Site Specific Environmental Management Plan

– Peka Peka to Ōtaki Project

SLR1: Southern Local Roads

FCCL-EV-MPN-0026

May 2018 – Revision C

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | New Zealand Government

Contents

AUTHORISATION AND REVISION RECORD

Revision	Status	Author	Date	Description
A	Draft	Alice Naylor	20/03/18	For Review
A.1	Draft	Alice Naylor	29/03/18	For Review
A.2	Draft	Alice Naylor	8/5/18	For Review
C	Final	Alice Naylor	17/05/18	For Certification

Revision	Action	Name	Position	Date
A	Internal Review	Sevasti Hartley	Environmental Coordinator	29/03/17

Certification Record

Revision	Action	Name	Position	Date	Signature
	Approved by:	Richard Percy	Project Leader	13/5/18	
	On behalf of GWRC:				
	Approved by:				
	On behalf of KCDC:				

AUTHORISATION AND REVISION RECORD

Revision	Status	Author	Date	Description
A	Draft	Alice Naylor	20/03/18	For Review
A.1	Draft	Alice Naylor	29/03/18	For Review
A.2	Draft	Alice Naylor	8/5/18	For Review
C	Final	Alice Naylor	17/05/18	For Certification

Revision	Action	Name	Position	Date
A	Internal Review	Sevasti Hartley	Environmental Coordinator	29/03/17

Certification Record

Revision	Action	Name	Position	Date	Signature
	Approved by:				
	On behalf of GWRC:				
	Approved by:	Vijay Soma	Resource consents and compliance manager	18/5/18	
	On behalf of KCDC:				

1 INTRODUCTION

This Site Specific Environmental Management Plan (SSEMP) provides the necessary information to demonstrate how the project team plan to avoid or mitigate potential adverse environmental effects relating to construction of the Peka Peka to Ōtaki Expressway.

This document covers works relating to construction of four sections of new local road including:

- Ōtaki Gorge Road
- Old Hautere Road
- School Road (partial)
- Gear Road

To enable the construction of these local roads, the wider Expressway designation footprint will be utilised to provide a suitable haul road, stockpile areas and potential source of fill material if required.

This SSEMP reflects the requirements of the Construction Environmental Management Plan (CEMP) and its appendices, and is intended to be utilised by the construction team to clearly identify any site specific environmental requirements that must be adhered to prior to, and during works. A suite of over-arching environmental management plans have been drawn from to inform the contents of this SSEMP. All works will be carried out in general accordance with these management plans.

Works are not to commence on site until certification of this SSEMP has been confirmed in writing by Kapiti Coast District Council (KCDC) and Greater Wellington Regional Council (GWRC).

1.1 Location of works

Works will take place in three main areas, spanning across four separate new local roads as follows:

- Ōtaki Gorge Road to Old Hautere Road (chainage 4320 – 5220)
- School Road tie-in (chainage 7520 – 7860)
- Gear Road (chainage 7860 – 8600)

The proposed work area is mainly comprised of terrace alluvial material with an overlying layer of moderately thick soft silt / topsoil.

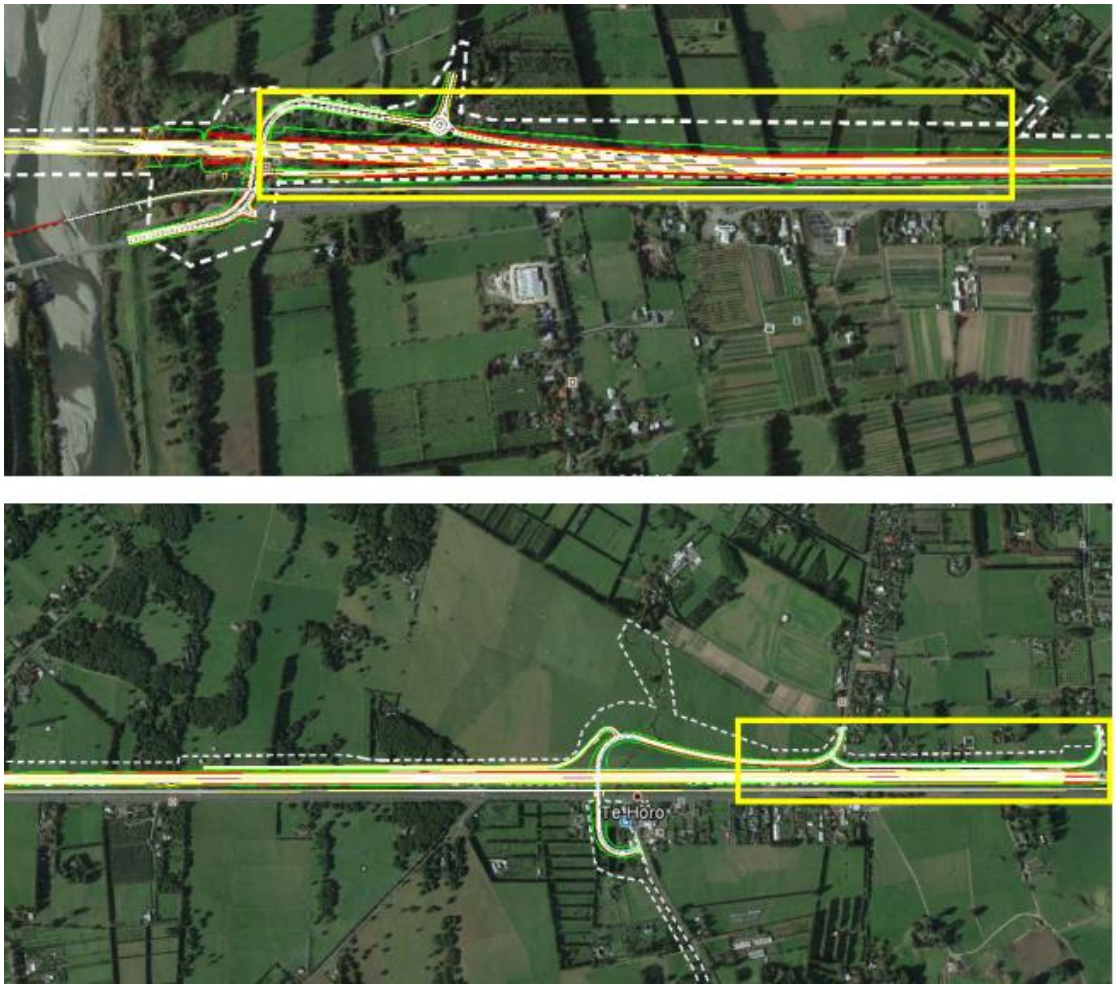


Figure 1: General location of works covered under this SSEMP (outlined in yellow)

1.2 Description of works

Works will generally be sequenced as follows:

Ōtaki Gorge Road

- Topsoil will be stripped from the new Ōtaki Gorge Road footprint, east of the existing local road.
- Construction of Ōtaki Gorge road will commence through to final surfacing with aggregates sourced from the Winstones Quarry in Ōtaki.
- The local road tie-in to the existing Ōtaki Gorge Road will take place under temporary traffic management.
- A temporary road diversion will be constructed (sealed road) to allow traffic to be diverted from the existing local road once the new section of road is complete.
- Works can then progress to complete the final sections of Ōtaki Gorge Road offline of live traffic.

Old Hautere Road

- Topsoil will be stripped from within the footprint of the new Old Hautere Road alignment, the location of the landscape bund, and the general Expressway alignment.
- Topsoil will be stockpiled within the landscape bund footprint (between the new local road and the main alignment footprint).
- Once the main alignment has been cut down to subgrade level, this will be utilised as a haul road, removing the need for bulk haulage along the existing State Highway and local road network.
- The new local road will be constructed including required drainage with fill sourced from the adjacent main alignment footprint or the existing aggregate crushing site immediately south of the existing Ōtaki Gorge Road.
- Pavement construction will then commence through to final surfacing with aggregates sourced from the Winstones Quarry in Ōtaki.

School Road Tie-in

Note that the full section School Road will not be completed until a later date. A temporary road diversion will link traffic to the existing highway via a temporary road diversion.

- Topsoil will be stripped north of existing School Road within the new School Road footprint and will be used to construct dirty water diversion bunds around the work site (refer to Appendix C).
- The new local road will be constructed including required drainage with fill sourced from the main alignment footprint if necessary.
- Pavement construction will then commence through to final surfacing with aggregates sourced from the Winstones Quarry in Ōtaki.
- A temporary road diversion is to be constructed to divert traffic onto the new section of School Road.
- Surplus topsoil and unsuitable materials will be stockpiled on site to be used at a later date.

Gear Road

- Topsoil will be stripped south of existing School Road within the new Gear Road footprint and be used to construct a combination of clean water and dirty water diversion bunds around the work site (refer to Appendix C).
- The new local road will be constructed including required drainage with fill sourced from the main alignment footprint if necessary.
- Pavement construction will then commence through to final surfacing with aggregates sourced from the Winstones Quarry in Ōtaki.
- Surplus topsoil and unsuitable materials will be stockpiled on site to be used at a later date.

NOTE: One culvert 'Culvert 35' is to be constructed prior to the final tie-in to the existing Gear Road to the south. This culvert will be installed in accordance with SSEMP SC1 'Southern Transverse Culverts'.

The expected programme for the activities covered by this SSEMP are as follows:

Activity	Commencement	Duration
Ōtaki Gorge Road	May 2018	Carried out in stages through to late 2019
Old Hautere Road	May 2018	4 weeks
School Road	June 2018	6 weeks
Gear Road	June 2018	4 weeks

A detailed programme can be found in Appendix D.

2 PLAN IMPLEMENTATION

2.1 Responsibilities

The following provides a summary of responsibilities relevant to the planning and implementation of this SSEMP.

Role	Person	Contact Details	Responsibilities
Construction Manager	Steve Findlay	stevef@fcc.co.nz 029 770 3128	• Ensures there is a system in place so that construction works do not proceed until required environmental sign-offs are completed. • Overviews systems and processes to ensure consent requirements are captured for construction works. • Ensures adequate resources are provided to ensure environmental issues are appropriately managed. • Reviews environmental incidents and complaints with the Environmental Manager and acts to address issues where needed. • Reviews and monitors construction work methods to ensure compliance with RMA conditions
Environmental Manager	Alice Naylor	A.Naylor@Higgins.co.nz 027 297 6055	• Develops, implements and reviews environmental management systems and environmental management plans. • Coordinates all environmental auditing functions and ensures relevant records are maintained. • Responds to and investigates all environmental complaints, issues or incidents. • Coordinates the SSEMP implementation process and pre-works requirements to ensure that environmental requirements are adhered to. • Provides training and briefings to site staff to ensure that there is sufficient knowledge of environmental requirements in the field.

			• Acts as the primary point of communication between regulatory bodies and the project. • Coordinates a team of experts in specialist disciplines such as contaminated land, ecology, groundwater, noise and vibration. • Communicates environmentally sensitive areas to the construction team.
Environmental Coordinator	Sevasti Hartley	sevastih@fcc.co.nz 0278078400	• Supports the Environmental Manager and provides leadership to ensure all staff comply with environmental management systems. • Provides support in the formation of SSEMPs. • Undertakes as-builting of environmental controls. • Undertakes regular site inspections and audits. • Coordinates all site monitoring including but not limited to groundwater, water quality, ecological, dust, noise, and vibration monitoring. • Manages maintenance and monitoring of Chemical Treatment Systems (if used). • Ensures spill kits are available and stocked and provides training on equipment use. • Conducts regular site inspections of erosion and sediment control devices and co-ordinates maintenance where necessary. • Monitors site controls during rain storms. • Trains staff in site specific environmental procedures.
Stakeholder & Communications Manager	Ed Breese	ebreese@tonkintaylor.co.nz 021 333 726	• Organises, co-ordinates and facilitates engagement with affected property holders and community prior to and during construction. • Works in partnership with Environmental Manager on engagement and construction

			activities in accordance with RMA conditions
Site Superintendent / Supervisors / Foreman	Simon Fifield	SimonF@fcc.co.nz 027 209 2295	• Provides leadership to the site construction team. • Ensures environmental controls including erosion and sediment control works are protected and maintained on a day to day basis. • Ensures that the SSEMPs and Archaeological Authority requirements are implemented appropriately by the construction team. • Maintains contactability 24/7 during construction and has authority to initiate immediate response actions. • Reports all environmental incidents, compliance issues and complaints to the Environmental Manager. • Reviews the need to use a water cart or sprinklers to control dust.
Project Engineers	Richard Rakovics (Civil) Craig Service (Structural)	RichardR@fcc.co.nz CraigS@fcc.co.nz	• Responsible for ensuring environmental controls and erosion and sediment control works are installed and modified as appropriate for each stage of construction. • Develop, implements and monitors construction methods and environmental protection measures to ensure compliance with the SSEMPs. • Demonstrate understanding of major environmental and community issues and environmentally sensitive areas. • Coordinate environmental interfaces with subcontractors and suppliers. • Reports all environmental incidents, compliance issues and complaints to the Environmental Manager.
Specialist support (contaminated land, ecology, noise and vibration)	Liz Deakin (Terrestrial Ecologist)	LDeakin@tonkintaylor.co.nz 027 568 1995	• Provide expert advice to the Environmental Manager and Environmental Coordinator regarding specific site requirements. • Submits reports to the Environmental Manager to fulfil requirements of consents relevant to their field.

	Dean Miller (Principal Ecologist) Kathryn Longstaff (Avian Ecologist) Genevieve Smith – Contaminated land Brendon Shanks – Noise and Vibration	DCMiller@tonkintaylor.co.nz 021542396 KLongstaff@tonkintaylor.co.nz Genevieve.Smith@beca.co.nz Brendon.Shanks@marshallday.co.nz	• Briefs the construction team of site specific requirements for environmentally 'sensitive areas'.
Iwi	Te Waari Carkeek (Ngā Hapū o Ōtaki)	TeWaariC@fcc.co.nz	• Provide input into project documentation such as management plans, design processes, planning documents. • Reviews permits to work and coordinates the level of involvement of kaitiaki in site activities • Coordinates all aspects of iwi monitoring. • Key point of contact for Ngā Hapū o Ōtaki.
Iwi	Muaupoko Tribal Authority		• Point of contact for any archaeological discoveries in accordance with the agreed accidental discovery protocols and MTA agreement.

2.2 SSEMP amendments

In the event that changes in works scope or methodology are required, changes may need to be made to this document in accordance with resource Consent Condition's DC.18B and / or G.21A. Any 'major' changes will be submitted to the respective Manager for certification at least 5 working days prior to implementation of that change.

In accordance with Condition G.21A, a 'minor change' may be submitted to the Manager for certification at least 2 working days prior to implementation of that change, unless an alternative process of approving a 'minor change' is agreed to by the Manager, Greater Wellington Regional Council.

3 SITE MANAGEMENT

3.1 Site access

Existing site access points will be utilised for these works from Ōtaki Gorge Road (SAP-9 and SAP-10), Old Hautere Road (SAP-8), School Road (SAP-6) and Gear Road (SAP-5) as originally identified through SSTMP PW2 'Vegetation Clearance and Enabling Works' and highlighted on the drawings in Appendix C.

The access/egress point will be stabilised using clean aggregate or sealed to avoid any construction related material leaving the site.

The following aggregate fill volume will be imported to site from the Winstones Quarry in Ōtaki to enable construction of the local roads:

Activity	Subbase (T)	Basecourse (T)
Ōtaki Gorge Road	8100	4300
Old Hautere Road	3600	2800
School Road	2500	1200
Gear Road	2800	1400

3.2 Construction plant

The plant items to be used to undertake each of the activities will generally be as follows:

Earthworks

- 6 – 20T excavators
- Dozers
- 12T rollers
- Dump trucks
- Water carts as required

- Light vehicles

Pavement Works

- Machine control grader
- Water cart
- 14t Single Smooth Drum Oscillating Roller
- 14t Single Drum Padfoot Vibrating Roller
- Pneumatic Tyred Roller
- Double Smooth Drum Oscillating Roller
- 2.4m Hoe Stabiliser
- Cement Spreader Truck
- Large Loader
- Bottom Dump Truck and Trailer

All plant is required to be inspected prior to start of works and during construction activities at regular intervals. Unwanted vegetation, seeds or contaminants will be cleared prior to plant entering the site to avoid the introduction or spread of weeds or pest species.

Plant inspections will be recorded on daily plant inspection forms to demonstrate that all plant used on this project are in good working order and have been cleared of unwanted weeds and pest species. Any faulty equipment will be stood down until the necessary repairs are carried out and the given plant is fit for purpose.

Spill control kits will be available on site in areas where heavy machine is working. Refuelling activities will take place using a mini-tanker at least 10m away from any watercourse to prevent additional risk of spillage to water. Plant and machinery will not enter any waterway at any stage of works.

3.3 Disposal sites

A number of temporary stockpile sites will be required to cater for the excess topsoil / unsuitable material that is not temporarily disposed of into dirty or clean water diversion bunds. Temporary stockpiles that consist of the top 300mm of topsoil stripped from contaminated land areas (refer to Appendix C drawings) will remain within the current property parcel. The top 300mm of topsoil from these areas will not be used in water diversion bunds. As a precautionary measure, if soft unsuitable material is discovered below 300mm, this will be stockpiled separately and remain within the same land parcel to be tested for levels of contamination prior to final disposal. A proposal will be submitted to GWRC for approval prior to final placement of this material, summarising the level of contaminants within this surplus material and will outline final disposal sites. All Stockpile sites have indicatively been marked on the drawings in Appendix C and will be located at least 50m from any watercourses. Temporary stockpiling of pavement aggregates will also be required along the alignment footprint, however the majority of material will be progressively spread as it is carted to site to reduce the amount of double handling of materials.

3.4 Water supply

Water may be required to prevent dust discharge from site during works. Water required for these works will be collected from off-site.

Any water supply bores required on site must be constructed in accordance with BC.1 – 4 with any water take done so in accordance with GT. 4-7.

3.5 General pre-works requirements

As part of the site preparation and establishment works the following mitigation measures will be implemented to avoid or minimise adverse environmental effects:

- Site specific information, including environmental constraints and requirements, will be discussed at the relevant pre-construction site meetings with input from specialists as required.
- Prior to works commencing in this area, the project surveyors will use GPS to identify the extent of works. The works area will be clearly marked-out with regular input from the survey team throughout works as required.
- Areas identified as 'retained vegetation' as per the approved vegetation retention plans will be clearly delineated using physical markers on site.
- Environmental requirements for any given area will be noted on each project "Permit to Work'. These permits are required for any activity on site and must be in place and signed off by the environmental team prior to works commencement.
- Clear areas of the site will be set up to deal with rubbish, construction materials and other miscellaneous materials to ensure that the site is maintained in a tidy and organised state. Majority of required supplies will be located at the main project site compound at Bridge Lodge.

4 ENVIRONMENTAL REQUIREMENTS

4.1 Contaminated Land

There are multiple properties within this stretch of works that have been identified as land requiring controls regarding low level contaminated soils (15-19 Otaki Gorge Road and all land south of Otaki Gorge Road to Old Hautere Road). These are identified in Appendix C.

The Bulk Earthworks Contaminated Land Management Plan (BECLMP) provides a framework and general procedures for the management of contaminated soil and other contaminated materials/structures potentially present in ground that may be disturbed or require removal to complete the Project.

The BECLMP includes:

- A summary of human health controls for health and safety planning/training requirements, personal protective equipment, and personal monitoring;
- A summary of responsible parties to the land disturbance works;
- A summary of environmental controls for odour, dust, spoil stockpiling, soil disposal, groundwater, disposal; and
- Procedures for encountering unknown contamination.

The controls regarding topsoils at the following locations are as follows:

4.1.1 15-19 Otaki Gorge Road

During construction

- Topsoil stripped to approximately 300mm for construction purposes from these properties will be stockpiled within the current property parcel from where it was sourced. There are no surface water bodies in the vicinity of these properties and all site runoff during construction will remain on site until full site stabilisation is achieved (and therefore allows the livening of the stormwater network).
- Any deeper soil to be stockpiled will be separated from these topsoils and clearly delineated to minimise the likelihood of cross contamination. This material will also remain within the same land parcel from where it was sourced. This deeper soil below 300mm will be re-tested to determine the level of contaminants, following which a proposal will be submitted to GWRC for approval outlining the level of contaminants and intended final placement of this material.
- If any unexpected contamination is found, the processes set out in the certified BECLMP will be followed, including removal of material to a licenced landfill authorised to accept such material (if disposal is required).

Final placement of material

- Topsoil stripped to approximately 300mm for construction purposes from these properties will remain within the current property parcel.
- The top 300mm of topsoil will be used to construct the local road embankments and will not be placed in any watercourse diversion, wetland, or stormwater pond. Any topsoil required in these locations will be imported from a suitable source (including other sites within the designation). Topsoil will also not be placed in the base of swales.
- The final placement of deeper soils will be determined following re-testing of the material and subsequent approval by GWRC regarding final placement of this material.
- To manage the risk of erosion of the topsoil, the topsoil will be stabilised through mulching and/or planting progressively.

4.1.2 Otaki Gorge Road to Old Hautere Road (34, 36, 38 Otaki Gorge Road and 9 Old Hautere Road)

During construction

- Topsoil stripped to approximately 300mm for construction purposes from these properties will be stockpiled in the landscape bund footprint between the Expressway and local road alignments (see Appendix C), and will be stockpiled within the property parcel from where it was sourced.
- There are no surface water bodies in the vicinity of these properties and all site runoff during construction will remain on site until full site stabilisation is achieved (and therefore allows the livening of the stormwater network).
- Any deeper soil to be stockpiled will be separated from the topsoil and clearly delineated to minimise the likelihood of cross contamination. This material will also remain within the same land parcel from where it was sourced. This deeper soil below 300mm will be re-tested to determine the level of contaminants, following which a proposal will be submitted to GWRC for approval outlining the level of contaminants and intended final placement of this material.
- If any unexpected contamination is found, the processes set out in the certified BECLMP will be followed, including removal of material to a licenced landfill authorised to accept such material (if disposal is required).

Final placement of material

- Topsoil stripped to approximately 300mm for construction purposes from these properties will remain within the current property parcel from where it was sourced.
- This material will be used in the construction of the landscape bund between the local road and the Expressway alignment or placed on local road and main alignment embankments.
- The topsoil will not be placed in any watercourse diversion, wetland, or stormwater pond. Any topsoil required in these locations will be imported from a suitable source (including other sites within the designation). Topsoil will also not be placed in the base of swales.
- The final placement of deeper soils will be determined following re-testing of the material and subsequent approval by GWRC regarding final placement of this material.
- To manage the risk of erosion of the topsoil, the topsoil will be stabilised through mulching and/or planting progressively.

4.2 Erosion and Sediment Control

- Erosion and sediment control measures are outlined on Appendix C drawings.
- Prior to full topsoil stripping, a combination of dirty water and clean water diversion bunds will be installed around the School Road and Gear Road work sites as shown in Appendix C.
- Diversion bunds will be constructed to a minimum height of 650mm to cater for catchment sizes of up to 4ha (note in some areas clean water is to be accepted into the site).
- Floating T-Bar decants may need to be installed at the low point of dirty water diversion bunds with a stabilised emergency spillway in accordance with the ESCP to ensure that site runoff is sufficiently treated prior to discharge. The exact location of the floating T-Bar will be

determined on site. Any decants will be held up using a pulley system or suitable alternative as the default position and be lowered as required following sufficient treatment. Any lowering of decants will be carried out under an approved permit to pump as specified in the project ESCP, and as a minimum must adhere to the following general conditions:

- The discharge must not increase the downstream water quality at the nearest watercourse by >20% (compared to upstream levels if applicable).
- The discharge does not cause obvious visual discolouration of the downstream environment beyond 'reasonable mixing' (deemed as 30m from initial discharge point unless otherwise specified due to access restrictions).
- Permit to pump documentation must be available for inspection by GWRC upon request.

- Stockpile areas will be controlled within the diversion bunds, or be located such that runoff is contained by existing ground topography.
- Following initial topsoil stripping down to subgrade (approximately 300mm deep), the local road footprints will be built up to approximately existing ground level with aggregate fill, essentially stabilising majority of the site as works progress.
- Between Ōtaki Gorge Road and Old Hautere Road, the existing ground topography is very flat with a slight fall from east to west (refer to Appendix C for existing ground levels), with a natural high ridge along the western and southern boundaries. Given that the site will be cut down to subgrade level and either left this way (i.e. main alignment / haul road), or built back up with aggregate (local road footprint), additional sediment controls are not required in this area. As a contingency, a T-bar decant may be fitted at the northern end at Ōtaki Gorge Road (low point) within the eastern local road swale as indicated on Appendix C drawings.
- To allow for additional storage of site runoff associated with the temporary stockpile location (landscape bund footprint), it's likely that the stockpile will be day-lighted out in sections to allow runoff to fall towards the main alignment area to the west.

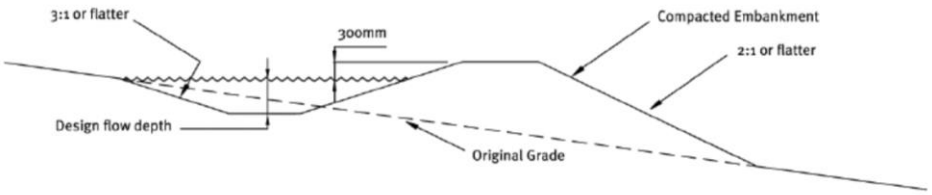


Figure 2: Typical cross section of dirty water diversion bund in accordance with the project ESCP.

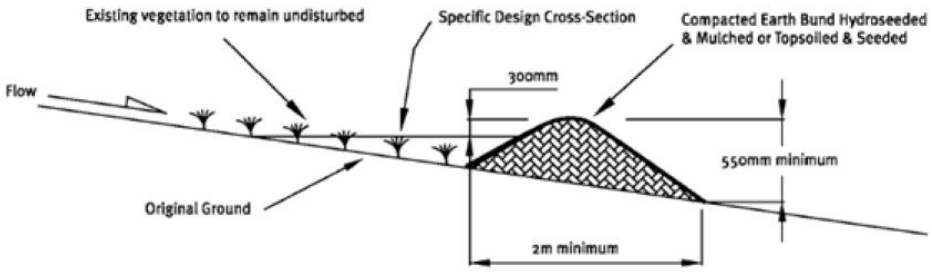


Figure 3: Typical cross section of clean water diversion bund.

4.3 Ecological requirements

Project ecological requirements are set out in the Ecological Management Plan (EMP) which outlines a number of locations that have specific requirements in regards to terrestrial and aquatic species that need to be considered prior to and during works.

In the area of works covered by this SSEMP, there are no specific ecological requirements that need to be implemented.

4.4 Water quality monitoring

Routine NTU monitoring is not proposed for these works given that works will not directly impact any watercourses. Triggered NTU monitoring will be carried out in accordance with Section 6.3 and Section 6.6 of the EMP.

4.5 Cultural monitoring

A Kaiarahi (iwi guide / leader) is the key point of contact and coordination for Ngā Hapū o Ōtaki. The Kaiarahi will be involved in the design process, construction supervision and environmental monitoring. The Kaiarahi will be supported by the Kaitiaki (guardians) who provide support in supervision and monitoring activities and provision of specialist advice. Ngā Hapū o Ōtaki will be informed of all works on site and invited to be present for all works, particularly in regards to initial topsoil stripping.

Contact must also be maintained with Muaupoko Tribal Authority (MTA) in accordance with MTA agreement and confirmed accidental discovery protocols, summarised in Appendix E.

4.6 Archaeology

All works under this SSEMP will be carried out in accordance with the approved archaeological authority and the Archaeological Site Management Plan. The Archaeological Site Management Plan outlines high, medium, and low risk archaeological areas across the project footprint.

One area is considered to be a “high risk” archaeological area referred to in the Archaeological Management Plan as ‘Matenga Moroati’s House’. Pre-construction site investigations have been undertaken at this property. During initial topsoil stripping, an Archaeologist and Kaitiaki will be present on site to monitor works.

All remaining areas covered under this SSEMP are deemed to be low-risk areas and will be covered by ‘Accidental Discovery Protocols’. Accidental discovery protocols are outlined in the Archaeological Site Management Plan and must be adhered to in instances where subsurface archaeological remains, koiwi tangata, or taonga are exposed during construction.

The agreed protocols are summarised in Appendix E.

4.7 Noise and vibration

The Construction Noise and Vibration Management Plan (CNVMP) identifies the noise and vibration performance standards that must, where practicable, be complied with. It also sets out best practicable options for noise and vibration management for the Project, including mitigation measures, monitoring requirements, and communication and complaint procedures. All works under this SSEMP will be carried out in general accordance with the CNVMP.

High-risk areas in regards to potential noise and vibration effects as a result of works have been identified in Appendix C. Individual dwellings located within the high risk areas have also been listed below.

In accordance with the CNVMP, works carried out under this SSEMP will generally be restricted to take place between the hours of:

- 0630 and 2000hrs on weekdays; and
- 0730 and 1800hrs on Saturdays.

As far as practicable, works will be scheduled to avoid noisy activities in areas identified as sensitive receivers on the attached drawings between 0630 – 0730hrs in the morning, and between 1800 – 2000hrs in the evening to align with noise level criteria outlined in the CNVMP.

It is not anticipated that works will be required to take place outside of normal working hours for works outlined in this SSEMP. In the event that this changes, the procedures outlined in the CNVMP will be followed. Any works outside of the hours of 7am to 7pm require written approval from the Project Engineer.

The primary mitigation measure in regards to reducing the impacts from construction noise and vibration will be ongoing effective community consultation, particularly when transitioning from one works phase to another.

Noise and vibration monitoring will take place throughout the works to assess the impacts on adjacent properties at various locations. In the event that noise or vibration criteria is exceeded, mitigation options will be reassessed in an effort to comply with the construction limits, and a site specific noise 'schedule' will be submitted to Kapiti Coast District Council in accordance with the CNVMP.

Dwellings located within the noise and vibration boundary are as follows:

- 34 Ōtaki Gorge Road
- 45 Ōtaki Gorge Road
- 15 Ōtaki Gorge Road
- 9 Old Hautere Road
- 10 Old Hautere Road
- 32 School Road
- 34 School Road
- 36 School Road

Dwellings within the vibration boundary only are as follows:

- 32 Ōtaki Gorge Road
- 44 Ōtaki Gorge Road
- 19 Old Hautere Road
- 38 School Road
- 42 School Road
- 45 Gear Road
- 95 Gear Road
- 96 Gear Road
- 97 Gear Road

4.7.1 Pre-condition building surveys

Section 7 of the CNVMP outlines activities that are expected to generate vibration that will potentially cause medium and high level vibration and therefore must be assessed to determine whether a pre-condition building survey is required.

One property falls within the 'high risk' category using a distance criteria to potential high risk activities in regards to vibration (i.e. vibrating roller). However, this property is owned by NZTA and is not occupied and therefore a pre-condition building inspection is not necessary prior to works commencing in the area.

4.8 Air quality

There is potential for works to generate dust discharge if the site is not managed effectively. The Construction Air Quality Management Plan (CAQMP) outlines methods to be used to prevent dust and odour nuisance during construction from the site. All works under this SSEMP will be carried out in general accordance with the CAQMP.

To ensure that dust does not become an issue across the boundary of the site, the following measures will be implemented as a minimum:

- Use of water carts as required during earthworks and pavement construction
- Imposing a speed limit if required
- Use of stabilising agents such as polymers if required
- Assessing wind speed and direction on a daily basis

Certain properties fall within the 'high risk air quality' zone as identified in Appendix C drawings. Provided that the site is managed effectively, it is not anticipated that these works will cause an adverse impact in these locations.

5 TRAFFIC

There are no additional site access / egress points required for works covered under this SSEMP. Existing site access points will be utilised for these works from Ōtaki Gorge Road (SAP-9 and SAP-10), Old Hautere Road (SAP-8), School Road (SAP-6) and Gear Road (SAP-5) as originally identified through SSTMP PW2 'Vegetation Clearance and Enabling Works' and highlighted on the drawings in Appendix C. Two temporary road diversions will be constructed at Ōtaki Gorge Road and immediately north of School Road. A Site Specific Traffic Management Plan (SSTMP) has been included as Appendix H which outlines the location of each temporary diversion and general site layout relevant to traffic management.

APPENDIX A – SSEMP AUTHORS

Name	Role	Company	Input
Alice Naylor	Environmental Manager	Higgins	All
Richard Rakovics	Project Civils Manager	Fletcher Construction	Enabling Earthworks Methodology
Julia Roberts	Pavement Engineer	Higgins	Pavement construction methodology
Macu Waga	Site Engineer	Fletcher Construction	General sequencing and works methodology
Genevieve Smith	Beca Environmental	Beca	Contaminated Land

APPENDIX B – CONSULTATION RECORD

Group	Date
Community Liaison Group	Discussed at CLG meeting 26/03/18
	Distributed to CLG Group for comment

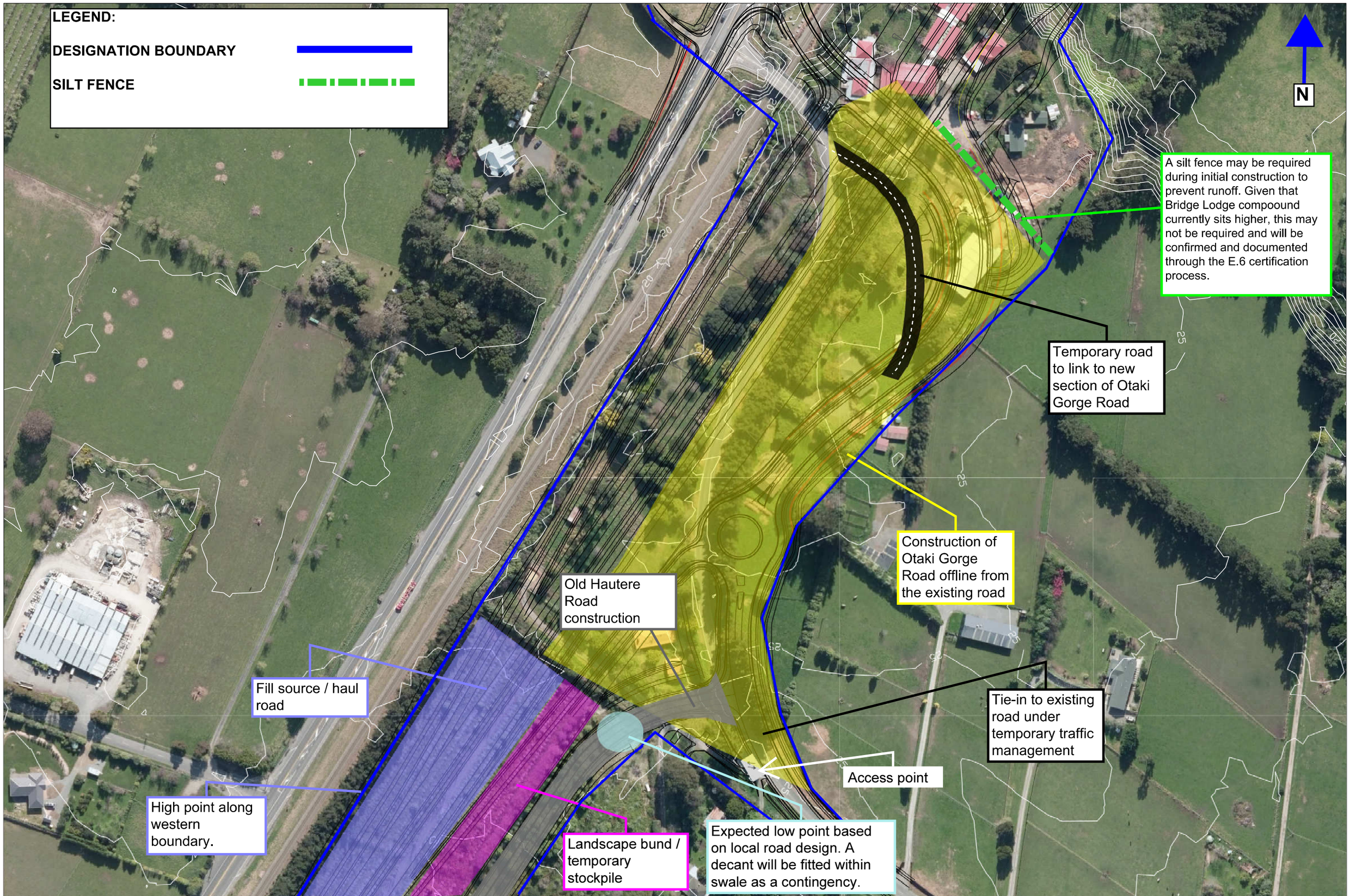
Outstanding Queries

The following outlines any queries (relevant to works covered under this SSEMP) that have not been resolved through the SSEMP preparation process, but will instead be closed out via alternative project stakeholder and communication channels:

NIL

APPENDIX C – DRAWINGS

Works Methodology / Layout Plan



NZ TRANSPORT AGENCY | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

SSEMP SLR1 - PAGE 1

SSEMP-SLR1-1

LEGEND:

DESIGNATION BOUNDARY

DIRTY WATER DIVERSION BUND

N

High point along western boundary.

Fill source / haul road

Old Hautere Road construction

Landscape bund / temporary stockpile

NZ TRANSPORT AGENCY | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

SSEMP SLR1 - PAGE 2

SSEMP-SLR1-2

1

ORIGINAL SIZE A1 - DO NOT SCALE

IF IN DOUBT ASK

LEGEND:

DESIGNATION BOUNDARY

DIRTY WATER DIVERSION BUND

N

Fill source / haul road

High point along western and southern boundary.

Indicative location for worker conveniences, portaloos and parking

Landscape bund / temporary stockpile area

Old Hautere Road construction

Access point

Tie-in to existing road under temporary traffic management

NZ TRANSPORT AGENCY

Peka Peka to Ōtaki Expressway

Fletcher HIGGINS

BECA TT Tonkin+Taylor

SSEMP SLR1 - PAGE 3

SSEMP-SLR1-3

1

ORIGINAL SIZE A1 - DO NOT SCALE

IF IN DOUBT ASK

LEGEND:

DESIGNATION BOUNDARY

DIRTY WATER DIVERSION BUND

CLEAN WATER DIVERSION BUND

N

Dirty water diversion bunds are to tie into the high access point location to prevent discharge from site,

Access point (SAP6)

Dirty water diversion bunds 650mm. Decant at low point.

Stockpile locations

Existing School Road Drain

Temporary road diversion to tie into new section of road

Construction of School Road

HOLD POINT:
SCHOOL ROAD DRAIN DIVERSION PRIOR TO FINAL ROAD TIE-IN (SSEMP SC1)

Tie-in to existing road under temporary traffic management

Construction of Gear Road

Clean water diversion bunds 650mm

Existing School Road

NZ TRANSPORT AGENCY | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

SSEMP SLR1 - PAGE 4

SSEMP-SLR1-4

1

LEGEND:

DESIGNATION BOUNDARY

DIRTY WATER DIVERSION BUND

CLEAN WATER DIVERSION BUND

N

Existing Gear Road (higher than the site)

Construction of Gear Road

Haul Road / temporary stockpile location in landscape bund footprint

Clean water diversion bunds 650mm

Indicative location for worker conveniences, portaloos and parking

Dirty water diversion bunds 650mm with decant fitted at low point

HOLD POINT: PERMANENT CULVERT 35 REQUIRED (SSEMP SC1)

Existing Drain

Tie-in to existing road under temporary traffic management

Access point (SAP5)

NZ TRANSPORT AGENCY | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

SSEMP SLR1 - PAGE 5

SSEMP-SLR1-5

1

Existing ground levels north of Old Hautere Road (mRL)

N

24.864
24.539
24.864
24.864
25.195
25.225
25.571
25.516
25.784
24.914
26.317
24.924
25.152
25.582
25.761
25.683

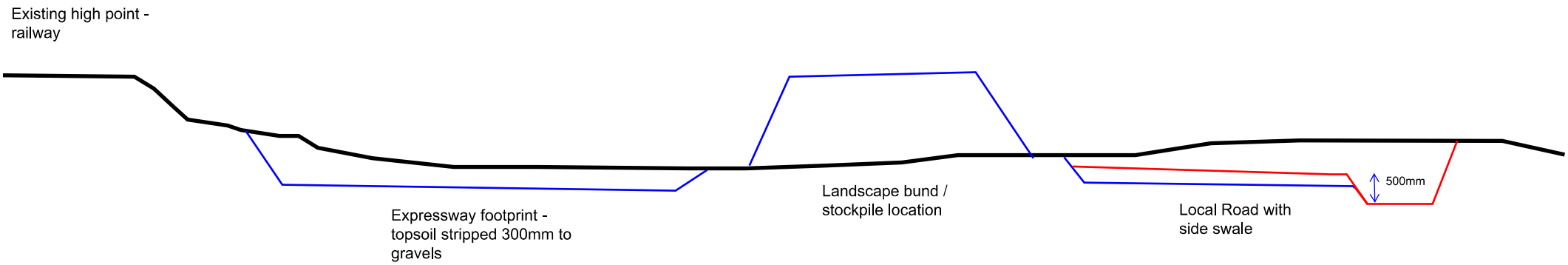
Peka Peka to Ōtaki Expressway

Existing Ground Levels

SSEMP-SLR1-4

1

Indicative cross section of existing ground vs planned works north of Old Hautere Road



Environmental Constraints Drawing

ECOLOGY LEGEND:

TERRESTRIAL ECOLOGY REQUIREMENTS:

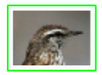
LIZARD SURVEYS, SALVAGING AND MONITORING

NATIVE TREE LOG SALVAGE

PERIPATUS MANAGEMENT

POWELLIPHANTA TRAVERSI OTAKI SURVEY

BIRD SURVEY



PIPIT SURVEY

BANDED DOTTEREL SURVEY

NOISE VIBRATION LEGEND:

VIBRATION - LOW RISK (RESIDENTIAL)

VIBRATION - LOW RISK (COMMERCIAL)

COMMERCIAL STRUCTURES WITHIN VIBRATION BOUNDARY

DWELLINGS WITHIN VIBRATION BOUNDARY

DWELLINGS WITHIN BOTH NOISE AND VIBRATION BOUNDARIES

AIR QUALITY:

AIR QUALITY SENSITIVE RECEIVERS

DRAINAGE LEGEND:

DESIGNATION

RAILWAY DESIGNATION

EXISTING STREAMS

STORMWATER WETLAND/POND

SITE COMPOUNDS:

HARD STAND AREA

SITE ENTRY AND EXIT

ARCHAEOLOGICAL HIGH-RISH AREAS:

SITE ARCHAEOLOGICAL

SITES ARCHAEOLOGICAL-AERIAL-PHOTO

LANDSCAPE:

EXISTING VEGETATION RETAINED

ORIGINAL IN COLOUR

FOR INFORMATION
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
B	SSEMP FOR INFORMATION	WW			14.09.17
A	SSEMP FOR INFORMATION	AR	GD	AN	28.07.17

Scale (A1) 1:1000
Scale (A3)

Design	AN	13.07.17	Approved For Construction
Drawn	AR	13.07.17	
Dsg Verifier			
Drg Check			Date

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

Subject: SSEMP PW2
Title: LEGENDS

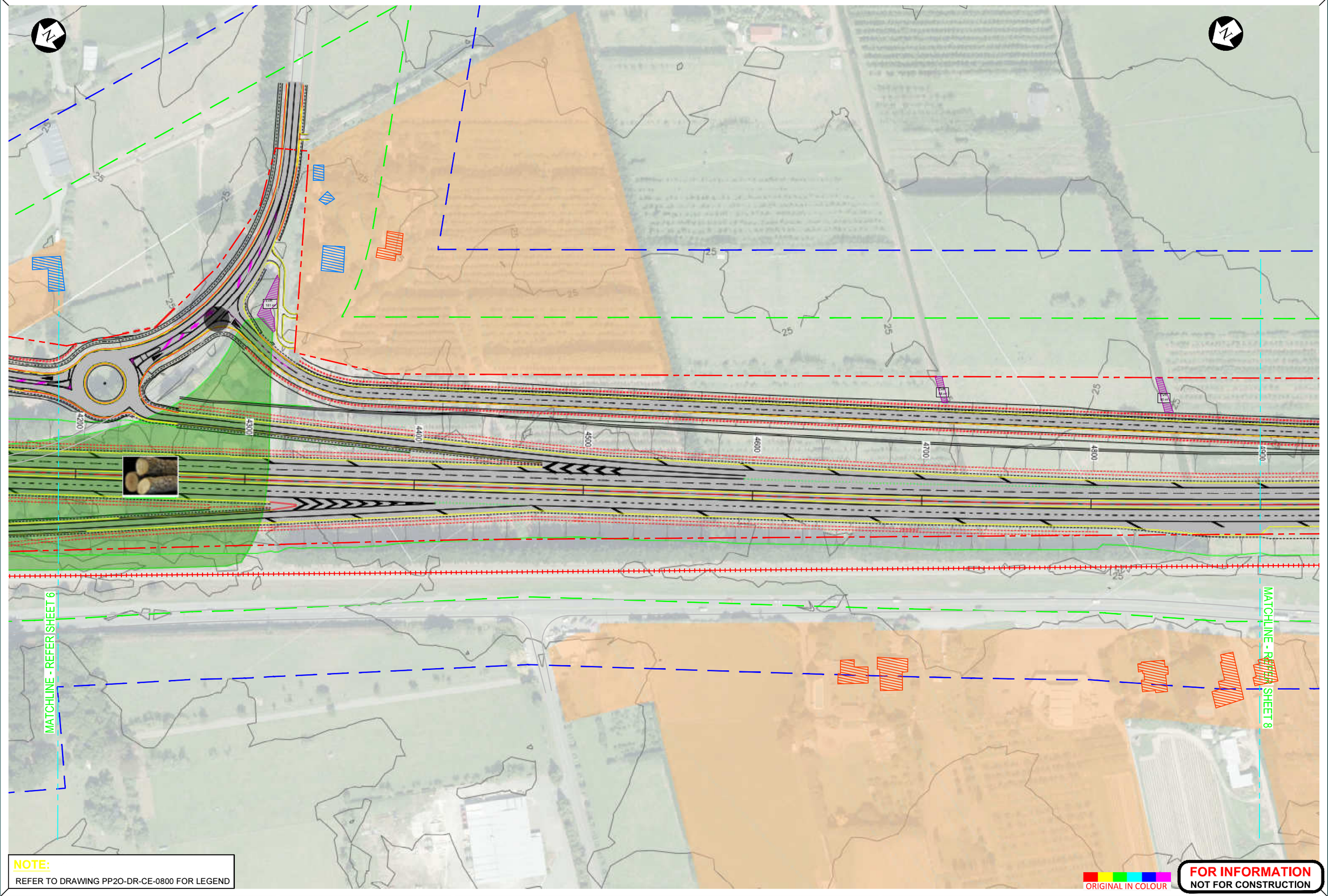
Discipline: CIVIL
Drawing No.: SSEMP PW2-00
Rev.: B

Document No. \\MZPPSP.FCC.INTERNAL\DAV\WWWROOT\2000\27\270 SECTOR GENERAL\PRECAST WORKING SHOP DRAWINGS\PP2O\FOR ALICE\PP2O-DR-CE-0801-0818 2017-09-28+ STANDARD\PP2O-DR-CE-0801-0818_14.09-ZMIANA TABELKI REWIZJI+ DO WYRZUCANIA.DWG

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Save Date: 02 Nov 2017 10:16 a.m.



NOTE:
REFER TO DRAWING PP2O-DR-CE-0800 FOR LEGEND

ORIGINAL IN COLOUR

FOR INFORMATION
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
B	SSEMP FOR INFORMATION	WW			14.09.17
A	SSEMP FOR INFORMATION	AK	GD	AN	20.07.17

Scale (A1) 1:1000
Scale (A3)

Design	AN	13.07.17	Approved For Construction
Drawn	AK	13.07.17	
Dsg Verifier	-	-	
Drg Check	-	-	Date -

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI

Peka Peka to Ōtaki Expressway

IPC_Logo_SMALL_Colour_40%.jpg

Beca

HIGGINS

Tonkin+Taylor

Subject: SSEMP PW2

Title: SHEET 07 OF 18

Discipline: CIVIL

Drawing No.: SSEMP-PW2-07

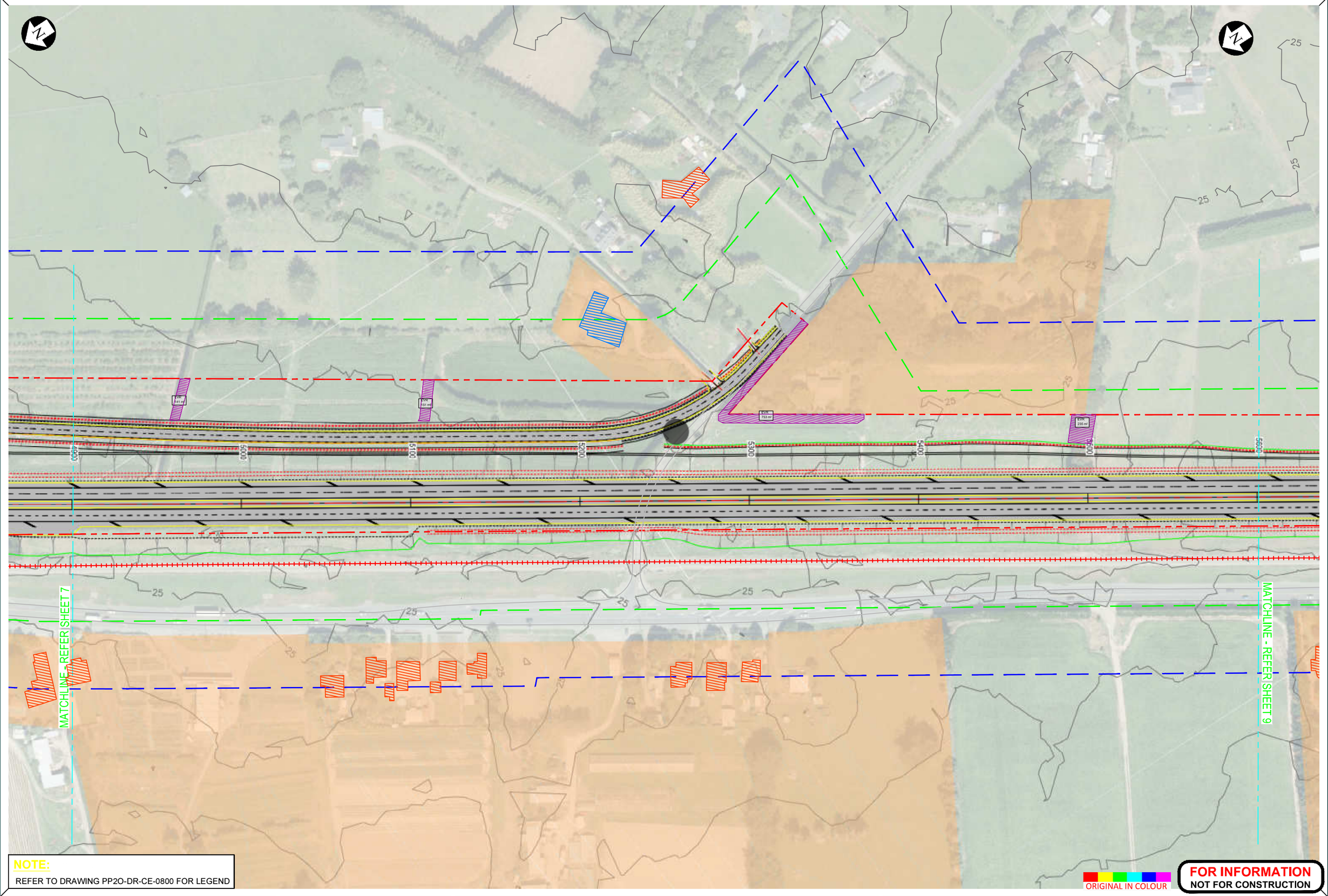
Rev.: B

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Document No. \\APPSP-FCIC.INTERNAL\DAVWWWROOT\2000\27\270 SECTOR GENERAL\PRECAST WORKING SHOP DRAWINGS\PP2O\FOR ALICE\PP2O-DR-CE-0801-0818 2017-08-28- STANDARD\PP2O-DR-CE-0801-0818_29.09-SET2.DWG

Save Date: 02 Nov 2017 10:16 a.m.



NOTE:
REFER TO DRAWING PP2O-DR-CE-0800 FOR LEGEND

ORIGINAL IN COLOUR

FOR INFORMATION
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
B	SSEMP FOR INFORMATION	WW			14.09.17
A	SSEMP FOR INFORMATION	AK	GD	AN	07.07.17

Scale (A1) 1:1000 Scale (A3)	Design	AN	13.07.17
	Drawn	AK	13.07.17
	Dsg Verifier		
	Drg Check		
	* Refer to Original Hardcopy for Signature		

Approved For Construction
Date

NZ TRANSPORT AGENCY WAKA KOTAHI
Peka Peka to Ōtaki Expressway
Beca
HIGGINS
Tonkin+Taylor

Subject: SSEMP PW2
Title: SHEET 08 OF 18

Discipline: CIVIL
Drawing No.: SSEMP-PW2-08
Rev.: B

Document No. \\MDPPSP.FCC.INTERNAL\DAV\WWROOT\200\271\270 SECTOR GENERAL\PRECAST WORKING SHOP DRAWINGS\PP2O\FOR ALICE\PP2O-DR-CE-0801-0818 2017-08-28- STANDARD\PP2O-DR-CE-0801-0

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Save Date: 02 Nov 2017 10:17 a.m.

MANGAONE LINK RD EAST CULVERT

MANGAONE EXPRESS CULVERT

MATCHLINE - REFER SHEET 10

MATCHLINE - REFER SHEET 12

NOTE:
REFER TO DRAWING PP2O-DR-CE-0800 FOR LEGEND

ORIGINAL IN COLOUR

FOR INFORMATION
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
B	SSEMP FOR INFORMATION	WW			14.09.17
A	SSEMP FOR INFORMATION	AK	GD	AN	26.07.17

Design	AN	13.07.17	Approved For Construction
Drawn	AK	13.07.17	
Dsg Verifier	-	-	
Drg Check	-	-	Date

Scale (A1) 1:1000
Scale (A3)
* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI
Peka Peka to Ōtaki Expressway
Beca
HIGGINS
Tonkin+Taylor

Subject: SSEMP PW2
Title: SHEET 11 OF 18

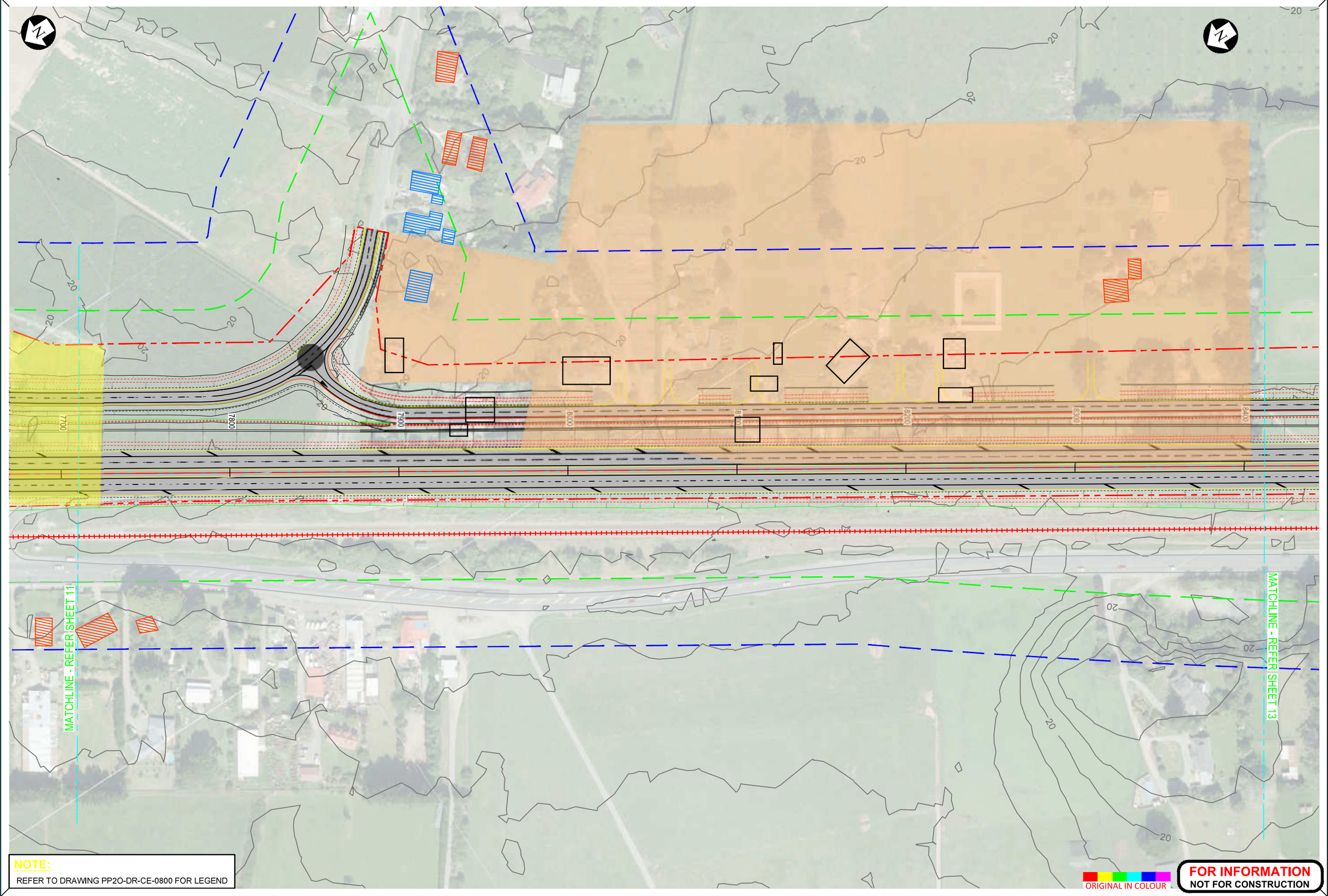
Discipline: CIVIL
Drawing No.: SSEMP-PW2-11
Rev.: B

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Document No. \\WZPPSP-FCC.INTERNAL\DAVWWWROOT\2020\27\270 SECTOR GENERAL\PRECAST WORKING SHOP DRAWINGS\PP2O\FOR ALICE\PP2O-DR-CE-0801-0818_28,09-SET2.DWG

Save Date: 02 Nov 2017 10:18 a.m.



NOTE:
REFER TO DRAWING PP2O-DR-CE-0800 FOR LEGEND

ORIGINAL IN COLOUR

FOR INFORMATION
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
B	SSEMP FOR INFORMATION	WW			14.09.17
A	SSEMP FOR INFORMATION	AK	GD	AN	21.07.17

Scale (A1) 1:1000
Scale (A3)

Design	AN	13.07.17	Approved For Construction
Drawn	AK	13.07.17	
Dsg Verifier			Date
Drg Check			

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI
Peka Peka to Ōtaki Expressway
Beca
HIGGINS
Tonkin+Taylor

Subject: SSEMP PW2
Title: SHEET 12 OF 18

Discipline: CIVIL
Drawing No.: SSEMP-PW2-12
Rev.: B

Document No. \\MPPSP.PCC.INTERNAL\DAV\WWWROOT\2009\27270.SECTOR.GENERAL\PRECAST WORKING SHOP DRAWINGS\PP2O\FOR ALICE\PP2O-DR-CE-0801-0818 2017-09-26- STANDARD\PP2O-DR-CE-0801-0818_29.09-SET2.DWG

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Save Date: 02 Nov 2017 10:18 a.m.

GEAR ROAD CULVERT

SETTLEMENT HEIGHTS CULVERT

MATCHLINE - REFER SHEET 12

MATCHLINE - REFER SHEET 14

NOTE:
REFER TO DRAWING PP2O-DR-CE-0800 FOR LEGEND

ORIGINAL IN COLOUR

FOR INFORMATION
NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
B	SSEMP FOR INFORMATION	WW			14.09.17
A	SSEMP FOR INFORMATION	AR	GD	AN	20.07.17

Scale (A1) 1:1000
Scale (A3)

Design	AR	13.07.17	Approved For Construction
Drawn	AR	13.07.17	
Dsg Verifier			
Drg Check			Date

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI

Peka Peka to Ōtaki Expressway

/FC_Logo_SMALL_Colour_40Pt.jpg

Beca HIGGINS Tonkin+Taylor

Subject: SSEMP PW2

Title: SHEET 13 OF 18

Discipline: CIVIL

Drawing No: SSEMP-PW2-13

Rev: B

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Document No. \\WZPSP FCC.INTERNAL\DAV\WWROOT\2000271270 SECTOR GENERAL\PRECAST WORKING SHOP DRAWINGS\PP2O\FOR ALICE\PP2O-DR-CE-0801-0818 2017-08-28- STANDARD\PP2O-DR-CE-0801-0818_29.09-SET2.DWG

Contaminated Land Summary

Save Date: 09 Mar 2018 3:44 p.m.

LEGEND:

- DESIGNATION BOUNDARY
- PROPERTY BOUNDARY
- RAIL DESIGNATION
- RAIL EXISTING
- RAIL PROPOSED
- STRUCTURE
- PROPOSED CONCRETE SHARED PATH
- PROPOSED CONCRETE FOOTPATH
- POTENTIAL SHARED PATH
- EXISTING PATHS
- EXISTING STREAM
- EXISTING STREAM TO BE REMOVED
- PROPOSED CULVERT
- PROPOSED STREAM DIVERSION/ FLOOD DIVERSION CHANNEL
- VEHICLE MAINTENANCE ACCESS
- PEDESTRIAN MAINTENANCE ACCESS
- LAND NOT ACCESSIBLE
- SWALE/CUT-OFF DRAIN
- FENCE
- ITS INFRASTRUCTURE - REFER ITS DRAWINGS

NOTES:

1. REFER KCDC STANDARD DETAILS DRAWING KCDC-RD-005 FOR RESIDENTIAL VEHICLE CROSSING.
2. REFER KCDC STANDARD DETAILS DRAWING KCDC-RD-006 FOR COMMERCIAL AND INDUSTRIAL HEAVY DUTY VEHICLE CROSSING
3. REFER KCDC STANDARD DETAILS DRAWING KCDC-RD-011 FOR PEDESTRIAN REFUGE DETAIL
4. REFER KCDC STANDARD DETAILS DRAWING KCDC-RD-011 FOR PEDESTRIAN KERB RAMPS
5. FOR BARRIER ROPES, REFER TO BARRIER AND LIGHTING LAYOUT PLAN PP2O-DR-CL-0530 TO 0535.
6. FOR STORMWATER DETAILS, REFER TO PP20-SK-SW-0101 TO 0147.

15 Otaki Gorge Road

19 Otaki Gorge Road

34 Otaki Gorge Road

GROUNDWATER MONITORING STANDPIPES TO BE PROTECTED DURING EARTHWORKS AND CONSTRUCTION

NO TEMPORARY OR PERMANENT CONSTRUCTION PERMITTED

2.5m SHARED PATH

4.0m POTENTIAL SHARED PATH

4.0m POTENTIAL SHARED PATH

TIE-IN TO EXISTING ŌTAKI GORGE ROAD

EXTENT OF WORKS

PRIVATE ACCESS

PRIVATE ACCESS

PRIVATE ACCESS

ŌTAKI GORGE ROAD

OLD HAUTERE ROAD

SOUTHBOUND ON RAMP

LANDSCAPE BUND

MAINLINE SOUTHBOUND

MAINLINE NORTHBOUND

MATCHLINE - REFER PP2O-DR-CL-0501

MATCHLINE - REFER PP2O-DR-CL-0503

BH818

BH820

FOR CONSTRUCTION

ORIGINAL IN COLOUR

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	SP	BS	9.03.18

Scale (A1) 1:500
Scale (A3)

Design	S.Perman	15.08.17	Approved For Construction B.Symmans
Drawn	A.Kochar	15.08.17	
Dsg Verifier	P.Chatterley	09.03.18	
Drg Check	G.Down	09.03.18	Date 09.03.18

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

Subject: ŌTAKI GORGE ROAD & OLD HAUTERE ROAD
Title: Contaminated Land Summary

Discipline: CIVIL
Drawing No.: PP2O-DR-CL-0502
Rev.: 1

Document No. R1390D - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\OCE\PP2O-DR-CL-0501-0505.DWG

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Save Date: 09 Mar 2018 3:44 p.m.

NOTES:

1. FOR STORMWATER DETAILS, REFER TO PP20-SK-SW-0101 TO 0147.

LEGEND:

- DESIGNATION BOUNDARY
- PROPERTY BOUNDARY
- RAIL DESIGNATION
- RAIL EXISTING
- RAIL PROPOSED
- STRUCTURE
- PROPOSED CONCRETE SHARED PATH
- PROPOSED CONCRETE FOOTPATH
- POTENTIAL SHARED PATH
- EXISTING PATHS
- EXISTING STREAM
- EXISTING STREAM TO BE REMOVED
- PROPOSED CULVERT
- PROPOSED STREAM DIVERSION/ FLOOD DIVERSION CHANNEL
- VEHICLE MAINTENANCE ACCESS
- PEDESTRIAN MAINTENANCE ACCESS
- LAND NOT ACCESSIBLE
- SWALE/CUT-OFF DRAIN
- FENCE
- ITS INFRASTRUCTURE - REFER ITS DRAWINGS

MATCHLINE - REFER PP2O-DR-CL-0502

MATCHLINE - REFER PP2O-DR-CL-0504

34 Otaki Gorge Road

36 Otaki Gorge Road

G CL-0552 Cross Section 32

4.0m POTENTIAL SHARED PATH

LANDSCAPE BUND

OLD HAUTERE ROAD

LANDSCAPE BUND

BH820

100

200

300

400

SOUTHBOUND ON-RAMP

MAINLINE SOUTHBOUND

MAINLINE NORTHBOUND

NORTHBOUND OFF RAMP

BH821

GROUNDWATER MONITORING STANDPIPES TO BE PROTECTED DURING EARTHWORKS AND CONSTRUCTION

NIMT RAILWAY

EXISTING SH 1

ORIGINAL IN COLOUR

FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	SP	BS	9.03.18

Scale (A1) 1:500
Scale (A3)

Design	S.Perman	15.08.17	Approved For Construction B.Symmans
Drawn	A.Kochar	15.08.17	
Dsg Verifier	P.Chatterley	09.03.18	
Drg Check	G.Down	09.03.18	Date 09.03.18

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI

Peka Peka to Ōtaki Expressway

Fletcher HIGGINS Beca Tonkin+Taylor

Subject: OLD HAUTERE ROAD

Title: Contaminated Land Summary

Discipline: CIVIL

Drawing No.: PP2O-DR-CL-0503

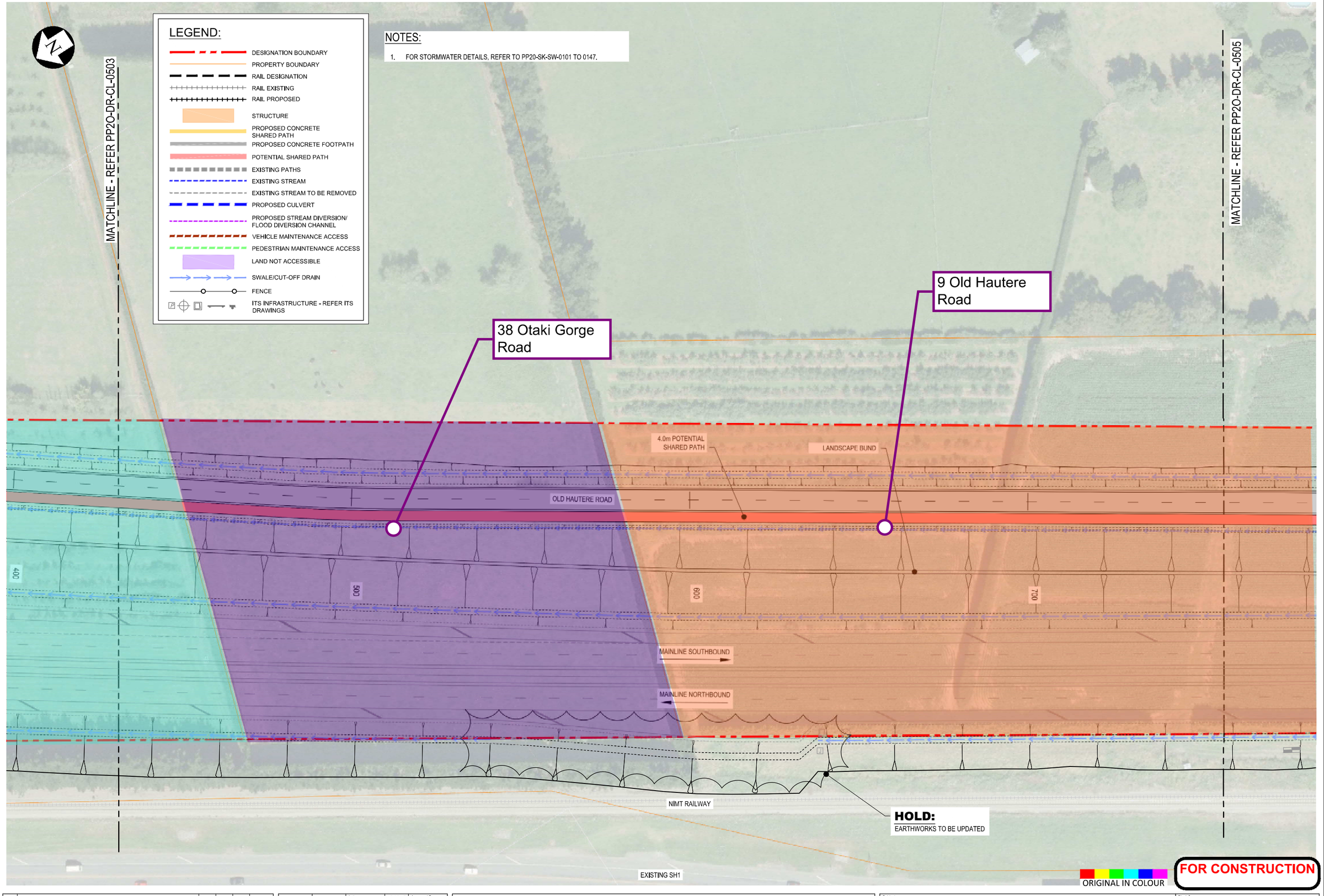
Rev.: 1

Document No. R130DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CE\PP2O-DR-CL-0501-0505.DWG

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Save Date: 09 Mar 2018 3:45 p.m.



No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	SP	BS	9.03.18

Scale (A1) 1:500
Scale (A3)

Design	S.Perman	15.08.17	Approved For Construction B.Symmans
Drawn	A.Kochar	15.08.17	
Dsg Verifier	P.Chatterley	09.03.18	
Drg Check	G.Down	09.03.18	Date 09.03.18

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

Subject: OLD HAUTERE ROAD
Title: Contaminated Land Summary

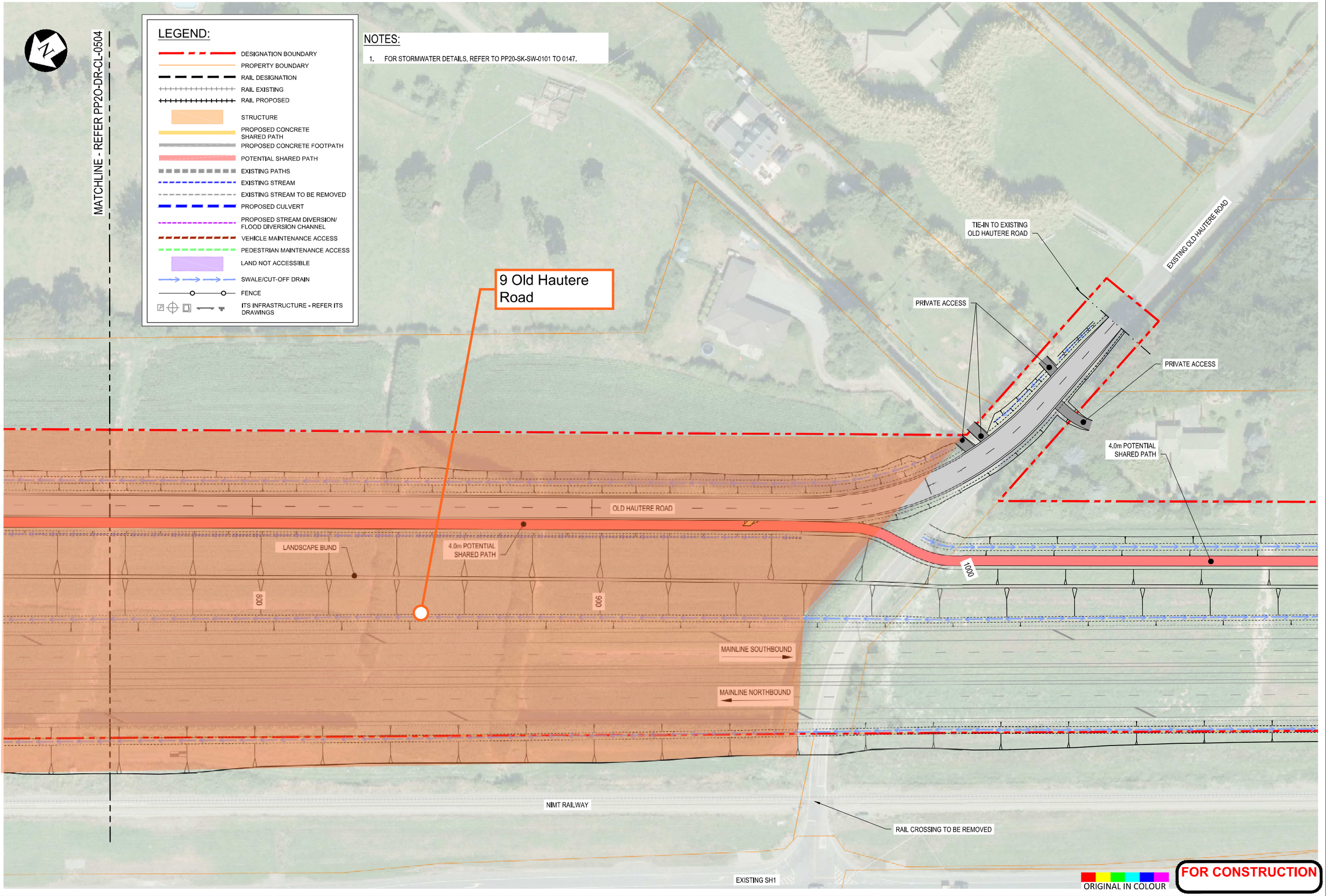
Discipline: CIVIL
Drawing No.: PP2O-DR-CL-0504
Rev.: 1

ORIGINAL SIZE A1 :. DO NOT SCALE

IF IN DOUBT ASK

Document No. R1300D - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CE\PP2O-DR-CL-0501-0505.DWG

Save Date: 09 Mar 2018 3:46 p.m.



No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	SP	BS	9.03.18

Scale (A1) 1:500 Scale (A3)	Design	S.Perman	15.08.17
	Drawn	A.Kochar	15.08.17
	Dsg Verifier	P.Chatterley	09.03.18
	Drg Check	G.Down	09.03.18
Approved For Construction	B.Symmans	Date	09.03.18

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

Subject: OLD HAUTERE ROAD

Title: Contaminated Land Summary

Discipline: CIVIL

Drawing No.

Rev. 1

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Document No. R1300D - DESIGN DEVELOPMENT GENERAL\009 CAD\DRAWINGS\CE\PP20-DR-CL-0501-0505.DWG

Construction Drawings

Save Date: 09 Mar 2018 3:44 p.m.

NOTES:

1. REFER KCDC STANDARD DETAILS DRAWING KCDC-RD-005 FOR RESIDENTIAL VEHICLE CROSSING.
2. REFER KCDC STANDARD DETAILS DRAWING KCDC-RD-006 FOR COMMERCIAL AND INDUSTRIAL HEAVY DUTY VEHICLE CROSSING
3. REFER KCDC STANDARD DETAILS DRAWING KCDC-RD-011 FOR PEDESTRIAN REFUGE DETAIL
4. REFER KCDC STANDARD DETAILS DRAWING KCDC-RD-011 FOR PEDESTRIAN KERB RAMPS
5. FOR BARRIER ROPES, REFER TO BARRIER AND LIGHTING LAYOUT PLAN PP2O-DR-CL-0530 TO 0535.
6. FOR STORMWATER DETAILS, REFER TO PP20-SK-SW-0101 TO 0147.

LEGEND:

- DESIGNATION BOUNDARY
- PROPERTY BOUNDARY
- RAIL DESIGNATION
- RAIL EXISTING
- RAIL PROPOSED
- STRUCTURE
- PROPOSED CONCRETE SHARED PATH
- PROPOSED CONCRETE FOOTPATH
- POTENTIAL SHARED PATH
- EXISTING PATHS
- EXISTING STREAM
- EXISTING STREAM TO BE REMOVED
- PROPOSED CULVERT
- PROPOSED STREAM DIVERSION/ FLOOD DIVERSION CHANNEL
- VEHICLE MAINTENANCE ACCESS
- PEDESTRIAN MAINTENANCE ACCESS
- LAND NOT ACCESSIBLE
- SWALE/CUT-OFF DRAIN
- FENCE
- ITS INFRASTRUCTURE - REFER ITS DRAWINGS

PRIVATE ACCESS
RESIDENTIAL CROSSING REFER NOTE 1
4.0m POTENTIAL SHARED PATH
2.5m SHARED PATH
ŌTAKI GORGE ROAD UNDERPASS
ŌTAKI GORGE ROAD
MAINTENANCE ACCESS
MATCHLINE - REFER PP2O-DR-CL-0502
BH818
MAINLINE SOUTHBOUND
MAINLINE NORTHBOUND
SOUTH ŌTAKI RAIL OVERPASS
NORTHBOUND OFF RAMP
HOLD
ABUTMENT LOCATIONS TBC.
NIMT RAILWAY
GROUNDWATER MONITORING STANDPIPES TO BE PROTECTED DURING EARTHWORKS AND CONSTRUCTION
BH819
EXISTING ŌTAKI GORGE ROAD RAIL BRIDGE TO BE REMOVED
HOLD
EARTHWORKS TO BE CONFIRMED
REMOVE FLUSH MEDIAN MARKINGS
REST AREA ACCESS
2.5m SHARED PATH
TIE-IN TO EXISTING STATE HIGHWAY 1
ŌTAKI GORGE ROAD
EX SH1 LINK
PRIVATE ACCESS EXISTING STONE WALL TO BE REMOVED IN CONSULTATION WITH OWNERS
REFER TO ŌTAKI GORGE LINEMARKING AND SIGNAGE DRAWINGS OR PP2O-DR-CL-0521 FOR MORE DETAILS
RIVER ACCESS
RETAINING WALL
ORIGINAL IN COLOUR
FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	SP	BS	9.03.18

Scale (A1) 1:500
Scale (A3)

Design	S.Perman	15.08.17	Approved For Construction B.Symmans
Drawn	A.Kochar	15.08.17	
Dsg Verifier	P.Chatterley	09.03.18	
Drg Check	G.Down	09.03.18	Date 09.03.18

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI
Peka Peka to Ōtaki Expressway
Fletcher HIGGINS Beca Tonkin+Taylor

Subject: ŌTAKI GORGE ROAD & EX SH1 TO ŌTAKI GORGE ROAD
Title: GENERAL ARRANGEMENT LAYOUT PLAN - SHEET 1
Discipline: CIVIL
Drawing No.: PP2O-DR-CL-0501
Rev.: 1

Document No. R:\30DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CE\PP2O-DR-CL-0501-0505.DWG

ORIGINAL SIZE A1 : DO NOT SCALE
IF IN DOUBT ASK

Save Date: 09 Mar 2018 3:44 p.m.

LEGEND:

- DESIGNATION BOUNDARY
- PROPERTY BOUNDARY
- RAIL DESIGNATION
- RAIL EXISTING
- RAIL PROPOSED
- STRUCTURE
- PROPOSED CONCRETE SHARED PATH
- PROPOSED CONCRETE FOOTPATH
- POTENTIAL SHARED PATH
- EXISTING PATHS
- EXISTING STREAM
- EXISTING STREAM TO BE REMOVED
- PROPOSED CULVERT
- PROPOSED STREAM DIVERSION/ FLOOD DIVERSION CHANNEL
- VEHICLE MAINTENANCE ACCESS
- PEDESTRIAN MAINTENANCE ACCESS
- LAND NOT ACCESSIBLE
- SWALE/CUT-OFF DRAIN
- FENCE
- ITS INFRASTRUCTURE - REFER ITS DRAWINGS

NOTES:

1. REFER KCDC STANDARD DETAILS DRAWING KCDC-RD-005 FOR RESIDENTIAL VEHICLE CROSSING.
2. REFER KCDC STANDARD DETAILS DRAWING KCDC-RD-006 FOR COMMERCIAL AND INDUSTRIAL HEAVY DUTY VEHICLE CROSSING
3. REFER KCDC STANDARD DETAILS DRAWING KCDC-RD-011 FOR PEDESTRIAN REFUGE DETAIL
4. REFER KCDC STANDARD DETAILS DRAWING KCDC-RD-011 FOR PEDESTRIAN KERB RAMPS
5. FOR BARRIER ROPES, REFER TO BARRIER AND LIGHTING LAYOUT PLAN PP2O-DR-CL-0530 TO 0535.
6. FOR STORMWATER DETAILS, REFER TO PP20-SK-SW-0101 TO 0147.

TIE-IN TO EXISTING ŌTAKI GORGE ROAD
EXTENT OF WORKS
PRIVATE ACCESS
E CL-0551
ŌTAKI GORGE ROAD
PRIVATE ACCESS
MATCHLINE - REFER PP2O-DR-CL-0503
GROUNDWATER MONITORING STANDPIPES TO BE PROTECTED DURING EARTHWORKS AND CONSTRUCTION
C CL-0550
NO TEMPORARY OR PERMANENT CONSTRUCTION PERMITTED
F CL-0552
2.5m SHARED PATH
D CL-0551
BH818
4.0m POTENTIAL SHARED PATH
ŌTAKI GORGE ROAD
PRIVATE ACCESS
OLD HAUTERE ROAD
4.0m POTENTIAL SHARED PATH
LANDSCAPE BUND
BH820
SOUTHBOUND ON RAMP
MATCHLINE - REFER PP2O-DR-CL-0501
MAINLINE SOUTHBOUND
MAINLINE NORTHBOUND
ORIGINAL IN COLOUR
FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	SP	BS	9.03.18

Scale (A1) 1:500
Scale (A3)

Design	S.Perman	15.08.17	Approved For Construction B.Symmans
Drawn	A.Kochar	15.08.17	
Dsg Verifier	P.Chatterley	09.03.18	
Drg Check	G.Down	09.03.18	Date 09.03.18

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI
Peka Peka to Ōtaki Expressway
Fletcher HIGGINS
Beca Tonkin+Taylor

Subject: ŌTAKI GORGE ROAD & OLD HAUTERE ROAD
Title: GENERAL ARRANGEMENT LAYOUT PLAN - SHEET 2
Discipline: CIVIL
Drawing No.: PP2O-DR-CL-0502
Rev.: 1

Document No. R:\30DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CE\PP2O-DR-CL-0501-0505.DWG

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Save Date: 09 Mar 2018 3:44 p.m.

NOTES:

1. FOR STORMWATER DETAILS, REFER TO PP20-SK-SW-0101 TO 0147.

LEGEND:

- DESIGNATION BOUNDARY
- PROPERTY BOUNDARY
- RAIL DESIGNATION
- RAIL EXISTING
- RAIL PROPOSED
- STRUCTURE
- PROPOSED CONCRETE SHARED PATH
- PROPOSED CONCRETE FOOTPATH
- POTENTIAL SHARED PATH
- EXISTING PATHS
- EXISTING STREAM
- EXISTING STREAM TO BE REMOVED
- PROPOSED CULVERT
- PROPOSED STREAM DIVERSION/ FLOOD DIVERSION CHANNEL
- VEHICLE MAINTENANCE ACCESS
- PEDESTRIAN MAINTENANCE ACCESS
- LAND NOT ACCESSIBLE
- SWALE/CUT-OFF DRAIN
- FENCE
- ITS INFRASTRUCTURE - REFER ITS DRAWINGS

MATCHLINE - REFER PP2O-DR-CL-0502

MATCHLINE - REFER PP2O-DR-CL-0504

G CL-0552

4.0m POTENTIAL SHARED PATH

LANDSCAPE BUND

OLD HAUTERE ROAD

LANDSCAPE BUND

BH820

100

200

300

400

SOUTHBOUND ON-RAMP

MAINLINE SOUTHBOUND

MAINLINE NORTHBOUND

NORTHBOUND OFF RAMP

BH821

GROUNDWATER MONITORING STANDPIPES TO BE PROTECTED DURING EARTHWORKS AND CONSTRUCTION

NIMT RAILWAY

EXISTING SH 1

ORIGINAL IN COLOUR

FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	SP	BS	9.03.18

Scale (A1) 1:500
Scale (A3)

Design	S.Perman	15.08.17	Approved For Construction B.Symmans
Drawn	A.Kochar	15.08.17	
Dsg Verifier	P.Chatterley	09.03.18	
Drg Check	G.Down	09.03.18	Date 09.03.18

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

Subject: OLD HAUTERE ROAD

Title: GENERAL ARRANGEMENT LAYOUT PLAN - SHEET 3

Discipline: CIVIL

Drawing No.: PP2O-DR-CL-0503

Rev.: 1

Document No. R:\30DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CE\PP2O-DR-CL-0501-0505.DWG

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Save Date: 09 Mar 2018 3:45 p.m.

LEGEND:

- DESIGNATION BOUNDARY
- PROPERTY BOUNDARY
- RAIL DESIGNATION
- RAIL EXISTING
- RAIL PROPOSED
- STRUCTURE
- PROPOSED CONCRETE SHARED PATH
- PROPOSED CONCRETE FOOTPATH
- POTENTIAL SHARED PATH
- EXISTING PATHS
- EXISTING STREAM
- EXISTING STREAM TO BE REMOVED
- PROPOSED CULVERT
- PROPOSED STREAM DIVERSION/ FLOOD DIVERSION CHANNEL
- VEHICLE MAINTENANCE ACCESS
- PEDESTRIAN MAINTENANCE ACCESS
- LAND NOT ACCESSIBLE
- SWALE/CUT-OFF DRAIN
- FENCE
- ITS INFRASTRUCTURE - REFER ITS DRAWINGS

NOTES:

1. FOR STORMWATER DETAILS, REFER TO PP20-SK-SW-0101 TO 0147.

MATCHLINE - REFER PP2O-DR-CL-0503

MATCHLINE - REFER PP2O-DR-CL-0505

4.0m POTENTIAL SHARED PATH

LANDSCAPE BUND

OLD HAUTERE ROAD

400

500

600

700

MAINLINE SOUTHBOUND

MAINLINE NORTHBOUND

NIMT RAILWAY

HOLD:
EARTHWORKS TO BE UPDATED

EXISTING SH1

ORIGINAL IN COLOUR

FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	SP	BS	9.03.18

Scale (A1) 1:500
Scale (A3)

Design	S.Perman	15.08.17	Approved For Construction B.Symmans
Drawn	A.Kochar	15.08.17	
Dsg Verifier	P.Chatterley	09.03.18	
Drg Check	G.Down	09.03.18	Date 09.03.18

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

Subject: OLD HAUTERE ROAD

Title: GENERAL ARRANGEMENT LAYOUT PLAN - SHEET 4

Discipline: CIVIL

Drawing No.: PP2O-DR-CL-0504

Rev.: 1

Document No. R:\30DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CIP\PP2O-DR-CL-0501-0505.DWG

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Save Date: 09 Mar 2018 3:46 p.m.

LEGEND:

- DESIGNATION BOUNDARY
- PROPERTY BOUNDARY
- RAIL DESIGNATION
- RAIL EXISTING
- RAIL PROPOSED
- STRUCTURE
- PROPOSED CONCRETE SHARED PATH
- PROPOSED CONCRETE FOOTPATH
- POTENTIAL SHARED PATH
- EXISTING PATHS
- EXISTING STREAM
- EXISTING STREAM TO BE REMOVED
- PROPOSED CULVERT
- PROPOSED STREAM DIVERSION/ FLOOD DIVERSION CHANNEL
- VEHICLE MAINTENANCE ACCESS
- PEDESTRIAN MAINTENANCE ACCESS
- LAND NOT ACCESSIBLE
- SWALE/CUT-OFF DRAIN
- FENCE
- ITS INFRASTRUCTURE - REFER ITS DRAWINGS

NOTES:

1. FOR STORMWATER DETAILS, REFER TO PP20-SK-SW-0101 TO 0147.

MATCHLINE - REFER PP2O-DR-CL-0504

TIE-IN TO EXISTING OLD HAUTERE ROAD

EXISTING OLD HAUTERE ROAD

PRIVATE ACCESS

PRIVATE ACCESS

4.0m POTENTIAL SHARED PATH

OLD HAUTERE ROAD

LANDSCAPE BUND

4.0m POTENTIAL SHARED PATH

800

900

1000

MAINLINE SOUTHBOUND

MAINLINE NORTHBOUND

NIMT RAILWAY

RAIL CROSSING TO BE REMOVED

EXISTING SH1

ORIGINAL IN COLOUR

FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	SP	BS	9.03.18

Scale (A1) 1:500
Scale (A3)

Design	S.Perman	15.08.17	Approved For Construction B.Symmans
Drawn	A.Kochar	15.08.17	
Dsg Verifier	P.Chatterley	09.03.18	
Drg Check	G.Down	09.03.18	Date 09.03.18

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

Subject: OLD HAUTERE ROAD

Title: GENERAL ARRANGEMENT LAYOUT PLAN - SHEET 5

Discipline: CIVIL

Drawing No.: PP2O-DR-CL-0505

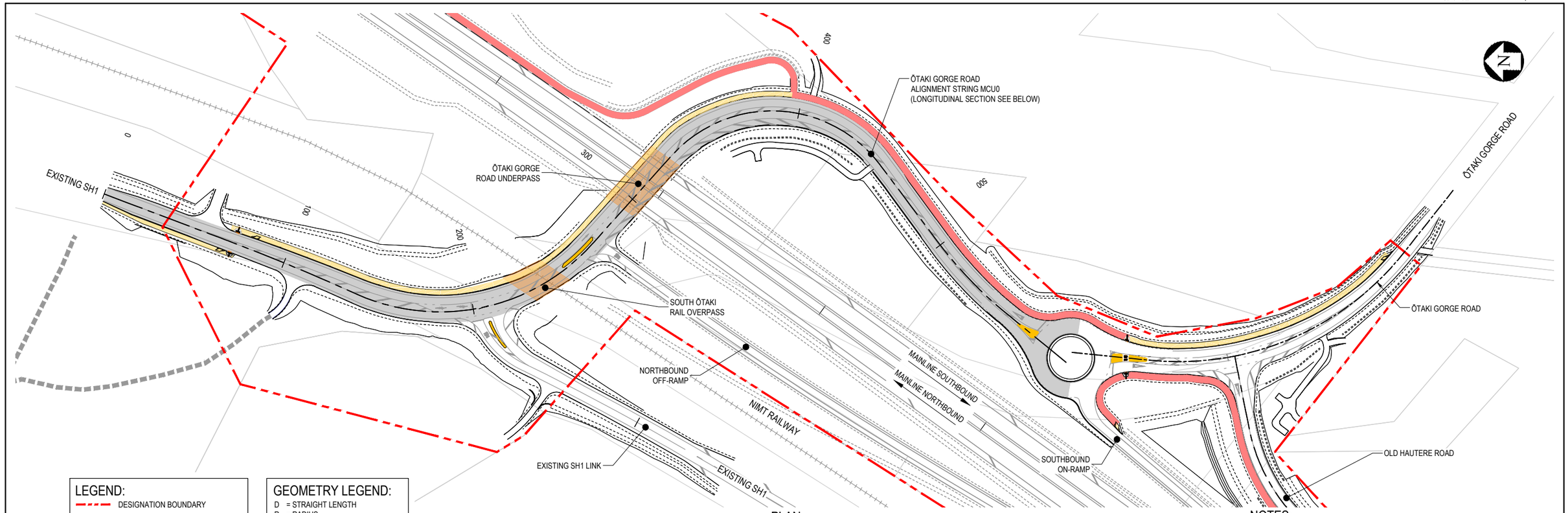
Rev.: 1

Document No. R:\30DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CE\PP2O-DR-CL-0501-0505.DWG

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Save Date: 09 Mar 2018 3:50 p.m.

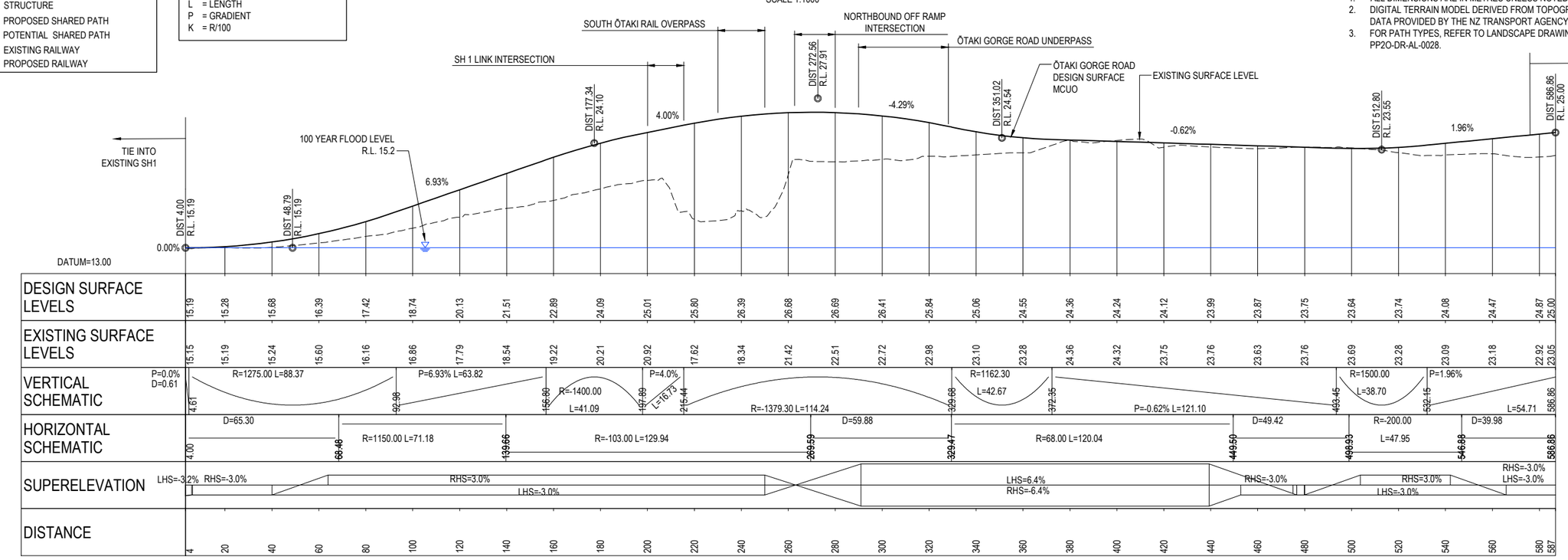


PLAN
SCALE 1:1000

LEGEND:
- DESIGNATION BOUNDARY
- LOCAL ROAD
- STRUCTURE
- PROPOSED SHARED PATH
- POTENTIAL SHARED PATH
- EXISTING RAILWAY
- PROPOSED RAILWAY

GEOMETRY LEGEND:
- D = STRAIGHT LENGTH
- R = RADIUS
- CL = TRANSITION
- L = LENGTH
- P = GRADIENT
- K = R/100

NOTES:
1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. DIGITAL TERRAIN MODEL DERIVED FROM TOPOGRAPHIC SURVEY AND LIDAR DATA PROVIDED BY THE NZ TRANSPORT AGENCY (REFER PR APPENDIX D).
3. FOR PATH TYPES, REFER TO LANDSCAPE DRAWINGS PP2O-DR-LA-0011 TO PP2O-DR-AL-0028.



LONGITUDINAL SECTION ON CONTROL STRING MCU0 - ŌTAKI GORGE ROAD
SCALE HORIZ=1:1000 VERT=1:200

FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	SP	BS	9.03.18

Scale (A1) 1:1000	Design	S. Perman	15/08/17
Scale (A3)	Drawn	A.Kochar	15/08/17
	Dsg Verifier	P.Chatterley	09.03.18
	Drg Check	G.Down	09.03.18

Approved For Construction B.Symmans Date 09.03.18

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

Subject: ŌTAKI GORGE ROAD
Title: PLAN & LONGITUDINAL SECTION ALIGNMENT STRING MCU0

Discipline: CIVIL
Drawing No.: PP2O-DR-CL-0510
Rev.: 1

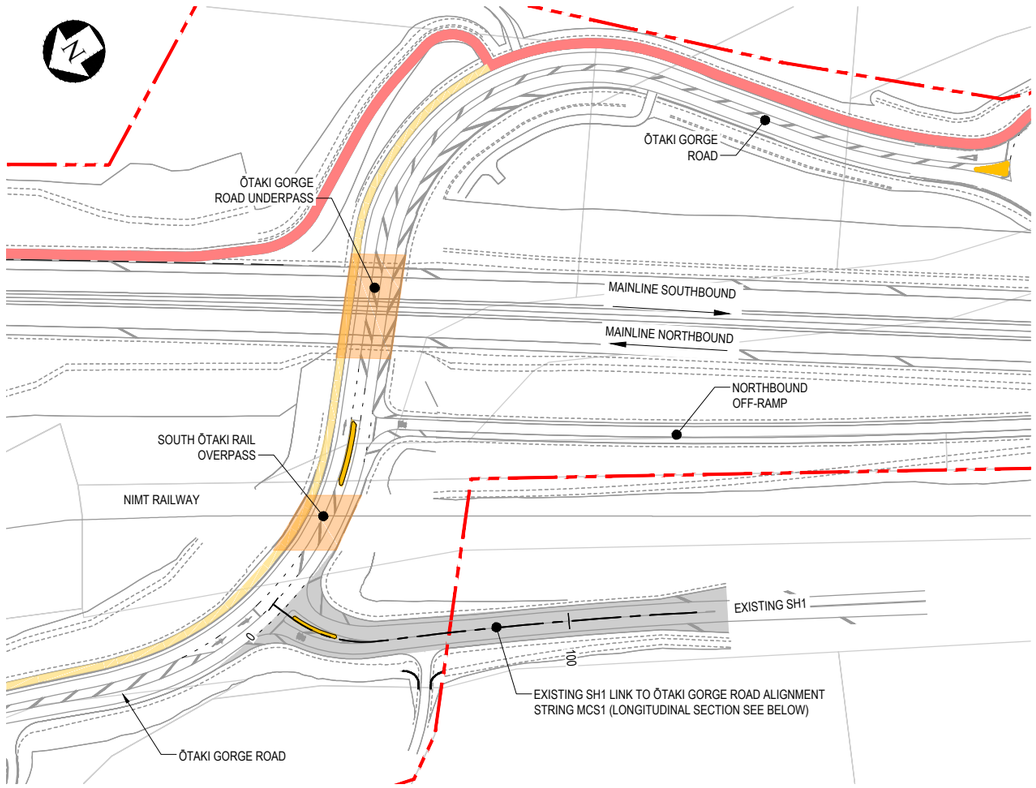
Document No. R:\30DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CE\PP2O-DR-CL-0510.DWG

ORIGINAL SIZE A1 : DO NOT SCALE

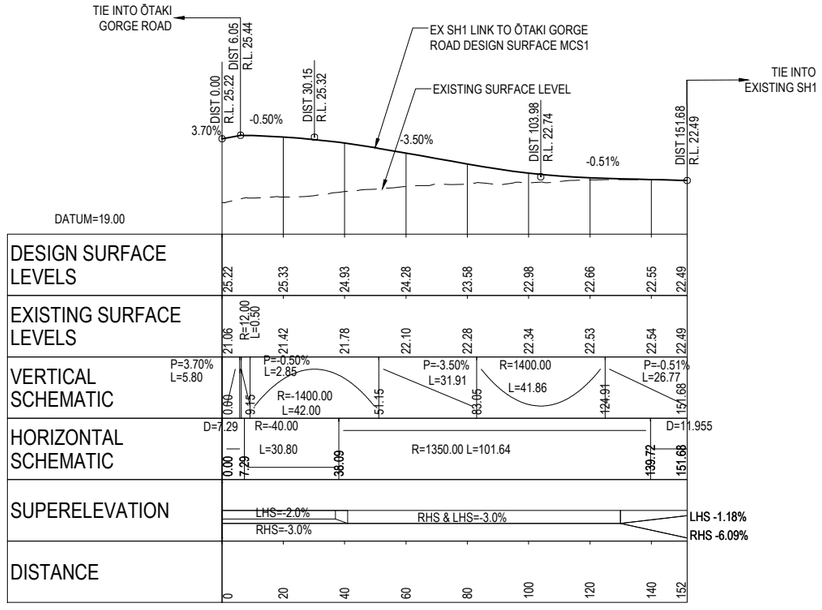
IF IN DOUBT ASK

LEGEND:
- DESIGNATION BOUNDARY
- LOCAL ROAD
- STRUCTURE
- PROPOSED SHARED PATH
- POTENTIAL SHARED PATH
- EXISTING RAILWAY
- PROPOSED RAILWAY

GEOMETRY LEGEND:
D = STRAIGHT LENGTH
R = RADIUS
CL = TRANSITION
L = LENGTH
P = GRADIENT
K = R/100



PLAN
SCALE 1:1000



LONGITUDINAL SECTION ON CONTROL STRING MCS1 - EXISTING SH1 LINK TO ŌTAKI GORGE ROAD
SCALE HORIZ=1:1000 VERT=1:200

NOTES:
1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. DIGITAL TERRAIN MODEL DERIVED FROM TOPOGRAPHIC SURVEY AND LIDAR DATA PROVIDED BY THE NZ TRANSPORT AGENCY (REFER PR APPENDIX D).
3. FOR PATH TYPES, REFER TO LANDSCAPE DRAWING PP2O-DR-LA-0011 TO PP2O-DR-AL-0028.

FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	SP	BS	9.03.18

Scale (A1) 1:1000
Scale (A3)

Design	S. Perman	15/08/17	Approved For Construction B.Symmans
Drawn	S.Gadgil	15/08/17	
Dsg Verifier	P.Chatterley	09.03.18	
Drg Check	G.DOWN	09.03.18	Date 09.03.18

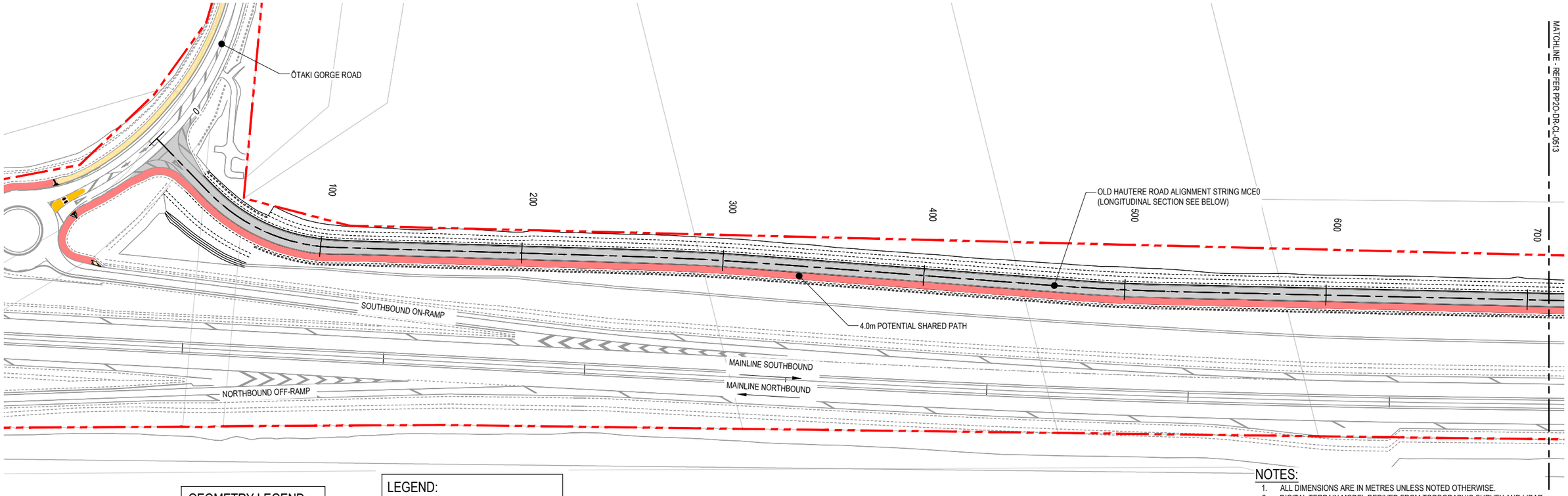
* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI
Peka Peka to Ōtaki Expressway
Fletcher HIGGINS Beca Tonkin+Taylor

Subject: EXISTING SH1 LINK TO ŌTAKI GORGE ROAD
Title: PLAN & LONGITUDINAL SECTION ALIGNMENT STRING MCS1
Discipline: CIVIL
Drawing No.: PP2O-DR-CL-0511
Rev.: 1

Document No. R:\300D - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CE\PP2O-DR-CL-0511.DWG

Save Date: 09 Mar 2018 3:52 p.m.

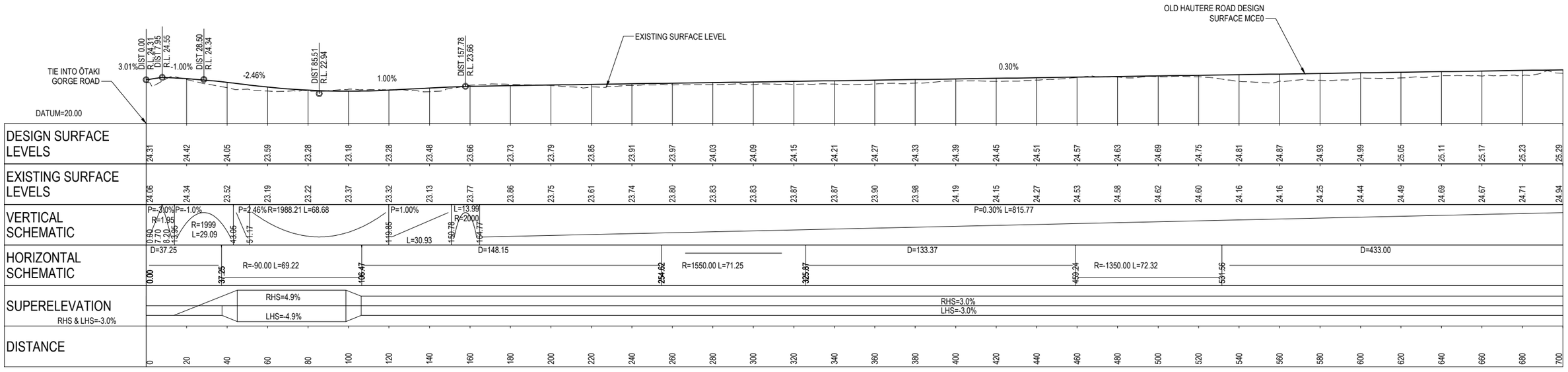


PLAN
SCALE 1:1000

GEOMETRY LEGEND:
D = STRAIGHT LENGTH
R = RADIUS
CL = TRANSITION
L = LENGTH
P = GRADIENT
K = R/100

LEGEND:
- DESIGNATION BOUNDARY
- LOCAL ROAD
- STRUCTURE
- PROPOSED SHARED PATH
- POTENTIAL SHARED PATH
- EXISTING RAILWAY
- PROPOSED RAILWAY

NOTES:
1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. DIGITAL TERRAIN MODEL DERIVED FROM TOPOGRAPHIC SURVEY AND LIDAR DATA PROVIDED BY THE NZ TRANSPORT AGENCY (REFER PR APPENDIX D).
3. FOR PATH TYPES, REFER TO LANDSCAPE DRAWING PP2O-DR-LA-0011 TO PP2O-DR-LA-0028



LONGITUDINAL SECTION ON CONTROL STRING MCE0 - OLD HAUTERE ROAD
SCALE HORIZ=1:1000 VERT=1:200

FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	SP	BS	9.03.18

Scale (A1)	1:1000	Scale (A3)	
Design	S. Perman	15/08/17	Approved For Construction B.Symmans
Drawn	S.Gadgil	15/08/17	
Dsg Verifier	P.Chatterley	09.03.18	
Drg Check	G.Down	09.03.18	Date 09.03.18

* Refer to Original Hardcopy for Signature

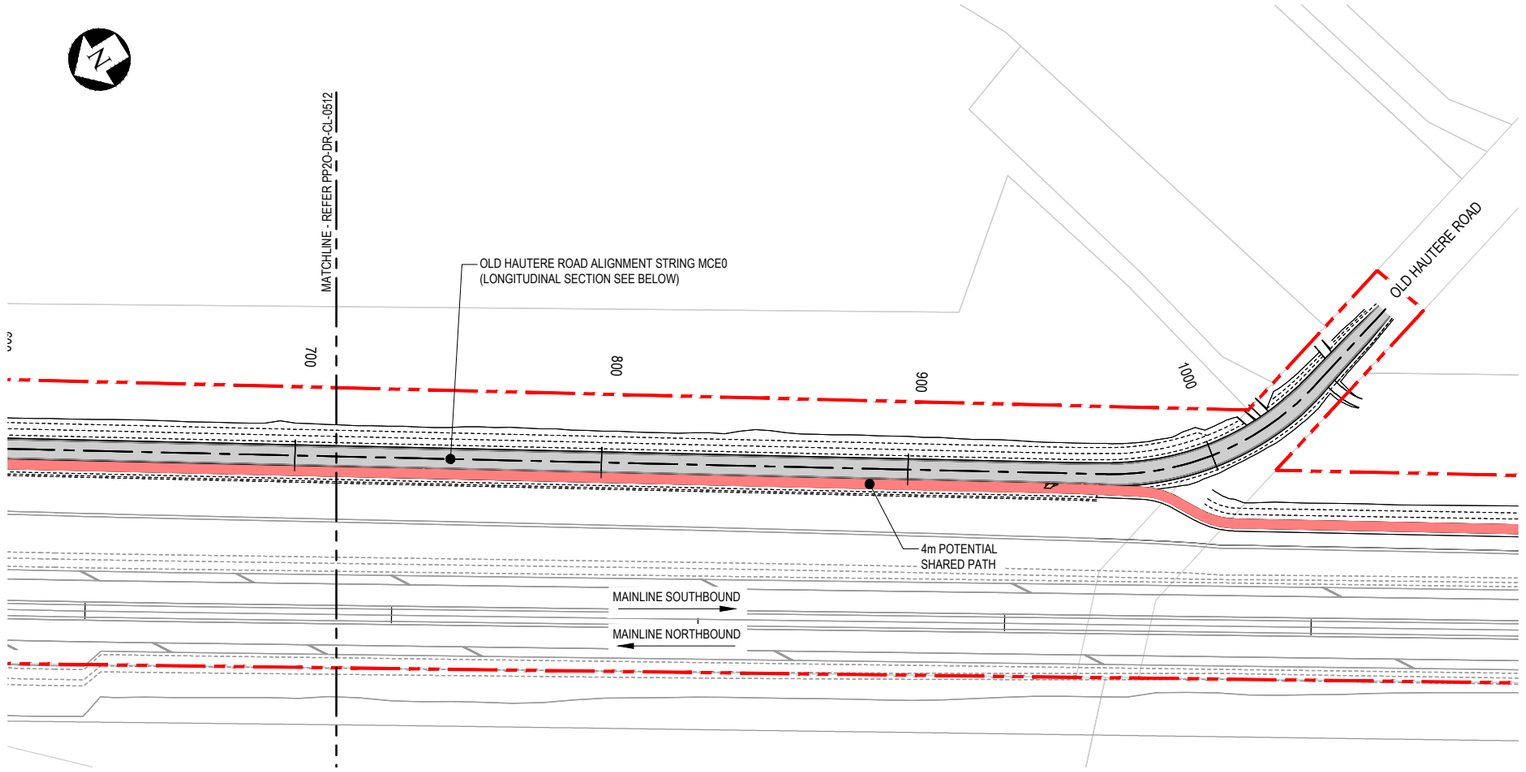
NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

Subject: OLD HAUTERE RD
Title: PLAN & LONGITUDINAL SECTION ALIGNMENT STRING MCE0 SHEET 1 OF 2
Discipline: CIVIL
Drawing No.: PP2O-DR-CL-0512
Rev.: 1

Document No. R:\30DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CE\PP2O-DR-CL-0512.DWG

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

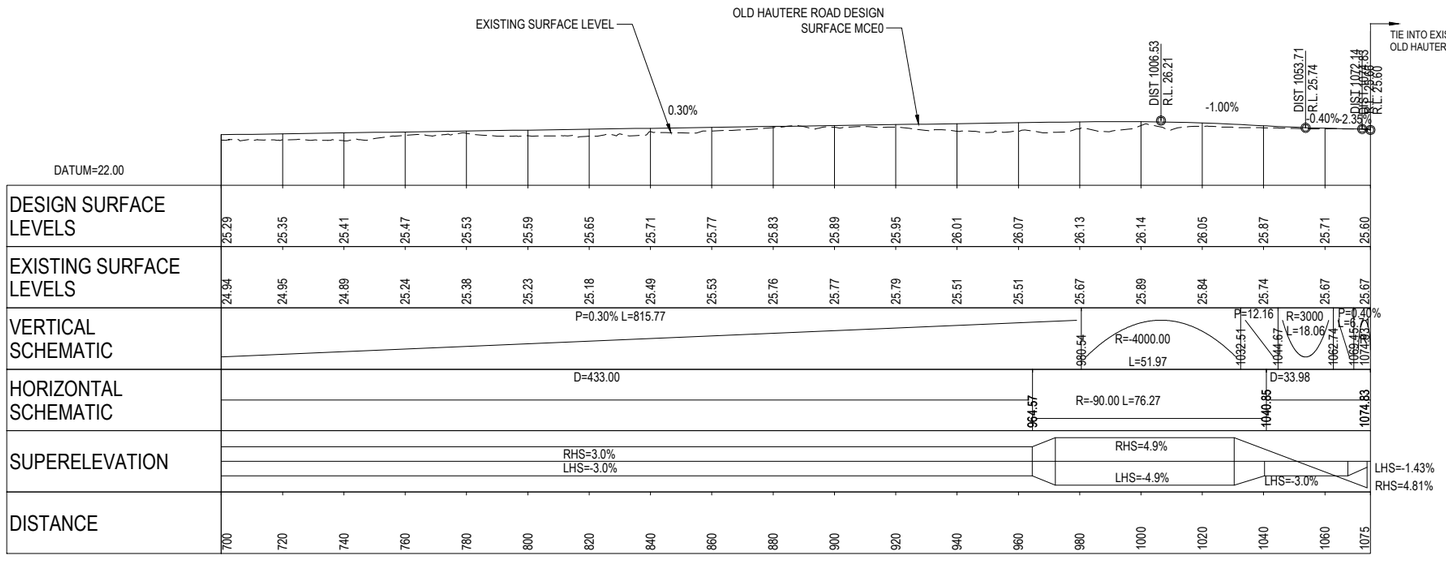


PLAN
SCALE 1:1000

LEGEND:
- DESIGNATION BOUNDARY
- LOCAL ROAD
- STRUCTURE
- PROPOSED SHARED PATH
- POTENTIAL SHARED PATH
- EXISTING RAILWAY
- PROPOSED RAILWAY

GEOMETRY LEGEND:
D = STRAIGHT LENGTH
R = RADIUS
CL = TRANSITION
L = LENGTH
P = GRADIENT
K = R/100

NOTES:
1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. DIGITAL TERRAIN MODEL DERIVED FROM TOPOGRAPHIC SURVEY AND LIDAR DATA PROVIDED BY THE NZ TRANSPORT AGENCY (REFER PR APPENDIX D).
3. FOR PATH TYPES, REFER TO LANDSCAPE DRAWING PP2O-DR-LA-0011 TO PP20-DR-LA-0028.



LONGITUDINAL SECTION ON CONTROL STRING MCE0 - OLD HAUTERE ROAD
SCALE HORIZ=1:1000 VERT=1:200

FOR CONSTRUCTION

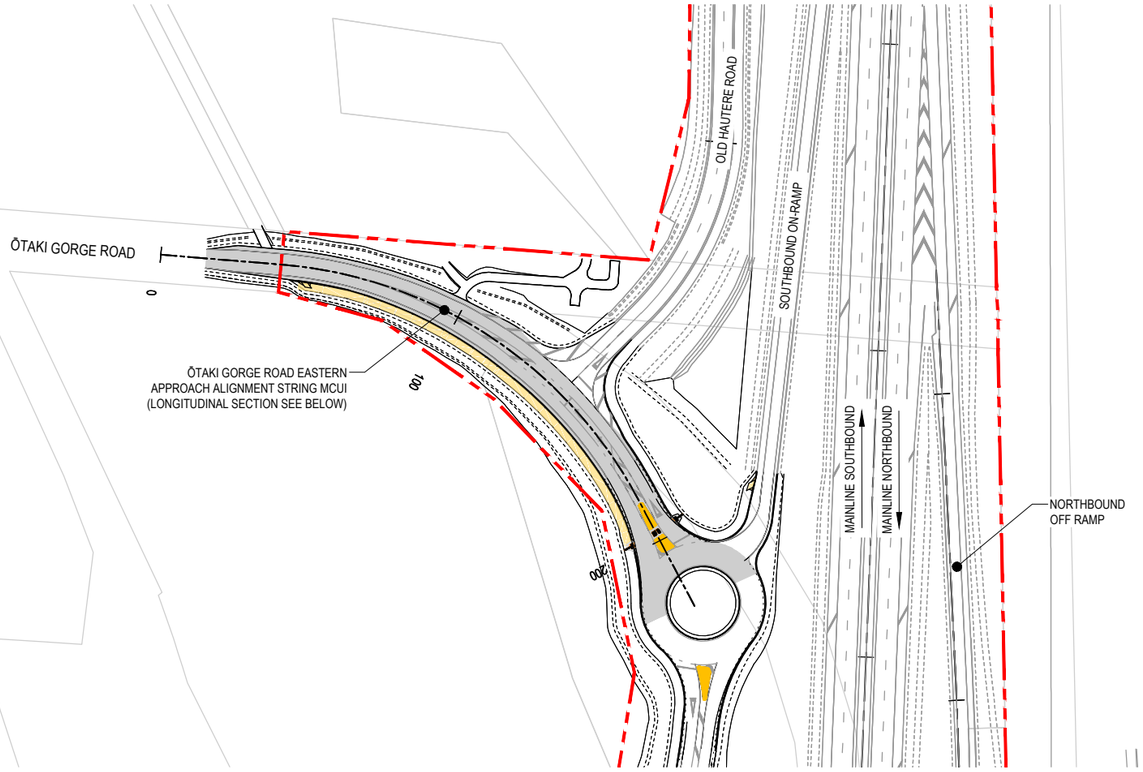
No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	SP	BS	9.03.18

Scale (A1)	1:1000	Scale (A3)	
Design	S. Perman	15/08/17	Approved For Construction B.Symmans
Drawn	S.Gadgil	15/08/17	
Dsg Verifier	P.Chatterley	09.03.18	
Drg Check	G.Down	09.03.18	Date 09.03.18
* Refer to Original Hardcopy for Signature			

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

Subject:	OLD HAUTERE RD
Title:	PLAN & LONGITUDINAL SECTION ALIGNMENT STRING MCE0 SHEET 2 OF 2
Discipline	CIVIL
Drawing No.	PP2O-DR-CL-0513
Rev.	1

Document No. R/30DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CE\PP2O-DR-CL-0513.DWG

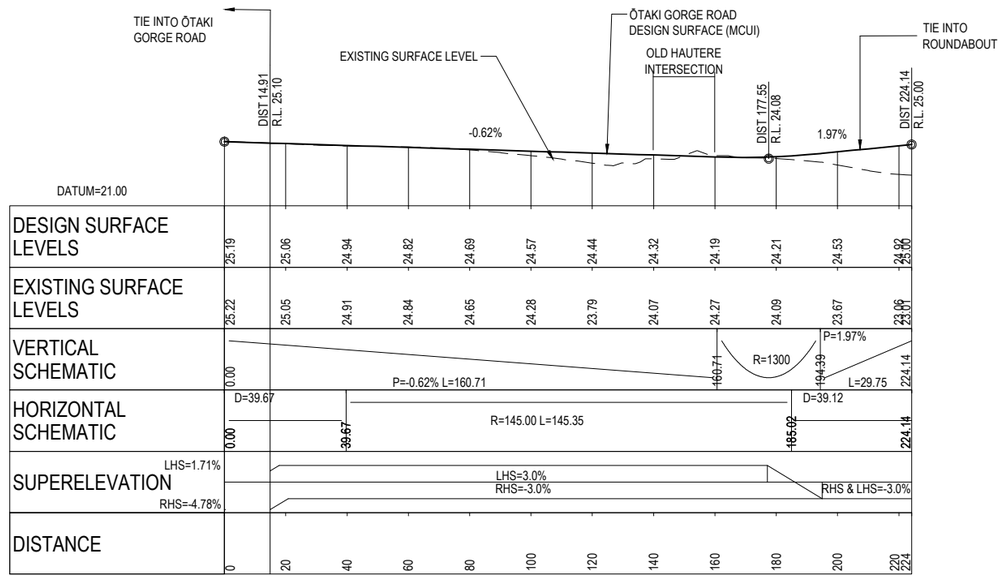


PLAN
SCALE 1:1000

LEGEND:
- DESIGNATION BOUNDARY
- LOCAL ROAD
- STRUCTURE
- PROPOSED SHARED PATH
- POTENTIAL SHARED PATH
- EXISTING RAILWAY
- PROPOSED RAILWAY

GEOMETRY LEGEND:
D = STRAIGHT LENGTH
R = RADIUS
CL = TRANSITION
L = LENGTH
P = GRADIENT
K = R/100

NOTES:
1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. DIGITAL TERRAIN MODEL DERIVED FROM TOPOGRAPHIC SURVEY AND LIDAR DATA PROVIDED BY THE NZ TRANSPORT AGENCY (REFER PR APPENDIX D).
3. FOR PATH TYPES, REFER TO LANDSCAPE DRAWING PP2O-DR-LA-0011 TO PP2O-DR-LA-0028.



LONGITUDINAL SECTION ON CONTROL STRING MCUI - ŌTAKI GORGE ROAD
SCALE HORIZ=1:1000 VERT=1:200

FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	SP	BS	9.03.18

Scale (A1) 1:1000
Scale (A3)

Design	S. Perman	15/08/17	Approved For Construction B.Symmans
Drawn	S.Gadgil	15/08/17	
Dsg Verifier	P.Chatterley	09.03.18	
Drg Check	G.Down	03.09.18	Date 09.03.18

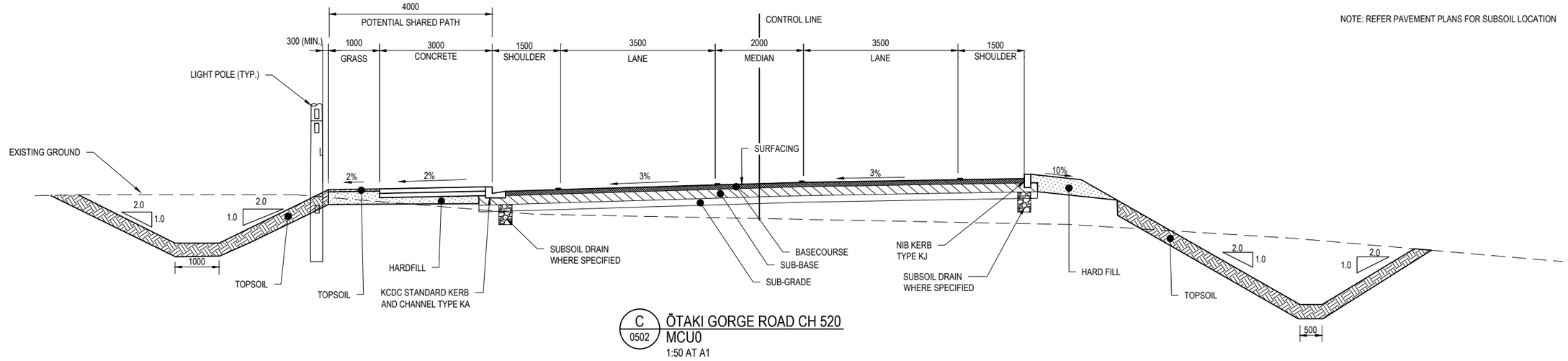
* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

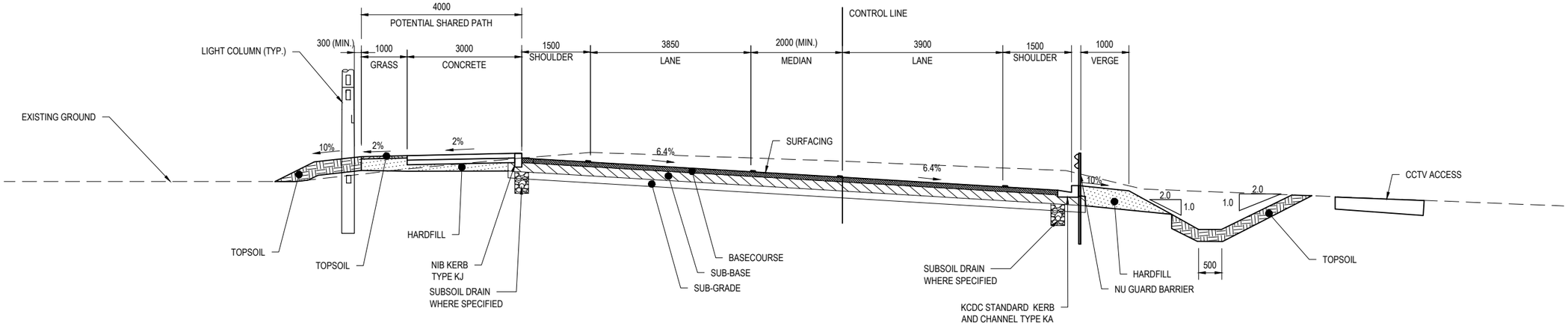
Subject: ŌTAKI GORGE ROAD
Title: PLAN & LONGITUDINAL SECTION ALIGNMENT STRING MCUI
Discipline: CIVIL
Drawing No.: PP2O-DR-CL-0514
Rev.: 1

Document No. R:\30DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CE\PP2O-DR-CL-0514.DWG

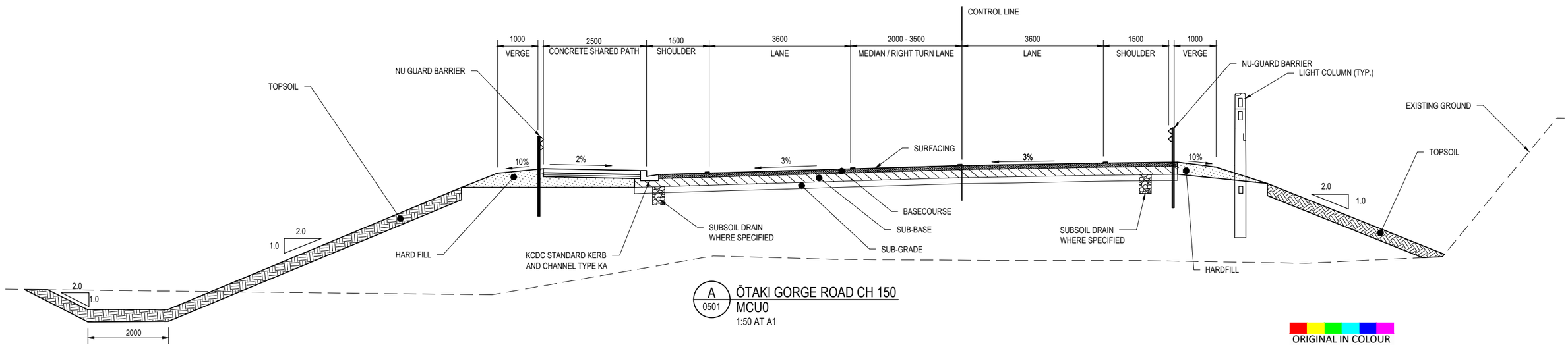
NOTE: REFER PAVEMENT PLANS FOR SUBSOIL LOCATION



C 0502 ŌTAKI GORGE ROAD CH 520
MCU0
1:50 AT A1



B 0501 ŌTAKI GORGE ROAD CH 400
MCU0
1:50 AT A1



A 0501 ŌTAKI GORGE ROAD CH 150
MCU0
1:50 AT A1

ORIGINAL IN COLOUR

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	SG	SP	BS	9.03.18

Scale (A1) 1:50	Design	S.Perman	15/08/17
	Drawn	S.Gadgil	15/08/17
Scale (A3) 1:100	Dsg Verifier	P.Chatterley	09.03.18
	Drg Check	G.Down	09.03.18

Approved For Construction: B.Symmans
Date: 09.03.18
* Refer to Original Hardcopy for Signature

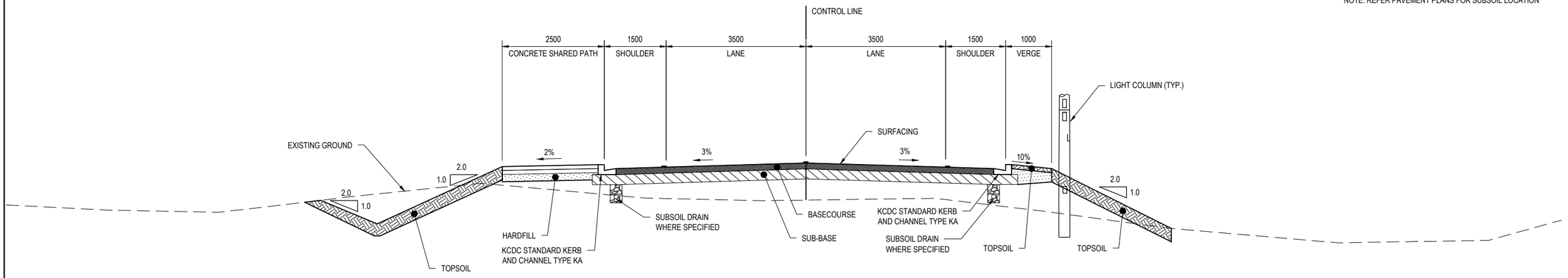
NZ TRANSPORT AGENCY WAKA KOTAHI
Peka Peka to Ōtaki Expressway
Fletcher HIGGINS
Beca Tonkin+Taylor

Subject: ŌTAKI GORGE ROAD
Title: TYPICAL CROSS SECTIONS SHEET 1 OF 2

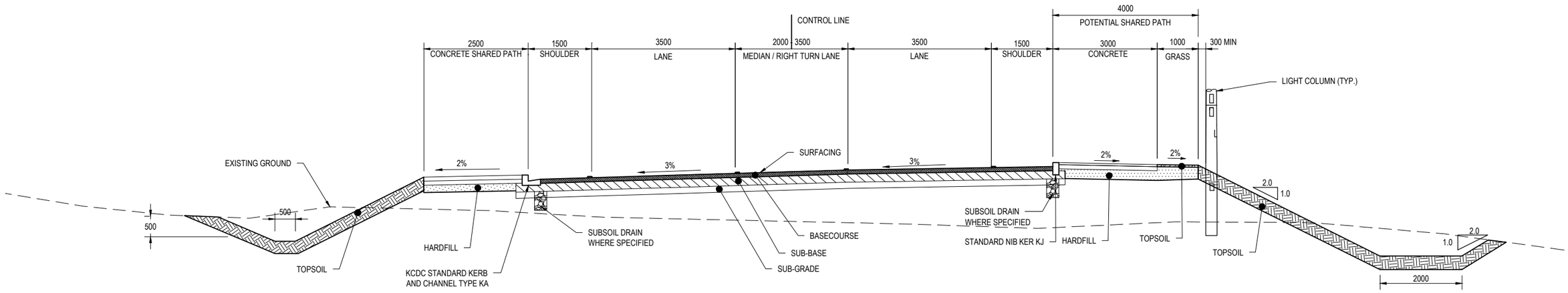
Discipline: CIVIL
Drawing No.: PP2O-DR-CL-0550
Rev.: 1

Document No. R:\30DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CIP\PP2O-DR-CL-0550-0552.DWG

NOTE: REFER PAVEMENT PLANS FOR SUBSOIL LOCATION



E 0502 ŌTAKI GORGE ROAD EAST APPROACH CH 50
MCUI
1:50 AT A1



D 0502 ŌTAKI GORGE ROAD EAST APPROACH CH 180
MCUI
1:50 AT A1

ORIGINAL IN COLOUR

No.	Revision	By	Chk	Appd	Date
	FOR CONSTRUCTION	SG	SP	BS	9.03.18

Scale (A1) 1:50
Scale (A3) 1:100

Design	S.Perman	15/08/17	Approved For Construction B.Symmans
Drawn	S.Gadgil	15/08/17	
Dsg Verifier	P.Chatterley	09.03.18	
Drg Check	G.Down	09.03.18	Date 09.03.18

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

Subject: ŌTAKI GORGE ROAD
Title: TYPICAL CROSS SECTIONS SHEET 2 of 2

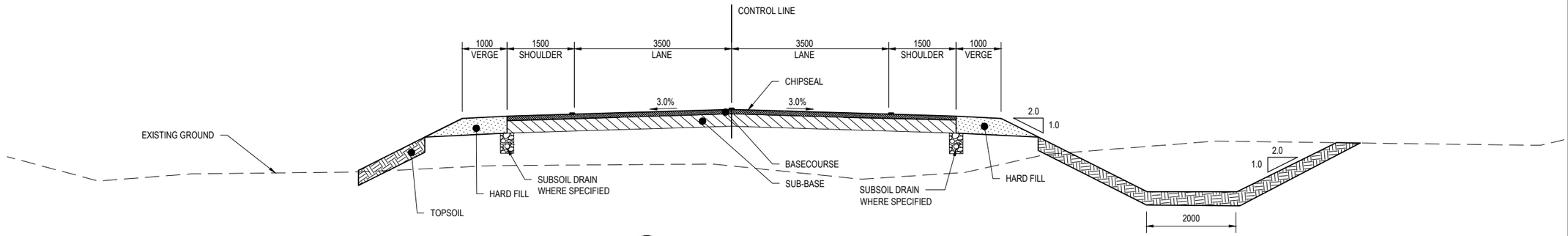
Discipline: CIVIL
Drawing No.: PP2O-DR-CL-0551
Rev.: 1

Document No. R/30DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CE\PP2O-DR-CL-0550-0552.DWG

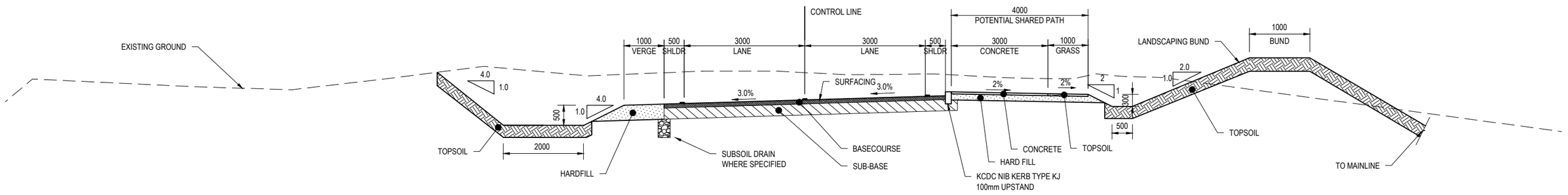
ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

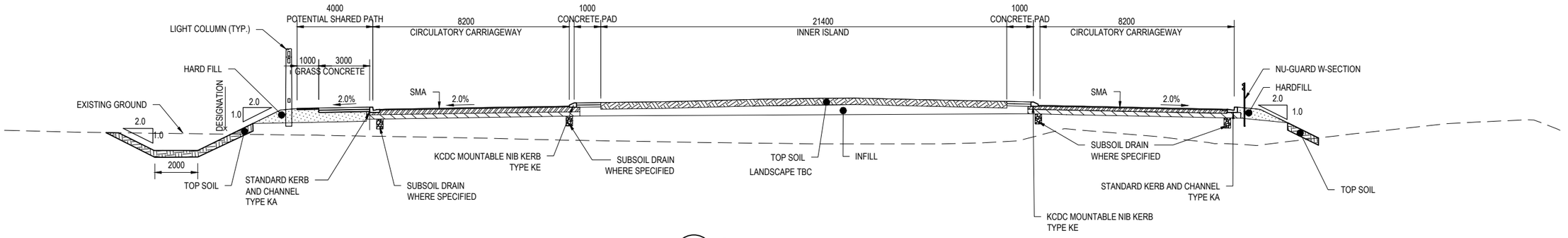
NOTE: REFER PAVEMENT PLANS FOR SUBSOIL LOCATION



H 0501 EXISTING SH1 LINK TO ŌTAKI GORGE ROAD
MCS1
1:50 AT A3



G 0503 OLD HAUTERE ROAD
MCE0
1:50 AT A1



F 0502 ŌTAKI GORGE ROAD ROUNDABOUT
1:100 AT A1

ORIGINAL IN COLOUR

FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	SG	SP	BS	9.03.18

Scale (A1) 1:50
Scale (A3) 1:100

Design	S.Perman	15/08/17	Approved For Construction B.Symmans
Drawn	S.Gadgil	15/08/17	
Dsg Verifier	P.Chatterley	09.03.18	
Drg Check	G.Down	09.03.18	Date 09.03.18

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

Subject: OTAKI GORGE RD ROUNDABOUT, OLD HAUTERE RD AND EX SH1 LINK
Title: TYPICAL CROSS SECTIONS

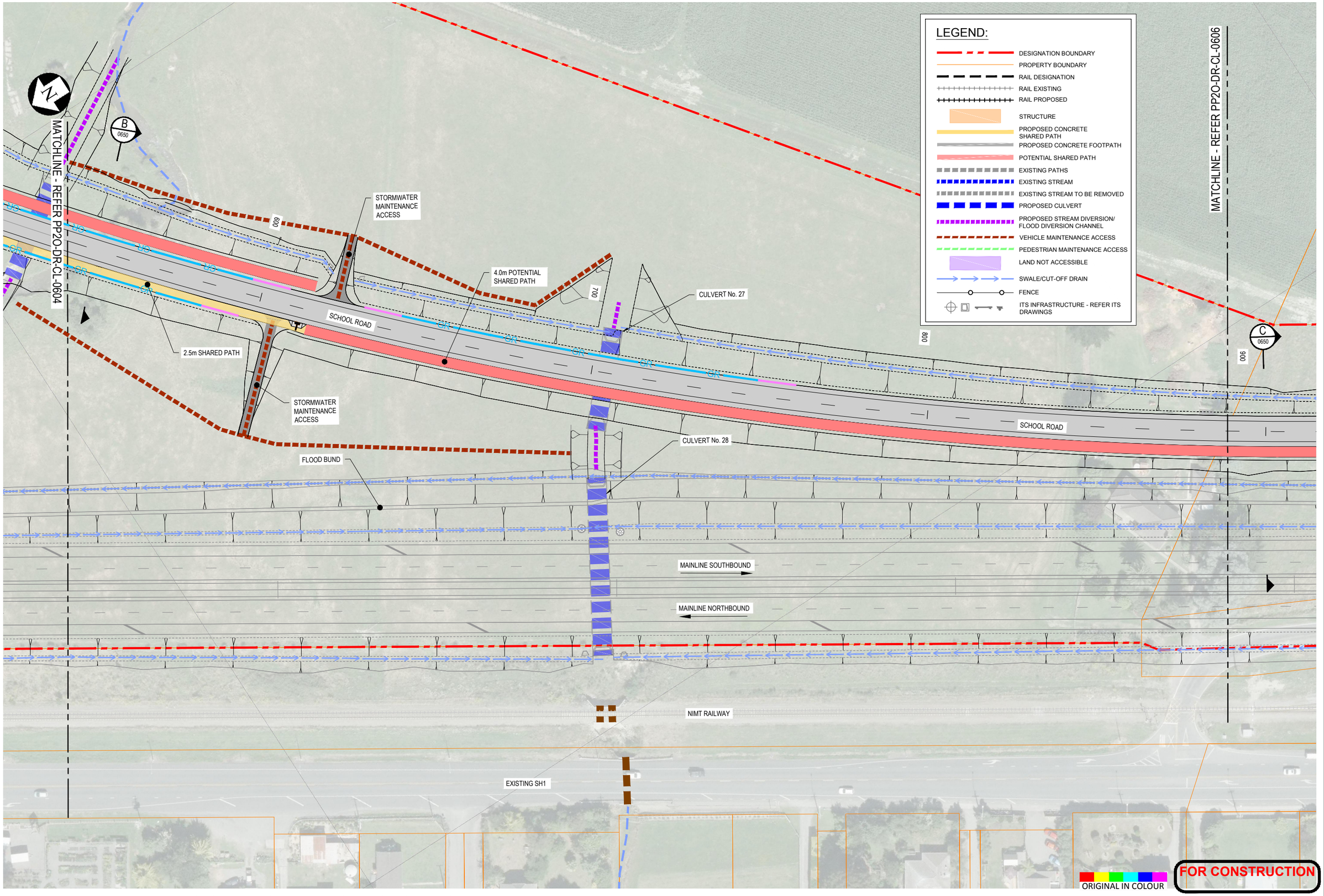
Discipline: CIVIL
Drawing No.: PP2O-DR-CL-0552
Rev.: 1

Document No. R/30DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CEPP2O-DR-CL-0550-0552.DWG

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Save Date: 16 Mar 2018 10:14 a.m.



No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	BH	BS	16.03.18

Scale (A1) 1:500	Design	IL & BH	22.02.18
	Drawn	A.Kochar	22.02.18
Scale (A3) 1:1000	Dsg Verifier	P.Chatterley	16.03.18
	Drg Check	G.Down	16.03.18
* Refer to Original Hardcopy for Signature			

Approved For Construction: B.Symmans
Date: 16.03.18

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher | HIGGINS | Beca | Tonkin+Taylor

Subject: SCHOOL ROAD
Title: GENERAL ARRANGEMENT LAYOUT PLAN - SHEET 5 OF 8

Discipline: CIVIL
Drawing No.: PP2O-DR-CL-0605
Rev.: 1

Document No. R:\3DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CEPP2O-DR-CL-0601-0608.DWG

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Save Date: 16 Mar 2018 10:15 a.m.

LEGEND:

- DESIGNATION BOUNDARY
- PROPERTY BOUNDARY
- RAIL DESIGNATION
- RAIL EXISTING
- RAIL PROPOSED
- STRUCTURE
- PROPOSED CONCRETE SHARED PATH
- PROPOSED CONCRETE FOOTPATH
- POTENTIAL SHARED PATH
- EXISTING PATHS
- EXISTING STREAM
- EXISTING STREAM TO BE REMOVED
- PROPOSED CULVERT
- PROPOSED STREAM DIVERSION/ FLOOD DIVERSION CHANNEL
- VEHICLE MAINTENANCE ACCESS
- PEDESTRIAN MAINTENANCE ACCESS
- LAND NOT ACCESSIBLE
- SWALE/CUT-OFF DRAIN
- FENCE
- ITS INFRASTRUCTURE - REFER ITS DRAWINGS

MATCHLINE - REFER PP2O-DR-CL-0605

MATCHLINE - REFER PP2O-DR-CL-0607

SCHOOL ROAD

TIE SHARED PATH INTO EXISTING SCHOOL ROAD FOOTPATH

TIE INTO EXISTING SCHOOL ROAD

GRASS BERM

PRIVATE ACCESS

2.5m SHARED PATH

PRIVATE ACCESS

PRIVATE ACCESS

0.5m HIGH, 3.8m LONG RETAINING WALL

EXISTING CHORUS CABINET AND CHAMBER TO BE RETAINED

PRIVATE ACCESS

LANDSCAPE BUND

GEAR ROAD

C 0650

1100

0

900

1000

100

200

PRIVATE ACCESS

FLOOD BUND

SCHOOL ROAD

MAINLINE CH - 7,850m

FLOOD BUND

LANDSCAPE BUND

4.0m POTENTIAL SHARED PATH

MAINLINE SOUTHBOUND

MAINLINE NORTHBOUND

NIMT RAILWAY

ORIGINAL IN COLOUR

FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	BH	BS	16.03.18

Scale (A1) 1:500
Scale (A3) 1:1000

Design	IL & BH	22.02.18	Approved For Construction B.Symmans
Drawn	A.Kochar	22.02.18	
Dsg Verifier	P.Chatterley	16.03.18	
Drg Check	G.Down	16.03.18	Date 16.03.18

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI

Peka Peka to Ōtaki Expressway

Fletcher HIGGINS Beca Tonkin+Taylor

Subject: SCHOOL ROAD & GEAR ROAD

Title: GENERAL ARRANGEMENT LAYOUT PLAN - SHEET 6 OF 8

Discipline: CIVIL

Drawing No. PP2O-DR-CL-0606

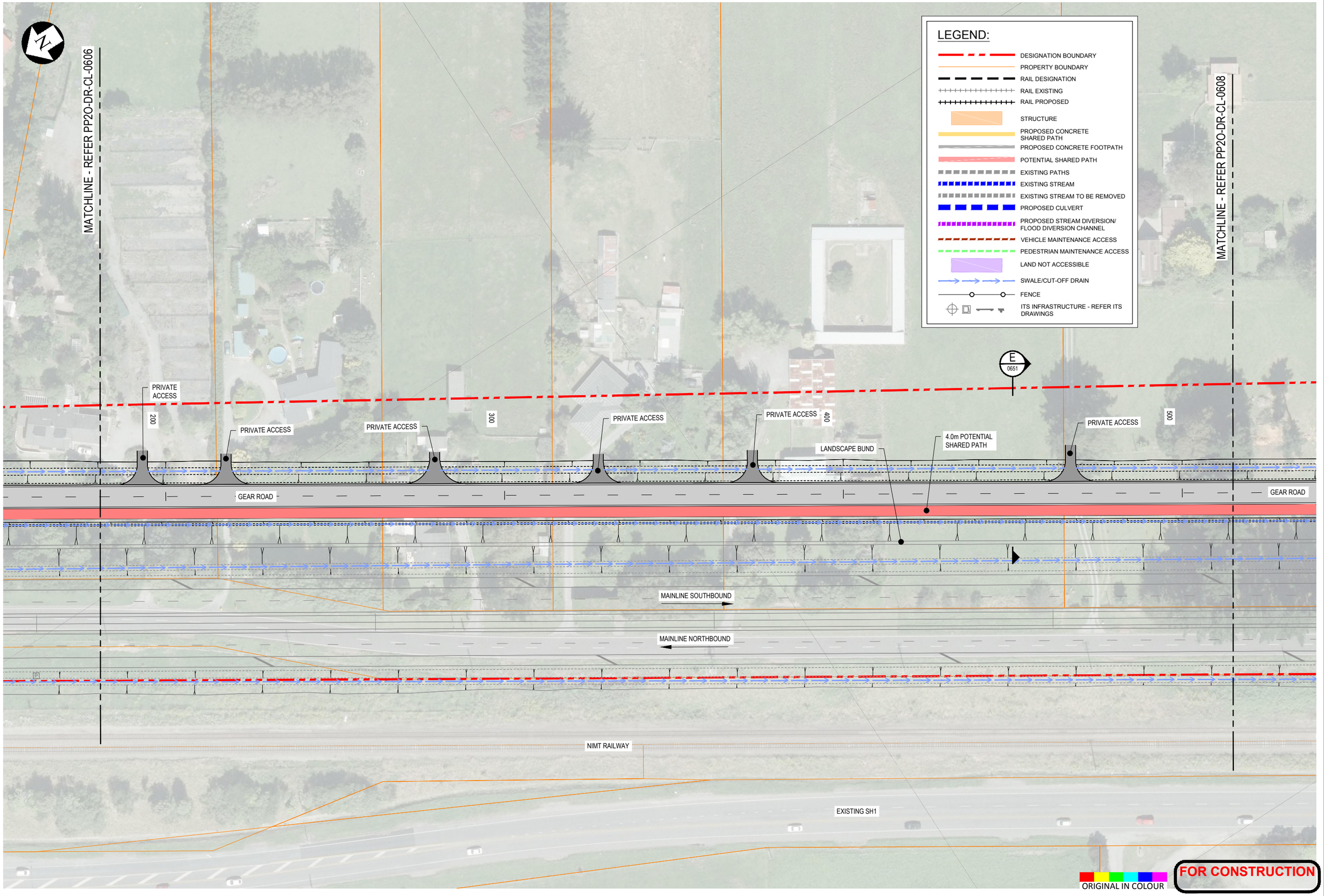
Rev. 1

Document No. R/30DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CEPP2O-DR-CL-0601-0608.DWG

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Save Date: 16 Mar 2018 10:15 a.m.



No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	BH	BS	16.03.18

Scale (A1) 1:500
Scale (A3) 1:1000

Design	IL & BH	22.02.18	Approved For Construction B.Symmans
Drawn	A.Kochar	22.02.18	
Dsg Verifier	P.Chatterley	16.03.18	
Drg Check	G.Down	16.03.18	Date 16.03.18

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher | HIGGINS | Beca | Tonkin+Taylor

Subject: GEAR ROAD
Title: GENERAL ARRANGEMENT LAYOUT PLAN - SHEET 7 OF 8

Discipline: CIVIL
Drawing No.: PP2O-DR-CL-0607
Rev.: 1

Document No. R:\3ODD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CIE\PP2O-DR-CL-0601-0608.DWG

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Save Date: 16 Mar 2018 10:15 a.m.

LEGEND:

- DESIGNATION BOUNDARY
- PROPERTY BOUNDARY
- RAIL DESIGNATION
- RAIL EXISTING
- RAIL PROPOSED
- STRUCTURE
- PROPOSED CONCRETE SHARED PATH
- PROPOSED CONCRETE FOOTPATH
- POTENTIAL SHARED PATH
- EXISTING PATHS
- EXISTING STREAM
- EXISTING STREAM TO BE REMOVED
- PROPOSED CULVERT
- PROPOSED STREAM DIVERSION/ FLOOD DIVERSION CHANNEL
- VEHICLE MAINTENANCE ACCESS
- PEDESTRIAN MAINTENANCE ACCESS
- LAND NOT ACCESSIBLE
- SWALE/CUT-OFF DRAIN
- FENCE
- ITS INFRASTRUCTURE - REFER ITS DRAWINGS

MATCHLINE - REFER PP2O-DR-CL-0607

GEAR ROAD

TIE INTO EXISTING GEAR ROAD

2.5m SHARED PATH

CULVERT No. 35

800

PRIVATE ACCESS

600

PRIVATE ACCESS

4.0m POTENTIAL SHARED PATH

LANDSCAPE BUND

700

4.0m POTENTIAL SHARED PATH

ELECTRONIC GATE CONNECTED TO WTOC.

EMERGENCY ACCESS

CULVERT No. 36

GEAR ROAD

GEAR ROAD

MAINLINE SOUTHBOUND

MAINLINE NORTHBOUND

NIMT RAILWAY

EXISTING SH1

ORIGINAL IN COLOUR

FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	BH	BS	16.03.18

Scale (A1) 1:500
Scale (A3) 1:1000

Design	IL & BH	22.02.18	Approved For Construction B.Symmans
Drawn	A.Kochar	22.02.18	
Dsg Verifier	P.Chatterley	16.03.18	
Drg Check	G.Down	16.03.18	Date 16.03.18

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI

Peka Peka to Ōtaki Expressway

Fletcher HIGGINS Beca Tonkin+Taylor

Subject: GEAR ROAD

Title: GENERAL ARRANGEMENT LAYOUT PLAN - SHEET 8 OF 8

Discipline: CIVIL

Drawing No.: PP2O-DR-CL-0608

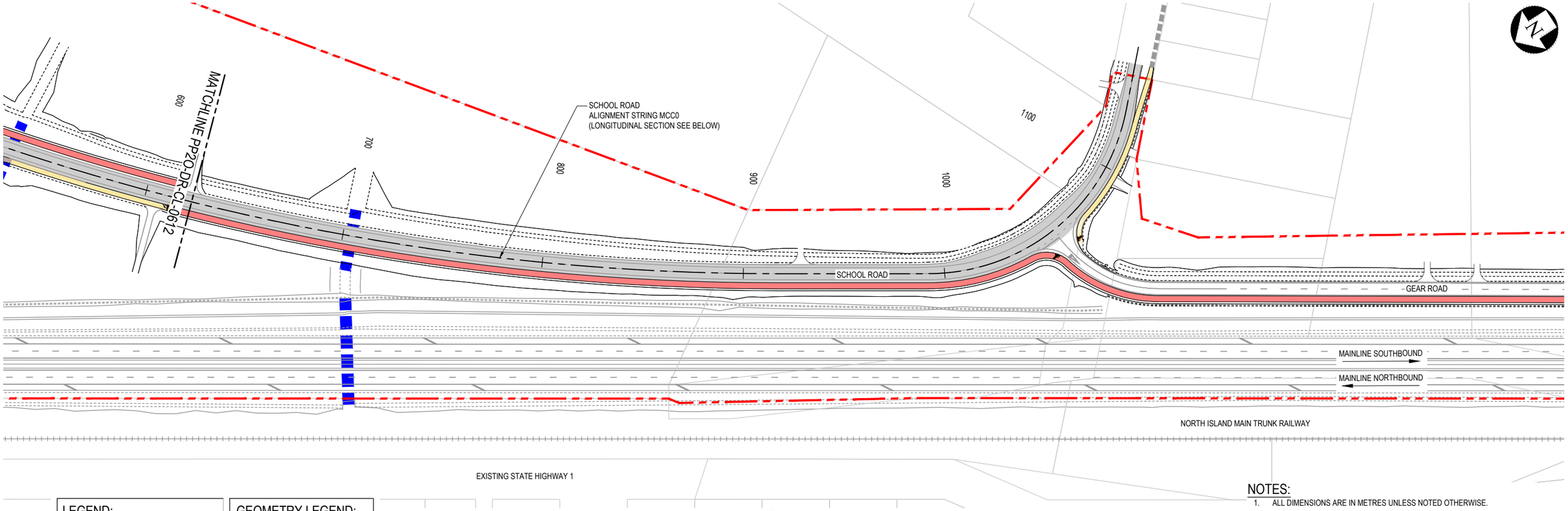
Rev.: 1

Document No. R:\30OD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CE\PP2O-DR-CL-0601-0608.DWG

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

Save Date: 16 Mar 2018 10:24 a.m.

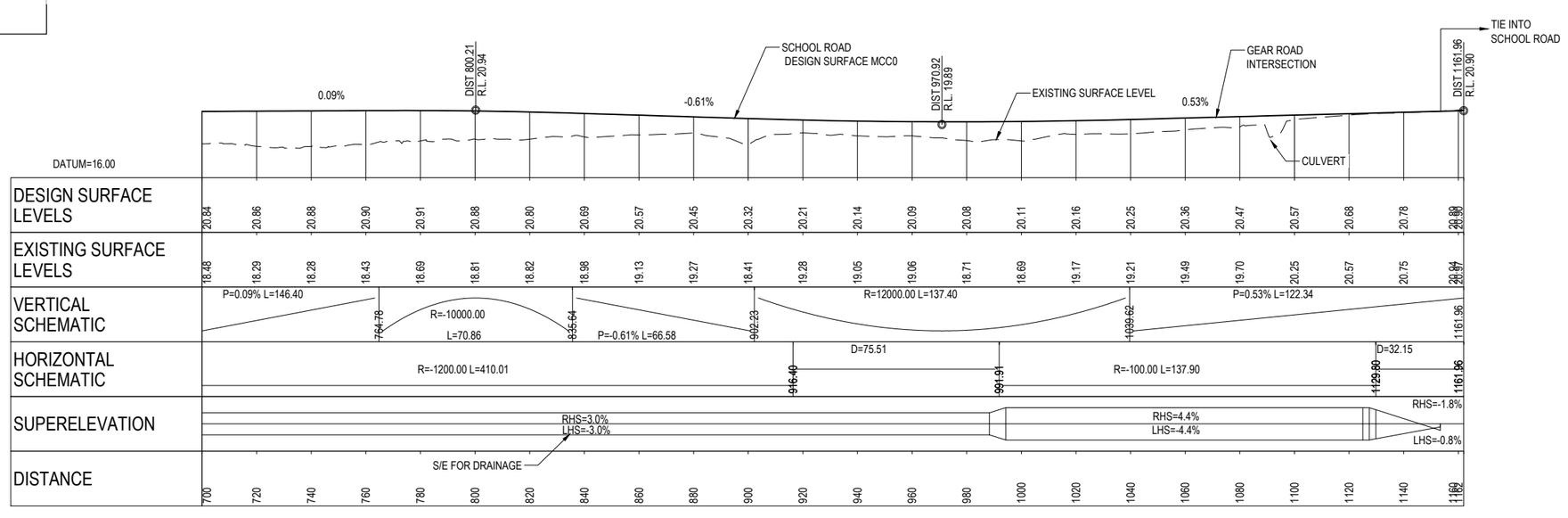


PLAN
SCALE 1:1000

LEGEND:
- DESIGNATION BOUNDARY
- LOCAL ROAD
- STRUCTURE
- SHARED PATH
- POTENTIAL SHARED PATH
- EXISTING RAILWAY
- PROPOSED RAILWAY

GEOMETRY LEGEND:
D = STRAIGHT LENGTH
R = RADIUS
CL = TRANSITION
L = LENGTH
P = GRADIENT
K = R/100

NOTES:
1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. DIGITAL TERRAIN MODEL DERIVED FROM TOPOGRAPHIC SURVEY AND LIDAR DATA PROVIDED BY THE NZ TRANSPORT AGENCY (REFER PR APPENDIX D).



LONGITUDINAL SECTION ON CONTROL STRING MCC0 - SCHOOL ROAD
SCALE HORIZ=1:1000 VERT=1:200

FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	BH	BS	16.03.18

Scale (A1) AS SHOWN	Design	IL & BH	22.02.18	Approved For Construction B.Symmans
	Drawn	A. Kochar	22.02.18	
Scale (A3) ½ AS SHOWN	Dsg Verifier	P.Chatterley	16.03.18	
	Drg Check	G.Down	16.03.18	Date 16.03.18
	* Refer to Original Hardcopy for Signature			

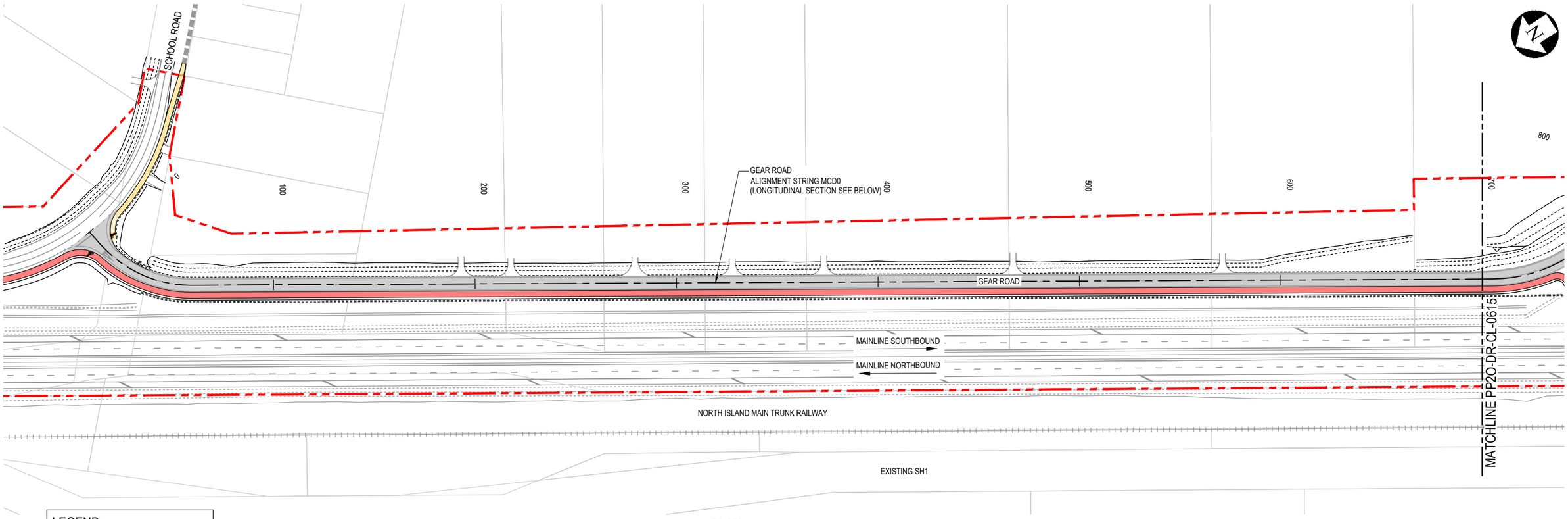
NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

Subject:	SCHOOL ROAD
Title:	PLAN AND LONGITUDINAL SECTION ALIGNMENT STRING MCC0 SHEET 2 OF 2
Discipline	CIVIL
Drawing No.	PP2O-DR-CL-0613
Rev.	1

Document No. R:\30DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CE\PP2O-DR-CL-0610-0615.DWG

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

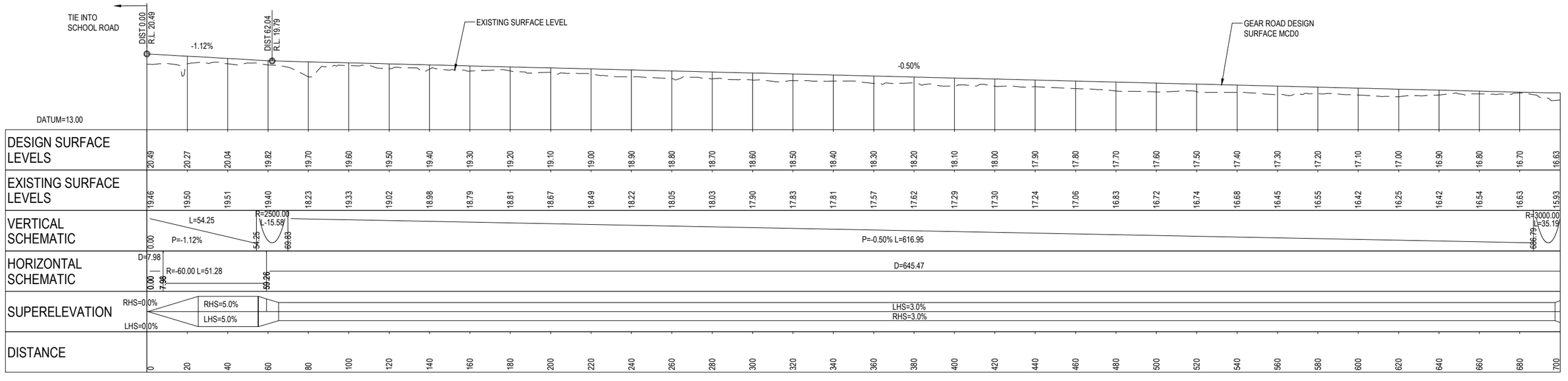


PLAN
SCALE 1:1000

LEGEND:
- DESIGNATION BOUNDARY
- LOCAL ROAD
- STRUCTURE
- SHARED PATH
- POTENTIAL SHARED PATH
- EXISTING RAILWAY
- PROPOSED RAILWAY

GEOMETRY LEGEND:
- D = STRAIGHT LENGTH
- R = RADIUS
- CL = TRANSITION
- L = LENGTH
- P = GRADIENT
- K = R/100

NOTES:
1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. DIGITAL TERRAIN MODEL DERIVED FROM TOPOGRAPHIC SURVEY AND LIDAR DATA PROVIDED BY THE NZ TRANSPORT AGENCY (REFER PR APPENDIX D).



LONGITUDINAL SECTION ON CONTROL STRING MCD0 - GEAR ROAD
SCALE HORIZ=1:1000 VERT=1:200

FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	BH	BS	16.03.18

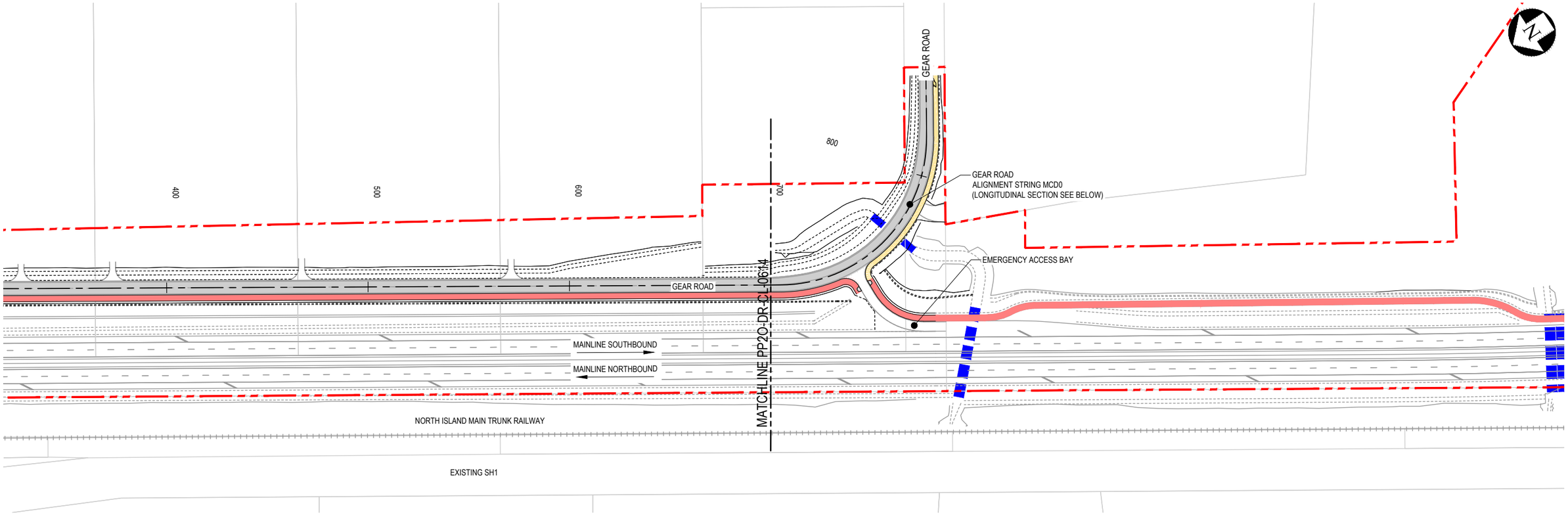
Scale (A1) AS SHOWN	Design	IL & BH	22.02.18	Approved For Construction B.Symmans
	Drawn	G.Down	22.02.18	
Scale (A3) ½ AS SHOWN	Dsg Verifier	P.Chatterley	16.03.18	
	Drg Check	G.Down	16.03.18	Date 16.03.18
	* Refer to Original Hardcopy for Signature			

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

Subject: GEAR ROAD
Title: PLAN AND LONGITUDINAL SECTION ALIGNMENT STRING MCD0 SHEET 1 OF 2

Discipline: CIVIL
Drawing No.: PP2O-DR-CL-0614
Rev.: 1

Document No. R:\30\D0 - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CE\PP2O-DR-CL-0610-0615.DWG



PLAN
SCALE 1:1000

LEGEND:

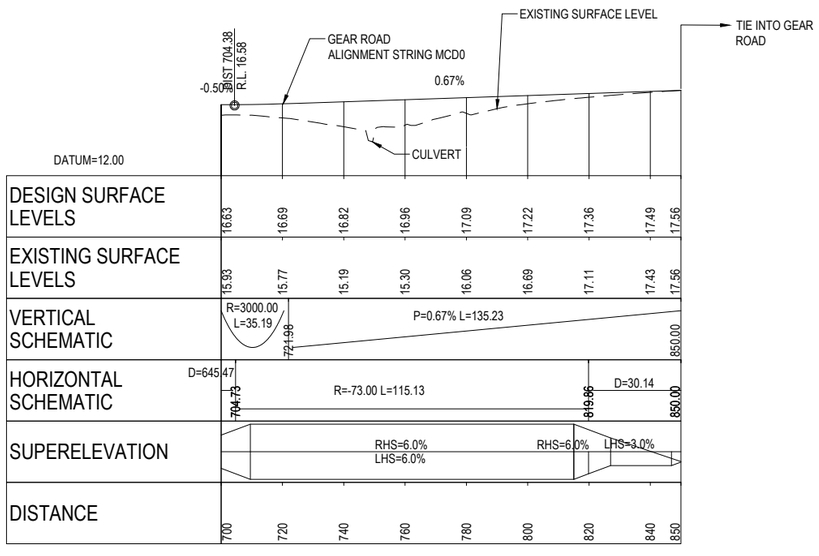
- DESIGNATION BOUNDARY
- LOCAL ROAD
- STRUCTURE
- SHARED PATH
- POTENTIAL SHARED PATH
- EXISTING RAILWAY
- PROPOSED RAILWAY

GEOMETRY LEGEND:

D = STRAIGHT LENGTH
R = RADIUS
CL = TRANSITION
L = LENGTH
P = GRADIENT
K = R/100

NOTES:

1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
2. DIGITAL TERRAIN MODEL DERIVED FROM TOPOGRAPHIC SURVEY AND LIDAR DATA PROVIDED BY THE NZ TRANSPORT AGENCY (REFER PR APPENDIX D).



LONGITUDINAL SECTION ON CONTROL STRING MCD0 - GEAR ROAD
SCALE HORIZ=1:1000 VERT=1:200

FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	AK	BH	BS	16.03.18

Scale (A1) AS SHOWN	Design	IL & BH	22.02.18
	Drawn	G.Down	22.02.18
Scale (A3) ½ AS SHOWN	Dsg Verifier	P.Chatterley	16.03.18
	Drg Check	G.Down	16.03.18

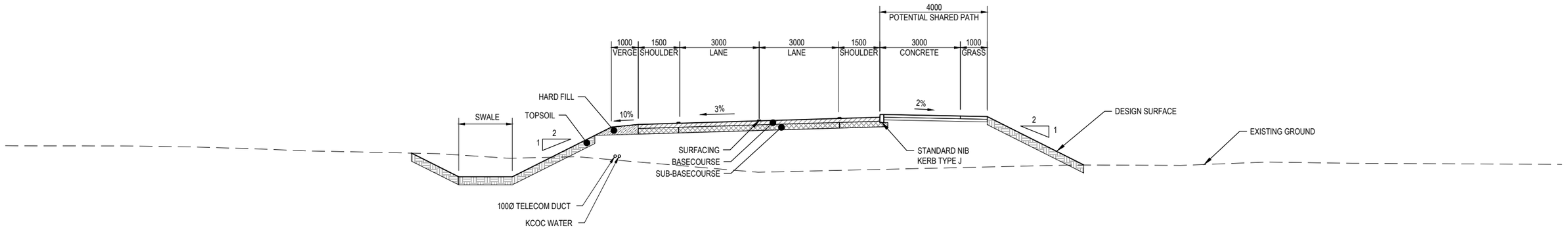
Approved For Construction: B.Symmans
Date: 16.03.18
* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI
Peka Peka to Ōtaki Expressway
Fletcher HIGGINS
Beca
Tonkin+Taylor

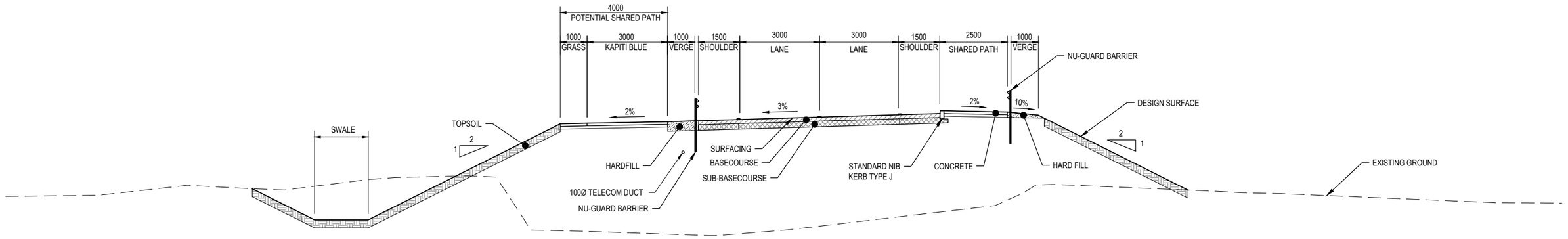
Subject: GEAR ROAD
Title: PLAN AND LONGITUDINAL SECTION ALIGNMENT STRING MCD0 SHEET 2 OF 2

Discipline: CIVIL
Drawing No.: PP2O-DR-CL-0615
Rev.: 1

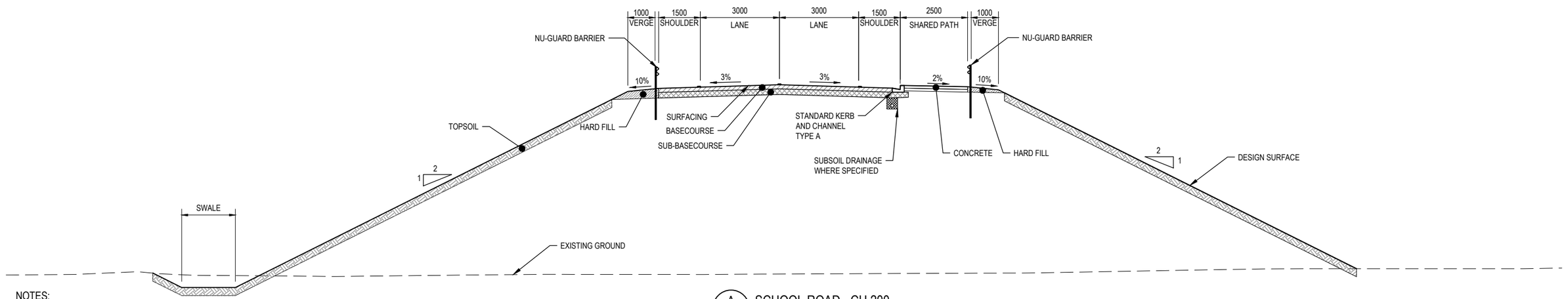
Document No. R:\30DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CE\PP2O-DR-CL-0610-0615.DWG



C 0606 SCHOOL ROAD - CH 900
SCALE 1:75 (A1)



B 0605 SCHOOL ROAD - CH 550
SCALE 1:75 (A1)



A 0604 SCHOOL ROAD - CH 200
SCALE 1:75 (A1)

NOTES:

1. REFER TO PAVEMENT DRAWINGS FOR AREAS OF SUBSOIL DRAINAGE INSTALLATION.
2. REFER TO UTILITY DRAWINGS FOR TELECOM UTILITIES.

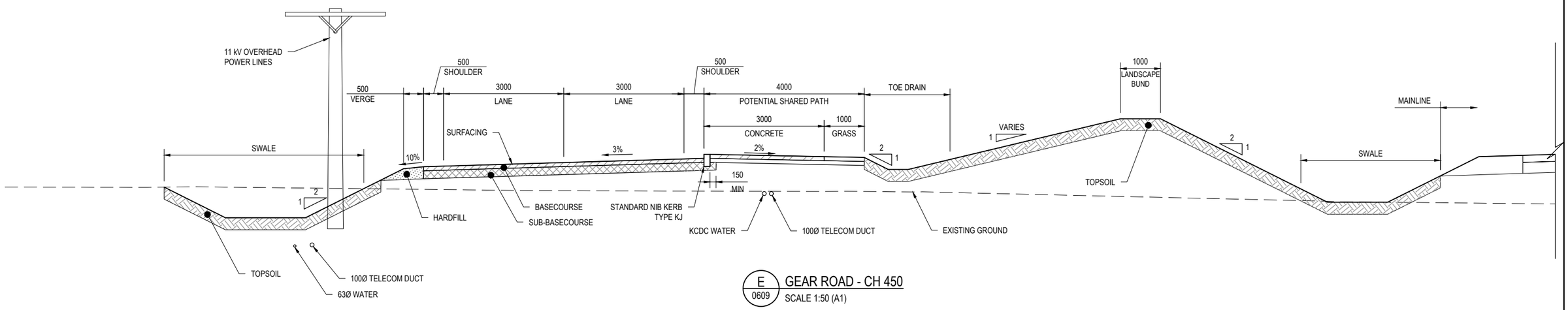
FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	GD	BH	BS	16.03.18

Scale (A1) AS SHOWN	Design	I.Leask	15.08.17	Approved For Construction B.Symmans
Scale (A3) ½ AS SHOWN	Drawn	I.Leask	15.08.17	
	Dsg Verifier	P.Chatterley	16.03.18	
	Drg Check	G.Down	16.03.18	Date 16.03.18
	* Refer to Original Hardcopy for Signature			

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

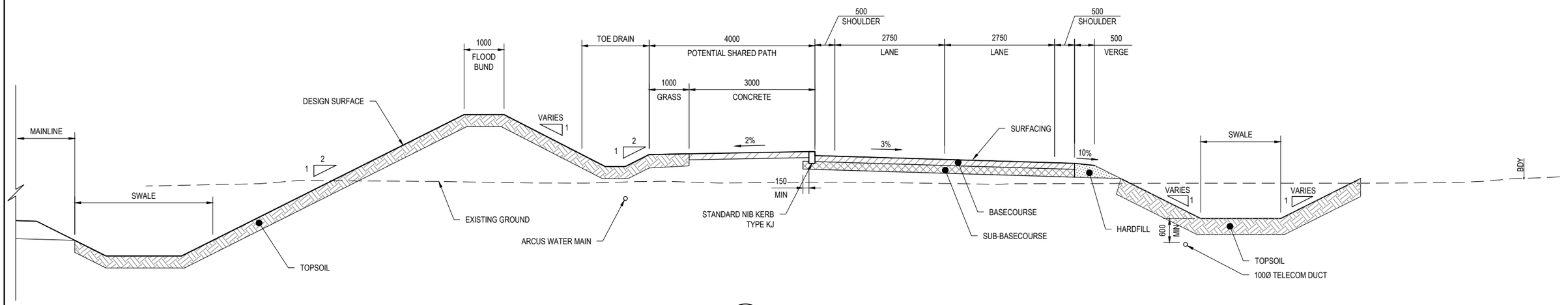
Subject:	SCHOOL ROAD, GEAR ROAD AND WINIATA LINK
Title:	TYPICAL CROSS SECTIONS SHEET 1 OF 2
Discipline	CIVIL
Drawing No.	PP2O-DR-CL-0650
Rev.	1



E 0609 GEAR ROAD - CH 450
SCALE 1:50 (A1)

NOTES:

1. REFER TO PAVEMENT DRAWINGS FOR AREAS OF SUBSOIL DRAINAGE INSTALLATION.
2. REFER TO UTILITY DRAWINGS FOR TELECOM UTILITIES.



D 0602 WINIATA LINK - CH 900
SCALE 1:50 (A1)

FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date
1	FOR CONSTRUCTION	GD	BH	BS	16.03.18

Scale (A1) AS SHOWN	Design	I.Leask	15.08.17
	Drawn	I.Leask	14.08.17
Scale (A3) ½ AS SHOWN	Dsg Verifier	P.Chatterley	16.03.18
	Drg Check	G.Down	16.03.18

Approved For Construction B.Symmans Date 16.03.18

* Refer to Original Hardcopy for Signature

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | Fletcher HIGGINS | Beca | Tonkin+Taylor

Subject: SCHOOL ROAD, GEAR ROAD AND WINIATA LINK
Title: TYPICAL CROSS SECTIONS SHEET 2 OF 2

Discipline: CIVIL
Drawing No.: PP2O-DR-CL-0651
Rev.: 1

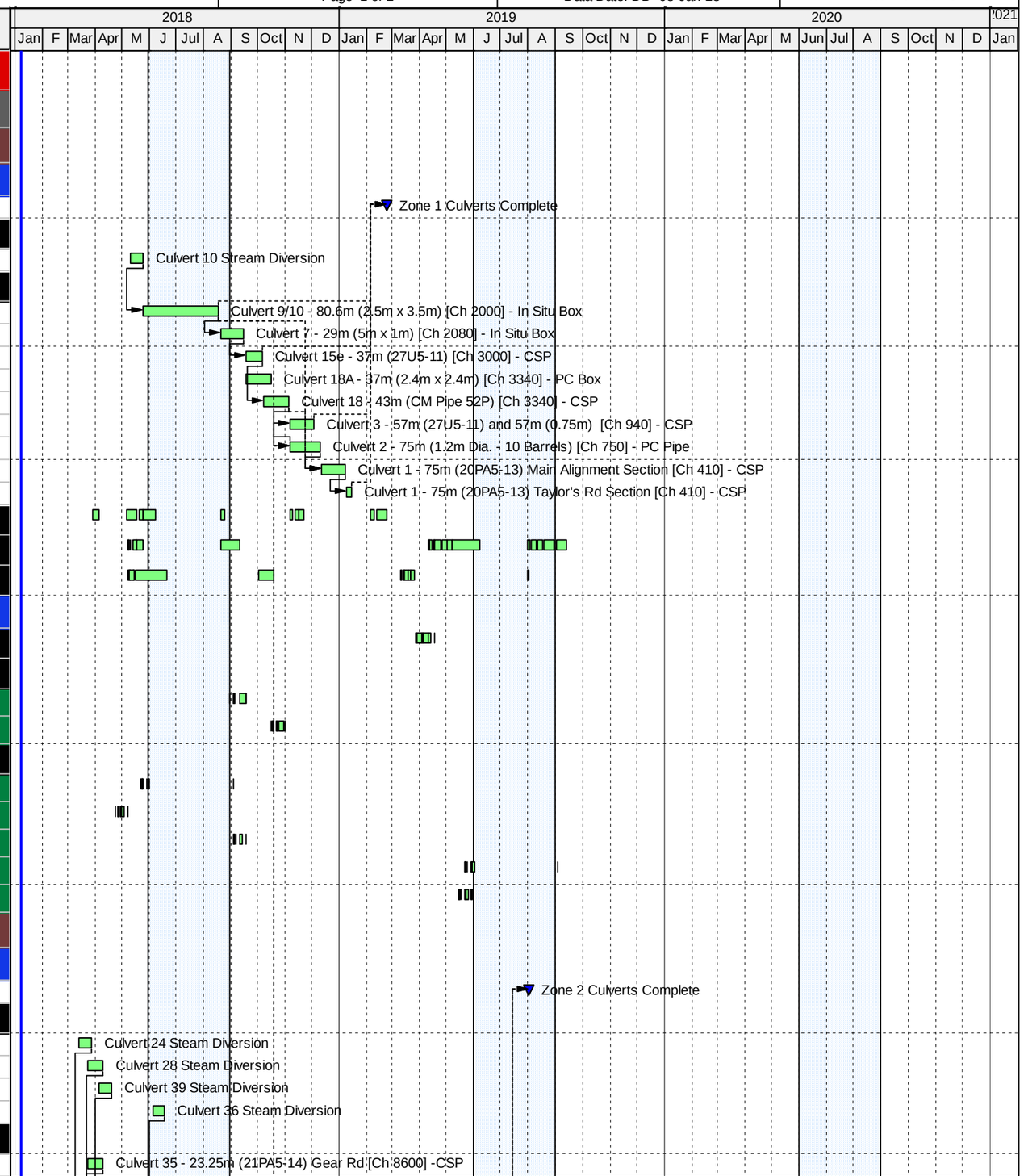
Document No. R:\30\DD - DESIGN DEVELOPMENT GENERAL\09 CAD\DRAWINGS\CE\PP2O-DR-CL-0650-0651.DWG

ORIGINAL SIZE A1 : DO NOT SCALE

IF IN DOUBT ASK

APPENDIX D – PROGRAMME

Activity Name	Orig Dur	Rem Dur	Start	Finish
Peka Peka to Otaki Expressway - Master	560d	560d	14-Mar-18	26-Jun-20
Construction	560d	560d	14-Mar-18	26-Jun-20
Zone 1 (North): Ch 0 - 3800	361d	361d	29-Mar-18	13-Sep-19
Drainage	361d	361d	29-Mar-18	13-Sep-19
Zone 1 Culverts Complete	0d	0d		22-Feb-19
Stream Diversions	10d	10d	11-May-18	24-May-18
Culvert 10 Stream Diversion	10d	10d	11-May-18	24-May-18
Box Culverts	155d	155d	25-May-18	14-Jan-19
Culvert 9/10 - 80.6m (2.5m x 3.5m) [Ch 2000] - In Situ Box	60d	60d	25-May-18	17-Aug-18
Culvert 7 - 29m (5m x 1m) [Ch 2080] - In Situ Box	20d	20d	20-Aug-18	14-Sep-18
Culvert 15e - 37m (27U5-11) [Ch 3000] - CSP	15d	15d	17-Sep-18	05-Oct-18
Culvert 18A - 37m (2.4m x 2.4m) [Ch 3340] - PC Box	20d	20d	18-Sep-18	15-Oct-18
Culvert 18 - 43m (CM Pipe 52P) [Ch 3340] - CSP	20d	20d	08-Oct-18	05-Nov-18
Culvert 3 - 57m (27U5-11) and 57m (0.75m) [Ch 940] - CSP	20d	20d	06-Nov-18	03-Dec-18
Culvert 2 - 75m (1.2m Dia. - 10 Barrels) [Ch 750] - PC Pipe	25d	25d	06-Nov-18	10-Dec-18
Culvert 1 - 75m (20PA5-13) Main Alignment Section [Ch 410] - CSP	10d	10d	11-Dec-18	07-Jan-19
Culvert 1 - 75m (20PA5-13) Taylor's Rd Section [Ch 410] - CSP	5d	5d	08-Jan-19	14-Jan-19
Circular Culverts	220d	220d	29-Mar-18	22-Feb-19
Carriageway Drainage	336d	336d	08-May-18	13-Sep-19
Local Road Drainage	305d	305d	08-May-18	01-Aug-19
Local Roads	337d	337d	24-Apr-18	03-Sep-19
Taylor's Road (Ch 280-775)	16d	16d	27-Mar-19	17-Apr-19
Otaki North Main Road (Ch 1575-1950)	44d	44d	30-Aug-18	31-Oct-18
East Embankment	14d	14d	30-Aug-18	18-Sep-18
West Embankment	11d	11d	16-Oct-18	31-Oct-18
Rahui Road (Ch 2000-2100)	337d	337d	24-Apr-18	03-Sep-19
Connection to County Road	74d	74d	22-May-18	03-Sep-18
Temporary Link South of Existing Rahui Rd	10d	10d	24-Apr-18	08-May-18
Dairy Factory Accessway	10d	10d	04-Sep-18	17-Sep-18
Western Lead in to Rahui Bridge	74d	74d	22-May-19	03-Sep-19
Eastern Lead in to Rahui Bridge	11d	11d	15-May-19	29-May-19
Zone 2 (South): 3800 - 12200	560d	560d	14-Mar-18	26-Jun-20
Drainage	341d	341d	14-Mar-18	01-Aug-19
Zone 2 Culverts Complete	0d	0d		01-Aug-19
Stream Diversions	65d	65d	14-Mar-18	18-Jun-18
Culvert 24 Steam Diversion	10d	10d	14-Mar-18	27-Mar-18
Culvert 28 Steam Diversion	10d	10d	23-Mar-18	09-Apr-18
Culvert 39 Steam Diversion	10d	10d	06-Apr-18	19-Apr-18
Culvert 36 Steam Diversion	10d	10d	05-Jun-18	18-Jun-18
Box Culverts	314d	314d	23-Mar-18	04-Jul-19
Culvert 35 - 23.25m (21PA5-14) Gear Rd [Ch 8600] -CSP	10d	10d	23-Mar-18	09-Apr-18



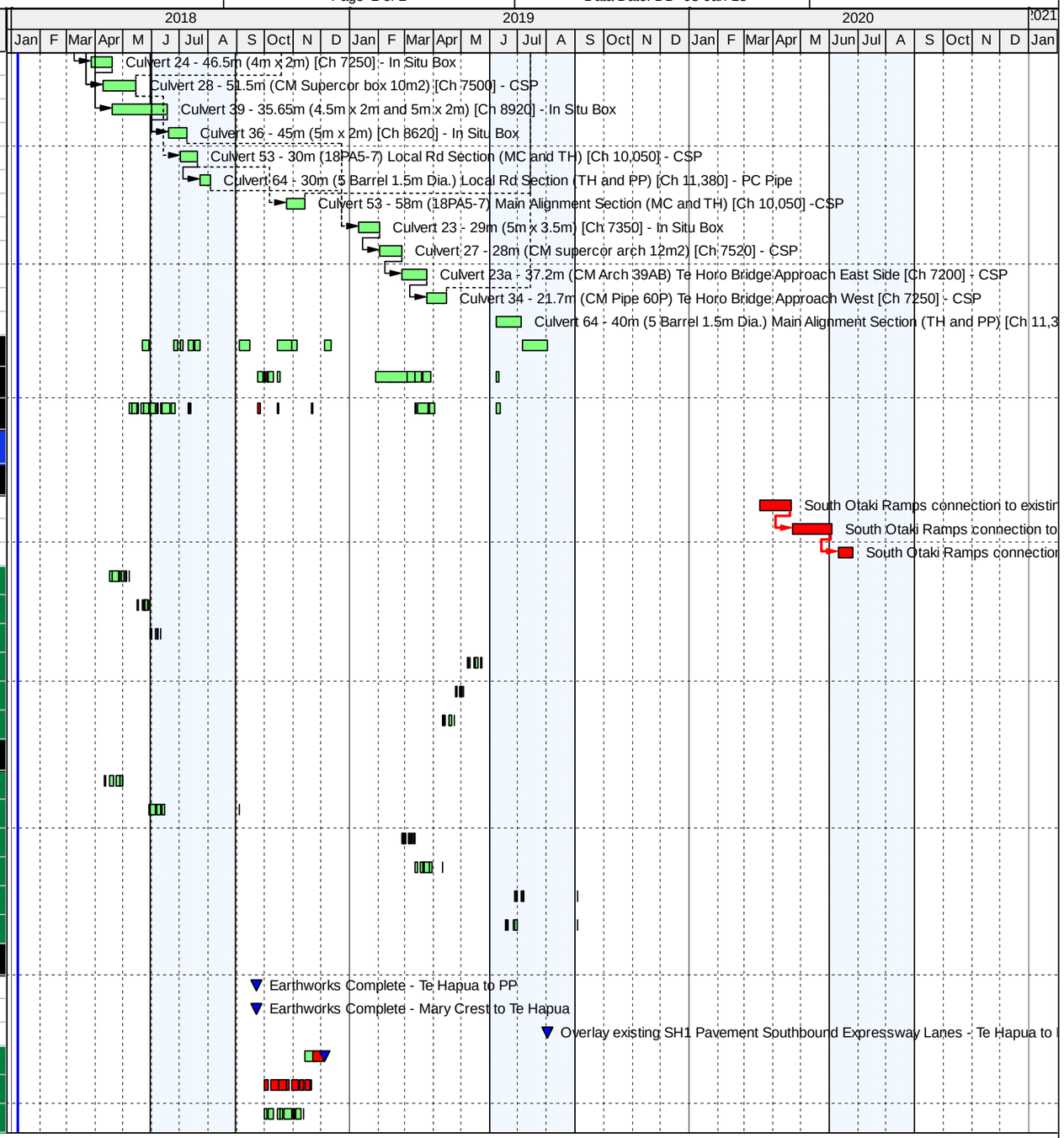
NZ TRANSPORT AGENCY WAKA KOTAHI

Peka Peka to Otaki
Drainage and Local Programme

Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Milestones
Critical Re...
Milestone

Fletcher HIGGINS
Beca
Tonkin+Taylor

Activity Name	Orig Dur	Rem Dur	Start	Finish
Culvert 24 - 46.5m (4m x 2m) [Ch 7250] - In Situ Box	15d	15d	28-Mar-18	19-Apr-18
Culvert 28 - 51.5m (CM Supercor box 10m2) [Ch 7500] - CSP	25d	25d	10-Apr-18	15-May-18
Culvert 39 - 35.65m (4.5m x 2m and 5m x 2m) [Ch 8920] - In Situ Box	40d	40d	20-Apr-18	18-Jun-18
Culvert 36 - 45m (5m x 2m) [Ch 8620] - In Situ Box	15d	15d	19-Jun-18	09-Jul-18
Culvert 53 - 30m (18PA5-7) Local Rd Section (MC and TH) [Ch 10,050] - CSP	15d	15d	02-Jul-18	20-Jul-18
Culvert 64 - 30m (5 Barrel 1.5m Dia.) Local Rd Section (TH and PP) [Ch 11,380]	10d	10d	23-Jul-18	03-Aug-18
Culvert 53 - 58m (18PA5-7) Main Alignment Section (MC and TH) [Ch 10,050] -CS	15d	15d	24-Oct-18	13-Nov-18
Culvert 23 - 29m (5m x 3.5m) [Ch 7350] - In Situ Box	15d	15d	10-Jan-19*	01-Feb-19
Culvert 27 - 28m (CM supercor arch 12m2) [Ch 7520] - CSP	15d	15d	01-Feb-19	25-Feb-19
Culvert 23a - 37.2m (CM Arch 39AB) Te Horo Bridge Approach East Side [Ch 72(	20d	20d	25-Feb-19	25-Mar-19
Culvert 34 - 21.7m (CM Pipe 60P) Te Horo Bridge Approach West [Ch 7250] - CSP	15d	15d	25-Mar-19	15-Apr-19
Culvert 64 - 40m (5 Barrel 1.5m Dia.) Main Alignment Section (TH and PP) [Ch 11	20d	20d	07-Jun-19	04-Jul-19
Circular Culverts	295d	295d	22-May-18	01-Aug-19
Carriageway Drainage	169d	169d	24-Sep-18	10-Jun-19
Local Road Drainage	269d	269d	08-May-18	12-Jun-19
Local Roads	542d	542d	11-Apr-18	26-Jun-20
Otaki Gorge Rd (Ch 3900-5240)	538d	538d	17-Apr-18	26-Jun-20
South Otaki Ramps connection to existing SH1 Civil Drainage & Earthworks	20d	20d	17-Mar-20	20-Apr-20
South Otaki Ramps connection to existing SH1 Pavements	20d	20d	22-Apr-20	03-Jun-20
South Otaki Ramps connection to existing SH1 Sealing	5d	5d	10-Jun-20	26-Jun-20
Old Hautere Link Rd (Ch 4300-5240)	15d	15d	17-Apr-18	08-May-18
Otaki Gorge Road	9d	9d	17-May-18	29-May-18
Temporary Pavement	8d	8d	30-May-18	11-Jun-18
East Embankment	11d	11d	08-May-19	22-May-19
Connection Between Bridges	7d	7d	24-Apr-19	03-May-19
West Embankment	7d	7d	11-Apr-19	23-Apr-19
School Road (Ch 6080-8600)	346d	346d	11-Apr-18	03-Sep-19
Gear Road Ch 7900 - 8650	14d	14d	11-Apr-18	01-May-18
School Road Pavement Connection to SH1	69d	69d	29-May-18	03-Sep-18
School Road Pavement Balance Ch 7200 - 7900	11d	11d	25-Feb-19	11-Mar-19
Winiata Link Road Ch 6100 - 7250	22d	22d	12-Mar-19	10-Apr-19
East Embankment	49d	49d	27-Jun-19	03-Sep-19
West Embankment	56d	56d	18-Jun-19	03-Sep-19
Mary Crest to Peka Peka (Ch 9500-12250)	207d	207d	21-Sep-18	02-Aug-19
Earthworks Complete - Te Hapua to PP	0d	0d		21-Sep-18
Earthworks Complete - Mary Crest to Te Hapua	0d	0d		21-Sep-18
Overlay existing SH1 Pavement Southbound Expressway Lanes - Te Hapua to PP	0d	0d	02-Aug-19	
Mary Crest Staging	16d	16d	13-Nov-18	04-Dec-18
Mary Crest to Te Hapua	36d	36d	01-Oct-18	20-Nov-18
Te Hapua to Peka Peka	30d	30d	01-Oct-18	12-Nov-18



NZ TRANSPORT AGENCY WAKA KOTAHI

Peka Peka to Otaki
Drainage and Local Programme

Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Milestones
Critical Re...
Milestone

Fletcher HIGGINS
Beca
Tonkin+Taylor

APPENDIX E – ACCIDENTAL DISCOVERY PROTOCOLS

Accidental Discovery Protocols

The protocols for accidental archaeological discovery set out below will be followed if subsurface archaeological remains, koiwi tangata (human remains) or taonga are exposed during construction in areas that are not being monitored by an archaeologist or when archaeologists are not present on site.

Information provided below outlines procedures to be followed in the case of suspected unrecorded archaeological sites being located during the course of work.

Discovery of Suspected Archaeological Features or Deposits

If suspected archaeological remains are exposed in the course of works, the following procedure will be implemented:

1. Contractors shall cease all work within the vicinity of the suspected archaeological site, and immediately notify the Site Project Manager.

2. The area of the suspected archaeological deposit or feature is to be made secure, ensuring that the area (and any objects contained within) remains undisturbed and meets health and safety requirements.

3. The Project Manager will arrange for the Project Archaeologist to visit the site, to confirm the nature of the archaeological site, and to define the extent of the deposit or feature.

4. Following confirmation of the site as archaeological, the Project Manager will notify the Regional Archaeologist HNZPT, The Transport Agency, Nga Hapū o Ōtaki and M.T.A representatives and, if appropriate, district and city council representatives.

5. The archaeological remains will be investigated and recorded in accordance with archaeological best practice, and in line with the legal conditions of any authority granted by HNZPT.

6. Works can resume once the Project Archaeologist confirms that the required investigation and recording are complete and Nga Hapū o Ōtaki and M.T.A representatives and HNZPT give their agreement.

Discovery of Koiwi Tangata (Human Remains)

If suspected human remains are identified, the following protocol will be adopted:

1. Earthworks shall cease within 20 meters of the find while an appropriately qualified archaeologist is consulted to establish whether the bone is human.

2. The area of the site containing koiwi will be secured, ensuring that the area (and any objects contained within) remains undisturbed and meets health and safety requirements.

3. If it is determined that bone is human, earthworks will not resume in the immediate vicinity (as determined by the Project Archaeologist) until HNZPT, Nga Hapū o ōtaki and M.T.A representatives, the New Zealand Police and district council representatives have been notified.

4. Nga Hapū o ōtaki and M.T.A representatives will be given the opportunity to conduct karakia in association with appropriate tikanga Māori prior to the removal of koiwi for reburial.

5. If Nga Hapū o ōtaki and M.T.A representatives so request, koiwi may be further analysed by a specialist osteo-archaeologist prior to reburial.

6. Work within the area can recommence as soon as the remains have been removed from site, and with the agreement of all relevant agencies.

Discovery of Taonga

Maori artefacts such as carvings, stone adzes, and greenstone are considered to be taonga (treasures). These objects are identified as taonga tuturu in the Protected Objects Act 1975. Taonga may be discovered in isolated contexts, but are generally found within archaeological sites, modification of which is subject to the provisions of the HNZPT Act.

If taonga are discovered, the procedure established for the discovery of archaeological sites (as detailed above) must be followed, and the following procedure will apply to the taonga itself:

1. The area of the site containing the taonga will be secured in such a way that protects the taonga from further disturbance or damage.
2. The archaeologist will inform HNZPT and Nga Hapū o ōtaki and M.T.A representatives so that appropriate actions can be determined, and appropriate tikanga protocols to be undertaken.
3. If the object is identified as taonga tuturu the Project Archaeologist will notify the Ministry for Culture and Heritage of the finding, as required under the Protected Objects Act 1975.
4. The Ministry for Culture and Heritage, in consultation with Nga Hapū o ōtaki and M.T.A representatives, will decide on custodianship of the taonga. If the taonga requires conservation treatment this can be carried out by the Archaeological Conservation Laboratory, University of Auckland.

Specific Tikanga Maori Protocols

1. Nga Hapū o ōtaki and M.T.A shall be informed **48 hours** before the start and finish of the archaeological work.

2. Any alterations to the Archaeological Site Management Plan will be discussed with Nga Hapū o ōtaki and M.T.A.

3. Access for Nga Hapū o ōtaki and M.T.A shall be enabled in order to undertake tikanga Maori protocols consistent with any requirements of site safety.

4. Nga Hapū o Ōtaki and M.T.A shall be provided with a copy of all reports completed as a result of the archaeological work associated with this authority(s) and be given an opportunity to discuss it with the archaeologist if required.

5. Nga Hapū o Ōtaki will notify other iwi parties of any archaeological finds (e.g. taonga or kōiwi tangata) and subsequent ceremonies as deemed appropriate by Nga Hapū o Ōtaki and M.T.A.

APPENDIX F – SITE SPECIFIC TRAFFIC MANAGEMENT PLAN

Site Specific Traffic Management Plan – Peka to Ōtaki Project

Southern Local Roads

April 2018

NZ TRANSPORT AGENCY WAKA KOTAHI | Peka Peka to Ōtaki Expressway | New Zealand Government

Contents

1 INTRODUCTION

This Site Specific Traffic Management Plan (SSTMP) provides the necessary information to demonstrate how the project team plan to avoid or mitigate potential construction traffic effects from activities associated with the construction of Otaki Gorge Road, Old Hautere Road, School Road and Gear Road including two temporary roads at Otaki Gorge and School Roads.

This SSTMP reflects the requirements of the Construction Traffic Management Plan (CTMP) including sections 1.3 (Performance Standards) and section 3.2.1 - specifically the need to interface with TTM on other networks. This plan is also consistent with the requirements set out in the over-arching Construction Environmental Management Plan (CEMP).

This document is intended to be utilised by the construction team to clearly identify any site specific traffic management requirements that must be adhered to prior to, and during works in any given area.

The temporary traffic management required to carry out these works across the site will consist of various types of Temporary Closures including, but not limited to, Site Access, Shoulder, Footpath, Stop/Go, Contra Flow and Temporary Concrete Barrier installations with works undertaken on Local Roads as covered by this SSEMP.

Specific Traffic Management methodologies will be finalised and submitted to the relevant Road Controlling Authority as the construction programme is finalised and becomes more detailed. These more specific Traffic Management Plans (TMPs) will cover specific mitigation for each individual temporary traffic management requirement. This document will be a living document that will have multiple stages and traffic layouts that will be amended as and when required to suit varying construction stages and required traffic management.

1.1 The SSTMP and TMP Process

This SSTMP provides the necessary information from a project level on how the effects of construction traffic related to the site activities will be avoided or mitigated across the two roading networks in the location of the expressway works i.e. the State Highway Network (NZTA) and the local road network (KCDC)

Each of the two Road Controlling Authorities (RCA's) has its own processes and procedures for the approvals (TMP's) and implementation of temporary Traffic management within their respective networks which is separate to the SSTMP process.

It is recognised that approval / implementation of TMPs associated with this SSTMP will be staged and implemented at differing times over the course of the works. In addition, it is recognised that the TMP's themselves may alter due to both project and surrounding community requirements.

The purpose of this SSTMP is to provide the base (minimum) standard of service / maximum practical level of mitigation to be incorporated into the development of the respective TMP's all the while ensuring that the BOI consent conditions and subsequent CTMP requirements are met during the construction process.

2 SSTMP CONSENT CONSIDERATIONS

Reference should also be made to section 3.2 of the CTMP.

2.1 Proposed Temporary Traffic Management Measures - BOI condition 34 b (i)

Each of the work areas will have the required (CoPTTM) signage and early warning delineation provided by a combination of cones and line marking – all in accordance with the respective RCA TMP requirements. Each Traffic Management Plan will be submitted to the relevant RCA and Approved prior to implementation. Until site specific construction plans are finalised a location specific Traffic Management Plan cannot be prepared. Once methodologies are finalised location specific Traffic Management plans will be prepared and submitted to KCDC for approval.

2.2 Assessment of delays - BOI condition 34 b (ii)

Each Traffic Management plan will incorporate an assessment of expected delays and will also provide delay calculations where any are expected to occur. It is not envisaged that any significant delays will occur at any time.
Any oversized loads will be escorted with Pilot Vehicles again with no anticipated delays with their operations covered by Oversized Vehicle Permits. These oversized movements will be of an occasional nature only to move large plant in and off site.

2.3 Detour Routes - BOI condition 34 b (iii)

Detours required will be for short term activities only (i.e. temporarily for Otaki Gorge Road and School Road as outlined in attached drawings) will be approved on a case by case basis by the RCA.

2.4 Existing Accesses - BOI condition 34 b (iv)

The proposed Temporary Traffic Management measures do not knowingly affect existing accesses to private or commercial properties. Should this occur consultation will be undertaken with affected parties to ensure they retain access at all times.

2.5 Pedestrian and Cyclist Access - BOI condition 34 b (v)

The work area does not affect any dedicated cycle paths or lanes though their set out and operation will be mindful of cyclists in accordance with CoPTTM and applicable RCA requirements.

2.6 Maintaining Existing Transport Services - BOI condition 34 b (vi)

The proposed Temporary Traffic Management measures for implementation of the work areas will not affect any existing public transport services and facilities such as bus stops.

2.7 Temporary Speed Limits (TSL) - BOI condition 34 b (vii)

The use of TSL's will be kept to a minimum and will be identified as and when required in Site Specific Traffic Management Plans submitted to and approved by the relevant RCA. It is expected that a Temporary Speed Limit of 30km/h will only be used during Stop Go operations or should an unsealed surface be required to be left trafficked.

2.8 Access to & From the Construction Site - BOI condition 34 b (viii)

The primary objective of this SSTMP is the planning (TMP's), approvals (RCA's) and incorporation of Site Access Points (SAP's) as outlined in this SSTMP appended to **SSEMP SLR1** to ensure the safe and efficient access to and from site of construction related traffic.

The operating hours of the SAP's will be in accordance with the proposed hours of work included within the **CNVMP i.e.**

- Monday to Friday 6.30am to 8pm
- Saturday 7.30am to 6pm

Operation outside those hours will be at the approval of the Engineer and in accordance with the provisions of the **CNVMP.**

2.9 Communications and Stakeholders - BOI condition 34 b (ix)

As the effects of the proposed measures are as yet unknown, implementation and operation of the SSTMP's will be communicated to stakeholders, road users and the community via the methods and processes as included within the project Stake Holder and Communications Management Plan, with particular emphasis on the key groups identified in Section 3.1 of the CTMP as required.

3 ADDITIONAL CTMP CONSIDERATIONS

3.1 Kiwirail NIMTR - CTMP section 2.1.2

The implementation and operation of some SSTMP's may involve the need to collaborate with Kiwirail as sites may cross the NIMT Railway or existing at grade carriageway crossings. Traffic Management strategies will include having no delays created for Kiwirail and the NIMT.

3.2 Emergency Action Plan(s) – CTMP section 3.2.3.8

All emergency services shall have unimpeded access along all State Highway and local roads 24 hrs. per day. Should any roads be affected by temporary traffic management any likely delays will be

communicated prior to works to all Emergency Service Providers by way of weekly Road Works Reporting procedures as required by both RCA's. All major works that impact the roading network will have SSTMP's developed with consultation of Emergency Services.

3.3 Access to KCDC Owned and Operated Water and Waste Water Assets – CTMP section 3.2.1.1.7

Access to existing KCDC water and waste water assets will not be impeded by any SSTMP's.

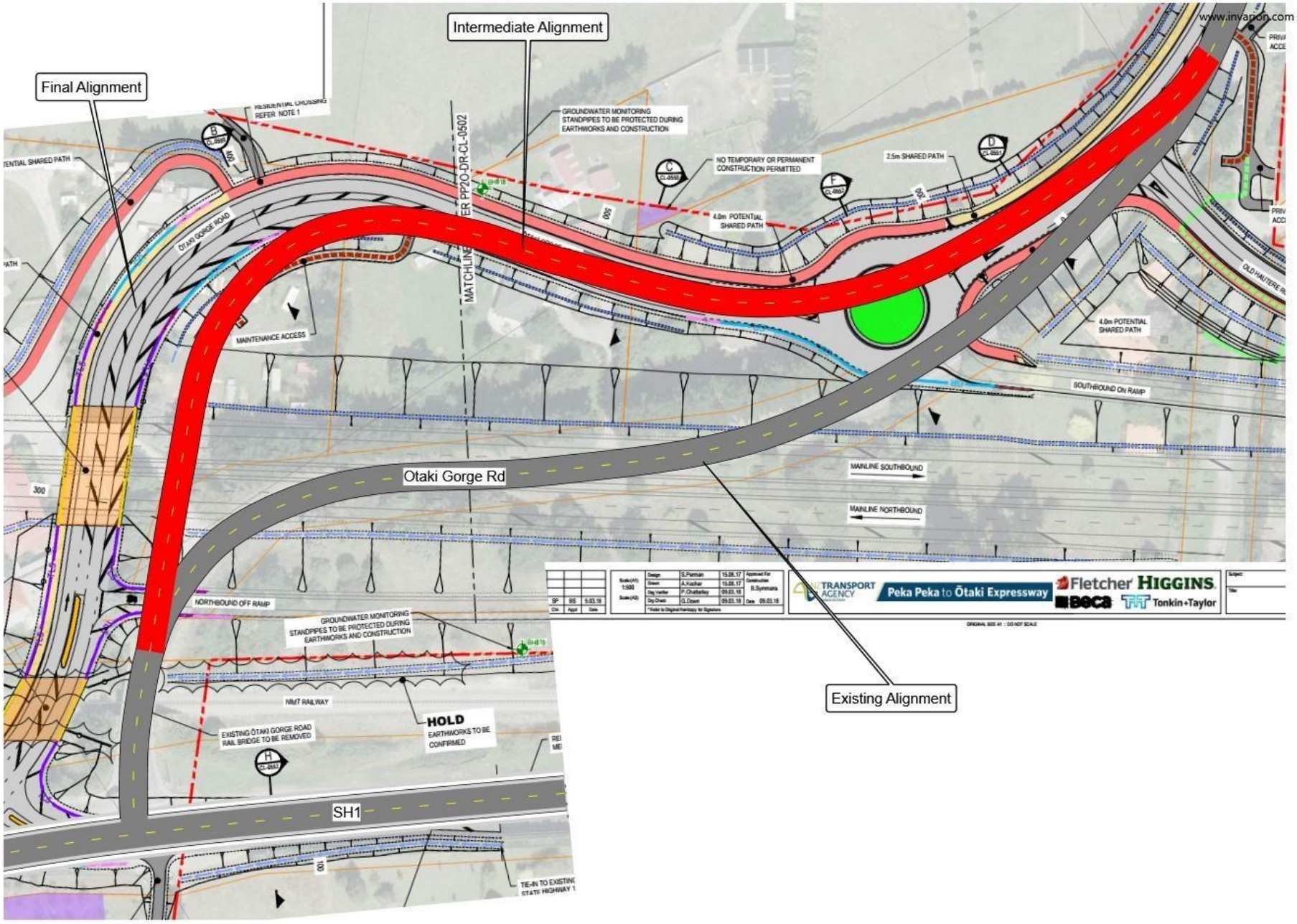
3.4 Monitoring, Auditing & Reporting – CTMP sections 3.3 & 3.4

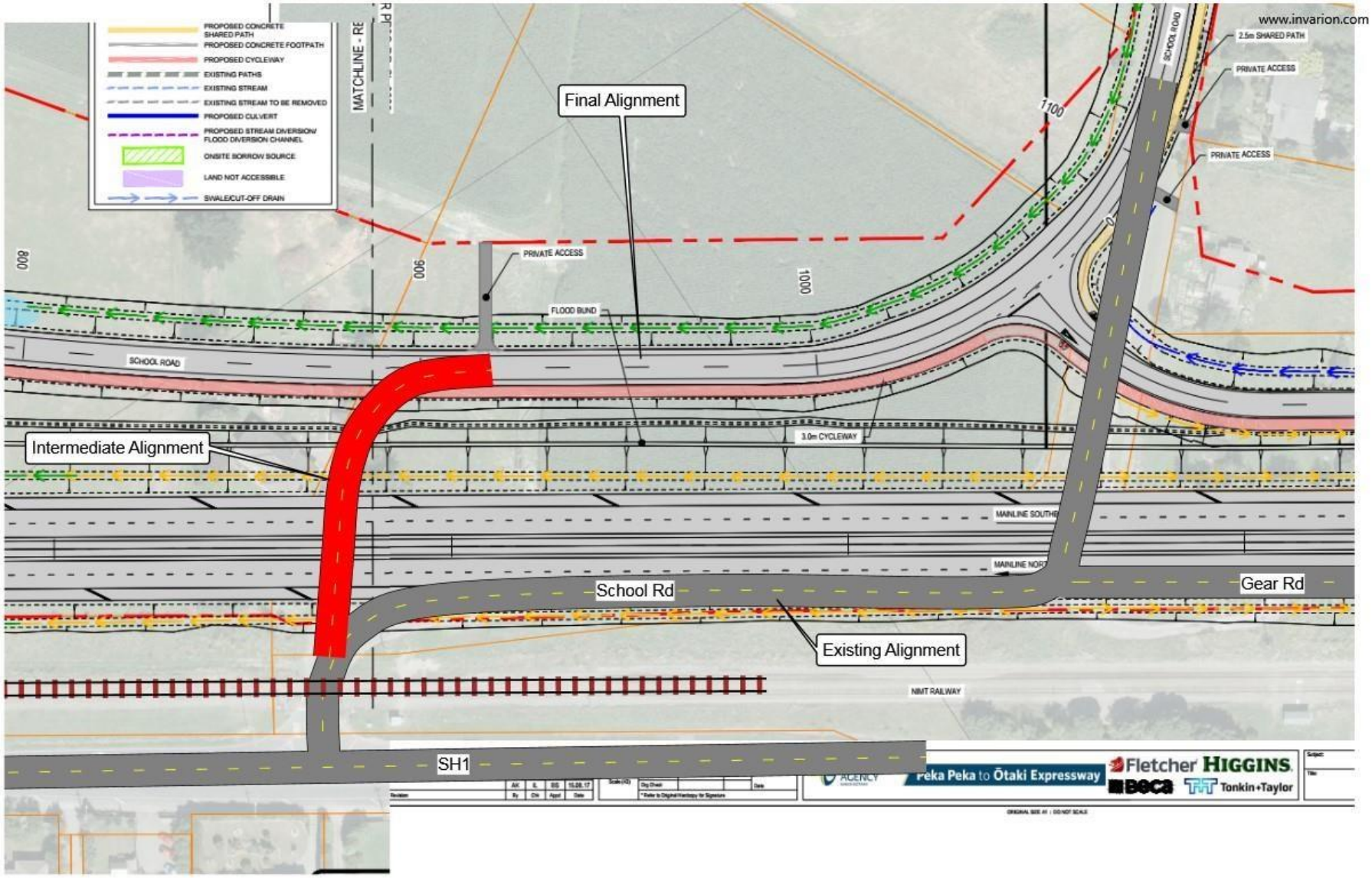
Monitoring, Auditing and Reporting of the Traffic Management Measure (once implemented) shall be in accordance with the CTMP and CoPTTM guidelines.

3.5 Complaints – CTMP sections 3.5

Feedback including complaints received related to the implementation of Temporary Traffic Management measures covered within this SSTMP shall be recorded and processed in line with the CTMP.

Appendix A – Temporary Road Diversion Locations

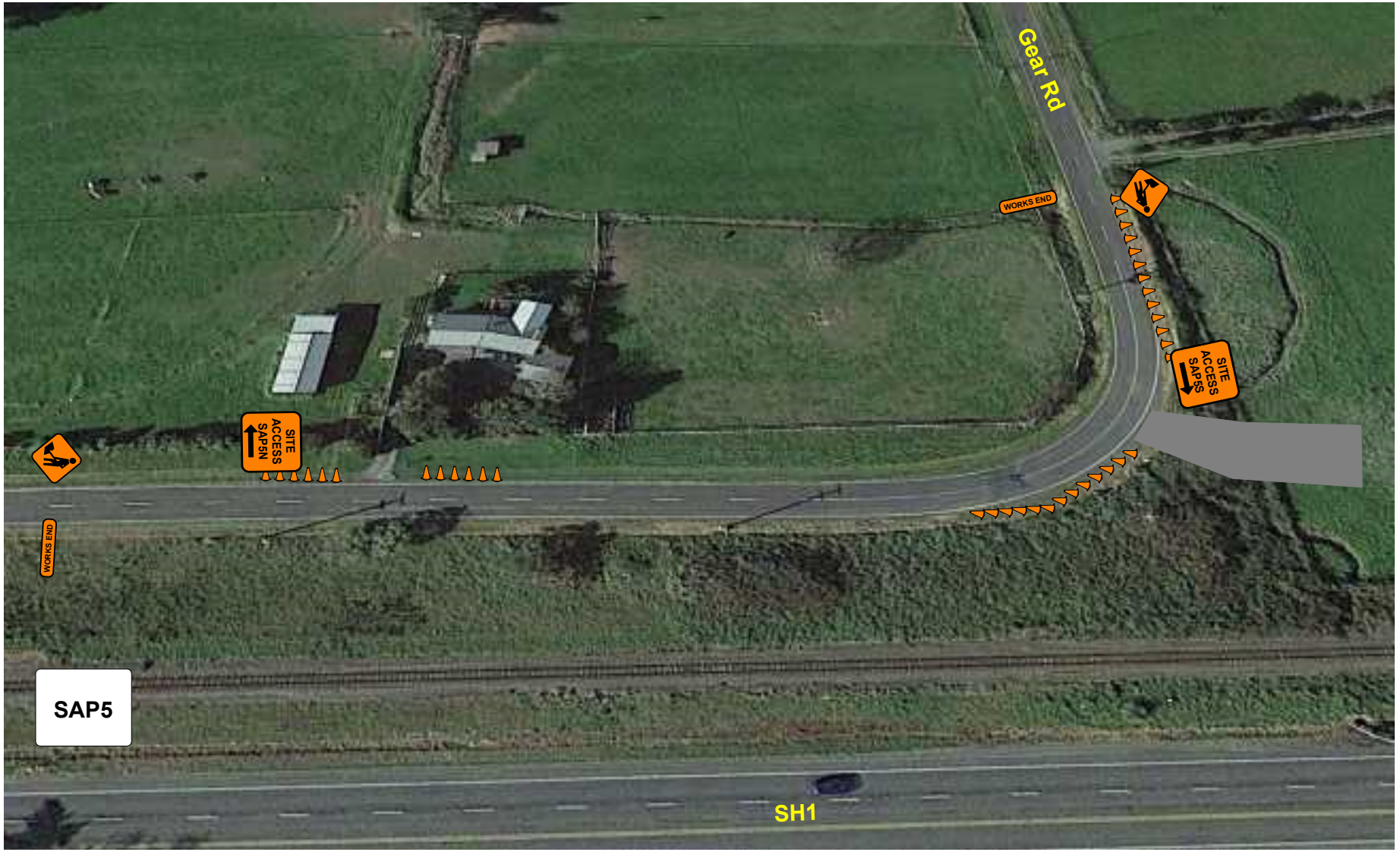

Final Alignment
Intermediate Alignment
Existing Alignment
Otaki Gorge Rd
SH1
MAINTENANCE ACCESS
NORTHBOUND OFF RAMP
SOUTHBOUND ON RAMP
MAINLINE SOUTHBOUND
MAINLINE NORTHBOUND
GROUNDWATER MONITORING STANDPIPES TO BE PROTECTED DURING EARTHWORKS AND CONSTRUCTION
NO TEMPORARY OR PERMANENT CONSTRUCTION PERMITTED
4.0m POTENTIAL SHARED PATH
2.5m SHARED PATH
HOLD
EARTHWORKS TO BE CONFIRMED
EXISTING ŌTAKI GORGE ROAD RAIL BRIDGE TO BE REMOVED
NIMT RAILWAY
TIE-IN TO EXISTING STATE HIGHWAY 1
Peka Peka to Ōtaki Expressway
TRANSPORT AGENCY
Fletcher HIGGINS
Beca
Tonkin+Taylor
www.invarion.com


www.invarion.com
PROPOSED CONCRETE SHARED PATH
PROPOSED CONCRETE FOOTPATH
PROPOSED CYCLEWAY
EXISTING PATHS
EXISTING STREAM
EXISTING STREAM TO BE REMOVED
PROPOSED CULVERT
PROPOSED STREAM DIVERSION/ FLOOD DIVERSION CHANNEL
ONSITE BORROW SOURCE
LAND NOT ACCESSIBLE
SWALE/CUT-OFF DRAIN
MATCHLINE - RE
Final Alignment
Intermediate Alignment
Existing Alignment
PRIVATE ACCESS
FLOOD BUND
SCHOOL ROAD
2.5m SHARED PATH
3.0m CYCLEWAY
MAINLINE SOUTH
MAINLINE NORTH
School Rd
Gear Rd
NIMT RAILWAY
SH1
1100
1000
900
800
Peka Peka to Ōtaki Expressway
Fletcher HIGGINS
BOCA
Tonkin+Taylor

Appendix B – Site Access Point (I.D) and Location

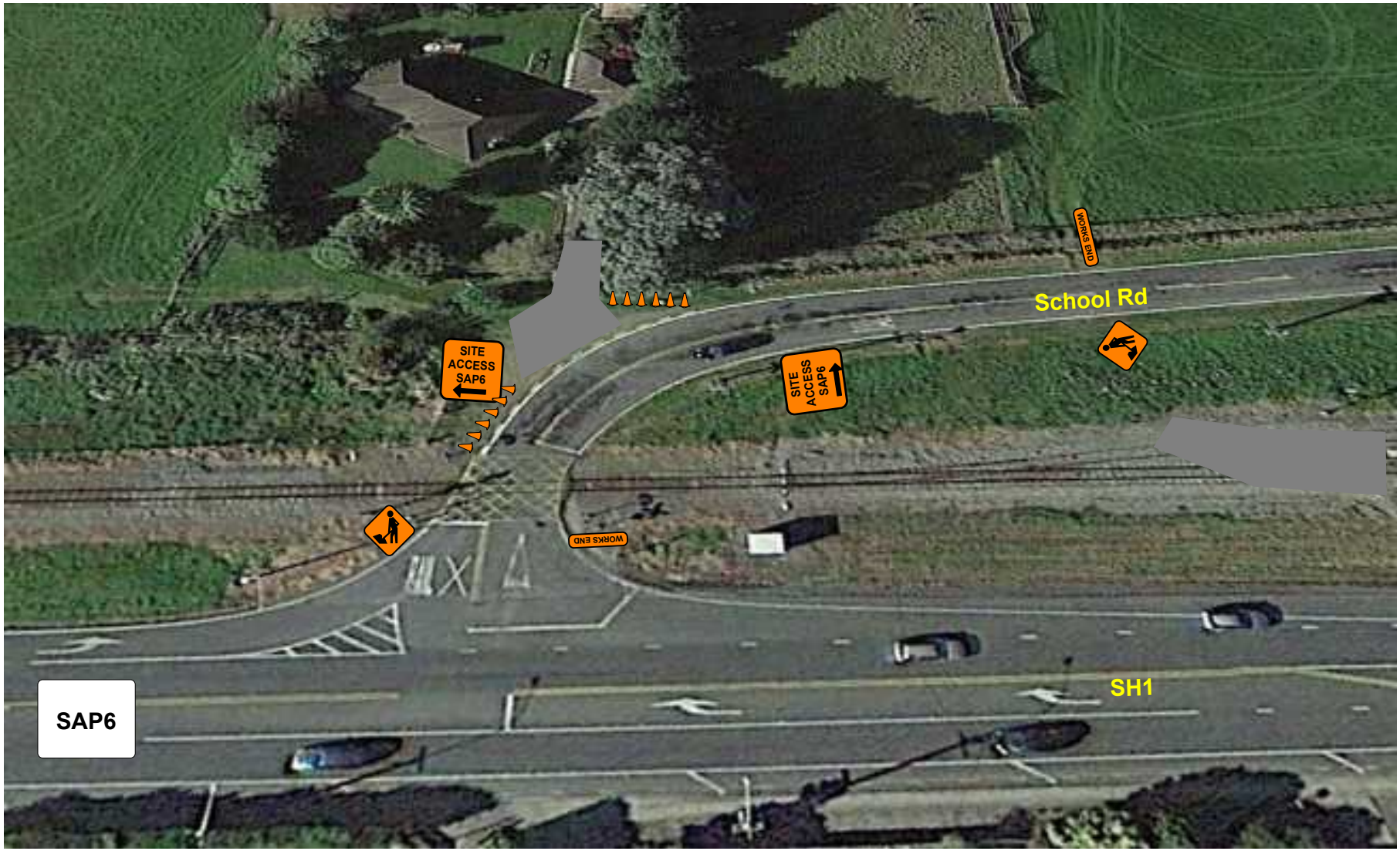
Note that these Site Access Points were originally covered under SSEMP PW1 'Vegetation Clearance and Enabling Works'.

Site Access Point No	**Location**
5	Gear Road
6	School Road
8	Old Hautere Road
9	Ōtaki Gorge Road
10	Ōtaki Gorge Road

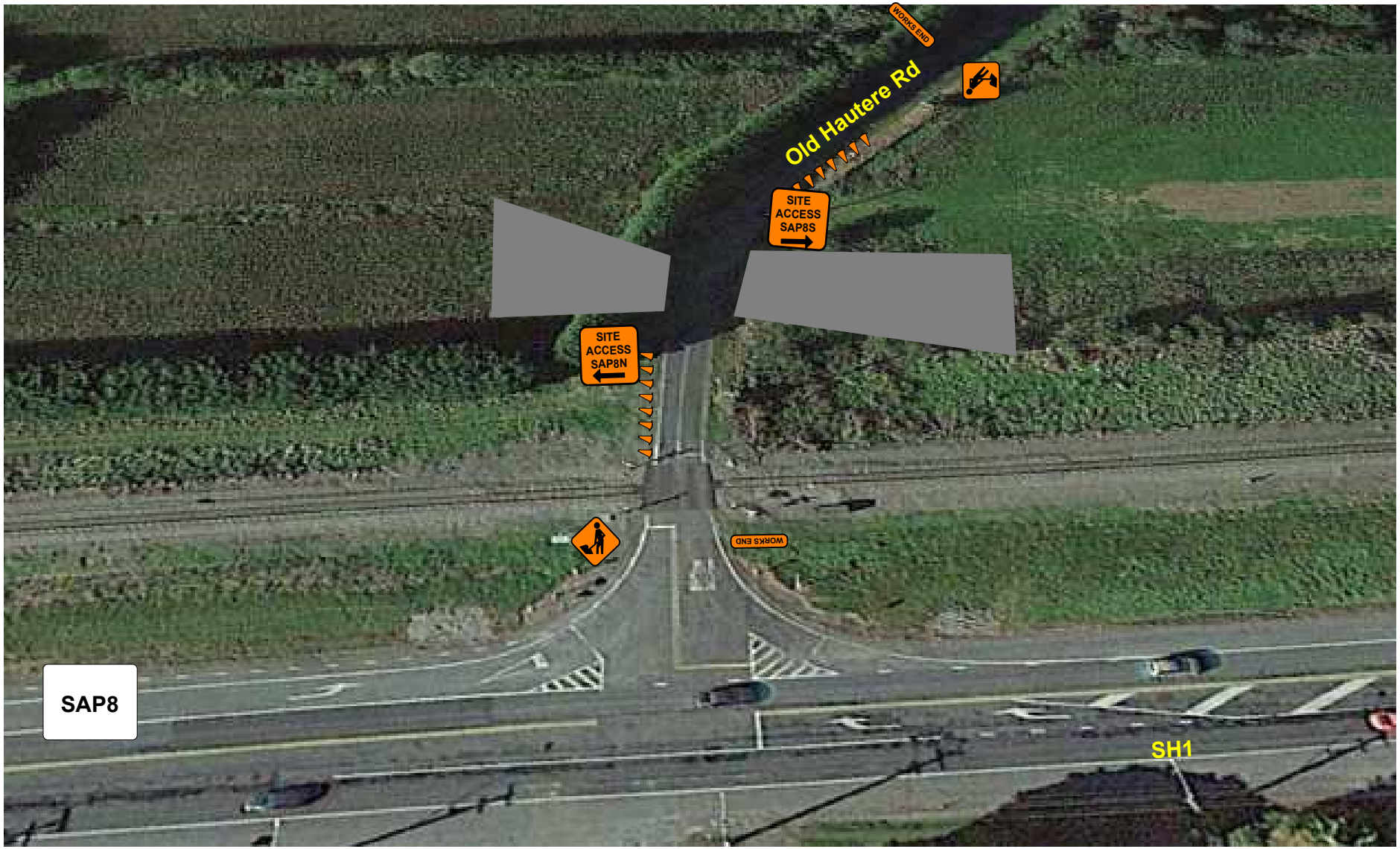


Situation: Site Access Point 5 - Gear Rd	Drawing No: SAP 5	Revision: 1	
Drawing Title:		Drawing By: Chris Harmer	
		Checked:	
		Date: 17/07/17	
		TMC Approval:	

HIGGINS®

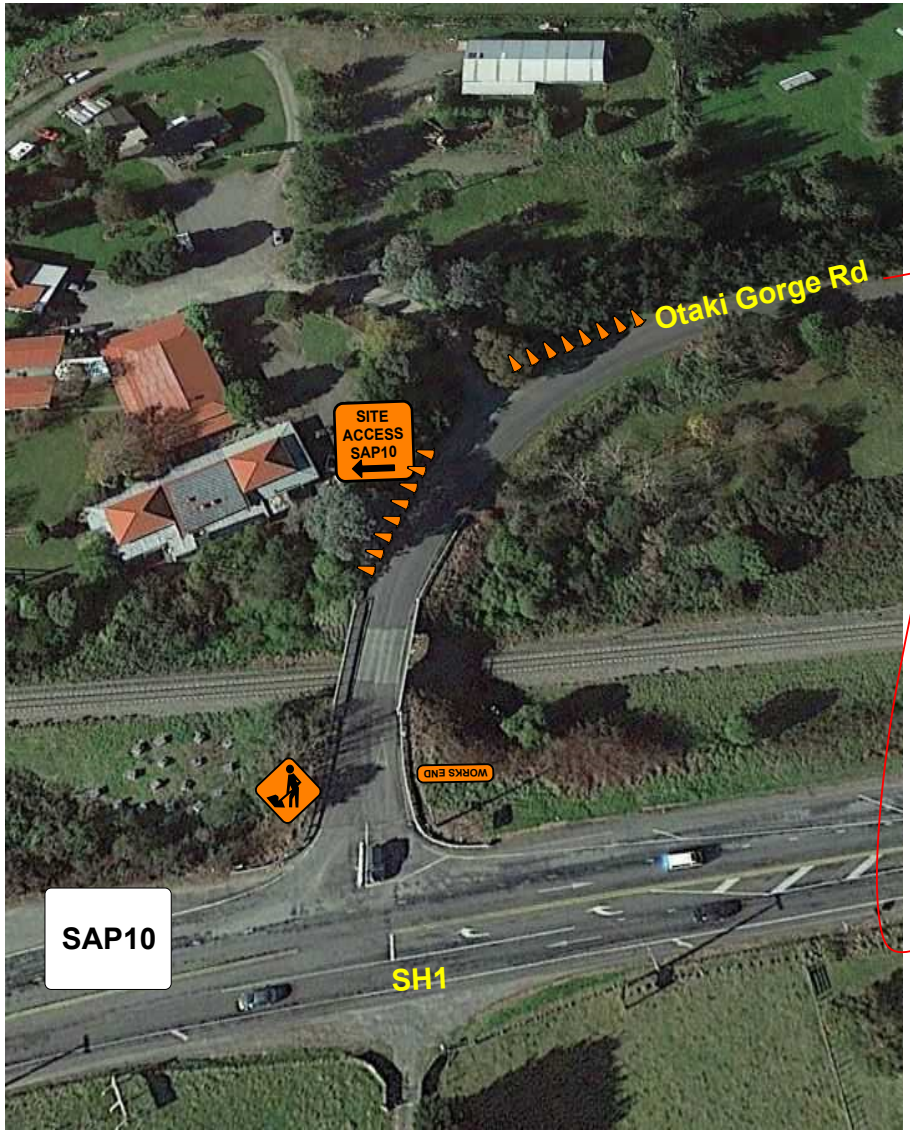


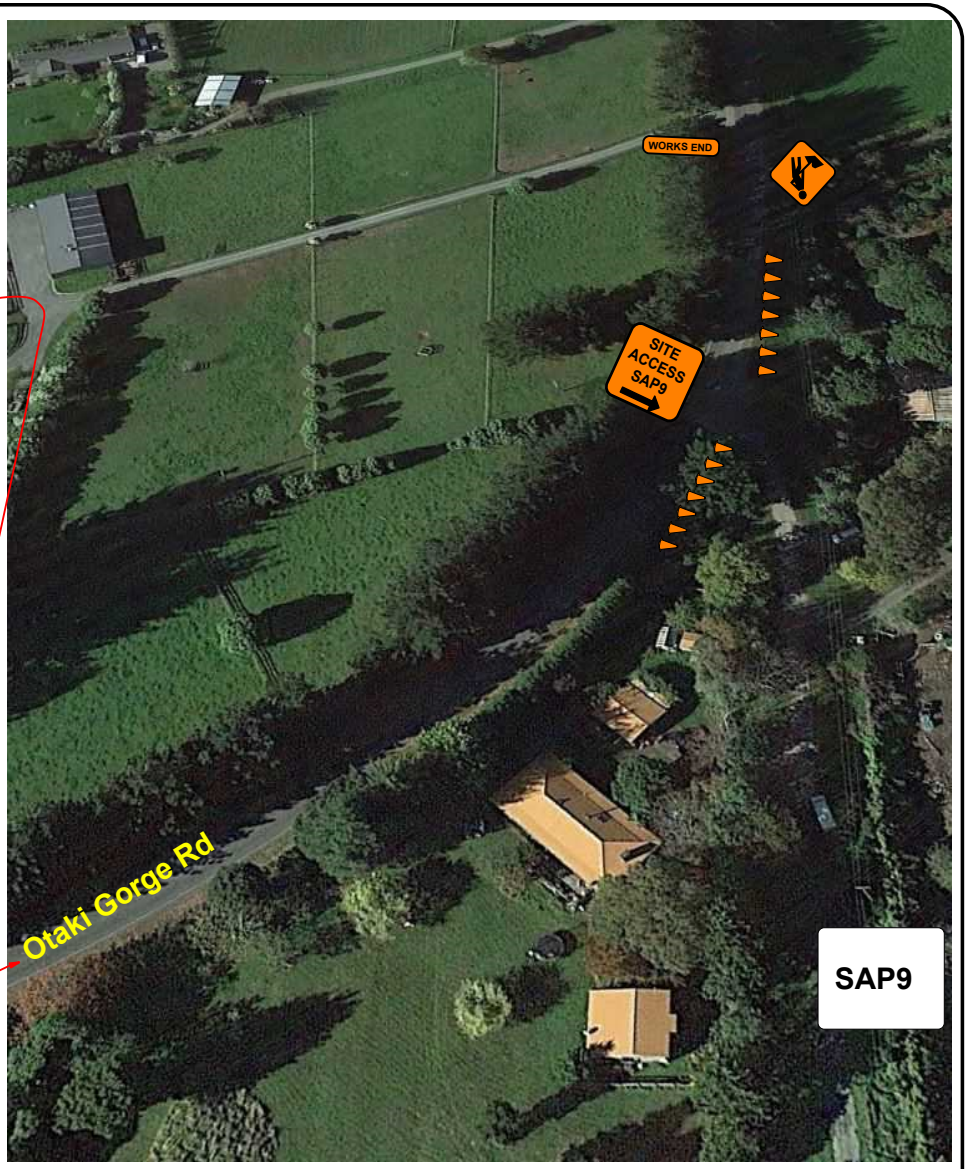
Situation: Site Access Point 6 - School Rd	Drawing No: SAP 6	Revision: 1	HIGGINS®
Drawing Title:		Drawing By: Chris Harmer	
		Checked:	
		Date: 17/07/17	
		TMC Approval:	



Situation: Site Access Point 8 - Old Hautere Rd	Drawing No: SAP 8	Revision: 1	
Drawing Title:		Drawing By: Chris Harmer	
		Checked:	
		Date: 17/07/17	
		TMC Approval:	

HIGGINS®





Situation: Site Access Point 9 & 10 - Otaki Gorge Rd	Drawing No: SAP 9 & 10	Revision: 1
Drawing Title:		Drawing By: Chris Harmer
		Checked:
		Date: 17/07/17
		TMC Approval:

HIGGINS®