

# **WATERCARE SERVICES LTD, HERNE BAY TUNNEL, HERNE BAY - AUCKLAND: ARCHAEOLOGICAL ASSESSMENT**

Prepared for Watercare Services Ltd

March 2023



By

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## INTRODUCTION

### Project Background

Watercare Services Ltd (Watercare) is proposing to upgrade the existing Branch 5 Sewer in the Herne Bay area through the construction and operation of a new Herne Bay Trunk Sewer line along the road corridor from Point Erin to Marine Parade (the Project) (Figure 1 and Figure 2). Upon completion, the new trunk sewer line will connect to the Central Interceptor (CI) wastewater conveyance and storage tunnel that is planning to be extended from Tawariki Street in Grey Lynn to a new drop shaft in Point Erin Park.

Watercare Services Limited ('Watercare') is New Zealand's largest water and wastewater utility provider, responsible for the planning, maintenance, and operation of water and wastewater services to communities throughout Auckland and the northern Waikato regions. Watercare has supplied wholesale water supply and wastewater services since 1991 and is a Council Controlled Organisation (CCO), wholly owned by the Auckland Council.

As a lifeline utility, Watercare's services are vital for life, ensuring the safety and wellbeing of communities and helping them to flourish. Watercare's key services are:

- the collection, treatment, and distribution of drinking water from various dams, rivers and groundwater sources;
- the collection, treatment, and disposal of wastewater at various wastewater treatment plants;
- the transfer, treatment, and disposal of trade wastes; and
- the provision of commercial laboratory services.

Watercare is responsible for the management of over 410 million litres of wastewater daily, which is collected, treated, and disposed of in environmentally responsible ways. The wastewater network operated by Watercare consists of over 8,000 kilometres of pipes and 518 pump stations, directing wastewater to 18 treatment plants throughout the region.

Watercare is continually reviewing its activities and identifying maintenance, replacement, upgrading and new infrastructure projects to ensure it meets customer's needs, business objectives and statutory requirements. New infrastructure is frequently required across the region to cater for Auckland's growing population, to upgrade our assets, and to improve the security of its services.

Over the coming 20 years, Auckland's population is expected to grow by 29%, adding another 476,000 people to the current population of 1.7 million. To build a resilient water and wastewater system for this growing population, and ensure reliability of service, Watercare will invest about \$18.5 billion in renewing and upgrading critical assets over the next 20 years.

### Project Overview

Watercare is joint with Auckland Council in delivering a programme of infrastructure improvement works to reduce wastewater overflows and improve water quality at local beaches. The programme of works is known as the Western Isthmus Water Quality Improvement Programme ('WIWQIP').

To build a resilient wastewater system and ensure reliability of service and reduced overflows, Watercare is proposing to construct a new wastewater trunk sewer for the Herne Bay catchment, to connect into the proposed Central Interceptor ('CI') tunnel extension to Point Erin Park.

The scope of the works involves:

- Installation of approximately 1.5 km of 2.1m internal diameter trunk sewer line, constructed via a tunnel-boring machine ('TBM');
- Installation of approximately 150m of 600mm diameter trunk sewer within Marine Parade, constructed via open-cut trenching;
- Construction of 8x primary tunnel shafts, ranging in diameter from 3.5m to 11m, along with 4x 3.5m diameter intercepting shafts;
- Installation of 4x interception pipes and 11x connections to existing engineered overflow points ('EOP's);
- Establishment of two construction support areas ('CSA's) in public reserves; and,
- Relocation and reinstatement of utilities as required.

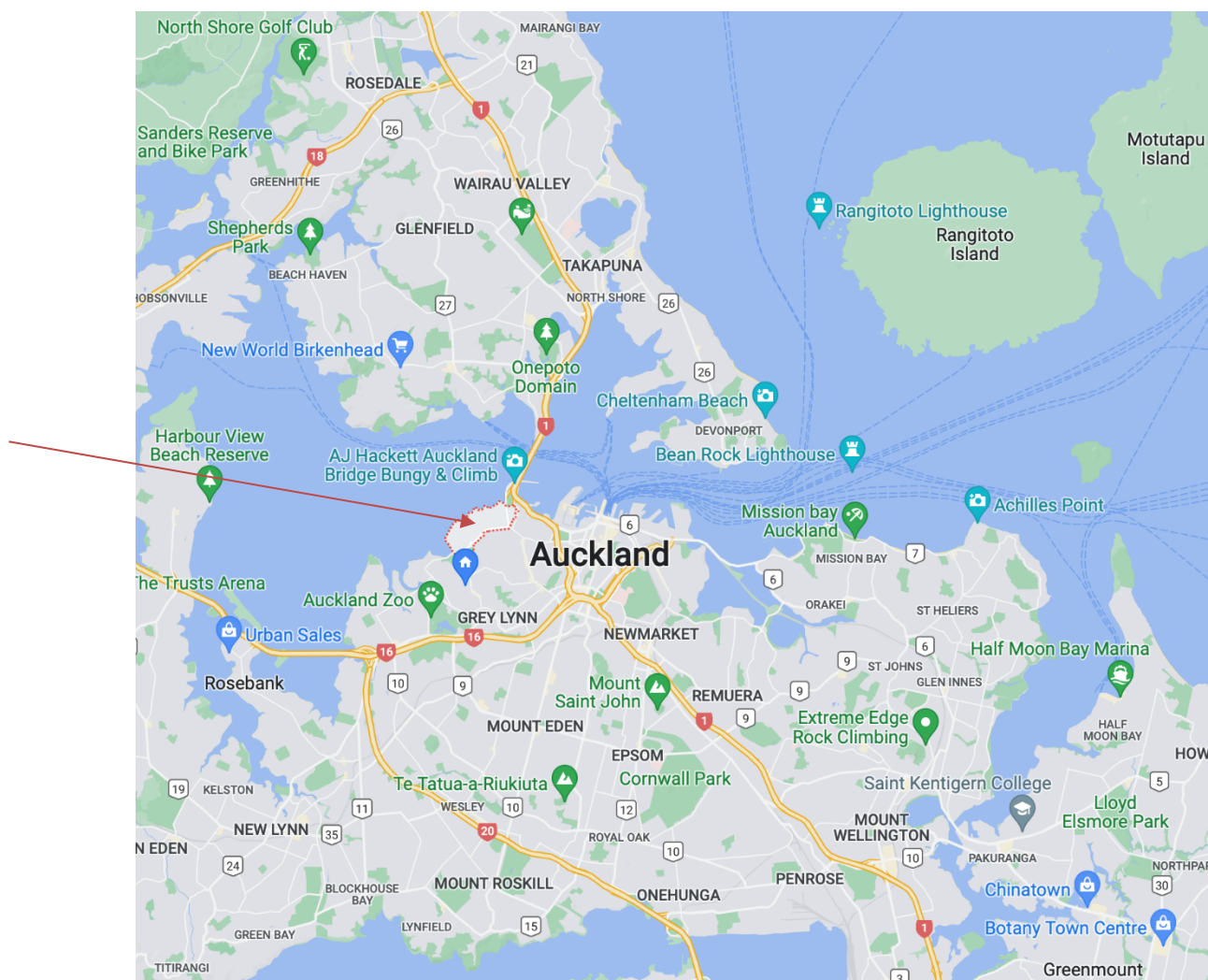
The resource consent application is prepared for the activities described above, hereafter referred to as 'the Project'. An archaeological assessment was commissioned by Watercare to establish whether the proposed work for the Project is likely to impact on archaeological and other historic heritage values. This report has been prepared as part of the required assessment of effects accompanying a resource consent application under the Resource Management Act 1991 (RMA) and to identify any requirements under the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA). Recommendations are made in accordance with statutory requirements.

## Methodology

The New Zealand Archaeological Association's (NZAA) site record database (ArchSite), Auckland Council's Cultural Heritage Inventory (CHI), Auckland Unitary Plan Operative in Part (AUP OP) schedules and the Heritage New Zealand Pouhere Taonga (Heritage NZ) New Zealand Heritage List/Rārangī Kōrero were searched for information on sites recorded in the vicinity. Literature and archaeological reports relevant to the area were consulted (see Bibliography). Early survey plans were checked for information relating to past use of the area.

A visual inspection of the Project area was conducted on 26 January 2023. Photographs were taken to record the area and its immediate surrounds.

Archaeological sites beneath modern buildings and sealed surfaces in urban environments can rarely be identified prior to being exposed in the course of redevelopment work, and the approach to archaeological assessment is therefore to identify historically recorded activities and assess the potential for archaeological evidence to have survived on the basis of later modifications to the site.



**Figure 1. The location of the Project area in Herne Bay (arrowed), Auckland (source: Google Maps)**





Figure 2. Proposed alignment of the new Herne Bay Trunk Sewer line (yellow) connecting to the proposed Central Interceptor (blue) at Point Erin (source: Watercare)



## **PROJECT DESCRIPTION**

The scope of the Herne Bay Trunk Sewer Project is:

- Installation of approximately 1.5 km of 2.1m internal diameter trunk sewer line, constructed via a tunnel-boring machine ('TBM');
- Installation of approximately 150m of 600mm diameter trunk sewer within Marine Parade, constructed via open-cut trenching;
- Construction of 8x primary tunnel shafts, ranging in diameter from 3.5m to 11m, along with 4x 3.5m diameter intercepting shafts;
- Installation of 4x interception pipes and 11x connections to existing engineered overflow points ('EOP's);
- Establishment of two construction support areas ('CSA's) in public reserves; and,
- Relocation and reinstatement of utilities as required.

### **Tunnelling**

The new Herne Bay Trunk Sewer pipeline will involve the installation of the trunk sewer line via a TBM which will be launched via a series of shafts (Thrust Shafts) and retrieved (Receiving Shafts). As the TBM progresses along the alignment sections of pipe are placed in the thrust shaft and then jacked in behind the TBM as it progresses. The depth of the proposed tunnels is still to be determined, however it is expected to be on average between 10m and 20m beneath the ground level.

The tunnel alignment will be entirely within the road reserve. The proposed tunnel alignment will commence at Shaft 1 opposite Point Erin Park and continue to the west within the road reserve of Sarsfield Street for approximately 610m. It will then continue to the south within Wallace Street for approximately 80m, then west within Argyle Street, until it meets the intersection with Herne Bay Road. The tunnel will then travel a short distance to the south along Herne Bay Road, until the intersection with Upton Street, where it turns west along Upton Street, until it meets the intersection with Marine Parade and Annan Street. The final segment of the proposed alignment will travel for approximately 200m south-west within Marine Parade, where it will terminate (Figure 4–Figure 5).

An approximately 150m long section of pipeline within the road reserve of Marine Parade will be open trench, connecting Shaft 7 and 8 with an existing engineered outflow point (EOP). The pipeline will be 600mm in diameter and will be constructed within a 1.8m-wide trench.

### **Piling Shaft Construction**

Eight shafts are required at any change of direction along the tunnel and will be constructed as the Project progresses ensuring there is a receiving shaft as the TBM commences a drive towards it. The proposed shafts will be of a varying diameter and depth, depending on their location, ranging from 9m to 13m internal diameter and with depths of 6.3m – 22.6m corresponding with the fall of the pipeline and the undulating topography of the Project area. Figure 4 and Figure 5 shows the location of these shafts, predominantly at the intersections of roads.

At each shaft location service investigations and then service diversions will be undertaken prior to the shaft construction. This will require small construction sites typically involving a hydrovac and small excavators to unearth and divert the existing services at each of the shaft locations.

A Construction Site (CS) will be established at each shaft location with the footprint minimised to the extent practicable by using the central compound for material and plant storage. Piling will be undertaken, with the secant pile shaft being constructed with a bored pile rig and crane. Steel casings and pile cages will be installed and concreted. The pile shaft will then be excavated, breaking down the piles and constructing a capping ring beam. The rest of the shaft will be dug out. At the bottom of the shaft a concrete base will be poured and a thrust block (Thrust Shafts) and soft eye poured on the shaft walls.

On completion of the tunnel through the shaft and removal of the TBM the shaft will be decommissioned with the installation of a permanent manhole. The annulus of the shaft and manhole will be backfilled with hardfill.

### **Interception Pipes**

Four interception pipelines are proposed which are likely to be constructed via trenching as shown in Figure 6, to connect the new trunk sewer to existing engineered outflow points (EOPs), being:

1. An 80m long, 300mm diameter extension to the north beneath Hamilton Road
2. A 190m long, 300mm diameter extension to the south beneath Sentinel Road;
3. A 220m long, 450mm diameter extension that extends west along Stack Street, turns north along Wairangi Street and turns west along River Terrace; and
4. A 75m long, 300mm diameter extension that extends north within Herne Bay Road.

Following the completion of the main drive 3.5m interceptor shafts will be constructed adjacent to the main tunnel to allow the construction of the interceptor pipelines to the EOP's, Interception pipelines and EOP connections are planned to be constructed as follows in Table 1 (also see Appendix 1 plans):

**Table 1. Proposed construction method for interception pipelines and EOP connections**

Shaft Name	Location	Methodology	Distance	Depth to Invert	End Depth
SE01	59 Hamilton Road	Steel Casing			17.8m
EP202	69 Hamilton Road	Horizontal Drill	85m	1.1m	11.5m
EP195	59 Hamilton Road	Open trench Excavation	6.4m	2.0m	2.3m
SE02	80 Sarsfield Street	Steel Casing			13.4m
EOP200	28 Sentinel Road	Open trench Excavation	184m	4.0m	4.7m
SE03	91 Sarsfield Street	Steel Casing			9m
EOP201	91 Sarsfield Street	Open trench Excavation	4.3m	4.1m	4.5m
Shaft 2		Secant Pile			14m
EOP1019	11 Cremorne Street	Open trench Excavation	55m	2m	5m
EOP1019 WWMH01	12 Stack Street	Horizontal Drill	85m	7.3m	8.7m
EOP1019 WWMH02	1 Wairangi Street	Horizontal Drill	80m	5m	7.3m
SE04	45 Argyle Street	Steel Casing			7m
EOP740A	45 Argyle Street	Open trench Excavation	7m	4.1m	5m
Shaft 4		Secant Pile			17m
EOP197	1 Marine Parade	Horizontal Drill	65m	3.6m	14.5m
Shaft 7		Trench box			6m
EOP198	22 Marine Parade	Open trench Excavation	3.5m	4.7m	4.9m
Shaft 8		Trench box			2.5m
EOP199A	Bella Vista Road x Marine Parade	Open trench Excavation	26.5m	1.8m	2.3m

### Construction Support Areas

The main Construction Support Area (CSA1) for the Project will be set up in Salisbury Park with access off Argyle Street (Figure 7). A second CSA2 is proposed at the Curran Street motorway onramp (94A & 94B Shelly Beach Road) at the end of Point Erin (Figure 8). The CSA sites will be established by stripping the topsoil and replacing with hardfill to provide an all-weather surface and suitable environmental controls. Site offices will be set up and utility connections. A wheel wash will be established and stock pile bins located.



**Figure 3. Detail of the Herne Bay Trunk Sewer Upgrade Point Erin to Marine Parade (see Appendix 1 for tunnel longitudinal sections and Appendix 2 for Shaft locations) (source: Watercare)**





Figure 4. Eastern portion of the proposed alignment (dark red) and key features



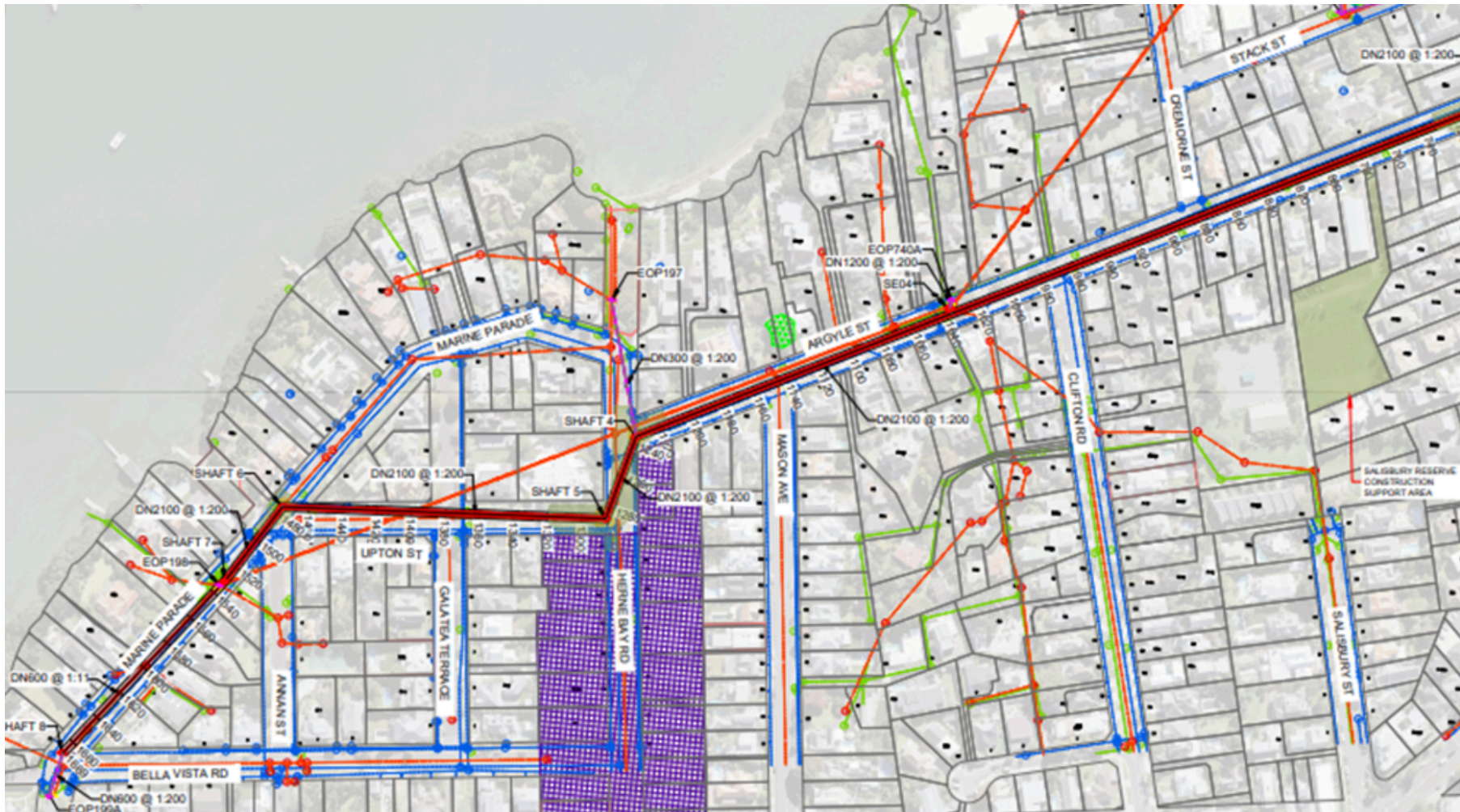


Figure 5. Western portion of the proposed alignment (dark red) and key features



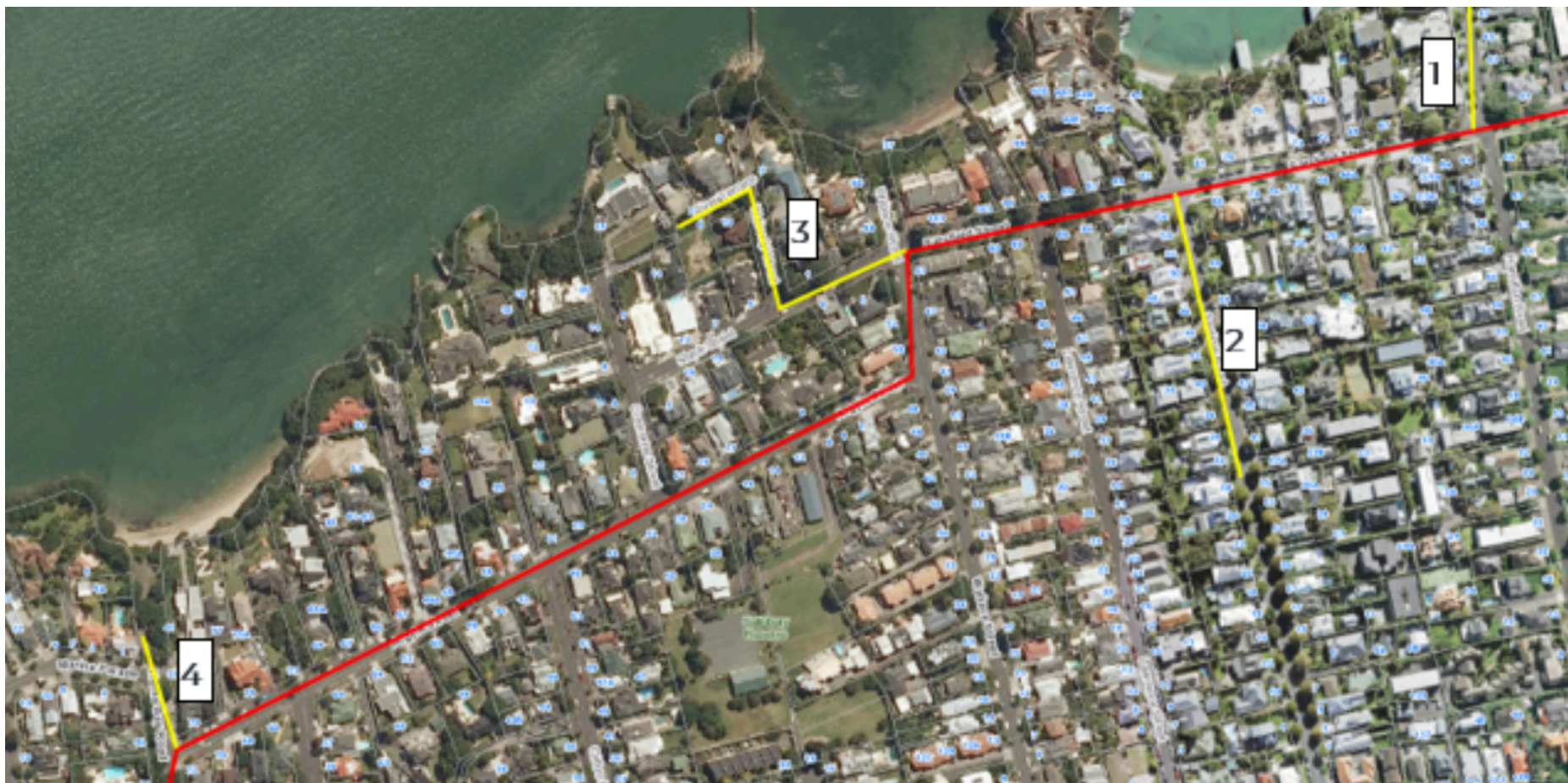


Figure 6. Four connecting pipes (shown in yellow)





Figure 7. Main Construction Support Area (CSA) –Salisbury Reserve off Argyle Street





Figure 8. Second CSA Option 1 – Curran Street motorway onramp (94a and 94b Shelly Beach Road, McDowell Site)

## HISTORICAL BACKGROUND

### Māori Settlement

While based on reliable documentary sources, this information should not be viewed as complete or without other context. This section is confined to the sources reviewed (contained in the Bibliography). There are a large number of iwi historically associated with the Auckland region and many other additional histories known to tangata whenua.

Auckland and the upper Waitematā Harbour have a long history of traditional associations with Māori, depicted in the complex traditional record relating to the region that reflects the migrations, conquests and occupations that have taken place in this area over centuries. The Māori name for the Auckland Isthmus was Tāmaki-makau-rau, ‘The bride sought by a hundred suitors.’ The land was highly valued, and many battles were fought for supremacy.

Many different iwi and hapu have featured in the history of Tāmaki-makau-rau, with tribal territories or rohe changing in response to migration, warfare and intermarriage. Ngāti Whātua, Te Waiohua, Ngāti Paoa and Te Kawerau a Maki in particular have historical associations with the isthmus.

Through the leadership of Hua Kaiwaka in the 16th century, the various tribes of the Tāmaki Isthmus were united under the confederation known as Te Waiohua. The Hauraki confederation of tribes also had periodic incursions into the isthmus as well as fishing camps in the Waitematā. Ngāti Whātua, domiciled in the northwest, attacked Te Waiohua in the mid-17th century, eventually settling in the central isthmus (Blair Jun 2013: 4).

The isthmus had many settlement sites, including fortified pa, and supported one of the most concentrated Māori populations in New Zealand. The Waitematā and Manukau Harbours contained extensive shellfish beds, fisheries and birds, while the fertile soils of the volcanic fields were excellent for growing crops. The harbours, with their various portages, were the centre of an extensive water-based transport network and were rich in marine resources. Māori had their food production organised into gardening and fishing circuits and there were many fishing stations supported by gardens throughout the Tāmaki Isthmus, including the Freemans Bay (Waiatarau), St Marys Bay and Point Erin area.

Te Rimutahi, or the Ponsonby ridgeline, was a traditional Māori transport route and walking track from Maungawhau (Mt Eden) through Te Uru Karaka (Newton Gully) to Okā and Te Tō, the two headland pa sites at Point Erin and St Marys Bay above Victoria Park (Blair Jun 2013: 6).

Okā Pā at Point Erin (Te Koraenga, or Okā, meaning ‘the headland’ or ‘the place of burning’) was also part of a vast network of fishing stations and strongholds along the coastline of the Waitematā (Figure 9). Traditionally it was associated with the summer shark fishing in the upper Waitematā Harbour (Blair Jun 2013: 6). Ureia, the legendary taniwha (water monster) and guardian of the Hauraki people, roamed the gulf and frequented Point Erin to scratch his back against the cliff and reef situated under what is now the southern end of the Auckland Harbour Bridge (Salmond Reed Jul 2011: 17).

Te Onemaru o Hautau, or ‘Hautau’s Sheltered Beach,’ being Shelly Beach (below Point Erin), provided an all-tidal launch site for waka onto the Waitematā and was where Māori would camp in the summer while fish were brought ashore and smoked and dried. Hautau



is a Te Waiohū ancestor who commanded the fisheries enterprise there in the 17th century (Blair Jun 2013:6; Carlyon and Morrow 2008:20).

Tukituki Muka, meaning to prepare flax is a name associated with the western end of Jervois Road and Herne Bay, this once being a flax (muka) processing area. This name is also associated with an area of Cox's Bay. Tāmaki-makau-rau - Map of the Tāmaki Isthmus with Māori place names shows the name 'O-tahuti-mai' associated with the headland of Wairangi Road and Cremorne Street within Herne Bay (Figure 9).

Most of the isthmus came under the control of Ngāti Whātua in the 18th century. From the 1820s, when the acquisition of muskets sparked tribal warfare, Māori settlements in Tāmaki-makau-rau were deserted, and Māori did not return to the area until the 1830s. In 1840 when New Zealand's first Governor, William Hobson, chose Tāmaki-makau-rau to be the site of the country's capital, Ngāti Whātua had only recently returned to the isthmus after years of exile caused by the musket wars. In March 1840 Ngāti Whātua chief Āpihai Te Kāwau signed the Treaty of Waitangi and invited Governor Hobson to found a settlement in Auckland, seeking protection from northern tribes as well as trading and other opportunities (Stone 2001). However, they could not have envisaged the scale of European settlement that would follow, or that by the end of the century their land rights on the isthmus would have been reduced to a small toehold at Ōrākei.

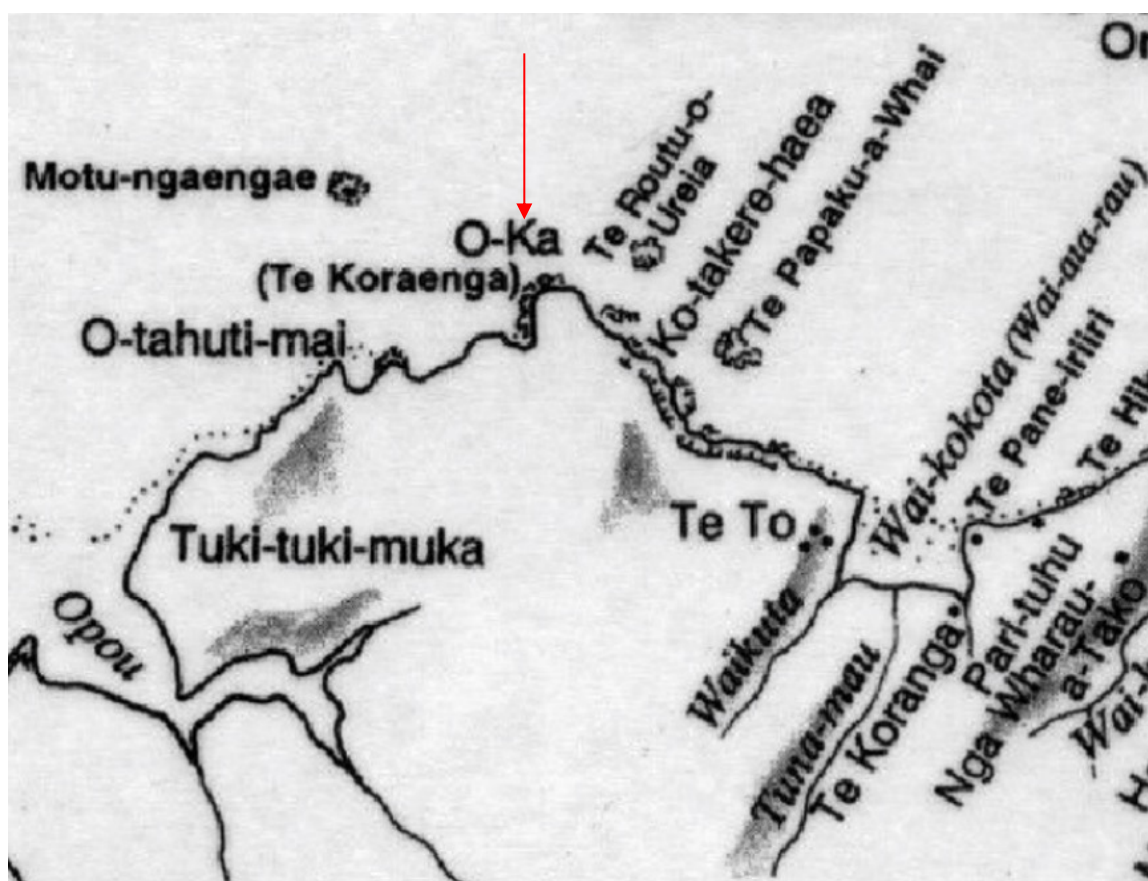


Figure 9. Part of Tāmaki-makau-rau - Map of the Tāmaki Isthmus with Māori place names showing the Herne Bay/ St Marys Bay/ Freemans Bay area. Point Erin/ O-Kā (Te Koraenga) Pā is arrowed (from Kelly and Surridge 1990)

## European Settlement

The land now comprising of the suburb of Herne Bay was a small part of the large 3,000 acre purchase by the Crown from Ngāti Whātua in 1840 – Deed 206 Mataharehare, Opou and Whau (Turton 1877). These 3,000 acres included all of the land that now makes up the Auckland Central Business District (CBD) and surrounds.

During Hobson's second visit to the Waitematā in 1840 with Captain David Rough on the *Ranger*, Rough recorded the following:

‘...I climbed the cliffs to where Ponsonby now is, and beheld a vast expanse of fern and manuka scrub; several volcanic hills in sight, and near the shore, valleys and ravines in which many species of native trees are growing, whilst the projecting cliffs and headlands were crowned with pohutukawa trees ...’ (Peart 2016:72).

The new town of Auckland was established in 1841 with allotments reaching as far as Freemans Bay. Property in early Auckland was gradually sold by public auction from April 1841 with the earliest Crown Grants registered in 1842. The Crown subdivision of the modern Ponsonby, Herne Bay and St Marys Bay areas occurred in 1845, with the first sales in 1846.

The Crown Grant named ‘Erin’ (*Auckland Star* 22 August 1911: 2) purchased by one John Campbell, an Irish immigrant, covered the area from Shelly Beach Road to Wallace Street and south to Jervois Road in Herne Bay. In 1857 this area was proposed for subdivision and sold under the name ‘Campbellville’ (Figure 10).

From the 1850s onwards it became apparent that Auckland's Herne Bay or the ‘Western Suburbs’ was quite handy to the centre of town by a short boat trip and it became a prosperous area due to its outlook over the Waitematā Harbour. The suburb was named after Herne Bay, a fashionable but respectable seaside resort in the English county of Kent. From the 1860s through to the early 1880s, subdivision lots were released within the ‘Bella Vista’ subdivision within the western half of Herne Bay (Figure 11).

Herne Bay Road is one of the areas earliest roads, having been set out as a thoroughfare in the late 1860s, prior to its subdivision for housing. Along the western side of Herne Bay Road most of the Victorian villas and cottages were built in the 1870s and early 1880s. In 1901, the east side was subdivided into 15 lots in the middle of a building boom.

Herne Bay developed as an early commuter suburb and was the location of several large houses belonging to members of the professional classes. The suburb became known for its extensive harbour views, marine villas and Edwardian age homes. Most of these houses (termed ‘marine villas’) were readily accessible from the water, with their own jetties and boathouses – in some cases there was not any land route to them (Figure 12). Boating and recreation by the sea has always been a popular pastime in the Auckland suburbs of Ponsonby, St Marys Bay and Herne Bay. Historically excursions were made around the harbour or to the gulf islands from Ponsonby Wharf at the end of Wairangi Street, and the beaches were among the most popular and frequently used within the inner-city suburbs.

Over the years a number of boatsheds and maritime structures have been built along the Herne Bay coastline by individual private landowners. These buildings and structures were associated with early residential subdivisions dating from the late 19th and beginning of the 20th century. Landowners applied to be able to construct sheds and structures that were immediately adjacent to their properties that had waterfront access (Matthews and Matthews Jul 2007).

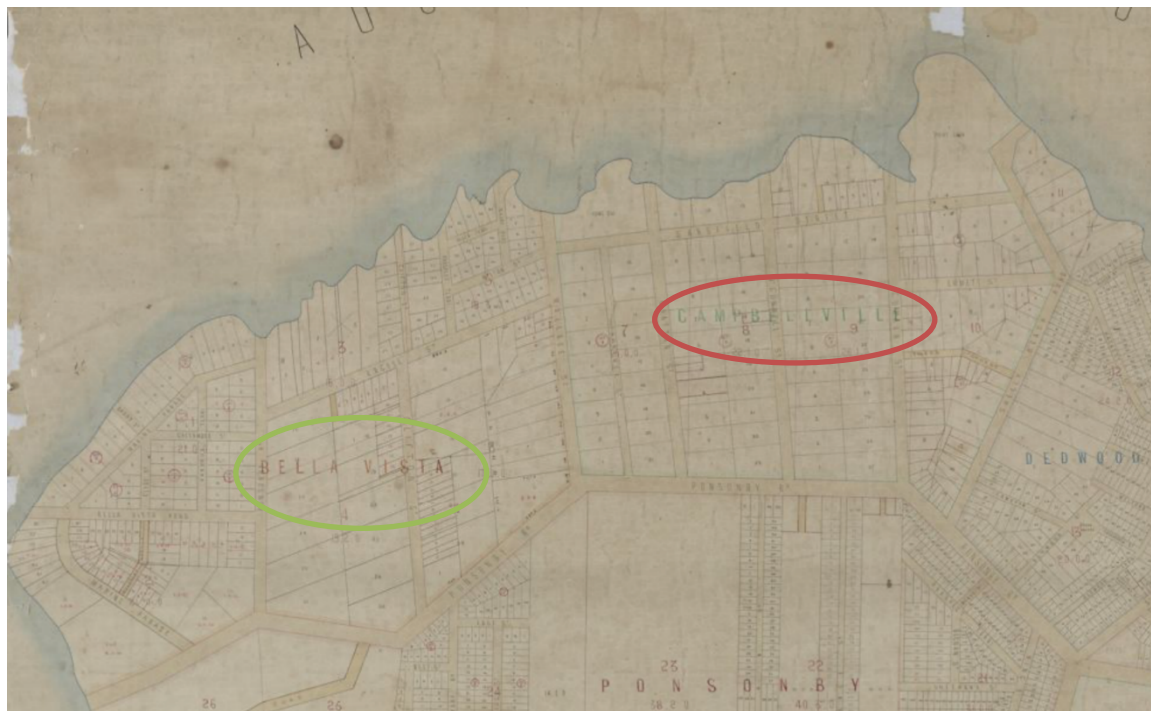


Located between Argyle Street and the coast of Herne Bay was an area known as ‘Kemp’s Gardens’ (Figure 13). This was a popular pleasure resort for Auckland’s people during the 1860s. The gardens were complete with pavilion, gardens and illuminations. Later renamed ‘Cremorne Gardens’ after the fashionable pleasure gardens in London, Kemp’s gardens boasted a dancing pavilion, and 10 acres of walks and sports grounds. It is remembered in the name ‘Cremorne Street’.

An 1868 subdivision plan of the estate of J.V. Marston, Esquire is bordered by Wallace Street, Argyle Street and the northern end of Clifton Street (unformed) to the coast and including Prospect Street (Cremorne Street), Milton Road (Stack Street), Wharf Street (Wairangi Street) and River Terrace (Figure 14 and Figure 14). The plan also shows within the proposed subdivision extensive established gardens and paths from Milton Road (Stack Street) to the coast covering the western end of River Terrace, and the northern end of Prospect Street (Cremorne Street) to Clifton Road. Within these gardens is described ‘Residence of J.V. Marston, Esquire’ showing a single storey residence, a large two storey building, a small outbuilding and boat shed on the foreshore, within what was to become Lots 44 and 45 of the subdivision. This estate covers part of Kemp’s Gardens, and the gardens and two large buildings described as Marston’s ‘residence’ may have originally been associated with its former use.



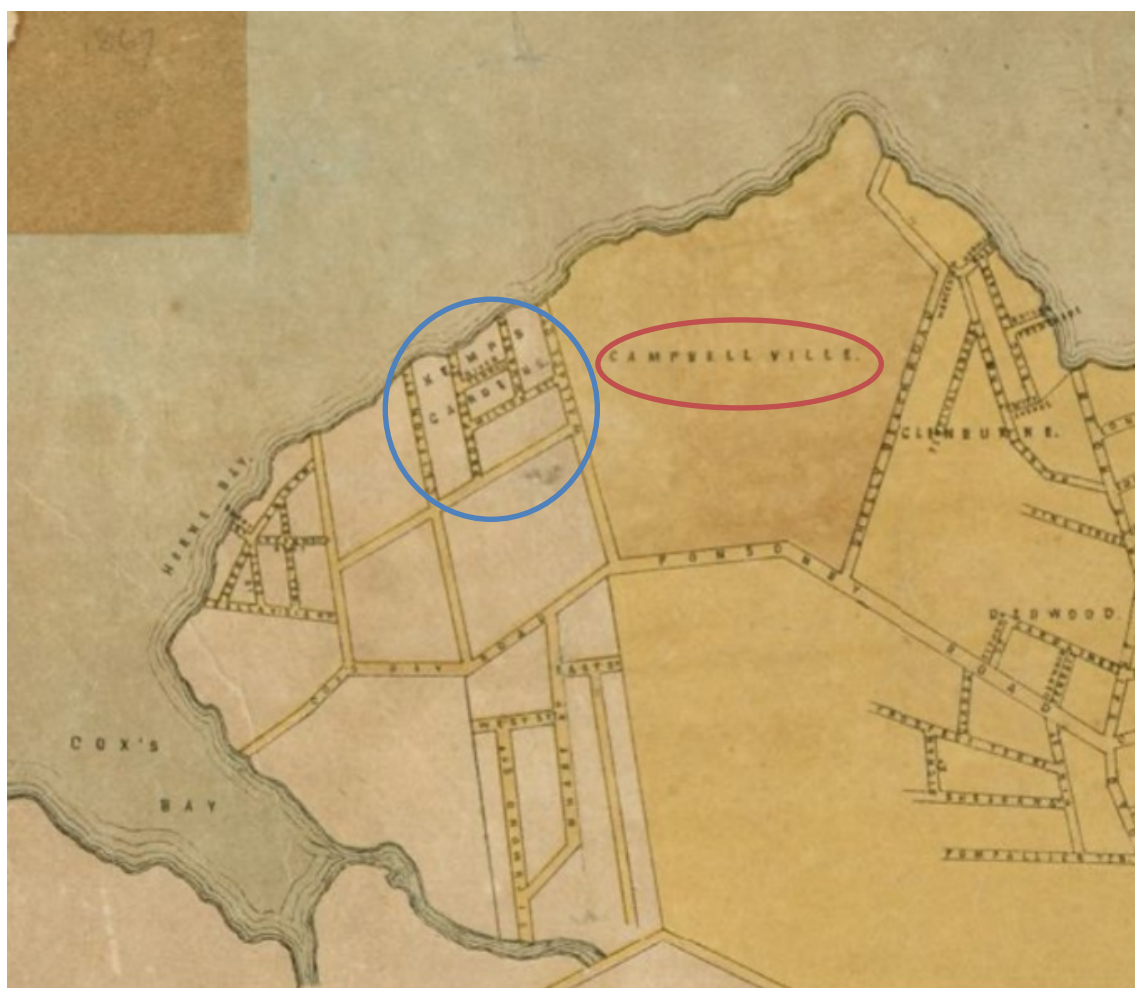
Figure 10. Deed Blue 1, Plan of ‘Campbellville’ 1857 Subdivision (source: Quickmaps)



**Figure 11. Plan of Ponsonby or Dedwood Highway District (1870) including Campbellville (red circle) and Bella Vista (green circle) subdivisions that now make up the suburb of Herne Bay (Auckland Libraries Heritage Collections Map 2694)**



**Figure 12. Boatsheds and 'Marine Villa' houses at Sloanes Bay off Marine Parade Herne Bay (1911) (Auckland Libraries Heritage Collections 1-W0552)**



**Figure 13. Detail from Map of the City of Auckland & Suburbs 1867 showing Campbell Ville (red circle), Kemp's Gardens (blue circle) and the early road layout of the Western Suburbs (Auckland Libraries Heritage Collections Map 4610)**





Figure 14. Plan of 61 valuable allotments on the Waitemata, Western Suburbs of the City of Auckland, the Estate of J. V. Marston, Esquire 1868 showing Prospect Street (Cremorne Street) Milton Road (Stack Street), Wharf Street (Wairangi Street), River Terrace and northern end of Clifton Street (unformed). Also shown are extensive gardens and paths, and the 'Residence of J. V. Marston, Esquire' showing a single storey residence, a large two storey building, a small outbuilding (blue arrows) and boat house (Auckland Libraries Heritage Collections NZ Map 4495-44). NB – plan is aligned to the south (see reoriented detail in Figure 15)



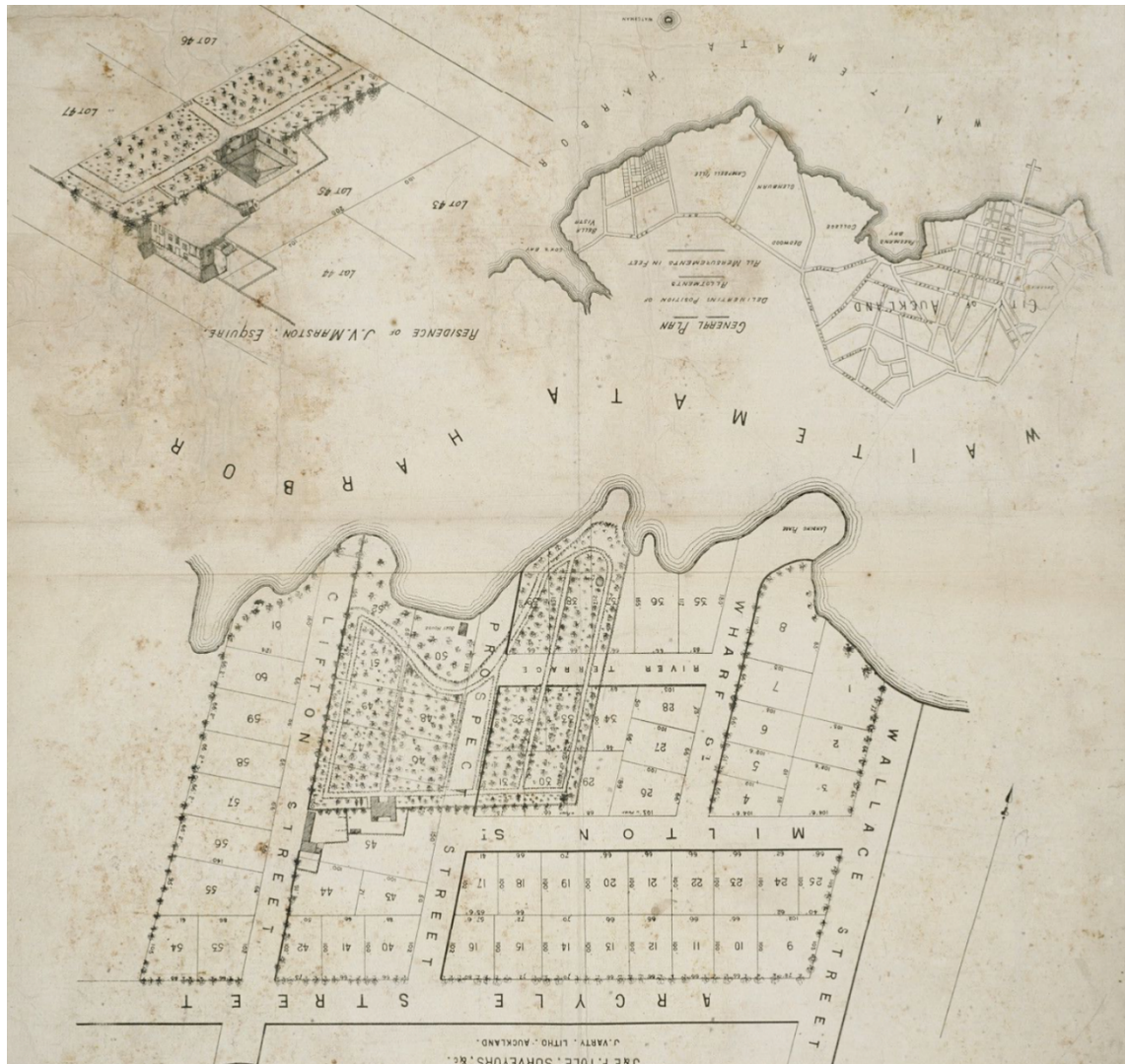


Figure 15. Reoriented detail from Figure 14

## Point Erin

In 1857 when John Campbell purchased the Crown Grant named 'Erin' covering the area from Shelly Beach Road to Wallace Street and south to Jervois Road, he subdivided and sold the wider area as 'Campbellville,' but retained the Point Erin area as far as Sarsfield Street, which included his house and a boat shed at Shelly Beach (Figure 10 and Figure 16). John Campbell built his house on the highest point of Point Erin in almost a central position at the end of Shelly Beach Road (Figure 17).

On 12 November 1899 John Campbell died at his residence on Point Erin and in 1911 his Point Erin estate was put up for auction. It was described in the papers as a 'Gentleman's Residence standing in Park-Like Grounds of about 12 and a half acres', with many mature trees and a large timber house with 10 large room and conveniences, and outbuildings, including a lodge of four rooms (*The Press* 22 July 1911). That same year Major Christopher J. Parr was elected Mayor of Auckland. He began a programme of enhancing the city by the creation of parks and purchased Point Erin, '12 acres overlooking the

harbour ... for £19,000', with a further £3,000 used to develop Point Erin Park, the first publicly owned land along Auckland's waterfront (Bush 1971:170).

John Campbell's house was converted into a kiosk for the park and a band rotunda was built nearby. Work of renovating the Point Erin Park Lodge and kiosk at a cost of 25 pounds was proceeded with (*Auckland Star* 14 May 1926: 6). The park was officially opened on 17 December 1911. A stream gully ran along the southern edge of the park adjacent to Sarsfield Street and it was transformed into a 'beautiful fern grotto' or 'rock and water garden' with paths laid out on either side of the stream and bridges constructed (Figure 18 and Figure 18).

Shelly Beach at the end of Point Erin was also a popular swimming and picnicking area with the locals. Shelly Beach Baths associated with Point Erin Park were opened in 1912 and were the first to have mixed bathing (Figure 20). The main bath measured 47 x 18 m and was filled with saltwater during high tide. It was part of the new City Council policy for building municipal swimming pools. It closed in 1956 to make way for the harbour bridge and was replaced by the Point Erin baths which opened in 1962 (Salmond Reed Jul 2011:18).

With co-operation between the City Council and the Harbour Board, a road and causeway was constructed in 1931 from the foot of Curran Street at its intersection with Sarsfield Street, extending around the western cliff of Point Erin for 1000 feet (304.8m) to link up with the breakwater of St Mary's Bay boat harbour (Figure 21). The western cliff skirting the park had to be cut away and benched to form the road and the spoil used to form the roadway (*NZ Herald* 15 October 1931 and 28 October 1931: 11).

The breakwater built by the Harbour Board along the St Marys reef c.1918 was progressively extended and a seawall built by 1940. Since 1940 a number of other reclamations had occurred to form the Westhaven Marina. In 1956 work on the Harbour Bridge approaches began and St Marys Bay and Shelly Beach were reclaimed. A total of 3.5ha was reclaimed for the expansion of the motorway (Salmond Reed Jul 2011:36). An on-ramp to the motorway was constructed as an extension of Curran Street, which buried the original 1931 road to the Shelly Beach Baths and Westhaven seawall and reclaimed the eastern part of Masfield Beach along the western side of the Point Erin headland (Figure 22). The Auckland Harbour Bridge was officially opened on 30 May 1959.



Figure 16. Detail from survey plan DP 501 (1886) showing John Campbell's property at Point Erin (source: Quickmap)



Figure 17. John Campbell's house, which became the tea kiosk on Point Erin Park (photographer William Price, early 1900s - Ref: 1/2-000359-G. Alexander Turnbull Library, Wellington, New Zealand. [/records/23093355](#))



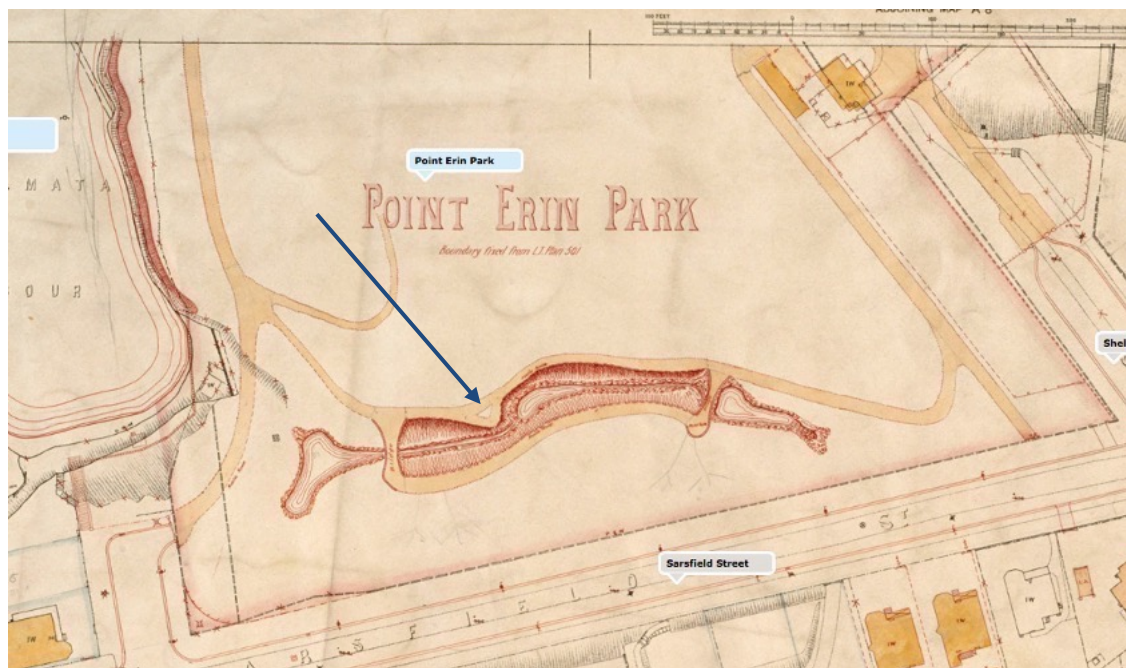


Figure 18. Detail from the 1908 Wrigg City Plan of Auckland (Map B8 annotated to July 1919) showing the southern end of Point Erin Park with the landscaped southern gully with ponds (blue arrow) and the original shoreline of Masefield Beach (source: Auckland Council Archives)



Figure 19. Children's playground and southern stream gully, Point Erin Park c.1920-30. Note the landscaping of rustic fences and pools (Auckland Museum Library Lediard Photographs PH-NEG-C26284-1)



**Figure 20. The Shelly Beach Baths, Point Erin 1914 (Auckland Libraries Heritage Collection 1-W0215)**



**Figure 21. 'Seashore Roadway at Ponsonby Nears Completion: The New Road at the Base of Point Erin Park' (NZ Herald 10 February 1932)**



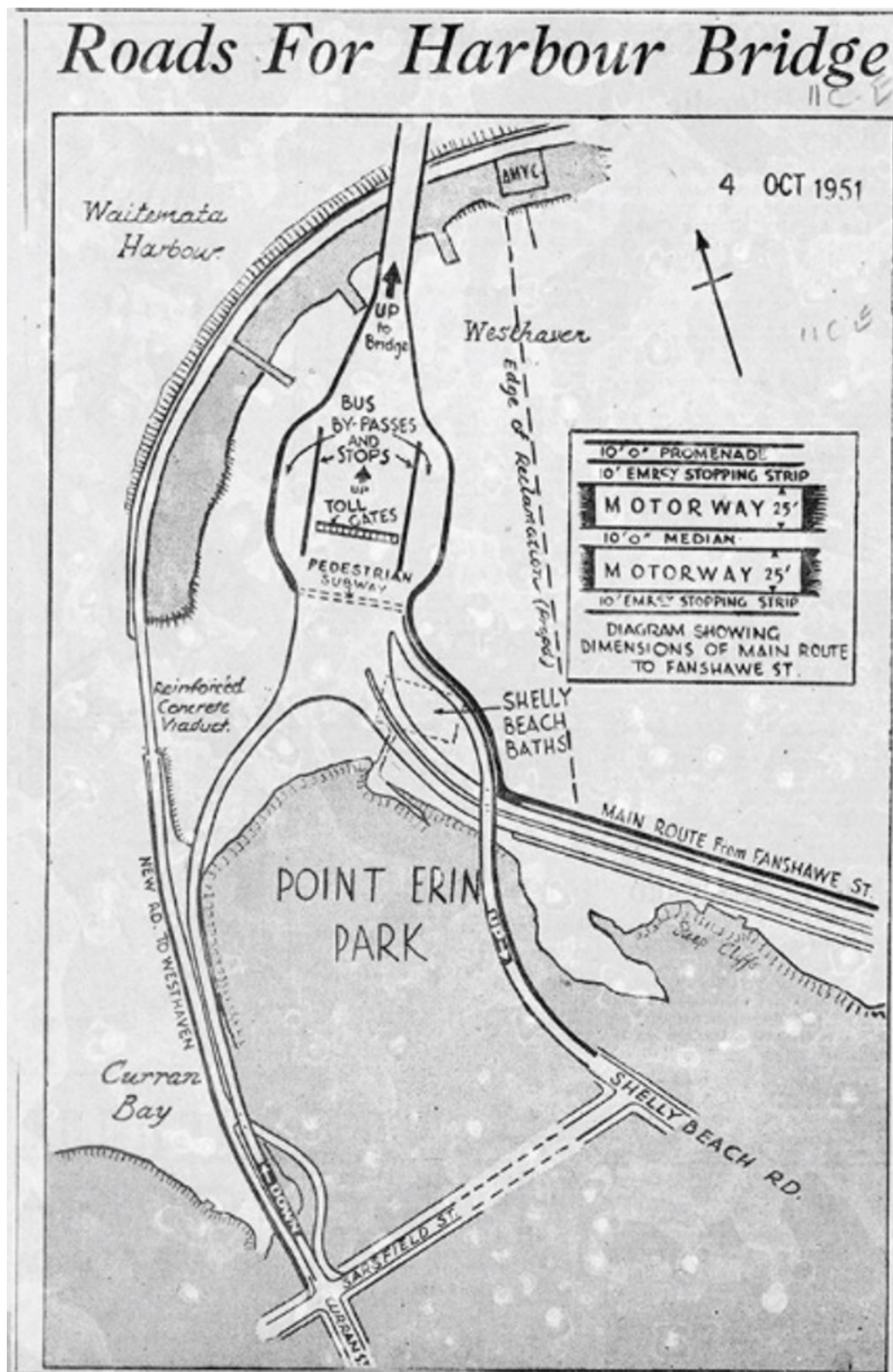


Figure 22. Plan of the 'Roads for Harbour Bridge' (Oct 1951) and reclamations at Pt Erin. Note the previous location of the Shelly Beach Baths in relation to the motorway construction



## ARCHAEOLOGICAL AND HISTORIC HERITAGE BACKGROUND

There are a number of recorded Māori and early European archaeological and other historic heritage sites recorded within the vicinity of the Project area (see Figure 23 and Table 2).

Māori archaeological sites predominantly consist of remnant midden sites located around the many bays on the coastal edge of Herne Bay. These sites would have been associated with small fishing camps likely supported by gardens throughout the upper Waitematā Harbour. Point Erin, at the eastern end of the Project area, was once a headland pa site known as Te Koraenga Okā or Okā Pā. This site is recorded in NZAA ArchSite as R11/78. The Point Erin headland covers some 5ha and in such an area it is likely that the pa occupied the northern tip of the headland (Foster Jan 2012:7). However, the pa and associated living sites are likely to have extended outside this scheduled area on the southern part of the headland with the possible alignment of any ditch and bank fortifications for the pa being south of the pool complex, in the area of the current car park, taking advantage of the existing natural gully. Te Koraenga Okā is a scheduled Site and Place of Significance to Mana Whenua (SPSMW) (AUP OP Schedule 12: ID006), with a defined Extent of Place (EoP), which is shown on the AUP maps on the northern tip of the headland (Figure 24).

Two other scheduled SPSMW are located in the vicinity of Point Erin – Te Rōutu o Ureia, within the sea bed and reclaimed land off the end of Point Erin (ID062), which is also a listed Wāhi Tapu on the New Zealand Heritage List (# 7773); and One-Manu within Shelly Beach at the base of Pt Erin cliff (ID005) (Figure 24).

During works for the construction of the Point Erin Pools in the early 1960s Okā Pā was recorded in the NZAA site records as having been destroyed. However, in 1981 the site was revisited and was considered to have a few remaining areas of archaeological potential. These were noted in the site record form (R11/78, Appendix 3) as consisting of an area of crushed shell midden eroding out of the northwest edge of the headland, and possible evidence of ditch and bank fortifications south of the pool complex, in the area of the current car park, taking advantage of the existing natural gully.

Historically, as noted above, Point Erin was part of a large residential property purchased by John Campbell in the 1840-1850s. Campbell built a large timber villa near the centre of the Point Erin headland, just south of where the Point Erin Pools are now located. From 1911 Point Erin was developed and landscaped as one of Auckland's earliest public parks.

Archaeological monitoring of earthworks in the southwestern corner of the Point Erin park (Foster Jan 2012) and on the corner of Sarsfield Street and Curran Street in 2020 as part of the St Marys Bay and Masefield Beach Water Quality Improvement Project (Tatton and Clough 2023, in prep.) did not identify any intact archaeological deposits in this area. In 2020 open trenching between 2-6m deep to install a rising main (St Mary's Bay pressure line) and gravity pipeline (Sarsfield overflow collector) along the eastern side of the Curran Street motorway on-ramp, the northern side of Sarsfield Street and within the southwestern corner of the park confirmed that the construction of the Curran Street motorway on-ramp had buried the original 1931 road to the Shelly Beach Baths and Westhaven seawall, and reclaimed the eastern side of Masefield Beach along the western side of the Point Erin headland extending into the end of the Point Erin southern stream gully; the eastern slope of the on-ramp now forming the southwestern corner and entrance to the park. The level of Sarsfield Street had also been raised by 1.2m, certainly at its western end, as a result of the on-ramp construction (Tatton and Clough 2023, in prep.).

There are a number of historic houses and other buildings recorded within Herne Bay, which is reflective of its subdivision and settlement from the 1850s. This residential suburb features a variety of architectural types and styles – cottages from 1840s, villas from the 1870s, bungalows of post WW1 era and later Spanish or modern styles from the 1940s. More recently infill housing and blocks of flats have been built in the area.

Two scheduled Historic Heritage Places in the AUP OP, each with a defined Extent of Place, are located immediately adjacent to the Project area – 85 Sarsfield Street is scheduled under Category B in Schedule 14.1 of the AUP OP (ID 1839). This house is also Listed under Category 2 on the NZ Heritage List (ID 2650); and 58 Wallace Street is scheduled under Category B in Schedule 14.1 of the AUP OP (ID 1901). This house is also Listed under Category 2 on the NZ Heritage List (ID 593). The EoP of both historic heritage places extends into the berm of the adjacent road reserve (Figure 25).

The Herne Bay Road Historic Heritage Area is scheduled in the AUP OP (ID 2515) and its EoP includes the properties and houses on either side of Herne Bay Road and Herne Bay Road itself from its intersection with Argyle Street and Sarsfield Street (Figure 26). Herne Bay Road is a street of mostly late Victorian and early Edwardian villas of very high quality and which are largely unmodified, particularly on the east side. The historic heritage area is representative of this housing period, and represents Herne Bay housing for the upper-class of the time. The road has a particularly spacious ambience. The road has bluestone kerbs and established trees that lead down towards Herne Bay beach. The lots range from 550 to 800m<sup>2</sup> and have a width of 15 to 20m, which was generous for the time. Accordingly, the villas are generally well separated from each other (AUP OP Schedule 14.2.5).

Herne Bay also has many recorded historic boatsheds and other maritime structures built along the Herne Bay coastline by individual private landowners. These are some of the earliest remaining boat sheds in the Auckland area and are an iconic and high visible group when viewed from the harbour and the bridge. There are also individual sheds that are significant in that they are representative of the boatshed type, are associated with prominent people or organisations or have high setting or landscape values (Matthews and Matthews Jul 2007:10-11). The remaining boatsheds present in Herne Bay today, which are the most distinctive feature of maritime history in this area, were built from the 1920s through to the 1970s. Many of the sheds have been more recently rebuilt, refurbished and expanded and are primarily related to private recreational use rather than commercial maritime activities (Matthews and Matthews Jul 2007:3).

Within the AUP OP areas of Herne Bay are identified as having ‘special character’ dwellings. The oldest of these special character areas (identified as ‘Isthmus A’ areas under the AUP OP) are generally present in the blocks to the south of Sarsfield Street and Argyle Street and contain dwellings mostly constructed in the 1900s and 1910s. The more recent special character areas are located around Marine Parade and to the north of Argyle Street and contain dwellings mostly constructed in the 1920s.

More modern residential areas are present to the north of Sarsfield Street and within the blocks surrounding Lawrence and Wallace Streets, signified by the ‘Mixed Housing Suburban’ and ‘Mixed Housing Urban’ zoning. These areas contain a combination of larger standalone dwellings, apartment buildings and flats.



**Figure 23. The location of recorded archaeological and other historic heritage sites within the Project tunnel alignment (purple) and connecting pipelines (red) (source: Auckland Council CHI)**



**Table 2. Recorded archaeological and other historic heritage sites within the vicinity of the proposed Herne Bay Sewer (see Figure 23)**

CHI #	NZAA #	Site Type	Name	Location	NZTM Easting	NZTM Northing	AUP OP Schedule #	NZ Heritage List
226		Wharf	Wairangi Road Wharf /Old Ponsonby Wharf	Wairangi Road   Herne Bay	1754413	5921346		
2592		Building - Dwelling	G. Winstone	59 Hamilton Road   Herne Bay	1754917	5921302		2621
2603		Building - Dwelling		85 Sarsfield Street   Herne Bay	1754655	5921294	Schedule AUP ID01839 Cat B	2630 Cat II
2610		Building - Dwelling	J. B. Hollander	58 Wallace Street   Herne Bay	1754485	5921251	Schedule AUP ID01901 Cat B	593 Cat II
5773	R11/53	Midden		Sentinel Point   Herne Bay	1754663	5921297		
6054	R11/1141	Midden		Hamilton Road   Herne Bay	1754883	5921427		
6069	R11/1157	Midden		Herne Bay	1754963	5921498		
6070	R11/1158	Midden		3 Wairangi Road   Home Bay   Herne Bay	1754450	5921329		
6071	R11/1159	Midden		Herne Bay Beach   Herne Bay	1753988	5921082		
6072	R11/1160	Midden		Marine Parade Reserve   33 Marine Parade   Herne Bay	1753764	5920895		
6815	R11/78	Pa (Headland)	Oka   Pt Erin   Te Koraenga   Te Routu o Ureia	Pt Erin	1755362	5921798	Schedule 12 AUP ID006	
12767		Sites and Places of Significance to Mana Whenua	One-Maru	Pt Erin   Shelly Beach	1755365	5921528	Schedule 12 AUP ID005	
12768 / 22306		Sites and Places of Significance	Te Koraenga Oka	Pt Erin Park	1755210	5921618	Schedule 12 AUP ID006	

CHI #	NZAA #	Site Type	Name	Location	NZTM Easting	NZTM Northing	AUP OP Schedule #	NZ Heritage List
		to Mana Whenua						
		Sites and Places of Significance to Mana Whenua	Te Routu o Ureia (Ureia is the renowned taniwha of the Marutuahu tribes of Hauraki)	Pt Erin   Auckland Harbour Bridge			Schedule 12 AUP ID062	Wahi Tapu # 7773
14499		Boat Shed		47 Marine Parade   Herne Bay	1753707	5920778		
18420		Boat shed		44 Sarsfield Street   Herne Bay	1754929	5921516		
18422		Boat Shed		Herne Bay	1754904	5921491		
18423		Boat Shed		69 Hamilton Street   Herne Bay	1754896	5921462		
18424		Boat Shed		71a Sarsfield Street   Herne Bay	1754788	5921422		
18425		Boat Shed		75 Sarsfield Street   Herne Bay	1754734	5921377		
18426		Boat Shed		79 Sarsfield Street   Herne Bay	1754720	5921340		
18427		Boat Shed		Home Bay Beach   Herne Bay	1754546	5921324		
18428		Boat Shed		5 River Terrace   Herne Bay	1754327	5921337		
18470		Boat Shed		15 Cremorne Street   Herne Bay	1754316	5921302		
18471		Boat Shed		18 Cremorne Street   Herne Bay	1754218	5921234		
18472		Boat Shed		7 Marine Parade   Herne Bay	1753998	5921063		
18473		Boat Shed		21 Marine Parade	1753860	5921009		
18474		Boat Shed		23 Marine Parade   Herne Bay	1753839	5920994		

CHI #	NZAA #	Site Type	Name	Location	NZTM Easting	NZTM Northing	AUP OP Schedule #	NZ Heritage List
18475		Boat Shed		31 Marine Parade   Herne Bay	1753800	5920923		
18477		Boat Shed	Herne Bay Cruising Club   Richmond Yacht Club (former	Sloanes Beach   Herne Bay	1753783	5920879	Schedule AUP ID02823 Cat	
18478		Boat Shed	Watchman Island Yacht Club	37 Marine Parade   Sloanes Beach   Herne Bay	1753755	5920868		
18479		Boat Shed		41 Marine Parade   Herne Bay	1753737	5920842		
18480		Boat Shed		47 Marine Parade	1753702	5920776		
18686		Building - Dwelling	Robert Laidlaw	75 Argle Street   Herne Bay	1754090	5920971		
19774		Historic - Botanical	Liquid Amber	71 Argle Street   Herne Bay	1754128	5920984	Yes	
20051		Historic Heritage Area	Herne Bay Road Historic Heritage Area	Herne Bay Road	1754059	5920755	AUP ID02515	
21894		Building - Education	Ponsonby Primary School Senior Block	50 Curran Street   Herne Bay	1755061	5921212	AUP ID02791	
22153		Building	Former Masonic Hall	12 Argyle Street   Salisbury Reserve   Herne Bay	1754453	5921094		
23242		Building - Dwelling	Laidlaw House	59 Marine Parade   Herne Bay	1753708	5920624		





**Figure 24. AUP OP Scheduled SPSMW Extent of Place at Point Erin at the eastern end of the Project area – Te Koraenga Okā (ID006) within Point Erin (purple hatching - centre), Te Rōutu o Ureia (ID062), within the sea bed and reclaimed land off the end of Point Erin (purple hatching - top) and One-Maru at the base of Pt Erin cliff (purple hatching - right) (UPID005) (source: Auckland Council GeoMaps 2022)**





**Figure 25. AUP OP Historic Heritage Overlay Extent of Place for 85 Sarsfield Street (purple hatching - right) and 58 Wallace Street (purple hatching - left)**



**Figure 26. AUP OP Historic Heritage Overlay Extent of Place for Herne Bay Road Heritage Area**



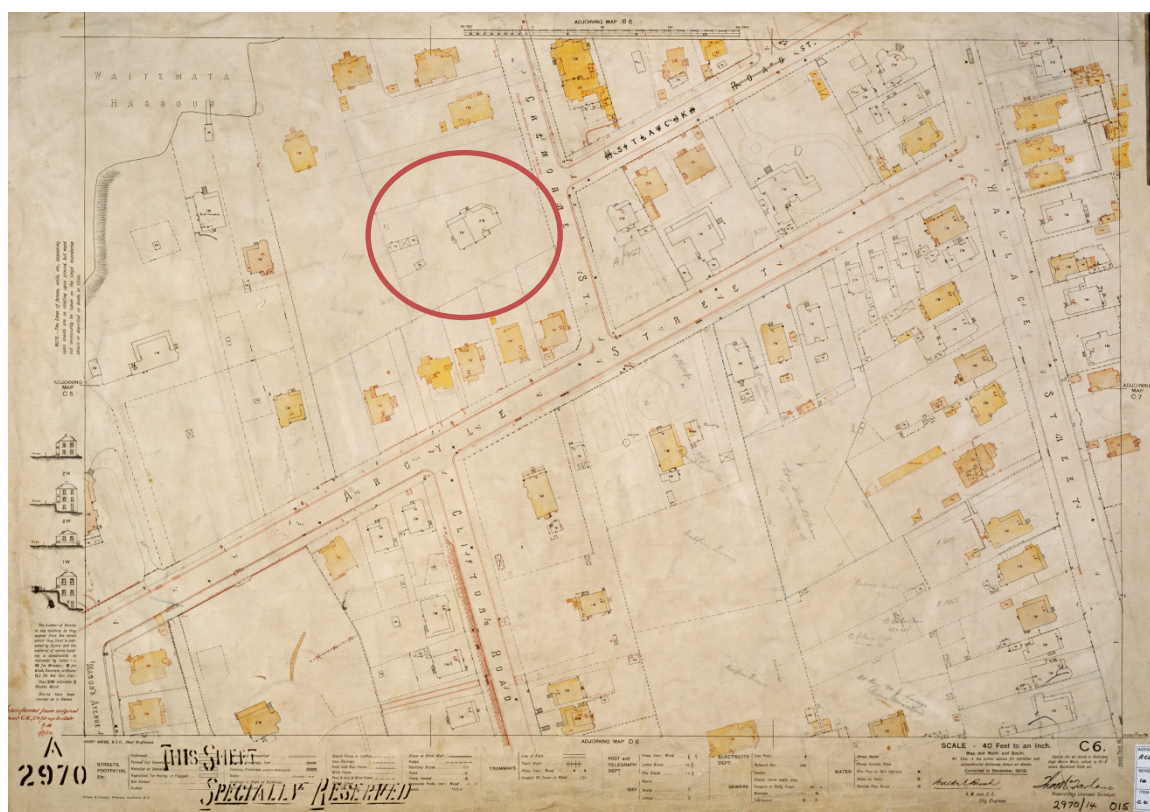
## HISTORICAL SURVEY

### Information from Early Maps and Plans

Several early maps and plans of the Project area have been discussed above in the Historic Background section of this report.

The Wises 1908 City of Auckland Map<sup>1</sup> shows most of the residential properties in the Herne Bay area already had houses and other structures present by the early 20th century. Map C6 of the 1908 City of Auckland Map in Figure 27 is an example of the residential layout from Wallace Street to Mason's Avenue and including Argyle Street, where most Lots have existing single-storey wooden houses and other outbuildings by 1918.

A comparison of the 1908 City of Auckland Map with the 1868 subdivision plan of the estate of J. V. Marston, Esquire (Figure 14) shows larger and quite different Lot boundaries in 1908 than advertised for sale in 1868. The northern end of Clifton Street from Argyle Road is also unformed. The described 'Residence of J. V. Marston, Esquire' showing a single-storey residence, a large two-storey building and a small outbuilding on Lot 45 of the subdivision is not present in 1908 (1918). In its place and slightly to the south is a two-storey wooden house with a one-storey addition and three small outbuildings (Figure 27). This house is still present today at 6 Cremorne Street.



**Figure 27. Wises 1908 City of Auckland Map C6. A two-storey wooden house with a one-storey addition and three outbuildings are located in the vicinity of Marston's residence (source: Auckland City Archives). Note that orange shading indicates construction or alterations added by 1918**

<sup>1</sup> Auckland Council Archives.



These 1908 plans also show the location of early services and infrastructure. Sewer and/or water infrastructure structures are shown present at the intersections of Sarsfield Street and Hamilton Road, Sarsfield Street and Sentinel Road, Sarsfield Street and Lawrence Street (Figure 28), Argyle Street and Clifton Road, along Argyle Street, along Marine Parade, at the intersection of Bella Vista Road and Marine Parade. As have been found elsewhere in early Auckland suburbs these late 19th or early 20th century structures are likely to be brick sewer or water inspection chambers, some of which are still present and in service today.



**Figure 28. Detail from Wises 1908 City of Auckland Map showing early sewer and/or water infrastructure structures present at the intersections of Sarsfield Street and Lawrence Street**

Another early 20th century plan shows the alignment of the early Auckland Main Drainage and the intersecting sewer and drainage area running through Herne Bay along Sarsfield Street from Point Erin, Stack Street, Wairangi Street and River Terrace, and along Marine Parade in 1908 (Figure 29).

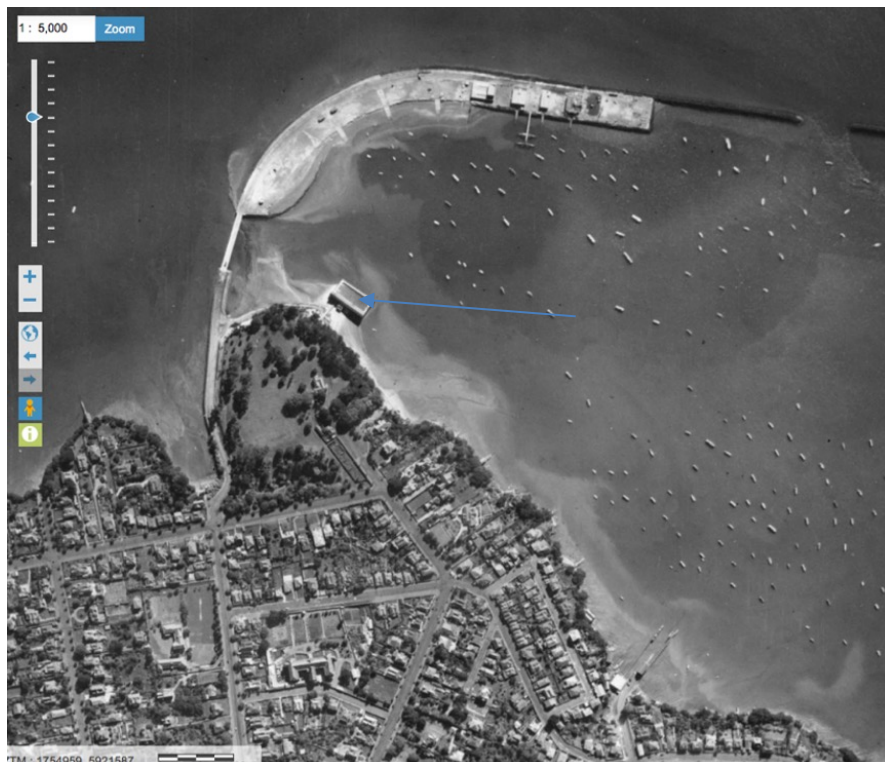


**Figure 29. Insert from Auckland Main Drainage, Line of Intercepting Sewer and Drainage Area (1908) (Auckland Libraries Heritage Collections Map 1343)**

## Information from Early Aerials

1940 aerial photographs of Point Erin show this area prior to the reclamation of the foreshore for the Auckland Harbour Bridge approaches and the early construction of the Westhaven seawall (Figure 30). The Shelly Beach Baths at Pt Erin are also clearly visible.

A 1955 aerial photograph shows that the additional reclamation and site preparation works have begun within the harbour off the end of Point Erin and east of the Westhaven seawall. The Shelly Beach Baths are still present on the edge of this new reclamation (Figure 31).



**Figure 30. 1940 aerial photograph of Pt Erin prior to the Auckland Harbour Bridge reclamations. The Shelly Beach Baths are arrowed (source: Auckland Council GIS)**



**Figure 31. Detail from 25<sup>th</sup> July 1955 aerial photograph of Pt Erin Park showing site preparation for the Auckland Harbour Bridge (additional reclamation). The Shelly Beach Baths are still present (arrowed) (source: Whites Aviation Ltd, National Library WA-38872-F)**



## FIELD ASSESSMENT

### Field Survey Results

Archaeological site inspections of the proposed new Herne Bay Trunk Sewer line project area were carried out on 9 November 2022 and 26 January 2023.

#### Point Erin

Shaft 1 will be the terminating shaft of the Project and the interface with the proposed Central Interceptor (CI) Extension project, where it will connect to the drop shaft chamber to the CI tunnel. The location of Shaft 1 on Sarsfield Street near the western pedestrian entrance to the park is shown in Figure 32 and Figure 32.

As previously discussed, extensive earthworks were undertaken in 2020 within the southwestern corner of Point Erin Park and along Sarsfield Street and Curran Street as part of the St Marys Bay and Masefield Beach Water Quality Improvement Project (Figure 34). This involved open trenching between 2-6m deep to install a rising main (St Mary's Bay pressure line) and gravity pipeline (Sarsfield overflow collector) along the eastern side of the Curran Street motorway on-ramp and the northern side of Sarsfield Street.

Archaeological monitoring confirmed that the construction of the Curran Street motorway on-ramp had buried the entire southwestern corner of Point Erin Park under 6+m of fill, covering the original 1931 road to the Shelly Beach Baths and Westhaven seawall, and reclaiming the eastern side of Masefield Beach and extending into the end of the Point Erin southern stream gully. The level of Sarsfield Street had also been raised from its original level by 1.2m, certainly at its western end at the intersection of Sarsfield and Curran Streets as a result of the on-ramp construction (Figure 35). No archaeological deposits were identified in this area and the proposed location of Shaft 1.

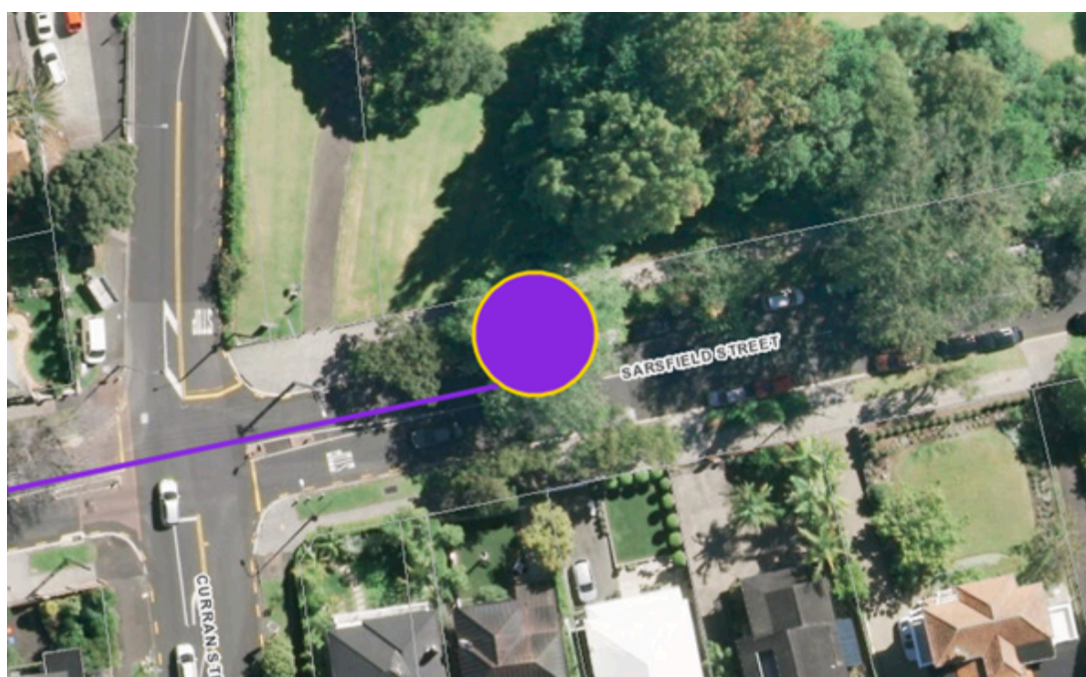
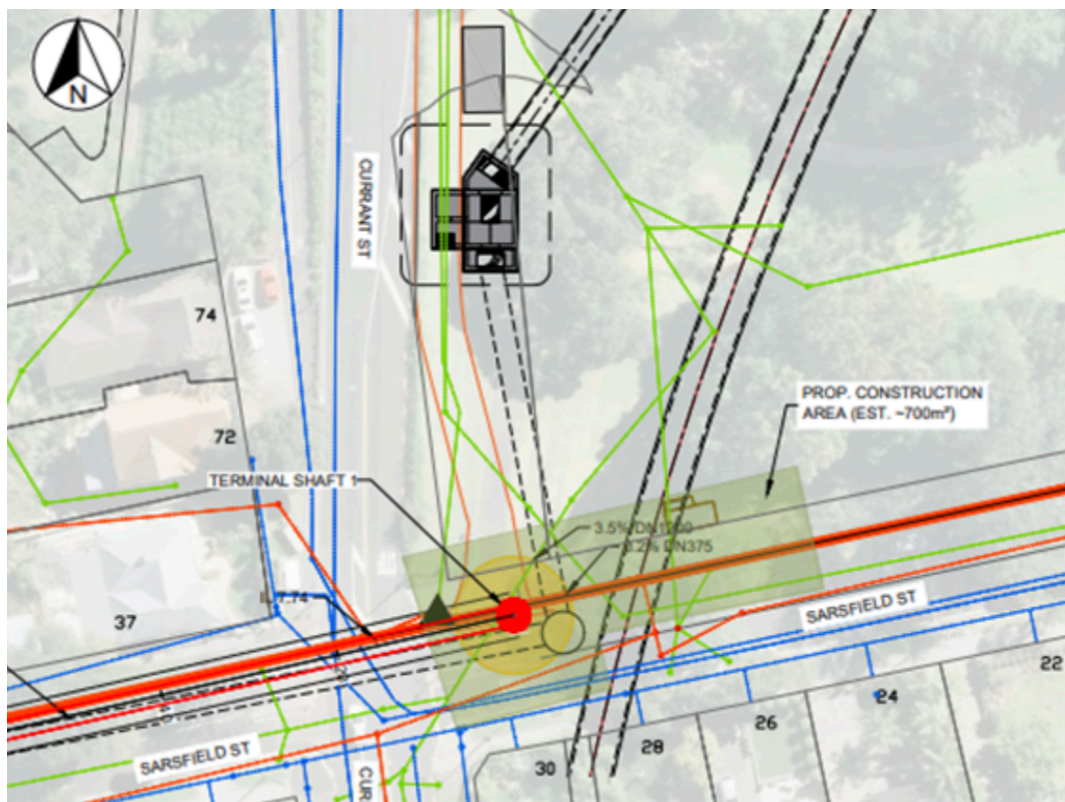


Figure 32. Location of Shaft 1 on Sarsfield Street at Point Erin



**Figure 33.** Detail of Shaft 1 on Sarsfield Street and the interface with the proposed CI Extension project, where it will connect to the drop shaft chamber to the CI tunnel.



**Figure 34.** Trenching to install a gravity pipeline (Sarsfield overflow collector) along the northern side of Sarsfield Street in 2020 adjacent to Point Erin Park





**Figure 35. Trenching along the northern side of Sarsfield Street in 2020 adjacent to Point Erin Park. The buried old road surface of Sarsfield Streets is arrowed**

### **Main Tunnel Alignment and Shafts**

The new Herne Bay Trunk Sewer pipeline will involve the installation of the trunk sewer line via a tunnel boring machine (TBM) which will be launched via a series of shafts (Thrust Shafts) and retrieved (Receiving Shafts). The depth of the proposed tunnels is still to be determined; however it is expected to be on average between 10m and 20m beneath the ground level.

The tunnel alignment will largely be located within the road corridor (Figure 36). The Project pipeline alignment will commence at Shaft 1 opposite Point Erin Park (Figure 32) and continue to the west within the road reserve of Sarsfield Street for approximately 610m. It will then continue to the south within Wallace Street for approximately 80m, then west within Argyle Street, until it meets the intersection with Herne Bay Road. The pipeline will then travel a short distance to the south along Herne Bay Road, until the intersection with Upton Street, where it turns west along Upton Street, until it meets the intersection with Marine Parade and Annan Street. The final segment of the pipeline will travel for approximately 200m southwest within Marine Parade, where it will terminate (see Figure 3–Figure 5).

Eight shafts are required at each change of direction along the tunnel – Shaft 1 opposite Point Erin Park, Shaft 2 at the intersection of Sarsfield Street and Wallace Street, Shaft 3 at the intersection of Wallace Street and Argyle Street, Shaft 4 at the intersection of Argyle Street and Herne Bay Road, Shaft 5 at the intersection of Herne Bay Road and Upton Street, Shaft 6 at the intersection of Upton Street and Marine Parade, Shaft 7 within Marine Parade



and Shaft 8 at the intersection of Marine Parade and Bella Vista Road (see Figure 3 and Appendix 2).

The proposed shafts will be of a varying diameter and depth, depending on their location, ranging from 9m to 13m internal diameter and depths of 5.5m to 19m corresponding with the fall of the pipeline and the undulating topography of the Project.

Two scheduled Historic Heritage Places on the AUP OP, each with a defined EoP, are located immediately adjacent to the Project tunnel alignment. These are 85 Sarsfield Street (AUP ID 1839), which is also Listed under Category 2 on the NZ Heritage List (ID 2650) (Figure 37); and 58 Wallace Street (AUP ID 1901) (Figure 38), also Listed under Category 2 on the NZ Heritage List (ID 593). The EoP of both historic heritage places extend into the berm of the adjacent road reserve (see Figure 25). However, the proposed pipeline alignment and Shaft 2, located at the intersection of Sarsfield and Wallace Streets adjacent to 58 Wallace Street, are located within the road reserve and outside the scheduled EoP.

The Herne Bay Road Historic Heritage Area scheduled in the AUP OP (ID 2515) and its EoP includes the properties and houses on either side of Herne Bay Road and Herne Bay Road itself from its intersection with Argyle Street and Sarsfield Street (Figure 39). However, the proposed tunnel alignment and Shafts 4 and 5, are located at the intersection of Argyle Street and Herne Bay Road and Herne Bay Road and Upton Street, within the road reserve and outside the scheduled EoP of this scheduled historic heritage area.

Multiple existing manholes are present along the roads of the proposed tunnel alignment and shaft locations at road intersections. Some of these may relate to the location of early sewer and/or water infrastructure structures that were identified on the 1908 (1918) City of Auckland Map at the intersections of Sarsfield Street and Hamilton Road, Sarsfield Street and Sentinel Road, Sarsfield Street and Lawrence Street, Argyle Street and Clifton Road, along Argyle Street, along Marine Parade, at the intersection of Bella Vista Road and Marine Parade. However, most will be later 20th century and more recent structures. Without inspection it is not possible to determine whether any of these are 19th century structures at this time.

Recent works have been undertaken to raise the road level at a number of intersections along Sarsfield Street to slow traffic (see Figure 36).



**Figure 36. Looking west along the Sarsfield Street and alignment of the proposed sewer pipeline at the intersection with Hamilton Street. Note the raised road level at this intersection to slow traffic**



**Figure 37. 85 Sarsfield Street (AUP OP ID 1839)**





**Figure 38. 58 Wallace Street (AUP OP ID 1901)**



**Figure 39. Looking south up Herne Bay Road from the intersection with Sarsfield Street**



## Interception Lines and Connections

Four interception pipes are proposed which are likely to be constructed via a combination of trenching and trenchless methods as shown in **Error! Reference source not found.**, to connect the new trunk sewer to existing EOPs, being:

A 80m long, 300mm diameter extension to the north beneath Hamilton Road; a 190m long, 300mm diameter extension to the south beneath Sentinel Road; a 220m long, 450mm diameter extension that extends west along Stack Street, turns north along Wairangi Street and turns west along River Terrace (Figure 40); and a 75m long, 300mm diameter extension that extends north within Herne Bay Road (Figure 41).

Except for the pipeline north within Herne Bay Road that extends into the reserve to Herne Bay Beach, all the proposed interception pipelines are located within road reserve. No archaeological or other historic heritage sites were identified by background research or field survey within the alignment of the proposed four interception pipes.



**Figure 40. Location of part of a proposed pipeline extension north down River Terrace from across Wairangi Street**





**Figure 41. Location of a proposed 75m long pipeline extension north within Herne Bay Road and into the reserve to Herne Bay Beach**

### Construction Support Areas

Two CSAs will be established for the Project. Each of these compounds will be established by stripping the topsoil and replacing with hardfill to provide an all-weather surface and suitable environmental controls.

A main CSA1 will be set up in Salisbury Reserve (**Error! Reference source not found.**). Access to the CSA will be at the 12 Argyle Street pedestrian entrance to the reserve, which is a narrow strip of land with a footpath, grassed lawn and plantings (Figure 42). This land was originally a residential property with a single bay wooden villa. Subsequently the villa was converted into the Herne Bay Masonic Lodge, which modified and extended the original villa with a concrete block addition and added carparking to the driveway (Figure 43). This property was purchased by Auckland Council in the 2010s and the lodge was removed to form an additional public accessway to the reserve in 2019. The remainder of the proposed CSA within the Salisbury Reserve includes the former Herne Bay Bowling Club lawn, which is a highly modified area that has been raised and levelled to form the bowling green (Figure 44).

The area of the proposed Salisbury Reserve CSA is a well landscaped and modified area, particularly across the former bowling green, which has been levelled and raised. No archaeological or other historic heritage sites were identified by background research or field survey.

The second CSA2 is will be on land at the base of the Point Erin cliffs between the Curran Street motorway on-ramp and the Harbour Bridge motorway (Figure 8). This area is contained within harbour and foreshore reclamations formed from the 1950s for the

Auckland Harbour Bridge approaches and Curran Street motorway on-ramp. The location is west and clear of the former location of the Shelly Beach Baths constructed in 1912 (Figure 20). No other previous historic structures were identified in this area by historic background research. The proposed CSA is located to avoid the defined EoP of scheduled Te Rōutu o Ureia, within the sea bed and reclaimed land to the west under Westhaven Drive (UPID062) (Figure 45), which is also a Wahi Tapu site on the Heritage New Zealand List (# 7773); and One-Maru at the base of Pt Erin cliff to the east within Shelly Beach (UPID005) (see Figure 24). No archaeological or other historic heritage sites were identified by background research or field survey.



**Figure 42. Argyle Street entrance to Salisbury Reserve and former location of the Herne Bay Masonic Lodge**





**Figure 43. The former Herne Bay Masonic Lodge and driveway / carparking previously located at 12 Argyle Street (2018)**



**Figure 44. Looking south across the former Herne Bay Bowling Club lawn within the proposed Salisbury Reserve CSA**



**Figure 45. Te Rōutu o Ureia wahi tapu reef that is visible jutting out under the Westhaven seawall at the end of Curran Street to the west of Option 1 for the second CSA**



## DISCUSSION AND CONCLUSIONS

### Summary of Results

Watercare Services Ltd is proposing to upgrade the existing Branch 5 Sewer in the Herne Bay area through the construction and operation of a new Herne Bay Trunk Sewer pipeline primarily along the road corridor. The new pipeline will involve the installation of approximately 1.5km of 2.1m internal diameter trunk sewer line via a TBM which will be launched via a series of shafts (Thrust Shafts) and retrieved (Receiving Shafts). The depth of the proposed tunnels is still to be determined, however it is expected to be on average between 10m and 20m beneath the ground level.

There are a number of recorded Māori and early European archaeological and other historic heritage sites recorded within Herne Bay and in the vicinity of the Project area. No archaeological or other historic heritage sites were identified by background research or during the field survey in any of the proposed areas of ground disturbance. However, archaeological sites beneath modern buildings and sealed surfaces in urban environments can rarely be identified prior to being exposed in the course of redevelopment work.

Point Erin, adjacent to Shaft 1 and the interface with the proposed CI Extension project, was once a headland Pa site (R11/78), known as Te Koraenga Okā or Okā Pā. The Point Erin headland covers some 5ha and in such an area it is likely that the pa occupied the northern tip of the headland, this being the area of Point Erin Park that is the scheduled EoP for Te Koraenga Okā (ID0060 in the AUP OP). However, the pa and associated living sites are likely to have extended outside this scheduled area on the southern part of the headland with the possible alignment of any ditch and bank fortifications for the pa being south of the pool complex, in the area of the current car park, taking advantage of the existing natural southern gully.

Previous archaeological monitoring in 2020 as part of the St Marys Bay and Masefield Beach WQI Project confirmed that the construction of the Curran Street motorway on-ramp had buried the entire southwestern corner of Point Erin Park under 6+m of fill, covering the original 1931 road to the Shelly Beach Baths and Westhaven seawall, and reclaiming the eastern side of Masefield Beach and extending into the end of the Point Erin southern stream gully. The level of Sarsfield Street had also been raised by 1.2m, certainly at its western end at the intersection of Sarsfield and Curran Streets as a result of the on-ramp construction. No archaeological deposits were identified in this area.

There are a number of historic houses and other buildings recorded within Herne Bay, which is reflective of its subdivision and settlement from the 1850s. The surrounding residential suburb features a variety of architectural types and styles – cottages from 1840s, villas from the 1870s, bungalows of post WW1 era and later Spanish or modern styles from the 1940s. More recently infill housing and blocks of flats have been built in the area.

Two scheduled Historic Heritage Places on the AUP OP, each with a defined EoP, are located immediately adjacent to the Project tunnel alignment. These are 85 Sarsfield Street (AUP ID 1839), which is also Listed under Category 2 on the NZ Heritage List (ID 2650); and 58 Wallace Street (AUP ID 1901), also Listed under Category 2 on the NZ Heritage List (ID 593). The scheduled EoP of both of these historic heritage places extends into the berm of the adjacent road reserve. However, the proposed tunnel alignment and Shaft 2, located at the intersection of Sarsfield and Wallace Streets adjacent to 58 Wallace Street, are located within the road reserve and outside the scheduled EoP.

The Herne Bay Road Historic Area is scheduled (AUP ID 2515) and its EoP includes the properties and houses on either side of Herne Bay Road and Herne Bay Road itself from its intersection with Argyle Street and Sarsfield Street. Herne Bay Road is a street of mostly late Victorian and early Edwardian villas of very high quality and which are largely unmodified, particularly on the east side. The proposed tunnel alignment and Shafts 4 and 5, located at the intersection of Wallace Road and Herne Bay Road, and Herne Bay Road and Upton Street, are located within the road reserve and outside the scheduled EoP of this scheduled historic heritage area.

The proposed main CSA1 within Salisbury Reserve CSA is a well landscaped and modified area, particularly across the former Herne Bay bowling green. No archaeological or other historic heritage sites were identified by background research or field survey.

The second proposed CSA2 north of Point Erin is contained within 1950s harbour and foreshore reclamations undertaken for the Auckland Harbour Bridge approaches. The location is west and clear of the former location of the Shelly Beach Baths constructed in 1912 and avoids the defined EoP of scheduled Te Rōutu o Ureia, within the sea bed and reclaimed land to the west under Westhaven Drive (UPID062), which is also a Wahi Tapu site on the Heritage New Zealand List (# 7773); and One-Manu at the base of Pt Erin cliff to the east within Shelly Beach (UPID005). No archaeological or other historic heritage sites were identified by background research or field survey.

Early 20th century plans show the location of a number of early sewer and/or water infrastructure structures present at that time along the proposed tunnel alignment. Multiple existing manholes are present along the roads of the proposed tunnel alignment and shaft locations at road intersections. Some of these may relate to the location of early sewer and/or water infrastructure structures that were identified on the 1908 City of Auckland Map at the intersections of Sarsfield Street and Hamilton Road, Sarsfield Street and Sentinel Road, Sarsfield Street and Lawrence Street, Argyle Street and Clifton Road, along Argyle Street, along Marine Parade, at the intersection of Bella Vista Road and Marine Parade. As have been found elsewhere in early Auckland suburbs, these late 19th or early 20th century structures are likely to be brick sewer or water inspection chambers, which are still present and in service today. However, most will be later 20th century and more recent structures. Without inspection it is not possible to determine whether any of these are 19th century structures at this time.

## Māori Cultural Values

This is an assessment of effects on archaeological values and does not include an assessment of effects on Māori cultural values. Such assessments should only be made by the tangata whenua. Māori cultural concerns may encompass a wider range of values than those associated with archaeological sites.

The historical association of the general area with the tangata whenua is evident from the recorded sites, traditional histories and known Māori place names. There are three scheduled SPSMW (Schedule 12) in the AUPOP within the vicinity of the Project area – Te Koraenga Oka, within Point Erin Park (UPID006); Te Rōutu o Ureia, within the sea bed and reclaimed land off the end of Pt Erin (UPID062), which is also a Wahi Tapu site on the Heritage New Zealand List (# 7773); and One-Marū at the base of Point Erin cliff (UPID005). These SPSMW each have a defined EoP, which is shown on the AUPOP Maps.



## Survey Limitations

It should be noted that archaeological survey techniques (based on visual inspection and minor sub-surface testing) cannot necessarily identify all sub-surface archaeological features, or detect wahi tapu and other sites of traditional significance to Māori, especially where these have no physical remains.

Archaeological sites beneath modern buildings and sealed surfaces in urban environments can rarely be identified prior to being exposed in the course of redevelopment work.

## Archaeological Value and Significance

The AUP OP Regional Policy Statement (RPS) identifies several criteria for evaluating the significance of historic heritage places (Chapter B5.2.2). In addition, Heritage NZ, has provided guidelines setting out criteria that are specific to archaeological sites (condition, rarity, contextual value, information potential, amenity value and cultural associations) (Heritage NZ 2019: 9-10).

The archaeological value of sites relates mainly to their information potential, that is, the extent to which they can provide evidence relating to local, regional and national history using archaeological investigation techniques, and the research questions to which the site could contribute. The surviving extent, complexity and condition of sites are the main factors in their ability to provide information through archaeological investigation. For example, generally pa are more complex sites and have higher information potential than small midden (unless of early date). Archaeological value also includes contextual (heritage landscape) value. Archaeological sites may also have other historic heritage values including historical, architectural, technological, cultural, aesthetic, scientific, social, spiritual and traditional values.

Overall, Site R11/78 has considerable cultural values but probably only limited archaeological values, given that it is unlikely that any extensive or significant archaeological remains of the pa site have survived. It appears that the site is likely to have been largely destroyed, although buried associated archaeological remains may still be present in some areas within Point Erin Park, which is outside the Project area.

The proposed new Herne Bay sewer alignment will pass within the road reserve immediately adjacent to the defined EoP of two scheduled Historic Heritage Places in the AUP OP. No. 85 Sarsfield Street is scheduled under Category B in Schedule 14.1 of the AUP OP (ID 1839). This house is also Listed under Category 2 on the NZ Heritage List (ID 2650). No. 58 Wallace Street is scheduled under Category B in Schedule 14.1 of the AUP OP (ID 1901). This house is also Listed under Category 2 on the NZ Heritage List (ID 593). These scheduled buildings have been evaluated under the relevant statutory criteria and have been scheduled based on of their physical attributes and aesthetic value. Category B indicates that the historic heritage place is considered to have considerable significance to a locality or greater geographic area.

The proposed new sewer alignment will also pass within the road reserve immediately adjacent to the defined EoP of a scheduled Historic Heritage Area – Herne Bay Road (AUP ID 2515). The historic heritage nature of Herne Bay suburb has long been recognised and

much of the area is within Special Character Areas Overlay Residential and Business in the AUP OP.

There is three scheduled SPSMW (Schedule 12) in the AUP OP within the vicinity of the Project area – Te Koraenga Oka, within Point Erin Park (UPID006); Te Rōutu o Ureia, within the sea bed and reclaimed land off the end of Pt Erin (UPID062), which is also a Wahi Tapu site on the Heritage New Zealand List (# 7773); and One-Manu at the base of Point Erin cliff (UPID005). These are places of significant cultural value identified and scheduled in consultation with mana whenua. No archaeological evidence has been identified within the Te Rōutu o Ureia EoP.

## Effects of the Proposal

This assessment has established that the proposed activity will not directly affect any known archaeological remains or other historic heritage sites. The works are contained within road reserve and involve trenchless pipe installation, but some ground disturbing works are proposed in certain areas along the proposed Project pipeline alignment – primarily at the eight proposed shafts and trenching for four interconnecting pipelines. Outside the proposed shafts (Thrust Shafts and Receiving Shafts) for launching the TBM, the depth of the proposed tunnels is expected to be on average between 10m and 20m beneath the ground level. Therefore, well below any archaeological deposits.

Potential indirect effects due to vibration during tunnelling may have an effect on some houses and/or building, along the tunnel alignment. These potential effects by vibration, including on historic heritage buildings, are outside the scope of this report and are being assessed separately.

Construction for the Project has been designed to avoid the EoP of the scheduled Historic Heritage Places at 85 Sarsfield Street and 58 Wallace Street, and the EoP of the scheduled Herne Bay Road Historic Heritage Area, along the proposed pipeline alignment. The proposed tunnel alignment and shafts adjacent to these areas are located within the road reserve and outside the scheduled EoP's. There should be no direct effect on the historic heritage values on these scheduled places and area.

Point Erin Park is considered an area of potential archaeological sensitivity given the recorded location of R11/78 Okā Pā and its scheduled EoP (Te Koraenga Okā, AUP ID006) at the northern end of Point Erin Park, and the location of late 19th century structures associated with early European occupation. However, the eastern extent of the Project area within Sarsfield Street and the adjacent southwestern corner of Point Erin Park has been extremely modified by the construction of the Curran Street motorway on-ramp, which has buried this area of the park under 6+m of fill, reclaiming the eastern side of Masfield Beach and raising the level of Sarsfield Street by 1.2m, certainly at its western end near its intersection with Curran Street. Therefore, it is considered unlikely that any subsurface archaeological remains survive in this entire area.

The two proposed CSAs are all within modified areas and/or contained within modern reclamations and will have no effect on archaeological or other historic heritage sites.

The proposed works will have no effects on any known archaeological remains. However, in any area where archaeological sites have been recorded in the general vicinity it is always possible that unrecorded subsurface remains may be exposed during development, particularly beneath modern buildings and sealed surfaces in urban environments where archaeological remains and features can rarely be identified prior to being exposed during



redevelopment work. In this case it is considered possible that unrecorded subsurface archaeological remains, most likely associated with 19th century early European sewer and/or water infrastructure structures or domestic occupation may be exposed during development and it is therefore recommended that an Authority is applied for and obtained from Heritage NZ prior to the start of earthworks so that potential delays can be avoided should archaeological remains be exposed.

Archaeological features and remains can take the form of burnt and fire cracked stones, charcoal, rubbish heaps including shell, bone and/or 19th century glass and crockery, ditches, banks, pits, old building foundations, artefacts of Māori and early European origin or human burials. Any effects on archaeological deposits or features can be appropriately mitigated through archaeological investigation and recording to recover information relating to the history of the Herne Bay area.

There is also the potential for early 20<sup>th</sup> century sewer and/or water infrastructure structures to be present within the area of the proposed activity. While outside the process outlined in the AUP Accidental Discovery Rule and the requirements of the HNZPTA these remains are also of some historic interest and should be assessed to determine their age and recorded to recover information relating to the latter history of Herne Bay.

## **Resource Management Act 1991 Requirements**

Section 6 of the RMA recognises as matters of national importance: ‘the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga’ (S6(e)); and ‘the protection of historic heritage from inappropriate subdivision, use, and development’ (S6(f)).

All persons exercising functions and powers under the RMA are required under Section 6 to recognise and provide for these matters of national importance when ‘managing the use, development and protection of natural and physical resources.’ There is a duty to avoid, remedy, or mitigate any adverse effects on the environment arising from an activity (S17), including historic heritage.

Historic heritage is defined (S2) as ‘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’. Historic heritage includes: ‘(i) historic sites, structures, places, and areas; (ii) archaeological sites; (iii) sites of significance to Maori, including wahi tapu; (iv) surroundings associated with the natural and physical resources.’

Regional, district and local plans contain sections that help to identify, protect and manage archaeological and other heritage sites. The plans are prepared under the provisions of the RMA. The Auckland Unitary Plan Operative in Part 2016 (AUP OP) is relevant to the proposed activity.

There are three scheduled SPSMW (Schedule 12) in the AUP OP in close proximity to the Project area – Te Koraenga Okā, within Point Erin Park (AUP ID006), Te Rōutu o Ureia, within the sea bed and reclaimed land off the end of Pt Erin (AUP ID062), which is also listed a Wahi Tapu on the NZ Heritage List (# 7773); and One-Manu at the base of Point Erin cliff (UPID005).

The proposed new Herne Bay sewer alignment will pass within the road reserve immediately adjacent to the defined EoP of two scheduled Historic Heritage Places and an Historic Heritage Area on the AUP OP. No. 85 Sarsfield Street is scheduled under Category

B in Schedule 14.1 of the AUP OP (ID 1839). This house is also Listed under Category 2 on the NZ Heritage List (ID 2650); 58 Wallace Street is scheduled under Category B in Schedule 14.1 of the AUP OP (ID 1901). This house is also Listed under Category 2 on the NZ Heritage List (ID 593). The EoP of both of these historic heritage places extends into the berm of the adjacent road reserve. The Herne Bay Road Historic Places Area is scheduled (AUP ID 2515) and its EoP includes the properties and houses on either side of Herne Bay Road and Herne Bay Road itself from its intersection with Argyle Street and Sarsfield Street.

This assessment has established that the proposed activity will not affect any known archaeological remains, but has the potential to affect unidentified subsurface archaeological remains that may be exposed during development. If resource consent is granted, it is recommended that archaeological monitoring is undertaken of initial earthworks at the proposed shaft sites and any areas of open trenching. It is also recommended that an advice note regarding the provisions of the HNZPTA is included.

If suspected archaeological remains are exposed during Project works, the Accidental Discovery Rule (E12.6.1) set out in the AUP OP must be complied with. Under the Accidental Discovery Rule works must cease within 20m of the discovery and the Council, Heritage NZ, Mana Whenua and (in the case of human remains) NZ Police must be informed. The Rule would no longer apply in respect to archaeological sites if an Authority from Heritage NZ was in place.

Any effects on archaeological deposits or features can be appropriately mitigated through archaeological investigation and recording to recover information relating to the history of Herne Bay. Any early 20<sup>th</sup> century sewer and/or water infrastructure structures remains uncovered during development should also be recorded to recover information relating to the latter history of this area.

## Heritage New Zealand Pouhere Taonga Act 2014 Requirements

In addition to any requirements under the RMA, the HNZPTA protects all archaeological sites whether recorded or not, and they may not be damaged or destroyed unless an Authority to modify an archaeological site has been issued by Heritage NZ (Section 42).

An archaeological site is defined by the HNZPTA Section 6 as follows:

‘**archaeological site** means, subject to section 42(3), –

(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).’<sup>2</sup>

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<sup>2</sup> Under Section 42(3) an Authority is not required to permit work on a pre-1900 building unless the building is to be demolished. Under Section 43(1) a place post-dating 1900 (including the site of a wreck that occurred



Authorities to modify archaeological sites can be applied for either in respect to archaeological sites within a specified area of land (Section 44(a)), or to modify a specific archaeological site where the effects will be no more than minor (Section 44(b)), or for the purpose of conducting a scientific investigation (Section 44(c)). Applications that relate to sites of Māori interest require consultation with (and in the case of scientific investigations the consent of) the appropriate iwi or hapu and are subject to the recommendations of the Māori Heritage Council of Heritage NZ. In addition, an application may be made to carry out an exploratory investigation of any site or locality under Section 56, to confirm the presence, extent and nature of a site or suspected site.

As the proposed development has the potential to affect previously unrecorded subsurface archaeological remains, most likely associated with 19th century early European sewer and/or water infrastructure structures or domestic occupation, an Authority under Section 44(a) of the HNZPTA should be obtained from Heritage NZ before any work can be carried out that may affect subsurface remains. The conditions of the authority are likely to include the archaeological monitoring of preliminary earthworks, and procedures for recording/investigating any archaeological evidence before it is modified or destroyed. This approach would have the advantage of allowing any archaeology uncovered during the Project works to be dealt with immediately, avoiding delays while an Authority is applied for and processed.

## Conclusions

Watercare Services Ltd is proposing to upgrade the existing Branch 5 Sewer in the Herne Bay area through the construction and operation of a new Herne Bay Trunk Sewer pipeline primarily along the road corridor.

This assessment has established that the proposed activity will not directly affect any known archaeological remains or other historic heritage sites. The majority of works are contained within road reserve and involve trenchless pipe installation, but some ground disturbing works are proposed in certain areas along the proposed Project pipeline alignment. However, archaeological sites beneath modern buildings and sealed surfaces in urban environments can rarely be identified prior to being exposed in the course of redevelopment work.

In any area where archaeological sites have been recorded in the general vicinity it is always possible that unrecorded subsurface remains may be exposed during development. In this case it is considered possible that unrecorded subsurface archaeological remains, most likely associated with 19th century early European sewer and/or water infrastructure structures, or domestic occupation, may be exposed during development and it is therefore recommended that an Authority is applied for and obtained from Heritage NZ prior to the start of earthworks so that potential delays can be avoided should archaeological remains be exposed.

There is also the potential for early 20<sup>th</sup> century sewer and/or water infrastructure structures to be present within the area of the proposed activity.

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after 1900) that could provide 'significant evidence relating to the historical and cultural heritage of New Zealand' can be declared by Heritage NZ to be an archaeological site.

## RECOMMENDATIONS

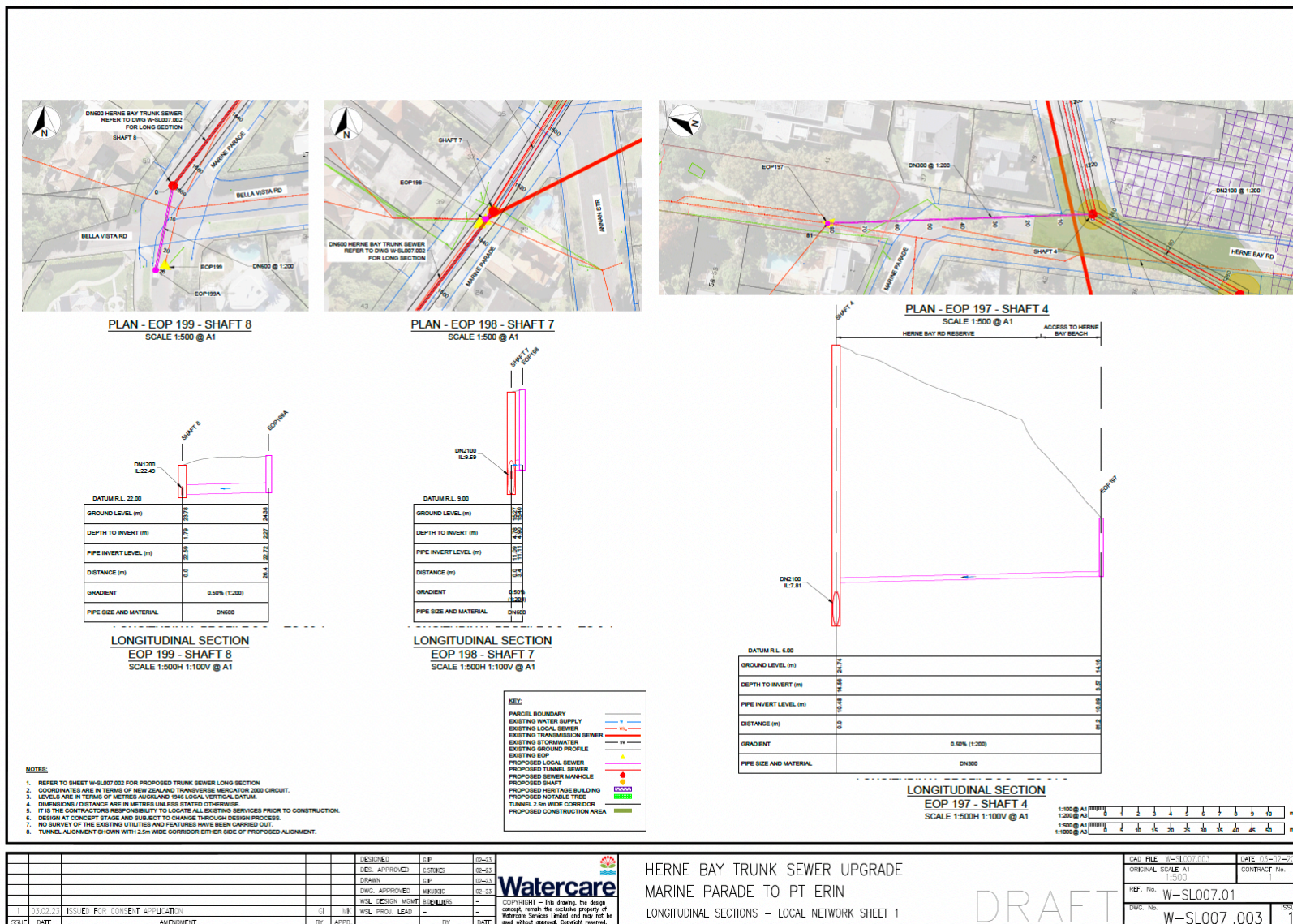
- There should be no major constraints on development on archaeological grounds, as no known sites will be affected, and the possibility that archaeological remains may be present can be mitigated through the provisions of the HNZPTA.
- As there is some potential for pre-1900 archaeological remains an Authority to modify an archaeological site should be obtained as a precaution prior to any subsurface excavations being carried out, to reduce potential delays should any archaeological remains be exposed during construction.
- Preliminary earthworks associated with the removal of sealed surfaces at the proposed shaft sites and any areas of open trenching should be monitored by an archaeologist to establish whether any pre-1900 archaeological features are present.
- Any archaeological remains affected by the development should be avoided if possible, or investigated, recorded and sampled in accordance with the conditions of an Authority issued by Heritage NZ and the construction management plan should allow sufficient time for the investigation and recording of any remains that may be exposed.
- If no Authority has been obtained and subsurface archaeological evidence should be unearthed during construction (e.g. intact shell midden, hangi, storage pits relating to Maori occupation, or cobbled floors, brick or stone foundation, and rubbish pits relating to 19th century European occupation), or if human remains should be discovered, the Accidental Discovery Rule (section E.12.6.1 of the AUP OP) must be followed. This requires that work ceases within 20m of the discovery and notification to the Auckland Council, Heritage NZ, Mana Whenua and (in the case of human remains) the NZ Police, who will determine the actions required. An Authority must be obtained before any further work can proceed which affects the archaeological site. (Note that this is a legal requirement).
- Any early 20<sup>th</sup> century sewer and/or water infrastructure structures remains uncovered during development should be assessed by the archaeologist and recorded in accordance with current archaeological practice to recover information relating to the latter history of this area.
- In the event of koiwi tangata (human remains) being uncovered, work should cease immediately in the vicinity of the remains and the tangata whenua, Heritage NZ, NZ Police and Council should be contacted so that appropriate arrangements can be made.



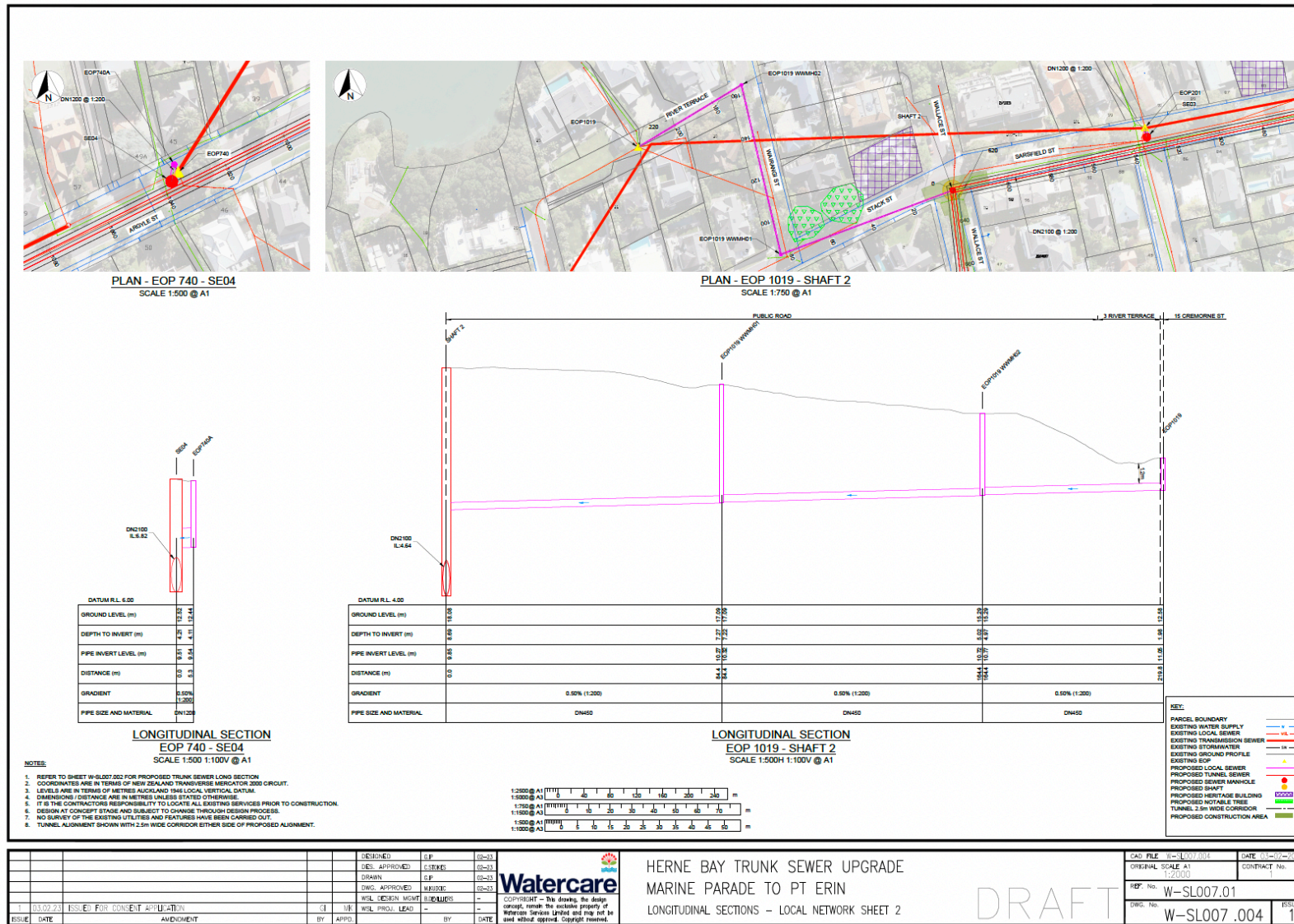
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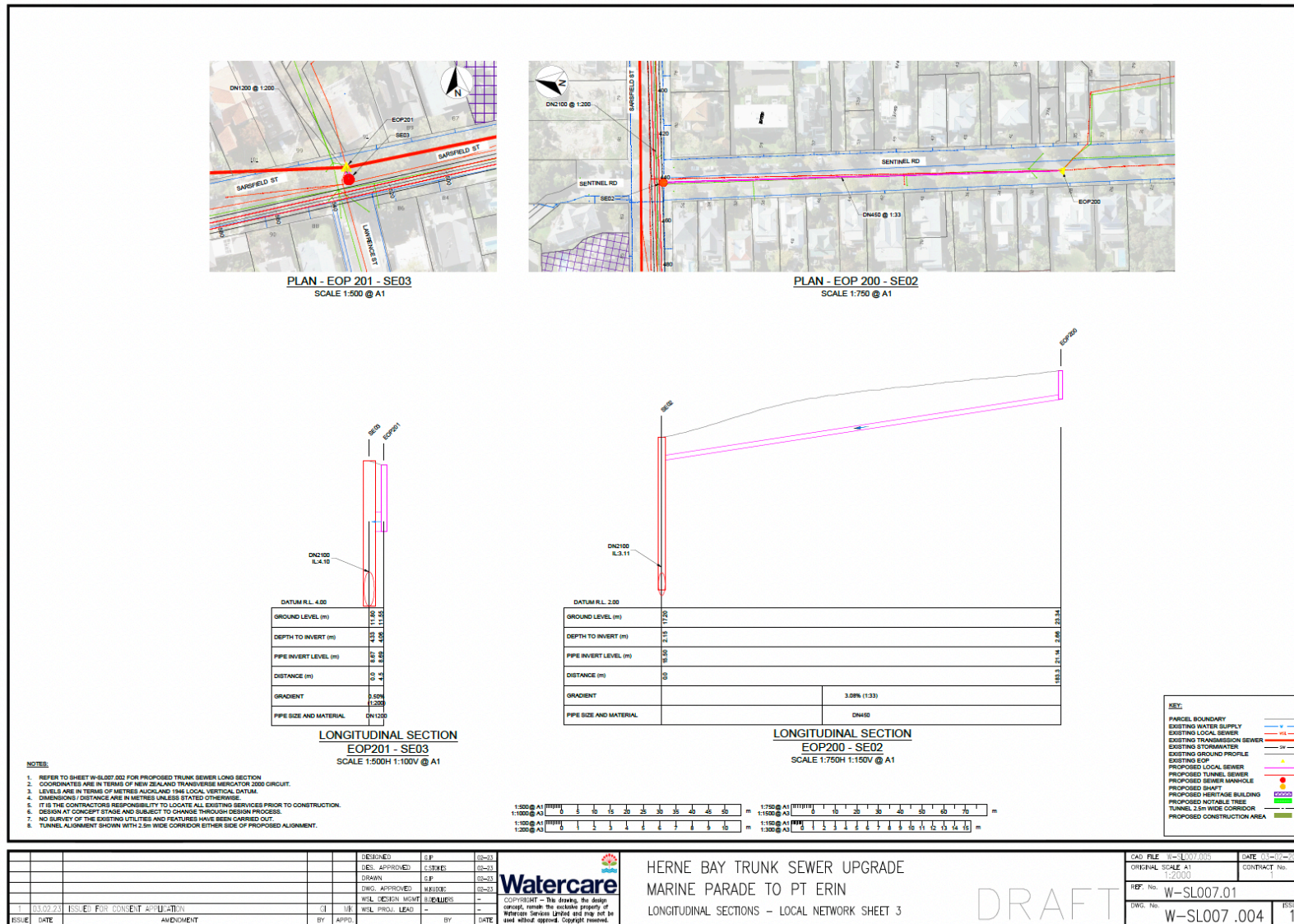
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## **APPENDIX 1: TUNNEL LONGITUDINAL SECTIONS**

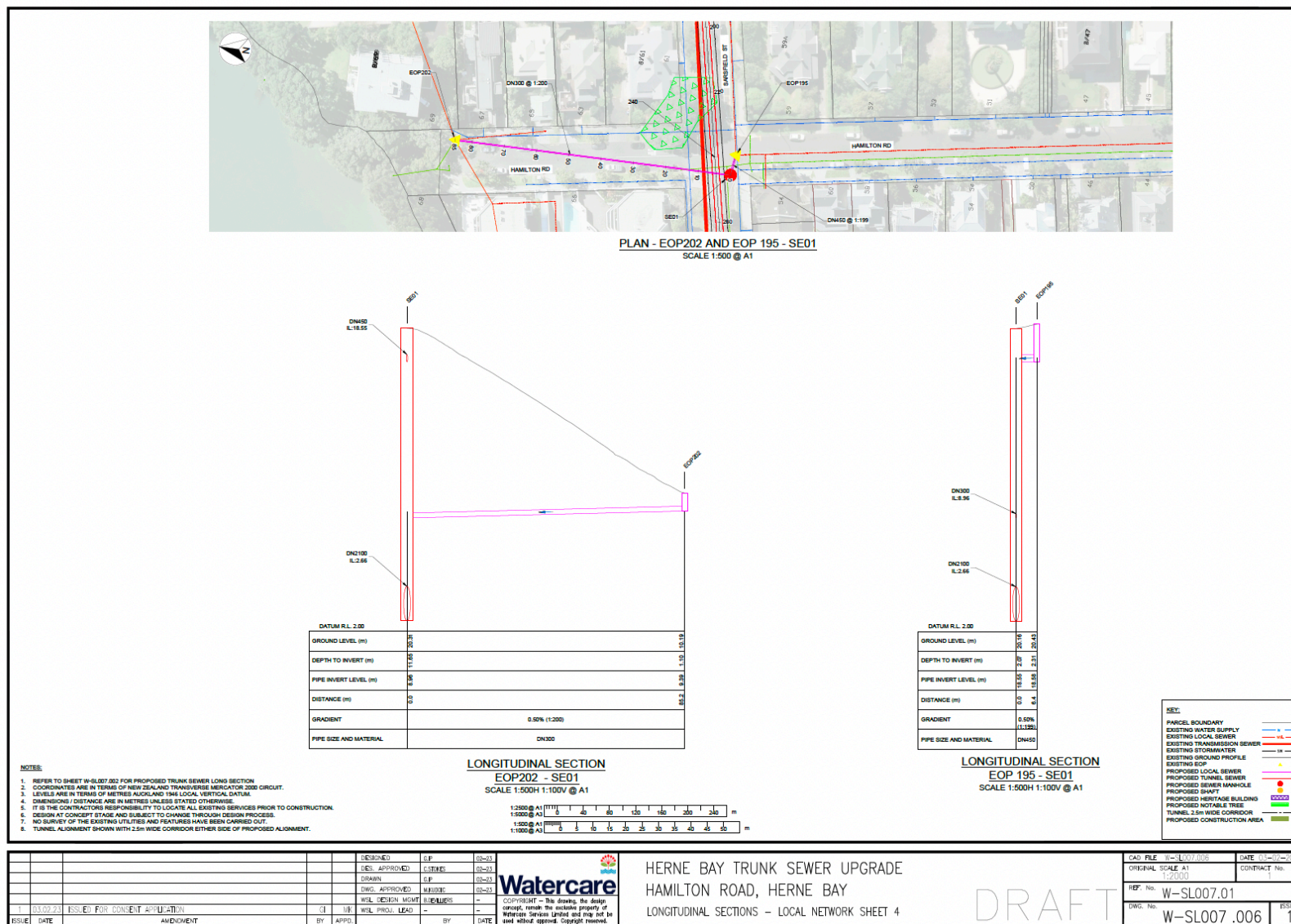






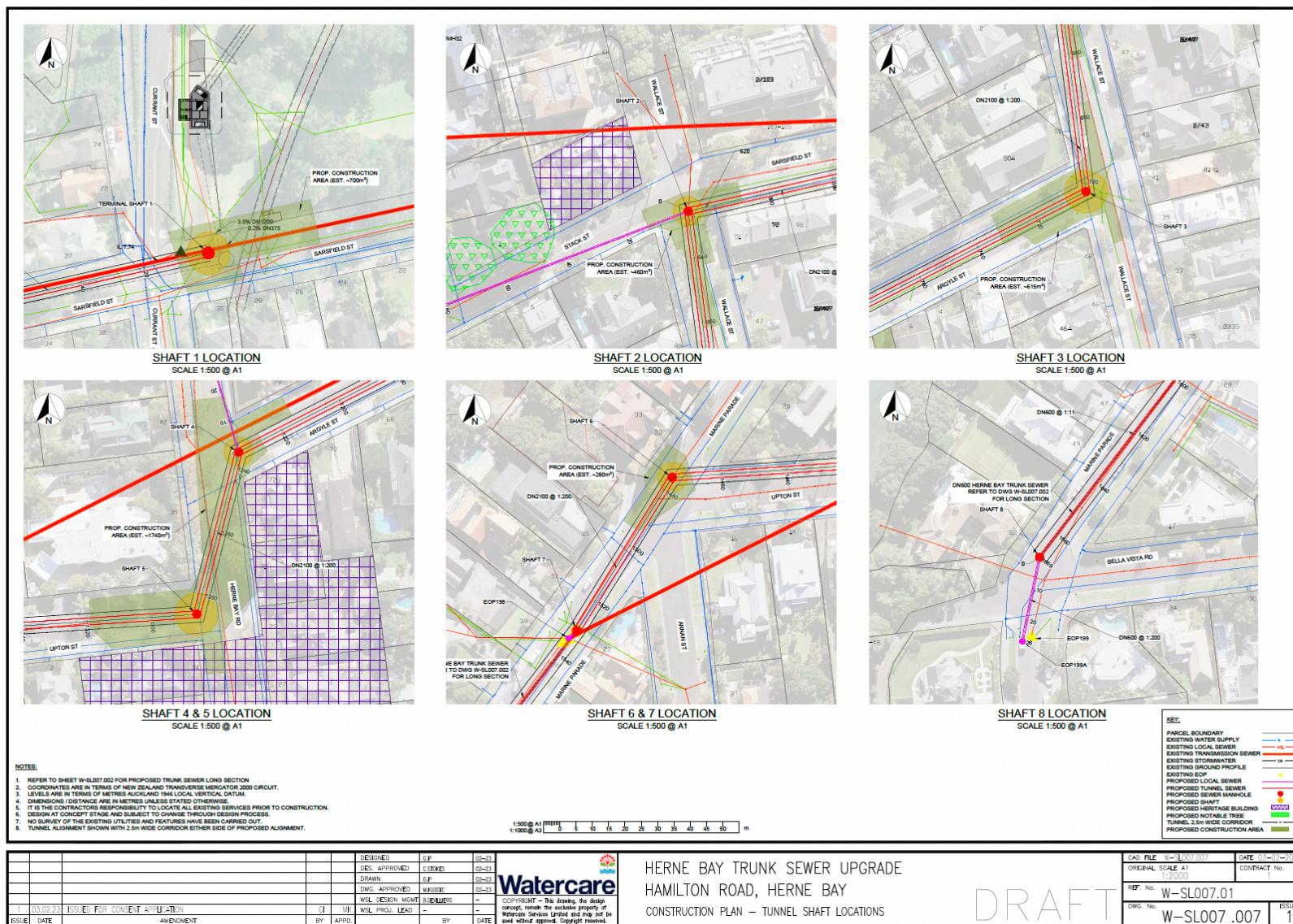




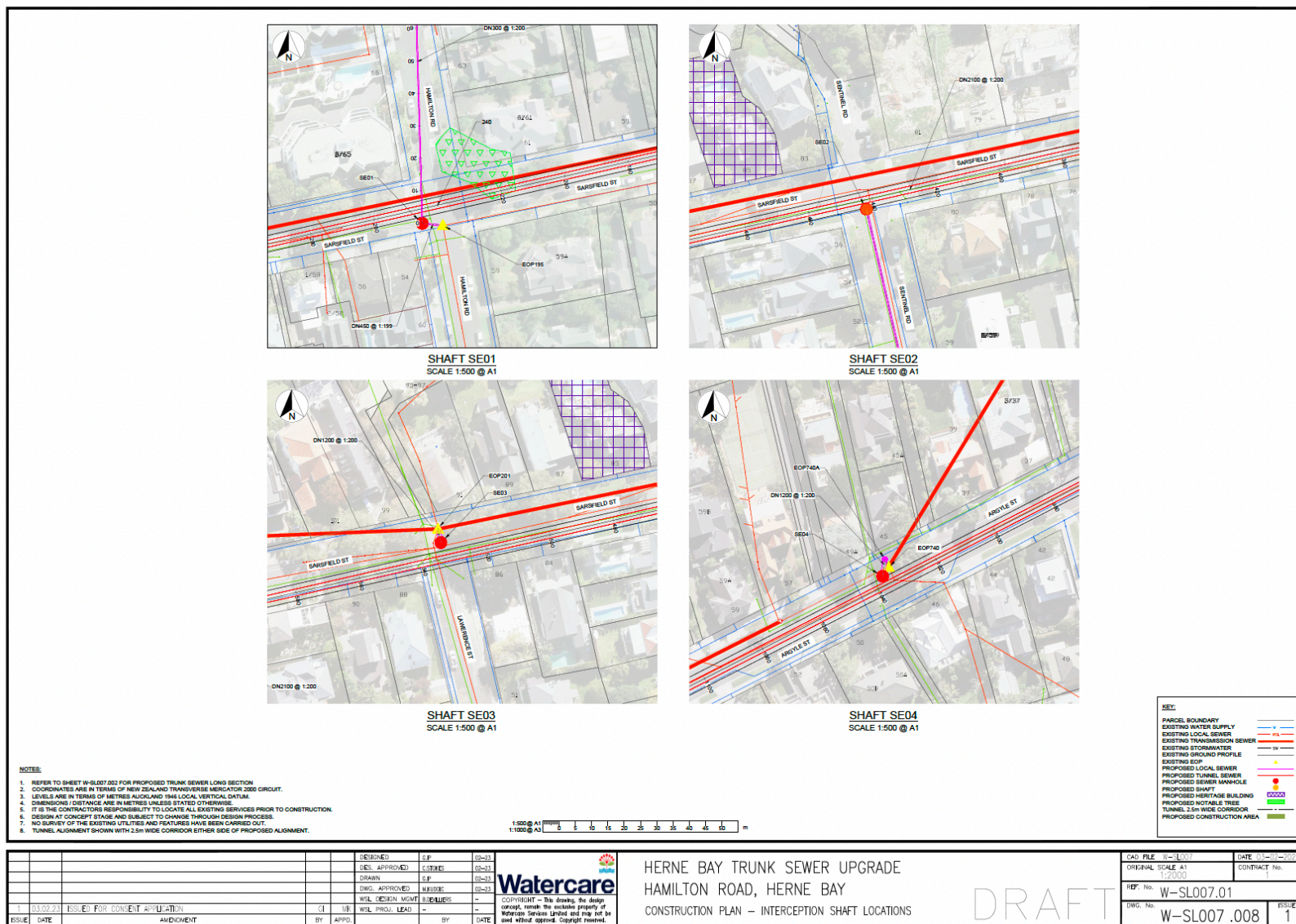




## **APPENDIX 2: TUNNEL SHAFT CONSTRUCTION PLANS**




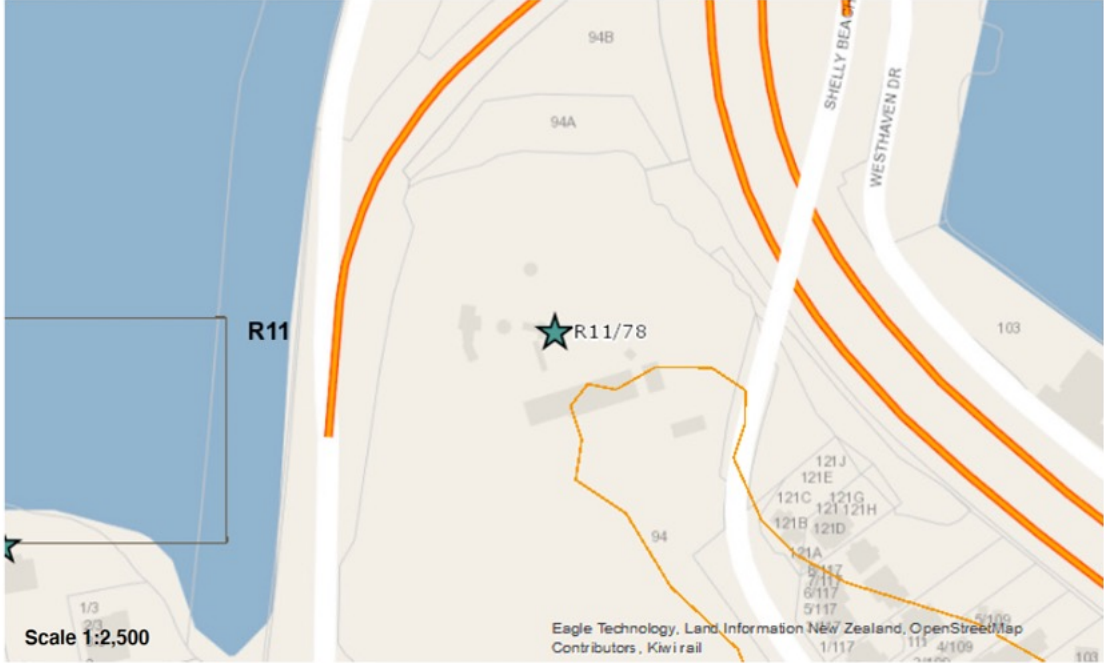






## APPENDIX 3: SITE RECORD FORMS

NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION

 <p><b>Site Record Form</b></p> <p><b>ARCHSITE</b> archaeological site recording scheme</p>	<p><b>NZAA SITE NUMBER:</b> R11/78</p> <p><b>SITE TYPE:</b> Pa</p> <p><b>SITE NAME(s):</b> Oka</p> <p><b>DATE RECORDED:</b></p>
<p><b>SITE COORDINATES (NZTM)</b> Easting: 1755208      Northing: 5921592      Source: Handheld GPS</p>	
<p><b>IMPERIAL SITE NUMBER:</b> N42/71      <b>METRIC SITE NUMBER:</b> R11/78</p>	
	
<p><b>Finding aids to the location of the site</b> Point Erin.</p>	
<p><b>Brief description</b> Headland pa. 19th century house site.</p>	
<p><b>Recorded features</b> Unclassified</p>	
<p><b>Other sites associated with this site</b></p>	

NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION

SITE RECORD HISTORY	NZAA SITE NUMBER: R11/78
<p><b>Site description</b></p> <p>Updated: 22/07/2010, Visited: 10/05/2010 - Site modified under Authority No. 2010/293. Work involved the installation of a new water main supplying the Pt Erin pools. Majority of work conducted by directional drilling, but four small connection pits excavated alongside the access road. No archaeological deposits encountered. Inspected by: Farley, Glen.</p> <p>Updated: 10/01/2012, Visited: 10/01/2012 - Updated GR (NZTM E1755208 / N5921592 - Handheld GPS) to reflect that of original NZMS 1 (1st ed.) record. Property purchased by John Campbell (not John Logan Campbell) in the 1845 Crown land sales. Campbell built a house on the point. When the City Council purchased the property the house was used as a koisk (August 1911). Demolished for construction of Pt Erin pool in 1962. See marked aerial photo, attached (R11-78 - John Campbell's house). Inspected by: Foster, Russell.</p> <p><b>Condition of the site</b></p> <p>Updated: 10/01/2012, Visited: 10/01/2012 - No surface evidence. A scatter of shells around the tree near the pool entrance is mixed with crushed brick and may be recent path material rather than relating to Maori occupation.</p> <p><b>Statement of condition</b></p> <p>Updated: 01/10/2010, Visited: 10/05/2010 - Poor - Visible features are incomplete, unclear and/or the majority have been damaged in some way</p> <p><b>Current land use:</b></p> <p>Updated: 08/02/2012, Visited: 10/01/2012 - Reserve/ recreation</p> <p><b>Threats:</b></p>	

NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION

SITE RECORD INVENTORY	NZAA SITE NUMBER: R11/78
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Supporting documentation held in ArchSite

AD AI AH CD AA AI

<b>SITE REFERENCE FORM</b>		SITE NUMBER <b>N 42 71</b>
Map number <b>N42</b>	Map name <b>Auckland</b>	SITE TYPE <b>Pa - headland</b>
Grid reference <b>259621-258618</b>		
1. Aids to relocation of site <b>E225800 N661800</b> <b>Southern approached to Auckland Harbour Bridge</b>		
2. State of site; possibility of damage or destruction  <b>Completely destroyed by settlement and park formation.</b> <b>Proposed swimming pool may reveal something during excavations.</b>  <b>DESTROYED -</b>		
3. Owner <b>Auckland City Council</b> Address <b>(park)</b>  Attitude	Tenant Address  Attitude	
4. Name of site <b>Oka</b> Source of name <b>Thesis H.J.R. Brown 1954</b>		
5. Date recorded Details of investigation; methods and equipment used		
6. Aerial photograph numbers Site shows: <del>clearly visible</del> /not at all		
7. Reported by <b>H.J.R. Brown</b> <b>20 Gilliam Street</b> <b>New Lynn</b>  Date	Filekeeper <b>L.M. Groube</b> <b>Anthropology Dept.</b> <b>Auckland University</b>  Date	



NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION

SITE RECORD FORM (NZMS1)		NZAA NZMS 1 SITE NUMBER N42/71													
NZMS 1 map number N42 NZMS 1 map name Auckland NZMS 1 map edition 3rd edition		DATE VISITED 18.12.81 SITE TYPE Paa headland SITE NAME: MAORI Oka OTHER													
Grid Reference		Easting	Northing												
		2 2 5 0 0 0	6 6 2 1 0 0												
1. Aids to relocation of site (attach a sketch map) Southern approach to Auckland Harbour Bridge Old crushed midden eroding north west edge of headland. For relocating the scatter, it is just below a seat and above "Lane control signals ahead" motorway sign. Point Erin.															
2. State of site and possible future damage Completely destroyed by settlement, 18,150 sq. yards, park formation and swimming pool complex.															
3. Description of site (Supply full details, history, local environment, references, sketches, etc. If extra sheets are attached include a summary here) Swimming pool dominates the locality. There is, despite previous reports of complete damage, possible evidence for a large ditch and bank along the road side of the park area, south of the swimming pool complex. Asked workmen if they'd found shells - no. to the north of Seaford Street.															
4. Owner Address		Tenant/Manager Address													
Auckland City Council															
5. Nature of information (hearsay, brief or extended visit, etc.) Brief visit															
Photographs (reference numbers, and where they are held)															
Aerial photographs (reference numbers, and clarity of site)															
6. Reported by Address		Filekeeper Date													
B. Sewell Anthropology Dept, University of Auckland.		SE BULMER May 1982													
7. Key words															
8. New Zealand Register of Archaeological Sites (for office use) NZHPT Site Field Code															
<table border="1"> <tr><td>A</td><td>D</td></tr> <tr><td>A</td><td>I</td></tr> <tr><td>A</td><td>M</td></tr> </table> Type of site Local environment today Land classification		A	D	A	I	A	M	<table border="1"> <tr><td>C</td><td>D</td></tr> <tr><td>A</td><td>A</td></tr> <tr><td>A</td><td>I</td></tr> </table> Present condition and future danger of destruction Security code Local body		C	D	A	A	A	I
A	D														
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A	M														
C	D														
A	A														
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