

VOLUME 4

# Airport to Botany Assessment of Built Heritage Effects

December 2022

Version 1

## Document Status

Responsibility	Name
Author	John Brown
Reviewer	John Brown
Approver	Adam Jellie

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## Glossary of Defined Terms and Acronyms

Acronym/Term	Description
<b>AEE</b>	Assessment of Effects on the Environment report
<b>AUP:OP</b>	Auckland Unitary Plan: Operative in Part
<b>BRT</b>	Bus Rapid Transit
<b>CHI</b>	Cultural Heritage Inventory
<b>CVA</b>	Cultural Values Assessments
<b>N/A</b>	Not Applicable
<b>NIMT</b>	North Island Main Trunk railway
<b>NoR</b>	Notice of Requirement
<b>NoR 1</b>	Notice of Requirement 1: Airport to Botany Bus Rapid Transit (Botany Town Centre to Rongomai Park)
<b>NoR 2</b>	Notice of Requirement 2: Airport to Botany Bus Rapid Transit (Rongomai Park to Puhinui Station, in the vicinity of Plunket Avenue)
<b>NoR 3</b>	Notice of Requirement 3: Airport to Botany Bus Rapid Transit (Puhinui Station, in the vicinity of Plunket Avenue to SH20/20B Interchange)
<b>NoR 4a</b>	Notice of Requirement 4a: Airport to Botany Bus Rapid Transit (SH20/20B Interchange to Orrs Road)
<b>NoR 4b</b>	Notice of Requirement 4b: Alteration to NZ Transport Agency Designation 6717 – State Highway 20B
<b>Programme partners</b>	Te Ākitai Waiohū, Auckland Airport, Auckland Transport and Waka Kotahi
<b>RCA</b>	Road Controlling Authority
<b>RMA</b>	Resource Management Act 1991
<b>RP</b>	Regional Plan
<b>RPS</b>	Regional Policy Statement
<b>SEA</b>	Significant Ecological Area
<b>SH1</b>	State Highway 1
<b>SH20</b>	State Highway 20
<b>SH20B</b>	State Highway 20B
<b>SWG</b>	Southwest Gateway Programme
<b>Te Tupu Ngātahi</b>	Te Tupu Ngātahi Supporting Growth
<b>Waka Kotahi</b>	Waka Kotahi NZ Transport Agency

# Executive summary

## Purpose

The purpose of this report is to:

- Identify any built heritage sites within the Airport to Botany Bus Rapid Transit Project (the **Project**) corridor;
- To ascertain whether there are any potential adverse or positive effects on built heritage within the Project corridor arising from construction of the Project; and,
- To recommend any measures that might avoid or mitigate any potential for adverse effects to built heritage places.

## Summary of assessment of effects and recommendations

There are no significant adverse effects to built heritage places identified in any of the NoRs. The greatest level of effect would be generated through the likely removal/demolition of the former Gardener’s Cottage at 250 Puhinui Road to provide for the construction and operation of the Project. This site is not scheduled but is identified as a place of historical interest and is assessed as having moderate historic heritage and low to moderate archaeological significance. Demolition or removal is likely based on the Project design to date, but as the integrity of place is already compromised by fire damage and vandalism this would generate no more than a moderate adverse impact. This may be appropriately mitigated through historical building recording to provide an archival record of the place, and through signage and interpretation detailing its history. Other potential effects of the Project are summarised below.

Effect	Assessment	Recommendation
<b>Construction</b>		
250 Puhinui road - Cambria House Category A* Scheduled historic heritage place Loss of landscaping within road reserve	Likely to occur based on the Project design to date. Affects the setting and potentially the aesthetic and context values of historic heritage (e.g. loss of a mature tree and minor landscaping elements)	Remediate through replanting and new landscaping
250 Puhinui road – Gardener’s cottage Demolition	Likely to occur based on the Project design to date. Results in moderate, permanent adverse effects on built heritage values	Mitigate through archaeological building recording
Memorial Stone	Potential for accidental damage during construction activities Temporary nuisances	Manage though standard techniques and fence off. If necessary, temporarily relocate to facilitate construction

Effect	Assessment	Recommendation
<b>Operational</b>		
Increase in noise / emissions etc. as a result of additional traffic capacity	<p>High potential to occur</p> <p>Typically results in indirect adverse effects on built heritage places</p> <p>Typically low and permanent adverse effects to setting and aesthetic values</p>	None recommended – purpose of NoR is to provide an opportunity for modal shift, in order to reduce traffic
Opportunity for use	Operation of public transport and improvement of pedestrian environment indirectly enhances use opportunities for built heritage places	None recommended
Opportunity for interpretation	Interpretation which can enhance Historical Association and Context values	Consider interpretation opportunities along route



# 1 Introduction

## 1.1 Purpose and scope of this Report

This Built Heritage Report has been prepared to inform the Assessment of Effects on the Environment (AEE) for five Notices of Requirement (NoR) being sought by Waka Kotahi NZ Transport Agency (Waka Kotahi) and Auckland Transport for the Project under the Resource Management Act 1991 (RMA). Specifically, this Report considers the actual and potential effects associated with the construction and operation of the project on the existing and likely future environment as it relates to built heritage effects and recommends measures that may be implemented to avoid, remedy and/or mitigate these effects.

This Report should be read alongside the AEE, which contains further details on the history and context of the Project. The AEE also contains a detailed description of works to be authorised within each NoR, and the typical construction methodologies that will be used to implement this work. These have been reviewed by the author of this report and have been considered as part of this assessment of built heritage effects. As such, they are not repeated here. Where a description of an activity is necessary to understand the potential effects, it has been included in this report for clarity.

## 1.2 Report Structure

In order to provide a clear assessment of each NoR, this report follows the structure set out in the AEE. That is, each notice has been separated out into its own section, and each section contains an assessment of the actual and potential effects for the specific NoR. Where appropriate, measures to avoid, remedy or mitigate effects are recommended.

Each section is arranged in geographical order, starting from the northernmost point of the proposed NoR, to the southernmost point. Table 1 below describes the extent of each section, and where the description of effects can be found in this report.

**Table 1: Report Structure**

Sections	Section number
Description of the Project	Section 2
Overview of the methodology used to undertake the assessment and identification of the assessment criteria and any relevant standards or guidelines	Section 3
Assessment of general Built Heritage matters for all Airport to Botany Bus Rapid Transit NoRs	Section 4
Assessment of specific Built Heritage matters for Airport to Botany Bus Rapid Transit NoR 1	Section 5
Assessment of specific Built Heritage matters for Airport to Botany Bus Rapid Transit NoR 2	Section 6
Assessment of specific Built Heritage matters for Airport to Botany Bus Rapid Transit NoR 3	Section 7
Assessment of specific Built Heritage matters for Airport to Botany Bus Rapid Transit NoRs 4a and 4b	Section 8
Overall conclusion of the level of potential adverse Built Heritage effects of the Airport to Botany Bus Rapid Transit Project	Section 9

## 2 Project Description

### 2.1 Overview of the Project

The overall Project is proposed to be an 18 km fast, high capacity, reliable, and frequent Bus Rapid Transit (**BRT**) connection with twelve stations. It is part of Auckland's wider Rapid Transit Network (**RTN**) connecting Auckland Airport and its employment areas with major urban centres including Manukau and Botany.

As set out in the AEE, this Report specifically relates to a portion of the overall Project (approximately 14.9 km) which extends from the Botany Town Centre in the vicinity of Leixlep Lane to Orrs Road in the Puhinui peninsula, off SH20B. The Project primarily involves the upgrade and widening of existing transport corridors to provide for a dedicated BRT corridor and high-quality walking and cycling facilities.

Nine BRT stations are proposed as part of the Project. These stations are generally located at signalised intersections and will be staggered on either side of the intersection.

These stations are situated in the following locations:

- Smales Road;
- Accent Drive;
- Ormiston Road – Botany Junction Shopping Centre;
- Dawson Road;
- Diorella Drive;
- Ronwood Avenue (Manukau Central);
- Manukau Station;
- Puhinui Road/Lambie Drive; and
- Puhinui Station.

As part of the Project, two new structures are proposed:

- A BRT bridge crossing the North Island Main Trunk (NIMT) and connecting to the concourse level of the Puhinui Station; and
- A southbound ramp from SH20B to SH20.

Upgrades to existing structures are proposed at the:

- Bridge over Otara Creek (NoR 1);
- Bridge over SH1 (NoR 2);
- Bridge over NIMT (NoR 3); and
- Bridge over Waokauri Creek (NoR 4a).



Figure 1: Overview of Project and NoR packages

Table 2: Overview of NoRs

Notice	Description	Requiring Authority
<b>NoR 1</b>	Bus Rapid Transit corridor and high quality walking and cycling facilities from Botany Town Centre to Rongomai Park	Auckland Transport
<b>NoR 2</b>	Bus Rapid Transit corridor and high quality walking and cycling facilities from Rongomai Park to Puhinui Interchange, in the vicinity of Plunket Avenue	Auckland Transport
<b>NoR 3</b>	Bus Rapid Transit corridor and high quality walking and cycling facilities from Puhinui Interchange, in the vicinity of Plunket Avenue to SH20/SH20B Interchange	Auckland Transport
<b>NoR 4a</b>	Bus Rapid Transit corridor and high quality walking and cycling facilities from SH20B/20 Interchange to Orrs Road	Auckland Transport
<b>NoR 4b</b>	Alteration to designation 6717 to provide for the widening of SH20B, including a southbound on-ramp onto SH20, high quality walking and cycling facilities and enable a Bus Rapid Transit corridor	NZ Transport Agency

## 2.2 Overview and description of each NoR

The following sections provide an overview of the NoRs that make up the Project. For more detail, refer to the AEE.

### 2.2.1 NoR 1

As set out in Table 3 below, the proposed works in NoR 1 include the widening of existing Te Irirangi Drive to accommodate a centre-running BRT corridor, two vehicle lanes in each direction and high quality walking and cycling facilities.

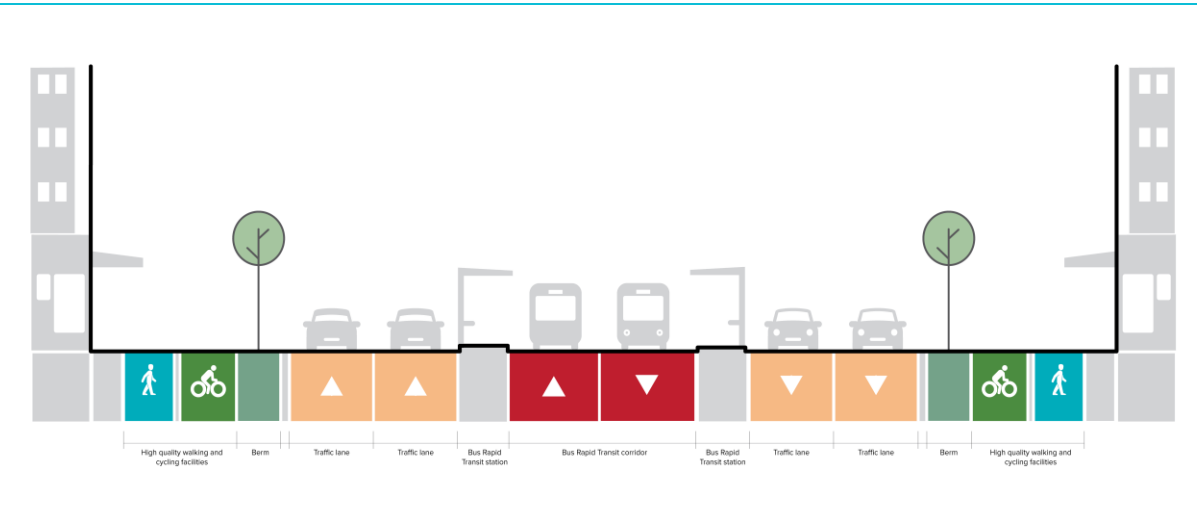
**Table 3: Overview of NoR 1**

NoR 1 – Botany Town Centre to Rongomai Park	
<b>Key features</b>	
BRT Corridor	Centre-running along Te Irirangi Drive
BRT Stations	<ul style="list-style-type: none"> <li>• Smales Road Station;</li> <li>• Accent Drive Station; and</li> <li>• Ormiston Road Station.</li> </ul>
Walking and cycling facilities	Walking and cycling facilities on both sides of the corridor
General traffic	Two lanes in each direction (existing)
Access	There is an existing central median along the majority of Te Irirangi Drive which restricts right-turn access

**NoR 1 – Botany Town Centre to Rongomai Park**

Speed environment	50km/h
Signalised intersections	<ul style="list-style-type: none"> <li>• Te Irirangi Drive and Smales Road;</li> <li>• Te Irirangi Drive and Accent Drive;</li> <li>• Te Irirangi Drive and Bishop Dunn Avenue; and</li> <li>• Te Irirangi Drive and Ormiston Road.</li> </ul>
Stormwater infrastructure	<ul style="list-style-type: none"> <li>• Swales; and</li> <li>• Wetlands.</li> </ul>

**NoR 1 typical cross section**



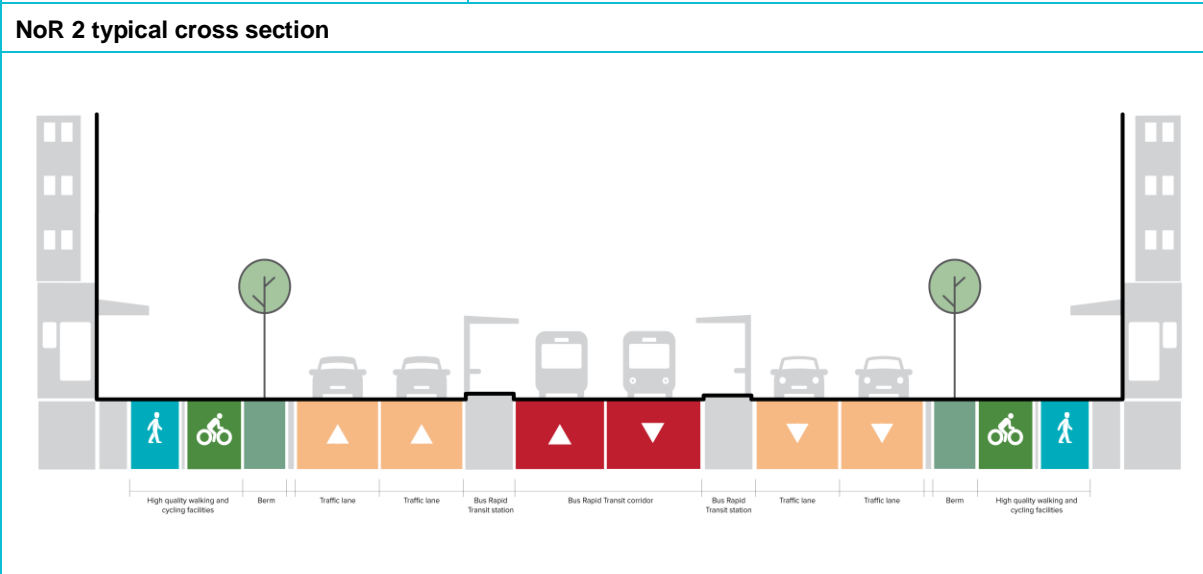
## 2.2.2 NoR 2

As set out in Table 4 below, the proposed works in NoR 2 include the widening of several existing roads to accommodate a centre-running BRT corridor, vehicle lanes and high quality walking and cycling facilities.

Table 4: Overview of NoR 2

NoR 2 – Rongomai Park to Puhinui Station, in the vicinity of Plunket Avenue	
<b>Key features</b>	
BRT Corridor	<p>Centre-running for the majority of the corridor along Te Irirangi Drive, Great South Road, Ronwood Avenue, Manukau Station Road, Lambie Drive, and Puhinui Road</p> <p>West-running on Davies Avenue along the edge of Hayman Park</p>
BRT stations	<ul style="list-style-type: none"> <li>• Dawson Road Station;</li> <li>• Diorella Drive Station;</li> <li>• Ronwood Avenue Station;</li> <li>• Manukau Station; and</li> <li>• Corner of Lambie Drive and Puhinui Road Station.</li> </ul>
Walking and cycling facilities	Walking and cycling facilities on both sides of the corridor
General traffic	<ul style="list-style-type: none"> <li>• Two lanes in each direction along Te Irirangi Drive, Great South Road, Ronwood Avenue, Manukau Station Road, and Lambie Drive;</li> <li>• One-way single lane along Davies Avenue; and</li> </ul>

NoR 2 – Rongomai Park to Puhinui Station, in the vicinity of Plunket Avenue	
	<ul style="list-style-type: none"> <li>• One lane in each direction along Puhinui Road.</li> </ul>
Access	<p>Existing central medians limit right turn access on Te Irirangi Drive, Great South Road, Ronwood Avenue, and Lambie Drive.</p> <p>New signalised intersection at Mitre 10 and Bunnings Warehouse on Lambie Drive.</p> <p>Priority access for fire engine movements across the BRT corridor at Papatoetoe Fire Station.</p>
Speed environment	<ul style="list-style-type: none"> <li>• 30 km/h on Ronwood Avenue and Davies Avenue; and</li> <li>• 50 km/h on Te Irirangi Drive, Great South Road, Manukau Station Road, Lambie Drive and Puhinui Road.</li> </ul>
Signalised intersections <b>(new intersections in bold)</b>	<ul style="list-style-type: none"> <li>• Te Irirangi Drive and Dawson Road;</li> <li>• Te Irirangi Drive, Boundary Road and Hollyford Drive;</li> <li>• Te Irirangi Drive and Diorella Drive;</li> <li>• Te Irirangi Drive, Great South Road and Cavendish Drive;</li> <li>• Great South Road and Ronwood Avenue;</li> <li>• Ronwood Avenue and Davies Avenue;</li> <li>• Davies Avenue, Wiri Station Road and Manukau Station Road;</li> <li>• Manukau Station Road and Lambie Drive;</li> <li>• <b>Mitre 10 and Bunnings Warehouse;</b></li> <li>• <b>Lambie Drive and Ronwood Avenue;</b></li> <li>• Lambie Drive and Cavendish Drive;</li> <li>• Lambie Drive and Puhinui Road; and</li> <li>• <b>Puhinui Road and Plunket Avenue.</b></li> </ul>
Stormwater infrastructure	<ul style="list-style-type: none"> <li>• Swales; and</li> <li>• Wetlands.</li> </ul>



### 2.2.3 NoR 3

As set out in Table 5 below, the proposed works in NoR 3 include the widening of the existing Puhinui Road to accommodate a centre-running BRT corridor, vehicle lanes and high quality walking and cycling facilities. As part of the proposed works, a BRT bridge over the NIMT is proposed to connect to the Puhinui Station.

**Table 5: Overview of NoR 3**

<b>NoR 3 – Puhinui Station, in the vicinity of Plunket Avenue to SH20/20B Interchange</b>	
<p>The map shows the proposed BRT corridor along Puhinui Road, highlighted in blue. A red dashed line indicates the NoR 3 designation boundary. A blue bridge structure is shown crossing the NIMT. A white circle with a blue outline marks the proposed BRT station at Puhinui Station. Other roads shown include Plunket Avenue and Cavendish Drive. A key map in the top left shows the project location within a larger regional context. A legend at the bottom left defines the symbols used. A scale bar at the bottom right indicates distances up to 500 metres.</p>	
<b>Key features</b>	
BRT Corridor	Centre-running along Puhinui Road connecting to the Puhinui Station concourse via a new BRT bridge structure
BRT Stations	Puhinui Station
Walking and cycling facilities	<ul style="list-style-type: none"> <li>Walking and cycling facilities on both sides of the corridor; and</li> <li>Walking and cycling facilities will be provided along Cambridge Terrace, Bridge Street and Kenderdine Road.</li> </ul>
General traffic	One lane in each direction on Puhinui Road
Access	Limited right turn access
Speed environment	50 km/h
Signalised intersections	<ul style="list-style-type: none"> <li>Puhinui Road and Noel Burnside Road; and</li> <li>Puhinui Road and Wyllie Road.</li> </ul>

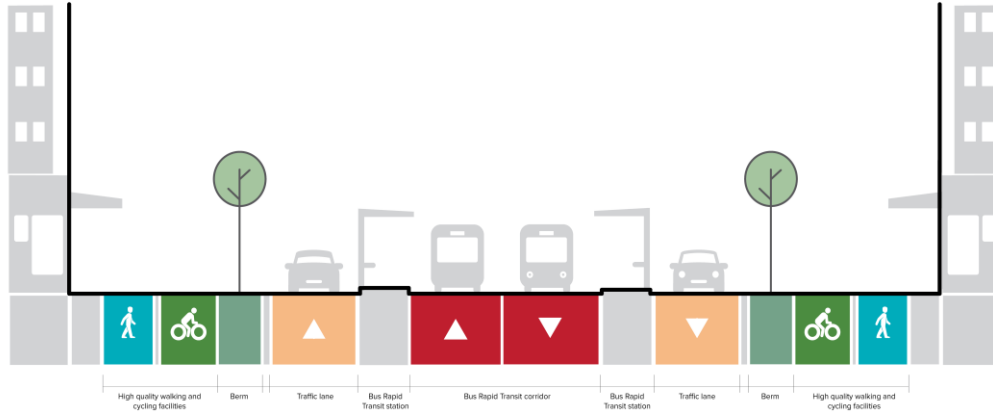


**NoR 3 – Puhinui Station, in the vicinity of Plunket Avenue to SH20/20B Interchange**

Stormwater infrastructure

Wetland

**NoR 3 typical cross section**



## 2.2.4 NoRs 4a and 4b

As set out in Table 6 below, the proposed works in NoRs 4a and 4b include the widening of SH20B to accommodate a centre-running BRT corridor until the Manukau Memorial Gardens. From this point, the BRT corridor shifts south of SH20B until Orrs Road. Proposed works also include high quality walking and cycling facilities, eastbound lanes to Auckland Airport and a ramp from SH20B onto SH20 for southbound traffic.

Table 6: Overview of NoRs 4a and 4b

NoRs 4a and 4b – SH20/20B Interchange to Orrs Road	
Key features	
BRT corridor	<ul style="list-style-type: none"> <li>Centre-running on Puhinui Road through to the Manukau Memorial Gardens intersection (approx. 600 m west of SH20/20B Interchange); and</li> <li>South running to Orrs Road.</li> </ul>
Walking and cycling facilities	Walking and cycling facilities on southern side of the corridor
General traffic	Two lanes in each direction; and New southbound ramp from SH20B onto SH20.
Access	<ul style="list-style-type: none"> <li>Limited access; and</li> <li>Access maintained via signals at Manukau Memorial Gardens and Campana Road.</li> </ul>
Speed environment	60 km/h

**NoRs 4a and 4b – SH20/20B Interchange to Orrs Road**

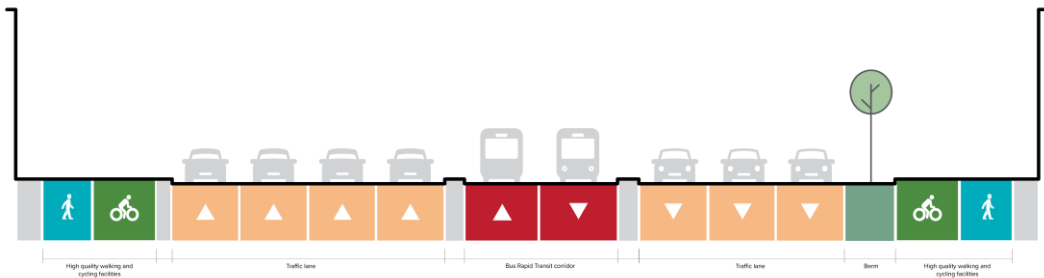
Signalised intersections

- SH20/SH20B Interchange;
- Puhinui Road and Manukau Memorial Gardens; and
- Puhinui Road and Campana Road.

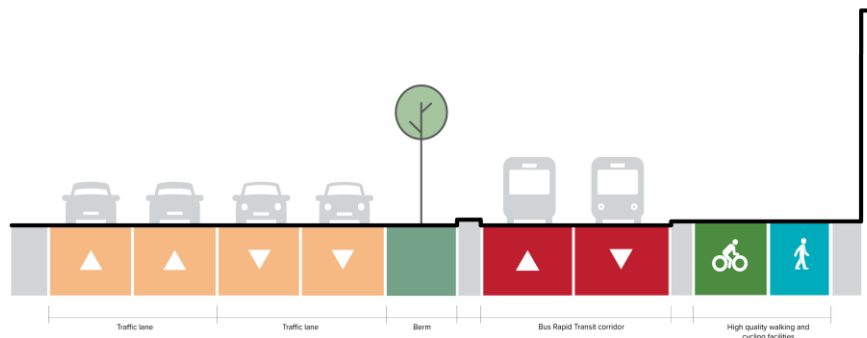
Stormwater infrastructure

Swales

**NoR 4b typical cross section**



**NoR 4a typical cross section**



## 3 Assessment Methodology

This Assessment of Effects for Built Heritage is based on standard international practices for environmental impact assessment (EIA) such as those described in:

Waka Kotahi 2014: Guide to assessing historic heritage effects for state highway projects (Draft Version 2.4).

### 3.1 Preparation for this Report

Preparation for this report has included:

- Review of online heritage databases and other readily available sources of information;
- Route planning workshops for each of the NoRs; and
- Site visits where relevant to specific locations of interest along the Project corridor.

### 3.2 Methodology

The assessment methods set out in the Waka Kotahi guidance documentation has been aligned to the regional values assessment criteria for Auckland set out in the Auckland Unitary Plan: Operative in Part (**AUP:OP**) Regional Policy Statement (**RPS**) Chapter B5.2.2.1. *Identification and evaluation of historic heritage places*. The methodology for assessment of effects on built heritage is set out in **Appendix A** to this Report. The following information sources were reviewed as part of the desk-top assessment:

- Auckland Council Cultural Heritage Inventory (**CHI**);
- The New Zealand Heritage List/Rārangi Kōrero;
- Historical aerial photography from Auckland Council GeoMaps and Retrolens;
- Digital Archives New Zealand and other online digital databases;
- Google Streetview and Google Maps, including historical Streetview imagery; and
- Briefing pack and route information provided by Te Tupu Ngātahi.

The Project corridor was initially assessed through review of aerial photography and Google Streetview, to identify places of interest along the route. This information was then correlated with the *AUP:OP Schedule 14.1 – Historic Heritage*, Auckland Council GIS information and the CHI as described above.

#### Limitations

- This assessment is based on readily available information and is not an exhaustive study of each location along the Project corridor;
- Sites are experienced from the public realm only; and
- This assessment relates to built heritage only. A separate assessment of archaeological values has been prepared, refer to *Airport to Botany: Assessment of Archaeological Effects*.

## 4 All Airport to Botany Bus Rapid Transit NoRs

This section assesses common or general built heritage matters across the entire Airport to Botany Bus Rapid Transit alignment for all five NoRs. This section also recommends measures to avoid, remedy, or mitigate actual or potential adverse effects that may be common to all sections.

### Defining what is affected

Environmental effects may be adverse, neutral, or beneficial, direct or indirect, and temporary or permanent in nature. Understanding what values are affected is critical to assessments of effects. Because the proposed works lie entirely within the region covered by the AUP:OP, the Built Heritage values against which effects are measured are adopted from AUP:OP Chapter B5.2.2.1 as follows:

*(a) historical: the place reflects important or representative aspects of national, regional or local history, or is associated with an important event, person, group of people, or with an idea or early period of settlement within New Zealand, the region or locality;*

*(b) social: the place has a strong or special association with, or is held in high esteem by, a particular community or cultural group for its symbolic, spiritual, commemorative, traditional or other cultural value;*

*(c) Mana Whenua: the place has a strong or special association with, or is held in high esteem by, Mana Whenua for its symbolic, spiritual, commemorative, traditional or other cultural value;*

*(d) knowledge: the place has potential to provide knowledge through archaeological or other scientific or scholarly study, or to contribute to an understanding of the cultural or natural history of New Zealand, the region, or locality;*

*(e) technology: the place demonstrates technical accomplishment, innovation or achievement in its structure, construction, components or use of materials;*

*(f) physical attributes: the place is a notable or representative example of:*

*(i) a type, design or style;*

*(ii) a method of construction, craftsmanship or use of materials; or*

*(iii) the work of a notable architect, designer, engineer or builder;*

*(g) aesthetic: the place is notable or distinctive for its aesthetic, visual, or landmark qualities;*

*(h) context: the place contributes to or is associated with a wider historical or cultural context, streetscape, townscape, landscape or setting.*

Under the AUP:OP assessment methodology, Historic Heritage values are effectively rated using the following scale:

**Table 7 Scale of historic heritage value rating under the AUP:OP (cells highlighted grey indicate what values merit scheduling)**

Value Level Under AUP:OP	Local	Regional	National
Exceptional	Merits Scheduling	Merits Scheduling	Merits Scheduling
Considerable	Merits Scheduling	Merits Scheduling	Merits Scheduling
Moderate	Does not merit scheduling. Supports Scheduling	Does not merit scheduling. Supports Scheduling	Does not merit scheduling Supports Scheduling
Little	Does not merit Scheduling. Weakly supports scheduling	Does not merit Scheduling. Weakly supports scheduling	Does not merit Scheduling Weakly supports scheduling
None			

This scale of Historic Heritage values is adopted in the Environmental Impact Assessment Method described in **Appendix A**.

### Previously unidentified places of Historic Heritage value

Common to all NoRs, there is the possibility of works impacting on previously unidentified built heritage places of potential historic heritage value and significance. The adverse effects would not be fully quantifiable unless a values assessment was undertaken for such places first.

For due diligence, to determine whether previously unidentified built heritage of significance might be present along the NoRs, a review of historical aerial photographs and other sources such as historical maps, was undertaken. Any potential building along the route that was visible in photographs dating to c.1940 was briefly reviewed as part of the desktop process to determine whether they might retain heritage significance. However, it was concluded that generally the surviving pre-1940 buildings along the route are not likely to merit scheduling, based on initial visual assessment. No further work was undertaken.

### Positive Built Heritage effects

Positive effects for Built Heritage generally along the full route are largely limited to indirect effects arising from any improvements to environments for pedestrian and low-speed modes of transport (e.g. cycling). Where there is an improvement to the pedestrian environment, there is usually an indirect opportunity for people to observe the environment at a more leisurely pace. The resultant opportunity afforded is the greater appreciation of the amenity and aesthetic values that may be derived from built heritage places, as well as opportunities to gain insight, for example through the provision of interpretive signage at opportune public locations. Similarly, reduction in traffic speeds and volumes might indirectly improve the long-term maintenance of the building fabric, where less emissions are generated.

Positive effects of this nature are not easy to quantify, but these have been assessed generally as being of a negligible and permanent beneficial nature along the corridor.

## 4.1 Assessment of construction effects

### 4.1.1 Temporary effects

Construction effects include temporary effects, such as dust, noise and visual nuisance. Adverse effects from such works include:

- Loss of amenity or aesthetic experience, which may reduce associated historic heritage values (e.g. Aesthetic, Historical Context);
- Other values may be also indirectly affected, for example through a drop in visitor rates or ability to appreciate historical associations due to presence of works (e.g. Social values, Historical Associations); or
- Risk of accidental physical damage (through vehicle or plant movement, dust clogging downpipes etc.).

Once construction is completed there will be little potential for residual adverse effects on Built Heritage arising from these temporary works.

### 4.1.2 Permanent effects

Machine or plant that generates vibration also has potential to cause cosmetic damage to sensitive receptors such as heritage buildings with ornate decorative elements and plasterwork. Sensitive receivers may include, for example:

- Churches;
- Public buildings with ornate decoration (e.g. public library);
- Commercial buildings with elaborate parapets/fenestration; or
- Vulnerable sites (e.g. damaged or poorly maintained buildings where fabric is at risk of further deterioration).

Where any such sensitive historic heritage receivers are identified as present along the corridor, these are described in the relevant section of each NoR.

In a construction environment, there is potential for accidental damage to occur to built heritage places. The nature of such damage cannot be readily quantified. It may range from negligible impacts which are easily rectified (e.g. construction vehicle scraping paintwork on a gate) to significant or even catastrophic impacts. (e.g. fire resulting from poorly controlled construction activity burning down a wooden building).

## 4.2 Recommended measures to avoid, remedy or mitigate construction effects

The intensity of temporary construction effects on built heritage can be mitigated through standard construction practice that would be utilised in any case to mitigate such nuisance. This includes site control measures such as wetting of soil to prevent dust, temporary noise barriers, and monitoring vibration effects if necessary. Where such works occur close to the location of any sensitive built heritage receivers (typically within 5 m), it is recommended that assessment of risk for cosmetic damage from vibration is undertaken by an appropriately qualified person.

Separation of work compounds and flow of machine/plant/materials from built heritage places through use of temporary fencing or hoarding will also help prevent accidental damage. Construction management plans can also control workflows to minimise risk to built heritage places, and Management Plan clauses or NoR conditions requiring remediation of any accidental damage can effectively mitigate such impacts when they are of a low or moderate impact.

In rare instances a more significant event resulting in loss of fabric from a built heritage place may accidentally occur because of construction activities. This may be partially mitigated through historic building recording to create an archive record of the place, using the levels of recording set out in:

- *Heritage New Zealand Pouhere Taonga 2018: Archaeological Guidelines No.1 Investigation and recording of buildings and standing structures.*

The level to which recording is undertaken will need to be determined based on the historic heritage value of the place and the level of impact that has occurred.

A few locations within the Project corridor have been identified where such impact is likely to occur, based on the proposed spatial extent of the NoRs and the Project design to date. Two possible built heritage features include:

- The former Gardener's Cottage within the road reserve adjacent 250 Puhinui Road; and
- The stone memorial within the road reserve adjacent 222 Puhinui Road and Kenderdine Road Reserve.

### 4.3 Assessment of operational effects

Once operational, there are no identified direct adverse effects on built heritage values along the Project that would be ongoing.

Indirect effects might occur to built heritage places along the Project corridor. For example, if traffic noise levels increased, then the reduction in amenity may indirectly affect the experiential historic heritage values of a place, primarily in the Aesthetics (G) value category. A typical response may involve the establishment of permanent noise barriers to attenuate this. However, the barriers themselves may result in adverse effects if they are visually detracting. In such cases, the adverse effects would need to be balanced against each other.

Services or facilities operating from historic buildings might be affected by changes to visiting habits as a result of an increase in traffic or loss of on-street parking. An example might be a loss of revenue, where an owner is then not able to financially support long-term maintenance of a place. Another example is the effect of increased emissions on building fabric (e.g. 'acid rain' degrading stonework, or long-term staining of building fabric from exhaust emissions). However, the intensity of such indirect effects is not readily quantifiable. I therefore assess the potential for such indirect effects along the route generally to be of a negligible to low adverse nature.

### 4.4 Recommended measures to avoid, remedy or mitigate operational effects

There are no recommendations to avoid, remedy or mitigate operational effects.



## 4.5 Summary and Conclusions

In summary, along the Project corridor there is low potential for temporary or permanent adverse effects on built heritage associated with the following construction activities:

- Temporary nuisance effects from construction activities;
- Accidental damage arising from construction activities; and
- Loss of previously unidentified built heritage with significant historic heritage value resulting from construction activities.

The potential intensity of adverse effects can range from negligible adverse to significant adverse, depending on the nature of an event, but in most cases significant adverse effects may be avoided, remedied or mitigated through:

- Standard construction management practices to minimise risk of adverse effects or to reduce their intensity/duration;
- Use of construction management plans, monitoring and recording of works to minimise risk of adverse effects, and
- Recording or remediation of accidental damage if this was to occur.

Overall, there is low potential for adverse effects to occur on built heritage features as a result of operational activities, primarily relating to:

- Any adverse increase in noise or emissions from traffic that may degrade the experiential (Aesthetic values) associated with built heritage places; and
- Possible indirect effects resulting from reduction in visitation opportunity where services are operating from a Built Heritage Place.

Overall, there is low potential for permanent, beneficial effects on historic heritage values for built heritage, where:

- The operation of public transport and improvement of pedestrian environment indirectly enhances use opportunities for built heritage places (potentially enhancing Social values), and
- Opportunities for site interpretation which can enhance Historical Association and Context values.

**Table 8: Summary of built heritage effects and recommendations for all Airport to Botany Bus Rapid Transit NoRs**

Effect	Assessment	Recommendation
<b>Construction</b>		
Nuisance Effects (Dust, noise etc.)	High potential to occur, typically resulting in indirect adverse effects on built heritage places  Typically, low to moderate adverse effects to setting, Aesthetic values category  Temporary in nature	Mitigation through standard construction management techniques
Loss of landscaping	Certain to occur. Affects the setting and potentially aesthetic and context values of historic heritage (e.g. loss of mature	Remediation through replanting and new landscaping

Effect	Assessment	Recommendation
	hedgerow defining a historical boundary or property curtilage) Typically, this generates permanent but low adverse effects which can be remedied	
Accidental damage	Low potential to occur Typically low, and unlikely to significantly effect scheduled / non-scheduled historic built heritage	Avoid through construction management plan design on construction sites, use of temporary hoarding etc. Remediate to at least current standard of condition if accidental damage occurs
Loss of unidentified heritage	Low potential to occur	If required, but not apparent at this stage: Additional assessment of unidentified heritage potential for buildings within NoR footprint
<b>Operational</b>		
Increase in noise / emissions etc. as a result of additional traffic capacity	High potential to occur, typically resulting in indirect adverse effects on built heritage places. Typically, low and permanent adverse effects to setting, Aesthetic values category	None recommended – purpose of NoR is to provide opportunity for modal shift, in order to reduce traffic
Opportunity for use	Operation of public transport and improvement of pedestrian environment indirectly enhances use opportunities for built heritage places	None recommended.
NoR 3 – Former Gardener’s Cottage and Cambria House Opportunity for interpretation	Interpretation which can enhance Historical Association and Context values	Consider interpretation opportunities along route.

## 5 Airport to Botany Bus Rapid Transit – NoR 1

There are no identified sites of built heritage significance identified that will be affected by NoR 1.

## 6 Airport to Botany Bus Rapid Transit – NoR 2

This section assesses specific built heritage matters relating to NoR 2, between Rongomai Park and Puhinui Station (in the vicinity of Plunket Avenue). For assessment purposes, NoR 2 has been split into three sections as shown in Figure 2 below:

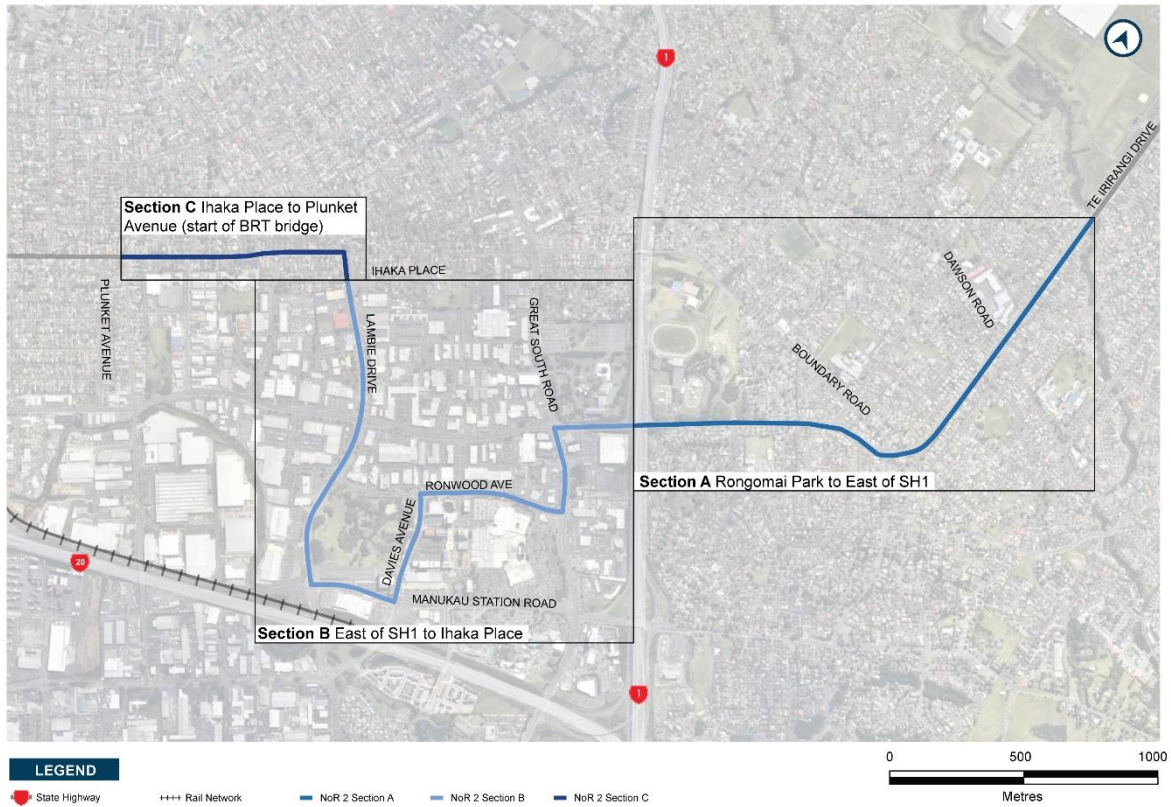


Figure 2: Sections of Airport to Botany Bus Rapid Transit NoR 2

### 6.1 Section A: Rongomai Park to East of SH1

There are no identified sites of built heritage significance identified that will be affected by Section A.

### 6.2 Section B: East of SH1 to Ihaka Place

There are no identified sites of built heritage significance identified that will be affected by Section B.

### 6.3 Section C: Ihaka Place to Puhinui Station

#### 6.3.1 Existing environment

There are no scheduled built heritage sites of historic heritage significance in this section. A historic railway pedestrian overbridge used to access Puhinui Road has been recorded (CHI ref 19381) but has been replaced by a modern footbridge and is no longer extant.

There are several earlier 20th century buildings along this section, but none of these places are scheduled or otherwise identified as being of particular heritage interest.

### 6.3.2 Assessment of construction effects

There are no identified effects on built heritage, as the historical railway bridge is no longer extant.

### 6.3.3 Recommended measures to avoid, remedy or mitigate construction effects

No mitigation measures would be required.

## 6.4 Assessment of operational effects

On operation, the effects are those described in the general Section 4.3.

### 6.5 Recommended measures to avoid, remedy or mitigate operational effects

On operation, the mitigation methods are those described in the general Section 4.4.

## 6.6 Summary and Conclusions

The effects on built heritage values are summarised in the following table. Should mitigation recommendations be adopted, the Project is unlikely to generate moderate or higher adverse effects of either a temporary or permanent nature for built heritage.

**Table 9: Summary of built heritage effects and recommendations for NoR 2**

Effect	Assessment	Recommendation
<b>Construction</b>		
None identified		
<b>Operational</b>		
Increase in noise / emissions etc. as a result of additional traffic capacity	High potential to occur, typically resulting in indirect adverse effects on built heritage places. Typically, low and permanent adverse effects to setting, Aesthetic values category.	None recommended – purpose of NoR is to provide opportunity for modal shift, in order to reduce traffic.
Opportunity for use	Operation of public transport and improvement of pedestrian environment indirectly enhances use opportunities for built heritage places.	None recommended.

## 7 Airport to Botany Bus Rapid Transit – NoR 3

This section assesses specific built heritage matters relating to NoR 3 – between Puhinui Station (in the vicinity of Plunket Avenue) and the SH20/20B Interchange.

### 7.1 Existing environment

NoR 3 includes Cambria House, located at 250 Puhinui Road. The House is scheduled in the AUP:OP as a Category A\* Historic Heritage Place (AUP:OP Schedule 14.1 ID 1469). Cambria House is a 19th century site of occupation, and additionally would be recorded as an archaeological site under the provisions of the HNZPTA. It is recognised for the following AUP:OP historic heritage values<sup>1</sup>:

*(a) historical: the place reflects important or representative aspects of national, regional or local history, or is associated with an important event, person, group of people, or with an idea or early period of settlement within New Zealand, the region or locality;*

*(b) social: the place has a strong or special association with, or is held in high esteem by, a particular community or cultural group for its symbolic, spiritual, commemorative, traditional or other cultural value;*

*(d) knowledge: the place has potential to provide knowledge through archaeological or other scientific or scholarly study, or to contribute to an understanding of the cultural or natural history of New Zealand, the region, or locality;*  
*(f) physical attributes: the place is a notable or representative example of:*

*(i) a type, design or style;*

*(ii) a method of construction, craftsmanship or use of materials; or*

*(iii) the work of a notable architect, designer, engineer or builder;*

...

*(g) aesthetic: the place is notable or distinctive for its aesthetic, visual, or landmark qualities;*

*(h) context: the place contributes to or is associated with a wider historical or cultural context, streetscape, townscape, landscape or setting*

The NoR occupies the street boundary to 250 Puhinui Road, adjacent to its 'extent of place', but it does not extend into the extent of place, which is defined in the AUP:OP as:

*“the area that is integral to the function, meaning and relationships of the place and illustrates the historic heritage values identified for the place. The provisions relating to a historic heritage place apply within the area mapped as the extent of place on the Plan maps, including the airspace.”<sup>2</sup>*

<sup>1</sup> AUP:OP B5.2.2

<sup>2</sup> AUP:OP D17.1

It is considered that effects which occur outside of the spatial extent are, in most cases, unlikely to generate adverse effects which require control under the historic heritage provisions of the AUP:OP.

Cambria House is included on the New Zealand Heritage List/Rārangī Kōrero administered by Heritage New Zealand as a Category II place (List ref 7351).

Within the road reserve adjacent to and previously associated with Cambria House, is the Former Gardener's Cottage located at 250 Puhinui Road (CHI ref 22166). The building is currently uninhabited and fire damaged. It is not scheduled but is included in the Auckland Council CHI. It is a 19th century historical building, and therefore would be classed as an archaeological site under the provisions of the HNZPTA 2014.

Within the road reserve at the junction of Puhinui Road and Kenderdine Road is a stone and bronze memorial plaque, which is not a scheduled historic heritage item, but is recorded on the Auckland Council CHI (Ref 15944).

There are occasional earlier 20th century buildings along NoR 3 identified from historical aerial photography, but none of these places are scheduled or otherwise identified as being of particular heritage interest.

It should be noted that full evaluation of the above sites using the AUP:OP RPS criteria has not been undertaken previously and is outside of the scope of this report. However, the relative importance of each place must be indicated in order for an effect to be ascertained. Therefore, for the purposes of this assessment, the overall historic heritage value of each identified place is initially assessed as follows, based on the AUP:OP RPS methodology for evaluation already referred to above:

- Cambria House – **Considerable / Regional and National**

Explanation: The Category A\* is an interim rating for places where demolition under legacy plans was a discretionary or non-complying activity, rather than a prohibited activity<sup>3</sup>. As the Cambria House is yet to be re-evaluated, I have adopted the above rating for purposes of assessment. This is because when considering plan changes introduced by Auckland Council, it is fairly common for scheduled A\* places to be re-evaluated as Category B places, and it is also consistent with the Category II status indicated by the HNZPT listing.

- The Former Gardener's Cottage – **Moderate / Local**

Explanation: The Gardener's cottage has not been previously included on the schedule or included as part of the extent of place associated with Cambria House, though it has historical connections with the latter. Its integrity is greatly reduced as a result of fire damage and vandalism. As a pre-1900 site it also has archaeological values, but again these are assessed as no more than moderate due to the reduced integrity of the place.

- Memorial plaque – **Moderate / Local**

Explanation: The memorial is a late 20th century structure relating to historical WWII events and has not been previously identified as meriting heritage status in its own right.

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<sup>3</sup> AUP:OP D17.1



ID	Place Name and/or Description	Verified Location	Verified Legal Description	Category	Primary Feature	Heritage Values	Extent of Place	Exclusions	Additional Rules for Archaeological Sites or Features	Place of Maori Interest or Significance
01469	Cambria House	250 Puhinui Road, Papatoetoe	LOT 1 DP 184348	A*	Residence	A,B,F,G,H	Refer to planning maps	Interior of building(s)		

Figure 3: Cambria House – Category A\* Scheduled Historic Heritage Place (AUP:OP Schedule 14.1 ID 1469), with Schedule 14.1 data.





**Figure 4** Unscheduled Recorded Built Heritage – Former Gardener's Cottage (CHI ref 2216) and landscaping to boundary



**Figure 5:** Unscheduled Recorded Built Heritage – Memorial plaque (CHI ref 15944)

## 7.2 Assessment of construction effects

### **Cambria House**

There are unlikely to be any significant adverse effects to historic heritage values for Cambria House. Construction effects are likely to be limited to temporary nuisance effects associated with dust, noise and visual obstruction typically associated with construction activities. These 'general' effects and the associated mitigation are discussed above in Section 4.1.

Within the road reserve any mature trees and landscaping that contributes to the setting of Cambria House might be removed to facilitate construction activities. This is a change of moderate impact, and likely to result in low, permanent adverse effects on context and aesthetic values of Cambria House.

### **Gardener's Cottage**

It is anticipated that the fire damaged former Gardener's Cottage is likely to be removed and/or demolished to accommodate proposed works within the road reserve (based on the Project design to date). If this is necessary, demolition will generate a high impact, resulting in a permanent, moderate adverse effect.

### **Memorial Stone**

The setting of the stone may be affected by works in the road reserve, and the stone itself may be potentially affected by accidental damage.

## 7.3 Recommended measures to avoid, remedy or mitigate construction effects

### **Cambria House**

Temporary nuisance effects can be effectively managed through standard construction management practice. The potential adverse effect to setting through removal of mature trees and landscaping may be mitigated and remediated through replanting and landscaping if required.

### **Former Gardener's Cottage**

Removal of the former Gardener's Cottage may be mitigated through historical building recording, to create a long-term archival record of the building. Mitigation of this nature would reduce the adverse effects of demolition to an appropriate level because the record would capture any archaeological/knowledge values associated with the historical building.

For buildings of moderate historical significance, recording at Level 2 in the HNZPTA 2018 guidance is typically recommended.

Additionally, interpretive panels may be installed that provide historical images of the place and give information on both the cottage and Cambria House. This provides an opportunity to support the historic heritage values of the place through dissemination and appreciation of the place's history.

## Memorial stone

Standard construction management techniques may be applied, such as fencing off the area. If necessary, the stone may be temporarily relocated and if this occurs there is also an opportunity to enhance its current setting and interpretation through landscape design.

## 7.4 Assessment of operational effects

On operation, the effects are those described in the general Section 4.3.

## 7.5 Recommended measures to avoid, remedy or mitigate operational effects

On operation, the mitigation methods are those described in the general Section 4.4.

## 7.6 Summary and Conclusions

The effects on built heritage values are summarised in the following table. Should mitigation recommendations be adopted, the Project is unlikely to generate moderate or higher adverse effects of either a temporary or permanent nature for built heritage.

**Table 10: Summary of built heritage effects and recommendations for NoR 3**

Effect	Assessment	Recommendation
<b>Construction</b>		
250 Puhinui Road - Cambria House Category A* Scheduled historic heritage place Loss of landscaping within road reserve	Likely to occur based on Project design to date. Affects the setting and potentially aesthetic and context values of historic heritage (e.g. loss of mature tree)	Remediate through replanting and new landscaping
250 Puhinui Road – Gardener’s Cottage Demolition	Likely to occur based on Project design to date. Resulting in moderate, permanent adverse effects on built heritage values	Mitigate through archaeological building recording
Memorial Stone	Potential for accidental damage during construction activities Temporary nuisances	Manage through standard techniques and fence off. If necessary, temporarily relocate to facilitate construction
<b>Operational</b>		
Increase in noise / emissions etc. as a result of additional traffic capacity	High potential to occur, typically resulting in indirect adverse effects on built heritage places. Typically low and permanent adverse	None recommended – purpose of NoR is to provide opportunity for modal shift, in order to reduce traffic.

Effect	Assessment	Recommendation
	effects to setting, Aesthetic values category	
Opportunity for use	Operation of public transport and improvement of pedestrian environment indirectly enhances use opportunities for built heritage places	None recommended
Opportunity for interpretation	Interpretation which can enhance Historical Association and Context values	Consider interpretation opportunities along route

## **8 Airport to Botany Bus Rapid Transit NoRs 4a and 4b**

This section assesses specific Built Heritage matters relating to NoRs 4a and 4b – between the SH20/20B Interchange and Orrs Road. There are no recorded built heritage sites in this NoR Section. There are a few earlier 20th century buildings, but none of these structures are currently scheduled or identified as being of particular heritage interest. None of these buildings will be directly affected by construction works.

### **8.1 Assessment of construction effects**

As noted above in the general Section 4.1.

### **8.2 Recommended measures to avoid, remedy or mitigate construction effects**

As noted above in the general Section 4.2.

### **8.3 Assessment of operational effects**

As noted above in the general Section 4.3.

### **8.4 Recommended measures to avoid, remedy or mitigate operational effects**

As noted above in the general Section 4.4.

### **8.5 Summary and Conclusions**

As noted above in the general Section 4.5.

## 9 Conclusions

NoRs 1, 2, 4a and 4b do not affect any scheduled or nationally listed built heritage places of historic heritage significance. Additionally, there are no significant adverse effects to built heritage places identified in any of the NoRs.

There is one Category A\* Scheduled place identified in NoR 3 – which is Cambria House, at 250 Puhinui Road. The NoR runs adjacent to its boundary, so will only affect its setting. Construction activities may require removal of landscaping within the road reserve which contributes to its setting, and this may be remediated or mitigated through replacement landscaping.

NoR 3 also contains two non-scheduled, but formally recorded built heritage sites assessed as having moderate historic heritage significance. These are the former Gardener’s Cottage at 250 Puhinui Road, associated with Cambria House, and a stone/bronze memorial in the road reserve at the junction with Puhinui Road and Kenderdine Road.

The greatest level of effect would be generated within NoR 3, through the removal/demolition of the former Gardener’s Cottage at 250 Puhinui Road if required by the construction activities to enable the Project. Demolition or removal is highly likely based on the Project design to date, as the place is already compromised by fire damage, and this would generate a moderate adverse effect. This may be appropriately mitigated through historical building recording to provide an archival record of the place, and through signage and interpretation detailing its history.

**Table 11: Summary of built heritage effects and recommendations for the Project**

Effect	Assessment	Recommendation
<b>Construction</b>		
250 Puhinui Road - Cambria House Category A* Scheduled historic heritage place Loss of landscaping within road reserve	Likely to occur based on the Project design to date. Affects the setting and potentially aesthetic and context values of historic heritage (e.g. loss of mature tree)	Remediate through replanting and new landscaping
250 Puhinui Road – Gardener’s Cottage Demolition	Likely to occur based on the Project design to date. resulting in moderate, permanent adverse effects on built heritage values	Mitigate through archaeological building recording
Memorial Stone	Potential for accidental damage during construction activities Temporary nuisances	Manage through standard techniques and fence off. if necessary, temporarily relocate to facilitate construction
<b>Operational</b>		
Increase in noise / emissions etc. as a result of additional traffic capacity	High potential to occur, typically resulting in indirect adverse effects on built heritage places Typically low and permanent adverse effects to setting, Aesthetic values category	None recommended – purpose of NoR is to provide opportunity for modal shift, in order to reduce traffic

Effect	Assessment	Recommendation
Opportunity for use	Operation of public transport and improvement of pedestrian environment indirectly enhances use opportunities for built heritage places	None recommended
Opportunity for interpretation	Interpretation which can enhance Historical Association and Context values	Consider interpretation opportunities along route

# Appendix A

Assessment method for determining the  
scale of effect



## Assessment method for determining scale of effect

The effects that must be addressed in an AEE are set out in clause 7 of Schedule 4 RMA 1991 and as follows:

- Effects on those in the neighbourhood and, where relevant, the wider community including any social, economic and cultural effects;
- Physical effects on the locality including landscape and visual effects;
- Effects on ecosystems including effects on plants or animals and the physical disturbance of habitats in the vicinity;
- Effects on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual or cultural, or other special value for present or future generations;
- Any discharge of contaminants into the environment, including any unreasonable emission of noise and options for the treatment and disposal of contaminants; and
- Any risk to the neighbourhood, wider community or the environment through natural hazards or the use of hazardous substances or hazardous installations.

The requirement to address a matter in the assessment of environmental effects is subject to the provision of any relevant policy statement which may direct and/or restrict the assessment to certain matters.

The terms 'effect' and 'environment' under the RMA are broadly defined. It is the role of the AEE to identify and address actual and potential effects of a proposal on a particular environment. The term effect includes:

- **Positive and adverse effects** - both of these effects should be considered regardless of their scale and duration. It is also important to remember that the assessment is not about achieving a balance between the two but ensuring adverse effects are avoided, remedied or mitigated;
- **Temporary and permanent effects** - there are many effects associated with proposals that are often temporary, such as those relating to a temporary event. It is important to make the distinction in the assessment between effects that are temporary versus those that are permanent. If there is only a temporary non-compliance with rules in a plan or regulations, and the adverse effects of that aspect are not discernible from those of permitted activities, the council has the discretion to treat the activity as a permitted activity and issue a written notice to that effect, and return the application. See s87BB RMA. For further information on this process, refer to the MfE technical guidance on deemed permitted activities;
- **Past, present and future effects** - in addition to past and present effects it is also important to consider forecast effects as some effects may take time to show and consideration should be given as to whether these effects are of high or low probability at any time in the future;
- Any **cumulative effects** regardless of degree or element of risk - an adverse cumulative effect is an effect, when combined with other effects, is significant only when it breaches a threshold. It should not be confused with matters relating to precedent; and
- Any **reverse sensitivity effects** - situations where a potentially incompatible land use is proposed to be sited next to an existing land use.

Subject to the provisions of any policy statement or plan, all of these effects must be considered in the AEE regardless of their scale, intensity, duration, or frequency. It should also be considered whether potential effects are of high and/or low probability and could have a high potential impact<sup>4</sup>.

**Table for Determining Scale of Effects**

<b>VALUE</b>					
<b>Outstanding (very high) 5</b>	Nil (0)	Little/ Minor (10)	Moderate / More Minor (15)	Large / Significant (20)	Critical / Significant (25)
<b>Considerable (high) 4</b>	Nil (0)	Little/ Minor (8)	Moderate / More Minor (12)	Moderate / Significant (16)	Large / Significant (20)
<b>Moderate (medium) 3</b>	Nil (0)	Negligible / Less Minor (6)	Little / Minor (9)	Moderate / More Minor (12)	Moderate / More Minor (15)
<b>Little (low) 2</b>	Nil (0)	Negligible / Less Minor (4)	Negligible / Less Minor (6)	Little / Minor (9)	Little/ Minor (10)
<b>Negligible 1</b>	Nil (0)	Negligible / Less Minor (2)	Negligible / Less Minor (3)	Negligible / Less Minor (4)	Negligible / Less Minor (5)
<b>None 0</b>	Nil (0)	Nil (0)	Nil (0)	Nil (0)	Nil (0)
	<b>No Change 0</b>	<b>Low 2</b>	<b>Moderate 3</b>	<b>High 4</b>	<b>Very High 5</b>
<b>IMPACT</b>					

This scale is adapted from EIA Good Practice examples (e.g. UK Design Manual Roads and Bridges / NZILA / ICOMOS NZ, Waka Kotahi Guidance on Assessment of Historic Heritage Effects for Highway Projects) to incorporate common terminology used in the New Zealand RMA Planning Context, and the recommended scaling of effects described in MfE and Quality Planning Website documents. Numerical values are provided to demonstrate relative weighting of effects.

Effects to historic heritage values are considered using the following scale and may be classed as Temporary, Permanent; Adverse or Beneficial.

<sup>4</sup> Source: <https://www.qualityplanning.org.nz/node/836>

Magnitude of Effect		Adverse Effects
Critical / Significant		Significant unacceptable adverse effects that cannot be avoided or mitigated. Most, or key, statutory objectives are not met.
Large / Significant		Significant adverse effects that is noticeable and will have a serious adverse impact on the environment but may be avoided or mitigated. Some key statutory objectives are not met
Moderate / More minor		Adverse effects that are noticeable that may cause an adverse impact but could be potentially mitigated or remedied and may be acceptable. Key statutory objectives are met, but not all
Little / Minor		Adverse effects that are noticeable but will not cause any significant adverse impacts, and may also be further avoided or mitigated. Most or all statutory objectives are met
Negligible / Less Minor		Adverse effects that are acceptable, and may not require further mitigation. They are discernible day-to-day effects, but too small to adversely affect other persons. Statutory objectives are met
None		No effect/Neutral
Intrusive*		Removal of an intrusive feature is always beneficial effect as intrusive aspects by nature are detrimental

Magnitude of Effect		Beneficial Effects
Critical		Beneficial effects which strongly enhance historic heritage values and support statutory objectives
Large / Significant		Beneficial effects which positively enhance historic heritage values and support most statutory objectives
Moderate / More minor		Beneficial effects which maintain or slightly enhance historic heritage values and support some statutory objectives
Little / Minor		Beneficial effects which slightly maintain or slightly enhance historic heritage values
Negligible / Less Minor		Beneficial effects which maintain historic heritage values to a limited degree
None		No effect/Neutral
Intrusive*		Removal of an intrusive feature is always beneficial effect as intrusive aspects by nature are detrimental

\* (Where a particular feature is identified as intrusive in a conservation plan / heritage assessment)