ADDENDUM REPORT

Kāwhia Beach Access Feasibility Study

for Ōtorohanga District Council and Te Taiao o Kāwhia Moana and Tainui Kāwhia Incorporated

Rev 1 - 05/08/2025






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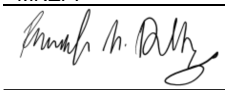
	Reviewed	
Report Author		05/08/2025
	Cam Twigley Director, Planning and Environment MNZPI	Date
Co-Author (Updated)		05/08/2025
	Brandon Doheny Senior Ecologist – MSc	Date

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1 INTRODUCTION

1.1 Purpose of Report

In 2020, BTW Company prepared a feasibility study for Tainui Kāwhia Incorporated (TKI) and Te Taiao o Kāwhia Moana (TTKM) looking at options to address issues of vehicular and pedestrian access at Ocean Beach, Kāwhia.

The issues at play are well documented in the original feasibility study and for further details this addendum report should be read in conjunction with the earlier study.

In summary, access to the beach is highly valued for recreational uses and tourism. Currently, there are two beach access routes. The pedestrian access at Tom French Grove is via an unprotected dune path, while vehicular access traverses the estuarine intertidal area adjacent to Maketu Marae and around the southern point of the Kāwhia sand spit to reach Ocean Beach. Both of these accessways create cultural and ecological impacts. For example, impacts to seagrass, customary shellfish beds, dune vegetation, and bird nesting sites.

Given the time that has passed since the original feasibility study, BTW Company has been requested by Ōtorohanga District Council (ODC), in conjunction with TKI and TTKM, to prepare an addendum to the original feasibility study to address the following:

- Reconfirm alternative vehicle access feasibility and indicative “least cost” formation;
- Access to be designed for quad bikes and side by sides;
- Update cost estimates for the other route(s) identified in the 2020 report, with scaled back, “least cost” formation (i.e. single track, potentially with 2-3 passing bays for quads and side by sides)[1];
- Advise on the general process for creating a public access easement across the vehicle access and the existing pedestrian access at the end of Tom French Reserve (which does not currently have legal public access across TKI owned land);
- Re-confirm the likely consenting requirements;
- Advise on least cost alternative to blocking off the existing Kāwhia boat ramp access e.g. a series of concrete bollards; and
- High level (indicative only) timeline from the design of an access through to approval of consents and easements.

[1] It was subsequently agreed to only provide cost estimates for the preferred route

Figure 1.1: Aerial overview of Kāwhia beach and foreshore area (BTW Company 2019).

2 PREFERRED DESIGN OPTIONS

The overall objective of the design interventions remain unchanged from those outlined in the 2020 feasibility study. The key objectives being to facilitate and improve vehicle and pedestrian access to Ocean Beach (from Tom French Grove) and restricting vehicle access to the beach from the Kāwhia Boat Ramp (near Maketu Marae). The design interventions need to balance cultural, environmental and social/recreational values, and consideration of the health and safety of users. The update requires a re-evaluation of options with a focus on least cost solutions.

2.1 Tom French Grove Accessway

2.1.1 Preferred Access Alignment and Grade

After further consideration of access alignments via a site visit in June 2025, we remain of the opinion that an upgrade of the existing pedestrian route across the dunes from Tom French Grove remains the best and most practical option for the following reasons:

- Provides the lowest overall disturbed area of vegetation, noting that a large portion of this area is already disturbed from the existing access track;
- Results in an approximate net cut of 465 m^3, which is the most desirable cut/fill balance of other options considered; and
- Provides the most direct access to the beach and Te Puia Hot Springs from Tom French Grove.

The surface model for vehicle access design has been derived from Waikato Regional Council LiDAR data. The route concept has been developed based on geometric design parameters suitable for vehicle travel such as a maximum gradient of 1V:5H. A scale plan for the accessway and design parameter details are presented in Appendix A and Figure 2.1 below.

Accessway options to both the north and south were considered in conjunction with ODC, TKI and TTKM however increased ecological impact and engineering requirements identified during the site visit in June 2025 proved these options to be suboptimal.

Accessway gradient is an important design factor for ease of pedestrian access, restricted mobility persons access, and safe vehicle movements. The NSW Department of Land and Water Conservation Dune Manual (2001) recommends maximum gradients for vehicle and pedestrian accessways at 1V:3H and 1V:4H respectively (where V is vertical, and H is horizontal).

Where possible, accessways should conform to the slope of either the existing dune or the reconstructed dune where dune reshaping of a severely degraded foredune has been required. Flexible board and chain walkways can be constructed on foredune slopes up to 25° (1V:3H) for pedestrians but slopes less than this will be required for regular vehicular traffic, especially in soft sand.

Most manufacturers list maximum uphill and downhill slopes for adult ATVs to be less than 25° (46% grade). This is stated by Department of Ecosystem Science and Management from Pennsylvania[2]. The NZ Forest Road Engineering Manual (2020)[3] also categorises slopes more than 25° (46%

[2] https://ecosystems.psu.edu/research/centers/private-forests/news/slopes-and-slope-safety-a-two-part-series-part-two-equipment-on-slopes

[3] Refer Section 2.1.2 - Activities and risk

grade) to be very high risk (red zone) and therefore to be avoided. WorkSafe specify a road used for agriculture vehicle (transporting logs, forestry, etc) shall not be greater than one in five (11 degrees or 20 percent)[4]. The John Deere manual for the XUV 845M Crossover Utility Vehicle specifies a maximum operating slope to be 15° (27.6 % grade)[5].

Based on the findings above, we recommend that the maximum design accessway should be no more than 1V in 5H (20% grade).

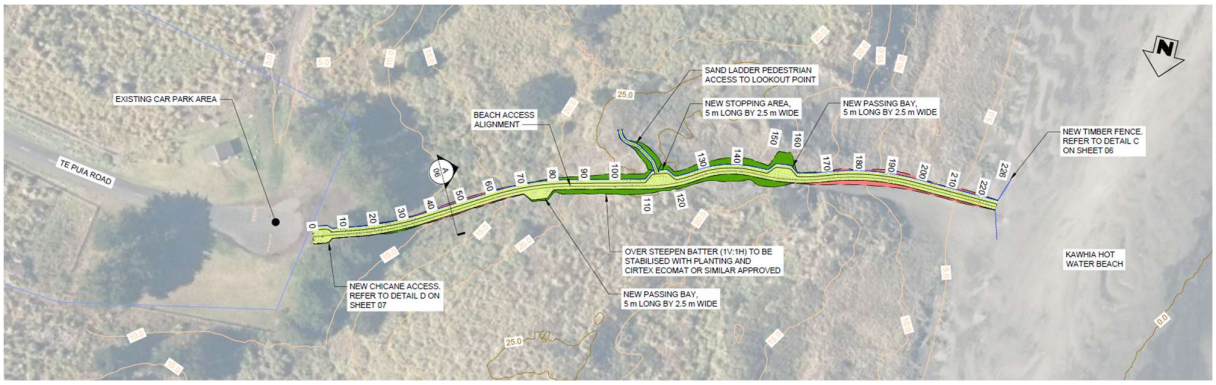

Figure 2.1: Kāwhia beach access plan (BTW; scale 1:1000; Appendix A).

For the purposes of this concept design, the access track has been modelled based on the cross-section shown in Figure 2.5 below. The access has been designed to provide a pedestrian access track alongside the ATV traffic. Pedestrian access width using a sand ladder should be 1.2 m and located where the dune slopes are no greater than 30-60 percent. Planting with native sand dune vegetation beside the sand ladder will help control erosion.

Wider accessway of at least 2.4 m wide is required for vehicular access[6]. The Honda catalogue for ATV and side-by-side vehicles specify dimension of wheelbase is 1.27 m for ATV and 1.95 m for side-by-side vehicle[7]. Based on this, the width of the vehicle track should be at least 2.4 m.

Based on the finding above, the overall width of the design accessway should be 3.6 m being 2.4 m for vehicles and 1.2 m for pedestrians. Table 2.1 provides an overview of the cut/fill and disturbed area required for this option. An approximate excess of 465 m^3 of sand will be generated from cut operations required. It is anticipated that some of this material can be directed to adjacent areas, with the bulk being pushed to the immediate foreshore.

Table 2.1: Access option comparison of vegetation disturbance area and cut and fill volumes.

Vegetation Disturbance Area (m^2)	Cut (m^3)	Fill (m^3)	Cut Excess (m^3)
1,340	722	257	465

[4] https://www.worksafe.govt.nz/topic-and-industry/forestry/safety-and-health-in-forest-operations
[5] Refer to page 15-5 and page 90-2 in the manual for XUV 845M Crossover Utility Vehicle.
[6] Refer to the attached Article No. 9.2 – Accessways on dunes.
[7] Refer to the attached Honda catalogue.

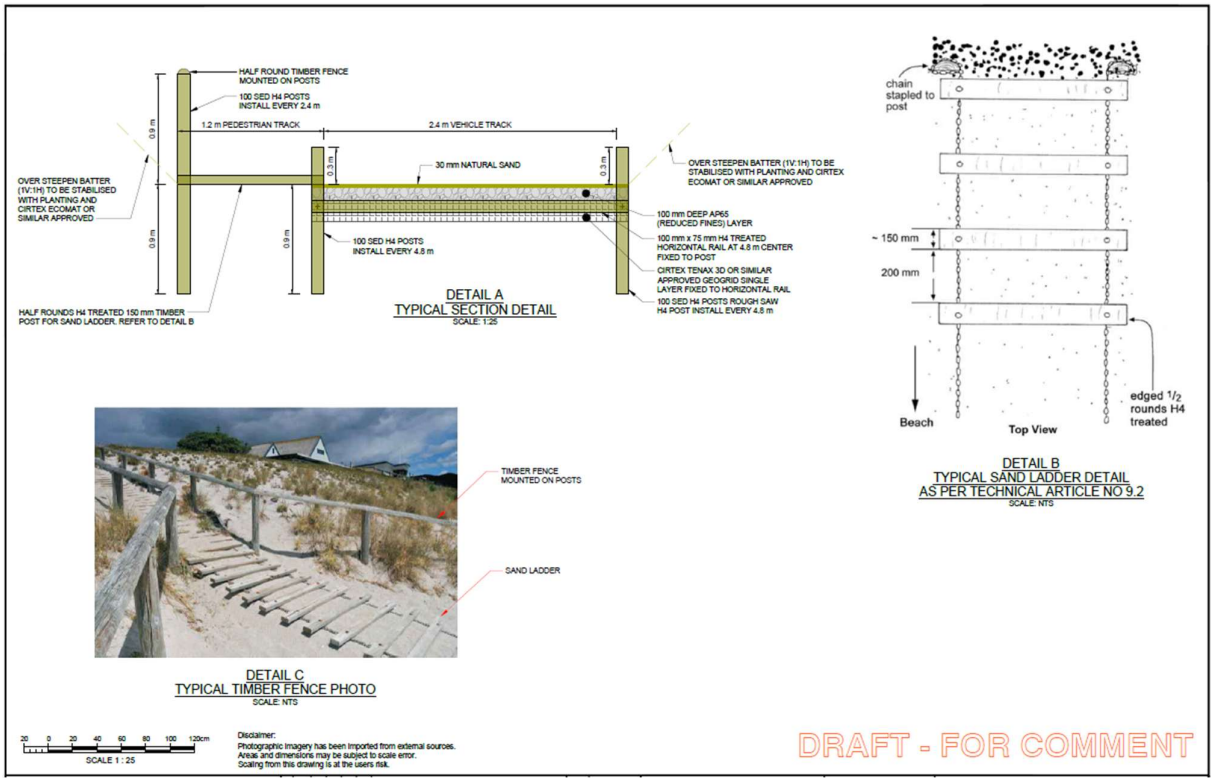

Figure 2.2: Accessway design details (BTW 2025; Appendix A).

2.1.2 Indicative Vehicle Access Pavement

Boardwalk structures were previously highlighted as the best option for minimising vehicle accessway environmental impacts. However, based on the required engineering, materials, and distance crushed sandstone combined with a Geoweb® base is the initial recommendation for the vehicle access pavement in the mid-dune and back-dune areas. The pavement would be further developed/assessed during the Detailed Engineering Design phase. In the foredune area, considering the dynamic and cyclic nature of the shoreline and potential coastal recession due to sea-level rise, Enduroplank™ sand ladders are recommended.

2.1.3 Indicative Pedestrian Access Surface

The materials for the pedestrian component of the combined track could use a combination of previously outlined materials, specifically, Enduroplank™ boardwalk and sand ladders, and crushed sandstone combined with a Geoweb® base. The recommended option is to use Enduroplank™ boardwalk and sand ladders structures. The boardwalk structure will extend across the mid-dune and back-dune areas. In the foredune area, the positioning of sand ladders takes into account historical shorelines and potential shoreline recession due to sea-level rise.

The boardwalk concept will elevate pedestrians reducing potential interactions with vehicles and concurrently reduce impact to dune vegetation. Fences and planting strips separating tracks are recommended to further separate vehicle-pedestrian interactions. Long-term the impacts of dune disturbance to construct the pedestrian boardwalk may be offset by the gains in facilitating regeneration of vegetation on bare sand tracks and stabilisation of sand by using sand ladders and directed track exits. Therefore, minimising impacts to dune morphology and ecology in comparison to a bare track.

The maximum track grade of the designed pedestrian accessway is 1V:5H. This grade enhances access for people with limited mobility. Additionally, as vehicle access will be provided, this also increases accessibility to Ocean Beach and Te Puia Hot Springs for persons with limited mobility.

It is recommended that additional aspects are integrated during the Detailed Design phase. Specifically, a sheltered landing platform at the top of the dune could be incorporated into the boardwalk design that creates a rest spot that allows users to view the beach and expansive coastline views. There would be an opportunity for this platform to be uniquely designed with a local/cultural narrative and incorporate educational signboards.

Figure 2.3: Example beach access boardwalk (source: Whangamata Boardwalk Project FAQ Sheet)

Figure 2.4: Accessway example sand ladder of foredune (source: Accessways – Dune Restoration Trust of NZ).

2.1.4 Signage and Fencing

Simple signs or posts at both beach and landward ends of each accessway will encourage beach users to use formal access routes across dune systems. Additional signage is suggested to educate the public about the sensitivity of dune environments and some of the species which might be encountered.

Fencing on either side of accessway is usually necessary in high use areas, as traffic, if not controlled, tends to divert from the track. This will be provided for both ATV and pedestrian sides.

Post and rail fencing is best suited to locations where sand burial risk is lower, i.e. back of dune at carpark area to prevent vehicles creating alternative routes. In areas with more mobile sand (e.g. foredune), and less risk of vehicles and persons deviating from accessway, post and Bayco© wire is recommended due to weight, strength and cost.

2.1.5 Indicative Cross Section

Figure 2.5 provides a conceptual cross-section of a combined pedestrian and vehicle access track. It is noted that the overall width of the combined track cross-section shown below may be reduced during the Detailed Design phase (considering efficient/cost-effective design).

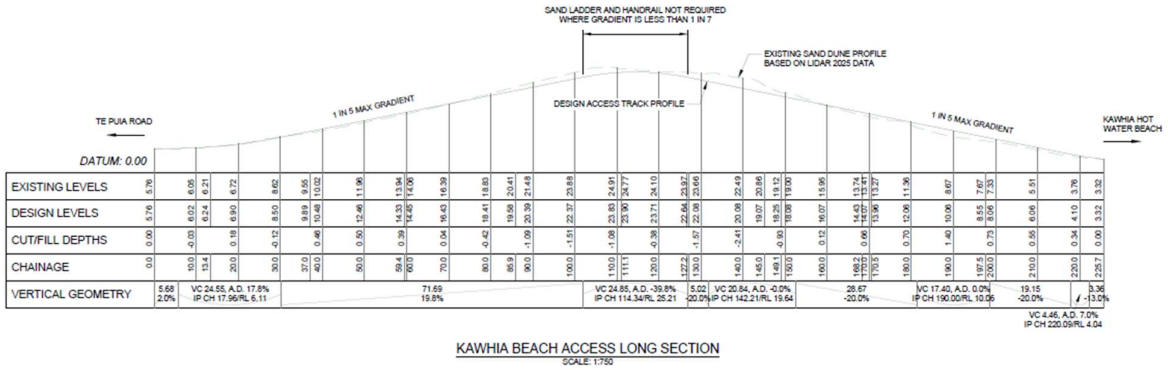

Figure 2.5: Example beach access cross-section (Appendix A).

2.1.6 Dune Vegetation Impact and Reinstatement Post-Earthworks

Dune stability and reinstatement during and post earthworks for the access options assessed is considered a high priority design consideration for the overall success of this project. Disturbance to the local dune area directly related to works required for this project has the potential to result in significant local erosion to the surrounding dune area if design mitigation measures are not implemented.

The impact of vegetation clearance cannot be accurately quantified at this stage from a simple desktop evaluation at the preliminary design phase. The area to be cleared for construction for the proposed access option is likely to have a number of native and exotic dune plants. During construction, the removal of exotics and planting of natives will provide a benefit and offset environmental impacts.

The installation of geotextile on the cut/fill batters associated with the new accessway is recommended as a robust option to mitigate short-medium term localised dune erosion post earthworks. Specifically, Geoweb® with coconut (or coir) matting (Figure 2.6) is considered an

acceptable solution that has been implemented successfully on similar projects. For example, the Waikanae Estuary track managed by the Department of Conservation.

Figure 2.6: Example of Geoweb® with coir matting (Source: www.geofabrics.co.nz)

In addition, a robust planting programme post-earthworks is recommended as the optimal solution to avoid long-term dune erosion in the local area of the new accessway. Moreover, the construction phase provides an opportunity to remove exotic vegetation such as pampas (*Cortaderia* spp.), and regenerate areas with native dune vegetation (e.g. pohuehue for copper butterfly habitat) and establish trap lines for pest species. An indicative/typical planting sequence within sand dunes recommended for this project is shown in Figure 2.7. BTW recommend engaging with CoastCare to optimise dune planting during construction and ongoing maintenance. To protect the planting on the track boundary, and wider dune environment, fences are recommended.

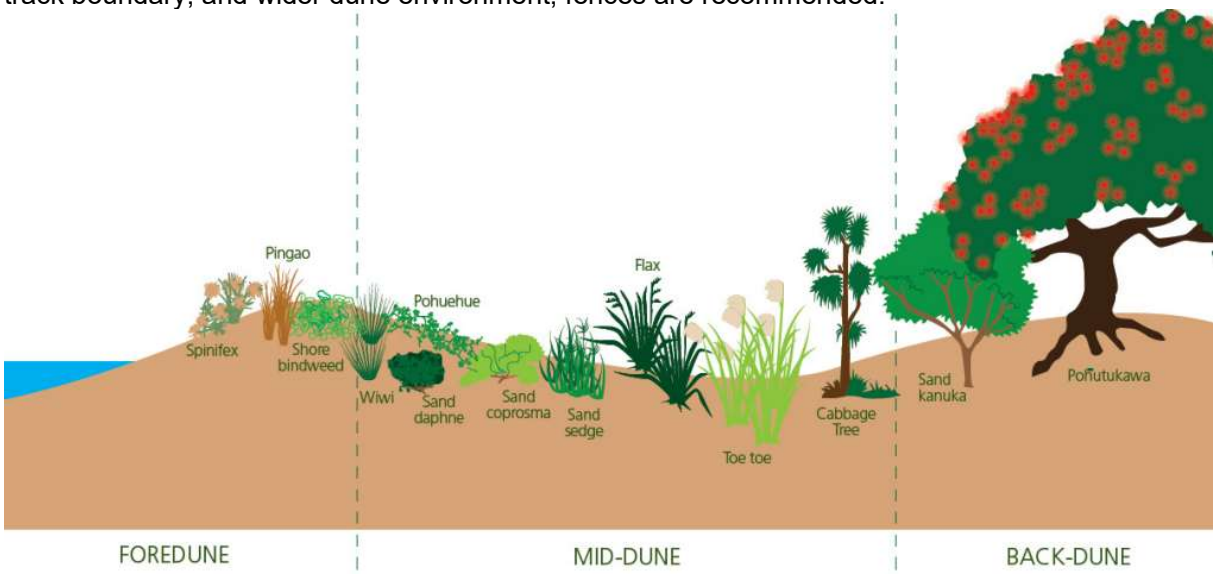

Figure 2.7: Example of New Zealand dune vegetation sequence (source: https://www.nrc.govt.nz/Resource-Library-Summary/Publications/Coast/Dune-Plants/Which-plants-where/).

2.1.7 Timing of Works

The preferred timing of this work remains unchanged being autumn to early winter. As planting of disturbed areas is a key component of restoring disturbed areas, planting in autumn and winter is recommended for successful plant establishment. The risk to shore birds will also be minimised during the construction phase by timing construction in autumn to early winter to avoid the breeding and nesting months for dotterel, oystercatcher, and little blue penguin, i.e. April, May, June.

2.1.8 Increased Traffic Considerations

As highlighted in the feasibility study, following construction, increased traffic is expected as access is facilitated. Efficient design and strategies need to be implemented to ensure that increased visitor numbers due to improved access do not increase environmental impacts. Short cutting across the dune (i.e. between accessways) will be minimised by creating access that formalises access points, improves ease of access, are short in distance, and use of fencing and vegetation barriers.

2.1.9 Dune Disturbance Considerations

The construction of structures and accessways involves vegetation and sediment disturbance/clearance and earthworks (cut/fill) during construction. We have previously highlighted the environmental importance and sensitivity of dune environments and critical role of sand binding vegetation. It is recommended that during the detailed design phase (prior to construction) the flora and fauna is examined along the proposed accessway route. During construction, disturbances will be minimised by using temporary stabilisers, local reinforcement, native vegetation relocation and targeted planting of disturbed areas. Engineering design for re-stabilisation of the sand dunes post-construction is key to achieving a sustainable design and preserving the surrounding dune area. During earthworks, *in-situ* guidance by a suitably qualified ecologist can assist with minimisation of impacts and transplanting of high value native plant species.

2.2 Kāwhia Boat Ramp and Estuary Entrance - Restrictions to Vehicle Access on the Beach

The intertidal area is an important ecological and cultural environment and vehicular traffic impacts the health and functioning of these systems. To mitigate impacts, amendment to the ODC Traffic Bylaw 2005 (that designates the intertidal beach area as an official road) and construction of a physical barrier with added amenity benefits is suggested. This matter is addressed in the 2020 feasibility study. To restrict access to the western section of the beach, access will need to be restricted in two separate locations which were identified during a site visit with representatives of TKI (see Figure 2.8).

In combination with a change to local bylaw, concepts considered in the 2020 feasibility study that could be employed to create a physical barrier for vehicle traffic include a rock groyne, a boat ramp pontoon, spaced posts, and an intertidal kai moana aquaculture (i.e. oyster) farm.

Of considered barriers, installing spaced posts was found to be the most cost effective and feasible long-term solution with minimal environmental impacts and influence on coastal processes. A description of this proposed post barrier is provided in Section 2.2.1 and a rough order physical works estimate is provided in Section 3.

Although these concepts will prevent access of vehicles and quad bikes from the Kāwhia Boat Ramp to Ocean Beach, it must be acknowledged that motorbikes could still access the intertidal harbour area as the spacing of the posts cannot feasibly restrict these narrow vehicles.

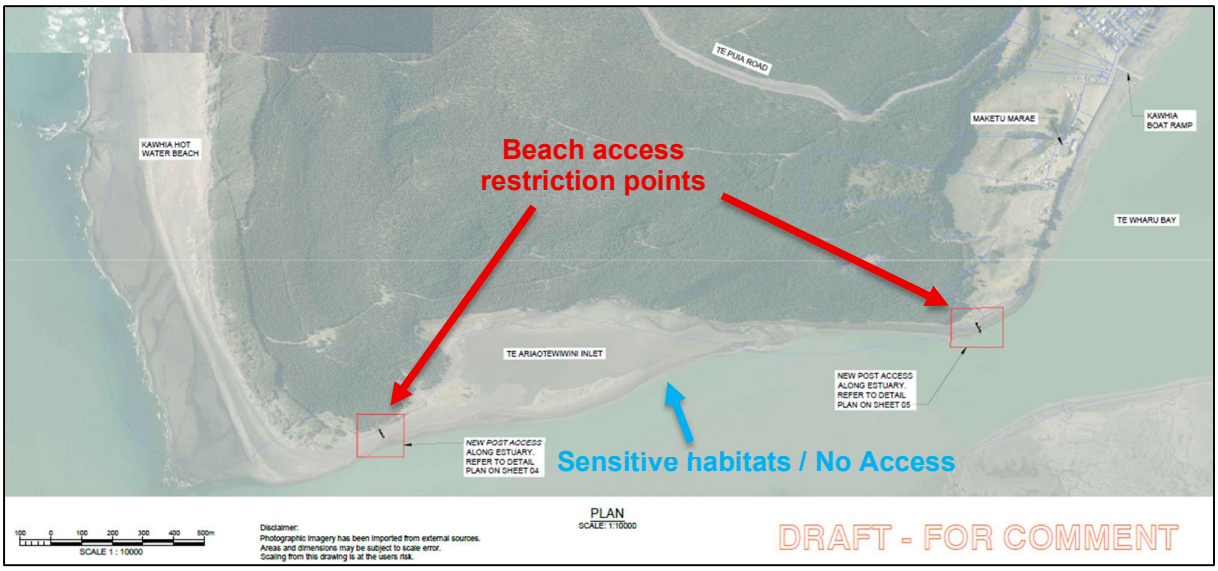

Figure 2.8: Beach access restriction points identified and proposed (BTW; Appendix A).

2.2.1 Post Barrier Structures

The proposed post barriers generally consist of marine treated (H5) 300 mm diameter posts, spaced at 0.9 m between post edges (see Appendix A). Detail of the two barriers are provided in Figure 2.9 and Figure 2.10 below, which was geolocated and measured during a site visit in June 2025. Overall, 34 posts over a ~39 m length are required for the western barrier, which will extend from between 1.5 to 2.5 m into the sand, and 2 m into the subtidal below the mean low water mark. For the eastern barrier, 28 posts over a ~ 32 m linear distance will be required, similarly extending between 1.5 and 2.5 m into the sand and 2 m into the subtidal below the mean low water mark. Post lengths, and the depth within the ground varies based on proximity to the low-tide mark, as intertidal posts will require more elevation and rigidity. It is anticipated that some ongoing maintenance will be required with the posts after large storms or as required due to ongoing sand movement.

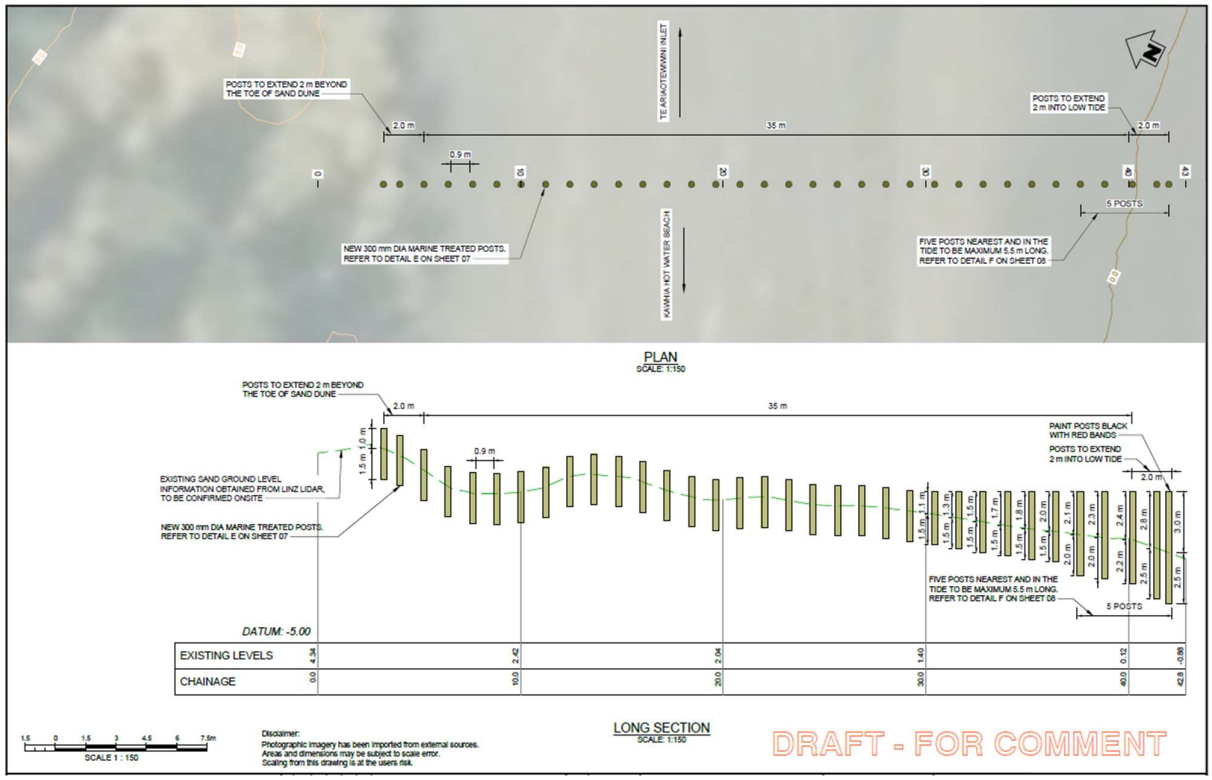

Figure 2.9: Post barrier detail for the western restriction point (BTW; Appendix A).

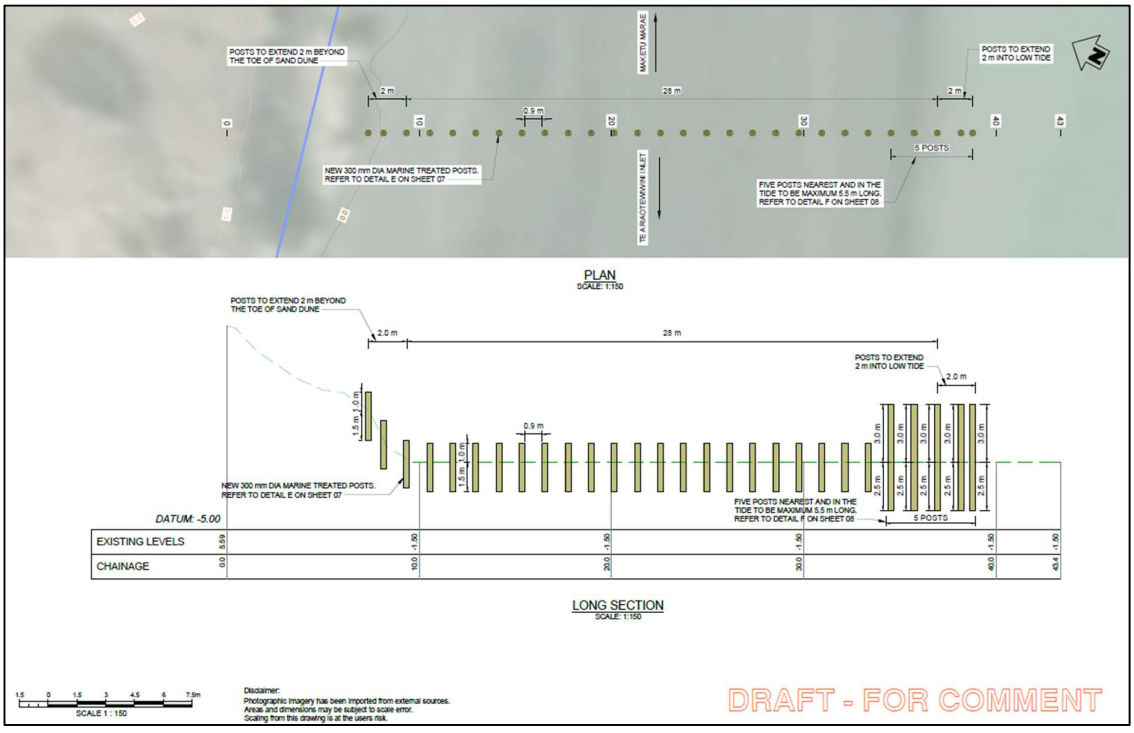

Figure 2.10: Post barrier detail for the eastern restriction point (BTW; Appendix A).

3 ROUGH ORDER PHYSICAL WORKS ESTIMATE

Based on the preliminary concepts outlined above a rough order physical works estimate has been completed to provide an indication of the cost of undertaking detailed design, consenting and construction and allowance has been made for the projected escalation costs for 2026 and 2027 (Table 3.1).

Table 3.1: Rough order physical works estimate for design, consenting, and construction of dual vehicle-pedestrian accessway, and boat ramp upgrade and pontoon.

Component	Budget Estimate	Lower Risk Allocation	Total Cost Inclusive of Risk - Year 2025	Escalated Year 1 (2026)	Escalated Year 2 (2027)
UPGRADED ACCESS FROM TOM FRENCH GROVE TO OCEAN BEACH					
PRELIMINARY AND GENERAL	$23,000	5%	$24,150	$24,875	$25,620
UTILITY SERVICES	$500	5%	$525	$540	$557
EARTHWORKS	$56,720	15%	$65,228	$67,185	$69,200
ENTRY TREATMENT FROM CARPARK	$2,875	5%	$3,019	$3,109	$3,203
VEHICLE TRACK OVER DUNES	$31,950	5%	$33,548	$34,554	$35,590
SAND LADDER OVER DUNES	$43,905	5%	$46,100	$47,483	$48,908
ENTRY TREATMENT TO TRACK OFF BEACH	$2,375	5%	$2,494	$2,569	$2,645
SAND LADDER TO LOOKOUT	$6,720	5%	$7,056	$7,268	$7,485
MITIGATION PLANTING	$36,850	15%	$42,338	$43,649	$44,958
TOTAL					
POST BARRIER ACCESS PREVENTION STRUCTURES					
SITE 1 NEAR HARBOUR HEADS	$22,990	15%	$26,439	$27,232	$28,049
SITE 2 NEAR MAKETU MARAE	$17,800	15%	$20,470	$21,084	$21,717
DAYWORKS (PROVISIONAL)					
LABOUR AND MACHINERY	$4,375	5%	$4,594	$4,732	$$4,874
MISCELLANEOUS	$ 12,503	10%	$13,753	$14,165	$14,590
PROFESSIONAL FEES	$50,000	10%	$55,000	$56,650	$58,350
10% CONTINGENCY	$31,256	10%	$34,475	$35,510	$36,575

Base Total (Rounded)	***$343,820***	***Risk Total***	***$379,230***	***$390,605***	***$402,325***

The budget estimates have the following assumptions and exclusions:

- All costs are based on 2025 - 2026 rates.
- No GST has been applied.
- No legal fees have been allowed for.
- A 10% contingency has been applied to all design and civil construction works (contingency excludes Preliminary and General total).
- A risk allowance has been applied to all civil construction and professional fees.
- No cost share has been allowed for between Council Controlled Organisations (CCO's).
- No retaining walls have been allowed for in the budget estimates.
- Budget estimates are taken from studies, quotes, and anecdotal supplier and contractor information up until mid-August 2025.
- No Sediment and Erosion Control costs are allowed for.
- Traffic Management costs are $250/day over a period of 8 weeks. This allows for the hire of signage to be installed at the track entrance at the cul de sac to advise the public of the construction zone.
- Water Supply has not been allowed for on the boardwalk should it be required.
- Costs for required consents and work permits associated with the works have been taken from case studies for similar works.
- No lighting requirements have been allowed for in the costing aside from beacon light on the past barrier prevention structures.

3.1.1 Risk Allocation

A baseline cost estimate has been undertaken and risk allocated for each headline item (e.g. Preliminary and General, Professional Fees etc). This risk percentage is gauged from the information (or lack of information) from each item.

3.1.2 Preliminary and General

Preliminary and General costs include aspects such as site health and safety (e.g. temporary fencing, signage, inductions), communication with stakeholders, coordination with other contractors, construction programmes and reports etc. There has been a 5% pricing risk allowed for in the Preliminary and General (P&G) total.

3.1.3 Dune Access Costs

Construction of the access track has some reasonably high-cost items. This includes the construction of the pedestrian sand ladder, earthworks required to shape the vehicle access and materials to form the vehicle access. Given these variables, a 5% to 15% risk percentage is applied.

3.1.4 Miscellaneous

A 5 installation% risk allocation to Miscellaneous due to aspects of the preliminary designs where information is lacking (e.g. landscape design, post specialist installation, hydrodynamic modelling etc) and will be dependent on refined design aspects, scale of specialist design and investigations, and duration of activities. Therefore, this is classified and allocated as relatively moderate risk.

3.1.5 Professional Fees

A 10% risk allocation to Professional Fees is due to the unknown elements of the project. Professional fees include a rough order cost for Planning inputs of $30,000 for compliance with the District Plan, WRP, LVA, IWI and Maritime navigation. Fees of $20,000 have been estimated to prepare final design, construction drawings, schedule and memo update on the preferred option.

4 REGULATORY REQUIREMENTS

4.1 New Zealand Coastal Policy Statement 2010 (NZCPS)

The NZCPS sets out objectives and policies with the purpose of preserving the natural character of the coastal environment, wetlands and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use and development. This national policy statement is to be applied by all persons exercising powers and functions under the Resource Management Act 1991 (RMA). The objective and policies are intended to guide applicants and decision-makers on applications for resource consent, in making decisions on the notification and determination of resource consent applications and when exercising other powers as required by the RMA. Regional policy statements, regional plans and district plans must give effect to this national policy statement.

In the context of this project, the proposed beach access will be within the Coastal Environment, but outside the Coastal Marine Area (CMA). The CMA applies to foreshore, seabed, and water, and the air from mean high water springs (MHWS) to 12 nautical miles. MHWS is a measure of the average highest levels that a spring tide reaches. The coastal environment means an environment in which the coast is a significant part or element and includes the CMA. The proposed post barriers will be located within the CMA, being seaward of MHWS. The NZCPS has plain and strong policy direction relating to areas of natural character, features and landscapes in the coastal environment with a focus on avoiding adverse effects. Consistency with the NZCPS is a key consideration for the project due to the strong direction around environmental protection and avoiding adverse effects.

The project will offer opportunities to restore and enhance the coastal environment through removal of exotic vegetation and planting of indigenous species. Primarily, environmental improvement will be realised through the restriction of public access to sensitive habitats within the coastal environment. These issues will need to be carefully considered through the consenting process.

4.2 Waikato Regional Plan (WRP)

Possible consenting requirements under the WRP will relate to:

- Soil disturbance that exceeds 2,000 m in length, 1,000 m³ or two hectares in area within a high-risk erosion area will trigger the requirement for a discretionary activity resource consent. The WRP notes high risk erosion areas include pre-existing slopes of land exceeding 25 degrees, coastal sand country on the West Coast where loose sands are at the ground surface or within 10 cm of the surface or within 50 m landward of the CMA of an estuary.

Initial estimates are that the proposed upgraded access is likely to comply with permitted parameters above as will disturbance associated with the post barrier structures.

4.2.1 Environmental Assessments Required

If consent is required under the WRP it is anticipated that as part of an application to Waikato Regional Council (WRC) under Rule 5.1.4.15 the following environmental assessments are likely to be required, in addition to the civil design plans:

- Ecological Assessment (Terrestrial) – the proposed beach access will be located within a sensitive landscape where the construction has the potential to adversely affect indigenous flora and fauna.
- Coastal Process and Hazard Assessment – the proposed beach access has the potential to adversely affect the natural coastal processes and exacerbate coastal erosion.

4.3 Waikato Regional Coastal Plans

Since preparing the feasibility study in 2020, Waikato Regional Council (WRC) have notified their Proposed Waikato Regional Coastal Plan. Submissions have been heard, and the Hearings Panel are currently preparing recommendations which will be presented to WRC for decisions later in 2025.

Any consenting requirements under the Coastal Plans will relate to activities within the CMA. In this case, the construction and use of the post barrier structures would be within the CMA, however we do not anticipate there will be any consenting requirements under the WRCP for the upgraded access track

The construction and use of the post barrier structures would need to be considered against both the Operative Waikato Regional Coastal Plan 2005 and the Proposed Waikato Regional Coastal Plan. Rules STR-R1 to STR-R19 in the Proposed Waikato Regional Coastal Plan relating to Structures and the Occupation of Space have immediate legal effect from the date the Plan was notified being 18 August 2023.

The construction of the post barriers within the CMA is likely to trigger the following consenting requirements:

- Structure and occupation of space in the CMA. The application is likely to be assessed as a discretionary activity under both Coastal Plans.
- If the removal of indigenous plant species (e.g. sea grass) within the CMA is required, the activity is likely to be assessed as a discretionary activity. Initial observations are that there was no indigenous plant species in the proposed locations for the post barriers.
- Disturbance of the seabed. Under the Operative Plan, disturbance of any sand, shell, or other marine material in a discrete location that does not exceed 100 m³ over a 30-day period is permitted. Outside of this a consent will be required for a controlled or discretionary activity depending on the volume of disturbance. Under the Proposed Plan disturbances and deposition of sand, shell, shingle or natural material in quantities less than 100 m³ in any 12-month period are a permitted activity or a controlled activity (consent required) where permitted activity standards cannot be met.
- Where public access from areas of the CMA over 10 ha or 316 m along the foreshore is excluded, a discretionary activity resource consent will be required under Rule 16.8.1 of the Operative Plan. It is noted that the proposal is to block vehicle access only, not access for pedestrians.

4.3.1 Environmental Assessments Required

It is anticipated that as part of any application for the post barrier structures, the following environmental assessments will be required:

- Ecological Assessment (Marine) – it is anticipated that the ecological assessment will analyse the ecological values of the area with specific reference to those identified under the Coastal Plans. As part of this assessment, any adverse effects on indigenous flora and fauna will be considered.
- Hydrological Assessment – this assessment is likely to be required to assess the potential adverse effects on the water quality of the Kāwhia Harbour, as well as potential adverse effects on the hydrological processes of the waterbody.
- Cultural Impact Assessment – It is likely that this will be required for any of the applications outlined above as they have the potential to adversely affect the cultural values of mana whenua, as well as impact on the ability for iwi to exercise kaitiakitanga.

- Navigational Hazard Assessment - WRC will likely assess the effects of the post barriers on navigational safety, considering the structures will be located within the harbour entrance and in close proximity to transit routes. It is likely that evidence of safe clearance and design will be required, and this is likely to require consultation with Maritime New Zealand and other interest groups.

Overall, the application for the post barrier structures is likely to be assessed as a discretionary activity under the Coastal Plans.

4.4 Ōtorohanga District Plan (ODP)

ODC is generally responsible for controlling the effects of using, developing or protecting land and natural and physical resources in their district. The ODP was made operative in October 2014. There have been no relevant updates to the ODP since we prepared our feasibility study in 2020.

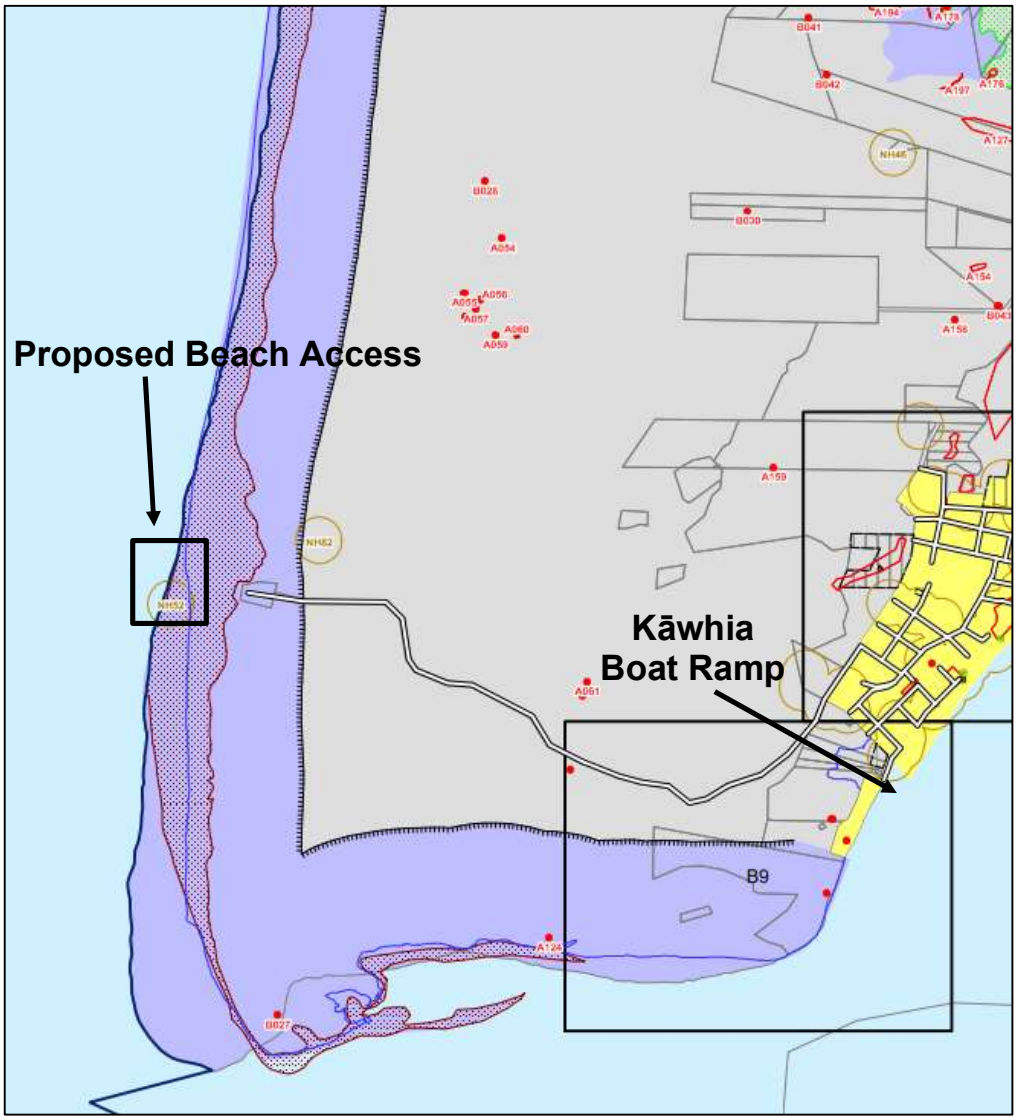

Figure 4.1: ODP Map M4. The Coastal Policy Area (CPA) is highlighted by purple shading. The blue line represents the Wetland Development Setback. The yellow shading highlights the Urban Limited Services Effects Area. Sites of Significance are indicated by brown circles. Recorded archaeological sites are located by red points.

4.4.1 Coastal Policy Area

The access track from Tom French Grove to Ocean Beach is located within the Coastal Policy Area (CPA) and is also subject to the Outstanding Landscape Overlay see Figure 3.1.

Any earthworks that have the potential to cause impediment, disturbance or modification to; or destruction of the Coastal Marine Area (CMA), indigenous vegetation, habitats of indigenous coastal species, feeding, breeding or roosting ground of coastal birds of fauna, natural coastal processes or features in the coastal environment will require resource consent as a discretionary activity under Rule 3.5. It is anticipated that the proposed upgraded access will require resource consent under this rule. We note that Rule 3.5 and associated Standard 3A are potentially ultra vires as they regulate activities within the CMA which are the jurisdiction of regional councils through the regional coastal plan.

The proposed upgraded access is likely to require the removal of indigenous coastal vegetation, as well as exotic vegetation within an Outstanding Landscape. In order to determine the consenting requirements for the removal, the vegetation to be removed must be assessed by a suitably qualified ecologist to determine whether it is classified as significant in terms of Appendix 2 of the ODP. Should the vegetation not be considered significant, the removal will trigger the requirement for a restricted discretionary activity resource consent. If the vegetation is considered to be significant, this will trigger the requirement for a non-complying activity resource consent under Rule 4.8 of the ODP.

4.4.2 Earthworks

Any earthworks for the proposed upgraded access will be located within an Outstanding Landscape. The earthworks will not meet the requirements of Rule 5E; where earthworks are undertaken for the sole purpose of track maintenance fencing, establishing a building platform are a permitted activity. As such, resource consent will be required as a controlled activity under Rule 5.5 of the ODP.

The ODC reserves its control over matters including minimisation of erosion and land instability, visual impact, mitigation planting and revegetation and earthworks in relation to significant ridgelines.

4.4.3 On-Site Signs

It is anticipated that signs will be installed to inform the public of the access points and that educational signage may also be installed. It is expected that any on-site signage will be permitted, provided:

- They do not imitate the consent, colour or appearance of approved official signs.
- Do not use reflective materials.
- Are not illuminated.
- Are signwriting to a professional quality.
- They have a minimum letter size of 160 mm for an 80 to 100 km/h speed limit, 120 mm for a 70 km/h speed limit or 100 mm for a 60 km/h limit.

It is noted that any official sign is not required to comply with these standards.

4.4.4 Historic Heritage Sites

There are two Sites of Significance near the proposed upgraded access as shown in Figure 4.1 (brown circles [NH52; NH82]). These sites are identified under the Te Tahuanui: Ngāti Hikairo Heritage Management Plan 2010.

Any earthworks within 100 m of these sites or an identified archaeological site will trigger the requirement for a restricted discretionary activity.

It is possible that the earthworks associated with forming the upgraded access will be within 100 m of NH52. It is recommended that the design of the access take into account the proximity to this site to minimise adverse effects on the site or associated cultural values. It is anticipated that any consenting requirements can be avoided through appropriate design during the Detailed Engineering Design phase.

4.4.5 Ōtorohanga District Plan Summary

Beach Access

The proposed upgraded access is likely to trigger the following consenting requirements under the ODP:

- Earthworks within the CPA and an Outstanding Landscape.
- Removal of Indigenous Vegetation.

It is anticipated that any consenting requirements related to the post barrier structures will be restricted to the requirements under the Coastal Plans given the proposed locations are within the CMA.

Environmental Assessments Required

It is likely that the following environmental assessments will be required to support the resource consent process under the ODP:

- Landscape and Visual Assessment – any earthworks or vegetation clearance with an outstanding landscape is considered to be particularly sensitive, particularly in relation to the proximity to a public area.
- Ecological Assessment – Given the proposed upgraded access is likely to include the removal of indigenous vegetation and potentially generate adverse effects on the habitats of indigenous fauna, an ecological assessment is likely to be required to determine the extent of these effects and suggest measures to avoid, remedy or mitigate potential adverse effects on the ecological values of the area.

5 PROCESS FOR CREATING A PUBLIC ACCESS EASEMENT

BTW Company has been accessed to provide advice on the process for creating a public access easement over the upgraded access to Ocean Beach across TKI land from Tom French Grove.

Inspection of the Title, SA36B/259, indicates that

- The land is owned by The Proprietors of Tainui Kāwhia Incorporated (TKI);
- The land is held in general title, but is Māori Freehold Land pursuant to Section 17 of the Māori Purposes Act 1975, and
- There is currently no legal public right of way.

The land is Māori freehold land; therefore, the Māori Land Court's consent will generally be required under Te Ture Whenua Māori Act 1993 (TTWMA – a.k.a. the Māori Land Act) for granting an easement to non-owners.

Creation of a public access easement would generally involve the following steps.

Step 1 – Preliminary Engagement and Agreement in Principle

- TKI agrees in principle to the creation of a public access easement.
- Confirm purpose of the easement e.g. pedestrian, horse, ATVs, side-by-sides etc excluding SUVs/4WDs, route location, width, and any conditions (hours of access, seasonal restrictions, cultural protocols, closure powers for events or protection).

Step 2 – Survey and Legal Description

- Engage a licensed cadastral surveyor to define the route on a survey plan.
- Prepare an Easement Instrument defining:
  - Grantee (e.g. the Crown on behalf of the public)
  - Rights granted (pedestrian, ATV, side-by-sides etc)
  - Conditions (maintenance responsibility, closure powers, prohibition of other uses and the like).

Step 3 – Agreement on Management and Maintenance

- Decide who maintains the access (e.g. ODC, TKI).
- Determine who manages liability (public liability insurance, health and safety protocols etc).

Step 4 – Obtain Required Consents and Approvals

- Māori Land Court approval for Māori freehold land.
- Obtain applicable resource consents

Step 5 – Execution and Registration

- All legal owners sign the easement instrument.
- Instrument is lodged with LINZ for registration against the title.

- Once registered, the easement becomes binding and enforceable as a legal public right.

Given the easement will provide for motorised vehicle access additional statutory controls may apply being:

- Local Government Act 1974/2002 – Council bylaws regulating vehicles on beaches; and
- Reserves Act 1977 – If the access/easement is crossing or connecting to public reserve land, which it is.

6 HIGH LEVEL TIMELINE

An indicative timeline for developed design, environmental assessments, stakeholder engagement, consenting, creation of easement and then detailed design and construction is provided in Table 6.2 below. The overall timeframe for these phases is estimated to be 15 to 18 months. This timeframe does not allow for any decision-making processes that ODC, TTKM and TKI undertake which are at this stage unknown to BTW.

Table 6.1: High-Level Timeline

Component	Indicative Timeframe
Developed design, environmental assessments, stakeholder engagement and consenting, creation of easement	9-12 months
Detailed Design and Construction	6 months

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APPENDIX A CONCEPT BEACH ACCESS AND BARRIER PLAN

See Drawings appended.