



Prepared for the NZ Transport Agency (NZTA)

Archaeological Assessment: Edendale SH1 Realignment Project





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1 Introduction

1.1 Purpose of this Report

Opus International Consultants Ltd (Opus) were commissioned by the NZ Transport Agency (NZTA) to prepare an archaeological assessment to determine the potential impacts of a new road realignment project at Edendale known as the Edendale SH1 Realignment Project (see Figure 1).

The SH1 Realignment Project project involves construction of a new, c. 2 km long realigned SH1 to the northwest of Edendale with a roundabout close to the southern end of the new alignment. The new highway alignment would cause SH1 to bypass Edendale township and a Fonterra factory site located in the town (see Figure 2).

The current report presents an archaeological assessment of the project area. It has been written as a supporting document for a resource consent application under the Resource Management Act 1991 and to help determine if an archaeological authority application to Heritage New Zealand Pouhere Taonga (HNZPT) is required to cover proposed project works.



Figure 1. Map showing location of the project area/Edendale SH1 Realignment Project (red circle) in the wider geographical setting (ArchSite 2016).



Figure 2. Map showing project area (red rectangle) relative to the town of Edendale (Source: ArchSite 2016).

1.2 Project Area Location

The project area, which is in the vicinity of the town of Edendale, is located approximately 35 km northeast of Invercargill, Southland (see Figure 1). The extent of the project area includes land directly northwest of Edendale, to the north and west sides of SH1 (see Figure 2).

1.3 Project Proposal

The NZTA propose to construct a new, c. 2 km long realigned section of SH1 to the northwest of Edendale, Southland (see Figure 3). The new realignment is also to include a roundabout close to its southern end. The new highway section would cause SH1 to bypass Edendale Township and a Fonterra factory in the town. The new alignment will also include new access roads leading from the roundabout to the west side the Fonterra factory and a second access road to a water treatment facility to the northwest of the Fonterra factory. Temporary haulage roads will also likely be required. The road realignment will also include the following components:

- A northbound passing lane
- An underpass for the movement of stock and light farm vehicles, and
- The displacement of irrigation reticulation systems (for plant discharge)

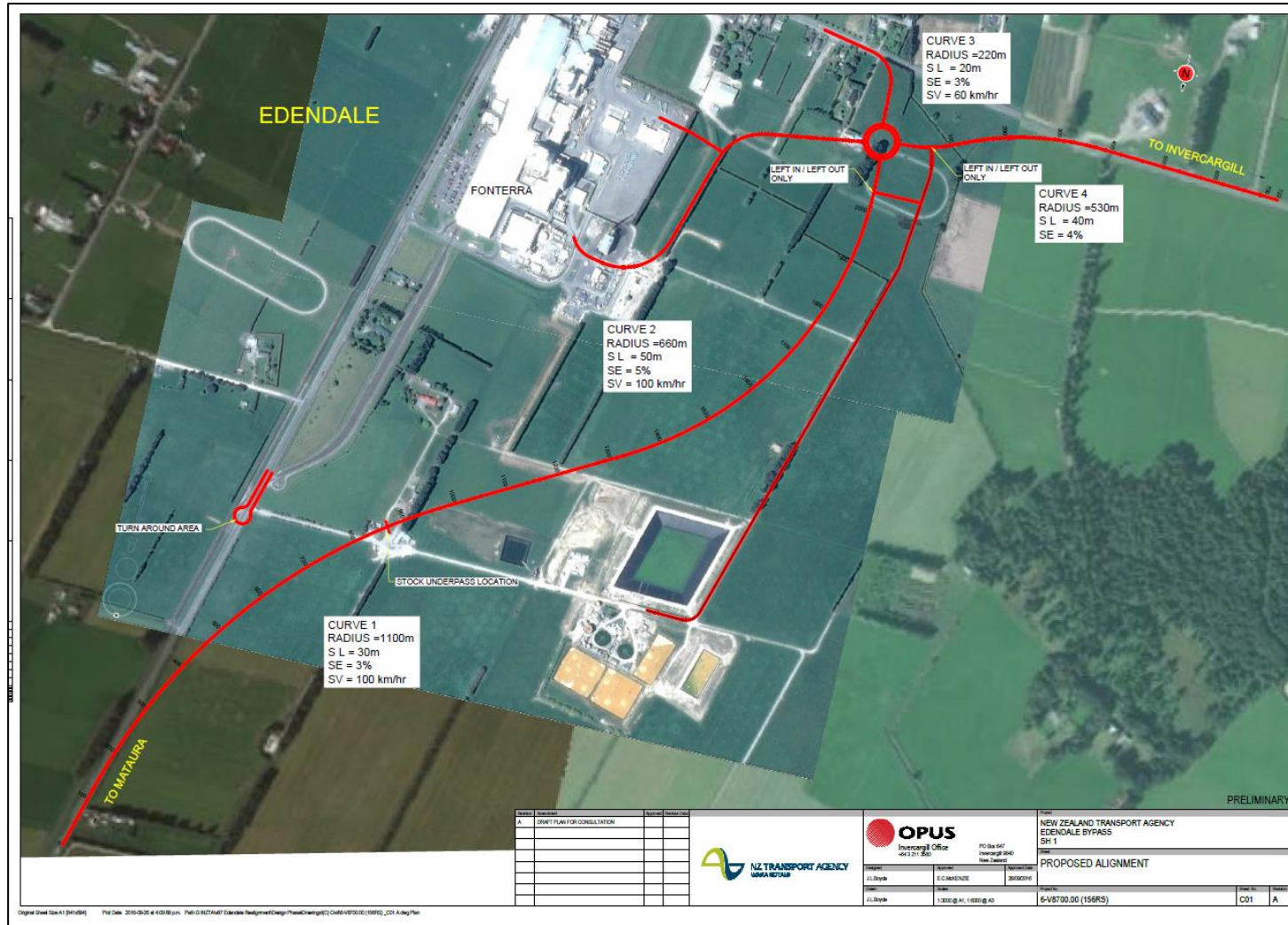


Figure 3. Plan showing the location of the proposed new road alignment and work footprint close to Edendale (Source: Client supplied drawing)

1.4 Constraints and Limitations

The New Zealand Archaeological Association (NZAA) site record database (Archsite) was an important information resource used for identifying recorded sites in the area. It is important to note that Archsite archaeological site location data is generally assumed to be only accurate to within 100m for some older records, and to within 20m for newer records. The coordinates of many of the sites in the database are consequently of variable accuracy. In addition to this, the area extents for many recorded sites are poorly defined or undefined.

This report does not include an assessment of Māori cultural values. Statements are made as to the location and nature of archaeological sites and their archaeological values. There are no statements on the cultural significance of the project area nor are the views of tāngata whenua represented in this report. An assessment of cultural significance will not necessarily correlate with an assessment of the archaeological significance of the area, as it will refer to a different value set.

2 Statutory Requirements

There are two main pieces of legislation in New Zealand that control work affecting archaeological sites. These are the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA) and the Resource Management Act 1991 (RMA).

2.1 The Heritage New Zealand Pouhere Taonga Act 2014

The HNZPTA promotes the identification, protection, preservation and conservation of the historic and cultural heritage of New Zealand. It provides blanket protection to all archaeological sites whether they are recorded or not. The provisions of the HNZPT Act are administered by Heritage New Zealand Pouhere Taonga (Heritage New Zealand). It is illegal to destroy, damage or modify archaeological sites, without first gaining an archaeological authority to do so from Heritage New Zealand.

The HNZPTA contains a consent (authority) process for any work affecting an archaeological site. An archaeological site is defined under Section 6 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 the 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 Act.

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

The archaeological authority process applies to all sites that fit the HNZPTA definition, regardless of whether:

- The site is recorded in the New Zealand Archaeological Association (NZAA) Site Recording Scheme or entered into the Heritage New Zealand List,
- 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.

2.1 The Resource Management Act 1991

Part II of the Resource Management Act 1991 (RMA) outlines the Purposes and Principles of the RMA. In outlining the purpose of the RMA, Section 5 states:

- (1) The purpose of this Act is to promote the sustainable management of natural and physical resources.
- (2) In this Act, “sustainable management” means managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while –
 - (a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
 - (b) Safeguarding the life supporting capacity of air, water, soil, and ecosystems; and
 - (c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.

Section 6 of the RMA outlines that “in achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance.” In 2003 amendments to the RMA elevated historic heritage to a Matter of National Importance under Section 6 (f), which identifies the need for “the protection of historic heritage from inappropriate subdivision, use, and development.”

A definition of Historic Heritage was also added with the amendments to the RMA. This defines Historic Heritage as:

- a) Those natural and physical resources that contribute to an understanding and appreciation of New Zealand’s history and cultures deriving from any of the following qualities:
 - (i) archaeological;
 - (ii) architectural;
 - (iii) cultural;
 - (iv) historic;
 - (v) scientific;
 - (vi) technological; and

b) Includes –

- (i) historic sites, structures, places, and areas; and
- (ii) archaeological sites; and
- (iii) sites of significance to Māori, including waahi tapu; and
- (iv) surroundings associated with the natural and physical resources.

As such, when considering applications under the RMA, the consenting authority must have regard to historic heritage as a Matter of National Importance.

This assessment covers archaeological values only and is based on HNZPTA assessment requirements.

3 Methodology

3.1 Sources of Information

This archaeological assessment includes a desk-top based review of relevant information including:

- NZAA Site Record Database (ArchSite).
- The New Zealand Heritage List / Rarangi Korero.
- LINZ historic survey plans.
- Primary literature, including LINZ survey plans, historic maps and photographs from various sources.
- Historic newspapers (Papers Past website).
- Appendices to the Journals of House of Representatives (AtoJs website).
- Brief review of available secondary literature on the history of the Edendale area

Opus Archaeologist Sam Kurmann undertook a site visit on 17th October 2016. Its aim was to conduct a walkover of the project area to determine for possibility of archaeological sites being present within the footprint of the road realignment.

4 Physical Setting

4.1 Natural landscape

The project footprint is located to the northwest of Edendale Township and c. 4 km west of the Mataura River. The land is flat and is characterised as grassed pasture with well drained soils described as quaternary alluvial gravel deposits. The dominant surrounding land use is rural plains; flat pasture and arable land (Clouston 2014, Watson 2010).

5 Historic Context

5.1 Māori Activity

The first settlement of the Southland region was by groups who took up an economy based on moa hunting, sealing and fishing (Anderson 1983, cited in Jacomb, Walter & Jennings 2010:35) Forest and coastal birds, fish, shellfish and fresh water food resources were all readily available and would have provided important food sources. Following the cessation of moa hunting and sealing in the region by the 16th century offshore fishing and small-bird hunting along with tī (cabbage tree) and fern root gathering became dominant subsistence activities. The “late period” saw the arrival in the south of new groups, including Ngāti Mamoe, who in turn were joined and to some extent supplanted by Ngäi Tahu who migrated south during the late 18th century (Jacomb et al 2010:35).

The wider area contains evidence of pre-European Māori use, with evidence concentrated around estuaries and sandy beaches on the coast some 25 km to the south of Edendale. The Mataura River, located 4 km to the east of Edendale was an important trail and food resource provider for Māori in the area. In particular, the Mataura was a source of large supplies of lampreys.

5.2 The Edendale Estate & Homestead

The first European settlers of Edendale area were European run holders and settlers that had a predominantly Scottish ancestry. Early communities comprised run holders, drovers, stockmen and labourers who worked on the runs (Beck, Macfie & Esler 2008:112). Edendale was originally an estate of the New Zealand and Australian Land Company and was operated from at least 1868 as a sheep station (SL25/38). The land company was formed by the amalgamation of various unincorporated societies in Scotland which also held land in Otago and Southland (Te Ara 2009:2).

The estate at Edendale included a number of historic sections that formed one large land block called ‘Block II Mataura Hundred’ (SL25/38) (see Figure 4). The historic sections that incorporate the footprint of the proposed new road alignment included Sections 6, 7, 8, 9 and 14 of that historic land block (see Figure 5). Historic survey evidence show that ‘Block II Mataura Hundred’ primarily consisted of open pasture land in the 1860s though a triangular section of bush known as the Mararua Bush is depicted on the early drawings. On one undated survey plan (which likely dates to the 1860’s), the word ‘station’ is annotated just north of the bush suggestive for the presence of a homestead at that location (see Figure 6). An 1868 newspaper account describes the Edendale Home Station as follows:

“the home station being prettily [SIC] planted on the north side of.....Edendale bush.... The dwellinghouse is a handsome two storeyd [SIC] modern building.....and surrounded by a well kept lawn, good gardens and fruitfull orchard. The station buildings are very extensive, as they had to accommodate large numbers of men...there are quite a number of cottages nestling snugly in the shelter of the bush for married people....” (Otago Witness 07/01/1882)

A later 1870’s newspaper account described a similar homestead complex of buildings making up the Edendale Homestead as follows:

“ , vividly green paddocks and surrounding bush.....a lofty and extensive barn; ranges of open and close stables; smithy, chaff house, clerk’s office, men’s huts, store,

implement sheds, ...forms together quite a small township...[with] a well grown orchard and a large garden” (Bruce Herald 17/08/1870).



Figure 4. Part of 1866 Survey Plan (SO 593) showing ‘Block II Mataura Hundred’. The triangular element depicted in the survey is the Mararua Bush surrounded by open pastureland.

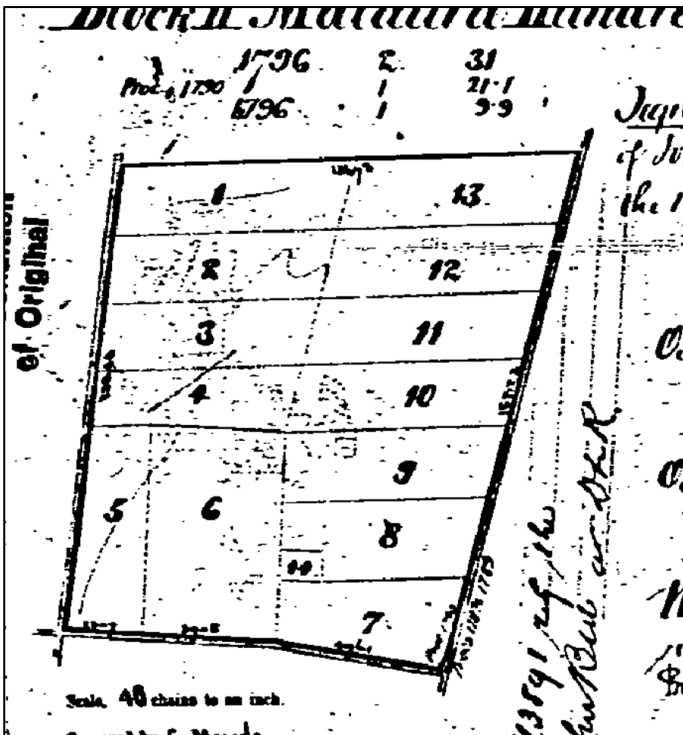


Figure 5. Detail taken from plan contained in Certificate of Title SL25/38 showing historic sections that made up Block II Mataura Hundred. The project footprint incorporates sections 6, 7, 8, 9 and 14.

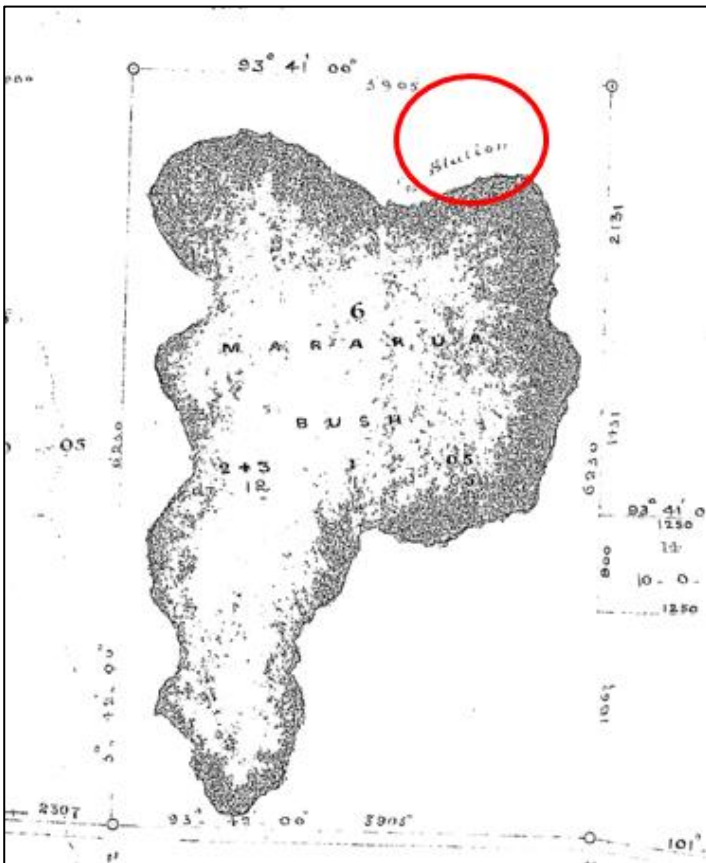


Figure 6 Undated, early survey plan (SO 293) showing Block II of Matarua Hundred that includes the project footprint. The Mararua Bush is also depicted in the plan. The Edendale Homestead is not depicted on the survey though that location is labelled 'Station' (in red oval).

5.2.1 Edendale Dairy Factory

In 1881 Thomas Brydone, Superintendent of the New Zealand and Australian Land Company, suggested that the company's Southland holdings be converted to dairying. In 1882, he built New Zealand's first dairy factory at the estate in Edendale. An 1882 historic survey plan (see Figures 7 & 8) shows both the homestead (just north of the Mararua Bush) and the Edendale Dairy Factory (located next to the corner of Salford Street and North Road where the Fonterra plant is located). The homestead consists of a complex of buildings while the factory complex is depicted as consisting of three buildings. Three additional buildings at a remove from both the homestead and the factory are also present in the land block – these are situated to the north and west of the factory complex. Certificate of Title evidence suggests that the land block formed a single estate at this time (including homestead and factory) and as such the additional buildings likely form part of the wider estate complex (C/T SL25/38). An 1895 photograph of the dairy factory includes a number of buildings, some of them substantial in size (see Figure 9).

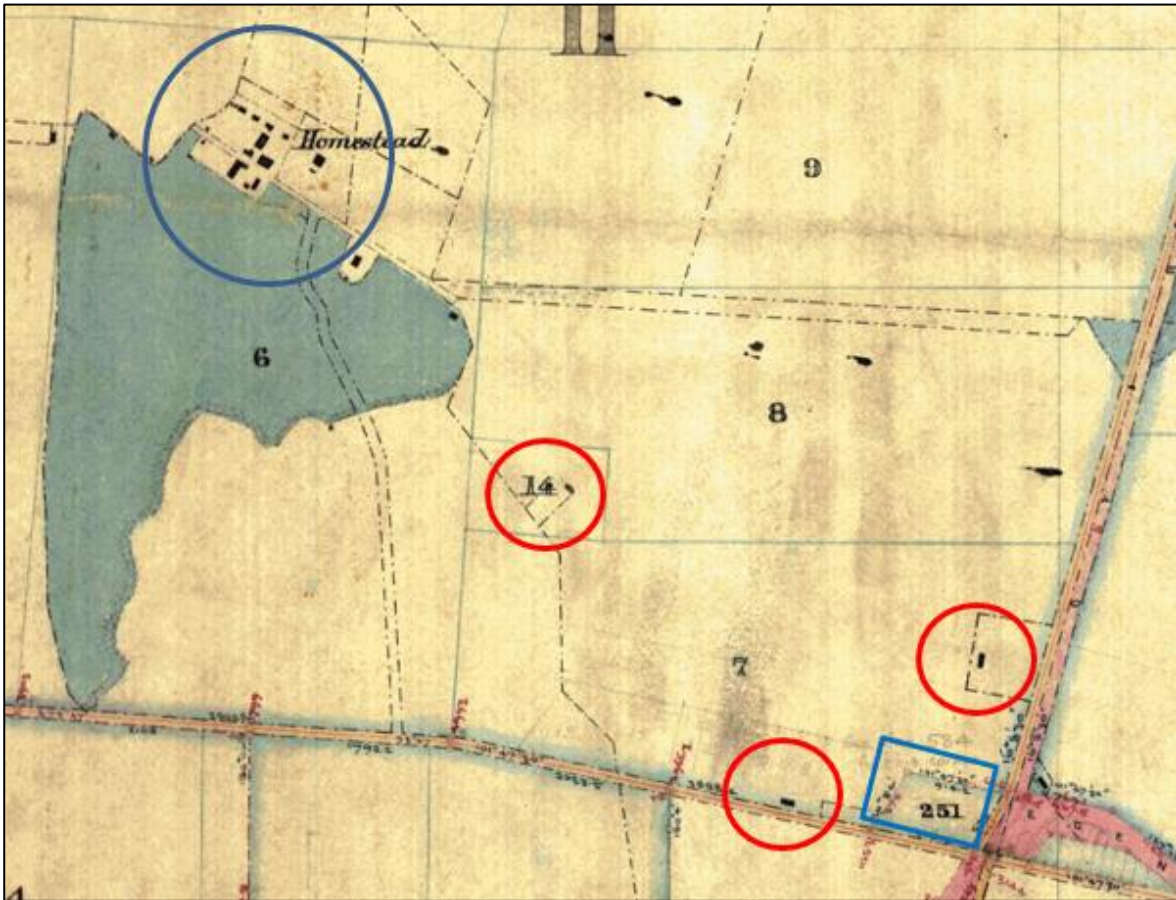


Figure 7. Part of 1882 survey plan (DP 128) showing the location of the Edendale Homestead (blue circle), the Edendale Dairy Factory (blue rectangle) and nearby estate buildings (red circles).

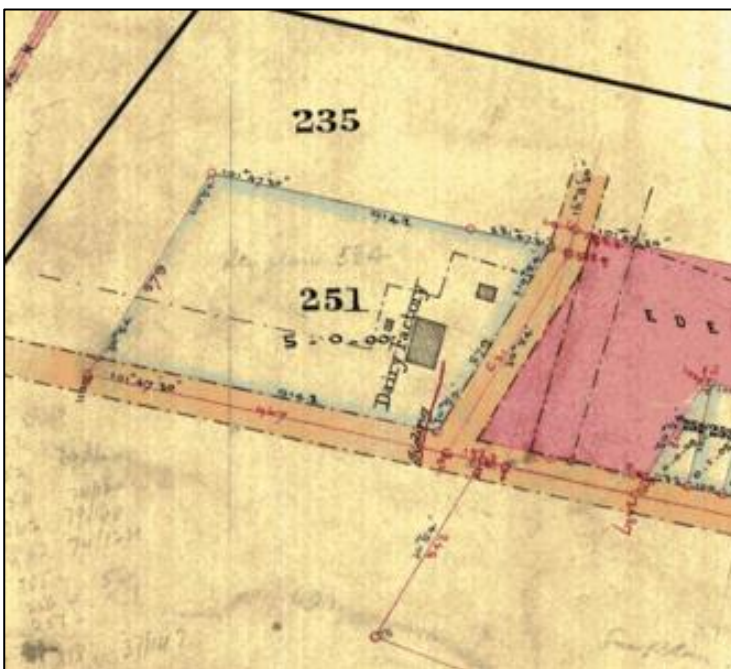


Figure 8. Part of 1882 survey plan showing presence of two buildings at the Edendale Dairy Factory site on the corner of Salford Street and North Road (current SH1).



Figure 9. Edendale dairy factory, 1895 (Source: Te Ara: The Encyclopaedia of New Zealand).

5.3 20th Century Developments

Consulted 20th century survey plans and Certificate of Title evidence indicate that sub-division of 'Block II of Mataura Hundred' did not happen until the early 20th century. The factory was sold in 1903 to the Southland Dairy Co-operative who operated the facility until Fonterra took over in 1976. The homestead was bought in 1902 by its former manager, Mr Donald Macdonald (Beck et al 2008:112). A 1926 panoramic picture of the homestead shows flat, empty paddocks surrounding the homestead complex (See Figure 14). Later aerial images show the factory had expanded northward but was surrounded by expanses of flat pasture land (see Figures 15 – 18).

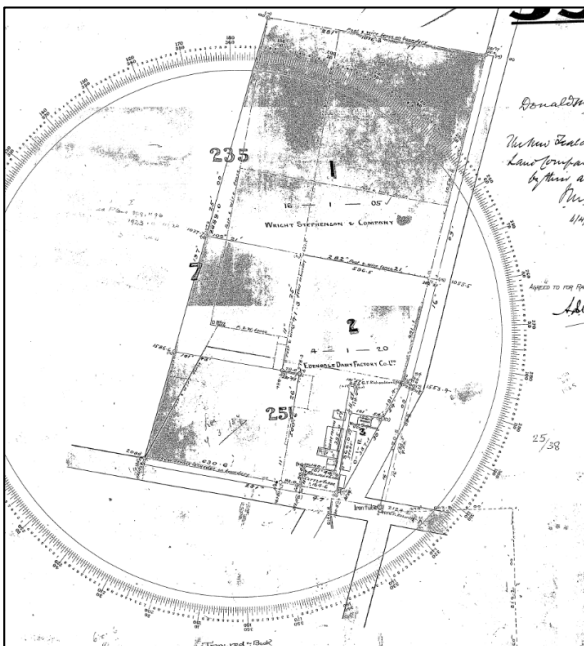


Figure 10 1904 Survey Plan (DP 534) showing the Edendale Dairy Factory on the corner of Salford Street and North Road (current SH1).

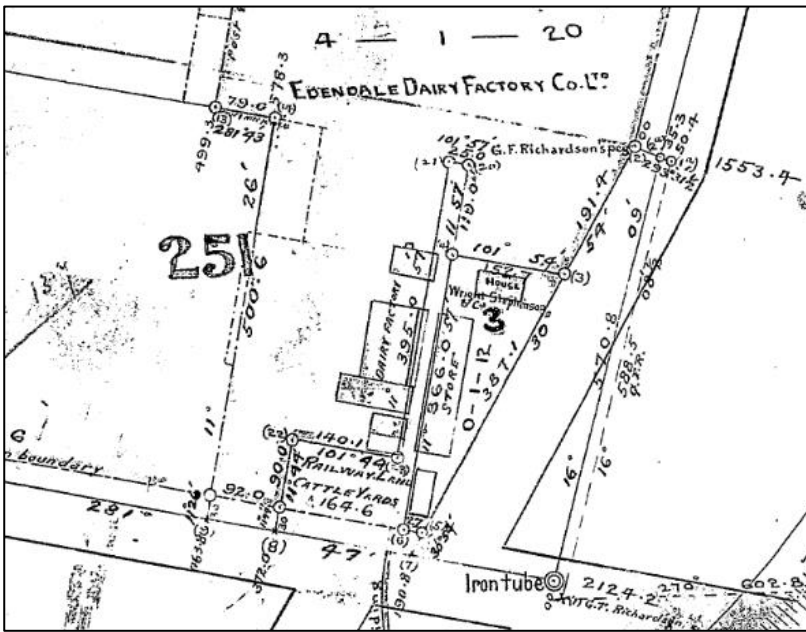


Figure 11. Part of 1904 Survey Plan (DP 534) showing the Edendale Dairy Factory on the corner of Salford Street and North Road (current SH1). Buildings include ‘Dairy Factory’ buildings, a house, a store and a cattle yard.

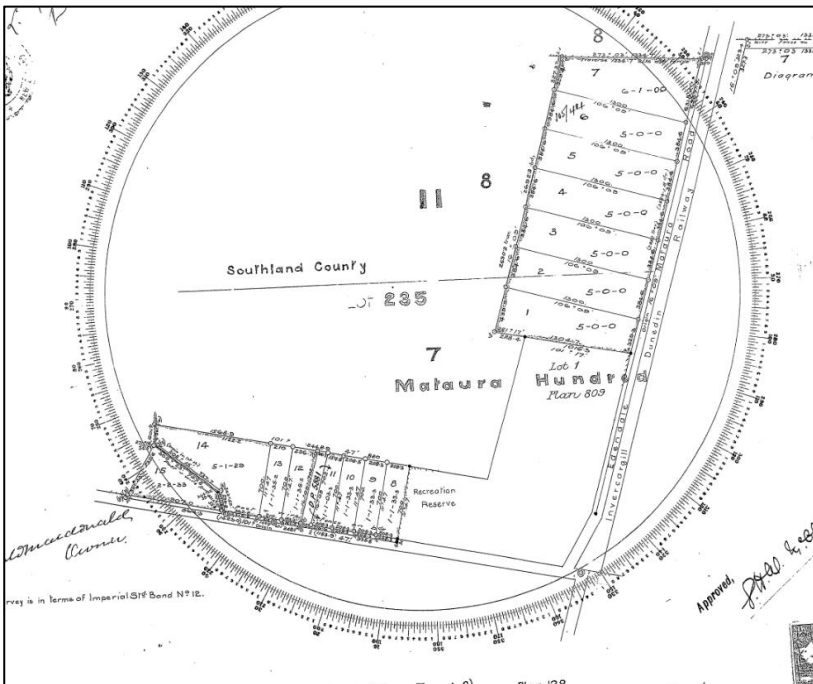


Figure 12. 1911 Survey Plan (DP 1273) showing subdivision of sections close to the Edendale Dairy Factory.



Figure 13. 1912 Survey Plan (DP 1419) showing the project area. The Edendale Homestead is depicted on the drawing (red circle).



Figure 14. 1926 panoramic photograph showing the Edendale Homestead Complex surrounded by open pastureland (Source: National Library of New Zealand).



Figure 15. Aerial view of Edendale in 1956 with the station and dairy factory in view (Source: Client supplied image).



Figure 16. aerial view of the Edendale Dairy Factory in 1955 (Source: Client supplied image).



Figure 17. 1958 Aerial photograph showing the project area (Source: Client supplied image).



Figure 18. 1971 Aerial image showing Edendale and the project area (Source: Client supplied image).

6 Previous Archaeological Work

6.1 Previous Archaeological Reports

A review of Heritage New Zealand’s Archaeological Reports Digital Library did not indicate that any previous investigations or surveys had occurred at, or in proximity to Edendale.

6.2 NZAA site records

The New Zealand Archaeological Association (NZAA) “ArchSite” digital database contains details on all recorded archaeological sites throughout New Zealand. Individuals, professional archaeologists, and iwi groups have contributed files in the database over the last fifty years, and the quality and detail of these records vary. However, the database is a useful management tool for understanding the distribution of archaeological sites within an area and for determining past land use patterns. Although some areas of New Zealand have been intensively surveyed and large numbers of archaeological sites recorded, there are still large areas where no archaeological surveying has been carried out and few sites, if any, have been recorded. A lack of recorded sites does not necessarily equate with an absence of sites.

Site location information in the database is variable, and is only considered accurate to within 100 metres. This is because sites are recorded using grid references on NZMS-260 topographical maps. Many sites were originally recorded on Imperial NZMS-1 maps, and later transferred onto the metric NZ MS-260 maps, introducing additional inaccuracies through the conversion process. No archaeological sites have been recorded within or close to the work footprint of the road realignment. Three recorded archaeological sites are located between 6 – 6.6 km of the project area. These include two artefact find spots (F46/16, F46/26) and a 19th century flour mill (F46/13) (see Figure 19).



Figure 19. Map showing the project area (red rectangle) and archaeological sites recorded in the NZAA database. Each green represents the index grid reference for an individual site record. (Source: Archsite, accessed 26 September 2016).

6.3 New Zealand Heritage List/Rārangi Kōrero

The Edendale Homestead Complex is entered on the New Zealand Heritage List/Rārangi Kōrero as a Category 1 historic place (Register no. 7704). The entry for the homestead describes its extent as including the tree-lined entrance way, the stables and barn and the mature tree plantings surrounding the homestead.

6.4 District Plan

The Edendale Homestead and associated outbuildings is listed in Southland District Plan as a heritage item (Southland District Plan, Section 6: Schedules, Section 6.9 Registered Historic Buildings, Places and Sites pg. 252).

7 Site Visit

Opus Archaeologist Sam Kurmann undertook a site visit on 17th October 2016. Its aim was to determine evidence for, and likelihood of, archaeological remains within the project area that might be affected by project works. This included a walk over of the proposed road realignment and a visit to the location of one of the estate buildings depicted in the 1882 survey plan that is located west of the road realignment and at a remove from the Homestead and Factory (see previous Figure 7).

The walkover confirmed that the project footprint is characterised by flat pasture land organised into paddock field systems. Field boundaries are denoted by timber fences and tree alignments. Grass was growing in each of the paddocks (see Figure 20). No surface indicators for archaeological components were observed during walkover of the route of the road realignment.

As noted, the location of an estate building depicted in the 1882 survey to the west of the road realignment route was also visited. The ground at this location was characterised by a large amorphous depression which may indicate for the remains of a building though it could also be a natural topographical feature (see Figure 21).



Figure 20. Typical paddock that makes up the part of the proposed new road realignment at Edendale.



Figure 21. Large amorphous depression in location of 19th century building to west of the proposed road realignment.

8 Research Results

No pre-1900 archaeological sites were identified within the footprint of the proposed new road realignment during the site visit or during research undertaken for this assessment. The majority of identified archaeological sites associated with Māori occupation and use in Southland are concentrated along coastal and river zones. The lack of documentary evidence for such sites being present within the project suggests that there is a low risk of works associated with the road realignment project impacting an archaeological site with Māori associations.

The new road realignment traverses the historic land block known as 'Block II Mataura Hundred'. Historic survey plans and Certificate of Title evidence suggests that the land block was not subject to sub-division during the 19th century. The land block incorporated the Edendale Homestead Complex from at least the later 1860's onwards, and the Edendale Dairy Factory from 1882 on. Three additional buildings at a remove from both the homestead and factory complex were also present in the land block in 1882 – these were situated to the north and west of the factory complex. Both upstanding and buried physical remains that relate to these 19th century components constitute archaeological sites.

Current project plans indicate that the new road realignment will avoid the locations of the known 19th century buildings associated with the Edendale Estate including the associated grounds that make up the homestead complex. While there is potential that unknown archaeological components associated with the 19th century estate exist within footprint of the proposed road realignment, the available evidence suggest that likelihood for such components being present is low. Furthermore, no surface indicators for such sites along the route of the proposed realignment were observed during the site visit.

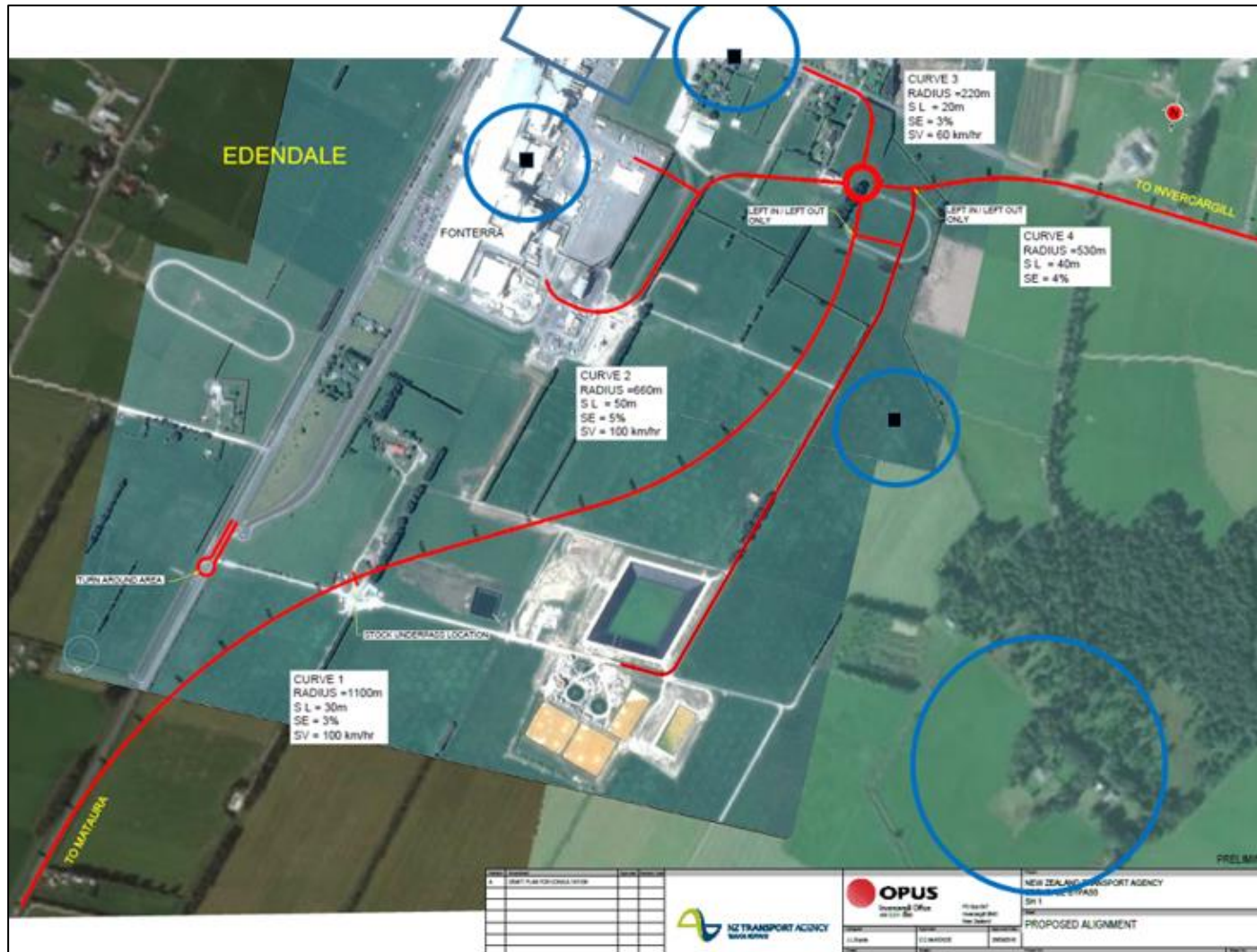


Figure 22. Plan showing the location of the proposed new road alignment/work footprint with layover of locations of 19th century buildings depicted in the 1882 survey plan (DP 128).

9 Assessment of Effects

9.1 Archaeological Values

This current assessment covers archaeological values only and is based on HNZPTA assessment requirements.

Documentary research indicates that there are no known pre-1900 archaeological sites within the proposed realignment route and the potential for encountering pre-1900 archaeological remains is considered low. On this basis, it is considered that there are no known archaeological values along the proposed route of the road realignment.

9.2 Potential Effects

All pre-1900 archaeological sites are protected under the provisions of the HNZPT Act, whether the sites are recorded or not. It is illegal to destroy, damage or modify archaeological sites without an authority from the HNZPT.

There are no known archaeological values along the proposed route of the road realignment and the risk of encountering unidentified archaeological sites is considered low.

9.3 Proposed Mitigation

The limited potential for the proposed Edendale SH1 Realignment to impact on unrecorded archaeology during development can be addressed through following an Accidental Discovery Protocol. Under this protocol, works should cease and an archaeologist or Heritage New Zealand should be contacted in the event that potential archaeological remains are encountered during project works.

10 Recommendations

The following recommendations are made:

- All earthworks should operate under a project specific Accidental Discovery Protocols. This would ensure that if potential archaeological evidence is uncovered during construction, work would cease in the immediate vicinity of the remains and appropriate advice sought.

11 References

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