1-225 PLANNING APPLICATION

Proposal

PLAN 3

| Description of proposal: Seccombe Street Roundabout Connecti | P |
|--|-----|
| | |
| | |
| | |
| | |
| (attach additional sheets if necessary) | |
| If applying for a subdivision which creates a new road, please supply three proposed names for the road, in order of preference: | or |
| 1 | i) |
| | |
| Site address: Adjacent to Northern Roundabout No. 1 Pert | |
| СТ по: 170341/11 | • |
| Estimated cost of project \$.150,000 (include cost of landscaping car parks etc for commercial/industrial uses | |
| Are there any existing buildings on this property? Yes / No If yes – main building is used as | Fő |
| If variation to Planning Scheme provisions requested, justification to be provided: | |
| See cittached Planning Submission | , |
| | |
| | ٠ |
| | • 1 |
| (attach additional sheets if necessary) | |
| | |
| Is any signage required? Regulatory signs exempt under 15.4.1 (if yes, provide details) | •• |

Department of State Growth

Salamanca Building Parliament Square
4 Salamanca Place, Hobart TAS
GPO Box 536, Hobart TAS 7001 Australia
Email permits@stategrowth.tas.gov.au Web www.stategrowth.tas.gov.au
Ref: D19/283595



Rebecca Green Rebecca Green & Associates Po Box 2108 LAUNCESTON TAS 7250

Dear Rebecca Green

Crown Landowner Consent Granted - Midland Highway (Seccombe Street), Perth

I refer to your recent request for Crown landowner consent relating to the development application at Midland Highway (Seccombe Street), Perth for a new Seccombe Connection from Roundabout No. I, Perth.

I, Andrew Hargrave, Manager Asset Management, State Roads, the Department of State Growth, having been duly delegated by the Minister under Section 52 (IF) of the Land Use Planning and Approvals Act 1993 (the Act), and in accordance with the provisions of Section 52 (IB) (b) of the Act, hereby give my consent to the making of the application, insofar as it affects the State road network and any Crown land under the jurisdiction of this Department.

The consent given by this letter is for the **making of the application only** insofar as that it impacts Department of State Growth administered Crown land and is with reference to your application dated 8 November 2019, and the documents approved, as follows:

| Approved Document Name | Author | Date Received | Notes |
|---|---|------------------|------------------|
| Application for Crown Landowner Consent – New Seccommbe Street Connection from Roundabout No. I Perth | Rebecca Green & Associates P/L | 08/11/2019 | Dated 08/11/2019 |
| Planning Application Form - New Seccommbe Street Connection from Roundabout No. I Perth | Rebecca Green & Associates P/L | 08/11/2019 | Dated 08/11/2019 |
| Planning Submission - Seccommbe Street Roundabout Connection, Perth | Rebecca Green & Associates P/L | 08/11/2019 | Undated |

In giving consent to lodge the subject development application, the Department notes the following applicable advice:

A. Other types of works (pipeline, etc.) OR Construction of infrastructure in the road reserve/on Crown land (Works permit required)

In giving consent to lodge the subject development application, the Department notes that the works in the State road network will require the following additional consent:

The consent of the Minister under Section 16 of the Roads and Jetties Act 1935 to undertake works within the State road reservation.

For further information please visit http://www.transport.tas.gov.au/road/permits or contact permits@stategrowth.tas.gov.au.

B. Discharge of Stormwater or drainage into the State road drainage system (Ministerial consent required)

In giving consent to lodge the subject development application, the Department notes that the works in the State road network will require the following additional consent:

The consent of the Minister under Section 17B of the Roads and Jetties Act 1935 to concentrate and discharge drainage to the State road reserve.

The proponent must submit a drainage plan, including catchment area, flows and drainage design for any area discharging to the State road reserve.

If any enlargement of the existing State road drainage infrastructure is required in order to carry any additional drainage, these works must be undertaken under the supervision and to the satisfaction of an officer designated by the Minister. If such works are required, the costs associated with the works will be payable by the proponent.

The proponent is responsible for the ongoing maintenance of their own infrastructure.

For further information please contact Road Assets at <u>roadassets.utilities@stategrowth.tas.gov.au.</u>

The Department reserves the right to make a representation to the relevant Council in relation to any aspect of the proposed development relating to its road network and/or property.

Yours sincerely

Andrew Hargrave

MANAGER ASSET MANAGEMENT

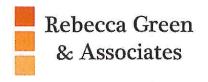
Delegate of

Minister for Infrastructure and Transport

Michael Ferguson MP

22 November 2019

cc: General Manager, Northern Midlands Council



Planning Submission

Seccombe Street Roundabout Connection

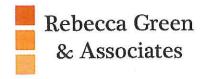
Adjacent to Northern Roundabout No.1, Perth

Northern Midlands Council



Contents

| sile 9 | See all the b | water Daillean y | 9 |
|--------|---------------|--|------|
| 1 | L.1 | Proposal Overview | 3 |
| 2. | Subj | ect Land and Locality | 3 |
| 2 | 2.1 | Subject Land Description | 3 |
| 2 | 2.2 | Locality Description | 4 |
| 2 | 2.3 | Access and Movement | 4 |
| 2 | 2.4 | Services | 4 |
| 2 | 2.5 | Heritage | 4 |
| 2 | 2.6 | Flora and Fauna | 4 |
| 3. | Prop | posal | 5 |
| 3 | 3.1 | Development Proposal | 5 |
| 4. | Plan | ning Assessment | 5 |
| Z | 1.1 | Northern Midlands Interim Planning Scheme 2013 | 5 |
| Z | 1.2 | Other Planning Considerations | 11 |
| 7 | 1.3 | State Policies | 19 |
| | 4.3. | 1 State Coastal Policy 1996 | 19 |
| | 4.3. | | 19 |
| | 4.3. | | 20 |
| 2 | 1.4 | Land Use Planning and Approvals Act 1993 | 20 |
| | 1.5 | National Environment Protection Measures | 20 |
| 5. | | clusion | 21 |
| | 0011 | | - An |
| | Figure I | ndex | |
| | | Figure 1: Location Map Figure 2: Zoning Map | |
| | Append | | |
| | rappend | Appendix A: Certificaté of Title | |
| | | Appendix B: Plans | |
| | | Appendix C: Traffic Impact Assessment | |
| | | Appendix D: Landscaping Plan | |



1. Executive Summary

1.1 Proposal Overview

This submission is prepared on behalf of Northern Midlands Council in support of a proposal for construction of an eastern entry/exit connection from the Northern Roundabout No. 1, adjacent to the unmade section of Seccombe Street, Perth. This roundabout is presently under construction and formed part of approval of the upgrade of the Midland Highway at Perth. The approval in 2017 did not include future access to Seccombe Street and approval is sought for the construction of this 5th connection to this roundabout.

The proposed development will link at a future stage Seccombe Street to this roundabout, whereby the unmade of Seccombe Street will be constructed but subject to a separate development application.

The owner of the subject land is Department of State Growth. This application is made with the consent of the owner.

This application is made under Section 57 of the Land Use Planning and Approvals Act 1993, which provides for the submission of an application for a discretionary planning permit. The proposal has been prepared in accordance with the provisions of the Northern Midlands Interim Planning Scheme 2013 and the objectives of the Land Use Planning and Approvals Act 1993.

The proposal is summarised as:

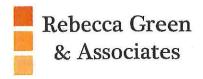
• Eastern entry/ exit connection from northern roundabout Perth, and is illustrated in Plans, provided at Appendix B.

2. Subject Land and Locality

2.1 Subject Land Description

The subject site is comprised in Certificate of Title Volume 170341 Folio 11 (Acquired Road) and adjacent road casement to the east and adjacent to the roundabout on the eastern side of the interchange (Northern Roundabout No.1). This is located along the existing Midland Highway, approximately 500 metres north of the Perth Town Centre. The unformed section of Seccombe Street does not form part of this application and would be subject to a future application for construction and linkage. The registered owner of the site is Department of State Growth. A copy of the title is contained in Appendix A.

The Perth Links Road project is being undertaken by the Department of State Growth. The western link of the project includes a grade separated interchange on the northern outskirts of Perth with the ramp terminals managed by roundabouts on either side of the new highway.



2.2 Locality Description

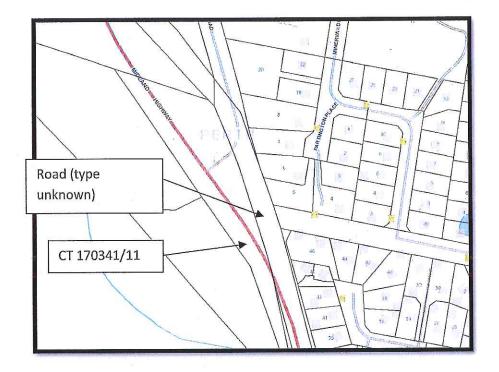


Figure 1: Locality Map

2.3 Access and Movement

The Midland Highway is also known as Main Road through Perth. Main Road is a two-way road configured with a single carriageway. The road operates in a north-west south-east direction and has a posted speed limit of 60km/h.

2.4 Services

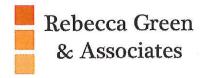
The subject site is located within the urban area of Perth. Any relocation of services will be provided in consultation with the relevant authorities in relation to these service utility assets.

2.5 Heritage

The subject site is not identified to be of heritage significance.

2.6 Flora and Fauna

The site is located within the urban area of Perth and does not support any remnant native vegetation and hence, any habitat of threatened species. A search of the Natural Values Atlas has revealed no recorded species on the subject site. A concept landscaping plan was developed as part of the Perth Link Roads project and is attached. Its key objectives are to highlight the entrances to Perth and provide visual screening of the highway; be simple to maintain and have tidy appearance; be safe for both road users and maintenance crews; and be cost effective to establish. The broad elements of the plan include road landscaping at the northern roundabout (No.1) (dependent on safety and maintenance requirements).



A project-level weed, and hygiene management plan will be developed/maintained, as part of the Construction Management Plan, to ensure that appropriate weed management actions are undertaken during construction.

3. Proposal

3.1 Development Proposal

The Seccombe Street connection will create a fifth leg on Northern Roundabout No.1 and will have a single 3.5m traffic lane in each direction. The proposed layout for the connection is attached in Appendix B (works proposed shown in RED). The Seccombe Street connection will be subject to a separate and future application, which will then create an additional link between Main Road and the residential area located to the east of Main Road. As the construction of the roundabout has commenced it is imperative to gain approval of the connection as soon as possible to ensure efficiency and timing of construction to coincide with the Perth Links Roads project.

4. Planning Assessment

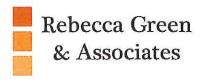
4.1 Northern Midlands Interim Planning Scheme 2013

The subject sites are both zoned Utilities (existing Midland Highway) and Rural Resource within the Northern Midlands Interim Planning Scheme 2013. The proposed use is permitted within the Utilities Zone but required exercise of discretion within the Rural Resource Zone in relation to use and development.



Figure 2: Zoning Map

(Red = General Residential zone, Yellow = Utilities zone, Cream = Rural Resource zone)



3.2 Northern Midlands Interim Planning Scheme 2013

Use Categorisation

The use classification for the proposed use and development is "Utilities", which is defined in Table 8.2 of the Scheme as follows:

"Use of land for utilities and infrastructure including:

- a) Telecommunications;
- b) Electricity generation;
- c) Transmitting or distributing gas, oil or power;
- d) Transport networks;
- e) Collecting, treating, transmitting, storing or distributing water; or
- f) Collecting, treating, or disposing of storm or floodwater, sewage or sullage.

Examples include an electrical sub-station or power line, gas, water or sewerage main, optic fibre main or distribution hub, pumping station, railway line, retarding basin, road, sewage treatment plant, storm or flood water drain, water storage dam and weir."

RURAL RESOURCE ZONE

ZONE PURPOSE

To provide for the sustainable use or development of resources for agriculture, aquaculture, forestry, mining and other primary industries, including opportunities for resource processing.

To provide for other use or development that does not constrain or conflict with resource development uses.

To provide for economic development that is compatible with primary industry, environmental and landscape values.

To provide for tourism-related use and development where the sustainable development of rural resources will not be compromised.

Assessment: The proposal is consistent with the zone purpose.

LOCAL AREA OBJECTIVES

a) Primary Industries:

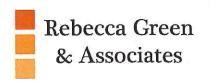
Resources for primary industries make a significant contribution to the rural economy and primary industry uses are to be protected for long-term sustainability.

The prime and non-prime agricultural land resource provides for variable and diverse agricultural and primary industry production which will be protected through individual consideration of the local context.

Processing and services can augment the productivity of primary industries in a locality and are supported where they are related to primary industry uses and the long-term sustainability of the resource is not unduly compromised.

b) Tourism

Tourism is an important contributor to the rural economy and can make a significant contribution to the value adding of primary industries through visitor facilities and the downstream processing of



produce. The continued enhancement of tourism facilities with a relationship to primary production is supported where the long-term sustainability of the resource is not unduly compromised.

The rural zone provides for important regional and local tourist routes and destinations such as through the promotion of environmental features and values, cultural heritage and landscape. The continued enhancement of tourism facilities that capitalise on these attributes is supported where the long-term sustainability of primary industry resources is not unduly compromised.

c) Rural Communities

Services to the rural locality through provision for home-based business can enhance the sustainability of rural communities. Professional and other business services that meet the needs of rural populations are supported where they accompany a residential or other established use and are located appropriately in relation to settlement activity centres and surrounding primary industries such that the integrity of the activity centre is not undermined and primary industries are not unreasonably confined or restrained.

Assessment: The proposal is does not conflict with the local area objectives.

DESIRED FUTURE CHARACTER STATEMENTS

The visual impacts of use and development within the rural landscape are to be minimised such that the effect is not obtrusive.

Assessment: The proposed landscaping makes the proposal consistent with the local area objectives.

26.3 Use Standards

26.3.1 Discretionary Uses if not a single dwelling

Objective

- a) To provide for an appropriate mix of uses that support the Local Area Objectives and the location of discretionary uses in the rural resources zone does not unnecessarily compromise the consolidation of commercial and industrial uses to identified nodes of settlement or purpose built precincts.
- b) To protect the long term productive capacity of prime agricultural land by minimising conversion of the land to non-agricultural uses or uses not dependent on the soil as a growth medium, unless an overriding benefit to the region can be demonstrated.
- c) To minimise the conversion of non-prime land to a non-primary industry use except where that land cannot be practically utilised for primary industry purposes.
- d) Uses are located such that they do not unreasonably confine or restrain the operation of primary industry uses.
- e) Uses are suitable within the context of the locality and do not create an unreasonable adverse impact on existing sensitive uses or local infrastructure.
- f) The visual impacts of use are appropriately managed to integrate with the surrounding rural landscape.

| | rural landscape. | | |
|------|--|---|--|
| Acce | eptable Solutions | Performance Criteria | |
| A1 | If for permitted or no permit required uses. | P1.1 It must be demonstrated that the use is consistent with local area objectives for the provision of non-primary industry uses in the zone, if applicable; and P1.2 Business and professional services and general retail and hire must not exceed a combined gross floor area of 250m ² over the site. | |
| Not | applicable. | The proposal satisfies the performance criteria P1.1. | |
| A2 | If for permitted or no permit required uses. | P2.1 Utilities, extractive industries and controlled environment agriculture located on prime agricultural land must demonstrate that the: i) amount of land alienated/converted is minimised; and | |

| | ii) location is reasonably required for operational efficiency; and |
|------------------------------|---|
| P | 2.2 Uses other than utilities, extractive industries or controlled environment agriculture located on prime agricultural land, must demonstrate that the conversion of prime agricultural |
| | land to that use will result in a significant benefit to the region having regard to the economic, social and environmental costs and benefits. |
| Not applicable. | Not applicable, not prime agricultural land. |
| | The conversion of non-prime agricultural to non- |
| permit required uses. | agricultural use must demonstrate that: the amount of land converted is minimised having regard |
| | to:existing use and development on the land; and |
| | ii) surrounding use and development; and |
| | iii) topographical constraints; or |
| k | the site is practically incapable of supporting an agricultural |
| | use or being included with other land for agricultural or |
| | other primary industry use, due to factors such as: |
| | i) limitations created by any existing use and/or |
| # I | development surrounding the site; and ii) topographical features; and |
| | iii) poor capability of the land for primary industry; or |
| · · | the location of the use on the site is reasonably required for |
| | operational efficiency. |
| Not applicable. | The proposal satisfies the performance criteria. The amount of |
| | land required has been minimised to that necessary to |
| | accommodate the required road design and the works are |
| | required to provide for operational efficiency and safety of |
| | the highway network consistent with subclause a) and c). |
| 7 t | P4 It must be demonstrated that: |
| permit required uses. | emissions are not likely to cause an environmental nuisance; and |
| k | primary industry uses will not be unreasonably confined or |
| - | restrained from conducting normal operations; and |
| ÷ (| the capacity of the local road network can accommodate |
| F | the traffic generated by the use. |
| Not applicable. | The proposal satisfies the performance criteria. Lighting is |
| | proposed at the existing approved roundabout and on and |
| | off ramps of the Perth Link Road project. The lighting |
| | design is to be developed in a manner that ensures that light spill is minimised and will not cause an environmental |
| | nuisance. The proposal is a road project and is designed to |
| | improve the existing and approved road safety and |
| | efficiency outcomes at the existing road junctions. |
| A5 The use must: | P5 It must be demonstrated that the visual appearance of the |
| a) be permitted or no | use is consistent with the local area having regard to: |
| permit required; or | a) the impacts on skylines and ridgelines; and |
| | N 1 1 10 1 1 1 1 |
| b) be located in an existing | b) visibility from public roads; and |
| | the visual impacts of storage of materials or equipment; and |

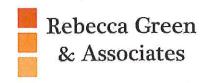


| p. | d) the visual impacts of vegetation clearance or retention;e) the desired future character statements. | |
|-----------------|---|--|
| Not applicable. | The proposal satisfies the performance criteria. The key impacts relate to the associated earthworks with the proposed alignment. | |

26.4 Development Standards

| 26.4.1 Building Location and Appearance | | | |
|---|--|--|--|
| Objective | | | |
| To ensure that the: | | | |
| | nd resource development will not be constrained | | |
| by conflict with sensitive uses; and | | | |
| b) development of buildings is unobtrusive | and complements the character of the landscape. | | |
| Acceptable Solutions | Performance Criteria | | |
| A1 Building height must not exceed: | P1 Building height must: | | |
| a) 8m for dwellings; or | a) be unobtrusive and complement the | | |
| b) 12m for other purposes. | character of the surrounding landscape; and | | |
| | b) protect the amenity of adjoining uses from adverse impacts as a result of the proposal. | | |
| Not applicable. | Not applicable. | | |
| A2 Buildings must be set back a minimum of: | P2 Buildings must be setback so that the use | | |
| a) 50m where a non-sensitive use or extension to existing sensitive use | is not likely to constrain adjoining primary industry operations having regard to: | | |
| buildings is proposed; or | a) the topography of the land; and | | |
| | b) buffers created by natural or other | | |
| b) 200m where a sensitive use is proposed; or | features; and | | |
| c) the same as existing for replacement of an | c) the location of development on adjoining | | |
| existing dwelling. | lots; and | | |
| | d) the nature of existing and potential adjoining uses; and | | |
| a a | e) the ability to accommodate a lesser | | |
| | setback to the road having regard to: | | |
| | i) the design of the development and | | |
| | landscaping; and | | |
| | ii) the potential for future upgrading of | | |
| 2 | the road; and | | |
| | iii) potential traffic safety hazards; and | | |
| <u> </u> | iv) appropriate noise attenuation. | | |
| Not applicable. | Not applicable. | | |

26.4.2 Subdivision – Not applicable.



UTILITIES ZONE

ZONE PURPOSE

To provide land for major utilities installations and corridors.

To provide for other compatible uses where they do not adversely impact on the utility.

Assessment: The proposal is consistent with the zone purpose.

28.3 Use Standards

28.3.1 Capacity of existing utilities

| Objective To ensure that uses do not compromise t | he canadity of utility corvices |
|---|---|
| Acceptable Solutions | Performance Criteria |
| A1 If for permitted or no permit requir uses. | ed P1 The proposal must not unreasonably compromise or reduce the operational efficiency of the utility having regard to: a) existing land use practices; and b) the location of the use in relation to the utility; and c) any required buffers or setbacks; and d) the management of access. |
| Complies with acceptable solution. Permuse. | itted Not applicable. |

28.4 Development Standards

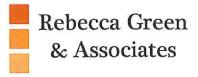
28.4.1 Building Design and Siting

Objective

To ensure that the siting and design of development:

- a) considers the impacts to adjoining lots; and
- b) furthers the local area objectives and desired future character statements for the area, if any.

| | any. | NII 15 11 2 | |
|------|--|-------------|--|
| Acce | ptable Solutions | Perfo | ormance Criteria |
| A1 | Height must not exceed: | P1 | Height must: |
| a) | 6m; or | a) | minimise the visual impact having regard |
| b) | 15 m for ancillary antenna and masts for | | to: |
| £ 3 | communication devices. | | i) prevailing character of the landscape or urban pattern of the surrounding area; and |
| | 0 | | ii) form and materials; and |
| | | | iii) the contours or slope of the land; and |
| - | | | iv) existing screening or the ability to implement/establish screening through works or landscaping; and |
| | | b) | protect the amenity of residential uses in |
| | | | the area from unreasonable impacts |
| | | | having regard to: |
| | | Λ | i) the surrounding pattern of development; and |



| | ii) the existing degree of overlooking and overshadowing; and iii) methods to reduce visual impact. |
|--|--|
| Not applicable. | Not applicable. |
| A2 Buildings must be set back from all | P2 Building setbacks must: |
| boundaries a minimum distance of 3m. | a) complement existing building setbacks in the immediate area; and |
| | b) minimise adverse impacts on adjoining land uses having regard to: the form of the building; and the contours or slope of the land; and methods to reduce visual impact; and |
| | c) protect the amenity of adjoining residential uses from unreasonable impacts of overshadowing and overlooking having regard to: i) the surrounding pattern of development; and ii) the existing degree of overlooking and overshadowing; and iii) methods to reduce overlooking and overshadowing. |
| Not applicable. | Not applicable. |

28.4.2 Subdivision – Not applicable.

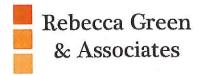
4.2 Other Planning Considerations

E4.0 ROAD AND RAILWAY ASSETS CODE

E4.6 Use Standards

E4.6.1 Use and road or rail infrastructure

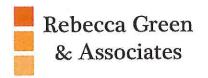
Objective



To ensure that the safety and efficiency of road and rail infrastructure is not reduced by the creation of new accesses and junctions or increased use of existing accesses and junctions.

| Sensitive use on or within 50m of a category 1 or 2 road, in an area subject to a speed limit of more than 60km/h, a railway or future road or railway must demonstrate that the safe and efficient operation of the infrastructure will not be detrimentally affected. applicable For roads with a speed limit of 60km/h or less, the level of use, number, location, layout and design of accesses and junctions must maintain an acceptable level of safety for all road users, including pedestrians and cyclists. applicable For limited access roads and roads with a |
|---|
| For roads with a speed limit of 60km/h or less, the level of use, number, location, layout and design of accesses and junctions must maintain an acceptable level of safety for all road users, including pedestrians and cyclists. |
| less, the level of use, number, location, layout and design of accesses and junctions must maintain an acceptable level of safety for all road users, including pedestrians and cyclists. applicable |
| |
| For limited access roads and roads with a |
| speed limit of more than 60km/h: access to a category 1 road or limited access road must only be via an existing access or junction or the use or development must provide a significant social and economic benefit to the State or region; and |
| any increase in use of an existing access or junction or development of a new access or junction to a limited access road or a category 1, 2 or 3 road must be for a use that is dependent on the site for its unique resources, characteristics of locational attributes and an alternate site or access to a category 4 or 5 road is not practicable; and an access or junction which is increased in use or is a new access or junction must be designed and located to maintain an |
| |

E4.7 Development Standards



E4.7.1 Development on and adjacent to Existing and Future Arterial Roads and Railways

Objective

To ensure that development on or adjacent to category 1 or 2 roads (outside 60km/h), railways and future roads and railways is managed to:

- a) ensure the safe and efficient operation of roads and railways; and
- b) allow for future road and rail widening, realignment and upgrading; and avoid undesirable interaction between roads and railways and other use or development.

| Acce | ptable Solutions | Performance Criteria |
|----------------|---|--|
| A1 | The following must be at least 50m from a railway, a future road or railway, and a category 1 or 2 road in an area subject to a speed limit of more than 60km/h: | P1 Development including buildings, road works, earthworks, landscaping works and level crossings on or within 50m of a category 1 or 2 road, in an area subject to a speed limit of more than 60km/h, a |
| a) b) c) | new road works, buildings, additions and extensions, earthworks and landscaping works; and building envelopes on new lots; and outdoor sitting, entertainment and | railway or future road or railway must be sited, designed and landscaped to: a) maintain or improve the safety and efficiency of the road or railway or future road or railway, including line of sight |
| | children's play areas | from trains; and b) mitigate significant transport-related environmental impacts, including noise, air pollution and vibrations in accordance with a report from a suitably qualified person; and |
| | | c) ensure that additions or extensions of buildings will not reduce the existing setback to the road, railway or future road or railway; and |
| | | d) ensure that temporary buildings and works are removed at the applicant's expense within three years or as otherwise agreed by the road or rail authority. |
| Not | applicable | The Seccombe Street connection is located within 50m from a Category 1 road. A Traffic Impact Assessment contained at Appendix C to this submission demonstrated compliance with the performance criteria. |

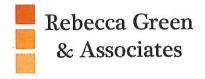
E4.7.2 Management of Road Accesses and Junctions

| Objective | |
|--|--|
| To ensure that the safety and efficiency of roa and junctions or increased use of existing acce | ds is not reduced by the creation of new accesses sses and junctions. |
| Acceptable Solutions | Performance Criteria |
| A1 For roads with a speed limit of 60km/h o less the development must include only one access providing both entry and exit or two accesses providing separate entry and exit. | less, the number, location, layout and design of accesses and junctions must |
| Not applicable. | Not applicable. |
| A2 For roads with a speed limit of more than 60km/h the development must no include a new access or junction. | 1 |
| | an access or junction which is increased in use or is a new access or junction must be designed and located to maintain an adequate level of safety and efficiency for all road users. |
| Not applicable. | A Traffic Impact Assessment contained at Appendix C to this submission demonstrated compliance with the performance criteria. |

E4.7.3 Management of Rail Level Crossings

Objective

To ensure that the safety and the efficiency of a railway is not unreasonably reduced by access across the railway.



| Acceptable Solutions | Performance Criteria |
|--|--|
| A1 Where land has access across a railway: a) development does not include a level crossing; or b) development does not result in a material change onto an existing level crossing. | P1 Where land has access across a railway: a) the number, location, layout and design of level crossings maintain or improve the safety and efficiency of the railway; and b) the proposal is dependent upon the site due to unique resources, characteristics or location attributes and the use or development will have social and economic benefits that are of State or regional significance; or |
| | c) it is uneconomic to relocate an existing use to a site that does not require a level crossing; and d) an alternative access or junction is not |
| | practicable. |
| Not applicable | Not applicable |

E4.7.4 Sight Distance at Accesses, Junctions and Level Crossings

Objective

To ensure that use and development involving or adjacent to accesses, junctions and level crossings allows sufficient sight distance between vehicles and between vehicles and trains to enable safe movement of traffic.

| Acce | ptable Solutions | Performance Criteria | |
|----------|--|---|-----|
| A1 a) | Sight distances at an access or junction must comply with the Safe Intersection Sight Distance shown in Table E4.7.4; and | P1 The design, layout and location of a access, junction or rail level crossing mu provide adequate sight distances ensure the safe movement of vehicles. | ıst |
| b) | rail level crossings must comply with AS1742.7 Manual of uniform traffic control devices - Railway crossings, Standards Association of Australia; or | | |
| c) | If the access is a temporary access, the written consent of the relevant authority has been obtained. | | |

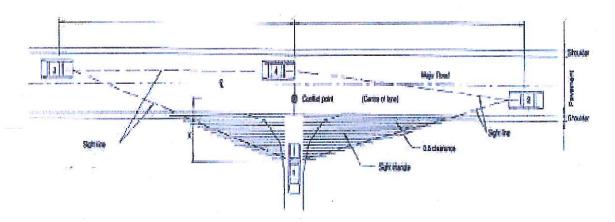


Figure E4.7.4 Sight Lines for Accesses and Junctions

X is the distance of the driver from the conflict point.

For category 1, 2 and 3 roads X = 7m minimum and for other roads X = 5m minimum.

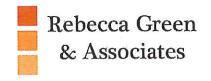


Table E4.7.4 Safe Intersection Sight Distance (SISD)

| Vehicle Speed | Safe Intersection Sight Distance (SISD) metres, for speed limit of: | | | |
|---------------|--|----------------------|--|--|
| km/h | 60 km/h or less | Greater than 60 km/h | | |
| 50 | 80 | 90 | | |
| 60 | 105 | 115 | | |
| 70 | 130 | 140 | | |
| 80 | 165 | 175 | | |
| 90 | | 210 | | |
| 100 | | 250 | | |
| 110 | | 290 | | |

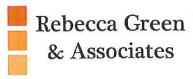
The traffic impact assessment finds that the following sight distances can be achieved:

E6.0 CAR PARKING & SUSTAINABLE TRANSPORT CODE

E6.6 Use Standards

E6.6.1 Car Parking Numbers

| E0.0.T | Car Parking Numbers | |
|----------|--|---|
| Objec | tive: To ensure that an ap | ppropriate level of car parking is provided to service use. |
| Accep | table Solutions | Performance Criteria |
| A1 | The number of car parking spaces must not be less than the requirements of: | P1 The number of car parking spaces provided must have regard to: a) the provisions of any relevant location specific car parking plan; and |
| a) b) | Table E6.1; or a parking precinct plan contained in Table E6.6: Precinct Parking Plans (except for dwellings in the General Residential Zone). | b) the availability of public car parking spaces within reasonable walking distance; and c) any reduction in demand due to sharing of spaces by multiple uses either because of variations in peak demand or by efficiencies gained by consolidation; and d) the availability and frequency of public transport within reasonable walking distance of the site; and |
| | 2011 6). | e) site constraints such as existing buildings, slope, drainage, vegetation and landscaping; and f) the availability, accessibility and safety of on-road parking, having regard to the nature of the roads, |



| | | traffic management and other uses in the vicinity; |
|-------------------------------|----------|---|
| | | and |
| | g) | an empirical assessment of the car parking demand; |
| | 1000000 | and |
| | h) | the effect on streetscape, amenity and vehicle, |
| | | pedestrian and cycle safety and convenience; and |
| | i) | the recommendations of a traffic impact assessment |
| | | prepared for the proposal; and |
| | j) | any heritage values of the site; and |
| | k) | for residential buildings and multiple dwellings, |
| | | whether parking is adequate to meet the needs of |
| | | the residents having regard to: |
| B 8 | i) | the size of the dwelling and the number of |
| | 20 | bedrooms; and |
| n | ii) | the pattern of parking in the locality; and |
| | iii) | any existing structure on the land. |
| Comment: There is no car park | ing real | uirement set for utilities. The proposal does not require |

Comment: There is no car parking requirement set for utilities. The proposal does not require parking.

Table F6.1: Parking Space Requirements

| Use | Parking Requirement | Parking Requirement | | |
|-----------|---------------------|---------------------|--|--|
| | Vehicle | Bicycle | | |
| Utilities | No requirement set | No requirement set. | | |

E6.6.2 Bicycle Parking Numbers

| Acceptable Solutions | | | rmance Criteria |
|----------------------|--|----|--|
| A1.1 | Permanently accessible bicycle parking or storage spaces must be provided either on the site or within | P1 | Permanently accessible bicycle parking or storage spaces must be provided having regard to the: |
| A1.2 | 50m of the site in accordance with the requirements of Table E6.1; or The number of spaces must be in | a) | likely number and type of users of the site and their opportunities and likel preference for bicycle travel; and |
| ,,_,_ | accordance with a parking precinct plan contained in Table E6.6: Precinct Parking Plans. | b) | location of the site and the distance cyclist would need to travel to reac the site; and |
| | | c) | availability and accessibility of existin and planned parking facilities fo bicycles in the vicinity. |

Comment: There is no bicycle parking requirement set for utilities. The proposal does not require bicycle parking.

E6.6.3 Taxi Drop-off and Pickup

| Obje | ctive: To ensure that taxis can adequately access d | levelop | oments. |
|------|---|---------|-------------------------|
| Acce | ptable Solutions | Perfo | ormance Criteria |
| A1 | One dedicated taxi drop-off and pickup space must be provided for every 50 car spaces | P1 | No performance criteria |



| required by Table E6.1 or part thereof (except | |
|--|--|
| for dwellings in the General Residential Zone). | |
| omment: The proposal does not require taxi spaces. | |

E6.6.4 Motorbike Parking Provisions

| Acceptable Solutions | | Performance Criteria | |
|----------------------|---|----------------------|--------------------------|
| A1 | One motorbike parking space must be provided for each 20 car spaces required by Table E6.1 or part thereof. | P1 | No performance criteria. |
| Comr | nent: The proposal does not require motorbike par | king. | |

E15 Signs Code – any regulatory signs required do not require a permit under this Code under Clause 15.4.1 of the Scheme.

4.3 State Policies

4.3.1 State Coastal Policy 1996

The State Coastal Policy was created under the *State Policies and Projects Act 1993*. This Policy applies to the Coastal Zone, which is defined as the area within State waters and all areas within one kilometre of the coast.

Proposal Response

The subject site is not located within one kilometre from the coast.

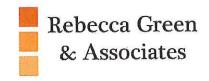
4.3.2 State Policy on Water Quality Management 1997

This Policy applies to all surface waters, including coastal waters, and ground waters, other than:

- i. Privately owned waters that are not accessible to the public and are not connected to, or flow directly into, waters that are accessible to the public; or
- ii. Waters in any tank, pipe or cistern.

The purpose of the Policy is to achieve the sustainable management of Tasmania's surface water and groundwater resources by protecting or enhancing their qualities while allowing for sustainable development in accordance with the objectives of Tasmania's Resource Management and Planning System (Schedule 1 of the State Policies and Projects Act 1993).

The objectives of this Policy are to:



 Focus water quality management on the achievement of water quality objectives which will maintain or enhance water quality and further the objectives of Tasmania's Resource Management and Planning System;

2. Ensure that diffuse source and point source pollution does not prejudice the achievement of water quality objectives and that pollutants discharged to waterways are reduced as far as is

reasonable and practical by the use of best practice environmental management;

3. Ensure that efficient and effective water quality monitoring programs are carried out and that the responsibility for monitoring is shared by those who use and benefit from the resource, including polluters, who should bear an appropriate share of the costs arising from their activities, water resource managers and the community;

4. Facilitate and promote integrated catchment management through the achievement of

objectives (1) to (3) above; and

5. Apply the precautionary principle to Part 4 of this Policy.

Proposal Response

The proposal is consistent with the policy.

4.3.3 State Policy on Protection of Agricultural Land 2009

The proposal is assessed to be consistent with the objectives of this Policy in that the proposed works are designed to minimise the amount of the land required to accommodate the necessary works designed.

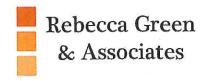
4.4 Land Use Planning and Approvals Act 1993

The Land Use Planning and Approvals Act 1993 provides objectives for all development considered under this Act. The proposal has been considered against the objectives of this Act. The proposal has been prepared to be consistent with the provisions of the Northern Midlands Interim Planning Scheme 2013. The proposal is therefore considered to be consistent with the objectives of the Act.

4.5 National Environment Protection Measures

A series of National Environment Protection Measures (NEPMs) have been established by the National Environment Protection Council. These measures are:

- Ambient air quality;
- National pollutant inventory;
- Movement of controlled waste;



- Use packaging materials;
- Assessment of site contamination; and
- Diesel vehicle emissions.

Proposal Response

It is considered that the NEPMs are not relevant to the proposed development.

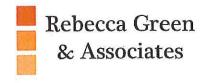
5. Conclusion

The proposal is for construction of an eastern entry/exit connection from the Northern Roundabout No. 1, adjacent to the unmade section of Seccombe Street, Perth., and is illustrated in plans, provided at Appendix B.

The proposal complies with the development standards prescribed by the Scheme and can be approved under the *Northern Midlands Interim Planning Scheme 2013*. This application is therefore made due to the use and development pursuant to Section 57 of the *Land Use Planning and Approvals Act 1993*.

The proposal is consistent with the relevant State and local policies, Planning Scheme objectives and considerations and objectives of the *Land Use Planning and Approvals Act 1993*. It is therefore recommended that the proposal be considered for planning approval.

| Author | Version | Date | |
|---------------|---------|-----------------|--|
| Rebecca Green | 1 | 8 November 2019 | |



Appendix A: Certificate of Title



RESULT OF SEARCH

RECORDER OF TITHES250

Issued Pursuant to the Land Titles Act 1980



SEARCH OF TORRENS TITLE

| VOLUME | FOLIO |
|---------|---------------|
| 170341 | 11 |
| EDITION | DATE OF ISSUE |
| 1 | 02-Dec-2015 |

SEARCH DATE : 06-Nov-2019 SEARCH TIME : 03.15 PM

DESCRIPTION OF LAND

Parish of PERTH Land District of CORNWALL

Lot 11 on Plan 170341

Derivation: Part of 10 Acres, Sect. Af Gtd. to T. Reibey and

Ors

Prior CT 164456/1

SCHEDULE 1

C442070 APPLICATION: THE CROWN Registered 02-Dec-2015 at noon

SCHEDULE 2

Reservations and conditions in the Crown Grant if any

UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

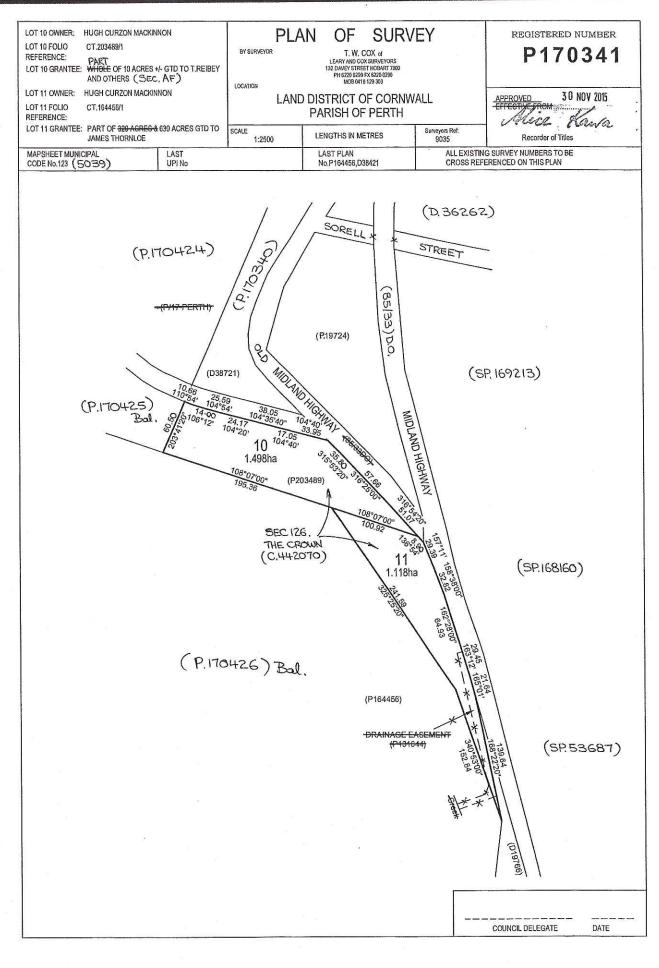


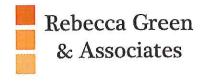
FOLIO PLAN

RECORDER OF TITLES 251

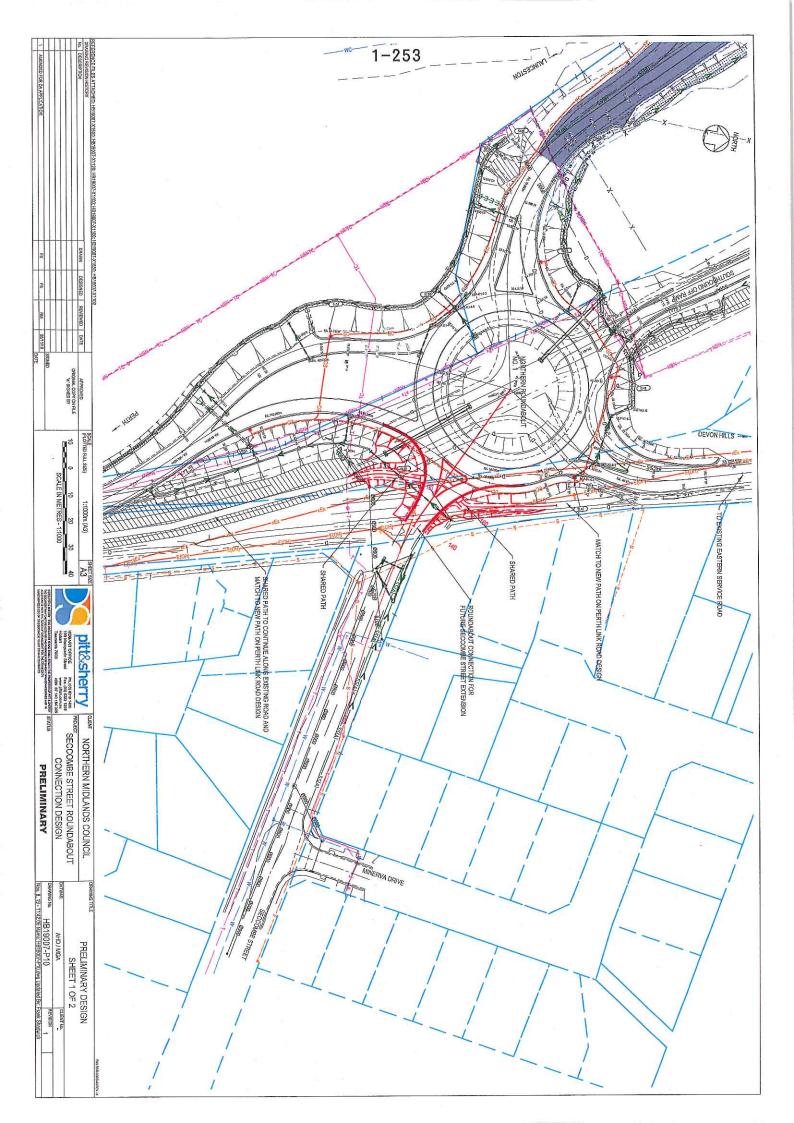
Issued Pursuant to the Land Titles Act 1980

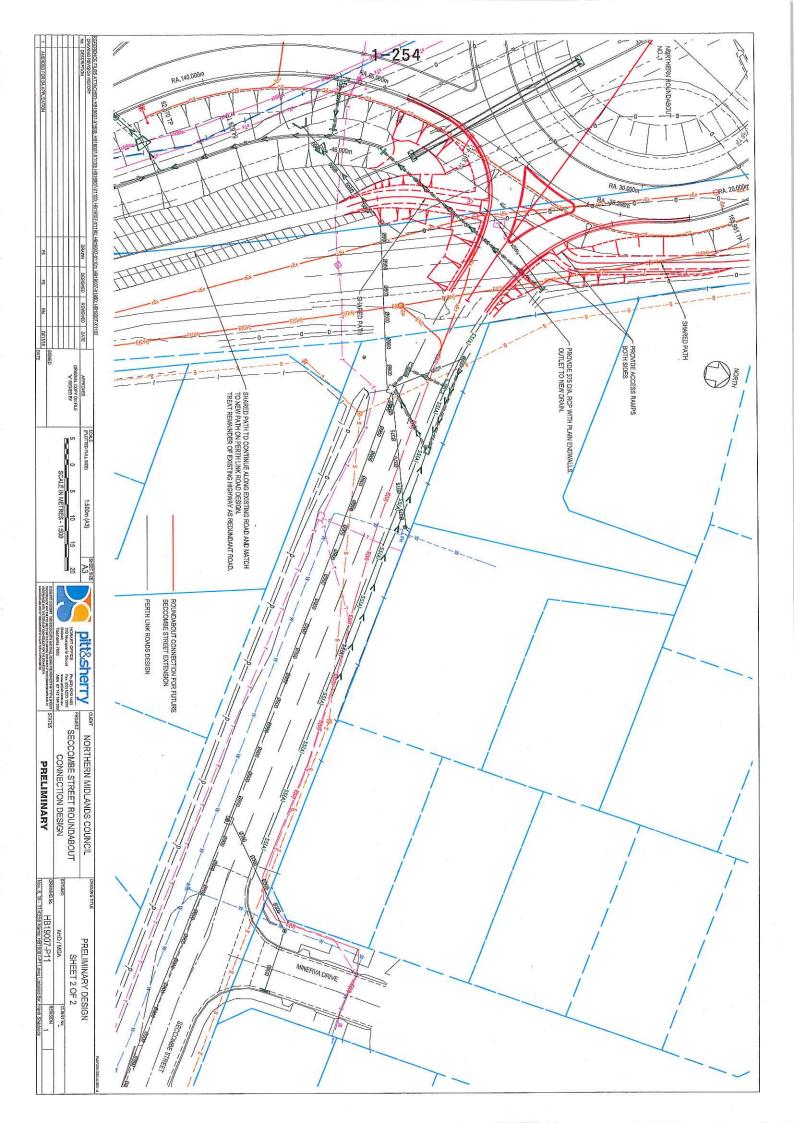


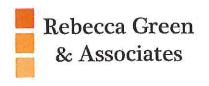




Appendix B: Plans pitt&sherry







Appendix C: Traffic Impact Assessment pitt&sherry

pitt&sherry

Seccombe Street Roundabout Connection

Traffic Impact Assessment

Prepared for

Northern Midlands Council

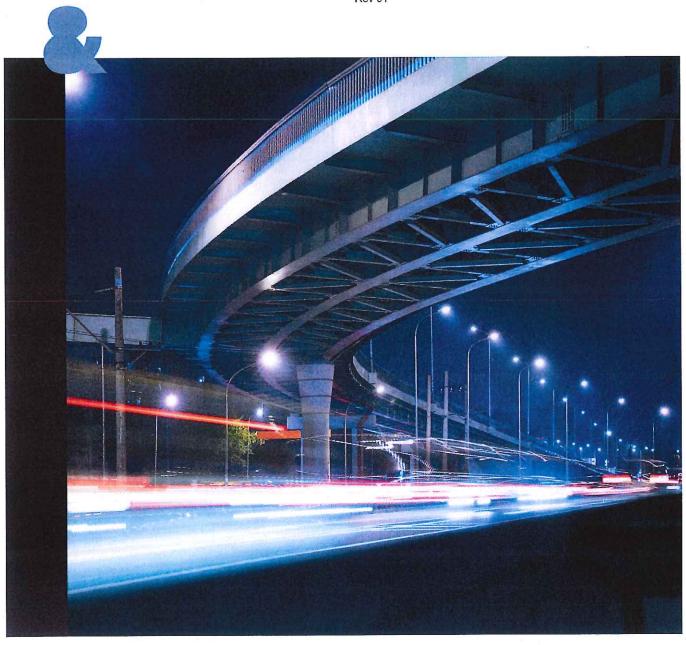
Client representative

Jonathan Galbraith

Date

26 November 2019

Rev 01



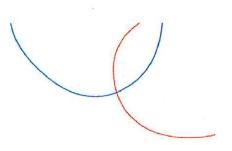


Table of Contents

| 1. | Introd | ntroduction4 | | | |
|------|----------------------|-------------------------------------|--|----|--|
| 2. | Existi | ng Cond | litions | 4 | |
| | 2.1 | Site Lo | cation | 4 | |
| | 2.2 | Surrounding Road Network | | | |
| | | 2.2.1 | Midland Highway/ Main Road | 5 | |
| | | 2.2.2 | Seccombe Street | | |
| | | 2.2.3 | Mulgrave Street | | |
| | | 2.2.4 | Arthur Street | | |
| | 2.3 | Andrew Company | nding Intersections | | |
| | 2.4 | | g Traffic Volumes | | |
| | | 2,4,1 | DSG Specifications | | |
| | | 2.4.2 | DSG Traffic Data | | |
| | | 2.4.3 | Calculated Traffic Volumes | | |
| | 2.5 | | g Roundabout Performance | | |
| | 2.0 | 2.5.1 | Traffic Modelling Software | | |
| | | 2.5.2 | Traffic Modelling Layout | | |
| | | | Traffic Modelling Results | | |
| | | 2.5.3 | | | |
| 3. | Development Proposal | | | | |
| | 3.1 | Overvi | ew | 9 | |
| 4. | Traffi | c Impac | t Assessment | 9 | |
| | 4.1 | Traffic | Generation | 9 | |
| | 4.2 | | onal Split of Traffic | | |
| | 4.3 | Traffic Distribution and Assignment | | 9 | |
| | 4.4 | | | | |
| | | 4.4.1 | Traffic Modelling Layout | | |
| | | 4.4.2 | Post Development (2020) Traffic Volumes | 10 | |
| | | 4.4.3 | Post Development (2020) Traffic Impacts | 11 | |
| | | 4.4.4 | 10-Years Post Development (2030) Traffic Volumes | 12 | |
| | | 4.4.5 | 10-Years Post Seccombe Street Completion (2030) Traffic Impacts | 13 | |
| 5. | Plani | ning Sch | eme Assessment | 14 | |
| | 5.1 | E4.0 F | Roads and Railway Assets Code | 14 | |
| 6. | Conc | | | | |
| ٥, | Oone | 1001011 | | | |
| - | - | | | | |
| | | r• | - | | |
| LIS | LOI | figure | es | | |
| Figu | re 1: S | ite Loca | lity Aerial Including Zoning Overlay (Aerial Source: Google Earth, October 2018 Imagery) | | |
| | | | affic Volumes (2020) - AM Peak Hour | | |
| 0.00 | | 1077 | raffic Volumes (2020) - PM Peak Hour | | |
| | | | Roundabout 1 Design LOS – AM Peak Hour | | |
| | | | Roundabout 1 Design LOS – PM Peak Hour | | |
| | | | elopment Traffic Volumes (2020) - AM Peak Hour | | |
| 1000 | | | | | |
| _ | | | elopment Traffic Volumes (2020) - PM Peak Hour | | |
| | | | n Roundabout 1 Post Development (2020) LOS – AM Peak Hour | | |
| | | | n Roundabout 1 Post Development (2020) LOS – PM Peak Hour | | |
| | | | velopment Traffic Volumes (2030) - AM Peak Hour | | |
| Figu | re 13: | Post De | velopment Traffic Volumes (2030) - PM Peak Hour | 12 | |

18

| Figure 14: Northern Roundabout 1 Post Development (2030) LOS – AM Peak Hour | 13 |
|---|----|
| Figure 15: Northern Roundabout 1 Post Development (2030) LOS – PM Peak Hour | 13 |

List of tables

| Table 1: SIDRA Level of Service | 7 |
|--|----|
| Table 2: Northern Roundabout 1 SIDRA Modelling Results | 8 |
| Table 3: Northern Roundabout 1 SIDRA Modelling Results - Post Development (2020) | 12 |
| Table 4: Northern Roundabout 1 SIDRA Modelling Results – 10- Years Post Development (2030) | 13 |
| Table 5: E4.6 Use Standards | 14 |
| Table 6: E4.7 Development Standards | 14 |
| | |

Appendices

Appendix A — Seccombe Street Connection Layout

Appendix B — SIDRA Results – Existing Northern Roundabout No.1

Appendix C — SIDRA Results – Post Development 2020

Appendix D — SIDRA Results – Post Development 2030

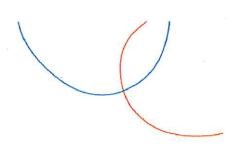
| Prepared by — Leenah Ali | Leenahali | Date — 26/11/2019 |
|--------------------------------|-------------|-------------------|
| Reviewed by — Ross Mannering | RSMannerry | Date — 26/11/2019 |
| Authorised by — Ross Mannering | RSMannering | Date — 26/11/2019 |

Revision History

| Rev No. | Description | Prepared by | Reviewed by | Authorised by | Date |
|---------|---------------------------------|-------------|--------------|---------------|------------|
| A | Draft Traffic Impact Assessment | L. Ali | R. Mannering | R. Mannering | 23/10/2019 |
| 00 | Traffic Impact Assessment | L. Ali | R. Mannering | R. Mannering | 23/10/2019 |
| 01 | Traffic Impact Assessment | L. Ali | R. Mannering | R. Mannering | 26/11/2019 |

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1. Introduction

The Perth Link Roads project is being undertaken by the Department of State Growth (DSG) and constructed by the VEC Shaw Joint Venture. The project consists of a southern and western bypass of the Perth Township. The western link of the project includes a grade separated interchange on the northern outskirts of Perth with the ramp terminals managed by roundabouts on either side of the new highway.

pitt&sherry were engaged by Northern Midlands Council (Council) to develop the detailed road design for the connection of Seccombe Street to the roundabout on the eastern side of the interchange (Northern Roundabout No.1). Following the development of the detailed designs, Council have engaged pitt&sherry to prepare a Traffic Impact Assessment (TIA) to accompany the Development Application (DA) that needs to be submitted to enable construction of the connection.

This report has been prepared in accordance with DSG's Publication *Traffic Impact Assessments (TIA) Guidelines* and the *Northern Midlands Interim Planning Scheme 2013* (the Planning Scheme).

2. Existing Conditions

2.1 Site Location

The proposed Seccombe Street connection is along the eastern side of Northern Roundabout No.1 of the Perth Link Roads project, which is located along the existing Midland Highway, approximately 500m north of the Perth Town Centre.

Under the Planning Scheme, the site has as land use classification as 28.0 Utilities. Surrounding land uses include 10.0 General Residential to the east, 12.0 Low Density Residential to the north-east and 26.0 Rural Resource to the northwest, west and south.

Figure 1 shows the location of the proposed Seccombe Street connection in the local context.

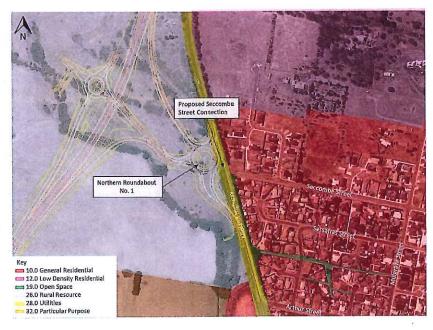
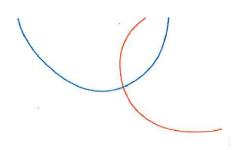


Figure 1: Site Locality Aerial Including Zoning Overlay (Aerial Source: Google Earth, October 2018 Imagery)



2.2 Surrounding Road Network

2.2.1 Midland Highway/ Main Road

The Midland Highway is classified as a Category 1 State Road in the DSG Road Hierarchy and is a key link in Tasmania's road network. The highway facilitates freight movement from the southern region to the State's northern ports and is also the major transport link for passengers travelling between the northern and southern regions.

The Midland Highway is also known as Main Road through Perth. Main Road is a two-way road configured with a single carriageway. The road operates in a north-west south-east direction and has a posted speed limit of 60km/h.

Upon completion of the Perth Link Roads project, vehicles travelling between the northern and southern regions of Tasmania on the Midland Highway will be diverted onto the new highway and the Main Road approach to Northern Roundabout No.1 will predominantly be used by local traffic in Perth.

2.2.2 Seccombe Street

Seccombe Street is a Council owned dead-end street that travels in an east-west direction providing access to residential properties. Seccombe Street has a single lane in each direction and has a speed limit of 50km/h.

2.2.3 Mulgrave Street

Mulgrave Road is a Council owned local road that travels in a north-south direction, providing access to residential properties. Mulgrave Street has a single lane in each direction and connects Seccombe Street to Arthur Street. The street is subject to a speed limit of 50km/h.

2.2.4 Arthur Street

Arthur Street is a Council owned road that links numerous residential streets including Seccombe Street to Main Road. Arthur Street runs in an east-west direction and has a speed limit of 50km/h.

2.3 Surrounding Intersections

There are currently no intersections between Seccombe Street and Main Road. Vehicles from Main Road travel to Seccombe Street via Arthur Street and Mulgrave Street.

2.4 Existing Traffic Volumes

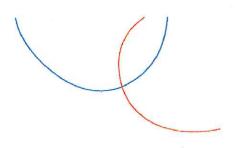
2.4.1 DSG Perth Link Roads Principal's Project Requirements

Traffic data for Main Road and the New Highway Ramp approaches to Northern Roundabout No.1 has been sourced from Table 3010.021 of the DSG Principal's Project Requirements (PPR) for the Perth Link Roads project.

It is noted that the traffic volumes provided within the PPR are the daily traffic volumes for 2019.

In order to calculate the peak hour traffic volumes, a peak to daily ratio of 10% has been assumed.

As the Northern Roundabout No.1 is expected to be completed in 2020, traffic volumes for 2020 has been calculated. In order to calculate 2020 traffic volumes, a growth rate of 1.5% per year has been applied to the 2019 traffic volumes. The growth rate has been determined from DSG traffic data available in the vicinity of the Perth township.



2,4,2 DSG Traffic Data

Traffic data for the southbound off-ramp approach to Northern Roundabout No.1 has been calculated using available DSG traffic data. The traffic data was collected in May 2019 in the vicinity of the Perth Township.

In order to calculate the 2020 traffic volumes, a growth rate of 1.5% per year has been applied to the 2019 traffic volumes. The growth rate has been determined from DSG traffic data available in the vicinity of the Perth township.

2.4.3 Calculated Traffic Volumes

There are currently no traffic volumes available for the Eastern Service Road (Old Midland Highway, now Devon Hills) approach to Northern Roundabout No.1. Due to the catchment using the Eastern Service Road approach being predominantly low-density residential dwellings, the anticipated traffic volumes have been calculated using traffic generation rates sourced from the Roads and Maritime Services (RMS) Guide to Traffic Generating Developments Technical Direction TDT2013/04a (RMS Technical Direction).

It has been assumed, for the purpose of completing a conservative assessment for the traffic analysis, that the Eastern Service Road approach could potentially service up to 15 dwellings. The RMS Technical Direction specifies the following traffic generation rates for low density residential dwellings:

- Weekday AM Peak Hour
- 0.99 trips per dwelling
- Weekday PM Peak Hour
- 0.95 trips per dwelling.

The directional split of traffic (i.e. the ratio between inbound and outbound traffic movements) that has been adopted for the Eastern Service Road approach is as follows:

- AM Peak Hour
- 20% in/ 80% out
- PM Peak Hour
- 70% in/ 30% out.

The distribution of the traffic that has been adopted for the Eastern Service Road approach is as follows:

- 65% to north
- 35% to south

Based on the above, a summary of the 2020 AM and PM peak hour traffic volumes are shown in Figure 2 and Figure 3.

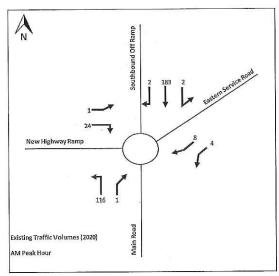


Figure 2: Existing Traffic Volumes (2020) - AM Peak Hour

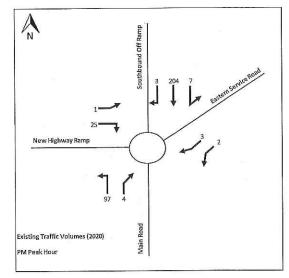


Figure 3: Existing Traffic Volumes (2020) - PM Peak Hour

2.5 Existing Roundabout Performance

2.5.1 Traffic Modelling Software

The traffic operation of Northern Roundabout No.1 has been assessed using SIDRA Intersection 8.0 modeling software. SIDRA Intersection rates the performance of the intersections based on the vehicle delay and the corresponding LOS. It is generally accepted that an intersection operates well if it is at LOS D or higher. Table 1 shows the criteria that SIDRA adopts in assessing the LOS.

Table 1: SIDRA Level of Service

| 8.0 | | Delay per Vehicle (secs) | |
|-----|-----------------|--------------------------|-----------------|
| LOS | Signals | Roundabout | Sign Control |
| A | 10 or less | 10 or less | 10 or less |
| В | 10 to 20 | 10 to 20 | 10 to 15 |
| С | 20 to 35 | 20 to 35 | 15 to 25 |
| D | 35 to 55 | 35 to 50 | 25 to 35 |
| E | 55 to 80 | 50 to 70 | 35 to 50 |
| F | Greater than 80 | Greater than 70 | Greater than 50 |

2.5.2 Traffic Modelling Layout

The geometry of Northern Roundabout No.1 used for the SIDRA traffic model was developed with reference to the Detailed Design Plans for the Perth Link Roads project prepared for DSG and VEC Shaw Joint Venture by pitt&sherry. The Detailed Design Plans informed the number, width and length of trafficable lanes.

The layout used within the SIDRA model for Northern Roundabout No.1 is shown in Figure 4.

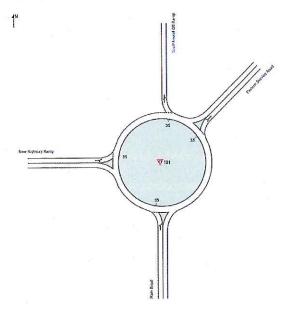
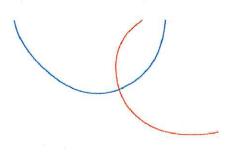


Figure 4: Northern Roundabout No.1 - SIDRA Layout



2.5.3 Traffic Modelling Results

The LOS for each approach at Northern Roundabout No.1 is shown in Figure 5 and Figure 6. A summary of the SIDRA Intersection results is provided in Table 2. Full results are presented in Appendix B.

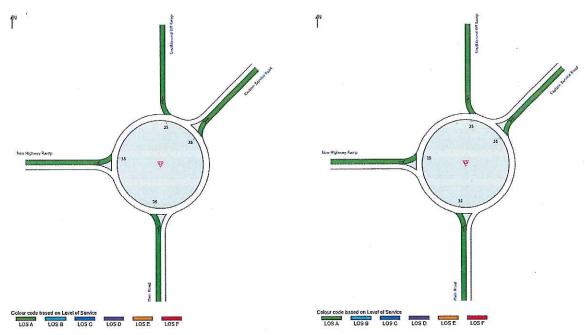


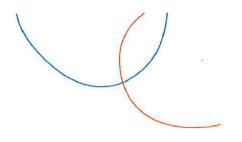
Figure 5: Northern Roundabout No.1 Design LOS – AM Peak Hour

Figure 6: Northern Roundabout No.1 Design LOS – PM Peak Hour

Table 2: Northern Roundabout No.1 SIDRA Modelling Results

| Approach | Peak Hour | Degree of Saturation | Average Delay (secs) | 95 th Percentile Queue (m) | LOS |
|----------------------------------|--------------|-------------------------|-------------------------|--|-----|
| South: Main Road | | 0.08 | 3 | 3 | Α |
| North East: Eastern Service Road | | 0.01 | 7 | 0 | Α |
| North: Southbound Off Ramp | AM | 0.13 | 3 | 5 | Α |
| West: New Highway Ramp | | 0.02 | 9 | 1 | А |
| All Vehicles | | 0.13 | 4 | 5 | Α |
| South: Main Road | | 0.06 | 3 | 3 | А |
| North East: Eastern Service Road | | 0.00 | 7 | 0 | A |
| North: Southbound Off Ramp | PM | 0.14 | 3 | 6 | А |
| West: New Highway Ramp | 15 | 0,02 | 9 | 1 | А |
| All Vehicles | | 0.14 | 4 | 6 | Α |

Based on the results above, Northern Roundabout No.1 is expected to operate well in 2020 with minimal queues and delays experienced on all legs of the roundabout. The roundabout operates with LOS A in both the AM and PM peak hours.



3. Development Proposal

3.1 Overview

Council is proposing a connection of Seccombe Street to Northern Roundabout No.1. The Seccombe Street connection will create a fifth leg on Northern Roundabout No.1 and will have a single 3.5m traffic lane in each direction. The proposed layout for the connection is attached in Appendix A.

The Seccombe Street connection is expected to be constructed in 2020 and will create an additional link between Main Road and the residential area located to the east of Main Road.

4. Traffic Impact Assessment

4.1 Traffic Generation

Currently, access to the residential properties along Seccombe Street from Main Road is via Arthur Street and Mulgrave Street. The construction of the Seccombe Street connection will result in vehicles directly accessing Seccombe Street from Main Road. Residential properties in the vicinity of Seccombe Street are also expected to use the Seccombe Street connection.

For the purpose of this assessment, due to the catchment accessing Seccombe Street being predominantly low-density residential dwellings, the anticipated traffic volume has been calculated using traffic generation rates sourced from RMS TDT2013/04a. It has been assumed, for the purpose of completing a conservative assessment for the traffic analysis, that Seccombe Street could potentially service up to 200 dwellings.

Based on the above, the traffic volumes expected along the Seccombe Street connection in each of the weekday peak hours is as follows:

AM Peak Hour

198 trips

PM Peak Hour

190 trips

4.2 Directional Split of Traffic

The directional split of traffic (i.e. the ratio between inbound and outbound traffic movements) that has been adopted for the vehicles on the Seccombe Street connection are as follows:

AM Peak Hour

20% in/80% out

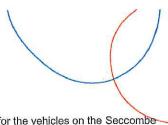
PM Peak Hour

70% in/ 30% out.

4.3 Traffic Distribution and Assignment

The distribution of the traffic generated along the Seccombe Street connection is based on a number of factors including:

- The location of major traffic distribution roads around the site
- The location of traffic generating developments; and
- Existing traffic patterns



Based on the above, the expected distribution of movements that has been adopted for the vehicles on the Seccombe Street connection are as follows:

- 70% to north
- 30% to south

4.4 Traffic Impacts

4.4.1 Traffic Modelling Layout

The geometry of Northern Roundabout No.1 post development of the Seccombe Street connection used for the SIDRA traffic model was developed with reference to the Preliminary Design Plans for the Seccombe Street connection prepared for Northern Midlands Council by pitt&sherry. The Preliminary Design Plans informed the number, width and length of trafficable lanes.

The layout used within the SIDRA model for Northern Roundabout No.1 is shown in Figure 12.

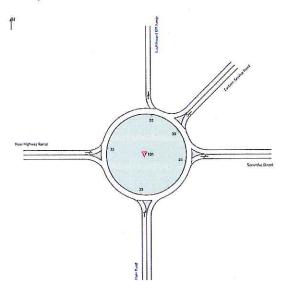


Figure 7: Northern Roundabout No.1 Post Development - SIDRA Layout

4.4.2 Post Development (2020) Traffic Volumes

The traffic impact of the Seccombe Street connection has been estimated for immediately post development.

The expected post development traffic volumes for the weekday AM and PM peak hours are shown in Figure 2 and Figure 3.

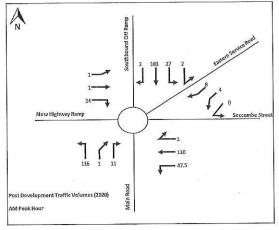


Figure 8: Post Development Traffic Volumes (2020) - AM Peak Hour

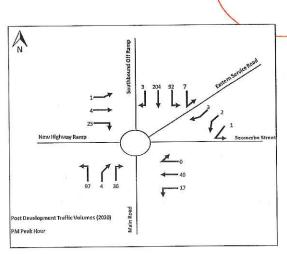


Figure 9: Post Development Traffic Volumes (2020) - PM Peak Hour

4.4.3 Post Development (2020) Traffic Impacts

The impact of the Seccombe Street connection on the lane LOS for each approach at Northern Roundabout No.1 immediately post development is shown in Figure 10 and Figure 11. A summary of the SIDRA Intersection results is provided in Table 2. Full results are presented in Appendix C.

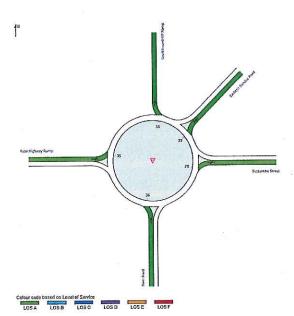


Figure 10: Northern Roundabout No.1 Post Development (2020) LOS – AM Peak Hour

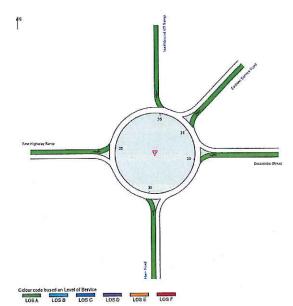


Figure 11: Northern Roundabout No.1 Post Development (2020) LOS – PM Peak Hour

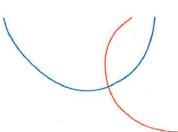


Table 3: Northern Roundabout No.1 SIDRA Modelling Results - Post Development (2020)

| Approach | Peak Hour | Degree of Saturation | Average Delay (secs) | 95 th Percentile Queue (m) | LOS |
|----------------------------------|--------------|-------------------------|-------------------------|--|-----|
| South: Main Road | | 0.10 | 5 | 4 | Α |
| East: Seccombe Street | | 0.15 | 5 | 6 | Α |
| North East: Eastern Service Road | | 0.01 | 7 | 0 | Α |
| North: Southbound Off Ramp | AM | 0.15 | 4 | 6 | Α |
| West: New Highway Ramp | | 0.02 | 9 | 1 | Α |
| All Vehicles | | 0.15 | 5 | 6 | Α |
| South: Main Road | | 0.10 | 6 | 4 | Α |
| East: Seccombe Street | | 0.06 | 5 | 2 | Α |
| North East: Eastern Service Road | | 0.01 | 7 | 0 | Α |
| North: Southbound Off Ramp | PM | 0.22 | 4 | 10 | Α |
| West: New Highway Ramp |] | 0.02 | 8 | 1 | А |
| All Vehicles | | 0.22 | 5 | 10 | Α |

Based on the results above, with the construction of the Seccombe Street connection, Northern Roundabout No.1 is expected to continue to operate well with minimal queues and delays experienced on all approaches. The roundabout continues to operate with a LOS A in both the AM and PM peak hours.

4.4.4 10-Years Post Development (2030) Traffic Volumes

The traffic impact of the Seccombe Street connection has been estimated for 10-years post development (2030).

In order to represent future growth on the road network, a compounding growth rate of 1.5% per year has been applied to the 2020 traffic volumes for Main Road, New Highway Ramp and Southbound Off-ramp. A compounding growth rate of 2% per year has been applied to the 2020 traffic volumes for Eastern Service Road and Seccombe Street.

The expected traffic volumes for the weekday AM and PM peak hours in 2030 is shown in Figure 12 and Figure 13.

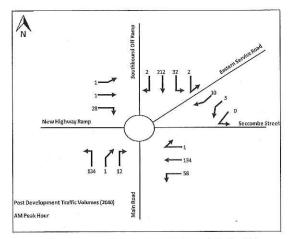


Figure 12: Post Development Traffic Volumes (2030) - AM Peak Hour

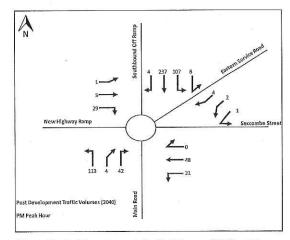
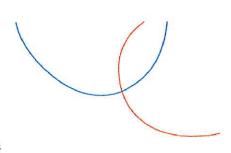


Figure 13: Post Development Traffic Volumes (2030) - PM Peak Hour



4.4.5 10-Years Post Seccombe Street Completion (2030) Traffic Impacts

The impact of the Seccombe Street connection on the lane LOS for each approach at Northern Roundabout No.1 10-years post development is shown in Figure 14 and Figure 15. A summary of the SIDRA Intersection results is provided in Table 4. Full results are presented in Appendix D.

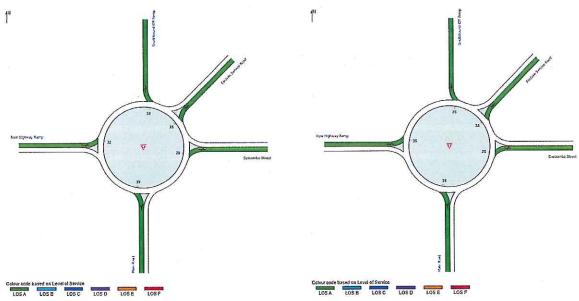
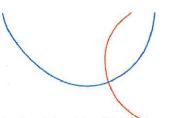


Figure 14: Northern Roundabout No.1 Post Development (2030) LOS – AM Peak Hour

Figure 15: Northern Roundabout No.1 Post Development (2030) LOS – PM Peak Hour

Table 4: Northern Roundabout No.1 SIDRA Modelling Results – 10- Years Post Development (2030)

| Approach | Peak Hour | Degree of Saturation | Average Delay (secs) | 95 th Percentile Queue (m) | LOS |
|----------------------------------|--------------|-------------------------|-------------------------|--|-----|
| South: Main Road | | 0.12 | 5 | 5 | Α |
| East: Seccombe Street | | 0.19 | 6 | 8 | Α |
| North East: Eastern Service Road | | 0.02 | 8 | 1 | Α |
| North: Southbound Off Ramp | AM | 0.17 | 4 | 7 | Α |
| West: New Highway Ramp | | 0.02 | 9 | 1 | Α |
| All Vehicles | | 0.19 | 5 | 8 | A |
| South: Main Road | | 0.12 | 5 | 5 | A |
| East: Seccombe Street | e! | 0.07 | 5 | 3 | Α |
| North East: Eastern Service Road | БИ | 0.01 | 8 | 0 | Α |
| North: Southbound Off Ramp | PM | 0.26 | 4 | 12 | Α |
| West: New Highway Ramp | | 0.03 | 8 | 1 | Α |
| All Vehicles | | 0.26 | 5 | 12 | Α |



Based on the results above, with the construction of the Seccombe Street connection, Northern Roundabout No.1 is expected to continue to operate well in 2030 with minimal queues and delays experienced on all approaches. The roundabout operates at a LOS A in both the AM and PM peak hours.

5. Planning Scheme Assessment

5.1 E4.0 Roads and Railway Assets Code

The proposed development has been assessed against the E4.0 Roads and Railways Assets Code of the Planning Scheme. The use standards have been assessed in Table 5 and the development standards have been assessed in Table 6.

Table 5: E4.6 Use Standards

E4.6.1 Use and road or rail Infrastructure

Objective:

To ensure that the safety and efficiency of road and rail infrastructure is not reduced by the creation of new accesses and junctions or increased use of existing accesses and junctions.

| Acceptable Solution/ Performance Criteria | Comments |
|---|--|
| Sensitive use on or within 50m of a Category 1 or 2 road in an area subject to a speed limit of more than 60km/h, a railway or future road or railway must not result in an increase to the annual average daily traffic (AADT) movements to and from the site by more than 10%. P1 Sensitive use on or within 50m of a Category 1 or 2 road, in an area subject to a speed limit of more than 60km/h, a railway or future road or railway must demonstrate that the safe and efficient operation of the infrastructure will not be detrimentally affected. | Complies with Acceptable Solution A1 The Seccombe Street connection will provide an additional route between Main Street and Seccombe Street and as such will redirect some vehicles from the existing route to the connection. The connection itself is not expected to increase the annual average daily traffic movements to and from the residential properties along and in the vicinity of Seccombe Street. |

Table 6: E4.7 Development Standards

E4.7.1 Development on and adjacent to Existing and Future Arterial Roads and Railways

Objective:

To ensure that development on or adjacent to Category 1 or 2 roads (outside 60km/h), railways and future roads and railways is managed to:

- a) Ensure the safe and efficient operation of roads and railways; and
- b) Allow for future road and rail widening, realignment and upgrading; and
- c) Avoid undesirable interaction between roads and railways and other use or development

| Acceptable Solution/ Performance Criteria | Comments |
|---|-----------------------------------|
| A1 | Satisfies Performance Criteria P1 |

The following must be at least 50m from a railway, a future road or railway, and a Category 1 or 2 road in an area subject to a speed limit of more than 60km/h

- a) New road works, buildings, additions and extensions, earthworks and landscaping works;
 and
- b) Building areas on new lots; and
- Outdoor sitting, entertainment and children's play areas

P

Development including buildings, road works, earthworks, landscaping works and level crossings on or within 50m of a Category 1 or 2 road, in an area subject to a speed limit of more than 60km/h, a railway or future road or railway must be sited, designed and landscaped to:

- Maintain or improve the safety and efficiency of the road or railway or future road or railway, including line of sight from trains; and
- Mitigate significant transport-related environmental impacts, including noise, air pollution and vibrations in accordance with a report from a suitably qualified person; and
- Ensure that additions or extensions of buildings will not reduce the existing setback to the road, railway or future road or railway; and
- d) Ensure that temporary buildings and works are removed at the applicant's expense within three years or as otherwise agreed by the road or rail authority

The Seccombe Street connection is located within 50m from a Category 1 road and as such is unable to comply with Acceptable Solution A1.

The proposed development has been assessed against the Performance Criteria P1 as follows:

- a) Currently vehicles accessing Seccombe Street from Main Road need to travel via Arthur Street and Mulgrave Street, both of which are residential streets. The Seccombe Street connection will provide a more direct route between Main Road and Seccombe Street, resulting in less traffic travelling through the residential street network. This will improve the safety, efficiency and convenience of the road network.
- b) Provision of the Seccombe Street connection will minimise the travel distance between the residential area and the surrounding road network. The connection will therefore reduce environmental impacts.
- c) The Seccombe Street connection is being constructed within the future road corridor and as such will not reduce the existing setback of buildings to the road
- d) The Seccombe Street connection is being constructed for Northern Midlands Council. As such, the proposal will comply with subclause d) in relation to temporary structures required during the construction phase.

E4.7.2 Management of Road Accesses and Junctions

Objective:

To ensure that the safety and efficiency of roads is not reduced by the creation of new accesses and junctions or increased use of accesses and junctions

Acceptable Solution/ Performance Criteria

A2

For roads with a speed limit of more than 60km/h the development must not include a new access or junction.

P2

For limited access roads and roads with a speed limit of more than 60km/h,

- Access to a Category 1 road or limited access road must only be via an existing access or junction or the development must provide a significant social and economic benefit to the State or region; and
- Any increase in use of an existing access or junction or development of a new access or junction to a limited access road or category 1, 2

Comments

Satisfies Performance Criteria P2

The Seccombe Street connection is new and some of the roundabout approach roads have speed limits greater than 60km/h. Therefore, the proposed development is unable to comply with Acceptable Solution A2.

The proposed development has been assessed against the Performance Criteria P2 as follows:

a) The Seccombe Street connection will provide safe, efficient and convenient access for residential properties along and in the vicinity of Seccombe Street. This will provide a significant social and economic benefit to the Perth Township.

- or 3 road must be dependent on the site for its unique resources, characteristics or local attributes and an alternate site or access to a category 4 or 5 road is not practicable; and
- c) An access or junction which is increased in use or is a new access or junction must be designed and located to maintain adequate level of safety and efficiency for all road users
- The Seccombe Street connection will redirect vehicles but is not expected to itself result in an increase in the use of the existing road network.
- The connection has been designed in accordance with relevant standards and guidelines and is expected to maintain safety and efficiency for all road users. Throughout development of the design for the Perth Link Roads project there has been consultation with the Department of State Growth regarding the geometry of Northern Roundabout No. 1 to ensure that it will accommodate the Seccombe Street connection.

E4.7.4 Sight Distance at Accesses, Junctions and Level Crossings

Objective:

To ensure that use and development involving or adjacent to accesses, junctions and level crossings allows sufficient sight distance between vehicles and between vehicles and trains to enable safe movement of traffic

| Accept | able Solution/ Performance Criteria | Comments |
|--------|--|---|
| A1 | | Complies with Acceptable Solutions A1 |
| J | An access or junction must comply with the Safe Intersection Sight Distance shown in Table E4.7.4 Rail level crossing must comply with AS1742.7 Manual of uniform traffic control devices — Railway crossings, Standards Association of Australia: or | The Safe Intersection Sight Distances shown in Table E4.7.4 are for a T-intersection. As the proposed Seccombe Street connection is to a roundabout, sight distance requirements have been sourced from the Austroads Guide to Road Design – Part 4B: Roundabouts. The Seccombe Street connection has been designed to comply with the Austroads sight distance requirements |
| c) | If the access is a temporary access, the written consent of the relevant authority has been obtained. | |

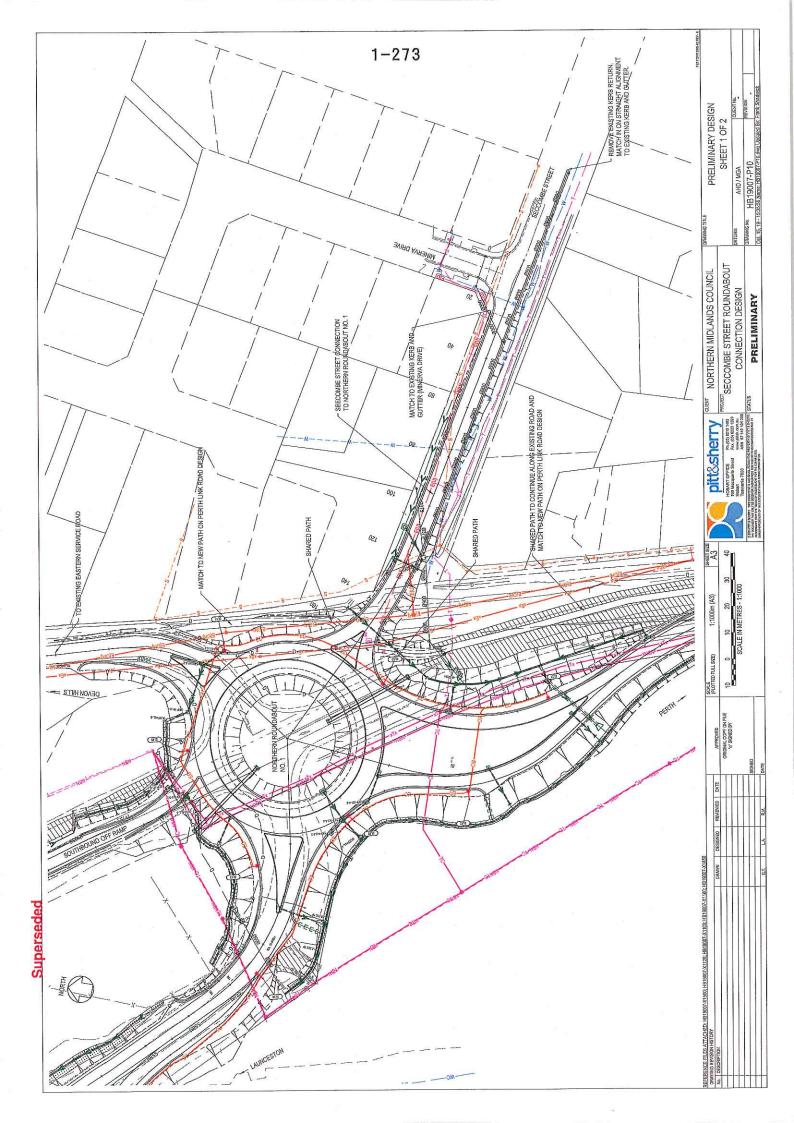
6. Conclusion

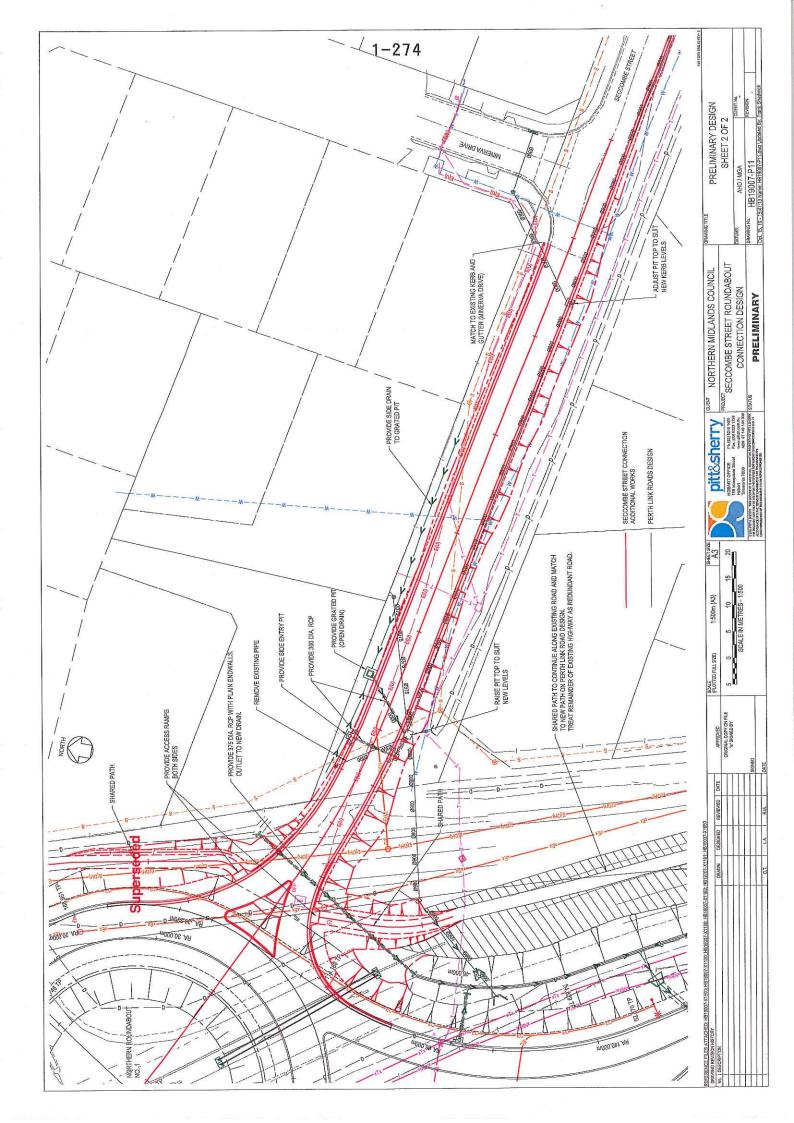
pitt&sherry were engaged by Northern Midlands Council to develop the detailed road design for the connection of Seccombe Street to Northern Roundabout No.1. The proposed Seccombe Street connection has been assessed in accordance with the Department of State Growth's Publication *Traffic Impact Assessments (TIA) Guidelines* and the *Northern Midlands Interim Planning Scheme 2013*. The analysis and discussions presented in this report are summarised as follows:

- The Seccombe Street connection will provide a direct access between Main Road and Seccombe Street
- The connection is expected to be used by residential properties along and in the vicinity of Seccombe Street
- Northern Roundabout No.1 is expected to continue to operate at LOS A immediately post development and 10years post development
- The Seccombe Street connection has been designed in accordance with the relevant Australian Standards and Guidelines

Appendix A

Seccombe Street Connection Layout





Appendix B

SIDRA Results – Existing Northern Roundabout No.1



MOVEMENT SUMMARY

Site: 101 [Northern Roundabout 1 - 2020 AM Pek Hour]

New Site

Site Category: (None)

Roundabout

| | | erformance | | The second second | | The second second | | | | Err 12 | A | |
|-----------|-----------|----------------------------|------------------|---------------------|-------------------------|---------------------|-----------------------------|---------------------------|-----------------|------------------------|------|--------------------------|
| Mov ID | Turn | Demand Total veh/h | Flows HV % | Deg. Satn v/c | Average Delay sec | Level of Service | 95% Back Vehicles veh | of Queue Distance m | Prop. Queued | Effective Stop Rate | | Average Speed km/h |
| South | : Main Ro | oad | | | | | | | | | | |
| 1 | L2 | 122 | 3.0 | 0.076 | 3.2 | LOSA | 0.4 | 3.1 | 0.07 | 0.39 | 0.07 | 56.7 |
| 3а | R1 | 1 | 3.0 | 0.076 | 8.1 | LOSA | 0.4 | 3,1 | 0.07 | 0.39 | 0.07 | 58.4 |
| Appro | ach | 123 | 3.0 | 0.076 | 3.3 | LOSA | 0.4 | 3.1 | 0.07 | 0.39 | 0.07 | 56.7 |
| North | East: Eas | tern Service | Road | | | | | | | | | |
| 24a | L1 | 4 | 3.0 | 0.010 | 3,7 | LOSA | 0.1 | 0.4 | 0.38 | 0.51 | 0.38 | 54.4 |
| 26a | R1 | 8 | 3.0 | 0.010 | 9.0 | LOSA | 0.1 | 0.4 | 0.38 | 0.51 | 0.38 | 54.6 |
| Appro | ach | 13 | 3.0 | 0.010 | 7.3 | LOSA | 0.1 | 0.4 | 0.38 | 0.51 | 0.38 | 54.6 |
| North | : Southbo | ound Off Ran | np | | | | | | | | | |
| 7b | L3 | 2 | 3.0 | 0.125 | 3.5 | LOSA | 0.7 | 4.9 | 0.12 | 0.31 | 0.12 | 55.6 |
| 8 | T1 | 193 | 3.0 | 0.125 | 3,2 | LOSA | 0.7 | 4.9 | 0.12 | 0.31 | 0.12 | 58.4 |
| 9 | R2 | 2 | 3.0 | 0.125 | 9.4 | LOSA | 0.7 | 4.9 | 0.12 | 0.31 | 0.12 | 58.9 |
| Appro | ach | 197 | 3.0 | 0.125 | 3.3 | LOSA | 0.7 | 4.9 | 0.12 | 0.31 | 0.12 | 58.4 |
| West: | New Hig | hway Ramp | | | | | | | | | | |
| 10a | L1 | 1 | 3.0 | 0.016 | 2.8 | LOSA | 0.1 | 0.6 | 0.02 | 0.63 | 0.02 | 53.7 |
| 12 | R2 | 25 | 3,0 | 0.016 | 9.3 | LOSA | 0.1 | 0.6 | 0.02 | 0.63 | 0.02 | 54.7 |
| Appro | ach | 26 | 3.0 | 0.016 | 9.1 | LOSA | 0.1 | 0.6 | 0.02 | 0.63 | 0.02 | 54.7 |
| All Ve | hicles | 359 | 3.0 | 0.125 | 3.8 | LOSA | 0.7 | 4.9 | 0.11 | 0.37 | 0.11 | 57.4 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Géometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 101 [Northern Roundabout 1 - 2020 PM Pek Hour]

New Site Site Category: (None) Roundabout

| Mov. | Tiuria | Demand I | Flows | Deg | Average | Level of | 95% Back | | Prop. | | Aver, No. | |
|--------|-----------|--------------|-------|-------|---------|----------|----------|-------------------|---------------|-----------|--|---------------|
| ID . | | Total | HV | Satin | Delay | Service | Vehicles | Distance | | Stop Rate | A STATE OF THE PARTY OF THE PAR | Speed km/h |
| South | : Main Ro | veh/h | % | v/ic | sec | | veh | A. P. S. S. VAII. | ay to feel ag | | *********** | LN(0)IV/ |
| 1 | L2 | 102 | 3.0 | 0.064 | 3.2 | LOSA | 0.4 | 2.5 | 0.05 | 0.40 | 0.05 | 56.7 |
| За | R1 | 4 | 3.0 | 0.064 | 8.1 | LOSA | 0.4 | 2.5 | 0.05 | 0.40 | 0.05 | 58.3 |
| Appro | | 106 | 3.0 | 0.064 | 3.4 | LOSA | 0.4 | 2.5 | 0.05 | 0.40 | 0.05 | 56.7 |
| North | East: Eas | tern Service | Road | | | | | | | | | |
| 24a | L1 | 2 | 3.0 | 0.004 | 3.8 | LOS A | 0.0 | 0.2 | 0.40 | 0.49 | 0.40 | 54.6 |
| 26a | R1 | 3 | 3.0 | 0.004 | 9.1 | LOS A | 0.0 | 0.2 | 0.40 | 0.49 | 0.40 | 54.8 |
| Appro | ach | 5 | 3.0 | 0.004 | 7.0 | LOSA | 0.0 | 0.2 | 0.40 | 0.49 | 0.40 | 54.7 |
| North | : Southbo | und Off Rar | np | | | | | | | | | |
| 7b | L3 | 7 | 3.0 | 0.144 | 3.5 | LOS A | 0.8 | 5.8 | 0.14 | 0.32 | 0.14 | 55.5 |
| 8 | T1 | 215 | 3.0 | 0.144 | 3.2 | LOS A | 0.8 | 5.8 | 0.14 | 0.32 | 0.14 | 58.3 |
| 9 | R2 | 3 | 3.0 | 0.144 | 9.5 | LOSA | 0.8 | 5.8 | 0.14 | 0.32 | 0.14 | 58.8 |
| Appro | ach | 225 | 3.0 | 0.144 | 3.3 | LOS A | 0.8 | 5.8 | 0.14 | 0.32 | 0.14 | 58.2 |
| West | New Hig | hway Ramp | | | | | | | | | | |
| 10a | L1 | 1 | 3.0 | 0.017 | 2.8 | LOS A | 0.1 | 0.6 | 0.04 | 0.62 | 0.04 | 53.6 |
| 12 | R2 | 26 | 3.0 | 0.017 | 9.3 | LOS A | 0.1 | 0.6 | 0.04 | 0.62 | 0.04 | 54.6 |
| Appro | ach | 27 | 3.0 | 0.017 | 9.1 | LOS A | 0.1 | 0.6 | 0.04 | 0.62 | 0.04 | 54.6 |
| All Ma | hicles | 364 | 3.0 | 0.144 | 3.8 | LOSA | 0.8 | 5.8 | 0.11 | 0.37 | 0.11 | 57.4 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Appendix C

SIDRA Results - Post Development 2020



MOVEMENT SUMMARY

Site: 101 [Northern Roundabout 1 (Post Development) - 2020 AM Pek Hour]

New Site Site Category: (None)

Roundabout

| Mov | Truita | Demand | | | Average | Level of | | of Queue | Prop. | | | |
|---------|------------|-------------|------|----------------|------------|----------|-----|----------|--------|-----------|--------|-----|
| ID : | | Total | HV - | Satin | Delay | Service | | Distance | Queued | Stop Rate | Cycles | |
| 0 1 | M. D. | veh/h | % | V/C | sec | | veh | m | | | | km/ |
| | Main Roa | | 2.0 | 0.400 | 3.8 | LOS A | 0.6 | 4.3 | 0.32 | 0.45 | 0.32 | 55. |
| 1 | L2 | 122 | 3.0 | 0.102 | 3.o 8.7 | LOSA | 0.6 | 4.3 | 0.32 | 0.45 | 0.32 | 56. |
| 3a | R1 | 1 | 3.0 | 0.102 0.102 | 9.9 | LOSA | 0.6 | 4.3 | 0.32 | 0.45 | 0.32 | 57. |
| 3 | R2 | 12 | 3.0 | | 4.4 | LOSA | 0.6 | 4.3 | 0.32 | 0.45 | 0.32 | 55. |
| Appro | acn | 135 | 3.0 | 0.102 | 4.4 | LUSA | 0.0 | 4.5 | 0.52 | 0.40 | 0.02 | 50. |
| East: 9 | Seccombe | Street | | | | | | | | | | |
| 4 | L2 | 51 | 2.0 | 0.150 | 5.2 | LOSA | 0.9 | 6.1 | 0.44 | 0.50 | 0.44 | 53. |
| 5 | T1 | 116 | 2.0 | 0.150 | 5.0 | LOSA | 0.9 | 6.1 | 0.44 | 0.50 | 0.44 | 55. |
| 6b | R3 | 11 | 2.0 | 0.150 | 11.8 | LOS B | 0.9 | 6.1 | 0.44 | 0.50 | 0.44 | 57. |
| Appro | ach | 167 | 2.0 | 0.150 | 5.1 | LOSA | 0.9 | 6.1 | 0.44 | 0.50 | 0.44 | 55 |
| North | East: East | ern Service | Road | | | | | | | | | |
| 24b | L3 | 1 | 3.0 | 0.011 | 4.5 | LOSA | 0.1 | 0.4 | 0.41 | 0.53 | 0.41 | 52 |
| 24a | L1 | 4 | 3.0 | 0.011 | 4.4 | LOSA | 0.1 | 0.4 | 0.41 | 0.53 | 0.41 | 53. |
| 26a | R1 | 8 | 3.0 | 0.011 | 9.1 | LOS A | 0.1 | 0.4 | 0,41 | 0.53 | 0.41 | 54 |
| Appro | ach | 14 | 3.0 | 0.011 | 7.3 | LOSA | 0.1 | 0.4 | 0.41 | 0.53 | 0.41 | 53 |
| North: | Southbou | and Off Rar | an | | | | | | | | | |
| 7b | L3 | 2 | 3.0 | 0.147 | 3.5 | LOS A | 0.8 | 6.1 | 0.16 | 0.35 | 0.16 | 55 |
| 7 | L2 | 28 | 3.0 | 0.147 | 3.4 | LOSA | 0.8 | 6.1 | 0.16 | 0.35 | 0.16 | 56 |
| 8 | T1 | 193 | 3.0 | 0.147 | 3.6 | LOS A | 0.8 | 6.1 | 0.16 | 0.35 | 0.16 | 57 |
| 9 | R2 | 2 | 3.0 | 0.147 | 9.4 | - LOS A | 0.8 | 6.1 | 0.16 | 0.35 | 0.16 | 58 |
| Appro | ach | 225 | 3.0 | 0.147 | 3.7 | LOSA | 0.8 | 6.1 | 0.16 | 0.35 | 0.16 | 57 |
| West | New High | way Ramp | | | | | | | | | | |
| 10a | L1 | 1 | 3.0 | 0.018 | 2.8 | LOSA | 0.1 | 0.7 | 0.08 | 0.60 | 0.08 | 53 |
| 11 | T1 | 1 | 3.0 | 0.018 | 3.1 | LOSA | 0.1 | 0.7 | 0.08 | 0.60 | 0.08 | 54 |
| 12 | R2 | 25 | 3.0 | 0.018 | 9.3 | LOSA | 0.1 | 0.7 | 0.08 | 0.60 | 0.08 | 54 |
| Appro | | 27 | 3.0 | 0.018 | 8.8 | LOSA | 0.1 | 0.7 | 0.08 | 0.60 | 0.08 | 54 |
| V-50003 | | | | | | | | | | | | |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Northern Roundabout 1 (Post Development) - 2020 PM Pek Hour]

New Site

Site Category: (None)

Roundabout

| | | Demand I | Flows | Deg. | Average | Level of | 95% Back | of Queue | Prop. | Effective | Aver. No. | |
|--------|-----------|--------------|------------|--------------|--------------|----------|----------|---------------|-------|-----------|-----------|---------------|
| ID. | | | HV % | Satin V/c | Delay sec | Service | | Distance m | | | | Speed km/l |
| South: | : Main Ro | | /(0) | The Wiles | 1999 | | VCIII | 24,23,000 | 34 | | | |
| 1 | L2 | 102 | 3.0 | 0.098 | 3.4 | LOSA | 0.6 | 4.2 | 0.19 | 0.47 | 0.19 | 54.9 |
| 3a | R1 | 4 | 3.0 | 0.098 | 8.3 | LOS A | 0.6 | 4.2 | 0.19 | 0.47 | 0.19 | 56. |
| 3 | R2 | 38 | 3.0 | 0.098 | 9.5 | LOSA | 0.6 | 4.2 | 0.19 | 0.47 | 0.19 | 57. |
| Appro | ach | 144 | 3.0 | 0.098 | 5.2 | LOSA | 0.6 | 4.2 | 0.19 | 0.47 | 0.19 | 55. |
| East: | Seccomb | e Street | | | | | | | | | | |
| 4 | L2 | 18 | 2.0 | 0.056 | 5.2 | LOS A | 0.3 | 2.2 | 0.43 | 0.48 | 0.43 | 53. |
| 5 | T1 | 42 | 2.0 | 0.056 | 4.9 | LOS A | 0.3 | 2.2 | 0.43 | 0.48 | 0,43 | 55. |
| 6b | R3 | 1 | 2.0 | 0.056 | 11.7 | LOS B | 0,3 | 2,2 | 0.43 | 0.48 | 0.43 | 57. |
| Appro | ach | 61 | 2.0 | 0.056 | 5,1 | LOS A | 0.3 | 2.2 | 0.43 | 0.48 | 0.43 | 55. |
| Northi | East: Eas | tern Service | Road | | | | | | | | | |
| 24b | L3 | 1 | 3.0 | 0.006 | 5.1 | LOS A | 0.0 | 0.2 | 0.50 | 0.52 | 0.50 | 52 |
| 24a | L1 | 2 | 3.0 | 0.006 | 5.0 | LOS A | 0.0 | 0.2 | 0.50 | 0.52 | 0.50 | 54. |
| 26a | R1 | 3 | 3.0 | 0.006 | 9.7 | LOS A | 0.0 | 0.2 | 0.50 | | | 54. |
| Appro | ach | 6 | 3.0 | 0.006 | 7.3 | LOSA | 0.0 | 0,2 | 0.50 | 0.52 | 0.50 | 53 |
| North: | Southbo | und Off Rar | np | | | | | | | | | |
| 7b | L3 | 7 | 3.0 | 0.219 | 3.7 | LOS A | 1.3 | 9.7 | 0.25 | 0.38 | 0.25 | 54 |
| 7 | L2 | 97 | 3.0 | 0.219 | 3.6 | LOS A | 1.3 | 9.7 | 0.25 | 0.38 | 0.25 | 55 |
| 8 | T1 | 215 | 3.0 | 0.219 | 3.8 | LOS A | 1.3 | 9.7 | 0.25 | 0.38 | 0.25 | 57. |
| 9 | R2 | 3 | 3.0 | 0.219 | 9.6 | LOS A | 1.3 | 9.7 | 0.25 | 0.38 | 0.25 | 57 |
| Appro | ach | 322 | 3.0 | 0.219 | 3.8 | LOS A | 1.3 | 9.7 | 0.25 | 0.38 | 0.25 | 56 |
| West: | New Hig | hway Ramp | V. = 1 = 1 | | | | | | | | | |
| 10a | L1 | 1 | 3.0 | 0.022 | 3.0 | LOS A | 0.1 | 8.0 | 0.16 | | | |
| 11 | T1 | 4 | 3.0 | 0.022 | 3.3 | LOSA | 0.1 | 0.8 | 0.16 | 0.57 | | |
| 12 | R2 | 26 | 3.0 | 0.022 | 9.4 | LOSA | 0.1 | 0.8 | 0.16 | | 0.16 | |
| Appro | ach | 32 | 3.0 | 0.022 | 8.4 | LOSA | 0.1 | 8.0 | 0.16 | 0.57 | 0.16 | 54 |
| | | | | | 4.6 | LOSA | 1,3 | 9.7 | 0.25 | 0.43 | 0.25 | 5 56 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Appendix D

SIDRA Results - Post Development 2030



Superseaea

MOVEMENT SUMMARY

Site: 101 [Northern Roundabout 1 (Post Developmentt) - 2030 AM Pek Hour]

New Site

Site Category: (None)

Roundabout

| Vlov | Truitar | Demand | Flows | Deg. | Average - | | 95% Back | of Queue | Prop. | Effective | | |
|-------|-----------|----------------|-----------|-------------|--------------|---------|------------------|---------------|--------|-----------|--------|---------------|
| ID | | Total veh/h | HV % | Satn v/c | Delay sec | Service | | Distance m | Queued | Stop Rate | Cycles | Speed km/h |
| South | : Main Ro | | / Comment | GD-23 | | | Act and a second | | | | | |
| 1 | L2 | 141 | 3.0 | 0.120 | 4.0 | LOS A | 0.7 | 5.2 | 0.37 | 0.47 | 0.37 | 55.2 |
| 3a | R1 | 1 | 3.0 | 0.120 | 8.9 | LOS A | 0.7 | 5.2 | 0.37 | 0.47 | 0.37 | 56.7 |
| 3 | R2 | 13 | 3.0 | 0.120 | 10.1 | LOS B | 0.7 | 5.2 | 0.37 | 0.47 | 0.37 | 57.6 |
| Appro | ach | 155 | 3.0 | 0.120 | 4.5 | LOSA | 0.7 | 5.2 | 0.37 | 0.47 | 0.37 | 55.4 |
| East: | Seccomb | e Street | | | | | | | | | | |
| 4 | L2 | 61 | 2.0 | 0.188 | 5.5 | LOSA | 1.1 | 7.9 | 0.49 | 0.54 | 0.49 | 53. |
| 5 | T1 | 141 | 2.0 | 0.188 | 5.3 | LOS A | 1.1 | 7.9 | 0.49 | 0.54 | 0.49 | 55. |
| 6b | R3 | 1 | 2.0 | 0.188 | 12.1 | LOS B | 1.1 | 7.9 | 0.49 | 0.54 | 0.49 | 57. |
| Appro | ach | 203 | 2.0 | 0.188 | 5.4 | LOSA | 1.1 | 7.9 | 0.49 | 0.54 | 0.49 | 54. |
| North | East: Eas | tern Service | Road | | | | | | | | | |
| 24b | L3 | 1 | 3.0 | 0.015 | 4.7 | LOS A | 0.1 | 0.6 | 0.45 | 0.54 | 0.45 | 52. |
| 24a | L1 | 5 | 3.0 | 0.015 | 4.6 | LOS A | 0.1 | 0.6 | 0.45 | 0.54 | 0.45 | |
| 26a | R1 | 11 | 3.0 | 0.015 | 9.4 | LOSA | 0.1 | 0.6 | 0.45 | 0.54 | 0.45 | |
| Appro | ach | 17 | 3.0 | 0.015 | 7.6 | LOS A | 0.1 | 0.6 | 0.45 | 0.54 | 0.45 | 53. |
| North | : Southbo | und Off Rar | np | | | | | | | | | |
| 7b | L3 | 2 | 3.0 | 0.172 | 3.6 | LOS A | 1.0 | 7.3 | 0.18 | 0.36 | 0.18 | |
| 7 | L2 | 34 | 3.0 | 0.172 | 3.4 | LOS A | 1.0 | 7.3 | 0.18 | 0.36 | 0.18 | |
| 8 | T1 | 223 | 3.0 | 0.172 | 3.7 | LOS A | 1.0 | 7.3 | 0.18 | 0.36 | 0.18 | |
| 9 | R2 | 2 | 3.0 | 0.172 | 9.4 | LOSA | 1.0 | 7.3 | 0.18 | 0,36 | 0.18 | 57 |
| Appro | ach | 261 | 3.0 | 0.172 | 3.7 | LOS A | 1.0 | 7.3 | 0.18 | 0.36 | 0.18 | 57 |
| West | : New Hig | hway Ramp |) | | | | | | | | | |
| 10a | L1 | 1 | 3.0 | 0.022 | 2.8 | LOS A | 0.1 | 0.9 | 0.09 | | 0.09 | |
| 11 | T1 | 3 | 3.0 | 0.022 | 3.2 | LOSA | 0.1 | 0.9 | 0.09 | | 0.09 | |
| 12 | R2 | 29 | 3.0 | 0.022 | 9.3 | LOS A | 0.1 | 0.9 | 0.09 | 0.59 | 0.09 | |
| Appro | oach | 34 | 3.0 | 0.022 | 8.5 | LOSA | 0.1 | 0.9 | 0.09 | 0.59 | 0.09 | 54 |
| | ehicles | 669 | 2.7 | 0.188 | 4.7 | LOSA | 1.1 | 7.9 | 0.32 | 0.45 | 0.32 | 55 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

₩ Site: 101 [Northern Roundabout 1 (Post Development) - 2030 PM Pek Hour]

New Site

Site Category: (None)

Roundabout

| | - Thum | Demand I | lows | Deg. | Average | Level of | 95% Back | | Prop. | Effective Stop Rate | Cycles | |
|--------|-----------|----------------|---------|---------------|--------------|----------|-----------------|------------|----------|------------------------|--------|------|
| (D | | Total veh/h | HV % | - Satn v/c | Delay sec | Service | Vehicles veh | Distance . | Ginerien | Grah LZerre | Cycles | km/f |
| South: | Main Ro | | | , wie | 6,55 | | | | | | | |
| 1 | L2 | 119 | 3.0 | 0.115 | 3.5 | LOS A | 0.7 | 5.0 | 0.22 | 0.47 | 0.22 | 54.8 |
| 3a | R1 | 4 | 3.0 | 0.115 | 8.4 | LOS A | 0.7 | 5.0 | 0.22 | 0.47 | 0.22 | 56.4 |
| 3 | R2 | 44 | 3.0 | 0.115 | 9.6 | LOSA | 0.7 | 5.0 | 0.22 | 0.47 | 0.22 | 57.2 |
| Appro | ach | 167 | 3.0 | 0.115 | 5.2 | LOSA | 0.7 | 5.0 | 0.22 | 0.47 | 0.22 | 55. |
| East: | Seccomb | e Street | | | | | | | | | | |
| 4 | L2 | 22 | 2.0 | 0.070 | 5.5 | LOS A | 0.4 | 2.8 | 0.47 | 0.51 | 0.47 | 53. |
| 5 | T1 | 51 | 2.0 | 0.070 | 5.2 | LOSA | 0.4 | 2.8 | 0.47 | 0.51 | 0.47 | 55. |
| 6b | R3 | 1 | 2.0 | 0.070 | 12.0 | LOS B | 0.4 | 2.8 | 0:47 | 0.51 | 0.47 | 57. |
| Appro | ach | 74 | 2.0 | 0.070 | 5.4 | LOS A | 0.4 | 2.8 | 0.47 | 0.51 | 0.47 | 55. |
| Northl | East: Eas | tern Service | Road | | | | | | | | | |
| 24b | L3 | 1 | 3.0 | 0.007 | 5.4 | LOSA | 0.0 | 0.3 | 0.55 | 0.55 | 0.55 | 52. |
| 24a | L1 | 2 | 3.0 | 0.007 | 5.3 | LOS A | 0.0 | 0.3 | 0.55 | 0.55 | 0.55 | 53. |
| 26a | R1 | 4 | 3.0 | 0.007 | 10.1 | LOS B | 0.0 | 0.3 | 0.55 | 0.55 | 0.55 | |
| Appro | ach | 7 | 3.0 | 0.007 | 8.0 | LOSA | 0.0 | 0.3 | 0.55 | 0.55 | 0.55 | 53. |
| North: | Southbo | und Off Rar | np | | | | | | | | | |
| 7b | L3 | 8 | 3.0 | 0.258 | 3.8 | LOSA | 1.7 | 11.9 | 0.28 | 0.39 | 0.28 | 54. |
| 7 | L2 | 113 | 3.0 | 0.258 | 3.7 | LOSA | 1.7 | 11.9 | 0.28 | 0.39 | 0.28 | 55. |
| 8 | T1 | 249 | 3.0 | 0.258 | 3,9 | LOSA | 1.7 | 11.9 | 0.28 | 0.39 | 0.28 | |
| 9 | R2 | 4 | 3.0 | 0.258 | 9.7 | LOSA | 1.7 | 11.9 | 0.28 | | 0.28 | |
| Appro | ach | 375 | 3.0 | 0.258 | 3.9 | LOSA | 1.7 | 11.9 | 0.28 | 0.39 | 0.28 | 56 |
| West: | New Hig | hway Ramp |) | | | | | | | | | |
| 10a | L1 | 1 | 3.0 | 0.026 | 3.0 | LOSA | 0.1 | 1.0 | 0.18 | | 0.18 | |
| 11 | T1 | 5 | 3.0 | 0.026 | 3.3 | LOSA | 0.1 | 1.0 | 0.18 | | 0.18 | |
| 12 | R2 | 31 | 3.0 | 0,026 | 9.4 | LOSA | 0.1 | 1.0 | 0.18 | | 0.18 | |
| Appro | oach | 37 | 3.0 | 0.026 | 8.4 | LOSA | 0.1 | 1.0 | 0.18 | 0.56 | 0.18 | 54 |
| | | | | | | LOSA | 1.7 | 11.9 | 0.28 | 0.44 | 0.28 | 55 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

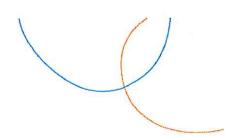
Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.





Seccombe Street Roundabout Connection – Traffic Impact Assessment

Contact

Leenah Ali (03) 6210 1419 Iali@pittsh.com.au Pitt & Sherry (Operations) Pty Ltd ABN 67 140 184 309

Phone 1300 748 874 info@pittsh.com.au pittsh.com.au

Located nationally —
Melbourne
Sydney
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Hobart
Launceston
Newcastle
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Wagga Wagga



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Appendix D: Landscaping Plan

Perth Link Roads

14-Dec-18; 1:23 PM PRINTED DATE

SK13 SHEET No.



to/from Parth

Entrance Species Selection List:

from

Canadian Maple

Red Maple

pitt&sherry

Seccombe Street Roundabout Connection

Traffic Impact Assessment

Prepared for

Northern Midlands Council

Client representative

Jonathan Galbraith

Date

26 November 2019

Rev 01



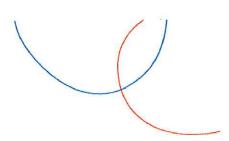


Table of Contents

| 1. | Introduction | | | | | | | | |
|------|---|--|---|----|--|--|--|--|--|
| 2. | Existi | Existing Conditions4 | | | | | | | |
| | 2.1 | 2.1 Site Location | | | | | | | |
| | 2.2 | Surrounding Road Network | | | | | | | |
| | | 2.2.1 | Midland Highway/ Main Road | 5 | | | | | |
| | | 2.2.2 | Seccombe Street | | | | | | |
| | | 2.2.3 | Mulgrave Street | 5 | | | | | |
| | | 2.2.4 | Arthur Street | | | | | | |
| | 2.3 | Surrou | punding Intersections | | | | | | |
| | 2.4 | Existir | ng Traffic Volumes | 5 | | | | | |
| | | 2.4.1 | DSG Specifications | 5 | | | | | |
| | | 2.4.2 | DSG Traffic Data | | | | | | |
| | | 2.4.3 | Calculated Traffic Volumes | | | | | | |
| | 2.5 Existing Roundabout Performance | | | 7 | | | | | |
| | | 2.5.1 | Traffic Modelling Software | | | | | | |
| | | 2.5.2 | Traffic Modelling Layout | | | | | | |
| | | 2,5,3 | Traffic Modelling Results | 8 | | | | | |
| 3. | Deve | lonmen | t Proposal | 9 | | | | | |
| U. | | | iew | | | | | | |
| | 3.1 Overview Traffic Impact Assessment | | | | | | | | |
| 4. | | | | | | | | | |
| | 4.1 | Traffic | Generationional Split of Traffic | 9 | | | | | |
| | 4.2 Directional Split of Traffic | | onal Split of Tranic | 9 | | | | | |
| | 4.4 | Traffic | ffic Impacts | | | | | | |
| | 1000 | 4.4.1 | Traffic Modelling Layout | 10 | | | | | |
| | | 4.4.2 | Post Development (2020) Traffic Volumes | | | | | | |
| | | 4.4.3 | Post Development (2020) Traffic Impacts | | | | | | |
| | | 4.4.4 | 10-Years Post Development (2030) Traffic Volumes | | | | | | |
| | | 4.4.5 | 10-Years Post Seccombe Street Completion (2030) Traffic Impacts | | | | | | |
| 5. | Dlan | | heme Assessment | | | | | | |
| Э. | | | | | | | | | |
| | | 5.1 E4.0 Roads and Railway Assets Code | | | | | | | |
| 6. | Con | clusion. | | | | | | | |
| Lie | + of | figur | | | | | | | |
| | | figur | | | | | | | |
| | | | ality Aerial Including Zoning Overlay (Aerial Source: Google Earth, October 2018 Imagery) | | | | | | |
| | | | raffic Volumes (2020) - AM Peak Hour | | | | | | |
| Figu | ıre 3: [| Design 7 | raffic Volumes (2020) - PM Peak Hour | 6 | | | | | |
| | | | Roundabout 1 Design LOS – AM Peak Hour | | | | | | |
| | | | Roundabout 1 Design LOS - PM Peak Hour | | | | | | |
| | | | velopment Traffic Volumes (2020) - AM Peak Hour | | | | | | |
| 1000 | | | velopment Traffic Volumes (2020) - PM Peak Hour | | | | | | |
| | | | rn Roundabout 1 Post Development (2020) LOS – AM Peak Hour | | | | | | |
| | | | | | | | | | |
| | | | rn Roundabout 1 Post Development (2020) LOS – PM Peak Hour | | | | | | |
| | | | evelopment Traffic Volumes (2030) - AM Peak Hour | | | | | | |
| Figu | ure 13: | Post D | evelopment Traffic Volumes (2030) - PM Peak Hour | 1 | | | | | |

Appendices

Appendix A - Seccombe Street Connection Layout

Appendix B - SIDRA Results - Existing Northern Roundabout No.1

Appendix C — SIDRA Results – Post Development 2020
Appendix D — SIDRA Results – Post Development 2030

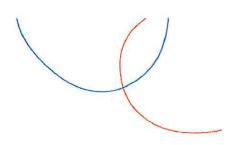
| Leenahali | Date — 26/11/2019 |
|---------------|--------------------------|
| R & Mannering | Date — 26/11/2019 |
| R& Mannering | Date — 26/11/2019 |
| | RSMannerry 2011 |

Revision History

| Rev No. | Description | Prepared by | Reviewed by | Authorised by | Date | |
|---------|---------------------------------|-------------|--------------|---------------|------------|--|
| A | Draft Traffic Impact Assessment | L. Ali | R, Mannering | R. Mannering | 23/10/2019 | |
| 00 | Traffic Impact Assessment | L. Ali | R. Mannering | R. Mannering | 23/10/2019 | |
| 01 | Traffic Impact Assessment | L. Ali | R. Mannering | R. Mannering | 26/11/2019 | |

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1. Introduction

The Perth Link Roads project is being undertaken by the Department of State Growth (DSG) and constructed by the VEC Shaw Joint Venture. The project consists of a southern and western bypass of the Perth Township. The western link of the project includes a grade separated interchange on the northern outskirts of Perth with the ramp terminals managed by roundabouts on either side of the new highway.

pitt&sherry were engaged by Northern Midlands Council (Council) to develop the detailed road design for the connection of Seccombe Street to the roundabout on the eastern side of the interchange (Northern Roundabout No.1). Following the development of the detailed designs, Council have engaged pitt&sherry to prepare a Traffic Impact Assessment (TIA) to accompany the Development Application (DA) that needs to be submitted to enable construction of the connection.

This report has been prepared in accordance with DSG's Publication *Traffic Impact Assessments (TIA) Guidelines* and the *Northern Midlands Interim Planning Scheme 2013* (the Planning Scheme).

2. Existing Conditions

2.1 Site Location

The proposed Seccombe Street connection is along the eastern side of Northern Roundabout No.1 of the Perth Link Roads project, which is located along the existing Midland Highway, approximately 500m north of the Perth Town Centre.

Under the Planning Scheme, the site has as land use classification as 28.0 Utilities. Surrounding land uses include 10.0 General Residential to the east, 12.0 Low Density Residential to the north-east and 26.0 Rural Resource to the northwest, west and south.

Figure 1 shows the location of the proposed Seccombe Street connection in the local context.

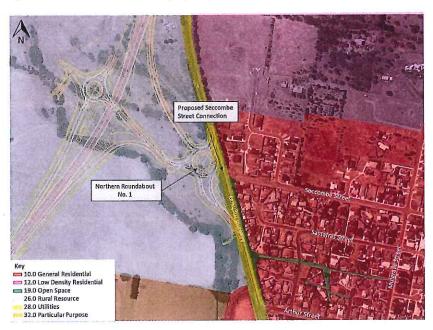
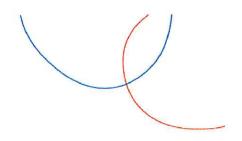


Figure 1: Site Locality Aerial Including Zoning Overlay (Aerial Source: Google Earth, October 2018 Imagery)



2.2 Surrounding Road Network

2.2.1 Midland Highway/ Main Road

The Midland Highway is classified as a Category 1 State Road in the DSG Road Hierarchy and is a key link in Tasmania's road network. The highway facilitates freight movement from the southern region to the State's northern ports and is also the major transport link for passengers travelling between the northern and southern regions.

The Midland Highway is also known as Main Road through Perth. Main Road is a two-way road configured with a single carriageway. The road operates in a north-west south-east direction and has a posted speed limit of 60km/h.

Upon completion of the Perth Link Roads project, vehicles travelling between the northern and southern regions of Tasmania on the Midland Highway will be diverted onto the new highway and the Main Road approach to Northern Roundabout No.1 will predominantly be used by local traffic in Perth.

2.2.2 Seccombe Street

Seccombe Street is a Council owned dead-end street that travels in an east-west direction providing access to residential properties. Seccombe Street has a single lane in each direction and has a speed limit of 50km/h.

2.2.3 Mulgrave Street

Mulgrave Road is a Council owned local road that travels in a north-south direction, providing access to residential properties. Mulgrave Street has a single lane in each direction and connects Seccombe Street to Arthur Street. The street is subject to a speed limit of 50km/h.

2.2.4 Arthur Street

Arthur Street is a Council owned road that links numerous residential streets including Seccombe Street to Main Road. Arthur Street runs in an east-west direction and has a speed limit of 50km/h.

2.3 Surrounding Intersections

There are currently no intersections between Seccombe Street and Main Road. Vehicles from Main Road travel to Seccombe Street via Arthur Street and Mulgrave Street.

2.4 Existing Traffic Volumes

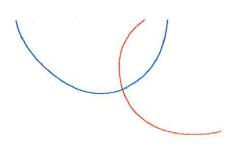
2.4.1 DSG Perth Link Roads Principal's Project Requirements

Traffic data for Main Road and the New Highway Ramp approaches to Northern Roundabout No.1 has been sourced from Table 3010.021 of the DSG Principal's Project Requirements (PPR) for the Perth Link Roads project.

It is noted that the traffic volumes provided within the PPR are the daily traffic volumes for 2019.

In order to calculate the peak hour traffic volumes, a peak to daily ratio of 10% has been assumed.

As the Northern Roundabout No.1 is expected to be completed in 2020, traffic volumes for 2020 has been calculated. In order to calculate 2020 traffic volumes, a growth rate of 1.5% per year has been applied to the 2019 traffic volumes. The growth rate has been determined from DSG traffic data available in the vicinity of the Perth township.



2.4.2 DSG Traffic Data

Traffic data for the southbound off-ramp approach to Northern Roundabout No.1 has been calculated using available DSG traffic data. The traffic data was collected in May 2019 in the vicinity of the Perth Township.

In order to calculate the 2020 traffic volumes, a growth rate of 1.5% per year has been applied to the 2019 traffic volumes. The growth rate has been determined from DSG traffic data available in the vicinity of the Perth township.

2.4.3 Calculated Traffic Volumes

There are currently no traffic volumes available for the Eastern Service Road (Old Midland Highway, now Devon Hills) approach to Northern Roundabout No.1. Due to the catchment using the Eastern Service Road approach being predominantly low-density residential dwellings, the anticipated traffic volumes have been calculated using traffic generation rates sourced from the Roads and Maritime Services (RMS) Guide to Traffic Generating Developments Technical Direction TDT2013/04a (RMS Technical Direction).

It has been assumed, for the purpose of completing a conservative assessment for the traffic analysis, that the Eastern Service Road approach could potentially service up to 15 dwellings. The RMS Technical Direction specifies the following traffic generation rates for low density residential dwellings:

Weekday AM Peak Hour

0.99 trips per dwelling

Weekday PM Peak Hour

0.95 trips per dwelling.

The directional split of traffic (i.e. the ratio between inbound and outbound traffic movements) that has been adopted for the Eastern Service Road approach is as follows:

AM Peak Hour

20% in/80% out

PM Peak Hour

70% in/ 30% out.

The distribution of the traffic that has been adopted for the Eastern Service Road approach is as follows:

- 65% to north
- 35% to south

Based on the above, a summary of the 2020 AM and PM peak hour traffic volumes are shown in Figure 2 and Figure 3.

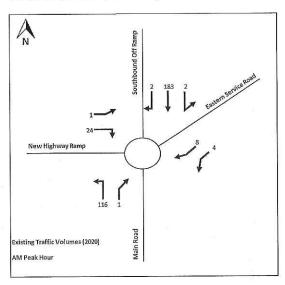


Figure 2: Existing Traffic Volumes (2020) - AM Peak Hour

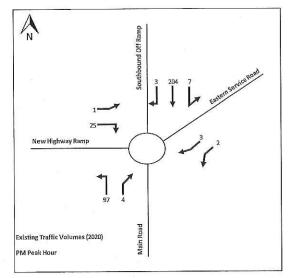
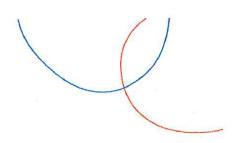


Figure 3: Existing Traffic Volumes (2020) - PM Peak Hour



2.5 Existing Roundabout Performance

2.5.1 Traffic Modelling Software

The traffic operation of Northern Roundabout No.1 has been assessed using SIDRA Intersection 8.0 modeling software. SIDRA Intersection rates the performance of the intersections based on the vehicle delay and the corresponding LOS. It is generally accepted that an intersection operates well if it is at LOS D or higher. Table 1 shows the criteria that SIDRA adopts in assessing the LOS.

Table 1: SIDRA Level of Service

| | n | Delay per Vehicle (secs) | x x |
|-----|-----------------|--------------------------|-----------------|
| LOS | Signals | Roundabout | Sign Control |
| Α | 10 or less | 10 or less | 10 or less |
| В | 10 to 20 | 10 to 20 | 10 to 15 |
| С | 20 to 35 | 20 to 35 | 15 to 25 |
| D | 35 to 55 | 35 to 50 | 25 to 35 |
| E | 55 to 80 | 50 to 70 | 35 to 50 |
| F | Greater than 80 | Greater than 70 | Greater than 50 |

2.5.2 Traffic Modelling Layout

The geometry of Northern Roundabout No.1 used for the SIDRA traffic model was developed with reference to the Detailed Design Plans for the Perth Link Roads project prepared for DSG and VEC Shaw Joint Venture by pitt&sherry. The Detailed Design Plans informed the number, width and length of trafficable lanes.

The layout used within the SIDRA model for Northern Roundabout No.1 is shown in Figure 4.

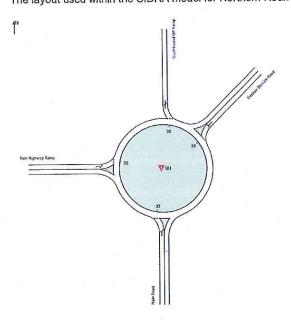
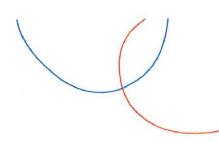


Figure 4: Northern Roundabout No.1 - SIDRA Layout



2.5.3 Traffic Modelling Results

The LOS for each approach at Northern Roundabout No.1 is shown in Figure 5 and Figure 6. A summary of the SIDRA Intersection results is provided in Table 2. Full results are presented in Appendix B.

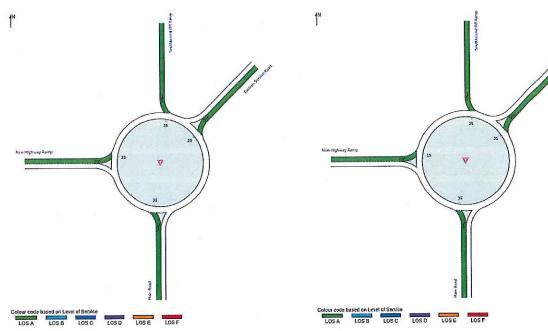


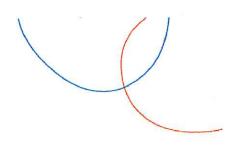
Figure 5: Northern Roundabout No.1 Design LOS – AM Peak Hour

Figure 6: Northern Roundabout No.1 Design LOS - PM Peak Hour

Table 2: Northern Roundabout No.1 SIDRA Modelling Results

| Approach | Peak Hour | Degree of Saturation | Average Delay (secs) | 95 th Percentile Queue (m) | LOS |
|----------------------------------|--------------|-------------------------|-------------------------|--|-----|
| South: Main Road | | 0.08 | 3 | 3 | Α |
| North East: Eastern Service Road | | 0.01 | 7 | 0 | Α |
| North: Southbound Off Ramp | АМ | 0.13 | 3 | 5 | Α |
| West: New Highway Ramp | | 0.02 | 9 | 1 | Α |
| All Vehicles | | 0.13 | 4 | 5 | Α |
| South: Main Road | | 0.06 | 3 | 3 | Α |
| North East: Eastern Service Road | | 0.00 | 7 | 0 | Α |
| North: Southbound Off Ramp | PM | 0.14 | 3 | 6 | Α |
| West: New Highway Ramp | | 0.02 | 9 | 1 . | Α |
| All Vehicles | | 0.14 | 4 | 6 | А |

Based on the results above, Northern Roundabout No.1 is expected to operate well in 2020 with minimal queues and delays experienced on all legs of the roundabout. The roundabout operates with LOS A in both the AM and PM peak hours.



3. Development Proposal

3.1 Overview

Council is proposing a connection of Seccombe Street to Northern Roundabout No.1. The Seccombe Street connection will create a fifth leg on Northern Roundabout No.1 and will have a single 3.5m traffic lane in each direction. The proposed layout for the connection is attached in Appendix A.

The Seccombe Street connection is expected to be constructed in 2020 and will create an additional link between Main Road and the residential area located to the east of Main Road.

4. Traffic Impact Assessment

4.1 Traffic Generation

Currently, access to the residential properties along Seccombe Street from Main Road is via Arthur Street and Mulgrave Street. The construction of the Seccombe Street connection will result in vehicles directly accessing Seccombe Street from Main Road. Residential properties in the vicinity of Seccombe Street are also expected to use the Seccombe Street connection.

For the purpose of this assessment, due to the catchment accessing Seccombe Street being predominantly low-density residential dwellings, the anticipated traffic volume has been calculated using traffic generation rates sourced from RMS TDT2013/04a. It has been assumed, for the purpose of completing a conservative assessment for the traffic analysis, that Seccombe Street could potentially service up to 200 dwellings.

Based on the above, the traffic volumes expected along the Seccombe Street connection in each of the weekday peak hours is as follows:

AM Peak Hour

198 trips

PM Peak Hour

190 trips

4.2 Directional Split of Traffic

The directional split of traffic (i.e. the ratio between inbound and outbound traffic movements) that has been adopted for the vehicles on the Seccombe Street connection are as follows:

AM Peak Hour

20% in/ 80% out

PM Peak Hour

70% in/ 30% out.

4.3 Traffic Distribution and Assignment

The distribution of the traffic generated along the Seccombe Street connection is based on a number of factors including:

- · The location of major traffic distribution roads around the site
- The location of traffic generating developments; and
- Existing traffic patterns

Based on the above, the expected distribution of movements that has been adopted for the vehicles on the Seccombe Street connection are as follows:

- 70% to north
- 30% to south

4.4 Traffic Impacts

4.4.1 Traffic Modelling Layout

The geometry of Northern Roundabout No.1 post development of the Seccombe Street connection used for the SIDRA traffic model was developed with reference to the Preliminary Design Plans for the Seccombe Street connection prepared for Northern Midlands Council by pitt&sherry. The Preliminary Design Plans informed the number, width and length of trafficable lanes.

The layout used within the SIDRA model for Northern Roundabout No.1 is shown in Figure 12.

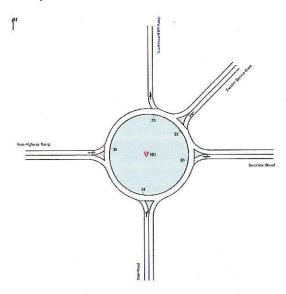


Figure 7: Northern Roundabout No.1 Post Development - SIDRA Layout

4.4.2 Post Development (2020) Traffic Volumes

The traffic impact of the Seccombe Street connection has been estimated for immediately post development,

The expected post development traffic volumes for the weekday AM and PM peak hours are shown in Figure 2 and Figure 3.

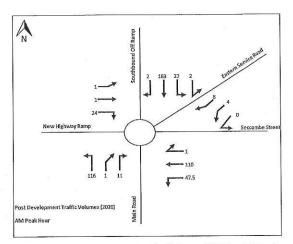


Figure 8: Post Development Traffic Volumes (2020) - AM Peak Hour

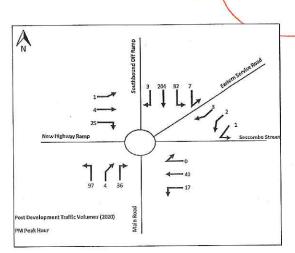


Figure 9: Post Development Traffic Volumes (2020) - PM Peak Hour

4.4.3 Post Development (2020) Traffic Impacts

The impact of the Seccombe Street connection on the lane LOS for each approach at Northern Roundabout No.1 immediately post development is shown in Figure 10 and Figure 11. A summary of the SIDRA Intersection results is provided in Table 2. Full results are presented in Appendix C.

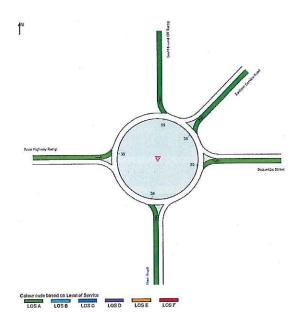


Figure 10: Northern Roundabout No.1 Post Development (2020) LOS – AM Peak Hour

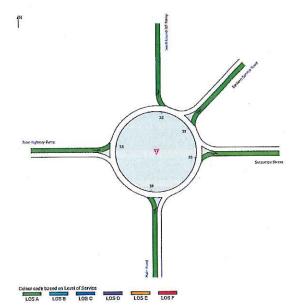


Figure 11: Northern Roundabout No.1 Post Development (2020) LOS – PM Peak Hour

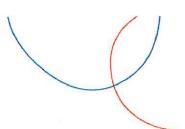


Table 3: Northern Roundabout No.1 SIDRA Modelling Results - Post Development (2020)

| Approach | Peak Hour | Degree of Saturation | Average Delay (secs) | 95 th Percentile Queue (m) | LOS |
|----------------------------------|--------------|-------------------------|-------------------------|--|-----|
| South: Main Road | | 0.10 | 5 | 4 | А |
| East: Seccombe Street | | 0.15 | 5 | 6 | Α |
| North East: Eastern Service Road | | 0.01 | 7 | 0 | Α |
| North: Southbound Off Ramp | AM | 0.15 | 4 | 6 | Α |
| West: New Highway Ramp | | 0.02 | 9 | 1 | Α |
| All Vehicles | | 0.15 | 5 | 6 | Α |
| South: Main Road | | 0.10 | 6 | 4 | Α |
| East: Seccombe Street | | 0.06 | 5 | 2 | Α |
| North East: Eastern Service Road | | 0.01 | 7 | 0 | Α |
| North: Southbound Off Ramp | PM | 0.22 | 4 | 10 | Α |
| West: New Highway Ramp | 1 | 0.02 | 8 | 1 | А |
| All Vehicles | 1 | 0.22 | 5 | 10 | Α |

Based on the results above, with the construction of the Seccombe Street connection, Northern Roundabout No.1 is expected to continue to operate well with minimal queues and delays experienced on all approaches. The roundabout continues to operate with a LOS A in both the AM and PM peak hours.

4.4.4 10-Years Post Development (2030) Traffic Volumes

The traffic impact of the Seccombe Street connection has been estimated for 10-years post development (2030).

In order to represent future growth on the road network, a compounding growth rate of 1.5% per year has been applied to the 2020 traffic volumes for Main Road, New Highway Ramp and Southbound Off-ramp. A compounding growth rate of 2% per year has been applied to the 2020 traffic volumes for Eastern Service Road and Seccombe Street.

The expected traffic volumes for the weekday AM and PM peak hours in 2030 is shown in Figure 12 and Figure 13.

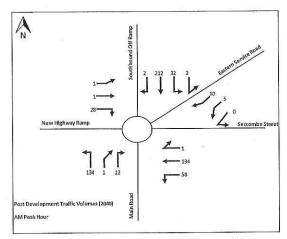


Figure 12: Post Development Traffic Volumes (2030) - AM Peak Hour

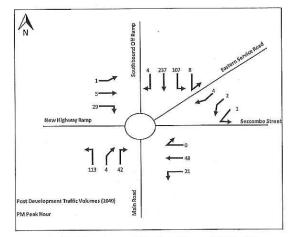
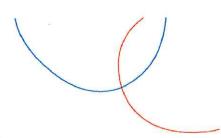


Figure 13: Post Development Traffic Volumes (2030) - PM Peak Hour



4.4.5 10-Years Post Seccombe Street Completion (2030) Traffic Impacts

The impact of the Seccombe Street connection on the lane LOS for each approach at Northern Roundabout No.1 10-years post development is shown in Figure 14 and Figure 15. A summary of the SIDRA Intersection results is provided in Table 4. Full results are presented in Appendix D.

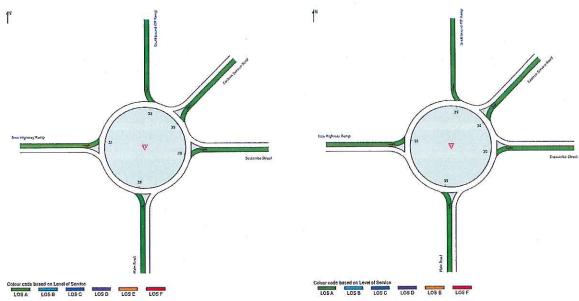
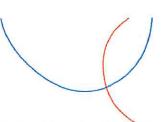


Figure 14: Northern Roundabout No.1 Post Development (2030) LOS – AM Peak Hour

Figure 15: Northern Roundabout No.1 Post Development (2030) LOS – PM Peak Hour

Table 4: Northern Roundabout No.1 SIDRA Modelling Results – 10- Years Post Development (2030)

| Approach | Peak Hour | Degree of Saturation | Average Delay (secs) | 95 th Percentile Queue (m) | LOS |
|----------------------------------|--------------|-------------------------|-------------------------|--|-----|
| South: Main Road | | 0.12 | 5 | 5 | Α |
| East: Seccombe Street | | 0.19 | 6 | 8 | Α |
| North East: Eastern Service Road | | 0.02 | 8 | 1 | Α |
| North: Southbound Off Ramp | AM | 0.17 | 4 | 7 | Α |
| West: New Highway Ramp | R | 0.02 | 9 | 1 | Α |
| All Vehicles | | 0.19 | 5 | 8 | Α |
| South: Main Road | | 0.12 | 5 | 5 | ıΑ |
| East: Seccombe Street | | 0.07 | 5 | 3 | Α |
| North East: Eastern Service Road | D | 0.01 | 8 | 0 | Α |
| North: Southbound Off Ramp | PM | 0.26 | 4 | 12 | Α |
| West: New Highway Ramp | | 0.03 | 8 | 1 | Α |
| All Vehicles | | 0.26 | 5 . | 12 | Α |



Based on the results above, with the construction of the Seccombe Street connection, Northern Roundabout No.1 is expected to continue to operate well in 2030 with minimal queues and delays experienced on all approaches. The roundabout operates at a LOS A in both the AM and PM peak hours.

5. Planning Scheme Assessment

5.1 E4.0 Roads and Railway Assets Code

The proposed development has been assessed against the E4.0 Roads and Railways Assets Code of the Planning Scheme. The use standards have been assessed in Table 5 and the development standards have been assessed in Table 6.

Table 5: E4.6 Use Standards

E4.6.1 Use and road or rail Infrastructure

Objective:

To ensure that the safety and efficiency of road and rail infrastructure is not reduced by the creation of new accesses and junctions or increased use of existing accesses and junctions.

| Acceptable Solution/ Performance Criteria | Comments |
|---|--|
| Sensitive use on or within 50m of a Category 1 or 2 road in an area subject to a speed limit of more than 60km/h, a railway or future road or railway must not result in an increase to the annual average daily traffic (AADT) movements to and from the site by more than 10%. P1 Sensitive use on or within 50m of a Category 1 or 2 road, in an area subject to a speed limit of more than 60km/h, a railway or future road or railway must demonstrate that the safe and efficient operation of the infrastructure will not be detrimentally affected. | Complies with Acceptable Solution A1 The Seccombe Street connection will provide an additional route between Main Street and Seccombe Street and as such will redirect some vehicles from the existing route to the connection. The connection itself is not expected to increase the annual average daily traffic movements to and from the residential properties along and in the vicinity of Seccombe Street. |

Table 6: E4.7 Development Standards

E4.7.1 Development on and adjacent to Existing and Future Arterial Roads and Railways

Objective:

To ensure that development on or adjacent to Category 1 or 2 roads (outside 60km/h), railways and future roads and railways is managed to:

- a) Ensure the safe and efficient operation of roads and railways; and
- b) Allow for future road and rail widening, realignment and upgrading; and
- c) Avoid undesirable interaction between roads and railways and other use or development

| S. Contraction of the Contractio | |
|--|-----------------------------------|
| Acceptable Solution/ Performance Criteria | Comments |
| A1 | Satisfies Performance Criteria P1 |

The following must be at least 50m from a railway, a future road or railway, and a Category 1 or 2 road in an area subject to a speed limit of more than 60km/h

- New road works, buildings, additions and extensions, earthworks and landscaping works; and
- b) Building areas on new lots; and
- c) Outdoor sitting, entertainment and children's play areas

P1

Development including buildings, road works, earthworks, landscaping works and level crossings on or within 50m of a Category 1 or 2 road, in an area subject to a speed limit of more than 60km/h, a railway or future road or railway must be sited, designed and landscaped to:

- a) Maintain or improve the safety and efficiency of the road or railway or future road or railway, including line of sight from trains; and
- b) Mitigate significant transport-related environmental impacts, including noise, air pollution and vibrations in accordance with a report from a suitably qualified person; and
- Ensure that additions or extensions of buildings will not reduce the existing setback to the road, railway or future road or railway; and
- d) Ensure that temporary buildings and works are removed at the applicant's expense within three years or as otherwise agreed by the road or rail authority

The Seccombe Street connection is located within 50m from a Category 1 road and as such is unable to comply with Acceptable Solution A1.

The proposed development has been assessed against the Performance Criteria P1 as follows:

- a) Currently vehicles accessing Seccombe Street from Main Road need to travel via Arthur Street and Mulgrave Street, both of which are residential streets. The Seccombe Street connection will provide a more direct route between Main Road and Seccombe Street, resulting in less traffic travelling through the residential street network. This will improve the safety, efficiency and convenience of the road network.
- Provision of the Seccombe Street connection will minimise the travel distance between the residential area and the surrounding road network. The connection will therefore reduce environmental impacts.
- The Seccombe Street connection is being constructed within the future road corridor and as such will not reduce the existing setback of buildings to the road
- d) The Seccombe Street connection is being constructed for Northern Midlands Council. As such, the proposal will comply with subclause d) in relation to temporary structures required during the construction phase.

E4.7.2 Management of Road Accesses and Junctions

Objective:

To ensure that the safety and efficiency of roads is not reduced by the creation of new accesses and junctions or increased use of accesses and junctions

Acceptable Solution/ Performance Criteria

A2

For roads with a speed limit of more than 60km/h the development must not include a new access or junction.

P2

For limited access roads and roads with a speed limit of more than 60km/h,

- Access to a Category 1 road or limited access road must only be via an existing access or junction or the development must provide a significant social and economic benefit to the State or region; and
- Any increase in use of an existing access or junction or development of a new access or junction to a limited access road or category 1, 2

Comments

Satisfies Performance Criteria P2

The Seccombe Street connection is new and some of the roundabout approach roads have speed limits greater than 60km/h. Therefore, the proposed development is unable to comply with Acceptable Solution A2.

The proposed development has been assessed against the Performance Criteria P2 as follows:

 The Seccombe Street connection will provide safe, efficient and convenient access for residential properties along and in the vicinity of Seccombe Street. This will provide a significant social and economic benefit to the Perth Township.

- or 3 road must be dependent on the site for its unique resources, characteristics or local attributes and an alternate site or access to a category 4 or 5 road is not practicable; and
- An access or junction which is increased in use or is a new access or junction must be designed and located to maintain adequate level of safety and efficiency for all road users
- The Seccombe Street connection will redirect vehicles but is not expected to itself result in an increase in the use of the existing road network.
- c) The connection has been designed in accordance with relevant standards and guidelines and is expected to maintain safety and efficiency for all road users. Throughout development of the design for the Perth Link Roads project there has been consultation with the Department of State Growth regarding the geometry of Northern Roundabout No. 1 to ensure that it will accommodate the Seccombe Street connection.

E4.7.4 Sight Distance at Accesses, Junctions and Level Crossings

If the access is a temporary access, the written consent of the relevant authority has been

Objective:

To ensure that use and development involving or adjacent to accesses, junctions and level crossings allows sufficient sight distance between vehicles and between vehicles and trains to enable safe movement of traffic

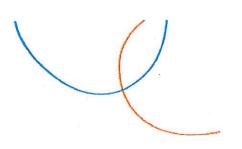
| Accept | able Solution/ Performance Criteria | Comments |
|----------|---|--|
| A1 | | Complies with Acceptable Solutions A1 |
| Sight di | istances at | The Safe Intersection Sight Distances shown in Table |
| a) | An access or junction must comply with the Safe Intersection Sight Distance shown in Table E4.7.4 | E4.7.4 are for a T-intersection. As the proposed Seccombe Street connection is to a roundabout, sight distance requirements have been sourced from the Austroads Guide to Road Design – Part 4B: |
| b) | Rail level crossing must comply with AS1742.7 Manual of uniform traffic control devices – Railway crossings, Standards Association of Australia; or | Roundabouts. The Seccombe Street connection has been designed to comply with the Austroads sight distance requirements. |

6. Conclusion

obtained.

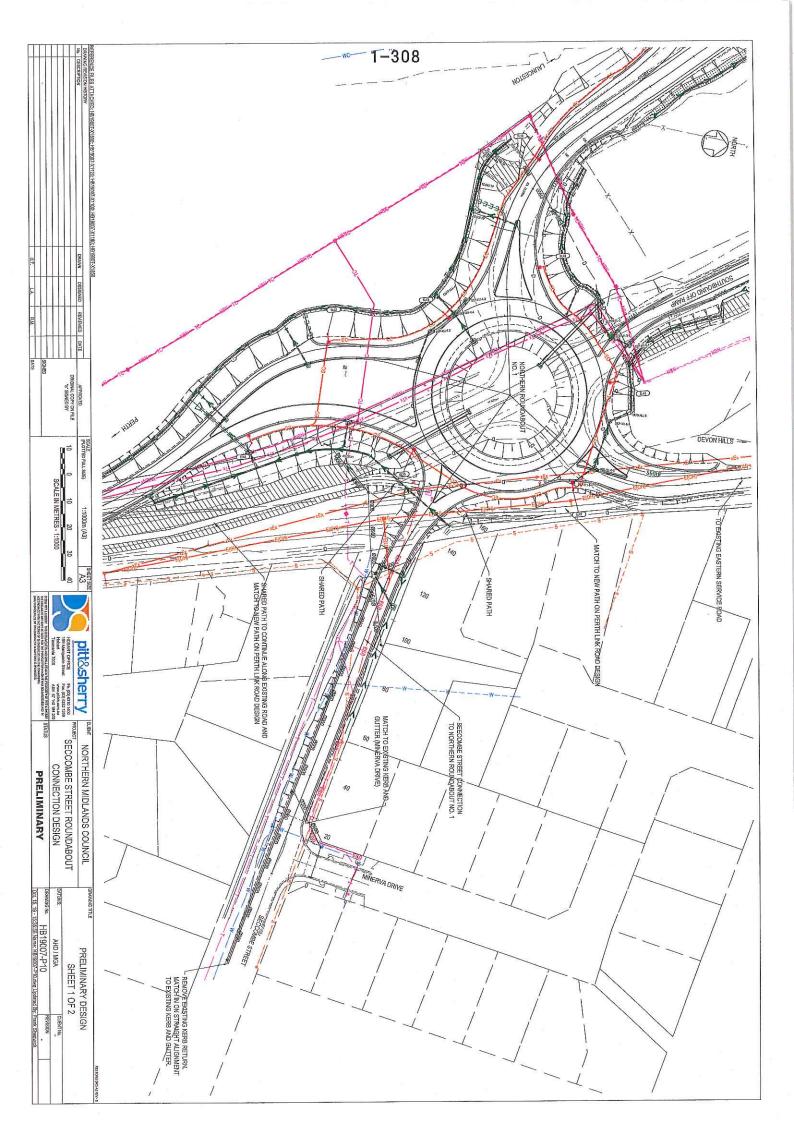
pitt&sherry were engaged by Northern Midlands Council to develop the detailed road design for the connection of Seccombe Street to Northern Roundabout No.1. The proposed Seccombe Street connection has been assessed in accordance with the Department of State Growth's Publication *Traffic Impact Assessments (TIA) Guidelines* and the *Northern Midlands Interim Planning Scheme 2013*. The analysis and discussions presented in this report are summarised as follows:

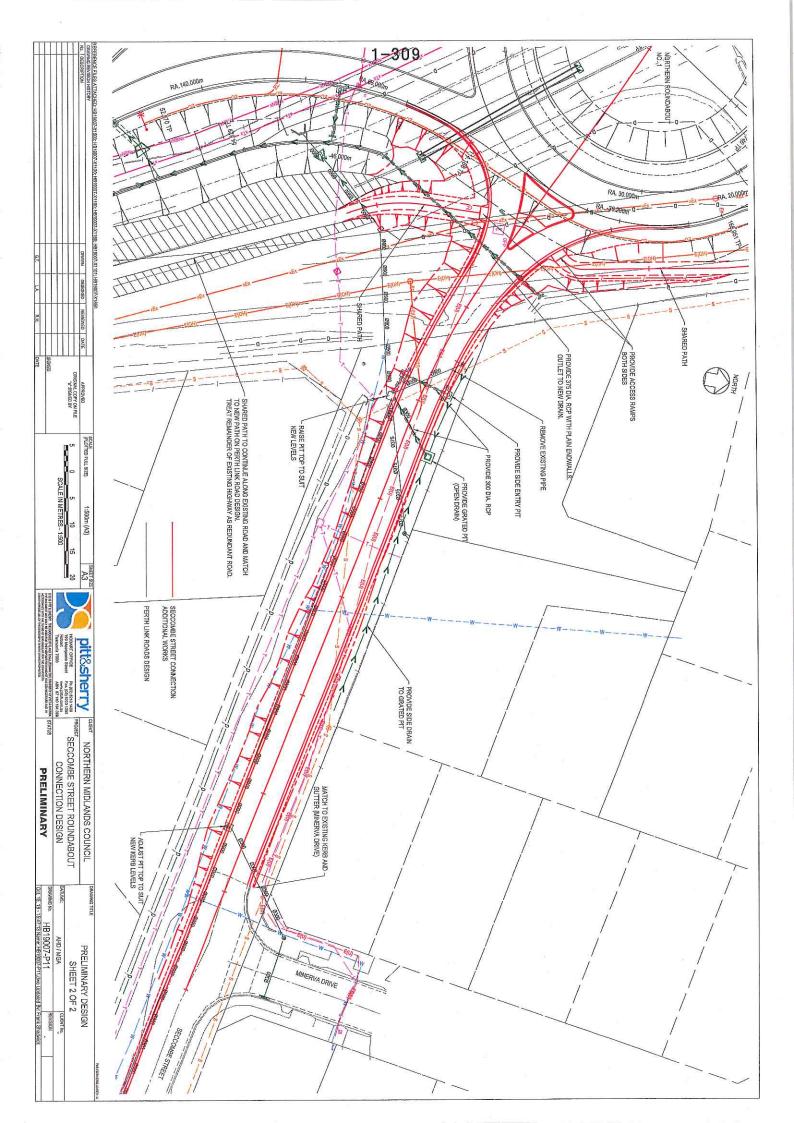
- The Seccombe Street connection will provide a direct access between Main Road and Seccombe Street
- The connection is expected to be used by residential properties along and in the vicinity of Seccombe Street
- Northern Roundabout No.1 is expected to continue to operate at LOS A immediately post development and 10years post development
- The Seccombe Street connection has been designed in accordance with the relevant Australian Standards and Guidelines

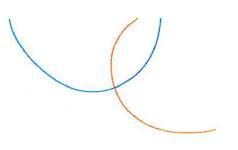


Appendix A

Seccombe Street Connection Layout







Appendix B

SIDRA Results – Existing Northern Roundabout No.1

Site: 101 [Northern Roundabout 1 - 2020 AM Pek Hour]

New Site

Site Category: (None)

Roundabout

| | Section 1 | erformance | | No. of Concession, Name of Street, or other party of the Concession, Name of Street, or other pa | - Autoropolis | Level of | 95% Back | of Oueure | Prop. | Effective | Aver. No. | Average |
|-----------|-----------|-----------------|------|--|------------------|----------|----------|-----------|-------|-----------|-----------|-----------|
| Mov ID | Turm | Demand Total | | Deg. Satn | Average Delay | Service | | Distance | | Stop Rate | | Speed |
| صال | 7204 | veh/h | % | v/c | see | | veh | inn | | | | km/h |
| South | : Main Ro | ad | | | | | | | | | 70 000 | la managa |
| 1 | L2 | 122 | 3.0 | 0.076 | 3.2 | LOS A | 0.4 | 3.1 | 0.07 | 0.39 | 0.07 | 56.7 |
| За | R1 | 1 | 3,0 | 0.076 | 8.1 | LOSA | 0.4 | 3.1 | 0.07 | 0.39 | 0.07 | 58.4 |
| Appro | ach | 123 | 3.0 | 0.076 | 3.3 | LOSA | 0.4 | 3.1 | 0.07 | 0.39 | 0.07 | 56.7 |
| North | East: Eas | tern Service | Road | | | | | | | | | |
| 24a | L1 | 4 | 3.0 | 0.010 | 3.7 | LOS A | 0.1 | 0.4 | 0.38 | 0.51 | 0.38 | 54.4 |
| 26a | R1 | 8 | 3.0 | 0.010 | 9.0 | LOS A | 0.1 | 0.4 | 0.38 | 0.51 | 0.38 | 54.6 |
| Appro | ach | 13 | 3.0 | 0.010 | 7.3 | LOS A | 0.1 | 0.4 | 0.38 | 0.51 | 0.38 | 54.6 |
| North | : Southbo | und Off Rar | np | | | | | | | | | |
| 7b | L3 | 2 | 3.0 | 0.125 | 3.5 | LOSA | 0.7 | 4.9 | 0.12 | 0.31 | 0.12 | |
| 8 | T1 | 193 | 3.0 | 0.125 | 3.2 | LOS A | 0.7 | 4.9 | 0.12 | 0.31 | 0.12 | 58.4 |
| 9 | R2 | 2 | 3.0 | 0.125 | 9.4 | LOSA | 0.7 | 4.9 | 0.12 | 0.31 | 0.12 | 58.9 |
| Appro | ach | 197 | 3.0 | 0.125 | 3.3 | LOSA | 0.7 | 4.9 | 0.12 | 0.31 | 0.12 | 58.4 |
| West: | New Hig | hway Ramp | | | | | | | | | | |
| 10a | L1 | 1 | 3.0 | 0.016 | 2.8 | LOSA | 0.1 | 0.6 | 0.02 | 0.63 | 0.02 | 53. |
| 12 | R2 | 25 | 3.0 | 0.016 | 9.3 | LOS A | 0.1 | 0.6 | 0.02 | 0.63 | 0.02 | 54. |
| Appro | oach | 26 | 3.0 | 0.016 | 9.1 | LOSA | 0.1 | 0.6 | 0.02 | 0.63 | 0.02 | 54. |
| A11 \ /- | hicles | 359 | 3.0 | 0,125 | 3.8 | LOSA | 0.7 | 4.9 | 0.11 | 0.37 | 0.11 | 57. |

Site Level of Service (LOS) Method; Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 8.0 | Copyright © 2000-2019 Akcelik and Associates Pty Ltd | sidrasolutions.com Organisation: PITT & SHERRY CONSULTING ENGINEERS | Processed: Monday, 21 October 2019 11:47:45 AM Project: \hightharpoolutions\hightharpooluti

Site: 101 [Northern Roundabout 1 - 2020 PM Pek Hour]

New Site

Site Category: (None)

Roundabout

| Mov | Turn | Demand I | | Deg. | Average | Level of | 95% Back | | Prop. | Stop Rate | Aver. No. Cycles | |
|-------|------------|----------------|---------|-------------|---------|----------|-----------------|---------------|---------|------------|---------------------|------|
| ID. | | Total veh/h | HV % | Satn v/c | Delay | Service | Vehicles veh | Distance m | Guanen. | -orch Lore | Cycles | km/h |
| South | : Main Ro | | | | | | | | | | | |
| 1 | L2 | 102 | 3.0 | 0.064 | 3.2 | LOSA | 0.4 | 2,5 | 0.05 | 0.40 | 0.05 | |
| 3a | R1 | 4 | 3.0 | 0.064 | 8.1 | LOSA | 0.4 | 2.5 | 0.05 | 0.40 | 0.05 | 58.3 |
| Appro | ach | 106 | 3.0 | 0.064 | 3.4 | LOSA | 0.4 | 2.5 | 0.05 | 0.40 | 0.05 | 56.7 |
| North | East: Eas | tern Service | Road | | | | | | | | | |
| 24a | L1 | 2 | 3.0 | 0.004 | 3.8 | LOSA | 0.0 | 0.2 | 0.40 | 0.49 | 0.40 | 54.6 |
| 26a | R1 | 3 | 3.0 | 0.004 | 9.1 | LOSA | 0.0 | 0.2 | 0.40 | 0.49 | 0.40 | 54.8 |
| Appro | ach | 5 | 3.0 | 0.004 | 7.0 | LOSA | 0.0 | 0.2 | 0.40 | 0.49 | 0.40 | 54.7 |
| North | : Southbo | und Off Ran | np | | | | | | | | | |
| 7b | L3 | 7 | 3.0 | 0.144 | 3.5 | LOSA | 8.0 | 5.8 | 0.14 | 0.32 | 0.14 | 55.5 |
| 8 | T1 | 215 | 3.0 | 0.144 | 3.2 | LOSA | 0.8 | 5.8 | 0.14 | 0.32 | 0.14 | 58.3 |
| 9 | R2 | 3 | 3.0 | 0.144 | 9.5 | LOSA | 0.8 | 5.8 | 0.14 | 0.32 | 0.14 | 58.8 |
| Appro | oach | 225 | 3.0 | 0.144 | 3.3 | LOS A | 0,8 | 5.8 | 0.14 | 0.32 | 0.14 | 58.2 |
| West | : New High | hway Ramp | | | | | | | | | | |
| 10a | L1 | 1 . | 3.0 | 0.017 | 2.8 | LOSA | 0.1 | 0.6 | 0.04 | 0.62 | 0.04 | 53.6 |
| 12 | R2 | 26 | 3.0 | 0.017 | 9.3 | LOS A | 0.1 | 0.6 | 0.04 | 0.62 | 0.04 | 54.6 |
| Appro | oach | 27 | 3.0 | 0.017 | 9.1 | LOSA | 0.1 | 0.6 | 0.04 | 0.62 | 0.04 | 54.6 |
| | ehicles | 364 | 3.0 | 0.144 | 3.8 | LOSA | 0.8 | 5.8 | 0.11 | 0.37 | 0.11 | 57. |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

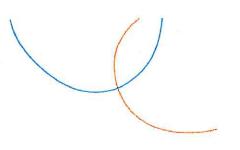
Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 8.0 | Copyright © 2000-2019 Akcelik and Associates Pty Ltd | sidrasolutions.com Organisation: PITT & SHERRY CONSULTING ENGINEERS | Processed: Monday, 21 October 2019 11:48:28 AM Project: \pittsh\rprojects\HOB\2019\001-050\HB19007\14P - Calculations\HB19007 Northern Roundabout 1.sip8



Appendix C

SIDRA Results - Post Development 2020

Site: 101 [Northern Roundabout 1 (Post Development) - 2020 AM Pek Hour]

New Site

Site Category: (None)

Roundabout

| Mov | Tium | Demand | Flows | Deg. | Average | Level of | 95% Back | | Prop. | Effective | Aver. No. | Average |
|--------|------------|--------------|--------|-------|---------|----------|----------|----------|--------|-----------|-----------|---------|
| ID. | | Total | HV | Satin | Delay | Service | | Distance | Queued | Stop Rate | Cycles | Speed |
| | | veh/h | % . | V/G | sec | | veh | m | | | 35.1 | km/h |
| | : Main Ro | | | 0.480 | 0.0 | 1004 | 0.0 | 4.3 | 0.32 | 0.45 | 0.32 | 55.3 |
| 1 | L2 | 122 | 3.0 | 0.102 | 3.8 | LOSA | 0.6 | 4.3 | 0.32 | 0.45 | 0.32 | 56.9 |
| 3a | R1 | 1 | 3.0 | 0.102 | 8.7 | LOSA | 0.6 | | | 0.45 | 0.32 | 57. |
| 3 | R2 | 12 | 3,0 | 0.102 | 9,9 | LOSA | 0.6 | 4.3 | 0.32 | | | |
| Appro | ach | 135 | 3.0 | 0.102 | 4.4 | LOSA | 0.6 | 4.3 | 0.32 | 0.45 | 0.32 | 55. |
| East: | Seccombe | e Street | | | | | | | | | | |
| 4 | L2 | 51 | 2.0 | 0.150 | 5.2 | LOSA | 0.9 | 6.1 | 0.44 | 0.50 | 0.44 | 53. |
| 5 | T1 | 116 | 2.0 | 0.150 | 5.0 | LOS A | 0.9 | 6.1 | 0.44 | 0.50 | 0.44 | 55. |
| 6b | R3 | 1 | 2.0 | 0.150 | 11.8 | LOS B | 0.9 | 6.1 | 0.44 | 0.50 | 0.44 | 57. |
| Appro | ach | 167 | 2.0 | 0.150 | 5,1 | LOS A | 0.9 | 6.1 | 0.44 | 0.50 | 0.44 | 55. |
| Northi | East: East | tern Service | e Road | | | | | | | | | |
| 24b | L3 | 1 | 3.0 | 0.011 | 4.5 | LOSA | 0.1 | 0.4 | 0.41 | 0.53 | 0.41 | 52. |
| 24a | L1 | 4 | 3.0 | 0.011 | 4.4 | LOSA | 0.1 | 0.4 | 0.41 | 0.53 | 0.41 | 53. |
| 26a | R1 | 8 | 3.0 | 0.011 | 9.1 | LOS A | 0.1 | 0.4 | 0.41 | 0.53 | 0.41 | 54. |
| Appro | ach | 14 | 3.0 | 0.011 | 7.3 | LOSA | 0.1 | 0.4 | 0.41 | 0.53 | 0.41 | 53. |
| North: | : Southbo | und Off Rai | mp | | | | | | | | | |
| 7b | L3 | 2 | 3.0 | 0.147 | 3.5 | LOSA | 8.0 | 6.1 | 0.16 | 0.35 | 0.16 | 55. |
| 7 | L2 | 28 | 3.0 | 0.147 | 3.4 | LOSA | 0.8 | 6.1 | 0.16 | 0.35 | 0.16 | 56. |
| 8 | T1 | 193 | 3.0 | 0.147 | 3.6 | LOS A | 8.0 | 6.1 | 0.16 | 0.35 | 0.16 | 57. |
| 9 | R2 | 2 | 3.0 | 0.147 | 9.4 | LOS A | 0.8 | 6.1 | 0.16 | 0.35 | 0.16 | 58. |
| Appro | | 225 | 3.0 | 0.147 | 3.7 | LOSA | 0.8 | 6.1 | 0.16 | 0.35 | 0.16 | 57. |
| West: | New Hig | hway Ramp | | | | | | | | | | |
| 10a | L1 | 1 | 3.0 | 0.018 | 2.8 | LOS A | 0.1 | 0.7 | 0.08 | 0.60 | 0.08 | 53 |
| 11 | T1 | 1 | 3.0 | 0,018 | 3.1 | LOSA | 0.1 | 0.7 | 0.08 | 0.60 | 0.08 | 54 |
| 12 | R2 | 25 | 3.0 | 0.018 | 9.3 | LOSA | 0.1 | 0.7 | 0.08 | 0.60 | 0.08 | 54 |
| Appro | | 27 | 3,0 | 0.018 | 8.8 | LOSA | 0.1 | 0.7 | 0.08 | 0.60 | 0.08 | 54 |
| 2000 | hicles | 568 | 2.7 | 0.150 | 4.6 | LOSA | 0.9 | 6.1 | 0.29 | 0.44 | 0.29 | 56 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Northern Roundabout 1 (Post Development) - 2020 PM Pek Hour]

New Site Site Category: (None) Roundabout

| Mov - | Tium | Demand I | Flows | Deg | Average | Level of | | of Queue | Prop. | Effective | Aver. INO. | Average |
|-------|-----------|--------------|-------|-------|------------|----------|----------|----------|--------|---------------------|------------|---------------|
| ID . | | Total | HV | Satn | Delay | Service | Vehicles | | Queued | Stop Rate | Cycles | Speed km/f |
| | | veh/h | % | . v/c | sec | | veh | เกา | | CO CARLO LA PARENTE | | DOUGHA |
| | : Main Ro | | 0.0 | 0.000 | 3.4 | LOSA | 0.6 | 4.2 | 0.19 | 0.47 | 0.19 | 54.9 |
| 1 | L2 | 102 | 3.0 | 0.098 | 3.4 8.3 | LOSA | 0.6 | 4.2 | 0.19 | 0.47 | 0.19 | 56.5 |
| 3a | R1 | 4 | 3.0 | 0.098 | 9.5 | LOSA | 0.6 | 4.2 | 0.19 | 0.47 | 0.19 | 57.3 |
| 3 | R2 | 38 | 3.0 | 0.098 | | LOSA | 0.6 | 4.2 | 0.19 | 0.47 | 0.19 | 55.0 |
| Appro | ach | 144 | 3.0 | 0.098 | 5.2 | LOS A | 0.0 | 4.2 | 0.13 | 0.77 | 0,13 | 00, |
| East: | Seccomb | e Street | | | | | | | | | | and Mark 1 |
| 4 | L2 | 18 | 2.0 | 0.056 | 5.2 | LOSA | 0.3 | 2.2 | 0.43 | 0.48 | | |
| 5 | T1 | 42 | 2.0 | 0.056 | 4.9 | LOSA | 0.3 | 2.2 | 0.43 | 0.48 | | |
| 6b | R3 | 1 | 2.0 | 0.056 | 11.7 | LOS B | 0.3 | 2.2 | 0.43 | 0.48 | | |
| Appro | ach | 61 | 2.0 | 0.056 | 5.1 | LOSA | 0.3 | 2.2 | 0.43 | 0.48 | 0.43 | 55. |
| North | East: Eas | tern Service | Road | | | | | | | | | |
| 24b | L3 | 1 | 3.0 | 0.006 | 5.1 | LOSA | 0.0 | 0.2 | 0.50 | 0.52 | | |
| 24a | L1 | 2 | 3.0 | 0.006 | 5.0 | LOSA | 0.0 | 0.2 | 0.50 | 0.52 | | |
| 26a | R1 | 3 | 3.0 | 0.006 | 9.7 | LOSA | 0.0 | 0.2 | 0.50 | 0.52 | 0.50 | |
| Appro | ach | 6 | 3.0 | 0.006 | 7.3 | LOSA | 0.0 | 0.2 | 0.50 | 0.52 | 0.50 | 53. |
| North | : Southbo | ound Off Rar | mp | | | | | | | | | |
| 7b | L3 | 7 | 3.0 | 0.219 | 3.7 | LOSA | 1.3 | 9.7 | 0.25 | 0.38 | 0.25 | |
| 7 | L2 | 97 | 3.0 | 0.219 | 3,6 | LOSA | 1.3 | 9.7 | 0.25 | 0.38 | 0.25 | 55. |
| 8 | T1 | 215 | 3.0 | 0.219 | 3.8 | LOSA | 1.3 | 9.7 | 0.25 | 0.38 | 0.25 | 57. |
| 9 | R2 | 3 | 3.0 | 0,219 | 9.6 | LOS A | 1.3 | 9.7 | 0.25 | 0.38 | 0.25 | 57. |
| Appro | | 322 | 3.0 | 0.219 | 3.8 | LOSA | 1.3 | 9.7 | 0.25 | 0.38 | 0.25 | 56. |
| West | : New Hig | hway Ramp | | | | | | | | | | |
| 10a | L1 | 1 | 3.0 | 0.022 | 3.0 | LOSA | 0.1 | 8.0 | 0.16 | | | |
| 11 | T1 | 4 | 3.0 | 0.022 | 3.3 | LOSA | 0.1 | 0.8 | 0.16 | | | |
| 12 | R2 | 26 | 3.0 | 0.022 | 9.4 | LOSA | 0.1 | 0.8 | 0.16 | 0.57 | | |
| Appro | oach | 32 | 3.0 | 0.022 | 8.4 | LOSA | 0.1 | 8.0 | 0,16 | 0.57 | 7 0.16 | 5 54 |
| AUNI | ehicles | 565 | 2.9 | 0.219 | 4.6 | LOSA | 1.3 | 9.7 | 0.25 | 0.43 | 3 0.25 | 5 56 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

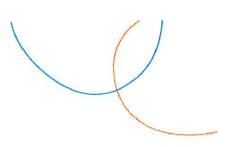
Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.



Appendix D

SIDRA Results - Post Development 2030

Site: 101 [Northern Roundabout 1 (Post Developmentt) - 2030 AM Pek Hour]

New Site Site Category: (None) Roundabout

| Mov | Turn | Demand I | | Deg. | Average | Level of | 95% Back | | Prop. | | Aver. No. | |
|-------|-----------|----------------|---------|--------------|--------------|----------|-----------------|---------------|--------|-----------|-----------|---------------|
| ID . | | Total veh/h | HV % | Satin v/c | Delay sec | Service | Vehicles veh | Distance m | Queuea | Stop Rate | Cycles | Speed km/f |
| | : Main Ro | | 10-100 | | 0,675 | | you. | | 20.00 | | | |
| 1 | L2 | 141 | 3.0 | 0.120 | 4.0 | LOSA | 0.7 | 5.2 | 0.37 | 0.47 | 0.37 | 55.2 |
| 3a | R1 | 1 | 3.0 | 0.120 | 8.9 | LOSA | 0.7 | 5.2 | 0.37 | 0.47 | 0.37 | 56. |
| 3 | R2 | 13 | 3.0 | 0.120 | 10.1 | LOS B | 0.7 | 5.2 | 0.37 | 0.47 | 0.37 | 57. |
| Appro | ach | 155 | 3.0 | 0.120 | 4.5 | LOSA | 0.7 | 5.2 | 0.37 | 0,47 | 0.37 | 55. |
| East: | Seccomb | e Street | | | | | | | | | | |
| 4 | L2 | 61 | 2.0 | 0.188 | 5.5 | LOSA | 1.1 | 7.9 | 0.49 | 0.54 | 0.49 | 53. |
| 5 | T1 | 141 | 2.0 | 0.188 | 5.3 | LOSA | 1.1 | 7.9 | 0.49 | 0.54 | 0.49 | 55. |
| 6b | R3 | 1 | 2.0 | 0.188 | 12.1 | LOS B | 1.1 | 7.9 | 0.49 | 0.54 | 0.49 | 57. |
| Appro | ach | 203 | 2.0 | 0.188 | 5.4 | LOSA | 1.1 | 7.9 | 0.49 | 0.54 | 0.49 | 54. |
| North | East: Eas | stern Service | Road | | | | | | | | | |
| 24b | L3 | 1 | 3.0 | 0.015 | 4.7 | LOSA | 0.1 | 0.6 | 0.45 | 0.54 | 0.45 | |
| 24a | L1 | 5 | 3.0 | 0.015 | 4.6 | LOSA | 0.1 | 0.6 | 0.45 | 0.54 | | |
| 26a | R1 | 11 | 3.0 | 0.015 | 9.4 | LOSA | 0.1 | 0.6 | 0.45 | 0.54 | | |
| Appro | ach | 17 | 3.0 | 0.015 | 7.6 | LOSA | 0.1 | 0.6 | 0.45 | 0.54 | 0.45 | 53. |
| North | : Southbo | ound Off Rar | mp | | | | | | | | | |
| 7b | L3 | 2 | 3.0 | 0.172 | 3.6 | LOSA | 1.0 | 7.3 | 0.18 | 0.36 | 0.18 | |
| 7 | L2 | 34 | 3.0 | 0.172 | 3.4 | LOSA | 1.0 | 7.3 | 0.18 | 0.36 | 0.18 | 55. |
| 8 | T1 | 223 | 3.0 | 0.172 | 3.7 | LOSA | 1.0 | 7.3 | 0.18 | 0.36 | 0.18 | 57. |
| 9 | R2 | 2 | 3.0 | 0.172 | 9.4 | LOSA | 1.0 | 7.3 | 0.18 | 0.36 | 0.18 | 57. |
| Appro | ach | 261 | 3.0 | 0.172 | 3.7 | LOSA | 1.0 | 7.3 | 0.18 | 0.36 | 0.18 | 57 |
| West: | New Hig | jhway Ramp |) = == | | | | | | | | | |
| 10a | L1 | 1 | 3.0 | 0.022 | 2.8 | LOSA | 0.1 | 0.9 | 0.09 | | | |
| 11 | T1 | 3 | 3.0 | 0.022 | 3.2 | LOSA | 0.1 | 0.9 | 0.09 | | | |
| 12 | R2 | 29 | 3.0 | 0.022 | 9.3 | LOSA | 0.1 | 0.9 | 0.09 | 0.59 | | |
| Appro | oach | 34 | 3.0 | 0.022 | 8.5 | LOSA | 0.1 | 0.9 | 0.09 | 0.59 | 0.09 | 54 |
| | | | 2.7 | 0.188 | 4.7 | LOSA | 1.1 | 7.9 | 0.32 | 0.45 | 0.32 | 2 55 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Site: 101 [Northern Roundabout 1 (Post Development) - 2030 PM Pek Hour]

New Site

Site Category: (None)

Roundabout

| Mov | Trum | Demand I | Flows - | Deg | Average | Level of | 95% Back | of Queue | Prop. | Effective | Aver. No. | Average |
|---------|------------|------------------|---------|-------|---------|--------------|----------|----------|-------|-----------|-----------|---------|
| (D) | ar | Total | HW | Saun | Delay | Service | | | | Stop Rate | Cycles | Speed |
| | | veh/h | %: | v/c | 50C | de finite de | veh | m | | | | [kim/li |
| | Main Ro | | | 6.446 | | 1.00.4 | 0.7 | 5.0 | 0.22 | 0.47 | 0.22 | 54.8 |
| 1 | L2 | 119 | 3.0 | 0.115 | 3.5 | LOSA | 0.7 | | | 0.47 | 0.22 | 56.4 |
| 3a | R1 | 4 | 3.0 | 0.115 | 8.4 | LOSA | 0.7 | 5.0 | 0.22 | | | 57.2 |
| 3 | R2 | 44 | 3.0 | 0.115 | 9.6 | LOSA | 0.7 | 5.0 | 0.22 | 0.47 | 0.22 | |
| Appro | ach | 167 | 3.0 | 0.115 | 5.2 | LOSA | 0.7 | 5.0 | 0.22 | 0.47 | 0.22 | 55.8 |
| East: 8 | Seccomb | e Street | | | | | | | | | | |
| 4 | L2 | 22 | 2.0 | 0.070 | 5.5 | LOS A | 0.4 | 2.8 | 0.47 | 0.51 | 0.47 | 53.6 |
| 5 | T1 | 51 | 2.0 | 0.070 | 5,2 | LOSA | 0.4 | 2.8 | 0.47 | 0.51 | 0.47 | 55.0 |
| 6b | R3 | 1 | 2.0 | 0.070 | 12.0 | LOS B | 0.4 | 2.8 | 0.47 | 0.51 | 0.47 | 57. |
| Appro | ach | 74 | 2.0 | 0.070 | 5.4 | LOS A | 0.4 | 2.8 | 0.47 | 0.51 | 0.47 | 55. |
| Northi | East: Eas | stern Service | Road | | | | | | | | | |
| 24b | L3 | 1 | 3.0 | 0.007 | 5.4 | LOSA | 0.0 | 0.3 | 0.55 | 0.55 | 0.55 | .52. |
| 24a | L1 | 2 | 3.0 | 0.007 | 5.3 | LOSA | 0.0 | 0.3 | 0.55 | 0.55 | 0.55 | 53. |
| 26a | R1 | 4 | 3.0 | 0.007 | 10.1 | LOS B | 0.0 | 0.3 | 0.55 | 0.55 | 0.55 | 53. |
| Appro | ach | 7 | 3.0 | 0.007 | 8.0 | LOSA | 0.0 | 0,3 | 0.55 | 0.55 | 0.55 | 53. |
| North: | Southbo | ound Off Rar | np | | | | | | | | | |
| 7b | L3 | 8 | 3,0 | 0,258 | 3,8 | LOSA | 1.7 | 11.9 | 0.28 | 0.39 | 0.28 | 54. |
| 7 | L2 | 113 | 3.0 | 0.258 | 3.7 | LOSA | 1.7 | 11.9 | 0.28 | 0,39 | 0.28 | 55. |
| 8 | T1 | 249 | 3.0 | 0.258 | 3.9 | LOSA | 1.7 | 11.9 | 0.28 | 0.39 | 0.28 | 57. |
| 9 | R2 | 4 | 3.0 | 0.258 | 9.7 | LOSA | 1.7 | 11.9 | 0.28 | 0.39 | 0.28 | 57. |
| Appro | 11/00/1011 | 375 | 3.0 | 0.258 | 3.9 | LOSA | 1.7 | 11.9 | 0.28 | 0.39 | 0.28 | 56. |
| | | hway Ramp | | | | | × | | | | | |
| 10a | L1 | jiiway Kamp 1 | 3.0 | 0.026 | 3.0 | LOS A | 0.1 | 1.0 | 0.18 | 0.56 | 0.18 | 53. |
| 11 | T1 | 5 | 3.0 | 0.026 | 3.3 | LOSA | 0.1 | 1.0 | 0.18 | | 0.18 | 54. |
| 12 | R2 | 31 | 3.0 | 0.026 | 9.4 | LOSA | 0.1 | 1.0 | 0.18 | | 0.18 | |
| Appro | | 37 | 3.0 | 0.026 | 8.4 | LOSA | 0.1 | 1.0 | 0.18 | | | |
| | hicles | 660 | 2.9 | 0.258 | 4.7 | LOSA | 1.7 | 11.9 | 0.28 | 0.44 | 0.28 | 55 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

pitt&sherry

Seccombe Street Roundabout Connection – Traffic Impact Assessment

Contact

Leenah Ali (03) 6210 1419 lali@pittsh.com.au



Phone 1300 748 874 info@pittsh.com.au pittsh.com.au

Located nationally — Melbourne Sydney Brisbane Hobart Launceston Newcastle Devonport Wagga Wagga



pitt&sherry

REFERRAL OF DEVELOPMENT APPLICATION PLN-19-0232 TO WORKS & INFRASTRUCTURE DEPARTMENT

Property/Subdivision No: N/a

Date:

6 December 2019

Applicant:

Rebecca Green & Associates

Proposal:

Construction of eastern entry/exit connection from approved roundabout to

connect to unmade section of Seccombe Street (Road & Railway Assets Code)

Location:

Midland Highway next to Seccombe Street, Perth

W&I referral PLN-19-0232, Midland Highway next to Seccombe Street, Perth

Planning admin: W&I fees paid.

Please inspect the property and advise regarding stormwater/drainage, access, traffic, and

any other engineering concerns.

| any other engineering concerns. | |
|---|-----|
| Is there is a house on one of the lots? | No |
| Is it connected to all Council services? | No |
| Are any changes / works required to the house lot? | N/A |
| Are the discharge points for stormwater, infrastructure that is maintained by Council? (This requires a check to ensure the downstream infrastructure is entirely owned, maintained, operated by Council and have been taken over as Council assets.) | ^ |

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| Yes |
|-------------------|
| 163 |
| |
| N/A |
| |
| Yes |
| No |
| No |
| N/A |
| N/A |
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| |
| N/A |
| N/A |
| N/A |
| #: |
| No |
| 1 |
| |
| |
| Yes, as per plans |
| |

Road Access:

| Noad Access. | | |
|---|-----|------|
| Does the property have access to a made road? | N/A | n. 1 |
| If so, is the existing access suitable? | N/A | |

| Does the new lot/s have access to a made road? | N/A | | | |
|--|--|--|--|--|
| If so, are any works required? | N/A | | | |
| Is off-street parking available/provided? | No | | | |
| Road / access works required: | | | | |
| Works to be in accordance approved design plans | | | | |
| Is an application for vehicular crossing form required? | No | | | |
| Is a footpath required? | No | | | |
| Extra information required regarding driveway approach and | No | | | |
| departure angles | | | | |
| Are any road works required? | Yes, as per approved plans | | | |
| Are street trees required? | No | | | |
| Additional Comments: | An Engineer's design is required. | | | |

Engineer's comment:

WORKS & INFRASTRUCTURE DEPARTMENT CONDITIONS

W.1 Roadworks

All works must be constructed in accordance with the approved design plans and in accordance with Department of State Growth Standard drawings.

W.8 Pollutants

- a) The developer/property owner must ensure that pollutants such as mud, silt or chemicals are not released from the site.
- b) Prior to the commencement of the development authorised by this permit the developer/property owner must install all necessary silt fences and cut-off drains to prevent soil, gravel and other debris from escaping the site. Material or debris must not be transported onto the road reserve (including the nature strip, footpath and road pavement). Any material that is deposited on the road reserve must be removed by the developer/property owner. Should Council be required to clean or carry out works on any of their infrastructure as a result of pollutants being released from the site the cost of these works may be charged to the developer/property owner.

Jonathan Galbraith (Engineering Officer)

Date: 9/12/19

Rosemary Jones

From:

Hills, Garry < Garry. Hills@stategrowth.tas.gov.au>

Sent:

Monday, 16 December 2019 3:26 PM

To:

NMC Planning

Subject:

RE: Referral to Department of State Growth of Planning Application PLN-19-0232 -

Midland Highway next to Seccombe Street, Perth TAS 7300

Follow Up Flag:

Follow up

Flag Status:

Flagged

Our Ref: D19/311138

Hello Rosemary – thanks for the referral.

As we've already reviewed and accepted this one via CLOC, no issues or objections from us in terms of the proposal.

In this case, as Council is arranging the works via VSJV as part of the roundabout construction and they currently have possession of site until the end of the Perth Links contract, I have been advised a Works Permit is not required.

The only thing we need to capture is revision of the proposed advance directional signs for the roundabout as the current design does not show the Seccombe Street leg.

Not sure if you want to include as a condition or a note (or just arrange outside the PA process) but we will need Council's consultant to provide an update to the relevant signage plans of the Perth Links project drawings showing revised designs of the advance direction signs for the roundabout to incorporate the Seccombe Street leg so DSG can review and accept.

Let me know if you need any further information.

Cheers, Garry

Garry Hills | Senior Traffic Engineering Officer State Roads Division | Department of State Growth GPO Box 536, Hobart TAS 7001 Phone: (03) 6777 1940 www.stategrowth.tas.gov.au

DEPARTMENT OF STATE GROWTH COURAGETO MAKE A DIFFERENCE THROUGH:



From: NMC Planning [mailto:planning@nmc.tas.gov.au]

Sent: Friday, 6 December 2019 8:49 AM

To: Development < Development@stategrowth.tas.gov.au>

Subject: Referral to Department of State Growth of Planning Application PLN-19-0232 - Midland Highway next to

Seccombe Street, Perth TAS 7300

6/12/2019

Department of State Growth

via email to: Development@stategrowth.tas.gov.au

Northern Midlands Council

13 Smith Street Longford, Tasmania 7301

RE: Planning Application PLN 19 -02 32

MIDLAND HIGHWAY NEXT TO SECCOMBE STREET PERTH

To the General Manager

We wish to make you aware of a number of strong objections that we have with regard to the proposed development.

As an immediate neighbor to the site of the proposed development, we are of the view that the proposed development will have a serious impact on our standard of living, Breach of EPA noise policy of 2009 and house value. Our specific objections are as follows:

- 1. Detrimental impact upon standard of living, due the considerably increased traffic flow through the area.
- 2. Detrimental impact on our standard of living due the increase in noise caused by the increase of traffic flow directly adjacent to our main bedroom, which is occupied by a Shift Worker.
- 3. Detrimental impact of our privacy
- 4. Detrimental impact on house value

We believe the implementation of this road will also breach the EPA noise policy of 2009. Part 3 section 9 clause 3, section 10, clause 1 and 2. Part 4 Section 11 clause 2, part A and B, clause 3 and 4. Part 7 section 17 and 18.

The area which is being proposed is currently public space, which is being used by residents. We have personally being maintaining (mowing etc) all of this large public space, at our own expense, with the support of council. As agreed to by Northern Midlands Council, we have planted garden beds and trees, mowed said area, for the last 7 years. Trees are landscapes are fully mature which is enjoyed by local residents and wildlife.

If the Council to go ahead with the proposed road we would hope if possible for compensation for fencing along Seccombe side which we think is reasonable as this is a new proposal after being told many times the road would not go through.

Regards

Shane & Judith Gurr

2 Minerva Drive Perth

Email gurrsj@bigpond.com

Mobile 0417169321

Rosemary Jones

From:

Rebecca Green <admin@rgassociates.com.au>

Sent:

Monday, 23 December 2019 10:43 PM

To:

NMC Planning

Subject:

RE: Email to applicant, representation received to PLN19-0232, Seccombe St round

about access

Attachments:

CCF23122019.pdf

Follow Up Flag:

Follow up

Flag Status:

Flagged

Categories:

Sent to ECM

Good evening Rosemary,

Please see attached agreed extension of time.

In response to the issues raised within the one representation received I wish to reiterate that the proposal is not for the construction of the extension of the unmade section of Seccombe Street and that this particular proposal will not see through traffic. This proposal must be assessed on its own merits and that the application is for the construction of an eastern entry/exit connection only from an existing approved roundabout. Any concerns in relation to through traffic, including any impact on privacy or increase in noise cannot be considered in relation to this particular development application, other than that associated with the existing approved roundabout. In relation to valuation of property, this is not a consideration under the provisions of the Planning Scheme and has no relevance to the matter at hand.

I hope that the planning authority will see favourably towards permitting the proposal.

Kind regards

Rebecca Green
Senior Planning Consultant & Accredited Bushfire Hazard Assessor
Rebecca Green & Associates
m. 0409 284422
P.O. Box 2108, Launceston, 7250

From: NMC Planning <planning@nmc.tas.gov.au>
Sent: Monday, 23 December 2019 12:38 PM
To: Rebecca Green <admin@rgassociates.com.au>

Subject: Email to applicant, representation received to PLN19-0232, Seccombe St round about access

Good afternoon,

Please see correspondence attached.

Kind regards,

Rosemary Jones