Te Ara Tipuna Design Report

Process, iteration & Design Considerations

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1 Introduction

Te Ara Tipuna is the working title of this multi-layered project, literally meaning the ways of our forebears. It is a project to build and maintain the infrastructure of accessways for pedestrians, cyclists, and horse trekkers; local commuters, visitors, and whole-of-journey hikers, bikers, and riders. As with all kaupapa, it has layers of meaning. And it anticipates further layers of growth and development.

First, Te Ara Tipuna is an evocation of the ways of our ancestors. The way they practiced life and community; the way they interacted with the physical and metaphysical environment; the ways they used to move between whanau and hapu, undertake activities, and connect with each other; the way they were in the world, in their time, and the cultural legacy they have left.

Second, Te Ara Tipuna is intended to restore connectivity and momentum in the daily life of those who live and work in-rohe, the iwi kaenga, the ahi ka, safe and independent of SH35. To be able to create local level enterprises and economic development, to save and share the stories of their wahi, to revitalise the pa kaenga as centres of activity and society, to be everyday kaitiaki of the ara and the people who traverse them, locals, and manuhiri alike.

Third, Te Ara Tipuna, is the overall description of the proposed network of ara/accessways, connecting existing tracks, old and new, reviving unused trails, defunct paper roads, and encroachments, along with new mapping to create a continuous journey from one end of Te Tairawhiti to the other, through Ngati Porou and Te Whanau-a-Apanui.

Fourth, Te Ara Tipuna, provides the opportunity for a distinct tourism experience in the heart of Te Tairawhiti, on foot, cycle, and horse trekking. It opens a part of Aotearoa New Zealand where tough terrain, beautiful beaches and bays are home to richly carved and decorated wharenui and wharekai, and people who know how to hunt, dive, fish, cook, haka, sing, tell long stories, sly jokes, and deliver fast and furious one-liners.

Fifth, Te Ara Tipuna can offer a warm welcome and unique manaaki experience – iwi to kiwi - to fellow New Zealanders to walk into a marae, prepare kai in the kauta, eat and wash dishes, yarn by the fire, sleep in the wharenui, and head off into the day and to the next equally proud hapu along the ara.

This Proposal focuses on the foundation layer of infrastructure to create and support the ara/accessways, that together make up Te Ara Tipuna network; and, subsequently to support the wider kaupapa.

2 The Initial Proposal

2.1 Overview

In the early stages of 2021, CPS was approached by HRM Associates to take on the task of having a role in the mapping, costing and feasibility of a multi-use trailway. This multi-use trailway was seen as an opportunity for social, economic, and cultural development and exposure to both Ngati Porou and Whanau Apanui. This track is about connecting communities as well as providing a more resilient route for access along the vulnerable East Coast of New Zealand.

The initial proposal and feasibility was broken down into two stages of design as denoted by sections 2.2 & 2.3 below.

2.2 Stage 1 Design

Stage 1 of the process involved drafting the trailway route via Google Earth. The first high-level draft of the route looked at the following criteria:

- The location of the marae: These were pinned on google maps for reference with the track directed towards these where practical.
- Exposure/utilisation of existing trails: Existing routes such as Cooks Cove, the Earnest Reeve Walkway and the Anaura Bay Track had their locations noted to have the main track pass adjacent to these. Users (for that permitted use) would then have the option of utilising these.

- Passing of historic landmarks: Communities with a rich history and landmarks such as the East Cape lighthouse were noted as key focal points for exposure.
- Tourist attractions: The track passes adjacent to the Tatapouri stingray feeding, Tologa Bay Wharf and the Motu trails allowing for tourist activities and sightseeing along the journey.
- Exposure and connectivity of as many local communities as possible: Passing through all key communities was a core focus to ensuring connectivity was provided to the entire region. This also helped to break the track into a series of days in which the journey may be travelled. These communities would help to provide food and accommodation for those users.
- Proximity to existing public assets such as toilets: Public assets utilised where possible to save cost on additional infrastructure.

This revision predominantly focussed on connecting communities and exposure to points of interest that would add significant value to the track. Providing economic, cultural, and social surplus to low-exposure regions of the East Coast was a key focus. Local knowledge was utilised to identify these hotspots with a preliminary route put forward for high-level discussion purposes.

2.3 Stage 2 Design

Stage 2 took a more detailed look at the level of service provided for each mode of transport. Other considerations were as follows:

- Utilisation of public land parcels (hydro – beach, unformed roads, crown owned land parcels and other titles not privately owned).
- Practicality of access – Track grades were assessed at a high level with track width and terrain taken into account. Where horse trekkers and cyclists were perceived to have difficulty of access, alternative route were assessed where possible. The safest and most practical route was chosen.
- Walking duration – Walking the track would generally be the most time-consuming mode of transport of the three. Appropriate stopping locations and days of travel were assessed to determine the most practical locations for overnight accommodation or pick up locations.
- Employment opportunities – Further consideration was given to connectivity and exposure in light of employment opportunities both for construction completion and post construction in the form of maintenance and economic development within such communities.

A high-level costing exercise followed this revision with indicative costings assigned to track construction, maintenance, health & safety, procurement, and consenting/management elements. The costings and preliminary track design were put forward and compiled into a business case which was presented to central government in mid-2021.

3 The Final Proposal

3.1 Overview

Due to unforeseen circumstances, the progression of the project was paused following the presentation to central government in the middle of 2021. The Covid 19 pandemic fell at a time which meant the progression of the project would be minimal over the next 15 months. Through the other side of the pandemic and into November of 2022, HRM associates re-engaged CPS to look forward to further progressing the project towards a resource consent submission on the 30th of June 2023.

The initial proposal had been conducted at a high level to provide a “line of best fit” on a map for both discussion and indicative costing purposes. The final proposal involved a series of four detailed reviews with input from the project team, consultants: each being experts in their fields, and third parties with a vested interest in the project. Sections 3.2-3.5 below will outline the four stages of review in detail with considerations and key iterations outlined for each.

3.2 Stage 1 Review – Pre-Consent Application

Following re-engagement, the trail was revisited by CPS. The objective and direction of the project remained consistent in that the aim of restoring connectivity and providing economic, social, and cultural exposure/awareness to the remote

communities along the East Coast. The initial discussion following re-engagement firmly pressed towards a resource consent submission for the project on the 30th of June 2023. A tight timeframe but one which would ensure accountability within the project team and ensure clarity of process towards this submission.

The last iteration of the track was over 15 months prior and with the terrain, roading network and local communities undergoing varying levels of change during this period, an updated version of the track would be required to reflect the 2022 environment. As this project would now look to transition into detailed design, the pre-consent application and consultant engagement iteration would be crucial for setting expectations and ensuring a clear direction visible to all.

The key focus of this iteration of the design review was to ensure serviceability and practicality for all three modes of transport taking the new 2022/2023 environment and climate into consideration. The passing of 15 months allowed visibility of further roading network development as well as the impact of weather events. Local knowledge was again called upon in this iteration to recall any vulnerable sites where the route may require reconsideration.

The track was edited in detail with careful consideration given to the practicality of each mode of transport having appropriate access along with appropriate grades and terrain types. Alternative routes were provided as required and a focus was moved away from minimising public land parcels and towards route practicality with cost-benefit analyses run at each of these key points.

3.3 Stage 2 Review – Post Consultant Engagement

In early 2023, the Te Ara Tipuna project team was formed consisting of the following individuals:

Name	Role	Company Representing
Hekia Parata	Project Founder and Champion	HRM Associates
Mihimaraea Parata Gardiner	Project Lead	TPK
Diana Bell	Resource Consent Lead	The Planning Collective
Vic Murphy	Resource Consent Team	Civil Project Solutions
Zac Borrie	Trailway Designer	Civil Project Solutions

Following the first of the four final iterations and the forming of the above project team, the approach towards acquiring consent for the project was formulated. Initially, it was intended to look down the avenue of fast-track consenting via the Covid-19 fast-track scheme which The Planning Collective had successfully utilised on other projects to date. Following initial consultant engagement and subsequent internal discussions within the project team, it was decided that given the nature of the project and the target timelines, applying for three global consents to submit to the three regional and district councils would be the best approach.

Knowledge and experience within the project team were utilised to select the most appropriate wider project team of expert consultants to provide technical input and detailed reports for the resource consent submission. See below for the list of team leaders, consultancies and areas of expertise addressed:

Field	Company Representing	Team Leader
Coastal Hazards	4D Environmental	Bronwen Gibberd
Social Impact	Rau Tipu Rau Ora	Amohaere Houkamau
Cultural Impact	Pahou & Associated Ltd	Ngarimu Parata
Ngati Porou	Ngati Porou Chairperson	Selwyn Parata
Traffic Safety & Impact	Tairawhiti Contractors/Urban Connection	Kat Kaiwai/Steve James
Archaeological/Historic Heritage	Insitu Heritage Ltd	Lynda Walker
Landscape & Visual	Isthmus	Lisa Rimmer
Geotechnical	Initia Geotechnical Specialists	Andy Pomfret
Recreation	Sport Gisborne Tairawhiti	Helayna Ruifrok/Iti Kahurangi Takura
Ecology	Tairawhiti Environment Centre	Greame Sutherland
Ecology (Post Lodgement)	Viridis Environmental Consultants	Mark Delaney
Walking Access Commission	Herenga a Nuku O Aotearoa	Mary Anne Baker

Once the wider project team was confirmed, an initial briefing letter was distributed which included the proposed route, the wellbeing cost-benefit analysis, the CPS scoping report, and the Te Ara Tipuna proposal document. An initial team workshop was held on the 24th of January which was used as a formal introduction to the project and for an open discussion on general track considerations. Project progress to date was outlined and areas where work needed to be done were highlighted. Key items that were raised and addressed were:

- Coastal erosion and particularly vulnerable areas. How this will be managed and whether access will be possible during all tides.
- How we can create positive visual effects and incorporate kaitiakitanga specific to each whanau and hapu.
- Geotechnically sensitive areas in particular landslip-prone sites.
- Awareness of archaeological sites and the procedure of working with these sites.
- Community consultation to be widely dispersed and expectations to be managed around the level of service provided by the track.
- Difficulty of the trail and how this ties into the volume and types of users of the trail.
- Exposure to culturally significant sites to help reinforce/relearn the history of the land.
- Identification and avoidance of ecologically sensitive habitats.
- Traffic safety and considerations for where the track may utilise the road corridor or where it may need to be shifted due to a lack of safety/control.

Following this detailed discussion, the track was amended further with these considerations kept at the forefront of the trail mapping. It was noted that a series of site visits would likely be required to further assess some remote areas of interest providing some of the consultants with further assurance of their recommendations. These site visits were scheduled for mid-February. In the interim, the consultants were asked to identify the hotspot locations relative to their field of expertise along the trail. These hotspots would then be utilised to assess where the trail could remain, and the effects managed or locations where the trail would need to be shifted.

3.4 Stage 3 Review – Post Cyclone

In February of 2023, the North Island of New Zealand was hit by Cyclone Gabrielle which caused widespread devastation and extensive damage to parts of the East Coast of the North Island. Tairawhiti around to Tokomarau Bay in particular was hit extremely hard with the main SH35 roading network being one of the worst hit locations. With power, water, and fibre down in the wider Tairawhiti region for several days, restoring the community to a form of normality became the key focus as we underwent the slow rebuild.

This event meant that the previously scheduled second team workshop and the subsequent site visits had to be postponed. The second team workshop was rescheduled for the 15th of March with the key objective to identify the hotspots as perceived by each consultant. Detailed analysis of the trail was conducted by each, and significant hotspot locations were identified for initial comment by the project team. These effect identifications provided by each consultant were collated to form a list of areas requiring further consideration and potential trail relocation and areas where more information was required to complete the assessments.

It was apparent that the most pressing requirement following the cyclone was a full site visit for the geotechnical engineer and the trail designer. Initia and CPS completed a two-day full drive over of the Te Ara Tipuna trail assessing the condition of the proposed route and roading network. Where access to certain areas was restricted, the drone was utilised to capture geostamped images which were assessed in the office to determine practicality of traversing certain areas. Alternative routes were looked at as required and careful note was made on the condition of the state highway. Several key observations were made following this drive over:

- The terrain from Gisborne to Tologa Bay has particularly sensitive geology and is very slip prone. Meticulous monitoring will likely be required during construction.
- The roading network from Tokomarau Bay to Ruatoria has a lack of resilience and was hit particularly severely by cyclone Gabrielle. Any portion of the trail that follows the state highway through this section will need to follow an alternative route. It was proposed following this that a quad bike accessible track would be the best solution.

- Several locations from Waihau Bay to Opotiki where the track utilised the road corridor were reviewed in more depth and were deemed too dangerous. These locations were noted with alternative routes looked at.

This exercise proved very important and timely, providing the project team with insight into both the condition of the roading network and the proposed trail route. The hotspots identified in the second team workshop combined with the drive over observations were all taken into consideration with a third revision review of the track completed.

3.5 Stage 4 Review – Final Iteration & Detailed Commentary

Now progressing through to the initial phase of detailed design for consent, the level of analysis of each section of the route required close observation to make note of the following aspects:

- All major and minor structures.
- Locations of road crossings.
- Notes on steep track locations and assessment of realignment.
- Notation of shoulder utilisation and assessment of narrow corridors.
- Specification around beach transition
- Review and relocation of toilets/shelters from within the coastal environment.
- Identification of low volume road corridors which could be used for the trail.
- Assessment of dangerous intersections and how these will be managed.
- Review of watercourse crossing locations (both small gullies and larger river mouths).
- Identification of wetlands and reroutes.
- Identification of general high-risk areas – including the assessment that days 22-24 would be too unsafe to traverse. A taxi system was proposed and will be implemented.
- General notes to be considered during construction.

Alongside this process, a series of 16 track cross-sections were developed to assist with the finalisation of the consultant reports and identify the different treatments which may be required for various locations of the track. These cross-sections looked to provide a simplistic overview of the minimum expectation. Where possible track widths will be varied to suit the terrain to provide a corridor of sufficient width for all three users when the trail is shared (4.5m). Where physical constraints do not permit such width, the widest possible option will be adopted, and the appropriately selected treatment will be utilised.

Detailed construction methodology will be outlined in the construction management plan with specific reference to each of the track cross sections. The final review of the trail was wrapped up with a series of pins which provided a brief commentary on construction notes, onsite observations and points of note which could be translated through for onsite construction.

Upon receipt of all finalised consultant reports, a final review and adjustment was made to the entire track taking all considerations and feedback into account. This thorough exercise would then form the 7th full iteration of the track encompassing all feedback and recommendations provided to date.

3.6 Stage 5 Review – s92 Response

Once the resource consent was submitted there was a series of correspondence which would follow prior to the formal acceptance of the application. The level of detail provided was questioned with further explanation for the approach and methodology requested by the processing planner. Once the application was formally accepted a s92 request was received with emphasis placed on the accuracy of the trail alignment on the Google Earth overlay. There was concern around the level of accuracy of the trail alignment particularly where it partially encroached on residential boundaries. The project team completed extensive work outlining the affected landowners and land parcels. Council was opposed to using this data set and using it to verify in the event that there was variance relative to what was on their system. Subsequently, the BOP regional council provided the TAT project team with their GIS mapping system to overlay the google earth track onto.

The track was reviewed in a great level of detail with each point adjusted to provide a high level of accuracy for the best approximation of where the track would traverse. This process was completed very thoroughly to ensure no points on the

track traversed across land which was not intended to be affected. During this process, there were several mapping layers which were provided by the council which were not publicly available. One of the more crucial layers was the wetland overlay. This used historical in field survey data completed by members of the council and outlined where wetlands had been identified. This information was utilsied to shift the track as required or identify areas where consents may need to be sought.

3.7 Stage 6 Review – Final Submission

During the process of post lodgement correspondence with the respective councils and the stage 5 review of the design, the project team continued to face challenges in stopping the consent from stagnating. With the main objective of achieving an approved resource consent, the focus needed to shift in order to continue forwards momentum. A staged approach was seen as the best way forward with two initial options proposed:

1. Stage the consent to apply for specific sections at one time with a more detailed design provided up front.
2. Stage the consent to apply for pedestrian access only. Cyclist and horse access would be assessed during the pedestrian detailed design.

To best align with the desired objectives and outcomes for the project, option 2 was seen as the best way forward. The following supporting points were put forward to the wider project team for consideration:

1. Less planning considerations and triggers.
2. Reduction to the required budget.
3. Less invasive works required and less vegetation removal. Overall lower environmental impact.
4. Greater flexibility with track gradients.
5. Ability to introduce steps where the gradient is steeper.
6. Elimination of any potential multiuser safety risks.
7. Removal of non-complying activity status in BOP region.
8. Upfront assessment for feasibility for future use.
9. Decreased track maintenance costs.

Following internal approval, the track was updated for the final time to provide for pedestrians only. During the detailed design phase for the pedestrian route (post RC approval), in field survey will determine areas of feasibility for the multiuse.

4 Closing Comments

Over the duration of a 42-month period, 9 iterations of the trail were completed following feedback from the project team, specialist consultants, third parties and individuals with extensive local knowledge. The finalised route is one which has taken the route seen to be the most practical and appropriate at the time of mapping. It should be noted that adjustments will be made during construction as the detailed design process progresses.