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4 July 2025

Te Ara Tipuna Charitable Trust
Gisborne

Tēnē koutou,

Revised Transport Safety Assessment (including response to NZTA submission (5 February 2025)

Urban Connection Limited is pleased to submit the revised Transport Safety Assessment and Management Plan (Version 6) prepared in support of the resource consent for the Te Ara Tipuna Trail. This updated assessment responds directly to the formal submission received from NZTA dated 5 February 2025 and addresses all relevant transport safety concerns relating to trail interactions with State Highway 35 (SH35).

As a professional with long-standing relationships across both regional and national levels of NZTA, I have drawn on extensive experience and an in-depth understanding of agency expectations, corridor risk profiles, and design tolerances. This has ensured that the revised trail alignment and supporting safety documentation are fully aligned with NZTA's Safe System approach and operational requirements.

I am confident that the revised route, its application of a robust trail-road interface hierarchy, and the proposed safety conditions form a sound and practicable basis for implementation. Notably, over 16 specific recommendations from Urban Connection Limited have already been adopted by the Trust, resulting in a significant reduction of SH35 exposure, from 35.4 km to 22.3 km.

Key features of this revised assessment include:

- A clear hierarchy of bridge and pedestrian crossing treatments, with rationale for each option;
- Table 4.1-1 summarising how each NZTA concern has been addressed through design, mitigation, or staged action;
- Section added on Maintenance and Emergency Response Plan compatible with NZTA corridor expectations;
- A commitment to Safe System Audits, stakeholder engagement, and dynamic safety registers at each implementation stage.

Urban Connection Limited remains committed to working alongside the Trust, NZTA and Gisborne District Council to ensure that the trail is delivered safely and sustainably, while protecting the integrity of the state highway network and the communities it serves.

Please don't hesitate to contact me should further clarification or supporting material be required.

Ngā mihi nui,

Steve James

Principal Safety Engineer

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Te Ara Tipuna Trail

Transport Safety Assessment and Management Plan

Prepared for Te Ara Tipuna Charitable Trust

Revision 7 - July 2025

Contents

Executive Summary

Te Ara Tipuna is a proposed 345 km pedestrian-only trail extending from Wainui Beach to Potaka, traversing SH35, local roads, and private land. This Transport Safety Assessment and Management Plan supports the project by identifying and managing transport-related risks through a Safe System approach.

The assessment has been prepared by a professional team with long-standing relationships and extensive experience working with New Zealand Transport Agency (NZTA) regionally and nationally. This understanding ensures a high level of alignment with NZTA's expectations and risk management frameworks. Ongoing engagement with NZTA will continue through the design and delivery phases of the project.

The assessment directly addresses NZTA's 5 February 2025 submission through an integrated risk-based methodology.

Key Safety Findings

- SH35 presents high-speed risks, but low traffic volumes (<1,000 vpd) for most of the trail reduce exposure. All crossings will be uncontrolled, with 165 m minimum sight distance and enhanced signage. Narrow bridges will require clip-ons (swing bridges), warning systems, or new facilities.
- Local roads generally support safe shared use due to very low volumes (<200 vpd). Where possible, pedestrians will use mown or metalled verges. Occasional heavy vehicle use is mitigated through signage, passing bays, and alignment selection.

Mitigation Overview

- SH35: Signage, sight distance, shoulder separation, and bridge-specific solutions; and
- Local Roads: Shared use with signage, verge walking, and low-speed environments.

Implementation

- Staged delivery with Safe System Audits;
- RCA collaboration at key stages;
- Use of standard and site-specific drawings; and
- Dynamic risk register updates.

Conclusion

With appropriate treatments and RCA engagement, Te Ara Tipuna can be delivered safely and sustainably, supporting regional connectivity, wellbeing and cultural heritage.

1. Introduction

1.1. Background

This Transport Safety Assessment and Management Plan has been prepared to support the revised Resource Consent application for Te Ara Tipuna Trail, a 345km-long pedestrian-only (walking) trail extending from Gisborne (Makorori) to Potaka at the tip of the East Cape. The trail is situated within the Gisborne District and traverses a mix of private land, SH35 (State Highway 35), and local roads.

Te Ara Tipuna represents a substantial investment in sustainable infrastructure, enhancing access around Te Tairawhiti for local communities and visitors. The trail offers cultural, environmental, and health benefits while stimulating local employment and tourism. A passport system will manage pedestrian access, particularly through private land, to ensure safety and preserve landowner rights.

The project spans the rohe of Ngāti Porou, incorporating a network of scenic coastal paths, beaches, historic settlements, and remote bush environments. It is not only a recreational facility but also a platform for reconnecting communities with their whenua, whakapapa, and taonga tuku iho. As a major regional project, it promotes economic development, enhances resilience, and fosters cultural pride. The trail seeks to balance accessibility with protection of local identity, rural amenity, and ecological values.

The development of Te Ara Tipuna is currently at the concept level and represents a large-scale infrastructure and cultural heritage project. This Transport Assessment and Management Plan is intended to support approval of the transport-related components of the project at this stage, acknowledging that more detailed designs will be developed as the project progresses through subsequent phases.

Each stage of the design and implementation will be developed in close collaboration with the relevant Road Controlling Authorities (RCAs), ensuring that site-specific conditions and safety considerations are fully addressed. The design process will incorporate a cycle of site investigations, scheme design, RCA engagement, and Safe System Audits (SSAs), with the aim of continuous improvement and best practice implementation.

As part of the original resource consent process, NZ Transport Agency submitted formal feedback dated 5 February 2025 outlining a range of concerns and requests for additional information regarding potential effects on the SH35 corridor. This Transport Safety Assessment and Management Plan directly responds to that submission and provides references to the matters raised. Where applicable, each issue identified by NZTA has been addressed through site-specific risk assessment, proposed mitigation measures, and a detailed response table.

Given the trail's extensive interface with both high-speed and low-volume roads, a robust and flexible design approach is essential. This includes both the application of standardised templates for typical

trail-road interactions and the development of bespoke solutions where standard approaches are not feasible.

This document sets the foundation for consistent transport safety outcomes and outlines the framework for future design stages, RCA coordination, and ongoing refinement based on real-world conditions and feedback.

2. Safety Review Summary

A comprehensive safety review was undertaken to identify transport-related safety risks associated with the trail's interface with SH35 and local roads. This review included an extensive site visit covering the entire SH35 corridor and all local roads relevant to the proposed trail route. The site assessment was critical in validating real-world conditions, including visibility constraints, carriageway and shoulder widths, vegetation encroachment, road geometry, and traffic activity. These observations were essential to supplement desktop analysis, ensuring a complete understanding of on-ground risks. The review was informed by a combination of field data, professional judgement and site-specific knowledge.

Priority improvement areas were identified based on the following criteria:

- Presence of high-speed traffic (particularly 100 km/h on SH35);
- Inadequate sight distance or geometric constraints;
- Frequency of required crossings or proximity to road alignment;
- Potential for high pedestrian volumes near settlements or popular trail features;
- Bridge pinch points or constrained shoulders; and
- Limited separation between pedestrians and vehicular traffic.

2.1. SH35 Safety Summary

The SH35 corridor presents a high-risk environment for pedestrians due to a combination of vehicle speed, limited roadside infrastructure, and rural geometry. Refer to Appendix A: SH35 Safety Concerns Rev2.xlsx for full details of the SH35 safety review.

2.1.1. Speed Environment

SH35 has a posted speed limit of 100 km/h along most of its length where the trail runs adjacent to the highway. While this creates a high potential for serious injury in the event of a pedestrian-vehicle collision, it is important to note that the traffic volumes along SH35 are relatively low. The highest AADT (Annual Average Daily Traffic) is approximately 2,244 vehicles near Gisborne, with volumes dropping significantly further north. Beyond Ruatoria, AADTs are typically less than 1,000 vehicles per day, and north of Tikitiki, volumes fall even lower. This low traffic volume context reduces overall exposure risk; however, the high-speed environment still necessitates caution and targeted intervention. Increased driver awareness through static signage, gateway treatments, and engineering solutions remain critical at all trail crossing points, especially where geometry, visibility, or user frequency increases risk.

2.1.2. Sight Distance and Crossing Risk

All proposed crossing points will be located at sites that provide at least 165m of forward visibility in both directions on sections of SH35 with a 100 km/h speed limit. All crossing points have been carefully selected or realigned to achieve this requirement. Where this is not naturally available, vegetation clearance, minor regrading, or realignment of the trail or the crossing location will be undertaken. Refer to the following photographs for some examples of proposed crossing locations.

Figure 2.1-1: Location of proposed crossing on SH35 south of Makarika Road (10 km/h speed limit); (looking south–left; looking north-right)

Figure 2.1-2: Location of proposed crossing on SH35 in Tolaga Bay (50 km/h speed limit); (looking south–left; looking north-right)

All trail crossings of SH35 will be uncontrolled, consistent with typical treatment for similar rural high-speed roads in New Zealand (refer to Appendix C). These crossings will be designed with enhanced static signage and wayfinding markers. These treatments aim to improve motorist awareness and provide safe, predictable crossing opportunities without requiring alterations to the highway's geometry or posted speed. Although all of these crossings will be uncontrolled, they are to be designed with enhanced static signage and located at sites that provide a minimum of 165m of forward visibility in both directions, consistent with Austroads guidance for roads posted at 100 km/h.

The preferred pedestrian crossing options and their rationale behind the choice is shown in Table 2.1.2 below (also refer to Appendix C). This includes local road pedestrian crossings also.

Table 2.1.1: Pedestrian Crossing Options and Rationale

Option	Use Case	Rationale
Pedestrian Crossing Option 1	Local roads or SH35 segments with less than 250 vehicles per day	Low vehicle volumes reduce exposure. Uncontrolled crossings are suitable with appropriate signage and wayfinding.
Pedestrian Crossing Option 2	SH35 and local roads with more than 250 vehicles per day	Higher traffic volumes require enhanced pedestrian visibility and more formalised crossing geometry, such as defined landings and signage.

2.1.3. Shoulder Width Constraints

Many sections of SH35 offer little or no shoulder for safe pedestrian travel. In these locations, the trail will be located as far from the traffic lane as practicable, typically a minimum of 4.0m where space allows, similar to the recently constructed section near Ruatoria (refer to Figure 2.1-3).

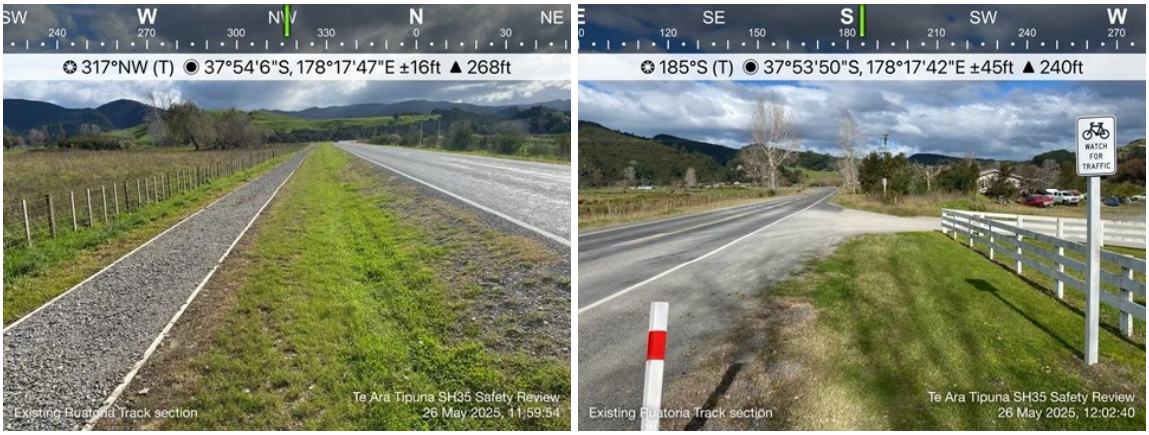


Figure 2.1-3: Recently constructed Te Ara Tipuna Trail north of Ruatoria (metalled path and grass verge use)

In constrained locations, such as adjacent to culverts or drainage ditches, the trail may encroach closer to the carriageway. Where this occurs, safe-hit posts or other flexible delineation devices may be installed, particularly on curves or areas with reduced visibility. In extreme circumstances, a roadside guardrail may be installed, where the trail is less than 4m from the live lane, for greater than 50m in length (if less than 50m in length, then flexible delineators can be used) . An example of a similar facility on SH6 in Tasman, with a wide sealed shoulder, is shown in Figure 2.1-4.

Figure 2.1-4: Example of wide shoulder with delineation for vulnerable users

On short straight sections with sufficient visibility, closer offset distances may be considered acceptable based on a risk assessment and RCA input. Refer to the following photographs for some examples of shoulder width constraints along the corridor.

Figure 2.1-5: Typical shoulder width constraints

Figure 2.1-6: Typical shoulder and verge width constraints

2.1.4. Bridge Crossings

Numerous bridges on SH35 are too narrow to safely accommodate pedestrians. In these locations, separate clip-on structures (or swing bridges) or new pedestrian bridges will be required. Drawings illustrating safe crossing options, including typical cross-sections, signage strategies and alternative treatments, are referenced in Appendix C. The preferred bridge crossing options and their rationale behind the choice is shown in Table 2.1.2 below. This includes local road bridges also.

Table 2.1.2: Bridge Crossing Options and Rationale

Option	Use Case	Rationale
Option 1 – Signage Only	Bridges less than 30m long, with good visibility	Low risk due to short length and high intervisibility. Simple signage is sufficient to alert drivers and trail users.
Option 2 – Flashing Warning Signs	Bridge less than 30m long, but with poor visibility, or between 30m and 100m with good visibility	Increased length or reduced visibility requires enhanced alerting system to notify drivers when pedestrians are crossing.
Option 3 – User-activated Traffic Signals	Bridge greater than 100m in length or 30m to 100m with poor visibility	High exposure risk due to bridge length and visibility constraints. Active systems provide improved safety without physical separation.
Option 4 – Separate Swing Bridge	Bridge is not suitable for safe pedestrian sharing	Used where structural, geometric, or visibility constraints make live lane sharing unsafe. Provides complete separation from traffic.

In lower-volume traffic areas and at shorter bridge lengths, signage-only options may be appropriate. Depending on site-specific factors such as traffic volume, bridge length, alignment, and available sight

distance, additional treatments may include user-activated electronic warning signs or, in select cases, signalised (traffic light) crossing systems. The spreadsheet in Appendix A outlines and recommends the preferred treatment type for each bridge location. Refer to the following photographs for some examples of proposed bridge crossing locations.

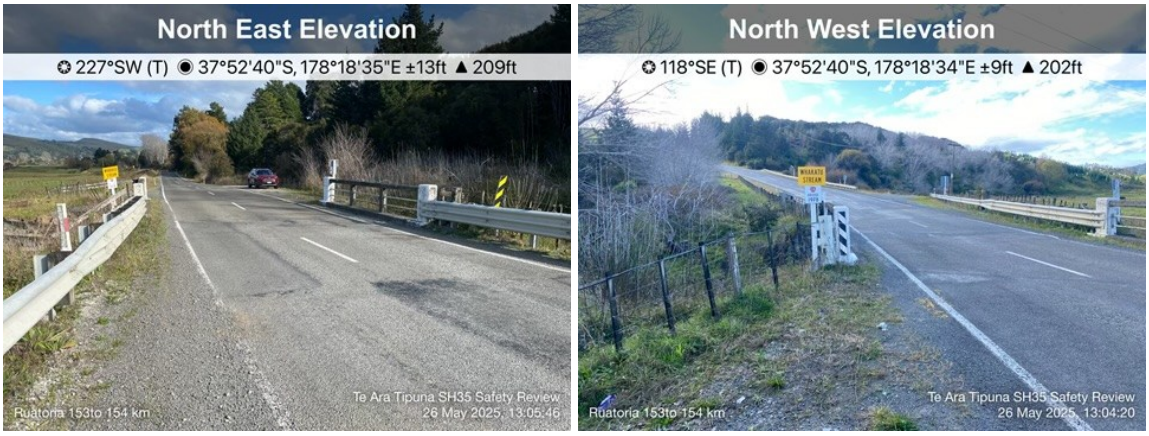


Figure 2.1-7: Location of proposed bridge crossing with good sight distance and short bridge span

Figure 2.1-8: Location of proposed swing bridge crossing due to longer bridge span

2.1.5. Driver Awareness

As many trail sections are in isolated and rural areas, motorists may not expect to encounter pedestrians on or near the roadway. This lack of expectation increases the potential risk, particularly at crossings or sections where the trail runs adjacent to the road. To mitigate this, continuous static signage will be installed along key segments of SH35 to alert drivers of potential pedestrian activity.

In addition, at high-risk locations, such as curves, crests, or areas with reduced visibility, enhanced warning systems may be employed. These may include user-activated flashing signs or warning beacons that respond to pedestrian presence. This layered approach is intended to heighten driver alertness, enhance reaction time, and ultimately reduce the likelihood of crashes involving vulnerable users. Collectively, these measures form an important part of the Safe System approach applied across the trail alignment.

2.1.6. Summary of Mitigation Measures on SH35

Below is a summary of the mitigation measures on SH35.

- Installation of user-activated electronic signage at key crossings and bridge approaches;
- Flexi-post or safe-hit post separation along shoulder paths where offset is limited (or roadside guardrail in extreme circumstances);
- High-visibility static signage and wayfinding at all SH35 crossing points;
- Use of gateway threshold treatments and visual narrowing to increase driver awareness;
- Vegetation clearance and regrading to improve sight lines;
- Realignment of crossings where required to achieve 165m minimum sight distance;
- Installation of pedestrian clip-ons or new bridge facilities where appropriate;
- Use of signage-only options at short bridges and very low-volume sites;
- Potential installation of electronic warning signs or traffic signal systems at specific bridges, depending on volumes, sight distance, and road geometry; and
- Use of standard SH35 safe crossing types and bridge treatments (refer to Appendix C);
- Safe system audits at design and post construction stages.

These mitigation measures have been tailored to the characteristics of each site and are supported by detailed recommendations in Appendix A.

2.2. Local Road Safety Review

Local roads typically have lower speeds and volumes compared to SH35, yet present their own unique challenges. Refer to Appendix B: Local Road Safety Concerns Rev1.xlsx for full details of the local roads safety review.

2.2.1. Visibility and Geometry

Several local roads, including Waihau Road, Whareponga Road, and Reporua Road, present alignment and visibility challenges due to their narrow widths, winding curves, and undulating topography. Sharp bends, blind crests, and overgrown verges often restrict forward visibility, increasing the potential for pedestrian/vehicle conflict. However, these roads typically carry very low traffic volumes, often fewer than 200 vehicles per day, which significantly reduces exposure risk and allows for safe shared use of the carriageway. In such low-volume rural environments, it is both common and appropriate for pedestrians to share the road space, provided that suitable design cues and signage are in place.

Where necessary, additional mitigation measures, such as selective vegetation clearance, use of the more visible road shoulder, and installation of roadside mirrors at blind spots, can further support safe co-use. This approach aligns with accepted practice for rural walking routes in New Zealand and is consistent with the Safe System philosophy, where operating speeds are low and traffic volumes are minimal. Some examples of this are shown in the following photographs.

Figure 2.2-1: Typical locations where pedestrians could share with vehicles, or use the wide grass verge

2.2.2. Road Width and Surface

The local roads along the trail alignment vary in form, with a mix of sealed and unsealed surfaces. Many are unsealed rural roads carrying very low traffic volumes, often fewer than 100–200 vehicles per day, while others are narrow sealed roads with limited shoulder provision. In both cases, shared use of the carriageway by pedestrians and vehicles is considered safe and appropriate under a Safe System approach, given the low traffic demand and generally low operating speeds.

Where conditions permit, pedestrians will be encouraged to use existing grass verges in preference to walking on the live lane. These verges will be either closely mown or surfaced with compacted metal, depending on terrain and maintenance needs, consistent with existing trail treatments near Ruatoria. Where verges are unavailable or unsuitable, shared use of the traffic lane will be supported by additional risk mitigation.

To ensure safety on both sealed and unsealed roads, a range of treatments will be implemented, including:

- Appropriately spaced “Pedestrians Sharing Road” warning signs at entry points and along shared segments;
- Speed advisory signs to encourage cautious driving through trail sections;
- Informal road narrowing or edge delineation using markings or safe-hit posts to moderate vehicle speeds; and
- Community awareness campaigns to advise local drivers of expected pedestrian presence.

This pragmatic, context-sensitive approach ensures safe co-use of rural roads while minimising the need for formal infrastructure, in keeping with the character and constraints of the East Coast environment.

Some examples of shared roads are shown in the following photographs.

Figure 2.2-2: Typical locations where pedestrians could share with vehicles, on sealed and unsealed sections

2.2.3. Road and Bridge Crossings – Low Volume Sealed Roads

Low-volume sealed local roads, typically carrying fewer than 200 vehicles per day, form part of the trail alignment where pedestrian interaction with traffic is expected but minimal. These roads generally operate at low speeds and serve local residents, farm operations, or forestry vehicles. As such, the risk profile for pedestrian crossings is significantly lower than on arterial roads.

Where the trail crosses low-volume sealed roads:

- All crossing points will be located to maximise visibility, with a target of at least 100 to 120 m sight distance in both directions (based on lower operating speeds).
- Uncontrolled crossings will be used, supported by:
    - Advance “Pedestrian Crossing” or “Trail Crossing” signage; and
    - Passive design cues (e.g., narrowing, landscaping) to slow approaching vehicles.

Crossings will be clearly delineated for both users and drivers but will remain low-impact and rural in character, consistent with the surrounding environment.

Several low-volume sealed local roads include short single-lane bridges. In these locations:

- Shared-use crossings will generally be maintained due to low traffic volumes;
- Advance warning signage will alert drivers to potential pedestrian presence;
- Where bridge width or alignment creates conflict risk, additional treatments may include:
    - User-activated warning lights for longer bridges with poor visibility;
    - Pull-over bays or widened shoulder sections adjacent to bridge ends;

- Trail realignment to approach from the more visible direction.

The need for higher-order controls (e.g., traffic signals or new pedestrian structures) is not anticipated on these roads, given the low traffic demand and clear sight lines at most locations. Each bridge will be assessed individually during detailed design to confirm the most appropriate treatment.

This approach ensures consistency with Safe System principles while balancing cost, practicality, and visual impact on rural road environments.

2.2.4. Road and Bridge Crossings – Low-Volume Unsealed Roads

A number of trail segments traverse low-volume unsealed rural roads, typically carrying fewer than 100 vehicles per day. These roads often serve isolated farms, forestry blocks, or remote communities, and generally operate at very low speeds due to surface condition, geometry, and driver familiarity.

Given the very low traffic volumes and self-regulating speed environment, full-time shared use of the carriageway is considered both safe and appropriate. Most of these roads lack formed shoulders or footpaths, and pedestrian use will occur directly on the road or adjacent verges. In practice:

- Pedestrians will be clearly visible to drivers, especially in daylight and open rural settings;
- Trail users will be made aware of shared-use expectations via wayfinding and route information; and
- “Pedestrians Sharing Road” warning signs will be installed at strategic locations such as entry points, intersections, and occasional mid-block locations.

Further interventions are not anticipated or required in most cases, as the combination of low volume, low speed, and high driver awareness effectively manages safety risk.

Bridge crossings on unsealed roads will also operate under a shared-use model, reflecting the rural setting and very low traffic demand. These are typically narrow, single-lane structures with:

- Adequate intervisibility for pedestrians and drivers to see each other;
- Simple warning signs (e.g., “Trail Users on Bridge”) at either end where necessary; and
- No need for structural changes or separation infrastructure.

Where occasional visibility constraints exist, due to curves, crests, or vegetation, site-specific adjustments (e.g., vegetation trimming or advance signage) may be considered during detailed design. However, the prevailing expectation is that cooperative behaviour and natural traffic calming will maintain safety without the need for engineered solutions.

This shared-use, low-intervention strategy reflects best practice for remote unsealed roads and aligns with the Safe System approach by matching the level of control to the actual risk environment.

2.2.5. Traffic Composition

While traffic volumes are generally very low, occasional agricultural or forestry vehicles may use sections of the local road network, particularly during seasonal operations. These heavy vehicles are infrequent and typically operate at low speeds, allowing drivers ample opportunity to observe and respond to pedestrians. The proposed trail design accounts for these interactions by incorporating safe passing areas, selecting the more practical side of the road for pedestrian use, and maintaining adequate forward visibility wherever possible.

Given the infrequency of such vehicle movements and the predictability of their travel routes and times, the proposed mitigation measures, such as signage, verge use, and informal laybys, are considered sufficient to manage the residual risk. These treatments are consistent with rural best practice and are appropriate for the scale and context of the trail. Further engagement with local landowners and forestry operators will be undertaken during the detailed design phase to confirm key movement patterns and ensure that safety interventions remain targeted and effective.

2.2.6. Summary of Mitigation Measures on Local Roads

Below is a summary of the mitigation measures on local roads:

- Shared Use of Carriageway; Permitted where traffic volumes are very low (<200 vpd), with pedestrians and vehicles sharing the road under a Safe System approach;
- Use of Grass Verges; Where available, pedestrians will walk on mown or metalled verges rather than in the live lane;
- Warning Signage; Installation of “Pedestrians Sharing Road” signs at regular intervals and entry points;
- Speed Management; Use of speed advisory signage and visual cues (e.g., coloured surfacing, threshold markings) to encourage lower speeds;
- Passing Bays; Informal laybys or widened areas provided at locations with limited visibility or potential for pedestrian-vehicle interaction;
- Alignment Optimisation; Trail positioned on the most practical side of the road based on topography, visibility, and available shoulder space;
- Driver Awareness; Community education and signage campaigns to inform local users about the trail and expected pedestrian presence; and
- Agricultural and Forestry Vehicles; Low frequency of heavy vehicle use, managed through safe passing zones and targeted engagement with local operators.

Shared carriageway use aligns with rural walking precedent and Safe System expectations where volumes are low and operating speeds are modest.

These mitigation measures have been tailored to the characteristics of each site and are supported by detailed recommendations in Appendix B.

3. Maintenance and Emergency Response

The Te Ara Tipuna Charitable Trust will implement a structured maintenance and emergency response programme for all trail sections, including those within or adjacent to SH35. This includes:

- RAMM or asset databased alignment with NZTA standards;
- Routine inspections and response to graffiti, vandalism, vegetation growth, and drainage blockages;
- A clear Request for Service (RFS) process for public reporting;
- Rubbish removal protocols at SH interfaces and high-use locations;
- Emergency contact and response procedures during network disruptions, severe weather events, or other incidents;
- Provision for realignment or temporary closure in the event of State Highway works or coastal erosion events impacting the trail.

These measures will be managed under formal contractual arrangements and coordinated with the Gisborne District Council and NZTA, to ensure alignment with corridor safety and maintenance protocols.

4. Response to NZTA Submission

Table 4.1-1 below provides a structured response to the issues raised by NZ Transport Agency in their submission dated 5 February 2025, where they relate to traffic and safety. The submission included 37 areas of concern or information requests, relating primarily to the interaction of the Te Ara Tipuna Trail with SH35. This table demonstrates how each concern raised by NZTA has been reviewed and addressed through site-specific mitigation or further design commitments, referencing relevant sections of this Transport Safety Assessment and Management Plan and associated appendices.

Table 4.1-1: Summary of NZTA concerns with responses

NZTA Ref	Topic	Report Reference	Response Summary
1a – 1g	Standard Design Templates	2.1.3 & Appendix C	Standard designs for trail adjacent to SH35 (to be approved by NZTA). No use of live traffic lanes. Any departures from NZTA standards will be clarified at detailed design stage.
3a – 3b	Maintenance & funding	Section 3 - Maintenance	Trail assets will be maintained under contract by the Trust. Long-term maintenance funding and RFS processes are included in the operational framework.
6	Safety Audits	2.1.6	All trail segments will undergo Safe System Audits at both design and post-construction phases
7-8	Highway Pavement	N/A	There will be no pavement widening to accommodate the rail.
9	Earthworks	2.1.2 & 2.1.3	Minor earthworks will be required to support trail safety and access, including: • Regrading at road crossings to improve sight lines; • Vegetation clearance to provide sight distance; • Trail tie-ins at road level for crossings; • Post installation for signage, delineators, and occasional guardrails; • Earthworks for swing bridge abutments or ramps at selected locations. These works are small-scale and site-specific. All activities should minimise disturbance, avoid sensitive areas, and align with final design and RCA engagement.

10	Stormwater & drainage	N/A	There is no intention to affect the stormwater or drainage of the carriageway. If this is the case, each location will be assessed and agreed upon with NZTA.
11	Vegetation	Section 3	A maintenance management plan will be agreed between The Trust and NZTA, including vegetation clearance and reinstatement.
12	Speed Restrictions	N/A	No speed limit reductions on SH35 are required.
13	Health and Safety	2.1.6 & 2.2.6	Risks to trail users are identified and mitigated through signage, visibility, education, and design. Emergency response protocols will be implemented.
14	Clip on Bridges	Appendix C	Bridge treatments are site-specific. Engineering assessments and structural suitability will be addressed during detailed design. However, the intent is to use swing bridges where necessary, and not clip-on bridges.
15	Shuttle Service	N/A	No shuttle service is provided for the trail.
16	State Highway Width Constraints	2.1.3	There will be no walking on the SH35 live lane on any part of the trail. Trail will be 4m minimum away from live lane; where this is not possible, safe hit posts and roadside guardrail will be used
17	Bridge Warning Sign Crossings	Appendix A & C	Appendix C shows options for pedestrians crossing bridges. Appendix A shows which option refers to which bridge.
18	Culverts	N/A	No new culverts are proposed or existing ones affected.
19	Public Toilets	N/A	No new public toilets are proposed on SH35.
20	Carparking	N/A	No new carparking areas are required on SH35.
21	Pedestrian Crossings	Appendix A & C	Appendix C shows options for pedestrian crossings. Appendix A shows which option refers to which location. Existing urban crossings will be used where applicable (i.e. in Tologa Bay, Tokomaru Bay, etc)
22	Streetlighting	N/A	No new streetlighting is proposed. It is expected that no one will be walking these trails during darkness.

23	Tubular Delineators / Delineator Posts	2.1.6 & Section 3	The level of detail of where tubular delineators will be located has yet to be obtained. This will be undertaken at detailed design stage and form part of a safe system audit process.
24	Signage	Appendix C	This appendix illustrates some of the proposed signage along the trail, and especially at bridge and pedestrian crossings. Exact type/style and location of signs to be confirmed at detailed design stage and will form part of the safe system audit process.
25	Reinstatement of Highway Assets	N/A	Any highway drainage and/or signage affected by the location of the trail will be reinstated. This will form part of the detailed design phase and will include a safe system audit process.
26	Temporary Traffic Management	N/A	All works within the road corridor will be undertaken in accordance with NZGTM.
27	State Highway Closures	N/A	No state highway closures are planned to install the trail. Lane closures may be possible, but this will be determined on a site-to-site basis, and an appropriate TMP will be provided, supervised by a STMS-qualified person.
28	Detours	N/A	No SH35 detour routes are planned in the construction of the trail.
29	Use of the Trail	N/A	A usage management plan will be provided by The Trust.
30-31	Maintenance Standard	Section 3	A suitable maintenance plan and agreement will be agreed upon between The Trust and NZTA.
32	Emergency Works	Section 3	A suitable maintenance plan and agreement (including emergency works) will be agreed upon between The Trust and NZTA.
33	Rubbish	Section 3	Rubbish management protocols will apply near SH35. Regular inspections and removal included in maintenance plan.
34	State Highway Normal Works	N/A	This can be included as part of an approved traffic management plan where required.
35	Coastal Protection	N/A	The issue of new structures can be addressed at the time. This can be added into the master agreement between The Trust and NZTA.

	Structures / Sea Level Rise		
36	Graffiti & Vandalism	Section 3	Visual inspections and remedial actions will be carried out as part of trail maintenance. Timely response expected through RFS system
37	Asset Inspection Database	N/A	The Trust will record all assets in their own RAMM database and record their condition on an ongoing basis.

5. Conclusion

The Te Ara Tipuna Trail represents a transformative infrastructure project for the East Coast region, providing a culturally rich, environmentally sensitive, and community-connected walking route that spans 250 km from Wainui Beach to Potaka. While the trail interfaces with both State Highway 35 (SH35) and a variety of local rural roads, the transport-related risks have been carefully assessed and are considered to be manageable through the application of context-sensitive, evidence-based mitigation strategies.

A comprehensive safety review, including full site visits and consultation with roading authorities, has informed the identification of priority risk areas and appropriate treatments. The trail has been designed to minimise interaction with traffic wherever possible, and where interaction is unavoidable, the design prioritises pedestrian visibility, driver awareness, and risk separation.

Along SH35, mitigation includes strategically located crossings with 165 m minimum sight distance, enhanced signage, and electronic warning systems at high-risk points. On local roads, the low traffic volumes support safe shared use of the carriageway, supplemented by verge walking, warning signage, and other low-impact treatments that preserve the rural character of the route. Occasional interactions with agricultural or forestry traffic have been accounted for through passing zones and tailored layout design.

The project will be implemented in stages, guided by a Safe System framework and refined through a structured programme of Safe System Audits. Engagement with Road Controlling Authorities will continue throughout the design and construction phases to ensure alignment with safety standards and local expectations. The Trust acknowledges the importance of maintaining an open partnership with NZTA and Gisborne District Council throughout design and delivery.

Subject to the implementation of the recommended measures and the ongoing review of design decisions through the SSA process, the transport impacts of the trail are expected to be minimal. The Te Ara Tipuna Trail can be delivered in a manner that is both safe and respectful of its rural and cultural context, creating a lasting legacy for the region and its communities.

6. Recommendations and Implementation

The following recommendations are proposed to guide the safe and effective delivery of the Te Ara Tipuna Trail, with a focus on managing interactions between pedestrians and the transport network through a structured, risk-based approach.

The following recommendations are proposed to guide the safe and effective delivery of the Te Ara Tipuna Trail, with a focus on managing interactions between pedestrians and the transport network through a structured, risk-based approach:

- Adopt a Safe System Approach Across All Interfaces - Integrate Safe System principles into every aspect of the trail's design and delivery, particularly at points where the trail intersects with or runs adjacent to live vehicle corridors. This includes reducing risk exposure, managing travel speeds, and providing infrastructure that supports human error without catastrophic outcomes. Emphasis will be placed on selecting treatments that align with the risk context of both high-speed rural highways and low-volume local roads.
- Stage Development and Refine Design Through Safe System Audits (SSAs) - The project will be implemented in logical stages, with each stage undergoing both detailed design and post-construction Safe System Audits. These audits will assess the safety of proposed treatments, verify sight distance and alignment, and recommend improvements. The staged approach also allows for continuous improvement, with lessons learned from early sections informing future designs.
- Maintain Close Collaboration with Road Controlling Authorities (RCAs) - Ongoing engagement with the New Zealand Transport Agency and the Gisborne District Council will be essential to ensure that proposed interventions are technically sound, context-appropriate, and consistent with RCA requirements. RCA input will be sought at key milestones, including scheme design, detailed design, and post-construction reviews.
- Apply Standardised and Site-Specific Design Treatments - Where feasible, the project will utilise a suite of typical designs for road and bridge crossings and shoulder treatments, facilitating consistency, efficiency, and rapid approval. However, in locations where unique conditions exist (e.g., constrained geometry, limited sight lines, or existing bridge pinch points), site-specific solutions will be developed. All design treatments will reference the drawing set included in Appendix C.
- Maintain Dynamic Safety Registers Throughout Implementation - The safety assessment spreadsheets included in Appendices A and B function as living registers, documenting known risks, proposed mitigations, and the rationale for design decisions. These registers will be regularly updated as SSAs are completed, and trail sections are delivered. They will support risk tracking, prioritisation of funding, and transparent communication with stakeholders.

7. Disclaimer

This report has been prepared by Urban Connection Limited for Te Ara Tipuna Charitable Trust and may only be used and relied on by Te Ara Tipuna Charitable Trust for the purpose agreed between Urban Connection Limited and Te Ara Tipuna Charitable Trust as set out in this report. By default, this means that Te Ara Tipuna Charitable Trust can use and rely on this report for the purposes of supporting the consent application.

Urban Connection Limited otherwise disclaims responsibility to any person other than Te Ara Tipuna Charitable Trust arising in connection with this report. Urban Connection Limited also excludes implied warranties and conditions, to the extent legally permissible. The services undertaken by Urban Connection Limited in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. Urban Connection Limited has no responsibility or obligation to update this report to account for events or changes occurring after the date that the report was prepared.

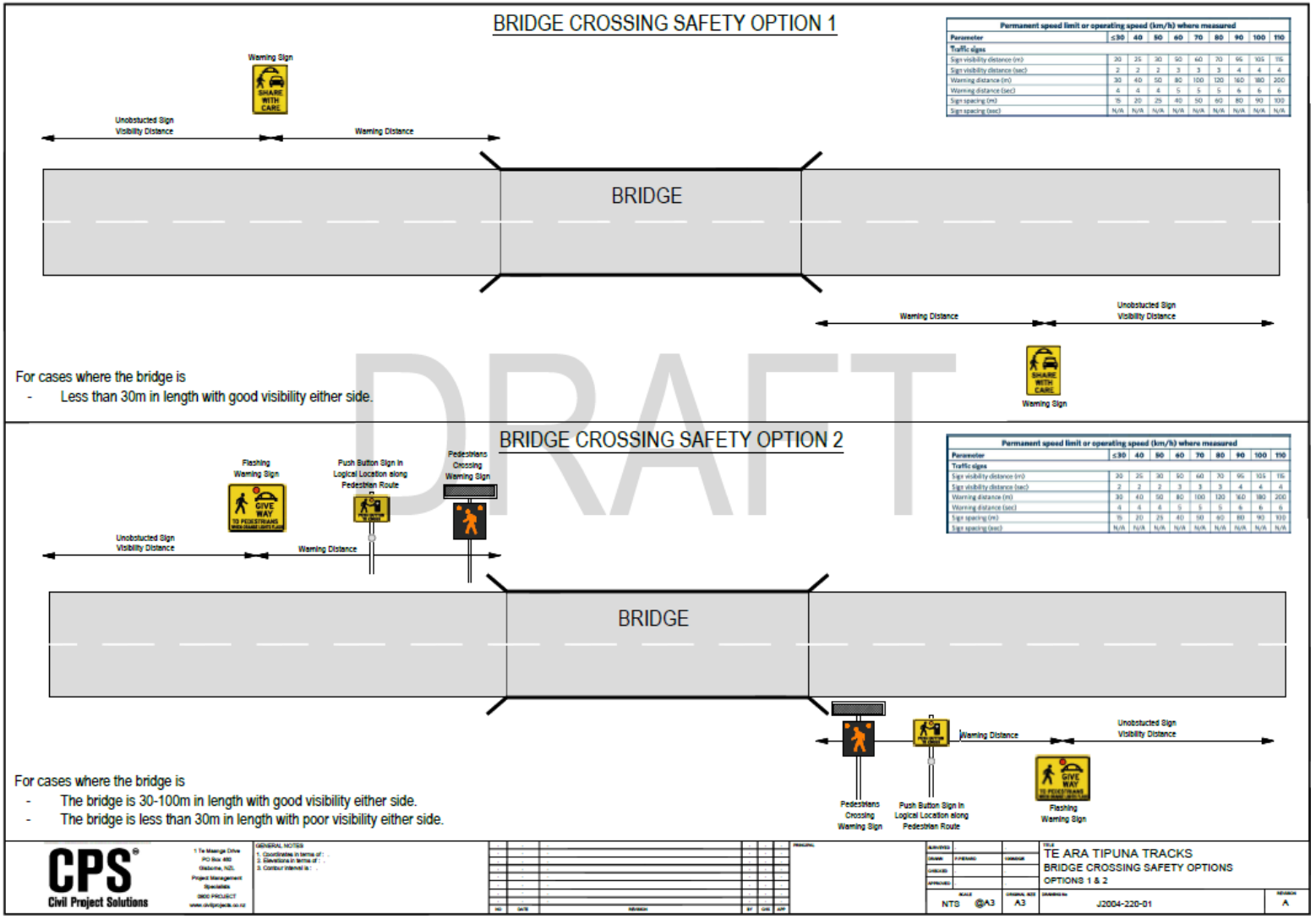
Appendix A – SH35 Safety Concerns Spreadsheet

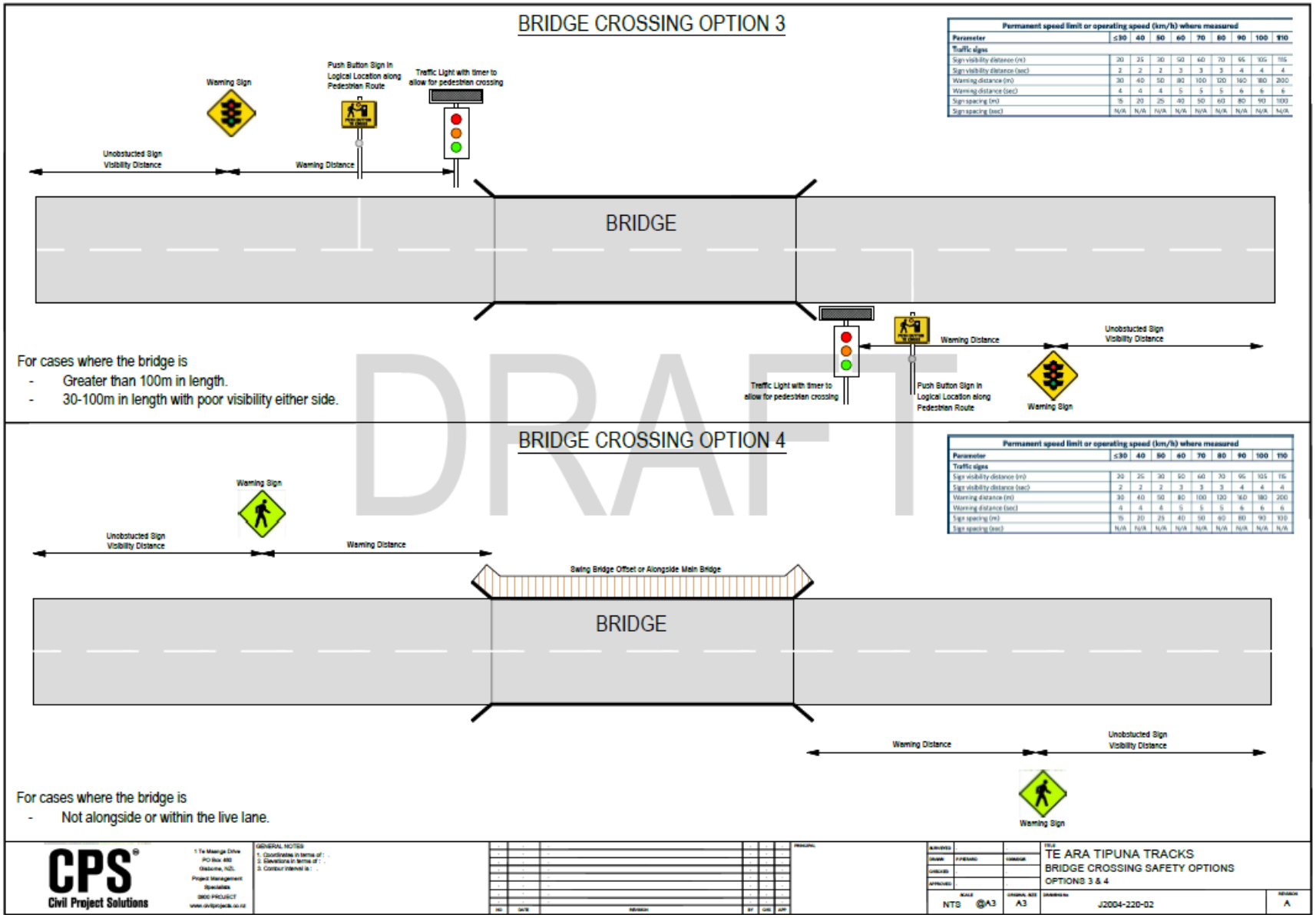
Refer to SH35 Safety Concerns Rev2.xlsx

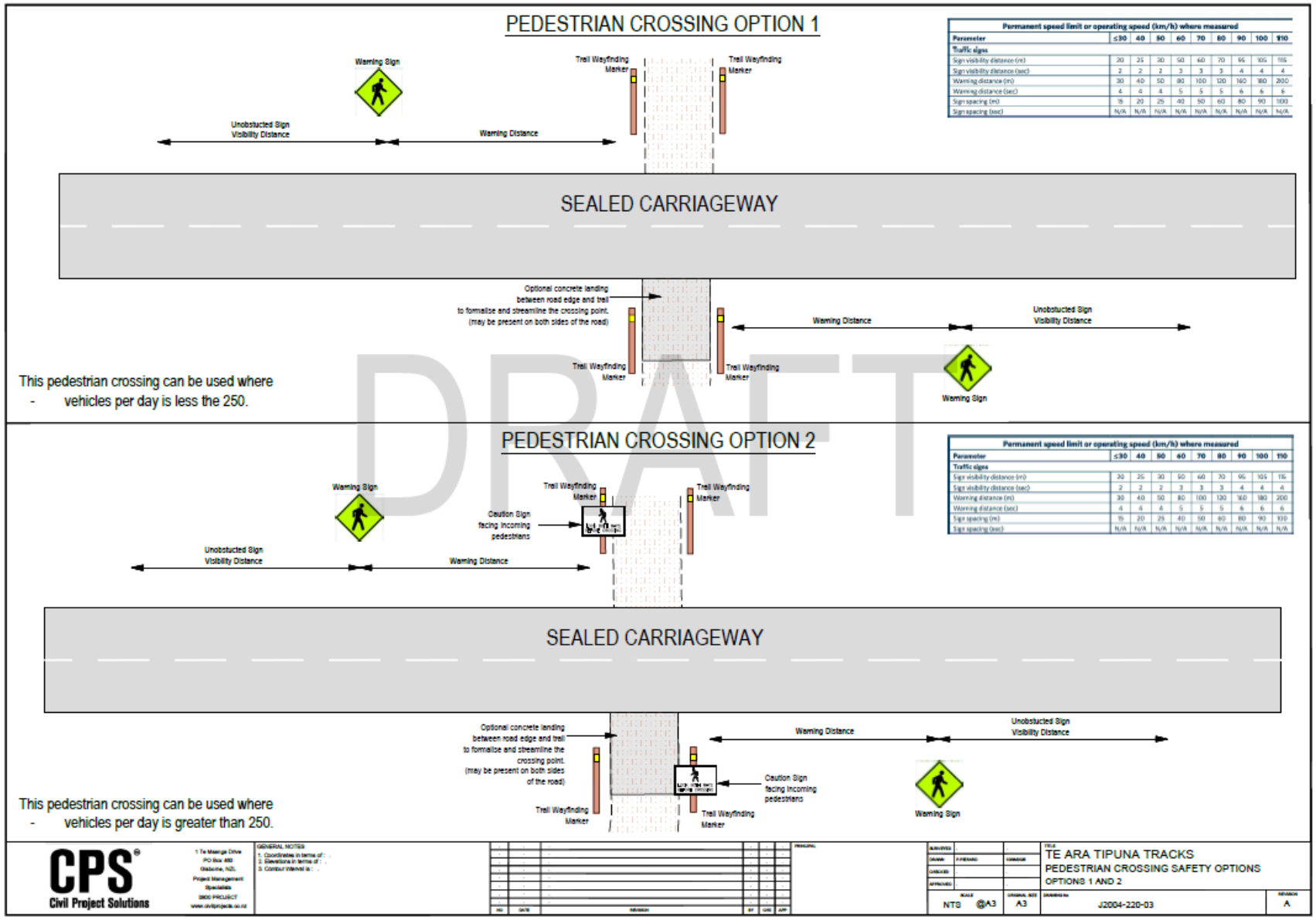
Appendix B – Local Roads Safety Concerns Spreadsheet

Refer to Local Roads Rev2.xlsx

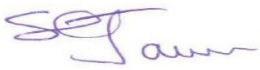
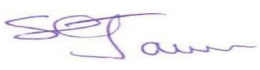
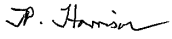
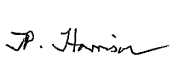
Appendix C – Safe Crossing Types and Bridge Treatments

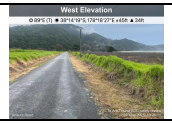



BRIDGE CROSSING OPTION 3
Permanent speed limit or operating speed (km/h) where measured
Parameter ≤30 40 50 60 70 80 90 100 110
Traffic signs
Sign visibility distance (m) 20 25 30 50 60 70 95 105 115
Sign visibility distance (sec) 2 2 2 3 3 3 4 4 4
Warning distance (m) 30 40 50 80 100 120 160 180 200
Warning distance (sec) 4 4 4 5 5 5 6 6 6
Sign spacing (m) 15 20 25 40 50 60 80 90 100
Sign spacing (sec) N/A N/A N/A N/A N/A N/A N/A N/A N/A
Warning Sign
Push Button Sign in Logical Location along Pedestrian Route
Traffic Light with timer to allow for pedestrian crossing
Unobstucted Sign Visibility Distance
Warning Distance
BRIDGE
Traffic Light with timer to allow for pedestrian crossing
Push Button Sign in Logical Location along Pedestrian Route
Warning Distance
Unobstucted Sign Visibility Distance
Warning Sign
For cases where the bridge is
- Greater than 100m in length.
- 30-100m in length with poor visibility either side.
DRAFT
BRIDGE CROSSING OPTION 4
Permanent speed limit or operating speed (km/h) where measured
Parameter ≤30 40 50 60 70 80 90 100 110
Traffic signs
Sign visibility distance (m) 20 25 30 50 60 70 95 105 115
Sign visibility distance (sec) 2 2 2 3 3 3 4 4 4
Warning distance (m) 30 40 50 80 100 120 160 180 200
Warning distance (sec) 4 4 4 5 5 5 6 6 6
Sign spacing (m) 15 20 25 40 50 60 80 90 100
Sign spacing (sec) N/A N/A N/A N/A N/A N/A N/A N/A N/A
Warning Sign
Unobstucted Sign Visibility Distance
Warning Distance
Swing Bridge Offset or Alongside Main Bridge
BRIDGE
Warning Distance
Unobstucted Sign Visibility Distance
Warning Sign
For cases where the bridge is
- Not alongside or within the live lane.
CPS
Civil Project Solutions
GENERAL NOTES
1. Coordinates in terms of :
2. Elevations in terms of :
3. Contour interval is :
TE ARA TIPUNA TRACKS
BRIDGE CROSSING SAFETY OPTIONS
OPTIONS 3 & 4
NTS @A3
A3
J2004-220-02
A


PEDESTRIAN CROSSING OPTION 1
Warning Sign
Trail Wayfinding Marker
Trail Wayfinding Marker
Unobstucted Sign Visibility Distance
Warning Distance
SEALED CARRIAGEWAY
Optional concrete landing between road edge and trail to formalise and streamline the crossing point. (may be present on both sides of the road)
Warning Distance
Unobstucted Sign Visibility Distance
Trail Wayfinding Marker
Trail Wayfinding Marker
Warning Sign
This pedestrian crossing can be used where
- vehicles per day is less the 250.
PEDESTRIAN CROSSING OPTION 2
Warning Sign
Trail Wayfinding Marker
Trail Wayfinding Marker
Caution Sign facing incoming pedestrians
Unobstucted Sign Visibility Distance
Warning Distance
SEALED CARRIAGEWAY
Optional concrete landing between road edge and trail to formalise and streamline the crossing point. (may be present on both sides of the road)
Warning Distance
Unobstucted Sign Visibility Distance
Caution Sign facing incoming pedestrians
Trail Wayfinding Marker
Trail Wayfinding Marker
Warning Sign
This pedestrian crossing can be used where
- vehicles per day is greater than 250.
CPS
Civil Project Solutions
TE ARA TIPUNA TRACKS
PEDESTRIAN CROSSING SAFETY OPTIONS
OPTIONS 1 AND 2
NTS @A3
A3
J2004-220-03
A

Te Ara Tipuna Transport Management Plan V5
Document Status: Client Review

Revision	Date of Issue	Author	Reviewer	
			Name	Signature
V1	21 June 2023	T Harrison	A Campion	
V2	30 June 2023	T Harrison	A Campion	
V3	4 July 2023	T Harrison	S James	
V4	10 July 2023	T Harrison	S James	
V5	27 June 2025	S James	T Harrison	
V6	4 July 2025	S James	T Harrison	
V7	30 July 2025	S James	T Harrison	

Subject km	Location	Roads	Length within GDC (km)	Notes	Photos				Zac Comments
13 to 14	Pouawa Beach	Pouawa Road	0.7	Pouawa Road; currently unsealed, 120 vpd (10% HV); leads to beach access (includes toilet), and used for farm vehicles; good forward visibility, slow speeds due to metal road; Vehicles/pedestrians share road.					Acknowledged
20 to 21	Whangara	Pa Road	0.5	Narrow road; has white edgelines; reasonable good forward visibility prior to village; AADT 150 (3% HV); some opportunity walk within the verge up to the top of the hill, or shre road with vehicles; then perhaps detour through land towards marae (refer to Figure 1); Pa Road after that is very narrow, with blind corners, so use verge where necessary, with some removal of/trimming of foliage/trees); using northside verge could work, but would require a safe crossing point as indicated on the plans (Pedestrian Crossing Option 1); Pa Road has road humps, which helps with reduced vehicle speeds.					Acknowledged, to be updated
27 to 29	Pakarae	Pakarae Road	0.6	Narrow and unsealed, AADT 40 (10% HV); appears very private, and has loose cattle, so be aware; recommend pedestrians and vehicles can easy share road					Acknowledged
35 to 39.5	Waihau Bay	Waihau Road	4.5	Particularly long section of existing road use; narrow and windy, with AADT 66 to 75 (5% HV); mostly unsealed; some sealed sections closer to the village, but still narrow. Okay to share road, but could use grass verge where available.					Acknowledged
44 to 49	South of Tologa Bay	Shelton Road, Wharf Road, Rangiuia Road	4	Shelton Road, AADT 83 (6% HV), unsealed, okay to share; Possible detour onto Wharf Road (AADT 390 - 8% HV); plenty of grass verge available to keep peds off the sealed road; Rangiuia Road; sealed and narrow, with reasonable grass verges for walking.					Acknowledged, will use grass berm
49 to 50	Tologa Bay	Hauiti Road	All length (0.4)	AADT 330 (10% HV); narrow sealed road, but does have wide grass verges; good forward visibility on straight road, so peds could share with vehicles, or use existing footpath					Acknowledged, will use grass berm and existing footpath
50 to 51	Tologa Bay	Forster Street	All length (0.8)	220 AADT (6% HV); straight Road, good forward visibility; peds can share with vehicles or use wide grass verge/existing footpath					Acknowledged, will use grass berm and existing footpath
54 to 62	North of Tolaga Bay	Kaiaua Road	8	Approx. 6km on sealed section, rest is unsealed. AADT 150 (6% HV). Sharing this road for peds and vehicles is okay, but use grass verge where possible. Bridge Crossing Option 1 at Warnes Bridge					Acknowledged, will use grass berm where possible. Bridge crossing 1 to be included
69 to 71	Anaura Bay	Lockwood Road & Anaura Road	0.7	Lockwood Road AADT 17 (low); unsealed, so okay to share; Bridge Crossing Option 1; Anaura Rd (to beach), about 44 vpd; share with care					Update to share road, include crossing option 1.
71 to 79	Anaura Bay	Anaura Road	8	Anaura Road, north of the village, has an AADT of 200 (No HV % recorded); wide grass verge for safe walking, or could use road, but avoid hump as not great forward sight distance. Unsealed from 73km until 79 km (Okay to share with minimal traffic (and slow moving). Use Bridge Crossing Option 1 for all bridges along this unsealed section					Will use berm until 72.5km then will use road. Bridges option 1 to be updated

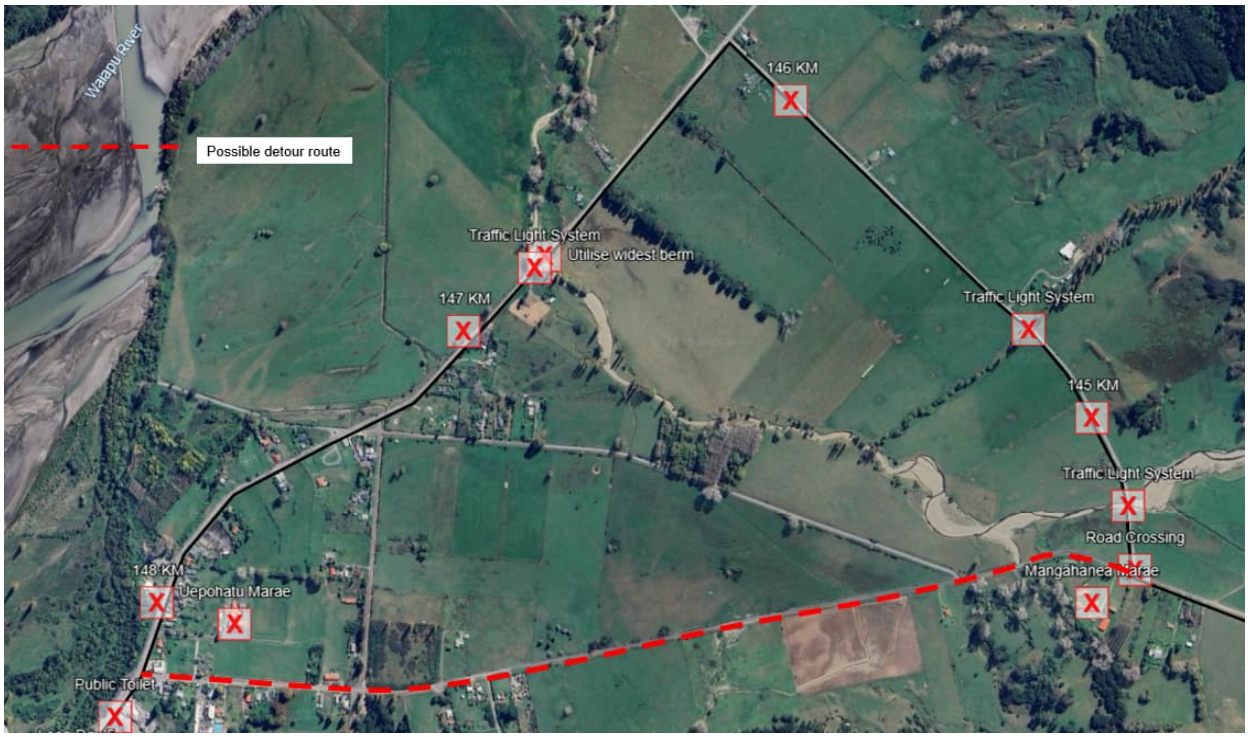
91 to 92	Tokomaru Bay	Kaiawha Road	0.4	AADT of 44 (10% HV); there may be a detour to avoid using thgis road and the short section of SH35 prior to Tokomaru Bay. Reasonably straight with good forward visibility, and some grass verge to walk on if required					Detour has been confimred. Final route to be updated following site visit
91 to 93	Tokomaru Bay	Arthur Street (detour to avoid SH35) & Waiotu Road	0.95	400 vpd (2% HV); wide grass verge, and good forward visibility, so sharing is safe (50 km/h speed limit). A footpath starts at intersection of Arthur and Mere Street, through to SH35.					Acknowledged will use footpath
93 to 97	Tokomaru Bay	Beach Road, Waimea Road & Tawhiti Road	4.4	AADT 450 to 900 (3% HV); Use exisitng grass verge and/or beach. Road is reasonably straight with good forward visibility. Due to high tides, may have to walk on the road/verge at times. Can walk next to road in some places to avoid culverts (up to 50m). Use Bridge Crossing Option 1 further down Beach Road. And Pedestiran Crossing Option 1 at end of road. Share road for Tawhiti Road and parts of Waimea Road with lower volumes					Will use berm unitl Waima Road where corridor will be used. Update to include bridge and crossing options
0 to 2 (link to Te Puia Springs)	Te Piua Springs	Waipiro Road	2	ADT 345 (6% HV); track detours off towards Te Puia Springs (toilets/accommodation, etc); narrow, with very little grass verge to walk on; road is in terrible condition; some hidden curves may make walking on road unsafe; but pedestrians walk on it now. Include Share with Care signs along this section.					Acknowledged, had planned to use berm where possible and road only as req. Update to share road
2 to 6 (Te Puia Springs)	Te Piua Springs	Cemetary Road	4	ADT 99 (6% HV); narrow road with good visibility and grass verges to walk on. I expect it becomes unsealed further south (not part of the site visit so no further details provided). Should be safe to share with vehicles and pedestrians.					
111 to 119	North-east of Te Puia Springs	Waipiro Road & Kopuaroa Road	8	Existing verge is narrow in places but walkable; okay to use road to walk in some places, include Share with Care signs; short off-road section provided to avoid some of Waipiro Road; use existing footpath on bridge crossing at Waipiro Bay; Kopuarora Road ADT is 86 (9% HV), unsealed north of 119km (and this is the start/end of the Hikurangi Loop, at 72.6km), road heads off as Keikei Road (ADT 55), okay to share on unsealed road					Acknowledged, will use berm where possible and road as required
68 to 72.6 (Hikurangi Loop)	North-east of Te Puia Springs	Kopuaroa Road	4.6	ADT 86 (9% HV), windy and unsealed. Okay to share.					Update to share
119 to 121.5	North of Waipiro Bay	Kiekie Road/Parapara Road	2.5	Unsealed road, AADT 28 to 55 (10% HV), okay to share					Update to share
127 to 128	Whareponga	Whareponga Road	0.2	ADT 66 (10% HV); unsealed and okay to share; Use Share with Care signs for bridge crossings (Bridge Crossing Option 1); Road crossing use Pedestrian Crossing Option 1					Update to share, include crossing and bridge options
134 to 136	Tuparoa	Tuparoa Rad	0.2	ADT 23 (10% HV); unsealed; okay to share road					Update to share
139 to 145	Ruatoria	Reporua Road & Tuparoa Road	5.5	Mainly on the unsealed section, with ADT 35 to 120 (10% HV); ok to share road					Update to share

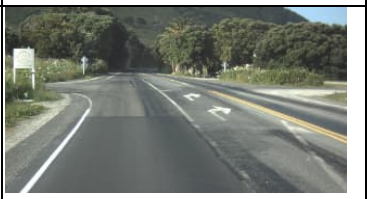
145 to 148	Ruatoria	Walker Road and Waiomatatini Road	2.5	Walker Road unsealed with a narrow bridge, but with low ADT (105 vpd); probbaly safe to share, no need for traffic light system over short span bridge; straight road, good visibility; Waio Rd 549 vpd (4% HV), slightly higher volumes, but could use grass verge/berm; short bridge so can walk over, it has good visibility in both directions; join onto the footpath in Ruatoria; could Tuparoa Road be used, and then join to the footpath that starts east of Bowling Green Road? I know it is sealed, with a 100 km/h speed limit, but wide grass verge/berm can be used, and does have less traffic that the north section of Waio Road (refer to Figure 2). Even Cross Road may be better than Walker Road.					Update to use Cross Road
148 to 151	Ruatoria	Waiomatatini Road	2.5	Utilise existing footpaths through Ruatoria; GDC intend on constructing a footpath extension south from No. 101, along the north side of the road, until Harrison Road (including a clip on bridge), so please liaise with them. Section through to SH35 can utilise the wide grass verge/berm with a metalled track/boardwalk or closely mown grass. Can provide a road crossing (Pedestrian Crossing Option 2), and then along southern side, and then cross back at the SH35 intersection to join with the recently constructed Ruatoria TAT track.					Update to reflect recommendations
9 to 30 (port Awanui Loop)	Port Awanui	Waiomatatini Road, Tikapa Rd & Awanui Rd S	20	ADT 109 (10% HV); 40 ADT on other two roads; all unsealed; warnings when sharing unsealed road, okay to share					Acknowledged will share
0 to 22 (Hikurangi Loop)	Hikurangi Loop	Tapuaeroa Rd & Pakihiroa Road	22	Very long section using existing road; ADT max 264 vpd (2% HV); unsealed after 14km, with ADT dropping to 90; okay to share road, but use grass verge where possible for first 10km or so, then share unsealed road					Acknowledged, will share past 14km mark. To be updated
54 to 62	Hikurangi Loop	Horehore Road & Makarikia Road	8	On road, and joins to SH35 nr Rongohaere Marae; Horehore Road unsealed (ADT 44 - 10% HV), okay to share; Makariki Road ADT 173 (10% HV), unsealed at end, and then sealed from 60 km to SH35; use grass verge or walk in road, with warning signage; use Bridge Crossing Option 2 (maybe 3, as a long bridge)					Share road until Makariki, update bridge crossings
157 to 158	North of Ruatoria	Mangaoporo Road (detour to avoid SH35 section)	0.8	ADT 75; wide grass verge/berm for walking, can use either side, but will need to cross back nr intersection with SH35; okay to share					Will use berm
169 to 184	Tikitiki	Rangitukia Road	15	A long section utilising the existing road (ADT 450 - 9% HV); can use existing footpath through Tikitiki, with GDC building a new raised crossing next to the park; footpath ends at 100/50 kmh signs north end of Tikitiki, outside school; utilise wide grass verge/berm; Bridge Crossing 2 for one-way bridge north of Tikitiki; GDC building new path and crossing in Rangitukia (liase with GDC); it will cross onto south side and connect to the marae, but the TAT should carry on along south side; north of Rangitukia; ise Bridge Crossing Option 2, with only 250 vpd; from 177 km road is unsealed, with 15 vpd, so should be okay to share;					Acknowledged, already using road from 177km. Will update bridge crossings.
192 to 207	Horoera	E Cape Road	15	105 vpd (7% HV); unsealed, and then sealed and narrow with wide grass berms; okay to share; Horoera Bridge and Waipapa Bridge okay to walk across with signs (Bridge Crossing Option 1); Ora Tua Bridge will need Bridge Crossing Option 1; at 203 km there is a drop out, and road close to edge of drop to beach/rocks; share road okay;Bridge Crossing Option 2 for Awatere Bridge					Update bridge crossings
208 to 209	Te Ararora	Te Arawapia Road	1	ADT 50 (10% HV); unsealed at north end, sealed and narrow at southern end before SH35 intersection; reasonable grass verge, or share; some foliage removal					Proposed to use berm
217 to 223	Hicks Bay	Onepoto Road, Wharf Road & Wharekahhika Road		Onepoto Rd ADT 99 (6% HV); reasonable grass verge to keep peds off road, use beach where necessary as some sections are narrow with no shoulder/grass verge; okay to share road through; Bridge Crossing Option 1 on Onepoto Rd; join to new footpath being built by GDC at end of Onepoto Road and into Wharf Road (with crossing on Wharf Road); use existing footpahths along Wharf Road where necessary, use existing crossing, continue along east side, and use wide grass verge (Wharf Road ADT 99 with 4% HV); Wharekahika Road unsealed and okay to share (ADT 33 (10% HV))					Update as noted

General Notes

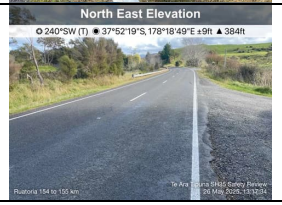
Wayfinding signs are important, as are warning signs for drivers to expect pedestrians on the road
Refer to Bridge Crossing options (4 No.)
Where TAT is to be shared with vehicles, mainly on low volume and unsealed roads, signs to be installed at
All road crossings should be consistent in location, size, signing, etc.
Some foliage/trees will need to be removed/trimmed to ensure the visibility envelope is maintained at all crossing
A typical rural crossing should be designed and provided to GDC as a concept for approval.

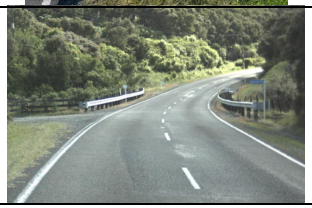

Possible detour route
21 KM
Patoromu Church
Whangara
Road Crossing
Whangara (Whitirei a) Marae
Day 2


Waiapu River
Possible detour route
146 KM
Traffic Light System
Utilise widest berm
147 KM
Traffic Light System
145 KM
Traffic Light System
Road Crossing
148 KM
Uepohatu Marae
Public Toilet

Subject km	NZTA RP from	NZTA RP to	Length within NZTA corridor (m)	Notes	Photos
0 to 1	308/10.160	308/10.070	90	Track to hug the tree line, about 4 to 5m away from the edgeline, for about 20 to 30m, then follow the back of the layby area, being 6m plus form the edgline. Track to be located behind the existing barrier and meander down to the beach away from the road.	
5 to 6	308/6.067	N/A	7	Pedestrian crossing location in Tatapouri. Note this section of SH35 is due to be increased back to 100 km/h in June 2025. Good visibility in both directions (minimum of 150m to allow for a vehicle to stop in time - SSD is 122m for 100 km/h on wet roads)	
8 to 9	308/3.920	N/A	7	Pedestrian crossing location at Turihaua Beach. Note this section of SH35 is due to be increased back to 100 km/h in June 2025. Good visibility in both directions.	
9 to 10	308/3.590	308/3.205	385	Track to follow close to the line of trees, either in front or behind, and will be a minimum of 4m away from the edgeline, and more where possible; some lower branches will require removing/trimming. Note this section of SH35 is due to be increased back to 100 km/h in June 2025.	
9 to 10	308/3.263	N/A	7	Pedestrian crossing location at Pihitia Station.Note this section of SH35 is due to be increased back to 100 km/h in June 2025. Good visibility in both directions.	
10 to 11	308/1.804	N/A	7	Pedestrian crossing location north of Turihauā Point; located for maximum visibility in both directions due to curve on both approaches. Note this section of SH35 is due to be increased back to 100 km/h in June 2025.	

12 to 13	308/0.242	308/7.812	420	Track pops out at the Urupā access, just south of the Pouawa River Bridge. Track can be located on other side of swale, at least 4m from white edgeline. Then a new swing bridge over the river, and continue on behind the existing barrier to Pouawa Road. Annual average daily traffic (AADT) at this bridge is 2,244.	
49 to 51	274/0.515	263/10.278	1400	Through the urban township of Tolaga Bay - no concerns as use existing footpath, but will require a new safe crossing over SH35 southern end south of Uawa River Bridge and an extension of the existing footpath. Wayfindings signs can ensure pedestrians cross SH35 near the shops, just north of Banks Street at the existing zebra crossing, and then use the existing footpath through to Forster Street.	
53 to 54	263/7.800	263/7.445	355	North of Tologa Bay; new detour; grass verge with shallow ditch - may require a boardwalk for approximately 215m, and then use wide flat grass verge and into the and through the stockpile area. Track should be close to 4m away from edge of road.	
2 to 3 (Te Puia Springs	225/1.693	225/1.199	500	Use existing footpath through Te Puia Springs. And then use grass verge and keep track 4m away from edge of road. Might be some short lengths where 4m is not possible. Goes from 50 km/h to 60 km/h as you get closer to Cemetary Road. Will need some foliage clearance	
62-63 Hikurangi Loop	200/10.530	N/A	7	South of Makariki Road, road crossing. Good visibility, minimum of 150m available.	
151 to 152	200/0.204	200/0.04	200	This is the 200 m long Rotokautuku Bridge at Ruatoria. Too long to allow pedestrians to share with vehicles. It would require traffic to be stopped for approximately 2 1/2 minutes to allow pedestrians to walk over safely (1.5m/s). This may be unnecessarily long for drivers who may get frustrated. Swing bridge required.	

152-153	200/0.04	190/8.849	1600	Section through to Tapuaeroa Road. Locate the path at least 4m from the edge of the road, adjacent to the boundary fence. Some trees/foliage to be removed, track can be located high on the bank in places. Just after the bridge, steps down to track to keep TAT away from road as much as possible. Where there are culverts, then okay to walk closer to the edge of the road, with a few safe hit posts at these locations, or nothing if the visibility is good (long straights).	
153-154	190/8.844	190/8.760	80	Track can follow the fenceline, at least 4m away from edgeline	
154-155	190/7.735	N/A	10	Narrow bridge, 10m long; crossing bridge and road at this location. Use Bridge Crossing Safety Option 1, plus Pedestrian Crossing Option 2 (AADT is 767 (10.5% HV)).	
154-155	190/7.735	190/7.581	154	Walk behind existing barrier	
154-155	190/7.029	190/6.899	130	Walk behind the existing barrier; extend barrier north by 30m to crossing point. May need a pedestrian fence to protect from steep drop off.	
155-156	190/6.899	N/A	7	Use Pedestrian Crossing Option 2. Good visibility	

157-158	190/4.564	N/A	7	Immediately north of Mangaoporo Road. Use Pedestrian Crossing Option 2. Good visibility	
158-164	190/4.564	180/8.390	5700	Locate track next to boundary fence, minimum of 4m from white edgeline. Where it gets closer to edgeline, for short distances of less than 50m, then walk next to edgeline, but still within the verge/shoulder (perhaps with safe hit posts - subject to NZTA approval) - typical narrow locations inlcude RP 190/4.145, RP 190/1.584, 190/0.581, 180/8.603. Use Bridge Crossing Option 3 or 4 at Paoaruku Stream Bridge (RP 190/1.08). Not very good forward sight distance to the north due to vertical alignment, so not safe for pedestrians to walk over the bridge with vehicles. Bridge Crossing Option 1 at RP 190/0.044, Mangaiwi Stream Bridge.	
162-163	180/8.390	N/A	7	Pedestrian Crossing Option 2 prior to bridge, with good visibility.	
165	180/7.103	180/6.903	100	Head north on north-west side (keeping track at least 4m away from edgeline) for about 100m before crossing road to south-east, for better sight distance. Approx. RP 180/6.903	
166	180/6.903	180/5.045	1900	Use south-east side of road for track, locate adjacent to the boundary fence minimum 4m away from edgeline. If any closer, and less than 50m, then okay to walk alongside road in shoulder/grass verge; if longer than 50m, then a roadside barrier is to be installed. Narrow locations include RP 180/6.903,180/6.713, 180/6.482, 180/6.223, 180/6.099,180/5.781. At RP 180/5.143, walk behind barrier for approximately 100m. Break through barrier and provide a safe crossing point with good sight distance (RP 180/5.045)	
167	180/5.045	180/3.973	1100	Keep track on north-west side as it appears the verge/berm is wider and a track can be located 4 to 5m away for most of the length through to Tikitiki. Bridge Crossing Option 1 at RP 180/4.208	

167 to 168	180/3.739	180/3.293	450	Keep track on north-west side of road until crossing point	
168 to 169	180/3.293	N/A	7	Pedestrian Crossing Option 2	
168 to 169	180/3.293	180/2.75	550	Keep track about 4 m away from edgeline; some trees and foliage to be removed. Okay to walk in shoulder/verge adjacent to road if less than 50m, otherwise barrier to be installed; pinchpoints at RP 180/2.962, 180/3.027, 180/3.238.	
168 to 169	180/2.75	180/2.417	360	Through Tikitiki. Use existing paths and connect to new crossing to be built by GDC later this year.	
209 to 210	144/14.077	144/11.857	2200	I recommend keeping track on the north side of SH35 to avoid an unsafe crossing near Te Arawapia Road. May need about 300m of roadside barrier at start of section as track may be closer than 4m to edge of road in places. Narrow in other places (RP 144/12.860, Bridge Crossing Option 4 (Swing Bridge) required at RP 144/12.216 - Karakatuwhereo River Bridge - about 150m long with less than desirable vertical alignment sight distance. Pedestrian Crossing Option 2 approx. 180m north of bridge due to sight distance availability, at RP 144/11.857.	
211 to 212	144/11.857	N/A	7	Pedestrian Crossing Option 2	

212 to 214	144/11.857	144/9.266	2600	Track can be located 4 to 5m away from edge of road for most of the section. There are some pinchpoints,RP 144/10.495, 144/10.140 for example, where its okay to walk next to the road for short distances less than 50m, with good visibility. Some foliage/tree removal required, to be undertaken by NZTA. Note this area has protected wetlands.	
214	144/9.266	N/A	10	Pedestrian Crossing Option 2, before bridge as AADT low (366 vpd; 40 per hour; 0.67 vehicles per minute); and good visibility	
216 to 217	144/6.093	N/A	7	SH35 Pedestrian Crossing Option 2 at Hicks Bay Lodge. Located for maximum visibility in both directions. Lower speeds due to curves.	
237 to 239	124/5.889	124/5.27	600	Narrow section. Fence close to edgeline. Lots of trees/foliage close to road. Include roadside barrier from point of entry through to Lottin Point Road. Take track into Lottin Point Road, and then back onto SH35 for short section through to Potaka School. Can be located 4 to 5m away next to boundary fence.	

General Notes

All rural state highway pedestrian crossings are to be located to allow for full visibility requirements depending upon the approach speed and speed limit

All crossings should be consisent in location, size, signing, etc

Some foliage/trees will need to be removed/trimmed to ensure the visibility envelope is maintained at all crossing locations

A typical rural crossing should be designed and provided to NZTA as a concept for approval.

Where the track runs alongside SH35, then it is to be located as far away from the edgeline as possible, adjacent to the boundary fences (minimum distance to avoid a barrier is 4m - to be discussed and approved by NZTA).

Where to track has to run alongside the edgeline and in the shoulder, then a barrier is required, and to allow for the minimum offset from the edgeline (typical detail to be drawn up by Zac)

A wide grass verge/berm can be used if pedestrians can stay at least 3 to 4m away from the edgeline (similar to existing new track section north of Ruatoria) - short sections only (would NZTA allow this over long sections?)

Long bridges will take considerable time to cross, at a speed of 1.5m per second for pedestrians. For a bridge of about 100m long, this is 1 1/2 minutes that vehicles may have to wait. Is this acceptable? Otherwise swing bridges are required.

With an AADT of less than 1,000 and say 100 vehicles per hour max, this is just under 2 vehicles every minute, in both directions. So at most, only 4 vehicles may have to give way for pedestrians who have 2 minutes to cross.

So could we get away with not having signals on the very short bridges, and just have signs, if the approach visibility is the minimum standards? And therefore no swing or clip on bridges required? This will require a conversation with NZTA.