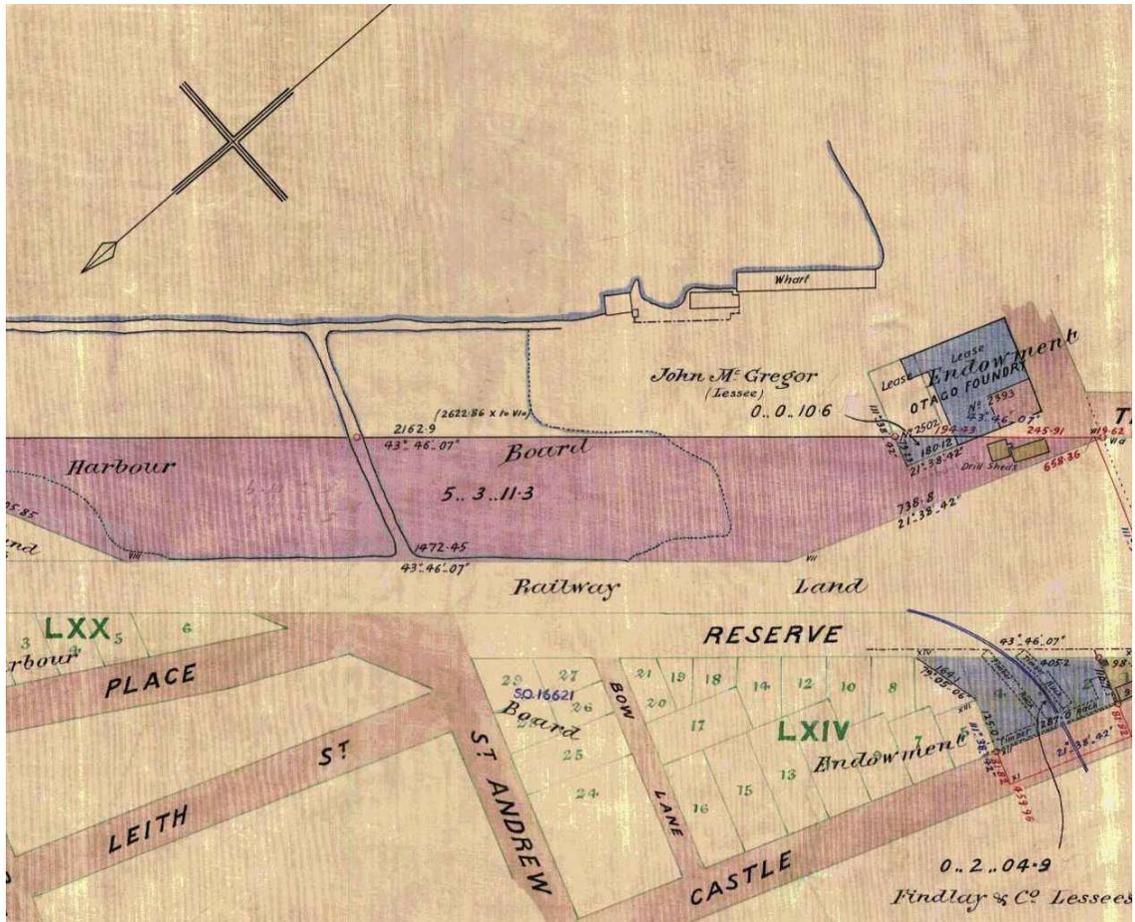


SH88 Deviation – Archaeological Assessment



Southern Pacific Archaeological Research

DRAFT 26 November 2007

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SH 88 Deviation - Archaeological Assessment

1 INTRODUCTION

The Dunedin City Council is planning for a deviation of SH88 from its existing route that runs between the intersection of the Southern Motorway and Andersons Bay Road and Ravensbourne Road to a route that more closely follows the rail corridor. Almost all of this route lies on reclamation land along the historical shoreline of Dunedin Harbour. The reclamation occurred during both the nineteenth and early twentieth centuries and it can be expected that some archaeological deposits that would be considered to be archaeological sites under the provisions of the Historic Places Act will be present in the nineteenth century sections. The Historic Places Act contains statutory requirements in respect of an effects on archaeological sites. Southern Pacific Archaeological Research was commissioned by OPUS International Consultants Ltd to prepare an archaeological assessment so that any such requirements can be met. In the time available for this study it has not been possible to complete an exhaustive review of the study area's history and therefore this report should be considered to be an interim report. However, it contains sufficient information to support an archaeological authority application and to show where archaeological deposits, if any remain, are likely to be encountered.

2 EXECUTIVE SUMMARY

There are historical records that indicate that parts of the proposed route were the locations of structures or activities that date to the pre-1900 period. It is possible that significant archaeological remains lie preserved beneath the ground surface and, although it is not possible to ascertain whether or not any such remains are actually present before ground disturbance commences, it is recommended that the City Council apply for an archaeological authority under s12 of the Historic Places Act. It is recommended that a condition of the authority be that the sections identified as having the potential to contain archaeological sites be monitored by a suitably qualified archaeologist.

3 SCOPE OF WORKS

Southern Pacific Archaeological Research was commissioned to carry out an archaeological assessment of the ground affected by the proposed diversion of State Highway 88 (the "study area") to more closely follow the existing rail corridor. There are accepted national guidelines for provision of

archaeological assessments to accompany applications for archaeological authorities under the *Historic Places Act* (e.g., Gumbley 1995; NZHPT 2006). According to these guidelines such assessments should include the following:

- A description of the archaeological sites in the study area
- A description of the physical environment in which they are situated
- Enough historical and archaeological background to allow the sites to be understood in the context of their formation (literature review)
- A discussion of the significance of the sites in a regional and wider context
- An assessment of the likely effects on the sites of the proposed development
- Recommendations for avoiding, reducing or mitigating any adverse effects

Methodologies for assessing archaeological values have been discussed by Walton (1999; 2002).

It is worth noting that, in addition to the statutory provisions of the HPA, archaeological sites fall explicitly under the *Resource Management Act* definition of heritage, and that heritage is a matter of national importance under the RMA (Pt2 s6f). The level of information required for *Resource Management Act* purposes is generally similar to that for *Historic Places Act* purposes but can be more complex depending on the requirements of the relevant District and City Plans. Heritage guidelines for *Resource Management Act* practitioners are available (NZAA 2004).

4 LEGISLATIVE ENVIRONMENT

There are two main pieces of legislation in New Zealand that regulate work affecting archaeological sites. These are the *Historic Places Act* 1993 and the *Resource Management Act* 1991. In addition, there are provisions in the RMA for the application of other legislation and planning documents and their roles and applicability are outlined in this section, as follows:

4.1.1 Historic Places Act 1993

The New Zealand Historic Places Trust administers the HPA. The HPA contains a consent (authority) process for any work affecting archaeological sites, where an archaeological site is defined as:

“Any place in New Zealand that

(a) Either –

(i) was associated with human activity that occurred before 1900; or

(ii) is the site of the wreck of any vessel where that wreck occurred before 1900; and

(b) Is or may be able through investigation by archaeological methods to provide evidence relating to the history of New Zealand” (HPA section 2)

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

The archaeological authority process applies to all sites that fit the HPA definition, regardless of whether or not the following apply:

- the site is recorded in the New Zealand Archaeological Association Site Recording Scheme or registered by the Trust,
- 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
- the land is the subject of a designation

Note: The *Historic Places Act* regulates damage to archaeological sites but only provides indirect protection for other historic heritage through its Register. This indirect protection is only given regulatory effect through the provisions of District Plans.

4.1.2 Resource Management Act 1991

The Resource Management Act 1991 (s6) identifies the protection of historic heritage from inappropriate subdivision, use and development as a matter of national importance (RMA Amendment Act 2003). In carrying out their functions under the RMA local authorities must, in relation to managing the use, development, and protection of natural and physical resources, recognise and provide for matters of 'national importance'.

Historic heritage is now defined in the RMA (by *RMA Amendment Act 2003*). Historic heritage is defined by the RMA (s2) as follows:

"Historic heritage:

- (a) means 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;
 - (vii) technological; and
- (b) includes -
 - (i) historic sites, structures, places, and areas; and
 - (ii) archaeological sites; and
 - (iii) sites of significance to Maori, including wahi tapu; and
 - (iv) surroundings associated with the natural and physical resources."(RMA s.2)

Local authorities have a responsibility to protect historic heritage within their district or region. Protecting historic heritage involves identifying historic heritage places, managing adverse effects and promoting the protection of heritage values in accordance with conservation principles (NZHPT 2004).

In respect of decisions relating notices of requirement, the consenting authority must, under s171(1)(a) of the RMA, consider the effects on the environment of allowing the requirement having particular regard to any relevant provisions of the following:

- a national policy statement
- a New Zealand coastal policy statement
- a regional policy statement or proposed regional policy statement
- a plan or proposed plan

5 METHODOLOGY

The methodology used for this assessment had two parts. First, archival research was undertaken to ascertain which parts of the proposed diversion route were reclaimed before 1900 (the cut-off date for archaeological site protection under the *Historic Places Act*). Those parts that were reclaimed before 1900 were then checked to see if any activities that might be expected to have left archaeological remains behind were noted. Second, a ground survey was undertaken to determine whether any remains of pre-1900 activities or structures were visible above the ground.

5.1 Historical Research

In the time available for this assessment the historical research was for the most part limited to examination of archival survey plans available on the LINZ LandOnLine database. A total of 80 plans was examined, of which 13 yielded historical evidence relevant to this study. The survey plans were loaded into a computer and georeferenced to the national cadastral system using GIS software (ArcGIS). Any activities or structures in the vicinity of the proposed road diversion were noted and were documented as layers within the GIS model.

5.2 Ground Survey

The whole route was walked over by Chris Jacomb and Richard Walter, except where this was not considered necessary because post-1900 developments made any such examination unhelpful. Any possible archaeological features were recorded in field books, photographically, and located using hand-held GPS units.

6 RESULTS

6.1 History

The historical plans in the LINZ database that were consulted are listed in **Table 1**. Only those post-dating 1920 were examined for evidence relating to the use of the study area including the locations of shorelines (which changed over time as a result of reclamations). Of those that pre-dated 1920, 21 showed evidence of structures in the vicinity of the proposed road alignment and were either digitised or rectified to confirm this. Thirteen of these were found to contain evidence that indicated the presence of structures within or very close to the proposed alignment including shoreline locations.

Table 1 Cadastral plans in area of proposed SH88 deviation.

PLAN REFERENCE	DESCRIPTION	PLAN DATE	DIGITISED	USAGE
SO 14192	Historic shoreline footpath streams	1846	Digitised	Used on maps
SO 14196 [10 plans used SO14196_3]	Historic shoreline / Leith mouth / landing reserve	ND [pre 1914 see SO 14692]	Digitised	Used on maps
SO 14938	Early Dunedin Railway Station / structures	1885	Digitised	Used on maps
DP 932	Railway land / steamer basin / structures	1890	Digitised	Used on maps
DP 1151	Harbor [sic] Bd Endow Rattray St area / structures	1894	Digitised	Used on maps
SO 15427	Structures / coastline	1901	Digitised	Used on maps
SO 2597	Structure	1901	Digitised	Not used almost same as SO 15427
DABB-D101-2a - Plan DE304 Image 1 NA plan	Structures	1902	Digitised	Used partial plan only - full plan not available
SO 14691	Structures	1911	Digitised	Used on maps
SO 14692	Coastline / Estate of Otago Harbour Board	1914	Digitised	Used on maps
ST 16	Structures Railway Station area	1917	Digitised	Used on maps
ST 19	Structures Wharf st overbridge to railway	1917	Digitised	Used on maps
ST 13	Structures Ward-Hanover St	1917	Digitised	Used on maps
ST 25	Structures Steamer Basin area	1917	Digitised	Used on maps
SO 15429	Structures	1906	Digitised	Used on maps
DEED62	Historic coastline etc	1864	Digitised	Not used yet
SO 14419	Historic coastline Castle Willis Rattray Wharf area canal training wall	1870	Rectified – not digitised	Not used yet
ST 20	Thos burns fryatt wharf sts street map	1917		Not used yet
DP 3807	Lots of structures / out of research area	1925	Digitised	Not used / outside research area

SO 15425	Pelichet Bay railway station	1891	Digitised	Not used / outside research area
SO 7216	Coastline Andersons Bay Rd	1867		Not used / no structures
DP 491	Historic coastline with some reclamations	1870		Not used / no structures
SO 7221	Rail overbridge	1875		Not used / outside research area
DEED 188	St Andrew St - railway line	1880		Not used / no structures
SO 13740	Castle willis rattray sts	1883		Not used / no structures
SO 14935	Rattray Willis with Proposed New St now Thomas Burns St	1883		Not used / no structures
DP 734	St Andrew St -old coastline - structures –	1887	Rectified – not digitised	Not used / outside research area
DP 931	Old coastline to St Andrews-Harbour Tce	1890		Not used / no structures
DP 860	Old coastline Steamers Basin - Stuart St	1890		Not used / no structures
SO 15421	Pelichet Bay reclaimed land / structure	1890		Not used yet
DP 1006	Harbor [sic] Board Endowment Willis St poss outside research area	1891		Not used / no structures
DP 1243	Thomas Burns St behind railway station	1896		Not used / no structures
SO 15423	Old coastline Pelichet Bay	1896		Not used / no structures
SO 153908 [3 Sheets]	Old coastline / structures	1898		Not used / outside research area
DP 1542	Wharf St by rail overbridge	1901		Not used / no structures
DP 1992	Wharf St rail overbridge area	1901		Not used / no structures
SO 8908	St Andrew St Railway end	1902		Not used / no structures
DP 1669	Ward St - Hanover St area	1903		Not used / no structures
SO 16796	3 plans of Upper harbour	1909		Not used / no structures
DP 2055	Castle-Fryatt area	1909		Not used / no structures
SO 14945	Andersons Bay Rd (area of railway overbridge-not shown)	1910		Not used / no structures
SO 14694	Railway road ravensbourne	1911		Not used / no structures
SO 15424	Harbour Board endowments Hanover St - Ravensbourne	1912		Not used / no structures
SO 14446	Early coastline- HM Gaol early coastline	1913		Not used / outside research area
DP 2769	Burns-Ward St area	1914		Not used / no structures
DP 2634	Cnr Oval and Andersons Bay Rd	1915		Not used / outside research area

SO 15431	Ex Railway land Andy Bay Rd area	1917		Not used / no structures
ST 29	Andersons Bay Oval area street map	1917		Not used / outside research area
DP 3187	Structures Thomas Burns St - 3 structures	1921	digitised	Not used yet / 1920 or later
DP 2973	Ward St - Hanover St area	1920		Not used / 1920 or later
DP 3552	Fryatt wickliffe halsey hanover sts	1925		Not used / 1920 or later
DP 3536	Fryatt wickliffe halsey hanover sts	1926		Not used / 1920 or later
SO 15432	New Railway land Andy Bay Rd area	1926		Not used / 1920 or later
DEED 423	Fryatt St area	1928		Not used / 1920 or later
DP 3822	Andersons Bay Rd (area of railway overbridge-not shown)	1928		Not used / 1920 or later
SO 14856	Andersons Bay Rd (area of railway overbridge-not shown)	1928		Not used / 1920 or later
DP 4164	Ward and Wickliffe St area	1930		Not used / 1920 or later
SO 2771	Union St Dn-Pt Chalmers Rd structure	1933		Not used / 1920 or later
DP 5007	Fryatt-Wharf structure	1937		Not used / 1920 or later
DP 5045	Union st port chalmers rd	1937		Not used / 1920 or later
SO 14451	Andersons Bay Rd (area of railway overbridge-not shown)	1938		Not used / 1920 or later
SO 10120	St Andrews St- Station Rd structure	1939		Not used / 1920 or later
SO 14452	Out of research area - early coastline	1939		Not used / 1920 or later
DP 6068	Anzac ave leith canal parry st	1940		Not used / 1920 or later
SO 9406	Road change - no historic info	1943		Not used / 1920 or later
SO 9440	Leith canal Railway reserve boat harbour	1945		Not used / 1920 or later
DP 6277	Anzac ave leith canal union parry sts	1946		Not used / 1920 or later
SO 2430	Andersons Bay Rd Overbridge Wharf St structures	1948		Not used / 1920 or later
SO 2430	Andersons Bay Rd Overbridge Wharf St structures - sewer outlet	1948		Not used / 1920 or later

The historical survey plans were very useful for determining both the dates of the reclamations and the locations of any activities or structures that might have left archaeological evidence. The approximate locations of all structures identified from the historical plans are shown on Figure 1. Detail plans of the northern and southern parts of the study area, as well as the area near the railway station, are provided in Figures 2-4. The historical plans from which this information was derived are included (or parts thereof) as Figures 5-16.

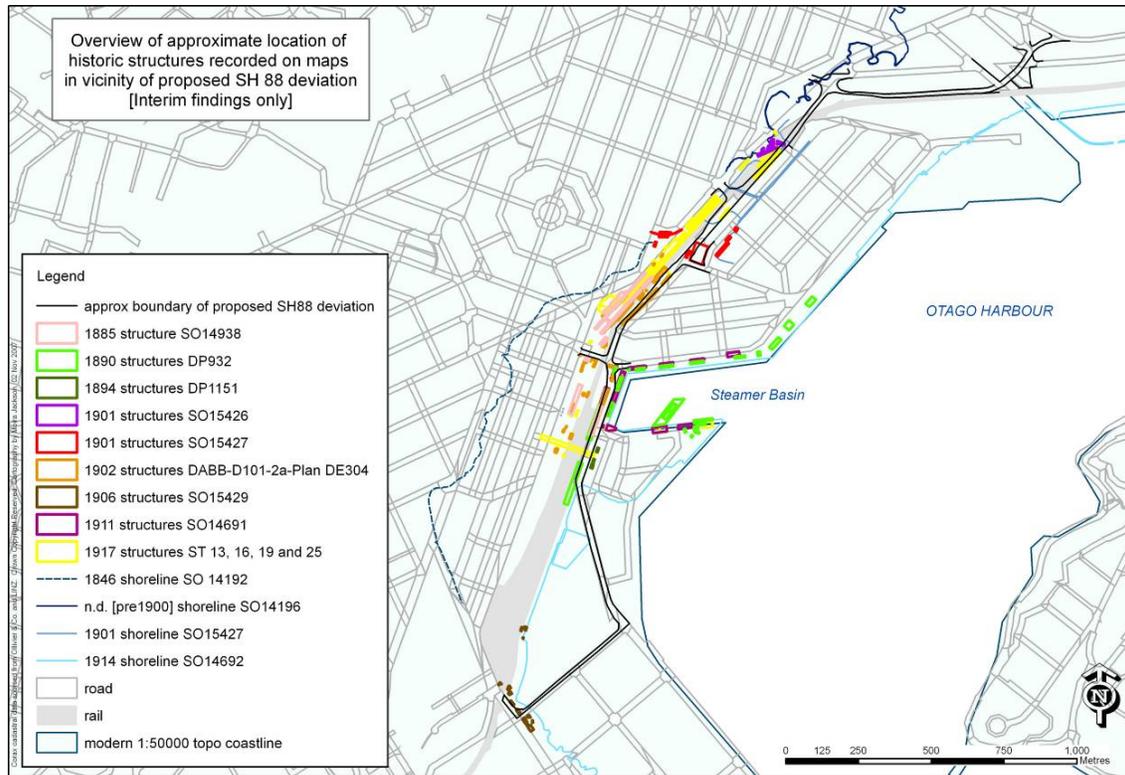


Figure 1. Overview showing approximate locations of historic structures recorded on maps in vicinity of proposed SH88 deviation (interim findings only).

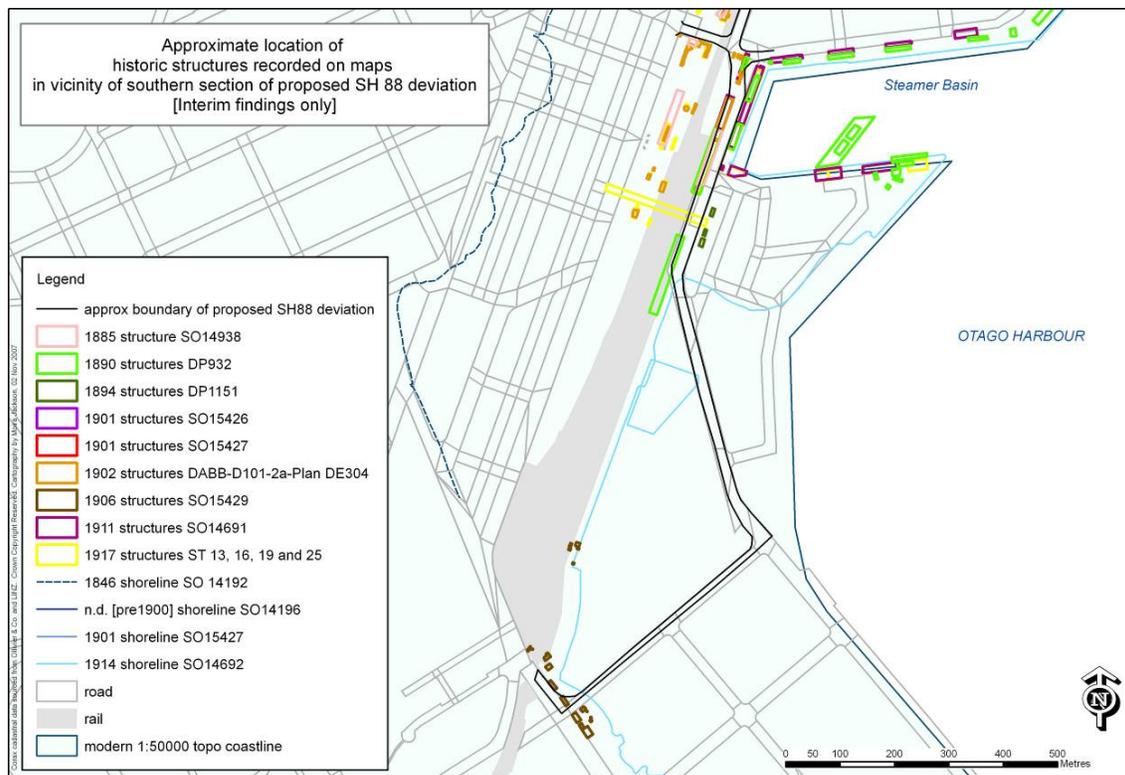


Figure 2. Approximate locations of historic structures recorded on archival maps in the vicinity of the southern section of the proposed SH88 deviation (interim findings only).

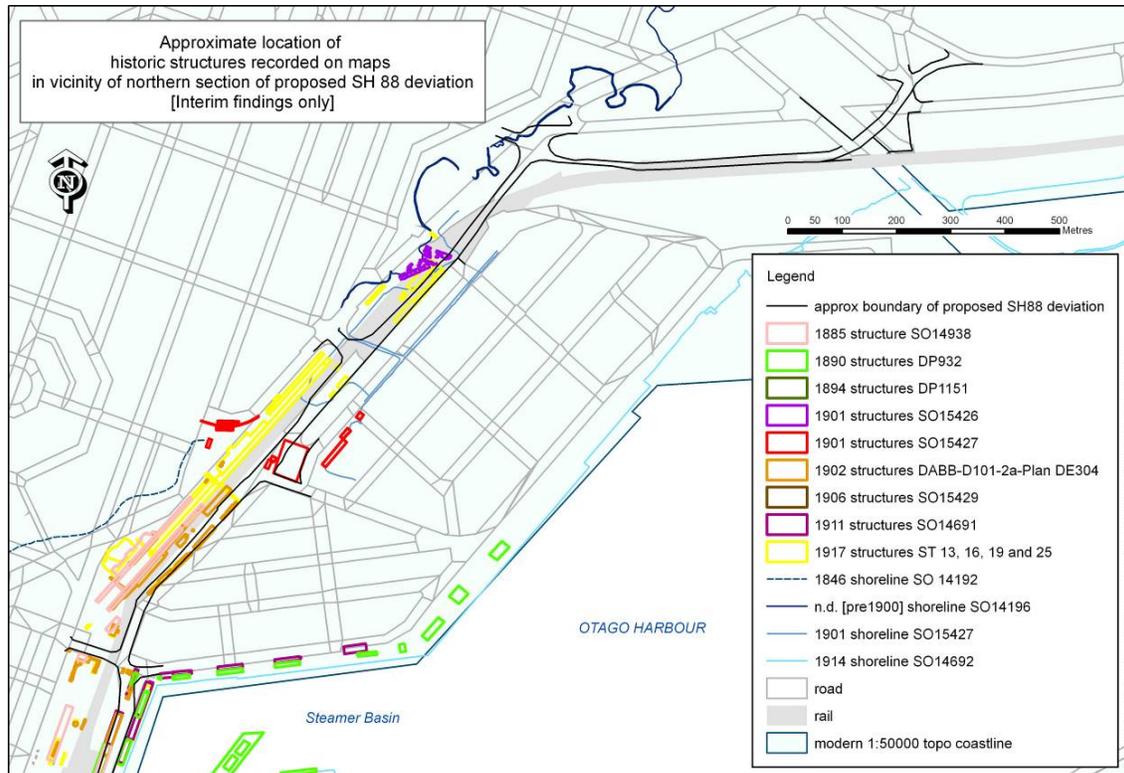


Figure 3. Approximate locations of historic structures recorded on archival maps in the vicinity of the northern section of the proposed SH88 deviation (interim findings only).

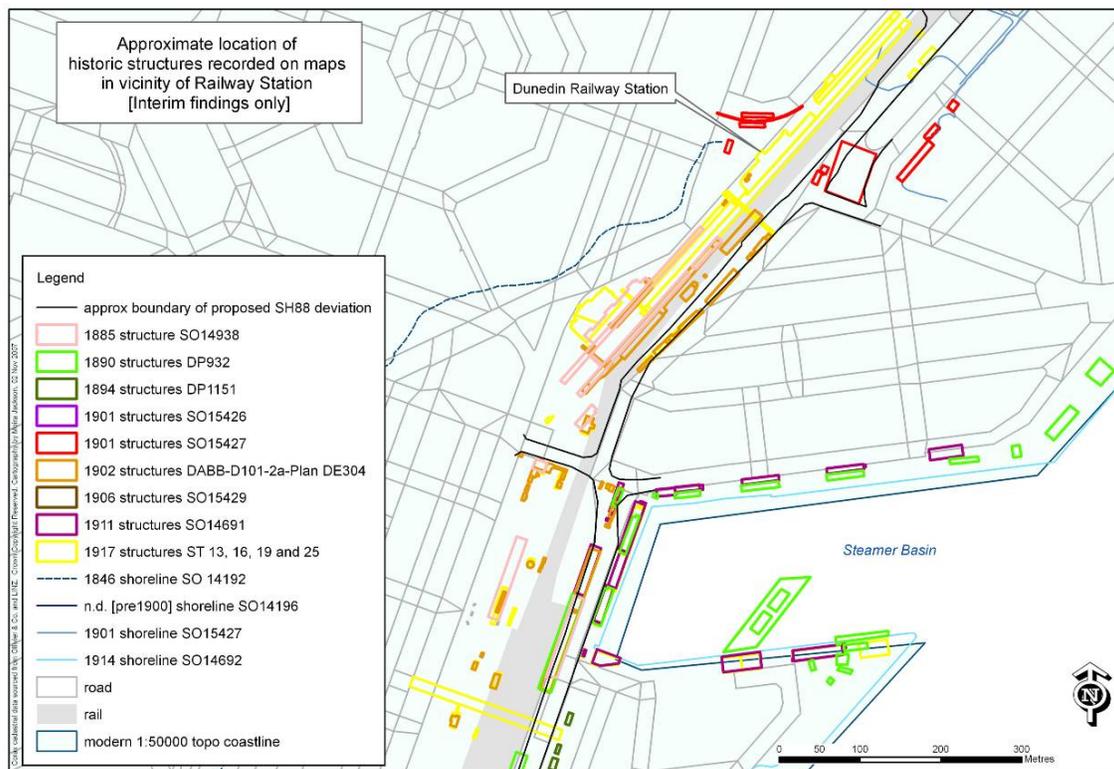


Figure 4. Approximate locations of historic structures recorded on archival maps as being in the vicinity of the Dunedin Railway Station (interim findings only).

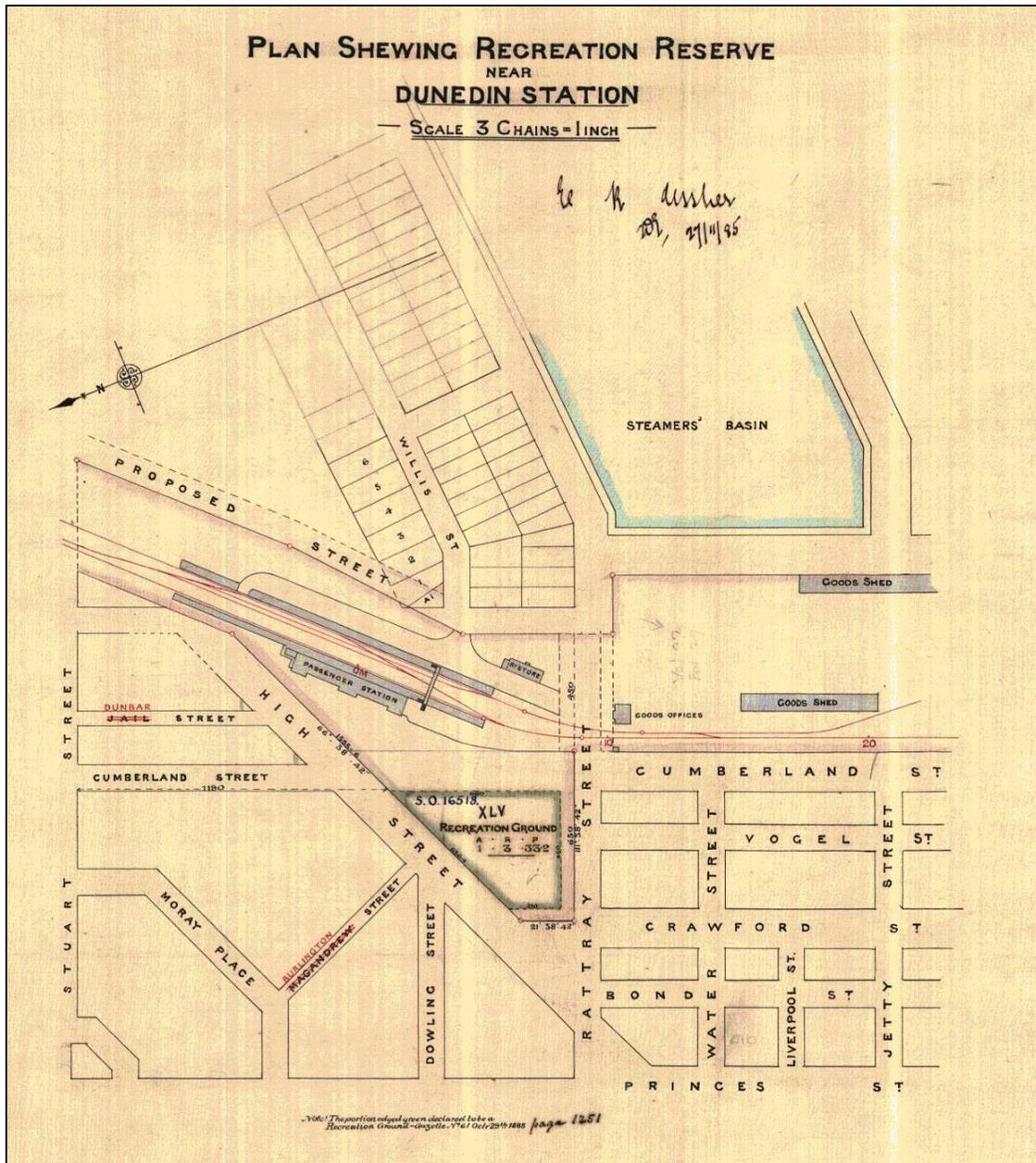


Figure 5. Detail of historical plan showing structures near proposed SH88 deviation in 1885 (SO14938).

The earliest plan that shows structures in the vicinity of the proposed deviation of SH88, which are associated with the original Dunedin Railway Station, is shown in Figure 5 (indicated in pink on GIS plans). No trace of these was visible during the ground survey.

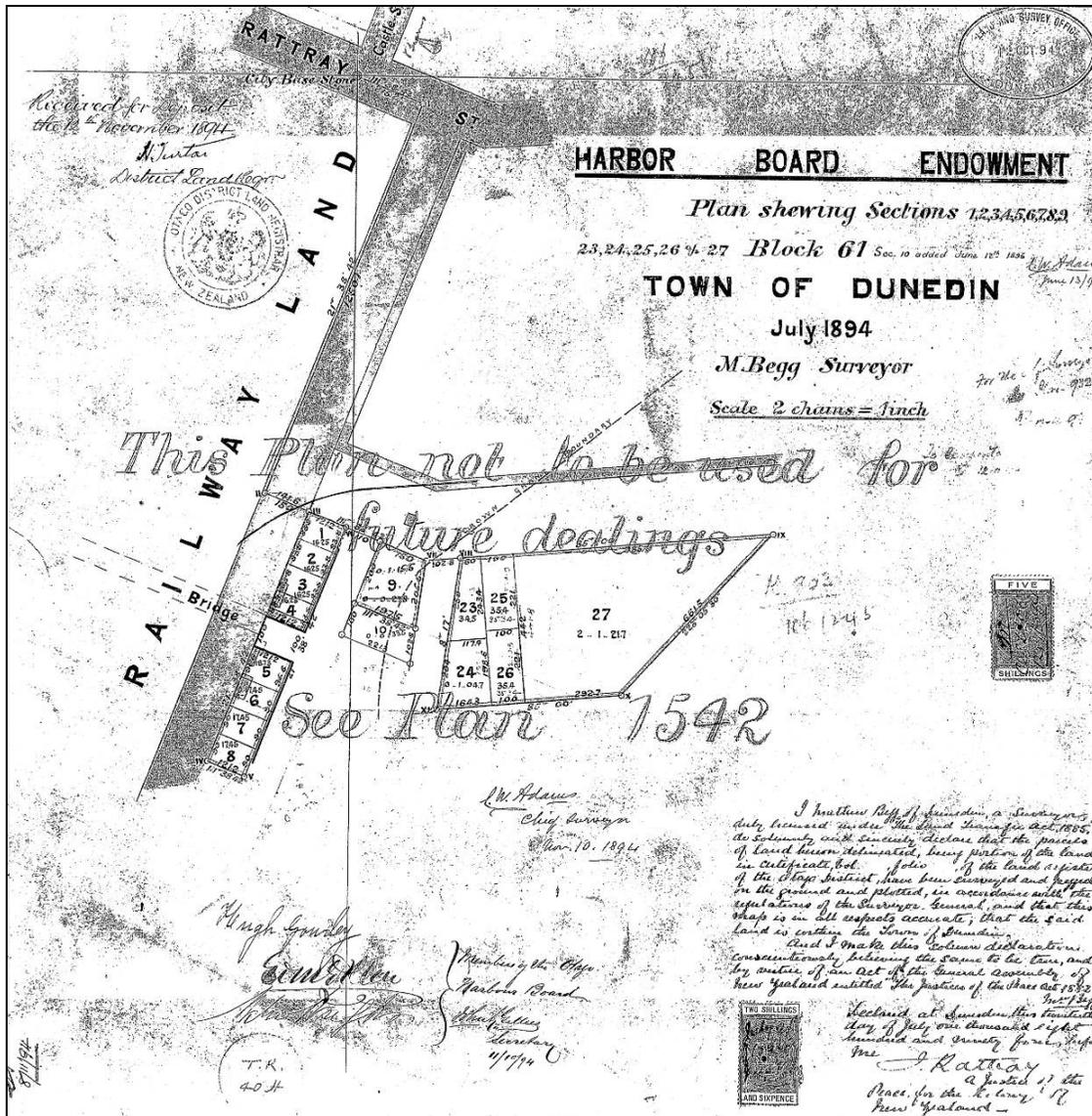


Figure 7. Detail of historical plan showing structures near proposed SH88 deviation in 1894 (SO1151).

Some additional buildings are shown in the vicinity of the Steamer Basin four years later; again with no indication as to function (Figure 7). No trace of these was seen during the ground survey.

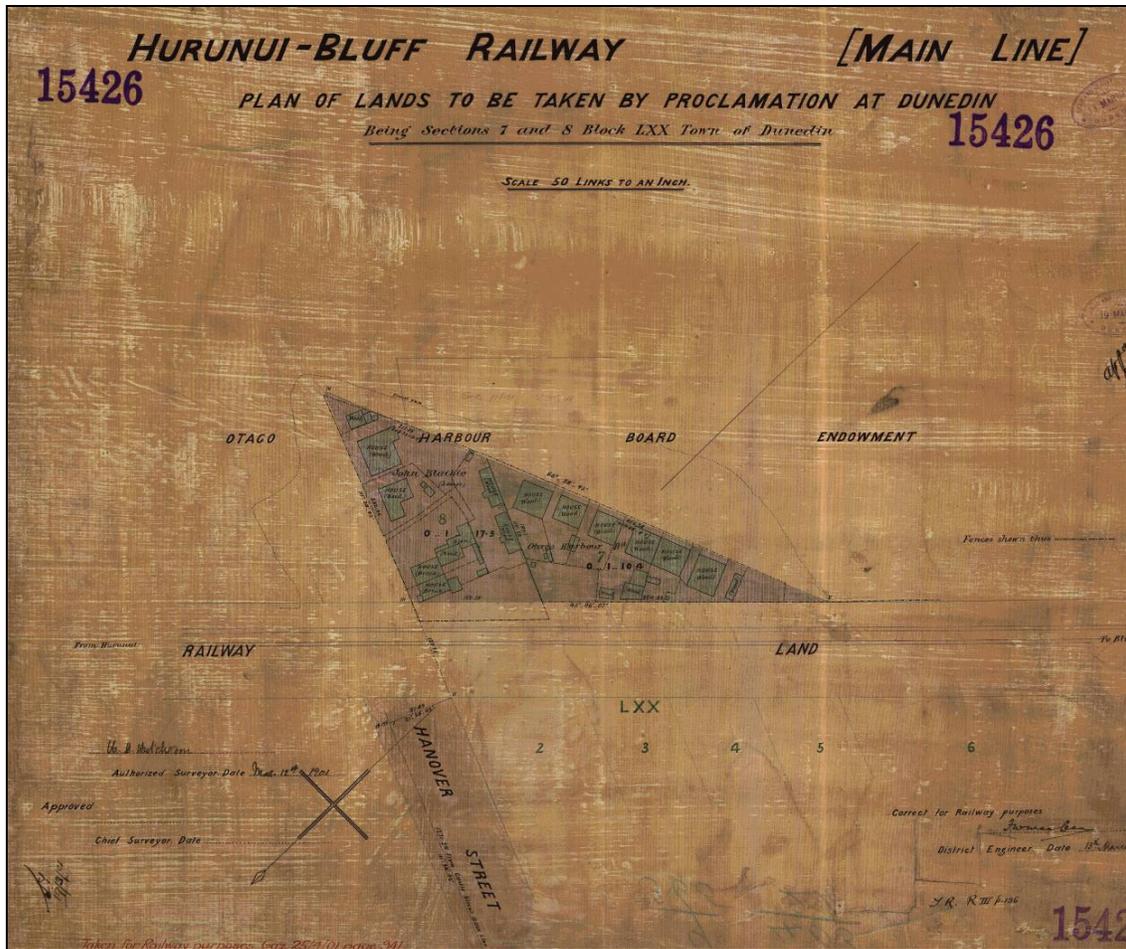


Figure 8. Historical plan showing structures near proposed SH88 deviation in 1901 (SO15426).

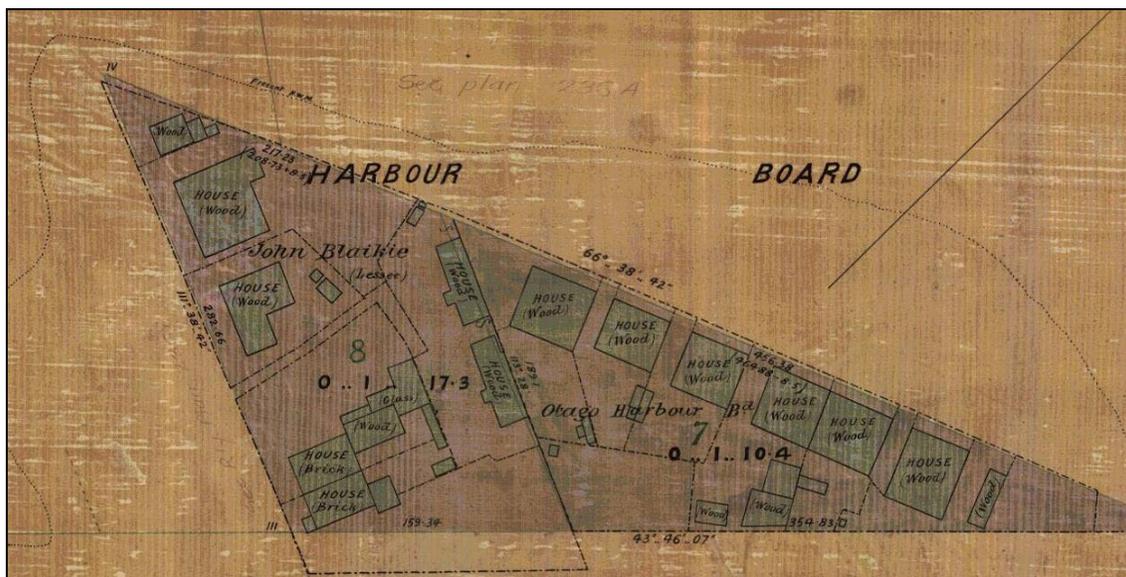


Figure 9. Detail of SO15426.

A number of buildings of wood, brick or glass are identified near Hanover St in 1901 (Figure 8, Figure 9) and these are all likely to pre-date 1900. No trace of these was seen during the ground survey.

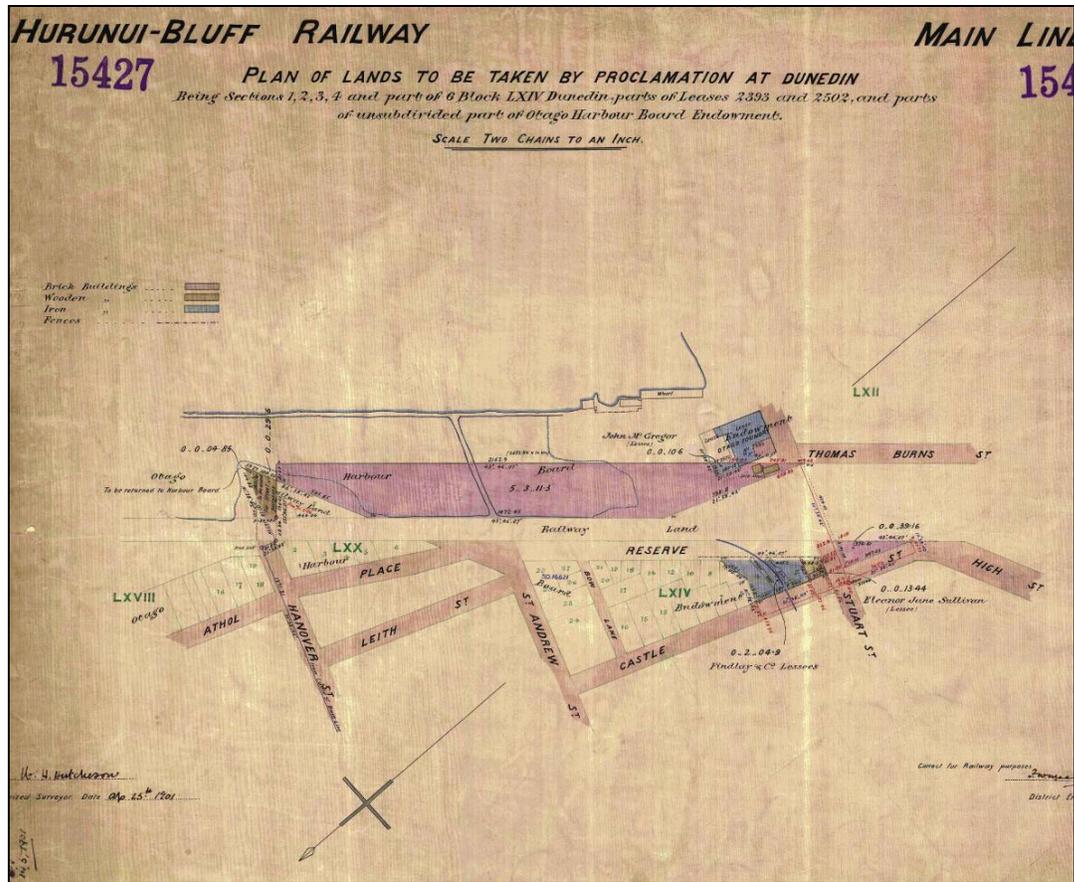


Figure 10. Historical plan showing structures near proposed SH88 deviation in 1901 (SO15427).

Another plan dated 1901 (Figure 10) shows a foundry in the approximate location of the present roundabout east of the railway station. Several buildings of brick, wood and iron are indicated and there may well be evidence of some of these preserved below the ground surface, although no trace was visible during the survey.

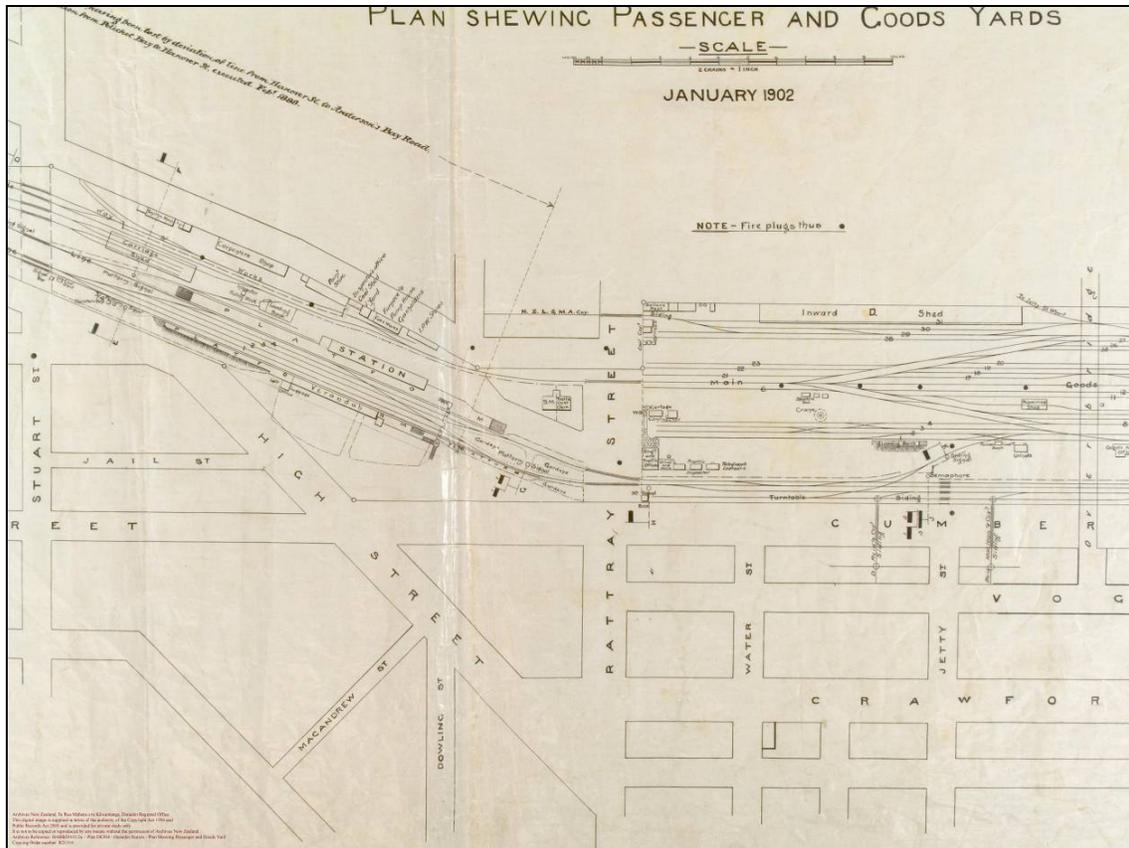


Figure 11. Historical plan showing structures near proposed SH88 deviation in 1902 (DABB-D101-2a - Plan DE304 - Image 1).

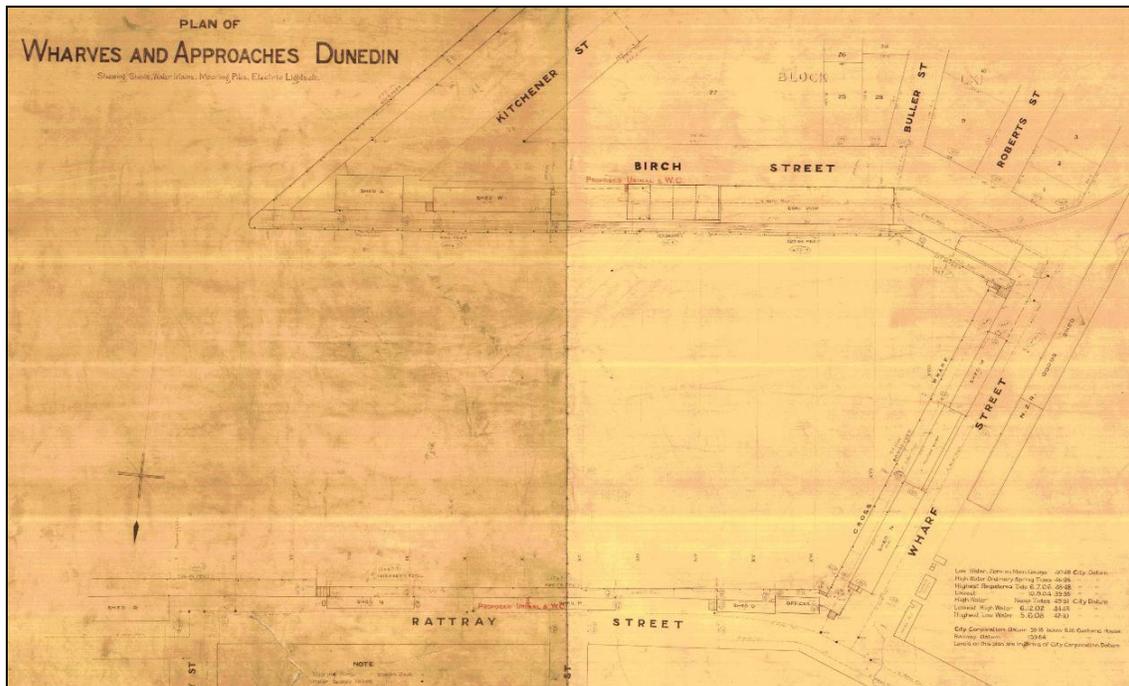


Figure 12. Historical plan showing structures near proposed SH88 deviation in 1911 (SO14691).

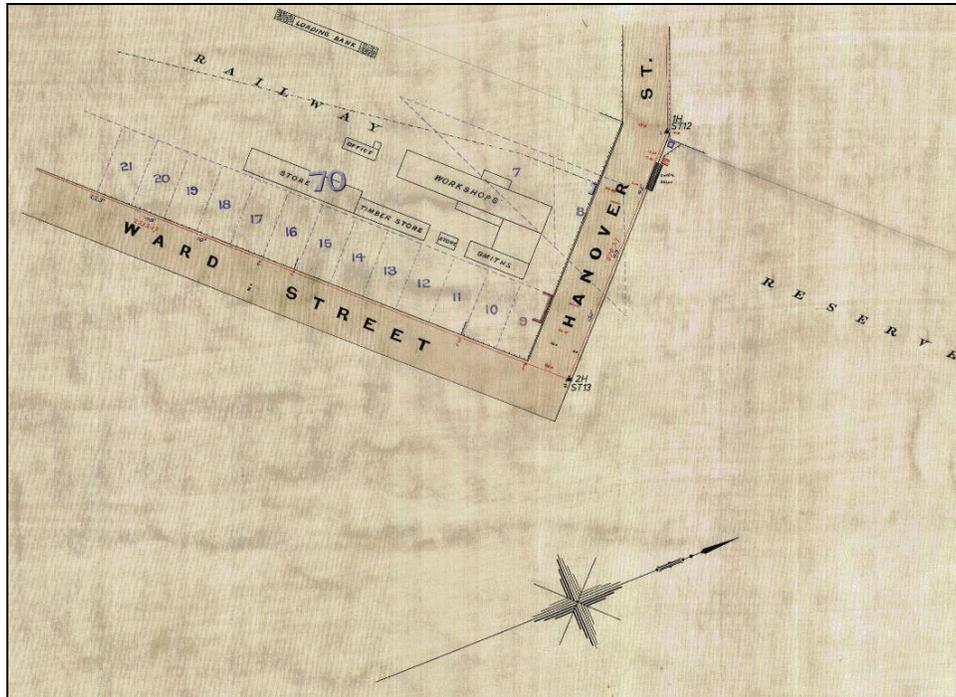


Figure 13. Detail of historical plan showing structures near proposed SH88 deviation in 1917 (ST13).

A plan dated 1917 (Figure 13) shows several buildings near Hanover St that are associated with railway workshops. Concrete pads and railway lines identified during the ground survey probably relate to these buildings. Two small buildings at the eastern margins of this part of the route ("store" on Figure 13) are likely to be related to the railway workshops as well. Their small size and relative isolation suggests that they may have been used for storing some sort of hazardous substances.



Figure 14. Detail of historical plan showing structures near proposed SH88 deviation in 1917 (ST16).

A second plan dated 1917 (Figure 14) shows the location of the present-day Dunedin Railway Station as well as a number of associated structures such as the pedestrian overbridge.



Figure 15. Detail of historical plan showing structures near proposed SH88 deviation in 1917 (ST19).



Figure 16. Detail of historical plan showing structures near proposed SH88 deviation in 1917 (ST25).

Two further plans dated 1917 (Figure 15, Figure 16) show several further buildings in the vicinity of the Steamer Basin at that time.

6.2 Site Survey

The site survey resulted in the discovery of only a very small concentration of possible archaeological deposits, namely concrete foundations and two small sheds near Hanover St (Fig. X). These are situated in the area identified from historical plans dating to 1917 as containing buildings associated with railway workshops (Figure 3, Figure 13). The workshops are not indicated on any earlier plans and therefore probably were constructed not long before 1917.

6.2.1 Site descriptions

The concrete pads are situated in the location indicated on Figure 13, as are the two small sheds mentioned above although their precise dimensions were impossible to determine because of vegetation and previous damage to the concrete in places. Some of the concrete pads have railway lines set into them, providing further support for their interpretation as being associate with railway workshops.



Figure 17. Concrete pads interpreted as being associated with railway workshops identified on 1917 plan. Note railway tracks set in concrete. Current railway lines in background.



Figure 18. Storage sheds marked on 1917 plan.

6.2.2 Significance of identified sites

The sites identified in section 6.2.1 are of relatively low significance. Their amenity potential is very low, and they are not examples of a rare or unusual construction method. Their archaeological potential is fully realised by their having been measured, described and recorded using GPS.

6.2.3 Effects of proposed activity on identified sites

It is likely that the construction of the proposed SH88 deviation would require the removal of the concrete pads and sheds identified in this study. This is considered acceptable from an archaeological viewpoint. The pads and sheds all post-date 1900 and therefore are not covered by the HPA. They are not of sufficient importance to require special consideration under the RMA.

Any effects on unidentified sites is impossible to assess at this stage. It is understood that the proposal will require some excavation, both for drainage and to provide a secure base for the road. This has the potential to damage or destroy any archaeological deposits that lie within a metre or so of the ground surface. The only extensive excavation required is in the vicinity of the pedestrian overbridge.

7 DISCUSSION

This assessment has identified a number of activities or structures as having been present along the route of the proposed SH88 deviation. Although the main focus of this assessment has been on the identification of archaeological deposits dating to before 1900, some attention has also been given to post-1900 remains, up to 1920. No pre-1900 archaeological deposits were visible from a surface survey, and only one area of concrete foundations – probably relating to railway workshops – was identified from the post-1900 period.

Earthmoving works required for the construction of the proposed deviation have the potential affect any unrecorded sites along the route. Although no sites were identified during the survey it has been possible to predict the most likely locations where such sites could be encountered during the construction phase. Damage to any such sites is unlawful unless an authority has first been obtained from the Historic Places Trust. To comply with the provisions of the HPA this report offers three recommendations.

8 RECOMMENDATIONS

This report makes the following recommendations:

- 1. That the Dunedin City Council apply for an archaeological authority from the Historic Places Trust under section 12 of the Historic Places Act 1993.**
- 2. That a condition of the authority be that any earthmoving works that have the potential to damage potential archaeological deposits identified in this report be monitored by an archaeologist.**
- 3. That a condition of the authority be that training in recognition of archaeological deposits and the appropriate response to the accidental discovery of archaeological deposits be provided to any contractors working on the site.**

9 REFERENCES

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