
HISTORIC HERITAGE ASSESSMENT OF ARCHAEOLOGICAL EFFECTS

SH1/SH29 INTERSECTION UPGRADE

Waka Kotahi NZ Transport Agency

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HISTORIC HERITAGE ASSESSMENT OF ARCHAEOLOGICAL EFFECTS

WAKA KOTAHI

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2 EXECUTIVE SUMMARY

WSP NZ Ltd (WSP) on behalf of Waka Kotahi NZ Transport Agency (Waka Kotahi) commissioned Siân Keith Archaeology Ltd (SKA) to provide a Historic Heritage Assessment of Archaeological Effects (AAE) of the proposed State Highway 1 (SH1) and State Highway 29 (SH29) Intersection Upgrade Project (the Project). This assessment is required to support Notices of Requirement (NoRs) for alterations to designations and associated resource consents, and can be used to support an application to Heritage New Zealand Pouhere Taonga (HNZPT) for an archaeological authority. This assessment is focused on archaeological sites although it has considered the location of historic heritage sites where these are scheduled in the relevant Council District Plans, and provides comment regarding if historic heritage sites will be affected.

The assessment has involved a review of historic documents including aerial photographs, historic maps, and archaeological data including the New Zealand Archaeological Association's (NZAA) national database (ArchSite), and consultants' reports for the wider area. A review of the relevant district plans, and a field visit to a portion of the Project Footprint has been made.

The research and fieldwork for this assessment has identified that the Project is located within a wider landscape that contains evidence of Māori occupation and use prior to 1900, including pā in the hills to the north and east, and Māori garden sites along the banks of the Waikato River to the south. There are no known archaeological or historic heritage sites within the proposed Project Footprint.

Based on the available published information, and the results of recent fieldwork, it is concluded that there is a low to moderate risk that archaeological sites, features or deposits will be encountered during construction of the Project.

Based on there being a low to moderate risk of encountering archaeological deposits, it is recommended that Waka Kotahi apply to HNZPT for an authority to manage the risk of modifying or destroying an archaeological site. Securing an authority will aid in avoiding costly delays to the Project should archaeological deposits be uncovered.

1. INTRODUCTION

1.1. PURPOSE & SCOPE

This report forms part of a suite of technical reports prepared for Waka Kotahi NZ Transport Agency (Waka Kotahi) for the State Highway 1 (SH1) and State Highway 29 (SH29) Intersection Upgrade Project (the Project) (Figure 1 and Figure 2). The purpose of this Assessment of Archaeological Effects (AAE) report is to inform the Assessment of Effects on the Environment Report (AEE) and support the two Notices of Requirement (NoRs) for alterations to designations to Matamata-Piako District Council (MPDC) and South-Waikato District Council (SWDC) and applications for regional resource consents to Waikato Regional Council (WRC). This assessment can also be used to support an application to Heritage New Zealand Pouhere Taonga (HNZPT) for an archaeological authority.

A full description of the NoRs and regional resource consents required for the Project is provided in Section 4 of the AEE. A full description of the background and need for the Project is provided in Section 2 of the AEE.

The purpose of this report is to:

- assesses the historic heritage values, focused on pre-1900 archaeological potential, of the Project Footprint and the effects of the Project on those values, and provides recommendations in line with statutory requirements. As there are no known archaeological values within the footprint, this assessment has extrapolated what could possibly be beneath the ground based on known archaeological sites and activity in the surrounding landscape.
- This assessment has also considered the location of historic heritage sites where these are scheduled in the relevant council District Plans, and provides comment if historic heritage sites will be affected.

1.2. PROJECT DESCRIPTION

The Project is the construction and operation of a new two lane roundabout connecting SH1 and SH29, north-west of the existing intersection of SH1 and SH29 at Piarere. The key components of the Project are:

- a) A two-lane roundabout with a 60m diameter central island.
- b) Realignment of parts of the SH1 and SH29 approaches to connect to the new roundabout.
- c) The roundabout will be elevated approximately 3.5m above the existing ground level to provide for cycle and pedestrian underpasses.
- d) A stormwater management system, including stormwater ponds, stormwater outlets, grassed swales, culverts and discharges.
- e) Construction activities, including a construction compound, lay down area and establishment of construction access.

A full description of the Project including its current design, construction and operation is provided in Section 6 of the AEE and shown on the Project Drawings in Volume 4: Drawing Set.

Historic Heritage Assessment of Archaeological Effects: SH1/SH29 Intersection Upgrade

The final design of the Project (including the design and location of ancillary components such as stormwater treatment devices), will be refined and confirmed at the detailed design stage.

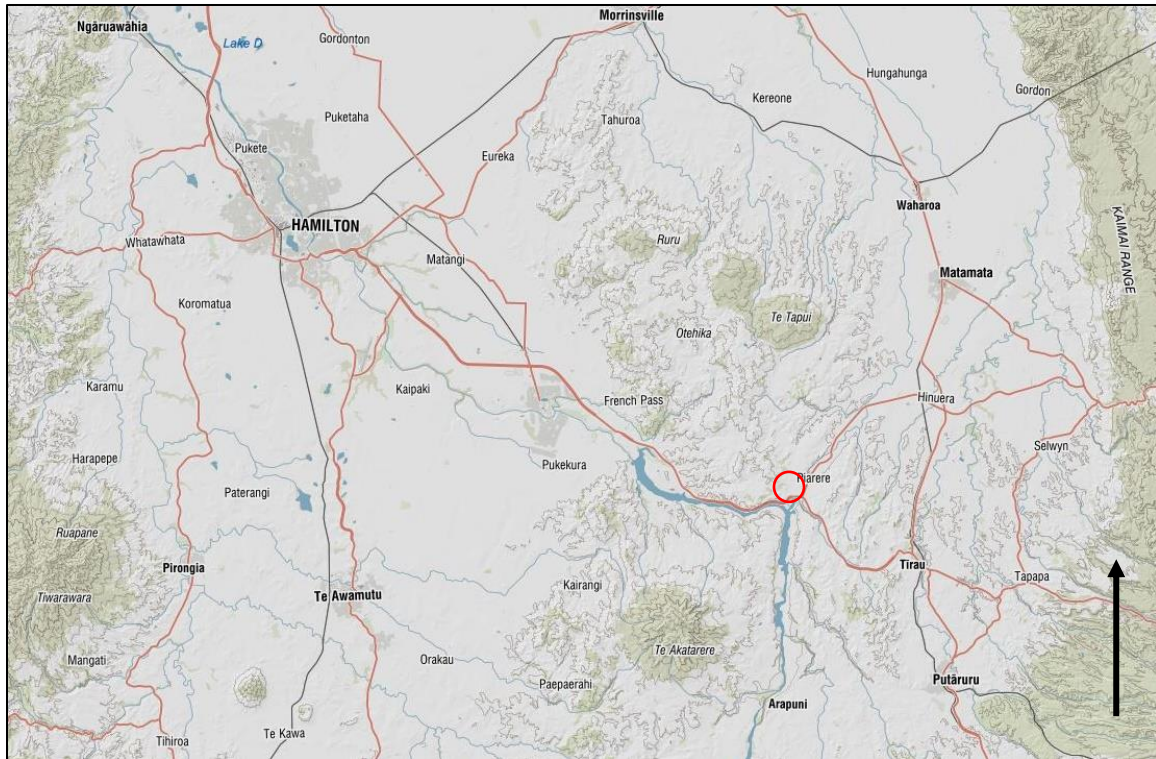


Figure 1: Location map (general project area highlighted with red circle).¹



Figure 2: Aerial image showing extent of Project Footprint.

¹ <https://soils-maps.landcareresearch.co.nz>

2. REGULATORY FRAMEWORK

2.1. LEGISLATION

2.1.1 RESOURCE MANAGEMENT ACT 1991

A number of sections of the Resource Management Act 1991 (RMA) provide for the recognition and protection of historic heritage.

The *Resource Management Act 1991* (RMA) requires District and Regional Councils to manage the use, development, and protection of natural and physical resources in a way that provides for the wellbeing of today's communities while sustaining the potential of natural and physical resources for future generations. The protection of historic heritage from inappropriate subdivision, use, and development is identified as a matter of national importance (section 6f).

Historic heritage is defined as those natural and physical resources that contribute to an understanding and appreciation of New Zealand's history and cultures, derived from archaeological, architectural, cultural, historic, scientific, or technological qualities.

Historic heritage includes:

- historic sites, structures, places, and areas.
- archaeological sites.
- sites of significance to Māori, including wāhi tapu.
- surroundings associated with the natural and physical resources (RMA section 2).

These categories are not mutually exclusive and some archaeological sites may include above ground structures or may also be places that are of significance to Māori.

Where resource consent is required for any activity the assessment of effects is required to address cultural and historic heritage matters (RMA Schedule 4).

The Project Footprint falls within the boundaries of the MPDC and to a lesser extent the SWDC. The relevant policies and objectives of the MPDC and SWDC district plans are provided in Appendix A and B.

2.1.2 HERITAGE NZ POUHERE TAONGA ACT 2014

The purpose of the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA) is to promote the identification, protection, preservation, and conservation of the historical and cultural heritage of New Zealand (HNZPTA section 3). Emphasis is placed on avoiding effects on heritage.

The HNZPTA provides blanket protection to all archaeological sites meeting the definition in the Act, whether they are recorded or not. Protection and management of sites is managed by the archaeological authority process, administered by HNZPT. It is illegal to destroy or modify archaeological sites without an authority to do so from HNZPT.

The HNZPTA (s6) defines an archaeological site as:

- (a) Any place in New Zealand including any building or structure (or part of a building or structure) that:
- (i) was associated with human activity that occurred before 1900 or is the site of the wreck of any vessel where that wreck occurred before 1900; and
 - (ii) provides, or may provide through investigation by archaeological methods, evidence relating to the history of New Zealand; and
- (b) Includes a site for which a declaration is made under Section 43(1) of the Act².

Any person who intends to carry out work that may modify or destroy an archaeological site, or to investigate an archaeological site using invasive archaeological techniques, must first obtain an authority from HNZPT. The process applies to sites on land of all tenure including private, public and designated land. The HNZPTA contains penalties for unauthorised site damage.

The archaeological authority process applies to all archaeological sites that fit the HNZPTA definition regardless of whether the site is recorded in the NZAA Site Recording Scheme or registered with HNZPT; or if the site only becomes known about as a result of ground disturbance; and/or the activity is permitted under a district or regional plan, or a resource or building consent has been granted, or the ground is subject to a designation.

The HNZPTA replaced the *Historic Places Act 1993* (HPA) in May 2014.

HNZPT also maintain the New Zealand Heritage List/Rārangi Kōrero (The List). The List can include archaeological sites. The purpose of The List is to inform members of the public about such places, and to assist with their protection under the RMA.

It is possible that archaeological sites, as defined in the HNZPTA, may be disturbed by this Project. Any archaeological sites identified during the ground works at this site will be protected under the HNZPTA, and their discovery may pose delays to works unless an archaeological authority has been issued that allows the work.

2.2. SUPPLEMENTARY RESOURCES

The International Council of Monuments and Sites (ICOMOS), is an international non-governmental organisation of heritage professionals engaged in the conservation of places of cultural heritage value and dedicated to the conservation of the world's historic monuments and sites. The ICOMOS NZ Charter (Charter) is a set of guidelines on cultural heritage conservation, produced by ICOMOS New Zealand. The Charter constitutes a recognised benchmark for conservation standards and practice. Appendix C lists these values.

3. METHODOLOGY

This assessment has used the following sources to provide a historical and archaeological background of the Project Footprint:

- The NZAA's online database ArchSite
- Matamata Piako District Plan (MPDP)

² Such declarations usually pertain to important post-1900 remains with archaeological values.

- South-Waikato District Plan (SWDP)
- Historic LINZ survey plans
- Historic aerial photographs
- Previous consultants' reports.

Two site visits were undertaken to a portion of the Project Footprint by the author in January and March 2021.

4. PHYSICAL ENVIRONMENT AND SETTING

The Project is located in the northwest corner off the current SH1 / SH29 junction at Piarere (Figure 1 and Figure 2). It is on the true right side of the Waikato River / Lake Karapiro. The Waikato River is the major geographical feature of the landscape. It was an important source of fresh water and transport for both Māori and early European settlers.

The Project is located within a geological formation associated with the history of the Waikato River. Until c. 22,000 years ago the river ran north through the Hinuera Valley, through which SH29 passes, to the Firth of Thames. A blocked outlet at Lake Taupo suddenly gave way and the lake level fell 75 metres as c. 80 cubic kilometres of water and debris poured out in a catastrophic breakthrough flood (McCraw 2011). Gradually the river valley at Piarere became choked with volcanic debris and the river overtopped the low divide that separated the Waikato Valley from the Maungatautari Stream, causing the river to alter its course towards Hamilton. Deposits show that the Waikato River was already in the Waikato Basin 21,800 years ago. The change of course for the river valley is also recorded in Māori legend and the reader is directed to McCraw (2011) for a full account of this.

The ground is relatively flat and in farmland, mainly dairy pasture. Dominant soil profiles are well-drained (Horotiu soil) and imperfectly drained (Horotiu-Te Kowhai complex) (Figure 3). Horotiu and Horotiu-Te Kowhai soils were often modified by pre-European Māori for gardening purposes.

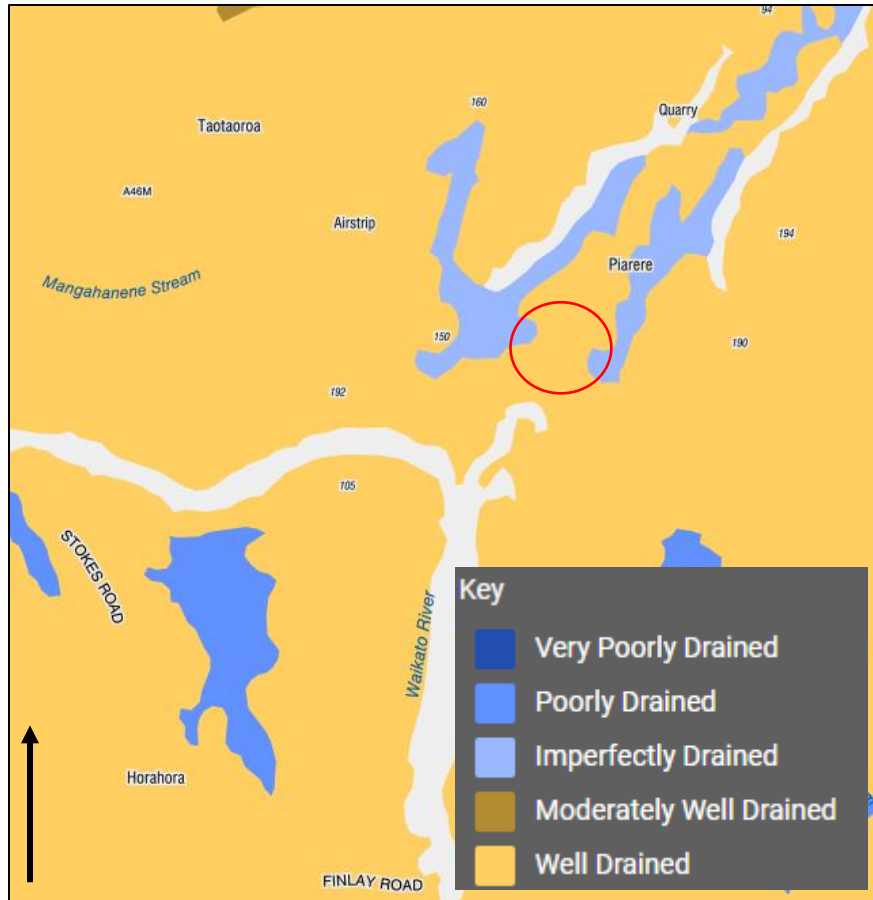


Figure 3: Soil map, general project area highlighted with red circle.³

5. HISTORICAL BACKGROUND

5.1. MĀORI ERA

The Project is within the Middle Waikato Basin, a geological formation which is visible on Figure 1. There is currently limited dating evidence of initial settlement of this area. Dates from recent archaeological investigations at Burns Block, Cambridge, indicate Māori occupied the wider district from the middle of the 15th century AD (Gumbley and Laumea 2017:70).

The pre-European archaeology of Middle Waikato Basin is characterised as representing a subsistence economy based primarily on horticultural activity which is focused on the production of kūmara. There are numerous publications on pre-European gardening practices (e.g. Burtenshaw et al 2001, Furey 2006, Gumbley et al 2003, Trotter and McCulloch 2001) and it is not intended to repeat this information in detail here. In summary, Polynesian settlers brought with them to New Zealand six cultigens including kūmara, taro, and yam. Kūmara was by far the most significant of the cultigens grown.

³ <https://soils-maps.landcareresearch.co.nz>

In order to successfully grow their introduced staple food crops in the district's different environment and climate, Māori had to change and adapt their traditional methods to improve conditions for plant growth and maturation (Furey 2006). In the Middle Waikato Basin kūmara were grown on specific soils chosen deliberately based on the qualities of the parent soil and the access to underlying sands and gravels and fresh water. Sands and gravels were mined from the underlying Hinuera Surface, formed by the ancient braided system of the Waikato River. The quarries, which are known as 'borrow pits', are often several meters wide and over two metres deep, dug through the upper subsoils. These sands and gravels were then incorporated into the upper surface creating distinctive garden soils. There are extensive tracks of garden soil along the lands adjacent to the Waikato River and its tributaries extending over much of the land from Huntly to Piarere.

Intensive horticultural activity is recorded along the river terraces to the south of the project footprint and, to the west, horticultural sites dominate the recorded archaeological landscape. Fortified settlements (pā) are recorded in the archaeological landscape both in the hills to the north-west and east of the project and alongside the Waikato River.

No horticultural sites are known within the Project Footprint and there is no current visible evidence of other archaeological activity specifically in this location. However, less visible archaeological sites associated with day-to-day living activities, for example food storage locations and temporary camps, are less likely to leave a visible surface expression. Such low-profile sites can only be identified following the removal of topsoil.

5.2. 19TH CENTURY

From the 1820s European goods were entering the Waikato region in the form of muskets, crops, and domesticated animals. Wheat was extensively grown in the Waipa District (Stowers and Field 2014). Māori became proficient and productive growers, selling their surplus to the Auckland market, transporting goods via canoes along the Waipa and Waikato Rivers (Stowers and Field 2014; O'Malley 2016). No evidence has been uncovered to date to indicate that the Project Footprint was farmed by Māori during this period.

Following the Crown invasion of the Waikato in 1863, the British government confiscated much of the land in the Waipa district. The study area was not part of the confiscated lands, the boundary known as the Aukati Line is to the west of the Project, west of the intersection of Karapiro Road and SH1.

Towards the end of the 1870s dairy farms were established in the region, focusing on the Fencourt Land Company butter factory, established in 1885 at Hautapu (north of the Project). From the 1880s growth in the Waipa and Waikato districts was facilitated by the opening of railway lines, including from Auckland to Wellington and the Cambridge offshoot as well as increasing numbers of roads. Previously reliant on a river steamer service, these new transport routes allowed the easier transport of goods to markets in Auckland, Hamilton and Thames (Stowers and Field 2014; Parker 1986).

The Project is located far from the main areas of European settlement in the 19th century. From the 1860s the main settlements would have been at Cambridge, Hamilton, and Te Awamutu. There is little evidence of European farming and settlement in the general area until the early 20th century.

5.3. HISTORIC MAPS

Captain Newell's sketch map dated to c. 1878 portrays all of the sites and settlements familiar to him at that time. The extract showing the general study area reproduced in Figure 4 depicts SH1 and settlements in the wider landscape, but nothing is shown within the approximate area of the project.



Figure 4: Captain Newell's Sketch Map of the Waikato c. 1878. Approximate study area highlighted with red circle.⁴

5.4. SURVEY PLANS

Relevant historic survey plans have been reviewed, however these have provided no evidence for archaeological activity within the Project Footprint.

The earliest survey plan identified is from 1885 (Figure 5) and illustrates the Hinuera No. 1 Block. SH1 and SH29 are surveyed, the Waikato River and the Piarere Stream are identified and a large track of swamp is depicted to the west of the project. Later survey plans dated to 1904 (Figure 6 and Figure 7) show similar detail. These plans show no evidence of pre-1900 sites of archaeological interest.

⁴ Extract of reproduction held at Waikato Museum

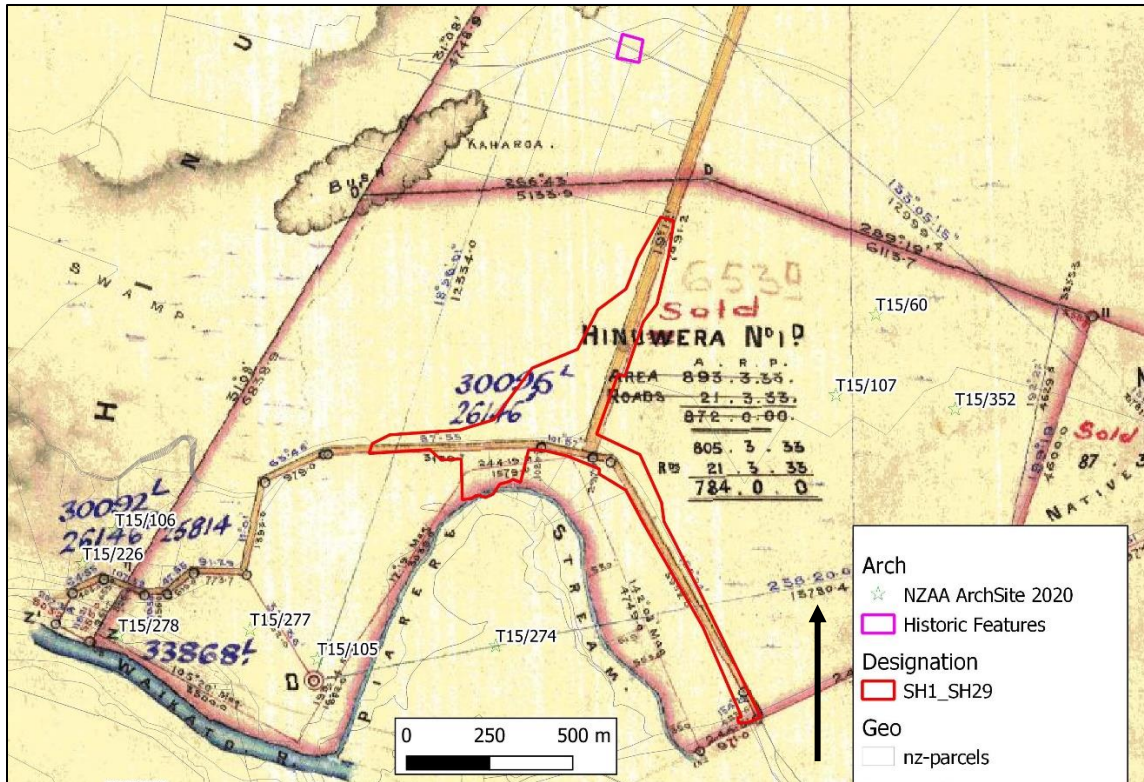


Figure 5: PART ML653 (1885), recorded archaeological sites are overlain.

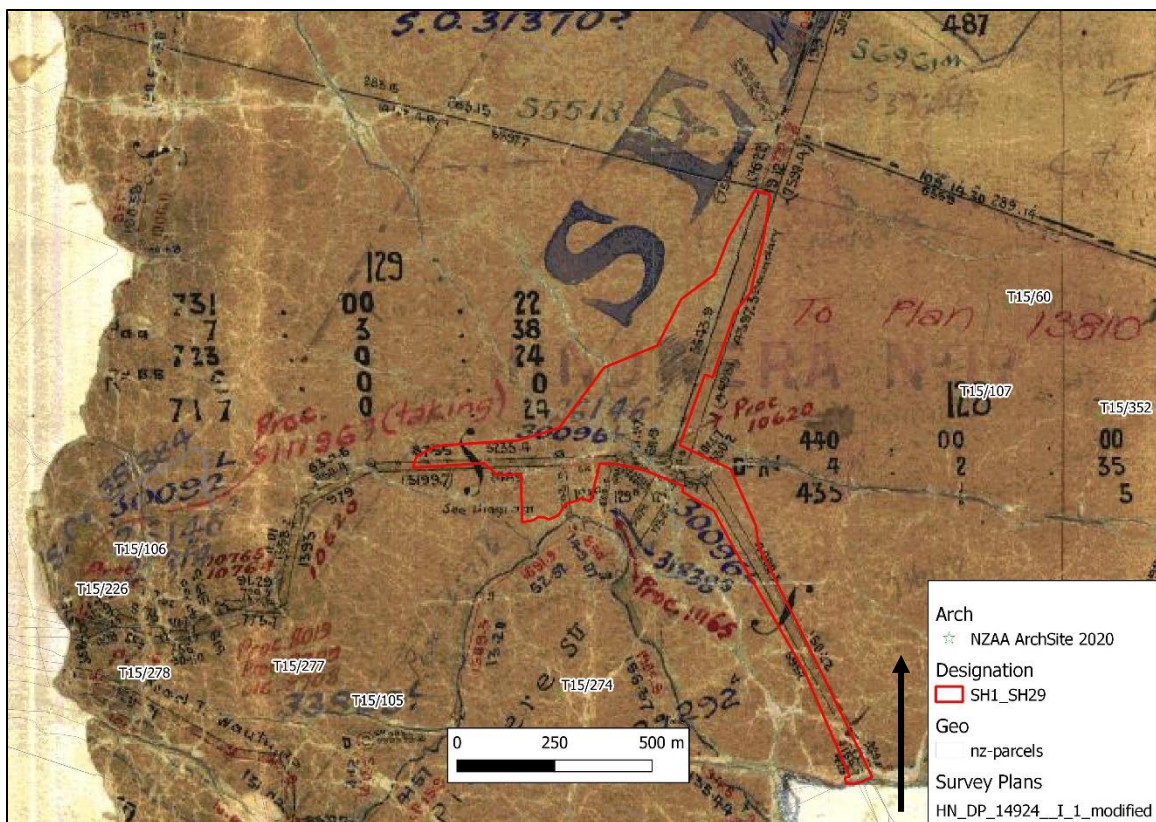


Figure 6: PART DP3008 (1904), recorded archaeological sites are overlain.

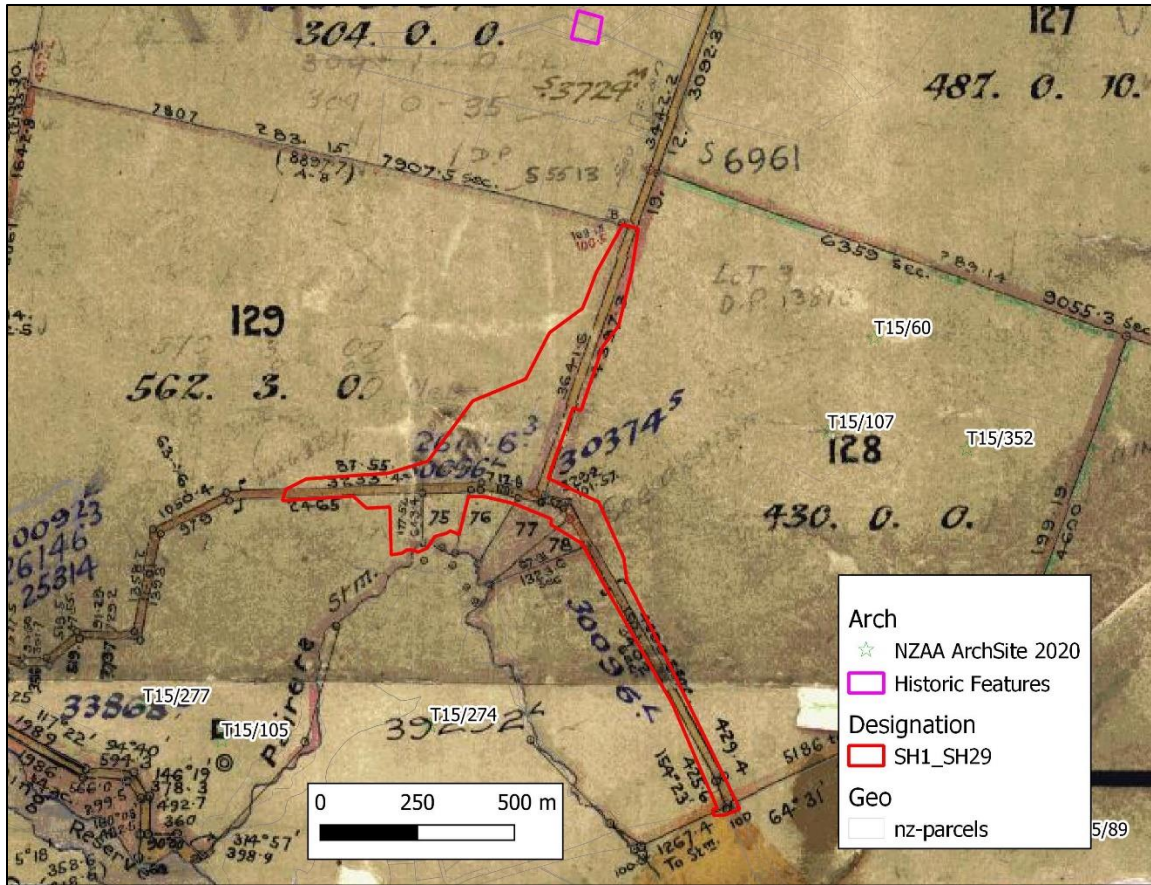


Figure 7: PART SO13202 (1904), recorded archaeological sites are overlain.

5.5. AERIAL PHOTOGRAPHS

Aerial imagery from the 1940s has been examined to identify any visible surface features in the testing locations (Figure 8). The aerial imagery shows the land to be predominantly in short, grazed pasture with pockets of dense vegetation especially within gully locations. Borrow pits are evident, all of which are outside of the project footprint. Two depressions are visible on the east side of SH29 which look similar to the borrow pits recorded in the wider landscape. These depressions are arrowed in Figure 8, and are discussed further below in Section 6.

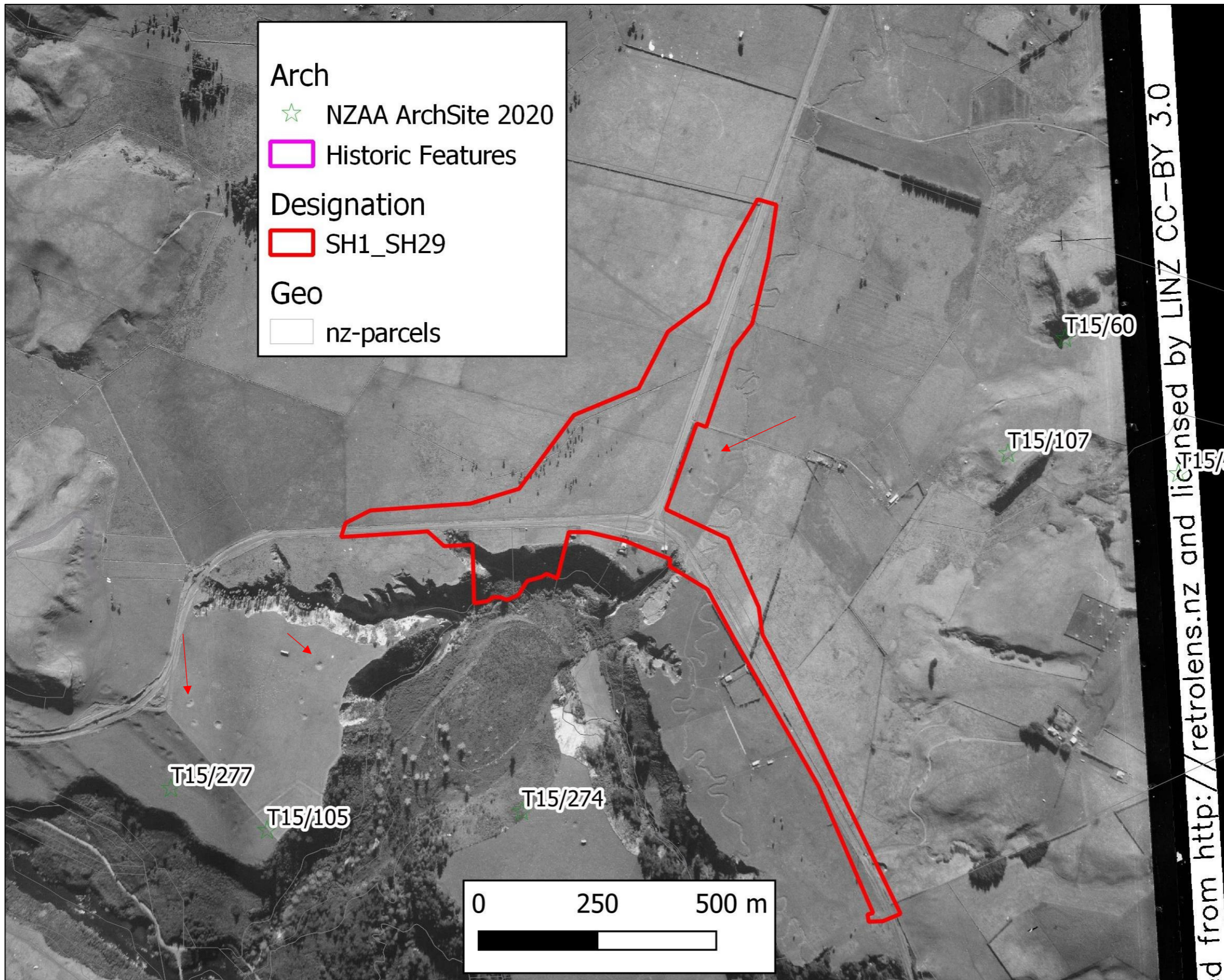


Figure 8: Aerial photograph 1943 (source Retrolens.co.nz). Potential borrow pit depressions on the east side of SH29 are arrowed, as is borrow pit cluster T15/277.

6. PREVIOUS ARCHAEOLOGICAL WORK

6.1. ARCHSITE

There are nine recorded archaeological sites within 1500m of the Project Footprint but none within it. Figure 9 identifies these nine archaeological sites, and Table 1 summarises the site details. The database is dominated by extensive horticultural sites with pā recorded in the hills to the north and east, and occasional pit and terrace complexes in the wider landscape.

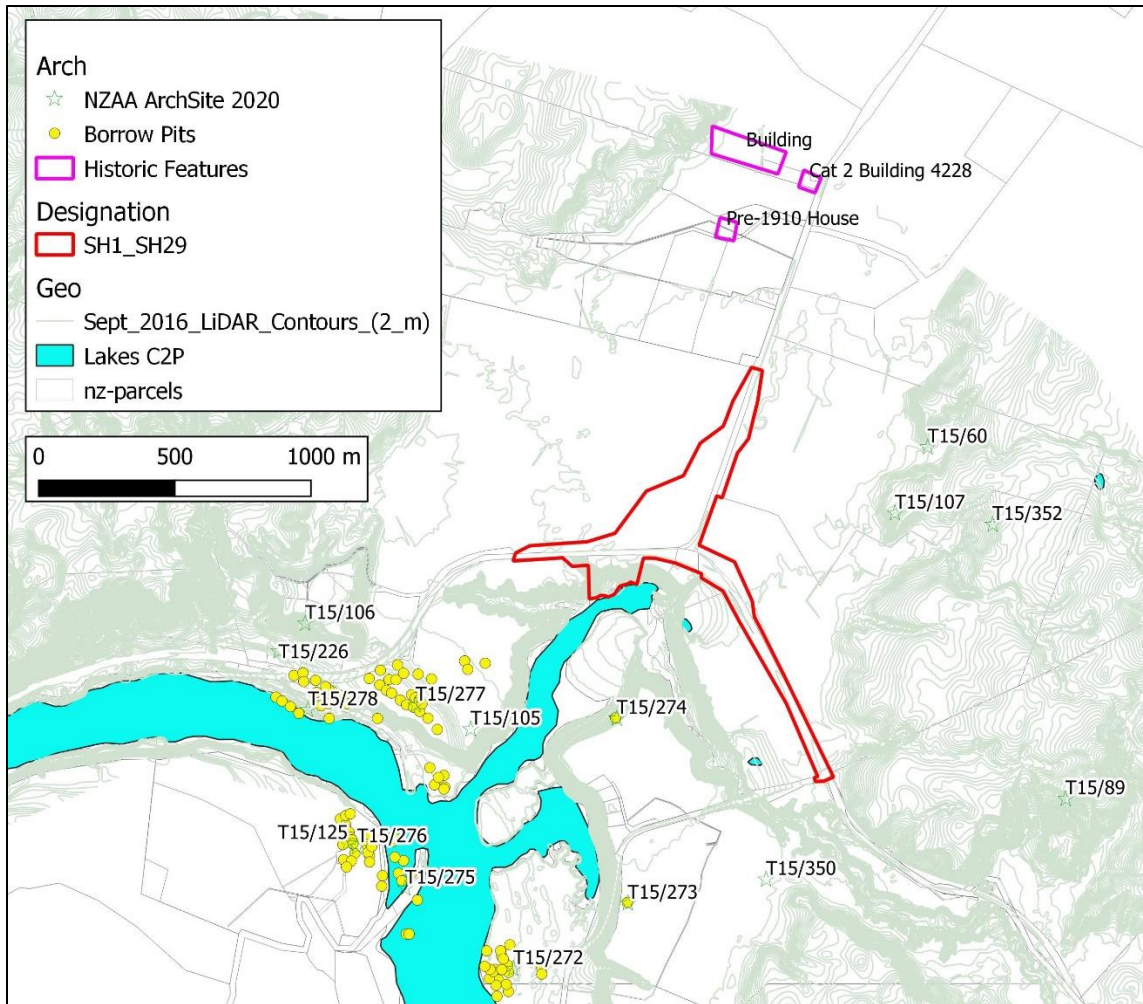


Figure 9: Contour map indicating Historic Heritage and archaeological sites within 1500m of the Project Footprint.

Table 1: Recorded Archaeological Sites within 1500m of the Project Footprint.

NZAA Site #	Site Type	Description
T15/60	Pā	Located on west edge of escarpment on eastern side of Hinuera Valley.
T15/105	Pā / borrow pits	On the northern bank of the Waikato River. Large rectangular pā on the edge of an escarpment with a substantial area of borrow pits adjacent.
T15/106	Pā	Small rectangular pā located using aerial photographs. Small pā recorded. Possibly destroyed by house/pool/tennis court etc.
T15/107	Pā	Located at southern end of a narrow ridge running north-south.
T15/226	Borrow pits	1683 State Highway 1, Tirau. The site is located above SH1, on the northern embankment of the Waikato River and upper reaches of Lake Karapiro, immediately west of the junction of SH1 and SH29. Investigated under NZHPT Authority No 2006/49.
T15/274	Borrow pit	1 borrow pit which is part of an extensive horticultural landscape, recorded from aerial imagery.
T15/277	Borrow pits	39 borrow pits beside Lake Karapiro. Part of an extensive horticultural landscape, recorded from aerial imagery.
T15/278	Borrow pits	7 borrow pits part of an extensive horticultural landscape, recorded from aerial imagery.
T15/352	Pit/ terrace	Across from pā T15/107 are several marks in the ground typical of pits. The hill is north west facing. The 5 - 6 visible pits are within 50 m of each other, and approx. 200 m from the pa. Stock trampled and mostly eroded.

6.2. SURVEYS & INVESTIGATIONS

Most of the recorded archaeological sites have been identified from historic aerial photographs, with the initial recording of sites, primarily pā, recorded by Laurie, Gorbey and Coster in the 1970s. A select number of these sites were visited or updated by Wilkes in the early 2000s. In 2008-2009 as part of the NZAA Upgrade Project, Coster checked, corrected and amended these recorded sites.

Gumbley and Hutchinson (2013) undertook a desktop assessment of the state of the resource of the pre-European Māori garden sites in the Waipa District. They added an additional four sites within 1500m of the Project Footprint.

A review of the digital report library held by HNZPT identified one archaeological report by Vanessa Tanner (2007) that relates to a borrow pit site T15/226 on the northern embankment of the Waikato River on SH1. T15/226 is located approximately 1.5km west of the Project. The excavations confirmed that the river terraces on the borrow pit site were used by Māori for gardening.

Investigations in the wider area have been undertaken for Transpower NZ Ltd maintenance (Trilford 2016; Cruickshank 2014); cycleway projects (Gumbley and Hutchinson 2014) and Waikato Expressway projects (Mallows 2009; Mallows 2011; Campbell and Hudson 2012; Campbell et al. 2016). Twenty one archaeological sites around Cambridge were investigated in relation to the construction of the Tamahere-Cambridge Section of the Waikato Expressway (Campbell et al. 2016). Of these 21 sites, 12 were identified during archaeological monitoring of the earthworks. This shows a pattern of extensive subsurface archaeological deposits identified during fieldwork when compared to visible surface features identified during the assessment stage (Potts 2018).

No records were found of the Project Footprint being the subject of archaeological survey, assessment, or investigation, prior to the current phase of work.

6.3. THE NEW ZEALAND HERITAGE LIST/ RĀRANGI KŌRERO

There is one item listed: List item 4228, Piarere School listed in the New Zealand Heritage List/Rārangi Kōrero. The Piarere School is listed as a Category 2 Historic Place and was constructed as a school in 1911. It is also Item 66 in the Matamata-Piako District Plan. The school is c.865m to the north of the Project Footprint (see Figure 9).

6.4. DISTRICT PLANS

In the MPDP, Heritage Site, Item 66 is scheduled as Piarere School (Technical Institute), 5852 Stage Highway 29, Tauranga – Piarere (Section 156 Block XVI Cambridge SD). The school is c.865m to the north of the Project Footprint (see Figure 9). The project will not affect this site.

The district plans do not identify any wāhi tapu sites are identified within the boundaries of the Project.

7. FIELDWORK

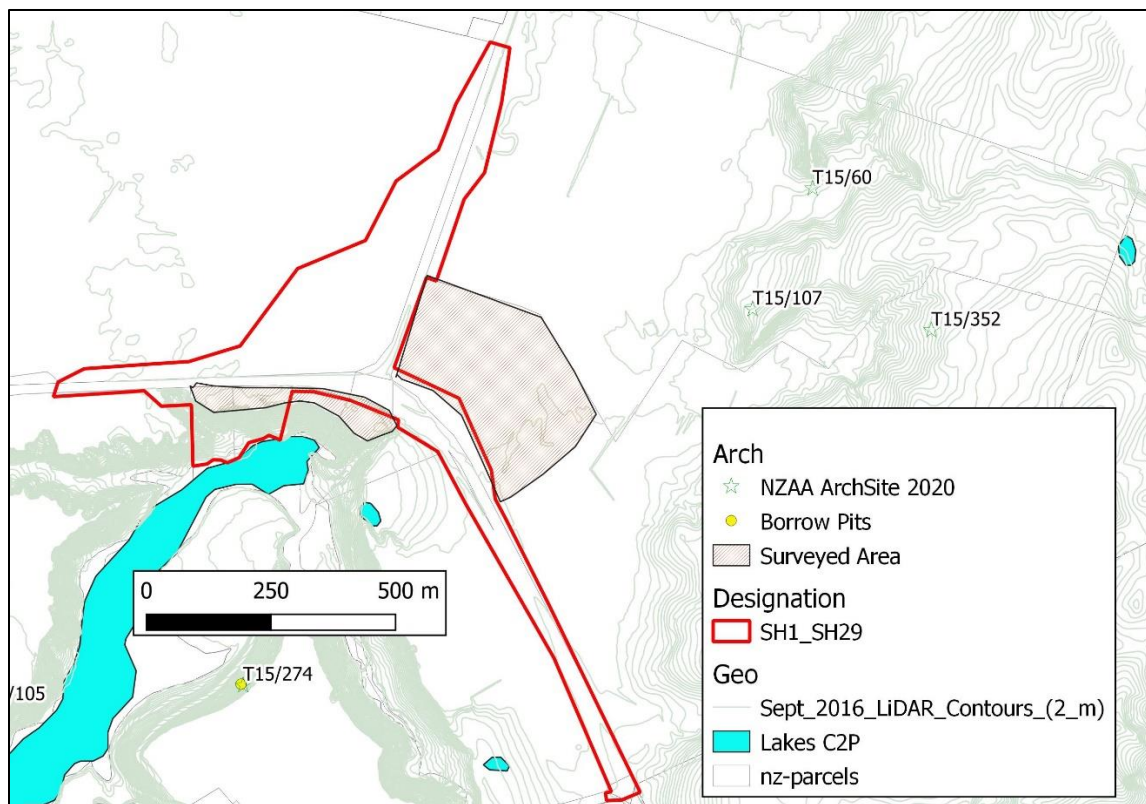


Figure 10: Map of land surveyed.

The land to the eastern side of SH29 (SA1701/33 and SA646/95) was surveyed by the author in January 2021, part of which is within the Project Footprint, as part of an assessment of alternative locations for the roundabout. At the time this report was prepared, it had not been possible to access the privately owned land within the Project Footprint on the western side of SH29 (contained in Record of Title SA69C/317). A visual survey of that land from the roadside boundary has been undertaken (Figure 11).

The survey consisted of a visual pedestrian survey, and screw-augur and spade cut test pits were carried out. There was no visual evidence of archaeological activity on the surface, the land was in grazed pasture and was noted to be mainly flat with relatively shallow water channels crossing through. There was no visual evidence of the two depressions seen in the 1943 aerial image (Figure 8). Test pitting and auguring was undertaken at intervals across the paddock to determine the soils profiles, including in the location of the two depressions. All results suggest an intact soil profile consisting of c. 30cm topsoil overlaying >60cm of Horotiu silts. Based on the results of this fieldwork, it is expected that should archaeological deposits be present within the Project Footprint, they would be intact. There is no evidence which would suggest significant previous soil disturbance.

There is no evidence which would suggest horticultural activity, such as borrow pits or modified garden soils. The most likely type of archaeological activity present would be evidence of temporary camps (fire places and cooking fires), and possibly subterranean storage (kūmara pits), although the latter seems less likely as crop stores would not have been defensible in this low lying location.

It is anticipated that similar results would be obtained for the Project Footprint to the west of SH29. This is based on the aerial imagery, recorded soil types, and there being a similar topography.



Figure 11: Image looking north-east towards the location of the proposed roundabout (9.03.2021).

A site visit was made to the southern side of SH1 to assess a proposed stormwater outlet. The area was visually inspected and access was not limited.

The western side (SA32A/615 and SO 53269) is a grazed paddock between SH1 and a steep falling gully (Figure 12). It has been significantly modified over the last 50 years or so. The current occupier described the previous buildings located on the site and the work he has undertaken to remove debris and recontour the paddock. The gully to the south is heavily vegetated and inaccessible. As a result, it is highly unlikely that archaeological material will be present in this location.

The eastern side (SO53565 and SO13202/65) is within a residential section with formed driveways established gardens and domestic buildings. It abuts a gully to the east which is also highly vegetated. Based on a visual inspection it was considered that there is no current reason to suspect that this area holds historic heritage/archaeological values.



Figure 12: Image looking north across the western stormwater outlet location.

8. CONSTRAINTS AND LIMITATIONS

This report is an assessment of the impacts of the proposed SH1/29 roundabout project on historic heritage, focused on pre-1900 archaeological values. There are no statements on cultural significance nor are the views of tangata whenua represented in this report.

It was not possible to visit the proposed roundabout location on the west side of SH29 for the purpose of this report. However, a similar environment is expected as that surveyed on the eastern side of SH29 and detailed above.

Statements are made as to the location and nature of recorded archaeological sites and their archaeological values. The archaeological information is derived from both published material including the HNZPT Digital Archaeological Report Library and NZAA ArchSite Database as well as information from archaeologists who have undertaken research and HNZPT authority work in this part of the Waikato.

Archaeological site location data should be regarded as a guide only as the locational accuracy of archaeological sites recorded in ArchSite is variable. Accuracy for some recorded sites is only to 100 m grid squares and many of these have been recalculated from earlier 100 yard coordinates which can increase the location error. Those sites that have not been recorded accurately are indicated on the ArchSite maps with a square and are only accurate to within, at best, 100 m of the actual site location. Archaeological sites that have been visited since the advent of GPS may have more accurate recorded locations. The full extent of recorded sites is often not known and the single point coordinate provided by ArchSite is often based on only the visible surface archaeological remains. This does not necessarily

represent the true subsurface extent of archaeological sites as defined in the HNZPTA, as most archaeological remains lie below the ground surface.

9. ASSESSEMENT OF HISTORIC HERITAGE / ARCHAEOLOGICAL VALUES

9.1. DISCUSSION OF VALUES

There are no known historic heritage or archaeological values associated with the Project Footprint.

Borrow pits are numerous on the river terraces to the west of the project footprint, and pā sites are recorded in the hills to the north-west and east. The Project is in a former river valley outside of these two landscape formations. It is unlikely that the Project is within an area of a former intensive Māori occupation, and there is no current evidence to suggest that this area was a focus of horticultural activity. Based on the wider archaeological landscape, there is a low to moderate potential that archaeological activity may have been undertaken in this location. Such activity is most likely to be associated with minor activities, such as temporary camps and be represented by deposits associated with cooking and heating – i.e. fires and hāngi. Other activities cannot be ruled out and may include crop storage (i.e. kūmara pits). There is no current reason to suspect that kōiwi tangata (human remains) will have been interred in this location.

There is no current evidence to suggest that archaeological deposits or evidence of historic heritage from the 1800s will be present, or sites related to later European-era farming and residence in the later 1800s to 1900s.

9.2. ARCHAEOLOGICAL VALUES (HNZPT)

The following is an assessment of archaeological values within the Project Footprint based on the criteria required by HNZPT. Should there be archaeological material present the following statements on their values may be considered:

- *Condition:* Likely to be fair to good based on the green field nature of the receiving environment.
- *Rarity:* It is not possible to determine the rarity of any archaeological evidence in this landscape as it is not currently well understood, however the evidence if it exists is likely to be for temporary camps represented by fire features. These may be considered relatively rare in the archaeological record as they are unlikely to be identified at the assessment stage of any development and therefore could easily be missed.
- *Contextual Value:* The types of archaeological material anticipated would likely be associated with Māori activity prior to European settlement and may indicate temporary camps, but this is yet to be confirmed.
- *Information Potential:* There is opportunity to expand our understanding of the archaeological landscape, specifically to determine whether archaeological activity

occurred in this former river valley environment or if the lack of evidence reflects the recorded landscape of activity focused on hill and river terrace environments.

- *Amenity Value:* There are no known amenity values associated with this land.
- *Cultural Associations:* This is left for affected iwi to determine.

9.3. HISTORIC HERITAGE VALUES (RMA)

The following is an assessment of Historic Heritage values based on the RMA definitions. Should there be heritage material present the following statements on their values may be considered:

- *Archaeological:* Refer to Section 9.2.
- *Architectural:* There are no historic upstanding buildings or structures present.
- *Cultural:* This is for tangata whenua to determine.
- *Historic:* There are no known historical events or figures associated within this land.
- *Scientific:* There are no known historical scientific values associated with this land.
- *Technological:* There are no known historical technological values associated with this land.

There are no known historic sites, structures, places, or areas, and there are no known archaeological sites. It is for tangata whenua to determine if there are sites of significance to Māori, including wāhi tapu, and surroundings associated with the natural and physical resources.

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There are no significant heritage resources (as defined by the MPDP and the SWDP – Appendix A and B) in or near the Project Footprint to evaluate.

9.4. SUPPLEMENTARY (ICOMOS NZ CHARTER 2010)

There are no known cultural heritage values to assess. Guidelines in relation to community identity and relationships to ancestors and the land are for tangata whenua to determine.

10. ASSESSMENT OF EFFECTS

10.1. ASSESSMENT OF EFFECTS

2.1.3 EFFECTS ON KNOWN HISTORIC HERITAGE /ARCHAEOLOGICAL SITES

There are no known historic or cultural heritage/ archaeological values which will be affected by the Project.

2.1.4 POTENTIAL EFFECTS ON UNRECORDED ARCHAEOLOGICAL SITES

There is potential that archaeological deposits and features will be exposed by the earthworks required to construct the roundabout. Based on current information it is concluded that:

- There is a minor to moderate risk that pre-European archaeological evidence is within the Project Footprint, and
- European-era evidence is considered a less than minor risk. All of the data examined indicates that pre-1900 European activity is outside of the Project Footprint.

10.2. MITIGATING AND MANAGING THE EFFECTS

Should archaeological features and deposits be present, they are likely to be shallow and difficult to identify. A programme of archaeological monitoring of topsoil removal should be implemented at the construction phase to determine the presence of archaeological material. Mitigation of archaeological sites and features should be by investigation, recording, sampling, and analysis in line with current standard best practice.

Management of the potential for uncovering archaeological material should be detailed in an Archaeological Site Management Plan formed in consultation with HNZPT and affected tangata whenua (refer Section 11).

11. CONCLUSIONS & RECOMMENDATIONS

This assessment has determined that there are no known historic heritage/ archaeological values associated with the Project Footprint. However it is considered that there is potential, albeit minor (and determined as Neutral or Insignificant to *potentially* Minor Negative), that subsurface archaeological evidence will be uncovered during the earthworks phase of construction. It is therefore recommended that:

- Waka Kotahi obtain an archaeological authority from HNZPT.
 - The authority should be obtained for all earthworks required for the Project. This is to carefully manage the risk of modifying archaeological remains, in the event that they are discovered during construction.
 - A site visit to the land to the west of SH29 (contained in Record of Title SA69C/317) should be undertaken in advance of any authority application made to HNZPT if possible.
 - Archaeological input should be managed through a site specific Archaeological Site Management Plan (ASMP) in consultation with HNZPT and affected tangata whenua. The ASMP should be prepared as a supporting document for the authority application and should include as a minimum the following:
 - A map showing areas of the Project which require on-site archaeological monitoring;
 - Roles and responsibilities associated with managing the archaeological aspects of the Project;
 - Provision for training for contractors in the archaeological aspects of the Project;

- Processes to be followed should archaeological features or deposits be uncovered during construction;
- Protocols to be followed when the archaeologist is not on site in the event that any archaeological sites, remains, artefacts, taonga (Maori artefacts) or koiwi are unearthed, dislodged, uncovered or otherwise found or encountered during construction works.

NOTE: Waka Kotahi will seek input from affected iwi to discuss this assessment and the recommended approach. A Cultural Values Assessment (CVA) has been commissioned. Waka Kotahi intend to incorporate and acknowledge any iwi requirements regarding archaeology following discussions with tangata whenua. Specifically they will provide the opportunity to discuss this archaeological assessment and determine if there could be physical remains of wahi tapu, wahi tupuna or other sensitive sites that should be acknowledge in this assessment, and any tikanga requirements.

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NZTA: Historic heritage impact assessment guide for state highway projects (2015)

Retrolens.co.nz

Landcareresearch.co.nz

13. GLOSSARY OF ABBREVIATIONS

Abbreviation/acronym	Term
ADP	Accidental discovery protocol
AEE	Assessment of Effects on the Environment
CVA	Cultural Values Assessment
HNZPT	Heritage New Zealand Pouhere Taonga
HNZPTA	Heritage New Zealand Pouhere Taonga Act 2014
LINZ	Land Information New Zealand
m	Metres
MPDC	Matamata-Piako District Council
MPDP	Matamata-Piako District Plan
NoR	Notice of Requirement
NZAA	New Zealand Archaeological Association
RMA	Resource Management Act 1991
SWDC	South-Waikato District Council
SWDP	South-Waikato District Plan

14. APPENDIX

A: Matamata Piako District Plan

Objectives and Policies (edited for relevance)

O1	To recognise, protect and enhance significant heritage resources which are valued as part of the District's heritage.	P1	Activities in the vicinity of significant heritage resources should be sensitive to their original form and features.	<p><i>The recognition and protection of the heritage values of sites, buildings, places or areas is a particular matter which the RMA requires Council to have regard to (S7(e)).</i></p> <p><i>Objective O1 extends protection for important heritage resources which are not subject to a Heritage Covenant or Heritage Order. See Sections 187 – 197 RMA, thus ensuring protection of important regional and local resources.</i></p> <p><i>Policy 1 recognises that the integrity of heritage resources can be threatened by inappropriate development. Where heritage resources are located closely together in an area, it is not only the buildings that warrant protection but also the spaces, structures and sites which surround them. In these situations steps must be undertaken to ensure activities and development within these areas do not detract from the unique character of particular heritage resources.</i></p> <p><i>Policy P4 seeks to avoid the accidental or deliberate damage to Māori heritage resources.</i></p> <p><i>Policy P5 seeks to encourage Iwi to manage the protection of highly sensitive sites which are not publicly recorded. Council recognises the need for greater Māori control over Māori heritage resources and will consider at any time Iwi initiatives to schedule sites and resources.</i></p> <p><i>Through Policy P6 Council wishes to encourage owners to protect and retain historic resources by providing opportunities to assist owners to restore, refurbish or retain historic resources.</i></p>
		P4	Activities which adversely affect significant recorded archaeological sites and waahi tapu should be avoided, remedied or mitigated.	
		P5	To actively encourage Iwi to participate in the protection of all their heritage resources.	
		P6	To facilitate greater public awareness and appreciation of heritage resources and the statutory protection afforded them and the limits of that statutory protection.	
		SP5	To increase public awareness of the value of its historic resources through public education programmes and by setting a good example.	
		SP6	To develop a cultural heritage strategy to coordinate data collection and evaluation.	

B: South Waikato District Plan

Appendix F Criteria for Determining Significance of Heritage Features

1. **Historical:** “The extent to which the place reflects importance or is representative of South Waikato or New Zealand’s history.”

- a. The extent to which the place is important as a representative example of a type of historic place in terms of age, historical aspects, time periods, patterns or themes (like transport, warfare or women's history).
 - b. The extent to which the place is associated with important persons, groups, individuals, organisations, or institutions who have owned, lived in, worked in, or carried out activities in or on the place, or associated with important historic events or actions.
 - c. The extent to which the place is associated with important ideas or beliefs that symbolise or illustrate historic change in South Waikato or New Zealand. Does the place date from an early period of South Waikato or New Zealand's settlement?
2. **Tangata Whenua:** "The importance of the place to Tangata Whenua."
- a. This evaluation needs to be made by, or in full consultation with iwi. It includes such matters as the Historical, Traditional (place names, people and events), Cultural, Spiritual, Religious, Symbolic, Commemorative, Social, Educational, Economic, and Contextual importance of a place. The importance may be at iwi, hapu, and whanau level.
3. **Community Association:** "The community association with, or public esteem for the place."
- a. The extent to which the place has qualities which make it the focal point for the spiritual, cultural, customary, religious, social, political, philosophical, or economic, values of an ethnic group or the local or wider community.
 - b. The extent to which there is evidence of strong feelings of community association with the place.
 - c. The extent to which the place illustrates the distinctiveness of the community's identity, social history and way of life, and has this community association with the place been formally recognised through the planning process?
4. **Commemorative:** "The commemorative value of the place."
- a. Does the place commemorate an important person, event, idea, activity, and is this formalised by a memorial of some specific kind?
5. **Symbolic:** "The symbolic value of the place."
- a. The extent to which the place is of symbolic value to the district, region or nation, by symbolising a feature of the area's past history. (A place such as a sacred mountain can have symbolic importance without being commemorative.)
6. **Educational:** "The potential of the place for public education."
- a. The extent to which the place provides potential to enhance public understanding and appreciation of the past, and its potential for interpretation for present and future generations.
 - b. The extent to which the place is accessible to the public.
7. **Archaeological:** "The potential of the place to provide knowledge of South Waikato or New Zealand's history."
- a. The extent to which the place has the potential to define or expand knowledge of earlier human occupation, activities or events through investigation using archaeological methods, and the research potential of the place.
 - b. Whether the place is important as a representative example of a site type, feature or activity, and whether this importance has been recognised as a formally recorded or registered archaeological site?

(Note: When evaluating the significance of an archaeological site all of the other criteria need to be considered.)

8. **Scientific:** “The potential of the place to provide knowledge of South Waikato or New Zealand’s history.”
 - a. The extent to which the place has the potential in scientific (e.g. geological or biological) terms to provide evidence and knowledge relating to South Waikato or New Zealand’s human history.
 - b. The importance of the place in the history of the development of science (e.g. agriculture or horticulture) in South Waikato or New Zealand.
9. **Technological:** “The technical accomplishment or value of the place.”
 - a. The extent to which the place is or was important in the development of technology, technological innovation or technological processes, and is that technological process still carried out on the site?
10. **Architectural:** “The design of the place.”
 - a. Whether the place provides a notable, rare or representative example of an architectural style, type or convention in either interior or exterior layout.
 - b. Whether the place is an important example of architectural innovation.
 - c. The extent to which the place is an important example of a particular method of construction, use of material or design feature, or a particular form of craftsmanship.
 - d. Whether the place is an important example of the work of a notable architect, designer, engineer or builder.
11. **Context:** “The extent to which the place forms part of a wider historical and cultural context or historical and cultural landscape.”
 - a. The extent to which the historical context of the place is important in terms of comparative age, being part of a particular time period, or historical or cultural continuity.
 - b. The extent to which the place is an important component of a group of associated historic places, and its value as a component of the wider historical or cultural landscape, or streetscape.
 - c. Whether the place is part of a registered or scheduled historic area.
 - d. The importance of the place in terms of visual amenity, or aesthetic value (past or present beauty), or as a landmark.
12. **Rarity:** “The frequency with which the historic place can be found.”
 - a. The rarity of that type of historic place.
13. **Integrity:** “What is the integrity of the place?”
 - a. The extent to which the place has integrity in terms of its historical or cultural setting and its relationship with associated structures, and whether the place is located on its original site.
 - b. The extent to which the place has been modified, altered, or restored in an important or sensitive way.
 - c. The physical state or condition of the place.
 - d. Whether the place is dangerous or poses a threat to the health and safety of people.
 - e. To what extent is the place vulnerable to modification or destruction?

D: ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value (ICOMOS NZ Charter 2010)

As defined by the charter, places of cultural heritage value include sites which:

- have lasting values and can be appreciated in their own right
- inform us about the past and the cultures of those who came before us
- provide tangible evidence of the continuity between past, present and future
- underpin and reinforce community identity and relationships to ancestors and the land
- provide a measure against which the achievements of the present can be compared.