bd infrastructure

Light Rail City to Commonwealth Park

Socioeconomic Impact Assessment

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Glossary

Term	Definition
ACT	Australian Capital Territory
Human capital	The knowledge, skills and attributes an individual or community possesses and regards as a resource or asset, encompassing education, training, and creativity, along with other attributes linked to productivity. It is noted that for the purposes of this assessment report, a relatively narrower interpretation of human capital has been applied, based on Census data on communities' level of educational attainment, income, and employment.
Mitigation	Actions or measures to reduce adverse socioeconomic impacts of a project . Mitigations may be performance based (achieve an appropriate social outcome without specifying how the outcome will be achieved) or prescriptive (actions or measures that must be taken, such as a known best-practice technology, design or management approach).
People	Individuals, households, groups, communities, organisations and the general public.
Project, the	Light Rail City to Commonwealth Park
SEIA, this	Socioeconomic Impact Assessment, or this Technical Paper
Social capital	The networks, connections and relationships in a society that enable its members to trust each other and work together. High levels of social capital are characteristic of a well-functioning, socially sustainable society.
Social cohesion	A core feature of an inclusive, socially sustainable society indicated by positive relationships and strong bonds among its members, measured through levels of generalised trust, reciprocity, and sense of belonging.
Socioeconomic impact	The net effect of an activity on a community and the wellbeing of its members.
Socioeconomic impact assessment	The process of identifying, predicting and evaluating likely social impacts arising from a project and propose responses to the predicted impacts (NSW DPE, 2021). The processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans and projects) and any social change processes affected by those interventions (City of Sydney, 2018).
Social infrastructure	Infrastructure assets that deliver social services and other community uses, including schools, hospitals, childcare centres, libraries and sport and recreation facilities. The term can also be used to broadly encompass the networks of facilities, places, spaces, programs, projects, and services that sustain a communities' quality of life and wellbeing.
Social area of influence	The term 'area of social influence' is similar to 'social locality' that is commonly used in social impact assessment practice. The social area of influence should be construed for each project, depending on its nature and its impacts.
Social sustainability	A core aspect of sustainability (along with environmental, economic and governance aspects) that encompasses the social conditions of life and societies' potential to meet the needs of current generations without compromising those of future generations. A socially sustainable city or society is one that sustains individual and community wellbeing and resilience, providing people with equitable opportunities to thrive. It describes a range of factors that impact wellbeing, quality of life and people's ability to realise their potential, including universal and equitable access to quality housing, education and employment opportunities, health services and other social infrastructure, human rights and good governance, opportunities for civic participation, levels of social inclusion and connectedness, trust, and a sense of belonging.

Executive summary

Canberra Light Rail City to Commonwealth Park (the Project) is proposed as one of a series of major projects being planned and delivered in a coordinated and holistic way to give effect to the strategic planning and development vision in the *National Capital Plan* (NCA, 1990) and *Territory Plan 2008* (EPSDD, 2008) for Canberra City and its surrounds. The need for the Project is underpinned by several significant strategic roles:

1. Direct facilitation of Light Rail Commonwealth Park to Woden by facilitating and providing an opportunity for the Canberra Light Rail network extension to connect past Commonwealth Avenue southbound towards Woden
2. Future-proofing the transport network by providing public transport infrastructure that responds to current needs and also provides strategic capacity for future growth
3. Providing sustainable transport options and reaching net zero by providing public transportation that utilises renewable energy
4. Facilitating the transition to a compact and connected city by providing more public transport options closer to Canberra City to limit urban sprawl and car use to limit the stress of a growing Canberra population.

The Australian Capital Territory (ACT) Government made a clear commitment in the *Canberra: A Statement of Ambition 2016* (ACT Government, 2016) and the *City Plan 2014* (ACT Government, 2014) to construct the Canberra Light Rail network over the coming years to help achieve its vision for Canberra and to:

- Deliver an attractive public transport choice for Canberra City
- Support and generate urban renewal
- Diversify the Canberra economy.

Socioeconomic impact assessment is the process of understanding and managing the social impact of projects and programs on people. As investment in infrastructure grows, and contestation over 'who decides' and 'who benefits' becomes ever more marked, the need to fully assess, manage and monitor the impacts of decisions is becoming more prominent. It is important to note, that impacts can be positive (benefits) as well as negative (disbenefits), and impacts need to be managed through either mitigation or enhancements measures. A thorough socioeconomic impact assessment process is therefore invaluable for demonstrating the return to communities, reducing disbenefits, as well as strengthening and realising benefits.

This socioeconomic impact assessment has considered this by understanding who may be impacted and what kind of communities they live in, what kind of socioeconomic impacts are likely to be experienced by those people, and how those impacts can best be managed and monitored throughout the lifecycle of the Project. This socioeconomic impact assessment has also utilised a participatory approach to both understand the demographic of the people likely to be affected as well as what their values and aspirations are for the Project.

This socioeconomic impact assessment utilises a best-practice approach and has employed a variety of guidelines and frameworks to achieve this:

- The International Association for Impact Assessment's *Social Impact Assessment: Guidance for assessing and managing the social impacts of projects* (2015)
- NSW Department of Planning, Industry and Environment's *Social Impact Assessment Guideline* (2021)
- The ACT Wellbeing Framework (2020).

This socioeconomic impact assessment has been undertaken at an early design phase in order to understand the kinds of socioeconomic impacts, both positive (benefits) and negative (disbenefits), that the Project may generate, and to proactively plan how to manage and monitor them. It is recognised that projects typically develop their design alongside the environmental assessment process. This provides an opportunity for design refinements to reflect key findings from the environmental assessment process. It can therefore be expected that the design of the Project will be advanced to take into consideration recommendations from this socioeconomic impact assessment, as well as other key findings from the environmental assessment process.

1 Introduction

1.1 Project description

Major Projects Canberra (MPC) proposes to extend the Canberra Light Rail (CLR) network from its current southern terminus at Alinga Street, Canberra City, to Woden (Light Rail to Woden). Light Rail to Woden is being progressed in two, self-contained stages for a faster project delivery: Stage 2A City to Commonwealth Park (the Project, the subject of this Assessment), and Stage 2B Commonwealth Park to Woden.

The Project is needed as part of a coordinated and holistic delivery of a series of major projects in Canberra City and surrounds, to realise the strategic planning and development for Canberra City presented in the Territory Plan, the Transport for Canberra Plan and the National Capital Plan (NCP). The Project also supports the ACT Government's vision for a compact and efficient city and reaching net zero by 2045. Furthermore, the Project is a specific directive identified as a key strategy for developing and delivering an efficient, compact and sustainable Canberra City within the Moving Canberra Plan, The Light Rail Network Plan and The ACT Planning Strategy.

The Project would involve extending the light rail network from the current southern terminus at Alinga Street to a proposed stop at Commonwealth Park. A full project description for the Project is provided in Chapter 3.0 of the Environmental Assessment.

The Project would include the following key elements:

- An extension of approximately 1.7 km of track, extending southbound via the western side of London Circuit before continuing on Commonwealth Avenue
- A new bridge across Parkes Way
- Three stops are proposed to be located at key points along the alignment to provide access to the light rail where there is expected to be high demand: Edinburgh Avenue Stop, City South Stop and Commonwealth Park Stop
- One scissor crossover (crossover of railway tracks) to allow LRVs to reverse direction
- Utility, stormwater drainage and streetlighting adjustments, relocations and provisions
- Landscaping features sympathetic with Canberra's design as envisioned by the Griffins' along with requirements set out in other Territory and Australian Government policy
- 'Green tracks' running along Commonwealth Avenue and Northbourne Place that involve planting grass or shrubs between and besides the alignment
- Intersection layout, traffic signal phasing and road traffic speed changes along the alignment, including new intersections and modifications to existing intersections
- Pedestrian footpaths and crossing modifications
- Road widening and verge and kerb line changes.

The completed Project, including its key features and elements, is shown on Figure 1-1.

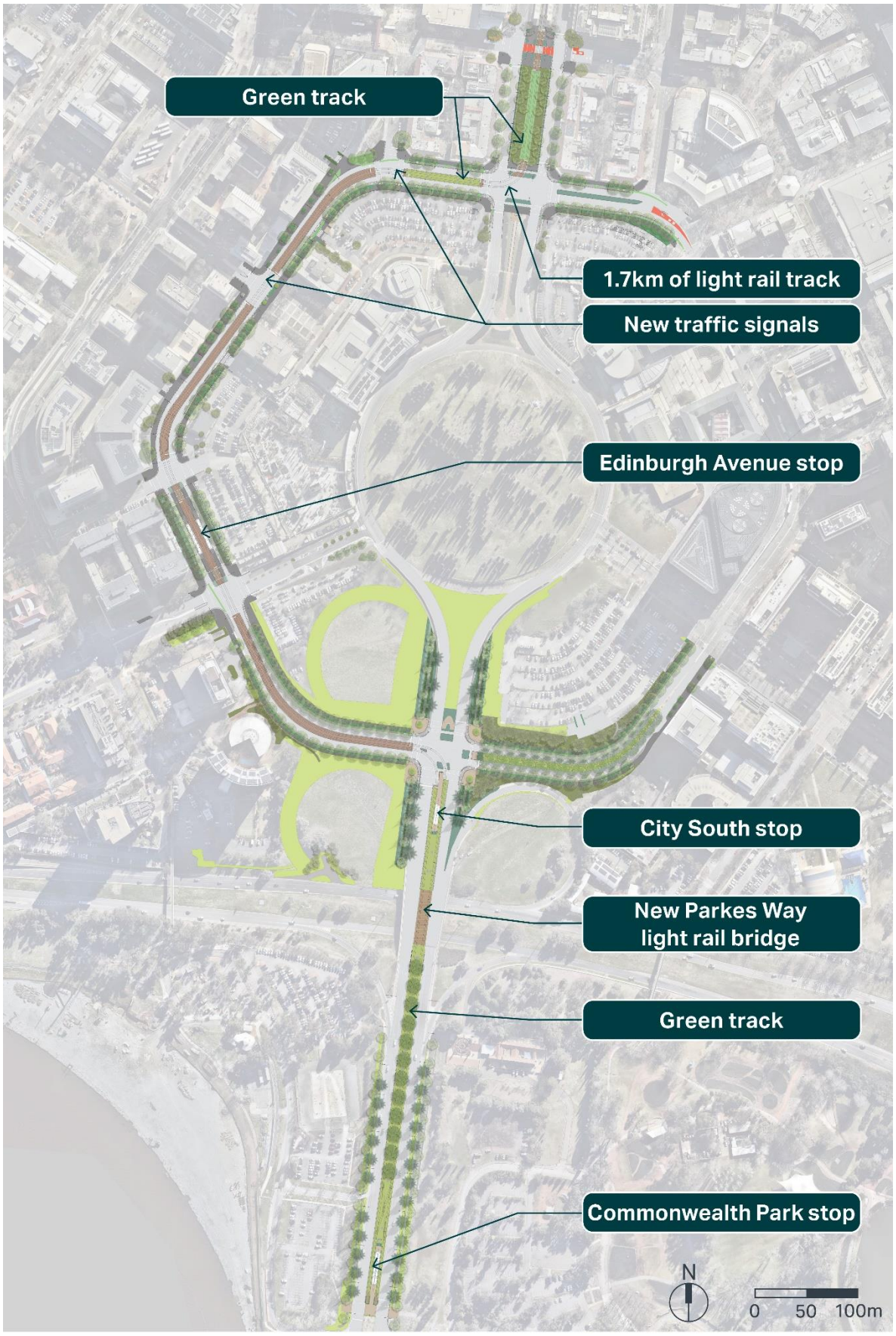

Figure 1-1: Light Rail from City to Commonwealth Park

1.2 Construction

Construction activities associated with the Project would occur within a footprint referred to as the 'delivery phase area' (Figure 1-2). The operation of the Project would occur within a subset of the delivery phase area. The delivery phase area includes both Designated Land and Territory land. This socioeconomic impact assessment addresses the Project in its entirety to allow for consideration of the Project as a whole.

Construction of the Project is anticipated to commence in 2024 with completion of construction planned in 2026. However, the duration of the construction would be dependent on final construction methodology and staging selected by the delivery contractor, as well as any efficiencies identified during the program. Testing and commissioning would commence in the latter stages of construction and continue for a period of up to nine months following the conclusion of main works. Successful completion of the testing and commissioning programme would allow the Project Contractor to obtain accreditation from the Office of the National Rail Safety Regulator (ONRSR). Once complete, the system would be ready to be handed over for operation.

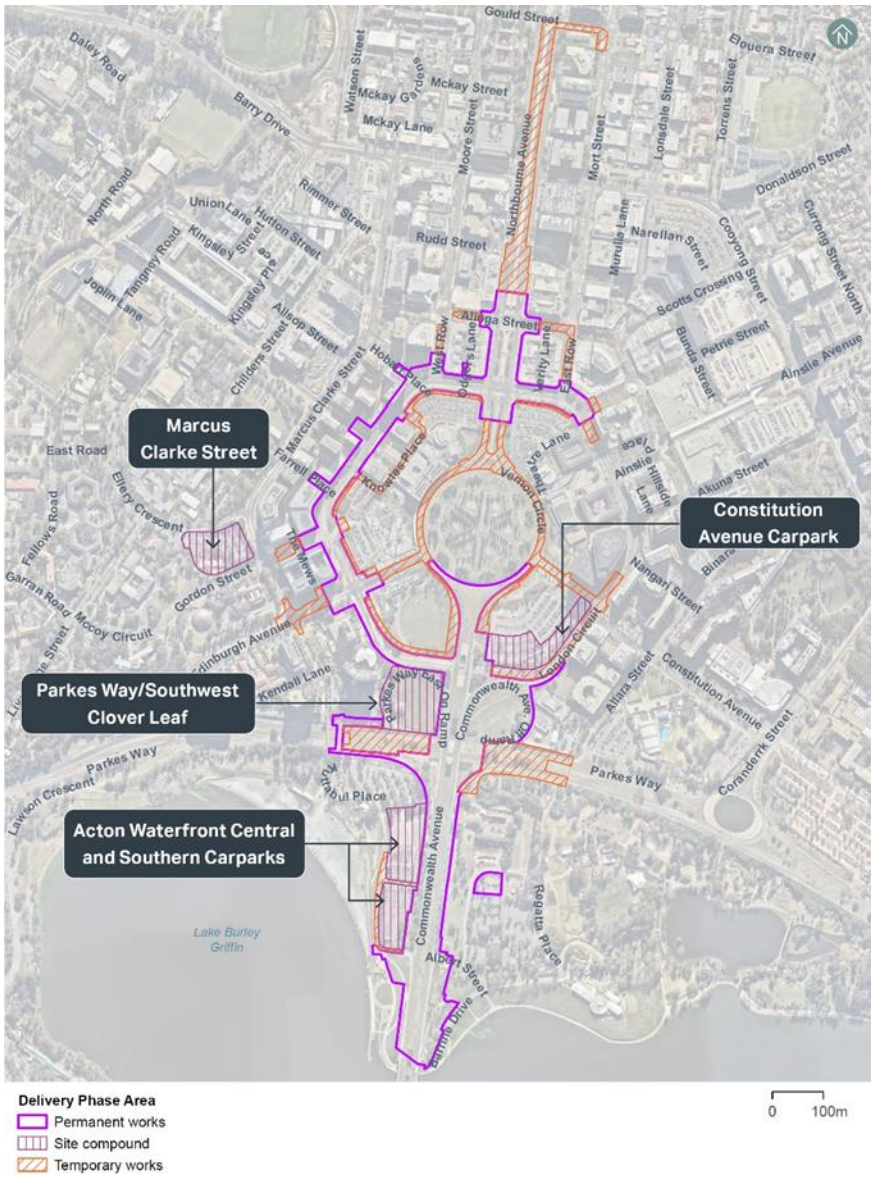

Figure 1-2: Delivery phase area

1.3 Site establishment and preparatory works

There would be four major compound sites, as shown on Figure 1-2. Several temporary construction compounds, stockpile sites and laydown areas would also be required as part of the Project. Upon completion of the works all established site compounds would be reinstated prior to handing back to the respective landowners.

There are utilities within the delivery phase area which are affected to various degrees by the Project. Most protection, decommissioning and removal of utilities would be completed early in the Project construction period, but may also be staged during the construction period depending on construction planning requirements.

Traffic management arrangements would include full and partial road closures and would introduce necessary traffic detours to direct the travelling public around work sites and construction access and egress points. Notification of these closures would be advertised in advance and sufficient time to deliver written notice would be required for the local businesses and residents. All temporary traffic management arrangements and diversionary routes would be agreed and approved by TCCS (RoadsACT) prior to implementation.

1.4 Construction strategy

The construction strategy of the Project has been divided by construction zones, major intersections and the Parkes Way Bridge.

Table 1-1: Construction staging locations

Location	Description
Zones/Blocks	These are construction areas between major intersections. Block closures would be used to close off entire sections of the road network, typically between blocks to allow the Project contractor full access to the worksite and the best opportunity to complete the Project most efficiently. Stops will be constructed upon the occupation of the block section where it is located. Blocks include: • Northbourne Avenue (between Alinga Street and London Circuit) • London Circuit (between Northbourne Avenue and Petrie Plaza) • London Circuit (between Northbourne Avenue and West Row) • London Circuit (West Row to Knowles Place North) • London Circuit (between Knowles Place North and Gordon Street) • London Circuit (between Gordon Street and Edinburgh Avenue) • London Circuit (between Edinburgh Avenue and Commonwealth Avenue) • Commonwealth Avenue (between London Circuit and Parkes Way) • Commonwealth Avenue (between Parkes Way and Lake Burley Griffin).
Major intersections	The major intersections include Northbourne Avenue and Alinga Street, Northbourne Avenue and London Circuit, London Circuit and Edinburgh Avenue, London Circuit and Gordon Street and Commonwealth Avenue and London Circuit. For works within major intersections, wherever possible the construction of the intersection would be carried out during normal working hours, within the confines of a protected worksite. Closures, where required, are expected to be carried out over several weekends (typically from Friday 10pm to Monday 6am) for a maximum of 56 hours at a time, except during construction of track slab where a continuous 80 hours would be required to facilitate concrete curing and ensure adequate concrete strength is achieved prior to intersection reopening and eventual trafficking. The Commonwealth Avenue and London Circuit intersection would not require full closure and would be subject to a contraflow arrangement for several weeks.
Parkes Way Bridge	A new bridge would be built between the two road bridges on Commonwealth Avenue over Parkes Way. In appearance, the gap would be infilled to create a single surface. The new rail bridge would be supported on 8 concrete piles (four piles for each bridge abutment) and concrete-walled abutments. The construction of temporary roads allows for the continued movement of traffic during bridge construction activities, with the location of temporary roads selected by the contractor in line with the Roads ACT requirements.

1.5 Operation

The Project would be an extension of the City to Gungahlin service and would therefore have the same frequency. It would take approximately six to nine minutes to travel between Alinga Street and Commonwealth Park.

A minimum of five LRVs would be required for the expansion of the CLR network. The new LRVs would be similar in appearance, size and performance to those that operate on the current CLR network. These LRVs and modifications to the stabling yard at the Mitchell Depot would be complete prior to the operation of this Project.

A wire free track is proposed for the Project alignment with LRVs operating using onboard battery power supply between the current Alinga Street southern terminus and the proposed Commonwealth Park terminus. Battery storage capacity for additional and existing LRVs has been proposed to minimise visual impact in landscape and visual sensitive zones, such as Commonwealth Avenue.

Two track forms, a permanent form of rail infrastructure that provides a surface for rail vehicles to move, are required for the Project. One trackform would operate northbound and the other southbound, with a crossover installed on Commonwealth Avenue to allow LRVs to change direction. Green track would also be included as part of the Project, in three locations: Northbourne Place, London Circuit between Northbourne Avenue and West Row, and Commonwealth Avenue between London Circuit and Albert Street. Non-potable water would be used for the irrigation of the Commonwealth Avenue green track.

1.5.1 Changes to the road network

The proposed light rail track would run within a median between opposing vehicular traffic flows for the entire length of the proposed alignment. The median would be between 80-150 mm high between intersections to minimise the possibility of road vehicles straying into the rail corridor. The median height would transition to be at grade just before each signalised intersection. This would facilitate vehicular and pedestrian movement across the track.

Road network changes required to accommodate the Project's median light rail alignment and associated stops are provided in Table 1-2.

Table 1-2: Lane configuration

Road	Proposed lane configuration
London Circuit	• The lane arrangement on London Circuit between Edinburgh Avenue and Commonwealth Avenue would remain unchanged • Two 3.3m wide traffic lanes in each direction along London Circuit between Northbourne Avenue and West Row, including a dedicated westbound right turn lane to West Row • A single 3.7m wide traffic lane in each direction along London Circuit between West Row and Edinburgh Avenue, except on the southbound approach to Gordon Street which would have a dedicated right turn lane • The posted speed limit along London Circuit would remain 40km/h except in the vicinity of the Edinburgh Avenue stop where the speed would be reduced to 20km/h because of the high pedestrian activity expected at the stop • All on street parking and loading along London Circuit would be removed • Two new signalised intersections on London Circuit to facilitate right turns across the Project's alignment at West Row and University Avenue. The remaining unsignalised intersections along London Circuit would be converted to left-in/left-out[1].
Alinga Street	One lane in each direction on Alinga Street within the median on Northbourne Avenue. These lanes would be for buses only.
Commonwealth Avenue	No change.
Northbourne Avenue	No change.

[1] Right turn out from Knowles Place south permitted by emergency vehicles under signals

1.5.2 Active transport infrastructure

The Project includes walking and cycling facilities or upgrades that aim to improve pedestrian and cyclist safety, connectivity and amenity within the study area, and in particular along London Circuit West and Commonwealth Avenue. Active transport infrastructure includes dedicated and separate pedestrian and cycling paths.

1.6 Purpose of this assessment

This technical paper (hereafter referred to as this SEIA) is one of several technical papers that form part of the Environmental Assessment for this Project.

A best practice approach has been adopted for this SEIA that considers the International Association for Impact Assessment's Social Impact Assessment: Guidance for assessing and managing the social impacts of projects (2015) (the IAIA Guidance document (2015)) and other industry leading frameworks, including the NSW Department of Planning and Environment's Social Impact Assessment Guideline (November 2021) (the DPE Guideline (2021)).

Socioeconomic impact assessment is the process of understanding and managing the social impact of projects and programs on people. 'Socioeconomic impacts' generally refer to the consequences that people experience when a new project brings change. For the purposes of social impact assessment, 'people' are classed as individuals, households, groups, communities, or organisations.

This SEIA will provide a framework to identify, predict, and evaluate likely socioeconomic impacts to people and propose responses to them. The objectives adopted for this SEIA include:

- Providing a clear, consistent, and rigorous framework for identifying, predicting, evaluating, and responding to the socioeconomic impacts of major infrastructure, as part of the environmental assessment process
- Facilitating improved project planning and design through earlier identification of potential socioeconomic impacts
- Promoting better development outcomes through a focus on enhancing positive socioeconomic impacts and minimising negative socioeconomic impacts
- Supporting informed decision-making by strengthening the quality and relevance of information and analysis provided to the consent authority
- Facilitating meaningful, respectful, and effective community and stakeholder engagement on socioeconomic impacts across each environmental assessment phase, from scoping to post-approval.

This socioeconomic impact assessment has been undertaken at an early design phase (Works Approvals/Development Application design submission) in order to understand the kinds of socioeconomic impacts, both positive (benefits) and negative (disbenefits), that the Project may generate, and to proactively plan how to manage and monitor them. It is recognised that projects typically develop their design alongside the environmental assessment process. This provides an opportunity for design refinements to reflect key findings from the environmental assessment process. It can therefore be expected that the design of the Project will be advanced to take into consideration recommendations from this socioeconomic impact assessment, as well as other findings from the environmental assessment process.

Assumptions applied to this SEIA include:

- The key findings of the background studies and technical reports provided to the author at the time of writing are accurate
- Socioeconomic data available that has been utilised to inform the social baseline accurately reflects the community demographic profile
- Outcomes of the community consultation and engagement undertaken to date accurately reflect community views.

2 Strategic context

2.1 Overview

The Project includes consideration of a number of key strategic planning and transport infrastructure strategies and policies. This chapter explores relevant ACT policies, strategies and plans with relevance to the Project. The strategic policy review has been presented by the relevant Wellbeing Framework (Section 2.2) and is detailed in Appendix A (Strategic context).

Strategic plans are usually prepared on the basis of extensive community engagement, so provide insights into issues important to communities around the Project. Given that Canberra has no councils or city government, there are no council community strategic plans to consider.

Key documents considered in Appendix A include:

- Transport for Canberra: Transport for a sustainable city 2012-2031
- ACT The City Plan 2014
- ACT Planning Strategy 2018
- ACT Transport Strategy 2020
- ACT Transport Recovery Plan 2021
- ACT Climate Strategy 2019-2025
- ACT Wellbeing Framework 2020.

2.2 The Wellbeing Framework

The ACT Government's Wellbeing Framework (hereafter referred to as the Framework) identifies a range of factors which contribute to the wellbeing of Canberrans and the liveability of Canberra. The Framework domains are reflected in Figure 2-1.

Figure 2-1: ACT Wellbeing Framework domains

For the purposes of this SEIA, the domains highlighted in Table 2-1 have been deemed as relevant to the Project.

Table 2-1: Wellbeing Framework domains relevant to the Project

Domain	Description	Relevance to the Project
Access and connectivity	Getting around to places we value and accessing the services we need	The Project seeks to increase access to core social, economic and natural infrastructure by improving overall network connectivity. This increases access to quality infrastructure.
Economy	We share in our city's economy	The Project seeks to contribute to a vibrant Canberra centre that stimulates business, education, living, entertaining and recreation. Transport and movement are a critical component of a successful CBD through providing increased access to an integrated transport network and supporting future opportunities for a multimodal transport hub in Civic. This will in turn make the CBD a more desirable place to work, encourage investment and further reinforce Civic and the CBD as a major employment destination. The Project also has the potential to connect Canberrans to employment hubs such as the Australian National University.
Social connection	Being connected with family, friends and community	Delivering public transport is a key factor in social inclusion. The Project seeks to provide people with the ability to travel more easily and effectively, allowing for greater connections with family, friends and the community.
Education and life-long learning	Gaining the skills and education needed at all stages of life	The Project seeks to stimulate education by providing a fast, safe and affordable way to access education hubs through public transport. Delivering public transport is a key factor in social inclusion and directly relates to the ability of any person to access education services. Additionally, the Project seeks to contribute to the local industry and skill development.
Housing and home	Having a place to call home	Extending the existing light rail network will expand the potential of this city shaping infrastructure to drive delivery of new housing and employment opportunities. This will support the Territory's goal for 70% infill development, promoting a compact and efficient city.
Time	Having time to live life well	The Project seeks to provide people with more personal time by providing effective and timesaving public transport options, aiming to create a 30-minute city (refer Appendix A).
Environment and climate	The environment sustains all life now and into the future	As Canberra strives to be a net zero global city by 2045, increasing the environmental sustainability of transport (and public transport) will be essential in achieving this vision. The Project seeks to support public transport uptake by continuing to improve services to meet community travel needs and reduce reliance on private vehicle use.

It is noted that while Access and connectivity is the most relevant domain for the Project, it is also closely linked to other domains such as Social connection as well as Time. Being able to reach destinations such as the Central Business District (CBD) via public transport due to increased access and connectivity enables and supports:

- Increased access to higher order health care services and facilities located in Civic
- Green and low carbon transport options
- Employment opportunities
- Social interaction and access to social and community services
- Improves access to educational facilities and services
- Timely and efficient transport options for all community members
- Housing diversity and housing options outside of the CBD area.

3 Methodology

3.1 Overview

A socioeconomic impact assessment predicts and assesses likely outcomes of a proposed project on local communities. It provides an approach that analyses these outcomes through a social lens and provides a foundation from which to develop methods to mitigate and enhance social outcomes.

The different phases of this SEIA, as per the IAIA Guidance document, are detailed in Table 3-1.

Table 3-1: SEIA methodology

Phase	Purpose	Where addressed
Phase 1: Understand the issues	Understand the proposed Project	Section 1
	Understand the social context of the community	Section 5
	Scope preliminary issues	Section 3.4
	Undertake participatory processes	Section 4
	Establish the social area of influence	Section 5.1
	Assemble social baseline data	Section 5.2 Appendix E Appendix F
Phase 2: Predict, analyse and assess likely impact pathways	Map social changes and impacts	Section 6
	Understand cumulative impacts	
	Understand affected party responses	
	Understand significance of changes	
Phase 3: Develop and implement strategies to manage, mitigate and/or enhance impacts	Address negative impacts	Section 6
	Enhance benefits and opportunities	
	Support communities with change	
	Justify residual socioeconomic impacts	Section 6

3.2 Indicators and frameworks

Social impacts are defined in the IAIA Guidance document (2015) as "*anything that affects people*" and have been broadly defined as eight overarching categories. The methods described in this chapter have enabled the collection of data to address these eight social impact categories which are defined in Table 3-2.

Table 3-2: Social impact categories

Social impact category	Definition from the IAIA Guidance document (2015)
Way of life	How people live, work, play and interact with one another on a day-to-day basis.
Culture	People's shared beliefs, customs, values and language or dialect.
Community	Its cohesion, stability, character, services and facilities.
Political systems	The extent to which people are able to participate in decisions that affect their lives, the level of democratisation that is taking place, and the resources provided for this purpose.
Environment	The quality of the air and water people use; the availability and quality of the food they eat; the level of hazard or risk, dust and noise they are exposed to; the adequacy of sanitation, their physical safety, and their access to and control over resources.
Health and wellbeing	Health is a state of complete physical, mental, social and spiritual wellbeing and not merely the absence of disease or infirmity.
Personal and property rights	Whether people are economically affected or experience personal disadvantage which may include a violation of their civil liberties.
Fears and aspirations	People's perceptions about their safety, their fears about the future of their community, and their aspirations for their future and the future of their children.

There are many frameworks by which socioeconomic impacts can be evaluated. For the purpose of this SEIA a qualitative assessment of community resilience or adaptive capacity has been used to review and analyse relevant indicators and other primary and secondary data sources. This has been achieved by using the sustainable livelihoods approach (Department for International Development (DFID), United Kingdom,1999) to provide a comprehensive understanding of the relevant communities in proximity to the Project and to evaluate their resilience and sensitivity to change.

The DFID approach draws on broad categories of community capital as a fundamental basis to identify and further enhance community capacity and resilience. It also involves profiling communities according to the five 'community capitals'. The five community capitals are defined in Figure 3-1. This approach is harmonious with the international standard for socioeconomic impact assessment as established through the IAIA Guidance document (2015).

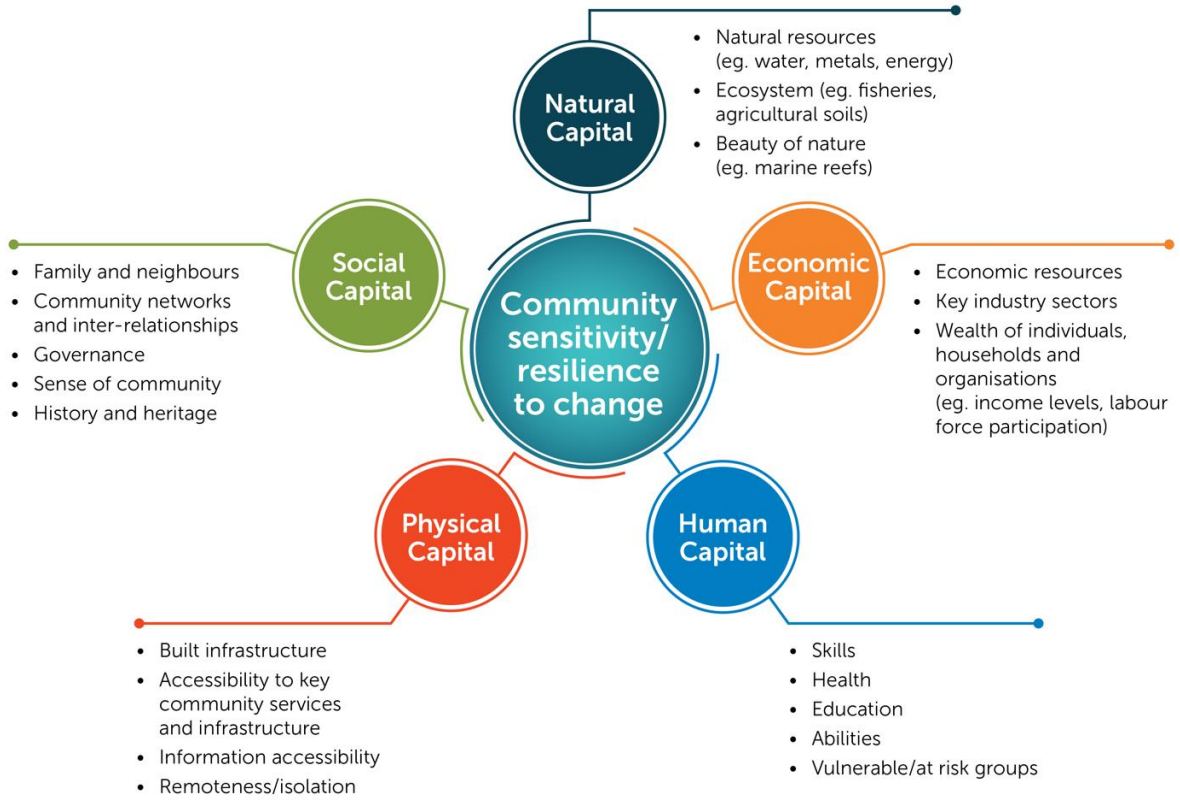

Figure 3-1: Community capitals

This approach also provides an opportunity to ensure that this SEIA is tailored to the ACT by considering the relationship between the community capitals and the ACT Wellbeing Framework (refer to Section 2.2), an accepted framework which the ACT community has shaped.

3.3 Determining the social baseline

A key component in the development of the social baseline for this SEIA was the collation and analysis of demographic data as relevant to the social area of influence. An analysis was undertaken relating to:

- Indicator identification and selection to afford appropriate assessment of socioeconomic impacts relating to the Project
- Comparative analysis of different communities relevant to the Project
- Longitudinal/time-series analysis of population data.

For the purpose of this assessment, the unit of analysis considered most reflective of the study area includes:

- Analysis of ABS Census data (2016 and 2021, where available and relevant) to prepare community profiles for the social areas of influence, based on data for ABS Census Statistical Area level 2 (SA2s). SA2s have been chosen as the closest approximation of each of the social area of influence with construction and operational impacts of the Project
- The regional context is the Australian Capital Territory (Greater Capital City Statistical Area), and this has been used, where possible, for comparative purposes. A map illustrating selected geographies for community profiles is provided in Figure 5-1.

ABS Census data from both 2016 and 2021 has been utilised for this assessment. The outcomes of the 2021 Census are being released in stages, with the first release published in June 2022. This release primarily included population statistics and this data has been incorporated into this SEIA. This SEIA was primarily authored in September 2022. Due to project timeframes, the second release of 2021 Census data (to be

published in October 2022) has not been included in this SEIA. Secondary data and insights have been used to triangulate information to understand social conditions.

This assessment acknowledges that the 2021 Census was conducted during the COVID-19 pandemic when many parts of Australia were in lockdown and movements within, into and out of Australia were tightly controlled and restricted. The ABS notes that the results from the Census, therefore, tell the story of changed circumstances for many Australians and provide insights into the impact of the pandemic on populations in our cities, towns, rural and remote areas.

A wide range of social indicators were considered prior to conducting the statistical analysis and developing the existing social baseline to provide confidence that the social indicators represented the health and wellbeing values, and interests of the communities (Vanclay, 2015) surrounding the Project area. This included considering the domains and indicators that the ACT Wellbeing Framework presents. Table 3-3 outlines the indicators sourced to establish the social baseline by considering the relationship between each community capital, each IAIA social impact category, and the associated ACT Wellbeing Framework category.

Following the consideration of social indicators, a desktop-based review was undertaken of a range of documents and data sources to inform the context and understanding of the study area characteristics, including community character, values, and concerns, including a review of social infrastructure. Finally, the baseline was also informed by analysis of information obtained directly from potentially affected community stakeholders to further understand community values and concerns. This was carried out through a review of outcomes of engagement to date (Section 4.1), engagement with Major Projects Canberra, as well as the engagement undertaken specifically for this SEIA (Section 4.2).

Table 3-3: Alignment of community capitals approach with the ACT Wellbeing Framework

Community capital	IAIA category	Wellbeing Framework	Indicator considered in the social baseline
Human capital	• Health and wellbeing • Fears and aspirations	• Health	• Population • Age profile (median age and age groupings) • Educational attainment • Aboriginal and/or Torres Strait Islander • Sex • Disability • Children developmentally at risk
Social capital	• Political systems • Health and wellbeing • Culture • Way of life • Community • Fears and aspirations	• Governance and institutions • Identity and belonging • Social connection • Time • Safety	• Languages spoken at home • Country of birth and ancestry • Household composition • Household mobility • Homelessness • Disability • Volunteerism • Crime
Economic capital	• Personal and property rights • Community • Fears and aspirations	• Economy • Housing and home • Living standards	• Median household income • Median person income • Housing cost (median monthly mortgage repayments and median weekly rent) • Labour force particate rate • Unemployment rate • Industry of employment • Occupation • Socio-economic Indexes for Areas (SEIFA), Index of relative Socio-economic Disadvantage(IRSD)

Community capital	IAIA category	Wellbeing Framework	Indicator considered in the social baseline
Physical capital	• Health and wellbeing • Way of life • Fears and aspirations	• Access and connectivity • Education and life-long learning • Housing and home	• Private dwellings • Dwelling structure / type • Tenure type • Method of travel to work • Number of registered motor vehicles per household • Internet access to dwelling • Social infrastructure
Natural capital	• Environment • Fears and aspirations	• Environment and climate	• Key natural features

3.4 Scoping potential social impacts

To assess the socioeconomic impacts of a project, it is important to understand the project and its various dimensions. Projects generally involve multiple ancillary activities and different components that evolve over time, producing impacts are born of each component as well as the project as a whole. Therefore, all impacts created by each of the activities that make up the overall project need to be carefully considered (IAIA Guidance document, 2015).

To understand the potential socioeconomic impacts of the Project, a review was undertaken of the technical information that informed the Environmental Assessment for this Project. This included a review of the following technical areas in the form of reports or synthesised chapters:

- Noise and vibration
- Transport and traffic and access
- Air quality
- Heritage
- Contamination
- Climate change
- Greenhouse gas
- Landscape and visual amenity
- Cumulative impacts.

The potential impacts were also determined based on an extensive background review of documentation and engagement with Major Projects Canberra to obtain additional insights.

3.5 Research methodology

A range of research methods were selected for this SEIA. These included:

- **Desktop analysis based on specialist studies**: For the purpose of this SEIA, several socioeconomic impacts, including cumulative impacts have been mostly assessed in other technical studies in the Environmental Assessment, and a desktop analysis has been carried out to cross-reference and integrate those studies into this SEIA. This methodology has then been further complemented by methodologies such as qualitative assessment and research methodology to provide additional supporting evidence
- **Exploratory research**: For the purpose of this assessment, exploratory research has included the examination of engagement outcomes and from comparative analysis of similar operations. This research assisted with scoping out the nature and extent of the problem and serving as a useful precursor to more in-depth research, if required

- **Online surveys**: Conducting surveys of the communities surrounding a project is an effective way to collect qualitative and quantitative data on individual attitudes and experiences from a large cohort of people. In this case, it provided an opportunity to hear directly from affected persons on their perceptions of the Project, and it also provided an opportunity to undertake demographical analysis, refine the Project itself, and inform management measures based on feedback
- **Utilising existing data and assessments**: To provide currency to the data in this SEIA, a desktop-based gap analysis was carried out of previously gathered data sets for the Raising London Circuit Socioeconomic Impact Assessment (bd infrastructure, 2021). Additionally, a review of all stakeholder and community engagement undertaken by Major Projects Canberra to date was carried out in order to highlight any issues relevant to the assessment scope of this Project and identify stakeholders.

3.6 Assessment of potential social impacts

The SEIA includes the assessment of potential positive and negative social impacts and the evaluation of residual impacts following the implementation of available mitigation and management responses. The assessment process for this SEIA followed three key steps, outlined in Table 3-4.

Table 3-4: Steps to assess potential social impacts

No.	Step
1	**Determining the consequence and likelihood of impacts (unmitigated)** The risk approach adopted for this SEIA requires the determination of the worst-case (but reasonable) consequence of an aspect of the Project, without mitigation. For some impacts it may be a negative consequence, while for others it may be a positive consequence. For the purpose of this SEIA's approach to risk, the risk, consequence and likelihood definitions have been adopted from the DPE Guideline (2021). These are considered industry leading and provide a clear framework for identifying risk.
2	**Considering and developing appropriate management measures** The management of other predicted environmental impacts that interrelate with socioeconomic impacts (such as noise and vibration, traffic, etc.) will contribute to the management of socioeconomic impacts. Measures identified in the Environmental Assessment of relevance to the management of socioeconomic impacts are considered. Socioeconomic specific management measures are recommended to either mitigate or enhance the socioeconomic impacts of the Project.
3	**Assessing the residual impacts (mitigated)** This occurs following the application of both socioeconomic and broader environmental management measures which then provides a basis to assess the residual impacts.

As part of this SEIA, consideration was given to:

- The likely population to be affected
- Impact characteristics (timing, extent, duration, scale, sensitivity)
- The potential level of significance of the potential impact, taking into consideration the likelihood and magnitude of the potential social impact.

The risk assessment process undertaken for this SEIA, including details on the magnitude level, likelihood level, and the overall risk matrix are provided in Appendix B. This risk assessment process applied to this SEIA is reflective of industry leading practice as it adopts the framework set out in the DPE Guideline (2021). The way in which the SEIA risk process applies to the risk process contained in the broader Environmental Assessment is also provided in Appendix B.

3.7 Assumptions

Assumptions applied to complete this SEIA include:

- The key findings of the background studies and technical reports provided to the author at the time of writing are accurate
- Socioeconomic data available that has been utilised to inform the social baseline accurately reflects the community demographic profile
- Outcomes of the community consultation and engagement undertaken to date accurately reflect community views.

4 Stakeholder engagement

4.1 Engagement to date

This SEIA has been prepared on the basis of an extensive background review of documentation and engagement with Major Projects Canberra to obtain additional insights. This included reviewing the themes and outcomes that have arisen from engagements that Major Projects Canberra has carried out prior to this assessment. Key engagement and reports that were undertaken prior to this SEIA that have informed this SEIA include but are not limited to:

- Engagement with businesses in City West, including outcomes of doorknocking and business specific information sessions - 2019
- Results from a survey of 161 London Circuit (east) businesses - 2019
- Results from StollzNow qualitative and quantitative research undertaken by Major Projects Canberra – 2021
- Minutes from three Community Reference Group meetings – 2020 - 2021
- Feedback gathered from pop-up community events - 2019 – 2021
- Results from the community survey of 6000+ people for Raising London Circuit – 2021.

Stakeholder engagement has been carried by Major Projects Canberra through a variety of tools which included but were not limited to:

- Establishment of an electronic mailing list (approximately 6000 stakeholders)
- Information sessions, both in person and online
- Letterbox drops
- Project updates
- Surveys
- Key stakeholder briefings
- Face to face meetings
- Door knocking
- Website and other digital channels
- Phone calls.

A full discussion of all engagement undertaken for this Project is provided in Chapter 7.0 of the Project's Environmental Assessment. A summary of the Project's stakeholders is provided in Appendix C.

4.2 Socioeconomic engagement

Between 29 July 2022 and 19 September 2022, qualitative and quantitative research was carried out to help inform this SEIA . This research was in the form of an online survey which included a series of open-ended and multiple-choice questions. This survey was distributed to more than 120,000 people. Stakeholders were able to access the survey via a survey link and were able to complete the survey on their smart phone, tablet, or computer. Stakeholders could also complete the survey on multiple occasions if they chose to do so.

The survey was also distributed to key community groups such as the project's Community Reference Group and a brief presentation was also provided to them on the subject of the survey and its purpose. The reach of the survey and how it was distributed is summarised in Table 4-1.

Table 4-1: SEIA survey distribution

Channel	Reach
Our Canberra EDM	47,568
TCCS EDM	2,154
Light rail Project update e-newsletter	5,738
TCCS Facebook	14,988
ACT Gov Twitter	1,745
ACT Gov Facebook	17,565
ACT Gov LinkedIn	4,448
Emailed to CRG members	11
Light rail pop ups	150
ABC666 Radio	–
ANU On Campus Newsletter (student and staff versions)	Approx. 26,000

Based on the survey data (up until 19 September 2022) provided by Major Projects Canberra, the survey was completed by 455 individual respondents.

It must be noted that whilst this survey was distributed to a wide range of people, the survey outcomes are not necessarily representative of the broader Canberra population. Whilst this survey captures perceptions of a portion of the nearby communities, it is by no means conclusive of the attitudes of the wider Canberra population towards this Project and future major infrastructure projects, and results should be reflected on as such.

The survey focused on five key areas. These included:

- Respondent profile
- Benefits of the Project
- Construction disruptions
- Placemaking at light rail stops
- Recommendations, including management and enhancements.

The key themes that arose from this engagement were community values, safety and security, green and open spaces, travel and transport, and Project perceptions. These themes are summarised below. A broader summary of the engagement undertaken specifically for this SEIA is captured in Appendix D.

Community values

Many community members are proud of Canberra as a city and enjoy living, working, and playing in it. The need to regularly develop and enhance the city, such as by designing and constructing projects like the City to Commonwealth Park light rail, needs to be considered against ensuring there are sufficient resources and funds for other policy sectors like crime prevention, education and justice. Projects like the City to Commonwealth Park light rail also need to consider how they can better connect people and places across Canberra with other areas, local businesses and services and important landmarks and open spaces.

Many community members suggested that they would be happy to live with negative project impacts, and the changes they will need to make to their normal routines, in the short- to medium-term while the Project is constructed because they know the positive benefits of being able to use the Project once complete will be significant and long-term.

Safety and security

Community members suggested it is important that they live, work, and play in a city they consider to be safe and secure. Specifically in relation to the Project, community members suggested that it's important the light rail stations and carriages are safe from several perspectives including being able to safely:

- Access and leave light rail stations in terms of crossing roads, vehicle traffic and any other obstacles
- Use stations that have good lighting at night, are patrolled, have CCTV cameras in place and are well signed
- Travel on light rail carriages that are clean, regularly maintained and do not deteriorate quickly
- Get equipment (such as bikes, prams and/or luggage) safely onto and off the light rail
- See that safety and security measures are in place and, when required, used or enforced
- Access and egress for people who may be elderly, disabled or generally less mobile.

Community members would also like to see the police, prisons, education, health, and justice sectors continue to be supported with resources and funding to ensure that safety can be maintained, programs and places are in place to support offenders and that there is no significant backlog in court cases.

Green and open spaces

Green places and recreation spaces are highly valued by community members and were identified as desirable community characteristics. Places which facilitate a sense of community, lifestyle and access to local services, buildings and venues are also highly valued by community members. Particularly, places which facilitate positive wellbeing and lifestyle outcomes, including community facilities, services, open spaces for education, exercise, relaxation and/or recreation and good urban design.

From a Project perspective, many community members discussed the importance of community cohesion and social relations over and/in conjunction with the importance of the built environment. Community members commented that people and how they interact with each other are key community strengths when those interactions are positive and well-intended. Having an improved ability for many Canberra residents and visitors to access and/or visit important landmarks by using the light rail is also viewed as being a significant benefit by many community members.

From an exercise and recreation point of view, some community members suggested that a benefit of the Project will be being able to access new or different bicycle paths and tracks, walking tracks, Lake Burley Griffin, and/or other parts of the city they may not visit regularly or experience.

Reducing the number of vehicles on Canberra's roads (particularly during peak hour traffic) by encouraging vehicle drivers to use public transport alternatives, including the light rail, more regularly will also contribute to how people use and experience open spaces in the future. Native flora and fauna species can be planted along the route which will add more greenery to Canberra and further improve the look and feel of particular streets and roads.

Travel and transport

Community members often rely on private motor vehicles and road infrastructure to get to work, to social destinations, and to special events. While active transport is a popular way to get around, it only represents a small proportion of community members who move around the city.

Community members access a diverse range of local commercial, educational, health and/or recreation services within varying distances to their homes. Consequently, people use a range of transport methods to best meet their needs. Active transport and private motor vehicles are the most common modes of transport for reaching local services, reflecting a diversity of transport options, the physical ability of community members, and the distance travelled.

Specifically in relation to the project, the regular use of public transport depends on multiple factors. Some significant ones suggested by multiple community members include the ease of use, regularity of services (including connecting services), distance to and from public transport stations and/or stops and the intended final destination, costs of using public transport as opposed to driving (and potentially paying for parking), and the nature of their travel. More than half of the community members (when 'Strongly agree' and 'Agree' responses are combined) suggested that the light rail will make it easier for them to use public transport for social and recreational purposes.

Community members suggested that the top five benefits of the Project to Canberra will be:

- The delivery of better public transport for the city
- Reduced harmful climate emissions from transport
- Improved access for public events and the national institutions
- Less traffic on the roads to prevent future gridlock experienced in other cities (domestically and globally)
- The activation of parts of the city that are not well utilised.

Project perceptions

Whilst many respondents believe that the Project will provide tangible benefits for Canberra and for them on a personal level both for themselves and future generations, others do not believe that they will benefit from the Project, with many expressing strong opinions on the matter. It is important to note that some respondents' negative perceptions may change over time as they learn more about the Project, specific aspects of it, proposed risk and impact mitigation strategies and/or when they have an opportunity to experience it in-person.

As a result, it will be important for the Project to regularly consult and engage with different groups who may be impacted by and/or benefit from the Project regardless of whether the impacts or benefits are reasonably perceived or experienced. Multiple engagement methods and platforms should be utilised to help ensure that people are aware of the Project and such things as:

- How and why the Project might impact them
- How and why the Project might benefit them
- How people can provide feedback and suggestions
- How feedback and suggestions have been received and used or acted upon by Project developers
- Where and how people can learn more about the Project or particular aspects of it
- Proposed risk mitigation strategies and when they will occur.

5 Social context

5.1 Social area of influence

The social area of influence encompasses the geographical extent of a project's potential impacts on people, including how positive and negative impacts may be reasonably perceived or experienced by different people. The way in which socioeconomic impact assessment defines the social area of influence takes into consideration those who are not within the immediate geography, offering room for those who are connected via a vast array of networks. This is premised upon the idea that socioeconomic impacts may be experienced by people who are not necessarily located close to a project.

Based on the methodology outlined in Section 0, this SEIA has considered the social area of influence as:

- **The 'locality area':** This term is applied to the catchment around the construction site and the operational area. This is identified as the area in which people are most likely to experience both construction and operational socioeconomic impacts from the Project, or a level of direct impact. These people could for example be businesses, developers, workers, residents, or visitors to the area. These people could also be transient, most notably commuters
- **'Suburb':** This term is applied through this SEIA where the spatial extent of socioeconomic impacts on people is generally broader than the proximal area. In this SEIA, 'suburb' refers to a conceptual geography not necessarily aligned to actual suburb boundaries. To provide statistical analysis, the primary areas of interest for the purpose of this assessment and as defined by the ABS (2016) are shown below
- **'Region':** In some instances, the social area of influence is extended to a 'region' to reflect broader potential socioeconomic impacts, compared to 'proximal area' or 'suburb'. This geography is applied where a project is within or proximate to a social area of influence frequented by regional populations, for example a key employment centre, or a locality in which there is regional or national infrastructure or services (i.e., Canberra CBD).

For the purpose of this SEIA, Statistical Areas Level 2 (SA2) and Statistical Areas Level 3 (SA3) from the ABS have been identified as the relevant geographic scale for defining the social area of influence. The ABS defines SA2s and SA3s as:

"Statistical Areas Level 2 (SA2s) are medium-sized general-purpose areas built to represent communities that interact together socially and economically. Most SA2s have a population range of 3,000 to 25,000 people. Statistical Areas Level 3 (SA3s) are designed for the output of regional data and most have populations between 30,000 and 130,000 people."

To provide statistical analysis, the primary areas of interest for the purpose of this assessment and as defined by the ABS (2016) are:

- The locality area: Civic Statistical Area 2 (SA2) (801051053)
- Suburb: North Canberra Statistical Area 3 (SA3) (80105)
- Region: The study uses the ACT as a level of statistical analysis to assist with the assessment of the broader social impacts. It has also been used for comparative purposes.

The social area of influence as defined above for the Project is illustrated in Figure 5-1.

It should also be noted, that when looking at health data, Population Health Areas (PHAs) have been used. These PHAs are based on the Statistical Areas Level 2 (SA2). These have been developed by the Social Health Atlas of Australia (PHIDU) and comprise of individual (larger) SA2s, or aggregations of (smaller) SA2s. For the purpose of this assessment, the relevant PHA is Inner North Canberra – South.

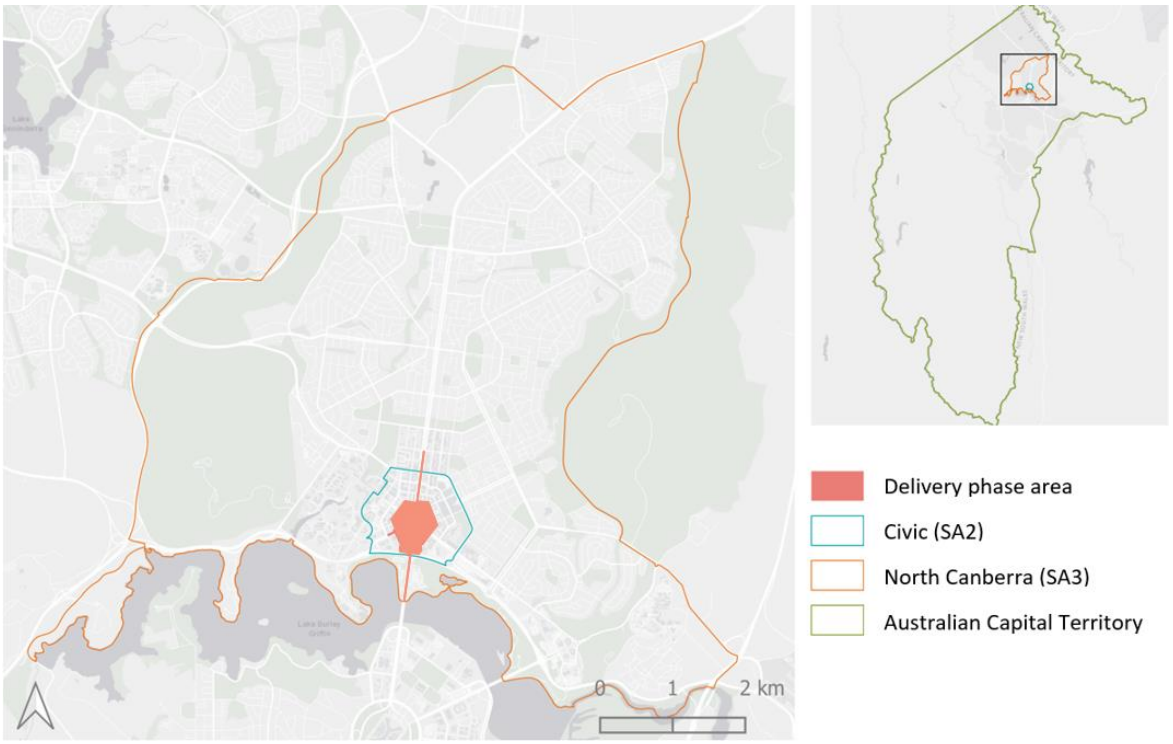

Figure 5-1: Indicative social area of influence

5.2 Social baseline

This section provides a summary of the social baseline for this Project and describes the social context without the Project. Specifically, it:

- Summarises the existing social environment relevant to this Project and defines characteristics of the communities within the Project's social area of influence, including any vulnerable groups
- Considers any built or natural features on or near the Project area that could be affected and also the intangible values that people may associate with these features
- Considers community values and aspirations, based on a review of community strategic plans and outcomes of community engagement
- Outlines other projects that may be occurring within the social area of influence that could have the potential to contribute to impacts in a cumulative sense.

The social baseline provides a point of comparison; it can be used as reference against which to measure the impacts of the Project as it develops, and/or to determine the adequacy or otherwise of existing facilities.

A high-level summary of the community profile is provided in the sections below. A full summary of the community profile is provided in Appendix E and a full summary of the worker profile is included in Appendix F. Community assets are listed in Appendix G.

For the purpose of this SEIA, the baseline has differentiated between the community (resident) population and the worker population.

5.2.1 Resident baseline

Human capital

A summary of human capital is provided in Figure 5-2. The locality has a young resident population, who either study and/or work. The area has relatively high levels of tertiary educational attainment and a low proportion of residents who have a profound or severe disability.

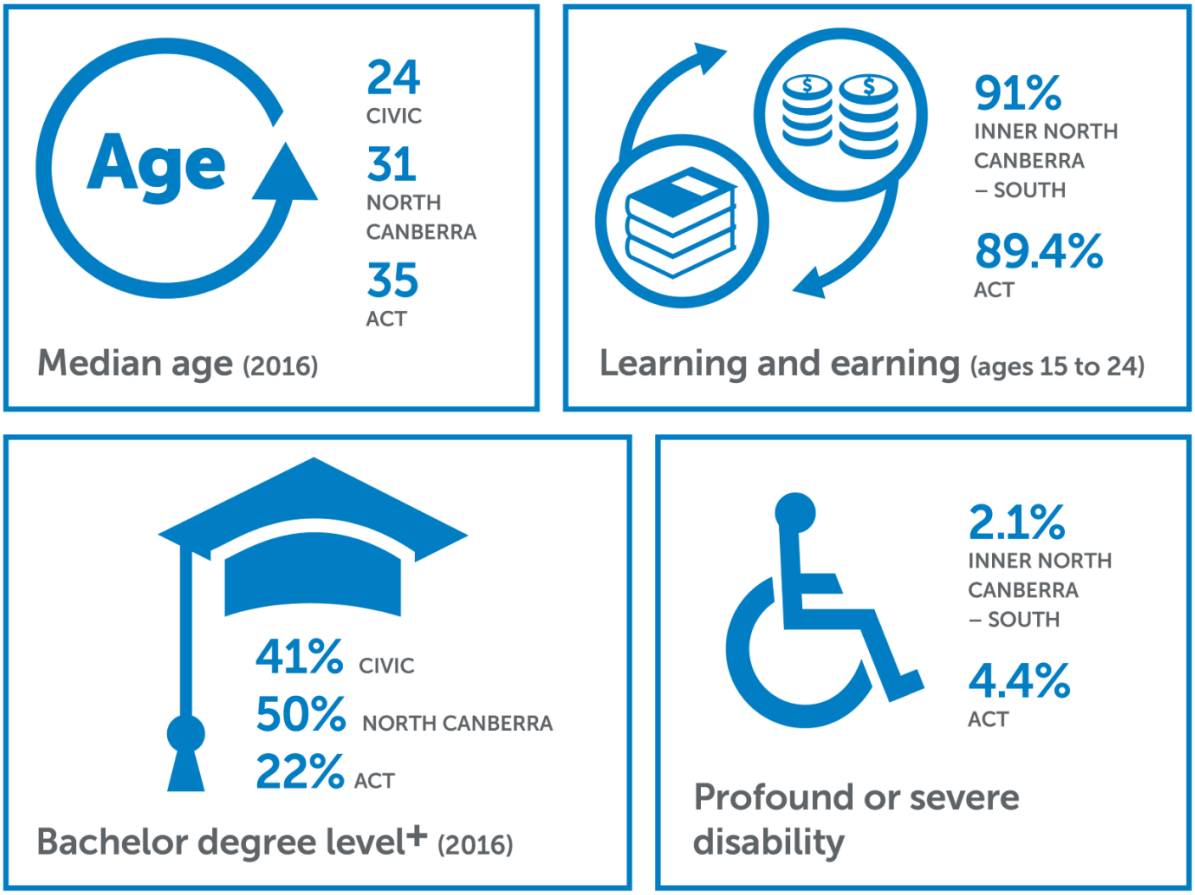

Figure 5-2: Human capital overview

Social capital

A summary of social capital is provided in Figure 5-3 below.

The figure below provides a summary of the key social capital indicators for the study communities relevant to this Project. This data is compared to the ACT region, and North Canberra SA3 as applicable.

Overall, the locality is notably more culturally diverse than the suburb in which it is located and the ACT with a significantly higher proportion of households speaking a language other than English at home. Based on the top languages spoken at home and country of birth, the locality has a large Chinese community. The locality also has low proportions of households with children, reflecting the areas young adult demographic profile.

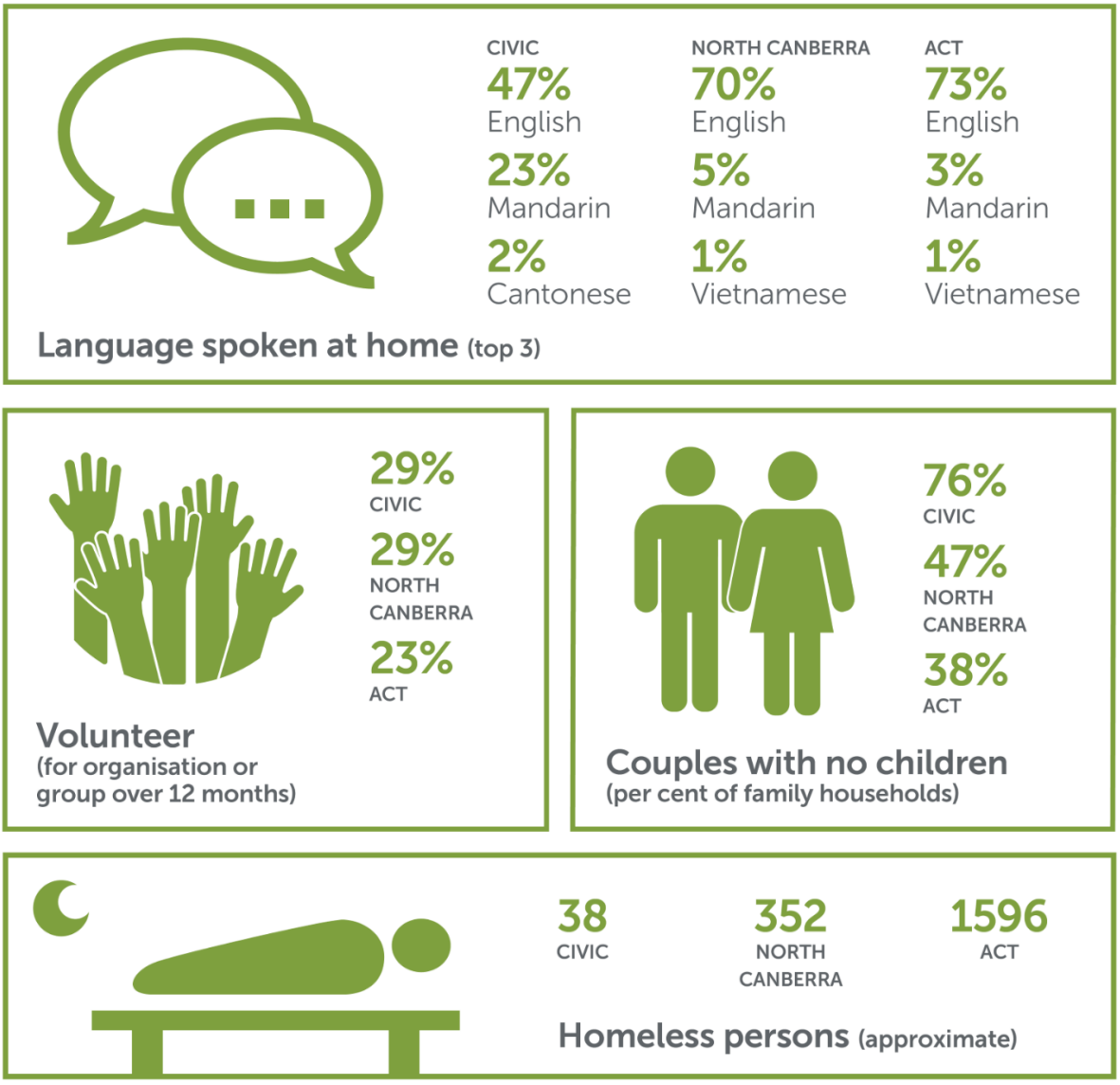

Figure 5-3: Social capital overview

Economic capital

A summary of economic capital is provided in Figure 5-4 below.

Central Government Administration refers to the ABS' job industry code[2].

Overall, the locality has strong economic capital, but it also possesses an economically diverse resident community made up of young workers and students with differing earning capabilities, which is reflected in personal income.

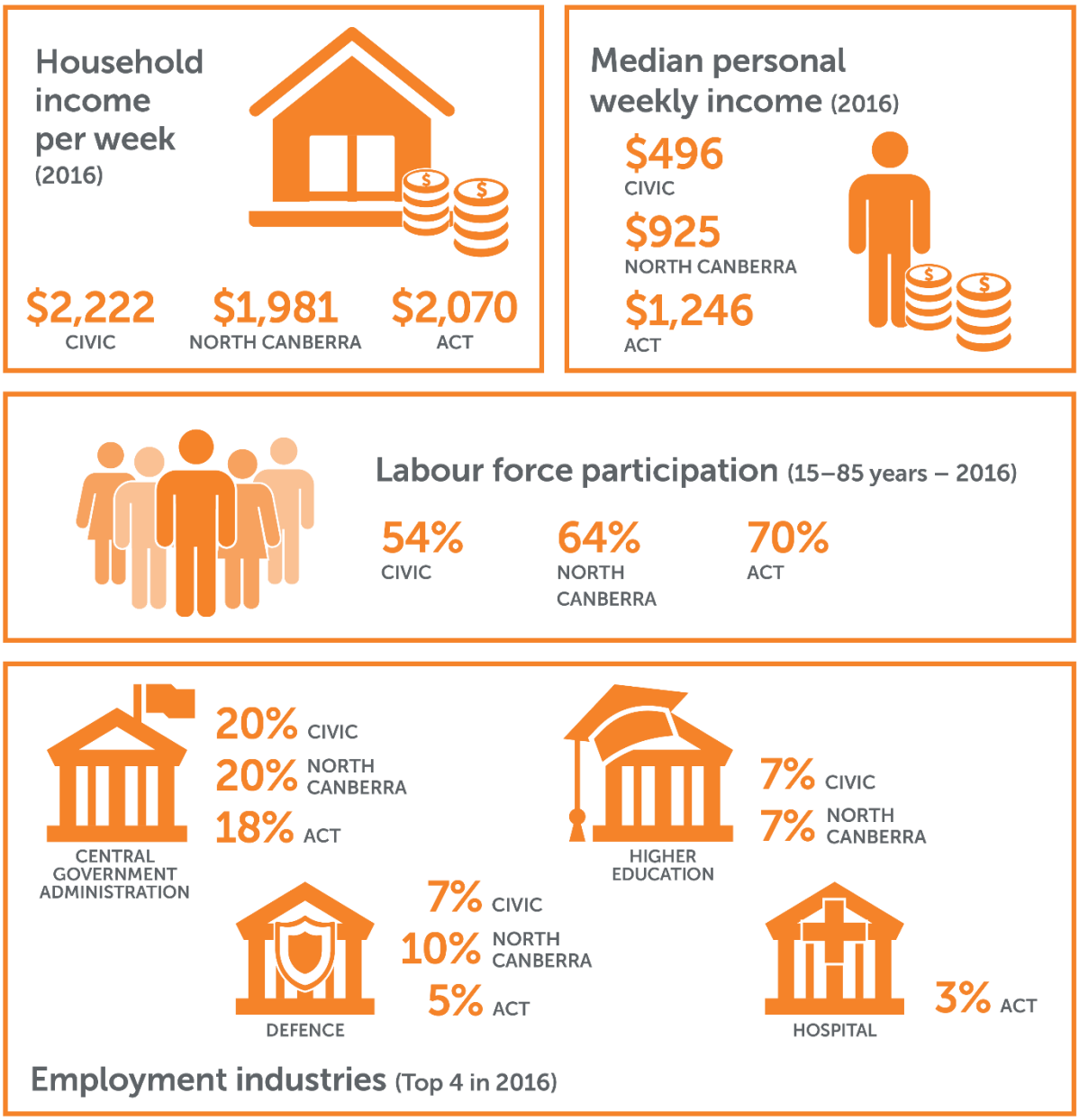

Figure 5-4: Economic capital overview

[2] Definition of Central Government Administration https://www.abs.gov.au/statistics/classifications/australian-and-new-zealand-standard-industrial-classification-anzsic/2006-revision-2-0/detailed-classification/o/75/751/7510

Physical capital

A summary of physical capital is shown in Figure 5-5 below.

Overall, the locality is a high-density community predominantly made up of renters rather than homeowners. Residents tend to live in smaller dwellings. Households tend to be small and have a small number of cars and use public transport for commuting. The locality is well serviced by social infrastructure, being located in close proximity to major regional facilities which serve the whole of the ACT, as well as local facilities and spaces designed for the community. Overall, the locality is well connected to public transport, however, it has limited housing choices.

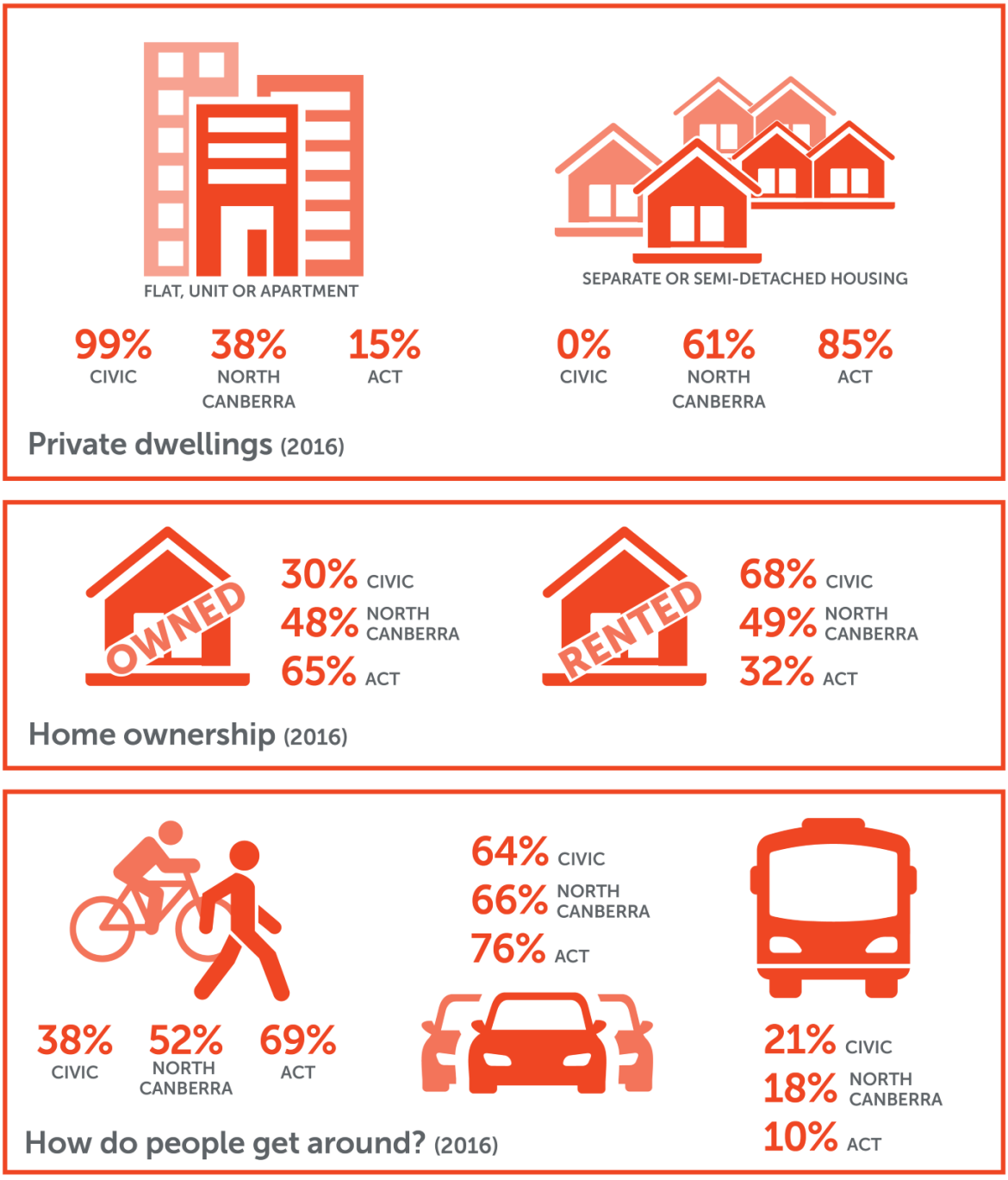

Figure 5-5: Physical capital overview

Natural capital

Natural capital refers to the natural assets and resources that contribute to community strength and sustainability. Natural capital can include resources which provide commercial and practical benefit to the community or other environmental assets that generate tourism or provide other social, cultural, and recreational value, such as waterways or lakes.

The social area of influence, and the ACT more broadly, have strong natural capital. Key examples of strong natural capital around the social area of influence includes:

- Lake Burley Griffin and foreshores
- Black Mountain Nature Reserve
- Molonglo River.

Collectively these spaces provide a range of experiences and opportunities for people. The ACT is well positioned for short trips either south-west to the Kosciuszko National Park or east to the South Coast Region.

A comprehensive list of examples of natural capital around the social area of influence and the ACT is provided in Appendix G.

Cumulative impacts

As per the NSW Department of Planning Industry and Environment (DPIE) Guideline (2021) - Cumulative Impact Assessment Guidelines for State Significant Project – July 2021 (DPIE CIA Guideline), cumulative socioeconomic impacts are defined as successive, incremental, and combined impacts that can arise from project activities (such as dust and noise), or multiple projects needing similar resources.

Table 5-1 reflects other projects (both current and proposed) in proximity to the social area of influence at the time of authoring this SEIA. Impacts from these other projects are considered further in the Environmental Assessment.

Table 5-1: Projects in proximity to the social area of influence

Project name	Description	Timeframe
Commonwealth Avenue Bridge Renewal	This project involves the renewal of the Commonwealth Avenue Bridge to future proof the corridor against Canberra's long-term transport needs while maintaining the Bridge's considerable cultural and heritage value.	The Project is anticipated to commence in late 2023 and be completed in the 2024/2025 financial year.
Acton Waterfront Parkland	This project aims to provide a place along the Acton Waterfront with new open spaces, improved connections with Canberra City, better access to water activities and celebrate the locations historical and national significance.	Construction is anticipated to be completed in 2026.
HTI Group Hotel Development	This proposal involves the demolition of an existing building and construction of a new sixteen storey commercial accommodation building. A Development Application for the site has been approved.	Initial information indicates construction is anticipated to be completed in 2024.
CRA Land Release Block 40, Section 100, City	A new 11-storey office block will be constructed at Block 40, Section 100, City.	Office leases are anticipated to commence in mid-2026, with construction completed prior.
CRA land release Section 63, Block 20, City	The CRA is planning to release land for the construction of a mixed-use development where the northwest cloverleaf currently stands. The development would include residential, commercial and retail spaces.	Unknown
Morris Property Group Section 100, City	The Section 100 mixed-use development is proposed to be constructed between London Circuit and Vernon Circle, to the north of Edinburgh Avenue. The development would include commercial properties, retail spaces and private basement parking spaces.	Unknown

Project name	Description	Timeframe
CRA Land Release Block 38, Section 19, City	Block 38, Section 19, City has been identified by the CRA for sale or future sale.	It is currently identified for release in the financial year of 2024-2025.
Canberra Theatre	The Canberra Civic and Cultural District is undergoing redevelopment. Plans for the Canberra Theatre will progress to detailed design late 2024. The redevelopment of the Theatre would likely increase the capacity of the theatre and the public's experience of the place.	Construction is anticipated to commence in 2026, although site investigation or early works may occur prior.
Canberra Civic and Cultural Precinct	Canberra Civic will be redeveloped to diversify the retail economy, enhance heritage features and liveliness. Upgrades will activate key pedestrian routes . Other opportunities for residential accommodation will also be supported in neighbouring suburbs, and new community facilities will be developed.	Construction is anticipated to commence in 2026, although site investigation or early works may occur prior.
Geocon Development, 70 Allara St	The proposal includes the demolition of existing structures on site and the construction of three mixed use buildings.	Construction is anticipated to be complete in 2024, prior to commencement of the Project.
UNSW City Campus	This proposal is for the development of landmark university campus facility on Constitution Avenue near Parkes Way. Master planning for the site is ongoing, with timeframes for construction at the site unknown.	Post-construction of the Project.

5.2.2 Worker baseline

Civic is a major employment hub for Canberra, representing more than half of all employment opportunities in North Canberra and 15.6 per cent of all employment opportunities within the ACT. The majority of workers in Civic live outside of Civic, reflecting the areas role as an employment hub which people travel to. Regardless of where people live, most workers travel to work via private vehicle, however, public transport utilisation was higher for workers who live closer/within Civic. The worker baseline is summarised in Figure 5-6.

For clarity, professionals are defined as those who perform analytical, conceptual and creative tasks through the application of theoretical knowledge and experience in the fields of the arts, media, business, design, engineering, the physical and life sciences, transport, education, health, information and communication technology, the law, social sciences and social welfare (ABS, 2021).

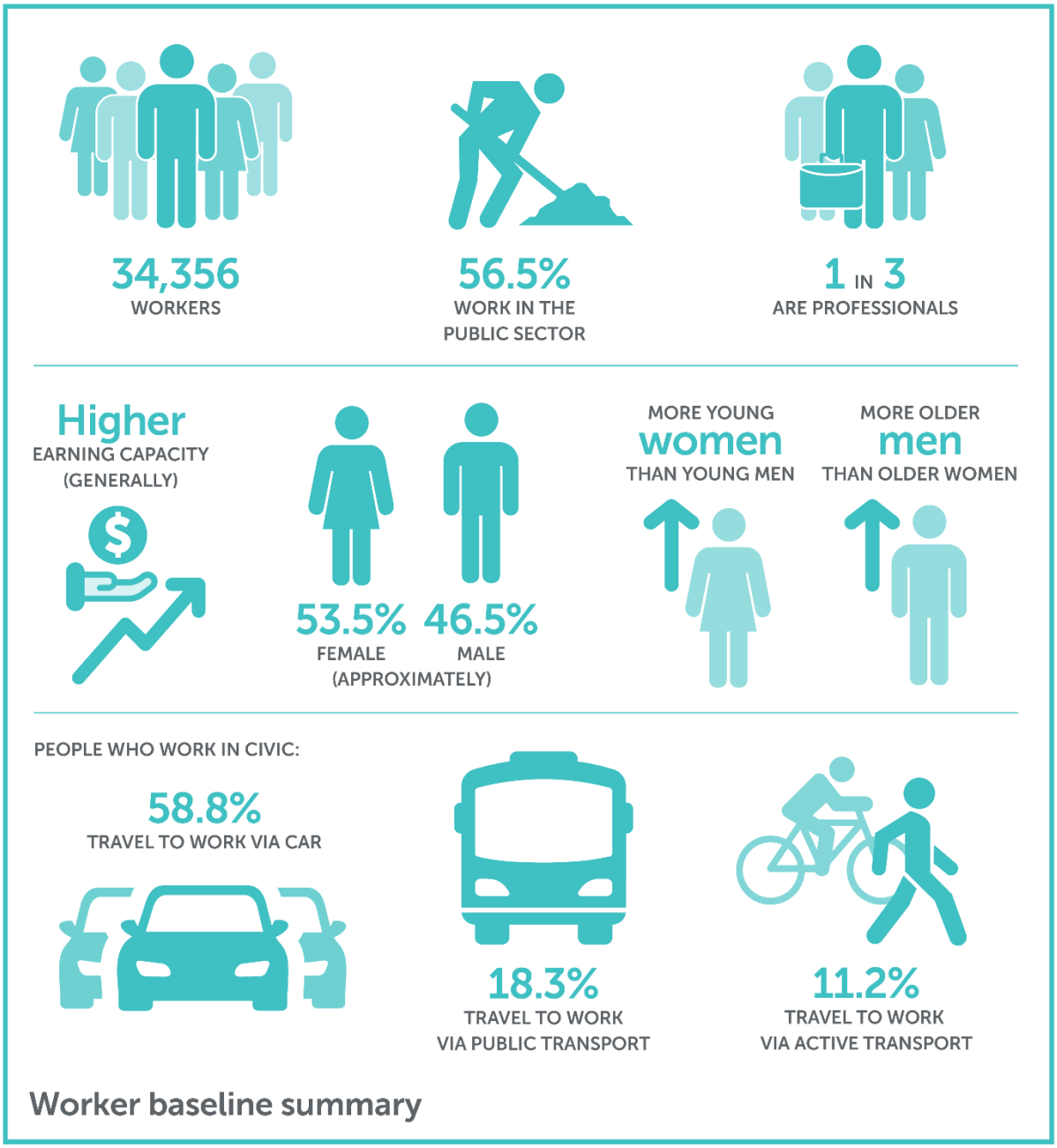

Figure 5-6: Worker baseline summary

6 Socioeconomic impact assessment

6.1 Overview

This chapter provides an overview of the socioeconomic impacts of constructing and operating the Project. Projects can impact people in many ways, both in a positive and negative sense, and impacts can be both actual and perceived.

This chapter highlights the expected and perceived impacts of this Project with and without the application of management measures. Management measures would be applied during construction and operation in accordance with the Project's Environmental Assessment. How socioeconomic impacts would be managed during construction and operation (either mitigated or enhanced, as appropriate) in a socioeconomic context is discussed in this chapter.

6.2 Summary of unmitigated impacts

Assessment of the expected and perceived socioeconomic impacts of the Project, both positive and negative, was informed by:

- Feedback from the community
- Research and analysis of the areas surrounding the Project, including consideration of existing data for comparable projects
- Findings from early engagement from similar recent projects such as Canberra Light Rail Stage 1 and Raising London Circuit, outcomes from various Community Reference Group meetings, as well as issues of importance to the community
- Consultation with technical specialists undertaking various assessments.

Table 6-1 provides a summary of the potential socioeconomic impacts as a result of the Project and identifies where such impacts would fall within each of the social impact categories, including any relationship to the Wellbeing Framework Domains.

The impacts listed in Table 6-1 are grouped by the themes that arose from community engagement as well as extensive research. These themes were:

1. Changes to the road network
2. Access to and use of social infrastructure and services
3. Health and wellbeing
4. Economic contributions, employment and partnerships
5. Visual landscapes and heritage
6. Intergenerational equity
7. Cumulative impacts.

These identified impacts are often relevant to more than one social impact category, which is unsurprising given that socioeconomic impacts are not mutually exclusive and are often highly interrelated. For this Project, the social impact categories include way of life, environment, health and wellbeing, community, personal and property rights, and political systems.

Table 6-1: Summary of unmitigated impacts

Impact theme	ID	Impact to people (unmitigated)	Project stage	Extent	Impact category	Framework domain	Impact nature
Changes to the road network	SO-1	Temporary impact to road users on existing road network during construction due to increased traffic congestion and temporary traffic changes	Construction	Road users	Way of life	Access and connectivity	Negative
	SO-2	Helping to prevent future traffic congestion, improving how people move around the city	Operation				Positive
Access to and use of social infrastructure and services	SO-3	Decline in accessibility to business and services due to temporary loss of parking during construction and changes to pedestrian and motorist access	Construction	Businesses, customers, pedestrians, cyclists, and vulnerable customers including elderly, disabled and those with mobility constraints	Way of life Environment	Access and connectivity Social connections	Negative
	SO-4	Delays and changes to accessibility for users of public transport	Construction	Commuters (public transport), customers, and vulnerable commuters including elderly, disabled and those with mobility constraints	Way of life	Access and connectivity	Negative
	SO-5	Increased access to jobs, businesses, education, services and social facilities by providing more convenient and reliable transport options	Operation	Regional including: Businesses, customers, students, broader community, and vulnerable commuters including elderly, disabled and those will mobility constraints	Health and wellbeing Way of life Accessibility Livelihoods	Access and connectivity Economy	Positive
Health and wellbeing	SO-6	Decline in health and wellbeing as a result of construction activities, particularly on those with a disability or chronic illness	Construction	Locality including both workers and residents	Health and wellbeing	Safety	Negative

Impact theme	ID	Impact to people (unmitigated)	Project stage	Extent	Impact category	Framework domain	Impact nature
	SO-7	Decrease in pedestrian/cyclist and commuter safety around construction activity due to interaction between construction vehicles and others when accessing/egressing construction sites, as well as due to aspects such as temporary diversions (e.g. surface quality of alternative detours)	Construction	Customers, pedestrians, cyclists	Health and wellbeing	Safety	Negative
	SO-8	Enhanced commuter safety	Operation	Customers	Health and wellbeing	Safety	Positive
Economic contributions, employment and partnerships	SO-9	Employment and training opportunities	Construction	Regional	Way of life Personal and property rights	Economy Access and connectivity	Positive
	SO-10	Lack of trust in decision making, including the perceived lack of positive benefit / need	Construction	Regional	Political systems	Governance and institutions	Negative
			Operation				
Visual landscape and heritage	SO-11	Improvements to the aesthetic value of the area by creating attractive and active public spaces that are reflecting the existing or desired future scale and character of local areas	Construction	Locality including workers, residents and visitors to the area	Personal and property rights	Economy Identity and belonging	Negative
			Operation				Positive
Intergenerational equity	SO-12	Improved intergenerational equity as a result of sustainable development, including vulnerable and marginalised communities	Operation	Regional including future generations, vulnerable and marginalised communities	Environment	Environment and climate	Positive
Cumulative impacts	SO-13	Construction and consultation fatigue caused by the cumulative impact of ongoing development and construction in the locality, including those detailed in Table 5-1.	Construction	Locality including community, pedestrians, cyclist, communities, road users, local businesses and workers	Way of life Community	Access and connectivity	Negative

6.3 Assessment of impacts

This section further discusses and assesses the unmitigated socioeconomic impacts (i.e., where no management measures have been applied) outlined in Table 6-1, by aspect. Management measures and the effect that these measures have on the identified socioeconomic impacts are then described. The anticipated residual impact is then stated.

Changes to the road network

SO-1 - Temporary impact to users on existing road network due to increased traffic congestion during construction

Wellbeing Framework Domain: Access and connectivity				
Project stage	**Unmitigated risk**	**Residual risk**	**Impacted users**	**Impact nature**
Construction	High (B4) (likely to occur and of major consequence)	Medium (C3) (will possibly occur and of moderate consequence)	Road users	Negative

Socioeconomic impact

Construction of the Project would result in temporary and staged impacts to the existing road network in the local area. A number of traffic changes would be implemented including temporary road closures (e.g., at major intersections such as Northbourne Avenue and London Circuit), traffic detours, a reduction of speed limits, as well as changes to signage.

It is also likely that impacts such as traffic congestion would be experienced as a result of increased construction traffic including the presence of large construction vehicles (e.g., street sweepers, truck and dogs, bogies, flatbed trucks, etc.) and light vehicles (e.g., personal cars and small trucks).

Noting that respondents could select multiple options within the survey, disruptions to traffic during construction and impacts to travel times around the city were the two biggest concerns raised by community members who responded to the survey (traffic disruption during construction (n=392, 28 per cent) and (longer) travel times around the city during construction (n=341, 24 per cent)).

Respondents expressed concern that the Project would further decrease the ability to move freely within the Canberra CBD, impacting on their commute to work and services such as education. It is likely that the Project would impact road users' ability to access the general area and potentially lead to an increase in travel times.

The Traffic and Transport Impact Assessment acknowledges that the Project is anticipated to have potential impacts on the road network. The construction of the Project would generate around 50 heavy vehicles and 100 light vehicles per day, and it is likely that there is potential for increased travel times across key routes in the AM and PM peak hours, with these increases modelled between one to five minutes.

Mitigation and enhancement measures

The Traffic and Transport Impact Assessment recommends a number of management measures to mitigate these impacts. This includes the development of a Construction Transport Management Plan (CTMP) to minimise impacts on the city generally, with specific regard to bus movements, bus priority measures, peak hour traffic and key pedestrian movements and activity areas.

The ACT Government has also formed a multi-agency Disruption Taskforce to manage impacts during the construction of the Canberra light rail. The Disruption Taskforce will oversee the delivery of a comprehensive disruption management strategy and will work closely with the local community, business and government representatives to develop and implement effective mitigation and management measures. The ACT Government is currently scoping physical traffic interventions and route diversions which can help keep traffic moving during the construction period.

The Project would also require a robust Community Engagement Strategy that supports and educates the community including residents, local services, and businesses of all changes to traffic. The Community Engagement Strategy would identify communication methods that are complementary to more traditional measures such as signage (including variable message signs), that typically help road users to get to their

destinations efficiently. This Community Engagement Strategy should also make reference to the ACT Governments “Rethink your route. Rethink your routine[3].’ This initiative is a behaviour change campaign to encourage greater uptake of public transport and active travel to help relieve road congestion during construction.

Given that ongoing disruption and changes are expected due to construction activity, impacts on businesses should be closely monitored and mitigation measures adapted as necessary in response to specific concerns relating to traffic, including detour routes, access changes and delays.

Residual risk rating

On the basis of the adoption of recommended mitigation strategies in the Traffic and Transport Impact Assessment and the communication and education initiatives proposed in the Community Engagement Strategy, the mitigated socioeconomic impact has been ranked as a medium negative (likely to occur and of moderate consequence).

SO-2 - Helping to prevent future traffic congestion, improving how people move around the city

Wellbeing Framework Domain: Access and connectivity				
Project stage	**Unmitigated risk**	**Residual risk**	**Impacted users**	**Impact nature**
Operation	Medium (B2) (likely to occur and of minor consequence)	High (B3) (likely to occur and of moderate consequence)	Road users	Positive

Socioeconomic impact

Chapter 1.0 of the EA states that the Canberra light rail network is better connecting Canberra to meet the growing city's transport needs now, and in the decades to come. Canberra light rail currently operates from Gungahlin Place to Alinga Street, transporting between 4,000 to 13,000 passengers/day and over 10 million passengers since 2019.

The Project is needed as part of a coordinated and holistic delivery of a series of major projects in Canberra City and surrounds, to realise the strategic planning and development for Canberra City presented in the Territory Plan 2008 (EPSDD, 2008), the National Capital Plan (NCP) (NCA, 1990) and the ACT Transport Strategy (TCCS, 2020). In accordance with these plans, the Project would:

- Provide additional sustainable transport options
- Future proof the transport network to accommodate growth
- Support affordable transportation.

By facilitating more sustainable transport choices, improving the convenience of connectivity, and supporting affordable transportation for all, the operation of the Project would likely increase use of public transport due to the convenience of the network. This would contribute significantly towards a broader goal of preventing traffic congestion and improving how people move around the city.

Respondents to the survey noted that the ability to use the light rail to attend special events in the CBD or at Lake Burley Griffin (n=220, 23 per cent) or to avoid the need of having to worry about parking their car while in the city (n=159, 17 per cent) were the two most popular ways in which respondents considered how they might use the light rail. Other ways in which respondents qualitatively suggested they might use the Project were to access other public transport connections and/or facilities and venues or use it in the future once further extensions have been designed and constructed.

The Project, as part of a holistic delivery of a series of major projects in Canberra, will likely change how people move around the city for the better, providing people with greater public transport choice and convenience in now and in the future.

Mitigation and enhancement measures

The impacts of more people using public transport on the road network would be enhanced by the development of a strategy (within the broader Community Engagement Strategy) to promote the Project and educate

[3] https://www.act.gov.au/lightrailtowoden/traffic-disruptions/disruption-task-force

customers on accessing and using the new public transport infrastructure. The objective of the strategy would include enhancing understanding of the Project and its benefits, maximising customer use, alleviating travel related stress, and supporting the realisation of wider economic benefits through its use.

Residual risk rating

On the basis of the adoption of recommended strategy, the mitigated socioeconomic impact has been ranked as a high positive (likely to occur and of moderate consequence).

Access to and use of social infrastructure and services

SO-3 - Decline in accessibility to business and services due to temporary loss of parking during construction and changes to pedestrian and motorist access

Wellbeing Framework Domain: Access and connectivity and Social connections				
Project stage	**Unmitigated risk**	**Residual risk**	**Impacted users**	**Impact nature**
Construction	High (B4) (likely to occur and of major consequence)	High (B3) (likely to occur and of moderate consequence)	Vulnerable customers including elderly, disabled and those with mobility constraints	Negative
	Medium (C3) (possible to occur and of moderate consequence)	Medium (C2) (possible to occur and of minor consequence)	Businesses, customers, pedestrians, cyclists	

Socioeconomic impact

The locality is positioned within the service and business hub of Canberra, with many Government departments, legal services, education facilities, community and wellbeing services clustered in a small area. Disruptions to parking and changes to pedestrian and motorist access may impact people's ability to access these businesses, facilities and services.

Community engagement activities found that access to services is highly valued by community members and concerns were raised by a number of respondents to the online survey regarding the loss of access to important social infrastructure. Around two thirds of respondents (n=388) believed that the construction would create temporary road and footpath changes potentially disrupting how they would access local businesses and services during construction. Around half of the respondents (n=284) believed that temporary changes to parking during construction would also impact how they access businesses and services.

The Traffic and Transport Impact Assessment acknowledges that the Project is anticipated to have some potential impacts on parking, however the impact to pedestrian and cyclist movements and travel times are expected to be minimal.

Parking and access impacts include changes to kerbside and off-street parking availability, as well as local area and property access. It is estimated that around 700 off-street parking spaces would be temporarily removed for the purposes of the construction site compounds during construction. Most of the off-street parking loss due to construction compounds would occur in car parks that will be used as part of the Raising London Circuit project. Therefore, most of the off-street car parking impacts would be a continuation of the impacts associated with the Raising London Circuit project.

On-street parking and kerbside uses would be unavailable during respective block closures, within that specific area. While it is anticipated that all property access would be maintained, unless in agreement with the property owner, alternative routes may be required during road closures.

The loss of parking during construction (significant) and changes to access (although minimal) would potentially represent a temporary disruption to people's daily routines. This would essentially mean that people would need to continue to adjust to the changing construction environment. These impacts could have a negative flow on effect to businesses, with construction impacts continuing to affect how people access local business. These impacts will potentially be experienced more greatly by those people who may be elderly, disabled or generally less mobile – who may avoid travel to the CBD.

Mitigation and enhancement measures

The Traffic and Transport Impact Assessment recommends a number of management measures to mitigate these impacts including

- Safe routes for pedestrians and cyclists would be maintained throughout the construction works with minimal diversion from the desire line. During block closures pedestrian paths would be allowed for to maintain connectivity. A more direct east-west active travel connection between Edinburgh Avenue and Constitution Avenue would also be investigated
- In consultation with relevant stakeholders, appropriate vehicular access would be maintained to the Reserve Bank of Australia, Canberra City Police Station and 1 London Circuit at all times during construction
- Any affected accessible parking spaces are planned to be replaced in a nearby location to maintain at least the existing accessible parking supply within the study area. There would be no net loss of accessible parking throughout the Project's construction period
- A public awareness campaign of possible disruption to the transport network, and alternatives for travel and to increase understanding of new arrangements and interactions between cars, bicycles and pedestrians with light rail
- Clear and safe pedestrian and cyclist signage and wayfinding mechanisms would be in place prior to works commencing that would change access and movement arrangements through the Project delivery phase area.

The Traffic and Transport Impact Assessment also recommends that consideration be given to providing shuttle services to transport site workers. If shuttle buses are not provided as part of the Project, parking restrictions around work zones would be considered to reduce the impact on public parking facilities by site workers.

In addition, and as previously mentioned, the Disruption Taskforce will oversee the delivery of a comprehensive disruption management strategy and will work closely with the local community, business and government representatives to develop and implement effective mitigations. This should include targeted consultation with all vulnerable stakeholder groups including the elderly, disabled or generally less mobile to understand their access requirements and general behaviour.

Residual risk rating

It is likely that the social impacts will be felt to varying degrees among different people. In terms of access, with the adoption of the recommended mitigation measures, the mitigated socioeconomic impact has been ranked as medium (possible to occur and of minor consequence) for cyclists and pedestrians.

The loss of both long-term parking and kerbside parking will likely change some people's routines, which will be felt to a greater degree by those less mobile. The mitigated socioeconomic impact has been ranked as a high negative for those more vulnerable community members including elderly, disabled or generally less mobile (likely to occur and of moderate consequence) and medium negative (possible to occur of minor consequence) for those less vulnerable stakeholders wishing to access businesses and services.

SO-4 – Delays and changes to accessibility for users of public transport

Wellbeing Framework Domain: Access and connectivity				
Project stage	**Unmitigated risk**	**Residual risk**	**Impacted users**	**Impact nature**
Construction	Medium (C3) (possible to occur and of moderate consequence)	Medium (C2) (possible to occur and of minor consequence)	Commuters (public transport), customers	Negative
	High (C4) (possible to occur and of major consequence)	Medium (C3) (possible to occur and of moderate consequence)	Vulnerable commuters including elderly, disabled and those with mobility constraints	

Socioeconomic impact

Disruptions to public transport resulting from the construction of the Project could reduce the community's ability to access other areas and potentially increase traffic-related stress by increasing travel times.

Public transport users accessing social and community services, specifically support and legal services within the locality are most vulnerable to these disruptions. Respondents to the online survey expressed concern that the construction of the Project would impact their commute to work and educational services.

The Project would have a temporary impact on existing public transport routes in the area during construction. Inbound and outbound busses currently use roads and intersections within the Project area that would be impacted by construction work. Construction work at the following intersections would affect existing bus routes with detours and closures implemented at different stages through construction:

- Northbourne Avenue and Alinga Street intersection
- London Circuit between East Row and Northbourne Avenue
- Commonwealth Avenue and London Circuit intersection.

The bus stops located on Alinga Street between East Row and West Row would also need to be temporarily relocated to another location within the City Interchange.

The Traffic and Transport Impact Assessment acknowledges that the Project is anticipated to have potential impacts on public transport. Changes to the bus network could impact bus routes travelling in and out of the City Interchange and travel times are likely to increase due to increased congestion, road network changes and detours. However, bus travel time increases would be limited to around one to four minutes. In terms of those more vulnerable users that may have mobility constraints including the elderly or those with a disability, they will more likely avoid making trips that have increased travel times or prove to be challenging for them to access.

The Project would also require short-term interruptions to the existing light rail to integrate with the existing network, however these interruptions are likely to occur outside of existing light rail hours to minimise impacts.

Mitigation and enhancement measures

The Traffic and Transport Impact Assessment recommends the provision of bus priority measures to reduce the impact of construction activities on bus routes during AM and PM peak hour. To mitigate public transport impacts and impacts associated with bus priority measures, the assessment recommends a Travel Demand Management Strategy that aims to reduce private vehicle trip generation be implemented alongside bus priority measures.

Any modifications to the existing bus routes should include the provision of clear directional signage to temporary stops, to be developed in consultation with the relevant stakeholders.

In terms of light rail integration, it is anticipated that these works would occur outside the existing light rail hours of operation or during one of the planned operational shut down and maintenance periods to avoid additional service shut-down periods.

In addition, changes to transport routes should be widely advertised across ACT Government media sources and direct communication undertaken with residents and local businesses. This would assist in reducing confusion and stress associated with changes to local bus systems.

Given that ongoing disruption and changes are expected due to construction activity, impacts on businesses should be closely monitored and mitigation measures adapted as necessary in response to specific concerns relating to public transport and impacts. The Community Engagement Strategy would also include a complaint handling process to facilitate community feedback on potential construction impacts are followed up and measures reviewed and amended if required. For example, engagement may need to be adapted in response to specific concerns relating to an individual circumstance.

Similar to S-03, it is also imperative that the Disruption Taskforce works closely with key stakeholder groups, including those more vulnerable in the delivery of a comprehensive disruption management strategy.

Residual risk rating

Considering the impacts to public transport for residents and commuters within the locality, the mitigated socioeconomic impact has been ranked as a medium negative (possible to occur and of minor consequence).

For those more vulnerable community members including elderly, disabled or generally less mobile, the mitigated socioeconomic impact has been ranked as a medium negative (possible to occur and of moderate consequence).

SO-5 - Increased access to jobs, businesses, education, services and social facilities by providing more convenient and reliable transport options

Wellbeing Framework Domain: Access and connectivity and Economy				
Project stage	**Unmitigated risk**	**Residual risk**	**Impacted users**	**Impact nature**
Operation	High (B3) (likely to occur and of moderate consequence)	High (B4) (likely to occur and of major consequence)	Regional, including businesses, customers, students, broader community, vulnerable commuters including elderly, disabled and those will mobility constraints	Positive

Socioeconomic impact

The ACT Transport Strategy 2020 (the Strategy) (ACT Government, 2020) outlines the Government's vision for transport planning and investment over the next 20 years. The Strategy aims to provide Canberrans with more attractive transport options whilst maintaining the best of the current system. Complementary to the transport objectives, the ACT Government acknowledges the need for a transport system which supports all members of the community. This means thinking beyond the needs of the traditional 9 to 5 commuter group by providing safe, accessible and regular services. The Strategy highlights the importance of the light rail for the future public transport system in Canberra, including reducing emissions and increasing public transport patronage.

The Project will provide an opportunity to link buses, park and ride facilities, cycling networks and pedestrian paths to the activity centres that feed the light rail network. For example, it will provide cyclists with the option to combine light rail travel with their daily commute and provide pedestrians with greater access to community areas through upgrades to public areas including new footpaths.

Given the nature of the project, this impact will be felt by people differently, pending their intended use, their existing baseline in terms of commute or access to public transport, along with their geographic location. At a regional level, access to improved public transport options is likely to provide benefits for community cohesion and improve equity, particularly for groups that currently experience transport or mobility difficulties such as the elderly, youth, people experiencing disability, non-drivers or people without access to a private vehicle. Travel facilitates social interactions and economic transactions across Canberra – it can bring important community connections closer together (such as families and friends).

Each light rail vehicle has the capacity for up to four bikes to travel safely inside and stops are located on pedestrian lines to provide access to major attractions. Bike racks will also be included at all light rail stops and future park and ride facilities will also provide for bike racks to encourage active transport to and from light rail stops.

The Project also facilitates active transport through the provision of upgrades to public areas and streetscapes, including tree planting and landscaping, the integration of the station with future developments and enhanced pedestrian environments with active transport links. Complementary works around light rail precincts will provide pedestrians greater access to community areas via new footpaths. Stops are located on pedestrian desire lines to provide access to major attractions such as the lakefront and provide public transport at future development sites.

As noted previously, more vulnerable users such as the elderly, disabled and those generally less mobile, are more likely to avoid making trips that have unacceptable travel times or access. The Project would improve access by providing more convenient, accessible and reliable transport options for people in Canberra. The Project has been designed in accordance with relevant accessibility guidelines and standards (including *1992AS/NZS 1428: Design for Access and Mobility and Disability Stands for Access to Public Transport* (2002)), which outlined provisions for good access for people with disabilities, the elderly and passengers with prams or luggage. Specifically, the vehicles have been designed for ease-of-access for people with varying degrees of ability. Each light rail vehicle is filled with twelve priority seats, two dedicated spaces for wheelchairs, low floors (no steps throughout), double doors and dedicated areas for bicycles. Customers of all abilities will be well serviced through elements such as hearing induction loops, auditory announcements, digital information displays,

accessible ramps, near level boarding to light rail vehicles and tactile elements. All of which will serve to increase the benefits of the Project by designing an easy to use and accessible public transport system.

During engagement respondents suggested multiple ways in which the benefits of the Project could be enhanced, including ensuring accessibility for many different types of people such as the elderly and young people, people pushing prams or pulling shopping carts, people with bikes and people with kids. Respondents also noted the importance of consulting and engaging with elderly and disabled citizens to better understand their needs as a key part of the design process. As noted above, the design principles include compliance with relevant disability standards, increasing the customer's ability to reach their destination unhindered and as independently as possible. This includes enhanced pedestrian environments around stations as well as pedestrian and cycle links. The design also considers accessibility and includes elements design to create an easy customer experience for all users. This would occur for example, through the provision of lifts, access ramps, and improvements in pedestrian access.

Mitigation and enhancement measures

Accessibility benefits would be enhanced by the development of a strategy (within the broader Community Engagement Strategy) to promote the Project and educate customers on accessing and using the new public transport infrastructure. The objective of the strategy would include to enhance understanding of light rail and its benefits, maximise customer use, alleviate travel related stress, and support the realisation of wider economic benefits through its use.

Based on the outcomes of the Traffic and Transport Impact Assessment, it is highly likely the Project would support active transport through the delivery of infrastructure which promotes safety. Connectivity improvements associated with the Project are also likely to contribute to the city-wide active transport network, further strengthening connections within the city and between the city and other key destinations. This is likely to benefit residents in the locality as well as commuters who use active transport methods to get to work.

The ongoing monitoring of active transport and community behaviour would also allow adaptive management of social impacts during operations of the Project to response to any limitations.

Residual risk rating

It is likely that the Project will provide a more convenient and reliable transport option for people to move around the Canberra CBD primarily between City and Commonwealth Park, improving access to jobs, universities, services and social facilities. It is acknowledged that full potential of improvements to access will not be realised until the Canberra Light Rail City to Commonwealth Park is completed in its entirety. The mitigated socioeconomic impact has been ranked as a high positive (likely to occur and of major consequence).

Health and wellbeing

SO-6 - Decline in health and wellbeing as a result of construction activities, particularly on those with a disability or chronic illness

Wellbeing Framework Domain: Safety				
Project stage	**Unmitigated risk**	**Residual risk**	**Impacted users**	**Impact nature**
Construction	High (B3) (likely to occur and of moderate consequence)	Medium (B2) (likely to occur and of minor consequence)	Locality including both workers and residents	Negative

Socioeconomic impact

Through reviewing the outcomes of engagement, it was clear that there was a perception that the health and wellbeing of the community could be impacted by congestion and traffic delays that could affect day-to-day commutes, causing an increase in anxiety or stress, as well as impacts from construction noise and dust. Health and wellbeing is considered to be a long term, sustained impact within the context of this SEIA and impacts have been considered within these timeframes. This means that impacts have been considered over the duration of construction, and not necessarily as one-off, isolated incidents.

The construction of any development can generate a range of amenity impacts such as increased noise and dust emissions which can negatively impact on community health and wellbeing. These impacts can be compounded when communities experience ongoing construction with minimal relief, or prolonged periods of high intensity works.

The Noise and Vibration Impact Assessment classifies the existing noise environment of the site and surrounds as ‘urban’ with existing road traffic and urban ‘hum’ dominate throughout the area surrounding the Project. Unmitigated, the modelling identified that receivers near to construction activities would experience elevated noise levels due to a range of construction related activities including mobilisation and establishment of construction compounds, construction of the track and of stops. Depending on the activity, between eight and 25 receivers during works in standard construction hours and between 0 and 10 receivers during works outside of standard construction hours across the project area may experience noise levels above the noise management levels.

The Noise and Vibration Impact Assessment also notes that it is possible that noisy construction activities for the Project may occur at the same time in close proximity to each other, increasing noise levels, and that noise from use of the construction compound sites may also contribute to construction noise at receivers.

In terms of construction dust and impacts on air quality, the Air Quality Impact Assessment found the potential unmitigated risks for the overall Project range from low. This is primarily due to the existing baseline environment and the moderate sensitivity of commercial receptors, which form the dominant surrounding land use. Dust and other pollutants can tend to be a perceived issue, especially in the context of health and wellbeing. It is therefore expected that the issue of air quality could cause the local community, especially those who are walking or cycling past the construction compounds, a degree of anxiety or concern.

Mitigation and enhancement measures

Air quality

Air quality will be managed in multiple ways, primarily by planning site layouts so that dust generating activities are located as far away from sensitive receivers as possible, and by planning daily activities in accordance with the anticipated weather conditions. Dust would also be visually monitored to ensure that levels are kept low, and a suite of on-site and targeted mitigation measures would be implemented in accordance with the Construction Environment Management Plan (e.g., use of street sweepers, controlling exposed stockpiles, restricting vehicles to stabilised areas, etc.). Direct greenhouse gas emissions would be manged by prioritising mains power over diesel or petrol generators and keeping vehicles and construction equipment operating on site turned off when not operating.

In addition to these mitigation measures, this SEIA recommends that relevant processes and procedures related to air quality which would be articulated in the Project’s Construction Environment Management Plan and would also be included in communication materials where appropriate, including developing a fact sheet. Contact

details for the community to ask questions in relation to air quality should also be provided on communication materials. This will assist in addressing community fears and perceptions and will demonstrate the successful management of air quality by the Project.

Assuming the implementation of the proposed mitigation measures to reduce negative health and wellbeing impacts, the mitigated socioeconomic impact for air quality (perceived and actual impact) has been ranked as a low negative (unlikely to occur and of minor consequence).

Noise and vibration

The Noise and Vibration Impact Assessment proposes a number of management and mitigation measures, including:

- Implementing controls on construction equipment and activities in accordance with Australian standards and manufacturer specifications
- Orientating noisy equipment as far as possible from receivers, and implemented a 'no-idling' policy by shutting down construction equipment and vehicles when not in use after three minutes
- Providing residents with contact name and number for noise complaints and/or questions and developing procedures for maintaining contact and responding to all noise complaints within 24 hours
- Undertaking condition surveys on buildings and structures prior to commencement of demolition and heavy earthworks activities
- Ensuring that construction activities only occur 7:00am - 6:00pm Monday to Friday and 7:00am - 1:00pm Saturdays with no work on Sunday and Public holidays, unless otherwise approved
- Ensuring that construction work proposed to take place outside of proposed construction hours would require individual assessment and approval on a case-by-case basis
- Developing a Construction Noise and Vibration Management Plan which documents management and mitigation measures.

Residual risk rating

The residual impact after the proposed management and mitigation measures are applied shows that while in most cases noise impacts can be mitigated to comply with relevant acoustic standards, there is still a high residual risk of construction noise impacts affecting nearby sensitive receivers during a worst-case scenario.

The SEIA also recommends that further investigation be undertaken around respite periods from construction work and noise to further minimise impacts on sensitive receivers during the worst-case scenario. It is also noted that potential construction noise problems be further identified in the detailed design phase of the Project so that appropriate mitigation measures can be specified proactively, prior to the start of construction. Good community engagement and communication are also essential in mitigating noise impacts, along with effective monitoring and complaint response mechanisms during construction.

The mitigated socioeconomic impact for noise has been ranked as a medium negative (likely to occur and of minor consequence). It is possible that there could be a high impact should appropriate mitigation measures not be applied, and the medium rating acknowledges that the high residual risk remains during a worst-case scenario only, which if occurs, would be for a reasonably short time.

SO-7 - Decrease in pedestrian/cyclist and community safety around construction activities

Wellbeing Framework Domain: Safety				
Project stage	**Unmitigated risk**	**Residual risk**	**Impacted users**	**Impact nature**
Construction	Medium (D3) (unlikely to occur and of moderate consequence)	Low (D2) (unlikely to occur and of minor consequence)	Customers, pedestrians, cyclists	Negative

Socioeconomic impact

Pedestrian and commuter safety during construction is a key consideration, particularly given that, prior to COVID-19, almost 40 per cent of the locality use active transport such as walking or cycling to get to work.

The National Road Safety Strategy for 2021-30 (Office of Road Safety, 2021) acknowledges that pedestrians and cyclists are among the most vulnerable road users, as they have little or no protection in the event of a collision. Certain groups of pedestrians are particularly vulnerable, such as the elderly or infirm, the young and those who are impaired (e.g., by alcohol or drugs).

The Traffic and Transport Impact Assessment considers impacts on active transport. Footpaths are provided on both sides of most roads within the delivery phase area, including Northbourne Avenue, London Circuit, Vernon Circle and Commonwealth Avenue. Bicycle parking facilities located throughout the City Centre are short-stay, appropriate to the destination of users.

Cycling infrastructure within the delivery phase area is generally limited to on-road cyclists lanes. In addition, cyclists are legally permitted to ride on footpaths in the ACT, though footpaths are generally not of sufficient width to accommodate cyclists and pedestrians comfortably, particularly when travelling in opposing directions.

Construction impacts such as noise, reduced lines of sight, increased vehicle movements, dust, poor wayfinding, and the introduction of temporary uneven surfaces (e.g., using hot/cold mix to create temporary footpaths) could increase safety risks to these vulnerable road users and impact on the way they access both the built and natural environment in proximity to the Project.

Mitigation and enhancement measures

The Traffic and Transport Impact Assessment notes that safe routes for pedestrians and cyclists would be maintained throughout the construction works with minimal diversion from the desire line. During block closures pedestrian paths would be allowed for to maintain connectivity. Therefore, this Project's construction is anticipated to have minimal impact to pedestrian and cyclist movements and travel times.

In addition, clear signage and communication regarding pedestrian and cycle routes would reduce confusion around active transport network changes. This could include the use of innovative and accessible engagement materials, temporary signage and/or wayfinding lines. Finally, ensuring that Principles of Crime Prevention through Environmental Design (CPTED) are strongly adhered to during temporary works, will assist greatly in managing any impacts.

Residual risk rating

Given the limited duration of the impact and assuming that adequate construction transport management measures are applied to mitigate the impacts effectively and that the community is well educated in terms of the changes well in advance, the mitigated socioeconomic impact has been ranked as a low negative (unlikely to occur but of minor consequence).

SO-8 – Enhanced commuter safety

Wellbeing Framework Domain: Safety				
Project stage	**Unmitigated risk**	**Residual risk**	**Impacted users**	**Impact nature**
Operation	Medium (A2) (will almost certainly occur and of minor consequence)	High (A3) (will almost certainly occur and of moderate consequence)	Customers	Positive

Socioeconomic impact

Access and connectivity is outlined in the ACT Wellbeing Framework as a core component of quality of life for Canberrans. While the Project will contribute to the physical public transport network and create environments which allow for safe interactions between road user types, the concept of access needs to expand into the realm of personal safety. In the context of this SEIA, personal safety refers harm prevention associated with harassment and assault which can occur in public transport spaces.

If public transport routes and waiting areas are not safe spaces, or are not perceived as safe spaces, safety becomes a barrier to access. In most cities around the world, this barrier to access is experienced by women,

young and older people, First Nations people, culturally and/or linguistically diverse groups, gender diverse people and the wider LGBTIQ+ community (collectively recognised as a vulnerable user group)[4]. While education programs and by-stander intervention approaches have a role to play in transit safety, transit safety needs to be explicitly planned for in urban development.

Public spaces, including public transport spaces, are traditionally not designed with the experiences of the groups listed above in mind. As a result, the public realm does not serve them equitably as members of these groups may consider changing their behaviours to avoid a real or perceived risk of harm, particularly at night. Gender Sensitive Urban Design (GSUD) is an emerging discipline that contemplates the experiences of people more vulnerable to gendered violence in public space and seeks to identify how planning of these spaces can mitigate both unsafe conditions, such as opportunities for entrapment and inappropriate or poor lighting, as well as design spaces with qualitative factors which make a space feel comfortable and safe to be in. If a space feels unsafe, people are less likely to feel comfortable using that space. If a person has experienced or observed assault or harassment in a space, they will likely no longer feel safe there.

Considering the high proportion of women who work in Civic (66.5 per cent) and the proximity of The Australian National University (ANU), which has a high proportion of young and culturally diverse groups, it is important that the Project responds to the social locality and broader understandings of transit safety domestically and internationally. Consequently, the Project must create safer public transport spaces. Mitigating opportunities for crime and harm during the design stage of the Project, including station design and approach, is both responsible and socially just. While good design alone will not eliminate public transport crime, it will facilitate the creation of safer public transport spaces.

Considering the profile of workers in Civic in 2016, specifically the higher proportion of younger female workers, the Project needs to design safe public transport spaces which supports these more vulnerable workers in Civic as well as the general public.

Mitigation and enhancement measures

As reflected in Table 4-2 of the Environmental Assessment, Crime Prevention by Environment Design (CPTED) principles form a key basis of the Project's urban design, and the Project has undertaken a process of mainstreaming GSUD principles in the urban design. Considerations for key design elements such as quality wayfinding, consideration for pedestrian movements and sight-lines, as well as night-time lighting at light rail stops and within the public realm, for example, have been incorporated into the design process. Consideration has also been given to creating high quality light rail stop environments and a public realm which promotes a safe, comfortable experience for all users. The Project must ensure these initiatives are not impacted as the design progresses.

The Project would also deliver better access to services, education and employment which is also evidenced by long term benefits that include direct linkages to reduced crime and improved social outcomes. However, it is recognised that environmental design cannot definitively eliminate opportunities for harm or prevent a determined perpetrator from committing crimes and that CPTED and GSUD strategies should work in conjunction with other crime and harm prevention and social intervention strategies, as well as security and safety operations. It is noted that the adoption of GSUD strategies is considered to be an above and beyond a project's business as usual approach in the ACT.

To support the safety and security of customers, CCTV cameras on board light rail vehicles and at stops will be installed to monitor activity which can be viewed by the driver (on-board a light rail vehicle) and Operations Control Centre (OCC). Emergency help points are also installed at all stops and on light rail vehicles which connect the user to the driver and then to OCC if the driver does not respond within a certain period (on-board a light rail vehicle) and to OCC at stops.

Residual risk rating

Assuming mitigation and enhancement measures will be implemented, this impact has been assessed as a high positive (will almost certainly occur and of moderate consequence).

[4] Gender Sensitive Urban Design Urban Design Guidelines & Implementation Toolkit: Literature Review Rev B, ACT Government, Accessed 24/11/2022; https://hdp-au-prod-app-act-yoursay-files.s3.ap-southeast-2.amazonaws.com/7816/4522/8651/GSUD_Literature_Review_Report_B1.pdf

Economic contributions, employment and partnerships

SO-9 - Employment and training opportunities

Wellbeing Framework Domain: Economy and Access and connectivity				
Project stage	**Unmitigated risk**	**Residual risk**	**Impacted users**	**Impact nature**
Construction	Medium (C2) (possibly will occur and of minor magnitude)	High (B3) (likely to occur and of moderate magnitude)	Regional	Positive

Socioeconomic impact

It is likely that the Project would provide new employment and training opportunities for workers, contractors and developers during construction. It is anticipated that these economic benefits would most likely be at a regional scale as residents within the locality are more likely to be primarily engaged in professional services rather than the construction industry.

Construction operations specifically make a significant economic contribution to local communities through:

- Employment (direct impact)
- Business expenditure (direct impact)
- Employee household expenditure (indirect impact).

Canberra Light Rail Stage 1 generated approximately 4,750 direct construction related jobs during the peak construction period. If the Project has a similar methodology to Canberra Light Rail Stage 1, it could be anticipated that the Project could provide significant increases to local job opportunities for the Canberra Region. Additional indirect jobs would also be created through the supply chain and employee's expenditure on goods and services occurs largely within their local communities.

The ACT Government has a highly responsive approach to workforce development and industry participation opportunities, including a specific plan for Aboriginal and Torres Strait Islander participation and procurement. These policies and plans drive stimulus for workforce opportunities including for vulnerable and underrepresented populations.

While the ACT's unemployment rate is lower than the national average (3.1 per cent in ACT compared to 3.5 per cent nationally, as of September 2022), generating additional local employment opportunities would help to contribute to post-COVID-19 economic recovery. This would positively contribute to regional economic activity as well as positive social outcomes associated with greater employment opportunities.

The positive opportunities associated with the Project were raised only by a small number of stakeholders during engagement. In this regard, it was suggested that economic activity associated with the Project should have maximum benefit for locals, with as much employment and commercial opportunity as possible retained within Canberra

Mitigation and enhancement measures

Economic benefits should be enhanced by the preparation of a Labour Relations, Training and Workplace Equity Plan by the Contractor, required under the Secure Local Jobs Code (2020). This plan details business strategies and processes to provide opportunities for people in the Canberra region. This will ensure the Project utilises trade and materials from within Canberra, and more broadly, the ACT, and would ensure Project spend is captured in the region.

The Project is also establishing targets for workplace diversity, workforce skills, local business and knowledge economy. The Labour Relations, Training and Workplace Equity Plan, details how contractors will support employment participation and address barriers to employment or career development of Aboriginal and Torres Strait Islander people, women, people with disability and people from a culturally and linguistically diverse background.

Residual risk rating

Assuming the implementation of the proposed enhancement measures, the enhanced socioeconomic impact has been ranked as a high positive (likely to occur and of moderate magnitude).

SO-10 - Lack of trust in decision making, including the perceived lack of positive benefit / need

Wellbeing Framework Domain: Governance and institutions				
Project stage	**Unmitigated risk**	**Residual risk**	**Impacted users**	**Impact nature**
Construction and operation	Medium (B3) (likely to occur and of a moderate consequence)	Medium (C2) (will possibly occur and of a minor consequence)	Regional	Negative

Socioeconomic impact

A theme that emerged from engagement activities undertaken for this SEIA was the perception that the Project was not worth the financial investment. Some members of the community commented that the Project budget would be better spent on other infrastructure in Canberra, such as schools or hospitals. Other members of the community did not think the Project was needed at all.

Alinga Street light rail stop is currently the closest available light rail stop to the Project. A review of the Alinga Street light rail stop patronage shows a decline in the use of light rail since the COVID-19 pandemic, with the highest average PM peak time boardings reducing by almost 50 per cent between February 2020 (455 average PM peak boardings) and July 2022 (252 average PM peak boardings). It can be reasonably assumed that many of the trips taken to and from the Alinga Street light rail stop before COVID-19 could have been associated with 'novelty trips' given that the light rail was operational for less than a year at February 2020.

Additionally, this is not surprising given the broader findings of the ABS 2021 census that showed one in seven Australians (14 per cent) reported using public transport in March 2021, compared with nearly one in four (23 per cent) who reported regular use before COVID-19 restrictions began in March 2020. The data also showed that after the COVID-19 pandemic, three in five people (61 per cent) expect their public transport use will remain the same, while 13 per cent expect their use to increase and 7 per cent expect it will decrease. (ABS, 2021).

It would be unreasonable to justify spend on public transport by focusing solely on demand based on the previous two years, where Canberra experienced the impacts of an unprecedented pandemic. In Australia, the travel patterns being exhibited suggest that public transport customers have become both more adaptable and less predictable, probably as a result of the greater flexibility as to where and when they work, which has been supported by the breaking of managerial resistance to working from home (Beck and Hensher, 2021).

Research undertaken by KPMG explores how COVID-19 has impacted how people travel, and what will be needed from transport organisations in response to ensure a sustainable network for both providers and passengers in the future. Specifically, the research explores what will be needed from transport organisations in response to ensure a sustainable network for both providers and passengers in the future. It notes that although services across Australia have been reinstated, capacity across public transport operations has been variable due to changing social distancing regulations and the perceived health risk of shared travel. It concludes that there is now a greater need to ensure service capacity and frequency is more responsive to real time demand to avoid underutilisation or overcrowding.

The ACT Transport Recovery Plan (2021) acknowledges that Canberra is growing rapidly, and the Project will give people more transport options, help reduce traffic congestion and support Canberra's transition to a zero emissions future.

Mitigation and enhancement measures

Historically, incidences of mistrust are evident in similar development projects where local communities may feel disempowered by major projects. It is important that an active program of engagement is implemented that has the objective of bridging the gap between the perception of the Project and the Project's purpose and benefits. The Community Engagement Strategy for the Project should be authored with this point in mind and should include opportunities for the public to be included in decision-making and design development where possible (i.e., negotiable aspects).

Research undertaken by KPMG notes that health risks, among other key factors, will continue to remain a concern for travellers across public transport network, influencing demand for modes which present the greatest health risk such as shared transport. To help alleviate or manage the response of people to this concern, it is recommended that more evidence is gathered to further understand how health risks are impacting modal choice of commuters within Canberra, and the incentives which may influence commuter behaviour to incorporate into

future transport planning. This evidence may help to influence future key messaging or outward facing campaigns to encourage commuters to use public transport safely, following the COVID-19 pandemic.

The KPMG report also recommends investigating options to make better use of behavioural economics and digital information to encourage transport users and operators to respond to real-time capacity information, optimising transport network outcomes.

Residual risk rating

Whilst the perceived inequity and lack of trust in decision making and engagement processes is assessed as a negative socioeconomic impact, there is a significant opportunity to mitigate this impact through education of the Project need and justification. This would ultimately lessen the residual impact to a medium negative (will possibly occur and of a minor consequence).

Visual landscapes and heritage

SO-11 - Improvements to the aesthetic value of the area by creating attractive and active public spaces that reflect the existing or desired future scale and character of local areas

Wellbeing Framework Domain: Economy and Identify and belonging				
Project stage	**Unmitigated risk**	**Residual risk**	**Impacted users**	**Impact nature**
Construction	Medium (C2) (will possibly occur and of minor consequence)	Low (D2) (unlikely to occur and of minor consequence)	Locality including workers, residents and visitors to the area	Negative
Operation	Medium (C3) (will possibly occur and of moderate consequence)	High (B3) (likely to occur and of moderate consequence)		Positive

Socioeconomic impact

Changes to the visual landscape were raised by a small number of respondents during engagement in terms of the removal of existing landscaping and also ensuring that the design is sympathetic with the vistas towards Parliament House in the south and City Hill in the north. The inclusion of greenery that was native and easily maintained were also raised during engagement.

Construction

During construction, the Project is likely to temporarily change the aesthetic value of the existing surroundings. This is due to the visual intrusion on the landscape including associated plant, equipment and ancillary facilities, removal of existing street furniture and vegetation, as well as the installation of temporary environmental treatments such as un-landscaped batters, silt socks, and sandbags.

These impacts will be typically felt by people close to the construction activity, for example, around Northbourne and Commonwealth Avenue, London Circuit and within City Hill Park.

The Landscape and Visual Impact Assessment found that during construction, changes to views from surrounding areas due to the Project are considered acceptable due to the temporary nature of the changes and the anticipated ongoing development of the surrounding area as described by strategic planning documents. However, regardless of the temporary nature of impacts, the changes to the visual character of the area, will still lead to some changes to how people experience their surroundings.

Operation

The Landscape and Visual Impact Assessment found that overall, during operation, the Project is considered to have a positive influence on visual amenity and that ‘the proposed street trees, creating continuous avenues, and ‘tidying up’ of the ground plane (paving and road surfaces), signage and other structures seen within the road corridors are considered beneficial outcomes to views from surrounding areas’.

There were only six viewpoints where the Project affected the quality of the views. Of these, five were beneficial changes to the view and one was an adverse change. The one adverse rating was where a shade structure for a light rail stop would be seen against a backdrop of City Hill. The beneficial aspects of the changes were typically related to the ‘tidying up’ of built elements within the views and the planting of continuous street trees, which would visually strengthen the views along the road corridors. In the areas near heritage buildings such as Sydney and Melbourne Building, The ANZ Building and the Law Courts Precinct, the landscaping design has responded to minimise any changes to the landscape character.

Mitigation and enhancement measures

Construction

Given the nature of construction activities, it is inevitable that there will be temporary changes to the visual landscape, which will impact on how people experience their surroundings. The Project could mitigate these impacts through temporary placemaking activation. For example, during construction, from a SEIA perspective, given the extensive number of cultural and creative facilities within the locality, there is an opportunity for the Project to investigate opportunities to improve the community’s sense of place and connection. The Project could

engage local artists for example, in the designing of construction hoarding or developing temporary art to assist with mitigating some of the temporary visual impacts. Engaging local artists would generate positive economic outcomes while contributing to the local character of the area.

Due to the relationship between heritage and visual impacts, there is also an opportunity to recognise the heritage values of the area through heritage interpretation devices that showcase the heritage fabric and values of the area. This could be included as interpretation on hoarding, or at specific display locations along the permanent alignment, and should be undertaken in consultation with the community as part of the Project's Community Engagement Strategy.

Operation

In terms of the adverse impact on the backdrop of City Hill, the Landscape and Visual Impact Assessment noted that this impact is likely to reduce as street trees within the median mature and reduce the visual prominence of the structure within the view. Mitigation measures will include the planting of mature trees and landscaping. While landscaping is typically left to the end of a project, any opportunities for progressive landscaping that incorporates natural landform and design principles should be explored. This would reduce the amount of time required for planted landscapes to grow and flourish prior to operation. The advanced ordering of median trees would ensure quality and consistency of size to be ready for implementation, in accordance with the Tree Procurement Strategy.

Achieving the placemaking objectives and design principles for the Project, including ensuring that the built elements of the project will contribute to creating good public spaces and a high-quality experience for all users should have a positive impact on creating an active public space that is supportive of the future transformation of the area.

These longer-term operational benefits would strongly align with community values. Open spaces and green places were considered one of the strongest community assets during engagement activities. Once landscaping and planted trees have matured, landscaping benefits will contribute strongly to the local character and amenity of the local area.

Residual risk rating

During construction, with the adoption of measures to mitigate the visual aesthetics of construction hoarding for example, the socioeconomic impact has been ranked as a low negative (unlikely to occur and of minor consequence).

Assuming the implementation of the proposed mitigation measures, the socioeconomic impact has been ranked as a high positive (likely to occur and of moderate consequence) during operation.

Intergenerational equity

SO-12 - Improved intergenerational equity as a result of sustainable development, including vulnerable and marginalised communities

Wellbeing Framework Domain: Governance and institutions				
Project stage	**Unmitigated risk**	**Residual risk**	**Impacted users**	**Impact nature**
Operation	High (B3) (likely to occur and of moderate consequence)	High (B4) (likely to occur and of major consequence)	Regional including future generations, vulnerable and marginalised communities	Positive

Socioeconomic impact

An equally important aspect of this Project relates to intergenerational equity and the notion each generation has the right to inherit the same diversity in natural, cultural, health, and economic resources enjoyed by previous generations and to equitable access to the use and benefits of these resources.

The Zero-Emission Transition Plan for Transport Canberra outlines the pathway to achieve the ACT Government's ambition of a zero-emission public transport system by 2040. It notes that public transport is one of the most efficient means of moving people over distances. The focus of the Zero-Emission Transition Plan for Transport Canberra is to increase the use of public transport for a greater variety of trips, by improving our service reliability, accessibility, simplicity, and overall attractiveness.

As stated in Chapter 4.0 of the EA, the operation of the Project is anticipated to have a low CO_2 equivalent intensity as it would rely on the ACT's 100 per cent renewable energy. The activities that would use the majority of the operational energy would be lighting, signalling, bore pumping and battery charging of light rail vehicles. Maintenance of the Project including sweeping of rails once per month and replacement of on-board lithium-ion batteries every ten years would also have a negligible impact on emissions generated by the Project.

In terms of sustainability, Stage One of Light Rail achieved an Infrastructure Sustainability Council (ISC), formerly the Infrastructure Sustainability Council of Australia, Rating of 88 which places the project at the Leading level of sustainability – the highest ISCA rating category that can be achieved. Stage One was the 7th infrastructure project in Australia to be rated at a Leading level by ISC at the time. The longer-term benefits of this Project for generations to come are likely to be a net positive effect on greenhouse gas emissions by utilising the ACT's renewable energy to power the light rail vehicles whilst also removing a portion of privately owned combustion fuelled cars from the road network.

Mitigation and enhancement measures

Chapter 4 of the Environmental Assessment discusses the Greenhouse gas emissions resulting from the Project and identifies mitigation measures including:

- To the greatest extent practicable, procurement activities associated with the Project would prioritise the use of trade and materials from within the local region
- The development and implementation of a Carbon and Energy Management Plan as part of the Operational Environment Management Plan
- Keeping abreast of any new technologies that may be implemented during the operational phase would further enhance greater sustainability outcomes and the Project benefit.

From a social perspective, one of the greatest transitions people can make is to make the switch from privately owned combustion fuelled cars, to public transport.

Residual risk rating

Assuming the implementation of the proposed mitigation measures, the socioeconomic impact has been ranked as a high positive (likely to occur and of major consequence).

Cumulative impacts

SO-13 - Construction and consultation fatigue caused by the cumulative impact of ongoing development and construction in the locality, including Raising London Circuit and Canberra Light Rail

Wellbeing Framework Domain: Governance and institutions				
Project stage	**Unmitigated risk**	**Residual risk**	**Impacted users**	**Impact nature**
Construction	Medium (C2) (will possibly occur and of minor consequence)	Low (D2) (unlikely to occur and of minor consequence)	Locality including community, pedestrians, cyclists, road users, businesses and customers	Negative

Socioeconomic impact

In this SEIA, cumulative impacts refer to the combined effect of impacts from several activities on a particular value or receiver. Cumulative impacts typically take three forms:

- Spatial impacts; occurring over the same area, such as trucks from multiple operations which may produce a cumulative noise impact along a common haulage route
- Temporal; vary over time, such as the construction of multiple large projects over the same timeframe
- Linked impact; involve more complex interactions – one impact may trigger another.

As per Table 5-1 there are a number of other projects (both current and proposed) in proximity to the social area of influence at the time of authoring this SEIA. Personal wellbeing of residents and the community is likely to be impacted by cumulative impacts. Impacts which impede on everyday life such as construction traffic, decline in accessibility and reduced amenity can generate frustration and stress. During engagement, the two biggest expected disruptions highlighted by respondents were that the light rail extension from City to Commonwealth Park is expected to result in traffic disruption during construction (n=392, 28 per cent) and (longer) travel times around the city during construction (n=341, 24 per cent). Noise during construction (n=178, 13 per cent), dust and air pollution during construction (n=117, 12 per cent), changes to how people access local businesses during construction (n=162, 11 per cent) and changes to how people access local services during construction (n=149, 11 per cent) all featured in 10 per cent or more of the total responses received.

Although the cumulative impacts described in Chapter 19.0 of the Environmental Assessment are not anticipated to be significant, there is still a risk that residents and community members may become frustrated with continuous and extended construction works regardless of the significance of cumulative impacts – particularly given the feedback from the survey and areas of concern relating to disruptions. Similarly, there is notable risk that community members and residents would experience consultation and construction fatigue associated with numerous construction activities.

Mitigation and enhancement measures

As part of the Project, various construction management plans will be developed including the Construction Noise and Vibration Management Plan, the Construction Environment Management Plan and the Construction Transport Management Plan. These plans document several management and mitigations measures that will assist with the management and mitigation of cumulative impacts.

Important to the management and mitigation of cumulative impacts will be the collaboration and coordination with other key stakeholders including other developers, government, community groups and service providers. This collaboration and coordination should be integrated into the construction management plans. Of particular significance will be the potential cumulative impacts on the existing road network and it is acknowledged that the Disruption Taskforce is already committed to overseeing the delivery of a comprehensive disruption management strategy and will work closely with the local community, business and government representatives to develop and implement effective mitigations. This should include targeted consultation with all vulnerable stakeholder groups including the elderly, disabled or generally less mobile.

Consultation fatigue could be mitigated by continued proactive and responsive community engagement and opportunities to create positive community outcomes. Good community engagement and communication are

essential in mitigating cumulative impacts, along with effective monitoring and complaint response mechanisms during construction.

Residual risk rating

Assuming the implementation of the proposed mitigation measures, the socioeconomic impact has been ranked as a low negative (unlikely to occur and of minor consequence).

6.4 Summary of management measures

The management of other predicted environmental impacts that interrelate with socioeconomic impacts (such as noise and vibration, traffic, etc.) will contribute to the management of socioeconomic impacts. Measures identified in the Environmental Assessment of relevance to the management of socioeconomic impacts include those raised in:

- Noise and vibration Impact Assessment
- Traffic and Transport Impact Assessment
- Landscape and Visual Impact Assessment
- Heritage Impact Assessment
- Biodiversity and Ecology Impact Assessment
- Contamination Impact Assessment
- Greenhouse Gas and Climate Change Assessment
- Cumulative Impact Assessment.

A comprehensive, master list of all management measures are provided in the Environmental Assessment. This list is considered to be final, regardless of any discrepancies with other technical papers.

Table 6-2 reflects the management measures recommended by this SEIA to either mitigate or enhance the socioeconomic impacts of the Project. For ease of reference, each management measure in the table has been assigned to the socioeconomic impact theme as identified earlier in this chapter.

Table 6-2: Recommended socioeconomic management measures

Mitigation no.	Recommended socioeconomic management measure	Impact to people by theme	Project stage
SEIA-1	A robust and supportive Community Engagement Strategy must be prepared to facilitate communication between the Proponent, and the community (including relevant government authorities, adjoining affected landowners and businesses), and others directly impacted by the Project. This engagement strategy should consider all phases of the project, from detailed design to operation and include objectives such as: • Informing the community of the Project need and benefits – increasing project awareness and understanding • Assisting the community to identify how to get to their destinations efficiently during construction • Educating the community on how the Project will be accessed by pedestrian and cyclists once complete • Involving the community (particularly vulnerable groups) through focus groups and other opportunities in Project aspects that have a direct impact on people. The Community Engagement Strategy must include a list of all known stakeholders (including the community), with consideration given to any vulnerable or sensitive receivers.	All	Construction
	The Community Engagement Strategy must include a summary of known negotiable and non-negotiable issues. This summary must be compiled through stakeholder participation in accordance with the IAP2 Spectrum. The community must also be informed of the non-negotiable issues identified. Of the known negotiable issues, the affected community should be involved in key decision-making opportunities, as well as any opportunities to assist in design development.		
	The Community Engagement Strategy must be reviewed at least every 6 months in consultation with the Proponent and the Contractor to ensure adequacy and relevancy.		
SEIA-2	A Business Impact Action Plan be developed as part of the Community Engagement Strategy that ensures: • Construction activities undertaken in proximity to businesses would maintain visibility of business frontage, associated signage, and access points, where possible. Temporary signage could be provided in the vicinity of a business if construction works obstruct views to the business • Access to properties including businesses would be maintained throughout the Project. Temporary measures such as traffic control and wayfinding would need to be implemented to enable this to occur • During construction, wayfinding signage be implemented to assist customers in identifying parking opportunities to help them get to their destinations efficiently • A customer education campaign enacted in the lead up to operation to inform the community of the permanent changes to parking and access.	• Access to and use of social infrastructure and services • Economic opportunity • Changes to the road network • Project perceptions and cumulative impacts.	Construction

Mitigation no.	Recommended socioeconomic management measure	Impact to people by theme	Project stage
SEIA-3	A grievance process for the community to raise comments, questions and complaints should be established prior to construction commencing. The grievance process must be made publicly available and must include a feedback process through which the complainant is provided with information relating to how their concern has been assessed, considered, and addressed.	• Changes to the road network • Access to and use of social infrastructure and services • Active and public transport • Health and wellbeing • Cumulative impacts.	Construction
SEIA-4	The Project will investigate opportunities to augment the community's sense of place and connection through elements associated with temporary placemaking activation through public art.	Visual landscape and heritage	Construction
	The Project will investigate opportunities to engage local artists in designing: • Construction hoarding • Temporary and permanent wayfinding signage.	Visual landscape and heritage	Construction
SEIA-5	The Project will be required to complete a Labour Relations, Training and Workplace Equity Plan, which details how contractors will support employment participation and address barriers to employment or career development of Aboriginal and Torres Strait Islander people, women, people with disability and people from a culturally and linguistically diverse background.	Economic contributions, employment and partnerships	Construction
SEIA-6	The Disruption Taskforce is already committed to overseeing the delivery of a comprehensive disruption management strategy and will work closely with the local community, business and government representatives to develop and implement effective mitigations. This should include targeted consultation with all vulnerable stakeholder groups including the elderly, disabled or generally less mobile.	Access to and use of social infrastructure and services	Construction
SEIA-7	Further investigation around respite periods from construction work and noise to further minimise impacts on sensitive receivers during the worst-case scenario is highly recommended.	Health and wellbeing	Construction
SEIA-8	Clear signage and communication regarding pedestrian and cycle routes would reduce confusion around active transport network changes. This could include the use of innovative and accessible engagement materials, temporary signage and/or wayfinding lines.	Health and wellbeing	Construction
SEIA-9	Important to the management and mitigation of cumulative impacts will be the collaboration and coordination with other key stakeholders including other developers, government, community groups and service providers.	Cumulative impacts	Construction
SEIA-10	Any modifications to the existing bus routes should include the provision of clear directional signage to temporary stops, to be developed in consultation with the relevant stakeholders.	Access to and use of social infrastructure and services	Construction

Mitigation no.	Recommended socioeconomic management measure	Impact to people by theme	Project stage
SEIA-11	Ensuring that Principles of Crime Prevention through Environmental Design (CPTED) are strongly adhered to during temporary works, will assist greatly in managing any impacts.	Health and wellbeing	Construction Operation
SEIA-12	The following communications channels and support will be available to manage community enquiries and complaints: • A 24-hour toll-free telephone number for the registration of complaints and enquiries about the Project (when Project works are occurring) • A postal address to which written complaints and enquires may be sent • An email address to which electronic complaints and enquiries may be transmitted • A mechanism for community members to make enquiries in common community languages of the area.	All	Construction
SEIA-13	It is recommended that a mechanism by which to monitor social impacts should be developed prior to construction of the Project. This mechanism(s) could consider aspects such as: • Performance outcomes • Key actions and responsible parties • Indicators and desired performance outcomes • Timeframes. The collation of this information would provide the basis for assessing whether the mitigation and enhancement measures specified in this SEIA have been successful. This process ensures mismanagement can be identified and rectified during the Project lifecycle.	All	Construction Operation

6.5 Summary of mitigated impacts

Table 6-3 provides a summary of the predicted socioeconomic impacts in relation to the Project. It considers the outcomes of the assessment including enhancement, relevant socioeconomic mitigation measures, and residual impacts at a holistic level.

Table 6-3: Socioeconomic impact summary

Impact theme	ID	Impact category	Extent	Project stage	Socioeconomic mitigation measures	Residual impact significance rating
Changes to the road network	SO-1	Way of life	Road users	Construction	SEIA-1 SEIA-6 SEIA-12 SEIA-13	Medium negative (C3) (will possibly occur and of moderate consequence)
	SO-2			Operation	SEIA-1	High positive (B3) (likely to occur and of moderate consequence)
Access to and use of social infrastructure and services	SO-3	Way of life Environment	Vulnerable customers including elderly, disabled and those with mobility constraints	Construction	SEIA-2 SEIA-6 SEIA-12 SEIA-13	High negative (B3) (likely to occur and of moderate consequence)
			Businesses, customers, pedestrians, cyclists			Medium negative (C2) (possible to occur and of minor consequence)
	SO-4	Way of life	Commuters (public transport), customers	Construction	SEIA-1 SEIA-6 SEIA-10 SEIA-12 SEIA-13	Medium negative (C2) (possible to occur and of minor consequence)
			Vulnerable commuters including elderly, disabled and those with mobility constraints			Medium negative (C3) (possible to occur and of moderate consequence)
	SO-5	Health and wellbeing Way of life Accessibility Livelihoods	Regional including businesses, customers, students, broader community, and vulnerable commuters including elderly, disabled and those will mobility constraints	Operation	SEIA-1 SEIA-2	High positive (B4) (likely to occur and of major consequence)
Health and wellbeing	SO-6	Health and wellbeing	Locality including both workers and residents	Construction	SEIA-7 SEIA-13	Medium negative (B2) (likely to occur and of minor consequence)
	SO-7		Customers, pedestrians, cyclists	Construction	SEIA-11 SEIA-13	Low negative (D2) (unlikely to occur and of minor consequence)
	SO-8		Customers	Operation	SEIA-11	High positive (A3) (will almost certainly occur and of moderate consequence)

Impact theme	ID	Impact category	Extent	Project stage	Socioeconomic mitigation measures	Residual impact significance rating
Economic contributions, employment and partnerships	SO-9	Political systems	Regional	Construction	SEIA-5	High positive (B3) (likely to occur and of moderate magnitude)
	SO-10	Personal and property rights		Construction	SEIA-1	Medium negative (C2) (will possibly occur and of a minor consequence)
				Operation		
Visual landscape and heritage	SO-11	Personal and property rights	Locality including workers, residents and visitors to the area	Construction	SEIA-1 SEIA-4 SEIA-13	Low negative (D2) (unlikely to occur and of minor consequence)
				Operation	N/A	High positive (B3) (likely to occur and of moderate consequence)
Intergenerational equity	SO-12	Environment	Regional including future generations, vulnerable and marginalised communities	Operation	N/A	High positive (B4) (likely to occur and of major consequence)
Cumulative impacts	SO-13	Way of life Community	Locality including community, pedestrians, cyclist, communities, road users, local businesses and workers	Construction	SEIA-6 SEIA-13	Low negative (D2) (unlikely to occur and of minor consequence)

Appendix A: Strategic context

Policy review: Investing in Canberrans' wellbeing

The priorities for future transport planning and investment are walking, cycling and public transport that is well-integrated with land use planning. At the centre of this investment is our city-shaping light rail network along with supporting investment in rapid suburban bus routes, footpaths, cycleways and Park/Bike and Ride (ACT Transport Strategy 2020).

Public transport plays an essential role in place making and city shaping. It provides affordable travel between locations and destinations, connecting people to areas outside their neighbourhood. ACT strategic documents state that the light rail network would play a fundamental role in delivering the ACT's future vision for Canberra.

Conversely, for those who do not, cannot, or choose not to use private motor vehicles, a lack of access to public transport can profoundly impact employment and educational opportunities, access to health care and social services, and their agency to move within and between different geographical areas.

Ensuring Canberrans can access education, health hubs and other services and destinations by public transport is a critical component of a successful CBD. Delivering affordable and reliable public transport can help ensure that lack of access and connectivity do not contribute to further social and economic inequality within and across the city.

The 30-minute city (Time)

The core concept of the 30-minute city is time. Ensuring residents can live within 30-minutes of their daily needs has become a central planning paradigm for Australian cities. Access to daily needs includes access and connection to quality:

- Job opportunities
- Public open space
- Arts and cultural spaces
- Recreation facilities
- Community facilities
- Health care and social services
- Education

The 30-minute city concept fundamentally seeks to increase access to core social, economic and natural infrastructure by reducing travel time. This simultaneously increases access to quality infrastructure while providing residents with more personal time.

As noted in the ACT Transport Strategy 2020, a strength of Canberra is that the majority of Canberrans already live within a 30-minute city. Consequently, the 30-minute city proposed in the ACT Planning Strategy is about retaining and strengthening the compact and efficient transport network of the City rather than rebalancing the geographical distribution of job opportunities, quality public spaces, and services.

When compared to other Australian cities, such as Sydney, key planning documents which propose a 30-minute city (Greater Sydney Region Plan: A Metropolis of Three Cities (Greater Sydney Commission, 2018)) attempt to restructure geographical inequalities which have occurred because of extensive urban sprawl. These inequalities further intensify socio-economic disadvantage, with housing affordability strongly linked to increased distances from the Sydney CBD and east coast.

Consequently, transport network investments in the ACT, such as Canberra Light Rail, seek to prevent poor urban planning outcomes rather than rectify the outcomes of poor urban planning.

The 30-minute city concept is also highlighted in Canberra: A Statement of Ambition (ACT Government, 2021-2026), particularly the important role that short commutes and journeys can have on reducing the 'burdens and economic, health and social costs of commuting.'

Moving forward (Access and connectivity)

The ACT Transport Strategy 2020 (the Strategy) (ACT Government, 2020) outlines the Government's vision for transport planning and investment over the next 20 years. Three core public transport outcomes are identified in the Strategy, including managing congestion, reducing emissions and supporting a compact and efficient city (refer to the figure below). These outcomes aim to provide Canberrans with more attractive transport options whilst maintaining the best of the current system. Complementary to the transport objectives, the ACT Government acknowledges the need for a transport system which supports all members of the community. This means thinking beyond the needs of the traditional 9 to 5 commuter group by providing safe, accessible and regular services.

The Project is aligned with the Strategy's objective to support a world class public transport system for a compact and efficient city. The Strategy recognises that 'attractive, convenient and connected public transport is critical to achieving a more compact, efficient and liveable city.' The Strategy highlights the importance of the light rail for the future public transport system in Canberra, including reducing emissions and increasing public transport patronage.

The concept of 'movement and place', which recognises that streets play an important role in both moving people and goods and enhancing and activating public spaces, is also highlighted in the Strategy.

The Strategy also supports the idea of the 30-minute city, which requires a reliable and highly functioning transport network. The challenge here is for the ACT Government to improve the existing network for current users and deliver strategic projects which support future users in the same space simultaneously. Canberra Light Rail is a project with an intragenerational vision. By improving the experience of commuters now and securing potential extensions and future options, Canberra Light Rail speaks to the transport users of today while acknowledging the need of future Canberrans.

ACT Transport Strategy 2020 key transport outcomes

Employment opportunities (Economy)

Part of the Canberra City's vision is to foster and plan for a vibrant centre that stimulates business, education, living, entertaining and recreation. Transport and movement are identified in The City Plan as a critical component of a successful CBD. The Project aligns and facilitates the following City Plan objectives:

- Reduced travel times to the city centre, making Civic and the CBD a more desirable place to work and encourage investment
- Supports future opportunities for a multimodal transport hub in Civic, further reinforcing Civic and the CBD as a major employment destination.

Canberra Light Rail also has the potential to connect Canberrans to employment hubs.

Green and low carbon transport (Environment and climate)

The ACT Climate Strategy notes that transport was the largest source of emissions in 2020. As Canberra strives to be a net zero global city by 2045, increasing the environmental sustainability of transport (and public transport) will be essential in achieving this vision. Key priorities identified in the Strategy of relevance to the Project include:

- Supporting public transport uptake by continuing to improve services to meet community travel needs
- Planning for a compact and efficient city to improve access to public transport and active travel options, reducing travel distances and reliance on private vehicle use.

The vision for a 2048 Canberra focuses on a city of urban renewal and infill development connected by a reliable public transport network. Public transport options would support a more compact city, while a more compact city will generate demand for a frequent and high-quality public transport network. The ACT Transport Strategy 2020 positions the Canberra Light Rail Network as a key part of this land use/public transport nexus.

Improved access to educational facilities and services (Education and life-long learning)

Part of the Canberra City's vision is to foster and plan for a vibrant centre that stimulates education. Transport and movement are identified in The City Plan as a critical component of a successful CBD. Ensuring Canberrans can access education hubs by public transport is fundamental to a CBD which is ultimately for everyone.

Delivering public transport is a key factor in social inclusion and directly relates to the ability of any person to access education, healthcare, and other services. Public transport in major metropolitan cities such as Canberra, can be the fastest, safest, and cheapest way to connect to work, education, family, and social activities, thereby facilitating social inclusion and providing additional opportunity.

Around one in five Australians have a disability[5]. Access to public transport plays an important role in allowing all Australians to fully participate in the community and to access educational facilities and services. People with a disability as well as low-income earners, the unemployed, the elderly are particularly at risk of social isolation because of poor transport options. Improving access to public transport for these groups is necessary to achieving equitable access to a myriad of services.

Canberra Light Rail City to Commonwealth Park, as well as the broader Canberra Light Rail network, has the potential to connect Canberrans, including those most vulnerable, to educational facilities and services, such as Australian National University, thereby meeting the key priorities identified in the Strategy.

Housing diversity and housing choice (Housing and home)

Extending the existing light rail network will expand the potential of this city shaping infrastructure to drive delivery of new housing and employment opportunities. This will support the Territory's goal for 70% infill development, promoting a compact and efficient city.

Social interaction and access to social and support services (Social connection)

Delivering public transport is a key factor in social inclusion. A compact city can encourage and support a socially sustainable community, on the premise that services, spaces, and housing are accessible to all members of the community. Third spaces[6] play an essential role in facilitating social interaction, often acting as a meeting place. Support services/outreach services can be integrated into third spaces, either managing community spaces (such as community facilities) or operating in third spaces.

Theme four of the ACT Planning Strategy 2018 – 'Liveable Canberra' - identifies the priority for Canberra to be a socially and culturally inclusive community. A well-connected city plays an important role in facilitating community access to third spaces, supporting social interaction and access to support services. The Canberra Light Rail network will play a future role in connecting the community with third spaces in the CBD.

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[5] *Australian Government, Department of Infrastructure, Transport, regional Development Communication and the Arts. Accessed via https://www.infrastructure.gov.au/infrastructure-transport-vehicles/transport-accessibility on 22 August 2022.*

[6] Third spaces are public or communal spaces. First spaces are considered spaces which people live in such as their homes. Second spaces are spaces where people work.

Policy review: Public transport and the ACT

Prior to the emergence of COVID-19, more than one million trips per day were undertaken within the ACT, the majority via private motor vehicles. While private motor vehicles are the primary mode of transport for Canberrans, travel behaviours are largely linked to where people live, influenced by density and urban sprawl.

The ACT Transport Strategy 2020 notes that active transport options, such as walking, cycling and public transport are more popular modes of transport within inner districts. Private vehicle travel is more common in outer districts, reflecting both greater travel distances and fewer transport options.

Key challenges which have faced public transport in Canberra include:

- Inconsistent routes
- Infrequent services
- Multiple unrelated route types
- Limited destinations per route
- Timely and unsafe transfers
- Barriers between transport modes

The table below reflects the key plans and strategies relevant to the Project and to this SEIA.

Plan	Date	Relevance to this SEIA
The Territory Plan	2008	• Promote pedestrian and cyclist amenity, safety and access • Activated laneways are to be introduced to improve permeability • Replace existing surface car parks and public car parking with new developments that include basement car parking • Traffic demand for Vernon Circle via alternative routes should be considered to improve pedestrian access to City Hill • London Circuit is to transition traffic from Avenues to the Cities urban network • Access to the inner-City Hill Precinct should predominantly be local traffic.
The City Plan	2014	• The Project provides an urban intersection with greater public transport and active transport consideration and reduced priority for vehicles • The City Centre is to be walkable and pedestrian friendly that is connected to urban areas and surrounds – the project aims to improve pedestrian connectivity between the City West precinct and the waterfront and surrounds.
Australian Infrastructure Plan	2016	• Provides a positive reform and investment roadmap for Australia and sets out the infrastructure challenges and opportunities that Australia would face over the next 15 years • Recognises the strategic importance of moving people and goods more efficiently • Recognises the importance of investment in efficient and effective public transport to improve a community's connectivity, productivity and quality of life.
ACT Planning Strategy	2018	• Sets out the ACT's vision and directions particularly for housing, transport and climate change • Movement and place is a fundamental concept that underpins the future directions of an integrated transport and land use network and the directions for Canberra. The concept supports a compact and efficient city by helping to create liveable and walkable places for mixed communities with amenities close by • The concept balances the dual function of streets, which is moving people and goods and enhancing the places they connect and pass through.
ACT Climate Change Strategy	2021-2025	• Outlines the next stage of the ACT Government's climate change response and identifies actions to meet the stated targets and prepare for climate change • Achieving these targets is driving innovation in transport industries, helping businesses and households save energy costs, improving government productivity and introducing new technologies and practices to the community • This strategy is aligned with the ACT Planning Strategy 2018, the ACT Housing Strategy (2018) and the draft Moving Canberra: Integrated Transport Strategy.

Plan	Date	Relevance to this SEIA
ACT Transport Strategy	2020	• Supports the efficient movement of people and goods, priorities modes that reduce carbon emissions and drive a compact urban form and considers ways to achieve more from the available road space and safe and attractive places for walking and cycling • London Circuit is to transition into a central link prioritising public transport and walking and cycling.
Kings and Commonwealth Avenues Design Strategy (draft)	2017	• Recognises the historical, current, and future role of the Commonwealth Avenue corridor as part of the National Triangle. The Triangle links City Hill, Capital Hill, and the Russell Defence Precinct via Commonwealth Avenue, Kings Avenue and Constitution Avenue • Amongst other aspects, it seeks to provide strong pedestrian and cyclist connections between public transport and adjacent land uses.
National Capital Plan	2021	• The strategic plan for Canberra and the Territory. The Plan ensures that the Commonwealth's national capital interests are protected and establishes matters of national significance in the planning and development of Canberra and the Territory.
City and Gateway Urban Design Framework	2018	• Prepared by the National Capital Authority and the ACT Government, the Framework guides future planning controls, development and urban renewal in the Canberra city centre and along the gateway corridor of Northbourne Avenue and Federal Highway.
Active Travel Framework (draft)	2022	• Prepared by the ACT Government, the framework recognises that walking, cycling and riding are essential parts of Canberra's transport system and outlines how the proportion of people walking, cycling and riding for transport and recreation can be increased.

A review of the plans and strategies has been carried out to identify community values and aspirations. Key community issues identified from these documents include:

- A greater number of flexible transport options are needed as lifestyles change; the ACT should embrace and support alternative options for connectivity such as bikes and should support transport choice and adopt a whole of journey approach
- Shared pathways for pedestrians and cyclists should be more effective in locations such as Commonwealth Avenue
- Increased urban density should be balanced with green integration of city and environment, green spaces and trees
- Plans should be made for climate change impacts and grow the urban forest required
- Plans for the city should balance a growing population with high quality of living
- The ACT Government should actively pursue the creation of accessible community spaces that connect people and promote an active and healthy community

The public should continue to be engaged in order to build on the ACT Governments' commitment to community involvement, co-design, and participative future visioning.

Appendix B: Environmental risk assessment

Defining magnitude levels for socioeconomic impacts

Magnitude level	Meaning
Transformational	Substantial change experienced in community wellbeing, livelihood, amenity, infrastructure, services, health, and/or heritage values; permanent displacement or addition of at least 20% of a community
Major	Substantial deterioration/improvement to something that people value highly, either lasting for an indefinite time, or affecting many people in a widespread area
Moderate	Noticeable deterioration/improvement to something that people value highly, either lasting for an extensive time, or affecting a group of people
Minor	Mild deterioration/improvement, for a reasonably short time, for a small number of people who are generally adaptable and not vulnerable
Minimal	No noticeable change experienced by people in the area of influence

Defining likelihood levels of socioeconomic impacts

Likelihood level	Meaning
Almost certain	Definite or almost definitely expected
Likely	High probability
Possible	Medium probability
Unlikely	Low probability
Very unlikely	Improbable or remote probability

Social impact significance risk matrix

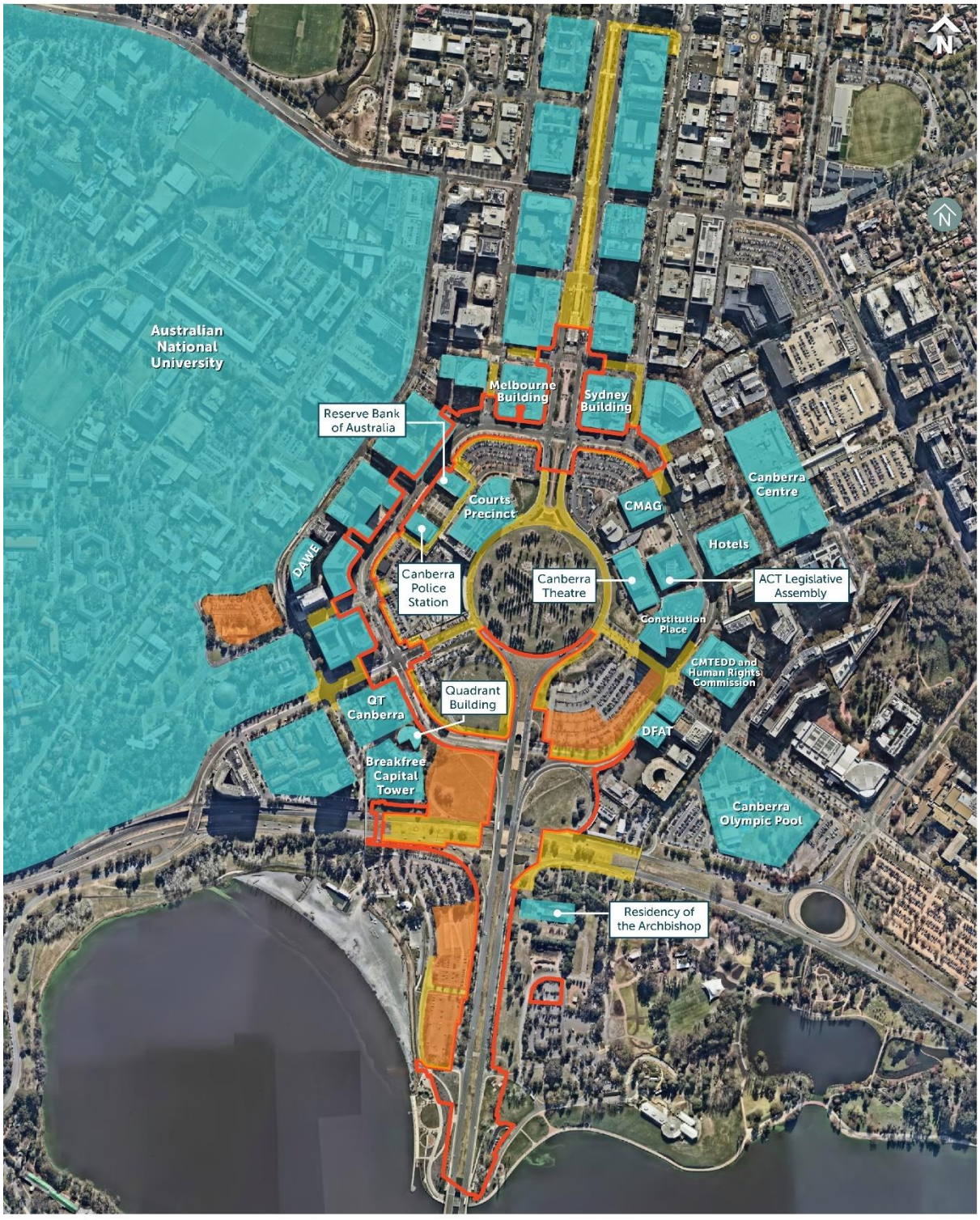
Likelihood	Magnitude level				
	Minimal (1)	Minor (2)	Moderate (3)	Major (4)	Transformational (5)
Almost certain (A)	Low	Medium	High	Very High	Very High
Likely (B)	Low	Medium	High	High	Very High
Possible (C)	Low	Medium	Medium	High	High
Unlikely (D)	Low	Low	Medium	Medium	High
Very unlikely (E)	Low	Low	Low	Medium	Medium

Environmental risk assessment translation

Impact ID	Pre-mitigated impact		Post-mitigation impact	
	Impact significance rating (unmitigated)	EA rating	Residual impact significance rating	EA rating
SO-1 Temporary impact to users on existing road network due to increased traffic congestion during construction	High negative (B4) (likely to occur and of major consequence)	Very high	Medium negative (C3) (will possibly occur and of moderate consequence)	Medium
SO-2 - Helping to prevent future traffic congestion, improving how people move around the city	Medium positive (B2) (likely to occur and of minor consequence)	Beneficial	High positive (B3) (likely to occur and of moderate consequence)	Beneficial
SO-3A - Decline in accessibility to business and services due to temporary loss of parking during construction and changes to pedestrian and motorist access for vulnerable customers, including elderly, disabled and those with mobility constraints	High negative (B4) (likely to occur and of major consequence)	Very High	High negative (B3) (likely to occur and of moderate consequence)	High
SO-3B - Decline in accessibility to business and services due to temporary loss of parking during construction and changes to pedestrian and motorist access for businesses, customers, pedestrians, cyclists	Medium negative (C3) (possible to occur and of moderate consequence)	Medium	Medium negative (C2) (possible to occur and of minor consequence)	Low
SO-4A – Delays and changes to accessibility for users of public transport for commuters (public transport), customers	Medium negative (C3) (possible to occur and of moderate consequence)	Medium	Medium negative (C2) (possible to occur and of minor consequence)	Low
SO-4B – Delays and changes to accessibility for users of public transport for vulnerable commuters including elderly, disabled and those with mobility constraints	High negative (C4) (possible to occur and of major consequence)	High	Medium negative (C3) (possible to occur and of moderate consequence)	Medium
SO-5 - Increased access to jobs, businesses, education, services and social facilities by providing more convenient and reliable transport options	High positive (B3) (likely to occur and of moderate consequence)	Beneficial	High positive (B4) (likely to occur and of major consequence)	Beneficial
SO-6 - Decline in health and wellbeing as a result of construction activities, particularly on those with a disability or chronic illness	High negative (B3) (likely to occur and of moderate consequence)	High	Medium negative (B2) (likely to occur and of minor consequence)	Medium
SO-7 - Decrease in pedestrian/cyclist and community safety around construction activities	Medium negative (D3) (unlikely to occur and of moderate consequence)	Low	Low negative (D2) (unlikely to occur and of minor consequence)	Very Low

Impact ID	Pre-mitigated impact		Post-mitigation impact	
	Impact significance rating (unmitigated)	EA rating	Residual impact significance rating	EA rating
SO-8 – Enhanced commuter safety	Medium positive (A2) (will almost certainly occur and of minor consequence)	Beneficial	High positive (A3) (will almost certainly occur and of moderate consequence)	Beneficial
SO-9 - Employment and training opportunities	Medium positive (C2) (possibly will occur and of minor magnitude)	Beneficial	High positive (B3) (likely to occur and of moderate magnitude)	Beneficial
SO-10 - Lack of trust in decision making, including the perceived lack of positive benefit / need	Medium negative (B3) (likely to occur and of a moderate consequence)	High	Medium negative (C2) (will possibly occur and of a minor consequence)	Low
SO-11A - Construction phase improvements to the aesthetic value of the area by creating attractive and active public spaces that reflect the existing or desired future scale and character of local areas	Medium negative (C2) (will possibly occur and of minor consequence)	Low	Low negative (D2) (unlikely to occur and of minor consequence)	Very Low
SO-11B - Operational phase improvements to the aesthetic value of the area by creating attractive and active public spaces that reflect the existing or desired future scale and character of local areas	Medium positive (C3) (will possibly occur and of moderate consequence)	Beneficial	High positive (B3) (likely to occur and of moderate consequence)	Beneficial
SO-12 - Improved intergenerational equity as a result of sustainable development, including vulnerable and marginalised communities	High positive (B3) (likely to occur and of moderate consequence)	Beneficial	High positive (B4) (likely to occur and of major consequence)	Beneficial
SO-13 - Construction and consultation fatigue caused by the cumulative impact of ongoing development and construction in the locality, including Raising London Circuit and Canberra Light Rail	Medium negative (C2) (will possibly occur and of minor consequence)	Low	Low negative (D2) (unlikely to occur and of minor consequence)	Very Low

Appendix C: Stakeholder mapping


N
Australian National University
Melbourne Building
Sydney Building
Reserve Bank of Australia
Courts Precinct
CMAG
Canberra Centre
Hotels
DAWE
Canberra Police Station
Canberra Theatre
ACT Legislative Assembly
Constitution Place
CMTEDD and Human Rights Commission
Quadrant Building
QT Canberra
DFAT
Breakfree Capital Tower
Canberra Olympic Pool
Residency of the Archbishop
Key
Permanent works
Site compound
Temporary works
Key stakeholders
0
100m
Map indicative only

Appendix D: Community engagement outcomes

Respondent profile

In terms of the respondents who participated in the community survey:

- 92 per cent of respondents (n=392) indicated that they did not identify as being an Aboriginal or Torres Strait Islander
- 50 per cent of respondents (n=227) were male while 42 per cent (n=189) were female
- 50 per cent of respondents (n=223) indicated that their primary method of travel was driving their own car while only 5 per cent (n=21) indicated that they use the existing light rail as their primary method of travel
- 50 per cent of respondents (n=289) indicated that they visit the city throughout the week or on the weekend for shopping, socialising or visiting cafes and restaurants
- 45 per cent of respondents (n=19) indicated they had lived at their current address for more than ten years
- 24 per cent of respondents indicated they travel into the city 3-4 days (n=109) and 5-7 days (n=107) per week
- 10 per cent of respondents were aged between 35 and 39 (n=47), 50 and 54 (n=42) and 60 and 64 (n=48).

Full respondent profile details are summarised in the table below.

Online survey respondent profile details

Respondent profile details (no. of survey question responses)	Respondent breakdown	
Gender (n=453)	• **Male: n=227, 50%** • Female: n=189, 42% • Prefer not to say: n=31, 7% • Non-binary: n=6, 1% • Prefer not to say, n=0	
Age (n=455)	• Under 9: n=3, 1% • 10-14: n=0 • 15-19: n=8, 2% • 20-24: n=28, 6% • 25-29: n=36, 8% • 30-34: n=30, 6% • **35-39: n=47, 10%** • 40-44: n=32, 7% • 45-49: n=40, 9%	• **50-54: n=42, 10%** • 55-59: n=37, 8% • **60-64: n=48, 10%** • 65-69: n=42, 9% • 70-74: n=34, 8% • 75-79: n=16, 4% • 80-84: n=7, 2% • 85 and over: n=5, 1%
Aboriginal or Torres Strait Islander status (n=425)	• Yes: n=7, 2% • **No: n=392, 92%** • Prefer not to say: n=26, 6%	
Time at current address (n=442)	• 0-1 years: n=51, 12% • 2-4 years: n=85, 21% • 5 years: n=27, 6% • 6-10 years: n=65, 15% • **More than 10 years: n=189, 45%**	

Respondent profile details (no. of survey question responses)	Respondent breakdown
Primary method of travel (n=442)	• **Car as a driver: n=223, 50%** • Bus: n=61, 14% • Walk n=48 11% • Cycle: n=42, 10% • I do not travel on a daily basis: n=26, 6% • Light rail: n=21, 5% • Car as a passenger: n=12, 3% • Other: n=7, 2% • Motorcycle: n=2, 0%
Visiting the city (n=624)	• **I visit the city throughout the week or on the weekend for shopping, socialising or visiting cafes and restaurants: n=289, 50%** • I currently commute to the city from home on a regular basis: n=136, 21% • I currently commute from or through the city to my place of work on a regular basis: n=104, 16% • I work in the immediate construction area: n=54, 8% • I am a resident in the immediate construction area: n=36, 6% • I am a business owner in the immediate construction area: n=5, 1%
Travel days into the city (n=443)	• **5-7 days: n=107, 24%** • **3-4 days: n=109, 24%** • 1-2 days: n=90, 21% • Once a fortnight: n=62, 14% • Once a month: n=50, 10% • Not relevant: n=25, 6%

Source: City to Commonwealth Park YourSay community survey, July – September 2022.

Benefits of the Project

The Project is expected to bring various benefits to both Canberra as a city and individual users of the light rail. Feedback varied in terms of how often users expect to use the Project and why they might consider using it. These are explored in greater detail below.

Benefits to Canberra

The Project is expected to result in a variety of positive benefits for Canberra as a city. Noting that respondents could select multiple options from the ten available (including 'Other'), the five most selected options included:

- Deliver better public transport for the city (n=267, 14 per cent)
- Reduce harmful climate emissions from transport (n=242, 12 per cent)
- Provide better access for public events and the national institutions (n=239, 12 per cent)
- Less traffic on our roads to prevent future gridlock like other cities have (n=224, 11 per cent)
- Activate parts of the city that aren't used much (e.g., City South) (n=216, 11 per cent).

Of the 116 'Other' qualitative responses were received through the community survey, 105 could be successfully coded and analysed. Around 10 per cent (n=12 suggested that the Project could help better connect different parts of Canberra and could help enable improved public transport connections in the future.

Provide better connection between the lakeside and the city – it is currently a rough path to get from the bridge to the city.

More integrated city with reliable, fast public transport from north to south. Enabling a more inclusive city for people, including those with disabilities or without other forms of transport, to get out more.

- A similar number (n=9) suggested that Canberra is a city that would be enhanced by the Project in terms of:

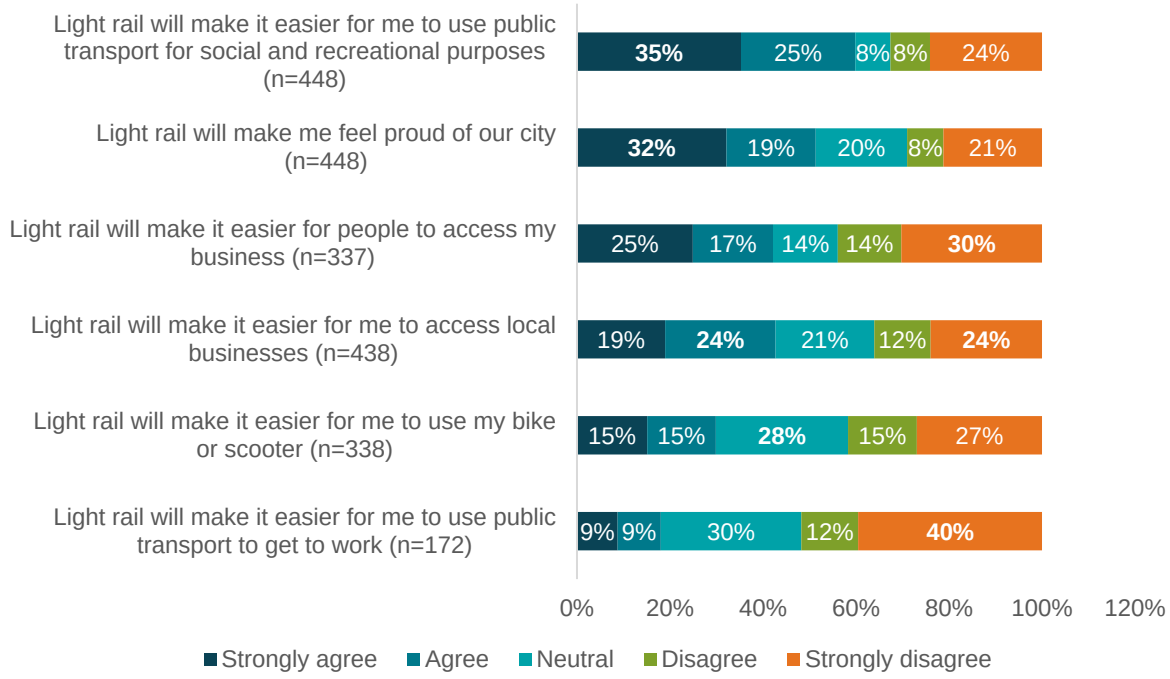
- Helping to change the public transportation preferences for more people in Canberra
- Facilitating a change to less cars on the road in the city
- Enhanced tourism opportunities
- Providing an opportunity to plan and host events in venues and locations located nearby existing and new light rail stops
- Better connecting the northern and southern sides of Lake Burley Griffin.

However, amongst the 'Other' responses 42 respondents (42 per cent) suggested they could not anticipate benefits that would occur as a result of the Project. Reasons varied from a belief that the existing bus network can sufficiently meet the needs of those who use public transport, whether the funds allocated towards the Project could be better spent on other areas and because the City to Commonwealth Park line is only one light rail line and will not be easily accessible for all Canberra residents. 26 respondents suggested the Project could result in negative impacts for Canberra as a city. The fact that respondents suggest the Project might result in no positive impacts, or even negative impacts, could suggest that key Project developers may need to do more stakeholder engagement to identify and emphasise the positive impacts of the project noting that respondents could experience multiple benefits, and these may vary from stakeholder to stakeholders.

Personal benefits

Respondents were asked to indicate their level of agreement against six statements outlining personal benefits as shown in the figure below. The majority of respondents agreed that the Project would make it easier for them to use public transport for social and recreational purposes (60 per cent when 'Strongly agree' and 'Agree' responses are combined) and that the Project would make them feel proud of their city (51 per cent when 'Strongly agree' and 'Agree' responses are combined).

City to Commonwealth Park light personal benefits for survey respondents



Source: City to Commonwealth Park YourSay community survey, July – September 2022, Q: How do you think building light rail from the City to Commonwealth Park will benefit you personally?

A potential limitation is the relatively high number of neutral responses across the different statements. This may suggest that as the Project is planned and constructed, more work needs to be done to more widely engage community and local residents about personal benefits they may experience as a result of the Project. It may also suggest that some respondents do not work or live near any existing or future planned light rail stops so may not even consider it as a public transport option for moving around the city.

The highest level of disagreement was in relation to the statement: Light rail will make it easier for me to use public transport to get to work (52 per cent when 'Strongly disagree' and 'Disagree' responses are combined). However, it should be noted that the survey was not limited to respondents who reside in places close by to the Project.

How to enhance project benefits

Amongst the 189 qualitative responses that were received in the community survey that could be successfully coded and analysed, multiple ways were suggested by respondents in terms of how the proposed benefits of the Project could be enhanced. They ranged from:

- Designing and building the Project in a time that is faster than is currently planned.

Build it faster. Be more ambitious.

Move forward with construction decisively and quickly.

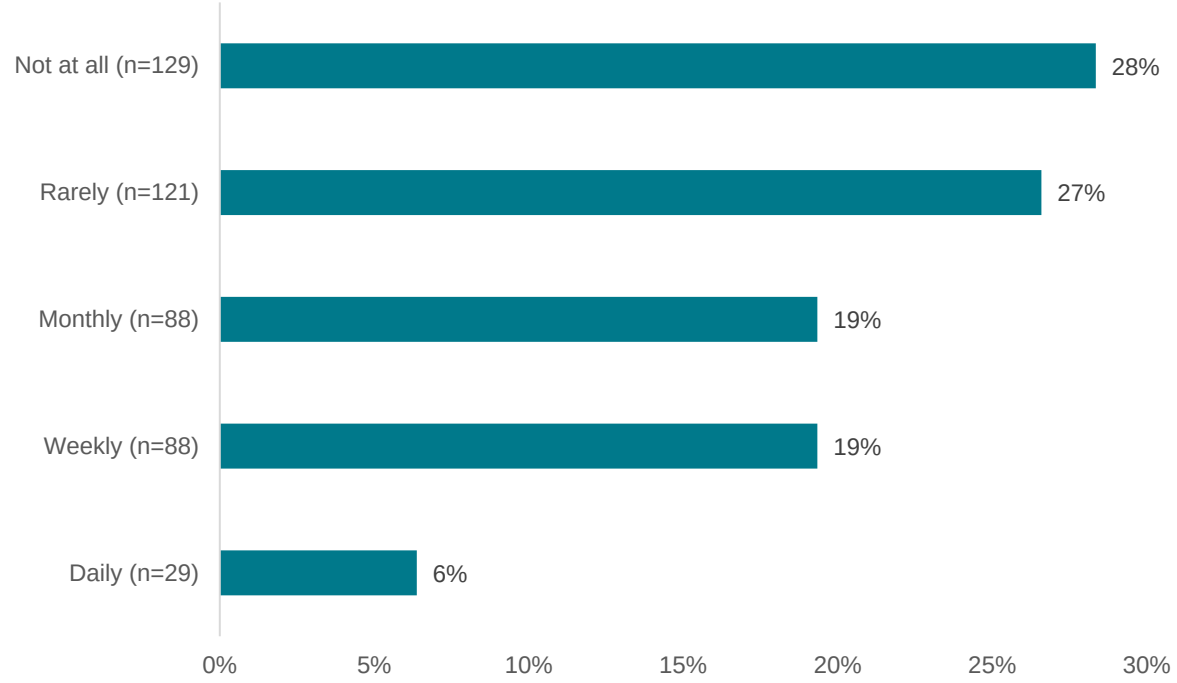
- Enhancing the design of the light rail infrastructure such as the light rail carriages, network and stations (including the land nearby to the stops). Respondents made suggestions in relation to the speed of light rail journeys in comparison to equivalent journeys made on buses; how dogs and bikes might be able to be taken and stored on the light rail; ensure that there is a high level of security on trams and light rail stations; and trying to minimise disruptions to existing roads and traffic flows.
- How user journeys will be priced. Respondent suggestions and questions related to the cost of parking near light rail station; whether fares may be discounted during off-peak times, on weekends and/or for pensioners and other minority groups; whether free rides days would be offered occasionally to encourage people to use the light rail more regularly and/or visit or explore different parts of Canberra and whether weekly or monthly tickets will be available and how much they might cost.
- Where the light rail should be extended to in the future. In no particular order, specific suburbs that respondents mentioned that they would like the light rail to be extended to in the future include Belconnen, Canberra Airport, Fyshwick Gungahlin, Molonglo and Queanbeyan.
- Exploring ways to enhance usage of the light rail and enable access to nearby respondents and landmarks. Suggestions included ensuring there are appropriate public transport connecting services to public events and national institutions (particularly for the elderly or disabled people); prioritising pedestrians over cars; ensuring access to nearby cycling and walking routes and building new housing along or nearby to the light rail route.

Use of City to Commonwealth Park light rail

55 per cent of respondents (n=250) suggested they would not use the Project or would use it rarely while 25 per cent (n=117) would use it daily or weekly as shown in the figure below. This could be a result of potential under-representation of respondents who would anticipate using the new light rail on a regular basis (at least weekly), especially noting that the Project represents a small portion of the overall light rail network that is proposed for Canberra. Potentially, it may also suggest a need for key stakeholders to design and implement further engagement and communication with potential users to:

- Help raise awareness
- Better understand their concerns (both actual and perceived) and the reasons why they have them
- Better understand in more depth why they may or may not use the Project in the future as well as what would encourage them to use it more frequently than they currently feel they might
- Identify and test different engagement and communication approaches, methods and/or platforms for increasing stakeholder engagement around the Project.

Frequency of use

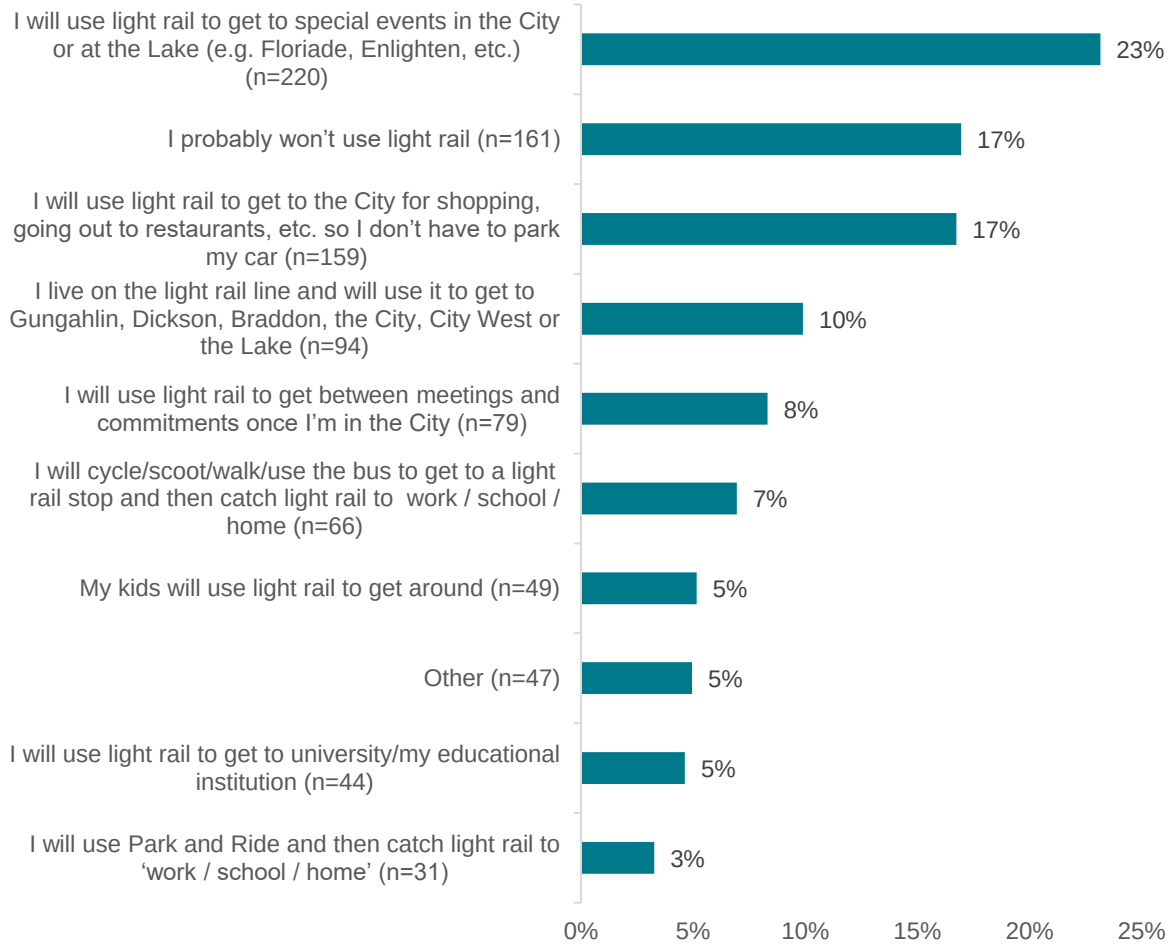


Source: City to Commonwealth Park YourSay community survey, July – September 2022, Q: I anticipate that I will use the light rail between the City and Commonwealth Park once it is opened... (n=455).

How City to Commonwealth Park light rail might be used

As shown in the figure below, the ability to use the light rail to attend special events in the City or at Lake Burley Griffin or to avoid the need of having to worry about parking their car while in the city were the two most popular ways in which respondents considered how they might use the light rail.

How the light rail might be used



Source: City to Commonwealth Park YourSay community survey, July – September 2022, Q: How do you think you might use light rail once the extension from the City to Commonwealth Park opens? (n=950).

In terms of 'Other' reasons as to how the light rail might be used, respondents suggested they might use the Project to access other public transport connections and/or facilities and venues or use it in the future once further extensions have been designed and constructed.

14 respondents suggested they would not make use of the Project while nine suggested that other transport options (including public transport) are easier for them to use or are preferred modes of transport.

> *I live in Braddon and cycle almost everywhere so [the] extension won't help me much at this stage, but it is vital to build this before we build the next section over the lake, which will really help me get to places in the south that are a little harder to ride to.*

Construction disruptions

A project as complex as the City to Commonwealth Park light rail extension will cause disruptions during construction. As such, it will be important for the Government and key stakeholders to be aware of these disruptions (both actual and perceived) and to mitigate, manage and plan for them accordingly.

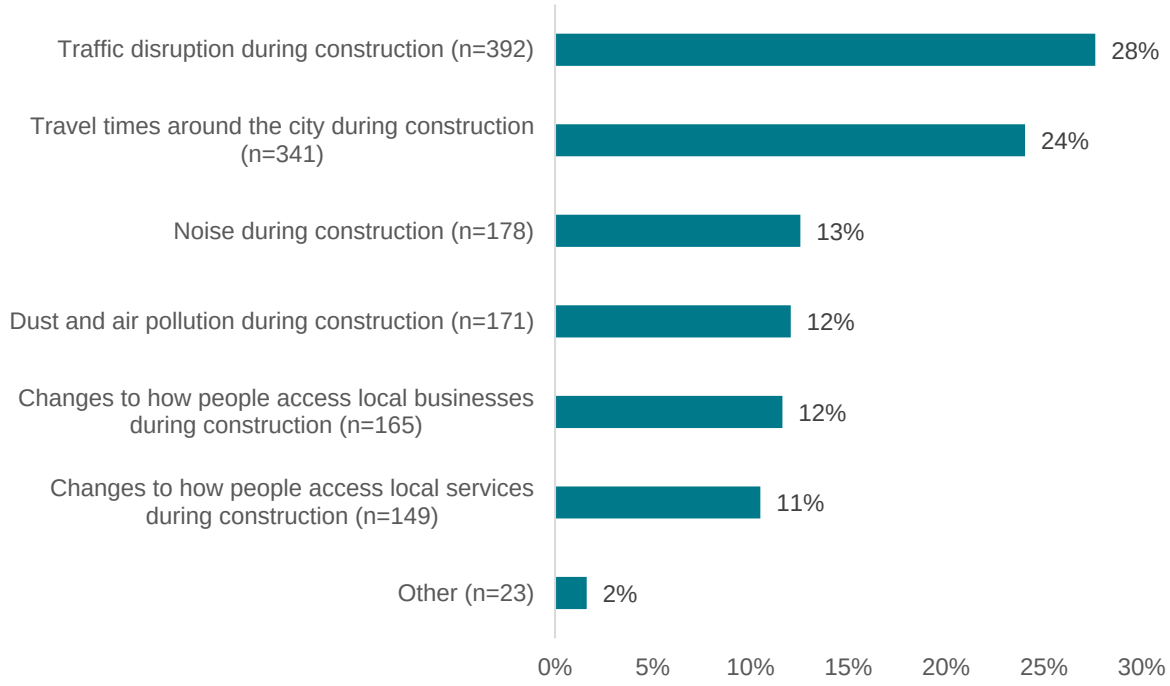
Most impactful disruptions

Noting that respondents could select multiple disruptions, the two most impactful disruptions that will have the biggest impact on Canberra include traffic disruptions (n=392, 28 per cent) and impacts on travel times around the city (n=341, 24 per cent) as shown in the figure below.

Further disruptions are expected to be caused or experienced because of noise, dust and air pollution and changes to how people access local businesses and services during construction. Almost all of these disruptions

are likely to occur as the Project is constructed although the severity and/or length of disruption may differ for different stakeholders.

Expected disruptions that will have the biggest impact on Canberra



Source: City to Commonwealth Park YourSay community survey, July – September 2022, Q: Delivering light rail between the City and Commonwealth Park is expected to cause some disruptions during construction. Which of these disruptions do you expect to have the biggest impact on Canberra? (n=1,327).

'Other' disruptions that were provided qualitatively by respondents, and should be considered by the Government and other key Project stakeholders, include:

- Slower bus travel times
- Cyclists having to dismount from their bikes at specific times
- Taking longer to walk into the Civic area
- Impacts to existing public transport routes and times
- Fewer car parking spaces being available to use and blockages to roads
- People emphasising the mentioned changes and disruptions, reflected in the figure above.

Appropriate planning and mitigation measures will need to be determined and planned by the Government and other key Project stakeholders to ensure, amongst other things, that:

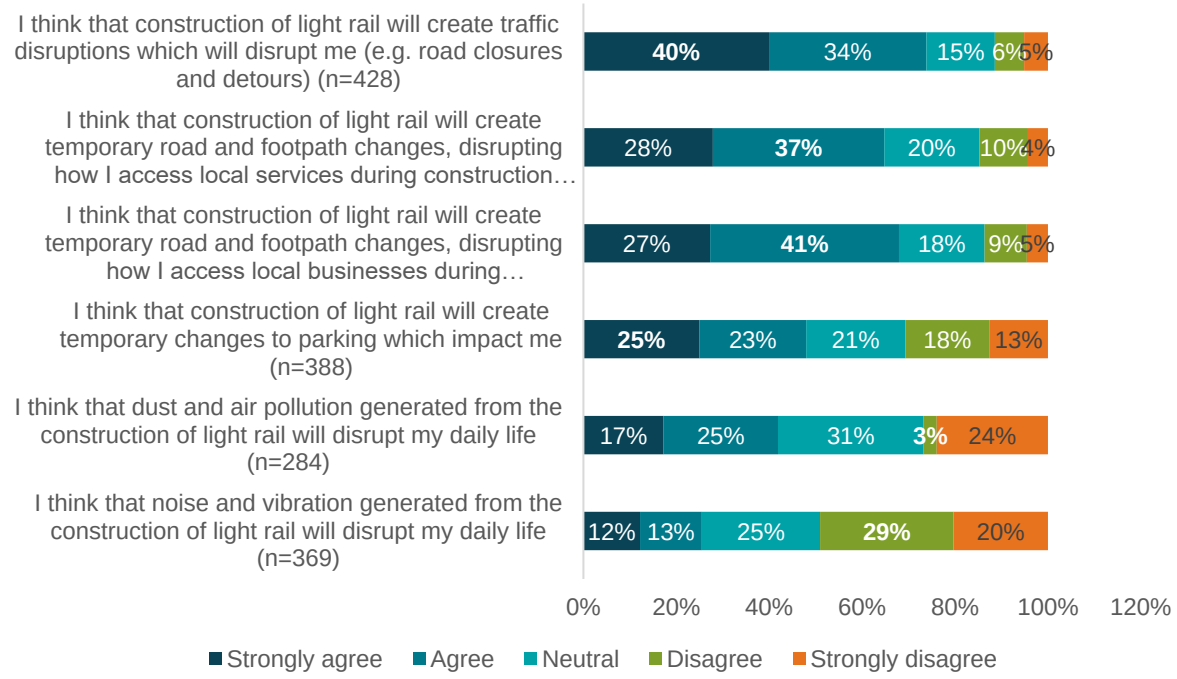
- Those likely to be disrupted (or most disrupted) are identified and can be engaged
- These expected disruptions, and how they might impact on Canberra residents (both actual and perceived), are identified, and well understood internally from different perspectives
- Appropriate engagement and communication methods, platforms and time points are identified and put in place
- Further community feedback, insights and suggested planning and mitigation approaches that could minimise the impact of these disruptions are collected, considered and reasons for decisions taken are appropriately communicated.

Personal disruptions

According to the respondents to the survey, construction of the Project is expected to produce personal disruptions, including:

- Traffic disruptions (e.g. road closures and detours)
- How customers access local services due to temporary road and footpath changes
- How customers access local businesses due to temporary road and footpath changes
- Temporary changes to parking
- Dust and air pollution
- Noise and vibration.

Personal disruptions



Source: City to Commonwealth Park YourSay community survey, July – September 2022, Q: How do you think building light rail from the City to Commonwealth Park will disrupt you personally?

Other personal disruptions may be experienced as a result of the Project being constructed, but respondents were not asked to suggest such disruptions and explain how or why they might impact their lives. The Government could consider further work to engage stakeholders, better understand these disruptions and the extent to which stakeholders believe their lives will be disrupted by the construction of the Project and identify other potential personal disruptions and possible mitigation and/or management strategies.

Mitigating or managing disruptions

Multiple mitigation and management suggestions were provided by stakeholders as to how disruptions can be mitigated or managed.

Generally, in terms of the timing of construction and managing noise, respondents were keen to see the project is constructed within the planned timeframes and delays are not experienced. Some were understanding that a project of this size and complexity will result in disruptions but be ultimately worthwhile because of the benefits it will provide to the city.

Specific suggestions for mitigating or managing noise disruptions were put forward in relation to the timing of loud construction activities, the amount of work and shifts that are allowed during peak hours, at nights and/or on weekends, how noise impacts might specifically impact nearby residents and businesses and how they can best be supported; considering how and when construction works on arterial roads are completed to reduce potential other noise concerns.

The importance of providing regular, clear and consistent messaging and updates was also emphasised by some stakeholders. Suggestions include providing sufficient notice before planned engagement activities so that people

can enhance their understanding of the complex Project (or particular aspects of it), making use of multiple communication platforms, providing updates on when night works are expected to occur and organising site tours for the public during construction.

Transport wise, stakeholders suggested that it will be important for buses to be able to travel in priority bus lanes, and transport prices should be reduced to encourage greater use of public transport and reduce traffic congestion around the light rail construction areas.

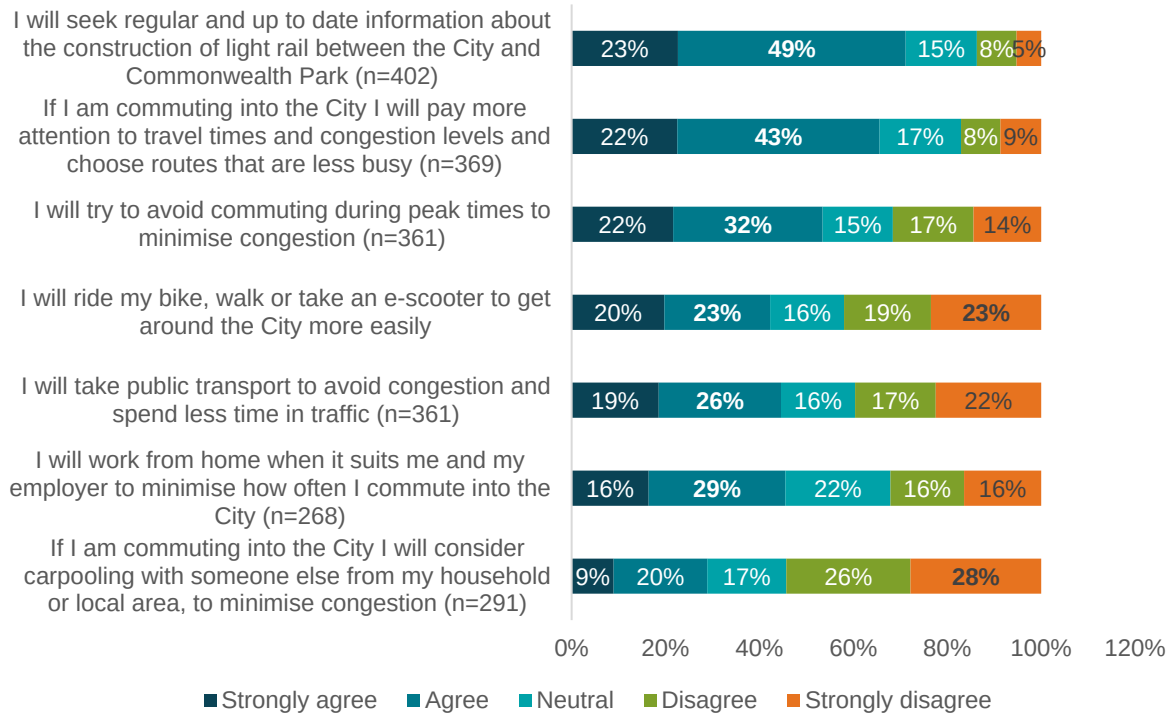
Respondents suggested that traffic disruptions could be managed through measures such as increased car parking, the creation of alternative or temporary routes to ensure traffic flow, sufficient planning in advance which considers expected disruptions, having a dedicated traffic response unit and rebuilding the City Police Station. A few respondents also suggested that the route of the light rail could be changed to help avoid disruptions.

Avoiding disruptions to daily routines

When asked about steps, that they could take to avoid disruption to their daily routine during construction respondents were asked to indicate the level of agreement with seven statements. In summary – and as shown in the figure below – when 'Strongly agree' and 'Agree' responses are combined:

- 72 per cent of respondents suggested they would seek regular and up to date information about the construction of the Project
- 65 per cent of respondents suggested that if they were commuting into the city, they would pay more attention to travel times and congestion levels and choose levels and choose routes that are less busy
- 54 per cent of respondents suggested that they would try and avoid commuting during peak times to minimise congestion
- 45 per cent of respondents suggested that they would take public transport to avoid congestion and spend less time in traffic
- 45 per cent of respondents suggested that they would work from home when it suits them and their employer to minimise how often they commute into the city
- 43 per cent of respondents suggested that they would ride their bike, walk or take an e-scooter to get around the city more easily
- 29 per cent of respondents suggested that if they are commuting into the city, they would consider carpooling with someone else from their household or local area to minimise congestion.

How disruptions might be minimised during construction of the City to Commonwealth Park light rail



Source: City to Commonwealth Park YourSay community survey, July – September 2022, Q: We are encouraging Canberrans to 'rethink their route, rethink their routine', to minimise some of these disruption impacts. Please respond to the following statements about steps you may take to avoid disruption to your daily routine during construction of light rail from the City to Commonwealth Park.

Almost twice as many respondents suggested they disagreed with the carpooling statement (54 per cent when 'Disagree' or 'Strongly disagree' responses are combined) as those who agreed (29 per cent when 'Strongly agree' and 'Agree' responses are combined). Reasons for this disagreement (or reluctance), may include but not be limited to:

- A lack of knowledge about how to go about carpooling
- A lack of experience previously carpooling with other people to commute to or from work or other places
- An unwillingness to try it
- Difficulty in trying to arrange it and/or sustain arrangements made
- Inconvenience of having to leave home or work earlier or later than normal if a respondent was by themselves.

Other matters to be considered

The qualitative feedback from respondents was diverse. Existing transport movement options and services were the most mentioned items which suggests a need for key stakeholders to visibly raise awareness around changes, new/alternative transport methods or routes, and how long impacts may be experienced to enable people to plan accordingly. Suggestions for managing or mitigating impacts provided by respondents include:

- Providing additional transport options such as bus and shuttle bus services
- Increasing the frequency of bus services during peak times to combat overcrowding
- Increasing communication, consultation, and engagement with Canberra residents
- Banning cars from the city area
- Banning e-scooters from the city area due to rider safety concerns
- Supporting car-pooling options.

Several specific design changes to the Project and its budget were also suggested to mitigate and manage impacts, including how vulnerable groups might be able to engage with and use the new light rail. Some of the more common specific suggestions include:

- Considering the design of light rail stations in terms of where they are located, how many stations are constructed and how they can protect users against the elements including rain and heat
- Strategies to encourage greater use of the Project such as the building of car parks located nearby to light rail stations and access to nearby bike and pedestrian paths
- Improving the aesthetics of the design by updating the artist's impression to better represent the operational look and feel of the project (e.g., include poles and wires) or using batteries in the light rail carriages to make the Project overhead wire free.

Construction impacts were also mentioned. In designing and constructing the Project, it will be important for Government and other key stakeholders, to consider:

- How construction impacts existing businesses and workplaces (including the risk that some may go out of business)
- What impacts and disruptions are likely to be caused to traffic and how they can be managed
- Impacts to existing infrastructure such as bike paths
- Whether local businesses and workers are given construction contracts and jobs
- Movement and noise impacts caused because of heavy vehicles and other machinery during construction.

Placemaking at light rail stops

Placemaking is a philosophy and an iterative, collaborative process for creating public spaces that people love and feel connected to. The process considers a local community's assets, inspirations and the potential of a particular area or place.

Most important light rail stop design features

In terms of the Project, survey respondents have suggested several ways in which placemaking can be incorporated into the design and how they will ultimately use and engage with the light rail network. Multiple suggestions were also made in terms of how a placemaking approach could be utilised when considering the design of the light rail trams, stations, and the overall network.

Almost half the responses (n=74) from respondents commented on the design of the light rail trams, stations and network. Specific suggestions that were made in relation to:

- Incorporating the work and designs of local artists into light rail trams and stations and varying the design so all stations are not identical
- Promoting safety at stations through signage, safety markings, CCTV cameras, and ensuring there is sufficient light in evening and night times
- Installing general signage to provide information relevant to various aspects of the Project's design and operations
- The design of stations including entry and exit points, the number of MyWay tap on/off machines and rubbish bins and whether water bubblers and bike storage areas can be incorporated into the design
- Ensuring accessibility for many different types of people and the pets or equipment they may be using (such as carts, prams and bicycles)
- Ensuring the Project's design is sympathetic to existing views within Canberra or prominent locations such as Parliament House
- Ensuring Canberra's climate and different summer and winter weather is taken into account in the design.

In relation to enhancing access to light rail stations, other transport connections and nearby areas, respondents suggested that access to green spaces should be promoted, and utilised, new light rail stations should be

integrated with other transport connections and users should be able to safely access and exit light rail stations without having to cross busy roads.

Greenery and landscaping features are also seen as being important. Suggestions include the selection and planting of native gum trees, avoiding or minimising the removal of existing trees along Commonwealth Avenue, planting new vegetation in positions that are safe and will not affect movement of the light rail or potentially result in safety issues and reducing the need to use concrete which absorbs heat during summer.

First Nations and other heritage values

In terms of First Nations or other heritage values, 86 per cent of respondents suggested they were not aware of any that should be considered further in the development of the Project's design. 50 respondents provided additional qualitative feedback. Key heritage values that Government and stakeholders should consider in relation to the Project, include:

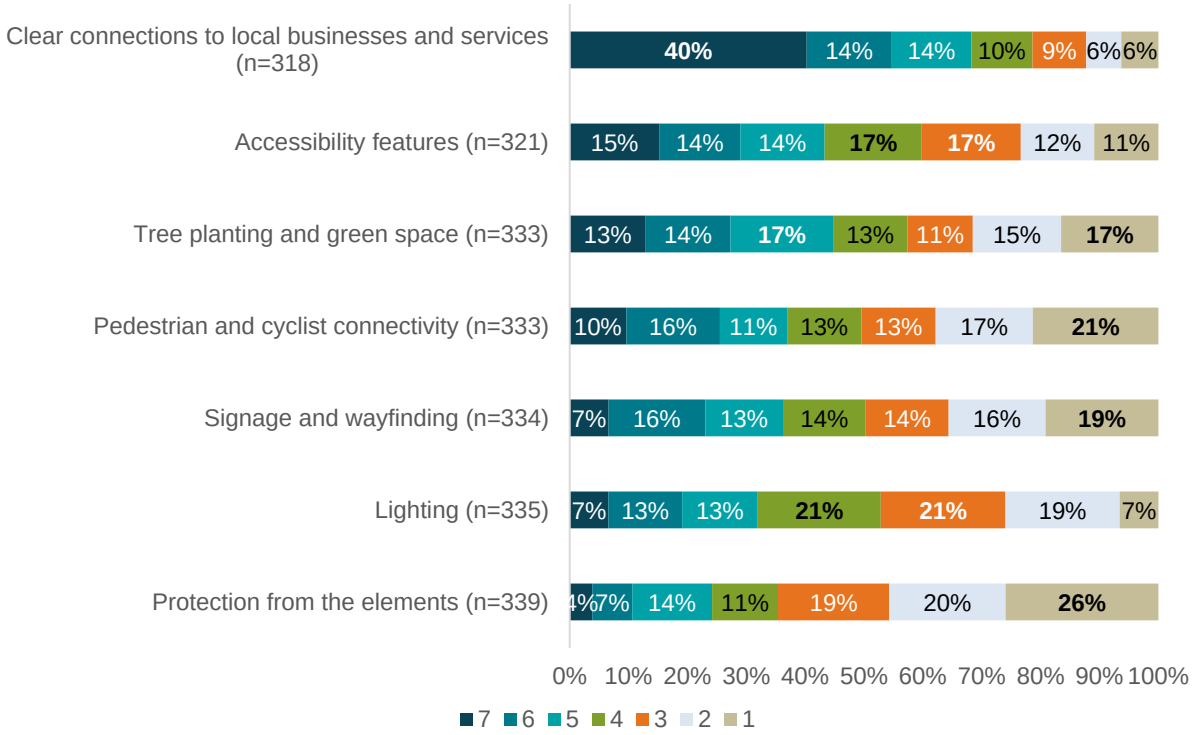
- Recognising and protecting the importance of the connection to existing green spaces and Lake Burley Griffin and the views associated with them
- Engaging and consulting First Nations peoples while designing the Project, recognising their long-standing connection to the land and where possible incorporating important words, symbols and/or art from First Nations peoples in the Project's design
- Protecting existing buildings (in particular, heritage listed buildings) and infrastructure
- Considering and respecting the original Walter Burley Griffin design plan for Canberra even though it is now over 100 years old.

Features of the light rail

In terms of the seven features of the light rail that respondents were asked to rank in terms of their order of interest from 1 (lowest) to 7 (highest), as shown in the figure below respondents indicated they were most interested in, or most want,

- Clear connections to local businesses and services (54 per cent gave it a 7 or 6 rating)
- Accessibility features (29 per cent gave it a 7 or 6 rating)
- Tree planting and green space (27 per cent gave it a 7 or 6 rating)
- Pedestrian and cyclist connectivity (26 per cent gave it a 7 or 6 rating)
- Signage and wayfinding (23 per cent gave it a 7 or 6 rating)
- Lighting (20 per cent gave it a 7 or 6 rating)
- Protection from the elements (11 per cent gave it a 7 or 6 rating).

Interest in particular City to Commonwealth Park light rail features



Source: City to Commonwealth Park YourSay community survey, July – September 2022, Q: Please rank the following elements in order of interest (highest at the top).

The feature that attracted the least level of interest amongst respondents was protection from the elements in which almost half the respondents (46 per cent) gave it a 1 or 2 rating followed by pedestrian and cyclist connectivity (38 per cent of respondents gave it a 1 or 2 rating).

Appendix E: Resident profile

Note: Unless indicated otherwise, data has been sourced from the 2016 Census (ABS).

Human capital

Understanding key population characteristics and trends is an important consideration of human capital. This section considers key human capital indicators including the impact of COVID-19 on current population trends.

Population (2021)

The locality has an estimated resident population of 4,835 people, representing 7.9 per cent of the suburb population. Between 2016 and 2021, the population of the locality has only increased by 10.24 per cent. When compared to the suburb and the ACT, the population growth in the locality is lower, reflecting a lack of localised population growth in Civic. 2016 and 2020 population figures for the locality, suburb and ACT are presented in the table below.

Indicator	Locality		Change %	Suburb		Change %	ACT		Change %
	2016	2021		2016	2021		2016	2021	
Population	4,386	4,835	↑ 10.24	54,356	61,188	↑ 12.57	403,104	454,499	↑ 12.74

According to the Centre for Population, established by the Commonwealth Government late in 2019, the impact of COVID-19 is expected to be long lasting, and Australia's population is expected to be smaller and older than projected prior to the onset of the pandemic.

Australia's population is estimated to be around 4 per cent smaller (1.1 million fewer people) by 30 June 2031 than it would have been in the absence of COVID-19. The population will also be older as a result of reduced net overseas migration and fewer births. Despite COVID-19, Australia's population is still growing and is expected to reach 28 million during 2028–29, three years later than estimated in the absence of COVID-19.

The international border closures along with a weaker Australian labour market affecting demand for skilled migrants, are driving an expected record low rate of population growth of ¼ per cent in 2020-21 and 2021-22 (ACT Treasury, 2021). Population growth is expected to steadily increase to around ¾ of a per cent in 2022-23 and to 1 per cent in 2023-24 which is below the ACT's historical average population growth rate of 1¾ per cent.

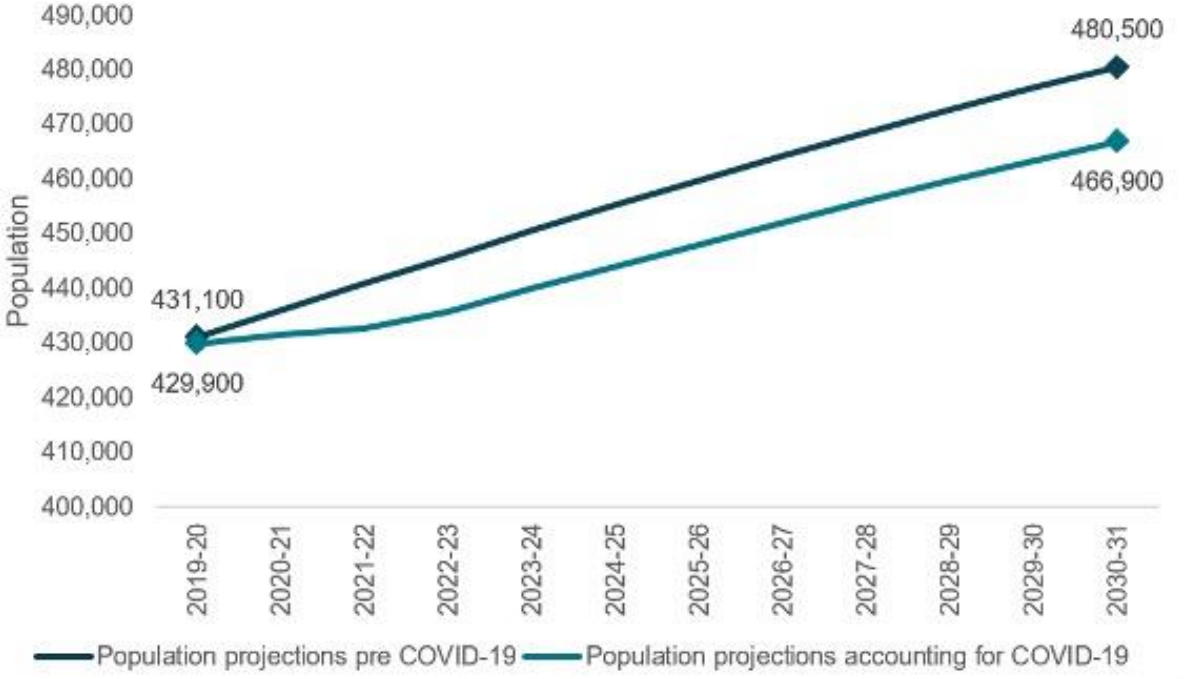
According to the ACT treasury, around 19,200 fewer people are expected to call Canberra home over the four years from 2020-21 to 2023-24 than was forecast prior to COVID-19. The population forecast is broken down in the following section, comparing pre and post COVID-19 projections.

There are two population forecasts for Canberra, one pre-COVID and one accounting for COVID-19 (the central scenario). These two forecasts highlight the impact of COVID-19 on the future population growth of Canberra. Based on the comparison of pre-COVID-19 projects and the central scenario project, COVID-19 is expected to impact population growth between 2020 and 2022-23, resulting in 13,600 fewer residents by 2030-31.

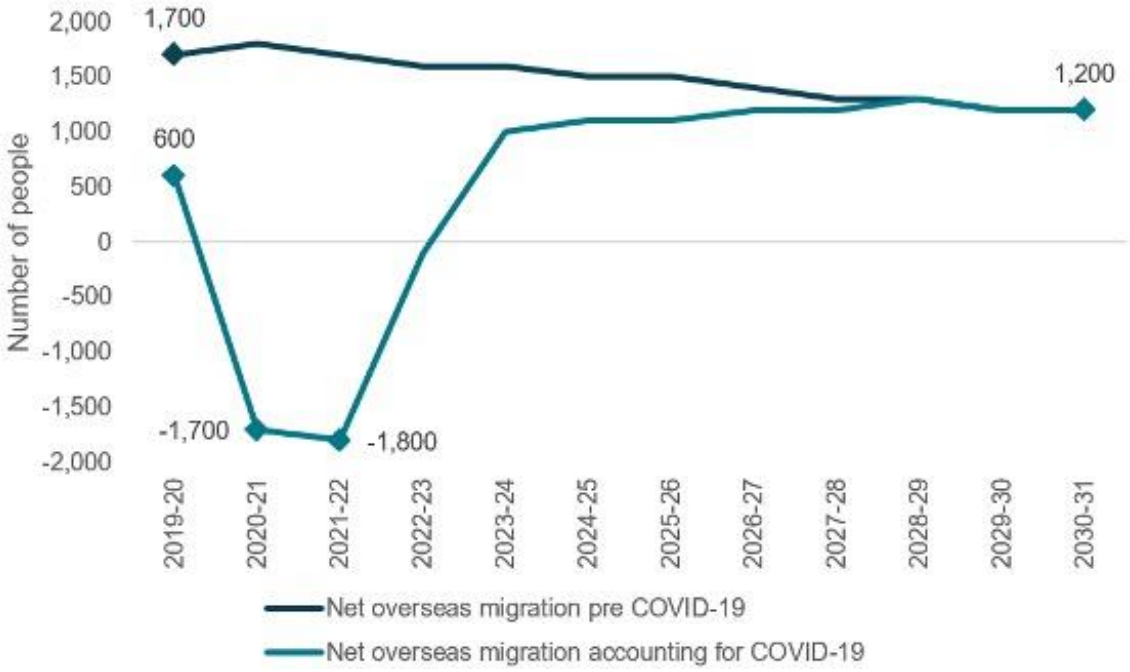
Natural population increase is expected to decrease between 2019-20 and 2030-31 regardless of the impacts of COVID-19, see figure below. However, COVID-19 is expected to intensify this, with natural increase decreasing notably below pre-COVID-19 projections.

Net overseas migration is the component of population growth which is expected to be most negatively impacted by COVID-19, overall reducing the population growth of Canberra. Net overseas migration is expected to be negative between 2020-21 and 2022-23. This indicates that the central scenario is anticipating.

Unlike other components of population growth, net internal migration is expected to increase as a product of COVID-19. This means more people will move to Canberra from other parts of Australia than otherwise anticipated. Much of this growth is expected between 2020-21 and 2022-23 with more overseas departures than overseas arrivals for Canberra. When compared to the pre-COVID-19 projection, there is a significance difference.



Population increase projections with and without the impacts of COVID-19 for the Canberra



Net overseas migration projections with and without the impacts of COVID-19 for Canberra

Age profile and sex (2021)

The locality has a young age profile, reflected by a low median age of 27. This is significantly lower than the suburb (31) and ACT (35). The younger profile of the locality and suburb is likely due to their proximity to the Australian National University (ANU), as well as the city centre character of locality which typically attract younger residents than more suburban areas.

The majority of the population within the locality (91.3 per cent) are aged between 15 and 64 years, significantly higher than the ACT (63.3 per cent), reflecting a potentially large labour force.

In general, the ACT has a relatively high level of 15 to 24-year-old people who were engaged in school, work or further education/training. Published research shows that participating in education or starting employment after concluding compulsory education helps individuals to develop abilities and skills and encourages a socially inclusive and productive society. Not participating in either can contribute to future unemployment, lower incomes and employment insecurity (de Fontenay et al. 2020).

Long-term outcomes of unemployment and job loss can also include poor physical and mental health, family disruption, decreased social participation and poor and poor attainment and wellbeing for the children of unemployed people (Brand 2015; Green 2011, accessed via AIHW 9 November 2022)).

There is a relatively even split of sexes within the social area of influence.

Aboriginal and/or Torres Strait Islander residents (2021)

There is a low proportion of Aboriginal and/or Torres Strait Islander people within the social area of influence.

Educational attainment (2021)

Within the locality, there is a much higher-than-average tertiary educational attainment when compared to the ACT (71.3 per cent compared to 32.7 per cent). This is likely due to the economic cluster within the study area, the types of jobs requiring a higher pre-requisite of knowledge, and the proximity to the ANU. The suburb also has high rates of tertiary educational attainment, with more than half of residents having a university qualification (68.1 per cent).Disability (2016)

Across the suburb there is a relatively low proportion of residents in the community living with a profound disability when compared to the broader ACT. Data also shows that the number of persons with a disability is increasing in the ACT. In 2016 19.4 per cent of those in the Australian Capital Territory had disability, up from 16.2 per cent in 2015. Of those with a disability, 60.3 per cent have their needs fully met, compared to 39.2 per cent who have their needs partially met.

Children developmentally at risk (2016)

In the ACT around one in four children were developmentally vulnerable in one or more domain(s), which is slightly higher when compared to the Social Area of Influence which was approximately one in five. Having just one developmentally vulnerable indicator puts children at greater risk of poorer educational and wellbeing outcomes.

In the ACT around one in four children were developmentally vulnerable in one or more domain(s), which is slightly higher when compared to the Social Area of Influence which was approximately one in five. Having just one developmentally vulnerable indicator puts children at greater risk of poorer educational and wellbeing outcomes.

Social capital

Social capital relates to how individuals, groups, organisations, and institutions within a community interact and cooperate; it can be broadly defined as the dynamics and strength of relationships and/or interactions within a given community; this includes the degree of social cohesion and interconnectedness between community members.

Cultural diversity (2021)

The locality has the greatest cultural diversity within the social area of influence. This is reflected by:

- A significantly lower proportion of Australian born residents compared to the suburb and ACT (44.6 per cent compared to 66 per cent and 66.9 per cent respectively)
- A significantly lower proportion of households where English is the language spoken a home compared to the suburb and ACT (50.8 per cent compared to 72.7 per cent and 71.3 per cent respectively).

Within the locality, the top countries of birth, other than Australia, are China (16.2 per cent) and India (3.5 per cent). The top two languages spoken at home other than English include Mandarin (17.3 per cent) and

Cantonese (2.6 per cent). Together these two indicators reflect a large Chinese community within the locality which is not reflect across the suburb or broader ACT.

The cultural diversity and age of the area is potentially as a result of the close proximity of ANU to the locality and the enrolment rates of international students combined with city areas typically attracting a larger number of international residents.

Household composition (2021)

Approximately 78.1 per cent of households within the locality are couple families with no children. This is nearly double the ACT average of 39.3 per cent. Similarly, only 22.1 per cent of households are family households, which is much lower than the ACT average of 60.7 per cent. This demonstrates a smaller number of families and children within proximity to the Project than is typical for the ACT.

Household mobility (2016)

The levels of household mobility over a one-year period greatly fluctuated amongst the study communities, with those closest to the Project falling below the ACT average of 75 per cent of the population who lived at the same address one year ago. Similarly, the ACT also had a much higher proportion of those living at the same address five years ago (49 per cent compared to 8 per cent and 35 per cent). This indicates a more transient population, a typical feature of areas where tertiary institutions or options to facilitate more educational support.

Crime and safety

Across the ACT there has been a decrease in the total number of reported crime between January to July 2020 and January to July 2021, evident in the table below. However, the Inner North[7] has experienced an increase of reported crime over the same (3.6 per cent). This suggests that the number of reported crimes are decreasing across the ACT for the January to July period, while crime incidents are increasing locally in the Inner North.

Locality	2020 (Jan-Jul)	2021 (Jan-Jul)
ACT	24,583	21,930
Inner North	5,002	5,182

When considering the top five most frequent crimes across the ACT and Inner North for January to July in 2021, the ACT and the Inner North have similar crime profiles. Key similarities and differences include:

- Theft was the most frequent crime in the Inner North and represented a larger proportion of reported crimes when compared to the ACT (27.6 per cent compared to 22.2 per cent respectively)
- The ACT and the Inner North share the same top five most frequent crimes
- While the order of the topmost frequent crimes varies between the ACT and the Inner North, the representation of common crimes is relatively even.

The increase in theft between January to July 2020 and January to July 2021 in the Inner North is notable. This change in local crime profile is significant as it:

- Demonstrates a significant increase in one crime type
- Theft impacts on a communities sense of safety
- Theft can lead to violent encounters.

Locality	2020 (Jan-Jul)	2021 (Jan-Jul)
ACT	• Other offences (32.3%) • Traffic infringement notices (25.3%) • Theft (excluding motor vehicles) (16.9%) • Property damage (8.6%) • Assault (6.2%)	• Other offences (26.9%) • Theft (excluding motor vehicles) (22.2%) • Traffic infringement notices (20.1%) • Property damage (10.6%) • Assault (7.6%)

[7] The Inner North is one of the ACT Federal Police districts which includes the locality

Locality	2020 (Jan-Jul)	2021 (Jan-Jul)
Inner North	• Other offences (30.0%) • Traffic infringement notices (27.2%) • Theft (excluding motor vehicles (18.6%) • Property damage (8.4%) • Assault (7.4%)	• Theft (excluding motor vehicles) (27.6%) • Other offences (25.5%) • Traffic infringement notices (18.5%) • Property damage (9.2%) • Assault (7.8%)

Social connections and community cohesion (2016)

Across all the communities in the study area, there are similar proportions of the population (15 years and above) who have undertaken 'voluntary work for a group or organisation in the last 12 months'. However, rates of volunteerism are highest in the locality (29 per cent) when compared to the ACT (23 per cent). This shows a strong proportion of the population with a willingness to support their community.

There are a number of active community groups around the Project that contribute to fostering social connections and relationships. Some of these groups include resident groups, environmental protection groups, activist/lobby groups, as well as chambers of commerce and cultural groups. Weekly, seasonal and annual events also contribute to connecting communities and contributing to a sense of place around the Project. These include markets, sporting events and major celebrations such as Australia Day.

Collectively, these groups contribute to community cohesion, community identity and a sense of belonging – overall supporting an active and socially connected community.

During community engagement on the Raising London Circuit project (a project located in close proximity to Canberra Light Rail City to Commonwealth Park), community members reflected the importance of community cohesion in their local area. When asked what that valued about their local, community members said:

"Feeling connected, safe and supported"

"Harmony, getting on together"

"Helpfulness and caring"

"Friendliness and helpfulness to strangers"

It is also useful to look at homelessness through a social capital lens as it explores subjective aspects such as feelings towards individuals in a social network, sense of belonging, and perceived emotional support (Harpham et al., 2002; Kawachi et al., 2008). Overall, Canberra has a relatively low level of homelessness, representing just 1 per cent of homelessness in Australia. Within the social locality, there is a high level of social capital in terms of social connections and community cohesions, with shows that there is a provision of emotional support available, contributing to the lower level of homelessness. However, more recently, the Anglicare Rental Affordability Snapshot has consistently found almost no private rental properties are affordable for people on low incomes and income support and a trending increase in levels of homelessness as a result (ACT Council of Social Services, 2020).

Economic capital

Economic capital is defined as the extent of financial or economic resources within a town or community, including access to credit. For instance, a town lacking in economic capital, but predominantly reliant on a specific industry sector, is likely to be more vulnerable to change and consequently more likely to experience greater difficulties in adapting to change given this dependence, particularly once an industry declines or as a result of industry closure.

Unemployment in the ACT (2021)

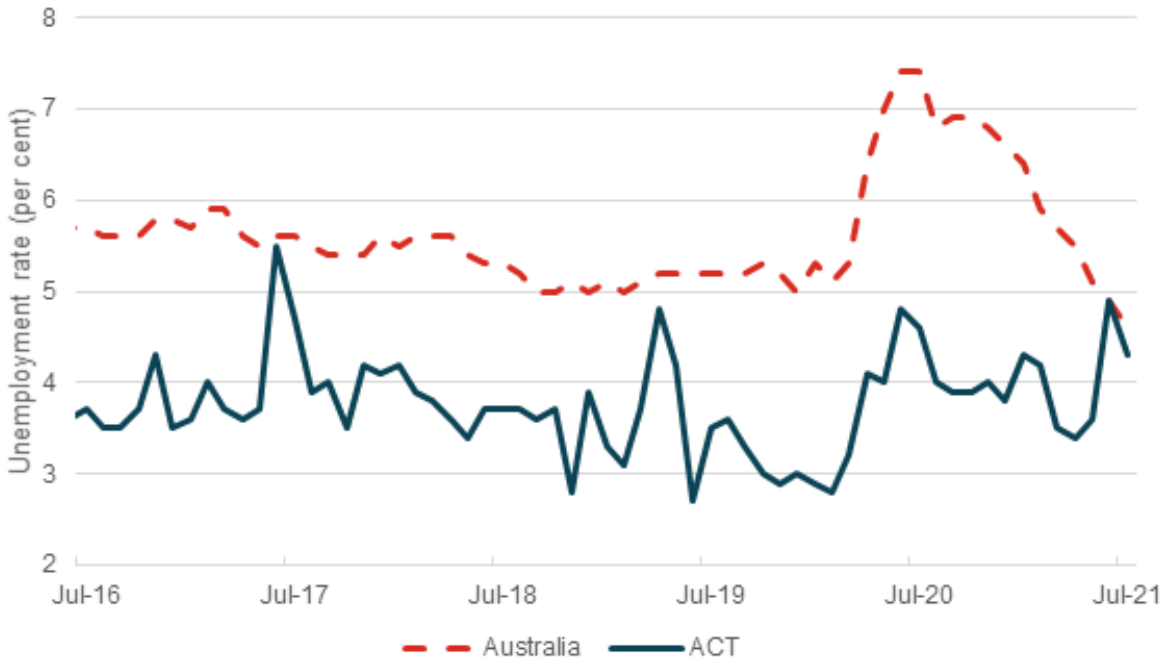
The ABS releases a detailed monthly and quarterly Labour Force Survey data, including hours, regions, families, job search, job duration, casual, industry and occupation. The current data provides an insight into the current impacts of COVID-19 on the economy, which is not accounted for in the 2016 Census data.

As of September 2022, the ACT's unemployment rate declined to 3.1 per cent, from 3.4 per cent in July 2022. The decline in the unemployment rate coupled with modest employment growth saw the participation rate fall by

less than 0.2 of a percentage point to 70.7 per cent in September 202 (ABS, September 2022 Labour Force Data Release).

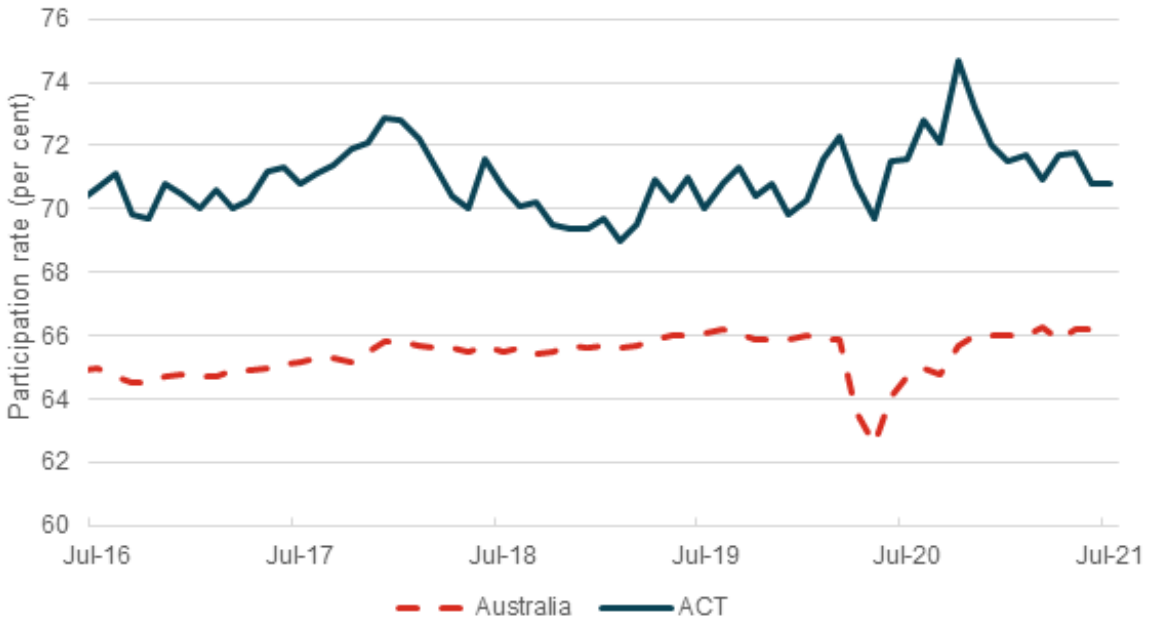
The ACT Government (August 2021) noted that the increase in ACT's employment in July 2021 was driven by an increase in part-time employment (up by 3,200 persons), partially offset by a decline in full-time employment (down by 1,800 persons). Female employment rose by 1,800 persons in July 2021 while male employment fell by 400 persons in the month.

Nationally, the unemployment rate fell by 0.3 per cent to 4.6 per cent in July 2021. Employment rose by 2,200 persons, reflecting increases in employment across Australia except in New South Wales and Queensland.



Seasonally adjusted unemployment rate for the ACT and Australia, 2016-2021

Source: ABS Labour Force, Australia



Seasonally adjusted participation rate for the ACT and Australia, 2016-2021

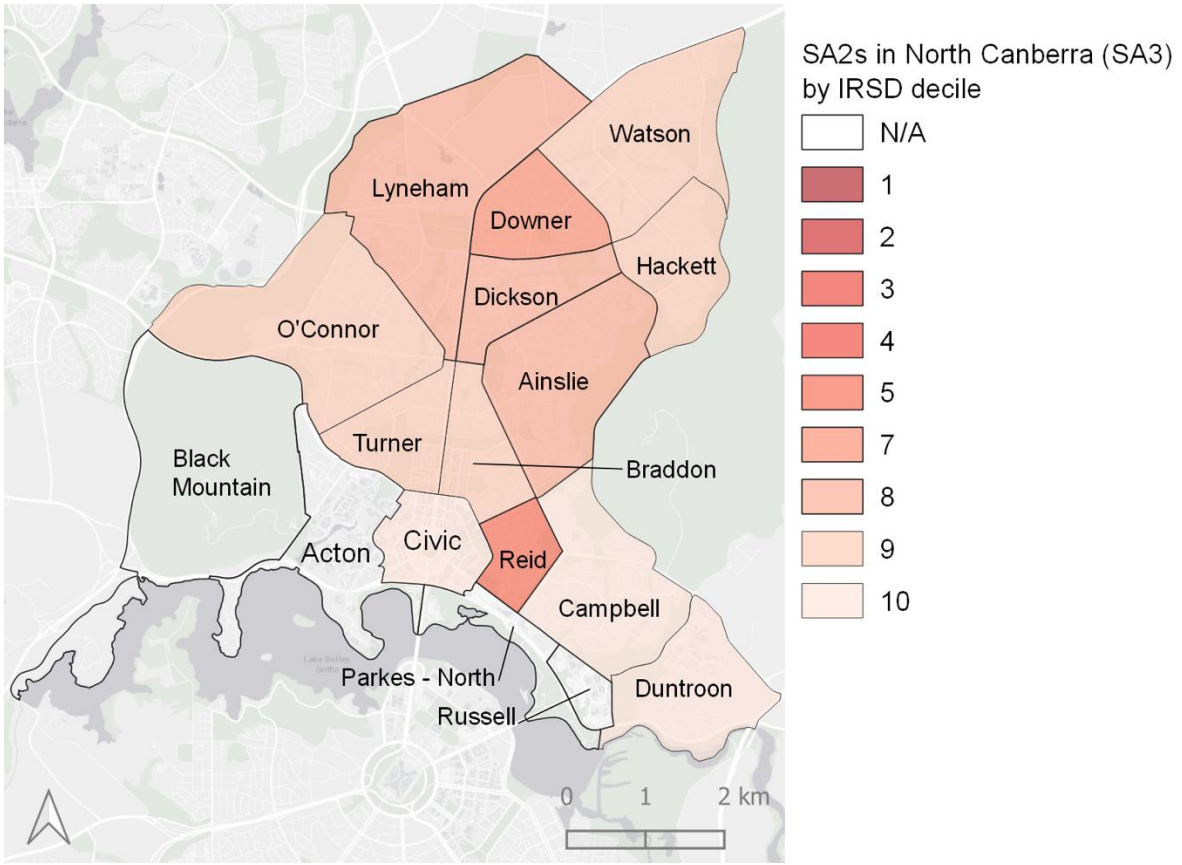
Source: ABS Labour Force, Australia

Socioeconomic indicator of advantage and disadvantage

The Socioeconomic Indexes for Areas (SEIFA) is an index provided by the ABS that summarises different aspects of the socioeconomic conditions of the people living in a given area based on a range of data from the census such as income, educational attainment, unemployment and dwellings without motor vehicles.

The Index of Relative Socioeconomic Disadvantage (IRSD) is a general socioeconomic index that summarises a range of information about the economic and social conditions of people and households. This index includes only measures of relative disadvantage; a low IRSD decile indicates relatively greater disadvantage in general. For example, an area could have a low score if there are (among other things) many households with low income, many people with no qualifications, or many people in low skill occupations. Conversely, a high IRSD score indicates a relative lack of disadvantage in general. The IRSD for the 2016 ABS Census has been used for this indicator in this SEIA.

The IRSD deciles show that areas within the suburb there are relatively low levels of disadvantage. This is reflected by the high number of SA2s which scored an IRSD decile of eight or higher, making them part of the top 30 per cent of SA2s in Australia with the least disadvantage. SA2s which scored the highest deciles (10) within the Suburb include the project locality – Civic, and Duntroon. The only areas within the Suburb which had greater levels of disadvantage were Reid and Downer SA2s. This would reflect lower household incomes, unemployment rates, and larger proportion of public housing in these areas. This also indicates that the communities within these areas would be most vulnerable to change and any adverse impacts as a result of those changes provides the overall socioeconomic status and level of disadvantage within each community while the figure below shows IRSD distributions across North Canberra. It should be noted that IRSD is only available at SA1, SA2, Local Government Area (LGA), Postal Area (POA), and State Suburb (SSC). Consequently, the Suburb (North Canberra SA3) has been represented by the SA2s which constitute this SA3, as SA3s are conglomerations of SA2 data.



SA2s in North Canberra (SA3) by IRSAD decile

SEIFA scores for the social area of influence relevant to this Project

Social area of influence	IRSD Decile
Locality (Civic SA2)	10
Suburb (North Canberra (SA3)	Acton (N/A), Ainslie (8), Braddon (9), Civic (10) Dickson (8), Downer (7), Hackett (9), Lyneham (8), O'Connor (9), Turner (9), Watson (9), Black Mountain (N/A), Campbell (10), Duntroon (10), Parkes (N/A), Reid (5), Russell (N/A)

Income (2016)

Median weekly household income in the locality is $2,222 per week. This is substantially higher than the suburb ($1,920) and the ACT ($2,070). Only eight per cent of households in the locality reported a weekly income fewer than $650 - termed a 'low income'. This is significantly lower than the ACT average of 33 per cent. Between 2011 and 2016, the locality experienced a 3.1 per cent increase in median weekly household income, the lowest increase across the social area of influence, shown below in the table below. This demonstrates an economically strong population within the locality while residents in the suburb and ACT are generally experiencing increasing economic capital reflected by increasing median household incomes.

While median household income is relatively high in the locality, median personal weekly income is significantly lower than the suburb and ACT ($496 compared to $925 and $1,246 respectively). The locality also experienced the lowest increase in median personal income between 2011 and 2016 (3.8 per cent) when compared to the suburb and the ACT (8.4 per cent and 35.7 per cent respectively).

The locality has a significant difference between median personal and household income. This suggests there are a large proportion of households with strong economic capital and earning capabilities, while on an individual level there is a large representation of residents who have very low earning capabilities. A potential explanation for the difference in median household income and median personal income is a dynamic social mix of residents who engaged in either study and/or work, potentially leading to household mixes where individual incomes vary significantly based on employment status and study commitments.

Median personal income and median household income

Indicator	Locality			Suburb			ACT		
	2011	2016	Change	2011	2016	Change	2011	2016	Change
Median total personal income per week	$478	$496	3.8%	$853	$925	8.4%	$918	$1,246	35.7%
Median total household income per week	$2,155	$2,222	3.1%	$1819	$1981	8.9%	$1920	$2,070	7.8 %

Housing costs (2016)

Median weekly rent is significantly higher in the locality ($500 per week) compared to the suburb ($390 per week) and the ACT ($380 per week) while median mortgage repayments are moderately higher in the locality ($2,200 per month) compared to the suburb ($2,058 per month) and the ACT ($2,058 per month). In general, median mortgage repayments have decreased between 2011 and 2016 across the social area of influence while median rent has remained stable in locality and ACT for the same period. Median rent decreased by $10 per week in the suburb between 2011 and 2016.

Housing costs

Indicator	Locality			Suburb			ACT		
	2011	2016		2011	2016		2011	2016	
Median monthly mortgage repayments	$2,606	$2,200	↓	$2,199	$2,058	↓	$2,167	$2,058	↓
Median rent per week	$500	$500	→	$400	$390	↓	$380	$380	→

Industry of employment (2016)

The most represented industries of employment are consistent across the locality, suburb and ACT. These include:

- Central Government Administration
- Defence
- Higher education
- Hospitals.

This suggests that government sector, education and health care are key employers within the social area of influence.

Occupation (2016)

The most represented occupations are also consistent across the locality, suburb and ACT. These included:

- Professionals
- Managers
- Clerical and administrative workers.

This is likely influenced by the high concentration of government/public sector jobs within the city centre, and Canberra as a whole.

Physical capital

Physical capital is broadly defined as a town or a community's built infrastructure and services, including hospitals, schools as well as social service provision e.g., health care, aged care, child care. The following section provides an overview of key physical capital attributes for the area.

Private dwellings and occupancy rates (2016)

The locality has a total of 1,349 private dwellings with an occupancy rate of 83 per cent. Occupancy rates in the suburb and ACT are higher (90 per cent and 92 per cent respectively) reflecting greater housing availability within the locality.

A review of June 2021 housing vacancy rates by postcode indicates that community profiles close to the Project[8] have vacancy rates of 5.1 per cent (approx. 70 vacancies) and 1.4 per cent (approx. 71 vacancies) respectively (SQM Research, 2021). This was significantly higher than Canberra which had a vacancy rate less than one percent.

[8] 2601 (suburbs of Acton and Canberra) and 2612 (suburbs of Campbell, Reid, Braddon, and Turner)

Housing availability (2016)

Rental demands vary throughout the year with vacancy rates peaking around May / June with lower rates between these months (SQM Research, 2021). A search carried out on 2 August 2021 found there were 651 properties available for rent on realestate.com within the ACT (realestate.com, 2021). Of these, there were 275 rentals within the postcodes closest to the Project[9], indicating roughly 42 per cent of the rental market is located in the community profiles near the Project. (realestate.com, 2021). This is likely a reflection of the impact of COVID-19 on slow population growth linked to international students and visitors.

Dwelling structure, average number of bedrooms and average household size (2016)

The majority of dwellings within the locality are high density (99 per cent). This is significantly higher when compared to the suburb and ACT (38 per cent and 15 per cent). Traditionally, high density dwellings have fewer bedrooms and lower average households. This is evident in the locality, with an average household size of 1.8 people per households and a low number of bedrooms per household (1.7).

Internet access (2016)

The majority of dwellings in the locality have internet access (93 per cent). This is the highest connectivity rate with the area of social influence.

Tenure type (2016)

More than two thirds of residents within the locality rent (68 per cent). This is notably higher than the suburb and more than double the rate of the ACT (49 per cent and 32 per cent respectively). Home ownership rates[10] are highest across the ACT.

Public and active transport and travel to work

Across the social locality, residents utilise a range of transport methods for their commute. Within the locality, the top methods of travel to work include (2016):

- Walking (35 per cent)
- Car, as driver (30 per cent)
- Public transport (11 per cent).

The higher levels of public transport use are closer to the Project (when compared to the ACT in 2016) reflecting the higher level of public transport service provision in the inner-city areas. While this has previously been in the form of bus services, the completion of the Stage1 light rail in April 2019 provided an alternative mode of transport between Gungahlin and the City, with more than one million passenger trips in the first three months.

The impact of COVID-19, which manifested in March 2020, continues to impact Canberra public transport patronage as Canberrans follow public health advice to limit public transport use and stay at home. In the third quarter of the 2021-22 financial year (1 January to 31 March 2022), there were[11]:

- 3,298,557 boardings recorded on Transport Canberra bus and light rail services – a decrease of 17.02 per cent from the same period in 2021
- 2,313,566 journeys recorded on Transport Canberra bus and light rail services – a decrease of 19.53 per cent from the same period in 2021.

Number of register motor vehicles (2016)

The locality has the lowest motor vehicle reliance within the social area of influence. This is reflected by:

- The high proportion of households with no motor vehicle when compared to the suburb and ACT (20 per cent compared to 12 per cent and 6 per cent respectively)
- The high proportion of with only one motor vehicle when compared to the suburb and ACT (57 per cent compared to 47 per cent and 37 per cent respectively).

[9] 2601 and 2612
[10] Owned with a mortgage and owned outright
[11] Transport Canberra Quarterly Data Report, Issue 11 (Q3 – 1 January to 31 March 2022)

Based on the number of register motor vehicles per household in the locality, suburb and ACT, the further away from the Project the more likely a household is to have two or more vehicles. This is likely connected to:

- The transient nature of accessing employment
- A household's access to public transport
- The changing household composition from couple with no children closer to the city centre, to more families as you move away from the city centre
- The competing needs to access services.

Social infrastructure

The Project is located in a central location within Canberra City, and therefore contains a wide range of community services and facilities which serve a broad catchment. These community assets include:

- A diverse range of law and justice facilities: Canberra City Police Station, the Supreme Court, Family Court Australia, and the Magistrates Court
- Extensive tertiary education facilities associated with ANU, University of NSW (Canberra), Canberra Institute of Technology, Australian Institute of Management , and Australian Capital College
- Local public and private schools such as: Ainslie School (primary), Turner School (primary), and Merici College (Non-government secondary)
- Community services such as: Multicultural Youth Services ACT, Multicultural employment service, Multicultural Women's Advocacy, YWCA Canberra, Catholic Social Services Australia, Meridian ACT, and Uniting High Risk Families ACT
- A range of public and private health services including Sexual Health and Family Planning ACT, City Family Practice, Canberra City Health Network, The Junction Youth Health Care, and various specialist private health facilities (physiotherapy, dental, skin, psychology)
    - Regional and local cultural facilities including the National Convention Centre Canberra, the National Capital Exhibition, the National Film and Sound Archive, Llewellyn Hall, Shine Dome, Civic Square arts and cultural precinct (inclusive of the Canberra Museum and Gallery, Civic Library and Canberra Theatre), the Street Theatre, and Ainslie and Gorman Arts Centres
    - Extensive passive and active recreation spaces including facilities associated with ANU, regional active recreation facilities such as the Canberra Olympic Pool, a range of local facilities (including playgrounds, aquatic facilities, and sport facilities), a key natural features such as Lake Burley Griffin foreshore and City Hill.
- A range of childcare and early learning facilities
- Multiple places of worship, reflecting both diverse religious and cultural groups.

Overall, the social area of influence and locality have access to a range of local and regional community facilities and assets. This is partly due to the locality's proximity to the Canberra CBD, ANU and clustering of major facilities within the heart of Canberra.

Social housing (2020)

Social Housing incorporates Public Housing, Community Housing and Affordable Housing, offering low-cost housing for people on low and moderate incomes, and/or for groups whose housing needs are not adequately met in other forms of housing. The ACT has the lowest proportion of community housing stock nationally, with fewer than one in 10 of the ACTs. Most Community Housing properties are owned by the ACT Government but managed by not-for-profit organisations under head-lease arrangements while some properties are owned by the organisations themselves. These organisations vary in size. They also have different objectives or target different groups with particular needs (through circumstances such as age or disability).

There were 11,921 social housing properties in the ACT in June 2020. Of those, 10,985 were public housing and 936 were community housing. But only 11,361 had tenants. According to Australian Institute of Health and Welfare, 8378 properties met standards for occupancy, but 1860 properties were underutilised and 482 were considered to be overcrowded (AIWH, 2021).

Research into access to social housing in the ACT has found almost no private rental properties are affordable for people on low incomes and income support. This has a direct impact on homelessness.

Natural capital

Natural capital refers to the natural assets and resources that contribute to community strength and sustainability. Natural capital can include resources which provide commercial and practical benefit to the community or other environmental assets that generate tourism or provide other social, cultural, and recreational value, such as waterways or lakes.

Canberra and the ACT more broadly have a notable amount of natural capital, with lakes, rivers, and bushland located near to Canberra's city centre and in the broader region. The ACT is strategically positioned within driving distance to both the Kosciuszko National Park and South Coast Region. This provides residents with a range of week-end activities including skiing in the Snowy Mountains in winter, mountain bike riding and hiking in the Kosciuszko National Park in summer, and coastal getaways. The proximity of the ACT to Nationally recognised natural assets provide a lifestyle benefit to residents.

Within the social area of influence, the following spaces and places are key natural assets which contribute to community identity, tourism, and positive liveability outcomes:

- Lake Burley Griffin and foreshores
- Black Mountain Nature Reserve
- Molonglo River.

Lake Burley Griffin and foreshores

Lake Burley Griffin is the natural centre piece of Canberra CBD. There is a total of 40km of foreshore, providing a range of public spaces for the community and facilitates a range of community and recreational activities including[12]:

- Parks, gardens and picnic areas
- Recreational swimming at three designated beaches
- Rowing, sailing, dragon boating and stand-up paddle boarding
- Running and cycling tracks around the Lake
- Elite training (triathlon training, national rowing and sailing).

Black Mountain Nature Reserve

The Black Mountain Nature Reserves covers a total of 434 hectares. Black Mountain Nature Reserve is known for its nature trails, vistas and wildflowers in the spring and summer[13].

Molonglo River

Molonglo River is a tributary to Lake Burley Griffin. Molonglo River provide a range of recreational opportunities including picnic spaces, open space, and trails. There is a 31.7km trail loop which connects Molonglo River and Lake Burley Griffin which is popular among trail runners and walkers alike.

Social baseline data tables

Indicator	Civic (SA2)	North Canberra (SA3)	ACT
Human Capital			
Population (2021)	4,835	61,188	431,380

[12] https://www.nca.gov.au/attractions-and-memorials/lake-burley-griffin
[13] https://visitcanberra.com.au/attractions/56b23b1f266140594567de34/black-mountain

Indicator	Civic (SA2)	North Canberra (SA3)	ACT
Population by sex (female) (2021)	50.0%	50.7%	51.7%
Population by sex (male) (2021)	50.0%	49.3%	49.3%
Age profile (2021)			
Median age	27	31	35
0-4 years	1.4%	3.9%	5.9%
5-9 years	0.8%	4.1%	6.4%
10-14 years	0.7%	4%	6.0%
15-19 years	12.7%	7.7%	5.8%
20-24 years	24.7%	14.5%	7.5%
25-29 years	18.6%	12.1%	8.6%
30-34 years	11.5%	9.6%	8.5%
35-39 years	7%	7.5%	8.2%
40-44 years	4%	6%	7.1%
45-49 years	3.5%	5.3%	6.4%
50-54 years	3.6%	5.4%	5.9%
55-59 years	3.2%	4.6%	5.3%
60-64 years	2.5%	4.1%	4.7%
65-69 years	2%	3.3%	4.1%
70-74 years	1.9%	2.8%	3.8%
75-79 years	1%	2%	2.6%
80-84 years	0.4%	1.4%	1.7%
85 years and older	0.5%	1.7%	1.6%
Highest level of educational attainment (2016			
Completed year 12 or equivalent	38.7%	21.4%	17.9%
Completed year 11 or equivalent	0.7%	1.5%	2.8%
Completed year 10 or equivalent	0.8%	3.7%	7.0%
Did not go to school	0.1%	0.3%	0.4%
Bachelor degree level and above	40.5%	47.3%	37.1%
Advanced diploma/diploma	4.5%	5.9%	9.2%

Indicator	Civic (SA2)	North Canberra (SA3)	ACT
Health			
People with a profound or severe disability and living in the community – all ages	2.0%	–	–
People with a profound or severe disability (includes people in long-term accommodation) - all ages	2.1%	–	–
Learning or earning	91.0%	–	–
Children developmentally vulnerable in one or more domains	21.2%	–	–
Social Capital			
Ancestry and language spoken at home (2021)			
Chinese	23.2%	7.9%	5.7%
English	23.3%	33.8%	32.0%
Australian	19.8%	30.4%	31.5%
Irish	8.8%	13.8%	11.6%
Scottish	7.8%	11.3%	10.0%
Country of birth:	Australia (44.6%)	Australia (66.0%)	Australia (67.5%)
	China (16.2%)	China (4.1%)	India (3.8%)
	India (3.5%)	England (3.4%)	England (2.9%)
	England (2.3%)	India (2.1%)	China (2.7%)
	Malaysia (1.7%)	New Zealand (1.3%)	Nepal (1.3%)
	-	United States of America (1.2%)	New Zealand (1.1%)
Languages spoken at home:	Mandarin (17.3%)	Mandarin (4.7%)	Mandarin (3.1%)
	Cantonese (2.6%)	Vietnamese and Cantonese (1.1%)	Nepali (1.3%)
	Korean (2.0%)	Spanish (0.9%)	Vietnamese and Punjabi (1.1%)
	Hindi (1.3%)	Other Southern Asian Languages (0.8%)	Hindi (1.0%)
	Spanish (0.9%)	–	–
Family composition (2021)			

Indicator	Civic (SA2)	North Canberra (SA3)	ACT
Couple family with no children	78.1%	49.9%	39.3%
Couple family with children	12.6%	36.2%	45.3%
One parent family	7.2%	11.9%	13.9%
Other family	2.3%	2.0%	1.5%
Household types (2021)			
Lone person household	44.6%	34.1%	25.7%
Group household	10.3%	10.1%	4.7%
Family household	45.2%	55.7%	69.6%
Housing mobility (2016)			
Proportion living in same usual address 1 year ago	47%	54%	75%
Proportion living in same usual address 5 years ago	8%	35%	49%
Volunteering (2016)			
Volunteered through an organisation or group (last 12 months)	28.7%	29.1%	23.3%
Need for assistance (2016)			
Persons with profound or severe core activity limitations (2018)	2.1%	-	12.4%
Persons living in households with disability (2018)	10.3%	-	19.4%
All persons living in households extent to which needs are met – fully (2018)	-	-	60.3%
All persons living in households extent to which needs are met – partially (2018)	-	-	39.2%
Homelessness (2016)			
Number of homeless people	38	589	1,596
Economic Capital (2016)			
Income			
Median total personal income ($/week)	$496	$925	$1,246
Median total household income ($/week)	$2,222	$1,981	$2,070

Indicator	Civic (SA2)	North Canberra (SA3)	ACT
Housing costs			
Median mortgage repayments ($/month)	$2,200	$2,167	$2,058
Median rent ($/week)	$500	$390	$380
Employment			
Labour force participation (15-85 years)	53.9%	64.2%	69.9%
Unemployment	12.5%	6.3%	4.7%
Housing stress and low-income households			
Low-income households under financial stress from mortgage or rent	-	4.5%	7.5%
Workforce			
Top three industries of employment	Central Government Administration (20.4%)	Central Government Administration (19.8%)	Central Government Administration (18.4%)
	Higher Education (7.1%)	Defence (9.7%)	Defence (5.2%)
	Defence (7.0%)	Higher education (6.5%)	Hospitals (3.2%)
Top three occupations	Professionals (41.1%)	Professionals (38.1%)	Professionals (30.5%)
	Managers (15.3%)	Managers (19.1%)	Managers (15.9%)
	Clerical and administrative workers (12.8%)	Clerical and administrative workers (13.0%)	Clerical and administrative workers (16.9%)
Physical Capital (2016)			
Homeownership			
Owned outright	11%	23%	27%
Owned with a mortgage	19%	25%	38%
Rented	68%	49%	32%
Other tenure type, not stated, not applicable	3%	4%	3%
Dwelling structure			
Total private dwellings	1,349	23,335	155,263
Occupied private dwellings	83.0%	89.6%	91.9%
Unoccupied private dwellings	17.0%	10.4%	8.1%
Occupied – separate house	0.0%	44.8%	67.0%
Occupied – semi detached	0.0%	16.6%	17.7%

Indicator	Civic (SA2)	North Canberra (SA3)	ACT
Occupied – flat, unit or apartment	99.3%	38.0%	15.0%
Average number of people per household	1.8	2.2	2.5
Average number of bedrooms	1.7	2.6	3.1
Internet access from dwelling	92.9%	87.8%	89.9%
Method of travel to work			
Walked only	34.3%	15.5%	4.5%
Bus	9.8%	7.5%	5.9%
Bicycle	3.9%	9.0%	2.6%
Worked at home	2.8%	3.5%	-
Public transport	10.8%	8.7%	7.1%
Travelled to work by car as driver or passenger	33.6%	50.9%	71.2%
Number of registered motor vehicles			
None	19.9%	11.9%	6.0%
1	57.4%	46.9%	37.0%
2	19.3%	28.8%	39.0%
3 or more	1.8%	9.3%	16.0%
Not stated	1.8%	3.0%	3.0%

Appendix F: Worker profile

Employment drivers

Workers

In 2016 a total of 34,356 people worked in Civic, representing 51.0 per cent of workers within North Canberra and 15.6 per cent of workers within the ACT. Civic is evidently a major employment centre for both the local area and the ACT as a whole, providing upwards of 35,000 jobs to the region.

Place of work for Civic, North Canberra and the ACT, 2016.

	Civic	North Canberra	ACT
Place of work	34,356	67,354	220,645
Representation of Civic	-	51.0%	15.6%

Source: Australian Bureau of Statistics, 2016 Australian Census: Place of Work, Civic (SA2), North Canberra (SA3), ACT (SA4)

Sector of employment

The public sector (National, Territory and Local Government) is a major employer in Civic, representing more than half of all employment opportunities (56.5 per cent). This consequently reflects Civic as a governance and public administration hub. The broader area of North Canberra also has 56.5 per cent of workers employed in the public sector, reflecting a similar prevalence and importance of governance and public administration as Civic.

When compared to the ACT, a notably higher proportion of public sector employees work in Civic and North Canberra (42.9 per cent compared to 56.5 per cent and 56.5 per cent respectively). Together this shows that Civic and North Canberra have less diverse employment opportunities than the ACT, with a significant focus on National and Territory Government.

Employment by sector for workers in Civic, North Canberra and the ACT, 2016

Public/private	Civic	North Canberra	ACT
National Government	43.7%	45.9%	33.0%
State / Territory Government	12.4%	10.3%	9.8%
Local Government	0.4%	0.3%	0.1%
Private Sector	42.6%	42.7%	56.3%
Not stated	0.9%	0.9%	0.9%

Source: Australian Bureau of Statistics, 2016 Australian Census: Place of Work, GNGP Public/Private Sector, Civic (SA2), North Canberra (SA3), ACT (SA4)

Industry of employment

More than half of all people who work in Civic are employed in Public Administration (50.6 per cent). This supports the prevalence of governance and public administration in Civic reflected in sector of employment. Other major industries of employment in Civic include Professional and Scientific and Technical Services (11.8 per cent) and Accommodation and Food (6.3 per cent). The top three industries of employment in Civic indicate that:

- Civic is predominantly a governance and public administration district
- There is limited employment diversity within Civic, reflected by the low representation of other industries

- It is highly likely that the prevalence of Professional and Scientific and Technical Services as a major industry of employment in Civic is driven by:
  - The supportive infrastructure and service offering of a CBD location (such as professional office spaces, reliable, high-quality telecommunications infrastructure, and accessibility)
  - A desire to cluster and co-locate with public sector clients (current and potential) in order to deliver convenient and reliable services.
- Food services provide eating and entertaining options for workers and visitors alike, while Accommodation services offer hotels in the CBD for convenient personal and business tourism.

When compared to North Canberra and the ACT, there are key similarities and differences.

Key similarities include:

- Public Administration and Professional and Scientific and Technical Services are both major employers in Civic and North Canberra, representing a similar proportion of employment in both areas
- Public Administration is a major employer across the ACT, however not as proportionally prevalent as Civic and North Canberra.

Key differences include:

- Education and Training is a major employer in North Canberra compared to Civic (11.7 per cent compared to 2.8 per cent respectively), this is most likely linked with major tertiary, primary and secondary institutions in the area
- Health Care and Social Assistance is a major employer across the ACT, representing 10.3 per cent of jobs. This is notably higher than the 3.3 per cent representation in Civic.

Industries of employment show that Civic is a CBD locality driven by professional services, governance/public administration and supporting services. Civic is predominately tailored to businesses with a significantly lower number of workers employed in trade, construction, heavy and light industries, and essential social and community services such as education and health care. The distribution of industries across Civic fundamentally define it as a CBD.

Industry of employment for workers in Civic, North Canberra and the ACT, 2016

Industry of employment	Civic	North Canberra	ACT
Agriculture, Forestry and Fishing	0.2%	0.1%	0.2%
Mining	0.0%	0.0%	0.0%
Manufacturing	0.4%	0.6%	1.5%
Electricity, Gas, Water and Waste	1.3%	0.7%	0.7%
Construction	0.8%	1.6%	4.5%
Wholesale Trade	0.5%	0.4%	1.0%
Retail Trade	5.1%	3.8%	7.2%
Accommodation and Food	6.3%	6.8%	6.4%
Transport, Postal and Warehousing	2.5%	1.5%	2.3%
Information Media and Telecommunications	2.1%	2.2%	1.8%

Industry of employment	Civic	North Canberra	ACT
Financial and Insurance Services	3.2%	2.0%	1.6%
Renting, Hiring and Real Estate Services	1.5%	1.3%	1.3%
Professional, Scientific and Technical Services	11.8%	10.8%	9.6%
Administrative and Support Services	3.1%	2.6%	2.3%
Public Administration	50.6%	43.5%	32.5%
Education and Training	2.8%	11.7%	9.5%
Health Care and Social Assistance	3.3%	4.5%	10.3%
Arts and Recreation Services	1.1%	1.8%	1.7%
Other Services	1.5%	1.8%	2.9%
Inadequately described	1.3%	1.3%	1.7%
Not stated	0.9%	0.9%	0.9%

Source: Australian Bureau of Statistics, 2016 Australian Census: Place of Work, INDP Industry of Employment, Civic (SA2), North Canberra (SA3), ACT (SA4)

Occupation

The main occupation of workers in Civic are Professionals (33.5 per cent), Clerical and Administrative Workers (24.5 per cent) and Managers (20.2 per cent). Collectively, these top three occupations represent 78.2 per cent of all occupations in Civic.

When compared to North Canberra and the ACT, the occupation profile of workers Civic is:

- Similar, North Canberra and the ACT sharing the same top three occupations
- Less diverse, the top three occupations in North Canberra and the ACT representing a lower proportion of all occupations (75.1 per cent and 65.0 per cent respectively)
- The ACT has the most diverse occupation profile when compared to Civic and North Canberra.

Once again, the occupation profile of workers in Civic reflects the areas role as a CBD, with fewer labourers, technicians and trade workers, and machinery operators, and more professionals, managers, and clerical and administrative workers.

Occupation of workers in Civic, North Canberra and the ACT, 2016

Occupation	Civic	North Canberra	ACT
Managers	20.2%	19.9%	16.4%
Professionals	33.5%	34.5%	30.7%
Technicians and Trade Workers	4.2%	5.8%	8.5%
Community and Personal Service Workers	6.6%	8.3%	10.4%

Occupation	Civic	North Canberra	ACT
Clerical and Administrative Workers	24.5%	20.7%	17.9%
Sales Workers	5.2%	4.3%	6.8%
Machinery Operators and Drivers	0.3%	0.5%	2.1%
Labourers	2.3%	3.1%	4.6%
Inadequately described	2.6%	2.3%	2.0%
Not stated	0.5%	0.5%	0.5%

Source: Australian Bureau of Statistics, 2016 Australian Census: Place of Work, OCCP Occupation, Civic (SA2), North Canberra (SA3), ACT (SA4)

Worker profile

Age

The majority of workers in Civic are aged between 20 and 49 years of age. The largest 10-year age grouping is workers aged 30-39. When compared to North Canberra and the ACT, Civic has:

- A lower proportion of workers aged 15-19 years of age
- A lower proportion of workers aged 60 years of age or older.

This suggests that while Civic shares a similar worker age profile compared to North Canberra and the ACT, Civic has a lower representation of very young workers and older workers.

Age profile of workers in Civic, North Canberra and the ACT, 2016

Age	Civic	North Canberra	ACT
15-19	2.9%	3.6%	5.1%
20-29	23.1%	22.5%	21.7%
30-39	27.8%	26.2%	24.9%
40-49	23.5%	23.4%	22.8%
50-59	17.4%	17.8%	17.8%
60-69	5.0%	5.9%	6.8%
70+	0.4%	0.6%	1.0%

Source: Australian Bureau of Statistics, 2016 Australian Census: Place of Work, AGE10P Age in Ten Year Groups, Civic (SA2), North Canberra (SA3), ACT (SA4)

Sex

Civic has a relatively higher proportion of female workers than males workers (53.5 per cent compared to 46.5 per cent respectively). When compared to North Canberra and the ACT, these areas have a sex split which is closer to 50/50, suggesting that Civic has a slightly different worker profile to other areas in the broader area and across the ACT.

Sex profile of workers in Civic, North Canberra and the ACT, 2016

Sex	Civic	North Canberra	ACT
Female	53.5%	50.1%	50.2%

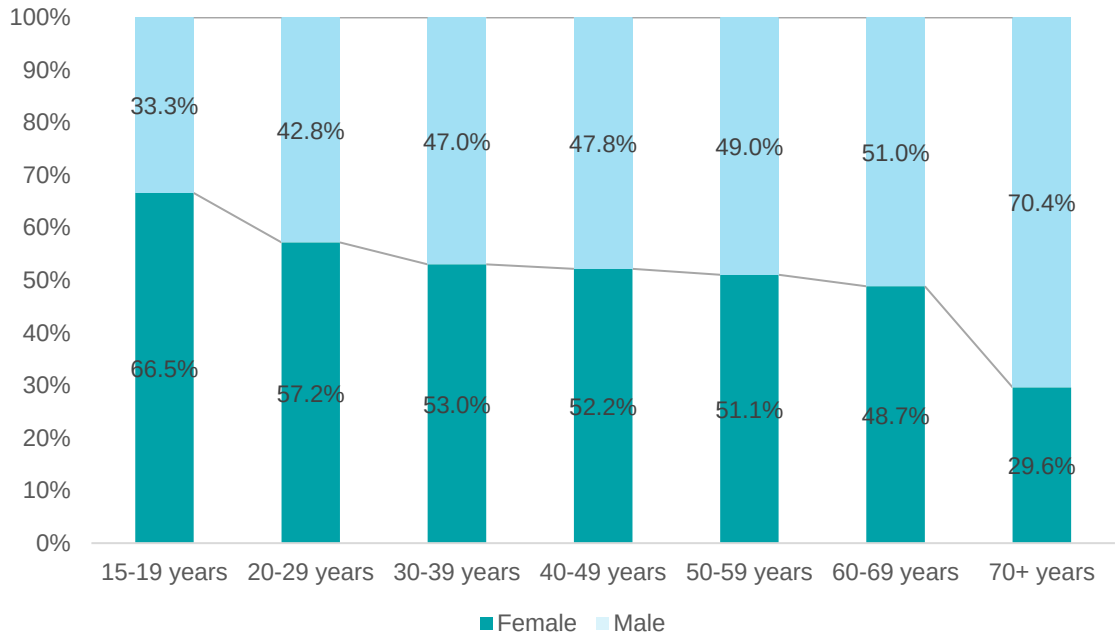
Sex	Civic	North Canberra	ACT
Male	46.5%	49.9%	49.8%

Source: Australian Bureau of Statistics, 2016 Australian Census: Place of Work, SEXP Sex, Civic (SA2), North Canberra (SA3), ACT (SA4)

Age and sex

While Civic does have a greater representation of female workers, on closer inspection the representation of female workers varies across age groups.

The age groups with relatively even representation of females and males workers are 30-39, 40-49, 50-59 and 60-69. Age groups with the greatest worker sex imbalances include 15-19 (a significantly higher representation of females than males) and 70 years or older (a significantly higher representation of males than females).



Age and sex profile of workers in Civic, 2016

Source: Australian Bureau of Statistics, 2016 Australian Census: Place of Work, SEXP Sex, AGE10P Age in Ten Year Groups, Civic (SA2)

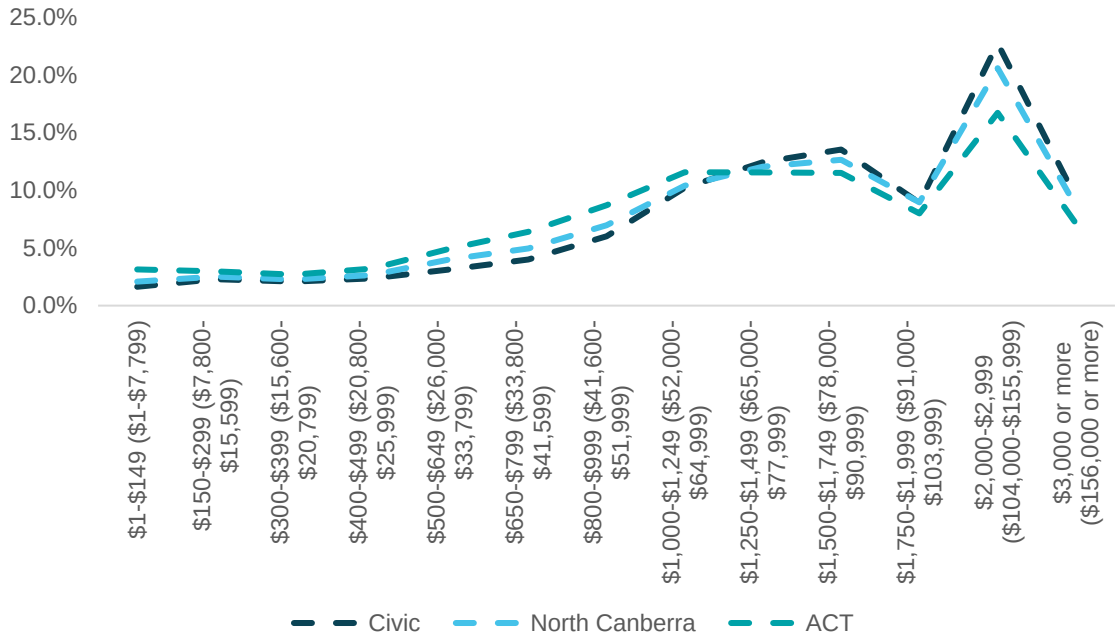
Income

The income profile of workers in Civic and North Canberra is relatively similar when compared to the ACT. Civic and North Canberra have:

- A higher proportion of workers earning more than $65,000-$77,999 per year compared to the ACT
- A lower proportion of workers earning under $64,000 per year compared to the ACT
- More than one in five workers earn between $104,000-155,999 per year, with a larger proportion of workers falling within this income bracket in Civic compared to North Canberra – making it the largest income bracket for workers (22.8 per cent and 20.6 per cent respectively).

The proportion of workers across the ACT who earn between $104,000-155,999 per year is still one of the major income brackets, however significantly lower compared to Civic and North Canberra (16.7 per cent compared to 22.8 per cent and 20.6 per cent respectively).

This suggests that workers in Civic have access to high economic capital, both numerically and relatively when compared to North Canberra and the ACT.



Income profile of workers in Civic, North Canberra and the ACT, 2016

Source: Australian Bureau of Statistics, 2016 Australian Census: Place of Work, INCP Total Personal Income (Weekly), Civic (SA2), North Canberra (SA3), ACT (SA4)

Transport behaviour

Where people live and work

When considering transport behaviour, understanding where workers live provides a context to travel distances and informs travel modes.

Approximately 2.5 per cent of people who work in Civic also live in Civic. However, when considering the proportion of employed residents in Civic, 41.3 per cent work in Civic. This means, of the total Civic workforce, very few live in the area, but of working residents in Civic nearly half work in the area. Alternatively:

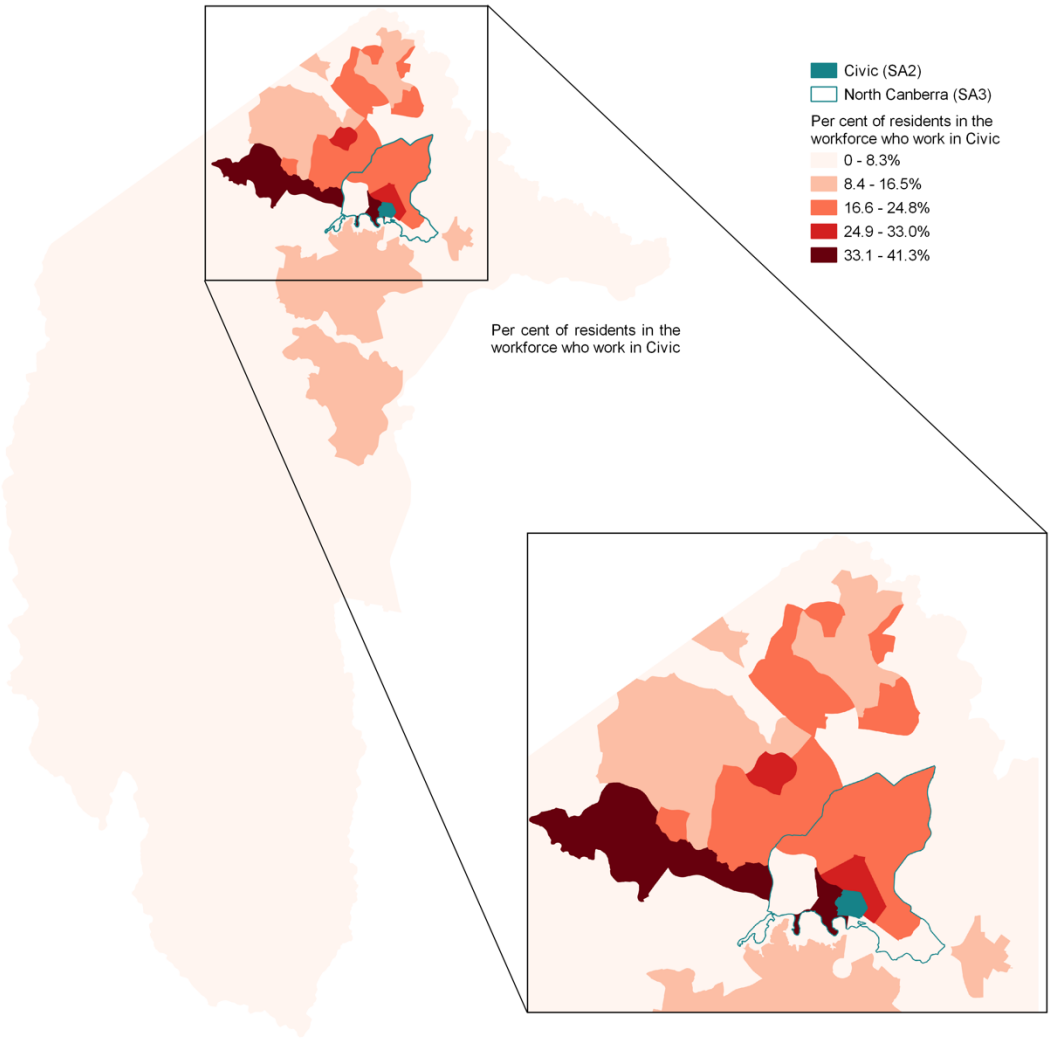
- 97.5 per cent of people who work in Civic reside outside of Civic
- 41.3 per cent of employed residents living in Civic work in Civic.

The figure below shows the representation of workers who live in the ACT and travel to Civic for work. The data is represented at the SA2 level and shows the per cent of workers who travel to Civic based on the number of working residents per SA2.

For example, areas in North Canberra have some of the highest proportions of residents who work in Civic. It also indicates that these areas also have the lowest proportion of employed residents who work in areas other than Civic.

SA2s with the greatest proportion of residents travelling to Civic to work were:

- Molonglo Corridor (37.5 per cent)
- Acton (34.3 per cent)
- Braddon (32.1 per cent)
- Reid (31.8 per cent)
- Turner (31.0 per cent)
- Lawson (28.1 per cent)
- Dickson (24.1 per cent)
- Moncrieff (23.9 per cent)



Proportion of employed residents who work in Civic (2016)

Source: Australian Bureau of Statistics, 2016 Australian Census: Place of Work, POW Civic (SA2), UR (SA2), mapped by bd infrastructure

How people get to work

Transport modes

For people who work in Civic, private vehicle is the most common transport mode, accounting for more than half of all commutes (58.8 per cent). Public transport is the second most common mode of transport for commuters, representing nearly one in five commutes (18.3 per cent). Active transport and working from home are relatively even, at 11.2 per cent and 10.8 per cent respectively. Evidently, private vehicle is the preferred commuter choice for many workers in Civic.

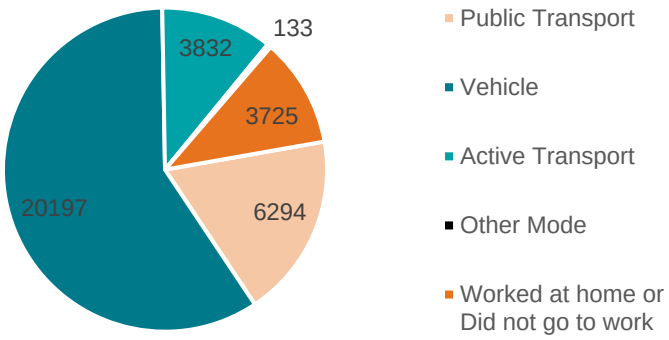
When compared to North Canberra and the ACT, Civic has the highest proportion of commuters using public transport and the lowest proportion using private vehicles. This suggests that compared to the broader area and the rest of the ACT, Civic has stronger public transport connections.

Transport mode for workers in Civic, North Canberra and the ACT, 2016

Transport mode	Civic	North Canberra	ACT
Public Transport	18.3%	12.2%	7.1%
Vehicle	58.8%	64.1%	72.4%

Transport mode	Civic	North Canberra	ACT
Active Transport	11.2%	11.4%	6.8%
Other Mode	0.4%	0.6%	0.5%
Worked at home	10.8%	11.2%	12.6%
Mode not stated	0.5%	0.6%	0.6%

Source: Australian Bureau of Statistics, 2016 Australian Census: Place of Work, MTW06P Method of Travel to Work (6 travel modes), Civic (SA2), North Canberra (SA3), ACT (SA4)



Mode of travel for workers in Civic, 2016

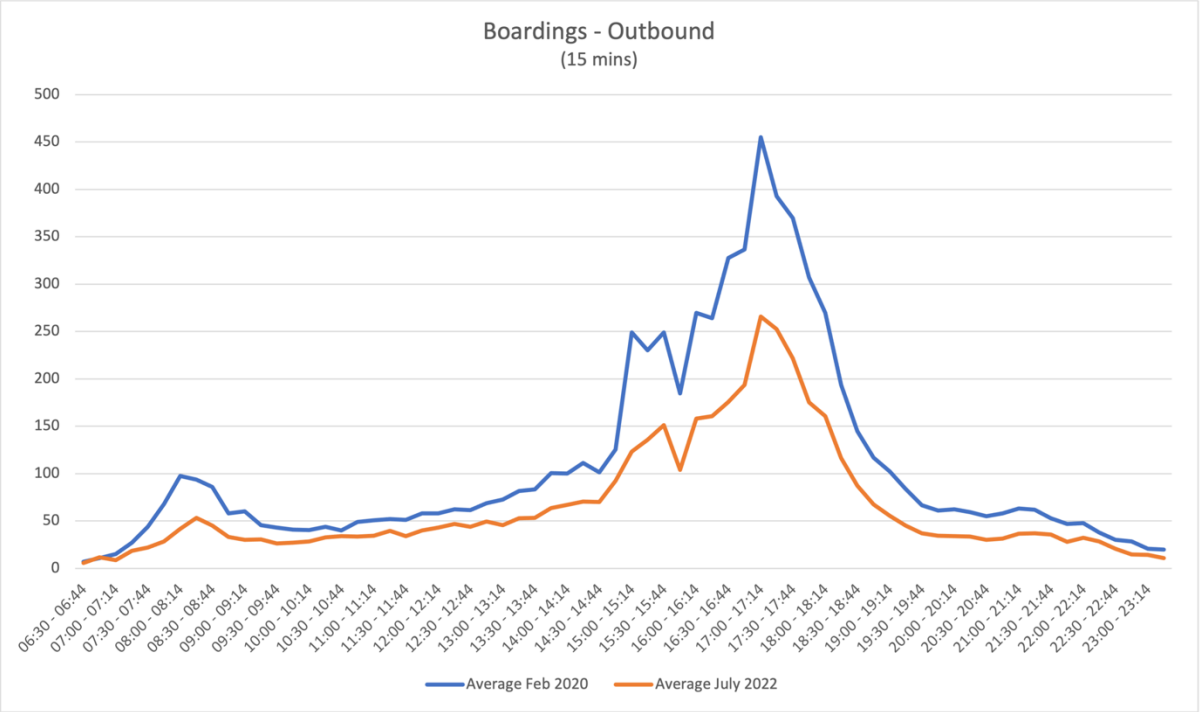
Source: Australian Bureau of Statistics, 2016 Australian Census: Place of Work, MTW06P Method of Travel to Work (6 travel modes), Civic (SA2)

Light rail usage

Alinga Street light rail stop is currently the closest available light rail stop to the Project. ABS 2016 data shows that of the 34,181 workers in Civic, 18.3 per cent of those commuted to work by public transport. This information from the 2021 Census is not available at the time of authorship, however it is likely the data would not be reflective of the norm, given COVID-19 restrictions. For the purposes of a high-level assessment of light rail usage for those who commute to and from Civic, it has been assumed that these 18.4 per cent would all use light rail.

A review of the Alinga Street light rail stop patronage shows a noticeable decline in the use of light rail since the COVID-19 pandemic, with the highest average PM peak time boardings reducing by almost 50 per cent between February 2020 (455 average PM peak boardings) and July 2022 (252 average PM peak boardings). This is not surprising, given the broader findings of the ABS 2021 census that showed one in seven Australians (14 per cent) reported using public transport in March 2021, compared with nearly one in four (23 per cent) who reported regular use before COVID-19 restrictions began in March 2020. The data also showed that after the COVID-19 pandemic, three in five people (61 per cent) expect their public transport use will remain the same, while 13 per cent expect their use to increase and 7 per cent expect it will decrease. (ABS, 2021).

Given the unprecedented nature of the pandemic, it would be incomplete to justify spend on public transport by concentrating only on the supply side. In Australia, the travel patterns being exhibited suggest that public transport customers have become both more adaptable and less predictable, probably as a result of the greater flexibility as to where and when they work, which has been supported by the breaking of managerial resistance to working from home (Beck and Hensher, 2021). Research undertaken by KPMG explores how COVID-19 has impacted how people travel, and what will be needed from transport organisations in response to ensure a sustainable network for both providers and passengers in the future. Specifically, the research explores will be needed from transport organisations in response to ensure a sustainable network for both providers and passengers in the future. It notes that although services across Australia have been reinstated, capacity across public transport operations has been variable due to changing social distancing regulations, and the perceived health risk of shared travel. It concludes that there is now a greater need to ensure service capacity and frequency is more responsive to real time demand to avoid underutilisation or overcrowding.



Commuter distance

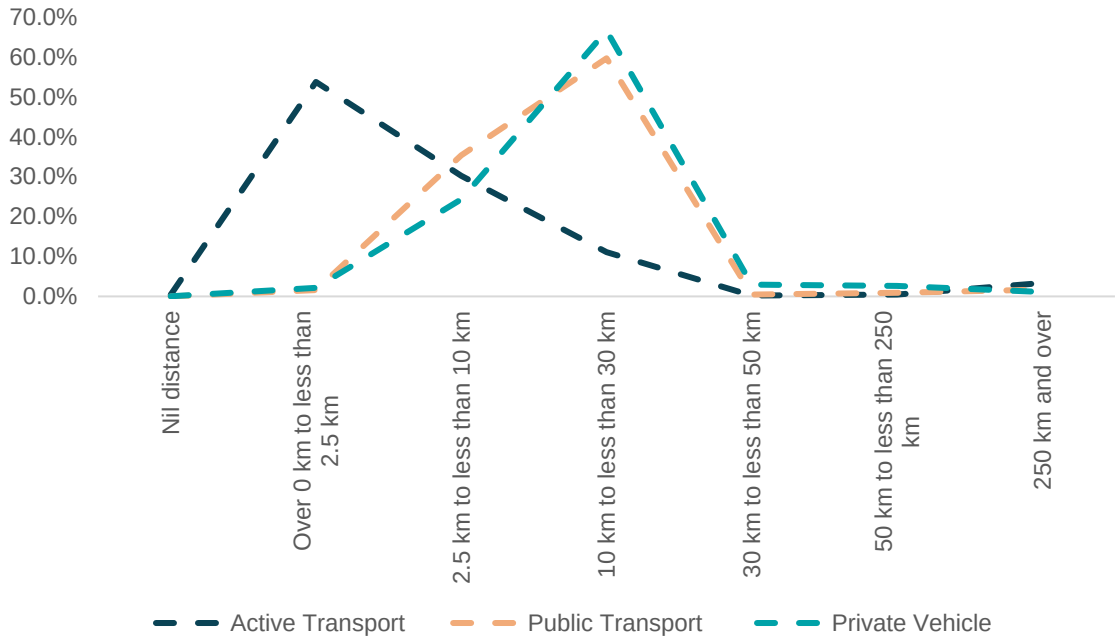
Very few people who live in Civic work in Civic (69), while most workers commute 10-30 km (19,781) to Civic.

The further people live from their place of work, the less likely they are to use active transport. This is evident for people who work in Civic, where the majority of people who use active transport options live 2.5 km from their place of work. Conversely, the majority of workers who use a private vehicle or public transport live 10 to 30 km from work. Those who do use active transport who commute 250km or more use it to access other forms of transport in a single, multimodal journey (e.g., they use a private vehicle and park near Civic and then walk to their destination).

Interestingly, for people who commute 250 km or more there are notably lower private car usage and higher public transport usage than of those who commute 50-250 km. Considering the similar sample size of these two Civic worker commuter groups, this is both proportionally true and numerically true.

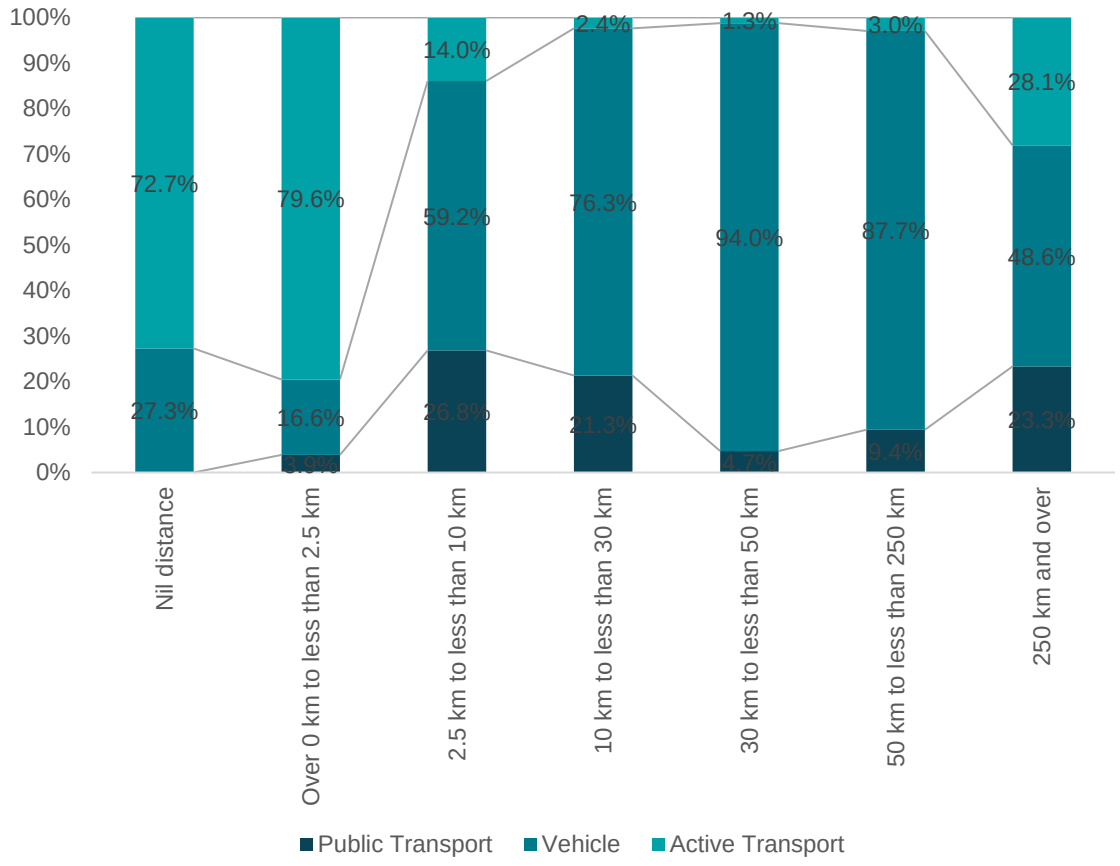
Key take aways include:

- Workers who commute to Civic are most likely to use active transport if they live in the local area (e.g., live and work in Civic) or travel less than 2.5 km
- Workers who commute to Civic are most likely to use public transport if they are travelling between 2.5-10 km, 10-30 km and 250 km or more
- Private vehicle was the most common mode of transport for workers travelling between 2.5-250 or more km to Civic for work.



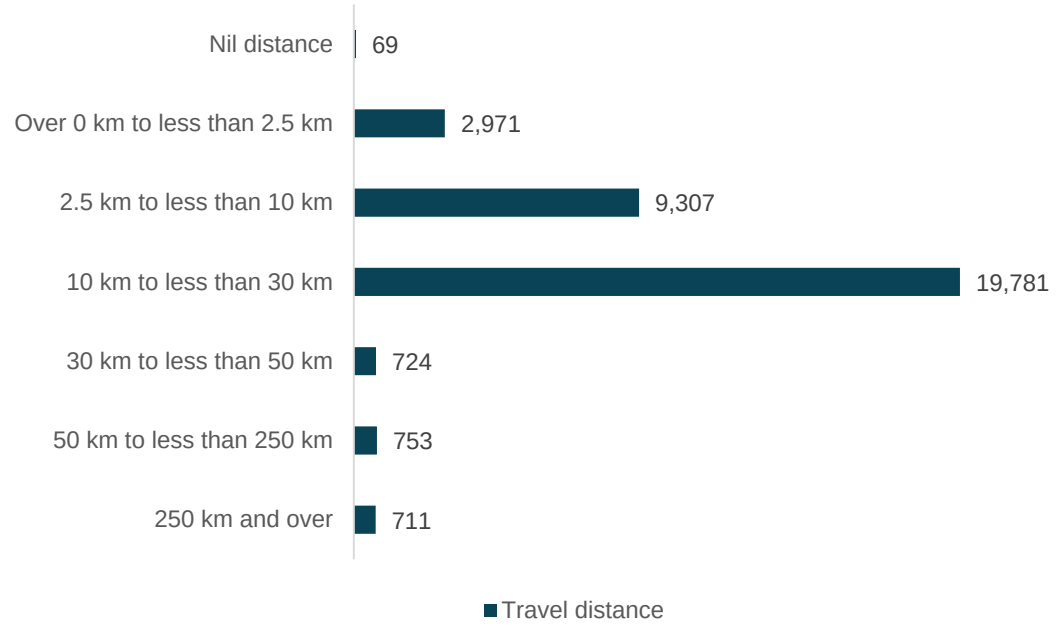
Mode of travel for workers in Civic by distance travelled to work, 2016

Source: Australian Bureau of Statistics, 2016 Australian Census: Place of Work, MTW06P Method of Travel to Work (6 travel modes), DTWP Distance to Work (ranges). Civic (SA2)



Mode of travel for workers in Civic (2016)

Source: Australian Bureau of Statistics, 2016 Australian Census: Place of Work, MTW06P Method of Travel to Work (6 travel modes), DTWP Distance to Work (ranges). Civic (SA2)



Distance travelled to work for workers in Civic, 2016

Source: Australian Bureau of Statistics, 2016 Australian Census: Place of Work, DTWP Distance to Work (ranges). Civic (SA2)

Appendix G: Community assets

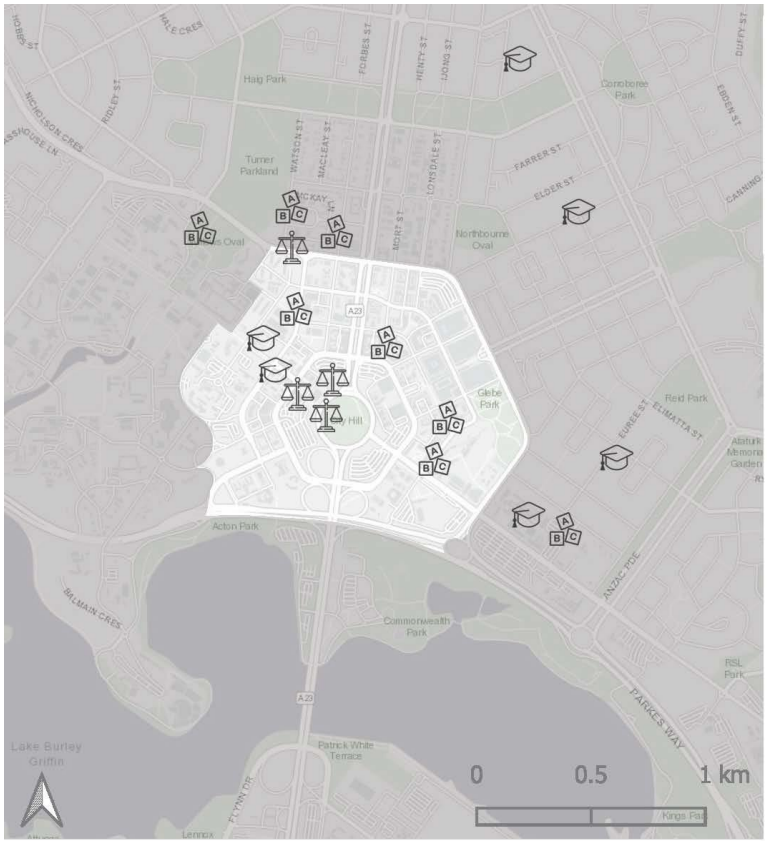
Consideration of social infrastructure

Social infrastructure refers to facilities and services that enhance the social capacity of communities and may include infrastructure related to health, housing, youth, aged care, leisure, community safety facilities and road safety (Franks, 2012). Social infrastructure also includes examples of natural capital such as parks, rivers, lakes, beaches, and walking trails.

The social infrastructure identified in areas surrounding the Project provide a reference point against which socioeconomic impacts may be measured if the Project proceeds. Such impacts can take the form of a decrease in the quantity, diversity, capacity, or accessibility of the existing social infrastructure, courtesy of demand from an expanded workforce and their relatives relocating to an area. Conversely, an influx of staff and their families, or changes to the footprint of a project may stimulate new social attributes of the communities, bolster organisational capacities, and contribute to the supply of services.

Considering the nature of the Project, the following social infrastructure types have been identified as relevant to this SEIA, and have been mapped for each area of influence:

- Local community facilities: This includes facilities that are targeted for localised community use and provide spaces for programming by diverse sectors of the community, such as community groups and service providers. Local community facilities provide spaces and uses to meet community demands, e.g., access to support services, information and referral, and spaces for lifelong learning, active living, places of worship, arts and creative programs. Local community facilities may include libraries, community centres, senior citizens centres, etc.
- Education facilities: This category includes primary, secondary and combined schools, tertiary education facilities (e.g., TAFEs, university campuses) and other vocational education providers (e.g., colleges)
- Health services: This category includes hospitals and primary health services (e.g., general practices, community health centres). It does not include pharmacists, allied health professionals and other individual health care professionals, although where there is a concentration of these services within an area of influence it is acknowledged
- Heritage and cultural facilities: This category includes a range of creative and cultural facilities such as maker spaces accessible to the public, space for professional artistic development (e.g., rehearsal rooms, artist studios, etc.) and spaces for performance/audiences (e.g., theatres, cinemas, exhibition space, etc.). It also includes heritage facilities that provide spaces for community participation in cultural and heritage activities (e.g., workshops, talks, education spaces, etc.)
- Open space and recreation: This category includes open space (land that has been reserved for the purpose of recreation and sport, preservation of natural environments, and provision of green space, e.g., parks, sportsgrounds, reserves) and facilities that enable participation in sport and recreation (e.g., dedicated recreation centres, outdoor sports courts)
- Childcare centres: These facilities are purpose-built or fitted out for the provision of early childhood education and care. The majority of provision is via the private and not-for-profit sector
- Hotels: This category includes establishment providing accommodation, meals, and other services for travellers and tourists. Although not traditionally considered “social infrastructure” hotels provide an important service which supports the visitor economy
- Civic facilities: This category includes facilities that serves the general public by supporting participation in civic or democratic life, including Parliament, law courts and consulates
- Public space: This category includes outdoor public gathering spaces that are not otherwise classified as open spaces, such as plazas and squares
- Other: This category includes significant historical monuments or other points of interest as relevant to the social impact assessment which are not included in the above categories.

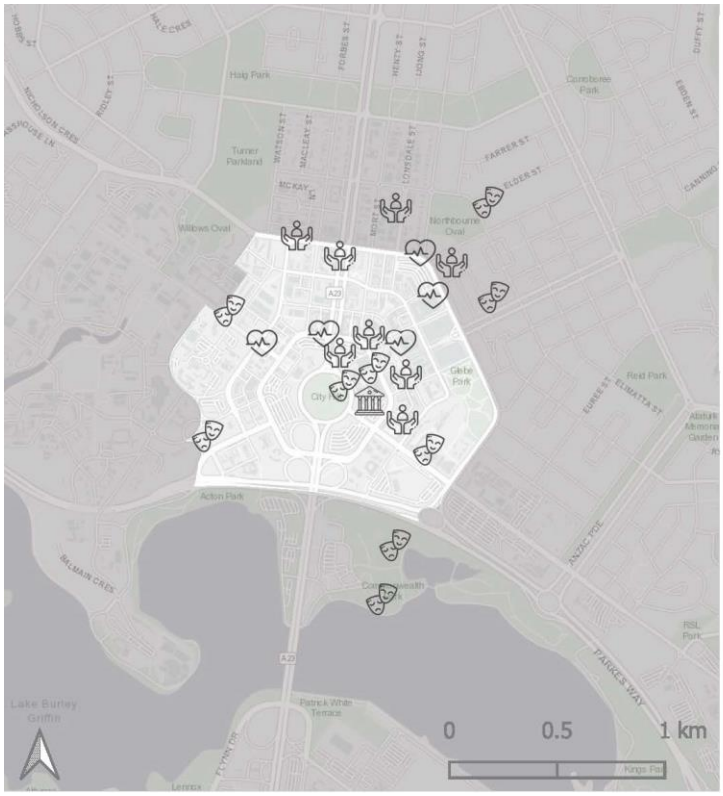


Education, childcare and justice

- Childcare
- Education
- Law and justice

Open space, recreation and place or worship

- Active recreation
- Aquatic
- Open space
- Place of worship
- Public space



Health and wellbeing, social and community services, arts and culture, and community facilities

- Arts and culture
- Community and support services
- Community facility
- Health and wellbeing

Examples of natural capital

Social area of influence	Examples of natural capital	
Acton	• Lake Burley Griffin and foreshores • Black Mountain Nature Reserve	• Molonglo River
ACT region	• Namadgi National Park • Mount Ainslie • Mount Majura • Jerrabomberra Wetlands • Mulligans Flat Nature Reserve • Lake Burley Griffin and foreshores • Lake Ginninderra • Lake Tuggeranong • Googong Reservoir	• Molonglo River • Murrumbidgee River • Cotter River • Paddy's River • Orroral River • Gudgenby River • Queanbeyan River • Tidbinbilla River • Naas River

List of community assets

Name of asset
Law and justice
Canberra City Police Station
Supreme Court
Magistrates Court
Sydney Regional Aboriginal Corporation Legal Service
Canberra Community Law
Education
Australian National University (ANU)

Name of asset
Australian Capital College
Canberra Institute of Technology
Australian Institute of Management
Ainslie School (Primary
Turner School (Primary)
Merici College (Non-government secondary school)
Community support services
Multicultural Youth Services ACT – provides services to young people of migrant and refugee backgrounds
Multicultural employment service
Multicultural Women's Advocacy – provides services to improve the status of multicultural women in the ACT
YWCA Canberra
Catholic Social Services Australia
Meridian ACT – provides services for the Lesbian, Gay, Bisexual, Trans, Intersex and Queer (LGBTIQ+) community
Uniting High Risk Families ACT
Health and wellbeing services
Sexual Health and Family Planning ACT (not-for-profit, non-government service)
City Family Practice (private facility)
Canberra City Health Network (private facility)
The Junction Youth Health Care
Various specialist private health facilities (physiotherapy, dental, skin, psychology)
Recreation and open space
City Hill (public facility)
Various civic squares of varying scales along London Circuit (including Civic Square, Heather and Arthur Shakespeare Square (public facilities)
Lake Burley Griffin foreshore - including Acton Park, Commonwealth Park, and Henry Rolland Park and walk and cycle paths, memorials and sculptures (public facilities)
Glebe Park Central Community Playground (public facility)
ANU Willows Oval (university facility)
ANU Sports Centre (university facility)
ANU Fellows Oval (university facility)
ANU South Oval (university facility)
ANU Tennis Courts (university facility) – including South Oval Tennis Courts ANU and Crawford Tennis Court ANU
Braddon Tennis Club (club or privately managed)
Braddon Rugby League Park – Northbourne Oval (club or privately managed)

Name of asset
Reid Tennis Club (club or privately managed)
Reid Oval (public facility)
Canberra Olympic Pool (public facility)
Nerang Pool (public facility)
Cultural
National Convention Centre Canberra (including the Royal Theatre)
National Capital Exhibition
Civic Square arts and cultural precinct (including the Canberra Museum and Gallery, Civic Library, and Canberra Theatre)
The Street Theatre
Ainslie and Gorman Arts Centres
Shine Dome
Llewellyn Hall
National Film and Sound Archive
Drill Hall Gallery
Childcare / Early education
Montessori Childcare (planned facility as part of Constitution Place development)
Civic Early Childhood Centre
Binara Early Childhood Centre
KU Canberra City AMEP Child Care Centre
Goodstart Early Learning, Turner
Goodstart Early Learning, ANU
Sage Education and Childcare
Creative Koalas
Guardian Childcare and Education Allara Street
Reid Early Childhood Centre
Ainslie School, Preschool Unit
Yurauna Centre Aboriginal Education
Religious
Divergent Church Canberra City
Church of Scientology
St Patrick's Catholic Church
Canberra City Uniting Church
Hope Christian Church Canberra

Name of asset
Lutheran Church
Canberra Korean Uniting Church
The Salvation Army Church Braddon
Canberra City Corps
Saint Columba's Uniting Church
St John's Anglican Church, Reid
St John the Evangelist's Chapel
Finnish Lutheran Church
Ukrainian Autocephalous Orthodox Church
Canberra National Seventh Day Adventist Church
Canberra Christian Fellowship Methodist

Appendix H: Case studies

Two case studies have been drawn from to understand personal safety in Australia, specifically relating to light rail and trams.

1. Research undertaken by the XYX Lab and Free To Be which focuses on public transport safety and the experience of women in Melbourne
2. The Parramatta Light Rail Design Requirements Report, NSW.

XYX Lab and Free to Be – Melbourne

Research undertaken by the XYX Lab and Free To Be suggests there are three safety components of an individual's public transport journey (specifically around trams):

3. Accessing the station: this includes approaches to and from stations
4. Waiting at the station: this includes the actual station itself
5. Travelling on the tram: this includes the time spent travelling.

A summary of XYX Lab's research is provided below, specifically what the components of public transport spaces which made them safe and un-safe for users.

Safe and un-safe public transport spaces: Case study research	
Stations which were identified as safe stations, particularly at night, were safe because of a mixture of activation, staffing, and lighting. Key points are listed below: • Activation and passive surveillance – stations which were busy were identified as safer as there were more people around • Lighting – good lighting was commented to contributed towards individual's sense of safety • Formal surveillance and staffing – stations with evident CCTV cameras and visible staff during night services was identified as a positive safety feature. This included Public Safety Officers (POS).	Conversely, unsafe stations were commented as not having one, or multiple, features of safe stations. The report also commented that safe stations could still have unsafe access. Key comments regarding unsafe access are summarised below: • Areas with poor visibility and lines of sight, such as corridors and underpasses • Areas with poor lighting, such as underpasses, carparks, connecting thorough fares and public spaces (including parks) • Areas with low activation, such as adjacent car parks and areas where POS did not patrol near the station.

Parramatta Light Rail

The *Parramatta Light Rail Urban Design Requirements Report* (2018) outlines a range of design principles focusing on personal safety. Key design principles relate to one or more of the following themes:

- Placemaking
- Activation
- Passive surveillance
- Lighting
- Landscaping.

The table below lists the design principles and how they relate to each theme, showing the various layers of creating safe public spaces.

Design principles, Parramatta Light Rail 2018

Design principle	Design theme
Promote street address, active edges and versatile use of the public domain.	Placemaking Activation Passive surveillance
Sensitively address interfaces with existing urban functions and promote new uses and activities that encourage vibrancy.	Placemaking Activation Passive surveillance
Promote a decluttered public domain with minimal barriers and clear sightlines.	Placemaking Passive surveillance
Provide a safe, well-lit pedestrian environment with integrated lighting including multi-function poles where appropriate.	Placemaking Activation Passive surveillance
Design light rail stops to be accessible and comfortable with clear sight lines to promote a high degree of safety and surveillance.	Passive surveillance
Ensure tree planting locations maintain generous access and sight lines around stops and intersections.	Landscaping Passive surveillance
Design a people-focused public space around the light rail stop and encourage active frontages to provide a safe, vibrant and attractive pedestrian environment.	Placemaking Passive surveillance
Design a legible, well-connected, and well-lit urban environment.	Placemaking Lighting

Appendix I: References

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Appendix J: Certification page

I, Angela Peace, certify that this socioeconomic impact assessment contains all information relevant to the socioeconomic impact assessment for the Project, and that the information is not false or misleading.

My qualifications and experiences are listed below.

Qualifications and Professional Memberships:

- Bachelor of Arts (Communications)
- Social Impact Assessment Certificate, University of Strathclyde and Community Insights Group (2020)
- Member, International Association of Impact Assessment (membership no.10499330)
- Member, International Association of Public Participation
- Member, Social Impact Measurement Network Australia.

Experience:

Angela is a Social Impact and Community Engagement Specialist and has managed SEIAs for extractive industries, waste recovery, transport infrastructure, and energy projects in NSW and the ACT, including State Significant Projects.

Date: 15 December 2022

Signature: A Peace