



Southern Outlet Davey Street Feasibility Report

Date
22 June 2021

Rev01

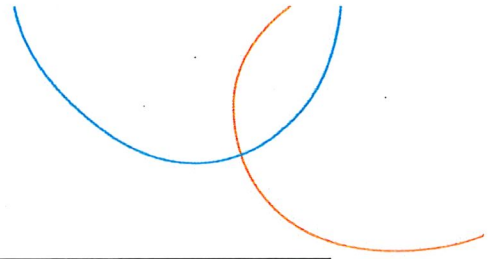


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Executive Summary

The Department of State Growth (Department) engaged pitt&sherry to investigate the addition of a lane to accommodate a dedicated bus lane from the Southern Outlet to Macquarie Street, increasing the total number of lanes to four. The project is part of the Hobart City Deal Southern Projects which seek to improve the uptake of public transport, and to address congestion and accessibility issues along the southern corridor.

While accommodating a bus lane within the existing 3 lanes was reviewed earlier by pitt&sherry, traffic modelling indicated that an additional lane was desirable to alleviate congestion.

pitt&sherry developed two concept sketch options which were workshopped with the Department, generating a third and preferred option which is a hybrid of the two initial options as shown in Figure 1 below.

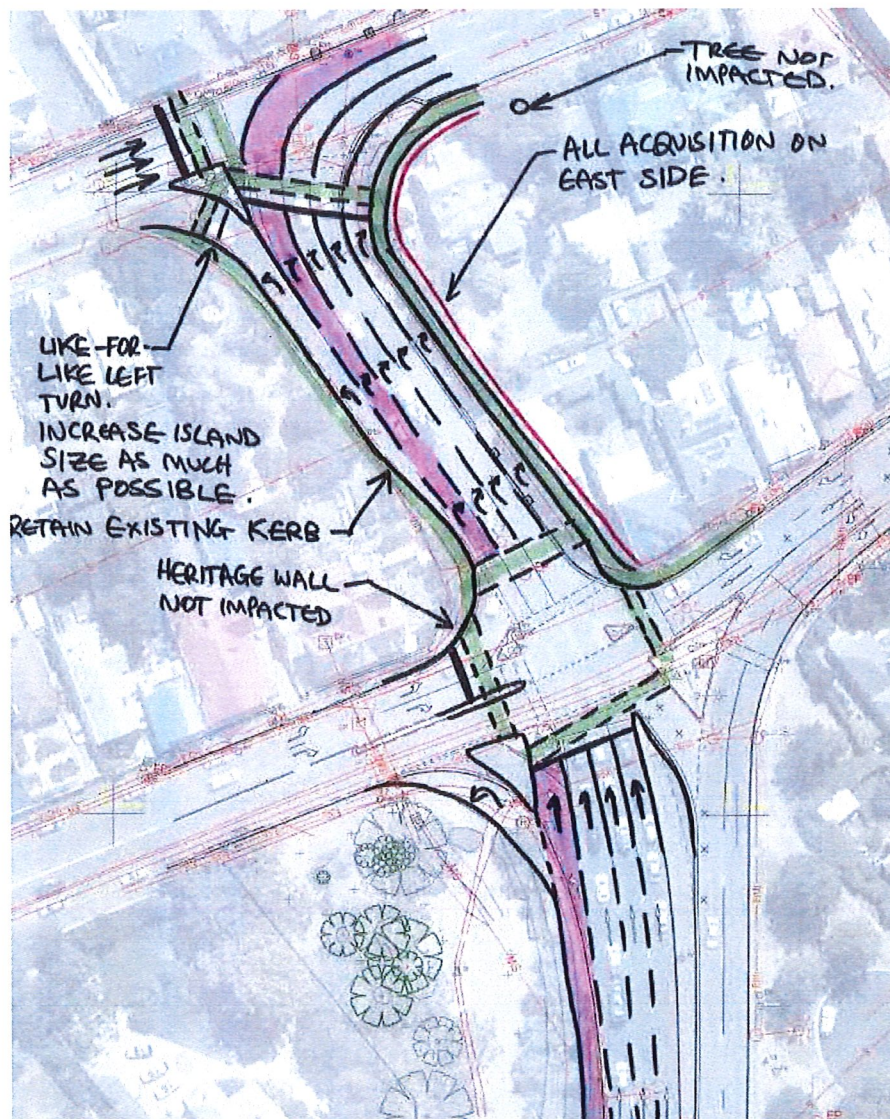


Figure 1: Option 3 (Preferred Option)

The 2D Concept Design for the preferred option has been prepared and the budget cost estimate for the works is \$4.668m inclusive of a small amount of property acquisition as indicated in Figure 1. Desktop environmental and heritage investigations have been undertaken based on the Concept Design, along with some initial consultation with Hobart City Council, who have indicated that some elements of the works will trigger a requirement for a planning application.



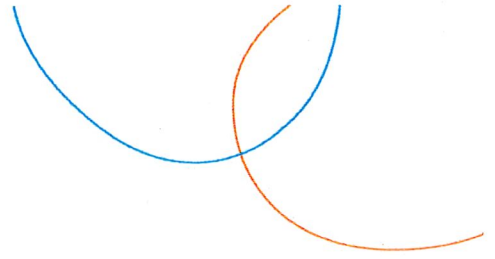
1. Project Background

The Southern Outlet/Davey Street Feasibility Analysis sits within Hobart City Deal Southern Projects which seek to improve the uptake of public transport, and to address congestion and accessibility issues along the southern corridor. As part of the initial project, the Macquarie/Davey Bus Priority project which involved pitt&sherry (working for wsp) developing a concept design for bus priority measures on Macquarie and Davey streets. The Macquarie/Davey Bus Priority project was undertaken within the constraint of not altering the existing kerb lines and included provision of a bus lane along Macquarie and Davey streets.

Traffic modelling undertaken for this project shows a significant delay to northbound traffic and buses at the intersection of Southern Outlet with Davey Street and Macquarie Street. Separately the modelling demonstrated that an additional traffic (bus) lane from Davey Street to Antill Street would deliver the most desirable results for the overall project in terms of reducing additional travel time for all the Hobart-bound road users from the Southern Outlet. pitt&sherry was subsequently engaged to undertake further Concept Design development to investigate the potential to include an additional lane for buses from the Southern Outlet through the intersections to Macquarie Street.

An early investigation incorporated a requirement for the road geometry to accommodate swept path geometry through this section for a Bus, B-double and 2 Service Van / Light Delivery Trucks was undertaken prior to the Concept Design option development. pitt&sherry's initial investigation presented to the Department on 13 January demonstrated that this was not feasible without impacting the buildings on the north side of Macquarie Street. It is noted that a B-Double cannot currently perform this turn while maintaining lane discipline.

Following presentation of this initial option, it was agreed with the Department that there would be no further investigation of an option to accommodate a Bus, B-Double, and two Service Vans turning concurrently as private building impacts would not be acceptable.



2. Existing conditions

Macquarie and Davey Streets are the primary north – south throughfares travelling through Hobart connecting the Brooker and Tasman Highways with the Southern Outlet and traverse the centre of the city. The Southern Outlet is the main connection between to the southern suburbs and communities beyond, carrying the majority of traffic. This section outlines the existing conditions and site constraints applicable to the development of the concept options for the addition of the bus lane.

2.1 Existing intersection layout

The current intersection arrangement is as follows:

Davey Street Intersection Southern Approach

- Three through lanes
- One short left turn slip lane
- No footpath

Davey Street Intersection Western Approach

- One left turn slip lane (small island)
- One right turn lane
- Footpath on both sides

Davey Street Intersection Eastern Approach

- One through lane
- One right turn lane (small island)
- Footpath on both sides

Macquarie Street Intersection Southern Approach

- Three right turn lanes
- One left turn slip lane
- Footpath on both sides

Macquarie Street Intersection Western Approach

- Three through lanes
- Footpath on both sides

2.2 Existing Design Vehicles

The existing Macquarie Street intersection accommodates the following vehicles with lane discipline on the southern approach.

- Left turn: 12.5m Bus/Truck
- Right turn lane 1 (from left): 12.5m Bus/Truck
- Right turn lane 2 (from left): 8.8m Service Vehicle
- Right turn lane 3 (from left): 8.8m Service Vehicle

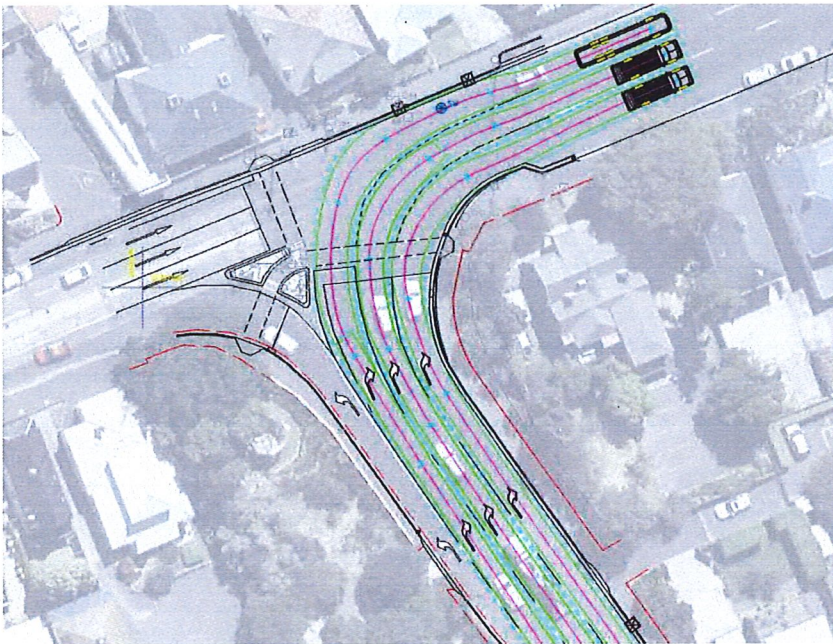


Figure 2: Existing design vehicles with lane discipline

While larger vehicles do use this intersection, the current configuration does not provide lane discipline for these movements. Refer to the figure below showing a semi-trailer truck navigating the turn. Note that the vehicle turns from the inside lane and straddles the lane to the right.



Figure 3: Semi-trailer turning without lane discipline

2.3 Site Constraints

The key constraints are as follows:

- Constrained Property Boundaries on all sides
- Existing services predominantly along the North side of Macquarie St
- Avoid impact to two trees of significance
- Other mature trees that might have community significance
- Heritage wall on the corner of Davey St and the Southern Outlet
- Intersection footprints and design vehicles
- Restricted site distances
- Footpaths on both sides of road



Figure 4: Site Constraints



3. Design Criteria

The concept options were developed based on the design criteria outlined below.

The design speeds of 50km/h and 80km/h have been adopted with departures where appropriate.

- Lane widths:
 - 3.5m traffic lane widths with curve widening (desirable)
 - 3.7m to 4.0m bus lane with curve widening (below desirable 4.5m for new road)
- Pedestrian Paths:
 - 1.8m desirable minimum
 - 1.2m minimum
- Sight distance:
 - Existing issues with horizontal sight distance and cut/retaining walls on inside of curves
 - Improve where possible but typically maintain like-for-like

The following design and check vehicles have been adopted for the options:

- The Design Vehicle for the T3 lane is a 12.5m rigid bus, the design vehicle for the second most lane from the left is a 12.5m rigid truck, the other two lanes to the right are designed for 8.8m service vehicles
- The Check Vehicle is a 19m Semi Trailer

4. Concept Design Options

Preliminary concept sketches were developed and presented during a design workshop held with the Department on 3 February 2021. The options considered as part of the workshop are outlined below.

4.1 Southern Outlet to Davey Street Intersection



Figure 5: Intersection approach

This section is the approach to the intersections. The key consideration at this location is the impact on the vegetation to the West of the Southern outlet as the new transit lane will require the removal of trees. However, widening on the other side and shifting the median is considered less desirable. The impact to the trees could be reduced in future stages by reducing lane widths and the construction of a retaining wall. Currently, no retaining walls are proposed.

The works are shown indicatively in the following typical sections. The existing cross-section is shown at the top of Figure 5 with the proposed changes beneath. A 4.0m lane is proposed for the outside lane with 3.5m wide general lanes.



Figure 6: Existing and proposed cross-sections on approach

This approach was accepted as an outcome of the workshop.

4.2 Intersection Layout Concept Options

Two options (Option 1 and Option 2) described below were presented to the Department for their feedback. The outcome of this meeting was that a combination of both Option 1 and Option 2 was preferred which lead to the development of Option 3.

4.2.1 Option 1: Acquisition Both Sides. Retain slip lane with minimal acquisition on all sides

The option to retain the slip lane results in a larger intersection footprint however provides traffic operation benefits to the left turn lanes. This concept was presented to the Department with the following outcomes:

- Impact significant tree (unacceptable)
- Impact to heritage wall (unacceptable)
- Require significant acquisition along west side (undesirable)
- Short left turn stand-up lane, traffic modelling impact unknown
- Narrow pedestrian refuge at Davey Street intersection in island (undesirable/unacceptable)

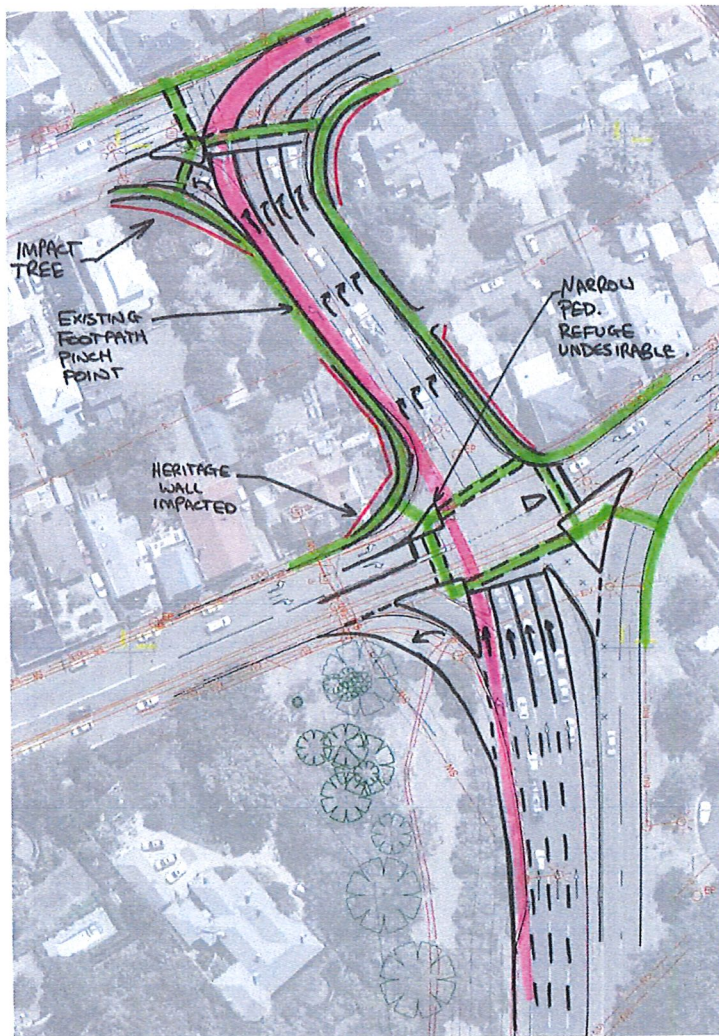


Figure 7: Option 1

The Department advised that this option would result in too much acquisition and impact to a significant tree and is therefore unacceptable. However, the left turn slip lane at Macquarie Street is required from a traffic perspective.

4.2.2 Option 2: Acquisition East Side. Replace Slip Lane with Stand Up Lane

Option 2 provided a similar solution with a smaller footprint. This concept was presented to the Department with the following outcomes:

- Promotes the use of the Eastern footpath
- Heritage wall is not impacted
- Acquisition on the Eastern side only
- Maintains but doesn't worsen existing Western footpath pinch
- Left turn slip lane on Macquarie Street is replaced with a stand-up lane. (unacceptable)

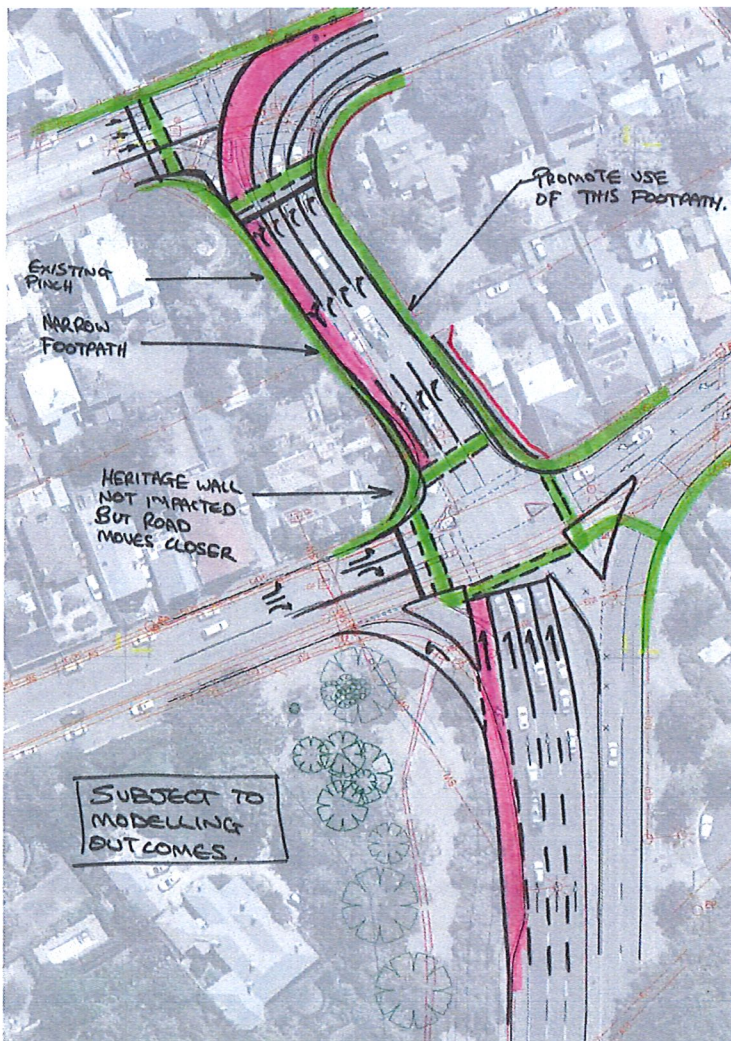


Figure 8: Option 2

The Department advised that this option at Davey Street is acceptable, however the removal of the left turn slip lane at Macquarie Street is unacceptable.

4.2.3 Option 3: Significant Acquisition East Side. Combined Slip Lane/Stand Up Lane

Following the workshop the recommended option was developed.

This option is a combination of Option 1 and Option 2 with more significant widening to the east side. The additional acquisition is required to create space for the allowance of the left turn slip lane at Macquarie Street. This option:

- Removes slip lane at Davey Street intersection
- Retains slip lane at Macquarie Street intersection
- Heritage wall is not impacted
- More significant acquisition on the Eastern side
- Retaining wall on the Eastern Side

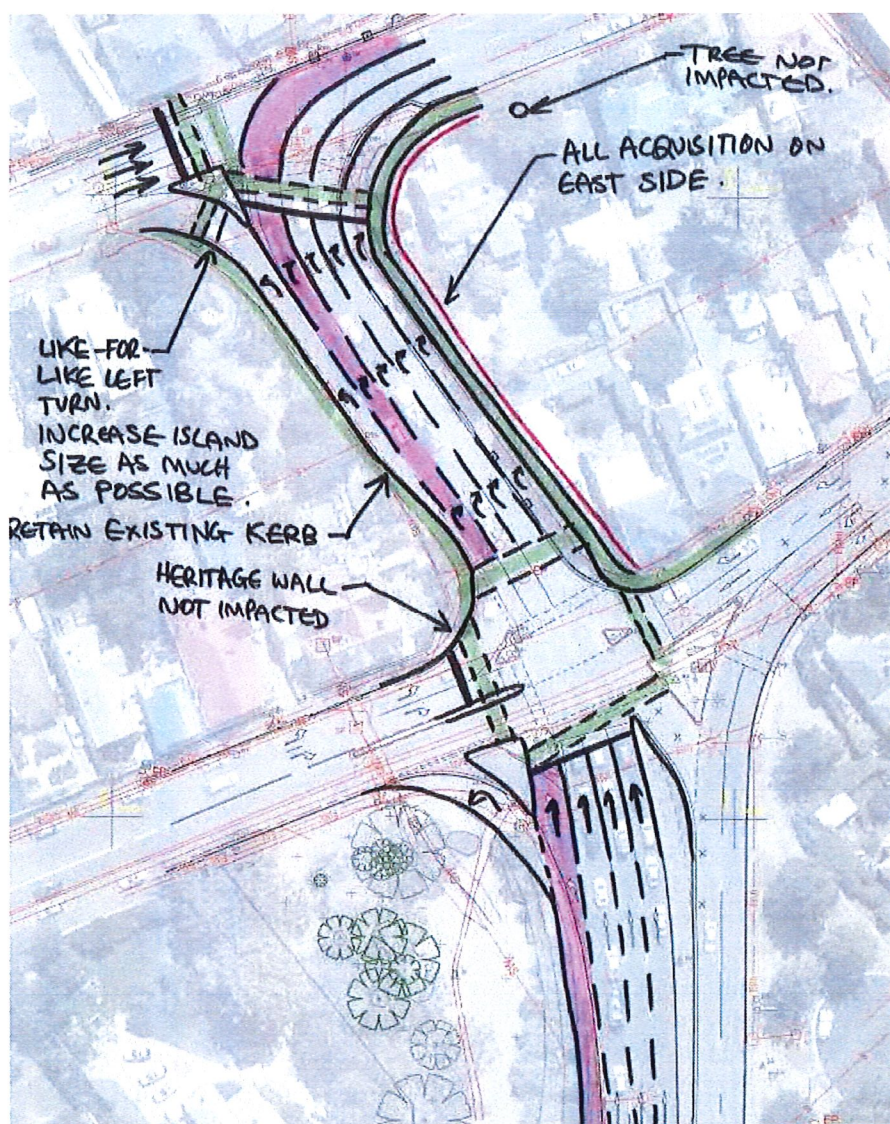


Figure 9: Option 3

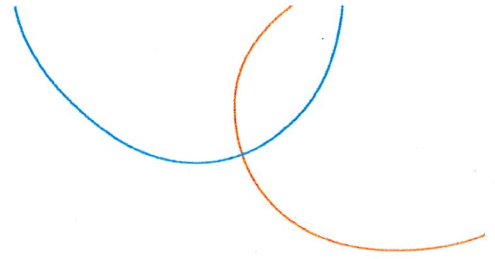
This option was accepted by the Department.

5. Preferred option

The preferred option was progressed from concept sketches to a 2D Concept Design as shown below and in Appendix A of this report.



Figure 10: Preferred option



6. Heritage assessment

CHMA Pty Ltd (CHMA) undertook a desktop heritage assessment for the project area, including both Aboriginal and historic heritage. The complete desktop assessment is included at Appendix B.

6.1 Aboriginal Heritage

A search of the Aboriginal Heritage Area identified a single registered site within an approximate 1km radius of the study area corridor. This is classified as an isolated object as is located approximately 600m to the west of the study area. As the study area is within an area which has already been substantially disturbed CHMA assessed that there is low to very low potential for undetected Aboriginal heritage sites to occur within the works footprint.

6.2 Historic Heritage

The historic heritage assessment, based on the previous report by Praxis Environment for the Hobart Transport Vision Southern Project identified heritage areas, features and places concentrated around the intersection of the Southern Outlet and Davey and Macquarie Streets.

The report identifies that while the Concept Design largely avoids the boundaries of the listed heritage places, there may be some impacts on 326 Macquarie St (corner of the Southern Outlet and Macquarie St). Further there may be minor works in a Place of Archaeological Potential and possible impact on two significant trees.

The Hobart Interim Planning Scheme Tables 13.1 (Heritage Places and E13.2 (Heritage Precincts) provide exemptions for permits for:

minor upgrades by or on behalf of the State government, a Council, or a statutory authority or a corporation all the shares of which are held by or on behalf of the State or by a statutory authority, of infrastructure such as roads, rail lines, footpaths, cycle paths, drains, sewers, power lines and pipelines including:

minor widening or narrowing of existing carriageways; or making,

placing or upgrading kerbs, gutters, footpaths, roadsides, traffic control devices; and

markings, street lighting and landscaping, except where any of those elements are specifically part of the General Description column in Table E13.1;

Further under Table E13.4 (Places of Archaeological Potential) there are exemptions for:

(y) maintenance and repair by or on behalf of the State Government, a Council, a statutory authority, or a corporation all the shares of which are held by or on behalf of the State or by a statutory authority, of infrastructure such as roads, rail lines, footpaths, cycle paths, drains, sewers, power lines and pipelines, where like for like materials and finishes are used for reinstatement.

Given the historic heritage impacts were assessed as minor, feedback was sought from Hobart City Council on the application of these clauses to the Concept Design and the feedback is included in Section 8, Development assessment.

7. Environmental assessment

The Department completed a desktop Environment and Development Approvals (EDA) Report for the project. The complete report is included at Appendix C. The assessment found that it was unlikely that either threatened flora or fauna species would be found, with only a low probability on the Eastern side of the Southern Outlet, which is not impacted by the works.

While the EDA report did identify *Eucalyptus globulus* forest, which is home of the endangered swift parrot, this was located between the Southern Outlet and Proctors Road north of Olinda Grove, outside of the scope of the Concept Design area. On this basis no referrals under the *EPBC Act* are required.

The EDA notes that the mature trees between Lynton Avenue and Davey Street along the Southern Outlet may be of local interest. Some of these may be Golden weeping willows which is a declared weed and should be assessed by a



qualified botanist in the next stage of design to determine any removal requirements.

8. Development assessment

Under Interim Planning Directive No. 4 (Exemptions etc.), the Minister for Planning brought forward certain planning exemptions from the State Planning Provisions. The Directive became effective on 22 February 2021 and now applies to all of Tasmania's interim planning scheme's, including the Hobart Interim Planning Scheme 2015.

The Directive includes Clause 5.2.4, which provides exemptions for road upgrades to occur without requiring a planning permit, as follows:

Maintenance and repair of roads and upgrading by or on behalf of the road authority which may extend up to 3m outside the road reserve including:

- a) *widening or narrowing of existing carriageways;*
- b) *making, placing or upgrading kerbs, gutters, footpaths, shoulders, roadsides, traffic control devices, line markings, street lighting, safety barriers, signs, fencing and landscaping, unless a code relating to historic heritage values or significant trees applies and requires a permit for the use or development; or*
- c) *repair of bridges, or replacement of bridges of similar size in the same or adjacent location.*

The Directive also includes Clause 5.2.8, which provides for exemptions for upgrades of linear and minor utilities and infrastructure, as follows:

If minor upgrades by or on behalf of the State government, a council, or a statutory authority or a corporation all the shares of which are held by or on behalf of the State or by a statutory authority, of infrastructure (excluding stormwater infrastructure under subclause 5.2.2 and road works under subclause 5.2.3) such as roads, rail lines, footpaths, cycle paths, drains, sewers, power lines and pipelines including:

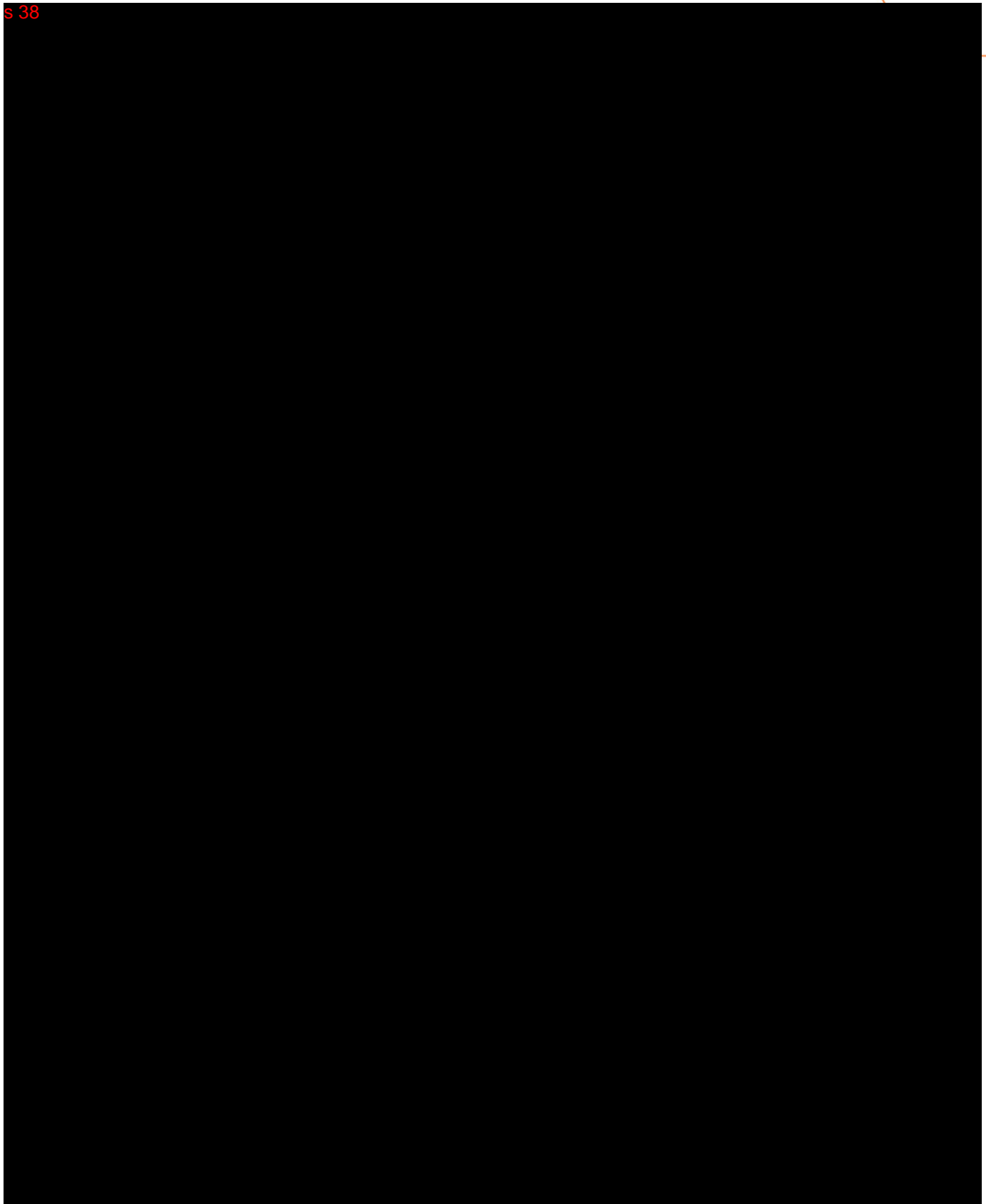
- a) *minor widening or narrowing of existing carriageways; or*
- b) *making, placing or upgrading kerbs, gutters, footpaths, roadsides, traffic control devices and markings, street lighting and landscaping,*

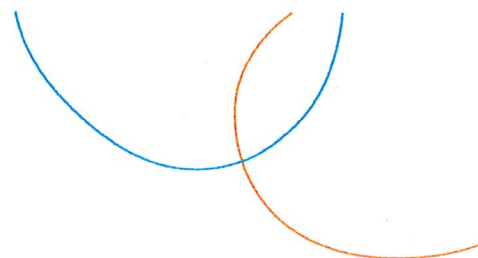
unless the following apply:

- c) *a code in this planning scheme which lists a heritage place or precinct and requires a permit for the use or development that is to be undertaken; or*
- d) *the removal of any threatened vegetation.*

Following discussions with Hobart City Council regarding the enclosed concept design plans for the above project and the exemptions provided by Clause 5.2.4 and 5.2.8, I can confirm that Council will likely consider that:

- Sheets 02, 03 and 08 require a planning permit, due to the proposed works affecting certain heritage places and significant trees; and
- Sheets 01 and 04 will be exempt from a planning permit under Clauses 5.2.4 and 5.2.8 of Interim Planning Directive No. 4





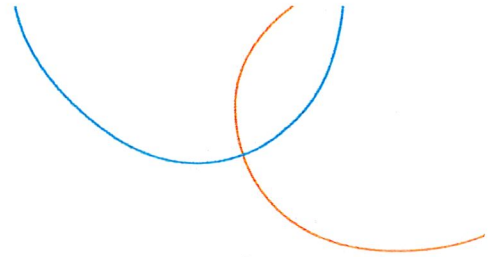
10. Conclusion

The additional of a fourth lane, providing a separate bus lane from the Southern Outlet turning onto Macquarie Street is feasible with some impacts to adjacent properties, and removal of some trees.

Any subsequent stages of design will need to address the three-dimensional design, fully investigate utilities in the project area, assess access to adjacent properties and comply with the planning process. Based on initial feedback from Hobart City Council a planning application will be required before works are able to commence.

Appendix A

Concept Design



DRAWING SCHEDULE - HOBART VISION PROJECT

PROJECT DRAWING NO	DRAWING TITLE
GENERAL	
P210010-S-CIV-DRG-0002 P210010-S-CIV-DRG-0003	DRAWING SCHEDULE AND NOTES ALIGNMENT KEY PLAN
TYPICAL SECTIONS	
P210010-S-CIV-DRG-0101 P210010-S-CIV-DRG-0102	TYPICAL SECTIONS - SHEET 1 TYPICAL SECTIONS - SHEET 2
ALIGNMENT PLANS	
P210010-S-CIV-DRG-1001 P210010-S-CIV-DRG-1002 P210010-S-CIV-DRG-1003 P210010-S-CIV-DRG-1004	ALIGNMENT PLANS - SHEET 1 ALIGNMENT PLANS - SHEET 2 ALIGNMENT PLANS - SHEET 3 ALIGNMENT PLANS - SHEET 4
TURNING PATHS	
P210010-S-CIV-SKT-1003 P210010-S-CIV-SKT-1004	TURNING PATH - SHEET 1 TURNING PATH - SHEET 2

GENERAL NOTES

- 1THIS IS A CONCEPT DESIGN AND DOES NOT SHOW ALL WORKS THAT WOULD BE REQUIRED THESE WORKS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING
- LIGHTING

- UTILITIES

- TRAFFIC SIGNAL WORKS

- PAVEMENT REHAB/CONSTRUCTION

- ROAD FURNITURE

- LANDSCAPING

- DRAINAGE

- SIGNS AND LINEMARKING INCLUDING ITS

- WORKS TO PRIVATE PROPERTY

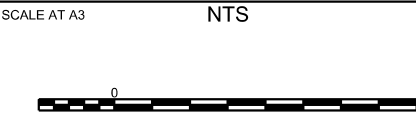
- NOISE MITIGATION

- TEMPORARY AND STAGING WORKS

SET-OUT NOTES

- 1ALL COORDINATES ARE EXPRESSED TO MGA ZONE 55 AND REDUCED LEVEL ARE AHD
- 2ALL LANE DIMENSIONS SHOWN ARE TO LINE OF KERB OR FB BARRIER

	DESCRIPTION	DRAWN	DESIGNED	REVIEWED	APPROVED	DATE
B	CONCEPT DESIGN					LC 09/03/21
A	CONCEPT DESIGN					01/03/21



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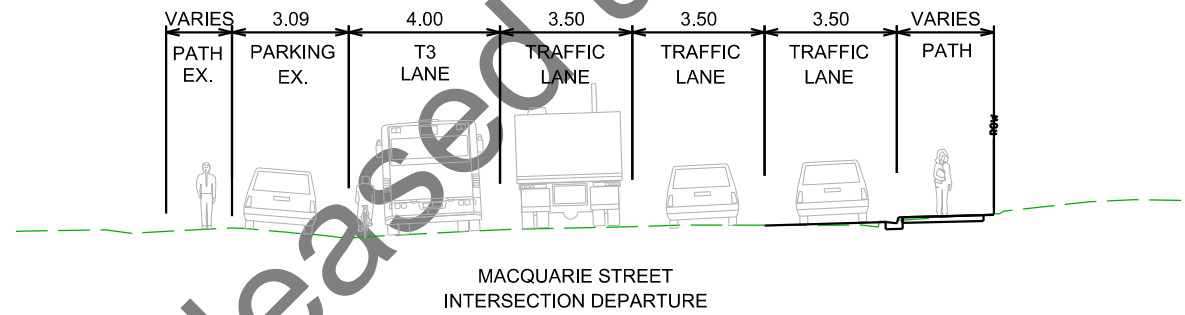
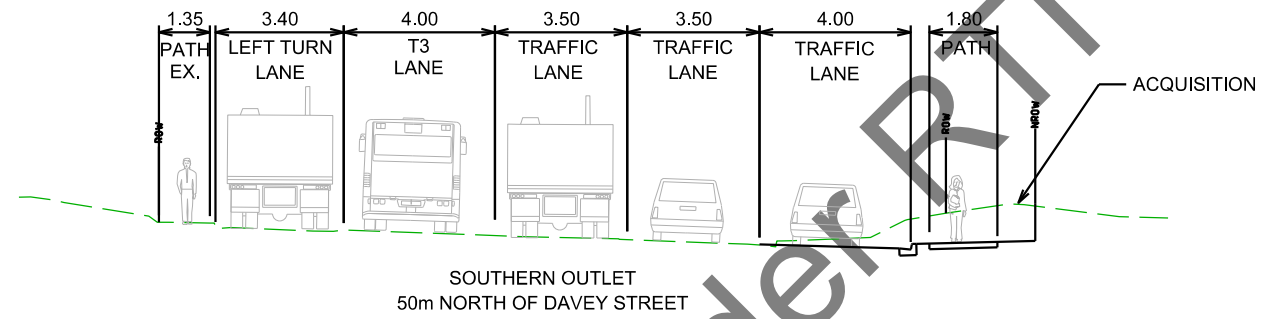


PROJECT
HOBART SOUTHERN PROJECTS DAVEY/MACQUARIE FEASIBILITY
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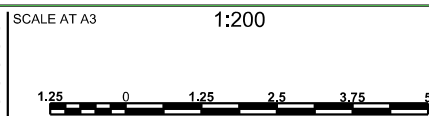
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DRAWING SCHEDULE	01
DRAWING No.	REV
P210010-S-CIV-DRG-00002	B

FILE NAME:

DATE:



DESCRIPTION	DRAWN	DESIGNED	REVIEWED	APPROVED	DATE
A	CONCEPT DESIGN				26/02/21



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PROJECT
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STATUS
CONCEPT

DRAWING TITLE
CROSS SECTION PLAN
SHEET 2

DRAWING No.
P210010-S-CIV-DRG-XS-1002

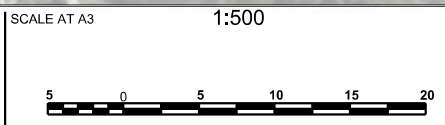
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04

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A



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DATE:

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A	DRAFT FEASIBILITY					19/02/21



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PROJECT

HOBART SOUTHERN PROJECTS
DAVEY/MACQUARIE FEASIBILITY

STATUS

CONCEPT

DRAWING TITLE

HORIZONTAL ALIGNMENT PLAN
SHEET 1

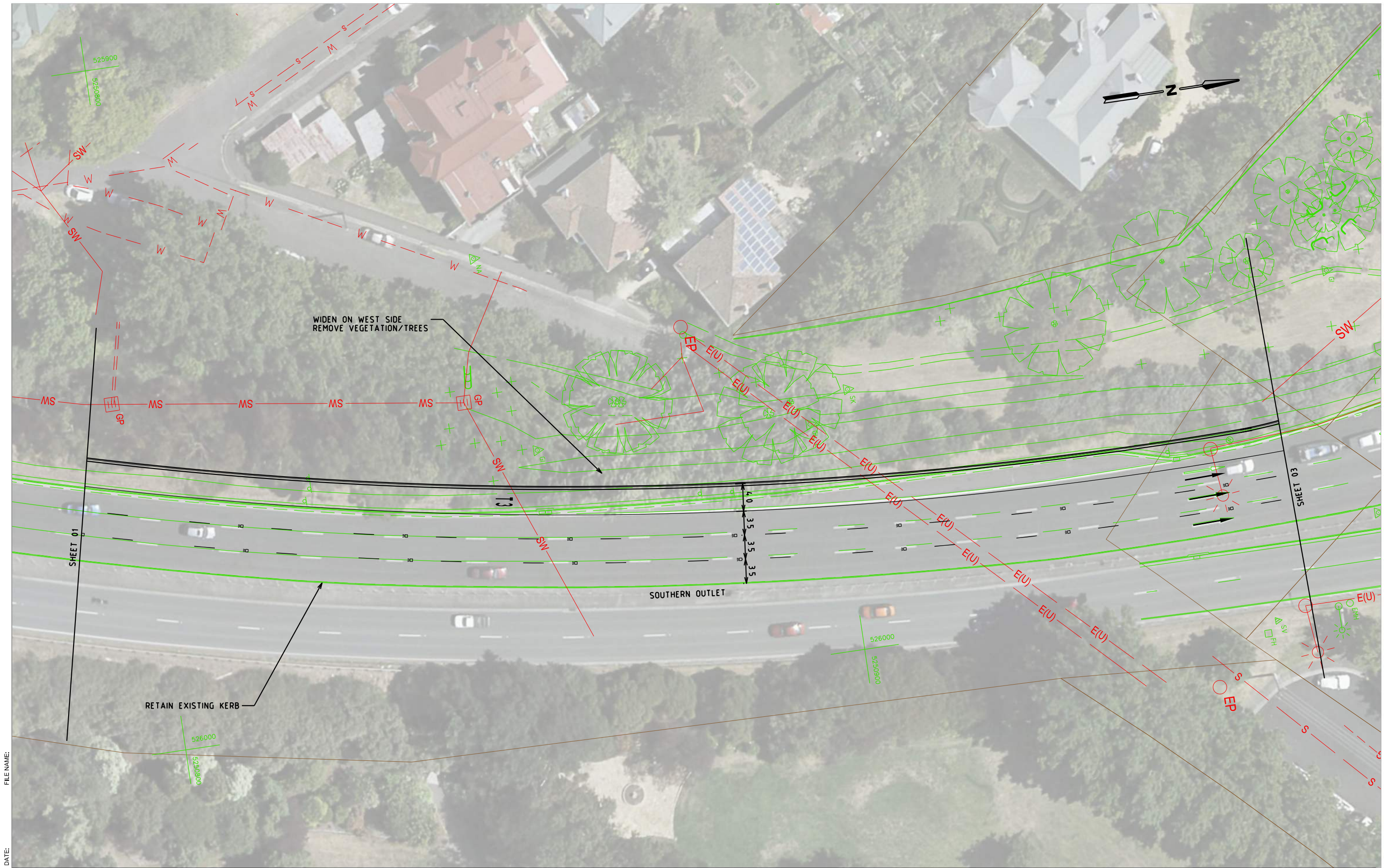
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SHEET

01

REV

B



FILE NAME:

DATE:

	DESCRIPTION	DRAWN	DESIGNED	REVIEWED	APPROVED	DATE
B	CONCEPT DESIGN					01/03/21
A	DRAFT FEASIBILITY					19/02/21

SCALE AT A3

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PROJECT

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DAVEY/MACQUARIE FEASIBILITY

STATUS

CONCEPT

DRAWING TITLE

HORIZONTAL ALIGNMENT PLAN
SHEET 2

DRAWING No.

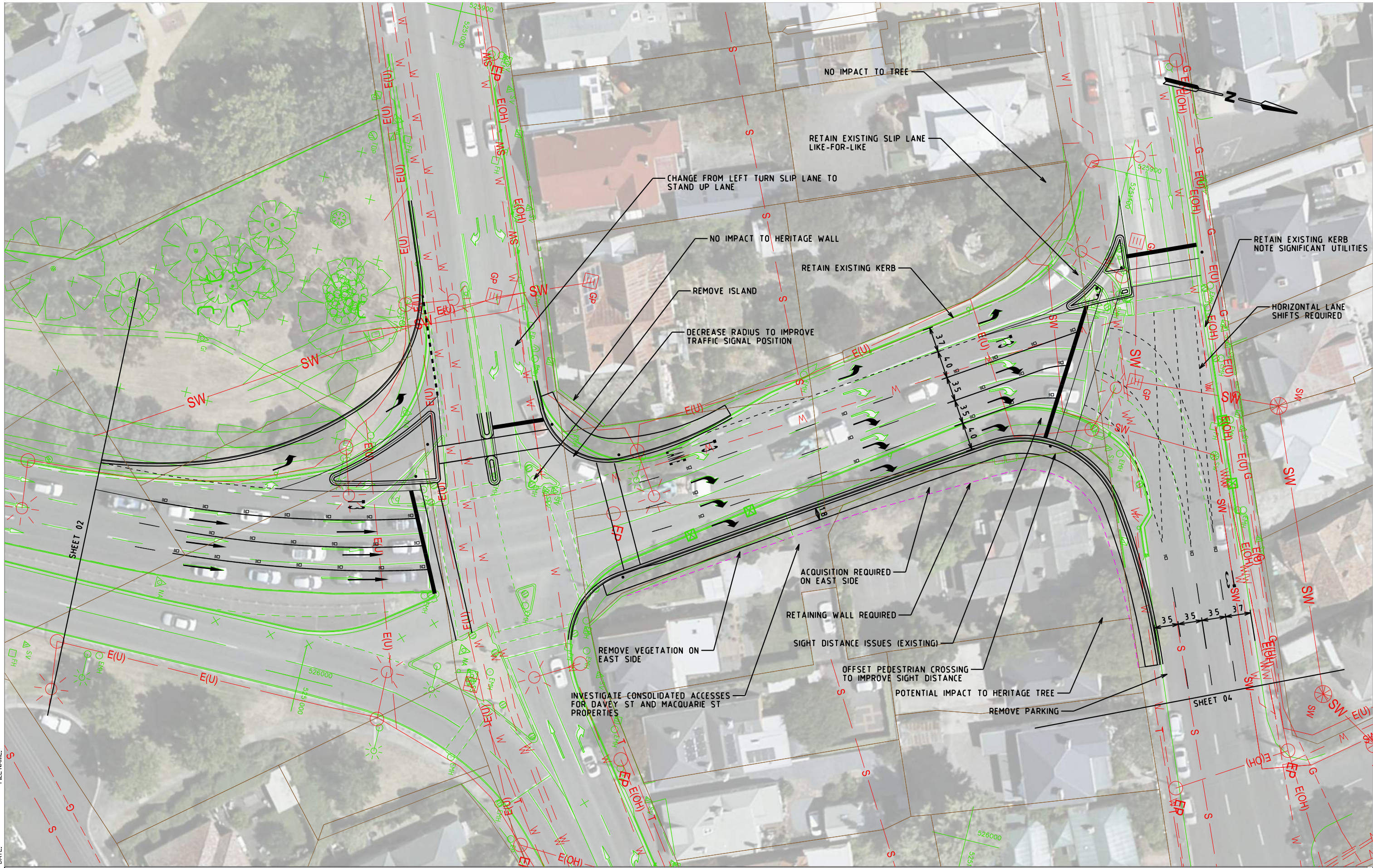
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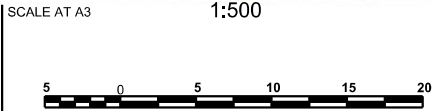
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REV

B



DESCRIPTION	DRAWN	DESIGNED	REVIEWED	APPROVED	DATE
B CONCEPT DESIGN					01/03/21
A DRAFT FEASIBILITY					19/02/21



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PROJECT

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STATUS

CONCEPT

DRAWING TITLE

HORIZONTAL ALIGNMENT PLAN
SHEET 3

DRAWING No.

P210010-S-CIV-DRG-1003

SHEET

03

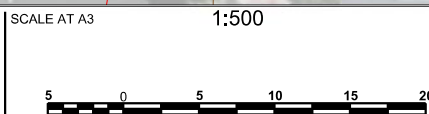
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FILE NAME:
DATE:

DESCRIPTION	DRAWN	DESIGNED	REVIEWED	APPROVED	DATE
C CONCEPT DESIGN					05/03/21
B CONCEPT DESIGN					01/03/21
A DRAFT FEASIBILITY					19/02/21



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PROJECT
**HOBART SOUTHERN PROJECTS
DAVEY/MACQUARIE FEASIBILITY**

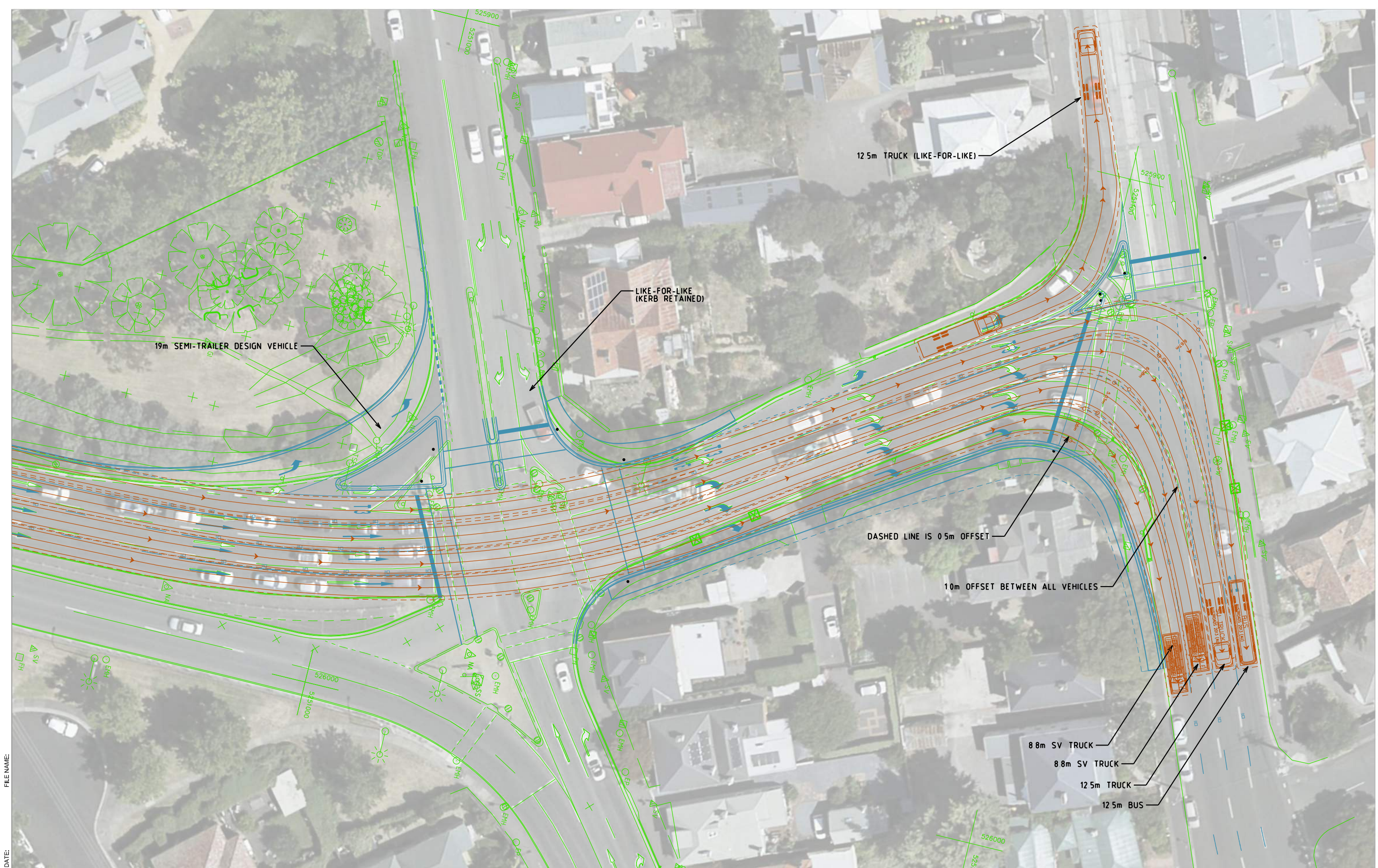
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DRAWING TITLE
**HORIZONTAL ALIGNMENT PLAN
SHEET 4**

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SHEET
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FILE NAME:
DATE:

	DESCRIPTION	DRAWN	DESIGNED	REVIEWED	APPROVED	DATE
B	CONCEPT DESIGN					01/03/21
A	DRAFT FEASIBILITY					19/02/21



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CLIENT
DSG

Tasmanian Government

PROJECT
**HOBERT SOUTHERN PROJECTS
DAVEY/MACQUARIE FEASIBILITY**

STATUS
CONCEPT

DRAWING TITLE
**TURNING PATH LAYOUT
SHEET 1**

DRAWING No.
P210010-S-CIV-SKT-1003

SHEET
08

REV
B

Appendix B

Desktop Heritage Assessment



Southern Outlet – Additional Slip Lane
Macquarie and Davey Street Feasibility
Study

Aboriginal and Historic Heritage Desktop
Review

AUTHOR: s 36

CLIENT: Pitt and Sherry

25.2.2021.

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CULTURAL
HERITAGE
MANAGEMENT
AUSTRALIA

1.0 Project Background

The Department of State Growth (State Growth) requires a feasibility analysis to determine the feasibility of installing an additional traffic lane along the Southern Outlet and Macquarie Street between Davey Street and Antill Street, including nominally 200m upstream of Davey Street. Figure 1 shows the extent of the study area corridor that is the focus of the feasibility analysis. CHMA Pty Ltd has been engaged by Pitt and Sherry (on behalf of State Growth) to undertake a desktop heritage review for this project, in order to identify any potential heritage constraints. This report presents the findings of the desktop heritage review.

2.0 Aboriginal Heritage Desktop Review

2.1 Results of the AHR Search

As part of the desktop heritage review, a search was carried out of Aboriginal Heritage Register (AHR) to determine the extent of registered Aboriginal heritage sites within and in the general vicinity of the study area corridor. The search results show that there is just one registered site that is located within an approximate 1km radius of the study area corridor (search results provided on the 2-2-2021 by Shannon Mansell from AHT). The site is AH6839, which is classified as an Isolated artefact. The grid reference provided on the AHR places the site approximately 600m to the west of the study area corridor. Table 1 provides the summary details for site AH6839, with Figure 2 showing the location of the site.

The proposed development footprint for the study area corridor is predominantly confined to within existing highly disturbed road corridor reserves. It is therefore assessed that there is a low to very low potential for undetected Aboriginal heritage sites to be present within the works footprint.

Table 1: Summary details for the registered Aboriginal site located within a 1km radius of the study area corridor (Based on information generated from the AHR search dated 2-2-2021)

AH Number	Site Type	Locality	Grid Reference (GDA94) Easting	Grid Reference (GDA94) Northing
6839	Isolated Artefact	South Hobart	525352	5251082

2.2 Management Recommendations

The AHR search results show that there are no registered Aboriginal heritage sites that are located within or in the immediate vicinity of the study area corridor. As such, the proposed design will have no impacts on any known Aboriginal heritage values. It is recommended that as part of the planning phase, official advice should be sought from Aboriginal Heritage Tasmania (AHT) regarding the requirement for a detailed Aboriginal heritage assessment.



Southern Outlet – Additional Slip Lane Macquarie and Davey Street Feasibility Study
Aboriginal and Historic Heritage Desktop Review CHMA 2021

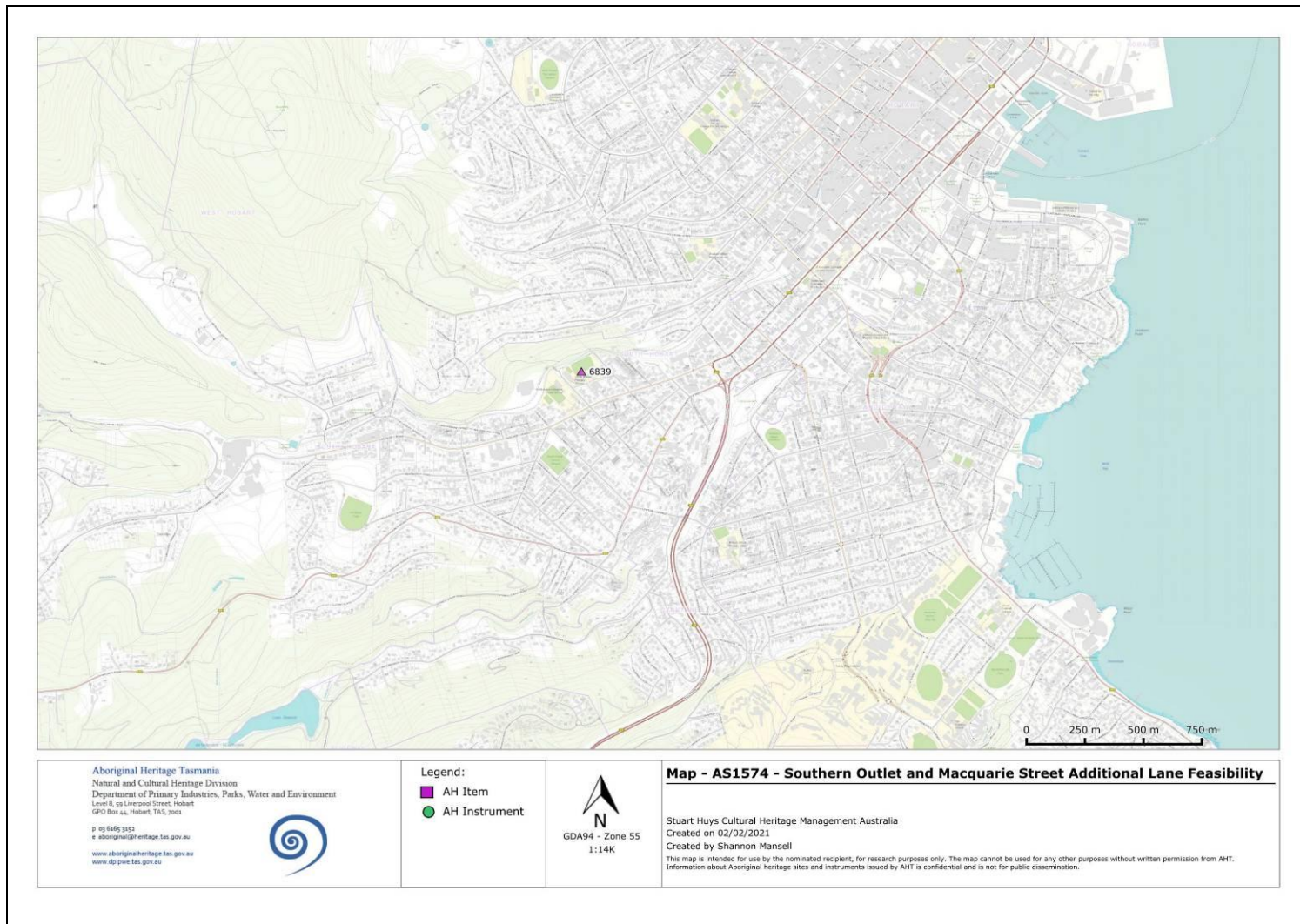


Figure 2: Topographic map showing the location of registered Aboriginal site AH6839 (Based on information generated from the AHR search dated 2-2-2021)

3.0 Historic Heritage Desktop Review

3.1 Results of the Historic Heritage Register Review

Praxis Environment (Praxis 2020) was engaged to prepare a Heritage Management Strategy for the Hobart Transport Vision Southern Project. The management strategy incorporated the current study area corridor. The report prepared by Praxis (2020) has been used as the primary source document for this current desktop historic heritage review.

Table 2 provides a summary overview of the key heritage issues that have been identified through the desktop heritage review. Figure 3 shows the heritage areas, features and places that are discussed in Table 2. It should be noted that these heritage areas, features and places are all concentrated around the section of the study area corridor where the Southern Outlet intersects with Macquarie and Davey Streets.

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Table 2: Summary of Heritage Issues and Management Advice

Heritage Code and Issue	Planning Requirements	Management Advice
<p><i>Hobart Interim Planning Scheme Table E.13.1 (Heritage Places).</i></p> <p>There are a number of heritage places included on the Heritage Places schedule of the scheme along both Macquarie and Davey Streets, in the immediate vicinity of the study area corridor.</p> <p>These places are denoted with Blue dots in Figure 3.</p>	<p>As per Part E.13.4, within a Heritage Place, Heritage Precinct or Cultural Landscape Precinct, no permit is required for <i>minor upgrades by or on behalf of the State government, a Council, or a statutory authority or a corporation all the shares of which are held by or on behalf of the State or by a statutory authority, of infrastructure such as roads, rail lines, footpaths, cycle paths, drains, sewers, power lines and pipelines including: minor widening or narrowing of existing carriageways; or making, placing or upgrading kerbs, gutters, footpaths, roadsides, traffic control devices; and markings, street lighting and landscaping, except where any of those elements are specifically part of the General Description column in Table E13.1;</i></p>	<p>The proposed road works footprint appears to largely avoid the boundaries of the listed heritage places. The possible exception is the property on the corner of the Southern Outlet and Macquarie Street (326 Macquarie St).</p> <p>If any major road works (i.e. not included definition provided) are proposed to be undertaken within the boundary of this heritage place, Part E.13.7 (Development Standards for Heritage Places) may be applicable.</p> <p>Seek advice from the Hobart City Council regarding further requirements.</p>
<p><i>Hobart Interim Planning Scheme Table E.13.2 (Heritage Precincts)</i></p> <p>Part of the study area corridor is included in Heritage Precinct H4 (Davey Street from Antill Street to the Southern Outlet) and Heritage Precinct SH2 (from 353 -357 Macquarie Street).</p> <p>See Purple shaded area in Figure 3</p>	<p>As per Part E.13.4, within a Heritage Place, Heritage Precinct or Cultural Landscape Precinct, no permit is required for <i>(I) minor upgrades by or on behalf of the State government, a Council, or a statutory authority or a corporation all the shares of which are held by or on behalf of the State or by a statutory authority, of infrastructure such as roads, rail lines, footpaths, cycle paths, drains, sewers, power lines and pipelines including: minor widening or narrowing of existing carriageways; or making, placing or upgrading kerbs, gutters, footpaths, roadsides, traffic control devices; and markings, street lighting and landscaping, except where any of those elements are specifically part of the General Description column in Table E13.1;</i></p>	<p>The proposed road works that occur within the boundaries of the Heritage Precincts appear to be largely be minor in scale (as per the de The possible exception is the property on the corner of the Southern Outlet and Macquarie Street (326 Macquarie St).</p> <p>If any major road works (i.e. not included definition provided) are proposed to be undertaken within the boundary of this heritage place, Part E.13.8 (Development Standards for Heritage Precincts) may be applicable.</p>

Southern Outlet – Additional Slip Lane Macquarie and Davey Street Feasibility Study
Aboriginal and Historic Heritage Desktop Review CHMA 2021

Heritage Code and Issue	Planning Requirements	Management Advice
		Seek advice from the Hobart City Council regarding further requirements
<p><i>Hobart Interim Planning Scheme Table E.13.4 (Places of Archaeological Potential)</i> A small portion of the study area corridor is situated within the area defined by Table E.13.4 as a Place of Archaeological Potential. See Yellow shaded area in Figure 3.</p>	<p>Under the General exemptions for E.13.0 (Historic Heritage Code) excavation in a Place of Archaeological Potential is exempt if: <i>(y) maintenance and repair by or on behalf of the State Government, a Council, a statutory authority, or a corporation all the shares of which are held by or on behalf of the State or by a statutory authority, of infrastructure such as roads, rail lines, footpaths, cycle paths, drains, sewers, power lines and pipelines, where like for like materials and finishes are used for reinstatement.</i></p>	<p>The proposed road works to be undertaken within the bounds of the Place of Archaeological Potential appears to minor in extent and is likely to meet the exemption requirements.</p> <p>Seek advice from the Hobart City Council as to whether works are exempt, or if a Statement of Archaeological Potential is required.</p>
<p><i>Hobart Interim Planning Scheme Table E.24.1 (Significant Trees List)</i> There are two listings for trees on properties adjacent to the study area corridor, these being an English Oak at The Hermitage (251 Davey Street - Macquarie Street and a Common Lime at 326 Macquarie Street. These two trees are denoted with Green dots in Figure 3.</p>	<p>If any works are proposed which may impact these trees, then the provisions of E.24.6 will need to be addressed.</p>	<p>The proposed road works appear to avoid direct impact on these two trees. However, there is the potential that minor excavation works in the vicinity of 326 Macquarie Street may impact on the root zone of the Common Lime tree.</p> <p>Seek advice from the Hobart City Council regarding the requirement of an assessment by an Arborist.</p>
<p><i>Tasmanian Heritage Register</i> There are a number of heritage places included on the Tasmanian Heritage Register along both Macquarie and Davey Streets, in the immediate vicinity of the study area corridor. These places are denoted with Red dots in Figure 3.</p>	<p>Works to places included in the THR require approval, either through a Certificate of Exemption for works which will have no or negligible impact, or through a discretionary permit for those works which may impact on the significance of the place. Discretionary permit applications are lodged with the relevant local planning authority. On receipt, the application is sent to the Heritage Council, which will firstly decide whether they have an interest in determining the application.</p>	<p>Provided that no works are proposed within any title included on the Tasmanian Heritage Register (i.e. outside the road reserve) then the provisions of the Historic Cultural Heritage Act would not be applicable.</p>

Southern Outlet – Additional Slip Lane Macquarie and Davey Street Feasibility Study
Aboriginal and Historic Heritage Desktop Review CHMA 2021

Heritage Code and Issue	Planning Requirements	Management Advice
		It is possible that the property boundaries of 324 Macquarie Street may be impacted by road works. If this is the case, then seek advice regarding the requirement of a Certificate of Exemption or Discretionary Permit.

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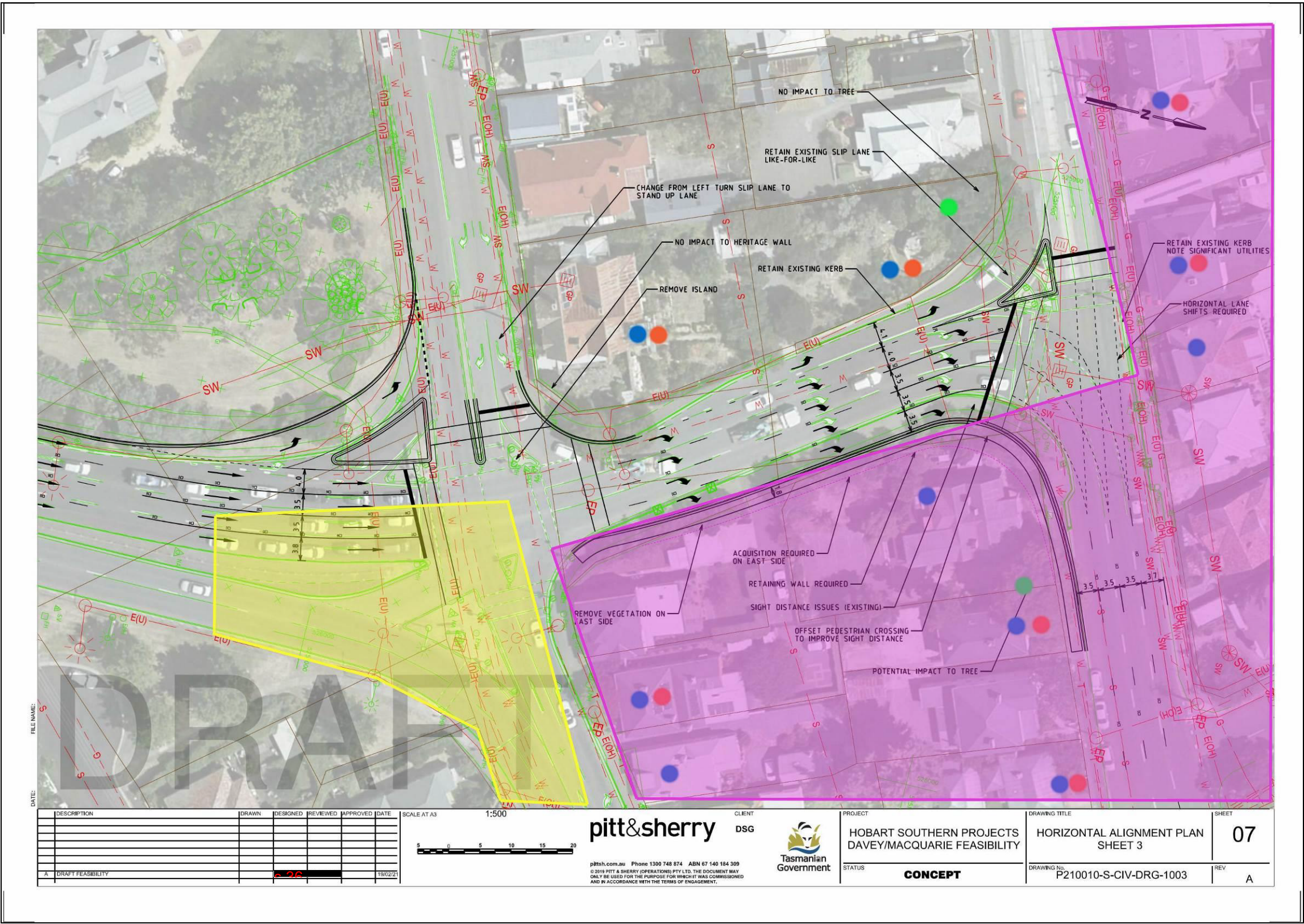


Figure 3: Aerial image showing historic heritage issues identified through the desktop review process

Appendix C

Environment and Development Approvals Report

Hobart Transport Vision – Macquarie / Davey Upgrades and Fifth Lane Southern Outlet

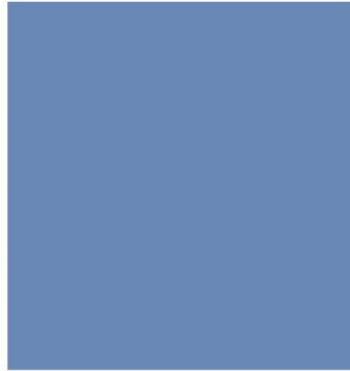
Location: Macquarie Street, Davey Street, Southern Outlet

RM REF: D19/251011

October 2019

Project Report

ENVIRONMENT & DEVELOPMENT APPROVALS



1.0 Project Details

Project Name:	Hobart Transport Vision Southern Roads Projects
Project Number:	TBC
Project Description:	Note final scope is to be determined.
Project Location:	Southern Outlet – Olinda Grove to Davey Street. Davey Street and Macquarie Street from the southern Outlet to Elizabeth Street.
Construction Date	TBC
Project Manager:	s 36
Design Consultant:	WSP
Contractor:	TBC
HPE Records Number:	075458/6

1.0 Area of Investigation

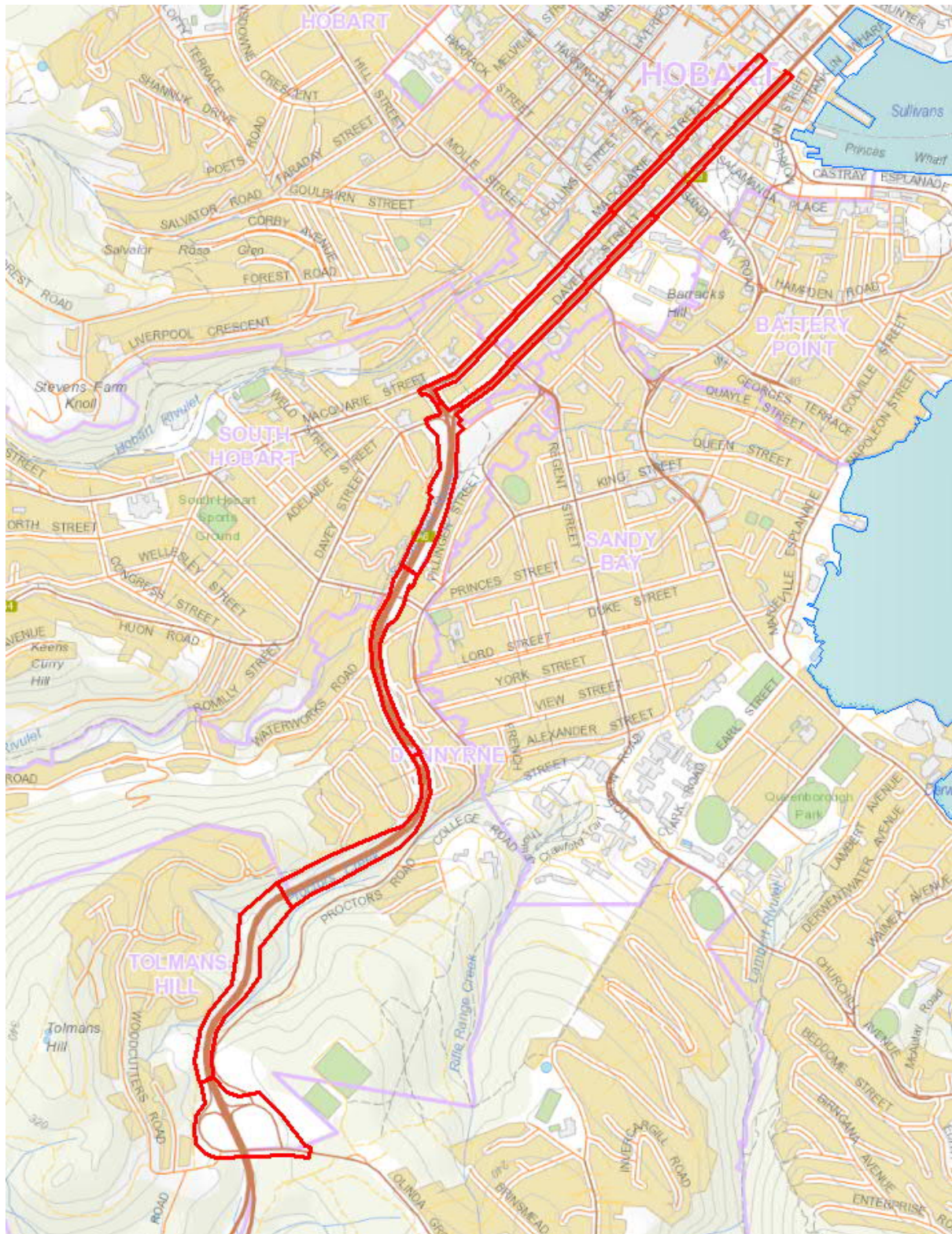


Figure 1 Project Areas

2.0 Project Description

A tender has been advertised for an end-to-end solution for improving traffic flow on the Southern Outlet and into the Hobart CBD. The tender includes a concept design to undertake improvements to Macquarie Streets and Davey Streets to provide for a bus lane / T3 lane between the Southern Outlet and Elizabeth Street and for a concept design for an additional north-bound lane on the Southern Outlet for use as a T3 lane.

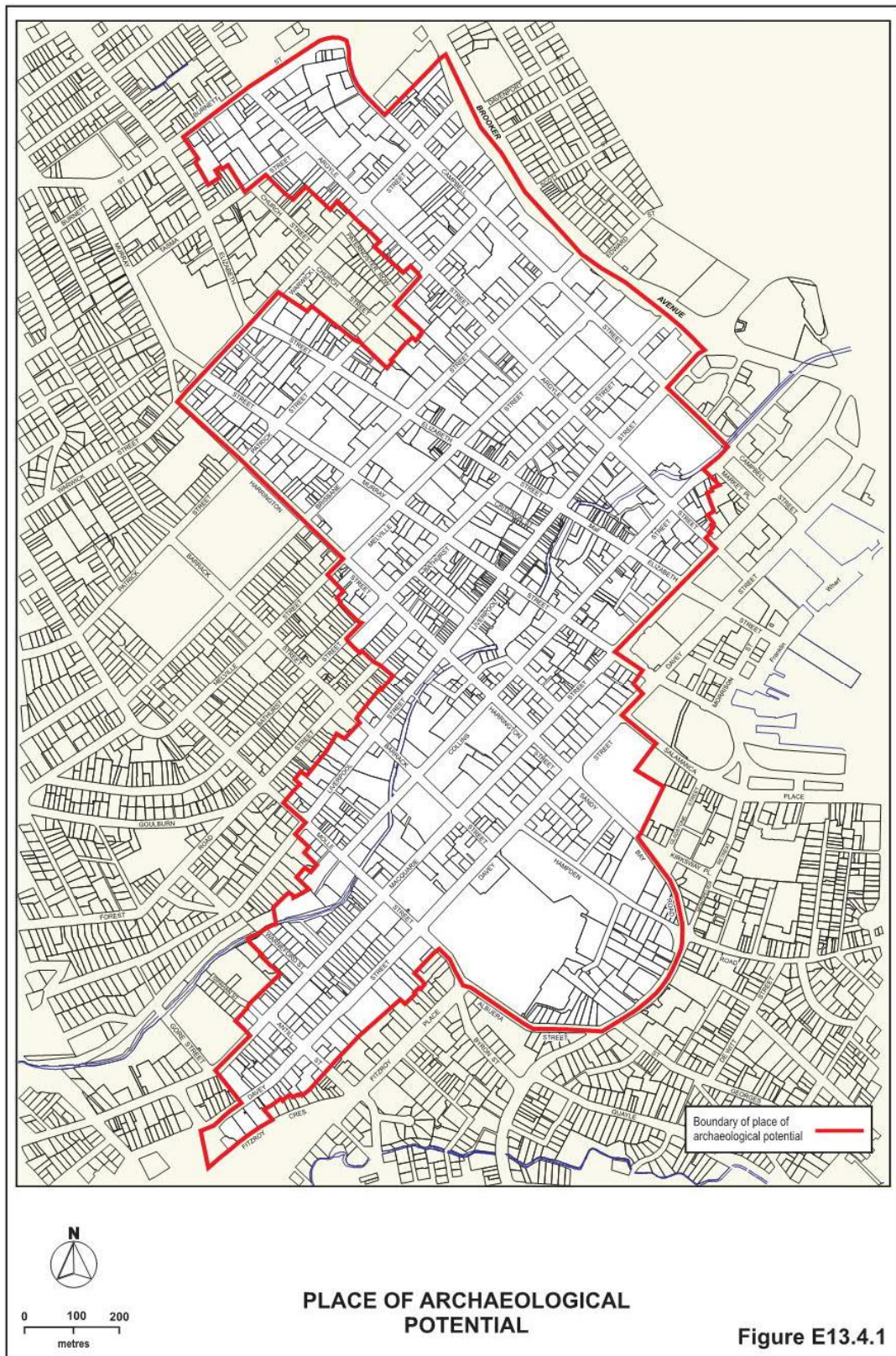
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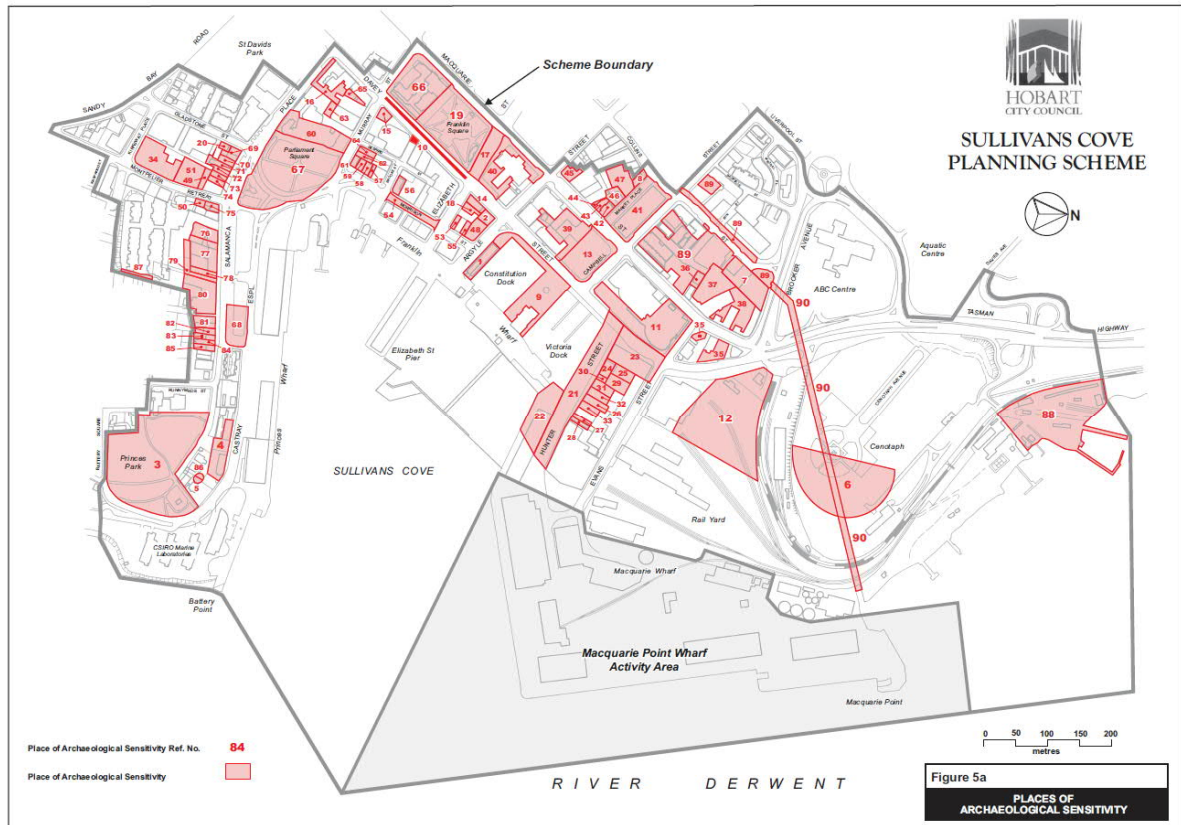
3.0 Assessment Summary

Hobart Transport Vision Southern Roads Projects															
	Summary of Key Issues and Approvals														
Environmental															
Vegetation Communities	<p>Threatened Vegetation Communities – NA</p> <p>There is an area of <i>Eucalyptus globulus</i> (potential swift parrot habitat) is located between the Southern Outlet and Proctors Road north of Olinda Grove – this area is unlikely to be significant impacted.</p> <p>TasVeg 3.0</p> <table border="1"> <thead> <tr> <th>Veg Code/Name</th><th>Veg Group</th></tr> </thead> <tbody> <tr> <td>(DOB) <i>Eucalyptus obliqua</i> dry forest</td><td>Dry eucalypt forest and woodland</td></tr> <tr> <td>(FAG) Agricultural land</td><td>Agricultural, urban and exotic vegetation</td></tr> <tr> <td>(FUM) Extra-urban miscellaneous</td><td>Agricultural, urban and exotic vegetation</td></tr> <tr> <td>(FUR) Urban areas</td><td>Agricultural, urban and exotic vegetation</td></tr> <tr> <td>(NAV) <i>Allocasuarina verticillata</i> forest</td><td>Non eucalypt forest and woodland</td></tr> <tr> <td>(WGL) <i>Eucalyptus globulus</i> wet forest</td><td>Wet eucalypt forest and woodland</td></tr> </tbody> </table>	Veg Code/Name	Veg Group	(DOB) <i>Eucalyptus obliqua</i> dry forest	Dry eucalypt forest and woodland	(FAG) Agricultural land	Agricultural, urban and exotic vegetation	(FUM) Extra-urban miscellaneous	Agricultural, urban and exotic vegetation	(FUR) Urban areas	Agricultural, urban and exotic vegetation	(NAV) <i>Allocasuarina verticillata</i> forest	Non eucalypt forest and woodland	(WGL) <i>Eucalyptus globulus</i> wet forest	Wet eucalypt forest and woodland
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(WGL) <i>Eucalyptus globulus</i> wet forest	Wet eucalypt forest and woodland														
Flora Species	Unlikely – there is low probability that threatened species may be present on the Southern Outlet on the Eastern side.														
Fauna Species	Unlikely – there is low probability that habitat for threatened species may be present in mature trees on the Southern Outlet on the Eastern side. (nesting hollows and foraging trees)														
Weeds & Hygiene	<p>Significant infestations of declared weeds and other introduced species both sides of the Southern Outlet.</p> <p>Weed and Hygiene Management Plans are to be prepared in accordance with 176 for all sites.</p>														
Raptor Nests	NA														
Reserves	NA														
Heritage															
Aboriginal	Survey not required – work may proceed under conditions of an unanticipated discovery plan (RM – D20/225666)														
European	<p>State Government – Almost all buildings on both sides of Davey and Macquarie Streets are heritage listed. The Heritage Council may have an interest in structures placed in front of certain buildings.</p> <p>“The Hermitage”, THR3091, located on the southern side of the Southern Outlet between Davey and Macquarie Streets is a major constraint due the</p>														

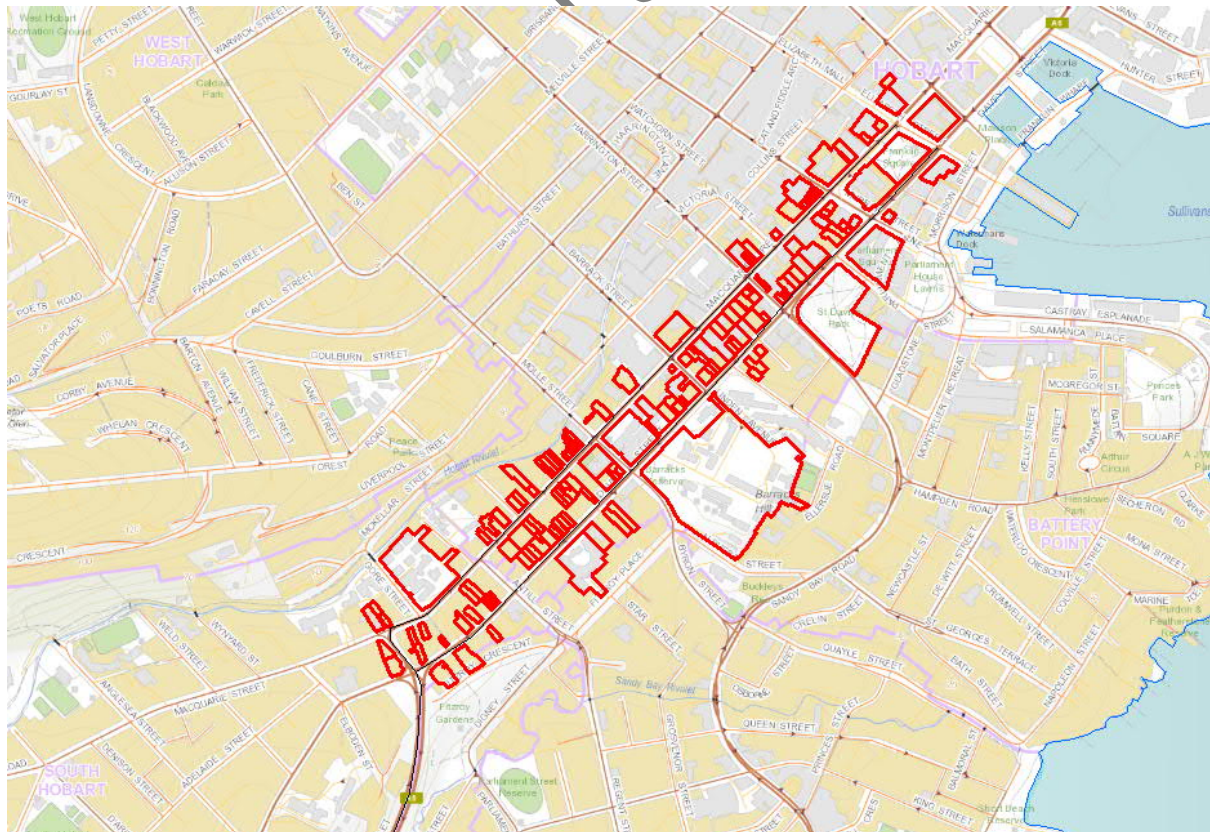
	<p>presence of a sandstone wall on the cadastral boundary .</p> <p>Local Government Heritage Code – Archaeological Potential – majority of Davey and Macquarie Streets (refer to attached planning scheme maps</p> <p>Local Government Significant Tree Register – 2 trees in close proximity to Southern Outlet/Macquarie St junction and a group of trees beside the southern outlet on Fitzroy Place.</p> <p>Possible local interest - Between Lynton Avenue and Davey Street either side of the Southern Outlet there is a large number of mature trees both exotic and Australian origin. There may be local interest in the protection of some of these. Note many will be Golden weeping willows which is a declared weed, not the true weeping willow which is not declared. Should this become an issue – it is recommended that the trees are assessed by a suitably qualified botanist (eg – Baker –UTAS)</p>
Planning	
<u>Project name</u>	<p><i>Subject to Hobart Interim Planning Scheme 2013 and Sullivans Cove Planning Scheme 2018</i></p> <p>Relevant Zones within 50m of Road centreline:</p> <p>28.0 Utilities</p> <p>Adjoining Land - 22.0 Central Business, 15.0 Urban Mixed Use, 19.0 Open Space, 11.0 Inner Residential, 10.0 General Residential, 29.0 Environmental Management (<i>E.globulus</i> area)</p> <p>Relevant Codes within 50m of Road centreline:</p> <p>Heritage Code – Archaeological Potential – majority of Davey and Macquarie Streets (refer to attached planning scheme maps)</p> <p>Heritage code – Heritage Places – most properties along Davey and Macquarie Streets (refer attached historic places map)</p> <p>116LDS - Landslide Hazard Area (Southern Outlet to Davey St), 116HER - Heritage Precinct (South of Waterworks Rd + all CBD), 166BPA - Biodiversity Protection Area (South Hobart Rivulet), 116FRE- Bushfire Prone Areas</p> <p>Relevant General Exemption under <i>Hobart Interim Planning Scheme 2013</i>:</p> <p>Historic Reference for Exemption Request:</p>
Other	
Noise	Assessment may be required
Utility Infrastructure	Significant underground located along Davey and Macquarie Streets (refer to attached Dial Before You Dig output)
Land Capability	NA

Released under RTI





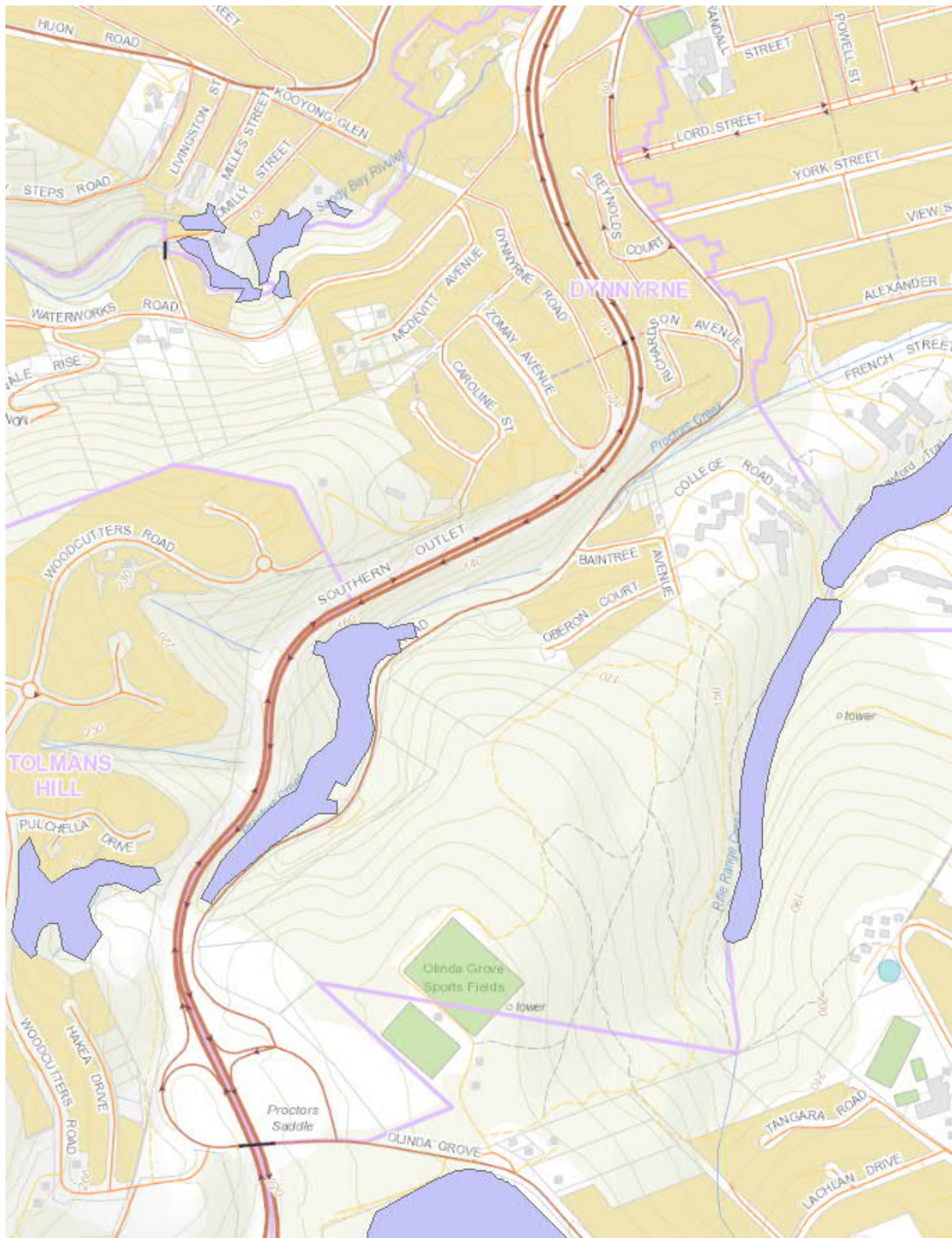
Sullivans Cove Planning Scheme



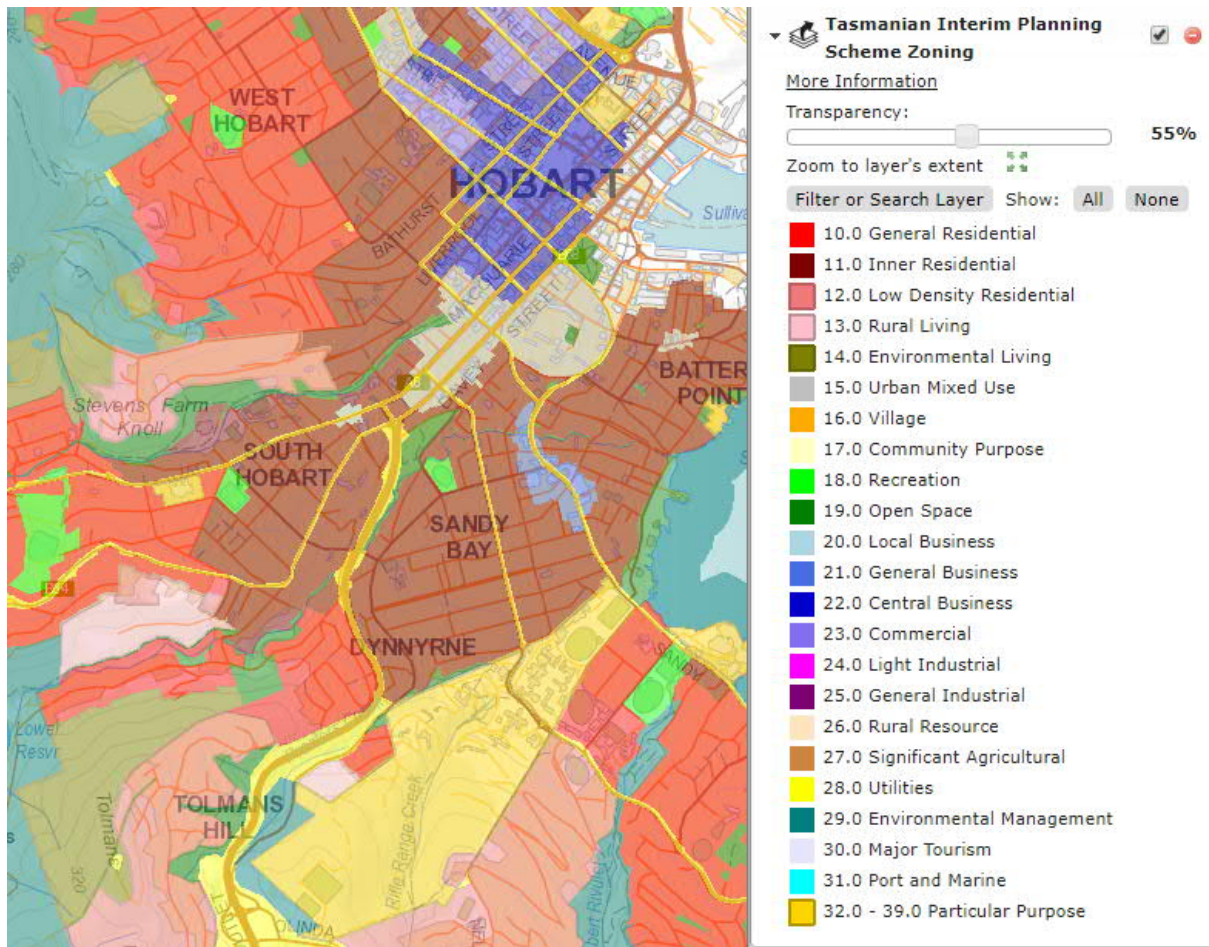
THR Listed Properties



Hobart CC Significant Tree Register

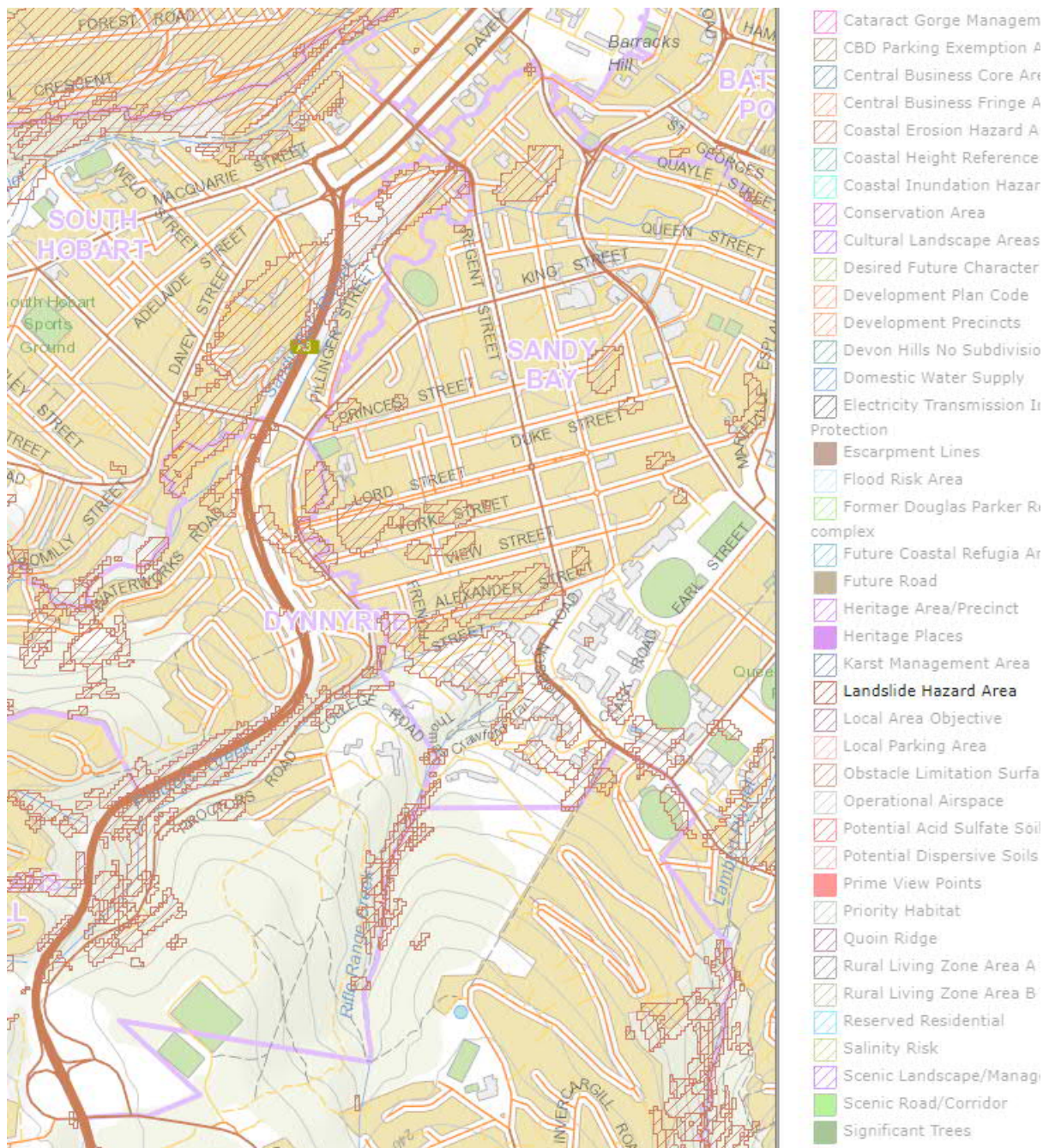


Eucalyptus globulus Areas (potential Swift Parrot habitat)

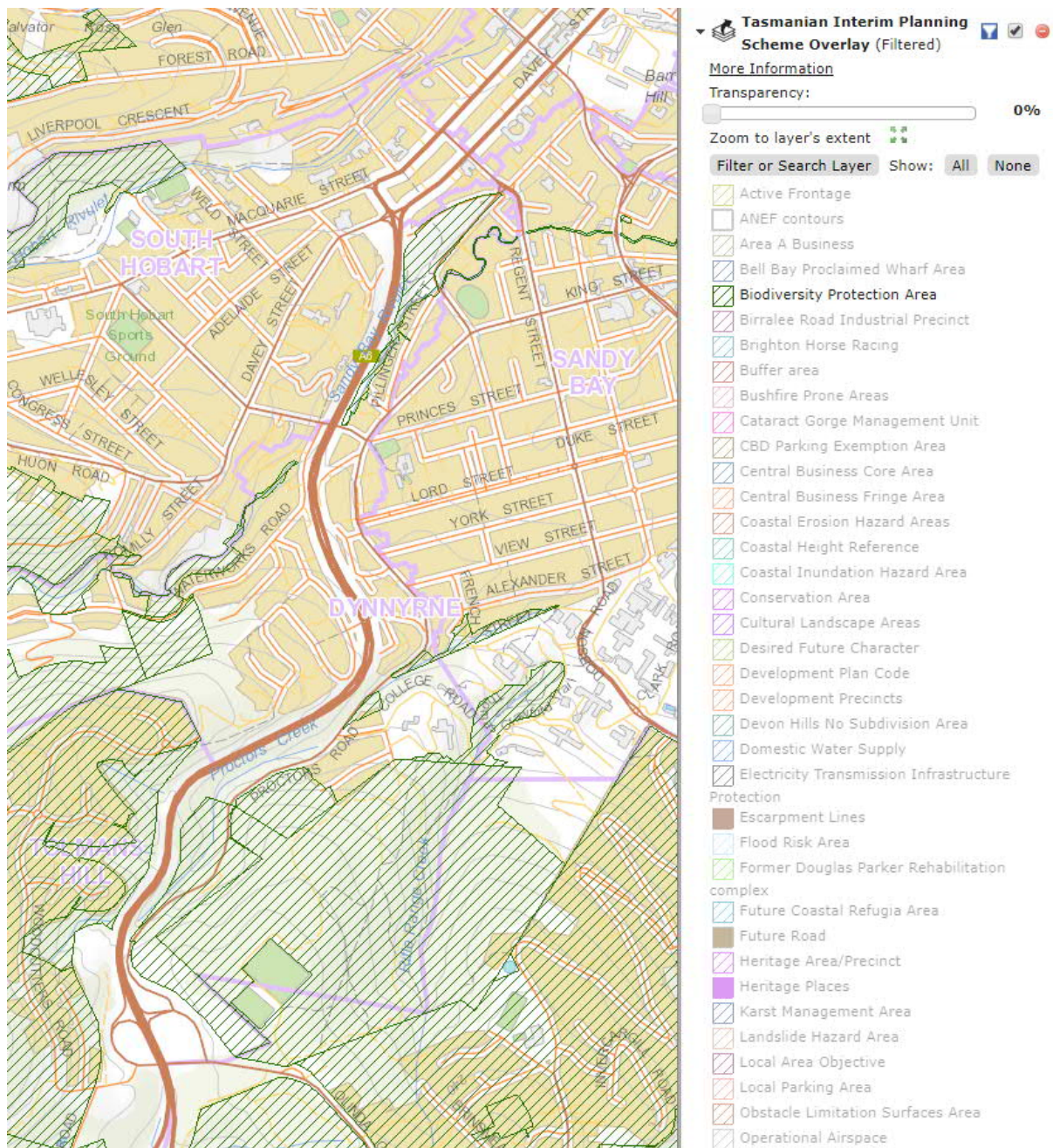


Planning Scheme Zoning

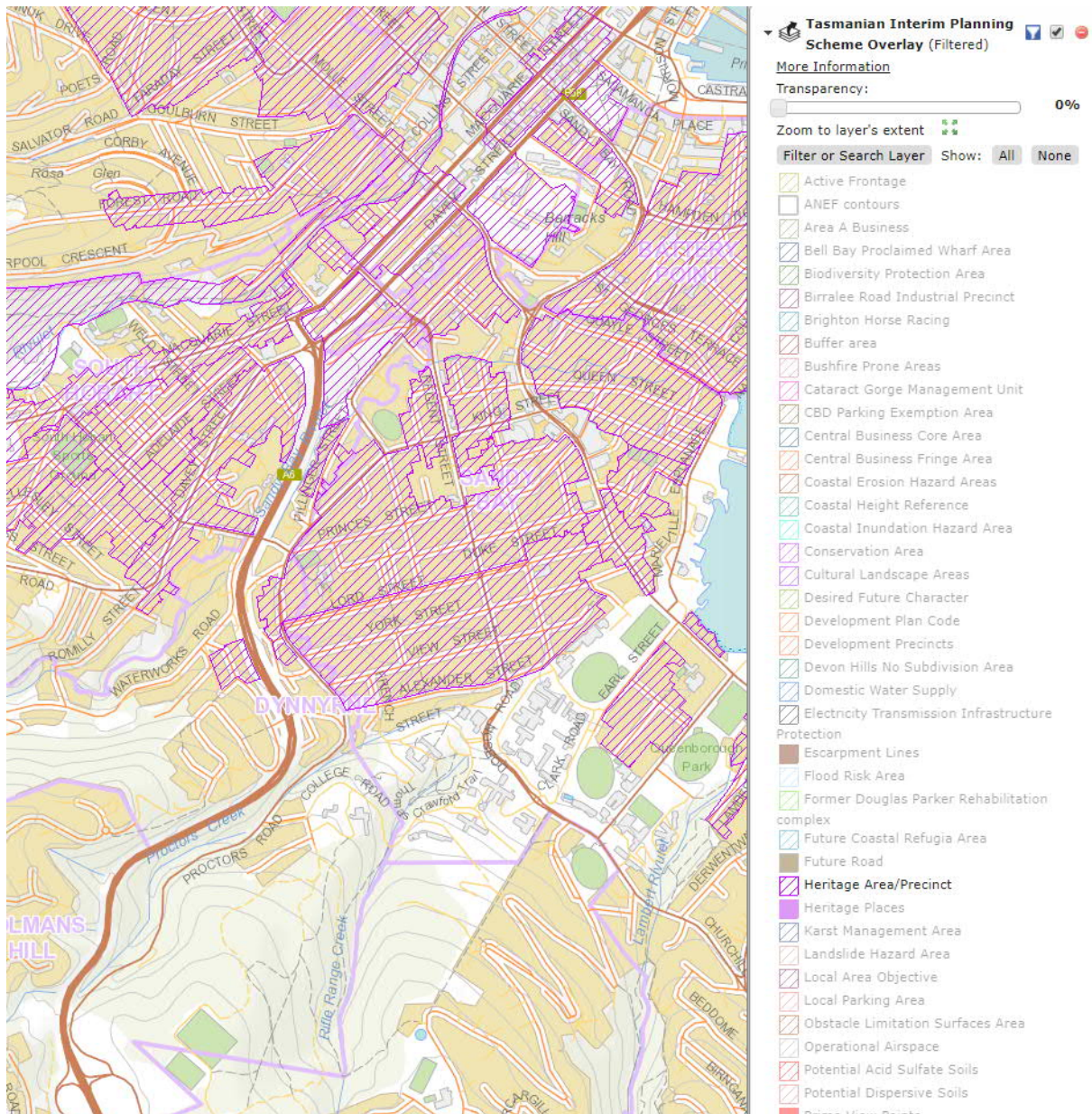
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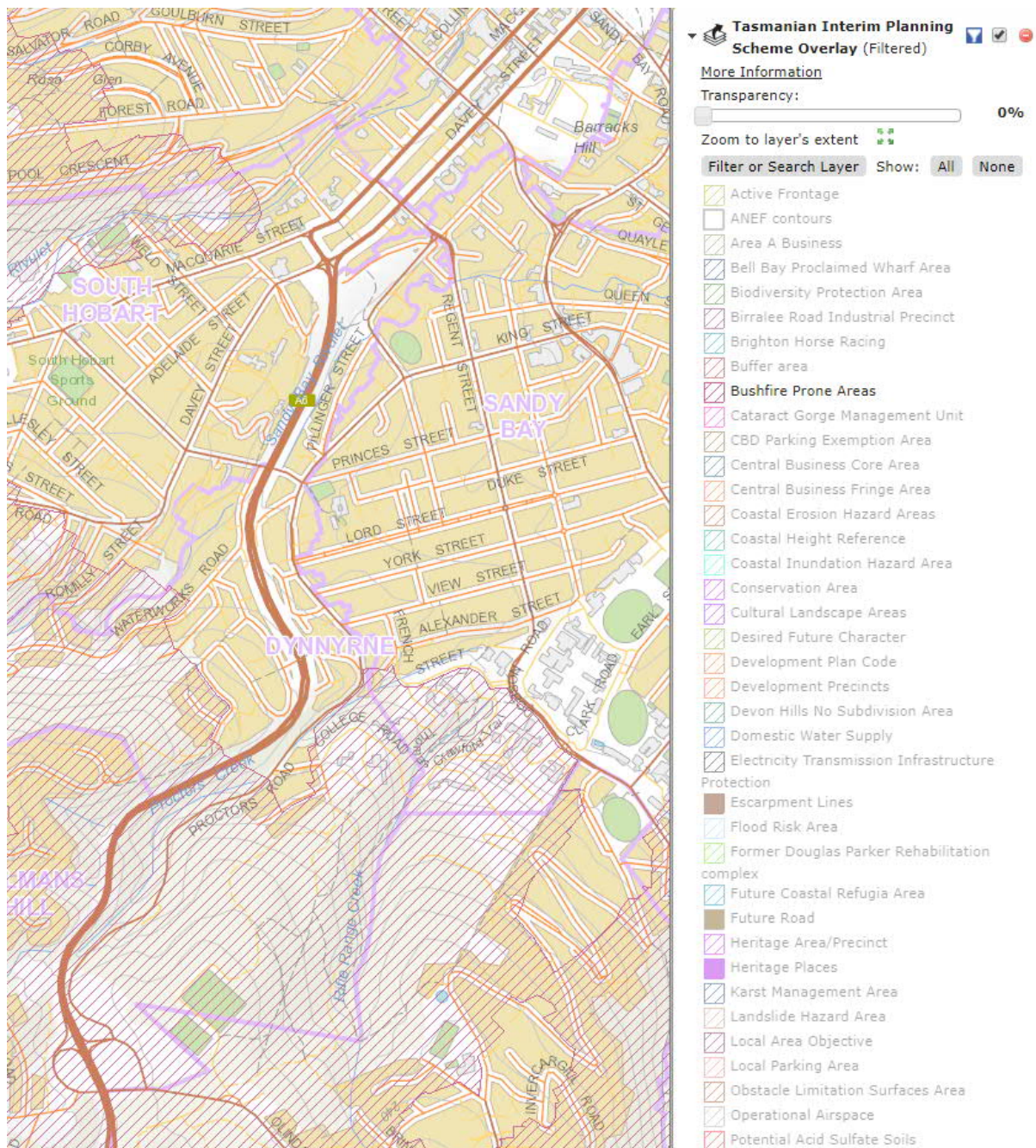
Landslip Overlay



Biodiversity Overlay



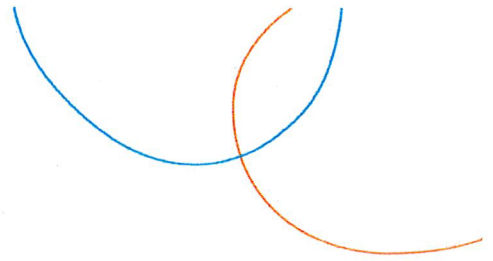
Heritage Precinct



Bushfire Prone Areas

Appendix D

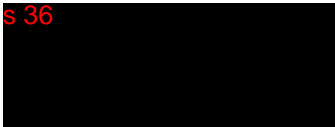
Cost Estimate



Southern Outlet Davey Street, Feasibility Report

Contact

s 36



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