decile of 10, which indicates the highest level of advantage.

#### **4.1.5 Community values**

Community values refer to tangible and intangible characteristics and aspects of a community such as amenity and character, lifestyle, access, connectivity, community cohesion and community safety. A project may impact on these aspects of a community through changes in noise and air quality levels, visual amenity, traffic and access, barriers to movement across the community, and use and enjoyment of community spaces. Community values relevant to this SEIA have been identified based on a review of relevant Council documents, as outlined in section 3. As Council policies generally relate to the whole of LGA, the following sections report on community values at the LGA level.

##### **4.1.5.1 Social cohesion**

According to the Social Profile (Blacktown City Council, 2016) Blacktown residents value the diversity of the community, with some residents noting Blacktown LGA is a destination of choice for new migrants. Although some residents did note they sometimes experienced discrimination, others also noted their strong feelings of belonging in the community.

##### **4.1.5.2 Character and amenity**

According to the Social Profile (Blacktown City Council, 2016) residents in the North West Precinct of the LGA, which includes Marsden Park, Colebee and Schofields value the quiet, peaceful and rural feel of the area.

Blacktown communities are committed to the protection, conservation and enhancement of its environment (Blacktown City Council, 2017) and value the sporting, recreational and social activities provided in the city (Blacktown City Council, 2016).

##### **4.1.5.3 Access and connectivity**

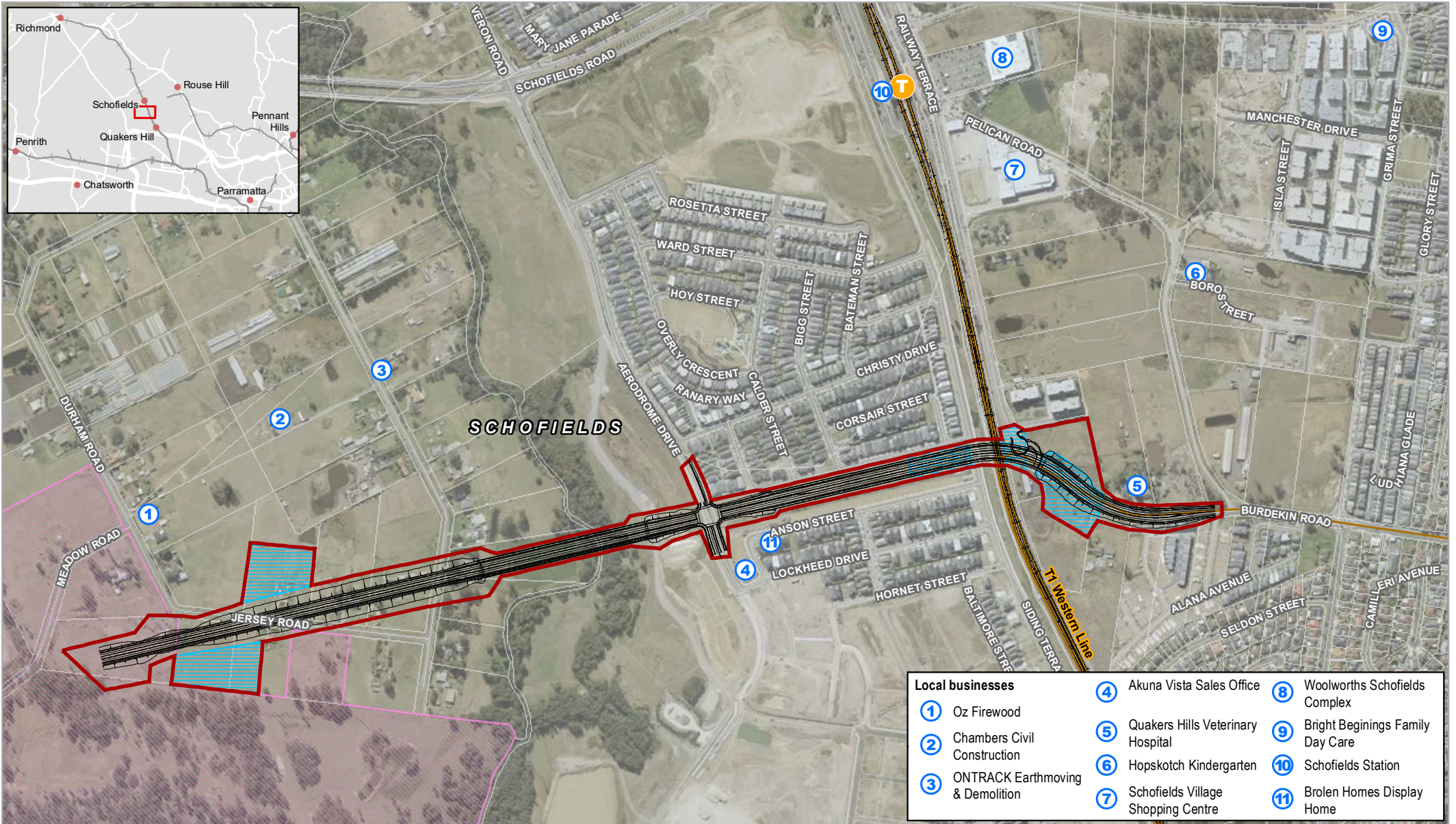
A key finding of the *Blacktown Social Profile 2016* was the important role the M7 and other key transport routes play in connecting Blacktown to other parts of Sydney. Whilst well serviced by road infrastructure and the new Sydney Metro, transportation is still a challenge in the LGA (discussed in section 3.3).

Through consultation for the Social Profile (Blacktown City Council, 2017) participants expressed the need for improved road safety, more cycle and pedestrian paths and transport networks that connect the LGA for vehicle and non-vehicles users (Blacktown City Council, 2017). Public transport was also an issue for residents; some viewed it as good where others were concerned about the lack of reliable, accessible and affordable public transport (Blacktown City Council, 2017).

#### **4.2 Local study area**

Located in the North West Growth Area, the suburbs of Schofields and Quakers Hill have all been undergoing development and population growth in recent years, which will continue in the coming years. There are several development sites located in the local study area and along the proposed road alignment that will contribute to the growth and change of these suburbs as new residents move into the area. These sites are discussed in the relevant sections below.

Figure 4 identifies local businesses and future development within the local study area.



**LEGEND**

— The proposal \*Subject to detailed design

— Railway

— Suburb

— Cadastre

— Construction footprint

— Construction compound

**Future property development**

— CSR development

Paper Size ISO A4

0 50 100 150 200

Metres

Map Projection: Transverse Mercator  
Horizontal Datum: GDA 1994  
Grid: GDA 1994 MGA Zone 56



**Transport for NSW**  
**Townson Road Upgrade Stage 2**  
**Burdekin Road**

Project No. 21-12511195  
Revision No. -  
Date 6/12/2021

Site context

**FIGURE 4**

### **4.2.1 Schofields**

Schofields is located in the centre of the LGA, to the east of Colebee and Marsden Park. In 2016, the population of the suburb was 4,983 people, comprising of 1.4 per cent of the total population of the LGA. Similar to Marsden Park and Colebee, Schofields is undergoing significant residential and commercial development to cater for the planned population growth in the North West Growth Area. This includes land owned by CSR on the northern and southern side of Meadow Road, in the suburbs south-west. In total, the CSR development will deliver 1,536 residential lots by 2028. It is predicted that the existing conditions of the regional and local study area noted in the report have the potential to be easily outdated in the fast growing precincts and quickly changing landscape.

#### ***Land use***

Land use in Schofields can be characterised by a mix of large rural residential properties in the western section of the suburb, and suburban residential areas in the eastern part of the suburb. This leads to a strong rural feel in the west and a feeling of suburban character in the east.

A proportion of the rural residential properties in the west of the suburb will undergo redevelopment into low-density dwellings. This will change the land use in this part of the suburb, and likely to change its character and feel.

Key features of the suburb include Eastern Creek, which runs north-south through the centre of the suburb and Western Sydney University Nirimba Campus, which is located in the south-east corner of the suburb.

#### ***Access and connectivity***

The main roads in Schofields are Railway Terrace which runs north to south, and Schofields Road which runs east to west. Railway Terrace links up to the Westlink M7 in the south, while Schofields Road connects to the commercial centres of Rouse Hill to the east and Marsden Park to the west.

As discussed in section 4.1, the proposal is located within three precincts in the North West Growth Area which are currently undergoing planning that will see upgrades to key roads and improved connections to cater for new communities.

Schofields train station is located in the centre of the suburb on Railway Terrace. The T1 Western Line and the T5 Cumberland Line connects to the City and Leppington respectively, via Blacktown and Parramatta. Schofields Station also features a bus interchange on the eastern side, where bus services 734, 751, 742 and N71 stop. This allows passengers to change between local bus routes and train services. Bus route 742 is the main service which operates along Townson Road.

#### ***Economy and business***

The closest major retail centre to Schofields is Marsden Park in the west and Rouse Hill to the east, which are both connected by Schofields Road. Schofields Road also provides access to the Woolworths Schofields shopping complex located on Railway Terrace, east of Schofields Station and approximately 520 metres north of the proposed cul-de-sac to be constructed on Railway Terrace (see Figure 1 and Table 8). Woolworths Schofields and other shops within the complex (see Table 8) would likely be frequented by users of Schofields Station and residents of the local study area. Schofields Village Shopping Centre is currently under construction and is also located on Railway Terrace. It will include a Coles supermarket, Liquorland and a childcare centre, amongst other variety stores.



Businesses located in close proximity to the proposal are outlined in Table 8. Some of these businesses may be impacted by land use requirements, as well as indirect impacts as a result of access changes, as discussed in sections 6.1.4 and 7.1.3.

**Table 8 Businesses located in close proximity to the proposal**

Name	Address	Proximity to proposal	Description
Woolworths Schofields shopping complex	217 Railway Terrace	700 m north	Small shopping complex east of Schofields Station which includes Woolworths Schofields, TerryWhite Chemmart, BWS Schofields, and a Morning Sydney café in the carpark. A 'Return and Earn' reverse vending machine and charity bins are also located in the car park.  The complex is accessed via Railway Terrace and Minerva Street.
CSR Brickworks	75 Townson Road	Surrounding the western end of the proposal (see Figure 4)	Located on CSR owned land. Currently operating PGH brick factory targeted for future residential development with the capacity for over 1,525 lots. Portion of the site is being rehabilitated.
Oz Firewood	55 Durham Road	165 m north	Firewood supplier located adjoining a rural residential property. Open from 7am to 5pm Monday through to Saturday.
Chambers Civil Construction	44 Kerry Road	320 m north	Civil construction company located on a rural residential property. Open from 7am to 5pm Monday through to Friday, and from 7am to 1:30pm on Saturday and Sunday.
ONTRACK Earthmoving & Demolition	Kerry Road	360 m north	Earthmoving and demolition plant and machinery hire business located on a rural residential property.
Akuna Vista Sales Office	Aerodrome Driveway	81 m south	Land sales office.
Brolen Homes Display Home	6 Anson Street	30 m south	Display homes and sales office.
Hopscotch Kindergarten	46 Pelican Road	420 m north	Early childhood and care facility, providing care to children aged between 6 weeks old to when they start school. Open from 7am to 6pm Monday through to Friday.  The facility is accessed via Pelican Road.
Bright Beginings Family Day Care	114/121 Jerralong Drive	908 m north	Family day care service, open from 7am to 7pm Monday through to Friday.
Schofields Village Shopping Centre	227 Railway Terrace	395 m north	Shopping village is part of the Alex Avenue Precinct and is scheduled to open in the second half of 2021. This centre will include a Coles supermarket, Liquorland, childcare centre and McDonalds, amongst other services, variety stores and dining locations.

The top occupations of employment for Schofield residents are: professionals (21.4 per cent), clerical and administrative workers (16.6 per cent) and technicians and trades (15.1 per cent).

### **Demographic profile**

Over half of households in Schofields are family households, and almost a third of the population are under 18 years old. Schofields has a high IRSAD decile of 9, meaning there are high rates of socio-economic advantage. In particular, residents of Schofields are characterised by:

- A median age of 32 which is slightly younger than the LGA (33 years old)
- A higher proportion of the population who are under 18 years of age (28.0 per cent) compared to the LGA (26.9 per cent)
- A lower proportion of older people, 65 years and older (7.7 per cent) than the LGA (10.3 per cent)
- A slightly lower proportion of Aboriginal and Torres Strait Islanders (2.0 per cent) than the LGA (2.8 per cent)
- A lower proportion of the population who speak a language other than English at home (28.2 per cent) compared to the LGA (41.0 per cent)
- A lower rate of unemployment (5.1 per cent) compared to the LGA (7.3 per cent)
- A higher proportion of couple families with children (56.8 per cent) than the LGA (55.5 per cent)
- A lower proportion of the population who require assistance with daily activities (3.1 per cent) compared to the LGA (5.1 per cent)
- The same proportion of the population who drive a car to work (63.3 per cent) as the LGA
- A lower proportion of households earning less than \$650 per week (9.1 per cent) compared to the LGA (13.9 per cent)
- A lower proportion of lone person households (12.7 per cent) compared to the LGA (15.2 per cent)
- A SEIFA IRSAD ranking of decile 9, indicating a relative lack of disadvantage and greater advantage within Australia.

### **4.2.2 Quakers Hill**

Quakers Hill is located south-east of Schofields, in the centre of the LGA. In 2016, the suburb had a population of 27,080 people. It surrounds the North West Priority Growth Area which is undergoing significant urban renewal, residential and commercial development.

In addition to undergoing housing development, there is also the delivery of priority rail infrastructure, such as the Sydney Metro Northwest, which is a duplication of the T1 Western Line (Richmond to Sydney CBD) between Quakers Hill Station and Schofields Station. This infrastructure is a key contribution to the further planning and investment by the NSW Government.

## ***Land use***

Quakers Hill is primarily characterised by suburban residential areas and open space. The West Link M7 runs east-west through the southern end of the suburb, while the Quakers Hill railway link runs north-south through the centre of the suburb and connects to Quakers Hill Station. Western Sydney University Nirimba campus is located on the northern border of the suburb in Schofields. Burdekin Road forms part of the northern border of the suburb between Quakers Hill and Schofields and is mostly made up of low-density residential lots.

The suburb is home to numerous primary and secondary schools, and educational institutions. Other key features include the Quakers Hill Masjid, The Church of Jesus Christ of Latter Day Saints, the Quakers Hillside Care Community and Quakers Hill Shopping Centre.

## ***Access and connectivity***

The main roads in Quakers Hill are Quakers Hill Parkway which runs south to east, and Hambledon Road which runs north to south. Hambledon Road links up to Quakers Hill Parkway in the south and goes through Quakers Hill station. The Westlink M7 runs through the southern end of the suburb and provides residents with access to other parts of Sydney.

Quakers Hill train station is located in the centre of the suburb on Railway Road. The T1 Western Line and the T5 Cumberland Line connects to Sydney CBD and Leppington respectively, via Blacktown and Parramatta. There is a bus interchange at Quakers Hill station which is serviced by routes 732, 745 and 752. Bus routes 732 runs north south and passes through Burdekin Road, connecting to Blacktown Station. Bus route 745 runs west east, passing through Richmond Road and Quakers Hill Parkway, and bus route 752 runs north south and connects to Blacktown Station.

## ***Economy and business***

The main shopping mall in Quakers Hill is Quakers Court which is located on the corner of Quakers Road and Falmouth Road to the M7.

There are two takeaway restaurants in the east of the suburb, Domino's Pizza on Farnham Road and McDonald's on Quakers Hill Parkway. In the centre of the suburb, there is a 7-Eleven located on Quakers Hill Parkway. The Quakers Hill Veterinary Hospital, located on Burdekin Road, would have the potential to be impacted as part of Stage 2.

The top occupations of employment for Quakers Hill residents are: professionals (21.5 per cent), clerical and administrative workers (17.7 per cent) and technicians and trades workers (12.3 per cent).

## ***Demographic profile***

Quakers Hill has a high IRSAD decile of 8, meaning there are high rates of socio-economic advantage. Over half of the households in Quakers Hill are family households (59.0 per cent), and 27.4 per cent of the population are under 18 years old. The residents of Quakers Hill are characterised by:

- A median age of 33 which is the same as the median age for the LGA
- A slightly higher proportion of the population who are under 18 years of age (27.4 per cent) compared to the LGA (26.9 per cent)
- A lower proportion of older people aged 65 years and older (8.4 per cent) than the LGA (10.3 per cent)
- A lower proportion of Aboriginal and Torres Strait Islanders (1.8 per cent) than the LGA (2.8 per cent)

- A lower proportion of the population who speak a language other than English at home (37.2 per cent) compared to the LGA (41.0 per cent)
- A slightly lower rate of unemployment (6.2 per cent) compared to the LGA (7.3 per cent)
- A higher proportion of couple families with children (59.0 per cent) than the LGA (55.5 per cent)
- A lower proportion of the population who require assistance with daily activities (4.1 per cent) compared to the LGA (5.1 per cent)
- A similar proportion of the population who drive a car to work (63.5 per cent) compared to the LGA (62.9 per cent)
- A lower proportion of households earning less than \$650 per week (8.9 per cent) compared to the LGA (13.9 per cent)
- A lower proportion of lone person households (11.5 per cent) compared to the LGA (15.2 per cent)
- A SEIFA IRSAD ranking of decile 8, indicating a relative lack of disadvantage and greater advantage within Australia.

Appendix B provides a summary of demographic indicators for Quakers Hill.

## 5. Stakeholder consultation

This SEIA has been informed by consultation undertaken by Transport for NSW during the proposal development and concept design phase. Chapter 5 of the REF provides a summary of the Transport for NSW consultations. Outcomes of these consultations which are relevant to this SEIA have been referenced throughout the relevant sections of this report.

SEIA-specific consultation was undertaken with Blacktown City Council<sup>2</sup>, NSW Ambulance and NSW Fire and Rescue to confirm the social baseline including community values and character, and to discuss the potential socio-economic impacts of the proposal. At the time the consultation was undertaken, both Stages 1 and 2 of the proposal were discussed with stakeholders. The sections below provide a summary of key outcomes relevant to this SEIA.

### 5.1 Blacktown City Council

- The proposal area has a rural character, and the surrounding areas are currently undergoing significant change. It is likely the resident profile will change due to development.
- Some families in the area have been living there for several years. Change may be difficult for some residents; however, Council does not expect a proposal of this nature raising significant community concern amongst existing residents.
- There is potential that new residents moving into developments will not be aware of the proposal, which has the potential to affect local amenity and character. There is potential for these residents to be concerned about the proposal.
- There is a lack of transport infrastructure including roads and public transport in Marsden Park. Some developers have provided a shuttle bus to connect new residents to public transport.
- Richmond Road currently experiences heavy congestion, especially during the morning and afternoon peak periods. Additional residential development in the region is expected to worsen congestion, however there are plans to increase the capacity of Richmond Road in the future.
- The number of community facilities in the region are likely to increase in the future as residential developments increase.

### 5.2 NSW Ambulance

- NSW Ambulance currently do not experience a high level of demand and responses to emergencies in the communities surrounding the proposal site.
- Construction activities are not expected to lead to increased demand on ambulance services.
- Once complete, the Townson-Burdekin Road Upgrade (Stage 1 and Stage 2) is expected to be positive overall for the area and will support NSW Ambulance response times.
- Ongoing communication with NSW Ambulance about the proposal and changes to the transport network is important to support NSW Ambulance response times to emergencies during construction.

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<sup>2</sup> Consultation with Blacktown City Council occurred during development of the Stage 1 proposal as a stakeholder when Transport for NSW was the proponent of the proposal.

### **5.3 Fire and Rescue NSW**

- It is unlikely that construction activities would lead to increased demand for fire and rescue services provided appropriate traffic control systems are in place.
- Operation of Townson-Burdekin Road Upgrade (Stage 1 and Stage 2) is likely to reduce the travel distance from the Schofields Fire and Rescue Station to the Richmond Road and Townson Road intersection by around 2.5 kilometres.
- Operation of Townson-Burdekin Road Upgrade (Stage 1 and Stage 2) will improve response times from the Schofields Fire and Rescue Station to the existing developed areas around Colebee and Marsden Park Home, as well as those future development areas in the West Schofields Precinct.

## 6. Construction impact assessment

This section describes and assesses the potential socio-economic impacts that may result from construction and operation of the proposal. Impacts have been identified through a review of various sources of information as described in section 2.2.5. Socio-economic impacts resulting from changes to local economy, business and employment, amenity and character, access and connectivity, property and land use due to the proposals construction and operation have been assessed in accordance with the impact assessment methodology in section 2.2.5.

### 6.1 Construction impacts

#### 6.1.1 Property and land use

This section describes the permanent and temporary land use requirements which may result in social impacts that would start to occur in the construction phase and continue through to operation. Permanent land uses would include the new road and associated infrastructure. Temporary land uses would include areas used to construct the proposal and would be reinstated and returned to the landowner following completion of the proposal.

Details on the proposed land requirements for the proposal can be seen in Appendix C.

#### *Acquisition of residential properties*

As discussed in Chapter 6 of the REF, eight existing residential properties and three lots which are within residential development land, have the potential to be fully or partially acquired as a result of the proposal.

The majority of these properties are located along Jersey Road and Kerry Road in Schofields. These properties are all semi-rural residential properties with the exception of the three unnumbered development lots on Burdekin Road which currently appear to be cleared land.

The involuntary nature of acquisition of residential properties under the *Land Acquisition (Just Terms Compensation) Act 1991* and subsequent relocation of residents is likely to result in lifestyle disruption for individuals and households. Residents and homeowners would be required to go through a negotiation and compensation process. This process, followed by finding and purchasing a new home and moving would generate demands on time which would be an inconvenience to residents and homeowners. This may reduce time spent engaging in leisure or other activities. Impacts to residents will depend on individual circumstances.

A review of rental vacancy rates and properties for sale and rent in the local study area (i.e., the suburbs of Schofields and Quakers Hill) indicate that there were 409 properties for sale and 136 properties for rent in the month of October. The rental vacancy rate for the local study area in September 2021 was higher in Schofields (11.1 per cent) than Quakers Hill (2.0 per cent) (SQM Research, 2021). Based on this, there is potential for residents affected by property acquisition to find an alternate property in the area, particularly in Schofields which has a higher rental vacancy rate.

Seven of the 11 properties required for the proposal are rural residential properties. Residents of these properties may be unable to relocate to a similar property located nearby, and therefore may be required to relocate outside of the local and regional study area, particularly given the redevelopment that is occurring in neighbouring areas (discussed in section 4.1.1). This may result in a change to resident's livelihoods, loss of social ties and the need to travel further to access employment, services and facilities.

Generally, people who have lived at the same residence for over five years would have stronger links and attachment to the area. A review of the ABS Census (2016) dwelling statistics

indicated that a large proportion of residents in the suburbs of Schofields and Quakers Hill indicated that they have lived at the same address for five years or longer (43.3 per cent and 60.7 per cent respectively) (Appendix B). The relocation process, and the potential loss of social ties, may result in stress and worry for some individuals. Neighbours may also experience loss of social ties and concern about possible impacts on their own properties.

Most residents are likely to have a moderate-low level of sensitivity, as they may have minimal or a number areas of vulnerability and a high ability to absorb or adapt to these changes. Vulnerable residents may have less capacity to absorb or adapt to changes, therefore may have a moderate-high level of sensitivity. While the impact would be experienced by residents of eight households, the magnitude of the impact for these residents would be moderate-high as it would be clearly noticeable over the medium term, particularly if the residents have a strong attachment to their property, and if they are unable to remain living in the local study area. The significance would therefore be high- moderate for most affected residents, and high for vulnerable residents.

### ***Leasing of properties***

Temporary leasing of land from 17 private, seven Government owned properties and Quakers Hills Veterinary Hospital would be required during construction of the proposal. This would enable the placement of underground services and/or construction works to occur. Loss of land at Quakers Hill Veterinary Hospital would have the potential to impact the driveways of the property, and available parking space for customers and employees in the short term (discussed further in section 6.1.4). The need and area for lease arrangements would be confirmed by the construction contractor and undertaken in consultation with the identified landowners and Transport for NSW prior to work commencing. The land would be reinstated and returned to the landowner following completion of the proposal.

The proposal would also require a small portion of land from the existing Sydney Trains electrical sub-station which is accessed via Railway Terrace. Land requirements for this property would not impact the substation compound (i.e the area within the security fencing and the three metre buffer boundary) and provisions would be made to maintain access for Sydney Trains personnel. Leasing arrangements would be developed in consultation with Sydney Trains and Transport for NSW during later stages of the proposal.

## **6.1.2 Amenity and character**

This section discusses the potential impacts that may occur due to changes to amenity in the local study area, which may affect the quality of life for residents in areas closest to construction activities. Changes to amenity relate to changes in noise and vibration levels, visual amenity and air quality.

### ***Noise and vibration***

As noted in *Technical Working Paper G – Noise and vibration impact assessment*, existing noise levels in the rural and suburban residential environment of the local study area are influenced by road traffic noise. It is anticipated that the majority of construction would be carried out during standard construction working hours, however construction work between the hours of 8pm and 5am on weekdays may be required at times.



In the worst case scenario, daytime construction works would lead to noticeable noise increases at 673 residential properties within the study area. Up to 102 residences would find this noise highly intrusive, and as a result may qualify for additional mitigation measures. Vibration may be noticeable at 23 residences, particularly when vibratory rollers and pile boring are occurring. It should be noted the Noise and Vibration assessment did not assess potential noise and vibration resulting from construction traffic, as construction traffic haulage routes were not finalised at the time of the assessment.

Daytime construction noise and vibration may be a nuisance to these residents. This could potentially lead people to spend less time outdoors or engaging in recreational activities or relaxation and closing windows whilst indoors. It also has the potential to disturb day to day activities for some people.

Night time construction works have the potential to cause sleep disturbance at 2,413 residential properties in areas around the proposal. Of this, 54 properties would find the construction noise highly intrusive and may qualify for additional mitigation measures. Disturbance to people's night-time peacefulness, relaxation or sleep can lead to tiredness which can affect people's moods, ability to concentrate on work and other activities, increase irritation and therefore potentially add to strain on personal relationships.

Construction noise and vibration would be sporadic and would move along the proposal alignment. Therefore, residents are not expected to be affected by noise and vibration at all times. Most residents are expected to have a moderate to low level of sensitivity to daytime noise and vibration, as they have the potential to have some areas of vulnerability and a high ability to absorb or adapt to these changes. The magnitude of daytime noise and vibration is expected to be moderate-low as it has the potential to affect a large number of residences temporarily. The level of significance would therefore be moderate-low. Most residents are likely to have a moderate level of sensitivity to night time noise and vibration, as it is expected to be more noticeable than daytime noise and vibration, however people are expected to have some ability to adapt to these changes.

Vulnerable residents may be particularly sensitive to increase noise and vibration levels. As outlined in section 4.2, the local study area has higher rates of vulnerable residents such as single-parent households, people who need assistance with daily activities, unemployed residents and elderly residents. Vulnerable residents may have less capacity to absorb or adapt to changes, therefore they may have a moderate-high level of sensitivity. The significance rating for vulnerable residents would therefore be moderate-low. A Construction Noise and Vibration Management Plan would identify noise sensitive locations and management measures and practices to minimise noise impacts. This is expected to assist with managing the social effects of construction noise and vibration.

### ***Air quality***

As noted in the Air Quality assessment, potential air quality impacts during construction would be predominantly associated with the generation of dust. Air quality impacts as a result of dust generation are considered to be minor as they would be limited to the construction phase only and would be minimised through the implementation of the safeguards and management measures. While the Construction Management Plan would ensure dust levels are managed to acceptable standards, nuisance dust may still affect residents in properties close to construction activities.

During these periods nuisance dust may lead to some residents altering their way of life, such as closing windows of houses or vehicles, or spending limited time in front yards, backyards or on balconies. People may also need to spend more time cleaning indoor or outdoor surfaces due to settling dust.

Most residents are expected to have a moderate-low level of sensitivity, as they are likely to have minimal areas of vulnerability and a high ability to absorb or adapt to change. The magnitude of the impact expected to be low as a small proportion of people are likely to be affected by dust at times, therefore the significance would therefore be moderate-low.

However as discussed in the Air Quality assessment, substantial dust generation could result in health impacts to community members close to construction activities. Some people may be more sensitive to dust, such as vulnerable groups including older people, children and people with medical conditions such as asthma. Vulnerable people are expected to have a moderate-high level of sensitivity, as they are likely to have multiple vulnerabilities and little to no capacity to absorb or adapt to change. The magnitude of the impact would be low and therefore the level of significance would be moderate or moderate-low.

### **Visual and landscape**

*Technical Working Paper D – Urban Design, landscape character and visual impact assessment* found that construction activities would result in visual changes, primarily along the new alignment from construction vehicles, machinery, construction workers and construction compounds. Construction dust and the removal of some vegetation for construction laydown areas would also have the potential to change the visual landscape during construction. The construction of a new road, which would be elevated in various locations, would also result in visual changes. Potential social impacts which may result from visual changes associated with the new road are discussed in section 7.1.1.

The visual changes during construction are expected to temporarily change the local character and amenity, which may affect how local residents feel about the area. These visual changes may reduce resident's enjoyment of outdoor areas and the views from some windows facing front yards and gardens. This is likely to be particularly noticeable in the suburb of Schofields, including in the rural-residential and residential areas along Alcorn Street, Anson Street, Kerry Road and Jersey Road, and the bushland and open space areas surrounding Eastern Creek. However as discussed in section 4.1, the local study area is currently undergoing urban development, which is contributing to the overall change in character.

Most residents are expected to have a low level of sensitivity to visual changes during construction, as they are likely to have a high ability to absorb or adapt to these temporary changes. The magnitude would be low, as the impact is on a small proportion of residents and most visual changes would be temporary across during construction. Therefore, the level of significance would also be low.

### **6.1.3 Access and connectivity**

This section discusses potential changes to access and connectivity resulting from construction activities for residents, commuters and general community members travelling through the local study area. Access and connectivity changes that would impact businesses are described in section 6.1.4.

Construction of the proposal would also result in permanent property access adjustments to some residences and businesses located along Burdekin Road, Jersey Road, Kerry Road and Railway Terrace. Due to the rapidly changing built environment and the proposed future precinct planning, the design of the proposal has not included access arrangements for these properties. Access arrangements will be reviewed and revised to accommodate the built environment at the time of detailed design to ensure access is provided at the time of construction. Property adjustment plans would be developed in consultation with the affected property owners. Changes to access which would affect local businesses are discussed in section 6.1.4.

### **Roads and traffic**

As noted in the *Technical Working Paper F – Traffic and transport impact assessment*, it is estimated that light vehicle movements accessing the construction area would likely be in the order of 12 to 50 vehicles per day. For heavy vehicles, it is assumed that five to 10 vehicles would enter and exit the construction area per hour. This would result in a maximum of 110 vehicles per day (on weekdays). The traffic assessment found that light and heavy vehicle traffic generation during construction would be low and would fall within typical daily fluctuations with no expected adverse impacts to the operation of the adjoining road network.

Construction of the proposal would result in the permanent termination of Railway Terrace, with Railway Terrace to terminate in a cul-de-sac just south of Stoke Street. There are two options for alternate routes for road users travelling from the south and west to destinations such as the Schofields Station, the shopping villages on Railway Terrace, and surrounding areas. These options include Hambledon Road and Schofields Road for those travelling from the west (e.g., The Ponds) or Alex Avenue and Jerralong Drive for those travelling from the south (e.g., Quakers Hill). Similarly, those travelling south and east from Schofields Station and surrounds would also need to use these alternative routes. It is expected these changes would result in increased traffic along these roads.

Construction activities would include the temporary closure of Townson Road at the approach to Richmond Road, in order to construct the proposed bridges. This will divert existing traffic and construction traffic via Alderton Drive and Victory Road as an alternate route.

These permanent and temporary road closures and diversions would result in some road users experiencing an increase in travel times. People would be required to allow additional travel time to make trips through the local study area. This may be an inconvenience for some road users. This may affect some commuters who travel via road to Schofields Station from the south.

Community members are likely to have a moderate-low level of sensitivity as they are likely to have minimal vulnerabilities and a high ability to absorb or adapt to change. Vulnerable residents may have less capacity to absorb or adapt to changes, therefore they may have a moderate-high level of sensitivity. The magnitude would be moderate, as the impact is to a small proportion of properties but changes to access and connectivity would be permanent during construction and operation. However, most community members are likely to adapt to this change over time. Therefore, the significance of the impact would be low-moderate for most community members and moderate-high for vulnerable residents and road users.

### **Public transport**

As discussed in section 4.2, bus routes 734, 751, 742 and N71 travel through the local study area. Bus route 742 would likely be affected by the temporary closure of Townson Road during construction, which would require this service to use an alternate route. Changes to bus routes 734 and N71 would also be required as a result of the permanent closure of Railway Terrace which would commence during the construction phase. This might cause delays for buses travelling this route, and increase time spent for passengers travelling or waiting for the bus. These delays could be an inconvenience to some bus passengers. During this time, liaison and agreement between Transport for NSW, local council(s) and bus companies will be required. The bus stop on Burdekin Road, west of Walker Street, is also likely to be impacted due to its proximity to the proposed vehicular and pedestrian bridge which will tie-in with Burdekin Road.

Construction of the rail bridge over the western rail line would be carried out during rail possession periods. This might result in cancellations of some train services during these periods which could be an inconvenience for train users.

Public transport is often used by vulnerable community members, such as people who experience disability, older people and people with mobility issues, people with low levels of English and people with low incomes. These vulnerable groups would have a greater level of sensitivity to changes to bus routes and reliability. The changes would temporary and affect a relatively small number of people, therefore the magnitude would be low. The level of significance for users of public transport would be moderate-low.

### **Active transport**

There is a section of existing pedestrian facilities along Burdekin Road, within the construction footprint. There are also other pedestrian and shared paths alongside the proposal site along Alcorn Street, Anson Street and Siding Terrace which would be crossed by the proposal during construction. Appropriate wayfinding signage would be used to guide pedestrians through the construction area, including temporary footpaths, if required.

Changes to footpaths and the presence of construction infrastructure may act as actual or perceived barriers for travel across the road. This may lead to people avoiding the area even with diversions and signage in place or result in actual or perceived safety concerns. This might increase the risk of social isolation for some vulnerable groups, who generally rely more on active travel to access social networks or activities.

There is potential for some members of the community (eg older people, people who need assistance, parents with prams, young children, people with mobility difficulty) to be more sensitive to such changes to footpaths as changes may be more difficult to navigate.

### **Parking**

*Technical Working Paper F – Traffic and transport impact assessment* reports that parking for construction workers will be restricted to designated compounds and areas for construction workers only and would have minimal impact to on-street parking and traffic flow on the existing road network. Therefore, no social impact is expected to result from construction workers parking near the proposal during construction.

Construction and operation of the proposal would result in the loss of about 35 informal parking spaces on Railway Terrace, across from the intersection at Stoke Street. It is likely that commuters travelling from Schofields Station utilise this area as a car park when the formal commuter car park spaces are fully occupied. The loss of this parking space would likely reduce parking availability for some commuters. This may increase the time taken to find parking. Some commuters may alter their daily commute to either arrive at the station earlier, or find an alternate station which could have additional parking. This may cause inconvenience to some commuters, but most are expected to adapt to this change over time.

## **6.1.4 Economy, business and employment**

### **Economic and employment opportunities**

As discussed in Chapter 3 of the REF, it is estimated that construction of the proposal would result in up to 80 jobs during peak periods. This would result in direct employment opportunities for skilled workers from the region including roles such as engineers, designers and construction workers.

Construction may provide opportunities for local businesses to supply goods and services to the construction workforce. Demand for local food and beverage, as well as retail services close to the proposal are also likely to increase due to construction workers spending their wages. Businesses that are likely to benefit include retail and food and beverage shops and services located near Schofields station, including Woolworths, BWS, TerryWhite Chemmart and Morning Sydney café, as well as future shops to be located at Schofields Village Shopping Centre (due to open in the second half of 2021).

### ***Amenity and character***

Construction activities have the potential to result in noise and visual changes which may decrease the amenity of businesses located within close proximity of construction activities. These include Quakers Hill Veterinary Hospital, Akuna Vista Sales Office, Brolen Homes Display Home, Oz Firewood, Chamber Civil Construction, ONTRACK Earthmoving & Demolition (see Table 8).

Akuna Vista Sales Office, Brolen Homes Display Home and Quakers Hill Veterinary Hospital are located in close proximity to major construction activities and are therefore likely to be highly affected by changes to noise and vibration, dust and visual amenity. These amenity changes have the potential to affect employees and customers of these businesses, as well as animals in care of the vet. Noise and vibration have the potential to impact business activities, such as conversations between employees or customers. Noise, vibration and dust may also affect the wellbeing of some employees and customers. Some customers may choose to visit an alternate veterinary clinic as they may be concerned about potential impacts on their pets. There is potential these businesses may lose income as a result.

While Oz Firewood, Chamber Civil Construction and ONTRACK Earthmoving & Demolition may also be affected by increased noise, vibration and dust, the nature of these businesses means it is unlikely their customer base relies on a quiet environment. However, employees may be disturbed by noise, vibration and dust, and experienced reduced wellbeing.

Most customers and employees are likely to have a moderate-low level of sensitivity as they are likely to have minimal areas of vulnerabilities and less ability to adapt and absorb to these changes. The magnitude of the impact is expected to be low for most businesses, because only a small proportion of businesses would be impacted temporarily. However, the magnitude would be moderate-high for Akuna Vista Sales Office, Brolen Homes Display Home and Quakers Hill Veterinary Hospital due to proximity to the construction activities, and nature of these business. The significance level would therefore be moderate-low for most businesses, and moderate-high for the sales office, display home and vet. Direct consultation with business owners is recommended during later phases of the proposal to confirm specific impacts and appropriate management measures for businesses (refer to section 9).

### ***Changes to access***

Changes to property access, as discussed in section 6.1.3, would result in permanent adjustments to property access for some businesses located along Burdekin Road, Jersey Road, Kerry Road and Railway Terrace. Businesses which would be impacted as a result of these changes include Chambers Civil Construction, ONTRACK Earthmoving & Demolition and Quakers Hill Veterinary Hospital. Due to the rapidly changing built environment and the proposed future precinct planning, the design of the proposal has not included access arrangements for these businesses. Access arrangements would be reviewed and revised to accommodate the built environment at the time of detailed design to ensure access is provided at the time of construction. Property adjustment plans would be developed in consultation with the affected business owners.

Loss of land at Quakers Hill Veterinary Hospital, as discussed in section 6.1.1, would have the potential to impact the driveways of the property, and available parking space for customers and employees in the short term. This may be an inconvenience for employees and customers and may result in impacts to business operations.

Shops and businesses within the Woolworth Schofields shopping complex and the Schofields Village Shopping Centre also have the potential to be affected as customers travelling from Burdekin Road would be redirected via Alex Avenue and Jerralong Drive. This may lead to some business owners, employees or customers changing their routine, such as taking an alternative route. Changes to access arrangements and travel routes could also impact passing trade for some businesses. This may lead to loss of income for some businesses.

## 6.2 Summary of construction impacts

The assessment of potential socio-economic impacts presented in Table 9 is based on the methodology provided in section 2, and considers the implementation of mitigation measures.

**Table 9 Summary of socio-economic impacts during construction**

Change as a result of the proposal	Summary of potential impact	Nature, type and duration of impact	Affected stakeholder	Sensitivity	Magnitude	Significance of impact
Property and land use						
Acquisition of 8 residential properties and 3 lots which are within residential development land to accommodate the proposal	Acquisition and relocation process would generate demands on time for residents and their families. This could reduce the time that people can spend with family or engaging in leisure activities.  People may also not be able to relocate to a similar property in the same neighbourhood, depending on their individual circumstances. If relocating out of the area, residents may experience a loss of the social ties, and may need to travel further to access employment, services and facilities.	Negative Direct Temporary	Residents of properties being acquired	Moderate-low	Moderate-high	Moderate-low
			Vulnerable residents of properties being acquired	Moderate-high	Moderate-high	High
Temporary leasing of land from 17 private, seven Government owned properties and Quakers Hills Veterinary Hospital to enable the placement of underground services and/or construction works to occur	Temporary leasing may reduce resident's enjoyment of these spaces, decrease a residents pride in their properties, and loss of privacy during construction.	Negative Direct Temporary	Residents of property being partially leased	Moderate-low	Low	Moderate-low
			Customers and employees of Quakers Hill Veterinary Hospital	Moderate-low	Moderate-low	Moderate-low

Change as a result of the proposal	Summary of potential impact	Nature, type and duration of impact	Affected stakeholder	Sensitivity	Magnitude	Significance of impact
Amenity and character						
Increased noise and vibration levels due to daytime construction activities at residential properties	Increased noise during construction works may be a nuisance to some residents. This may lead to individuals changing their behaviours, spending more time indoors and closing windows to prevent excess noise.  Vulnerable residents may be more sensitive to noise and may find it harder adapt to amenity changes.	Negative Direct Temporary	Local residents	Moderate-low	Moderate-low	Moderate-low
			Vulnerable residents	Moderate-high	Moderate-low	Moderate-low
Increased noise levels as a result of construction activities during night time	A construction management plan would identify noise sensitive locations and management measures and practices to minimise noise impacts for the residents.  Vulnerable residents may be sensitive to increased noise levels because of construction activities during night time.	Negative Direct Temporary	Local residents	Moderate	Moderate-low	Moderate-low
			Vulnerable residents	Moderate-high	Moderate-low	Moderate-low
Dust generated from construction activities may impact air quality on nearby residential areas	Increase in dust can lead to some residents altering their way of life, including spending less time outdoors, and spending more time cleaning.  People who may be more sensitive to dust include vulnerable groups such as older people, children and people with medical conditions such as asthma.	Negative Direct Temporary	Residents	Low	Low	Moderate-low
			Vulnerable residents	Moderate-high	Low	Moderate-low to Moderate



Change as a result of the proposal	Summary of potential impact	Nature, type and duration of impact	Affected stakeholder	Sensitivity	Magnitude	Significance of impact
Changes to visual surrounds due to construction activities	Residents close to the proposal, particularly Alcorn Street, Anson Street, Kerry Road and Jersey Road, and the bushland and open space areas surrounding Eastern Creek, Schofields, would be able to view construction of the proposal. This may lead to some residents reducing use or enjoyment of outdoor areas, including balconies, or reducing time or enjoyment looking out of windows.	Negative Direct Temporary	Residents	Low	Low	Low
<b>Access and connectivity</b>						
Increased travel times for road users in the local study area	People would be required to allow for additional travel time to make trips. Increase time spent travelling may cause delays in getting home, to work, or other commitments.	Negative Direct Temporary	Road users	Moderate-low	Moderate	Moderate-low
			Vulnerable road users	Moderate-high	Moderate	Moderate-high
Delays to public transport services due to construction activities and road closures	Increase in time spent on the bus, and a decrease in the reliability of local bus services due to construction activities or road closure in the proposal corridor. This may be an inconvenience to some bus passengers.	Negative Direct Temporary	Bus passengers	Moderate	Low	Moderate-low
Cancellations of some train services due to rail possession periods	Decrease in the reliability of train services due to rail possession periods during construction. This may be an inconvenience to some train passengers.	Negative Direct Temporary	Bus passengers	Moderate	Low	Moderate-low

Change as a result of the proposal	Summary of potential impact	Nature, type and duration of impact	Affected stakeholder	Sensitivity	Magnitude	Significance of impact
Change to pedestrian facilities along Burdekin Road, Alcorn Street, Anson Street and Siding Terrace	This may lead to an increase in travel times for pedestrians and may require them to alter their original route.	Negative Direct Temporary	Local residents	Low	Low	Low
	Vulnerable groups may find changes to pedestrian crossings or footpaths confusing and difficult to navigate. This may deter some people from using these paths or actual or perceived safety concerns. This may result in social isolation or difficulties in undertaking daily tasks like going to the shops.		Vulnerable pedestrians	Moderate	Low	Moderate-Low
Loss of informal parking spaces on Railway Terrace, across from the intersection at Stoke Street	Reduction in parking availability for some commuters may increase the time taken to find parking. Some commuters may alter their daily commute to either arrive at the station earlier, or find an alternate station which could have additional parking	Negative Direct Temporary	Users of informal parking spaces	Moderate	Low	Moderate-low
<b>Economy, business and employment</b>						
Increased construction workforce	Potential increase in employment due to demand for up to 80 construction workers.	Positive Direct Temporary	Job seekers	N/A	N/A	N/A
Increased opportunities for local businesses to supply goods and services to the construction workforce	Potential demand for local food and beverage and retail services close to the proposal to increase due to construction workers spending their wages. Businesses that are likely to benefit include retail and food and beverage shops and services located near Schofields station	Positive Direct Temporary	Businesses owners	N/A	N/A	N/A

Change as a result of the proposal	Summary of potential impact	Nature, type and duration of impact	Affected stakeholder	Sensitivity	Magnitude	Significance of impact
Reduced amenity for businesses within close proximity to the construction footprint due to changes to amenity	Construction activities resulting in decreased amenity due to increased noise, decreased air quality and a change in the visual landscape may be a nuisance to customers and employees who visit businesses within close proximity to the construction footprint.	Negative Direct Temporary	Customers and employees of businesses within close proximity to the construction footprint	Moderate-low	Low	Moderate-low
			Customers and employees of Akuna Vista Sales Office, Brolen Homes Display Home and Quakers Hill Veterinary Hospital	Moderate-low	Moderate-high	Moderate-high
Potential increase in travel times for some business owners, employees or customers travelling towards the Woolworth Schofields shopping complex and the Schofields Village Shopping Centre	Potential increase in travel time for business owners and employees. This may cause employees to change their behaviours and daily routines.	Negative Direct Temporary	Business owners and employees	Moderate-low	Low	Moderate-low
	Increased travel time for customers accessing businesses for goods and services. This may deter some customers, who may choose to visit a different business in a more convenient area. Changes in access routes may also impact passing trade for some businesses, this may lead to loss of income.		Customers	Moderate-low	Low	Moderate-low

Change as a result of the proposal	Summary of potential impact	Nature, type and duration of impact	Affected stakeholder	Sensitivity	Magnitude	Significance of impact
Changes to access for some businesses located along, Jersey Road, Kerry Road and Railway Terrace	Construction activities resulting in permanent access changes for Chambers Civil Construction and ONTRACK Earthmoving & Demolition which may increase travel time for customers and employees and become an inconvenience. Shops and businesses within the Woolworth Schofields shopping complex and the Schofields Village Shopping Centre also have the potential to be affected as customers travelling from Burdekin Road would be redirected via Alex Avenue and Jerralong Drive. This may be an inconvenience for employees and customers.	Negative Direct Permanent	Customers and employees	Moderate-low	Low	Moderate-low
Changes to access, impact to the driveways and available parking space for customers and employees of Quakers Hill Veterinary Hospital	Construction activities resulting the permanent access changes for this business which may increase travel time for customers and employees and become an inconvenience.  Loss of land at this business due to construction activities would also have the potential to impact the driveways of the property, and available parking space for customers and employees in the short term. This may be an inconvenience for employees and customers and may result in impacts to business operations.	Negative Direct Temporary	Customers and employees	Moderate-high	Low	Moderate

# 7. Operational impact assessment

## 7.1 Property and land use

Social impacts as a result of property and land acquisition required during construction and operation of the proposal are assessed in section 6.1.1.

### 7.1.1 Amenity and character

#### *Noise and vibration*

During operation, increased traffic related noise would have the potential to be noticeable for residents in areas close to the proposal where there is currently little, or no existing traffic in a worst-case scenario and without at-source mitigation measures. These areas would include the rural-residential and residential areas along Alcorn Street, Anson Street, Kerry Road and Jersey Road. Increased traffic related noise also has the potential to affect residences along, or close to Burdekin Road, however, it is likely that increased noise would not be as noticeable due to existing road traffic noise. Additionally, seven properties may experience changes in noise as a result of new signalised pedestrian crossings at Townson Road / Veron Road. This may be a nuisance for some residents, particularly at night-time.

Increases in noise levels may disturb daily activities and sleep, therefore affecting quality of life for some residents. This could potentially lead to some people spending less time outdoors in backyards or on balconies or closing windows while indoors. *Technical Working Paper G – Noise and vibration impact assessment* found that in a worst case scenario, 243 receivers would qualify for at-receiver mitigation consideration, which would be finalised during detailed design. Even with mitigation measures, noise impacts may still be a nuisance to residents especially in outdoor areas on their properties.

There is potential for some residents, including vulnerable residents to be more sensitive to an increase in noise and less likely to be able to adapt to amenity changes. Most residents are expected to have a low level of sensitivity and the magnitude of the impact is expected to be low, given the small number of people that would be impacted. Therefore, the level of significance would be low. Residents or landowners who have additional vulnerabilities, such as aged residents and young children, may have a moderate-high sensitivity to these changes. Therefore, the level of significance would be moderate–low.

#### *Air quality*

As reported in the Air Quality assessment, most pollutants would remain below the assessment criteria in a worst-case scenario, with the exception of one concentration which would exceed the criteria.

While the decrease in air quality would generally not be noticeable to most people, some people may be more vulnerable to potential health effects associated with reduced air quality. This may include young children, elderly residents, or people with asthma.

Most residents are expected to have a low level of sensitivity and the magnitude of the impact is expected to be low-moderate as changes would not be noticeable. Therefore, the level of significance would be moderate-low. Residents who have additional vulnerabilities including young children, aged residents, or people with asthma may be more sensitive to a decrease in air quality and would have a moderate-high sensitivity to these changes. The level of significance would therefore be moderate-high.

### **Visual and landscape**

As noted in *Technical Working Paper D – Urban Design, landscape character and visual impact assessment*, changes to the existing visual environment would include the presence of a new road, road infrastructure including a new bridge over the Schofields railway line at approximately 15 metres above ground level, shared pathways and footpaths, and the removal of some vegetation.

This is likely to change the overall visual environment for the residents of properties close to the proposal, and most notably those located along Alcorn Street, Anson Street and Stoke Street. Visual impacts may also be greater for those residents who value the rural character of the area as discussed in section 4.1.

Residents of properties subject to partial acquisition would experience closer and less obstructed views of road infrastructure from yards, frontages and windows facing the road. This may reduce enjoyment or time spent utilising these areas.

Residents neighbouring acquired properties may experience change in light spill as a result of the removal of residential structures. Direct views of the road may lead some residents from spending less time outdoors or on balconies, or reduce their enjoyment of views from windows. It also may reduce feelings of privacy or safety for some residents.

As noted in *Technical Working Paper D – Urban Design, landscape character and visual impact assessment*, urban design treatments have been designed to respond to the major landscape character and visual impacts. Most residents are likely to adapt to these visual changes over time, especially as replanted vegetation grows. Most residents are considered to have a low level of sensitivity, as they are likely to have minimal areas of vulnerability and a high ability to absorb or adapt to visual changes. The magnitude of the impact would be high as the introduction of the proposal would dominate the existing conditions and would be a permanent visual change. The significance level would therefore be moderate.

Some residents may take longer to adjust to the new visual surroundings than others. This would depend on individual circumstances, including any additional vulnerabilities that may make it harder for them to absorb or adapt to changes in the visual environment.

Residents who value the existing rural character of area (section 4.1) may have a moderate-low level of sensitivity to the changes to the character of the area, as they may have less ability to absorb or adapt. The magnitude for these residents would be high. The level of significance would therefore be moderate.

### **7.1.2 Access and connectivity**

#### **Road and traffic**

Social impacts as a result of the closure of Railway Terrace during construction and operation of the proposal are assessed in section 6.1.3.

According to *Technical Working Paper F – Traffic and transport impact assessment*, operation of the proposal would provide access and improved road infrastructure to accommodate the future traffic growth within the North-West Growth Area.

From a social perspective, the proposal would deliver benefits to the regional study area through an improved east-west connection between Townson Road and Burdekin Road. This would have the potential to alleviate eastbound traffic which is currently required to travel via either Schofields Road or Quakers Hill Parkway, improving travel time reliability and overall traffic flow. The proposal would also improve the local road network within the vicinity of the primary access point of the Sydney Business Park in Marsden Park which is the primary employment centre in the North-West Growth Area.

Overall improved travel times for eastbound road users are expected to alleviate some stress and frustration that may result from existing traffic congestion.

### ***Public transport***

Social impacts as a result of permanent changes to bus routes 734 and N71 which would commence during the construction phase of the proposal are assessed in section 6.1.3.

Bus passengers may experience improved travel times and reliability in the bus network as a result of overall traffic flow improvements. This would have the potential to benefit people travelling through the area, as well as community members from the local study area.

However, due to the rapidly changing built environment, bus routes within the local study area may be revised as a result of other projects at the time of operation.

### ***Active transport***

The proposal would include a vehicular and pedestrian bridge over the western rail line which would tie-in with Burdekin Road. It would also include a shared path for pedestrians and cyclists, and footpaths at two additional locations along the alignment. This would improve pedestrian connectivity for people travelling east-west. This could also improve feelings of safety for more vulnerable pedestrians, including those who rely on active travel and people with mobility difficulties.

## **7.1.3 Economy, business and employment**

Social impacts to shops and businesses within the Woolworth Schofields shopping complex and the Schofields Village Shopping Centre as a result of the closure of Railway Terrace during construction and operation of the proposal are assessed in section 6.1.4.

### ***Amenity and character***

Operation of the proposal would have the potential to increase traffic related noise along Alcorn Street, Anson Street, Kerry Road, Jersey Road and Burdekin Road. This may be a nuisance to employees and customers to Quakers Hill Veterinary Hospital, Akuna Vista Sales Office, Brolen Homes Display Home, Oz Firewood, Chamber Civil Construction, ONTRACK Earthmoving & Demolition in a worst-case scenario and without at-source mitigation measures.

While Oz Firewood, Chamber Civil Construction and ONTRACK Earthmoving & Demolition may also be affected by increased noise, vibration and dust, the nature of these businesses means it is unlikely their customer base relies on a quiet environment. However, employees may be disturbed by noise, vibration and dust, and may experience reduced wellbeing. As discussed in section 6.1.4, direct consultation is required with businesses to confirm potential impacts to businesses.

Changes to amenity would have the potential to affect employees and customers of Akuna Vista Sales Office and Brolen Homes Display Home, as well as employees and animals in care of the Quakers Hill Veterinary Hospital. Noise and vibration have the potential to impact business activities, such as conversations between employees or customers. Noise, vibration and dust may also affect the wellbeing of some employees and customers. Some customers may choose to visit an alternate veterinary clinic as they may be concerned about potential impacts on their pets. This could result in loss of income for this business. However, it is considered less likely that customers would choose not to visit the sales office or display home.

## 7.2 Summary of operation impacts

The assessment of potential socio-economic impacts presented in Table 11 is based on the methodology provided in section 2, and considers the implementation of mitigation measures.

**Table 10 Summary of socio-economic impacts during operation**

Change as a result of the proposal	Summary of potential impact	Nature, type and duration of impact	Affected stakeholder	Sensitivity	Magnitude	Significance of impact
Amenity and character						
Increased traffic related noise during operation of the proposal	Increased noise would have the potential to be noticeable to residents and could potentially lead to some people spending less time outdoors in backyards or on balconies or closing windows while indoors. This impact may be less noticeable in some areas due to existing road traffic noise (near Burdekin Road). There is potential for some residents, including vulnerable residents to be more sensitive to an increase in noise and less likely to be able to absorb or adapt to amenity changes.	Negative Direct Long term	Local residents	Low	Low	Low
			Vulnerable residents	Moderate-high	Low	Moderate-low
Reduced air quality for residents near the proposal during operation	Reduced air quality during operation of the proposal may impacts residents living within proximity to the proposal. A decrease in air quality is generally not noticeable to most people and is not expected to deter people from daily activities. Vulnerable residents may be more sensitive to air quality changes. This may include young children, aged residents, or people with asthma.	Negative Direct Long term	Local residents	Low	Moderate-low	Moderate-low
		Negative Direct Long term	Vulnerable residents	Moderate-high	Moderate-low	Moderate-high



Change as a result of the proposal	Summary of potential impact	Nature, type and duration of impact	Affected stakeholder	Sensitivity	Magnitude	Significance of impact
Changes to the visual environment due to the presence of a new road, road infrastructure including a new bridge over the Schofields railway line at approximately 15 metres above ground level, shared pathways and footpaths, and the removal of some vegetation	During operation, the proposal would change the visual environment of the local study area and most notably for residences located along Alcorn Street, Anson Street and Stoke Street.  Residents who value the existing rural character of area would be more sensitive to changes to their visual environment due to the operation of a new road and the impact on the existing rural character of the area.	Negative Direct Long term	Local residents	Low	High	Moderate
			Residents who value the existing rural character of area	Moderate-low	High	Moderate-high
Access and connectivity						
Improved east-west connection between Townson Road and Burdekin Road	This would have the potential to alleviate eastbound traffic, improving travel time reliability and overall traffic flow. This is expected to alleviate some stress and frustration that may result from existing traffic congestion.	Positive Direct Long term	Community members	N/A	N/A	N/A
Improved travel times and reliability in the bus network as a result of overall traffic flow improvements	This would have the potential to benefit people travelling through the area, as well as community members from the local study area.	Positive Direct Long term	Community members	N/A	N/A	N/A

Change as a result of the proposal	Summary of potential impact	Nature, type and duration of impact	Affected stakeholder	Sensitivity	Magnitude	Significance of impact
Improved accessibility for active transport users due to new vehicular and pedestrian bridge and shared paths and footpaths at two additional locations along the alignment	This have the potential to improve connectivity for people travelling east-west and improve feelings of safety for more vulnerable pedestrians, including those who rely on active travel and people with mobility difficulties.	Positive Direct Long term	Pedestrians, active transport users and vulnerable groups	N/A	N/A	N/A
<b>Economy, business and employment</b>						
Increased traffic related noise which has the potential to impact Chambers Civil Construction, ONTRACK Earthmoving & Demolition and Quakers Hill Veterinary Hospital	Increased road traffic noise levels could potentially be a nuisance to employees and customers to Chambers Civil Construction, ONTRACK Earthmoving & Demolition and Quakers Hill Veterinary Hospital which may result in a decrease in income for these businesses.  However it is considered less likely that customers would choose not to visit Akuna Vista Sales Office and Brolen Homes Display Home as a result of these changes to amenity.	Negative Direct Permanent	Customers and employees of Chambers Civil Construction, ONTRACK Earthmoving & Demolition and Quakers Hill Veterinary Hospital	Moderate-low	Moderate	Moderate
			Customers and employees of Akuna Vista Sales Office and Brolen Homes Display Home	Moderate-low	Moderate	Moderate

## 8. Cumulative impacts

This section assesses the potential cumulative impacts associated with the construction and operation of this proposal with other substantial projects within the vicinity. Cumulative impacts refer to incremental effects of an action when added to other past, present or reasonably foreseeable future actions.

There are four projects that have been identified by the REF process for consideration for cumulative assessment. Together they will create over 4500 dwellings within 500 metres of the proposal with anticipated period of concurrent construction over the next 15 years (and at least 240 completed prior to the start of construction works).

Table 11 below outlines projects, and further detail are available in Cumulative impact discussion in the Review of Environmental Factors (Transport for NSW, 2021) document.

**Table 11 Projects considered in assessment**

Project name	Anticipated total development	Description
Townson Road Upgrade between Richmond Road and Jersey Road – Stage 1	Upgrade of about 1.6 km of road extending from Richmond Road to south of Jersey Road	<p>This project involves the widening and upgrading of about 1.6 kilometres of Townson Road, between Richmond Road and Durham Road/Jersey Road, including:</p> <ul style="list-style-type: none"> <li>• Providing a wide central median along the length of the upgrade</li> <li>• Constructing 2 bridges</li> <li>• Providing a new southbound slip lane</li> <li>• Providing 2 new signalised intersections</li> <li>• Providing a 3 metre wide shared footpath for pedestrians and cyclists</li> <li>• Providing a 1.2 metre wide footpath.</li> </ul> <p>This project would be delivered in phases – interim and ultimate. Construction of the interim phase is anticipated to start in early 2022, opening of traffic in 2023. It is anticipated that the interim phase would be operational for a period of up to 5 years before the ultimate four lane dual carriageway is completed.</p> <p>Refer to section 1 of this document for more details.</p>
Altrove  Altrove Estate Developments	2,200 dwellings	<p>The project involves development of 2,200 dwellings including a mixture of houses, townhouses and apartments.</p> <p>Construction is projected continue until around 2035, and therefore it is anticipated there will be some overlap with the construction period of the proposal.</p> <p>This project is located near Burdekin Road.</p>

Project name	Anticipated total development	Description
CSR  Proposed future residential subdivision development (on CSR owned land)	2050 dwellings	The existing quarry to the north of Meadow Road is identified for a future residential subdivision development as part of the West Schofields precinct plan.  The residential development project is anticipated to be constructed in stages once the zoning and approvals are undertaken. It is located south of Meadow Road and would consist of around 450 lots. Once the quarry is relocated, around an additional 1,600 lots would be developed. Rehabilitation of the quarry has already been completed.
Landcom  Proposed future residential subdivision development (on council owned land)	143 dwellings	The residential development project is proposed to be undertaken as a staged subdivision that would provide 143 dwellings and would include new public roads, landscaping and civil works.  Construction works are proposed to be ongoing from 2021. It is expected that this project would be completed prior to commencement of the proposal.  The site is located east of Pelican Road, off Burdekin Road, around 100 metres east of the proposal.
Luxeland	240 dwellings	The project involves the development of around 240 low density residential dwellings to the south of Townson Road.  Construction for the project began in 2019. It is anticipated the majority of the development would be completed prior to construction of the proposal.  Located 0.5 kilometres south-west of proposal

## 8.1 Assessment of cumulative impacts

Project and contextual factors relevant to cumulative social impacts include:

- Geographic and strategic location within the North West Growth Area (NWGA)
- Position project as part of a broader program of staged road works
- Social and economic trends contemporary to the construction timeline, such as post pandemic lifestyles or migration patterns
- Patterns of population change including increased resident settlement close to project
- Roll out of scheduling construction periods multiple projects
- Decisions regarding workforce procurement and how contracts distributed
- Coordination and communication around projects, including complaint management.

Table 12 summarises an assessment of key cumulative issues.

**Table 12 Assessment of cumulative impacts -construction and operation**

Impact area	Phase	Discussion specific to projects interactions
<b>Amenity and character</b>		
Increased amenity change from construction activities for community members in areas common to multiple projects	Construction	<p>The Altrove development and parts of the residential subdivision on CSR land are anticipated to be constructed at a similar time to the proposal, with potential for increased experience of construction impacts such as noise and vibration for residents and business located in nearest vicinities areas common to the project construction.</p> <p>In addition, the anticipated completion of the Luxeland development prior to commencement of construction of the proposal means it likely that there will be at least 240 additional households residing in close vicinity to the proposal during its construction period. Increased duration or intensity of reduced amenity has potential to exacerbate construction impacts for new and existing residents, such as disturbance to daily activities, way of life and outdoor activities. It is noted that construction will be progressive, and construction phases staggered, which will contribute to mitigating impact.</p>
Deeper or longer temporary reductions landscape values and impact to visual surrounds permanent changes to community character	Construction Operation	<p>The existing environment is currently undergoing a process of deep and rapid landscape change, with areas of bushland and farming making way for residential and other commercial development, with change expected to become even more prior to the construction of the proposal. Some areas of vegetation have already been cleared in the vicinity of the proposal footprint to make way for nearby development, and there is potential for combined effects should revegetation plans not be well timed and managed.</p> <p>Within this context of continuous change, any subsequent or concurrent development such as the proposal, is expected to be considered as part of this overall change would not have as great an impact as compared to a relatively stable landscape.</p> <p>Attention to placemaking during construction and operations is intended as a key element of wider precinct planning.</p>
<b>Access and Connectivity</b>		
Increase in construction traffic, and impacts to accessibility on local roads, and to properties.	Construction	REF traffic assessment study identified increased construction traffic within the wider road network as a result of combined construction work in the area from the Altrove and CSR developments, however this is limited to local roads and construction hours. This has potential to further increase resident access and mobility.
Improved high-level road accessibility and commutes	Operation	The objective of the project is to facilitate the anticipated residential growth in the area by improved accessibility and road networks. The proposal would provide network benefits to the planned residential developments.

Impact area	Phase	Discussion specific to projects interactions
Economy, business and employment		
Additional or ongoing construction job opportunities available to residents within the regional study area.	Construction	<p>The cumulated projects increase the job and income generating opportunities available to residents within the regional study area and Greater Sydney. This will be beneficial in terms of addressing higher levels of post pandemic employment, however it may also produce a stress on specific skill sets.</p> <p>Potential direct socio-economic benefits resulting from increased job opportunities will be influenced in part by the distribution of construction contracts, with the potential for concentration of benefits for some workers should the same contractor or suppliers be used across jobs.</p> <p>A benefit of the same contractor may increase construction efficiency and coordination and decrease cumulated amenity impacts.</p>
Construction fatigue		
Individual and community 'fatigue' from combined and consecutive activities	Construction	<p>Construction fatigue may progress from "everyday" experience, of inconvenience and annoyance, through to a diminished sense of pride in place and/or reduction in quantity and quality of community interactions. On a social level, whilst this has potential to influence temporarily, the degree and duration of impact will be moderated by the wider transformative context of change and the current policy approach to precinct planning that centres on positive social outcomes for people and place.</p>

## 9. Recommended mitigation and management measures

To avoid, minimise and manage the socio-economic impacts arising from the construction and operation of the proposal as assessed in section 6 and 7, a number of mitigation and management measures have been developed as part of this technical working in addition to other technical working papers prepared for the REF. These are presented in Table 13 and where relevant reference to other technical working papers are provided.

Given the rapidly changing nature of the areas surrounding the proposal, as well as the anticipated delay between approval of the proposal and commencement of construction, it will be important to continue consultation with local stakeholders and communities about the proposal during the detailed design phase.

Similarly, rapid change that ensure that changes in population or land use patterns that are likely to occur. It will be particularly important to consult directly with landholders, residents and businesses located in close proximity to the proposal area to understand potential impacts and consider these in the detailed design of the proposal.

**Table 13 Recommended mitigation measures**

Impact	Recommendation	Refer to technical paper for additional recommended mitigation measures
Overall socio-economic impacts and benefits	<p>Prepare and implement a stakeholder engagement and community engagement strategy during detailed design which would include the following key actions:</p> <ul style="list-style-type: none"> <li>• Consultation with residents, landholders and businesses in close proximity to the proposal area to notify them about the proposal design, construction activities and timing of construction works.</li> <li>• Communication with residents in the local study area to provide an overview of the proposal, the likely nature, extent and duration of amenity and access changes as a result of construction. Particular attention would be given to ensuring vulnerable groups are appropriately consulted, including culturally and linguistically diverse communities. This would align with Construction Traffic Management Plan which would include other measures such as managing traffic staging during construction and maintaining safety and efficient travel for the public.</li> <li>• Communication with general community members about road and pedestrian access changes and bus stop changes, such as roadside signage and web-based information.</li> <li>• Targeted communication with businesses.</li> <li>• Targeted communication with emergency services regarding access and traffic changes.</li> </ul>	<p>Technical Working Paper F – Traffic and transport impact assessment</p> <p>Technical Working Paper G – Noise and vibration impact assessment</p>

Impact	Recommendation	Refer to technical paper for additional recommended mitigation measures
	<ul style="list-style-type: none"> <li>• Protocols for responding to construction fatigue experienced by residents, businesses and general community members. Methods would be provided to ensure community members can contact the project team to raise any concerns regarding amenity and access changes (e.g. 24 hour phone number).</li> </ul>	
Property and land acquisition	<p>Consultation will be carried out with each landowner and resident throughout the acquisition process, in accordance with the roads authority policy and the <i>Land Acquisition (Just Terms Compensation) Act 1991</i>. This would include assigning a manager for each household or business to be able to directly contact throughout the course of the process. The manager would work with each household and business to understand and respond to their individual circumstances as far as practicable.</p>	<p>Technical Working Paper F – Traffic and transport impact assessment</p> <p>Technical Working Paper G – Noise and vibration impact assessment</p>
Impacts on businesses	<p>Ongoing consultation with businesses should occur throughout the detailed design phase to ensure that businesses are given notice of any design features and construction activities that may impact their business operations.</p> <p>Engagement with affected business owners and employees should be undertaken to:</p> <ul style="list-style-type: none"> <li>• Understand and address specific business impacts</li> <li>• Identify potential changes to customer behaviours as a result of the proposal Manage potential vehicle access changes</li> <li>• Identify potential parking constraints, including reliance on on-street parking</li> <li>• Scope opportunities for social procurement.</li> </ul>	<p>Technical Working Paper F – Traffic and transport impact assessment</p> <p>Technical Working Paper G – Noise and vibration impact assessment</p>
Cumulative impacts from concurrent residential development	<ul style="list-style-type: none"> <li>• Mechanism to require principal contractor to refresh baseline information regarding suburban settlement patterns, and ground truth for new residents in close proximity, prior to commencement of construction.</li> <li>• Stagger construction and transport work packages, where possible.</li> <li>• Development of Construction Fatigue and coordinated community complaints protocols.</li> </ul>	<p>Technical Working Paper F – Traffic and transport impact assessment</p> <p>Technical Working Paper G – Noise and vibration impact assessment</p>



## 10. Conclusion

This report has assessed the potential positive and negative social impacts resulting from the construction and operation of the proposal, as well as cumulative impacts from other developments in the surrounding area. Overall, the proposal would facilitate the growth and development of the North West Growth Area to improve connectivity, road safety, and active transport. During construction, positive social impacts of the proposal mainly relate to increased construction jobs for the workforce in the regional study area, and some increased expenditure at local businesses from the construction. Construction activities would also result in short term or temporary social impacts for local residents and the community members. These are outlined below:

- Full or partial acquisition of eight existing residential properties and three lots located on residential development land along Jersey Road, Kerry Road and Burdekin Road in Schofields and Burdekin Road in Quakers Hill. The full or partial acquisition of these properties may result in stress and worry for the household as a result of relocation (if required). If the household relocates out of the area, they may lose social ties and need to travel further for daily activities.
- Temporary leasing of land from 17 private, seven Government owned properties and Quakers Hills Veterinary Hospital would be required during construction of the proposal to enable the placement of underground services and/or construction works to occur. This would have the potential to impact the driveways of the property, and available parking space for customers and employees in the short term.
- Amenity changes due to increased noise, vibration or dust for some residences and businesses within the local study area. This may cause nuisance, interrupt daily activities, affect people's enjoyment and pride in their local area, as well as affect some business operations.
- Access and connectivity changes due to permanent and temporary road closures and diversions may lead to some road users experiencing an increase in travel times. People would be required to allow additional travel time to make trips through the local study area. This may be an inconvenience for some road users and employees and customers to affected businesses.

Operation of the proposal would also result in social impacts for local residents and community members: These are outlined below:

- Amenity changes due to increased noise and vibration and changes to the visual landscape for the residents of properties close to the proposal, and most notably those located along Alcorn Street, Anson Street and Stoke Street. This may cause nuisance, interrupt daily activities, affect people's enjoyment and pride in their local area, as well as affect some business operations.
- The new vehicular and pedestrian bridge over the western rail line, shared for pedestrians and cyclists, and footpaths would improve pedestrian connectivity and may improve feelings of safety for more vulnerable pedestrians, including those who rely on active travel and people with mobility difficulties.
- Generally, impacts would be greater on vulnerable groups in the local study area, who may have less capacity to adapt to changes.

Concurrent construction activities of the proposal and other major projects may lead to cumulative impacts such as increased amenity reductions, increased travel times, and construction fatigue for some residents, business and employees – further exacerbated by in migration of new households in close vicinity of the proposal footprint. Cumulative impacts may also be viewed relative to the proposal's overall contribution to achieving ambitious growth strategy, including precinct level placemaking and pro-active change management

In addition to the general environmental management measures recommended in other Technical Working Papers, it is recommended that a stakeholder engagement and community consultation strategy is implemented to assist with management of socio-economic impacts. In particular, communication with affected property owners, residents and the general community prior to and during construction of the proposal is expected to help the community and residents understand and adapt to potential impacts.

Consecutive and cumulative construction of the proposal and other major projects may lead to further reduced amenity, increased travel times, and construction fatigue for some residents and business owners and employees. A construction fatigue protocol which provides methods for community members to raise issues with projects is expected to manage this.

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# Appendices

# Appendix A – Scoping checklist

# Project scoping list

Issue	Consideration	Scale of impact				Is the impact manageable using standard mitigation measures? If yes, how?	Comment
		Individuals only	Groups of residents / special interest groups / businesses	Sections of the community/ economy	Towns/ suburbs/ town centres		
Property impacts	Are property acquisitions likely?	Yes				Yes – through property acquisition and negotiation process and ongoing consultation with affected property owners	Several rural residential properties at eastern end will be fully acquired, to be confirmed if any acquisition of commercial properties
	Is there a potential for displacement of residents or businesses due to property acquisition?	Yes				Yes – through property acquisition and negotiation process and ongoing consultation with affected property owners	To be confirmed if any businesses to be displaced
	Will there be impacts on vulnerable groups (i.e. elderly, people in need of assistance, communities that demonstrate higher levels of disadvantage)?	Unknown				Yes – through property acquisition and negotiation process and ongoing consultation with affected property owners	
	Will the project impact upon any property improvements?	Unknown					
	Does the project result in fragmentation of rural properties?	No					

Issue	Consideration	Scale of impact				Is the impact manageable using standard mitigation measures? If yes, how?	Comment
		Individuals only	Groups of residents / special interest groups / businesses	Sections of the community/ economy	Towns/ suburbs/ town centres		
Changes to population and demography	Will residents need to relocate as a result of property acquisition?	Yes				N/A – small number of residents, does not result in change to population of area	
	Will the project's construction result in a large influx of workers to the study area?	No				N/A	Project located in semi-urban area, construction workforce not likely to result in social impacts for local community
Economy	Will the project impact on local employment?		Yes			N/A	Local workforce could be employed in construction
	Will the local population benefit from improvements in income as a result of the project?		Yes			N/A	Potential increase in income for those employed on the project
Business and industry	Does the project impact (either directly or indirectly) on businesses / commercial enterprises, including agricultural businesses?	Yes	Yes			Yes – construction traffic management and design of road	Changes to access in construction and operation may affect businesses Business opportunities in procurement Construction workforce spend at local businesses
	Are impacts on businesses likely to have flow on effects for employees?	Yes	Yes				Changes to access in construction and operation



Issue	Consideration	Scale of impact				Is the impact manageable using standard mitigation measures? If yes, how?	Comment
		Individuals only	Groups of residents / special interest groups / businesses	Sections of the community/ economy	Towns/ suburbs/ town centres		
	Is the project likely to have direct or indirect effects on the regional economy?		Yes				Business opportunities in procurement
	Will the project result in changes in access to or bypass of businesses?	Yes				Yes – consultation with affected businesses, maintain access during construction	Changes to access in construction and operation
	Does the project impact on the composition of regional industries (ie tourism, agriculture, mining and resources, manufacturing)?	No				N/A	Project located in semi-urban area, construction workforce not likely to result in social impacts for regional industries
Social infrastructure	Will the project impact (directly or indirectly) any community services or facilities such as hospitals, schools, recreational facilities, aged care, etc?	Yes	Yes			Yes – consultation with affected community services or facilities, maintain access during construction	Stage 2 of the project requires the closure of a road. Access will be provided through another road.
	Will the project impact on places that are used by the homeless for shelter or socially disadvantaged to congregate?	No				N/A	Project is not expected to impact on places that are used by the homeless for shelter or for the socially disadvantaged to congregate. TBC during consultation.

Issue	Consideration	Scale of impact				Is the impact manageable using standard mitigation measures? If yes, how?	Comment
		Individuals only	Groups of residents / special interest groups / businesses	Sections of the community/ economy	Towns/ suburbs/ town centres		
Community values, including community health and safety, and community cohesion/ severance	Does the project impact on any places of Aboriginal or non-Aboriginal heritage?	Unknown					To be determined based on Aboriginal and cultural heritage assessment
	Does the project impact on any places likely to be of importance to the local community (i.e. environmental areas, local parks, local monuments, etc)?	Unknown					Project unlikely to impact places of importance for the local community.
	Do sections of the community have a strong attachment to place (e.g. large number of generations of a family have lived in the same area)?	Unknown					Consultation with Council indicates that some families in the area have been living there for several years. Change may be difficult for some residents, however Council does not expect a proposal of this nature raising significant community concern.
	Is there a potential for impacts (real or perceived) on community health or safety due to emissions to air or water, noise or chemical hazards?	Unknown				Yes – environmental management plans are expected to manage these changes	Potential for perceived risks however unknown if this is a community concern.

Issue	Consideration	Scale of impact				Is the impact manageable using standard mitigation measures? If yes, how?	Comment
		Individuals only	Groups of residents / special interest groups / businesses	Sections of the community/ economy	Towns/ suburbs/ town centres		
	During construction, is there a potential for impacts (real or perceived) on community health or safety due to emissions to air or water, noise or chemical hazards?	Unknown				Yes – construction environmental management plans are expected to manage these changes	Potential for perceived risks however unknown if this is a community concern.
	Is there the potential for severance of communities or towns?		No	No	No		No severance of communities expected
	Will the project change the way people use and access community facilities?			No			
	Will the project change the unique character of the place or community in which it is located?	Yes				Yes – managed through urban design measures	Likely change to character of rural properties located in Schofields at western end of alignment due to new road.
	Will the project result in changes to places of commemoration or memorialisation or with other intangible values?		No				

Issue	Consideration	Scale of impact				Is the impact manageable using standard mitigation measures? If yes, how?	Comment
		Individuals only	Groups of residents / special interest groups / businesses	Sections of the community/ economy	Towns/ suburbs/ town centres		
Local amenity	Will the project change the amenity for residents, businesses, or community facilities? (i.e. through changes in air quality, visual and landscape impacts, noise and vibration)		Yes			Yes – environmental management plans are expected to manage these changes	Potential for changes to amenity (noise, visual, air quality) on nearby residents and businesses located close to alignment due to new and upgraded road infrastructure.
	During construction, will the project change the amenity of residents, businesses or community facilities? (i.e. through changes in air quality, visual and landscape impacts, noise and vibration)		Yes			Yes – construction environmental management plans are expected to manage these changes	Potential for increased noise, dust and visual changes for residents and businesses located close to construction activities
Access and connectivity	Will the project change:						
	<ul style="list-style-type: none"> <li>travel patterns (e.g. introduce turning restrictions, traffic signals, road closures, new connections, etc)</li> </ul>		Yes		Yes	Yes – through transport management and design measures	The project will provide a new and more direct connection from Schofields to Quakers Hill.
	<ul style="list-style-type: none"> <li>cyclist facilities or access</li> </ul>		Yes			Yes – through transport management and design measures	Active transport link is being explored in design

Issue	Consideration	Scale of impact				Is the impact manageable using standard mitigation measures? If yes, how?	Comment
		Individuals only	Groups of residents / special interest groups / businesses	Sections of the community/ economy	Towns/ suburbs/ town centres		
	<ul style="list-style-type: none"> <li>pedestrian access (i.e. access to public transport, and to/ within commercial precincts, town centres, recreational locations, shops)</li> </ul>		Yes			Yes – through transport management and design measures	Pedestrian access will be a future benefit. TBC
	<ul style="list-style-type: none"> <li>public transport services or facilities</li> </ul>		Unknown			Yes – through transport management measures	Potential for new / changed bus routes
	<ul style="list-style-type: none"> <li>parking</li> </ul>		Unknown			Yes – through transport management measures	Potential for changes to parking
	<ul style="list-style-type: none"> <li>property access</li> </ul>	Yes				Yes – through design measures and consultation with affected property owners	Potential for some properties along alignment to experience changes to property access
	<ul style="list-style-type: none"> <li>access for people with special needs (i.e. people with mobility difficulties, elderly, children, etc).</li> </ul>		Unknown			Yes – through design measures	Potential for people with special needs to be affected by changes to roads, public transport and active transport
	During construction, will the project:						
	<ul style="list-style-type: none"> <li>generate large volumes of traffic</li> </ul>	Unknown				Yes – through construction management plans	To be assessed in transport study

Issue	Consideration	Scale of impact				Is the impact manageable using standard mitigation measures? If yes, how?	Comment
		Individuals only	Groups of residents / special interest groups / businesses	Sections of the community/ economy	Towns/ suburbs/ town centres		
	<ul style="list-style-type: none"> <li>change pedestrian, cyclist or property access</li> </ul>	Yes	Yes			Yes – through construction management plans	Potential for access changes due to construction activities
	<ul style="list-style-type: none"> <li>alter public transport services or facilities</li> </ul>		Yes			Yes – through construction management plans	Potential for changes to bus and train services during construction
	<ul style="list-style-type: none"> <li>alter travel patterns</li> </ul>	Yes	Yes			Yes – through construction management plans	Potential for changes to travel patterns due to detours and delays during construction
	<ul style="list-style-type: none"> <li>impact on traffic flow.</li> </ul>	Yes	Yes			Yes – through construction management plans	Potential for changes to traffic flow due to construction activities on and near roads

## Appendix B – Demographic indicators

Demographic indicator	Schofields	Quakers Hill	Blacktown LGA	NSW
Total population	4,983	27,080	336,962	7,480,228
Age profile				
Median age	32	33	33	38
Under 18 years	28.0%	27.4%	26.9%	22.1%
Cultural diversity				
Aboriginal and Torres Strait Islander	2.0%	1.8%	2.8%	2.9%
Language spoken at home other than English	28.2%	37.2%	41.0%	25.2%
People that spoke another language, and English not well or not at all	3.4%	3.8%	5.0%	4.5%
Education and employment				
Completed Year 12 or equivalent	56.6%	64.10%	57.6%	53.9%
Unemployed persons	5.1%	6.2%	7.3%	6.3%
Top occupations of employment	Professionals 21.4%	Professionals 21.6%	Professionals 19.0%	Professionals 23.6%
	Clerical and administrative workers 16.6%	Clerical and administrative workers 17.7%	Clerical and administrative workers 16.4%	Clerical and administrative workers 13.8%
	Technicians and trades 15.1%	Technicians and trades workers 12.2%	Technicians and trades workers 12.7%	Managers 13.5%
Households				
Average number of people per household	3.1	3.2	3.2	2.6
Couples with children	56.8%	59.0%	55.5%	45.7%
Sole parent families	14.3%	15.9%	18.0%	16.0%
Lone person households	12.7%	11.5%	15.2%	23.8%
Low income households (earning less than \$650 per week)	9.1%	8.9%	13.9%	17.7%
Households without motor vehicles	2.8%	3.3%	7.0%	9.2%
Need for assistance				
Need for assistance	3.1%	4.1%	5.1%	5.4%

Demographic indicator	Schofields	Quakers Hill	Blacktown LGA	NSW
<b>Mobility</b>				
Lived at the same address 1 year ago	66.6%	82.6%	79.9%	77.4%
Lived at the same address 5 years ago	43.3%	60.7%	56.4%	53.8%
<b>Journey to work</b>				
Train	15.8%	18.5%	15.7%	11.2%
Bus	1.6%	2.1%	4.0%	4.4%
Car as driver	63.3%	63.5%	62.9%	59.0%
Car as passenger	4.6%	4.9%	5.9%	4.7%
Cycling	0.2%	0.3%	0.2%	0.7%
Walked only	1.0%	0.6%	1.1%	3.9%



## Appendix C – Proposed land requirements for the proposal

Address	Current owner	Lot / DP	Current land use	Permanent acquisition/temporarily leased
42 Jersey Road, Schofields	Private-residential	Lot 27 / DP 12076	Rural residential	Permanent acquisition
32 Jersey Road, Schofields	Private-residential	Lot 26 / DP 12076	Rural residential	Permanent acquisition
25 Jersey Road, Schofields	Private-residential	Lot B / DP 376106	Rural residential	Permanent acquisition
15 Jersey Road, Schofields	Private-residential	Lot C / DP 376106A	Rural residential	Permanent acquisition
	Private-residential	Lot C / DP 376106B		Permanent acquisition
9 Jersey Road, Schofields	Private-residential	Lot D / DP 376106	Rural residential	Permanent acquisition
87 Kerry Road, Schofields	Private-residential	Lot 21 / DP 12076	Rural residential	Permanent acquisition
83 Kerry Road, Schofields	Private-residential	Lot 20 / DP 12076	Rural residential	Permanent acquisition
181A Burdekin Road, Schofields	Private-residential	Lot B / DP 377217	Cleared land	Permanent acquisition
Un-numbered development land Burdekin Road, Quakers Hill	Private-residential	Lot 2 / DP 846728	Cleared land	Permanent acquisition
Un-numbered development land Burdekin Road, Quakers Hill	Private-residential	Lot 4 / DP 837354	Cleared land	Permanent acquisition
Un-numbered development land Burdekin Road, Quakers Hill	Private-residential	Lot 6 / DP 837354	Cleared land	Permanent acquisition
42 Jersey Road Schofields	Private-residential	Lot 27 / DP 12076	Rural residential	Temporarily leased (partial)
32 Jersey Road Schofields	Private-residential	Lot 26 / DPI 12076	Rural residential	Temporarily leased (partial)
20 Jersey Road Schofields	Private-residential	Lot 26 / DP 12076	Vacant land	Temporarily leased (partial)
61 Durham Road, Schofields	Private-residential	Lot A / DP 376106	Rural residential	Temporarily leased (partial)

Address	Current owner	Lot / DP	Current land use	Permanent acquisition/temporarily leased
25 Jersey Road Schofields	Private-residential	Lot B / DP 376106	Rural residential	Temporarily leased (partial)
15 Jersey Road Schofields	Private-residential	Lot C / DP 376106	Rural residential	Temporarily leased (partial)
9 Jersey Road Schofields	Private-residential	Lot D / DP 376106	Rural residential	Temporarily leased (partial)
87 Kerry Road Schofields	Private-residential	Lot 21 / DP 12076	Rural residential	Temporarily leased (partial)
82 Kerry Road Schofields	Private-residential	Lot 20 / DP 12076	Rural residential	Temporarily leased (partial)
Un-numbered development land, Aerodrome Drive Nirimba Fields	Private-residential	Lot 218 / DP 1241538	Rural residential	Temporarily leased (partial)
Un-numbered development land, Aerodrome Drive Nirimba Fields	Private-residential	Lot 219 / DP 1241538	Residential	Temporarily leased (partial)
Un-numbered development land, Aerodrome Drive Nirimba Fields	Private-residential	Lot 215 / DP 1241538	Residential	Temporarily leased (partial)
Roadside verge, Aerodrome Drive Nirimba Fields	Government	Lot 216 / DP 1241538	Roadside verge	Temporarily leased (partial)
Roadside verge, Aerodrome Drive Nirimba Fields	Government	Lot 591 / DP 1241538	Roadside verge	Temporarily leased (partial)
Roadside verge, Aerodrome Drive Nirimba Fields	Government	Lot 590 / DP 1241538	Roadside verge	Temporarily leased (partial)
138 Burdekin Road Schofields (Quakers Hills Veterinary Hospital)	Commercial	Lot 7 / DP 652627	Commercial	Temporarily leased (partial)
134 Burdekin Road, Schofields	Private-residential	Lot 11 / DP 31797	Rural residential	Temporarily leased (partial)
181A Burdekin Road Schofields	Private-residential	Lot B / DP 377217	Rural residential	Temporarily leased (partial)
Un-numbered development land, Burdekin Road Quakers Hill	Private-residential	Lot 2 / DP 846728	Cleared land	Temporarily leased (partial)

Address	Current owner	Lot / DP	Current land use	Permanent acquisition/temporarily leased
Un-numbered development land, Burdekin Road Quakers Hill	Private-residential	Lot 4 / DP 837354	Cleared land	Temporarily leased (partial)
Un-numbered development land, Burdekin Road Quakers Hill	Private-residential	Lot 5 / DP 837354	Cleared land	Temporarily leased (partial)
191 Burdekin Road, Schofields	Government	Lot 2 / DP 1142477	Rural residential	Temporarily leased (partial)
Un-numbered, infrastructure	Government	Lot 11 / DP 1190259	Cleared land	Temporarily leased (partial)
279D Burdekin Road, Schofields	Government	Lot 12 / DP 1190259	Rural residential	Temporarily leased (partial)
Un-numbered, Burdekin Road Quakers Hill (Sydney Trains substation)	Government	Lot 1 / DP 1142477	Sydney Trains substation	Temporarily leased (partial)

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